



ENERGIE RINNOVABILI
RENEWABLE ENERGY



SCALDACQUA E BOLLITORI
BOILER AND PUFFER



RISCALDAMENTO
HEATING



CLIMATIZZAZIONE
CONDITIONING



TERMINALI DI IMPIANTO & VMC
TERMINAL UNITS & MCV



"Wellness and energy saving for all"

MADE IN ITALY TECHNOLOGY

TECHNICAL PRICE LIST

NOVEMBER 2020



TECNOLOGIA MADE IN ITALY

COMPANY MISSION

Accorroni Energy Group is a leading company in the production of systems for heating, conditioning and air treatment for residential buildings, industrial buildings and the advanced service sector.

The company established itself in the early 1980s in the production of high-quality and technological hot air generators and gas radiators.

Subsequently, the Accorroni Energy Group enters the field of air conditioning with the production of a wide range of air-thermal heat pumps and fan coils, which has allowed it to distinguish itself as one of the most active companies in the air conditioning and air treatment sector both in Italy and abroad.

Since 2011, the company mission has been increasingly oriented towards GREEN ECONOMY by encouraging the use of renewable energy as a primary source of supply. This innovative concept of sustainable development produces an improvement in the quality of life without overloading ecosystems.

If until yesterday the GREEN ECONOMY represented only a basic desire, a cost and a duty imposed by law to restore the planet to health, today it has become the only plausible choice for the future.

Pursuing this new philosophy linked to environmental sustainability and energy saving, after major investments in research and development, it was possible in 2016 to complete the international patent HUB RADIATOR, an innovative low-energy thermodynamic system with direct exchange condenser immersion, created to produce domestic hot water, heating and air conditioning in full respect of the environment. Reliability and safety are the strengths of Accorroni Energy Group products, which have passed the tests of the strictest international and European CE standards by a large margin. The continuous evolution of its organizational structure makes it possible to make the interface with the customer increasingly efficient and direct, to whom prompt and comprehensive answers are always provided in order to achieve total quality, understood as a competitive factor for business success.

THE COMPANY

The A2B Accorroni E.G. distributes its business in 4 main factories for a total area of 20,000 square meters divided between production units, commercial and administrative activities, congress center and a building dedicated only to research and development where all the new products made in Accorroni E.G. are born. seriously respecting the CE certifications.



PRODUCTION

All stages of production are treated in every aspect. The maximum specialization of the men of A2B Accorroni E.G. combined with the use of the most advanced technology, they make it possible to obtain a reliable and safe product. CAD-CAM production is programmed electronically in order to allow timely processing of orders with the aim of meeting the needs of the final consumer.



THE COMMERCIAL NETWORK

The sales offices have an advanced ERP computer system that allows them to process all the data necessary for a dynamic and modern sales network management in a very short time. With this commercial organization, A2B Accorroni E. G. manages a widespread sales network, consisting of over 40 agencies covering all the provinces of Italy and resellers in various foreign countries.



THE COMPANY CONGRESS CENTER

The congress center, equipped with the most modern multimedia video communication technologies, hosts meetings at all levels, stages for the sales force, technical and regulatory training courses for technical studies, installers and service centers.



THE COMPANY'S RESEARCH AND DEVELOPMENT CENTER

This modern research center is the flagship of Accorroni. It represents ongoing commitment congress center for development and research unit and research and development where all the new sectors of the design of products made in Accorroni where product are born, respecting the systems and the advanced technological certificates for the optimal use of energy. Within CE and UNI EN ISO9001, a team of highly specialized technicians who use the most modern technological tools.



THE PRE-SALE SERVICE

The A2B Accorroni E.G. provides its customers free of charge a consultancy service relating to the regulatory and technical aspects related to the know-how of its products. The highly specialized staff of the technical department, assisted by state-of-the-art IT equipment and systems, is at the complete disposal of customers also for the general layout of the systems.



THE AFTER-SALES SERVICE

The A2B Accorroni E.G. guarantees a widespread assistance service through over 300 technical assistance centers located throughout the national territory. The name of the competent authorized technician is available on the website www.accorroni.it, at your trusted dealer or directly via the company telephone contact.



RENEWABLE ENERGIES

In 2016 the A2B Accorroni E.G. enters the renewable energy sector thanks to the production of the HUB RADIATOR, an internationally patented system which consists of an advanced air-water direct exchange heat pump that efficiently produces heating, air conditioning and domestic hot water for buildings for civil use, industrial and tertiary sectors.



REFERENZE A2B ACCORRONI E.G.

TESTIMONIALS



PALAZZO DELLO SPORT "PALA YAMAMAY" BUSTO ARSIZIO (VA)

Energy efficiency of Palazzo dello Sport Pala Yamamay in Busto Arsizio through the patented SUPER HUB RADIATOR system aimed at producing domestic hot water with only the renewable energy of the heat pump. The intervention carried out consists in the installation of n. 3 800 liter technical water puffer mod. A_RM1 800 each of which powered by n. 2 Booster HR 7.8 in HP in cascade. Each storage tank is equipped with a 5.26 m² finned copper DHW exchanger directly immersed in technical water, the 3 DHW exchangers are then connected in parallel to each other and feed n. 24 showers divided over n. 4 changing rooms. This system makes it possible to produce large quantities of DHW without consuming fossil fuels, without polluting and without the risk of legionellosis; a very sensitive aspect in this structure where the national Serie A women's volleyball championship is played.



"IL CASTAGNO" SHOPPING CENTER CASSETTE D'ETE (FM)

Energy requalification of the "Il Castagno" Shopping Center in Casette d'Ete through the patented SUPER HUB RADIATOR system for the production of domestic hot water. The system includes a 1,500 liter technical water puffer mod. A_RM1 1500, equipped with a 6.34 m² sanitary heat exchanger in finned copper, heated by a heat-only HR 7.8 Booster that works in direct exchange with a condenser directly immersed in the lower part of the puffer. The system is equipped with a second additional condenser exchanger for a possible future power increase without having to modify the hydraulic system. This system guarantees the hygiene of the sanitary circuit thanks to the DHW exchanger immersed in the upper part of the technical water puffer which avoids excessive thermal shocks and guarantees the absence of conditions for the proliferation of legionellosis bacteria.



LA CELLA LUXURY WINE RESORT & SPA CEMOLINO (AL)

The Cella Luxury Wine Resort & Spa is nearing completion and will be the first structure built in green building and green architecture as a Wine Resort & Spa where the Accorroni Group was the protagonist of the entire supply of plant terminals and active controlled mechanical ventilation. Thanks to the delivery of 22 active controlled mechanical ventilation machines called FAN DRIVE by Accorroni, the La Cella structure can produce heat, cold, air exchange and dehumidification in a single fully integrated machine (which can be installed vertically or horizontally). In addition to the 22 controlled mechanical ventilation machines, the entire part of the radiant system for heating was supplied as Accorroni with over 2,000 m² of pex with disconnect technology that allows the creation of a screed with reduced thickness, just 1.5 cm above the pipe. As the Accorroni Group we feel very proud of this prestigious supply.



CONDOMINIUM "HELIOS" CHIARAVALLE (AN)

A2B ACCORRONI E.G. was chosen by Parasecoli Costruzioni Edili for the construction of the heating systems of the Helios condominium. Helios is made up of 24 residential apartments in energy class A+ and stands out for excellence and innovation in the energy field thanks to the use of the internationally patented HUB RADIATOR 100% Made in Italy heat pump system that uses renewable energy. This new heat pump system is able to produce heating, air conditioning and domestic hot water drastically reducing consumption and management costs related to all domestic air conditioning and DHW production systems with total respect for the community and the environment. Using only and exclusively clean energy.



LUXURY APARTMENT MONTE CARLO (PRINCIPATO DI MONACO)

Radiant floor system in hot / cold PEX, Controlled Mechanical Ventilation model FAN DRIVE and patented HUB RADIATOR heat pump system is the complete package with which the A2B ACCORRONI E.G. had the privilege of providing for this luxury apartment in Monte Carlo in the Principality of Monaco just ahead of the start of the Formula 1 Monaco Grand Prix.

The A2B ACCORRONI E.G. today it represents one of the very few companies able to provide a complete renewable energy package from air conditioning to Controlled Mechanical Ventilation up to the most advanced system terminals with an excellent value for money.

REFERENZE A2B ACCORRONI E.G.

TESTIMONIALS



CAIVANO RESIDENTIAL COMPLEX (NA)

HUB RADIATOR DHP is the only patented heat pump system on the market capable of simultaneously producing domestic hot water, heating and / or air conditioning. This patented technology was chosen for this brand new residential complex near Caivano (NA) also thanks to its limited depth of only 28.4 cm. HUB RADIATOR DHP does not need a technical room due to its very small spaces compared to any other competitor product.



BASILICA OF SANT'UBALDO DI GUBBIO (PG)

A relevant article in the Bulletin of the Basilica of Sant'Ubaldo in Gubbio (available on the website <http://www.accorroni.it/referenze.aspx>) testifies to a saving of over 40% in consumption for the production of heating and domestic hot water with the patented A2B Accorroni EG system SUPER HUB RADIATOR. In addition to saving energy and reducing polluting emissions into the atmosphere, we have also achieved the goal of creating an ARCHITECTURALLY INTEGRATED heat pump system to the basilica with the approval of the bodies responsible for the control and protection of artistic and cultural heritage.



STORNARELLA RESIDENTIAL COMPLEX (FG)

HUB RADIATOR is not a traditional heat pump but a patented direct exchange heat pump capable of reaching 58 ° C without the aid of electrical resistances. This new generation residential complex in Stornarella (FG) is fully air-conditioned by systems of the Accorroni Group. The air conditioning source is developed through HUB RADIATOR DHP; heat pump system capable of simultaneously producing domestic hot water and heating / air conditioning without technical interruptions of operation. This patented technology is only 28.4 cm deep and does not necessarily require a technical room due to its very limited spaces. The system terminals are radiant system with dehumidifier and air exchange system all supplied by A2B ACCORRONI E.G. This important work was installed thanks to the Contillo Vito company from Stornarella (FG).



CALCI RESIDENTIAL COMPLEX (PI)

HUB RADIATOR PACK C hybrid combines the technology patented by the Accorroni Group in an air-water heat pump, based on renewable energy, with a modulating gas condensing boiler, to ensure maximum energy efficiency. HUB RADIATOR PACK C thinks intelligently by choosing the best technology based on user requirements and on the basis of outside temperatures. The compact design of the suspended hybrid heat pump (only 28 cm deep) requires minimal installation space and integrates perfectly with radiator installations. This innovative solution was chosen for 12 brand new homes in Calci (PI) in both hanging and recessed solutions.



RESIDENTIAL COMPLEX TURIN (TO)

HUB RADIATOR PACK C is a system patented by the Accorroni Group that combines hybrid technology with an air-water heat pump, based on the exploitation of renewable energy, together with a latest generation modulating gas condensing boiler, to ensure maximum energy efficiency. HUB RADIATOR PACK C thinks intelligently by choosing the best technology based on user requirements and on the basis of outside temperatures. This recessed version includes, in addition to an inverter pump, also 2 booster units already assembled and tested by Accorroni with the possibility of serving 2 zones with different system terminals (decorative radiators and radiant system). This innovative solution was chosen for 3 newly refurbished homes in Turin (TO) with all recessed wall solutions.

REFERENZE A2B ACCORRONI E.G.

TESTIMONIALS



ATP BRANCH OF ANCONA (AN)

ATP was born in Modena as a generic reseller of technical items. At the end of the 1980s, the company combined the sale of standard products with the design of customized solutions, starting its transformation from a commercial to a productive reality. With the introduction of the first machine tool for the production of special gaskets in the Modena plant, the company begins production with the first CNC. In order to develop the business in the center-south, in the same year ATP inaugurates a new office in Ancona, where production is expanded to include the crimped tube. The Ancona branch in the Baraccola area is fully air-conditioned by Accorroni systems, from the 435 kW MEC gas hot air generators for the production of heating in the production area, to the 3 pentasplit inverters with boxes for offices up to the patented range in HUB RADIATOR MINI heat pump to produce heating up to 58 °C for radiators.



RELAIS VILLA LANZIROTTI CALTANISSETTA (CL)

The Hotel Relais Villa Lanzirotti is a historic villa, located in Caltanissetta, and created within a fine example of suburban residential construction. The nineteenth-century villa was built in the second half of the nineteenth century. The entire air conditioning and domestic hot water production system was fully supplied by the Accorroni Group with the following products: HUB RADIATOR BLACK patented heat pump water heater of 2,500 liters, VT thermal accumulator 1,000 liters hot-cold, 9 pump boosters heat 7.8 kW. This supply was very important and prestigious for the entire Accorroni company.



CONGRESS CENTER API REFINERY FALCONARA MARITTIMA (AN)

The historic refinery of the API Group in Ancona is a petrochemical plant for oil refining that was built in 1950 in Falconara Marittima. The industry has as its emblem the now famous black horse that has become "the historical symbol of the refinery and a distinctive sign for the entire city of Falconara". The new congress center recently renovated to host training courses and business meetings has been air-conditioned thanks to the choice of heat pump air conditioners from the Accorroni Group. The plant is completely cooled and heated by 5 latest generation multisplit inverters with 5 connections, a floor / ceiling of 38,000 BTU and a wall system of 12,000 BTU for a total of over 22 console model indoor units. We thank the API for choosing our Group for this prestigious work.



HOTEL RESIDENCE PALMENSIS FERMO (FM)

The entire Palmensis Hotel residence located in Fermo is fully air-conditioned by patented HUB RADIATOR heat pumps and system terminals by A2B ACCORRONI. This innovative system, which fully exploits renewable energies, makes it possible to produce highly efficient heating, air conditioning and domestic hot water thanks to the 15 boosters with direct exchange on accumulations ranging from 500 to 1,500 liters. CVCX 4-pipe boxes and about forty FCR recessed fan coils were installed as system terminals, all made by A2B ACCORRONI. The newly built structure is located in one of the most beautiful views of the Adriatic coast in Marina Palmense at the foot of Torre di Palme, a medieval historic center overlooking the sea.



PRIVATE HOUSE ROCCAMENA (PA)

The complete supply of HUB RADIATOR patented heat pumps and Accorroni FW EN NEW fan coils was chosen by the owners of this brand new building in Roccamena (PA). The supply includes the HUB RADIATOR VT 500 for the production of hot and cold and 3 Booster 7.8 kW in cascade, while for the simultaneous production of domestic hot water the 1,000-liter HUB RADIATOR BLACK system was supplied which is the only patented heat pump system in the world capable of producing domestic hot water using a direct exchange heat pump. We thank the professionalism and seriousness of Antonio Graffato's Starclima installation company, protagonist of this important installation.

REFERENZE A2B ACCORRONI E.G.

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ALDEBARAN BLUFI RESTAURANT (PA)

The heating and production of domestic hot water in the Aldebaran restaurant in Blufi (PA) are made thanks to the most efficient patented heat pump system on the market SUPER HUB RADIATOR by A2B Accorroni E.G. The system consists of a 2,000 liter storage tank (ARM2 2,000) where solar collectors also work in the lower exchanger and 8 direct exchange heat pump boosters. Thanks to this system it is possible to give over 1,220 l/h in a single withdrawal of domestic hot water with savings that go over 60% compared to common methane gas or LPG systems. This important and professional installation was made possible thanks to the Green Energy company of Castellana Sicula.



POOL AGRITURISMO LA ROCCIA CATTOLICA ERACLEA (AG)

HUB RADIATOR is the only patented heat pump system that can heat everything, even a swimming pool like that of the Agriturismo La Roccia in Cattolica Eraclea (AG). The Ecolife Construction company has heated this 7m x 13m pool with a variable height ranging from 100 cm to 250 cm, for a total of 150 m3 of capacity with our 800 liter SUPERHUB RADIATOR system with 4 7.8 kW boosters and heat exchanger. stainless steel tube bundle 70. The pool water has reached a temperature of about 50 cm from the surface of the water of 28 °, all heated by the SUPERHUB RADIATOR system with renewable energy A2B ACCORRONI E.G.



CANTINE MOSSI ZIANO PIACENTINO (PC)

Cantina Mossi 1558 is a company that consists of several vineyards, or crus as the French say, located between 250 and 300 above sea level, in the locality of Calcinare, Fornello, Case dei Piccioni and Vicobarone, well exposed on ideal soils. It also produces some labels of the ancient Piacenza tradition, from vinegar to grape jelly, chestnut jams, delicious apple juice and rich wildflower honey. The production of domestic hot water and heating has been made possible thanks to the 2,000 liter SUPER HUB RADIATOR with 4 boosters in cascade of 7.8 kW of thermal power. The SUPER HUB RADIATOR is the only patented direct coolant / water exchange system capable of producing a large number of domestic hot water with minimum absorption in cascade from 2 to 8 kW for a flywheel of 2000 liters of technical water.



REST HOME IL GARDINO FLORIDIA (SR)

The Il Giardino nursing home located in Floridia is fully air-conditioned by the patented HUB RADIATOR thermodynamic system and system terminals by A2B ACCORRONI. This innovative system that fully exploits renewable energy allows the production of heating, air conditioning and domestic hot water at very high efficiency thanks to the 10 boosters with direct exchange on 2 800-liter storage tanks for the production of heating and conditioning and an accumulation with rapid DHW exchanger. 1,500 liters. About thirty FCO recessed and wall-mounted FR fan coils were installed as system terminals, all made by A2B ACCORRONI. This important and professional installation was made possible thanks to the Termoclima company from Calafiore Antonino di Solarino (SR).



VILLA FLORIDIA (SR)

Villa Florida is one of the most luxurious villas with private pool located near Syracuse, an ancient Greek city among the most beautiful in the Mediterranean.

Harmoniously inserted into the rural landscape that surrounds it, Villa Florida is a contemporary residence conceived and built with full respect for the environment.

The use of eco-friendly technological and building solutions - including solar thermal, photovoltaic and heat pump systems A2B ACCORRONI patented HUB RADIATOR with 4 7.8 kW boosters and VT 500 storage allow for heating and air conditioning for the whole year with guaranteed savings of over 60% compared to more traditional technologies.

This important and beautiful system was installed by the company ACME ENERGY SRL of Syracuse, one of the most important installation companies in the area.

REFERENZE A2B ACCORRONI E.G.

TESTIMONIALS



HOTEL FORTINO NAPOLEONICO PORTONOVO (AN)

The prestigious and luxurious Hotel Fortino Napoleonico is also one of the A2B ACCORRONI E.G. with 26 FCR 100 and FCR 200 built-in fan coils for the production of heating and air conditioning. The Napoleonic Fort is the only hotel directly at the foot of Monte Conero in the entire Riviera: it is the ancient Napoleonic fortress. Renowned tourist destination, the Bay of Portonovo is immersed in splendid views of unspoiled nature. The territory of Portonovo, an integral part of the Conero, a mountain inhabited since prehistoric times, follows its fate: Piceno, Doric, Roman, Byzantine, Papal, French, and finally Italian. Jewel of the Monte Conero Regional Park, Portonovo stretches out in a still intact natural setting, where the Mediterranean scrub touches the crystal clear water of the sea.



SMASH PADDLE BEACH PESARO (PU)

Smash Paddle & Beach is a multipurpose center located in Pesaro of 4,500 square meters divided into 3 arches where each one hosts a different sport: Beach tennis, Beach Volley and Paddle. The plant has been completely renovated to become one of the most modern and innovative centers in Italy. It has 6 interchangeable Beach Tennis and Beach Volley courts and a Paddle area where there are 2 latest generation courts of this fast growing sport. The entire structure is air-conditioned by Accorroni COND SYSTEM and ARIANNE 3 air mixers.



HOTEL CAMPING BOMMARTINI MALCESINE (VR)

Hotel Camping Bommartini is located between the blue of Lake Garda and the green of Mount Baldo just 5 km from the center of Malcesine. The production of domestic hot water and heating of the Camping is made possible in a completely renewable way thanks to the patented HUB RADIATOR heat pump system by A2B ACCORRONI E.G. This system consists of 2 1,500 liter storage tanks with 4 7.8 kW boosters where the production of domestic hot water has been divided at the plant level from that of heating with 1,500 liters storage and 2 dedicated 7.8 kW boosters per section. The result of this important system has been a saving on DHW and heating consumption of over 40% compared to the previous system with oil boiler, with great satisfaction from the end customer and our company.



MOTEL ONE EDINBURGH (SCOTLAND)

The A2B ACCORRONI E.G. demonstrates its strong internationalization capacity thanks to another prestigious supply of 2 RPE X 90 soundproof chillers with R410A gas (for a total of almost 170 kW of cooling capacity) for the refrigeration of the entire Motel One facility in Edinburgh in Scotland.

Motel One is one of the most important hotel chains in the industry with over 50 properties around the world.

The A2B ACCORRONI E.G. with its breadth of range it is able to cover any type of requirement with professionalism, seriousness and quality of its products, demonstrating it daily with supplies of this type.



OFOGH EKBATAN PROJECT (IRAN)

40 fan coils A2B ACCORRONI E.G. of the FCR 300, 400, 600 series, were sold in Iran in the completion of a series of luxury hotels thanks to the Ofoogh Ekbatan Project.

This important sale strengthens the presence of the Accorroni group in a process of continuous internationalization even outside the European borders.

This supply was made possible thanks to the Alizadeh Group of Companies Mashhad, Iran, the exclusive agency of the Accorroni Group in Iran.

REFERENZE A2B ACCORRONI E.G.

TESTIMONIALS



YON PAZARLAMA (TURKEY)

38 are the hot air generators A2B ACCORRONI E.G. 85 kW MEC model just installed in this huge mattress manufacturing company located in Turkey. MEC hot air generators are among the historical products of our company installed not only throughout the national territory but also in many other foreign countries such as Germany, France, Spain, Portugal, Croatia, Slovenia, England, Bulgaria, Ireland, the Republic Czech, Denmark, Romania, Hungary, Denmark, Austria, Belgium thanks above all to compliance with the strict CE regulations that guarantee the quality and reliability of all our products.



LANCHESTER WINES ANNFIELD PLAIN, STANLEY (ENGLAND)

The Lanchester Group consists of five companies, each with different specialties, A2B ACCORRONI E.G. has just supplied 160 LC model unit heaters for heating the entire Lanchester Vini plant. Lanchester Wines produces a wide range of high quality wines for a variety of UK businesses, from pubs to bars to high street and spirits retailers to hotel chains.



ALLES SHOPPING CENTER IN POZEGA (CROATIA)

The Alles shopping center in Pozega - Croatia is a shopping center selling household appliances, electrical equipment, and bicycles, heated with our 6 MEC 35 EX C hot air generators.



DEICHMANN LUBIANA (SLOVENIA)

Deichmann, is a German shoe manufacturing company founded in 1913. More than 90 years ago, Heinrich Deichmann founded the family business, which today represents the largest European footwear manufacturer. Deichmann now has over 2,550 stores around the world, and the Ljubljana store is air-conditioned by 9 A2B ACCORRONI 4-pipe model CVCX 60 hydronic cassettes.




SMURFIT KAPPA (CZECH REPUBLIC)

Smurfit Kappa, is one of the world leaders in the production of paper, corrugated cardboard, packaging and packaging solutions. Among the many European factories, the one in the Czech Republic is heated by 30 hot air generators divided between the MEC 35 and MEC 35 C models. This reference is one of the most prestigious for the A2B ACCORRONI E.G. as a foreign contractor.

Pag. 15 **HUB RADIATOR PRINCIPI GENERALI**

Pag. 18 **HUB RADIATOR MINI - HUB RADIATOR MINI XL**

CALDAIA  TERMODINAMICA patented high efficiency direct refrigerant / water exchange to produce domestic hot water and heating for small and medium users



Pag. 28 **HUB RADIATOR PLUS / PLUS SOLAR**

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water and heating for medium users with or without solar thermal integration



Pag. 35 **HUB RADIATOR DHP**

Patented high efficiency direct exchange heat pump system refrigerant / water to produce domestic hot water, heating and air conditioning for small and medium users



Pag. 41 **HUB RADIATOR PACK C - HUB RADIATOR PACK CF**

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water, heating or heating / air conditioning for small and medium users



Pag. 55 **HUB RADIATOR AP**

Patented high efficiency direct exchange heat pump system refrigerant / water to produce heating, air conditioning and domestic hot water for small and medium-sized users



Pag. 61 **SUPER HUB RADIATOR**

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating and domestic hot water for medium and large users



Pag. 69 **SUPER HUB RADIATOR TOP**

Sistema brevettato ad alta efficienza in pompa di calore a scambio diretto refrigerante/acqua per produrre riscaldamento, condizionamento ed acqua calda sanitaria per medie e grandi utenze



Pag. 76 **GRUPPI FRIGORIFERI SPLITTATI HUB RADIATOR**

Patented high efficiency multi-compressor heat pump systems with direct refrigerant / water exchange from 2 to 8 units with separate and independent circuits to produce heating and air conditioning for medium and large users



Pag. 81 **HUB RADIATOR POWER UNIT**

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants



Pag. 90 **GRUPPI DI CIRCOLAZIONE INVERTER PLUG AND PLAY**

High efficiency modulating plug and play circulation groups for the construction of thermal power plants



Pag. 95 **SOLARE TERMICO**

Forced circulation solar thermal system with SKY selective flat plate collectors
Forced circulation solar thermal system with SELECTIVE selective flat plate collectors high efficiency
Forced circulation solar thermal system with HV12 vacuum tube collectors
Natural circulation solar system for the production of domestic hot water SKY HV and KOMPATTO



Pag. 110 **HUB RADIATOR BLACK**

Producers of domestic hot water and heating with patented high efficiency heat pump system with direct refrigerant / water exchange for medium and large users

Pag. 118 **RED 120**

Wall-mounted split heat pump water heater with sanitary storage

Pag. 120 **WHITE 110**

Wall-hung monobloc heat pump water heater with sanitary storage

Pag. 122 **GREEN 220 - 220 S - 220 2S**

Monobloc heat pump water heater with sanitary storage with or without additional exchangers

Pag. 124 **GREEN 300 - 300 S - 300 2S**

Monobloc heat pump water heater with sanitary storage with or without additional exchangers

Pag. 127 **GREEN 500 S**

Monobloc heat pump water heater with sanitary storage with additional exchanger

Pag. 129 **GREEN SOLAR**

Monobloc heat pump water heater with integration solar thermal

Pag. 132 **TERMODINAMICO**

Thermodynamic heat pump water heater with sanitary storage

Pag. 134 **AGTX 80 - 120 - 160 - 220 - 300 - 400 - 600 - 800**

Gas-fired storage water heater with sealed chamber for domestic and industrial use

Pag. 141 **ABGEO**

Floor-standing gas water heater with natural draft storage and electronic ignition for industrial use

Pag. 143 **AGTF SOL**

Floor standing storage gas water heater with sealed chamber forced draft with electronic ignition and additional heat exchanger for solar thermal

Pag. 145 **ASF V - ADSF V**

High-performance glass-ceramic boilers with fixed coil

Pag. 147 **AWP1 V - AWP2 V**

Glass-lined boilers with increased exchangers for DHW production from HP



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Sealed chamber gas radiators with forced draft



- Pag. 154 **W - WR - WD**
Sealed chamber gas radiators with forced draft



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Axial and ductable condensing hot air generators with modulating premixed gas burner



- Pag. 162 **MEC MIX F**
Axial and ductable hot air generators with premixed gas burner



- Pag. 167 **AS - AS EX**
Indoor / outdoor gas floor standing hot air generators



- Pag. 172 **AS COND - AS COND EX**
Indoor / outdoor gas condensing floor standing hot air generators



- Pag. 177 **ASG**
Floor standing hot air generators, with blown air gas or diesel burner for sports facilities.



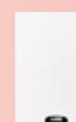
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Floor standing condensing hot air generators with low NOx modulating premixed gas burners for pressostatic and tensostatic structures



- Pag. 183 **COND SYSTEM**
Caldaia a condensazione da esterno/interno abbinata con aerotermo/i da interno



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Wall-mounted gas condensing boiler for heating and DHW production



Pag. 199 **HPE R410A 05÷16T INVERTER**

Air / water inverter heat pumps with axial fans for Hot / Cold production

Pag. 202 **HPE R32 04÷18T INVERTER**

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

Pag. 208 **HPE 25÷70 INVERTER - HPE LT 25÷50 INVERTER**

Air / water inverter heat pumps with axial fans and steam injection versions

Pag. 215 **HPE 66÷115 INVERTER**

Air / water inverter heat pumps with axial fans with double refrigerant circuit

Pag. 220 **RPE 19÷44 - HPE 18÷40**

Water chillers and air / water heat pumps with axial fans

Pag. 224 **RPE X - HPE X 58÷170**

Water chillers and air / water heat pumps with axial fans

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Water chillers and air / water heat pumps with axial fans

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Heat pump heaters for swimming pools with horizontal and vertical expulsion



Pag. 237 **FR - FC - FCO - FCR**
Wall, ceiling and recessed hydronic fan coils



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Wall-mounted fan coils



Pag. 251 **FW EN NEW**

Inverter wall-mounted hydronic fan coils



Pag. 253 **CVCB NEW (2 tubi) CVCX NEW (4 tubi)**

Inverter hydronic boxes



Pag. 255 **AEROCLIMA STYLE**

Hot / cold hydronic suspended unit heaters

Pag. 258 **LC**

Hot only hydronic suspended unit heaters



Pag. 261 **MHD**

Ductable hydronic air handling terminal units



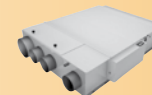
Pag. 266 **ALNH EC**

Extremely silent horizontal recessed convectors with inverter fans



Pag. 269 **FAN DRIVE**

Air conditioning system with integrated inverter recovery fan coil



Pag. 277 **COMPRESSOR DRIVE CFR HP - CFR HPE - CFR HPEI**

Air conditioning and dehumidification system with air renewal and supporting thermodynamic compressor



Pag. 283 **AH PIC**

Static single-flow point heat recovery units and wall cross-flows



Pag. 286 **AREVENT PRH - AOXYVENT PRH**

Residential heat recovery unit for horizontal and vertical installation

Pag. 290 **AREVENT MRN - AOXYVENT MRN**

Residential heat recovery unit for vertical installation



Pag. 295 **ACFR+ ACFRE+**

Horizontal heat recovery unit with static aluminum counter-current exchanger

Pag. 302 **ACFR MICRO E**

Heat recovery unit with enthalpy exchanger



Pag. 305 **ACCESSORIES VMC**

Complete range of professional accessories for controlled mechanical ventilation



Pag. 321 **ABIOX AIR**

Active sanitation system with bipolar ionization



Pag. 323 **ARIANNE 3**

Air mixers

Pag. 325 **ARIANNE 1 - 2**

Air mixers - Fans - Mixers for uniform air distribution in large volume environments



HUB RADIATOR MINI 6.0 - 8.0 - 11.0 - 16.0

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small users



ENERGY RATING



Technical and construction features

The patented HUB RADIATOR MINI represents the most innovative product on the market created to produce heating and DHW using renewable energy as a primary source of supply (100% RES). This new boiler concept is able to provide more efficiency and more energy savings to the home during the domestic heating and domestic hot water production phases. The great creativity of our technicians has allowed us to design a compact thermodynamic system with direct refrigerant / water exchange that does not burn methane, has no flame or flue and can be used with any type of system terminals. This system today represents the best possible solution to produce thermal energy by increasing the energy performance index of buildings and fully enjoys all the tax benefits provided by Italian law on the matter.



Hub Radiator Mini is composed by:

- Indoor unit with 70 liter technical water accumulator in which the refrigerant / water condensers are inserted
- immersion and the double coil DHW exchanger.
- One or two external moto-evaporators in Booster cascade that close the refrigeration circuit and transfer the heat taken from the external air to the technical water of the sequential accumulators of the system placed in the internal hanging unit.
- High efficiency inverter electronic circulation pump.
- Control panel and electronic microprocessor control.
- 1.5 kW back-up resistor.
- DHW circuit priority diverter valve.
- The indoor hanging unit presents itself as a perfect balance between compact size, energy efficiency and innovative design. This system uses one or two capacitors on board connected separately and independently to one or two external units. HUB RADIATOR MINI during the period of use uses the electronic inverter pump to circulate the heat transfer fluid both for the production of DHW and for space heating. At the same time, the diverter valve activated by a special thermostat comes into operation which gives priority to the use of the domestic hot water over the heating circuit.




















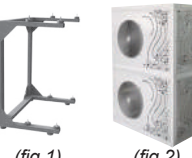
| Modello | Codice | € |
|---|----------|-----------|
| HUB RADIATOR MINI 6.0 Booster doppio 3.0 + 3.0 | 76800790 | 6.890,00 |
| HUB RADIATOR MINI 8.0 Booster singolo 7.8 | 76800800 | 6.990,00 |
| HUB RADIATOR MINI 11.0 Booster doppio 7.8 + 3.0 | 76800811 | 8.770,00 |
| HUB RADIATOR MINI 16.0 Booster doppio 7.8 + 7.8 | 76800810 | 10.300,00 |

Accessories HUB RADIATOR MINI

| | | | |
|---|--|--|------------------------------------|
|  | First mandatory start-up of 1 to 2 HR Boosters (net price) | 35639901 | 100,00 |
|  | Command and remote control panel | mod. built-in mod. Wall | 75100005 75100028 |
| | | | 90,00 110,00 |

HUB RADIATOR MINI 6.0 - 8.0 - 11.0 - 16.0

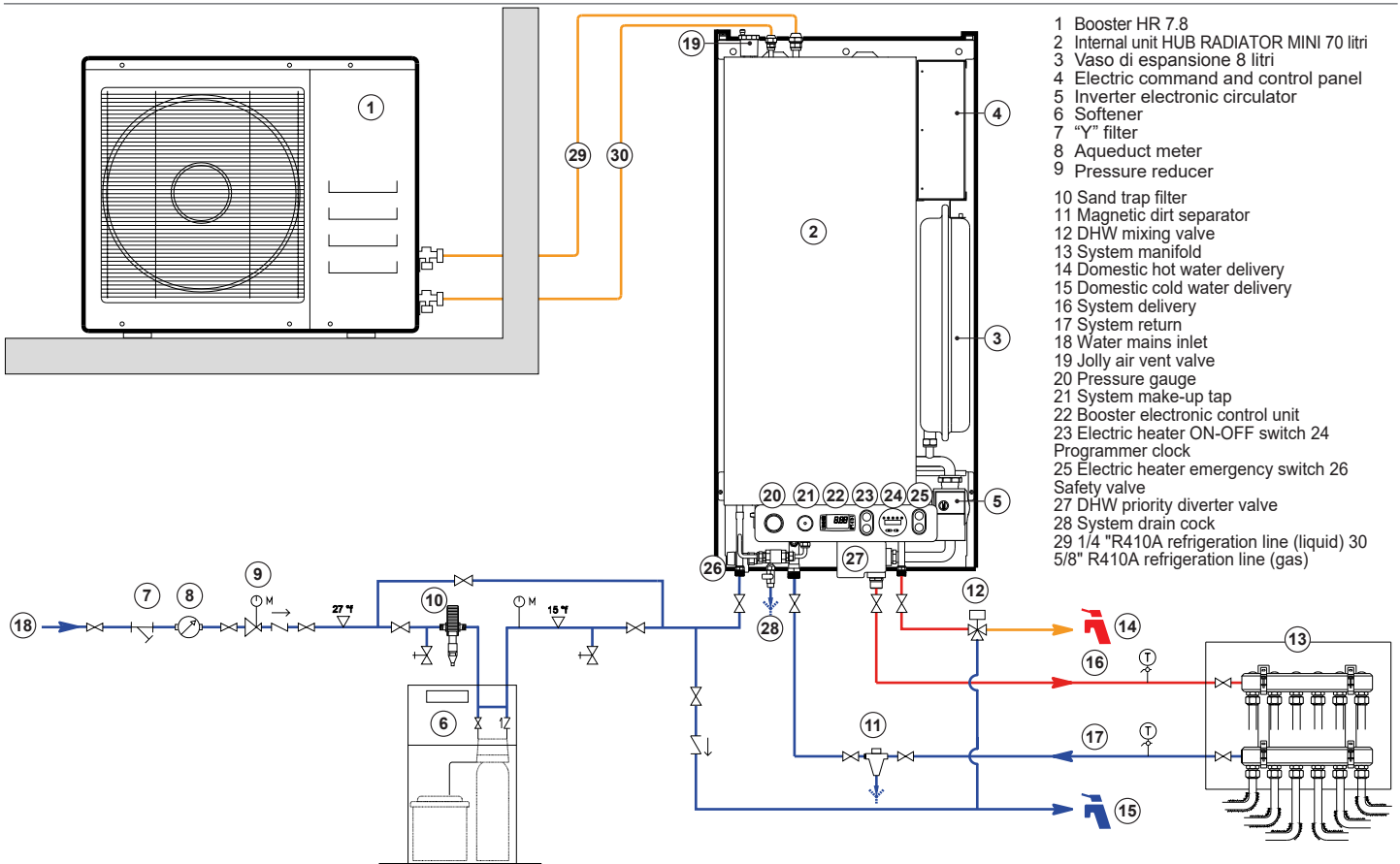
Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small users

| Accessori HUB RADIATOR MINI | | | Codice | € |
|---|---|---|---|---|
|  | Load control relay for managing the absorbed power | mod. BUS connection mod. Radio frequency | 37081062 37081063 | 148,00 336,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment mod. motorized adjustment | 75101032 75101033 | 90,00 530,00 |
|  | Additional condenser for heat only HR Booster | | 26505565 | 300,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 mod. Booster HR 7.8 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for inclined roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 meters 90 W mod. 6 meters 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary pod equipped with 90 W heating cable | mod. HR 3.0 H fixed mod. HR 7.8 H fixed mod. HR 7.8 H variable | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | 1/2 "DHW mixing valve kit | | 75100023 | 146,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with flare and straight union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Anti-vibration flexible joint kit with connecting flange and 90° curved union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |
|  | Compulsory cover box for the installation of the indoor unit outside the building HUB RADIATOR MINI made of insulated white prepainted galvanized steel Height 156 cm - Width 64 cm - Depth 43 cm | | 75100019 | 270,00 |
|  | Dima da incasso da esterno per unità interna HUB RADIATOR MINI realizzata in lamiera zincata Altezza 160 cm - Larghezza 70 cm - Profondità 28 cm | | 75101019 | 280,00 |
|  | <i>External recessed template for indoor unit MINI RADIATOR HUB made of galvanized sheet metal Height 160 cm - Width 70 cm - Depth 28 cm</i> | | 75060406 75060306 | 240,00 890,00 |

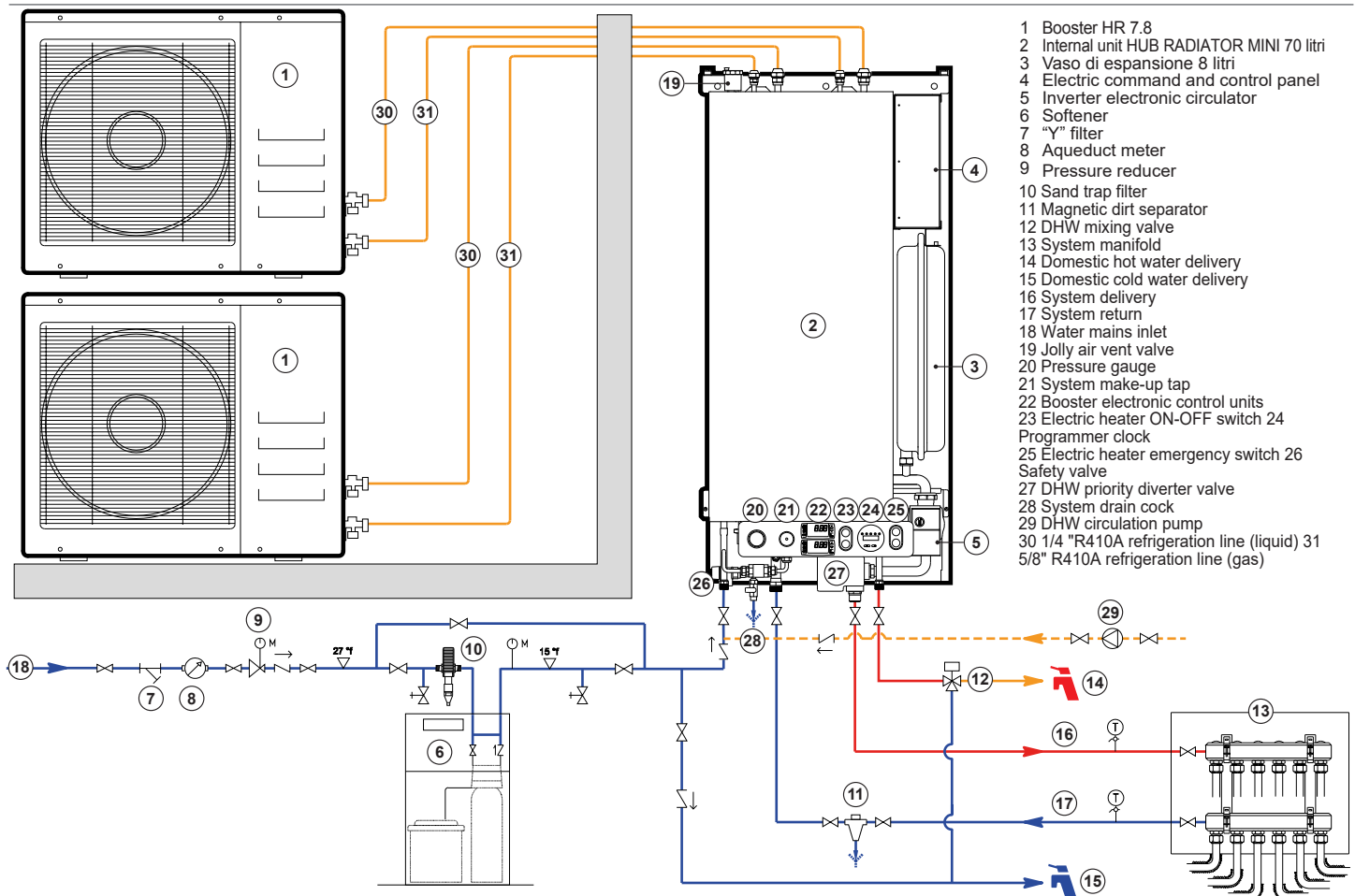
HUB RADIATOR MINI 6.0 - 8.0 - 11.0 - 16.0

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small users

Application example HUB RADIATOR MINI 8.0



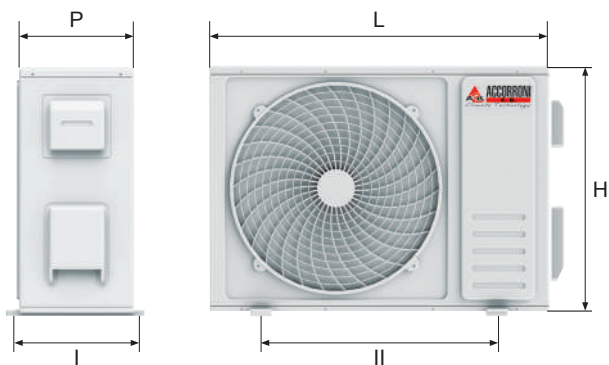
Application example HUB RADIATOR MINI 16.0



HUB RADIATOR MINI 6.0 - 8.0 - 11.0 - 16.0

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small users

Outdoor unit dimensions Booster HUB RADIATOR MINI



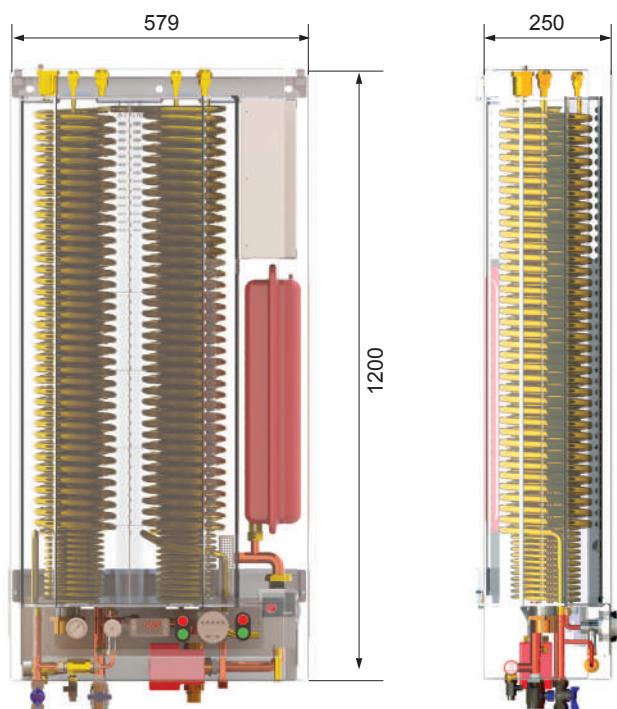
| Booster | L mm | H mm | P mm | I mm | II mm |
|---------|---------|---------|---------|---------|----------|
| HR 3.0 | 700 | 552 | 256 | 275 | 435 |
| HR 7.8 | 902 | 650 | 307 | 350 | 620 |

Booster technical data

| | U.M. | HR 3.0 | HR 7.8 |
|---------------------------------|-------|-------------|--------|
| Refrigerant quantity | Kg | 1,1 | 2,0 |
| Refrigerant gas connections | | 3/8" | 5/8" |
| Coolant fluid connections | | 1/4" | 1/4" |
| Power supply | | 230V/1/50Hz | |
| Sound power (1) | dB(A) | 65,1 | 68,4 |
| Sound pressure at one meter (2) | dB(A) | 51,2 | 54,7 |
| Weight | Kg | 33 | 55 |

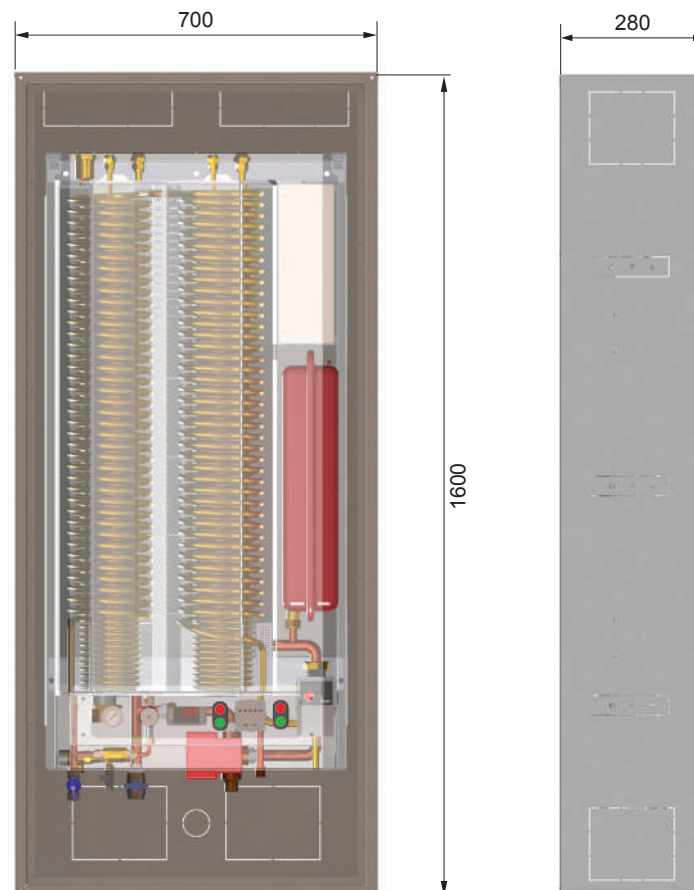
(1) Measurements carried out according to UNI EN 14511 i - heating 30/35 ° C - Ext. 7 ° C b.s./6 ° C b.u. (2) Value calculated according to ISO 3744: 2010

Indoor hanging unit HUB RADIATOR MINI



values expressed in mm

Built-in indoor unit HUB RADIATOR MINI



Withdrawals table ACS HUB RADIATOR MINI

| DESCRIPTION | U.M. | 6.0 | 8.0 | 11.0 | 16.0** |
|--|------|-----|-----|------|--------|
| DHW withdrawal at 40 ° C - storage at 55 ° C - inlet water at 10 ° C | l | 50 | 51 | 52 | 54 |
| DHW withdrawal at 40 ° C - storage at 55 ° C - inlet water at 15 ° C | l | 60 | 62 | 64 | 66 |
| HP recovery time from 38 ° C to 55 ° C - Outdoor temp. 7 ° C * | min | 21 | 18 | 14 | 8 |
| HP recovery time + resistance from 38 ° C to 58 ° C - External temp. 7 ° C * | min | 17 | 15 | 11 | 7 |
| Water withdrawal at 40 ° C with storage at 62 ° C with inlet water at 10 ° C | l | 62 | 63 | 65 | 67 |
| Water withdrawal at 40 ° C with storage at 62 ° C with inlet water at 15 ° C | l | 76 | 77 | 80 | 82 |
| HP recovery time + resistance from 38 ° C to 62 ° C - External temp. 7 ° C * | min | 25 | 22 | 16 | 10 |
| Recovery time from 10 ° C to 55 ° C - Outdoor temp. 7 ° C * | min | 45 | 39 | 30 | 19 |

*Data calculated with the heating system off

** Continuous domestic hot water supply on a single user of 7 liters per minute (water inlet 10 ° C - outlet 40 ° C - external temperature 7 ° C)

HUB RADIATOR MINI 6.0 - 8.0 - 11.0 - 16.0

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small users

Technical data table HUB RADIATOR MINI

| DESCRIPTION | U.M. | HR MINI 6.0 | HR MINI 8.0 | HR MINI 11.0 | HR MINI 16.0 |
|---|-------------------|--|-------------|--------------|--------------|
| Thermal power (1) | kW | 6,22 | 8,12 | 11,23 | 16,24 |
| Absorbed power(1) | kW | 1,48 | 1,96 | 2,70 | 3,92 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,16 | 4,14 |
| Thermal power (2) | kW | 5,94 | 7,75 | 10,72 | 15,50 |
| Absorbed power(2) | kW | 1,88 | 2,52 | 3,46 | 5,04 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,10 | 3,07 |
| Thermal power(3) | kW | 5,16 | 6,73 | 9,31 | 13,46 |
| Absorbed power(3) | kW | 1,48 | 2,00 | 2,74 | 4,00 |
| C.O.P. (3) | W/W | 3,48 | 3,37 | 3,40 | 3,37 |
| Thermal power (4) | kW | 4,94 | 6,44 | 8,91 | 12,88 |
| Absorbed power (4) | kW | 1,88 | 2,54 | 3,48 | 5,08 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,56 | 2,53 |
| Thermal power (5) | kW | 4,22 | 5,52 | 7,63 | 11,04 |
| Absorbed power (5) | kW | 1,50 | 2,00 | 2,75 | 4,00 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 2,77 | 2,76 |
| Thermal power (6) | kW | 3,98 | 5,20 | 7,19 | 10,40 |
| Absorbed power (6) | kW | 1,88 | 2,53 | 3,47 | 5,06 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 2,07 | 2,06 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,72 | 3,71 |
| Seasonal heating efficiency (η_s) | % | 153,1 | 150,3 | 150,6 | 150,3 |
| Energy efficiency (8) | | A / A++ | | | |
| Defrosting method | | Reverse cycle with immersion condenser | | | |
| Type of refrigerant | | R410A | | | |
| Technical water temperature min / max | °C | + 30 / + 58 | | | |
| Refrigerant quantity (pre-inserted) | kg | 1,1 x 2 | 2,0 | 2,0 + 1,1 | 2,0 x 2 |
| Min distance between outdoor and indoor unit | m | 3 | | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | | |
| Refrigerant gas line connection | | 3/8" x 2 | 5/8" | 5/8" - 3/8" | 5/8" x 2 |
| Coolant fluid line connection | | 1/4" x 2 | 1/4" | 1/4" - 1/4" | 1/4" x 2 |
| External temperature operating limits | °C | -15 / +45 | | | |
| Indoor unit technical water content | l | 70 | | | |
| Max flow rate electronic inverter circulator | m ³ /h | 3,3 | | | |
| Max head of electronic inverter circulator | m | 6,2 | | | |
| Electric absorption of electronic inverter circulator | W | 3 - 45 | | | |
| Expansion vessel volume | l | 8 | | | |
| Expansion vessel preload | bar | 1 | | | |
| Safety valve calibration | bar | 3 | | | |
| Back up electric heater | W | 1500 | | | |
| Power supply | | 230V/1/50Hz | | | |
| Cold water inlet and DHW outlet hydraulic connections | | 1/2" M | | | |
| System delivery and return hydraulic connections | | 3/4" M | | | |
| Internal unit accumulation heat loss | kWh/24h | 1,82 | | | |
| Transport / operating indoor unit weight | kg | 79 / 134 | 70 / 125 | 79 / 134 | 79 / 134 |
| Outdoor unit weight | kg | 33 x 2 | 55 | 55 + 33 | 55 x 2 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: outside air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: outside air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Water 35 °C / 55 °C

HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium users

ENERGY RATING



Caratteristiche tecniche e costruttive

HUB RADIATOR MINI XL is a patented high efficiency thermodynamic boiler with direct coolant / water exchange for the production of domestic hot water and heating for small and medium-sized homes. The system consists of:

- Indoor unit with 2 technical water accumulators of 75 liters each, in which the patented immersion refrigerant / water condensers and the rapid DHW exchanger are inserted
- From one to three external Booster moto-evaporators which close the refrigeration circuit and which directly transfer the heat taken from the external air to the technical water of the accumulators which then feed the heating and production system. domestic hot water.

In the coldest periods of the year, the boosters use the heat contained in the technical water accumulator to produce very quick and very economical defrosts.

Hub Radiator Mini XL included also:

- High efficiency inverter electronic circulation pump
- Microprocessor command and control panels for managing the whole system
- 1.5 kW back-up electric heater
- DHW circuit priority diverter valve
- Double system expansion tank
- Manual filling group
- Safety valve
- Jolly air vent valve

The indoor unit is in perfect balance between compact size, energy efficiency and innovative design.

This system is very ductile and flexible as it offers the possibility of having on board from 1 to 3 condensers connected, separately and independently, and up to 3 external moto-evaporating units in cascade, in a Booster HR 7.8 heat pump.



















The MINI XL HUB RADIATOR uses an inverter circulator that circulates the heat transfer fluid, both for the production of domestic hot water and for space heating. At the same time, the diverter valve is operated electronically by a special thermostat, which always gives priority to the use of the sanitary, over heating. The system is supplied as standard complete with electronic system circulator, double filling unit, safety valve, automatic air vent jolly valve, DHW priority diverter valve, power supply voltage control device and base plate anchoring template galvanized.



| Modello | Codice | € |
|--|----------|-----------|
| HUB RADIATOR MINI XL 6.0 Booster doppio 3.0+3.0 | 76801085 | 7.900,00 |
| HUB RADIATOR MINI XL 8.0 Booster singolo 7.8 | 76801086 | 8.000,00 |
| HUB RADIATOR MINI XL 11.0 Booster doppio 7.8+3.0 | 76801087 | 9.740,00 |
| HUB RADIATOR MINI XL 16.0 Booster doppio 7.8+7.8 | 76801088 | 11.250,00 |
| HUB RADIATOR MINI XL 24.0 Booster triplo 7.8+7.8+7.8 | 76801083 | 13.300,00 |

HUB RADIATOR MINI XL







Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium users

| Accessori HUB RADIATOR MINI XL | | | Codice | € |
|---|--|--|----------------------------------|----------------------------|
|  | First mandatory ignition (net price) | from 1 to 2 Booster HR 3 Booster HR | 35639901 35639902 | 100,00 150,00 |
|  | Command and remote control panel | mod. built-in mod. Wall | 75100005 75100028 | 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection mod. Radio frequency | 37081062 37081063 | 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment mod. motorized adjustment | 75101032 75101033 | 90,00 530,00 |
|  | Additional condenser for heat only HR Booster | | 26505565 | 300,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 mod. Booster HR 7.8 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for inclined roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 meters 90 W mod. 6 meters 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fixed mod. HR 7.8 H fixed mod. HR 7.8 H variable | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | 1/2 "DHW mixing valve kit | | 75100023 | 146,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with connecting flange and straight union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Anti-vibration flexible joint kit with connecting flange and 90 ° curved union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |

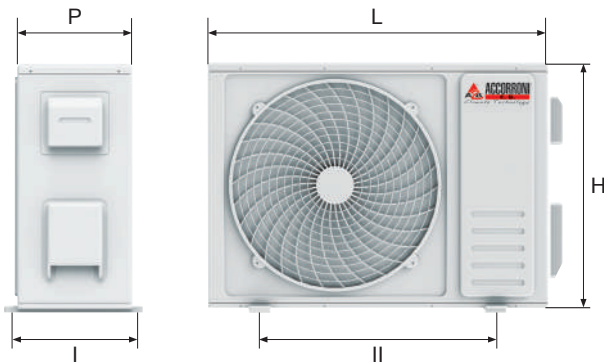
HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium users

Accessories HUB RADIATOR MINI XL

| | | Codice | € |
|---|--|-----------|-----------------|
|  | Upper casing closing plinth | 75101020 | 78,00 |
|  | Lower casing closing plinth | 75101021 | 64,00 |
|  | Installation template kit complete with preflanged and insulated refrigeration pipes and pipes for connecting the sanitary water circuit | mod. 6.0 | 75101010 360,00 |
| | | mod. 8.0 | 75101011 370,00 |
| | | mod. 11.0 | 75101012 380,00 |
| | | mod. 16.0 | 75101013 400,00 |
| | | mod. 24.0 | 75101014 420,00 |
|  | Open shelf for n. 2 Booster outdoor units | 75060406 | 240,00 |
|  | mod. HR 7.8 complete with anti-vibration mounts (fig. 1) | | |
|  | RACK 2 wardrobe for n. 2 Booster outdoor units | 75060306 | 890,00 |
| | mod. HR 3.0 - HR 7.8 (fig. 2) | | |
| | RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - HR 7.8 Height 210 cm Width 96 cm Depth 54 cm (fig.3) | 75060206 | 980,00 |

Outdoor unit dimensions HUB RADIATOR MINI XL



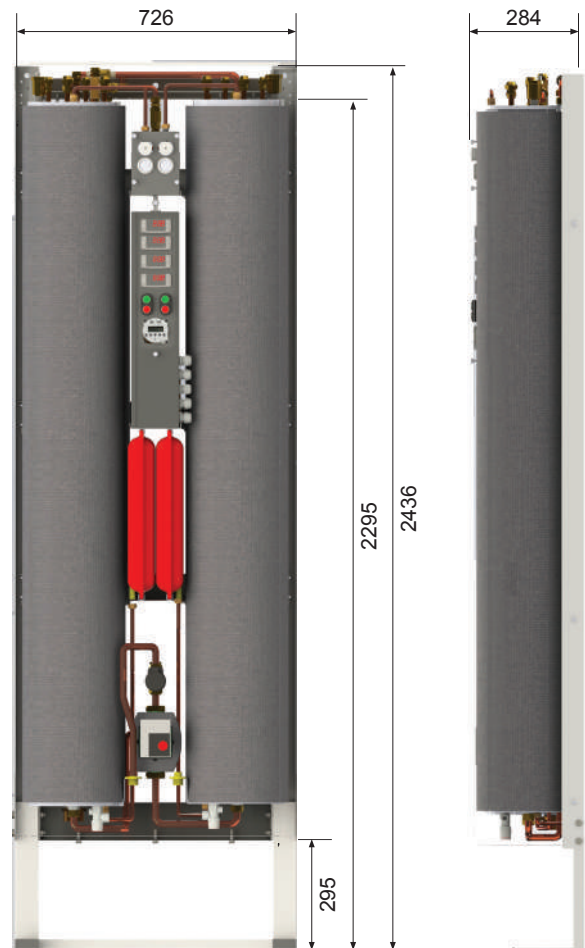
| Booster | L | H | P | I | II |
|---------|-----|-----|-----|-----|-----|
| | mm | mm | mm | mm | mm |
| HR 3.0 | 700 | 552 | 256 | 275 | 435 |
| HR 7.8 | 902 | 650 | 307 | 350 | 620 |

Booster technical data

| | U.M. | HR 3.0 | HR 7.8 |
|--------------------------------|-------|-------------|--------|
| Refrigerant quantity | Kg | 1,1 | 2,0 |
| Refrigerant gas connections | | 3/8" | 5/8" |
| Coolant fluid connections | | 1/4" | 1/4" |
| Power supply | | 230V/1/50Hz | |
| Sound power (1) | dB(A) | 65,1 | 68,4 |
| Sound pressure at one meter(2) | dB(A) | 51,2 | 54,7 |
| Weight | Kg | 33 | 55 |

(1) Measurements carried out according to UNI EN 14511 i - heating 30/35 ° C - Ext. 7 ° C b.s./6 ° C b.u. (2) Value calculated according to ISO 3744: 2010

Indoor unit HUB RADIATOR MINI XL

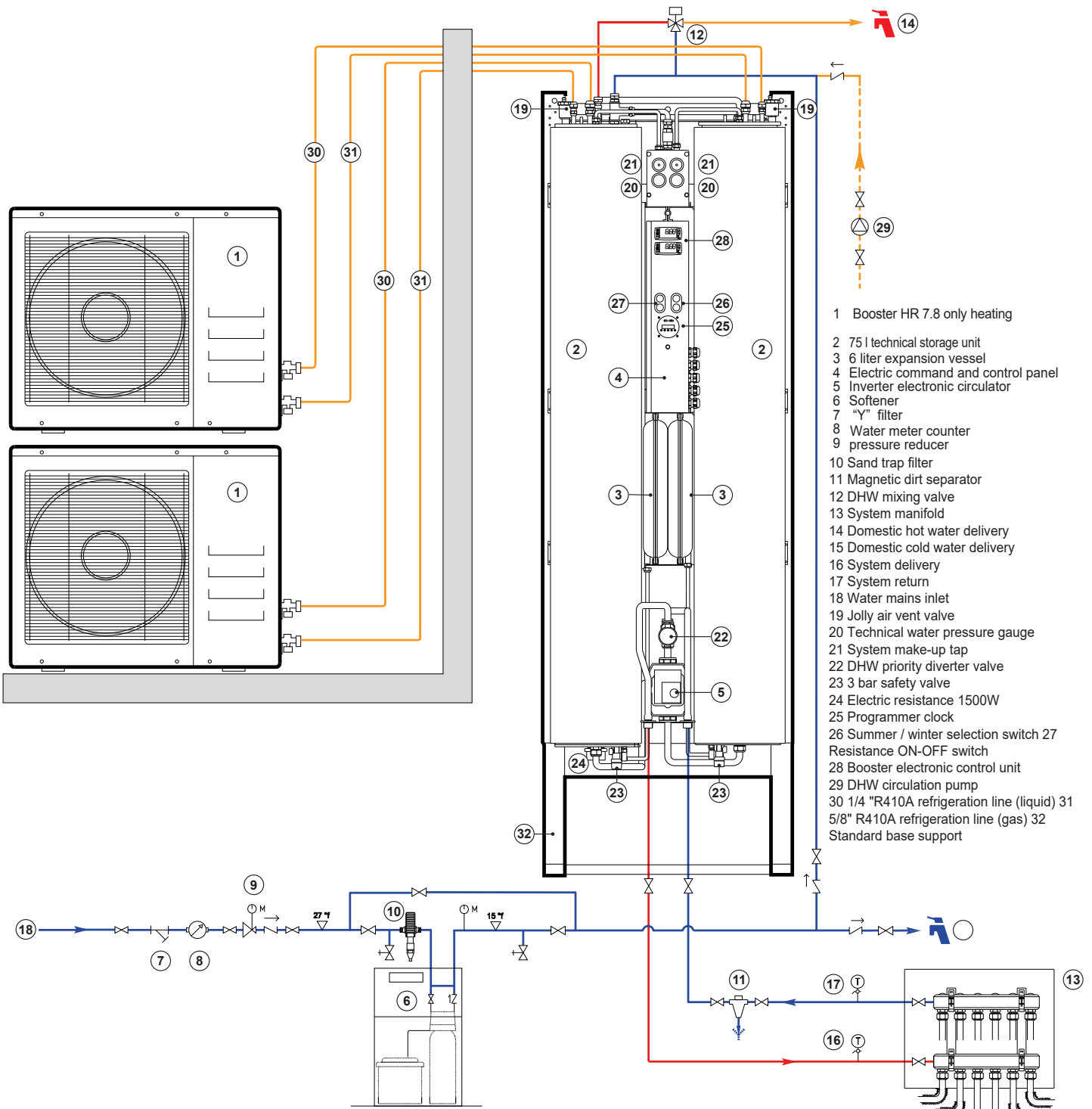


values expressed in mm

HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium users

Application example HUB RADIATOR MINI XL 16.0



Withdrawals table ACS HUB RADIATOR MINI XL

| DESCRIPTION | U.M. | XL 6.0 | XL 8.0 | XL 11.0 | XL 16.0 | XL 24.0 |
|--|------|--------|--------|---------|---------|---------|
| Quantity of water available in a single withdrawal (1) | l | 92 | 98 | 102 | (2) | (3) |
| Recovery time (1) | min | 42 | 36 | 28 | 14 | 10 |
| Seasonal DHW production efficiency (η_s) | % | 124,2 | | | | |
| Energy class production DHW | | A+ | | | | |

(1) Storage temp. 55 ° C, DHW temp. 40 ° C, Inlet temp. From the water mains 10 ° C, External temperature 7 ° C d.b. - 6 ° C b.u.

(2) Continuous DHW supply with max flow 7 l / min, Inlet temp. From water mains 10 ° C, External temperature 7 ° C - 6 ° C b.u.

(3) Continuous DHW supply with max flow rate 12 l / min, Inlet temp. From water mains 10 ° C, External temperature 7 ° C d.b. - 6 ° C b.u.

HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium users

Tabella dati tecnici HUB RADIATOR MINI XL

| DESCRIPTION | U.M. | MINI XL 6.0 | MINI XL 8.0 | MINI XL 11.0 | MINI XL 16.0 | MINI XL 24.0 |
|---|-------------------|--|-------------|--------------|--------------|---------------|
| Thermal power (1) | kW | 6,22 | 8,12 | 11,23 | 16,24 | 24,36 |
| Absorbed power(1) | kW | 1,48 | 1,96 | 2,70 | 3,92 | 5,88 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,16 | 4,14 | 4,14 |
| Thermal power (2) | kW | 5,94 | 7,75 | 10,72 | 15,50 | 23,25 |
| Absorbed power(2) | kW | 1,88 | 2,52 | 3,46 | 5,04 | 7,56 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,10 | 3,07 | 3,07 |
| Thermal power(3) | kW | 5,16 | 6,73 | 9,31 | 13,46 | 20,20 |
| Absorbed power(3) | kW | 1,48 | 2,00 | 2,74 | 4,00 | 6,00 |
| C.O.P. (3) | W/W | 3,49 | 3,37 | 3,40 | 3,37 | 3,37 |
| Thermal power (4) | kW | 4,94 | 6,44 | 8,91 | 12,88 | 19,32 |
| Absorbed power (4) | kW | 1,88 | 2,54 | 3,48 | 5,08 | 7,62 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,56 | 2,53 | 2,53 |
| Thermal power (5) | kW | 4,22 | 5,52 | 7,63 | 11,04 | 16,56 |
| Absorbed power (5) | kW | 1,50 | 2,00 | 2,75 | 4,00 | 6,00 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 2,77 | 2,76 | 2,76 |
| Thermal power (6) | kW | 3,98 | 5,20 | 7,19 | 10,40 | 15,60 |
| Absorbed power (6) | kW | 1,88 | 2,53 | 3,47 | 5,06 | 7,59 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 2,07 | 2,06 | 2,05 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,72 | 3,71 | 3,71 |
| Seasonal heating efficiency (η_s) | % | 153,1 | 150,3 | 150,6 | 150,3 | 150,3 |
| Energy efficiency (8) | | A / A++ | | | | |
| Defrosting method | | Reverse cycle with immersion condenser | | | | |
| Type of refrigerant | | R410A | | | | |
| Technical water temperature min / max | °C | + 30 / + 58 | | | | |
| Refrigerant quantity (pre-inserted) | kg | 1,1 x 2 | 2,0 | 2,0 + 1,1 | 2,0 x 2 | 2,0 x 3 |
| Min distance between outdoor and indoor unit | m | 3 | | | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | | | |
| Refrigerant gas line connection | | 3/8" x 2 | 5/8" | 5/8" - 3/8" | 5/8" x 2 | 5/8" x 3 |
| Coolant fluid line connection | | 1/4" x 2 | 1/4" | 1/4" - 1/4" | 1/4" x 2 | 1/4" x 3 |
| External temperature operating limits | °C | -15 / +45 | | | | |
| Indoor unit technical water content | l | 75 + 75 | | | | |
| Max flow rate electronic inverter circulator | m ³ /h | 3,3 | | | | |
| Max head of electronic inverter circulator | m | 6,2 | | | | |
| Electric absorption of electronic inverter circulator | W | 3 - 45 | | | | |
| Expansion vessel volume | l | 6 + 6 | | | | |
| Expansion vessel preload | bar | 1 | | | | |
| Safety valve calibration | bar | 3 | | | | |
| Back up electric heater | W | 1500 | | | | |
| Power supply | | 230V/1/50Hz | | | | 400V/3+N/50Hz |
| Cold water inlet and DHW outlet hydraulic connections | | 1/2" M | | | | |
| System delivery and return hydraulic connections | | 3/4" M | | | | |
| Internal unit accumulation heat loss | kWh/24h | 1,82 | | | | |
| Transport / operating indoor unit weight | kg | 79 / 134 | 70 / 125 | 79 / 134 | 79 / 134 | 70 / 125 |
| Outdoor unit weight | kg | 33 x 2 | 55 | 55 + 33 | 55 x 2 | 55 x 3 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: outside air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: outside air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Water 35 °C / 55 °C

HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium-sized users



ENERGY RATING



Technical and construction features

HUB RADIATOR MINI XL is a patented high efficiency direct coolant / water exchange for the production of domestic hot water and heating for small and medium-sized homes. The system consists of:

- Indoor unit with 2 technical water accumulators of 75 liters each, in which the patented immersion coolant / water condensers and the rapid DHW exchanger are inserted;
- From one to three external moto-evaporating boosters that close the refrigeration circuit and directly transfer the heat taken from the external air to the technical water of the accumulators which then feed the heating and hot water production system sanitary. During the coldest periods of the year, I could use the heat contained in the technical water accumulator to produce very rapid and very economical defrosts.
- High efficiency inverter electronic circulation pump
- Microprocessor command and control panels for the management of the whole system
- 1.5 kW back-up electric heater
- DHW circuit priority diverter valve
- Double system expansion tank
- Manual filling group
- Safety valve
- Jolly air vent valve

The indoor unit is in perfect balance between compact size, energy efficiency and innovative design.

This system is very ductile and flexible as it offers the possibility of having an edge of 1 to 3 condensers connected, separately and independently, and up to 3 external moto-evaporating units in cascade, in the Booster HR 7.8 heat pump.

The MINI XL HUB RADIATOR uses an inverter circulator that circulates the heat transfer fluid, both for the production of domestic hot water and for space heating. At the same time, the diverter valve is operated electronically by a special thermostat, which always gives priority to the use of the domestic hot water, over heating.

The system is supplied as standard complete with electronic system circulator, double filling group, safety valve, automatic air vent jolly valve, DHW priority diverter valve, power supply voltage control device and base plate anchoring template. galvanized.



PATENTED SYSTEM



RENEWABLE ENERGY



ENERGY SAVING



INVERTER CIRCULATOR



COMPACT DIMENSIONS



ECOLOGICAL GAS



PHOTOVOLTAIC COMBI



DHW WITHOUT LEGIONELLA



HEATING UP TO 58 ° C



PLUG & PLAY INSTALLATION

| Modello | Code | € |
|---|-----------------|------------------|
| HUB RADIATOR MINI XL 6.0 Booster doppio 3.0+3.0 | 76801085 | 7.900,00 |
| HUB RADIATOR MINI XL 8.0 Booster singolo 7.8 | 76801086 | 8.000,00 |
| HUB RADIATOR MINI XL 11.0 Booster doppio 7.8+3.0 | 76801087 | 9.740,00 |
| HUB RADIATOR MINI XL 16.0 Booster doppio 7.8+7.8 | 76801088 | 11.250,00 |
| HUB RADIATOR MINI XL 24.0 Booster triplo 7.8+7.8+7.8 | 76801083 | 13.300,00 |

HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium-sized users




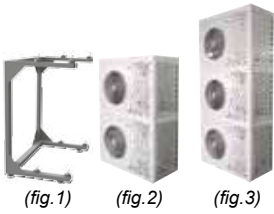


Accessories HUB RADIATOR MINI XL

| | | | Code | € |
|---|--|---|---|---|
|  | Command and remote control panel | mod. built-in mod. on the wall | 75100005 75100028 | 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection mod. Radio frequency | 37081062 37081063 | 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment mod. motorized adjustment | 75101032 75101033 | 90,00 530,00 |
|  | Additional condenser for heat only HR Booster | | 26505565 | 300,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 mod. Booster HR 7.8 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for inclined roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 metri 90 W mod. 6 metri 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fixed mod. HR 7.8 H fixed mod. HR 7.8 H variable | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | 1/2 "DHW mixing valve kit | | 75100023 | 146,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with connection plate and straight union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Flexible anti-vibration joint kit with connection plate and 90 ° curved union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |

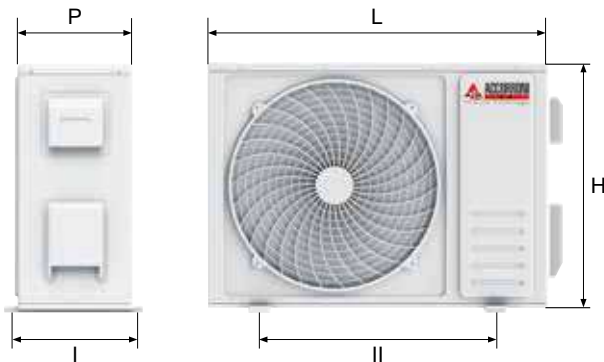
HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium-sized users

Accessories HUB RADIATOR MINI XL

| | | Codice | € |
|---|---|------------------|------------------------|
|  | Upper casing closing plinth | 75101020 | 78,00 |
|  | Lower casing closing plinth | 75101021 | 64,00 |
|  | Installation template kit complete with pre-flanged and insulated refrigeration pipes and pipes for connecting the sanitary water circuit | mod. 6.0 | 75101010 360,00 |
| | | mod. 8.0 | 75101011 370,00 |
| | | mod. 11.0 | 75101012 380,00 |
| | | mod. 16.0 | 75101013 400,00 |
| | | mod. 24.0 | 75101014 420,00 |
|  | Open shelf for n. 2 Booster outdoor units mod. HR 7.8 complete with anti-vibration mounts (fig. 1) | 75060406 | 240,00 |
|  | RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - HR 7.8 (fig. 2) | 75060306 | 890,00 |
|  | RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - HR 7.8 Height 210 cm Width 96 cm Depth 54 cm (fig.3) | 75060206 | 980,00 |

Outdoor unit dimensions HUB RADIATOR MINI XL



| Booster | L | H | P | I | II |
|---------|-----|-----|-----|-----|-----|
| | mm | mm | mm | mm | mm |
| HR 3.0 | 700 | 552 | 256 | 275 | 435 |
| HR 7.8 | 902 | 650 | 307 | 350 | 620 |

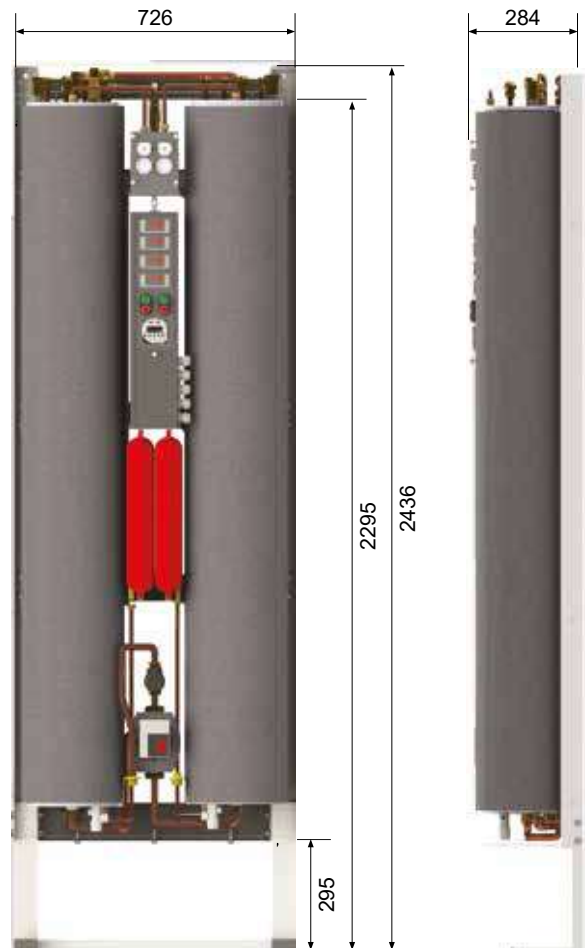
Dati tecnici Booster

| | U.M. | HR 3.0 | HR 7.8 |
|---------------------------------|-------|-------------|--------|
| Refrigerant quantity | Kg | 1,1 | 2,0 |
| Refrigerant gas connections | | 3/8" | 5/8" |
| Refrigerant fluid connections | | 1/4" | 1/4" |
| Power supply | | 230V/1/50Hz | |
| Sound power(1) | dB(A) | 65,1 | 68,4 |
| Sound pressure at one meter (2) | dB(A) | 51,2 | 54,7 |
| Weight | Kg | 33 | 55 |

(1) Measurements carried out according to UNI EN 14511 I - heating 30/35 ° C - Ext. 7 ° C b.s./6 ° C b.u.

(2) Value calculated according to ISO 3744: 2010

Indoor unit HUB RADIATOR MINI XL

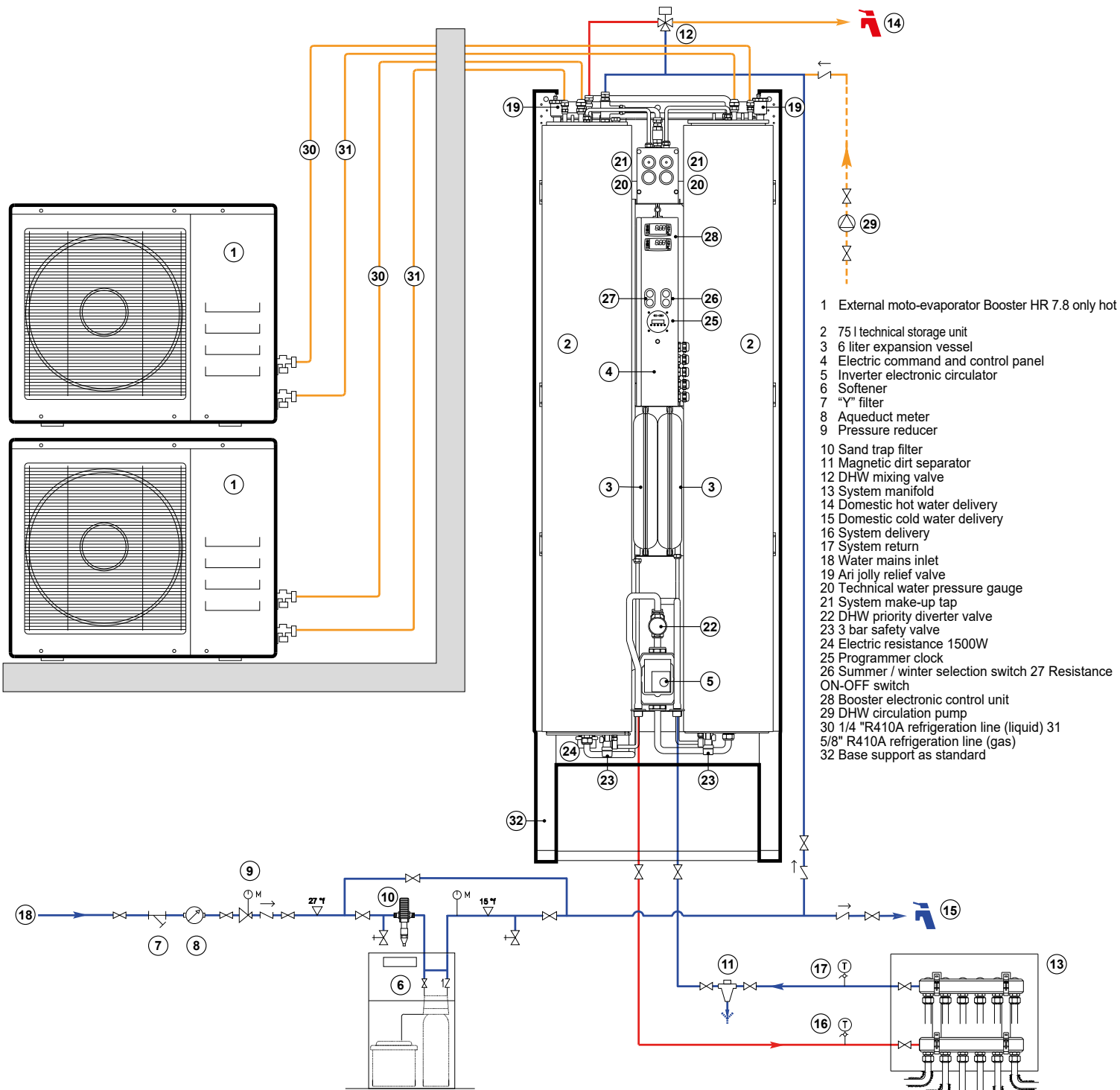


values expressed in mm

HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium-sized users

Application example HUB RADIATOR MINI XL 16.0



DHW HUB RADIATOR MINI XL withdrawal table

| DESCRIPTION | U.M. | XL 6.0 | XL 8.0 | XL 11.0 | XL 16.0 | XL 24.0 |
|--|------|--------|--------|---------|---------|---------|
| Quantity of water available in a single withdrawal (1) | l | 92 | 98 | 102 | (2) | (3) |
| Recovery time (1) | min | 42 | 36 | 28 | 14 | 10 |
| Seasonal DHW production efficiency (η_s) | % | 124,2 | | | | |
| DHW production energy class | | A+ | | | | |

(1) Storage temp. 55 ° C, DHW temp. 40 ° C, Inlet temp. From the water mains 10 ° C, External temperature 7 ° C d.b. - 6 ° C b.u.

(2) Erogazione ACS in continuo con portata max 7 l / min Inlet temp. From water mains 10 ° C, External temperature 7 ° C d.b. - 6 ° C b.u.

(3) Continuous DHW supply with max flow rate 12 l / min, Inlet temp. From water mains 10 ° C, External temperature 7 ° C d.b. - 6 ° C b.u.

HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium-sized users

Tabella dati tecnici HUB RADIATOR MINI XL

| DESCRIPTION | U.M. | MINI XL 6.0 | MINI XL 8.0 | MINI XL 11.0 | MINI XL 16.0 | MINI XL 24.0 |
|---|-------------------|--|-------------|--------------|--------------|---------------|
| Thermal power (1) | kW | 6,22 | 8,12 | 11,23 | 16,24 | 24,36 |
| Absorbed power(1) | kW | 1,48 | 1,96 | 2,70 | 3,92 | 5,88 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,16 | 4,14 | 4,14 |
| Thermal power (2) | kW | 5,94 | 7,75 | 10,72 | 15,50 | 23,25 |
| Absorbed power(2) | kW | 1,88 | 2,52 | 3,46 | 5,04 | 7,56 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,10 | 3,07 | 3,07 |
| Thermal power(3) | kW | 5,16 | 6,73 | 9,31 | 13,46 | 20,20 |
| Absorbed power(3) | kW | 1,48 | 2,00 | 2,74 | 4,00 | 6,00 |
| C.O.P. (3) | W/W | 3,49 | 3,37 | 3,40 | 3,37 | 3,37 |
| Thermal power (4) | kW | 4,94 | 6,44 | 8,91 | 12,88 | 19,32 |
| Absorbed power (4) | kW | 1,88 | 2,54 | 3,48 | 5,08 | 7,62 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,56 | 2,53 | 2,53 |
| Thermal power (5) | kW | 4,22 | 5,52 | 7,63 | 11,04 | 16,56 |
| Absorbed power (5) | kW | 1,50 | 2,00 | 2,75 | 4,00 | 6,00 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 2,77 | 2,76 | 2,76 |
| Thermal power (6) | kW | 3,98 | 5,20 | 7,19 | 10,40 | 15,60 |
| Absorbed power (6) | kW | 1,88 | 2,53 | 3,47 | 5,06 | 7,59 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 2,07 | 2,06 | 2,05 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,72 | 3,71 | 3,71 |
| Seasonal heating efficiency (η _s) | % | 153,1 | 150,3 | 150,6 | 150,3 | 150,3 |
| Energy efficiency (8) | | A / A++ | | | | |
| Defrosting method | | Inversione di ciclo con condensatore ad immersione | | | | |
| Type of refrigerant | | R410A | | | | |
| Technical water temperature min / max | °C | + 30 / + 58 | | | | |
| Refrigerant quantity (pre-inserted) | kg | 1,1 x 2 | 2,0 | 2,0 + 1,1 | 2,0 x 2 | 2,0 x 3 |
| Min distance between outdoor and indoor unit | m | 3 | | | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | | | |
| Refrigerant gas line connection | | 3/8" x 2 | 5/8" | 5/8" - 3/8" | 5/8" x 2 | 5/8" x 3 |
| Coolant fluid line connection | | 1/4" x 2 | 1/4" | 1/4" - 1/4" | 1/4" x 2 | 1/4" x 3 |
| External temperature operating limits | °C | -15 / +45 | | | | |
| Indoor unit technical water content | l | 75 + 75 | | | | |
| Max flow rate electronic inverter circulator | m ³ /h | 3,3 | | | | |
| Max head of electronic inverter circulator | m | 6,2 | | | | |
| Electric absorption of electronic inverter circulator | W | 3 - 45 | | | | |
| Expansion vessel volume | l | 6 + 6 | | | | |
| Expansion vessel preload | bar | 1 | | | | |
| Safety valve calibration | bar | 3 | | | | |
| Back up electric heater | W | 1500 | | | | |
| Power supply | | 230V/1/50Hz | | | | 400V/3+N/50Hz |
| Cold water inlet and DHW outlet hydraulic connections | | 1/2" M | | | | |
| System delivery and return hydraulic connections | | 3/4" M | | | | |
| Internal unit accumulation heat loss | kWh/24h | 1,82 | | | | |
| Transport / operating indoor unit weight | kg | 79 / 134 | 70 / 125 | 79 / 134 | 79 / 134 | 70 / 125 |
| Outdoor unit weight | kg | 33 x 2 | 55 | 55 + 33 | 55 x 2 | 55 x 3 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u.; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u.; inlet / outlet water temperature 40/45 °C

(3) Heating: outside air temperature 0 °C db; inlet / outlet water temperature 30/35 °C

(4) Heating: external air temperature 0 °C db; inlet / outlet water temperature 40/45 °C

(5) Heating: outside air temperature -7 °C d.b.; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b.; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) (8) Water 35 °C / 55 °C

HUB RADIATOR PLUS / PLUS SOLAR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water and heating for medium users with or without solar thermal integration



ENERGY RATING



Technical and construction features

The many years of experience in the Green Economy sector has allowed us to better understand the real plant needs of small and medium users.

HUB RADIATOR PLUS is able to produce domestic hot water and / or heating with solar thermal integration according to the legislative canons of the new European eco-sustainable development.

The main features of the HUB RADIATOR PLUS are:

- ALL IN ONE INTEGRATED SOLUTION

HUB RADIATOR PLUS has been designed to function as a large accumulator of thermal energy, also offering wide possibilities for integrated configurations in combination with the photovoltaic system, with important accessories such as solar thermal and condensing support boiler, all tested in the factory.

- HIGH PERFORMANCES

The particular construction of the patented immersion condensers with direct refrigerant / water exchange, combined with the HR Booster in cascade, guarantee energy savings, greater yield (SCOP), great reliability and simplified maintenance.

- NO LEGIONELLA

HUB RADIATOR PLUS with the first in-first out method guarantees maximum performance of the heat pump and maximum hygiene of the sanitary circuit which always works separated from the technical water. These particular copper exchangers allow to eliminate the great problem of legionella in the bud.

- ENERGY SAVING

The exclusive HUB RADIATOR PLUS patent redefines the performance parameters of air / water heat pumps, reaching the maximum performance levels of the system with the "direct exchange of the refrigerant / water condensers" even with very severe and prolonged winters. winter defrosting operations are shorter and more effective than traditional thermodynamic systems and the considerable savings obtained therefore allow to return from the investment in a very short time.

The system is supplied as standard complete with electronic system circulator, double filling group, safety valve, automatic air vent jolly valve, DHW priority diverter valve, power supply voltage control device, double 8-liter expansion tank and base frame with wheels for handling on site.

The complete installation of accessories is always quick and very simple both indoors and outdoors.



Storage unit model

| | Code | € |
|------------------------------------|-----------------|-----------------|
| HUB RADIATOR PLUS 250 | 37308010 | 4.200,00 |
| HUB RADIATOR PLUS 250 SOLAR | 37308015 | 4.480,00 |
| HUB RADIATOR PLUS 400 | 37308020 | 5.100,00 |
| HUB RADIATOR PLUS 400 SOLAR | 37308025 | 5.380,00 |

External moto-evaporating unit model













| | | |
|---|-----------------|-----------------|
| Booster HR 3.0 solo caldo | 76010240 | 2.000,00 |
| Booster HR 7.8 solo caldo | 76010500 | 3.700,00 |
| Booster HR 9.0 solo caldo INVERTER | 76030500 | 4.760,00 |

HUB RADIATOR PLUS / PLUS SOLAR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water and heating for medium users with or without solar thermal integration

| Solar thermal kit HUB RADIATOR PLUS SOLAR | Codice | € |
|---|-----------------|-----------------|
| KIT SOLAR HR 1 x 2.0 pitched roof | 37308030 | 1.994,00 |
| KIT SOLAR HR 1 x 2.0 flat roof | 37318030 | 2.000,00 |
| KIT SOLAR HR 1 x 2.5 pitched roof | 37308031 | 2.122,00 |
| KIT SOLAR HR 1 x 2.5 flat roof | 37318031 | 2.136,00 |
| KIT SOLAR HR 2 x 2.0 pitched roof | 37308032 | 2.782,00 |
| KIT SOLAR HR 2 x 2.0 flat roof | 37318032 | 2.888,00 |
| KIT SOLAR HR 2 x 2.5 pitched roof | 37308033 | 3.066,00 |
| KIT SOLAR HR 2 x 2.5 flat roof | 37318033 | 3.158,00 |
| KIT SOLAR HR 3 x 2.0 pitched roof | 37308034 | 3.600,00 |
| KIT SOLAR HR 3 x 2.0 flat roof | 37318034 | 3.782,00 |
| KIT SOLAR HR 3 x 2.5 pitched roof | 37308035 | 4.016,00 |
| KIT SOLAR HR 3 x 2.5 flat roof | 37318035 | 4.188,00 |











Accessories HUB RADIATOR PLUS / PLUS SOLAR

| | | Code | € |
|---|---|---|------------------------|
|  | First mandatory ignition (net price) | 35639901 | 100,00 |
|  | Command and remote control panel | mod. built-in | 75100005 90,00 |
| | | mod. Wall | 75100028 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection | 37081062 148,00 |
| | | mod. Radio frequency | 37081063 336,00 |
|  | Additional low temperature system pump kit with climatic mixing | 75151005 | 760,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment | 75101032 90,00 |
| | | mod. motorized adjustment | 75101033 530,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 | 37081060 50,00 |
| | | mod. Booster HR 7.8 - 9.0 | 37081061 90,00 |
|  | Anchoring bracket for sloped roof for external Booster mod. HR 3.0 - 7.8 - 9.0 including rubber anti-vibration mounts | 37081064 | 130,00 |
|  | Anti-vibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 - 9.0 (pack of 2 pieces) | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 | 37081065 52,00 |
| | | mod. HR 7.8 - 9.0 | 37081066 56,00 |
|  | Additional condenser for heat only HR Booster | 26505565 | 300,00 |
|  | 1/2 "DHW mixing valve kit | 75100023 | 146,00 |

HUB RADIATOR PLUS / PLUS SOLAR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water and heating for medium users with or without solar thermal integration

Accessories HUB RADIATOR PLUS / PLUS SOLAR

| | | | Codice | € |
|---|---|---|----------------------------------|----------------------------|
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 metri 90 W mod. 6 metri 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fissa mod. HR 7.8 - 9.0 H fissa mod. HR 7.8 - 9.0 H variabile | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | Kit gestione elettronica sistema ibrido FACTORY MADE con manicotti di connessione per generatore termico supplementare | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with flare and straight union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Antivibration flexible joint kit with flare and 90° curved union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |
|  <i>(fig.1)</i> | Open shelf for n. 2 external units Booster mod. HR 7.8 - 9.0 complete with anti-vibration mounts (fig. 1) RACK 2 wardrobe n. 2 external units Booster mod. HR 3.0 - 7.8 - 9.0 (fig. 2) | | 75060406 | 240,00 |
|  <i>(fig.2)</i> | | | 75060306 | 890,00 |
|  <i>(fig.1)</i> | Gas condensing boiler for heating and indoor DHW production mod. PLAY ENTRY 20 (fig. 1) | | 30420020 | 1.600,00 |
|  <i>(fig.2)</i> | Gas condensing boiler for heating only outdoor mod. EXTRA 32 (fig. 2) | | 30400032 | 2.310,00 |

Solar thermal kits to combine with HUB RADIATOR PLUS SOLAR

| | | | | | | | |
|--|---|---|---|--|---|---|---|
|  |  |  |  |  |  |  |  |
| Solar collector SELECTIVE | Kit anchor SELECTIVE | Solar station UNIT 2 PLUS | Solar control unit CONTROL MULTI 06 S | Solar expansion vessel | Kit string fittings kit | Kit DHW valve | Kit antifreeze glycol |

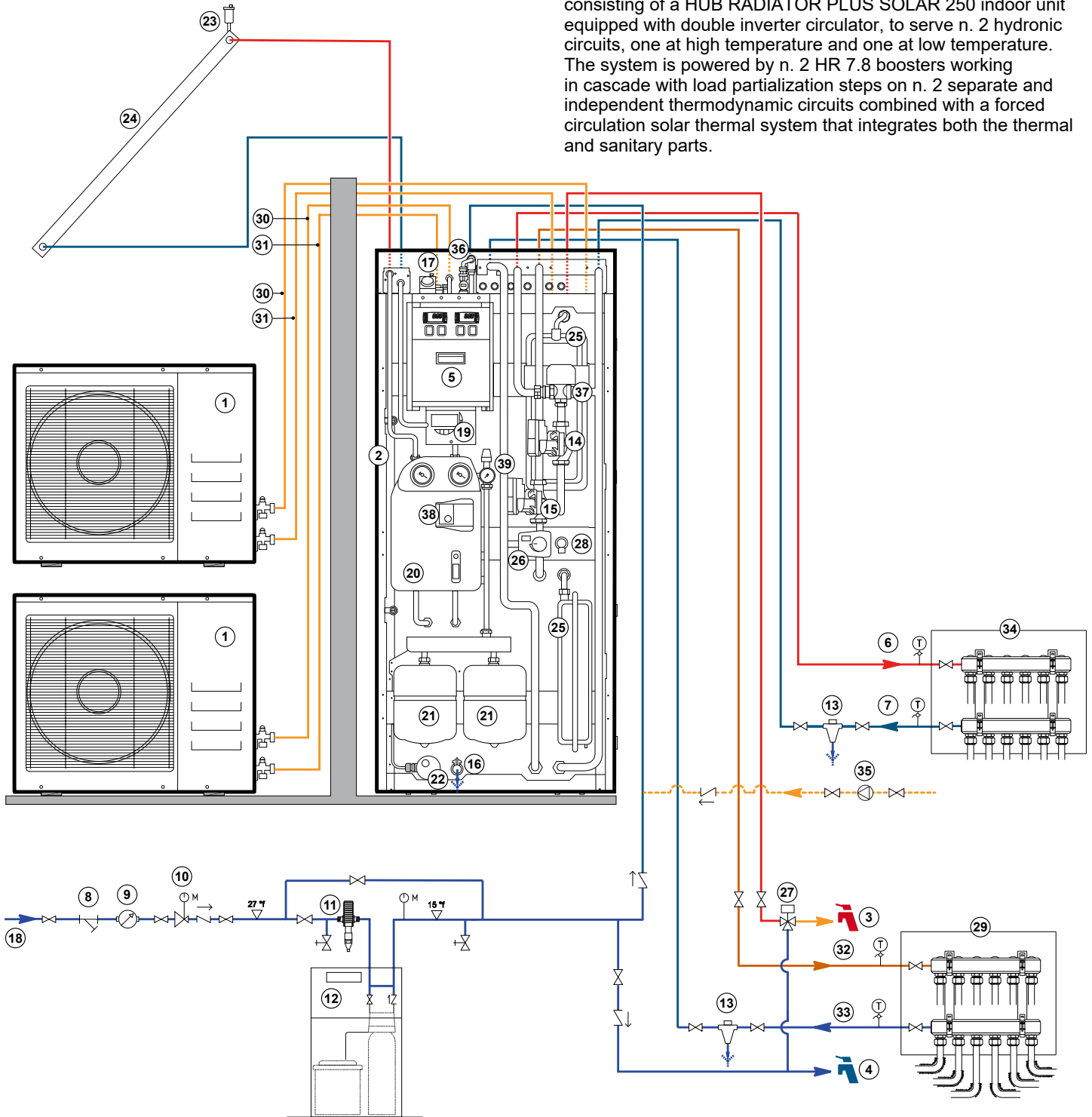
| | | |
|--|--|--|
| KIT SOLAR HR PLUS 2.0 m² - N. 1 SELECTIVE H + 2.0 m ² collector - SELECTIVE H + 2.0 m ² anchoring kit - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 12 liter expansion vessel - String fittings kit - 3/4 "DHW mixing valve kit - Antifreeze glycol (1 tank of 3 liters) | KIT SOLAR HR PLUS 2.5 m² - N. 1 SELECTIVE HX + 2.5 m ² collector - SELECTIVE HX + 2.5 m ² anchoring kit - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 18 liter expansion vessel - String fittings kit - 3/4 "DHW mixing valve kit - Antifreeze glycol (1 tank of 4 liters) | KIT SOLAR HR PLUS 2 x 2.0 m² - N. 2 SELECTIVE H + 2.0 m ² collectors - Anchor kit 2 SELECTIVE H + 2.0 m ² - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter expansion vessel - String fittings kit (1 string-2 collectors) - 3/4 "DHW mixing valve kit - Antifreeze glycol (2 x 3 liter tanks) |
| KIT SOLAR HR PLUS 2 x 2.5 m² - N. 2 SELECTIVE HX collectors + 2.5 m ² - Anchor kit 2 SELECTIVE HX + 2.5 m ² - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter expansion vessel - String fittings kit (1 string-2 collectors) - 3/4 "DHW mixing valve kit - Antifreeze glycol (2 x 4 liter tanks) | KIT SOLAR HR PLUS 3 x 2.0 m² - N. 3 SELECTIVE H + 2.0 m ² collectors - Anchor kit 3 SELECTIVE H + 2.0 m ² - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 40 liter expansion vessel - String fittings kit (1 string-3 collectors) - 3/4 "DHW mixing valve kit - Antifreeze glycol (3 x 3 liter tanks) | KIT SOLAR HR PLUS 3 x 2.5 m² - N. 3 SELECTIVE HX collectors + 2.5 m ² - Anchor kit 3 SELECTIVE HX + 2.5 m ² - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 40 liter expansion vessel - String fittings kit (1 string-3 collectors) - 3/4 "DHW mixing valve kit - Antifreeze glycol (3 x 4 liter tanks) |

HUB RADIATOR PLUS / PLUS SOLAR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water and heating for medium users with or without solar thermal integration

Application example HUB RADIATOR PLUS SOLAR 250

Winter air conditioning system and DHW production consisting of a HUB RADIATOR PLUS SOLAR 250 indoor unit equipped with double inverter circulator, to serve n. 2 hydronic circuits, one at high temperature and one at low temperature. The system is powered by n. 2 HR 7.8 boosters working in cascade with load partialization steps on n. 2 separate and independent thermodynamic circuits combined with a forced circulation solar thermal system that integrates both the thermal and sanitary parts.



- 1 Booster HR 7.8 only hot
- 2 Technical storage unit 250 liters
- 3 Domestic hot water delivery
- 4 Domestic cold water delivery
- 5 Electric command and control panel
- 6 System technical water delivery high temperature
- 7 System technical water return high temperature
- 8 Mechanical "Y" filter
- 9 Volumetric water meter
- 10 Water mains pressure reducer
- 11 Water mains sand trap filter
- 12 Volumetric softener
- 13 Magnetic dirt separator
- 14 High temperature inverter circulator

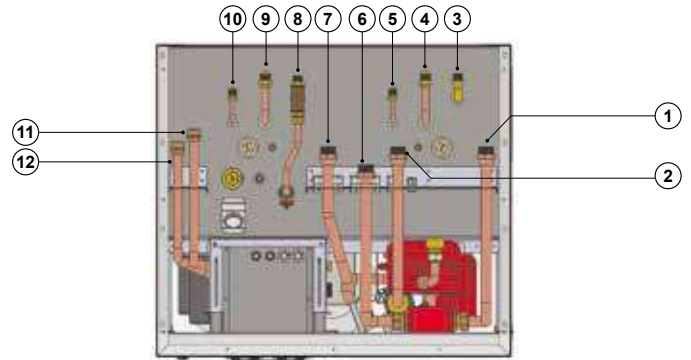
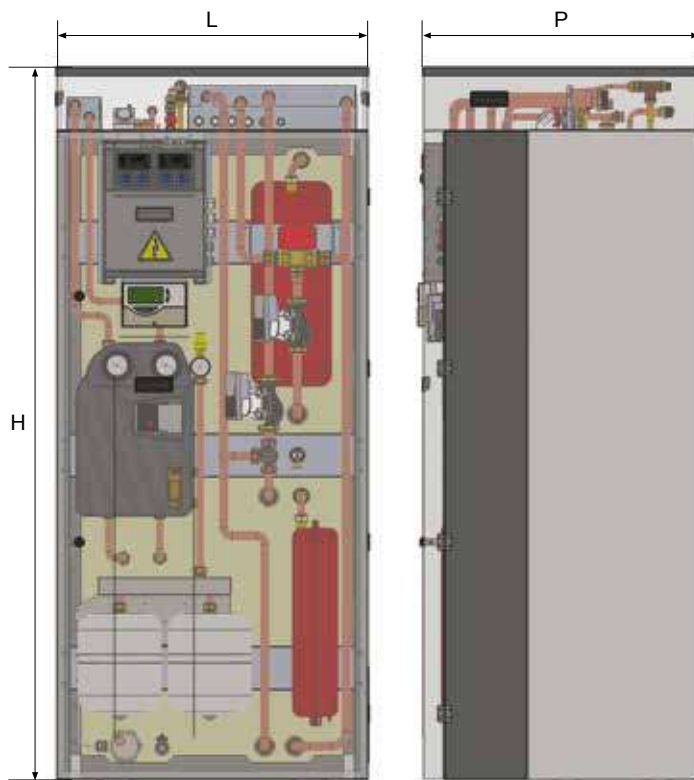
- 15 Low temperature inverter circulator
- 16 Storage tank emptying cock
- 17 Technical water system pressure gauge
- 18 Water mains inlet
- 19 0-10V digital solar control unit CONTROL MULTI 06 S
- 20 UNIT 2 PLUS solar station
- 21 8 liter solar expansion vessel
- 22 Integrative electric heater 2 kW
- 23 Jolly air vent valve
- 24 Solar collector SELECTIVE HX + 25 System expansion vessel 8 liters
- 26 Motorized mixing valve for radiant floor system
- 27 DHW mixing valve anti-scaid

- 28 3 bar system safety valve
- 29 Low temperature system manifold
- 30 R410A 1/4" (liquid) refrigeration line
- 31 R410A 3/8" (gas) refrigeration line
- 32 System technical water delivery low temperature
- 33 System technical water return low temperature
- 34 High temperature system manifold
- 35 DHW recirculation pump
- 36 System filling group
- 37 DHW priority diverter valve
- 38 Inverter solar pump
- 39 Solar system safety group forced circulation

HUB RADIATOR PLUS / PLUS SOLAR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water and heating for medium users with or without solar thermal integration

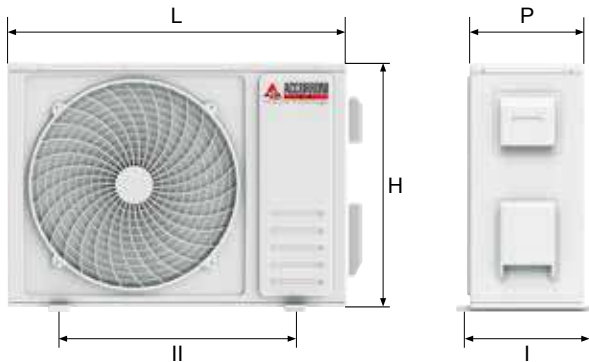
Indoor unit dimensions HUB RADIATOR PLUS / PLUS SOLAR



- 1 High temperature system return (M 1 ")
- 2 Low temperature system delivery (M 1 ")
- 3 Domestic hot water delivery (M 1/2 ")
- 4 Gas line Booster HR refrigeration circuit 2 (5/8 "Booster 7.8 / 9.0 - 3/8" Booster 3.0)
- 5 Liquid line Booster HR refrigeration circuit 2 (1/4 "Booster 3.0 / 7.8 - 3/8" Booster 9.0)
- 6 High temperature system delivery (M 1 ")
- 7 Low temperature system return (M 1 ")
- 8 Water mains inlet (M 1/2 ")
- 9 Gas line Booster HR refrigeration circuit 1 (5/8 "Booster 7.8 / 9.0 - 3/8" Booster 3.0)
- 10 Liquid line Booster HR refrigeration circuit 1 (1/4 "Booster 3.0 / 7.8 - 3/8" Booster 9.0)
- 11 Forced circulation solar thermal collectors delivery (M 3/4 ")
- 12 Forced circulation solar thermal collector return (M 3/4 ")

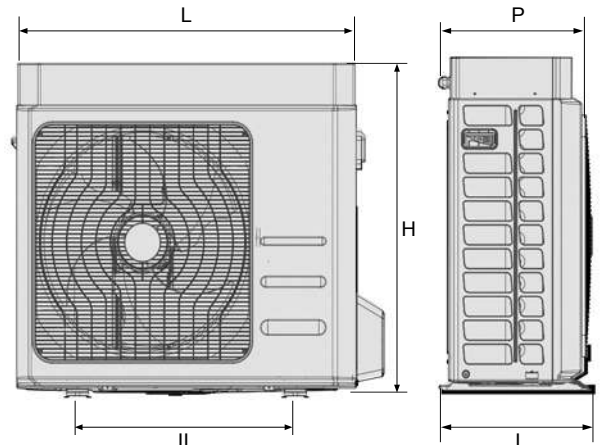
| Indoor Unit Models | L | H | P |
|-----------------------|-----|------|-----|
| | mm | mm | mm |
| HUB RADIATOR PLUS 250 | 762 | 1740 | 670 |
| HUB RADIATOR PLUS 400 | 762 | 2240 | 670 |

External booster dimensions HR 3.0 - 7.8



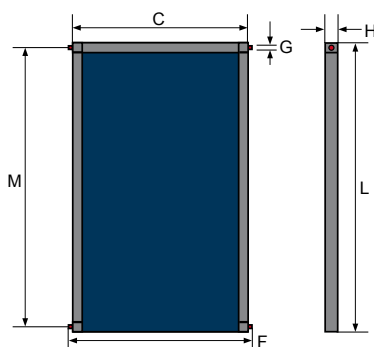
| Outdoor Unit Models | L | H | P | I | II | Weight |
|---------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |

External booster dimensions HR 9.0 INVERTER



| Outdoor Unit Models | L | H | P | I | II | Weight |
|-------------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 9.0 inverter | 925 | 785 | 380 | 358 | 540 | 62 |

Dimensions and overall dimensions of the solar collector SELECTIVE



| | SELECTIVE H+ | SELECTIVE HX+ |
|---|--------------|---------------|
| L | 1987 | 1987 |
| C | 984 | 1270 |
| H | 100 | 100 |
| M | 1876 | 1876 |
| G | 22 | 22 |
| F | 1050 | 1340 |

Values expressed in mm

HUB RADIATOR PLUS / PLUS SOLAR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water and heating for medium users with or without solar thermal integration

DHW withdrawal table HUB RADIATOR PLUS / PLUS SOLAR 250

| DESCRIPTION | U.M. | HR 3.0 | HR 7.8 | HR 9.0 inverter |
|--|------|--------|--------|-----------------|
| DHW withdrawal at 40 ° C - storage at 55 ° C - inlet water at 10 ° C | l | 202 | 212 | 212 |
| DHW withdrawal at 40 ° C - storage at 55 ° C - inlet water at 15 ° C | l | 218 | 242 | 242 |
| HP recovery time from 38 ° C to 55 ° C - Outdoor temp. 7 ° C * | min | 82 | 36 | 30 |
| HP recovery time + resistance from 38 ° C to 58 ° C - External temp. 7 ° C * | min | 54 | 24 | 20 |
| Water withdrawal at 40 ° C with storage at 62 ° C with inlet water at 10 ° C | l | 228 | 254 | 254 |
| Water withdrawal at 40 ° C with storage at 62 ° C with inlet water at 15 ° C | l | 262 | 290 | 290 |
| HP recovery time + resistance from 38 ° C to 62 ° C - External temp. 7 ° C * | min | 98 | 44 | 36 |
| Recovery time from 10 ° C to 55 ° C - Outdoor temp. 7 ° C * | min | 226 | 88 | 84 |

* Data calculated with the heating system off

DHW withdrawal table HUB RADIATOR PLUS / PLUS SOLAR 400

| DESCRIPTION | U.M. | HR 3.0 | HR 7.8 | HR 9.0 inverter |
|--|------|--------|--------|-----------------|
| DHW withdrawal at 40 ° C - storage at 55 ° C - inlet water at 10 ° C | l | 332 | 348 | 348 |
| DHW withdrawal at 40 ° C - storage at 55 ° C - inlet water at 15 ° C | l | 358 | 396 | 398 |
| HP recovery time from 38 ° C to 55 ° C - Outdoor temp. 7 ° C * | min | 134 | 58 | 48 |
| HP recovery time + resistance from 38 ° C to 58 ° C - External temp. 7 ° C * | min | 88 | 38 | 32 |
| Water withdrawal at 40 ° C with storage at 62 ° C with inlet water at 10 ° C | l | 374 | 416 | 418 |
| Water withdrawal at 40 ° C with storage at 62 ° C with inlet water at 15 ° C | l | 430 | 474 | 476 |
| HP recovery time + resistance from 38 ° C to 62 ° C - External temp. 7 ° C * | min | 156 | 70 | 58 |
| Recovery time from 10 ° C to 55 ° C - Outdoor temp. 7 ° C * | min | 362 | 140 | 134 |

* Data calculated with the heating system off

Storage unit technical data table HUB RADIATOR PLUS / PLUS SOLAR

| DESCRIPTION | U.M. | 250 | 250 SOLAR | 400 | 400 SOLAR |
|---|-------------------|--|-----------|------|-----------|
| Technical storage water content | l | 252 | 243 | 404 | 395 |
| Max flow rate electronic inverter circulator | m ³ /h | 3,3 | | | |
| Max head of electronic inverter circulator | m | 6,2 | | | |
| Electric absorption of electronic inverter circulator | W | 3 - 45 | | | |
| System expansion vessel volume | l | 8 | | 8 | |
| Number of system expansion vessels | n. | 2 | | 3 | |
| Expansion vessel preload | bar | 1 | | | |
| Safety valve calibration | bar | 3 | | | |
| Back up electric heater | W | 2000 | | | |
| Max number of HR 3.0 boosters combined | n. | 2 | | 4 | |
| Max number of HR 7.8 boosters combined | n. | 2 | | 3 | |
| Max number of HR 8.0 inverter boosters combined | n. | 2 | | 3 | |
| Min / max water temperature | °C | +20 / +55 | | | |
| Cold water inlet and DHW outlet hydraulic connections | | 1/2" | | | |
| System delivery and return hydraulic connections | | 1" | | | |
| DHW exchanger surface in copper | m ² | 3,15 | | 4,54 | |
| Solar delivery and return hydraulic connections | | - | 3/4" | - | 3/4" |
| Pressure drop in domestic hot water exchanger in copper | Pa | 1,8 | | 2,6 | |
| Solar exchanger surface in copper | m ² | - | 1,6 | - | 2,0 |
| Copper solar exchanger pressure drop | Pa | - | 1,2 | - | 1,7 |
| Type of insulation | | High density extruded expanded polystyrene | | | |
| Insulation thickness | cm | 4,5 | | | |
| Power supply | | 230V/1/50Hz | | | |
| Internal unit accumulation heat loss | kWh/24h | 1,58 | | | |
| Degree of protection | | IPX5D | | | |
| Shipping weight | kg | 184 | 188 | 222 | 226 |
| Operating weight | kg | 436 | 440 | 626 | 621 |

HUB RADIATOR PLUS / PLUS SOLAR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water and heating for medium users with or without solar thermal integration

Booster technical data table HUB RADIATOR PLUS / PLUS SOLAR

| | U.M. | HR 3.0 | HR 7.8 | HR 9.0 INVERTER |
|---|-------|--|--------|---------------------|
| Thermal power (1) | kW | 3,11 | 8,12 | 3,54 / 8,01 / 8,81* |
| Absorbed power(1) | kW | 0,74 | 1,96 | 1,89 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,24 |
| Thermal power (2) | kW | 2,97 | 7,75 | 2,85 / 7,92 / 8,71* |
| Absorbed power(2) | kW | 0,94 | 2,52 | 2,39 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,31 |
| Thermal power(3) | kW | 2,58 | 6,73 | 2,54 / 7,04 / 7,74* |
| Absorbed power(3) | kW | 0,74 | 2,00 | 2,15 |
| C.O.P. (3) | W/W | 3,48 | 3,37 | 3,52 |
| Thermal power (4) | kW | 2,47 | 6,44 | 2,46 / 6,82 / 7,50* |
| Absorbed power (4) | kW | 0,94 | 2,54 | 2,74 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,68 |
| Thermal power (5) | kW | 2,11 | 5,52 | 2,31 / 6,41 / 7,05* |
| Absorbed power (5) | kW | 0,75 | 2,00 | 2,31 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 3,04 |
| Thermal power (6) | kW | 1,99 | 5,20 | 2,25 / 6,25 / 6,88* |
| Absorbed power (6) | kW | 0,94 | 2,53 | 2,78 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 3,39 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,94 |
| Seasonal heating efficiency (η_s) | % | 153,10 | 150,30 | 159,62 |
| Energy efficiency (8) | n. | A++ / A | | A++ / A+++ |
| Outdoor unit weight | n. | Rotation ON-OFF | | Twin Rotary DC INV. |
| Compressor type | | 1 | | |
| Compressor number | | 1 | | |
| Defrosting method | | Inversione di ciclo con condensatore ad immersione | | |
| Type of refrigerant | | R410A | | |
| Technical water temperature min / max | °C | +30 / +58 | | |
| Refrigerant quantity (pre-inserted) | kg | 1,1 | 2,0 | 2,2 |
| Min distance between outdoor and indoor unit | m | 3 | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | |
| Refrigerant gas line connection | | 3/8" | 5/8" | 5/8" |
| Coolant fluid line connection | | 1/4" | 1/4" | 3/8" |
| Sound power(9) | dB(A) | 65,1 | 68,4 | 64,0 |
| Sound pressure at one meter(10) | dB(A) | 51,2 | 54,7 | 32,8 |
| external temperature operating limits | °C | -15 / +45 | | -20 / +46 |
| Power supply | | 230V/1/50Hz | | |
| maximum absorbed power | kW | 0,94 | 2,53 | 4,70 |
| maximum absorbed current | A | 4,30 | 11,57 | 20,40 |
| Outdoor unit weight | Kg | 33 | 55 | 62 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u.; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u.; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b.; inlet / outlet water temperature 30/35 °C

(4) Heating: outside air temperature 0 °C d.b.; inlet / outlet water temperature 40/45 °C

(5) Heating: outside air temperature -7 °C d.b.; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b.; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Water 35 °C / 55 °C

(9) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions (1)

(10) Value calculated according to ISO 3744: 2010

* By activating the maximum HZ function

HUB RADIATOR DHP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water, heating and air conditioning for small and medium-sized users



ENERGY RATING



Technical and construction features

HUB RADIATOR DHP is the most complete version of the Accorroni patent; designed to produce heating, air conditioning and domestic hot water.

HUB RADIATOR DHP is a split renewable energy system consisting of 2/3/4 heat pump boosters that work in cascade with direct refrigerant / technical water exchange and an extremely compact indoor unit housing a 150 liter technical flywheel used both as a power reserve for the distribution plant (summer or winter) and for the production of DHW.

The patented system produces heating / air conditioning and at the same time ACS in a hygienically controlled manner with the first in / first out method which allows to totally avoid the problem of legionella.

HUB RADIATOR DHP in winter, during defrosting operations, is much more efficient than traditional heat pumps thanks to the patented spiral copper exchanger / condenser directly immersed in the accumulation of technical water at 55 ° C.

The HUB RADIATOR system has been designed and patented to minimize the costly defrosting operations of HP evaporating coils. (Savings of about 79% on consumption in kW related to defrosting). During defrosting, HUB RADIATOR DHP continues to work on the system without interrupting the operation of the terminals, unlike traditional systems where during defrosting the heat is removed from the system itself, completely blocking the operation of the terminals.

This innovative product with total renewable energy (100% RES) represents the best solution to obtain optimal living comfort both in summer and in winter, especially in the coldest periods of the year where the thermal power of the system doubles, as the 2 technical water inertial accumulator radiators coupled to the relative boosters are put into communication.

The DHP system is supplied as standard complete with electronic system circulator, double system expansion tank, double filling group, safety valve, automatic air vent jolly valve, DHW priority diverter valve, power supply voltage control device and template anchoring to the base.



PATENTED SYSTEM



RENEWABLE ENERGY



ENERGY SAVING



CONDITIONING UP TO 4 °C



COMPACT DIMENSIONS



ECOLOGICAL GAS



PHOTOVOLTAIC COMBINATION



DHW WITHOUT LEGIONELLA



HEATING UP TO 58 °C






















PLUG & PLAY INSTALLATION

| Modello | Code | € |
|--|----------|-----------|
| HUB RADIATOR DHP 3.0 + 3.0 | 76802900 | 9.320,00 |
| HUB RADIATOR DHP 7.8 + 3.0 | 76802910 | 10.700,00 |
| HUB RADIATOR DHP 7.8 + 7.8 | 76802920 | 11.980,00 |
| HUB RADIATOR DHP 7.8 + 7.8 + 3.0 | 76802925 | 13.250,00 |
| HUB RADIATOR DHP 7.8 + 7.8 + 7.8 | 76802930 | 15.370,00 |
| HUB RADIATOR DHP 7.8 + 7.8 + 7.8 + 7.8 | 76802940 | 18.330,00 |

HUB RADIATOR DHP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water, heating and air conditioning for small and medium-sized users

| Accessoires HUB RADIATOR DHP | | | Codice | € |
|---|--|--|---|---|
|  | Command and remote control panel | mod. built-in mod. on the wall | 75100005 75100028 | 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection mod. Radio frequency | 37081062 37081063 | 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment mod. motorized adjustment | 75101032 75101033 | 90,00 530,00 |
|  | Additional capacitor for HR Booster | mod. only hot mod. hot / cold | 26505565 26505567 | 300,00 400,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 mod. Booster HR 7.8 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for sloping roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 metri 90 W mod. 6 metri 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fissa mod. HR 7.8 H fissa mod. HR 7.8 H variabile | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | 1/2 "DHW mixing valve kit | | 75100023 | 146,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Antivibration flexible joint kit with flare and straight union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Anti-vibration flexible joint kit with connecting flange and 90 ° curved union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |
|  | Upper casing closing plinth | | 75101020 | 78,00 |
|  | Lower casing closing plinth | | 75101021 | 64,00 |

HUB RADIATOR DHP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water, heating and air conditioning for small and medium-sized users

Accessories HUB RADIATOR DHP

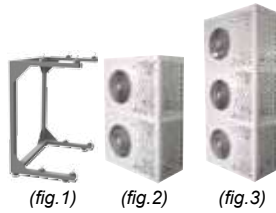
Code

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Installation template kit complete with pre-flanged and insulated refrigerant pipes and connection pipes of the sanitary water circuit

| | | |
|-------------------------------|----------|--------|
| mod. HR 3.0 + 3.0 | 75101010 | 360,00 |
| mod. HR 7.8 + 3.0 | 75101011 | 370,00 |
| mod. HR 7.8 + 7.8 | 75101012 | 380,00 |
| mod. HR 7.8 + 7.8 + 3.0 | 75101013 | 400,00 |
| mod. HR 7.8 + 7.8 + 7.8 | 75101014 | 420,00 |
| mod. HR 7.8 + 7.8 + 7.8 + 7.8 | 75101015 | 440,00 |



Open shelf for n. 2 Booster outdoor units mod. HR 7.8 complete with anti-vibration mounts (fig. 1)

75060406 240,00

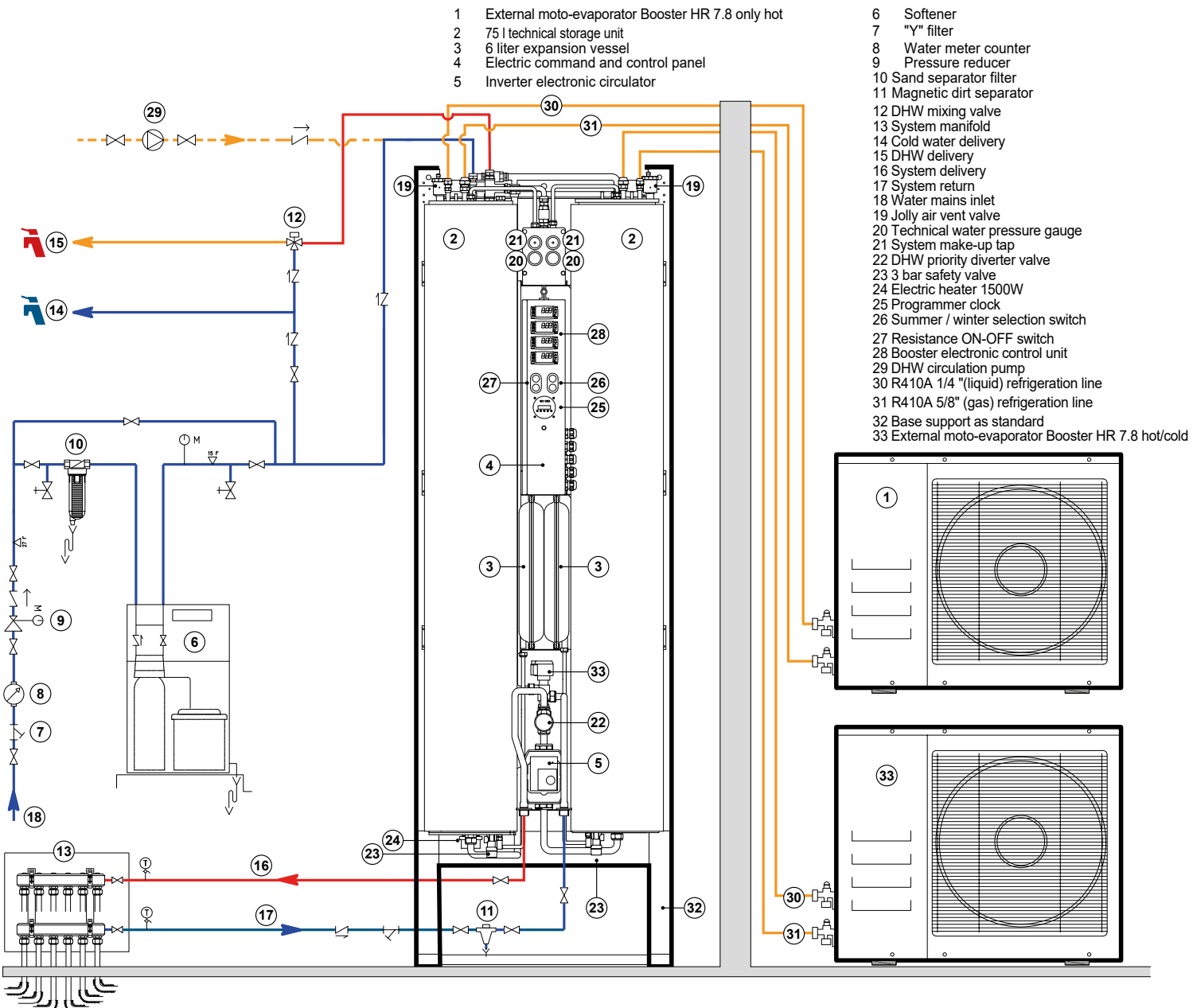
RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - 7.8 (fig. 2)

75060306 890,00

RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - 7.8 Height 210 cm Width 96 cm Depth 54 cm (fig. 3)

75060206 980,00

Application example HUB RADIATOR DHP 7.8 + 7.8

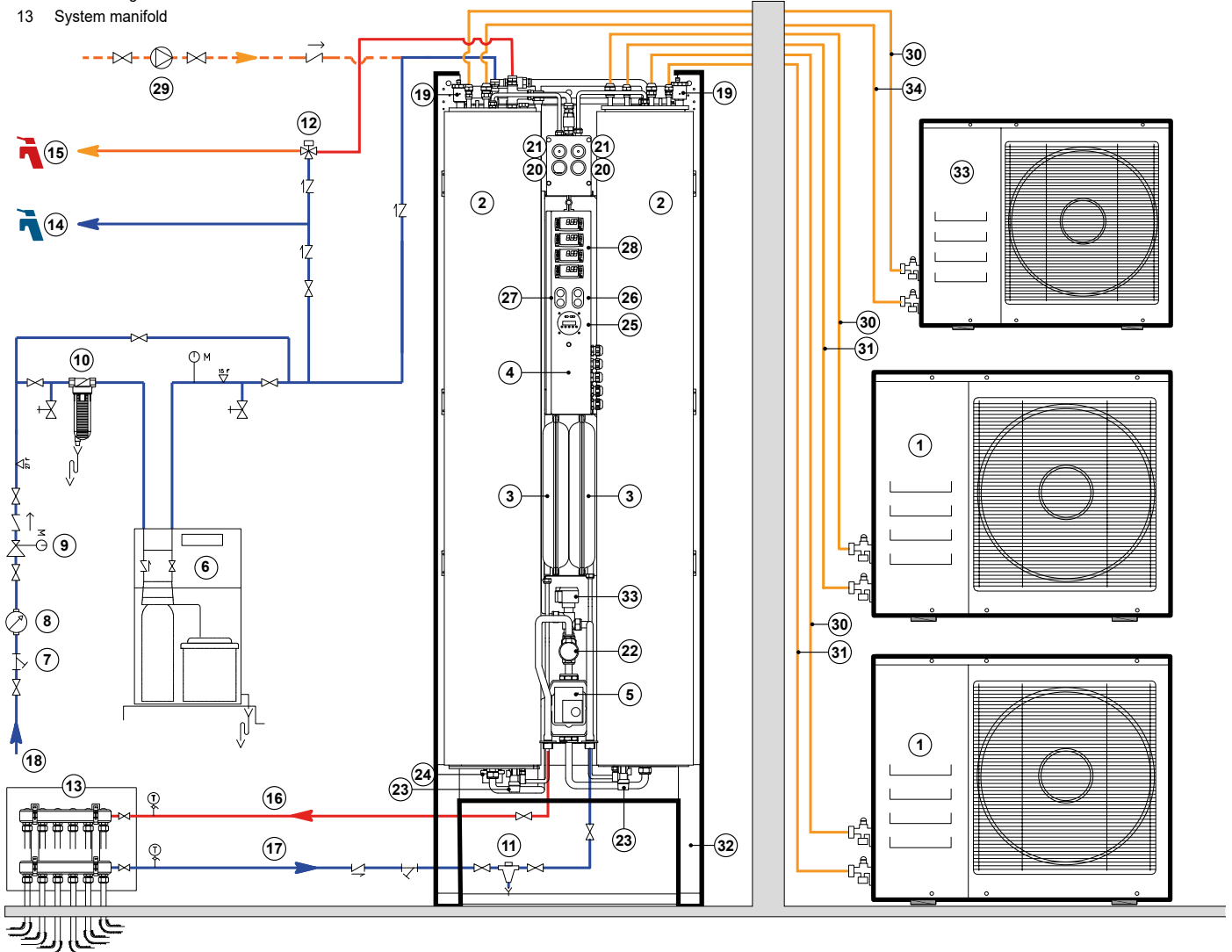


HUB RADIATOR DHP

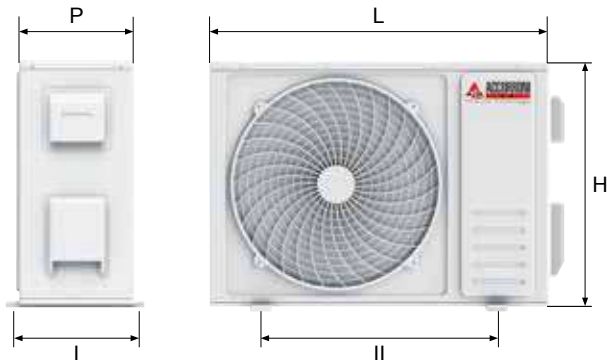
Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water, heating and air conditioning for small and medium-sized users

Esempio applicativo HUB RADIATOR DHP 7.8 + 7.8 + 3.0

- | | | |
|--|-----------------------------------|---|
| 1 External moto-evaporator Booster HR 7.8 hot / cold | 14 Cold water delivery | 25 Programmer clock |
| 2 75 l technical storage unit | 15 DHW delivery | 26 Summer / winter selection switch |
| 3 6 liter expansion vessel | 16 System delivery | 27 Resistance ON-OFF switch |
| 4 Electric command and control panel | 17 System return | 28 Booster electronic control unit |
| 5 Inverter circulator | 18 Water mains inlet | 29 DHW circulation pump |
| 6 Softener | 19 Jolly air vent valve | 30 1/4" R410A refrigeration line (liquid) |
| 7 "Y" filter | 20 Technical water pressure gauge | 31 5/8" R410A refrigeration line (gas) |
| 8 Water meter counter | 21 System make-up cock | 32 Base support as standard |
| 9 Pressure reducer | 22 DHW priority diverter valve | 33 External moto-evaporator Booster HR 3.0 heating only |
| 10 Sand trap filter | 23 3 bar safety valve | 34 Refrigeration line R410A 3/8" (gas) |
| 11 Magnetic dirt separator | 24 Electric heater 1500W | |
| 12 DHW mixing valve | | |
| 13 System manifold | | |



Outdoor unit dimensions HUB RADIATOR DHP



| Booster | L | H | P | I | II |
|---------|-----|-----|-----|-----|-----|
| | mm | mm | mm | mm | mm |
| HR 3.0 | 700 | 552 | 256 | 275 | 435 |
| HR 7.8 | 902 | 650 | 307 | 350 | 620 |

Booster technical data

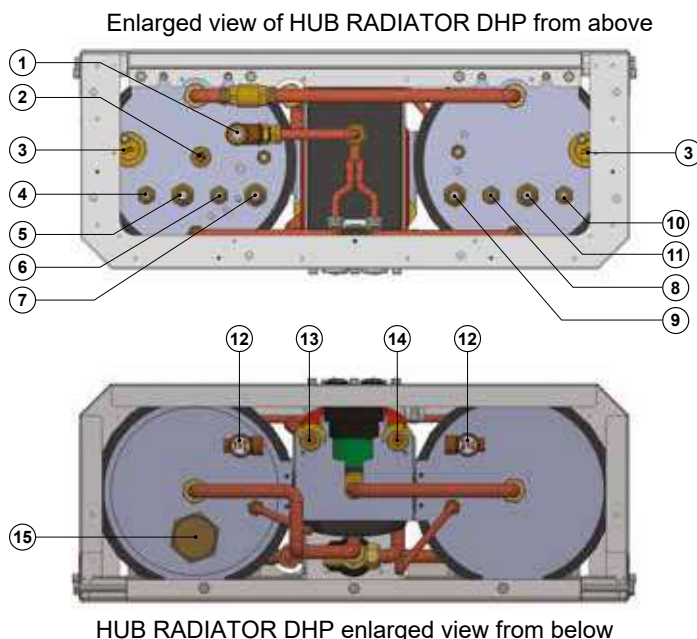
| | U.M. | HR 3.0 | HR 7.8 |
|---------------------------------|-------|-------------|--------|
| Refrigerant quantity | Kg | 1,1 | 2,0 |
| Refrigerant gas connections | | 3/8" | 5/8" |
| Coolant fluid connections | | 1/4" | 1/4" |
| Power supply | | 230V/1/50Hz | |
| Sound power (1) | dB(A) | 65,1 | 68,4 |
| Sound pressure at one meter (2) | dB(A) | 51,2 | 54,7 |
| Weight | Kg | 33 | 55 |

(1) Measurements carried out according to UNI EN 14511 i - heating 30/35 ° C - Ext. 7 ° C b.s./6 ° C b.u.
 (2) Value calculated according to ISO 3744: 2010

HUB RADIATOR DHP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water, heating and air conditioning for small and medium-sized users

Indoor unit dimensions HUB RADIATOR DHP



- 1 Mains water supply (domestic cold water)
- 2 Domestic hot water outlet
- 3 Jolly air vent valve
- 4 Male threaded connection SAE cooling line 1/4 "R410A (Booster 1)
- 5 Male threaded connection SAE cooling line R410A of 5/8 "or 3/8" (Booster 1)
- 6 Male threaded connection SAE cooling line 1/4 "R410A (Booster 2)
- 7 Male threaded connection SAE cooling line R410A, 5/8 "or 3/8" (Booster 2)
- 8 Male threaded connection SAE, refrigeration line R410A 1/4 "(Booster 3)
- 9 Male threaded connection SAE cooling line R410A from 5/8 "or 3/8" (Booster 3)
- 10 Male threaded connection SAE refrigeration line 1/4 "R410A (Booster 4)
- 11 Male threaded connection SAE 5/8 "or 3/8" R410A cooling line (Booster 4)
- 12 Safety valve 3 bar
- 13 System delivery
- 14 System return
- 15 Electric resistance 1500W

Table of ACS HUB RADIATOR DHP withdrawals for the summer period

| DESCRIPTION | U.M. | 3.0+3.0 | 3.0+7.8 | 7.8+7.8 | 7.8+7.8+3.0 | 7.8+7.8+7.8 | 7.8+7.8+7.8+7.8 |
|---|------|---------|---------|---------|-------------|-------------|-----------------|
| DHW withdrawal 40 ° C - storage 55 ° C - inlet water 10 ° C * | l | 48 | 48 | 52 | 48 | 52 | 56 (1) |
| DHW withdrawal 40 ° C - storage 55 ° C - inlet water 15 ° C * | l | 58 | 58 | 63 | 58 | 63 | 68 (2) |
| HP recovery time from 38 ° C to 55 ° C * | min | 32 | 32 | 18 | 32 | 18 | 8 |
| HP recovery time + resistance from 38 ° C to 58 ° C * | min | 28 | 28 | 15 | 28 | 15 | 7 |
| DHW withdrawal 40 ° C - storage 62 ° C - inlet water 10 ° C * | l | 60 | 60 | 64 | 60 | 64 | 70 (1) |
| DHW withdrawal 40 ° C - storage 62 ° C - inlet water 15 ° C * | l | 74 | 74 | 78 | 74 | 78 | 85 (2) |
| HP recovery time + resistance from 38 ° C to 62 ° C * | min | 40 | 40 | 22 | 40 | 22 | 10 |
| Recovery time from 10 ° C to 55 ° C * | min | 72 | 72 | 39 | 72 | 39 | 19 |

* Data calculated with an external temperature of 20 ° C d.b. - (1) Continuous DHW supply on a single user of 7 liters per minute (external temperature 20 ° C d.b.) (2) Continuous DHW supply on a single user of 8 liters per minute (external temperature 20 ° C d.b.)

Table of ACS HUB RADIATOR DHP withdrawals for the winter and mid-seasons

| DESCRIPTION | U.M. | 3.0+3.0 | 3.0+7.8 | 7.8+7.8 | 7.8+7.8+3.0 | 7.8+7.8+7.8 | 7.8+7.8+7.8+7.8 |
|---|------|---------|---------|---------|-------------|-------------|-----------------|
| DHW withdrawal 40 ° C - storage 55 ° C - inlet water 10 ° C * | l | 100 | 104 | 108 (1) | 112 (3) | 115 (5) | 121 (7) |
| DHW withdrawal 40 ° C - storage 55 ° C - inlet water 15 ° C * | l | 120 | 128 | 132 (2) | 138 (4) | 140 (6) | 147 (8) |
| HP recovery time from 38 ° C to 55 ° C * | min | 42 | 28 | 16 | 13 | 11 | 8 |
| HP recovery time + resistance from 38 ° C to 58 ° C * | min | 34 | 22 | 14 | 12 | 9 | 7 |
| DHW withdrawal 40 ° C - storage 62 ° C - inlet water 10 ° C * | l | 124 | 130 | 134 (1) | 140 (3) | 144 (5) | 152 (7) |
| DHW withdrawal 40 ° C - storage 62 ° C - inlet water 15 ° C * | l | 152 | 160 | 164 (2) | 170 (4) | 175 (6) | 184 (8) |
| HP recovery time + resistance from 38 ° C to 62 ° C * | min | 50 | 32 | 20 | 16 | 13 | 10 |
| Recovery time from 10 ° C to 55 ° C * | min | 90 | 60 | 38 | 32 | 25 | 19 |

* Data calculated with an external temperature of 7 ° C d.b.

- (1) Continuous DHW supply - max flow 7 l / min, external T. 7 ° C d.b.
- (2) Continuous DHW supply - max flow 8 l / min, external T. 7 ° C d.b.
- (3) Continuous DHW supply - max flow 9 l / min, external T. 7 ° C d.b.
- (4) Continuous DHW supply - max flow 10 l / min, external T. 7 ° C d.b.

- (5) Continuous DHW supply - max flow rate 12 l / min, external T. 7 ° C d.b.
- (6) Continuous DHW supply - max flow 13 l / min, external T. 7 ° C d.b.
- (7) Continuous DHW supply - max flow 17 l / min, external T. 7 ° C d.b.
- (8) Continuous DHW supply - max flow rate 18 l / min, external T. 7 ° C d.b.

HUB RADIATOR DHP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce domestic hot water, heating and air conditioning for small and medium-sized users

Tabella dati tecnici HUB RADIATOR DHP

| DESCRIZIONE | U.M. | 3.0+3.0 | 3.0+7.8 | 7.8+7.8 | 7.8+7.8+3.0 | 7.8+7.8+7.8 | 7.8+7.8+7.8+7.8 |
|---|-------------------|--|-----------|----------|-------------|---------------|-----------------|
| Thermal power (1) | kW | 6,22 | 11,23 | 16,24 | 19,35 | 24,36 | 32,48 |
| Absorbed power (1) | kW | 1,48 | 2,70 | 3,92 | 4,66 | 5,88 | 7,24 |
| C.O.P. (1) | W/W | 4,20 | 4,16 | 4,14 | 4,15 | 4,14 | 4,14 |
| Thermal power (2) | kW | 5,94 | 10,72 | 15,50 | 18,47 | 23,25 | 31,00 |
| Absorbed power (2) | kW | 1,88 | 3,46 | 5,04 | 5,98 | 7,56 | 10,08 |
| C.O.P. (2) | W/W | 3,16 | 3,10 | 3,08 | 3,09 | 3,08 | 3,08 |
| Thermal power (3) | kW | 5,16 | 9,31 | 13,47 | 16,05 | 20,20 | 26,94 |
| Absorbed power (3) | kW | 1,48 | 2,74 | 4,00 | 4,74 | 6,00 | 8,00 |
| C.O.P. (3) | W/W | 3,48 | 3,40 | 3,37 | 3,39 | 3,37 | 3,37 |
| Thermal power (4) | kW | 4,94 | 8,91 | 12,88 | 15,35 | 19,32 | 25,76 |
| Absorbed power (4) | kW | 1,88 | 3,48 | 5,08 | 6,02 | 7,62 | 10,16 |
| C.O.P. (4) | W/W | 2,67 | 2,56 | 2,53 | 2,55 | 2,54 | 2,54 |
| Thermal power (5) | kW | 4,22 | 7,63 | 11,04 | 13,15 | 16,56 | 22,08 |
| Absorbed power (5) | kW | 1,50 | 2,75 | 4,00 | 4,75 | 6,00 | 8,00 |
| C.O.P. (5) | W/W | 2,81 | 2,77 | 2,76 | 2,77 | 2,76 | 2,76 |
| Thermal power (6) | kW | 3,98 | 7,19 | 10,90 | 12,39 | 15,60 | 20,80 |
| Absorbed power (6) | kW | 1,88 | 3,47 | 5,06 | 6,00 | 7,59 | 10,12 |
| C.O.P. (6) | W/W | 2,11 | 2,07 | 2,06 | 2,07 | 2,06 | 2,06 |
| S.C.O.P. (7) | W/W | 3,78 | 3,72 | 3,71 | 3,72 | 3,71 | 3,71 |
| Seasonal heating efficiency (η _s) | % | 153,1 | 150,6 | 150,3 | 150,6 | 150,3 | 150,3 |
| Refrigeration power (8) | kW | 2,94 | 7,24 | 7,24 | 14,48 | 14,48 | 21,72 |
| Absorbed power (8) | kW | 0,72 | 1,89 | 1,89 | 3,79 | 3,79 | 5,68 |
| E.E.R. (8) | W/W | 4,08 | 3,82 | 3,82 | 3,82 | 3,82 | 3,82 |
| Refrigeration power (9) | kW | 2,63 | 5,84 | 5,84 | 11,68 | 11,68 | 17,52 |
| Absorbed power (9) | kW | 0,89 | 2,20 | 2,20 | 4,40 | 4,40 | 6,60 |
| E.E.R. (9) | W/W | 2,95 | 2,65 | 2,65 | 2,65 | 2,65 | 2,65 |
| S.E.E.R. (10) | W/W | 3,67 | 3,29 | 3,29 | 3,29 | 3,29 | 3,29 |
| Heating energy class (11) | W/W | A / A++ | | | | | |
| Defrosting method | | Reverse cycle with immersion condenser | | | | | |
| Type of refrigerant | | R410A | | | | | |
| Outdoor temperature operating limits | °C | -15 / +45 | | | | | |
| Technical water temperature min / max | °C | +4 / +58 | | | | | |
| Refrigerant quantity (pre-inserted) | kg | 1,1x2 | 1,1+2,0 | 2,0x2 | 1,1+2,0+2,0 | 2,0x3 | 2,0x4 |
| Min distance between outdoor and indoor unit | m | 3 | | | | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | | | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | | | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | | | | |
| Refrigerant gas line connection | | 3/8"x2 | 3/8"-5/8" | 5/8"x2 | 5/8"x2-3/8" | 5/8"x3 | 5/8"x4 |
| Coolant fluid line connection | | 1/4"x2 | 1/4"-1/4" | 1/4"x2 | 1/4"x3 | 1/4"x3 | 1/4"x4 |
| Technical water content from indoor unit | l | 75 + 75 | | | | | |
| Max flow rate electronic inverter circulator | m ³ /h | 3,3 | | | | | |
| Max head of electronic inverter circulator | m | 6,2 | | | | | |
| Electric absorption of electronic inverter circulator | W | 3 - 45 | | | | | |
| Expansion vessel volume | l | 6 + 6 | | | | | |
| Expansion vessel preload | bar | 1 | | | | | |
| Safety valve calibration | bar | 3 | | | | | |
| Back up electric heater | W | 1500 | | | | | |
| Power supply | | 230V/1/50Hz | | | | 400V/3+N/50Hz | |
| Cold water inlet and DHW outlet hydraulic connections | | 1/2" M | | | | | |
| System delivery and return hydraulic connections | | 3/4" M | | | | | |
| Internal unit accumulation heat loss | kWh/24h | 1,82 | | | | | |
| Transport / operating indoor unit weight | kg | 80 / 134 | 80 / 134 | 89 / 143 | 80 / 134 | 89 / 143 | 98 / 152 |
| Weight internal unit | kg | 33x2 | 33+55 | 33+55x2 | 55x2 | 55x3 | 55x4 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: outside air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 23/18 °C

(9) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 12/7 °C

(10) Cooling: external air temperature 35 °C d.b. ; inlet / outlet water temperature 12/7 °C

(11) Water 35 °C / 58 °C

HUB RADIATOR PACK C

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating for small and medium users

ENERGY RATING



Technical and construction features

The HUB RADIATOR PACK C hybrid system consists of an external heat pump evaporating unit (Booster HR hot only 3.0 or 7.8) and an internal storage unit for technical water of 62 liters with patented condenser with direct refrigerant / water exchange and instantaneous anti-legionella immersion sanitary exchanger, coupled with a backup modulating condensing boiler (20 or 32 kW).

The technical water contained in the puffer acts as a carrier fluid between the energy sources introduced by the heat pump and the boiler (input) and the uses of both heating and sanitary (output). The condensing boiler is directly connected to the technical water puffer and both components are housed on the machine which includes as standard:

- the inverter electronic circulation pump
- the manual filling and emptying unit
- the expansion tank
- the safety and automatic vent valves
- the base template.
- The methane gas heat generator uses a highly modular premix condensing burner mounted on the latest generation boiler body with powers of 20 kW or 32 kW.

Combustion, with a constant stoichiometric air-gas ratio, allows to eliminate polluting CO₂ emissions and reduce NO_x emissions. The patented HUB RADIATOR PACK C system always uses the thermodynamic cycle of the heat pump as its primary source. The high efficiency of the heat pump with the help, when necessary, of the condensing boiler allows for great savings, excellent reliability and operation down to temperatures of - 20 ° C.

The electronic control unit is equipped with a latest generation microprocessor which allows the user to set an automatic management of the hybrid system with the Energy Efficiency function which allows to optimize energy consumption both for the production of DHW and for winter air conditioning by going to activate the boiler only if strictly necessary. The HUB RADIATOR patent also makes it possible to significantly reduce winter defrosting operations, allowing considerable energy savings in the defrosting phase up to 79% compared to classic heat pumps. HUB RADIATOR PACK C is also supplied as standard with an external climatic probe and lower support / support that allows easier and faster installation.



| Models | Code | € |
|---|----------|----------|
| HUB RADIATOR PACK C 3.0/20 wall unit | 76801900 | 6.350,00 |
| HUB RADIATOR PACK C 3.0/32 wall unit | 76803900 | 6.600,00 |
| HUB RADIATOR PACK C 7.8/20 wall unit | 76801010 | 8.390,00 |
| HUB RADIATOR PACK C 7.8/32 wall unit | 76803910 | 8.640,00 |
| HUB RADIATOR PACK C 3.0/20 built-in | 76801902 | 6.790,00 |
| HUB RADIATOR PACK C 3.0/32 built-in | 76802902 | 7.040,00 |
| HUB RADIATOR PACK C 7.8/20 built-in | 76801912 | 8.830,00 |
| HUB RADIATOR PACK C 7.8/32 built-in | 76802912 | 9.080,00 |
| Indoor Unit HUB RADIATOR PACK C 3.0/20 | 76801914 | 4.350,00 |
| Indoor Unit HUB RADIATOR PACK C 3.0/32 | 76802914 | 4.600,00 |
| Indoor Unit HUB RADIATOR PACK C 7.8/20 | 76801915 | 4.690,00 |
| Indoor Unit HUB RADIATOR PACK C 7.8/32 | 76802915 | 4.940,00 |
| Indoor Unit Booster HR 3.0 only heating | 76010240 | 2.000,00 |
| Indoor Unit Booster HR 7.8 only heating | 76010500 | 3.700,00 |





















HUB RADIATOR PACK C

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating for small and medium users

| Accessories HUB RADIATOR PACK C | | | Codice | € |
|---|---|---|------------------------------------|--------------------------------|
|  | HUB RADIATOR PACK C recessed template complete with flush-to-wall closing panel in galvanized sheet metal | | 76801916 | 440,00 |
|  | Cover box HUB RADIATOR PACK C mandatory for the installation of the indoor unit outside the building made of insulated white painted galvanized steel Height 160 cm - Width 80 cm - Depth 35 cm | | 75101022 | 490,00 |
|  | HUB RADIATOR PACK C wall-mounted installation template for preparation of all piping on site | | 76801919 | 190,00 |
|  | Command and remote control panel | mod. built-in mod. on the wall | 75100005 75100028 | 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection mod. Radio frequency | 37081062 37081063 | 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment mod. motorized adjustment | 75101032 75101033 | 90,00 530,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 mod. Booster HR 7.8 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for inclined roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |

HUB RADIATOR PACK C

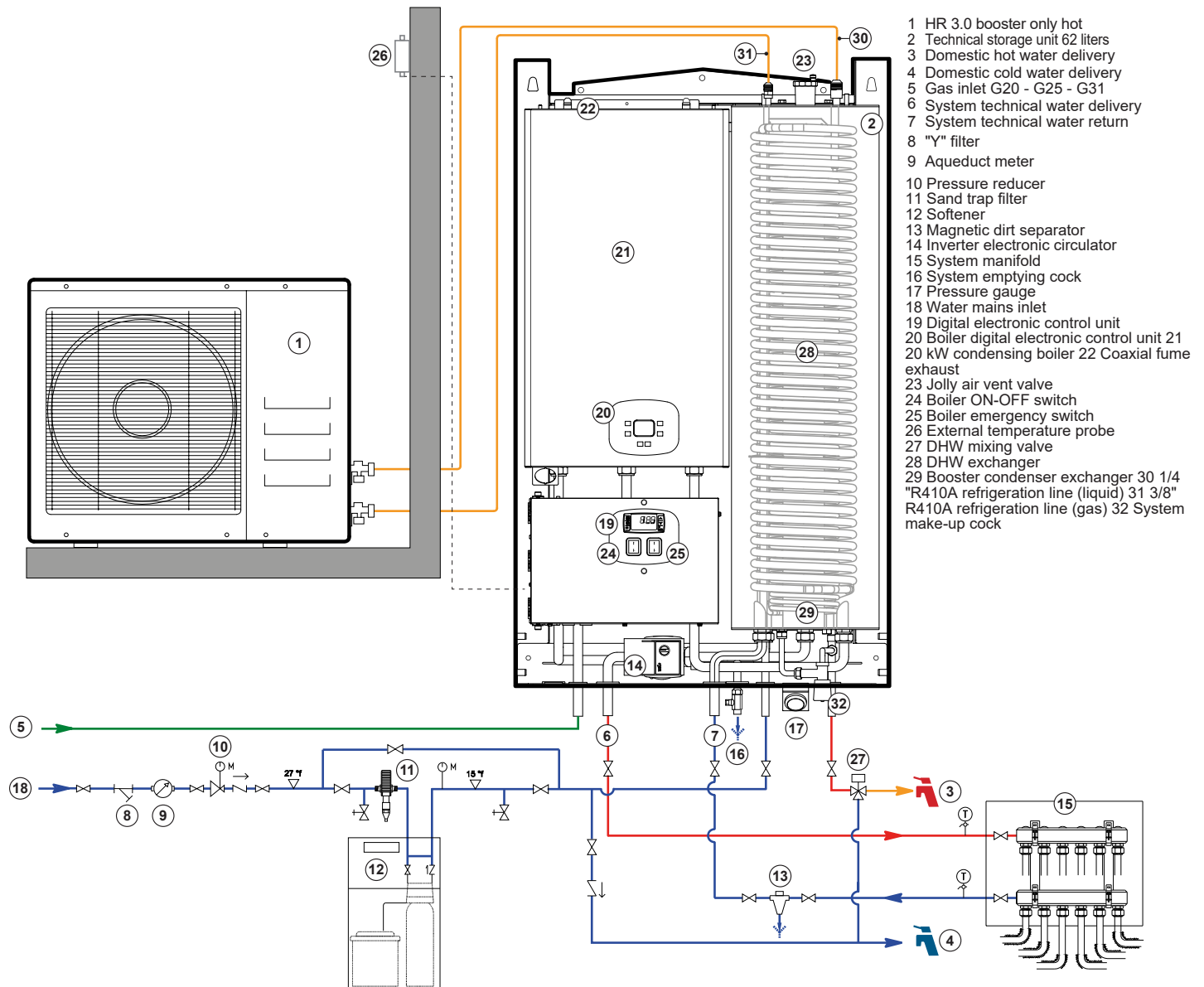
High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating for small and medium users

| Accessori HUB RADIATOR PACK C | | Codice | € |
|---|---|--|--|
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 | 37081065 37081066 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 metri 90 W mod. 6 metri 120 W | 37081067 37081068 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 | 37081069 37081070 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fissa mod. HR 7.8 H fissa mod. HR 7.8 H variabile | 37081071 37081073 37081074 308,00 330,00 354,00 |
|  | 1/2 "DHW mixing valve kit | | 75100023 146,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 194,00 |
|  | Anti-vibration flexible joint kit with connecting flange and straight union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 120,00 60,00 |
|  | Anti-vibration flexible joint kit with flare and 90 ° curved union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 120,00 60,00 |
|  | Coaxial starting curve Ø 60/100 at 90 ° with smoke extraction | | 30403123 23,00 |
|  | Vertical coaxial outlet Ø 60/100 with smoke sampling | | 30403124 25,00 |
|  | Coaxial flue gas exhaust kit Ø 60/100 | | 30403000 50,00 |
|  | Coaxial roof terminal Ø 60/100 | | 30403014 118,00 |
|  | Coaxial extension Ø 60/100 M/F = 1000 mm | | 30403002 28,00 |
|  | Coaxial 90° bend Ø 60/100 M/F | | 30403004 30,00 |
|  | Coaxial 45° bend Ø 60/100 M/F | | 30403003 30,00 |
|  | Splitter kit with strip from Ø 60/100 to Ø 80/80 | | 30403018 33,00 |
|  | Separate duct kits Ø 80/80 with smoke extraction | | 30403022 22,00 |
|  | Extension Ø 80 M/F = 1000 mm | | 30403011 8,00 |
|  | Coaxial 90 ° bend Ø 80 M/F | | 30403013 5,00 |
|  | Coaxial 45 ° bend Ø 80 M/F | | 30403012 5,00 |

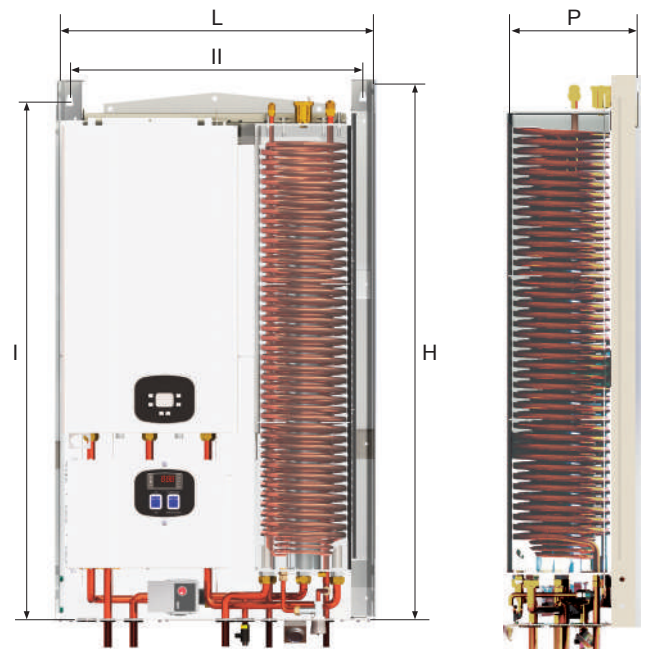
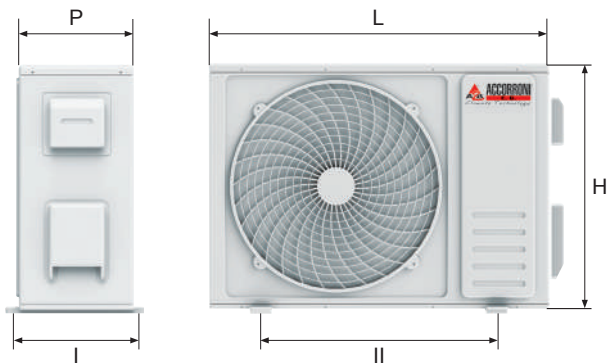
HUB RADIATOR PACK C

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating for small and medium users

Application example HUB RADIATOR PACK C 3.0/20



Dimensions of outdoor unit and indoor unit HUB RADIATOR PACK C on wall

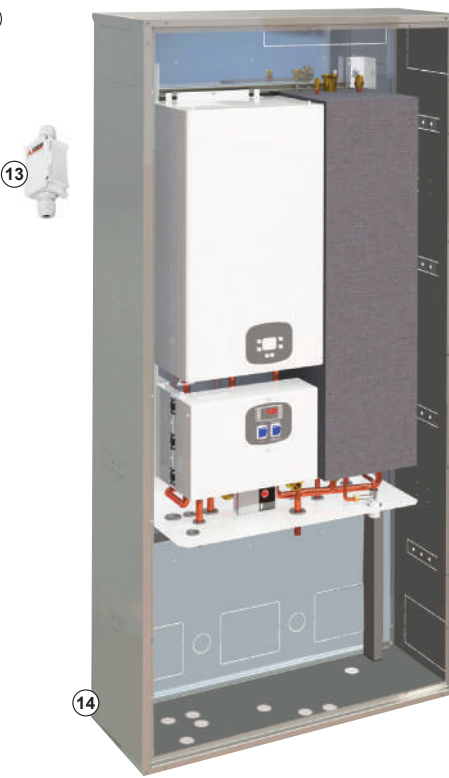
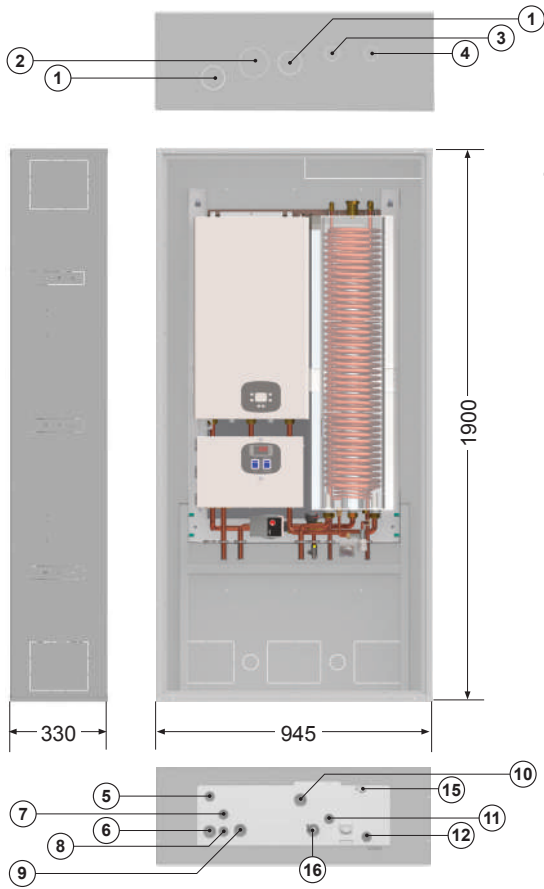


| Models | L | H | P | I | II | weight |
|---------------------|-----|------|-----|------|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| U.E. Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| U.E. Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |
| U.I. HR PACK C 20 | 720 | 1210 | 300 | 1170 | 656 | 110 |
| U.I. HR PACK C 32 | 720 | 1210 | 300 | 1170 | 656 | 110 |

HUB RADIATOR PACK C

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating for small and medium users

Dimensions of outdoor unit and indoor HUB RADIATOR PACK C built-in

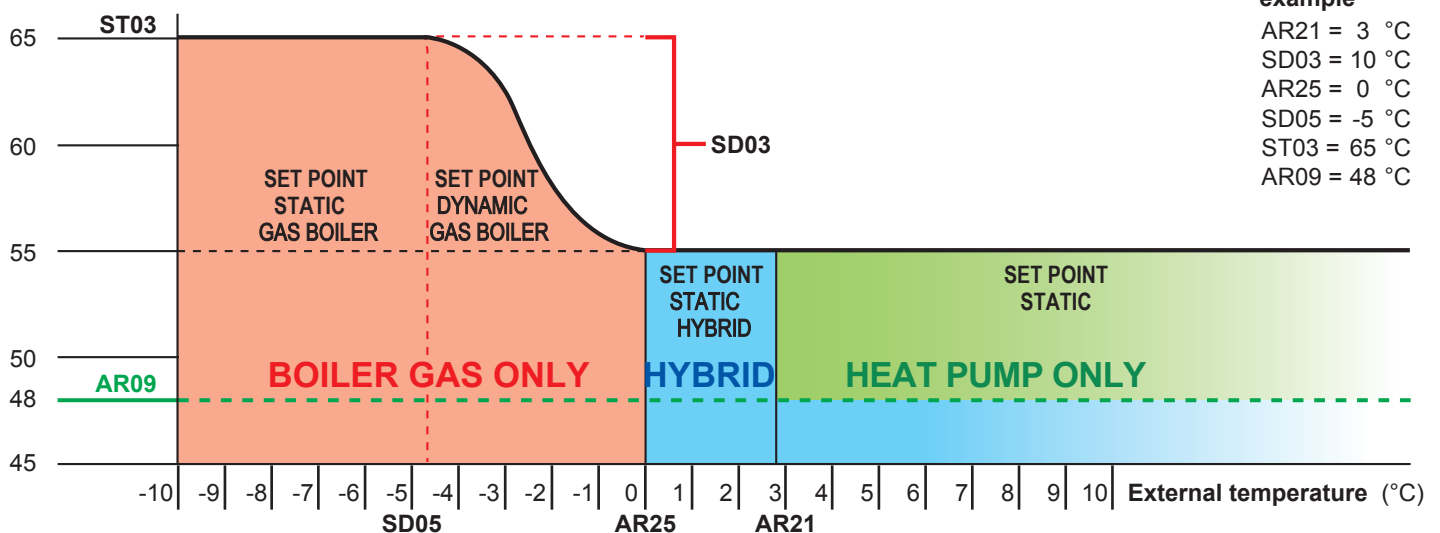


- 1 Combustion air inlet for split boiler exhaust Ø 80 mm
- 2 Coaxial boiler outlet Ø 60/100 mm
- 3 External Booster liquid line connection
- 4 External Booster gas line connection
- 5 Power supply line input
- 6 Boiler condensate drain
- 7 Boiler methane gas line inlet
- 8 External probe electrical cable entry
- 9 System delivery
- 10 System return
- 11 Domestic hot water delivery 12 Water mains inlet
- 13 Outside air temperature probe
- 14 Template for recessed installation
- 15 System filling cock
- 16 System drain cock

Values expressed in mm

Example of operation with external climatic probe HUB RADIATOR PACK C

Accumulation temperature (°C)



Climate example
 AR21 = 3 °C
 SD03 = 10 °C
 AR25 = 0 °C
 SD05 = -5 °C
 ST03 = 65 °C
 AR09 = 48 °C

The factory made hybrid system HUB RADIATOR PACK C is equipped as standard with an external temperature probe which, thanks to the microprocessor present in the indoor unit, allows you to set a fully automatic operation aimed at ensuring maximum energy efficiency based on the actual external climatic conditions. Specifically, it will be possible to establish an external temperature value (AR21) above which the use of only the renewable energy of the HP Booster is preferred both for the production of DHW and for the production of heating. Above this temperature, however, the "integration boiler" mode will remain active upon request from the storage probe

to ensure the system never drops below a preset limit temperature which may vary according to the type of system terminals present.

In the external temperature range that goes from the value of the parameter (AR21) to (AR25) we will have a hybrid combined operation with the 2 generators operating simultaneously. Below the "critical" external temperature (AR25), a "boiler only" operation will be activated which will also activate a dynamic technical water set-point so as to obtain a system delivery temperature that increases proportionally to the decrease in the temperature of the outside air.

HUB RADIATOR PACK C

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating for small and medium users

Indoor unit technical data table HUB RADIATOR PACK C

| DESCRIPTION | U.M. | 20 | 32 |
|--|--------|-------------|-------|
| Appliance category | | I12H3P | |
| Minimum heat output boiler in natural gas heating G20 | kW | 2,8 | 3,4 |
| Maximum heat output boiler in natural gas heating G20 | kW | 20,0 | 32,0 |
| Minimum boiler heat output in LPG gas heating | kW | 2,8 | 3,4 |
| Maximum boiler heat output in LPG gas heating | kW | 20,0 | 32,0 |
| Minimum boiler heat output in heating (80-60 ° C) methane gas G20 | kW | 2,5 | 3,3 |
| Maximum boiler heat output in heating (80-60 ° C) natural gas G20 | kW | 19,2 | 30,8 |
| Minimum boiler heat output in heating (80-60 ° C) LPG gas | kW | 2,5 | 3,3 |
| Maximum boiler heat output in heating (80-60 ° C) LPG gas | kW | 19,2 | 30,8 |
| Minimum boiler heat output in heating (50-30 ° C) methane gas G20 | kW | 2,9 | 3,5 |
| Maximum boiler heat output in heating (50-30 ° C) natural gas G20 | kW | 20,7 | 33,5 |
| Minimum boiler heat output in heating (50-30 ° C) LPG gas | kW | 2,9 | 3,5 |
| Maximum boiler heat output in heating (50-30 ° C) LPG gas | kW | 20,7 | 33,5 |
| Boiler supply pressure fed with natural gas G20 | mbar | 20 | |
| LPG gas fired boiler supply pressure | mbar | 30/37 | |
| Diaphragm diameter of the boiler fed with natural gas G20 | mm | 5,6 | 6,3 |
| LPG gas fired boiler diaphragm diameter | mm | 5,6 | 6,3 |
| Minimum CO2 emission from natural gas boiler G20 | % | 9,3 | 8,4 |
| Maximum CO2 emission from natural gas boiler G20 | % | 9,8 | 10,6 |
| Minimum CO2 emissions from LPG gas fired boiler | % | 10,4 | 10,5 |
| Maximum CO2 emission from LPG gas fired boiler | % | 10,7 | 10,6 |
| Minimum pressure of the heating circuit | bar | 0,5 | |
| Maximum pressure of the heating circuit | bar | 0,3 | |
| Useful boiler thermal efficiency at maximum power (60/80°C) | % | 95,8 | 96,3 |
| Useful boiler thermal efficiency at maximum power (30/50°C) | % | 103,4 | 104,5 |
| Useful boiler thermal efficiency at minimum power (60/80°C) | % | 90,0 | 95,7 |
| Useful boiler thermal efficiency at minimum power (30/50°C) | % | 102,1 | 103,5 |
| Useful boiler thermal efficiency at 30% of the load | % | 107,1 | |
| NOx emission class | | 6 | 5 |
| NOx emission | mg/kWh | 23 | 55 |
| Smoke temperature | °C | 70,0 | 74,5 |
| Max operating temperature in heating | °C | 85,0 | |
| Methane gas consumption at maximum heating flow rate (1) | m³/h | 2,08 | 3,37 |
| LPG consumption at maximum flow rate in heating(1) | m³/h | 0,64 | 0,97 |
| Seasonal energy efficiency of the space heating boiler | % | 92,0 | |
| Useful boiler efficiency at nominal heat output at high temperature regime (2) | % | 86,3 | 86,7 |
| Useful boiler efficiency at 30% of nominal heat output at low temperature regime (3) | % | 96,4 | |
| Heat loss in boiler stand-by | kW | 0,069 | 0,071 |
| Annual boiler energy consumption | GJ | 38,7 | 62,7 |
| Seasonal boiler energy efficiency class | | A | |
| Technical water inertial storage volume | l | 62 | |
| Expansion vessel volume | l | 7 | |
| System flow / return connections | | 3/4" | |
| Hot water and cold sanitary water connections | | 1/2" | |
| G20 / LPG methane gas inlet connection | | 3/4" | |
| Diameter of the boiler condensate drain hose | mm | 22 | |
| Coaxial smoke evacuation pipe diameter | mm | 60/100 | |
| Diameter of double ropes evacuation ducts | mm | 80 | |
| Maximum system circulator flow rate | m³/h | 3,3 | |
| Maximum system circulator head | m | 6,2 | |
| Maximum absorbed electrical power | W | 118 | 147 |
| Power supply | | 230V/1/50Hz | |

(1) Valore riferito alla temperatura di 15 °C esterni e 1013 mbar

(2) Regime ad alta temperatura con 60 °C di ritorno e 80 °C di mandata

(3) Regime di bassa temperatura 30 °C (temperatura di ritorno all'entrata della caldaia)

HUB RADIATOR PACK C

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating for small and medium users

Technical data table for domestic hot water withdrawal HUB RADIATOR PACK C

| DESCRIPTION | U.M. | 3.0/20 | 3.0/32 | 7.8/20 | 7.8/32 |
|--------------------------------------|-------|--------|--------|--------|--------|
| DHW production with ΔT 25 °C | l/min | 15,0 | 20,4 | 16,0 | 21,8 |
| DHW production with ΔT 30 °C | l/min | 12,0 | 15,1 | 13,3 | 16,4 |
| DHW production with ΔT 35 °C | l/min | 11,0 | 14,2 | 11,4 | 15,8 |
| DHW production with ΔT 40 °C | l/min | 9,6 | 12,6 | 10,0 | 13,8 |
| DHW production with ΔT 45 °C | l/min | 8,6 | 11,2 | 8,9 | 12,1 |

Booster outdoor unit technical data table HUB RADIATOR PACK C

| DESCRIPTION | U.M. | HR 3.0 | HR 7.8 |
|---|-------|--|--------|
| Thermal power(1) | kW | 3,11 | 8,12 |
| Absorbed power(1) | kW | 0,74 | 1,96 |
| C.O.P. (1) | W/W | 4,20 | 4,14 |
| Thermal power(2) | kW | 2,97 | 7,75 |
| Absorbed power (2) | kW | 0,94 | 2,52 |
| C.O.P. (2) | W/W | 3,16 | 3,07 |
| Thermal power(3) | kW | 2,58 | 6,73 |
| Absorbed power(3) | kW | 0,74 | 2,00 |
| C.O.P. (3) | W/W | 3,48 | 3,37 |
| Thermal power(4) | kW | 2,47 | 6,44 |
| Absorbed power (4) | kW | 0,94 | 2,54 |
| C.O.P. (4) | W/W | 2,67 | 2,53 |
| Thermal power(5) | kW | 2,11 | 5,52 |
| Absorbed power(5) | kW | 0,75 | 2,00 |
| C.O.P. (5) | W/W | 2,81 | 2,76 |
| Thermal power(6) | kW | 1,99 | 5,20 |
| Absorbed power (6) | kW | 0,94 | 2,53 |
| C.O.P. (6) | W/W | 2,11 | 2,05 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 |
| Seasonal heating efficiency (η_s) | % | 153,1 | 150,3 |
| Energy efficiency (8) | | A / A++ | |
| Defrost method | | Reverse cycle with immersion condenser | |
| Type of refrigerant | | R410A | |
| Technical water temperature min / max | °C | + 30 / + 58 | |
| Refrigerant quantity (pre-inserted) | kg | 1,1 | 2,0 |
| Min distance between outdoor and indoor unit | m | 3 | |
| Max distance between outdoor and indoor unit without charging | m | 5 | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | |
| Max difference in height between outdoor and indoor unit | m | 5 | |
| Refrigerant gas line connection | | 3/8" | 5/8" |
| Coolant line connection | | 1/4" | 1/4" |
| Sound power (9) | dB(A) | 65,1 | 68,4 |
| Sound pressure at one meter (10) | dB(A) | 51,2 | 54,7 |
| External temperature operating limits | °C | -15 / +45 | |
| Power supply | | 230V/1/50Hz | |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: outside air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: outside air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Water 35 °C / 55 °C

(9) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions (1)

(10) Value calculated according to ISO 3744: 2010

HUB RADIATOR PACK CF

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating, air conditioning for small and medium users

ENERGY RATING



Technical and construction features

The HUB RADIATOR PACK CF hybrid system consists of an external heat pump evaporating unit (Booster HR Hot / Cold 3.0 or 7.8) and an internal storage unit of 75 liters with direct refrigerant / water exchange condenser and instant domestic hot water exchanger immersion, coupled with a backup modulating condensing boiler (20 or 32 kW). Also included as standard:

- High efficiency inverter electronic circulation pump
- Manual filling group
- System expansion vessel
- Safety valve and automatic vent valve
- External temperature probe
- Base support template to facilitate handling on site

The condensing boiler is directly connected to the technical storage unit, both components are housed in a special covering shell.

The methane gas heat generator uses a highly modular premix condensing burner mounted on the latest generation boiler body with powers of 20 kW or 32 kW.

Combustion with a constant stoichiometric air-gas ratio allows to eliminate polluting CO₂ emissions and reduce NO_x emissions. The patented HUB RADIATOR PACK CF system uses the thermodynamic cycle of the heat pump as its primary source. The high efficiency of the heat pump with the help, when necessary, of the condensing boiler allows for great savings, excellent reliability and operation down to temperatures of - 20 ° C.

The electronic control unit makes the product versatile and easy to manage with a very intuitive user interface.

Specifically, the system is equipped with a latest generation microprocessor that allows the user to set an automatic management of the hybrid system with the Energy Efficiency function which allows to optimize energy consumption both for the production of DHW and for the winter air conditioning by activating the boiler only if strictly necessary based on the outside temperature.

During the summer, the external booster will keep the technical water contained in the 75-liter puffer cooled and the boiler will provide instant DHW production.












HUB RADIATOR PACK CF is supplied as standard with an external climatic probe and lower support to facilitate installation.



| Modello | Codice | € |
|---|----------|----------|
| HUB RADIATOR PACK CF 3.0/20 wall unit | 76801920 | 7.050,00 |
| HUB RADIATOR PACK CF 3.0/32 wall unit | 76803920 | 7.300,00 |
| HUB RADIATOR PACK CF 7.8/20 wall unit | 76801021 | 9.090,00 |
| HUB RADIATOR PACK CF 7.8/32 wall unit | 76803921 | 9.340,00 |
| HUB RADIATOR PACK CF 3.0/20 built-in | 76801922 | 7.490,00 |
| HUB RADIATOR PACK CF 3.0/32 built-in | 76802922 | 7.740,00 |
| HUB RADIATOR PACK CF 7.8/20 built-in | 76801932 | 9.530,00 |
| HUB RADIATOR PACK CF 7.8/32 built-in | 76802932 | 9.780,00 |
| Indoor Unit HUB RADIATOR PACK CF 3.0/20 | 76801924 | 4.620,00 |
| Indoor Unit HUB RADIATOR PACK CF 3.0/32 | 76802924 | 4.870,00 |
| Indoor Unit HUB RADIATOR PACK CF 7.8/20 | 76801925 | 4.960,00 |
| Indoor Unit HUB RADIATOR PACK CF 7.8/32 | 76803925 | 5.210,00 |
| Outdoor unit Booster HR 3.0 hot/cold | 76020240 | 2.430,00 |
| Outdoor unit Booster HR 7.8 hot/cold | 76020500 | 4.130,00 |





















HUB RADIATOR PACK CF

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating, air conditioning for small and medium users

| Accessories HUB RADIATOR PACK CF | | Codice | € |
|---|--|--|--|
|  | HUB RADIATOR PACK CF recessed template complete with flush-to-the-wall closing panel in galvanized sheet metal | 76801916 | 440,00 |
|  | Cover box HUB RADIATOR PACK CF mandatory for the installation of the indoor unit outside the building made of insulated white painted galvanized steel Height 160 cm - Width 80 cm - Depth 35 cm | 75101022 | 490,00 |
|  | HUB RADIATOR PACK CF wall-mounted installation template for the preparation of all pipes on site | 76801919 | 190,00 |
|  | Command and remote control panel | mod. incasso mod. a parete | 75100005 75100028 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. Collegamento BUS mod. Radiofrequenza | 37081062 37081063 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 580,00 |
|  | Mixing valve for radiant systems | mod. regolazione fissa meccanica mod. regolazione motorizzata | 75101032 75101033 90,00 530,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 mod. Booster HR 7.8 | 37081060 37081061 50,00 90,00 |
|  | Anchoring bracket for inclined roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 (pack of 2 pieces) | | 75100018 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 18,00 |

HUB RADIATOR PACK CF

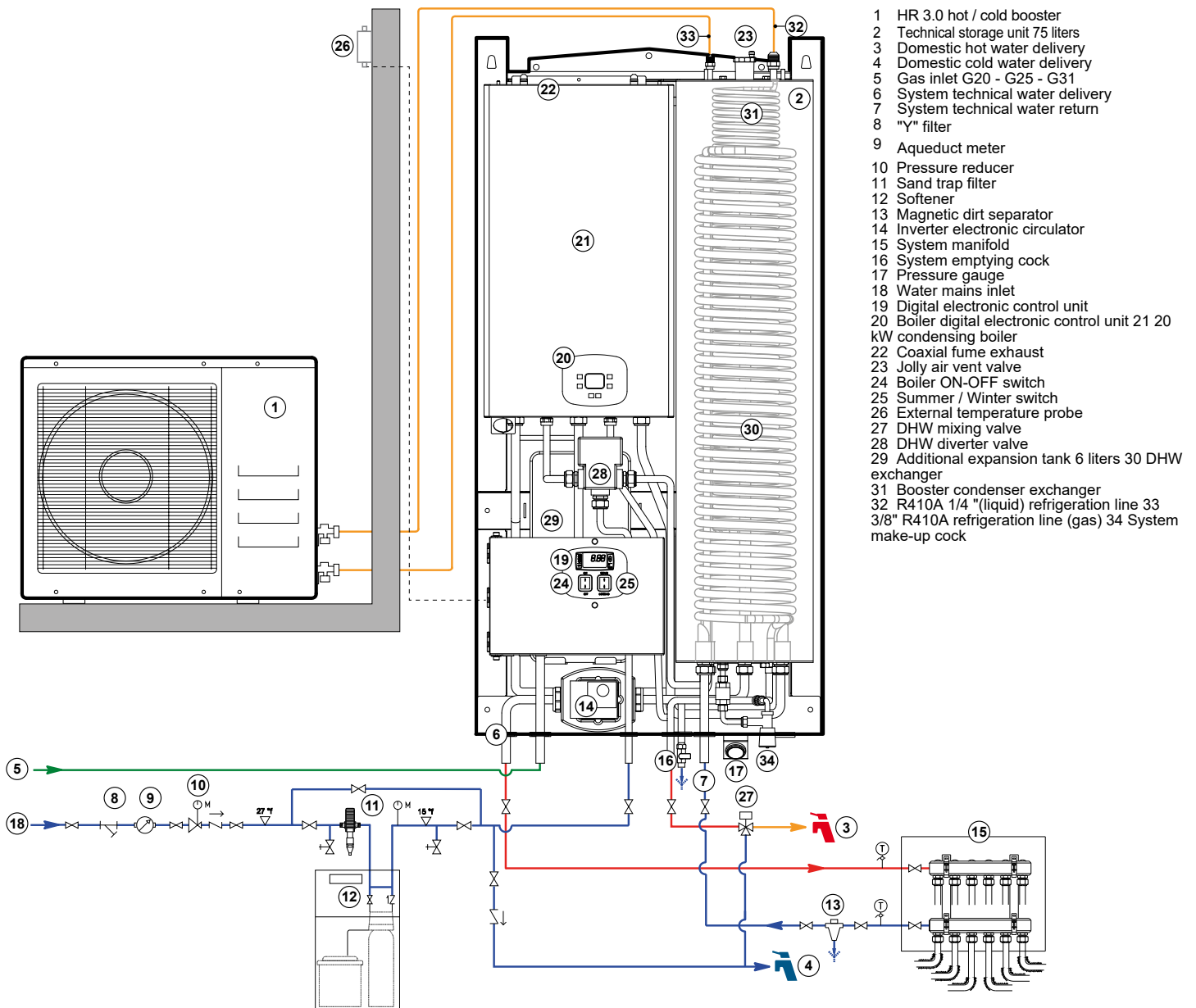
High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating, air conditioning for small and medium users

| Accessories HUB RADIATOR PACK CF | | | Codice | € |
|---|---|---|---|---|
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 meters 90 W mod. 6 meters 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fixed mod. HR 7.8 H fixed mod. HR 7.8 H variable | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | 1/2 "DHW mixing valve kit | | 75100023 | 146,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with connecting flange and straight union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Anti-vibration flexible joint kit with connecting flange and 90 ° curved union | mod. HR 7.8 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |
|  | Coaxial starting curve Ø 60/100 at 90 ° with smoke extraction | | 30403123 | 23,00 |
|  | Vertical coaxial outlet Ø 60/100 with smoke sampling | | 30403124 | 25,00 |
|  | Coaxial flue exhaust kit Ø 60/100 | | 30403000 | 50,00 |
|  | Coaxial roof terminal Ø 60/100 | | 30403014 | 118,00 |
|  | Coaxial extension Ø 60/100 M / F = 1000 mm | | 30403002 | 28,00 |
|  | Coaxial 90 ° bend Ø 60/100 M / F | | 30403004 | 30,00 |
|  | 45 ° coaxial bend Ø 60/100 M / F | | 30403003 | 30,00 |
|  | Splitter kit with strip from Ø 60/100 to Ø 80/80 | | 30403018 | 33,00 |
|  | Separate duct kits Ø 80/80 with smoke extraction | | 30403022 | 22,00 |
|  | Extension Ø 80 M / F = 1000 mm | | 30403011 | 8,00 |
|  | 90 ° coaxial bend Ø 80 M / F | | 30403013 | 5,00 |
|  | 45 ° coaxial bend Ø 80 M / F | | 30403012 | 5,00 |

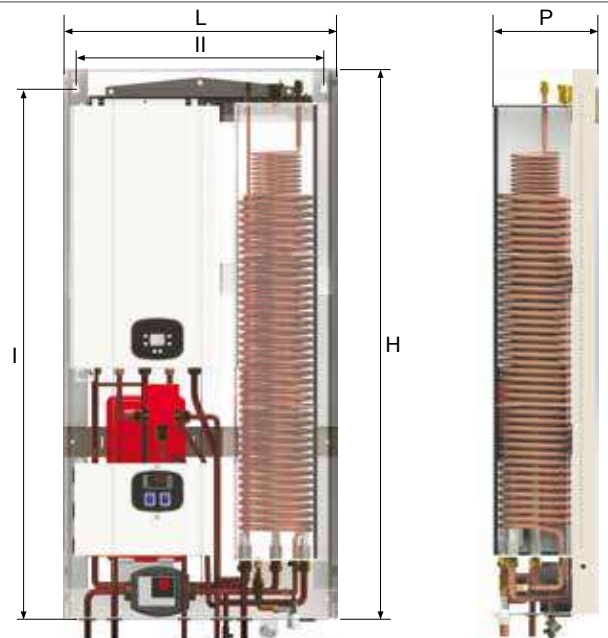
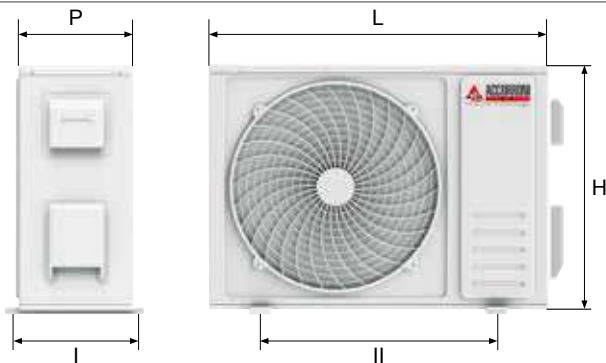
HUB RADIATOR PACK CF

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating, air conditioning for small and medium users

Application example HUB RADIATOR PACK CF 3.0/20



Dimensions of outdoor unit and indoor unit HUB RADIATOR PACK CF pensile

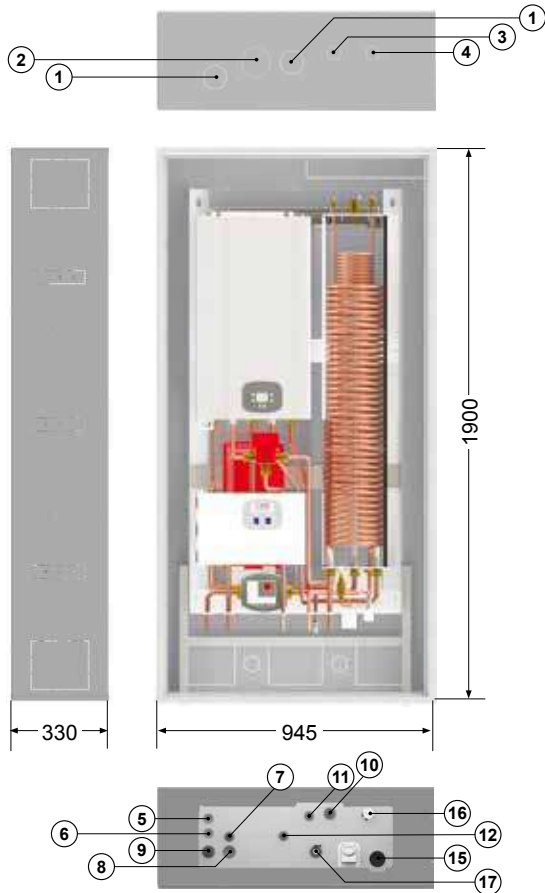


| Models | L | H | P | I | II | Peso |
|---------------------|-----|------|-----|------|-----|------|
| | mm | mm | mm | mm | mm | kg |
| U.E. Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| U.E. Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |
| U.I. HR PACK C 20 | 720 | 1450 | 300 | 1410 | 656 | 130 |
| U.I. HR PACK C 32 | 720 | 1450 | 300 | 1410 | 656 | 130 |

HUB RADIATOR PACK CF

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating, air conditioning for small and medium users

Indoor unit dimensions HUB RADIATOR PACK CF recessed

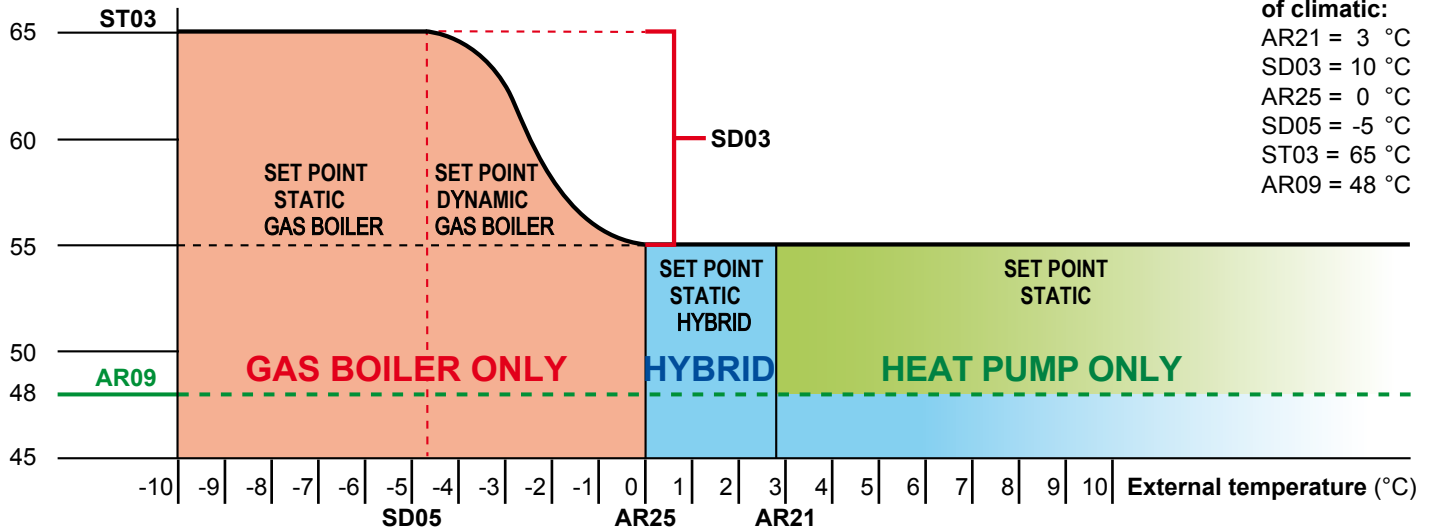


- 1 Combustion air inlet for split boiler exhaust Ø 80 mm
- 2 Coaxial boiler outlet Ø 60/100 mm
- 3 External Booster liquid line connection
- 4 External Booster gas line connection
- 5 Power supply line input
- 6 Boiler condensate drain
- 7 Boiler methane gas line inlet
- 8 External probe electrical cable entry
- 9 System delivery
- 10 System return
- 11 Domestic hot water delivery
- 12 Water mains inlet
- 13 External air temperature probe
- 14 Template for recessed installation
- 15 Boiler safety valve drain
- 16 System filling cock
- 17 System draining cock

Values expressed in mm

Example of winter operation with external climatic probe HUB RADIATOR PACK CF

Accumulation temperature (°C)



Example of climatic:
 AR21 = 3 °C
 SD03 = 10 °C
 AR25 = 0 °C
 SD05 = -5 °C
 ST03 = 65 °C
 AR09 = 48 °C

The factory made hybrid system HUB RADIATOR PACK CF is equipped as standard with an external temperature probe which, thanks to the microprocessor in the indoor unit, allows you to set a fully automatic operation aimed at ensuring maximum energy efficiency based on the actual external climatic conditions. Specifically, it will be possible to establish an external temperature value (AR21) above which the use of only the renewable energy of the HP Booster is preferred both for the production of DHW and for the production of heating. Above this temperature, however, the "integration boiler" mode will remain active upon request from the storage probe

to ensure the system never drops below a preset limit temperature which may vary according to the type of system terminals present.

In the external temperature range that goes from the value of the parameter (AR21) to (AR25) we will have a hybrid combined operation with the 2 generators operating simultaneously. Below the "critical" external temperature (AR25), a "boiler only" operation will be activated which will also activate a dynamic technical water set-point so as to obtain a system delivery temperature that increases proportionally to the decrease in the temperature of the outside air.

HUB RADIATOR PACK CF

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating, air conditioning for small and medium users

Indoor unit technical data table HUB RADIATOR PACK CF

| DESCRIPTION | U.M. | 20 | 32 |
|---|-------------------|-------------|-------|
| Appliance category | | I12H3P | |
| Minimum boiler heat output in methane gas heating G20 | kW | 2,8 | 3,4 |
| Maximum heat output of the boiler in natural gas heating G20 | kW | 20,0 | 32,0 |
| Minimum boiler heat output in gas heating LPG | kW | 2,8 | 3,4 |
| Maximum boiler heat output in gas heating LPG | kW | 20,0 | 32,0 |
| Minimum boiler heat output in heating (80-60 ° C) methane gas G20 | kW | 2,5 | 3,3 |
| Maximum boiler heat output in heating (80-60 ° C) methane gas G20 | kW | 19,2 | 30,8 |
| Minimum boiler heat output in heating (80-60 ° C) LPG gas | kW | 2,5 | 3,3 |
| Maximum boiler heat output in heating (80-60 ° C) LPG gas | kW | 19,2 | 30,8 |
| Minimum boiler heat output in heating (50-30 ° C) methane gas G20 | kW | 2,9 | 3,5 |
| Maximum boiler heat output in heating (50-30 ° C) natural gas G20 | kW | 20,7 | 33,5 |
| Minimum boiler heat output in heating (50-30 ° C) LPG gas | kW | 2,9 | 3,5 |
| Maximum boiler heat output in heating (50-30 ° C) LPG gas | kW | 20,7 | 33,5 |
| G20 methane gas fired boiler supply pressure | mbar | 20 | |
| LPG gas fired boiler supply pressure | mbar | 30/37 | |
| Diaphragm diameter of the boiler fed with natural gas G20 | mm | 5,6 | 6,3 |
| LPG gas fired boiler diaphragm diameter | mm | 5,6 | 6,3 |
| Minimum CO2 emission from natural gas boiler G20 | % | 9,3 | 8,4 |
| Maximum CO2 emission from natural gas boiler G20 | % | 9,8 | 10,6 |
| Minimum CO2 emission from LPG gas fired boiler | % | 10,4 | 10,5 |
| Maximum CO2 emission from LPG gas fired boiler | % | 10,7 | 10,6 |
| Minimum pressure of the heating circuit | bar | 0,5 | |
| Maximum pressure of the heating circuit | bar | 0,3 | |
| Useful boiler thermal efficiency at maximum power (60/80 ° C) | % | 95,8 | 96,3 |
| Useful boiler thermal efficiency at maximum power (30/50 ° C) | % | 103,4 | 104,5 |
| Useful boiler thermal efficiency at minimum power (60/80 ° C) | % | 90,0 | 95,7 |
| Useful boiler thermal efficiency at minimum power (30/50 ° C) | % | 102,1 | 103,5 |
| Useful boiler thermal efficiency at 30% of the load | % | 107,1 | |
| NOx emission class | | 6 | 5 |
| NOx emission | mg/kWh | 23 | 55 |
| Smoke temperature | °C | 70,0 | 74,5 |
| Max operating temperature in heating | °C | 85,0 | |
| Methane gas consumption at maximum heating flow rate ⁽¹⁾ | m ³ /h | 2,08 | 3,37 |
| LPG consumption at maximum flow rate in heating ⁽¹⁾ | m ³ /h | 0,64 | 0,97 |
| Seasonal energy efficiency of the space heating boiler | % | 92,0 | |
| Useful boiler efficiency at nominal heat output at high temperature regime ⁽²⁾ | % | 86,3 | 86,7 |
| Useful boiler efficiency at 30% of nominal heat output at low temperature regime ⁽³⁾ | % | 96,4 | |
| Heat loss in boiler stand-by | kW | 0,069 | 0,071 |
| Annual boiler energy consumption | GJ | 38,7 | 62,7 |
| Seasonal boiler energy efficiency class | | A | |
| Technical water inertial storage volume | l | 75 | |
| Volume of expansion vessels | l | 7 + 6 | |
| System flow / return connections | | 3/4" | |
| Hot water and cold sanitary water connections | | 1/2" | |
| G20 / LPG methane gas inlet connection | | 3/4" | |
| Diameter of the boiler condensate drain hose | mm | 22 | |
| Coaxial smoke evacuation pipe diameter | mm | 60/100 | |
| Diameter of double ropes evacuation ducts | mm | 80 | |
| Maximum system circulator flow rate | m ³ /h | 6,2 | |
| Maximum system circulator head | m | 7,0 | |
| Maximum absorbed electrical power | W | 118 | 147 |
| Power supply | | 230V/1/50Hz | |

⁽¹⁾ Value referred to the external temperature of 15 ° C and 1013 mbar

⁽²⁾ High temperature mode with 60 ° C return and 80 ° C flow

⁽³⁾ Low temperature regime 30 ° C (return temperature at the boiler inlet)

HUB RADIATOR PACK CF

High efficiency patented integrated hybrid system in heat pump with direct refrigerant / water exchange with support boiler to produce domestic hot water and heating, air conditioning for small and medium users

Tabella dati tecnici prelievi acqua calda sanitaria HUB RADIATOR PACK CF

| DESCRIZIONE | U.M. | 3.0/20 | 3.0/32 | 7.8/20 | 7.8/32 |
|---|-------|-------------|-------------|-------------|-------------|
| DHW production with ΔT 25 ° C (winter/summer) | l/min | 15,0 / 14,0 | 20,4 / 19,0 | 16,0 / 14,0 | 21,8 / 19,0 |
| DHW production with ΔT 30 ° C (winter/summer) | l/min | 12,0 / 11,0 | 15,1 / 14,0 | 13,3 / 11,0 | 16,4 / 14,0 |
| DHW production with ΔT 35 ° C (winter/summer) | l/min | 11,0 / 10,0 | 14,2 / 13,6 | 11,4 / 10,0 | 15,8 / 13,6 |
| DHW production with ΔT 40 ° C (winter/summer) | l/min | 9,6 / 9,0 | 12,6 / 11,9 | 10,0 / 9,0 | 13,8 / 11,9 |
| DHW production with ΔT 45 ° C (winter/summer) | l/min | 8,6 / 8,0 | 11,2 / 10,5 | 8,9 / 8,0 | 12,1 / 10,5 |

Tabella dati tecnici unità esterna Booster HUB RADIATOR PACK CF

| DESCRIPTION | U.M. | HR 3.0 | HR 7.8 |
|---|-------|-------------|--------|
| Thermal power ⁽¹⁾ | kW | 3,11 | 8,12 |
| Absorbed power (1) | kW | 0,74 | 1,96 |
| C.O.P. (1) | W/W | 4,20 | 4,14 |
| Thermal power (2) | kW | 2,97 | 7,75 |
| Absorbed power (2) | kW | 0,94 | 2,52 |
| C.O.P. (2) | W/W | 3,16 | 3,07 |
| Thermal power ⁽³⁾ | kW | 2,58 | 6,73 |
| Absorbed power (3) | kW | 0,74 | 2,00 |
| C.O.P. (3) | W/W | 3,48 | 3,37 |
| Thermal power (4) | kW | 2,47 | 6,44 |
| Absorbed power (4) | kW | 0,94 | 2,54 |
| C.O.P. (4) | W/W | 2,67 | 2,53 |
| Thermal power (5) | kW | 2,11 | 5,52 |
| Absorbed power (5) | kW | 0,75 | 2,00 |
| C.O.P. (5) | W/W | 2,81 | 2,76 |
| Thermal power (6) | kW | 1,99 | 5,20 |
| Absorbed power (6) | kW | 0,94 | 2,53 |
| C.O.P. (6) | W/W | 2,11 | 2,05 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 |
| Seasonal heating efficiency (η_s) | % | 153,1 | 150,3 |
| Refrigeration power (8) | kW | 2,94 | 7,24 |
| Absorbed power (8) | kW | 0,72 | 1,89 |
| E.E.R. (8) | W/W | 4,08 | 3,82 |
| Refrigeration power (9) | kW | 2,63 | 5,84 |
| Absorbed power (9) | kW | 0,89 | 2,20 |
| E.E.R. (9) | W/W | 2,95 | 2,65 |
| S.E.E.R. (9) | W/W | 3,67 | 3,32 |
| Energy efficiency (10) | | A / A++ | |
| Type of refrigerant | | R410A | |
| Technical water temperature min / max | °C | + 30 / + 58 | |
| Refrigerant quantity (pre-inserted) | Kg | 1,1 | 2,0 |
| Min distance between outdoor and indoor unit | m | 3 | |
| Max distance between outdoor and indoor unit without charging | m | 5 | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | |
| Max difference in height between outdoor and indoor unit | m | 5 | |
| Refrigerant gas line connection | | 3/8" | 5/8" |
| Coolant line connection | | 1/4" | 1/4" |
| Sound power (11) | dB(A) | 65,1 | 68,4 |
| Sound pressure at one meter(12) | dB(A) | 51,2 | 54,7 |
| External temperature operating limits | °C | -15 / +45 | |
| Power supply | | 230V/1/50Hz | |

(1) Heating: external air temperature 7 ° C d.b. - 6 ° C b.u. ; inlet / outlet water temperature 30/35 ° C

(2) Heating: external air temperature 7 ° C d.b. - 6 ° C b.u. ; inlet / outlet water temperature 40/45 ° C

(3) Heating: external air temperature 0 ° C d.b. ; inlet / outlet water temperature 30/35 ° C

(4) Heating: outside air temperature 0 ° C d.b. ; inlet / outlet water temperature 40/45 ° C

(5) Heating: outside air temperature -7 ° C d.b. ; inlet / outlet water temperature 30/35 ° C

(6) Heating: external air temperature -7 ° C d.b. ; inlet / outlet water temperature 40/45 ° C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 ° C

(8) Cooling: external air temperature 35 ° C d.b. ; inlet / outlet water temperature 23/18 ° C

(9) Cooling: external air temperature 35 ° C d.b. ; inlet / outlet water temperature 12/7 ° C

(10) Water 35 ° C / 55 ° C (11) Value measured at one meter from the sound source in free field

(11) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions (1)

(12) Value calculated according to ISO 3744: 2010

HUB RADIATOR AP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for small and medium users



ENERGY RATING



PATENTED SYSTEM



RENEWABLE ENERGY



ENERGY SAVING



COMPRESSOR INVERTER



COMPACT DIMENSIONS



ECOLOGICAL GAS



PHOTOVOLTAIC COMBINATION



DHW WITHOUT LEGIONELLA



HEATING UP TO 58 °C



CONDITIONING UP TO 4 °C

Technical and construction features

HUB RADIATOR AP is a patented high efficiency system with direct refrigerant / water exchange to produce domestic hot water, heating and / or air conditioning.

The system consists of 2 main elements:

- 1) Accumulator with 160 or 200 liters of closed vessel technical water with copper condenser exchangers on board and any finned copper sanitary exchanger.
- 2) External HP Booster unit complete with special electronic controller which, in the defrosting phase, uses the heat stored in the buffer tank to produce economical, quick and safe defrost in the winter months.

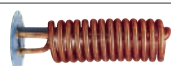
As an option it is possible to add:

- Inverter electronic circulator for distribution on system terminals such as radiators.
- ACS finned copper exchanger immersed directly inside the storage tank for the production of domestic hot water in a hygienically controlled way without the problem of legionella (to be chosen from the accessories listed below).

Thanks to the great versatility and modularity of the HUB RADIATOR AP systems, it is possible to configure a large variety of plant solutions and multiple thermal power plants using only the renewable energy of the heat pump, such as the hot, cold and DHW version with double storage and double Booster. This product represents the best solution for total living comfort both in summer and in winter where in the coldest periods of the year the thermal power of the machine doubles as the two inertial storage radiators are put into communication through a system of solenoid valves, generating thus a single accumulation of 320, 360 or 400 liters to be used as the thermal flywheel of the system.

| Model | Code | € |
|---|-----------------|-----------------|
| Accumulator AP 160 | 37306052 | 1.480,00 |
| Accumulator AP 200 | 37306053 | 1.580,00 |
| Booster HR 3.0 only hot | 76010240 | 2.000,00 |
| Booster HR 7.8 only hot | 76010500 | 3.700,00 |
| Booster HR 9.0 only hot INVERTER | 76030500 | 4.760,00 |
| Booster HR 3.0 hot/cold | 76020240 | 2.430,00 |
| Booster HR 7.8 hot/cold | 76020500 | 4.130,00 |
| Booster HR 9.0 hot/cold INVERTER | 76040500 | 4.960,00 |

Accessories HUB RADIATOR AP






















DHW heat exchanger in finned copper, max working pressure 12 bar, max working temperature 90 ° C

mod. 3,15 m² **37310010** **750,00**

HUB RADIATOR AP







Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for small and medium users

| Accessories HUB RADIATOR AP | | | Codice | € |
|---|---|--|----------------------------------|----------------------------|
|  | Solar thermal or biomass exchanger | mod. 0,75 m ² mod. 1,50 m ² | 75100002 75101002 | 374,00 644,00 |
|  | Additional capacitor for HR Booster | mod. only hot mod. hot Cold | 26505565 26505567 | 300,00 400,00 |
|  | Motorized valve with 1 "connections and spring return | mod. ON-OFF 2 ways mod. 3-way diverter | 16205309 16205308 | 138,00 158,00 |
|  | System pump kit which includes: Inverter electronic circulation pump complete with shut-off valves, air vent jolly valve, safety valve, threaded plugs and probe wells | | 75100011 | 380,00 |
|  | Hot / cold inverter system pump kit which includes: electronic circulation pump complete with valves shut-off valve, air vent jolly valve, safety valve, threaded caps and probe holders | | 75100009 | 674,00 |
|  | Command and remote control panel | mod.buit-in mod. wall | 75100005 75100028 | 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection mod. Radio frequency | 37081062 37081063 | 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment mod. motorized adjustment | 75101032 75101033 | 90,00 530,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 mod. Booster HR 7.8 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for inclined roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 meters 90 W mod. 6 meters 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fixed mod. HR 7.8 H fixed mod. HR 7.8 H variable | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | 1 "DHW mixing valve kit | | 75100027 | 150,00 |
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W mod. 2000 W mod. 3000 W | 75050102 75050103 75060300 | 150,00 160,00 170,00 |

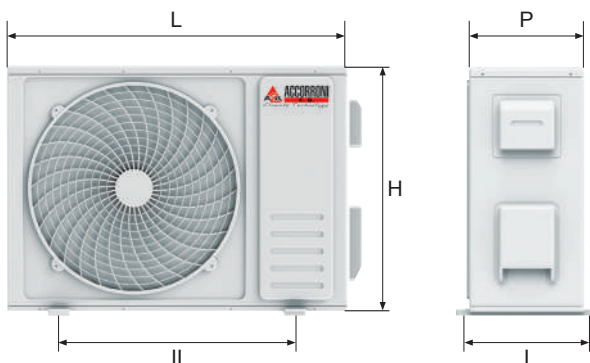
HUB RADIATOR AP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for small and medium users

Accessories HUB RADIATOR AP

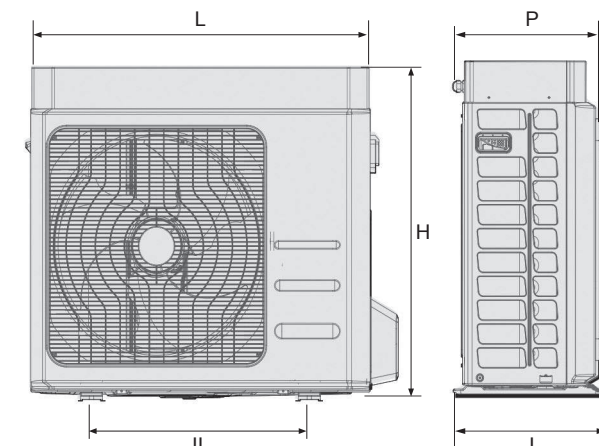
| | | Codice | € |
|---|--|--|---------------|
|  | Electronic management kit and additional heat generator connection sleeves | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with connecting flange and straight union | mod. HR 7.8 (5/8") 75100014 | 120,00 |
| | | mod. HR 3.0 (3/8") 75100015 | 60,00 |
|  | Antivibration flexible joint kit with flare and 90° curved union | mod. HR 7.8 (5/8") 75100016 | 120,00 |
| | | mod. HR 3.0 (3/8") 75100017 | 60,00 |
|  | Open shelf for n. 2 Booster outdoor units mod. HR 7.8 - 9.0 complete with anti-vibration mounts (fig. 1) | 75060406 | 240,00 |
|  | RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - 7.8 - 9.0 (fig. 2) | 75060306 | 890,00 |
|  | RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - 7.8 - 9.0 Height 210 cm Width 96 cm Depth 54 cm (fig. 3) | 75060206 | 980,00 |

Dimensions Booster esterno HR 3.0 - 7.8



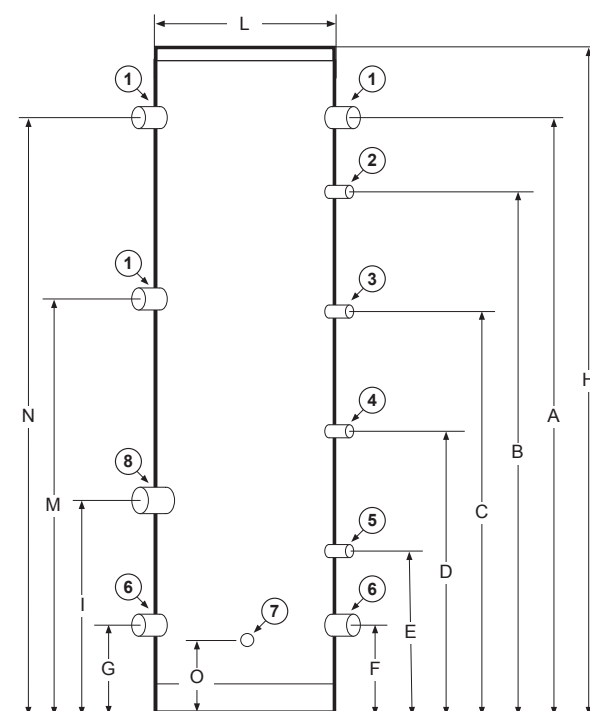
| Outdoor Unit Models | L | H | P | I | II | Weight |
|---------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |

Dimensions Booster esterno HR 9.0 INVERTER



| Outdoor Unit Models | L | H | P | I | II | Weight |
|-------------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 9.0 inverter | 925 | 785 | 380 | 358 | 540 | 62 |

Dimensions and hydraulic connections of technical accumulations HUB RADIATOR AP



| | U.M. | HR AP 160 | HR AP 200 |
|---|------|-----------|-----------|
| A | mm | 1385 | 1640 |
| B | mm | 1155 | 1360 |
| C | mm | 925 | 1080 |
| D | mm | 700 | 800 |
| E | mm | 470 | 525 |
| F | mm | 240 | 240 |
| G | mm | 240 | 240 |
| H | mm | 1700 | 1960 |
| I | mm | 620 | 705 |
| L | mm | 450 | 450 |
| M | mm | 1005 | 1175 |
| N | mm | 1385 | 1640 |
| O | mm | 190 | 190 |

| DESCRIPTION | Hydraulic connections |
|--------------------------------|-----------------------|
| 1 System delivery / return | 1" |
| 2 Thermometer / pressure gauge | 1/2" |
| 3 Booster probe | 1/2" |
| 4 Booster probe | 1/2" |
| 5 Filling group | 1/2" |
| 6 System delivery / return | 1" |
| 7 System drain cock | 1/2" |
| 8 Electric resistance input | 1"1/4 |

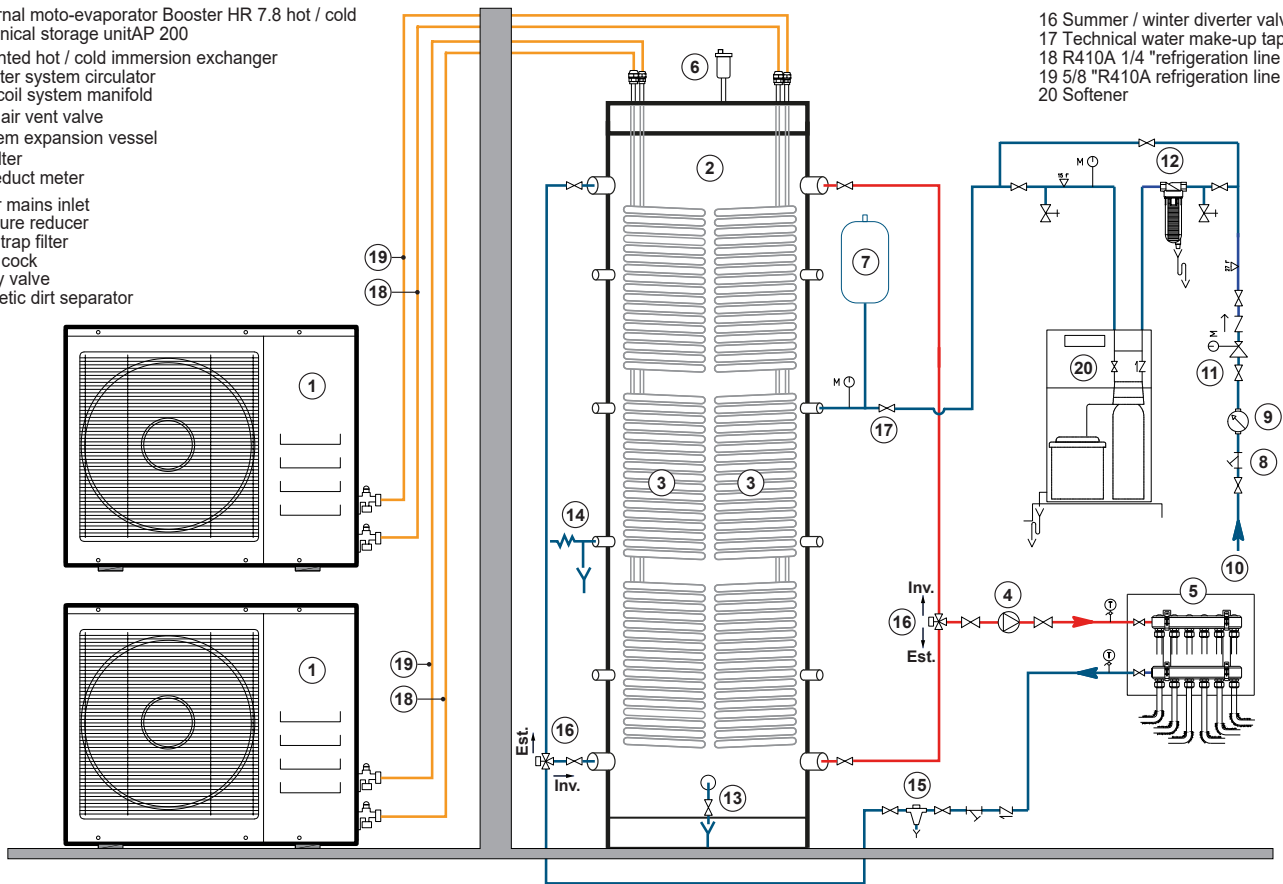
HUB RADIATOR AP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for small and medium users

Application example AP 200 with n. 2 Booster HR 7.8 hot / cold to power a fan coil system

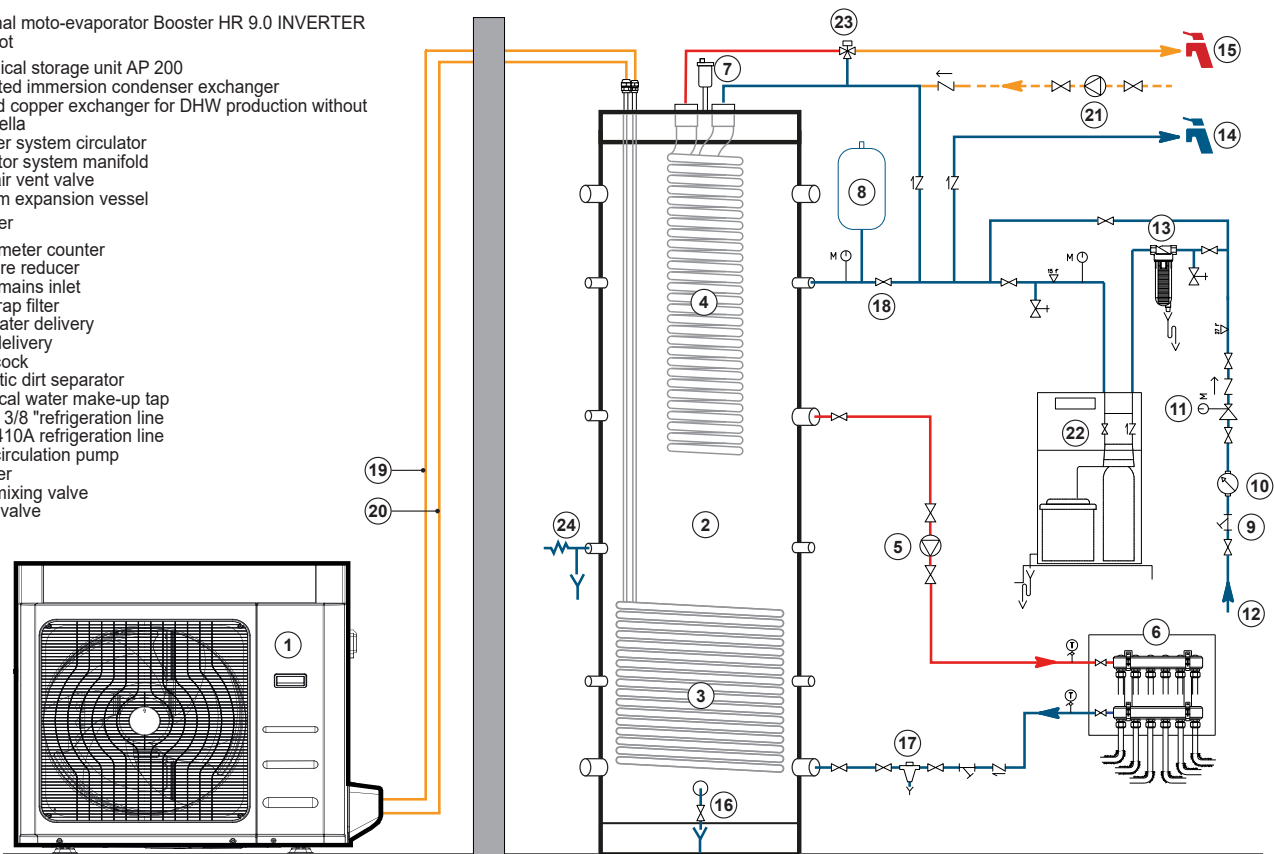
- 1 External moto-evaporator Booster HR 7.8 hot / cold
- 2 Technical storage unit AP 200
- 3 Patented hot / cold immersion exchanger
- 4 Inverter system circulator
- 5 Fan coil system manifold
- 6 Jolly air vent valve
- 7 System expansion vessel
- 8 "Y" filter
- 9 Aqueduct meter
- 10 Water mains inlet
- 11 Pressure reducer
- 12 Sand trap filter
- 13 Drain cock
- 14 Safety valve
- 15 Magnetic dirt separator

- 16 Summer / winter diverter valve
- 17 Technical water make-up tap
- 18 R410A 1/4" refrigeration line
- 19 5/8" R410A refrigeration line
- 20 Softener



Application example AP 200 with Booster HR 9.0 INVERTER heating only for the production of heating and DHW

- 1 External moto-evaporator Booster HR 9.0 INVERTER only hot
- 2 Technical storage unit AP 200
- 3 Patented immersion condenser exchanger
- 4 Finned copper exchanger for DHW production without legionella
- 5 Inverter system circulator
- 6 Radiator system manifold
- 7 Jolly air vent valve
- 8 System expansion vessel
- 9 "Y" filter
- 10 Water meter counter
- 11 Pressure reducer
- 12 Water mains inlet
- 13 Sand trap filter
- 14 Cold water delivery
- 15 DHW delivery
- 16 Drain cock
- 17 Magnetic dirt separator
- 18 Technical water make-up tap
- 19 R410A 3/8" refrigeration line
- 20 5/8" R410A refrigeration line
- 21 DHW circulation pump
- 22 Softener
- 23 DHW mixing valve
- 24 Safety valve

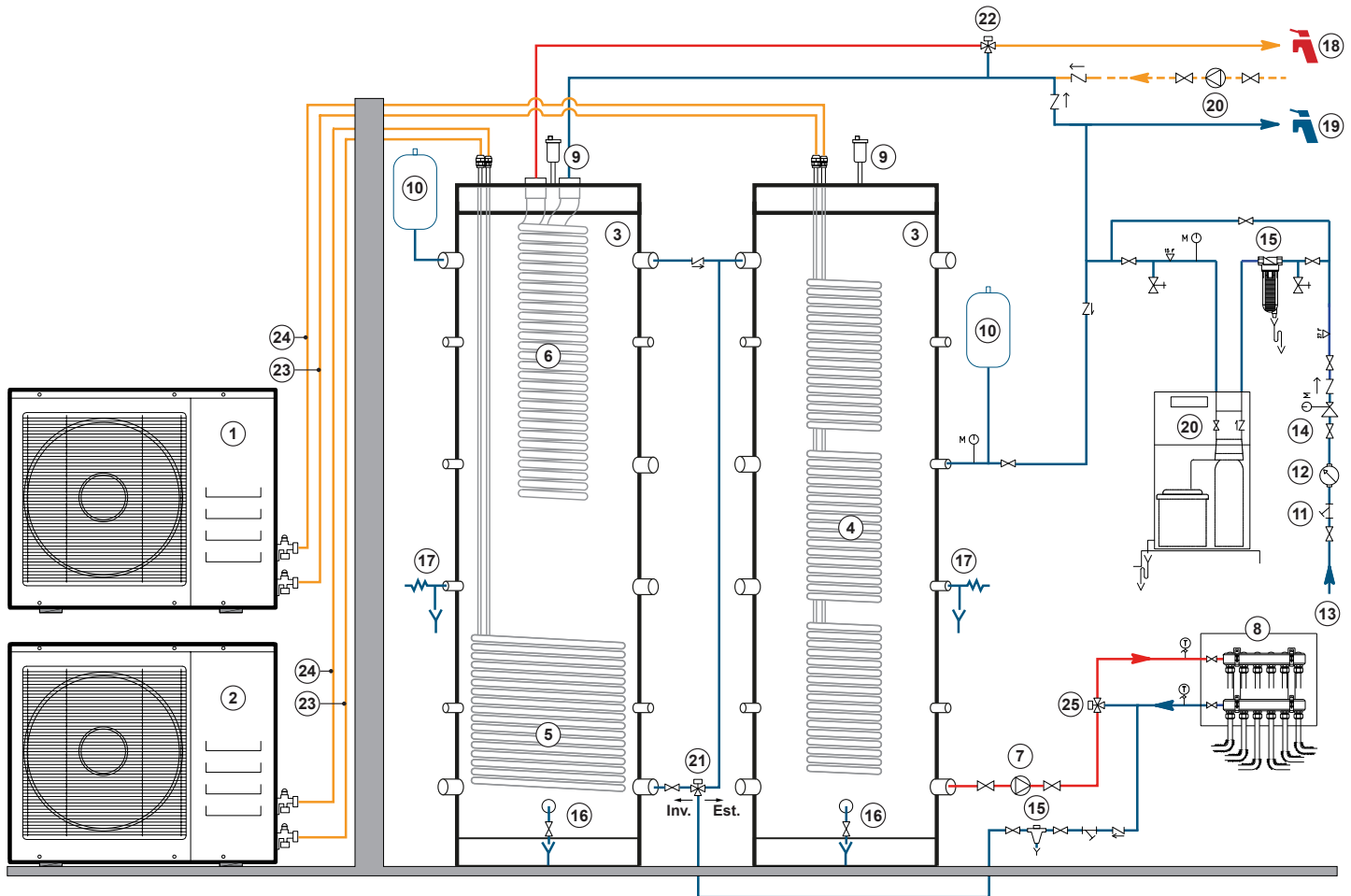


HUB RADIATOR AP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for small and medium users

Application example AP 160 + 160 with n. 2 Booster HR 7.8 for summer and winter air conditioning and DHW production

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> 1 External moto-evaporator Booster HR 7.8 hot / cold 2 External moto-evaporator Booster HR 7.8 only hot 3 Technical storage unit AP 160 4 Patented hot / cold immersion exchanger 5 Patented hot-only immersion exchanger 6 DHW heat exchanger in finned copper 7 Inverter system circulator 8 Fan coil system manifold 9 Jolly air vent valve | <ul style="list-style-type: none"> 10 System expansion vessel 11 "Y" filter 12 Water meter counter 13 Water mains inlet 14 Pressure reducer 15 Sand trap filter 16 Drain cock 17 Safety valve 18 Domestic hot water delivery | <ul style="list-style-type: none"> 19 Domestic cold water delivery 20 Domestic water recirculation pump 21 Summer / winter diverter valve 22 DHW mixing valve 23 R410A 1/4" refrigeration line 24 5/8" R410A refrigeration line 25 DHW priority diverter valve |
|--|---|---|



DHW withdrawal table AP 160 - 200

| Internal unit AP | U.M. | AP 160 | AP 160 | AP 160 | AP 160 | AP 200 | AP 200 | AP 200 | AP 200 |
|---|------|------------|------------|------------------|------------------|------------|------------|------------------|------------------|
| Booster outdoor unitHR | | 3.0 | 7.8 | 3.0 + 7.8 | 7.8 + 7.8 | 3.0 | 7.8 | 3.0 + 7.8 | 7.8 + 7.8 |
| Single withdrawal water quantity at 35° C (1) | l | 95 | 100 | 112 | 154 | 118 | 124 | 132 | 198 |
| Single withdrawal water quantity at 40° C (1) | l | 87 | 92 | 102 | 140 | 108 | 113 | 120 | 180 |
| Single withdrawal water quantity at 45° C (1) | l | 76 | 80 | 90 | 122 | 95 | 99 | 106 | 158 |
| Recovery time from 35° C to 55° C (2) | h | 1,17 | 0,62 | 0,56 | 0,45 | 1,46 | 0,77 | 0,70 | 0,56 |
| Recovery time from 40° C to 55° C (2) | h | 0,89 | 0,34 | 0,28 | 0,17 | 1,11 | 0,42 | 0,35 | 0,21 |
| Recovery time from 45° C to 55° C (2) | h | 0,62 | 0,24 | 0,20 | 0,12 | 0,77 | 0,30 | 0,25 | 0,15 |
| Initial start up 5° C (3) | h | 2,97 | 1,15 | 1,02 | 0,58 | 3,71 | 1,43 | 1,27 | 0,73 |
| Initial start up 10° C (4) | h | 2,69 | 1,03 | 0,93 | 0,52 | 3,36 | 1,28 | 1,16 | 0,65 |
| Initial start up 15° C (5) | h | 2,41 | 0,91 | 0,85 | 0,46 | 3,02 | 1,13 | 1,06 | 0,58 |

(1) External air temperature 7° C d.b. - 6° C b.u. ; technical water temperature at the beginning of drawing 55° C ; water inlet temperature 10° C

(2) External air temperature 7° C d.b. - 6° C b.u.

(3) External air temperature 7° C d.b. - 6° C b.u. ; technical water temperature at the start of ignition 5° C - technical water temperature at the end of ignition 55° C

(4) External air temperature 7° C d.b. - 6° C b.u. ; technical water temperature at the start of ignition 10° C - technical water temperature at the end of ignition 55° C

(5) External air temperature 7° C d.b. - 6° C b.u. ; technical water temperature at the start of ignition 15° C - technical water temperature at the end of ignition 55° C

HUB RADIATOR AP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for small and medium users

Technical data table Booster HUB RADIATOR AP

| DESCRIPTION | U.M. | HR 3.0 only hot | HR 7.8 only hot | HR 3.0 Hot / Cold | HR 7.8 Hot / Cold | HR 9.0 inverter only hot | HR 9.0 inverter Hot / Cold |
|---|-------|--|--------------------|----------------------|----------------------|-----------------------------|-------------------------------|
| Thermal power (1) | kW | 3,11 | 8,12 | 3,11 | 8,12 | 3,54/8,01/8,81* | 3,54/8,01/8,81* |
| Absorbed power (1) | kW | 0,74 | 1,96 | 0,74 | 1,96 | 1,89 | 1,89 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,20 | 4,14 | 4,24 | 4,24 |
| Thermal power (2) | kW | 2,97 | 7,75 | 2,97 | 7,75 | 2,85/7,92/8,71* | 2,85/7,92/8,71* |
| Absorbed power (2) | kW | 0,94 | 2,52 | 0,94 | 2,52 | 2,39 | 2,39 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,16 | 3,07 | 3,31 | 3,31 |
| Thermal power (3) | kW | 2,58 | 6,73 | 2,58 | 6,73 | 2,54/7,04/7,74* | 2,54/7,04/7,74* |
| Absorbed power (3) | kW | 0,74 | 2,00 | 0,74 | 2,00 | 2,15 | 2,15 |
| C.O.P. (3) | W/W | 3,48 | 3,37 | 3,48 | 3,37 | 3,52 | 3,52 |
| Thermal power (4) | kW | 2,47 | 6,44 | 2,47 | 6,44 | 2,46/6,82/7,50* | 2,46/6,82/7,50* |
| Absorbed power (4) | kW | 0,94 | 2,54 | 0,94 | 2,54 | 2,74 | 2,74 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,67 | 2,53 | 2,68 | 2,68 |
| Thermal power (5) | kW | 2,11 | 5,52 | 2,11 | 5,52 | 2,31/6,41/7,05* | 2,31/6,41/7,05* |
| Absorbed power (5) | kW | 0,75 | 2,00 | 0,75 | 2,00 | 2,31 | 2,31 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 2,81 | 2,76 | 3,04 | 3,04 |
| Thermal power (6) | kW | 1,99 | 5,20 | 1,99 | 5,20 | 2,25/6,25/6,88* | 2,25/6,25/6,88* |
| Absorbed power (6) | kW | 0,94 | 2,53 | 0,94 | 2,53 | 2,78 | 2,78 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 2,11 | 2,05 | 3,39 | 3,39 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,78 | 3,71 | 3,94 | 3,94 |
| Seasonal heating efficiency (η _s) | % | 153,1 | 150,3 | 153,1 | 150,3 | 159,62 | 159,62 |
| Refrigeration power (8) | kW | - | - | 2,94 | 7,24 | - | 4,91/7,72/8,49* |
| Absorbed power (8) | kW | - | - | 0,72 | 1,89 | - | 1,76 |
| E.E.R. (8) | W/W | - | - | 4,08 | 3,82 | - | 4,38 |
| Refrigeration power (9) | kW | - | - | 2,63 | 5,84 | - | 3,80/6,08/6,69* |
| Absorbed power (9) | kW | - | - | 0,89 | 2,20 | - | 1,99 |
| E.E.R. (9) | W/W | - | - | 2,95 | 2,65 | - | 3,05 |
| S.E.E.R. (9) | W/W | - | - | 3,67 | 3,32 | - | 4,25 |
| Energy efficiency class (10) | | A / A++ | | | | A++ / A++ | |
| Compressor type | | Rotation ON-OFF | | | | Twin Rotary DC INVERTER | |
| Compressors | | 1 | | | | | |
| Refrigerant circuits | | 1 | | | | | |
| Defrost method | | Reverse cycle with immersion condenser | | | | | |
| Type of refrigerant | | R410A | | | | | |
| Technical water temperature min / max | °C | + 30 / + 58 | | + 4 / + 58 | | + 30 / + 58 | + 4 / + 58 |
| Refrigerant quantity (pre-inserted) | Kg | 1,1 | 2,0 | 1,1 | 2,0 | 2,2 | 2,2 |
| Min distance between outdoor and indoor unit | m | 3 | | | | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | | | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | | | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | | | | |
| Refrigerant gas line connection | | 3/8" | 5/8" | 3/8" | 5/8" | 5/8" | 5/8" |
| Coolant line connection | | 1/4" | 1/4" | 1/4" | 1/4" | 3/8" | 3/8" |
| Sound power (11) | dB(A) | 65,1 | 68,4 | 65,1 | 68,4 | 64,0 | 64,0 |
| Sound pressure at one meter (12) | dB(A) | 51,2 | 54,7 | 51,2 | 54,7 | 49,8 | 49,8 |
| Outdoor temperature operating limits | °C | -15 / +45 | | | | -20 / +46 | |
| Power supply | | 230V/1/50Hz | | | | | |
| Max absorbed power | kW | 0,94 | 2,53 | 0,94 | 2,53 | 4,70 | 4,70 |
| Max absorbed current | A | 4,30 | 11,57 | 4,30 | 11,57 | 20,40 | 20,40 |
| Weight | Kg | 33 | 55 | 33 | 55 | 62 | 62 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: outside air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: outside air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 23/18 °C

(9) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 12/7 °C

(10) Water 35 °C / 55 °C

(11) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions (1)

(12) Value calculated according to ISO 3744: 2010 (*) By activating the maximum HZ function

SUPER HUB RADIATOR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating and domestic hot water for medium and large users

ENERGY RATING



Technical and construction features

The many years of experience in the Green Economy sector has allowed us to understand the real needs of medium / large users (condominiums, sports centers, campsites, hotels, service sectors, etc.). In this context linked to energy saving and the use of renewable energy, the SUPER HUB RADIATOR system was born, capable of producing heating and domestic hot water according to the canons of new sustainable development. The main features of the SUPER HUB RADIATOR are:

INTEGRATED SOLUTIONS

The SUPER HUB RADIATOR has been designed to function as a large thermal energy accumulator, also offering wide configuration possibilities in combination with solar thermal and biomass.

HIGH PERFORMANCES

The particular construction of the patented multiple condensers with direct refrigerant / water exchange combined with the HR Booster in cascade guarantee energy savings, greater yield, great reliability and simplified maintenance.

NO LEGIONELLA

The SUPER HUB RADIATOR with the first in - first out method guarantees maximum performance of the heat pump and maximum hygiene of the sanitary circuit which always works separated from the technical water. These particular copper exchangers allow to eliminate the big problem of legionella in the bud.

ENERGY SAVING

The exclusive HUB RADIATOR patent redefines the performance parameters of air / water heat pumps by reaching the maximum performance levels of the system with the "direct exchange of the refrigerant / water condenser" even in very cold winters.

This allows you to return from the investment in a very short time. **BOOSTER IN THE CASCADE**

The high versatility and modularity of the SUPER HUB RADIATOR system allows all operators in the sector to configure their own heating plant by choosing from different A_RM technical water inertial accumulators in which to connect several HR Boosters that work in direct exchange with load capacity steps to obtain the required heat output.



PATENTED SYSTEM



RENEWABLE ENERGY



ENERGY SAVING

MANY CONFIGURATIONS



BOOSTER INVERTER



ECOLOGICAL GAS



SOLAR THERMAL COMBI



PHOTOVOLTAIC COMBI



DHW WITHOUT LEGIONELLA



HEATING UP TO 58 °C

External moto-evaporating unit model

Booster HR 3.0 only heat

Booster HR 7.8 only heat

Booster HR 9.0 only heat INVERTER

Codice

€

76010240

2.000,00

76010500

3.700,00

76030500

4.760,00









SUPER HUB RADIATOR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating and domestic hot water for medium and large users

Technical accumulation SUPER HUB RADIATOR

| Models | DHW exchanger | Solar exchanger | Biomass exchanger | Code | € |
|---------------------------|--------------------------------------|------------------------------|------------------------------|-----------------|-----------------|
| Accumulo ARM1 300 | Extractable from 4,54 m ² | - | - | 37310300 | 2.870,00 |
| Accumulo ARM1 500 | Extractable from 4,54 m ² | - | - | 37310500 | 3.060,00 |
| Accumulo ARM1 800 | Extractable from 5,26 m ² | - | - | 37310800 | 4.060,00 |
| Accumulo ARM1 1000 | Extractable from 5,26 m ² | - | - | 37311000 | 4.320,00 |
| Accumulo ARM1 1500 | Extractable from 6,34 m ² | - | - | 37311500 | 5.070,00 |
| Accumulo ARM1 2000 | Extractable from 6,34 m ² | - | - | 37312000 | 6.380,00 |
| Accumulo ARM2 300 | Extractable from 4,54 m ² | Fixed of 1,40 m ² | - | 37320300 | 3.160,00 |
| Accumulo ARM2 500 | Extractable from 4,54 m ² | Fixed of 2,00 m ² | - | 37320500 | 3.610,00 |
| Accumulo ARM2 800 | Extractable from 5,26 m ² | Fixed of 2,50 m ² | - | 37320800 | 4.430,00 |
| Accumulo ARM2 1000 | Extractable from 5,26 m ² | Fixed of 3,50 m ² | - | 37321000 | 4.510,00 |
| Accumulo ARM2 1500 | Extractable from 6,34 m ² | Fixed of 4,00 m ² | - | 37321500 | 6.340,00 |
| Accumulo ARM2 2000 | Extractable from 6,34 m ² | Fixed of 4,80 m ² | - | 37322000 | 6.860,00 |
| Accumulo ARM3 300 | Extractable from 4,54 m ² | Fixed of 1,40 m ² | Fixed of 1,10 m ² | 37330300 | 3.370,00 |
| Accumulo ARM3 500 | Extractable from 4,54 m ² | Fixed of 2,00 m ² | Fixed of 1,80 m ² | 37330500 | 4.060,00 |
| Accumulo ARM3 800 | Extractable from 5,26 m ² | Fixed of 2,50 m ² | Fixed of 2,00 m ² | 37330800 | 4.680,00 |
| Accumulo ARM3 1000 | Extractable from 5,26 m ² | Fixed of 3,50 m ² | Fixed of 2,50 m ² | 37331000 | 4.970,00 |
| Accumulo ARM3 1500 | Extractable from 6,34 m ² | Fixed of 4,00 m ² | Fixed of 2,80 m ² | 37331500 | 6.860,00 |
| Accumulo ARM3 2000 | Extractable from 6,34 m ² | Fixed of 4,80 m ² | Fixed of 3,80 m ² | 37332000 | 7.180,00 |

















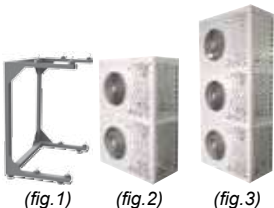


Accessories SUPER HUB RADIATOR

| | | | | |
|---|---|--|---|---|
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W mod. 2000 W mod. 3000 W | 75050102 75050103 75060300 | 150,00 160,00 170,00 |
|  | Additional inverter electronic circulator max flow rate 3.3 m ³ / h max head 6.2 m electrical absorption min. 4 W - max 45 W | | 35006001 | 214,00 |
|  | System pump kit which includes: Inverter electronic circulation pump complete with shut-off valves, air vent jolly valve, safety valve, threaded plugs and probe wells | | 75100011 | 380,00 |
|  | High head system pump kit which includes: complete inverter electronic circulation pump of shut-off valves, air vent jolly valve, safety valve, threaded plugs and probe wells | | 75100009 | 674,00 |
|  | High efficiency inverter electronic circulator with wet rotor and ECM permanent magnet motor | mod. 3/6 Q max 3,2 m³/h H max 6,6 m mod. 9/10 Q max 9 m³/h H max 10,5 m mod. 18/12 Q max 18 m³/h H max 12,8 m mod. 27/16 Q max 27 m³/h H max 16,0 m mod. 30/18G Q max 30 m³/h H max 18,0 m | 35006002 36576012 36576013 36576014 36576015 | 540,00 1.220,00 2.380,00 3.780,00 6.590,00 |
|  | Command and remote control panel | mod. incasso mod. a parete | 75100005 75100028 | 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. Collegamento BUS mod. Radiofrequenza | 37081062 37081063 | 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |

SUPER HUB RADIATOR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating and domestic hot water for medium and large users








Accessories SUPER HUB RADIATOR

| | | | Codice | € |
|---|--|---|-----------------|-----------------|
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment | 75101032 | 90,00 |
| | | mod. motorized adjustment | 75101033 | 530,00 |
|  | Additional condenser for heat only HR Booster | | 26505565 | 300,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. HR 3.0 | 37081060 | 50,00 |
| | | mod. HR 7.8 - 9.0 | 37081061 | 90,00 |
|  | Anchoring bracket for sloped roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 - 9.0 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 | 37081065 | 52,00 |
| | | mod. HR 7.8 - 9.0 | 37081066 | 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 meters 90 W | 37081067 | 56,00 |
| | | mod. 6 meters 120 W | 37081068 | 66,00 |
|  | Auxiliary basin for installation under the shelf equipped with 90 W heating cable | mod. HR 3.0 | 37081069 | 252,00 |
| | | mod. HR 7.8 - 9.0 | 37081070 | 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fixed | 37081071 | 308,00 |
| | | mod. HR 7.8 - 9.0 H fixed | 37081073 | 330,00 |
| | | mod. HR 7.8 - 9.0 H variable | 37081074 | 354,00 |
|  | DHW thermostatic mixer for anti-scald solar thermal systems | mod. MIX L | 50103015 | 370,00 |
| | | mod. MIX XL | 50203015 | 396,00 |
| | | mod. MIX XXL | 50303015 | 1.370,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with flare and straight union | mod. HR 7.8 - 9.0 (5/8") | 75100014 | 120,00 |
| | | mod. HR 3.0 (3/8") | 75100015 | 60,00 |
|  | Antivibration flexible joint kit with flare and 90° curved union | mod. HR 7.8 - 9.0 (5/8") | 75100016 | 120,00 |
| | | mod. HR 3.0 (3/8") | 75100017 | 60,00 |
|  | Programmer clock kit | | 35639900 | 40,00 |
|  | AIR BOX cabinet for cylindrical internal unit - external frame covering the technical storage | mod. 300 L 950 P 930 - H 1950 | 75060202 | 620,00 |
| | | mod. 500 L 950 P 930 - H 1950 | 75060203 | 990,00 |
| | | mod. 800 L 1200 P 1180 - H 2100 | 75060204 | 1.100,00 |
|  | Open shelf for n. 2 Booster outdoor units mod. HR 7.8 - 9.0 complete with anti-vibration mounts (fig. 1) | | 75060406 | 240,00 |
|  | RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - 7.8 - 9.0 (fig. 2) | | 75060306 | 890,00 |
|  | RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - 7.8 - 9.0 Height 210 cm Width 96 cm Depth 54 cm (fig.3) | | 75060206 | 980,00 |

SUPER HUB RADIATOR

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Thermal solar kits to be combined with the systems SUPER HUB RADIATOR

| | | | | |
|---|--|--------------------------------|-----------------|------------------|
|  | solar thermal kit 1 x 2.0 m2 | Kit Solar HR 1 x 2.0 | Code | € |
| | - N. 1 SELECTIVE H + 2.0 m2 flat sheet panel - Anchoring kit for 1 SELECTIVE H + 2.0 m2 manifold - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 12 liter expansion vessel - String fittings kit (1 string - 1 collector) - Concentrated glycol 1 tank of 3 liters | Flat roof / 1 x 2.0 | 37318030 | 2.000,00 |
| Solar collector SELECTIVE | solar thermal kit 1 x 2.5 m2 | Kit Solar HR 1 x 2.5 | Code | € |
| | - N. 1 SELECTIVE HX + 2.5 m2 flat sheet panel - Anchoring kit for 1 SELECTIVE HX + 2.5 m2 manifold - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 18 liter expansion vessel - String fittings kit (1 string - 1 collector) - Concentrated glycol 1 tank of 4 liters | Flat roof / 1 x 2.5 | 37318031 | 2.136,00 |
|  | solar thermal kit 2 x 2.0 m2 | Kit Solar HR 2 x 2.0 | Code | € |
| | - N. 2 SELECTIVE H + 2.0 m2 flat sheet panels - Anchoring kit for 2 SELECTIVE HX + 2.0 m2 collectors - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter expansion vessel - String fittings kit (1 string - 2 collectors) - Concentrated glycol 2 tanks of 3 liters | Flat roof / 2 x 2.0 | 37318032 | 2.888,00 |
| Anchoring kit SELECTIVE | solar thermal kit 2 x 2.5 m2 | Kit Solar HR 2 x 2.5 | Code | € |
| | - N. 2 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 2 SELECTIVE HX + 2.5 m2 manifolds - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter solar expansion tank - String fittings kit (1 string - 2 collectors) - Concentrated glycol 2 tanks of 4 liters | Flat roof / 2 x 2.5 | 37318033 | 3.158,00 |
|  | solar thermal kit 3 x 2.0 m2 | Kit Solar HR 3 x 2.0 | Code | € |
| | - N. 3 pannelli in lastra piana SELECTIVE H+ 2.0 m2 - Kit ancoraggio 3 collettori SELECTIVE H+ 2.0 m2 - Stazione solare 2 vie mod. UNIT 2 PLUS - Centralina solare CONTROL MULTI 06 S - Vaso di espansione solare 25 litri - Kit raccordi di stringa (1 stringa - 3 collettori) - Glicole concentrato 3 taniche da 3 litri | Flat roof / 3 x 2.0 | 37318034 | 3.782,00 |
| Solar station UNIT 2 PLUS | solar thermal kit 3 x 2.5 m2 | Kit Solar HR 3 x 2.5 | Code | € |
| | - N. 3 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 3 SELECTIVE HX + 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter solar expansion tank - String fittings kit (1 string - 3 collectors) - Concentrated glycol 3 tanks of 4 liters | Flat roof / 3 x 2.5 | 37318035 | 4.188,00 |
|  | solar thermal kit 5 x 2.5 m2 | Kit Solar HR 5 x 2.5 | Code | € |
| | - N. 5 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 5 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 40 liter expansion vessel - String fittings kit (1 string - 5 collectors) - Concentrated glycol 2 canisters of 10 liters | Flat roof / 5 x 2.5 | 37318036 | 6.263,00 |
| Solar control unit CONTROL MULTI 06 S | solar thermal kit 6 x 2.5 m2 | Kit Solar HR 6 x 2.5 | Code | € |
| | - N. 6 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 6 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 60 liter expansion vessel - String fittings kit (1 string - 6 collectors) - Concentrated glycol 5 canisters of 5 liters | Flat roof / 6 x 2.5 | 37318037 | 7.300,00 |
|  | solar thermal kit 10 x 2.5 m2 | Kit Solar HR 10 x 2.5 | Code | € |
| | - N. 10 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 10 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 XL PLUS - CONTROL MULTI 06 S solar control unit - 100 liter expansion vessel - String fittings kit (2 strings - 10 collectors) - Concentrated glycol 4 tanks of 10 liters | Flat roof / 10 x 2.5 | 37318038 | 12.526,00 |
| Solar expansion vessel | solar thermal kit 12 x 2.5 m2 | Kit Solar HR 12 x 2.5 | Code | € |
| | - N. 12 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 12 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 XL PLUS - CONTROL MULTI 06 S solar control unit - 100 liter expansion vessel - String fittings kit (2 strings - 12 collectors) - Concentrated glycol 5 canisters of 10 liters | Flat roof / 12 x 2.5 | 37318039 | 14.300,00 |
|  | | Pitched roof / 10 x 2.5 | 37308037 | 7.002,00 |
| | String fittings kit | | | |
|  | | Pitched roof / 12 x 2.5 | 37308039 | 13.800,00 |
| | antifreeze glycol kit | | | |

SUPER HUB RADIATOR

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Pool heaters kit to be combined with SUPER HUB RADIATOR systems



316L stainless steel exchanger



Circulator inverter



Management unit



Hydraulic fittings kit

pool heater kit mod. 20 kW

- N. 1 20 kW stainless steel exchanger
- N. 1 electronic inverter circulator of 2 m³ / h
- N. 1 digital electronic control unit
- N. 1 kit of 3/4 "hydraulic fittings pool heater kit mod. 40 kW

pool heater kit mod. 40 kW

- N. 1 40 kW stainless steel exchanger
- N. 1 electronic inverter circulator of 2 m³ / h
- N. 1 digital electronic control unit
- N. 1 kit of 3/4 "hydraulic fittings pool heater kit mod. 70 kW

pool heater kit mod. 70 kW

- N. 1 70 kW stainless steel exchanger
- N. 1 3 m³ / h electronic inverter circulator
- N. 1 digital electronic control unit
- N. 1 kit of 1 "hydraulic fittings pool heater kit mod. 100 kW

pool heater kit mod. 100 kW

- N. 1 100 kW stainless steel exchanger
- N. 1 electronic 5 m³ / h inverter circulator
- N. 1 digital electronic control unit
- N. 1 kit of 1 "hydraulic fittings pool heater kit mod. 140 kW

pool heater kit mod. 140 kW

- N. 2 stainless steel heat exchanger of 70 kW
- N. 2 electronic circulators reversers from 3 m³/h
- N. 1 digital electronic control unit
- N. 2 kit of 1 "hydraulic fittings

| | Codice | € |
|------------------------------|-----------------|---------------|
| Pool heater kit 20 kW | 75050800 | 890,00 |

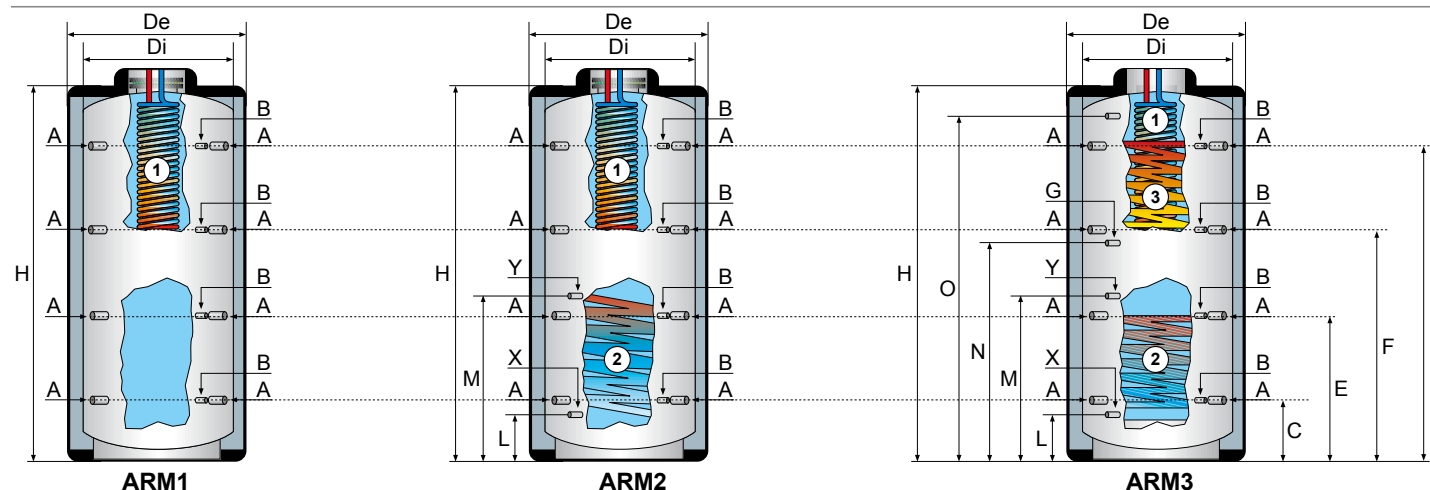
| | Codice | € |
|------------------------------|-----------------|---------------|
| Pool heater kit 40 kW | 75050810 | 990,00 |

| | Codice | € |
|------------------------------|-----------------|-----------------|
| Pool heater kit 70 kW | 75050820 | 1.390,00 |

| | Codice | € |
|-------------------------------|-----------------|-----------------|
| Pool heater kit 100 kW | 75050830 | 1.890,00 |

| | Codice | € |
|-------------------------------|-----------------|-----------------|
| Pool heater kit 140 kW | 75050840 | 2.990,00 |

Dimensions and technical characteristics of technical accumulations ARM1 - ARM2 - ARM3 SUPER HUB RADIATOR



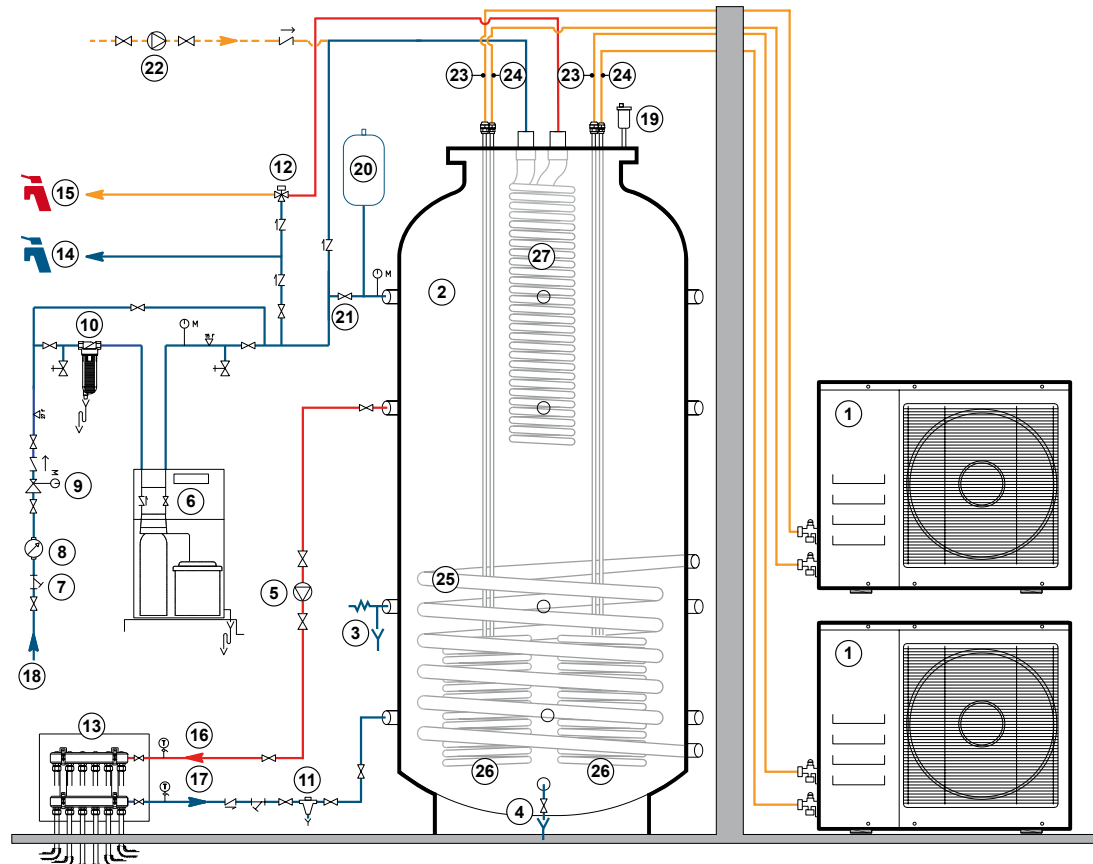
| Technical accumulation dimensions | U.M. | 300 | 500 | 800 | 1000 | 1500 | 2000 |
|-----------------------------------|----------------|--------|--------|--------|--------|--------|--------|
| De | mm | 600 | 750 | 1050 | 1050 | 1260 | 1360 |
| Di | mm | 500 | 650 | 790 | 790 | 1000 | 1100 |
| H | mm | 1595 | 1645 | 1750 | 2110 | 2115 | 2380 |
| C | mm | 215 | 240 | 275 | 275 | 340 | 370 |
| E | mm | 595 | 615 | 655 | 810 | 765 | 930 |
| F | mm | 1080 | 1105 | 1145 | 1355 | 1400 | 1435 |
| I | mm | 1350 | 1375 | 1410 | 1755 | 1725 | 1945 |
| L | mm | 290 | 315 | 355 | 350 | 420 | 450 |
| M | mm | 810 | 835 | 875 | 1035 | 1080 | 1090 |
| N | mm | 930 | 955 | 1015 | 1195 | 1220 | 1230 |
| O | mm | 1290 | 1315 | 1345 | 1675 | 1620 | 1710 |
| X - Y - G - D | | 1" | 1" | 1" | 1" | 1" | 1" |
| A | | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 |
| B | | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| Technical water volume | l | 289,8 | 499,8 | 749,3 | 931,0 | 1472,4 | 1950,0 |
| Sup. Exchange removable DHW (1) | m ² | 4,54 | 4,54 | 5,26 | 5,26 | 6,34 | 6,34 |
| Sup. Exchange fixed lower (2) | m ² | 1,4 | 2,0 | 2,5 | 3,5 | 4,0 | 4,8 |
| Sup. Exchange fixed upper (3) | m ² | 1,1 | 1,8 | 2,0 | 2,5 | 2,8 | 3,8 |
| Insulation thickness | mm | 50 | 50 | 100 | 100 | 100 | 100 |
| Accumulation operating pressure | bar | 4 | 4 | 4 | 4 | 4 | 4 |
| Max exercise temperature | °C | 95 | 95 | 95 | 95 | 95 | 95 |
| Working pressure fixed exchangers | bar | 12 | 12 | 12 | 12 | 12 | 12 |
| Thermal dispersion | W | 57,3 | 69,7 | 109,9 | 113,8 | 132,8 | 143,5 |
| Empty weight ARM1 | Kg | 81 | 115 | 148 | 186 | 232 | 308 |
| Empty weight ARM2 | Kg | 92 | 129 | 168 | 208 | 260 | 356 |
| Empty weight ARM3 | Kg | 101 | 143 | 186 | 231 | 288 | 386 |

SUPER HUB RADIATOR

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating and domestic hot water for medium and large users

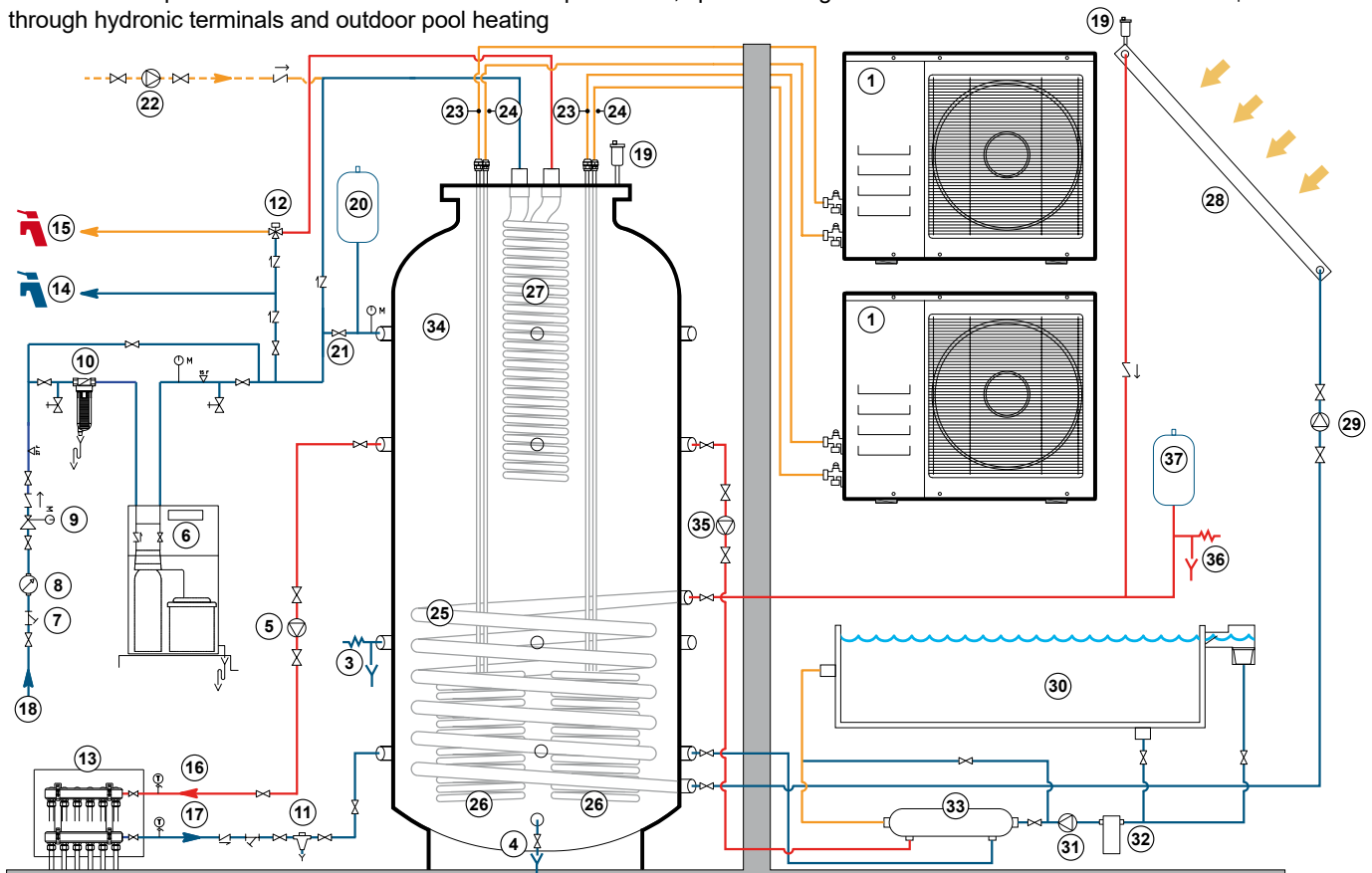
Application examples SUPER HUB RADIATOR

SUPER HUB RADIATOR with 300 liter technical water storage powered by 2 external HR 7.8 boosters for DHW production and room heating via hydronic terminals



- 1 External moto-evaporator Booster HR 7.8 only hot
- 2 Technical storage unit from 300 l ARM2 300
- 3 Safety valve
- 4 Drain cock
- 5 Electronic circulator plant inverter
- 6 Softener
- 7 "Y" filter
- 8 Contatore acquedotto
- 9 Pressure reducer
- 10 Sand trap filter
- 11 Magnetic dirt separator
- 12 DHW mixing valve
- 13 System manifold
- 14 Cold water delivery
- 15 DHW delivery
- 16 System delivery
- 17 System return
- 18 Water mains inlet
- 19 Jolly air vent valve
- 20 System expansion tank
- 21 System make-up cock
- 22 DHW recirculation pump
- 23 R410A refrigeration line 1/4 "(liquid)
- 24 R410A refrigeration line 5/8 "(gas)
- 25 Fixed lower heat exchanger for solar thermal predisposition
- 26 Patented exchanger ad External immersion Booster
- 27 Finned copper exchanger for DHW production without legionella
- 28 Number 3 SKY solar collectors
- 29 Thermal solar pump
- 30 Outdoor swimming pool
- 31 Circulation group for the pool filter system
- 32 Pool filter system
- 33 Beam heat exchanger stainless steel tube technical water / chlorinated water
- 34 Technical storage unit from 500 l ARM2 500
- 35 Inverter electronic circulator pool exchanger
- 36 Solar safety valve
- 37 Solar expansion vessel

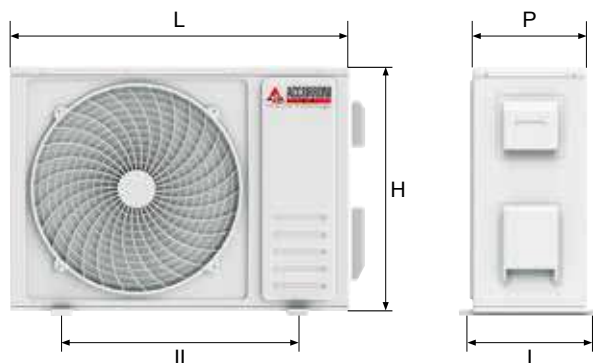
SUPER HUB RADIATOR with 500 liter technical water storage powered by 2 external HR 7.8 boosters and 3 SKY flat plate solar collectors for DHW production, space heating through hydronic terminals and outdoor pool heating



SUPER HUB RADIATOR

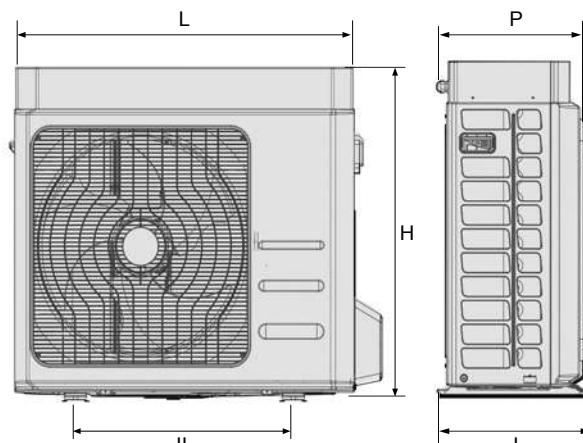
Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating and domestic hot water for medium and large users

External booster dimensions HR 3.0 - 7.8



| Modelli Unità Esterne | L | H | P | I | II | Weight |
|-----------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |

External booster dimensions HR 9.0 INVERTER



| Outdoor Unit Models | L | H | P | I | II | Weight |
|-------------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 9.0 inverter | 925 | 785 | 380 | 358 | 540 | 62 |

Examples of DHW production with finned exchanger and storage at 55 ° C

| Mod. tank | Exchanger surface DHW | Booster HR installed | DHW available in a single withdrawal* | Recovery time** |
|-----------|-----------------------|----------------------|---------------------------------------|-----------------|
| 300 l | 4,54 m ² | 7.8 | 173 l | 0,64 h |
| 300 l | 4,54 m ² | 9.0 | 176 l | 0,59 h |
| 500 l | 4,54 m ² | 7.8 + 3.0 | 288 l | 0,77 h |
| 800 l | 5,26 m ² | 7.8 x 2 | 482 l | 0,86 h |
| 800 l | 4,54 m ² | 9.0 x 2 | 488 l | 0,79 h |
| 1000 l | 5,26 m ² | 7.8 x 2 | 679 l | 1,08 h |
| 1000 l | 5,26 m ² | 9.0 x 2 | 692 l | 0,99 h |
| 1500 l | 6,34 m ² | 7.8 x 2 | 865 l | 1,61 h |
| 1500 l | 6,34 m ² | 9.0 x 2 | 872 l | 1,48 h |
| 2000 l | 6,34 m ² | 7.8 x 3 | 1210 l | 1,43 h |
| 2000 l | 6,34 m ² | 9.0 x 3 | 1236 l | 1,32 h |

* DHW withdrawn at 40 ° C, Technical starting water temp. At 55 ° C, Aqueduct temp. 10 ° C

** Temp. external air 7 ° C, restore from 40 ° C to 55 ° C

Hypothesis of lower fixed exchanger heat output

| Mod. tank | exchanger surface | Power ΔT 10°C* | Power ΔT 15°C* | Power ΔT 20°C* | Flow | Pressure loss |
|-----------|--------------------|----------------|----------------|----------------|----------|---------------|
| 300 l | 1,4 m ² | 9,0 kW | 13,4 kW | 17,9 kW | 620 l/h | 2 kPa |
| 500 l | 2,0 m ² | 12,8 kW | 19,2 kW | 25,6 kW | 880 l/h | 4 kPa |
| 800 l | 2,5 m ² | 16,0 kW | 24,0 kW | 32,0 kW | 1090 l/h | 5 kPa |
| 1000 l | 3,5 m ² | 22,4 kW | 33,6 kW | 44,8 kW | 1310 l/h | 6 kPa |
| 1500 l | 4,0 m ² | 25,6 kW | 38,4 kW | 51,2 kW | 1720 l/h | 8 kPa |
| 2000 l | 4,8 m ² | 30,7 kW | 46,0 kW | 61,4 kW | 1880 l/h | 10 kPa |

*Thermal power referred to the differential between the average temperature of the heating fluid inside the exchanger and the average temperature of the heated fluid

Ipotesi resa termica scambiatore fisso superiore

| Mod. tank | exchanger surface | Power ΔT 10°C* | Power ΔT 15°C* | Power ΔT 20°C* | Flow | Pressure loss |
|-----------|--------------------|----------------|----------------|----------------|----------|---------------|
| 300 l | 1,1 m ² | 7,0 kW | 10,6 kW | 14,1 kW | 400 l/h | 1 kPa |
| 500 l | 1,8 m ² | 11,5 kW | 17,3 kW | 23,0 kW | 700 l/h | 3 kPa |
| 800 l | 2,0 m ² | 12,8 kW | 19,2 kW | 23,6 kW | 900 l/h | 3 kPa |
| 1000 l | 2,5 m ² | 16,0 kW | 24,0 kW | 32,0 kW | 1100 l/h | 6 kPa |
| 1500 l | 2,8 m ² | 17,9 kW | 26,9 kW | 35,8 kW | 1400 l/h | 8 kPa |
| 2000 l | 3,8 m ² | 24,3 kW | 36,5 kW | 48,6 kW | 1600 l/h | 10 kPa |

*Thermal power referred to the differential between the average temperature of the heating fluid inside the exchanger and the average temperature of the heated fluid

SUPER HUB RADIATOR

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Technical data table Booster SUPER HUB RADIATOR

| DESCRIPTION | U.M. | HR 3.0 | HR 7.8 | HR 9.0 INVERTER |
|---|-------|--|--------|---------------------|
| Thermal power (1) | kW | 3,11 | 8,12 | 3,54 / 8,01 / 8,81* |
| Absorbed power(1) | kW | 0,74 | 1,96 | 1,89 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,24 |
| Thermal power (2) | kW | 2,97 | 7,75 | 2,85 / 7,92 / 8,71* |
| Absorbed power (2) | kW | 0,94 | 2,52 | 2,39 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,31 |
| Thermal power (3) | kW | 2,58 | 6,73 | 2,54 / 7,04 / 7,74* |
| Absorbed power (3) | kW | 0,74 | 2,00 | 2,15 |
| C.O.P. (3) | W/W | 3,48 | 3,37 | 3,52 |
| Thermal power (4) | kW | 2,47 | 6,44 | 2,46 / 6,82 / 7,50* |
| Absorbed power (4) | kW | 0,94 | 2,54 | 2,74 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,68 |
| Thermal power (5) | kW | 2,11 | 5,52 | 2,31 / 6,41 / 7,05* |
| Absorbed power(5) | kW | 0,75 | 2,00 | 2,31 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 3,04 |
| Thermal power (6) | kW | 1,99 | 5,20 | 2,25 / 6,25 / 6,88* |
| Absorbed power (6) | kW | 0,94 | 2,53 | 2,78 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 3,39 |
| SCOP (7) | W/W | 3,78 | 3,71 | 3,94 |
| Seasonal heating efficiency (η _s) | % | 153,10 | 150,30 | 159,62 |
| Energy efficiency class (8) | | A++ / A | | A++ / A+++ |
| Compressor type | | Rotation ON-OFF | | Twin Rotary DC INV. |
| Compressors | n. | 1 | | |
| Refrigerant circuits | n. | 1 | | |
| Defrost method | | Reverse cycle with immersion condenser | | |
| Type of refrigerant | | R410A | | |
| Technical water temperature min / max | °C | +30 / +58 | | |
| Refrigerant quantity (pre-inserted) | kg | 1,1 | 2,0 | 2,2 |
| Min distance between outdoor and indoor unit | m | 3 | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | |
| R410A refrigerant gas line connection | | 3/8" | 5/8" | 5/8" |
| R410A refrigerant liquid line connection | | 1/4" | 1/4" | 3/8" |
| Sound power(9) | dB(A) | 65,1 | 68,4 | 64,0 |
| Sound pressure at one meter (10) | dB(A) | 51,2 | 54,7 | 32,8 |
| External temperature operating limits | °C | -15 / +45 | | -20 / +46 |
| Power supply | | 230V/1/50Hz | | |
| Max absorbed power | kW | 0,94 | 2,53 | 4,70 |
| Max absorbed current | A | 4,30 | 11,57 | 20,40 |
| Weight | Kg | 33 | 55 | 62 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Water 35 °C / 55 °C

(9) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions (1)

(10) Value calculated according to ISO 3744: 2010

(11) (*) By activating the maximum HZ function

SUPER HUB RADIATOR TOP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for medium and large users

ENERGY RATING



Technical and construction features

SUPER HUB RADIATOR TOP is the most complete version of the patent created to best satisfy the requests for heating, air conditioning and domestic hot water.

The system consists of two inertial storage tanks of technical water, one used for heating and DHW production and one for air conditioning (in summer) and heating (in winter). One or more Boosters in cascade must be combined with each storage tank, activating the relative compressors according to the thermal load. This product today represents the best solution for total living comfort both in summer and in winter where in the coldest periods of the year the thermal power of the machine increases as the two closed vessel inertial storage radiators are put into communication through a system of motorized solenoid valves, thus generating a single super accumulation of technical water to be used as thermal flywheel of the system.

SUPER HUB RADIATOR TOP can be combined with Accorroni fan coils or the FAN DRIVE active controlled mechanical ventilation system, thus offering comfortable heat in winter, cooling and dehumidification of the premises in the summer. SUPER HUB RADIATOR TOP is supplied as standard complete with technical inertial hot only storage mod. ARM, hot / cold inertial technical storage mod. VT, air vent jolly valve, safety valve, drain cock, 2-way motorized valve, 3-way motorized diverter valve.

SUPER HUB RADIATOR TOP is an extremely versatile and modular innovative system, it allows the application of multiple boosters that work in cascade with load shedding steps through separate and independent thermodynamic circuits that are activated based on the actual heating / cooling needs of the building.

This operation, combined with the peculiarities of the technical water accumulations, is synonymous with extreme reliability, effectiveness and efficiency.









| Model | Code | € |
|---|----------|----------|
| SUPER HUB RADIATOR TOP ARM1 300 + VT 300 | 37410300 | 5.020,00 |
| SUPER HUB RADIATOR TOP ARM2 300 + VT 300 | 37420300 | 5.320,00 |
| SUPER HUB RADIATOR TOP ARM1 500 + VT 300 | 37410500 | 5.210,00 |
| SUPER HUB RADIATOR TOP ARM2 500 + VT 300 | 37420500 | 5.760,00 |
| SUPER HUB RADIATOR TOP ARM1 500 + VT 500 | 37430500 | 5.630,00 |
| SUPER HUB RADIATOR TOP ARM2 500 + VT 500 | 37440500 | 6.170,00 |
| SUPER HUB RADIATOR TOP ARM1 800 + VT 300 | 37410800 | 6.210,00 |
| SUPER HUB RADIATOR TOP ARM2 800 + VT 300 | 37420800 | 6.580,00 |
| SUPER HUB RADIATOR TOP ARM1 800 + VT 500 | 37430800 | 6.620,00 |
| SUPER HUB RADIATOR TOP ARM2 800 + VT 500 | 37440800 | 7.000,00 |
| SUPER HUB RADIATOR TOP ARM1 800 + VT 800 | 37450800 | 6.900,00 |
| SUPER HUB RADIATOR TOP ARM2 800 + VT 800 | 37460800 | 7.270,00 |
| SUPER HUB RADIATOR TOP ARM1 1000 + VT 300 | 37411000 | 6.470,00 |
| SUPER HUB RADIATOR TOP ARM2 1000 + VT 300 | 37421000 | 6.670,00 |
| SUPER HUB RADIATOR TOP ARM1 1000 + VT 500 | 37431000 | 6.890,00 |
| SUPER HUB RADIATOR TOP ARM2 1000 + VT 500 | 37441000 | 7.090,00 |
| SUPER HUB RADIATOR TOP ARM1 1000 + VT 800 | 37451000 | 7.160,00 |
| SUPER HUB RADIATOR TOP ARM2 1000 + VT 800 | 37461000 | 7.350,00 |

SUPER HUB RADIATOR TOP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for medium and large users

| Model | Code | € |
|---|-----------------|-----------------|
| Booster HR 3.0 solo caldo | 76010240 | 2.000,00 |
| Booster HR 3.0 caldo/freddo | 76020240 | 2.430,00 |
| Booster HR 7.8 solo caldo | 76010500 | 3.700,00 |
| Booster HR 7.8 caldo/freddo | 76020500 | 4.130,00 |
| Booster HR 9.0 solo caldo INVERTER | 76030500 | 4.760,00 |
| Booster HR 9.0 caldo/freddo INVERTER | 76040500 | 4.960,00 |


















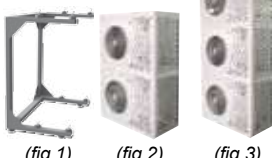

Accessories SUPER HUB RADIATOR

| | | | | | | |
|---|---|------------------------------|----------------------------------|---------------------|-----------------|-----------------|
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W | 75050102 | 150,00 | | |
| | | mod. 2000 W | 75050103 | 160,00 | | |
| | | mod. 3000 W | 75060300 | 170,00 | | |
|  | Additional inverter electronic circulator max flow rate 3.3 m ³ / h max head 6.2 m electrical absorption min. 4 W - max 45 W | | 35006001 | 214,00 | | |
|  | System pump kit which includes: Inverter electronic circulation pump complete with shut-off valves, air vent jolly valve, safety valve, threaded plugs and probe wells | | 75100011 | 380,00 | | |
|  | Hot / cold inverter system pump kit which includes: electronic circulation pump complete with valves shut-off valves, air vent jolly valve, safety valve, threaded caps and probe holder wells | | 75100009 | 674,00 | | |
|  | High efficiency wet rotor electronic inverter circulator with ECM permanent magnet motor | mod. 3/6 | Q max 3,2 m³/h | H max 6,6 m | 35006002 | 540,00 |
| | | mod. 9/10 | Q max 9 m³/h | H max 10,5 m | 36576012 | 1.220,00 |
| | | mod. 18/12 | Q max 18 m³/h | H max 12,8 m | 36576013 | 2.380,00 |
| | | mod. 27/16 | Q max 27 m³/h | H max 16,0 m | 36576014 | 3.780,00 |
| | | mod. 30/18G | Q max 30 m³/h | H max 18,0 m | 36576015 | 6.590,00 |
|  | Command and remote control panel | mod. built-in | | 75100005 | 90,00 | |
| | | mod. to the wall | | 75100028 | 110,00 | |
|  | Load control relay for managing the absorbed power | mod. Collegamento BUS | | 37081062 | 148,00 | |
| | | mod. Radiofrequenza | | 37081063 | 336,00 | |
|  | Web server home automation control unit | | | 75101005 | 580,00 | |

SUPER HUB RADIATOR TOP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for medium and large users

Accessories SUPER HUB RADIATOR TOP

| | | | Codice | € |
|---|--|--|---|---|
|  | Mixing valve for radiant systems | mod. regolazione fissa meccanica mod. regolazione motorizzata | 75101032 75101033 | 90,00 530,00 |
|  | Additional capacitor for HR Booster | mod. solo caldo mod. caldo/freddo | 26505565 26505567 | 300,00 400,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. HR 3.0 mod. HR 7.8 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for inclined roof for external Booster mod. 3.0 - 7.8 - 9.0 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 - 9.0 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 metri 90 W mod. 6 metri 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fissa mod. HR 7.8 - 9.0 H fissa mod. HR 7.8 - 9.0 H variabile | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | DHW thermostatic mixer for anti-scald solar thermal systems | mod. MIX L mod. MIX XL mod. MIX XXL | 50103015 50203015 50303015 | 370,00 396,00 1.370,00 |
|  | Domestic hot water recirculation kit Inverter electronic circulator with brass body max flow rate 0.4 m3 / h max head 1.0 m | | 35006004 | 460,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with connecting flange and straight union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Anti-vibration flexible joint kit with flare and 90 ° curved union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |
|  | Programmer clock kit | | 35639900 | 40,00 |
|  | Open shelf for n. 2 Booster outdoor units mod. HR 7.8 - 9.0 complete with anti-vibration mounts (fig. 1) | | 75060406 | 240,00 |
|  | RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - 7.8 - 9.0 (fig. 2) | | 75060306 | 890,00 |
|  | RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - 7.8 - 9.0 Height 210 cm Width 96 cm Depth 54 cm (fig.3) | | 75060206 | 980,00 |

SUPER HUB RADIATOR TOP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for medium and large users

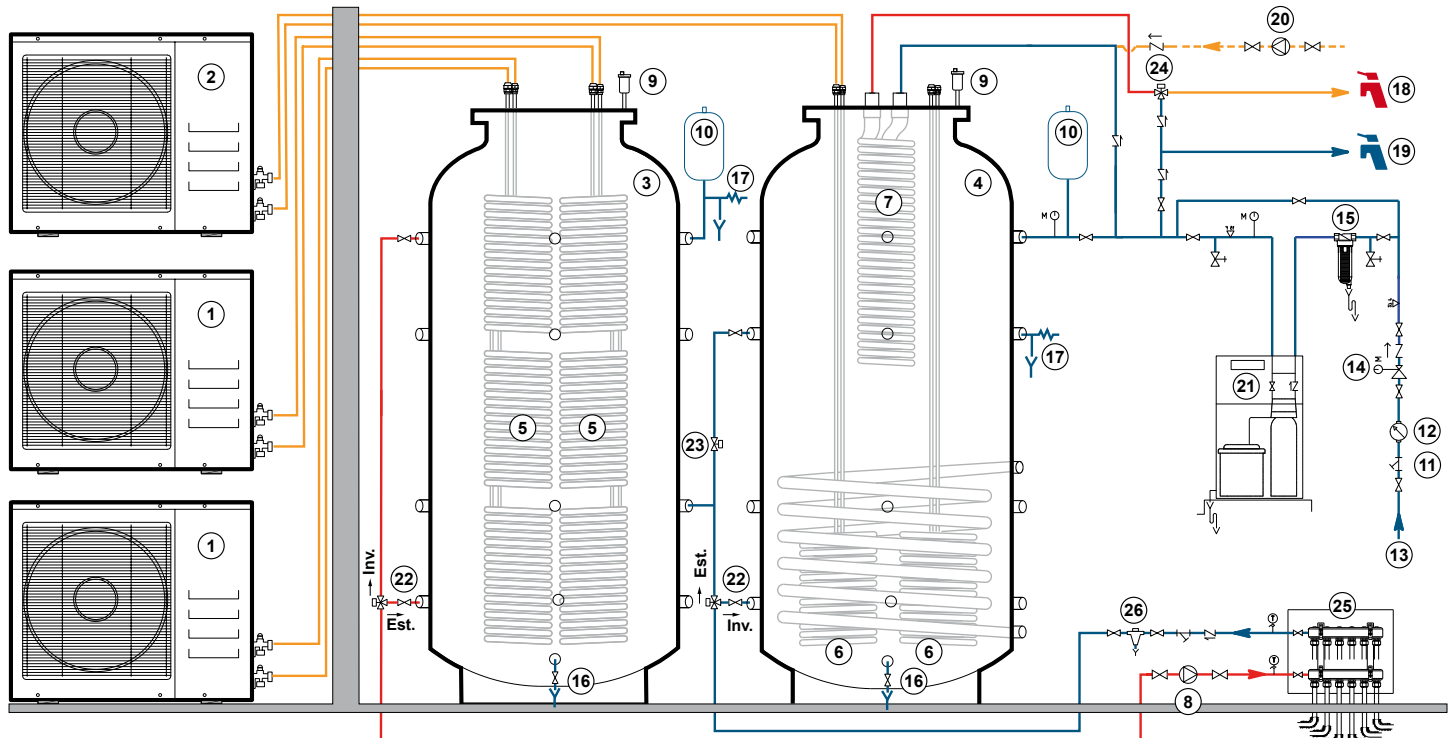
Esempio di applicativi SUPER HUB RADIATOR TOP

Example of SUPER HUB RADIATOR TOP consisting of an inertial storage of technical water of 300 liters model VT 300 fed by 2 external boosters HR 7.8 hot / cold and a storage of technical water of 300 liters model ARM2 300 fed by an external booster HR 7.8 only hot.

Inside the ARM2 300 storage tank there is also an additional patented hot-only immersion heat exchanger for possible future integration and a lower fixed heat exchanger to connect a forced circulation solar thermal system that can assist both the production of DHW and heating winter.

In the upper part of the ARM2 300 storage there is a finned copper exchanger directly immersed in technical water for the instantaneous production of DHW with the first in - first out method which guarantees maximum yield and sanitation hygiene, also eliminating the problem of legionella.

The main peculiarity of the patented SUPER HUB RADIATOR TOP system is represented by an automatic system of 3 and 2-way motorized valves that allow the 2 technical water accumulators to communicate during the winter and separate them during the summer.

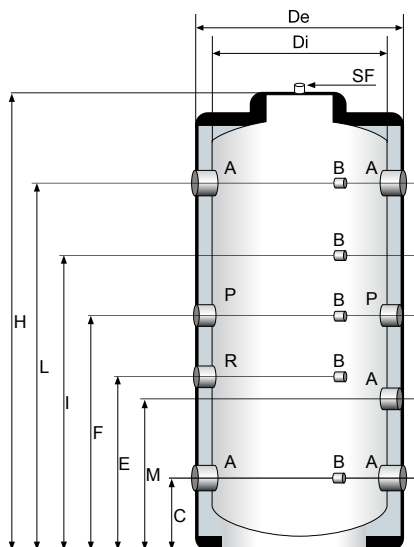


- 1 External moto-evaporator Booster HR 7.8 hot / cold
- 2 External moto-evaporator Booster HR 7.8 only hot
- 3 Technical storage unit VT 300 hot / cold
- 4 Technical storage unit A_RM2 300 heating only
- 5 Patented hot / cold immersion exchanger
- 6 Patented hot-only immersion exchanger
- 7 DHW heat exchanger in finned copper
- 8 Inverter system circulator
- 9 Jolly air vent valve

- 10 System expansion vessel
- 11 "Y" filter
- 12 Water meter counter
- 13 Water mains inlet
- 14 Pressure reducer
- 15 Sand trap filter
- 16 Drain cock
- 17 Safety valve
- 18 Domestic hot water delivery
- 19 Domestic cold water delivery

- 20 DHW recirculation pump
- 21 Softener
- 22 Summer / winter diverter valve
- 23 Summer / winter 2-way valve (open winter - closed summer)
- 24 DHW mixing valve
- 25 Manifold fan coil system
- 26 Magnetic dirt separator

Dimensions of hot / cold technical accumulators VT SUPER HUB RADIATOR TOP

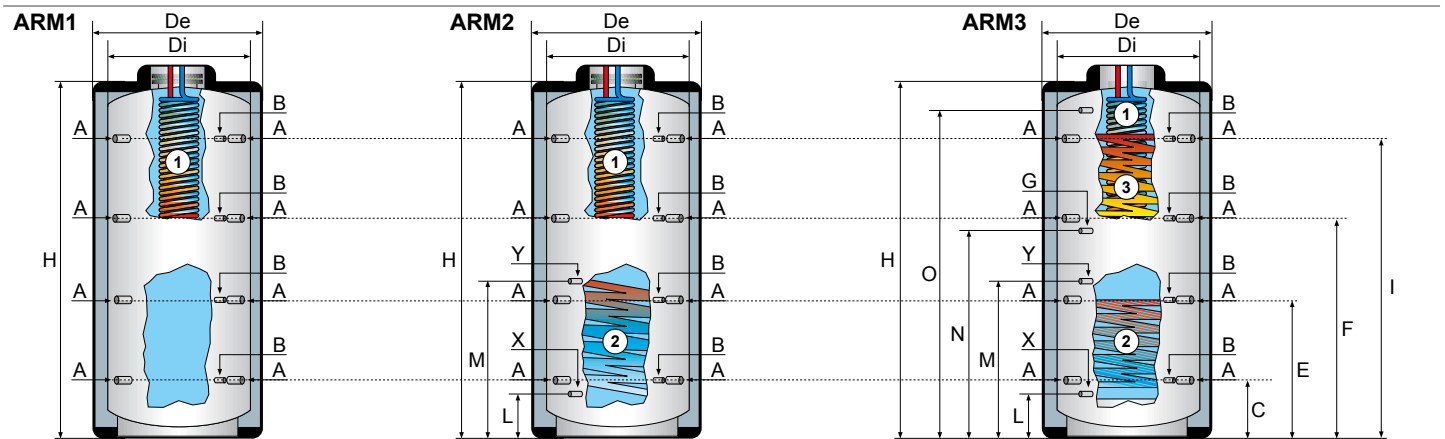


| Model | U.M. | 300 | 500 | 800 |
|----------------------------|------|----------|-----------|-----------|
| De | mm | 600 | 750 | 990 |
| Di | mm | 500 | 650 | 790 |
| H | mm | 1545 | 1605 | 1665 |
| C | mm | 225 | 222 | 222 |
| E | mm | 596 | 615 | 655 |
| F | mm | 840 | 860 | 840 |
| I | mm | 1080 | 1105 | 1145 |
| L | mm | 1340 | 1355 | 1385 |
| M | mm | 642 | 642 | 642 |
| A | | 2" | 2" 1/2 | 3" |
| B | | 1/2" | 1/2" | 1/2" |
| R | | 1" 1/4 | 1" 1/4 | 1" 1/2 |
| P | | 1" 1/2 | 1" 1/2 | 1" 1/2 |
| SF | | 1/2" | 1/2" | 1/2" |
| Insulation thickness | mm | 50 | 50 | 100 |
| Pressure max | bar | 4 | 4 | 4 |
| Temperature min / max | °C | 4 / 95 | 4 / 95 | 4 / 95 |
| Thermal dispersion | W | 93,0 | 94,1 | 117,5 |
| Unladen / operating weight | Kg | 80 / 378 | 114 / 609 | 146 / 941 |

SUPER HUB RADIATOR TOP

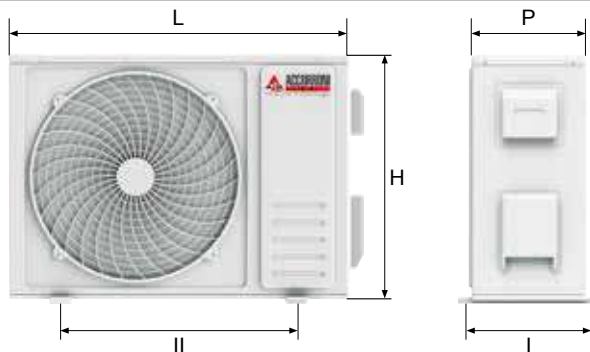
Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for medium and large users

Dimensions and technical characteristics of technical accumulations ARM1 - ARM2 - ARM3 SUPER HUB RADIATOR TOP



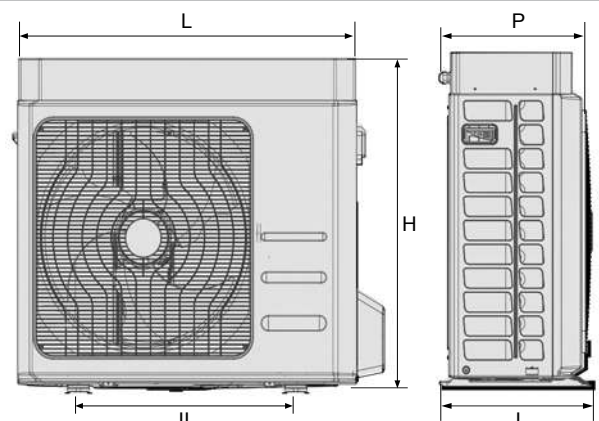
| Technical accumulation dimensions | U.M. | 300 | 500 | 800 | 1000 | 1500 | 2000 |
|-----------------------------------|----------------|--------|--------|--------|--------|--------|--------|
| De | mm | 600 | 750 | 1050 | 1050 | 1260 | 1360 |
| Di | mm | 500 | 650 | 790 | 790 | 1000 | 1100 |
| H | mm | 1595 | 1645 | 1750 | 2110 | 2115 | 2380 |
| C | mm | 215 | 240 | 275 | 275 | 340 | 370 |
| E | mm | 595 | 615 | 655 | 810 | 765 | 930 |
| F | mm | 1080 | 1105 | 1145 | 1355 | 1400 | 1435 |
| I | mm | 1350 | 1375 | 1410 | 1755 | 1725 | 1945 |
| L | mm | 290 | 315 | 355 | 350 | 420 | 450 |
| M | mm | 810 | 835 | 875 | 1035 | 1080 | 1090 |
| N | mm | 930 | 955 | 1015 | 1195 | 1220 | 1230 |
| O | mm | 1290 | 1315 | 1345 | 1675 | 1620 | 1710 |
| X - Y - G - D | | 1" | 1" | 1" | 1" | 1" | 1" |
| A | | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 |
| B | | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| Technical water volume | l | 289,8 | 499,8 | 749,3 | 931,0 | 1472,4 | 1950,0 |
| Sup. Exchange removable DHW (1) | m ² | 4,54 | 4,54 | 5,26 | 5,26 | 6,34 | 6,34 |
| Sup. Exchange fixed lower (2) | m ² | 1,4 | 2,0 | 2,5 | 3,5 | 4,0 | 4,8 |
| Sup. Exchange fixed upper (3) | m ² | 1,1 | 1,8 | 2,0 | 2,5 | 2,8 | 3,8 |
| Insulation thickness | mm | 50 | 50 | 100 | 100 | 100 | 100 |
| Accumulation operating pressure | bar | 4 | 4 | 4 | 4 | 4 | 4 |
| Max operating temperature | °C | 95 | 95 | 95 | 95 | 95 | 95 |
| Working pressure fixed exchangers | bar | 12 | 12 | 12 | 12 | 12 | 12 |
| Thermal dispersion | W | 57,3 | 69,7 | 109,9 | 113,8 | 132,8 | 143,5 |
| Empty weight ARM1 | Kg | 81 | 115 | 148 | 186 | 232 | 308 |
| Empty weight ARM2 | Kg | 92 | 129 | 168 | 208 | 260 | 356 |
| Empty weight ARM3 | Kg | 101 | 143 | 186 | 231 | 288 | 386 |

External booster dimensions HR 3.0 - 7.8



| Outdoor Unit Models | L | H | P | I | II | weight |
|---------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |

External booster dimensions HR 9.0 INVERTER



| Outdoor Unit Models | L | H | P | I | II | weight |
|-------------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 9.0 inverter | 925 | 785 | 380 | 358 | 540 | 62 |

SUPER HUB RADIATOR TOP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for medium and large users

DHW available in a single tap (storage 55 ° C / leaving water 40 ° C) - summer operation (liters) Recovery time from 40 ° C to 55 ° C - summer operation (hours)

| Model | 3.0 / 7.8 | 7.8 / 7.8 | 7.8 / 7.8x2 | 7.8 / 7.8x3 | 7.8x2 / 7.8x2 | 7.8x2 / 7.8x3 | 7.8x2 / 7.8x4 | 7.8x4 / 7.8x4 |
|-------------|------------|-----------|-------------|-------------|---------------|---------------|---------------|---------------|
| 300 + 300* | 165 - 1,68 | | 173 - 0,64 | | | 179 - 0,32 | | 208 - 0,16 |
| 500 + 300* | 275 - 2,80 | | 288 - 1,07 | | | 300 - 0,54 | | 346 - 0,26 |
| 500 + 500* | 275 - 2,80 | | 288 - 1,07 | | | 300 - 0,54 | | 346 - 0,26 |
| 800 + 300* | 440 - 4,49 | | 462 - 1,72 | | | 482 - 0,86 | | 556 - 0,42 |
| 800 + 500* | 440 - 4,49 | | 462 - 1,72 | | | 482 - 0,86 | | 556 - 0,42 |
| 800 + 800* | 440 - 4,49 | | 462 - 1,72 | | | 482 - 0,86 | | 556 - 0,42 |
| 1000 + 300* | 825 - 5,61 | | 666 - 2,15 | | | 679 - 1,08 | | 692 - 0,52 |
| 1000 + 500* | 825 - 5,61 | | 666 - 2,15 | | | 679 - 1,08 | | 692 - 0,52 |
| 1000 + 800* | 825 - 5,61 | | 666 - 2,15 | | | 679 - 1,08 | | 692 - 0,52 |

*the first figure refers to the hot only storage mod. ARM1 / 2, the second digit refers to the hot / cold storage mod. VT

| Model | 3.0 / 9.0 | 9.0 / 9.0 | 9.0 / 9.0x2 | 9.0 / 9.0x3 | 9.0x2 / 9.0x2 | 9.0x2 / 9.0x3 | 9.0x2 / 9.0x4 | 9.0x4 / 9.0x4 |
|-------------|------------|-----------|-------------|-------------|---------------|---------------|---------------|---------------|
| 300 + 300* | 165 - 1,68 | | 178 - 0,58 | | | 179 - 0,29 | | 213 - 0,15 |
| 500 + 300* | 275 - 2,80 | | 295 - 0,99 | | | 300 - 0,50 | | 354 - 0,24 |
| 500 + 500* | 275 - 2,80 | | 295 - 0,99 | | | 300 - 0,50 | | 354 - 0,24 |
| 800 + 300* | 440 - 4,49 | | 472 - 1,58 | | | 488 - 0,79 | | 569 - 0,38 |
| 800 + 500* | 440 - 4,49 | | 472 - 1,58 | | | 488 - 0,79 | | 569 - 0,38 |
| 800 + 800* | 440 - 4,49 | | 472 - 1,58 | | | 488 - 0,79 | | 569 - 0,38 |
| 1000 + 300* | 825 - 5,61 | | 687 - 1,98 | | | 696 - 0,99 | | 708 - 0,48 |
| 1000 + 500* | 825 - 5,61 | | 687 - 1,98 | | | 696 - 0,99 | | 708 - 0,48 |
| 1000 + 800* | 825 - 5,61 | | 687 - 1,98 | | | 696 - 0,99 | | 708 - 0,48 |

*the first figure refers to the hot only storage mod. ARM1 / 2, the second digit refers to the hot / cold storage mod. VT

DHW available in a single tap (storage 55 ° C / leaving water 40 ° C) - winter operation (liters) Recovery time from 40 ° C to 55 ° C - winter operation (hours)

| Model | 3.0 / 7.8 | 7.8 / 7.8 | 7.8 / 7.8x2 | 7.8 / 7.8x3 | 7.8x2 / 7.8x2 | 7.8x2 / 7.8x3 | 7.8x2 / 7.8x4 | 7.8x4 / 7.8x4 |
|-------------|------------|-------------|-------------|-------------|---------------|---------------|---------------|---------------|
| 300 + 300* | 330 - 0,89 | 346 - 0,64 | 349 - 0,43 | 352 - 0,32 | | 359 - 0,26 | 362 - 0,21 | 370 - 0,16 |
| 500 + 300* | 440 - 1,18 | 461 - 0,85 | 465 - 0,57 | 470 - 0,43 | | 479 - 0,35 | 483 - 0,28 | 492 - 0,21 |
| 500 + 500* | 550 - 1,48 | 576 - 1,07 | 581 - 0,72 | 587 - 0,54 | | 598 - 0,43 | 604 - 0,35 | 616 - 0,26 |
| 800 + 300* | 605 - 1,62 | 635 - 1,17 | 640 - 0,77 | 647 - 0,59 | | 660 - 0,48 | 666 - 0,39 | 680 - 0,30 |
| 800 + 500* | 715 - 1,92 | 750 - 1,39 | 758 - 0,93 | 765 - 0,69 | | 780 - 0,56 | 787 - 0,45 | 802 - 0,34 |
| 800 + 800* | 880 - 2,38 | 924 - 1,72 | 942 - 1,15 | 942 - 0,86 | | 956 - 0,70 | 946 - 0,55 | 964 - 0,42 |
| 1000 + 300* | 715 - 1,94 | 750 - 1,40 | 758 - 0,94 | 765 - 0,70 | | 776 - 0,57 | 784 - 0,46 | 800 - 0,35 |
| 1000 + 500* | 825 - 2,22 | 865 - 1,61 | 873 - 1,09 | 882 - 0,81 | | 895 - 0,66 | 904 - 0,53 | 922 - 0,40 |
| 1000 + 800* | 990 - 2,22 | 1039 - 1,93 | 1045 - 1,30 | 1060 - 0,97 | | 1074 - 0,79 | 1084 - 0,64 | 1106 - 0,49 |

*the first figure refers to the hot only storage mod. ARM1 / 2, the second digit refers to the hot / cold storage mod. VT

| Model | 3.0 / 9.0 | 9.0 / 9.0 | 9.0 / 9.0x2 | 9.0 / 9.0x3 | 9.0x2 / 9.0x2 | 9.0x2 / 9.0x3 | 9.0x2 / 9.0x4 | 9.0x4 / 9.0x4 |
|-------------|------------|-------------|-------------|-------------|---------------|---------------|---------------|---------------|
| 300 + 300* | 330 - 0,85 | 346 - 0,59 | 352 - 0,40 | 352 - 0,29 | | 359 - 0,24 | 362 - 0,19 | 370 - 0,14 |
| 500 + 300* | 440 - 1,12 | 461 - 0,78 | 470 - 0,53 | 470 - 0,40 | | 479 - 0,32 | 483 - 0,26 | 492 - 0,19 |
| 500 + 500* | 550 - 1,41 | 576 - 0,99 | 587 - 0,66 | 587 - 0,50 | | 598 - 0,40 | 604 - 0,32 | 616 - 0,24 |
| 800 + 300* | 605 - 1,54 | 635 - 1,08 | 647 - 0,72 | 647 - 0,54 | | 660 - 0,44 | 666 - 0,36 | 680 - 0,27 |
| 800 + 500* | 715 - 1,83 | 750 - 1,28 | 765 - 0,86 | 765 - 0,64 | | 780 - 0,52 | 787 - 0,41 | 802 - 0,31 |
| 800 + 800* | 880 - 2,27 | 924 - 1,59 | 942 - 1,06 | 942 - 0,79 | | 956 - 0,65 | 946 - 0,50 | 964 - 0,39 |
| 1000 + 300* | 715 - 1,85 | 750 - 1,29 | 765 - 0,87 | 765 - 0,65 | | 776 - 0,52 | 784 - 0,42 | 800 - 0,32 |
| 1000 + 500* | 825 - 2,11 | 872 - 1,48 | 882 - 1,01 | 882 - 0,75 | | 895 - 0,61 | 904 - 0,49 | 922 - 0,37 |
| 1000 + 800* | 990 - 2,11 | 1039 - 1,78 | 1060 - 1,20 | 1060 - 0,89 | | 1074 - 0,73 | 1084 - 0,59 | 1106 - 0,45 |

*the first figure refers to the hot only storage mod. ARM1 / 2, the second digit refers to the hot / cold storage mod. VT

SUPER HUB RADIATOR TOP

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and domestic hot water for medium and large users

Technical data table Booster SUPER HUB RADIATOR TOP hot / cold

| DESCRIPTION | U.M. | HR 3.0 only heat | HR 7.8 only heat | HR 3.0 Hot/Cold | HR 7.8 Hot/Cold | HR 9.0 inverter only heat | HR 9.0 inverter Hot/Cold |
|---|-------|--|---------------------|--------------------|--------------------|------------------------------|-----------------------------|
| Thermal power(1) | kW | 3,11 | 8,12 | 3,11 | 8,12 | 3,54/8,01/8,81* | 3,54/8,01/8,81* |
| Absorbed power (1) | kW | 0,74 | 1,96 | 0,74 | 1,96 | 1,89 | 1,89 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,20 | 4,14 | 4,24 | 4,24 |
| Thermal power(2) | kW | 2,97 | 7,75 | 2,97 | 7,75 | 2,85/7,92/8,71* | 2,85/7,92/8,71* |
| Absorbed power (2) | kW | 0,94 | 2,52 | 0,94 | 2,52 | 2,39 | 2,39 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,16 | 3,07 | 3,31 | 3,31 |
| Thermal power(3) | kW | 2,58 | 6,73 | 2,58 | 6,73 | 2,54/7,04/7,74* | 2,54/7,04/7,74* |
| Absorbed power (3) | kW | 0,74 | 2,00 | 0,74 | 2,00 | 2,15 | 2,15 |
| C.O.P. (3) | W/W | 3,48 | 3,37 | 3,48 | 3,37 | 3,52 | 3,52 |
| Thermal power(4) | kW | 2,47 | 6,44 | 2,47 | 6,44 | 2,46/6,82/7,50* | 2,46/6,82/7,50* |
| Absorbed power (4) | kW | 0,94 | 2,54 | 0,94 | 2,54 | 2,74 | 2,74 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,67 | 2,53 | 2,68 | 2,68 |
| Thermal power(5) | kW | 2,11 | 5,52 | 2,11 | 5,52 | 2,31/6,41/7,05* | 2,31/6,41/7,05* |
| Absorbed power (5) | kW | 0,75 | 2,00 | 0,75 | 2,00 | 2,31 | 2,31 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 2,81 | 2,76 | 3,04 | 3,04 |
| Thermal power(6) | kW | 1,99 | 5,20 | 1,99 | 5,20 | 2,25/6,25/6,88* | 2,25/6,25/6,88* |
| Absorbed power (6) | kW | 0,94 | 2,53 | 0,94 | 2,53 | 2,78 | 2,78 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 2,11 | 2,05 | 3,39 | 3,39 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,78 | 3,71 | 3,94 | 3,94 |
| Seasonal heating efficiency(η _s) | % | 153,1 | 150,3 | 153,1 | 150,3 | 159,62 | 159,62 |
| Refrigeration power (8) | kW | - | - | 2,94 | 7,24 | - | 4,91/7,72/8,49* |
| Absorbed power (8) | kW | - | - | 0,72 | 1,89 | - | 1,76 |
| E.E.R. (8) | W/W | - | - | 4,08 | 3,82 | - | 4,38 |
| Refrigeration power (9) | kW | - | - | 2,63 | 5,84 | - | 3,80/6,08/6,69* |
| Absorbed power (9) | kW | - | - | 0,89 | 2,20 | - | 1,99 |
| E.E.R. (9) | W/W | - | - | 2,95 | 2,65 | - | 3,05 |
| S.E.E.R. (9) | W/W | - | - | 3,67 | 3,32 | - | 4,25 |
| Energy efficiency class (10) | | A / A++ | | | | A++ / A++ | |
| Compressor type | | Rotation ON-OFF | | | | Twin Rotary DC INVERTER | |
| Compressors | | 1 | | | | | |
| Refrigerant circuits | | 1 | | | | | |
| Defrosting method | | Inversione di ciclo con condensatore ad immersione | | | | | |
| Type of refrigerant | | R410A | | | | | |
| Technical water temperature min / max | °C | + 30 / + 58 | | + 4 / + 58 | | + 30 / + 58 | + 4 / + 58 |
| Refrigerant quantity (pre-inserted) | Kg | 1,1 | 2,0 | 1,1 | 2,0 | 2,2 | 2,2 |
| Min distance between outdoor and indoor unit | m | 3 | | | | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | | | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | | | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | | | | |
| Refrigerant gas line connection | | 3/8" | 5/8" | 3/8" | 5/8" | 5/8" | 5/8" |
| Coolant line connection | | 1/4" | 1/4" | 1/4" | 1/4" | 3/8" | 3/8" |
| Sound power (11) | dB(A) | 65,1 | 68,4 | 65,1 | 68,4 | 64,0 | 64,0 |
| Sound pressure at one meter(12) | dB(A) | 51,2 | 54,7 | 51,2 | 54,7 | 49,8 | 49,8 |
| Outdoor temperature operating limits | °C | -15 / +45 | | | | -20 / +46 | |
| Power supply | | 230V/1/50Hz | | | | | |
| Max absorbed power | kW | 0,94 | 2,53 | 0,94 | 2,53 | 4,70 | 4,70 |
| Max absorbed current | A | 4,30 | 11,57 | 4,30 | 11,57 | 20,40 | 20,40 |
| Weight | Kg | 33 | 55 | 33 | 55 | 62 | 62 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: outside air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: outside air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Cooling: external air temperature 35 °C d.b. ; inlet / outlet water temperature 23/18 °C

(9) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 12/7 °C

(10) Water 35 °C / 55 °C

(11) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions (1)

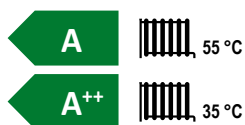
(12) Value calculated according to ISO 3744: 2010

SPLITTED REFRIGERATORS HUB RADIATOR

Patented high efficiency multi-compressor heat pump systems with direct refrigerant / water exchange from 2 to 8 units with separate and independent circuits to produce heating and air conditioning for medium and large users



ENERGY RATING



Technical and construction features

HUB RADIATOR SPLITTING REFRIGERATORS (formed by UE Booster in cascade and UI technical water accumulators) are patented high efficiency multi-compressor heat pump systems with direct refrigerant / water exchange from 2 to 8 units with separate and independent circuits to produce heating and air conditioning for medium / large users. With the HUB RADIATOR SPLITTED REFRIGERATING UNITS system, the external heat pump Booster units are supplied separately to be combined with internal units for inertial storage of technical water that are usually located in the boiler room. The VT series cylindrical technical water accumulators are equipped with connections of various diameters to connect the refrigeration lines of the boosters and to connect the delivery and return of the carrier fluid to the system terminals.

These models are equipped with external coatings insulated in anti-condensation PVC and thermal insulation in rigid polyurethane 50 mm thick.

These accumulators, being placed inside the premises, do not require antifreeze glycol and also allow to reduce heat loss in both winter and summer use. Cylindrical accumulators are available in the following models:

- VT 300 where up to 4 Boosters can be connected in cascade
- VT 500 where up to 6 Boosters can be connected in cascade
- VT 800 where you can insert up to 8 Boosters in cascade
- VT 1000 where you can insert up to 8 Boosters in cascade

The Booster outdoor units are available in the following models:

- HR 3.0 single-compressor outdoor booster
- HR 7.8 single-compressor outdoor booster
- HR 9.0 INVERTER single compressor outdoor booster

The boosters have been designed in the software part to work in cascade with direct high conductivity copper exchangers immersed in the technical accumulator.

This new technology allows a better yield of the whole thermodynamic cycle and above all the winter defrosting operations are more effective, and much shorter and less expensive.

















It is possible to obtain the required powers by choosing from the range, type and number of boosters up to a maximum of 8 compressors that work on 8 separate and independent circuits, in order to obtain maximum reliability and the best load partialization. The system is supplied as standard complete with a factory pre-wired electrical panel equipped with special differential magneto-thermal switches, voltage monitoring relays and an electronic control unit for each Booster applied.



| Model | Code | € |
|---|----------|----------|
| Accumulator VT 300 | 37306020 | 1.700,00 |
| Accumulator VT 500 | 37306030 | 2.100,00 |
| Accumulator VT 800 | 37306040 | 2.400,00 |
| Accumulator VT 100 | 37306045 | 2.600,00 |
| Booster HR 3.0 heating/cooling | 76020240 | 2.430,00 |
| Booster HR 7.8 heating/cooling | 76020500 | 4.130,00 |
| Booster HR 9.0 heating/cooling INVERTER | 76040500 | 4.960,00 |

SPLITTED REFRIGERATORS HUB RADIATOR













Patented high efficiency multi-compressor heat pump systems with direct refrigerant / water exchange from 2 to 8 units with separate and independent circuits to produce heating and air conditioning for medium and large users

| Accessories SPLITTED REFRIGERATORS HUB RADIATOR | | | Code | € |
|---|---|--|---|---|
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W mod. 2000 W mod. 3000 W | 75050102 75050103 75060300 | 150,00 160,00 170,00 |
|  | Additional inverter electronic circulator max flow rate 3.3 m ³ / h max head 6.2 m electrical absorption min. 4 W - max 45 W | | 35006001 | 214,00 |
|  | System pump kit which includes: Inverter electronic circulation pump complete with shut-off valves, air vent jolly valve, safety valve, threaded plugs and probe wells | | 75100011 | 380,00 |
|  | Hot / cold inverter system pump kit which includes: electronic circulation pump complete with valves shut-off valves, air vent jolly valve, safety valve, threaded caps and probe holder wells | | 75100009 | 674,00 |
|  | High efficiency inverter electronic circulator with wet rotor and ECM permanent magnet motor | mod. 3/6 Q max 3,2 m ³ /h H max 6,6 m mod. 9/10 Q max 9 m ³ /h H max 10,5 m mod. 18/12 Q max 18 m ³ /h H max 12,8 m mod. 27/16 Q max 27 m ³ /h H max 16,0 m mod. 30/18G Q max 30 m ³ /h H max 18,0 m | 35006002 36576012 36576013 36576014 36576015 | 540,00 1.220,00 2.380,00 3.780,00 6.590,00 |
|  | Command and remote control panel | mod. built-in mod. wall | 75100005 75100028 | 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection mod. Radio frequency | 37081062 37081063 | 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment mod. motorized adjustment | 75101032 75101033 | 90,00 530,00 |
|  | Additional capacitor for HR Booster | mod. only hot mod. hot/cold | 26505565 26505567 | 300,00 400,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. Booster HR 3.0 mod. Booster HR 7.8 - 9.0 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for inclined roof for external Booster mod. HR 3.0 - 7.8 - 9.0 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 - 9.0 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 meters 90 W mod. 6 meters 120 W | 37081067 37081068 | 56,00 66,00 |

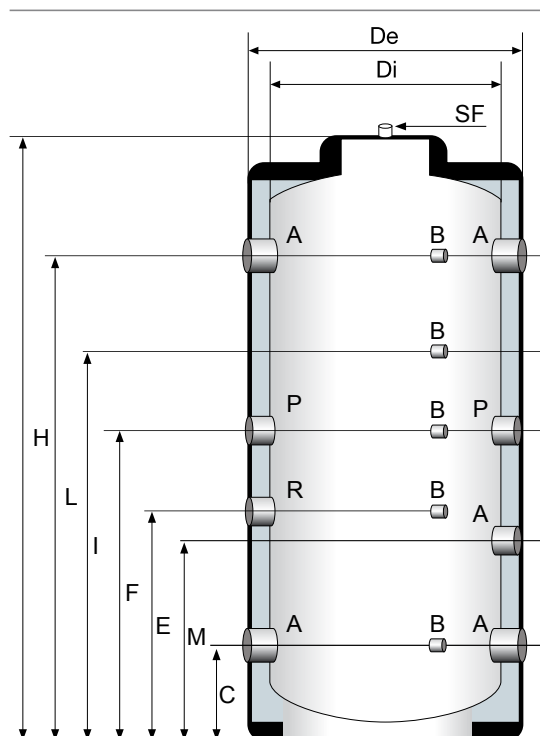
SPLITTED REFRIGERATORS HUB RADIATOR

Patented high efficiency multi-compressor heat pump systems with direct refrigerant / water exchange from 2 to 8 units with separate and independent circuits to produce heating and air conditioning for medium and large users

Accessories SPLITTED REFRIGERATORS HUB RADIATOR

| | | | Code | € |
|---|---|---|----------------------------------|------------------------------|
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fixed mod. HR 7.8 - 9.0 H fixed mod. HR 7.8 - 9.0 H variable | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | DHW thermostatic mixer for anti-scald solar thermal systems | mod. MIX L mod. MIX XL mod. MIX XXL | 50103015 50203015 50303015 | 370,00 396,00 1.370,00 |
|  | Domestic hot water recirculation kit Inverter electronic circulator with brass body max flow rate 0.4 m3 / h max head 1.0 m | | 35006004 | 460,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with connecting flange and straight union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Antivibration flexible joint kit with flare and 90 ° curved union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |
|  | Programmer clock kit | | 35639900 | 40,00 |
|  | AIR BOX cabinet for cylindrical internal unit - external frame covering the technical storage | mod. 300 L 950 P 930 - H 1950 mod. 500 L 950 P 930 - H 1950 mod. 800 L 1200 P 1180 - H 2100 | 75060202 75060203 75060204 | 620,00 990,00 1.100,00 |
|  | Open shelf for n. 2 Booster outdoor units mod. HR 7.8 - 9.0 complete with anti-vibration mounts (fig. 1) | | 75060406 | 240,00 |
|  | RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - 7.8 - 9.0 (fig. 2) | | 75060306 | 890,00 |
|  | RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - 7.8 - 9.0 Height 210 cm Width 96 cm Depth 54 cm (fig.3) | | 75060206 | 980,00 |

Accumulator dimensions SPLITTED REFRIGERATING UNITS HUB RADIATOR



| Model | U.M. | VT 300 | VT 500 | VT 800 | VT 1000 |
|----------------------------|------|----------|-----------|-----------|------------|
| De | mm | 600 | 750 | 990 | 990 |
| Di | mm | 500 | 650 | 790 | 790 |
| H | mm | 1545 | 1605 | 1665 | 2010 |
| C | mm | 225 | 222 | 222 | 222 |
| E | mm | 596 | 615 | 655 | 800 |
| F | mm | 840 | 860 | 840 | 1050 |
| I | mm | 1080 | 1105 | 1145 | 1250 |
| L | mm | 1340 | 1355 | 1385 | 1710 |
| M | mm | 642 | 642 | 642 | 642 |
| A | | 2" | 2" 1/2 | 3" | 3" |
| B | | 1/2" | 1/2" | 1/2" | 1/2" |
| R | | 1" 1/4 | 1" 1/4 | 1" 1/2 | 1" 1/5 |
| P | | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 |
| SF | | 1/2" | 1/2" | 1/2" | 1/2" |
| Technical water content | l | 300 | 500 | 800 | 1000 |
| Insulation thickness | mm | 50 | 50 | 100 | 100 |
| Max pressure | bar | 4 | 4 | 4 | 4 |
| Min / max temperature | °C | 4 / 95 | 4 / 95 | 4 / 95 | 4 / 95 |
| Thermal dispersion | W | 93,0 | 94,1 | 117,5 | 119,2 |
| Unladen / operating weight | Kg | 80 / 378 | 114 / 609 | 146 / 941 | 162 / 1162 |

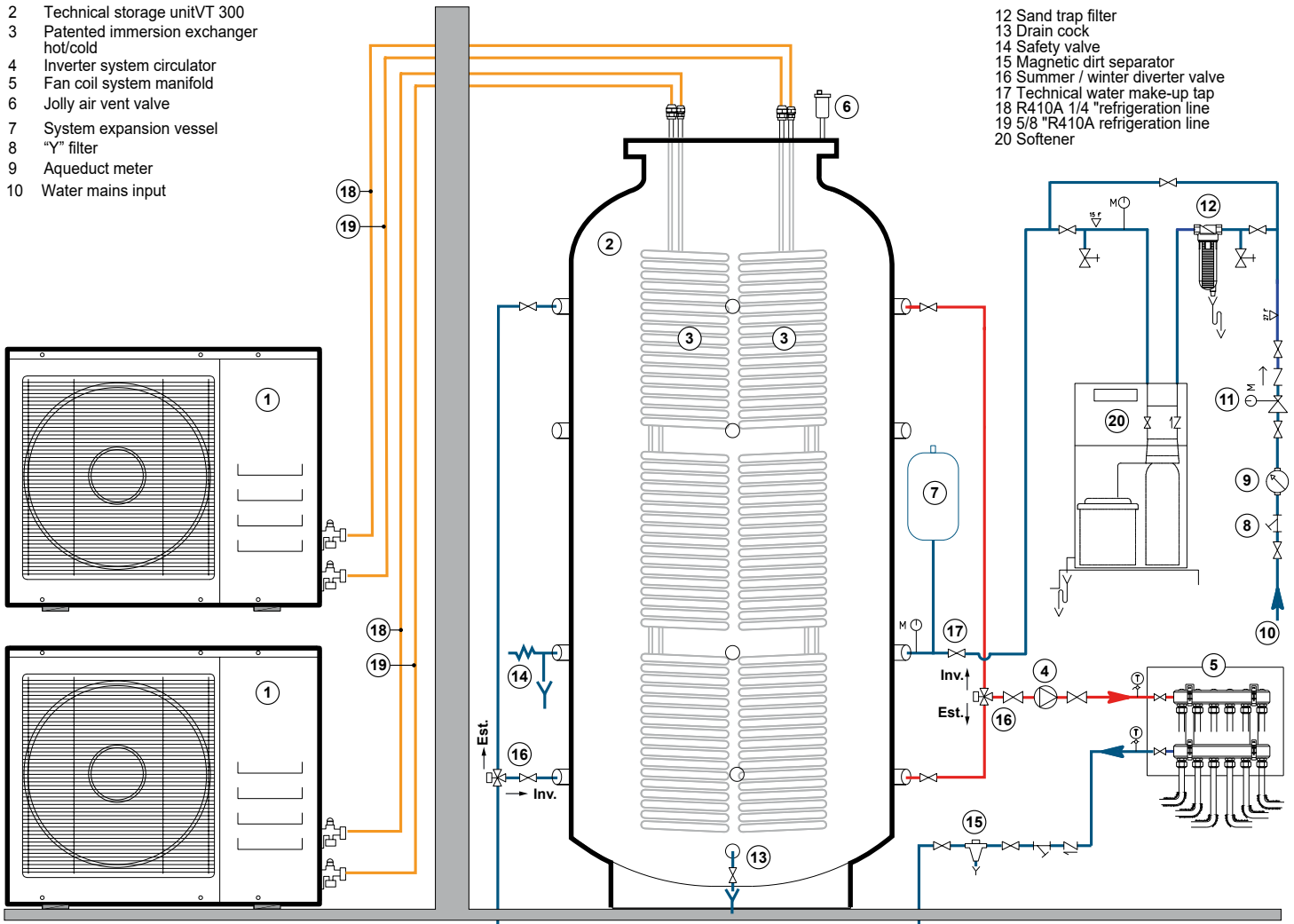
SPLITTED REFRIGERATORS HUB RADIATOR

Patented high efficiency multi-compressor heat pump systems with direct refrigerant / water exchange from 2 to 8 units with separate and independent circuits to produce heating and air conditioning for medium and large users

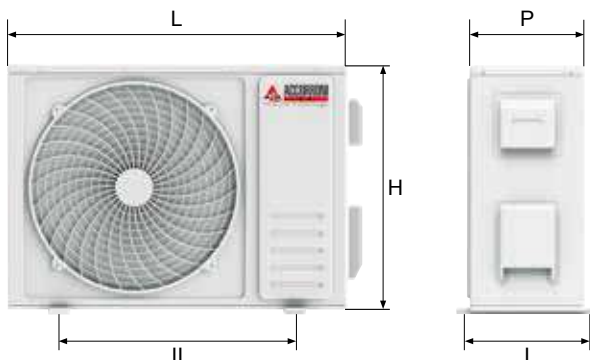
Schema applicativo GRUPPI FRIGORIFERI SPLITTATI HUB RADIATOR

- 1 External moto-evaporator Booster HR 7.8 hot/cold
- 2 Technical storage unit VT 300
- 3 Patented immersion exchanger hot/cold
- 4 Inverter system circulator
- 5 Fan coil system manifold
- 6 Jolly air vent valve
- 7 System expansion vessel
- 8 "Y" filter
- 9 Aqueduct meter
- 10 Water mains input

- 11 Pressure reducer
- 12 Sand trap filter
- 13 Drain cock
- 14 Safety valve
- 15 Magnetic dirt separator
- 16 Summer / winter diverter valve
- 17 Technical water make-up tap
- 18 R410A 1/4" refrigeration line
- 19 5/8" R410A refrigeration line
- 20 Softener

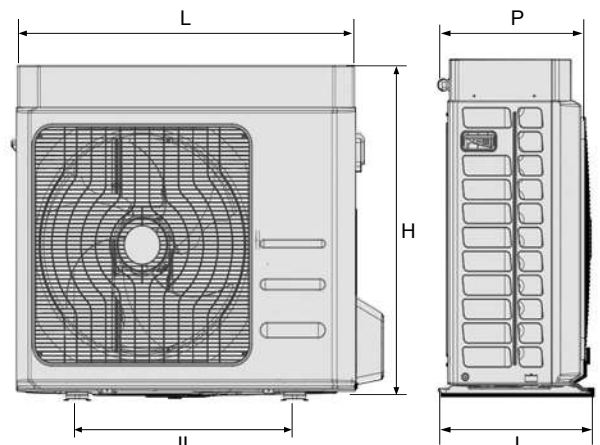


External booster dimensions HR 3.0 - 7.8



| Outdoor Unit Models | L | H | P | I | II | Weight |
|---------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |

External booster dimensions HR 9.0 INVERTER



| Outdoor Unit Models | L | H | P | I | II | Weight |
|-------------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 9.0 inverter | 925 | 785 | 380 | 358 | 540 | 62 |

SPLITTED REFRIGERATORS HUB RADIATOR

Patented high efficiency multi-compressor heat pump systems with direct refrigerant / water exchange from 2 to 8 units with separate and independent circuits to produce heating and air conditioning for medium and large users

Technical data table Booster SPLITTED REFRIGERATORS HUB RADIATOR

| DESCRIPTION | U.M. | HR 3.0 hot/cold | HR 7.8 hot/cold | HR 9.0 inverter hot/cold |
|---|-------|--|--------------------|-----------------------------|
| Thermal power (1) | kW | 3,11 | 8,12 | 3,54/8,01/8,81* |
| Absorbed power (1) | kW | 0,74 | 1,96 | 1,89 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,24 |
| Thermal power (2) | kW | 2,97 | 7,75 | 2,85/7,92/8,71* |
| Absorbed power (2) | kW | 0,94 | 2,52 | 2,39 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,31 |
| Thermal power (3) | kW | 2,58 | 6,73 | 2,54/7,04/7,74* |
| Absorbed power (3) | kW | 0,74 | 2,00 | 2,15 |
| C.O.P. (3) | W/W | 3,48 | 3,37 | 3,52 |
| Thermal power (4) | kW | 2,47 | 6,44 | 2,46/6,82/7,50* |
| Absorbed power (4) | kW | 0,94 | 2,54 | 2,74 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,68 |
| Thermal power (5) | kW | 2,11 | 5,52 | 2,31/6,41/7,05* |
| Absorbed power (5) | kW | 0,75 | 2,00 | 2,31 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 3,04 |
| Thermal power (6) | kW | 1,99 | 5,20 | 2,25/6,25/6,88* |
| Absorbed power (6) | kW | 0,94 | 2,53 | 2,78 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 3,39 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,94 |
| Seasonal heating efficiency (η_s) | % | 153,1 | 150,3 | 159,62 |
| Cooling power (8) | kW | 2,94 | 7,24 | 4,91/7,72/8,49* |
| Absorbed power (8) | kW | 0,72 | 1,89 | 1,76 |
| E.E.R. (8) | W/W | 4,08 | 3,82 | 4,38 |
| Cooling power (9) | kW | 2,63 | 5,84 | 3,80/6,08/6,69* |
| Absorbed power (9) | kW | 0,89 | 2,20 | 1,99 |
| E.E.R. (9) | W/W | 2,95 | 2,65 | 3,05 |
| S.E.E.R. (9) | W/W | 3,67 | 3,32 | 4,25 |
| Energy efficiency class (10) | | A / A++ | | A++ / A+++ |
| Compressor type | | Rotation ON-OFF | | Twin Rotary DC INV. |
| Compressor number | | 1 | | |
| Refrigerant circuit | | 1 | | |
| Defrosting method | | Reverse cycle with immersion condenser | | |
| Type of refrigerant | | R410A | | |
| Technical water temperature min / max | °C | + 4 / + 58 | | |
| Amount of refrigerant (pre-inserted) | Kg | 1,1 | 2,0 | 2,2 |
| Min distance between outdoor and indoor unit | m | 3 | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | |
| Refrigerant gas line connection | | 3/8" | 5/8" | 5/8" |
| Coolant line connection | | 1/4" | 1/4" | 3/8" |
| Sound power (11) | dB(A) | 65,1 | 68,4 | 64,0 |
| Sound pressure at one meter (12) | dB(A) | 51,2 | 54,7 | 49,8 |
| External temperature operating limits | °C | -15 / +45 | | -20 / +46 |
| Power supply | | 230V/1/50Hz | | |
| Max absorbed power | kW | 0,94 | 2,53 | 4,70 |
| Max absorbed current | A | 4,30 | 11,57 | 20,40 |
| Weight | Kg | 33 | 55 | 62 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C
 (2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C
 (3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C
 (4) Heating: outside air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C
 (5) Heating: outside air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C
 (6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

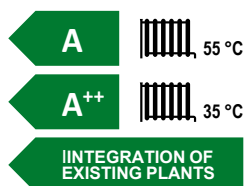
(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C
 (8) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 23/18 °C
 (9) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 12/7 °C
 (10) Water 35 °C / 55 °C
 (11) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions (1)
 (12) Value calculated according to ISO 3744: 2010 (*) By activating the maximum HZ function

HUB RADIATOR POWER UNIT

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants



ENERGY RATING



Technical and construction features

HUB RADIATOR POWER UNIT is a patented high efficiency heat pump system capable of producing heating and air conditioning to be applied to integrate existing boilers. This new patented technology can be applied to existing summer and winter air conditioning systems to increase energy efficiency and energy class through the use of renewable energy.

The application of this product in the heating plant allows to obtain a great saving on management costs and to increase the energy saving of the building in which it is installed, which then translates into economic convenience for the customer and environmental benefit for the entire collectivity.

The HUB RADIATOR POWER UNIT technology is available both in the HOT only version and in the HOT / COLD version. This range makes it possible to improve the energy efficiency of existing thermal plants powered by heat generators that use fossil fuels and old air conditioning systems.

HUB RADIATOR POWER UNIT is a product formed by an inertial technical accumulator, with one or more copper immersion condensers on one edge that allow a rapid and thermal exchange between the refrigerant gas and the technical water of the system.

The regulation of the whole system is then entrusted to a command and control panel with the latest generation microprocessor. The various Boosters can work on multiple heating / cooling circuits in cascade, all managed separately and independently from each other to increase their reliability.

These units are very compact and minimally invasive, easily applicable to any type of existing thermal power plant.

The HUB RADIATOR POWER UNIT indoor units can be installed both horizontally and vertically and thanks to their particular configuration they can also be located inside special false ceilings.

The HUB RADIATOR POWER UNIT technology can then be used as a heat generator and / or refrigerator to autonomously supply hydronic terminals or produce domestic hot water. It is therefore possible to use the HUB RADIATOR CONTROL UNIT to power a newly built air conditioning system to be configured for every need, by choosing the appropriate inverter system pump kit from the accessories; in this regard, it is possible to achieve high powers by configuring multiple units in cascade which are activated based on the actual thermal needs of the building (see page 87).

HUB RADIATOR POWER UNIT can also act as a split heat pump water heater (see diagram on page 86) consisting of an external Booster unit that works in direct exchange on an extremely compact technical water accumulation within which to place the accessory " DHW heat exchanger "in finned copper that guarantees maximum hygiene and completely avoids anti-legionella thermal shocks.



PATENTED SYSTEM



RENEWABLE ENERGY



ENERGY SAVING



COMPACT DIMENSIONS



BOOSTER INVERTER



ECOLOGICAL GAS



PHOTOVOLTAIC COMBINATION



WIDE CONFIGURATIONS



HEATING UP TO 58 °C



CONDITIONING UP TO 4°C









| Model | Code | € |
|--|-----------------|-----------------|
| Booster HR 3.0 only hot | 76010240 | 2.000,00 |
| Booster HR 3.0 heating/cooling | 76020240 | 2.430,00 |
| Booster HR 7.8 only hot | 76010500 | 3.700,00 |
| Booster HR 7.8 heating/cooling | 76020500 | 4.130,00 |
| Booster HR 9.0 only hot INVERTER | 76030500 | 4.760,00 |
| Booster HR 9.0 heating/cooling INVERTER | 76040500 | 4.960,00 |

HUB RADIATOR POWER UNIT

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants



















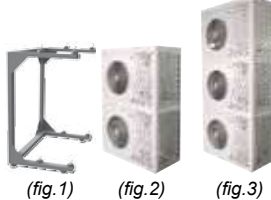
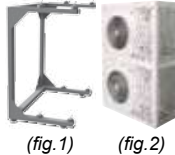

| Modello | Code | € |
|--|----------|----------|
| HUB RADIATOR POWER UNIT H94 C - indoor unit | 76011450 | 720,00 |
| HUB RADIATOR POWER UNIT H150 CF - indoor unit | 76011500 | 800,00 |
| HUB RADIATOR POWER UNIT H150 CF DOUBLE - indoor unit | 76011505 | 1.280,00 |
| HUB RADIATOR POWER UNIT H184 C - indoor unit | 76011460 | 780,00 |
| HUB RADIATOR POWER UNIT H184 CF - indoor unit | 76012500 | 860,00 |
| HUB RADIATOR POWER UNIT H184 CF DOUBLE - indoor unit | 76012505 | 1.380,00 |
| HUB RADIATOR POWER UNIT H250 C - indoor unit | 76011451 | 940,00 |
| HUB RADIATOR POWER UNIT H250 CF - indoor unit | 76011501 | 980,00 |

Accessories HUB RADIATOR POWER UNIT

| | | | | |
|---|--|----------------------------------|----------|--------|
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W | 75050102 | 150,00 |
| | | mod. 2000 W | 75050103 | 160,00 |
| | | mod. 3000 W | 75060300 | 170,00 |
|  | System pump kit which includes: Inverter electronic circulation pump complete with shut-off valves, air vent jolly valve, safety valve, threaded plugs and probe wells | | 75100011 | 380,00 |
|  | Hot / cold inverter system pump kit which includes: electronic circulation pump complete with valves shut-off valve, air vent jolly valve, safety valve, threaded caps and probe holder wells | | 75100009 | 674,00 |
|  | Command and remote control panel | mod.built-in | 75100005 | 90,00 |
| | | mod. Wall | 75100028 | 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection | 37081062 | 148,00 |
| | | mod. Radio frequency | 37081063 | 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment | 75101032 | 90,00 |
| | | mod. motorized adjustment | 75101033 | 530,00 |
|  | Additional capacitor for HR Booster | mod. only hot | 26505565 | 300,00 |
| | | mod. hot / cold | 26505567 | 400,00 |

HUB RADIATOR POWER UNIT

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants

| Accessori HUB RADIATOR POWER UNIT | | Codice | € |
|---|--|---|---|
|  | Removable DHW exchanger with inspection flange for the instant production of domestic hot water made of finned copper, max working pressure 12 bar, max working temperature 90 ° C | mod. 3,15 m ² | 37310010 750,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081060 50,00 37081061 90,00 |
|  | Anchoring bracket for sloping roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts | | 37081064 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - HR 7.8 (pack of 2 pieces) | | 75100018 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081065 52,00 37081066 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 metri 90 W mod. 6 metri 120 W | 37081067 56,00 37081068 66,00 |
|  | Auxiliary basin for installation under shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081069 252,00 37081070 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fissa mod. HR 7.8 - 9.0 H fissa mod. HR 7.8 - 9.0 H variabile | 37081071 308,00 37081073 330,00 37081074 354,00 |
|  | 1/2 "DHW mixing valve kit | | 75100023 146,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 194,00 |
|  | Antivibration flexible joint kit with flare and straight union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100014 120,00 75100015 60,00 |
|  | Flexible anti-vibration joint kit with connection flange and 90 ° curved union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100016 120,00 75100017 60,00 |
|  | Programmer clock kit | | 35639900 40,00 |
|  | Motorized 3-way diverter valve with 1 "connections and spring return | | 16205309 158,00 |
|  | Domestic hot water recirculation kit Inverter electronic circulator with brass body max flow rate 0.4 m ³ / h max head 1.0 m | | 35006004 460,00 |
|  | Fixing bracket kit for ceiling installation | | 75100040 78,00 |
|  | support base for floor installation | | 75100041 72,00 |
|  | Open shelf for n. 2 Booster outdoor units mod. HR 7.8 - 9.0 complete with anti-vibration mounts (fig. 1) | | 75060406 240,00 |
|  | RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - 7.8 - 9.0 (fig. 2) | | 75060306 890,00 |
|  | RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - 7.8 - 9.0 Height 210 cm Width 96 cm Depth 54 cm (fig.3) | | 75060206 980,00 |

HUB RADIATOR POWER UNIT






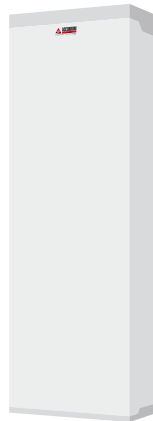


Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants

Configuration table HUB RADIATOR POWER UNIT

The extraordinary versatility and flexibility of the patented HUB RADIATOR POWER UNIT system allows it to be configured both in conjunction with existing systems and on newly built systems.

HUB RADIATOR POWER UNIT indoor units can be installed in both landscape and portrait mode.

The HUB RADIATOR POWER UNITS with more than one Booster are modulating because they are equipped as standard with a microprocessor that allows you to vary the thermal and cooling power supplied by managing the external units in cascade with load choking steps. Thanks to the table below, the HUB RADIATOR POWER UNIT can be configured on the basis of the project data by choosing the most convenient solution.

| Model | H94 C | H150 CF | H150 CF DOUBLE | H184 C | H184 CF | H184 CF DOUBLE | H250 C | H250 CF |
|--|--|--|--|--|---|--|--|--|
| Description and representation of the models of the various POWER UNIT indoor units for building the best possible match |  |  |  |  |  |  |  |  |
| Litre | 45 | 94 | 188 | 89 | 115 | 230 | 121 | 156 |
| n. max Booster HR 3.0 - 7.8 - 9.0 inv. just hot | 1 | 2 | 4 | 2 | 3 | 4 | 3 | 4 |
| n. max Booster HR 3.0 - 7.8 - 9.0 inv. hot Cold | - | 1 | 2 | - | 2 | 4 | - | 3 |
| max applicable nominal heat output (kW) | 8,81 | 17,62 | 35,24 | 17,62 | 26,43 | 35,24 | 26,43 | 35,24 |
| maximum cooling power applicable (kW) | - | 8,49 | 16,98 | - | 16,98 | 16,98 | - | 25,47 |
| Sanitary exchanger (optional) | - | 1* | 1* | - | 1* | 1* | - | 1* |

* It is possible to apply only one domestic hot water exchanger if the condensers for hot only boosters are inserted inside the POWER UNIT CF

HUB RADIATOR POWER UNIT configuration example

The POWER UNIT H184 CF can be combined with:

- n. 2 HR 3.0 booster heating only (for heating integration)
- n. 1 Booster HR 7.8 only hot + n. 1 HR 3.0 booster heating only (for heating integration)
- n. 2 Booster HR 7.8 hot / cold (for summer and winter air conditioning with hydronic system terminals)
- n. 2 Booster HR 9.0 hot / cold INVERTER (for summer and winter air conditioning with hydronic system terminals)
- n. 1 HR 3.0 booster heating only and DHW exchanger of 3.15 m² (for domestic hot water production)
- n. 1 Booster HR 7.8 heating only and DHW exchanger of 3.15 m² (for heating and domestic hot water integration)

In the POWER UNIT C models it is possible to combine only the hot-only boosters, while in the POWER UNIT CF models it is possible to combine both the hot only boosters and the hot / cold boosters.

The external Booster units to be combined with the POWER UNIT internal storage unit are the Booster HR 3.0, 7.8 and 9.0 INVERTER model. If you want to use the POWER UNIT system to integrate both heating and DHW production, it is necessary to choose between the accessories the DHW heat exchanger in finned copper, the system pump kit and the motorized 3-way diverter valve.

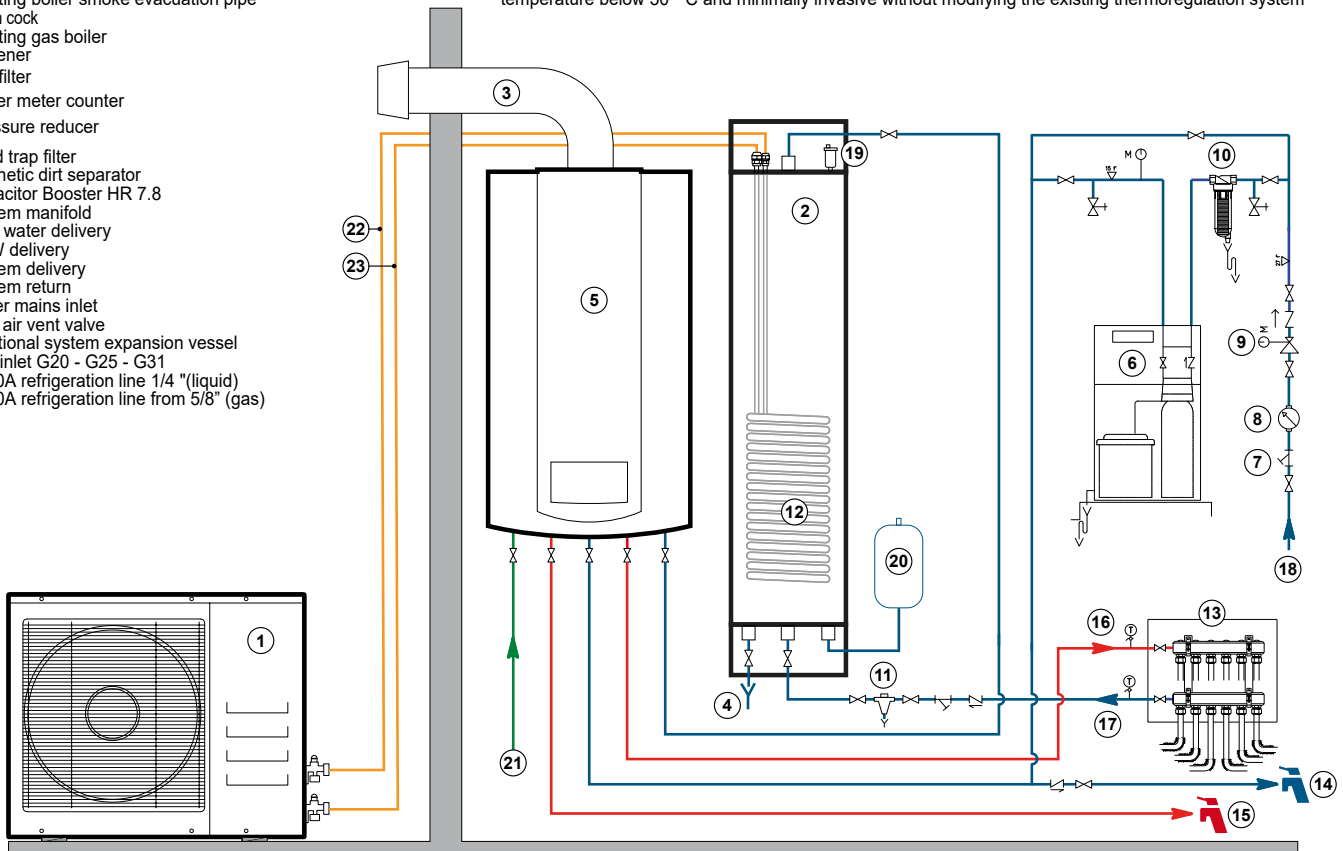
HUB RADIATOR POWER UNIT

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants

Esempio di applicazione HUB RADIATOR POWER UNIT su impianto di riscaldamento esistente

- 1 External moto-evaporator Booster HR 7.8 only hot
- 2 Indoor unit HUB RADIATOR POWER UNIT H94 C
- 3 Existing boiler smoke evacuation pipe
- 4 Drain cock
- 5 Existing gas boiler
- 6 Softener
- 7 "Y" filter
- 8 Water meter counter
- 9 Pressure reducer
- 10 Sand trap filter
- 11 Magnetic dirt separator
- 12 Capacitor Booster HR 7.8
- 13 System manifold
- 14 Cold water delivery
- 15 DHW delivery
- 16 System delivery
- 17 System return
- 18 Water mains inlet
- 19 Jolly air vent valve
- 20 Additional system expansion vessel
- 21 Gas inlet G20 - G25 - G31
- 22 R410A refrigeration line 1/4" (liquid)
- 23 R410A refrigeration line from 5/8" (gas)

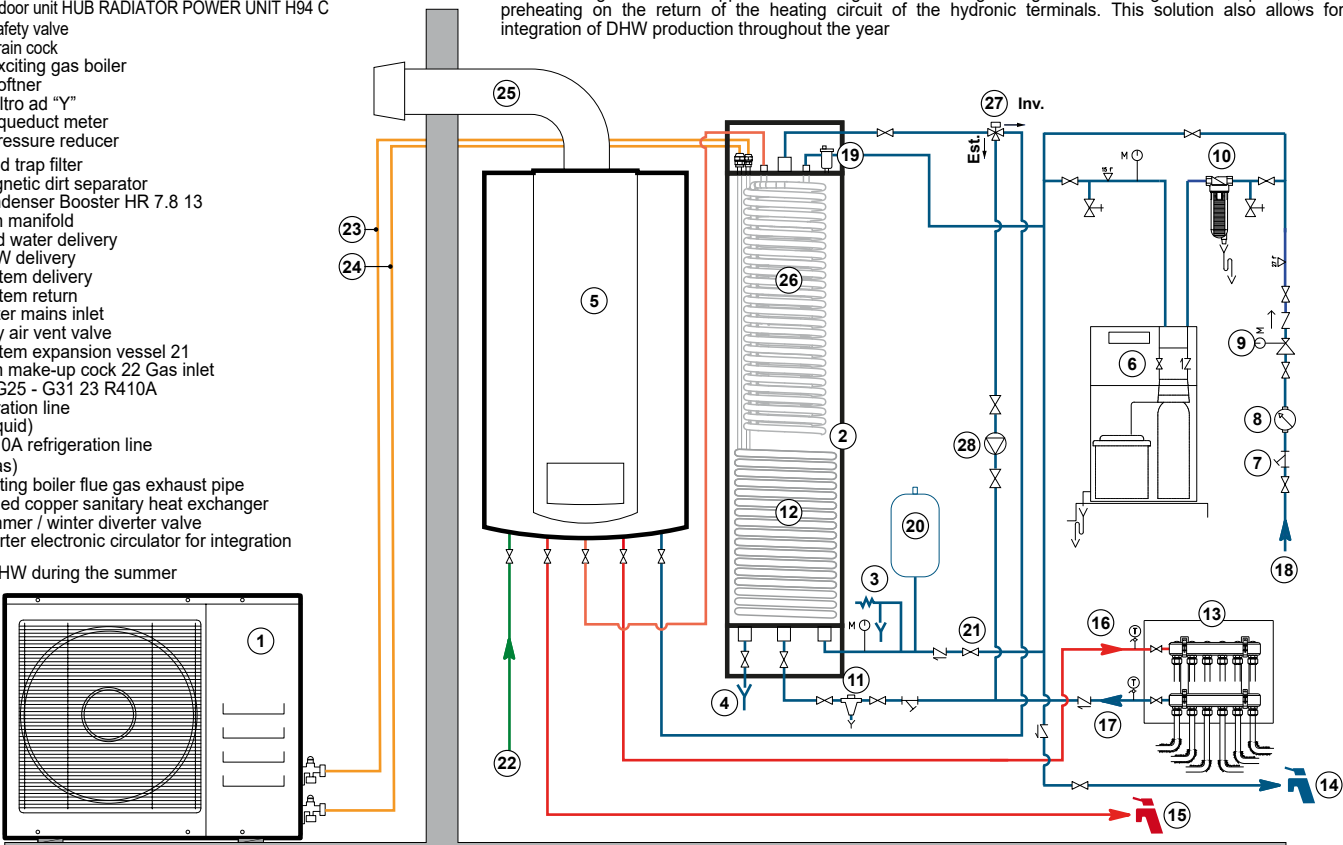
HUB RADIATOR POWER UNIT composed of an indoor unit model H94 C and an outdoor unit Booster HR 7.8 heat only used to integrate the existing heat generator during the winter period, acting as a pre-heating on the return of the heating circuit of the hydronic terminals. any type of generator that works quickly with a system return temperature below 50 ° C and minimally invasive without modifying the existing thermoregulation system



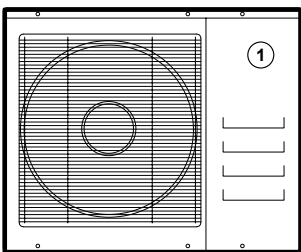
Example of POWER UNIT application on an existing heating and DHW production system

- 1 External moto-evaporator Booster HR 7.8 only hot
- 2 Indoor unit HUB RADIATOR POWER UNIT H94 C
- 3 Safety valve
- 4 Drain cock
- 5 Existing gas boiler
- 6 Softner
- 7 Filtro ad "Y"
- 8 Aqueduct meter
- 9 Pressure reducer
- 10 Sand trap filter
- 11 Magnetic dirt separator
- 12 Condenser Booster HR 7.8 13 System manifold
- 14 Cold water delivery
- 15 DHW delivery
- 16 System delivery
- 17 System return
- 18 Water mains inlet
- 19 Jolly air vent valve
- 20 System expansion vessel 21 System make-up cock 22 Gas inlet G20 - G25 - G31 23 R410A refrigeration line 1/4" (liquid)
- 24 R410A refrigeration line 5/8" (gas)
- 25 Existing boiler flue gas exhaust pipe
- 26 Finned copper sanitary heat exchanger
- 27 Summer / winter diverter valve
- 28 Inverter electronic circulator for integration

HUB RADIATOR POWER UNIT composed of H94 C model indoor unit, HR 7.8 heat only outdoor unit and DHW heat exchanger in finned copper used to integrate the existing heat generator during the winter period, acting as preheating on the return of the heating circuit of the hydronic terminals. This solution also allows for the integration of DHW production throughout the year



DHW during the summer



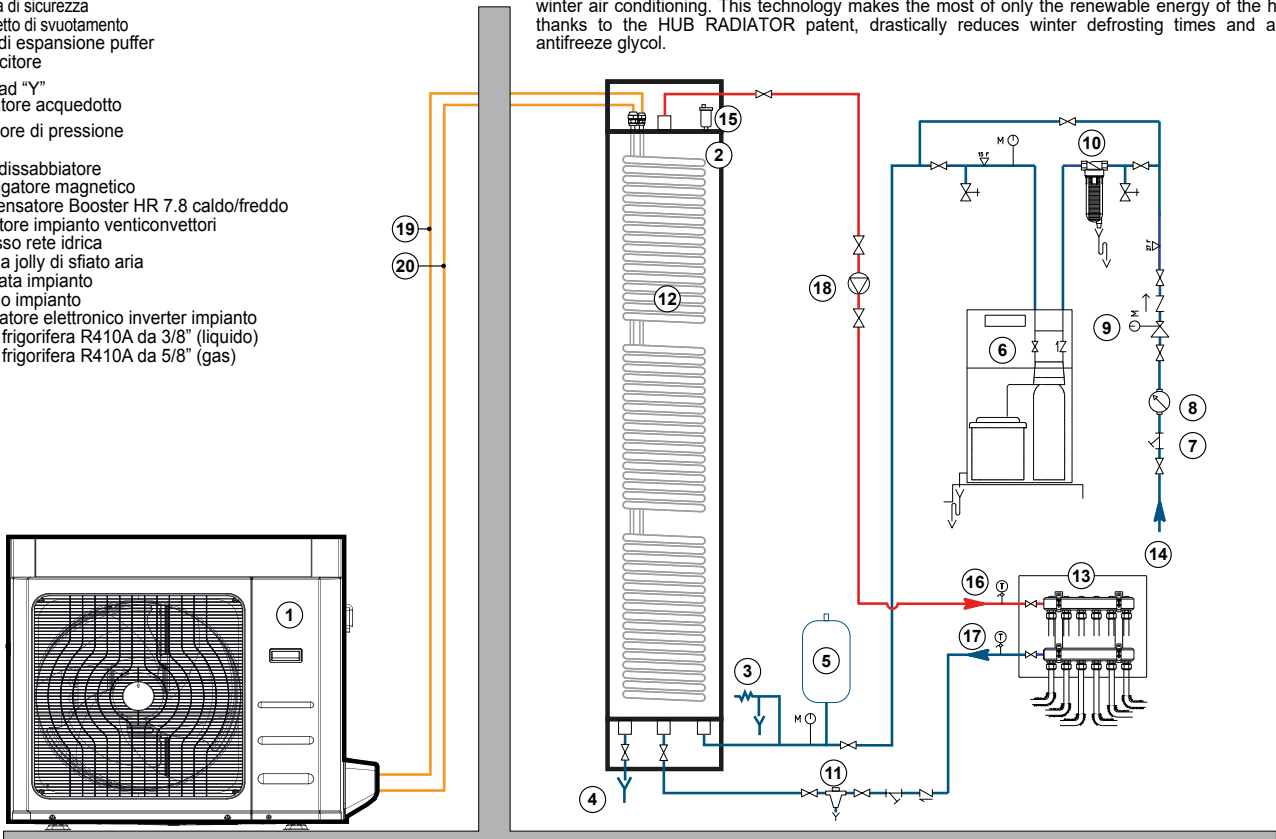
HUB RADIATOR POWER UNIT

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants

Example of POWER UNIT application on a new summer / winter air conditioning system

- 1 Moto-evaporante esterna Booster HR 9,0 caldo/freddo inverter
- 2 Unità interna POWER UNIT H150 CF
- 3 Valvola di sicurezza
- 4 Rubinetto di svuotamento
- 5 Vaso di espansione puffer
- 6 Addolcitore
- 7 Filtro ad "Y"
- 8 Contatore acquedotto
- 9 Riduttore di pressione
- 10 Filtro dissabbiatore
- 11 Defangatore magnetico
- 12 Condensatore Booster HR 7.8 caldo/freddo
- 13 Collettore impianto venticonvettori
- 14 Ingresso rete idrica
- 15 Valvola jolly di sfiato aria
- 16 Mandata impianto
- 17 Ritorno impianto
- 18 Circolatore elettronico inverter impianto
- 19 Linea frigorifera R410A da 3/8" (liquido)
- 20 Linea frigorifera R410A da 5/8" (gas)

HUB RADIATOR POWER UNIT composed of H150 CF indoor unit, HR 9.0 hot / cold inverter booster outdoor unit and hot / cold system pump kit used to power a hot / cold hydronic system for summer and winter air conditioning. This technology makes the most of only the renewable energy of the heat pump thanks to the HUB RADIATOR patent, drastically reduces winter defrosting times and avoids the antifreeze glycol.

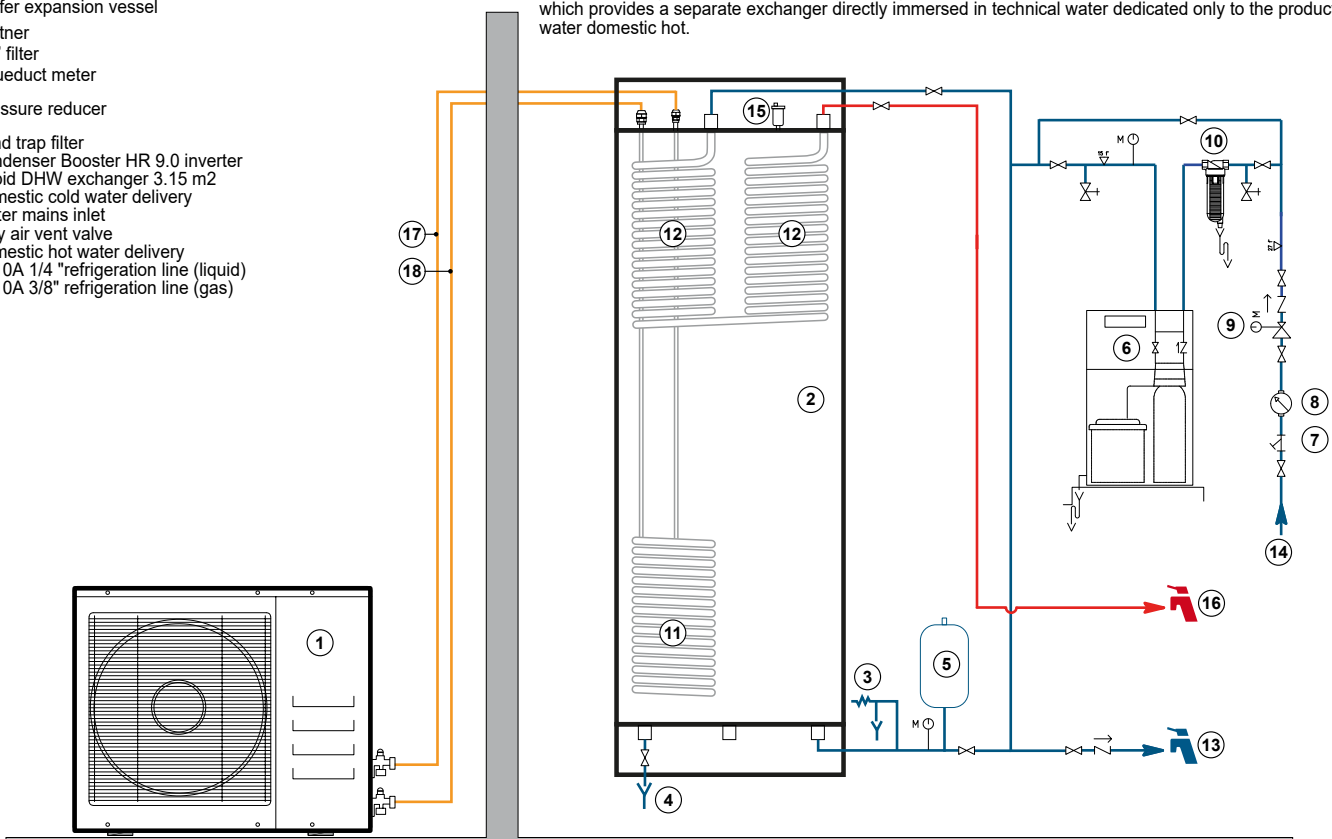


POWER UNIT application example for instantaneous production of domestic hot water

- 1 External moto-evaporator Booster HR 3.0 only hot
- 2 Indoor unit POWER UNIT H184 CF DOUBLE
- 3 safety valve
- 4 emptying unit
- 5 Puffer expansion vessel
- 6 Softner
- 7 "Y" filter
- 8 Aqueduct meter
- 9 Pressure reducer
- 10 Sand trap filter
- 11 Condenser Booster HR 9.0 inverter
- 12 Rapid DHW exchanger 3.15 m2
- 13 Domestic cold water delivery
- 14 Water mains inlet
- 15 Jolly air vent valve
- 16 Domestic hot water delivery
- 17 R410A 1/4" refrigeration line (liquid)
- 18 R410A 3/8" refrigeration line (gas)

HUB RADIATOR POWER UNIT consisting of an indoor unit model H184 CF DOUBLE, an outdoor unit Booster HR 3.0 heating only and an optional 3.15 m2 finned copper exchanger.

This solution allows to produce large quantities of domestic hot water in a hygienically controlled manner, without the obligation to carry out costly anti-legionella thermal shocks, thanks to the HUB RADIATOR patent which provides a separate exchanger directly immersed in technical water dedicated only to the production of water domestic hot.



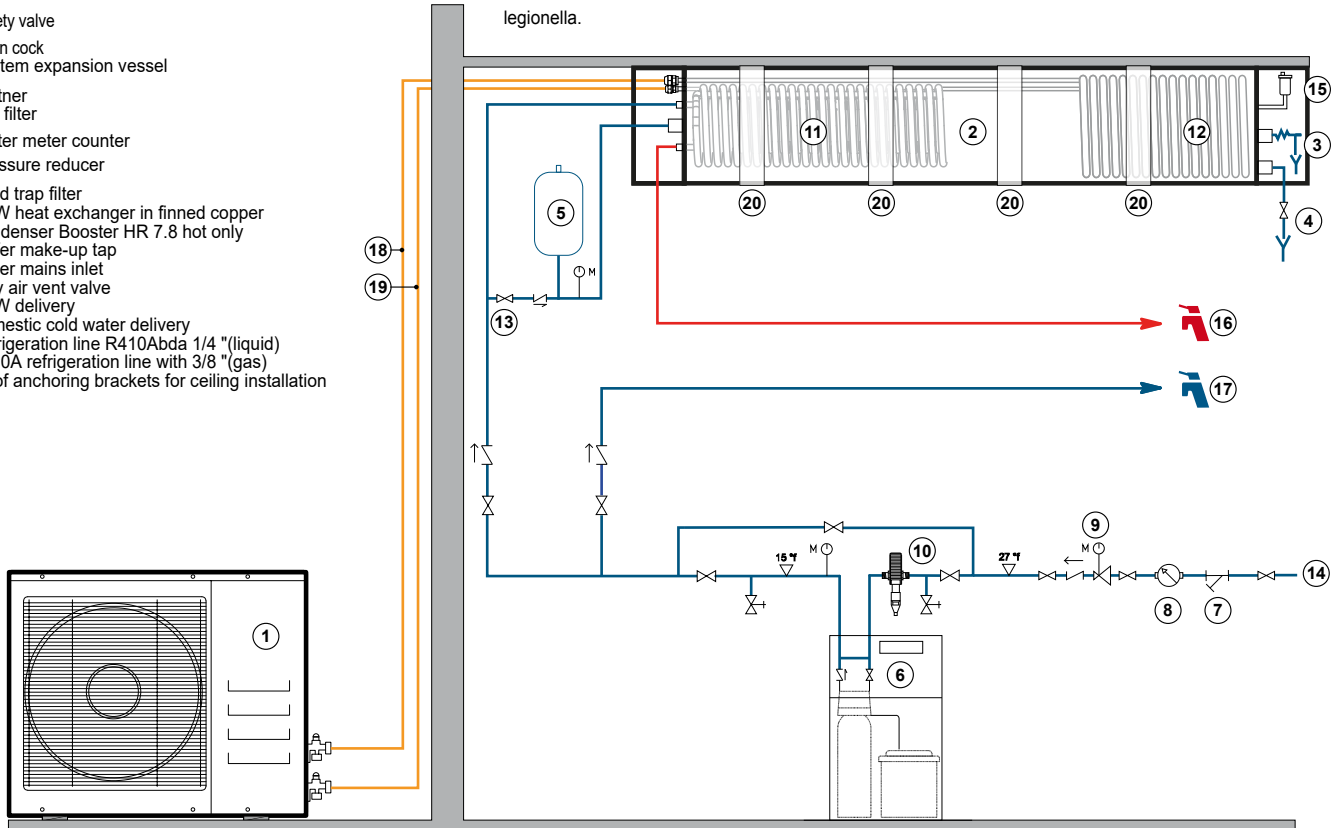
HUB RADIATOR POWER UNIT

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants

POWER UNIT application example for instantaneous production of domestic hot water

- 1 External moto-evaporator Booster HR 3.0 only hot
- 2 Indoor unit HUB RADIATOR POWER UNIT H184 C
- 3 Safety valve
- 4 Drain cock
- 5 System expansion vessel
- 6 Softner
- 7 "Y" filter
- 8 Water meter counter
- 9 Pressure reducer
- 10 Sand trap filter
- 11 DHW heat exchanger in finned copper
- 12 Condenser Booster HR 7.8 hot only
- 13 Puffer make-up tap
- 14 Water mains inlet
- 15 Jolly air vent valve
- 16 DHW delivery
- 17 Domestic cold water delivery
- 18 Refrigeration line R410Abda 1/4" (liquid)
- 19 R410A refrigeration line with 3/8" (gas)
- 20 Kit of anchoring brackets for ceiling installation

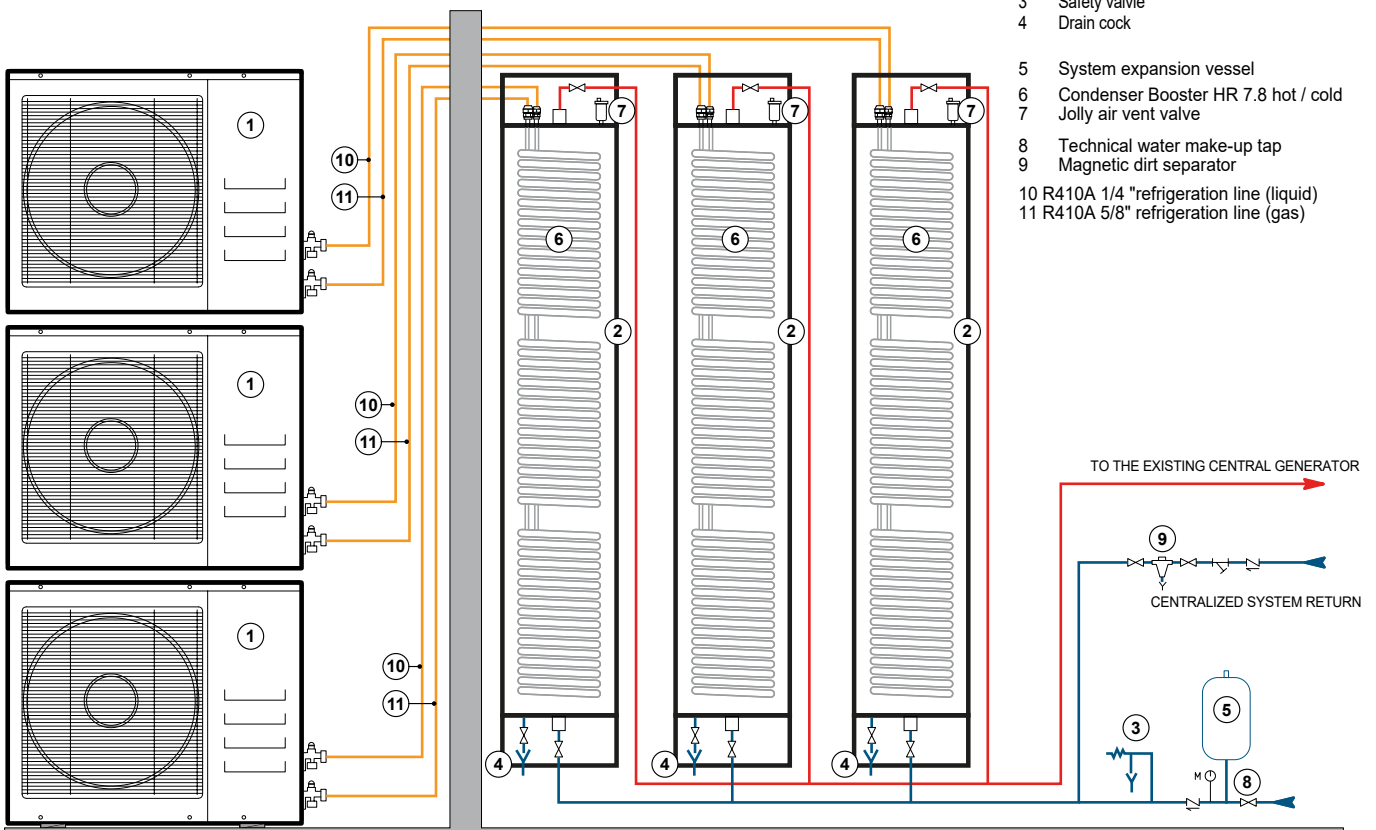
HUB RADIATOR POWER UNIT composed of indoor unit model H184 C (positioned on the ceiling), outdoor unit Booster HR 3.0 heat only and DHW heat exchanger in finned copper used to produce domestic hot water with only the renewable energy of the heat pump thanks to the HUB RADIATOR patent, eliminating the problem of legionella.



Example of POWER UNIT application in cascade for central heating / cooling integration

HUB RADIATOR POWER UNIT cascade system consisting of 3 indoor units H150 CF and 3 outdoor units Booster HR 7.8 hot / cold which is used for both summer and winter integration of a centralized hot / cold condominium system.

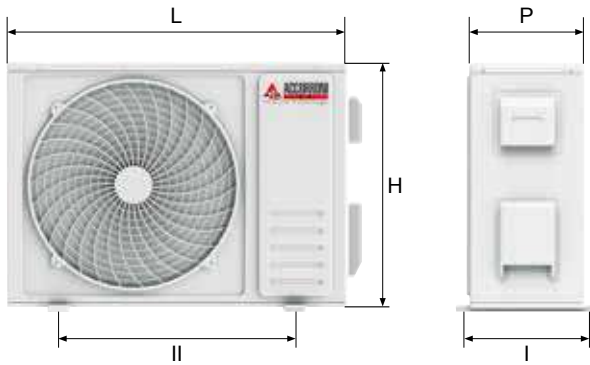
- 1 External moto-evaporator Booster HR 7.8 hot / cold
- 2 Indoor unit POWER UNIT H150 CF
- 3 Safety valve
- 4 Drain cock
- 5 System expansion vessel
- 6 Condenser Booster HR 7.8 hot / cold
- 7 Jolly air vent valve
- 8 Technical water make-up tap
- 9 Magnetic dirt separator
- 10 R410A 1/4" refrigeration line (liquid)
- 11 R410A 5/8" refrigeration line (gas)



HUB RADIATOR POWER UNIT

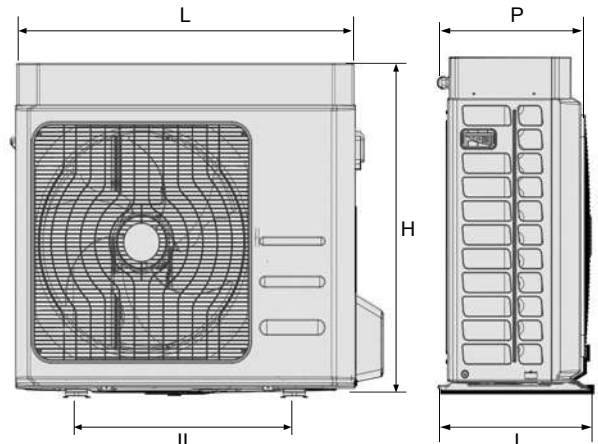
Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants

External booster dimensions HR 3.0 - 7.8



| Outdoor Unit Models | L | H | P | I | II | Weight |
|---------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |

External booster dimensions HR 9.0 INVERTER

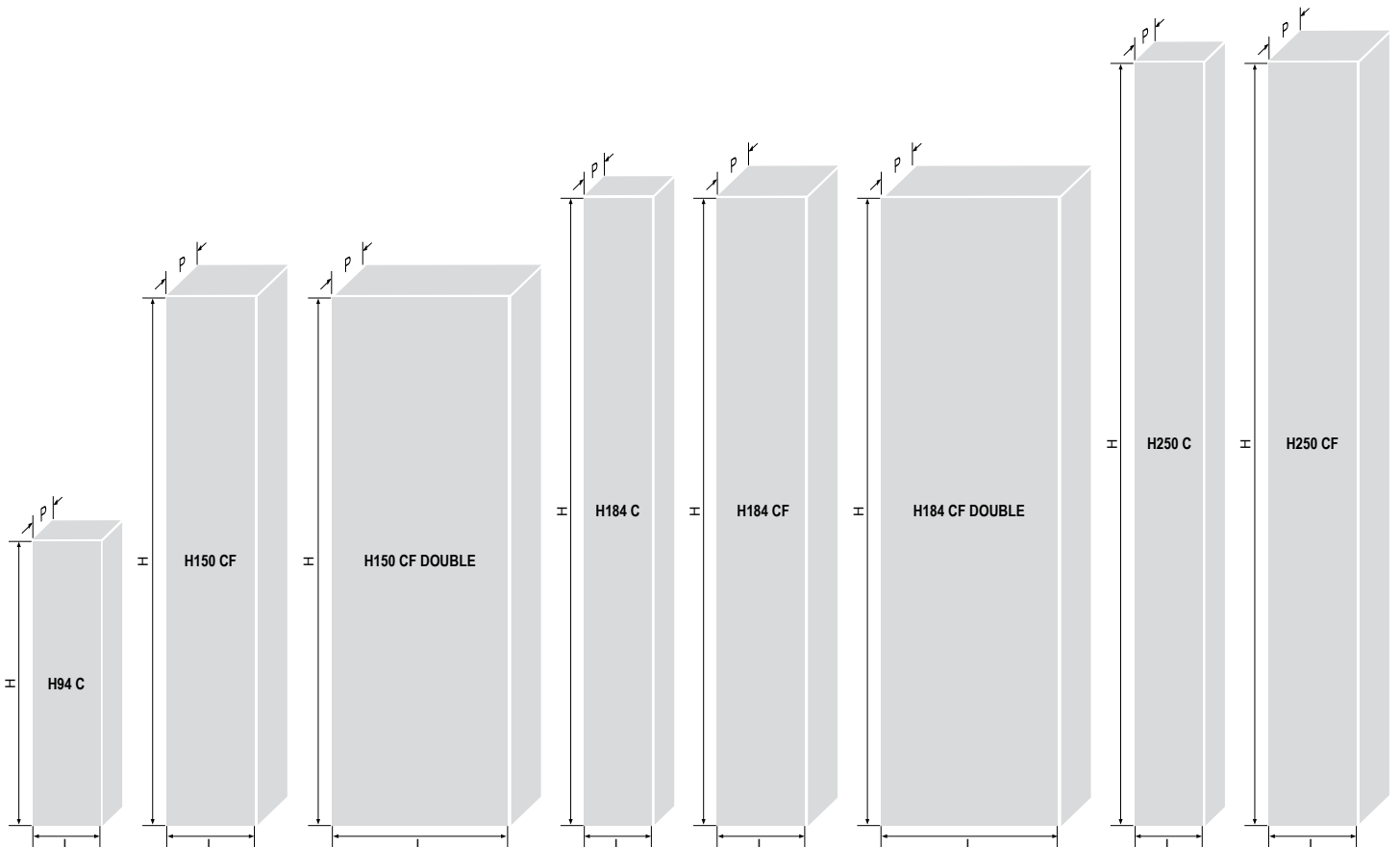


| Outdoor Unit Models | L | H | P | I | II | Weight |
|-------------------------|-----|-----|-----|-----|-----|--------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 9.0 inverter | 925 | 785 | 380 | 358 | 540 | 62 |

Indoor unit dimensions POWER UNIT

| M | L | P | H | Connections | Weight |
|----------------|-----|-----|------|-------------|--------|
| | mm | mm | mm | | Kg |
| H94 C | 230 | 230 | 970 | 1" | 20 |
| H150 CF | 300 | 300 | 1800 | 1" | 26 |
| H150 CF DOUBLE | 600 | 300 | 1800 | 1" | 50 |
| H184 C | 230 | 230 | 2140 | 1" 1/2 | 40 |

| Model | L | P | H | Connections | Weight |
|----------------|-----|-----|------|-------------|--------|
| | mm | mm | mm | | Kg |
| H184 CF | 300 | 300 | 2140 | 1" 1/2 | 54 |
| H184 CF DOUBLE | 600 | 300 | 2140 | 1" 1/2 | 102 |
| H250 C | 230 | 230 | 2600 | 2" | 54 |
| H250 CF | 300 | 300 | 2600 | 2" | 72 |



The indoor units of the patented HUB RADIATOR POWER UNIT system can be made to measure with customized dimensions based on the architectural and architectural needs of the building to be air-conditioned, up to a maximum length of 6 meters.

HUB RADIATOR POWER UNIT

Patented high efficiency heat pump system with direct refrigerant / water exchange to produce heating, air conditioning and DHW or to hybridize existing boilers and thermal power plants

Outdoor unit technical data table Booster HUB RADIATOR POWER UNIT

| DESCRIPTION | U.M. | HR 3.0 Only hot | HR 7.8 Only hot | HR 3.0 hot/cold | HR 7.8 hot/cold | HR 9.0 inverter Only hot | HR 9.0 inverter hot/cold |
|---|-------|--|--------------------|--------------------|--------------------|-----------------------------|-----------------------------|
| Thermal power (1) | kW | 3,11 | 8,12 | 3,11 | 8,12 | 3,54/8,01/8,81* | 3,54/8,01/8,81* |
| Absorbed power (1) | kW | 0,74 | 1,96 | 0,74 | 1,96 | 1,89 | 1,89 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,20 | 4,14 | 4,24 | 4,24 |
| Thermal power(2) | kW | 2,97 | 7,75 | 2,97 | 7,75 | 2,85/7,92/8,71* | 2,85/7,92/8,71* |
| Absorbed power (2) | kW | 0,94 | 2,52 | 0,94 | 2,52 | 2,39 | 2,39 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,16 | 3,07 | 3,31 | 3,31 |
| Thermal power(3) | kW | 2,58 | 6,73 | 2,58 | 6,73 | 2,54/7,04/7,74* | 2,54/7,04/7,74* |
| Absorbed power (3) | kW | 0,74 | 2,00 | 0,74 | 2,00 | 2,15 | 2,15 |
| C.O.P. (3) | W/W | 3,48 | 3,37 | 3,48 | 3,37 | 3,52 | 3,52 |
| Thermal power(4) | kW | 2,47 | 6,44 | 2,47 | 6,44 | 2,46/6,82/7,50* | 2,46/6,82/7,50* |
| Absorbed power (4) | kW | 0,94 | 2,54 | 0,94 | 2,54 | 2,74 | 2,74 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,67 | 2,53 | 2,68 | 2,68 |
| Thermal power(5) | kW | 2,11 | 5,52 | 2,11 | 5,52 | 2,31/6,41/7,05* | 2,31/6,41/7,05* |
| Absorbed power (5) | kW | 0,75 | 2,00 | 0,75 | 2,00 | 2,31 | 2,31 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 2,81 | 2,76 | 3,04 | 3,04 |
| Thermal power(6) | kW | 1,99 | 5,20 | 1,99 | 5,20 | 2,25/6,25/6,88* | 2,25/6,25/6,88* |
| Absorbed power (6) | kW | 0,94 | 2,53 | 0,94 | 2,53 | 2,78 | 2,78 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 2,11 | 2,05 | 3,39 | 3,39 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,78 | 3,71 | 3,94 | 3,94 |
| Seasonal heating efficiency(ηs) | % | 153,1 | 150,3 | 153,1 | 150,3 | 159,62 | 159,62 |
| Cooling power (8) | kW | - | - | 2,94 | 7,24 | - | 4,91/7,72/8,49* |
| Absorbed power (8) | kW | - | - | 0,72 | 1,89 | - | 1,76 |
| E.E.R. (8) | W/W | - | - | 4,08 | 3,82 | - | 4,38 |
| Cooling power (9) | kW | - | - | 2,63 | 5,84 | - | 3,80/6,08/6,69* |
| Absorbed power (9) | kW | - | - | 0,89 | 2,20 | - | 1,99 |
| E.E.R. (9) | W/W | - | - | 2,95 | 2,65 | - | 3,05 |
| S.E.E.R. (9) | W/W | - | - | 3,67 | 3,32 | - | 4,25 |
| Energy efficiency class(10) | | A / A++ | | | | A++ / A+++ | |
| Compressor type | | Rotation ON-OFF | | | | Twin Rotary DC INVERTER | |
| Compressors number | | 1 | | | | | |
| Refrigerant circuit | | 1 | | | | | |
| Defrosting method | | Reverse cycle with immersion condenser | | | | | |
| Refrigerant type | | R410A | | | | | |
| Technical water temperature min / max | °C | + 30 / + 58 | | + 4 / + 58 | | + 30 / + 58 | + 4 / + 58 |
| Refrigerant quantity (pre-inserted) | Kg | 1,1 | 2,0 | 1,1 | 2,0 | 2,2 | 2,2 |
| Min distance between outdoor and indoor unit | m | 3 | | | | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | | | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | | | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | | | | |
| Refrigerant gas line connection | | 3/8" | 5/8" | 3/8" | 5/8" | 5/8" | 5/8" |
| Coolant line connection | | 1/4" | 1/4" | 1/4" | 1/4" | 3/8" | 3/8" |
| Sound power (11) | dB(A) | 65,1 | 68,4 | 65,1 | 68,4 | 64,0 | 64,0 |
| Sound pressure at one meter(12) | dB(A) | 51,2 | 54,7 | 51,2 | 54,7 | 49,8 | 49,8 |
| Outdoor temperature operating limits | °C | -15 / +45 | | | | -20 / +46 | |
| Power supply | | 230V/1/50Hz | | | | | |
| Max absorbed power | kW | 0,94 | 2,53 | 0,94 | 2,53 | 4,70 | 4,70 |
| Max absorbed current | A | 4,30 | 11,57 | 4,30 | 11,57 | 20,40 | 20,40 |
| Weight | Kg | 33 | 55 | 33 | 55 | 62 | 62 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: outside air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: outside air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 23/18 °C

(9) Cooling: external air temperature 35 °C db; inlet / outlet water temperature 12/7 °C

(10) Water 35 °C / 55 °C

(11) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions (1)

(12) Value calculated according to ISO 3744: 2010 (*) By activating the maximum HZ function

INVERTER PLUG AND PLAY CIRCULATION GROUPS

High efficiency modulating plug and play circulation groups for the construction of thermal power plants



HOT COLD MANAGEMENT



HIGH AND LOW TEMPERATURE



ULTRA COMPACT SYSTEM



MODULAR SYSTEM



INSULATION AS STANDARD



PLUG AND PLAY INSTALLATION

Technical and construction features

The A2B Accorroni Plug and Play inverter circulation units have been designed to offer customers a professional service. Thanks to this preassembled modulating system it is possible to connect all the patented HUB RADIATOR systems to the system terminals in a fast, effective and elegant way.

The range is divided into two configurations:

- Direct modules for high temperature terminals
- Hot / cold electronic mixed modules for low temperature terminals.
- All modules are supplied with the following standard accessories:
 - Analog system delivery and return thermometer
 - Inverter electronic circulator
 - Ball valves on system delivery and return
 - Non-return valve
 - Protection and insulation shell.

Direct hydraulic modules



Direct hydraulic modules DN20 - DN25 - DN32

- M2 direct 2-way modules with high efficiency electronic inverter circulators consisting of: DELIVERY
- Threaded connections
- Flanged ball valve with T-handle
- Pre-wired high efficiency inverter electronic circulator
- Flanged ball valve with handle for thermometer
- RETURN
- Flanged ball valve with 20 mbar non-return valve integrated into the ball, equipped with thermometer holder handle. The non-return valve can be excluded by turning the handle 45 °
- Threaded connection.

| Model | Code | € |
|---------------------------------------|----------|--------|
| Hydraulic module DN20 | 35642001 | 405,00 |
| Hydraulic module DN25 | 35642501 | 502,00 |
| Hydraulic module DN32 | 35643204 | 739,00 |
| Hydraulic module DN20 high prevalence | 35642004 | 500,00 |
| Hydraulic module DN25 high prevalence | 35642505 | 592,00 |
| Hydraulic module DN32 high prevalence | 35643201 | 923,00 |

Motorized mixed hydraulic modules



Motorized mixed hydraulic modules DN25 - DN32

- M2 MIX3 FIX 2-way module with 3-way mixing valve with electronic control for constant temperature.
- Heating and cooling with high efficiency electronic inverter circulator. DELIVERY
- Threaded connections
- Adjustable thermostatic 3-way mixing valve
- Pre-wired high efficiency inverter electronic circulator
- Flanged ball valve with handle for thermometer
- Temperature probe
- Bimetal thermostat 20-90 ° C, single pole with contact in interruption or RETURN changeover
- Flanged ball valve with 20 mbar non-return valve integrated into the ball, equipped with thermometer holder handle. the non-return valve can be removed by turning the handle 45 °
- T-fitting for mixing valve
- Threaded connections.

| Model | Code | € |
|---|----------|----------|
| Motorized mixed hydraulic module DN25 | 35642503 | 930,00 |
| Motorized mixed hydraulic module DN32 | 35643203 | 1.209,00 |
| Motorized mixed hydraulic module DN25 high prevalence | 35642507 | 1.400,00 |
| Motorized mixed hydraulic module DN32 high prevalence | 35643206 | 1.394,00 |

INVERTER PLUG AND PLAY CIRCULATION GROUPS

High efficiency modulating plug and play circulation groups for the construction of thermal power plants

Manifolds for hydraulic modules



Distribution manifolds for heating systems in electro-welded and galvanized tubular, equipped with thermal insulation and protective box in galvanized sheet metal

| Modello | Code | € |
|--|-----------------|---------------|
| Manifold for 2 DN20 hydraulic modules with safety group connections | 35652001 | 433,00 |
| Manifold for 3 DN20 hydraulic modules with safety group connections | 35652002 | 482,00 |
| Manifold for 2 standard DN20 hydraulic modules | 35652004 | 269,00 |
| Manifold for 3 standard DN20 hydraulic modules | 35652005 | 320,00 |
| Manifold for 2 DN25 hydraulic modules with safety group connections | 35652506 | 340,00 |
| Manifold for 3 DN25 hydraulic modules with safety group connections | 35652597 | 385,00 |
| Manifold for 2 standard DN25 hydraulic modules | 35652501 | 309,00 |
| Manifold for 3 standard DN25 hydraulic modules | 35652502 | 353,00 |
| Manifold for 2 standard DN32 hydraulic modules | 35653201 | 569,00 |
| Manifold for 3 standard DN32 hydraulic modules | 35653202 | 723,00 |

Adapter fittings set



| Model | Code | € |
|--|-----------------|--------------|
| Fitting set for DN32 groups on DN25 manifolds | 35653215 | 27,00 |
| Fitting set for DN25 groups on DN32 manifolds | 35653216 | 23,00 |

Wall fixing bracket for manifold



Wall fixing brackets for DN20 and DN25 manifolds
Pair of brackets to support the hydraulic manifold with 110 x 110 mm insulating box. The distance between the wall and the center of the collector can be 100 or 150 mm.

Wall fixing brackets for DN32 manifolds
Pair of brackets to support the hydraulic manifold with insulating box 152x152 mm. The distance between the wall and the center of the collector is 160 mm.

| Model | Code | € |
|---|-----------------|---------------|
| Brackets for DN 20 and DN 25 manifolds | 35652006 | 51,00 |
| Brackets for manifold from DN 32 | 35653206 | 113,00 |

Wall fixing bracket for single hydraulic module



Wall fixing brackets and support plate to support the single hydraulic module

| Model | Code | € |
|------------------------------------|-----------------|--------------|
| Single module bracket DN 20 | 35653211 | 42,00 |
| Single module bracket DN 25 | 35653212 | 58,00 |
| Single module bracket DN 32 | 35653213 | 81,00 |

INVERTER PLUG AND PLAY CIRCULATION GROUPS

High efficiency modulating plug and play circulation groups for the construction of thermal power plants

Hydraulic separators



Isolated hydraulic separator allows you to hydraulically separate the primary circuit from the secondary and allows a greater volumetric circulation on the manifold compared to what circulates in the generator. HYDRAULIC SEPARATOR DN 25:

- For flow rates up to 3 m³ / h;
- Connection to the manifold: 1 1/4" male - center distance 125 mm
- Connection to the generator: 1 1/4" female - center distance 250 mm
- Insulating box section: 110 x 110 mm
- HYDRAULIC SEPARATOR DN 32:
- For flow rates up to 7.25 m³ / h;
- Connection to the manifold: 2"
- Connection to the generator: 2"
- Insulating box section: 152 x 152 mm
- - Safety unit upper connection: 1 1/4"

| Model | Code | € |
|---|-----------------|---------------|
| Hydraulic separator DN 25 | 35652510 | 301,00 |
| Hydraulic separator installation kit DN 25 | 35653218 | 31,00 |
| Hydraulic separator DN 32 | 35653207 | 471,00 |
| Hydraulic separator installation kit DN 32 | 35653209 | 327,00 |

Brackets for hydraulic separators



Pair of brackets to support the hydraulic separator

| Model | Code | € |
|---|-----------------|--------------|
| Brackets for hydraulic separator DN 25 | 35652511 | 60,00 |
| Brackets for hydraulic separator DN 32 | 35653208 | 73,00 |

Safety group for manifold



DN 20

DN 25/32

Safety groups for closed circuit heating systems as per EN 12828 standard consisting of:

- Pressure gauge
- 3/8" automatic vent valve. Nominal pressure 12 bar
- Safety valve

| Model | Code | € |
|---|-----------------|--------------|
| Safety group for manifold DN 20* | 35652003 | 60,00 |
| 1/2" adapter with plug DN 20* | 35653214 | 14,00 |
| Safety group for DN 25 manifold | 35652508 | 62,00 |

* To connect the DN20 safety group to the "DN20 Standard" manifolds it is necessary to choose the 1/2" adapter with cap

Safety group for hydraulic separator



Safety groups for closed circuit heating systems as per EN 12828 standard consisting of:

- Pressure gauge
- 3/8" automatic vent valve. Nominal pressure 12 bar
- Safety valve

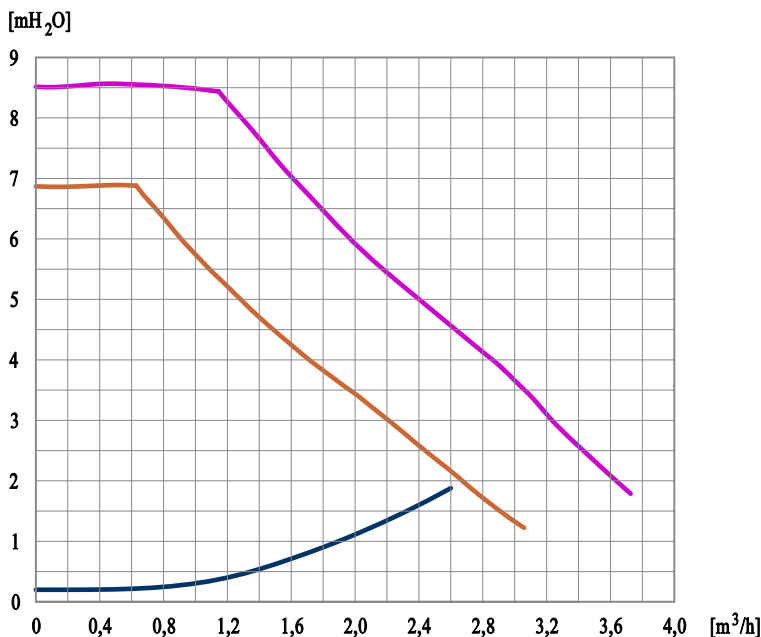
| Model | Code | € |
|---|-----------------|---------------|
| Safety group for separator DN 32 | 35653210 | 206,00 |




INVERTER PLUG AND PLAY CIRCULATION GROUPS

High efficiency modulating plug and play circulation groups for the construction of thermal power plants

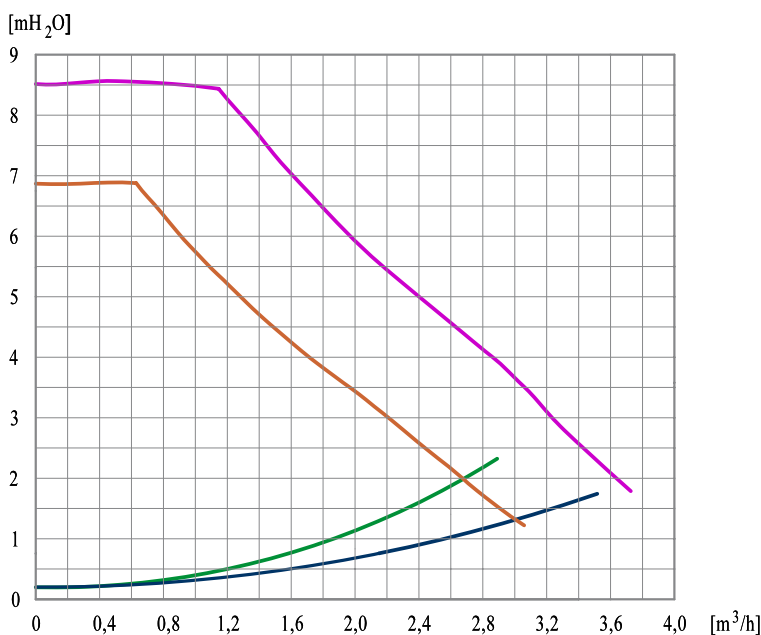
Technical characteristics of circulation groups





CHARACTERISTIC CURVES OF THE DN20 HYDRAULIC MODULE AND THE CIRCULATORS



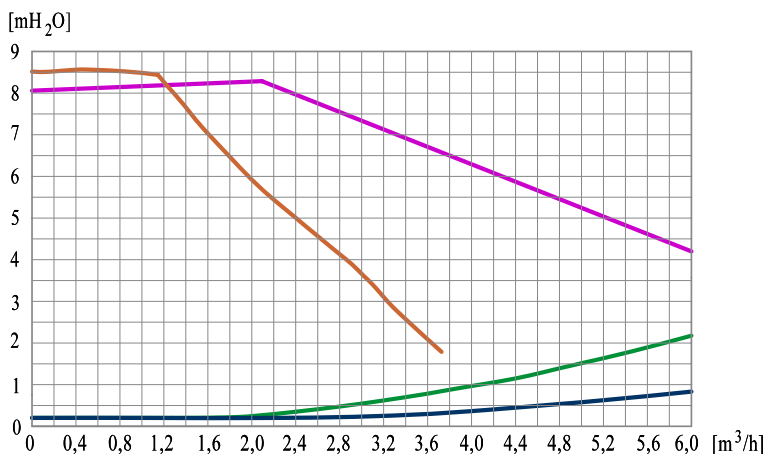
| | |
|---|--|
| Wheelbase | 90 mm |
| Connections | Towards the user 3/4" F To the generator and the collector 3/4" M |
| Dimensions | 180 mm x 302 mm x 142 mm |
| Max temperature | 110 °C |
|  | Wilo Para 15/8 SC |
|  | Wilo Para 15/6 SC |
|  | DN20 direct hydraulic module |





CHARACTERISTIC CURVES OF THE DN25 HYDRAULIC MODULE AND THE CIRCULATORS



| | |
|---|--|
| Wheelbase | 125 mm |
| Connections | Towards the user 1" F To the generator and the collector 1" M |
| Dimensions | 250 mm x 380 mm x 170 mm |
| Max temperature | 110 °C |
|  | Wilo Para 25/8 SC |
|  | Wilo Para 25/6 SC |
|  | DN25 direct hydraulic module |
|  | Motorized mixed DN25 hydraulic module |

CHARACTERISTIC CURVES OF THE DN32 HYDRAULIC MODULE AND CIRCULATORS

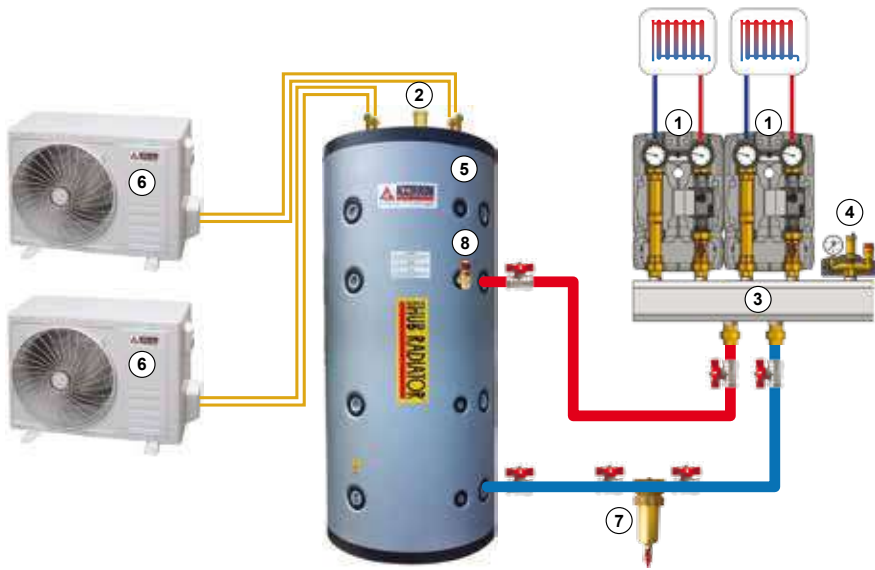


| | |
|---|---|
| Wheelbase | 125 mm |
| Connections | Verso l'utenza 1"1/4 F Al generatore e al collettore 1"1/4 M |
| Dimensions | 250 mm x 400 mm x 170 mm |
| Max temperature | 110 °C |
|  | Wilo Para 30/1-8 SC |
|  | Wilo Para 30/8 SC |
|  | DN32 direct hydraulic module |
|  | Motorized mixed DN32 hydraulic module |

INVERTER PLUG AND PLAY CIRCULATION GROUPS

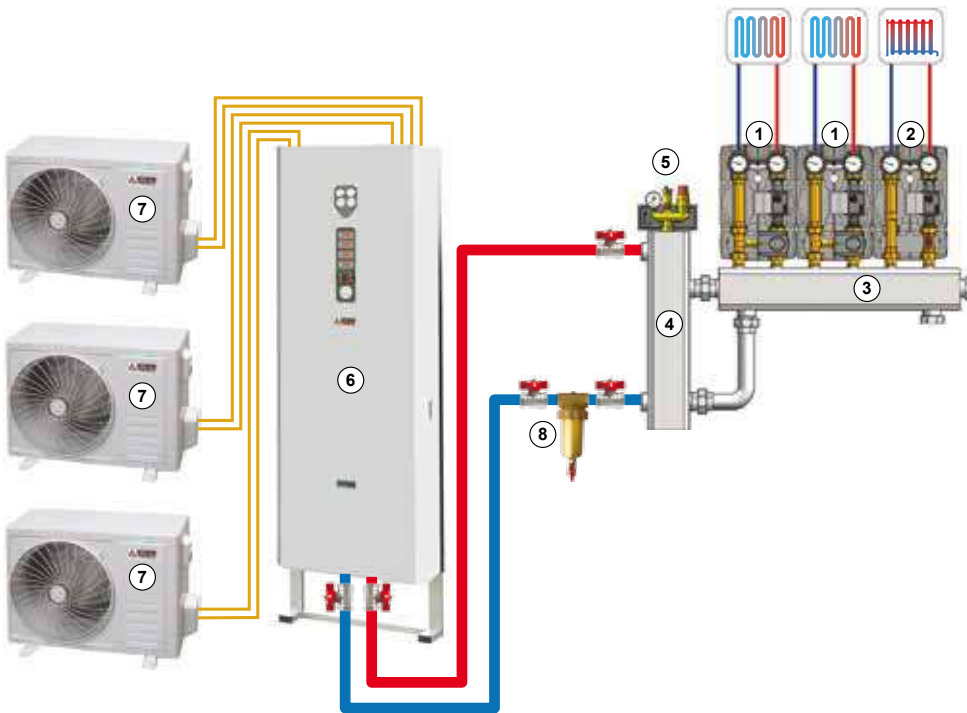
High efficiency modulating plug and play circulation groups for the construction of thermal power plants

Application example hydraulic module for SUPER HUB RADIATOR



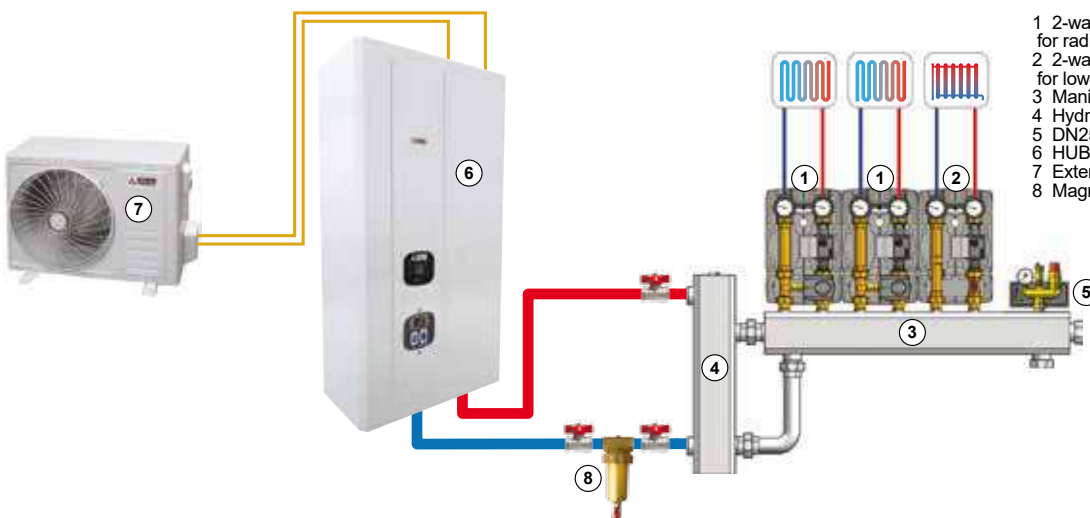
- 1 DN25 2-way direct hydraulic module for low temperature radiators
- 2 Jolly air vent valve for water accumulation technique
- 3 Manifold for hydraulic modules DN25
- 4 DN25 safety group for module manifold
- 5 Technical water storage ARM 2 of 500 liters
- 6 External moto-evaporator Booster HR 7.8
- 7 Magnetic dirt separator
- 8 Accumulation safety valve of technical water 3 bar

Application example hydraulic module for HUB RADIATOR DHP



- 1 Motorized mixed hydraulic module DN32 2-way for radiant floor for low temperature radiators
- 2 DN32 2-way direct hydraulic module for low temperature radiators
- 3 Manifold for DN32 hydraulic modules
- 4 Hydraulic separator
- 5 DN32 safety group for separator plumber
- 6 HUB RADIATOR DHP
- 7 External moto-evaporator Booster HR 7.8
- 8 Magnetic dirt separator

Application example hydraulic module for HUB RADIATOR PACK C



- 1 2-way DN25 motorized mixed module for radiant floor
- 2 2-way DN25 direct hydraulic module for low temperature radiators
- 3 Manifold for hydraulic modules DN25
- 4 Hydraulic separator
- 5 DN25 safety group for manifold
- 6 HUB RADIATOR PACK C
- 7 External moto-evaporator Booster HR 3.0
- 8 Magnetic dirt separator

SOLAR THERMAL

Forced circulation solar thermal system with SKY selective flat plate collectors



RENEWABLE
ENERGY



CERTIFICATE
ISO 9806



ENERGY
SAVING



CERTIFICATION
SOLARKEYMARK

Caratteristiche tecniche e costruttive

SKY flat solar collector certified EN ISO 9806: 2014-03, CE, Solar Keymark with the following characteristics:

- Gray painted aluminum profile case with 40 mm high density rock wool thermal insulation
 - Solar collecting plate with copper tube grid 22 mm diameter
 - Laser welded aluminum plate absorber with highly selective titanium treatment
 - Prismatic, tempered glass with high transparency, anti-reflective
- The SKY collector is only suitable for vertical installations on a flat roof or pitched roof.

The SKY model solar collectors are designed to work with forced circulation through special inverter circulation groups to be chosen from the accessories.

The internal circuits of the SKY collector are made of copper and are suitable for working with a mixture of water and glycol. The SKY solar panel is characterized by its ease of installation thanks to the aluminum case that allows not to exceed the net weight of 45 kg.

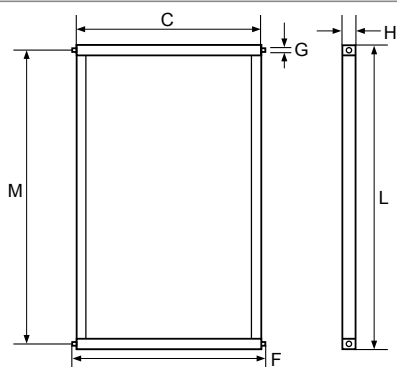
Among the accessories combined with the SKY solar collector, it is also possible to select the most suitable anchoring kit based on the construction type of the floor to which the collector must be fixed in order to perform a work of art

All SKY collectors are supplied with recyclable packaging.

| Model | Code | € |
|---|----------|--------|
| SKY 20 collettore a lastra piana 2.0 m ² | 55101000 | 580,00 |
| SKY 25 collettore a lastra piana 2.5 m ² | 55101010 | 696,00 |

Dimensions and overall dimensions of the solar collector

SKY 20 - 25



| | SKY 20 | SKY 25 |
|---|--------|--------|
| L | 1980 | 1930 |
| C | 1010 | 1230 |
| H | 86 | 86 |
| M | 1900 | 1850 |
| G | 22 | 22 |
| F | 1080 | 1300 |

Values expressed in mm

Technical data table for flat solar collector

SKY 20 - 25

| DESCRIPTION | U.M. | SKY 20 | SKY 25 |
|--------------------------|--------------------|----------------------------------|--------|
| Weight | kg | 36,2 | 43,0 |
| Case color | | Grey | |
| Case material | | Aluminum | |
| Insulation thickness | mm | 40 | |
| Glass type | | 91.5% clear, 3.2mm hardened | |
| Net absorbent surface | m ² | 1,86 | 2,23 |
| Coefficient of loss | W/m ² k | 3,60 | 3,60 |
| Total collector area | m ² | 2,00 | 2,37 |
| Absorbent plate material | | Aluminum | |
| Surface treatment | | Selective TITAN (titanium oxide) | |
| Efficiency (opening) | | 0,761 | 0,761 |
| Glass transparency | % | 91,5 | |
| Glass thickness | mm | 3,2 | |
| Recommended load / panel | l/h | 100 | 130 |
| Collector water capacity | l | 1,42 | 1,70 |
| Maximum working pressure | bar | 10 | |
| Stagnation temperature | °C | 231 | |

SOLAR THERMAL

Forced circulation solar thermal system with high efficiency SELECTIVE selective flat plate collectors



Caratteristiche tecniche e costruttive

SELECTIVE flat solar collector certified EN 12975, CE, Solar Keymark, KWA with the following characteristics:

- Gray painted aluminum profile case with 45 mm high density rock wool thermal insulation
- Solar collecting plate with copper tube grid 22 mm diameter
- Laser welded aluminum plate absorber with highly selective titanium treatment
- Prismatic glass, extra clear tempered, anti-reflective

The SELECTIVE collector is only suitable for vertical installations on a flat roof or pitched roof.

The SELECTIVE model solar collectors are designed to work with forced circulation through special inverter circulation groups to be chosen from the accessories.

The internal circuits of the SELECTIVE manifolds are made of copper and are suitable for working with a mixture of water and glycol. The SELECTIVE solar panel is characterized by its ease of installation thanks to the aluminum case that allows not to exceed the net weight of 43 kg. Among the accessories combined with the SELECTIVE solar collector, it is also possible to select the most suitable anchoring kit based on the construction type of the floor to which the collector must be fixed in order to perform a work in a workmanlike manner. All SELECTIVE collectors are supplied with recyclable packaging.



RENEWABLE
ENERGY



CERTIFICATE
ISO 9806



ENERGY
SAVING



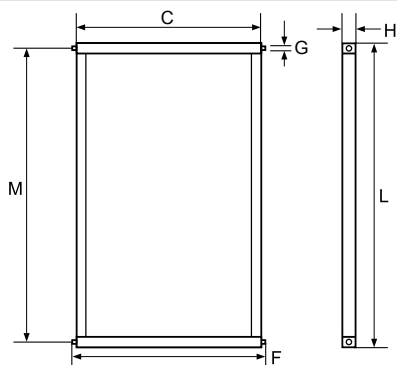
HIGH
EFFICIENCY



CERTIFICATION
SOLARKEYMARK

| Model | Code | € |
|--|-----------------|---------------|
| SELECTIVE H+ collettore a lastra piana 2.0 m² | 55201000 | 696,00 |
| SELECTIVE HX+ collettore a lastra piana 2.5 m² | 55201010 | 812,00 |

Dimensions and overall dimensions SELECTIVE solar collector



| | SELECTIVE H+ | SELECTIVE HX+ |
|---|--------------|---------------|
| L | 1987 | 1987 |
| C | 984 | 1270 |
| H | 100 | 100 |
| M | 1876 | 1876 |
| G | 22 | 22 |
| F | 1050 | 1340 |

Values expressed in mm

Technical data table SELECTIVE flat solar collector

| DESCRIPTION | U.M. | SELECTIVE H+ | SELECTIVE HX+ |
|--------------------------|--------------------|--|---------------|
| Weight | kg | 32,0 | 42,0 |
| Case color | | Grey | |
| Case material | | Aluminum | |
| Insulation thickness | mm | 45 | |
| Glass type | | Extra clear, AR, hardened 3.2 mm anti-reflective | |
| Net absorbent surface | m ² | 1,82 | 2,40 |
| Coefficient of loss | W/m ² k | 3,53 | 3,18 |
| Total collector area | m ² | 1,95 | 2,52 |
| Absorbent plate material | | Aluminum | |
| Surface treatment | | Selective TITAN (titanium oxide) | |
| Efficiency (opening) | | 0,759 | 0,797 |
| Glass transparency | % | 93,8 | |
| Glass thickness | mm | 3,2 | |
| Recommended load / panel | l/h | 100 | 130 |
| Collector water capacity | l | 1,42 | 1,70 |
| Maximum working pressure | bar | 6 | |
| Stagnation temperature | °C | 204 | |

SOLAR THERMAL

Forced circulation solar thermal system with HV12 vacuum tube collectors



Technical and construction features

The solar collector consists of 12 double-cavity borosilicate glass tubes, welded at the end, inside which a vacuum is created. The internal cavity is made selective for the absorption of solar electromagnetic radiation by means of a special multilayer metallic paint, created using completely recyclable products, based on aluminum and nitrogen. The absorption unit is formed by a curved copper circuit in the shape of a "U" (CPC reflector), positioned in contact with special aluminum heat absorbers, which increase the exchange surfaces. This type of construction allows to reach high performances compared to other vacuum collectors without reflective surfaces and lower energy losses even at low temperatures. The metal frame is made of electro-colored aluminum profile resistant to salt spray corrosion. The underlying foil of the tubes is in low iridescence reflective laminated aluminum (EN 573/3 - EN 485/2 - EN 485/4 standards and standard test for anodic oxidation DIN 50943) specially designed to reflect with a percentage greater than 90% of the light total, made using the CPC system.



RENEWABLE ENERGY



CERTIFICATE ISO 9806



ENERGY SAVING



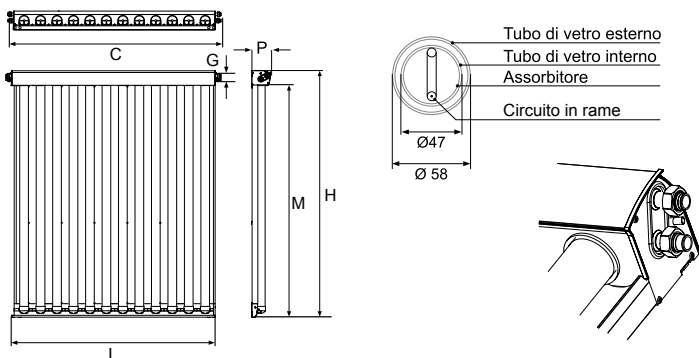
CPC SYSTEM



CERTIFICATION SOLARKEYMARK

| Model | Code | € |
|---|-----------------|-----------------|
| HV12 collettore a 12 tubi sottovuoto | 55101020 | 1.090,00 |
| TR12 tubo sottovuoto di ricambio per collettore HV12 | 55101121 | 56,00 |

Dimensions and overall dimensions of the HV12 solar collector



| | HV12 |
|---|------|
| L | 1280 |
| C | 1353 |
| H | 1605 |
| M | 1505 |
| G | 22 |
| P | 126 |

Valori espressi in mm

HV12 solar collector technical data table

| DESCRIPTION | U.M. | HV12 |
|-----------------------------|----------------|-------|
| Net absorbent surface | m ² | 2,02 |
| Opening surface | m ² | 1,89 |
| Gross collector area | m ² | 2,17 |
| Minimum range | l/h | 6 |
| Nominal flow | l/h | 72 |
| Max capacity | l/h | 720 |
| Collector water capacity | l | 2,3 |
| Maximum operating pressure | bar | 6 |
| Stagnation temperature | °C | 163 |
| Efficiency | | 0,541 |
| Overall loss coefficient α1 | | 0,93 |
| Connection tube diameter | mm | 22 |
| Empty weight | Kg | 37 |

SOLAR THERMAL

Natural circulation solar system for the production of SKY domestic hot water



Technical and construction features

SKY solar system with natural circulation for the production of domestic hot water with vacuum tube solar collectors hydraulically connected to a storage tank. The solar collector uses vacuum tube technology to optimize the thermal energy produced for the sanitary water. The SKY kit is complete with hydraulic fittings for connection with the storage tank. The boiler, equipped with an internal 316L stainless steel exchanger immersed in the water heated by the solar collector, is capable of instantaneously producing the required domestic water. The accumulation is equipped with an electric resistance and is also equipped with a solar safety valve. The kit includes everything necessary for installing the system on a sloping roof or on a flat roof.

- CPC vacuum technology, the only one that gives 365 days of free hot water
- System for domestic hot water
- Natural circulation
- SOLARKEYMAR certification
- Kettle with internal rapid producer



RENEWABLE ENERGY



CERTIFICATE ISO 9806



ENERGY SAVING



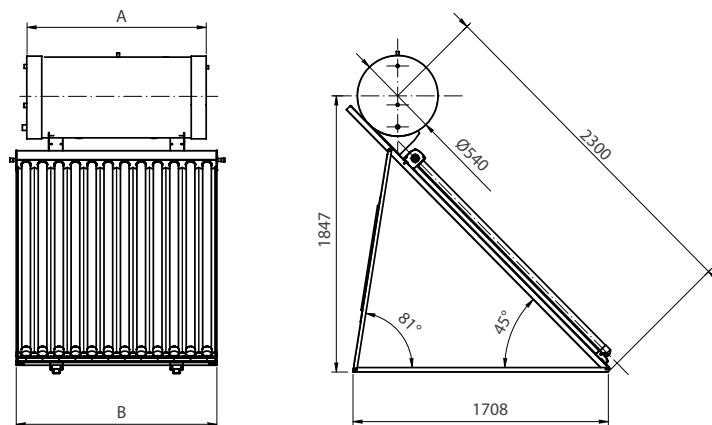
HIGH EFFICIENCY



CERTIFICATION SOLARKEYMARK

| Model | Code | € |
|-----------------|----------|----------|
| SKY HV 12 - 150 | 55120150 | 1.510,00 |
| SKY HV 15 - 200 | 55150200 | 1.820,00 |
| SKY HV 20 - 300 | 55200300 | 2.340,00 |

Dimensions and overall dimensions SKY HV



Technical data table SKY HV

| DESCRIPTION | U.M. | SKY HV 12 - 150 | SKY HV 15 - 200 | SKY HV 20 - 300 |
|------------------------|----------------|--------------------------------------|-----------------|-----------------|
| Number of vacuum tubes | n. | 12 | 15 | 20 |
| Accumulation capacity | l | 150 | 200 | 300 |
| Absorbent area | m ² | 2,28 | 2,87 | 3,87 |
| Operating pressure | bar | 6 | | |
| Inner tank material | | Acciaio inox | | |
| Issue report | | < 0,08 | | |
| Stagnation temperature | °C | 230 | | |
| Vacuum tube material | | Vetro borosilicato 3.3 Heat pipe TU1 | | |
| Vacuum tube diameter | mm | 58 | | |
| Vacuum tube length | mm | 1800 | | |
| Frost resistance | °C | - 40 | | |
| Empty weight | Kg | 88 | 110 | 156 |

SOLAR THERMAL

Direct storage solar system with natural circulation for the production of KOMPATTO domestic hot water

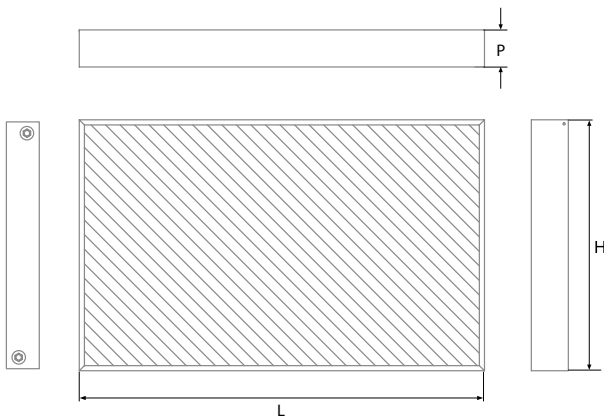
Technical and construction features

KOMPATTO is a new direct storage solar system. The collection manifolds form a single storage unit, allowing maximum efficiency to be obtained on small dimensions. There is no absorbent plate and the water tank, formed by individual pipes in AISI 316L stainless steel, is directly exposed to solar radiation. KOMPATTO works without a circulation pump, therefore there are no heat exchangers or connection pipes between collectors and storage. This solution allows direct heat transmission to the storage pipes with consequent rapid and uniform distribution of heat. The running times are very low. The domestic water is inserted into the system from the cold water inlet (input) and is heated directly in the collector-tank, ready to be directly distributed (output) to the users. KOMPATTO is supplied as standard complete with 1500 W electric anti-freeze resistance and with anchoring frame for flat surfaces.



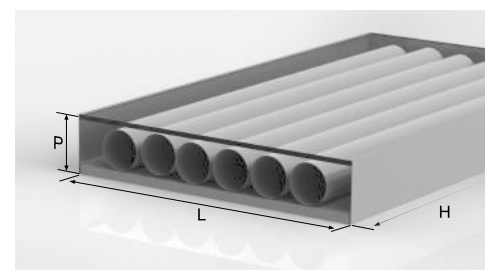
| Model | Code | € |
|---------------------|----------|----------|
| KOMPATTO 150 | 55000230 | 2.850,00 |
| KOMPATTO 200 | 55000231 | 3.300,00 |

Dimensions and overall dimensions KOMPATTO 150 - 200



| Model | L | H | P |
|--------------|------|------|-----|
| KOMPATTO 150 | 1990 | 990 | 220 |
| KOMPATTO 200 | 1980 | 1180 | 220 |

Values expressed in mm



Technical data table KOMPATTO 150 - 200

| DESCRIPTION | U.M. | KOMPATTO 150 | KOMPATTO 200 |
|--|----------------|--------------|--------------|
| Total collector area | m ² | 1,96 | 2,38 |
| Opening area | m ² | 1,78 | 2,13 |
| Domestic hot water content | l | 142 | 209 |
| Boiler piping thickness | mm | 1,5 | 1,5 |
| Electric antifreeze heater as standard | W | 200 | 200 |
| Optional additional electric heater | W | 2000 | 2000 |
| Water inlet and outlet connections | | 3/4" M | 3/4" M |
| Max working pressure | bar | 10 | 10 |
| Total weight | Kg | 98 | 118 |

SOLAR THERMAL

Accessories for solar thermal systems with forced and natural circulation

1-way solar station UNIT 1



Station complete with flow meter regulator with system loading and unloading valves, DN20 3-way flanged ball valve with 10 mbar non-return valve equipped with thermometer holder handle, 6 bar safety group with manometer Ø 50 mm 0 ÷ 10 bar with 3/4 "M connection for expansion tank. Insulation box in EPP with pre-formed shell 155 × 425 × 150 and wall fixing bracket
Circulation unit 2 ÷ 12 l / min with 3/4 "M connections and Wilo Yonos Para 25/6 electronic circulator (absorption 43 W) for the BASIC version.
Circulation unit 8 ÷ 38 l / min with 3/4 "M connections and Wilo Yonos Para 25/8 electronic circulator (absorption 77 W) for the MX version.

| Model | Code | € |
|--|-----------------|---------------|
| UNIT 1 BASE with standard electronic circulator | 55010611 | 534,00 |
| UNIT 1 MX with high head electronic circulator | 55011611 | 550,00 |

UNIT 2 PLUS 2-way solar station



Circulation unit 2 ÷ 12 l / min with 3/4 "M delivery and return connections. Wilo Yonos Para ST 25/7 circulator with cable gland, flow rate meter with system fill and drain valves, DN20 3-way flanged ball valve with 10 mbar non-return valve equipped with thermometer holder handle, 6 bar safety unit manometer Ø 50 mm 0 ÷ 10 bar with 3/4 "M connection for expansion vessel. DN20 flanged ball valve with 10 mbar non-return valve equipped with thermometer holder handle, deaerator with manual bleed valve, connecting pipe and connection
Insulation box in EPP with pre-formed shell 277 × 425 × 150 and wall fixing bracket

| Model | Code | € |
|---|-----------------|---------------|
| UNIT 2 PLUS with electronic circulator | 55000611 | 650,00 |

UNIT 2 XL PLUS 2-way solar station



Circulation unit 20 ÷ 70 l / min with 1 "1/4 M flow and return connections, complete with Wilo Stratos Para ST 25 / 1-8 circulator with cable gland, flow meter regulator, DN25 ball valve with check valve non return 18 mbar equipped with thermometer holder handle, "T" fitting for safety group, 6 bar safety group with manometer Ø 50 mm 0 ÷ 10 bar with 3/4 "M connection for expansion tank," T "fitting "With probe holder pocket Ø 6 mm, ball valve DN25 with non-return valve 10 mbar equipped with thermometer holder handle, connection and connection pipe, insulation box in EPP with preformed shell 285 × 500 × 170 and fixing bracket to Wall

| Model | Code | € |
|---|-----------------|-----------------|
| UNIT 2 XL PLUS con circolatore elettronico | 55000612 | 1.398,00 |

UNIT 2 PLUS - UNIT 2 XL PLUS technical data table

| DESCRIPTION | U.M. | UNIT 2 PLUS | UNIT 2 XL PLUS |
|----------------------------|------|----------------------|--------------------------|
| Max operating temperature | | | |
| short period 20 s | °C | | 160 |
| continuous temperature | °C | | 120 |
| Max working pressure | bar | | 10 |
| Safety valve calibration | bar | | 6 |
| Flow rate adjustment range | l/m | 2÷12 | 20÷70 |
| Pressure gauge scale | bar | | 0÷10 |
| Thermometer scale | °C | | 0÷120 |
| External connections | | 3/4" M | 1" 1/4 M |
| Circulator model | | Wilo Yonos Para 25/7 | Wilo Stratos Para 25/1-8 |
| Body | | | Ghisa |
| Power supply | | | 230V/1/50Hz |
| Max power | W | 45 | 130 |
| Max temperature | °C | | 110 |
| Degree of protection | | | IP X4D |

SOLAR THERMAL

Accessories for solar thermal systems with forced and natural circulation

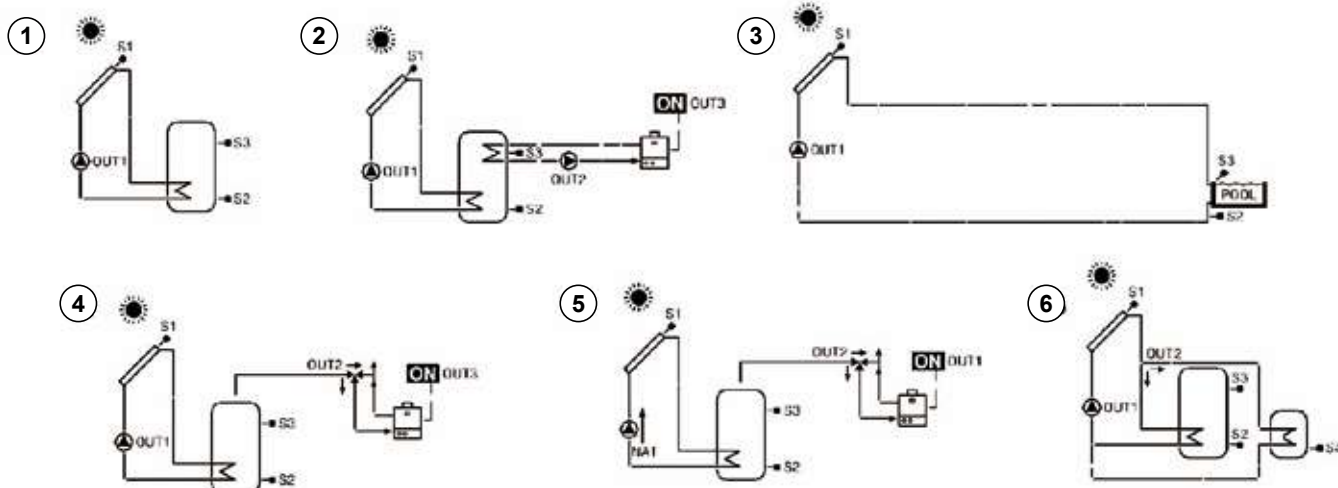
CONTROL MULTI 06 S solar control unit



CONTROL MULTI 06 S digital solar control unit equipped with 3 DT-PLUS probes for the control of systems with forced circulation solar thermal collectors.

- n. 3 relay outputs
- n. 1 PWM output
- n. 1 0-10V output
- n. 6 pre-set functional schemes

| | | |
|-----------------------|----|----------------|
| Dimensions L x P x H | mm | 156 x 47 x 108 |
| Degree of protection | | IP 40 |
| Power supply | | 230V/1/50Hz |
| Electric absorption | W | 4 |
| Operating humidity | % | 20 - 80 |
| Operating temperature | °C | 0 + 40 |
| Number of probes | | 3 |
| Type of probes | | Pt 1000 |



Model

CONTROL MULTI 06 S

Code

55000501

€

220,00

CONTROL MULTI 09 S solar control unit



CONTROL MULTI 09 S digital solar control unit equipped with 3 DT-PLUS probes for the control of systems with forced circulation solar thermal collectors.

- n. 1 relay output
- n. 1 PWM / 0-10 V output
- n. 9 preset functional schemes
- Estimated energy produced
- Frost protection

| | | |
|-----------------------|----|---------------|
| Dimensioni L x P x H | mm | 86 x 45 x 115 |
| Degree of protection | | IP 40 |
| Power supply | | 230V/1/50Hz |
| Electric absorption | W | 2 |
| Operating humidity | % | 20 - 80 |
| Operating temperature | °C | 0 + 40 |
| Number of probes | | 3 |
| Type of probes | | Pt 1000 |

Model

CONTROL MULTI 09

Code

55002501

€

302,00

Centralina solare CONTROL MULTI 25 S



CONTROL MULTI 25 S digital solar control unit equipped with 3 DT-PLUS probes for the control of systems with forced circulation solar thermal collectors.

- n. 2 relay output
- n. 1 PWM / 0-10 V output
- n. 25 preset functional schemes
- Estimated energy produced
- Frost protection

| | | |
|-----------------------|----|----------------|
| Dimensioni L x P x H | mm | 163 x 51 x 110 |
| Degree of protection | | IP 40 |
| Power supply | | 230V/1/50Hz |
| Electric absorption | W | 2,5 |
| Operating humidity | % | 20 - 80 |
| Operating temperature | °C | 0 + 40 |
| Number of probes | | 3 |
| Type of probes | | Pt 1000 |

Model

CONTROL MULTI 25 S

Code

55003501

€

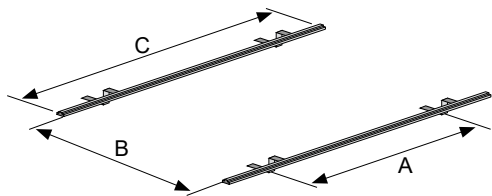
368,00

SOLAR THERMAL

Accessories for solar thermal systems with forced and natural circulation

Pitched roof fixing systems for SELECTIVE H + and SELECTIVE HX + collectors

Frames for pitched roofs complete with stainless steel strips for under-tile fixing and junction between one frame and the other. Multiple frames must be composed based on the number of panels.



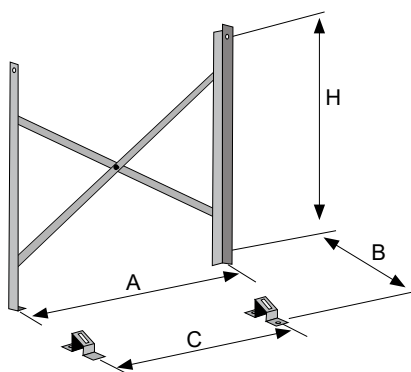
| | TV1 H+ | TV2 H+ | TV3 H+ | TV1 HX+ | TV2 HX+ | TV3 HX+ |
|---|-----------|-----------|-----------|------------|------------|------------|
| A | 84 | 190 | 295 | 113 | 245 | 380 |
| B | 180 | 180 | 180 | 180 | 180 | 180 |
| C | 112 | 220 | 324 | 144 | 290 | 420 |

Valori espressi in mm

| Models | Code | € |
|--|-----------------|---------------|
| TV1 H+ Disposizione verticale per 1 collettore SELECTIVE H+ | 55000120 | 110,00 |
| TV2 H+ Disposizione verticale per 2 collettori SELECTIVE H+ | 55000220 | 128,00 |
| TV3 H+ Disposizione verticale per 3 collettori SELECTIVE H+ | 55000320 | 166,00 |
| TV1 HX+ Disposizione verticale per 1 collettore SELECTIVE HX+ | 55000125 | 110,00 |
| TV2 HX+ Disposizione verticale per 2 collettori SELECTIVE HX+ | 55000225 | 152,00 |
| TV3 HX+ Disposizione verticale per 3 collettori SELECTIVE HX+ | 55000325 | 194,00 |

Flat roof fixing systems for SELECTIVE H + and SELECTIVE HX + collectors

Anchoring frame on flat surfaces for SELECTIVE model forced circulation solar collectors, complete with bracing to ensure adequate stability.



| | TPV H+ | | TPV HX+ | |
|---|--------|-----|---------|-----|
| A | 100 | | 128 | |
| B | 170 | 30° | 170 | 30° |
| | 103 | 45° | 103 | 45° |
| C | 60÷80 | | 60÷80 | |
| H | 103 | | 103 | |

Valori espressi in mm

| Model | Code | € |
|---|-----------------|---------------|
| TPV H + Vertical arrangement for 1 SELECTIVE H + collector | 55020020 | 104,00 |
| TPV HX + Vertical arrangement for 1 SELECTIVE HX + collector | 55020025 | 112,00 |

Fixing systems for HV 12 vacuum tube collectors

Pitched roof frame

Structure suitable for the installation of a single HV 12 collector on a pitched roof, equipped with a 1.2 mm thick stainless steel strip, which can be modeled according to the type of roof brick.

Frame for flat surfaces

Structure suitable for the installation of a single HV 12 collector on a flat roof, equipped with a supporting structure in stainless steel, to be firmly anchored to the ground to avoid problems caused by the wind.

| Model | Code | € |
|--|-----------------|---------------|
| TF HV 12 Pitched roof frame for one HV 12 collector | 55000614 | 116,00 |
| TP HV 12 Flat roof frame for one HV 12 collector | 55000224 | 172,00 |

SOLAR THERMAL

Accessories for solar thermal systems with forced and natural circulation

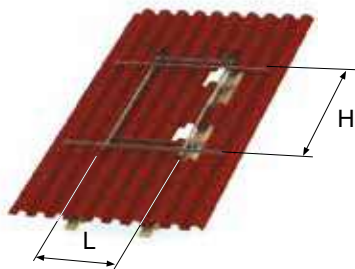
Universal fixing systems for SKY manifolds

Structure suitable for the installation of one or two SKY collectors both on pitched roofs and on flat roofs, available in the single collector or double collector kit. Both kits are suitable for the SKY 20 and SKY 25 version.

| Model | Code | € |
|---|-----------------|---------------|
| TPF 1 SKY 20 - 25 Universal frame for 1 SKY collector | 55000222 | 190,00 |
| TPF 2 SKY 20 - 25 Universal frame for 2 SKY collectors | 55000223 | 240,00 |

Pitched roof fixing systems for KOMPATTO model natural circulation collectors

Frame for sloping surface with tiles suitable for both models and equipped with adjustable brackets in width.



| Model | H | L |
|--------------|------|------|
| KOMPATTO 150 | 1985 | 985 |
| KOMPATTO 200 | 1985 | 1118 |

Values expressed in mm

| Model | Code | € |
|------------------------------|-----------------|---------------|
| TV KOMPATTO 150 - 200 | 55000233 | 162,00 |

Integrative electrical resistance for KOMPATTO manifolds

Single-phase 230 V electrical resistance, IP 65 protection degree.

| Model | Code | € |
|---|-----------------|--------------|
| HERE 15 electrical resistance 1500 W | 55000234 | 58,00 |
| HERE 15 electrical resistance 200 W | 55000235 | 58,00 |

Insulated stainless steel pipe for solar thermal systems

Roll of pre-insulated stainless steel pipe coated with anti-U. film. and containing the bipolar cable for the solar collector probe.



| Mod. | Diameter (Ø) | Fitting | Insulating |
|------|--------------|---------|-------------|
| TS15 | 12 mm | 1/2" | 80 x 50 mm |
| TS20 | 16 mm | 3/4" | 90 x 50 mm |
| TS25 | 20 mm | 1" | 100 x 55 mm |

| Model | Code | € |
|--|-----------------|-----------------|
| Pre-insulated stainless steel pipe TS15 10 m roll | 55001610 | 370,00 |
| Pre-insulated stainless steel pipe TS15 15 m roll | 55001615 | 558,00 |
| Pre-insulated stainless steel pipe TS15 20 m roll | 55001620 | 742,00 |
| Pre-insulated stainless steel pipe TS15 25 m roll | 55001625 | 990,00 |
| Pre-insulated stainless steel pipe TS20 10 m roll | 55002010 | 406,00 |
| Pre-insulated stainless steel pipe TS20 15 m roll | 55002015 | 610,00 |
| Pre-insulated stainless steel pipe TS20 20 m roll | 55002020 | 812,00 |
| Pre-insulated stainless steel pipe TS20 25 m roll | 55002025 | 1.016,00 |
| Pre-insulated stainless steel pipe TS25 10 m roll | 55002510 | 440,00 |
| Pre-insulated stainless steel pipe TS25 15 m roll | 55002515 | 662,00 |
| Pre-insulated stainless steel pipe TS25 20 m roll | 55002520 | 882,00 |
| Pre-insulated stainless steel pipe TS25 25 m roll | 55002525 | 1.100,00 |

SOLAR THERMAL

Accessories for solar thermal systems with forced and natural circulation

Solar expansion vessel for wall installation

Expansion vessels with fixed membrane in EPDM rubber resistant to peaks of 130 ° C for short periods with disconnection fitting and flange in aggravated galvanized carbon steel. 2.5 bar preload.



| Mod. | Capacity (l) | Max pressure (bar) | Operating Temp(°C) | Fitting | Dimensions Ø x L (mm) | Weight (kg) |
|------|--------------|--------------------|--------------------|---------|-----------------------|-------------|
| LT12 | 12 | 6 | -10 / +99 | 3/4" | 272 x 312 | 2,9 |
| LT18 | 18 | 6 | -10 / +99 | 3/4" | 274 x 410 | 3,8 |
| LT25 | 25 | 6 | -10 / +99 | 3/4" | 292 x 454 | 5,6 |
| LT40 | 40 | 10 | -10 / +99 | 3/4" | 322 x 592 | 7,8 |

| Model | Code | € |
|------------------------------|-----------------|---------------|
| Expansion vessel LT12 | 55000701 | 58,00 |
| Expansion vessel LT18 | 55000702 | 68,00 |
| Expansion vessel LT25 | 55000703 | 98,00 |
| Expansion vessel LT40 | 55000704 | 146,00 |

Accessories for hanging expansion vessels from 12 to 40 liters

Support bracket and connection hose for expansion vessels with 3/4 "connection fitting



| Model | Code | € |
|---|-----------------|--------------|
| LT12 - 40 expansion vessel bracket | 55000244 | 45,00 |



| Model | Code | € |
|---|-----------------|--------------|
| LT12 - 40 expansion vessel flexible pipe | 55000245 | 18,00 |

Solar expansion vessel for ground installation

Expansion vessels with interchangeable membrane in EPDM rubber resistant to peaks of 130 ° C for short periods. Screwed stainless steel flange. 2.5 bar preload



| Mod. | Capacity (l) | Max pressure (bar) | Operating Temp (°C) | Fitting | Dimensions Ø x L (mm) | Weight (kg) |
|-------|--------------|--------------------|---------------------|---------|-----------------------|-------------|
| LT60 | 60 | 10 | -10 / +99 | 3/4" | 380 x 674 | 12,9 |
| LT100 | 100 | 10 | -10 / +99 | 1" | 451 x 726 | 17,7 |
| LT200 | 200 | 10 | -10 / +99 | 1" 1/2 | 554 x 988 | - |

| Model | Code | € |
|-------------------------------|-----------------|---------------|
| Expansion vessel LT60 | 55000705 | 170,00 |
| Expansion vessel LT100 | 55000706 | 268,00 |
| Expansion vessel LT200 | 55000708 | 464,00 |

SOLAR THERMAL

Accessories for solar thermal systems with forced and natural circulation

Fittings kit for SELECTIVE HX - HX + and SKY 20 - 25 manifolds

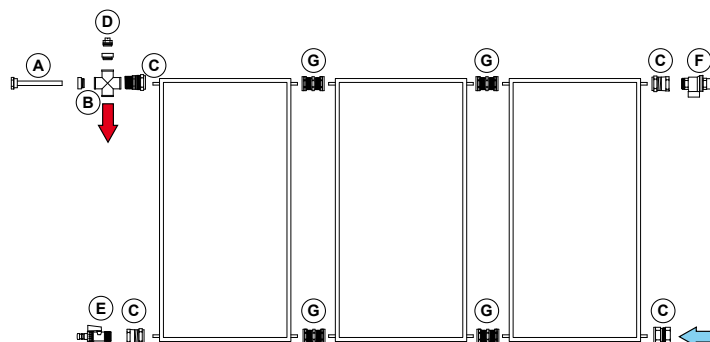


| Model | Description |
|--------------|--|
| KRS | fittings kit for a battery of SELECTIVE solar collectors complete with end joints, safety valve, drain cock, cross fitting, probe pocket and manual vent |
| KRS+1 | fittings kit for each SELECTIVE manifold added which includes 2 straight double 22 mm fittings |

| Model | Quantity | Description |
|----------------|----------|------------------|
| KRS* | A | 1 Cockpit |
| | B | 1 Cross fitting |
| | C | 4 Terminal joint |
| | D | 1 Manual vent |
| | E | 1 Drain cock |
| | F | 1 Safety valve |
| KRS+1** | G | 2 Double fitting |

* Purchase a KRS for each string of collectors

** Purchase a KRS + 1 for each manifold added to the main manifold (for a string of 4 manifolds choose 3 KRS + 1)



| Model | Code | € |
|------------------------------------|-----------------|--------------|
| KRS string fittings kit | 50001016 | 84,00 |
| KRS+1 manifold fittings kit | 50002012 | 18,00 |

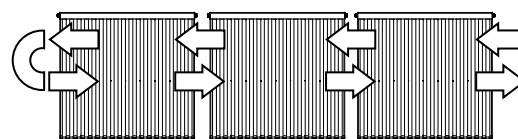
Fittings kit for HV 12 vacuum collectors



| Modello | Description |
|---------------|--|
| RAC HV | RAC HV 12 battery connection kit Brass fittings for the connection between the panel and the delivery and return lines to the solar station consisting of: <ul style="list-style-type: none"> - n ° 2 valves at 90 ° with manual vent in brass thread - n ° 2 reinforcement bushings for 18 mm diameter pipe - n ° 2 sealing ogives for 18 mm diameter pipe - 2 nuts for fitting to tighten 3/4 " - n ° 1 180 ° connection kit for reverse return |
| RAC +1 | Connection fittings kit between 2 HV 12 manifold |

Circuitation

The HV 12 manifolds have n. 2 connections for each side of the head. The installation can be carried out in an ambidextrous way given the symmetry of the circuitry, with also the possibility of creating the reverse return integrated in the head. The pre-insulated copper curve completes the reverse return.



| Model | Code | € |
|--|-----------------|--------------|
| RAC HV fittings kit for each battery | 55000215 | 88,00 |
| RAC +1 fittings kit for each added manifold | 50002012 | 18,00 |

3-way diverter valve kit with thermostatic mixer for natural circulation manifolds



| Model | Description |
|----------------------|---|
| SFMIX3/4 BREG | Solar-Boiler Thermostatic Kit; External connections 3/4 "; max 49 l / min (3 Bar) Inlet: 1 "male diverter valve with adjustable deviation temperature: 38 ÷ 54 ° C Outlet: 1 "male mixer with adjustment 38 ÷ 54 ° C ± 1 ° C |
| SFMIX3/4 B | Solar-Boiler Thermostatic Kit; External connections 3/4 "; max 35 l / min (3 Bar) Inlet: 1 "male diverter valve with fixed setting at 48 ° Output: 1 "male mixer with adjustment 30 ÷ 65 ° C ± 2 ° C |

| Model | Code | € |
|--|-----------------|---------------|
| SFMIX3 / 4 BREG Solar-Boiler Thermostatic Kit | 55000242 | 329,00 |
| SFMIX3 / 4 B Solar-Boiler Thermostatic Kit | 55000243 | 298,00 |

SOLAR THERMAL

Accessories for solar thermal systems with forced and natural circulation

DHW thermostatic mixer for anti-scald solar thermal systems

Manually adjustable thermostatic mixing valve with body and fittings made of chromed alloy, complete with PSU shutter, stainless steel springs and adjustment device that allows you to set a variable temperature from 30 to 65 ° C with an accuracy of ± 2 ° C.



| Mod. | Fitting | Max static pressure (bar) | Max dynamic pressure (bar) | Temp. max (°C) |
|---------|---------|---------------------------|----------------------------|----------------|
| MIX S | 3/4" | 10 | 5 | 100 |
| MIX M | 1" | 10 | 5 | 100 |
| MIX L | 1" 1/4 | 14 | 5 | 110 |
| MIX XL | 1" 1/2 | 14 | 5 | 110 |
| MIX XXL | 2" | 14 | 5 | 110 |

| Model | Code | € |
|-----------------------------------|-----------------|-----------------|
| Thermostatic mixer MIX S | 50003014 | 112,00 |
| Thermostatic mixer MIX M | 50003015 | 120,00 |
| Thermostatic mixer MIX L | 50103015 | 370,00 |
| Thermostatic mixer MIX XL | 50203015 | 396,00 |
| Thermostatic mixer MIX XXL | 50303015 | 1.370,00 |

Non-harmful heat transfer fluid for solar panels

Employments

The inhibited propylene glycol-based liquid is specifically formulated for the preparation of aqueous mixtures to be used in solar heating systems and in any case using heat exchangers. It guarantees the highest levels of anti-freeze and anti-corrosion protection for the entire circuit affected by the heat transfer fluid, fully protecting the ecological aspect typical of these systems (eliminates the possibility of accidentally polluting the water network).

Properties and specifications

Safe protection against freezing: the aqueous solution can reach very low freezing temperatures depending on the percentage of product added to the water.

No aggressiveness: this fluid shows no corrosive tendency towards metals commonly used in cooling systems (copper, cast iron, aluminum, brass, welding alloys) and is particularly inert, in the concentrations of use, with sleeves and other details in rubber present in the circuits.

Non-toxicity of propylene glycol. The minimum recommended percentage is 25% in order to ensure optimal corrosion inhibition, the maximum is 60%. Consultation of the SAFETY DATA SHEET Regulation (EC) No. 1907/2006 is recommended.



| % by volume | Freezing ° C |
|-------------|--------------|
| 25 | - 10.1 |
| 32 | - 14.8 |
| 38 | - 20.0 |
| 43 | - 28.1 |
| 47 | - 32.0 |
| 56 | - 44.9 |
| 60 | - 50.1 |








| Average characteristics | |
|-------------------------|------------|
| Density at 20 ° C | 1055 kg/mc |
| 55% freezing in water | - 40°C |
| Boiling t.q. | >170 °C |
| 50% boiling in water | 105 °C |
| pH solution at 50% | 8.3 |
| Visual color | Red |

| Model | Code | € |
|------------------------------|-----------------|--------------|
| LIQ 3 + 3 liter can | 55000236 | 41,00 |
| LIQ 4 + 4 liter can | 55000237 | 49,00 |
| LIQ 5 + 5 liter can | 55000238 | 61,00 |
| LIQ 7 + 7 liter can | 55000239 | 81,00 |
| LIQ 8 + 8 liter can | 55000240 | 91,00 |
| LIQ 10 + 10 liter can | 55000241 | 99,00 |

SOLAR THERMAL

Accessories for solar thermal systems with forced and natural circulation

Thermal solar kits to be combined with existing storage tanks

| | | | | |
|---|---|-------------------------------|-----------------|------------------|
|  | solar thermal kit 1 x 2.0 m2 | Kit Solar HR 1 x 2.0 | Code | € |
| | - N. 1 SELECTIVE H + 2.0 m2 flat sheet panel - Anchoring kit for 1 SELECTIVE H + 2.0 m2 manifold - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 12 liter expansion vessel - String fittings kit (1 string - 1 collector) - Concentrated glycol 1 tank of 3 liters | Tetto Piano / 1 x 2.0 | 37318030 | 2.000,00 |
| Solar collector SELECTIVE | solar thermal kit 1 x 2.5 m2 | Kit Solar HR 1 x 2.5 | Code | € |
| | - N. 1 SELECTIVE HX + 2.5 m2 flat sheet panel - Anchoring kit for 1 SELECTIVE HX + 2.5 m2 manifold - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 18 liter expansion vessel - String fittings kit (1 string - 1 collector) - Concentrated glycol 1 tank of 4 liters | Tetto Piano / 1 x 2.5 | 37318031 | 2.136,00 |
|  | solar thermal kit 2 x 2.0 m2 | Kit Solar HR 2 x 2.0 | Code | € |
| | - N. 2 SELECTIVE H + 2.0 m2 flat sheet panels - Anchoring kit for 2 SELECTIVE H + 2.0 m2 collectors - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter expansion vessel - String fittings kit (1 string - 2 collectors) - Concentrated glycol 2 tanks of 3 liters | Tetto Piano / 2 x 2.0 | 37318032 | 2.888,00 |
| Anchoring kit SELECTIVE | solar thermal kit 2 x 2.5 m2 | Kit Solar HR 2 x 2.5 | Code | € |
| | - N. 2 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 2 SELECTIVE HX + 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter solar expansion tank - String fittings kit (1 string - 2 collectors) - Concentrated glycol 2 tanks of 4 liters | Tetto Piano / 2 x 2.5 | 37318033 | 3.158,00 |
|  | solar thermal kit 3 x 2.0 m2 | Kit Solar HR 3 x 2.0 | Code | € |
| | - N. 3 SELECTIVE H + 2.0 m2 flat sheet panels - Anchoring kit for 3 SELECTIVE H + 2.0 m2 collectors - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter solar expansion tank - String fittings kit (1 string - 3 collectors) - Concentrated glycol 3 tanks of 3 liters | Tetto Piano / 3 x 2.0 | 37318034 | 3.782,00 |
| Solar station UNIT 2 PLUS | solar thermal kit 3 x 2.5 m2 | Kit Solar HR 3 x 2.5 | Code | € |
| | - N. 3 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 3 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter solar expansion tank - String fittings kit (1 string - 3 collectors) - Concentrated glycol 3 tanks of 4 liters | Tetto Piano / 3 x 2.5 | 37318035 | 4.188,00 |
|  | solar thermal kit 5 x 2.5 m2 | Kit Solar HR 5 x 2.5 | Code | € |
| | - N. 5 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 5 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 40 liter expansion vessel - String fittings kit (1 string - 5 collectors) - Concentrated glycol 2 canisters of 10 liters | Tetto Piano / 5 x 2.5 | 37318036 | 6.263,00 |
| CONTROL MULTI 06 S solar control unit | solar thermal kit 6 x 2.5 m2 | Kit Solar HR 6 x 2.5 | Code | € |
| | - N. 6 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 6 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 60 liter expansion vessel - String fittings kit (1 string - 6 collectors) - Concentrated glycol 5 canisters of 5 liters | Tetto Piano / 6 x 2.5 | 37318037 | 7.300,00 |
|  | solar thermal kit 10 x 2.5 m2 | Kit Solar HR 10 x 2.5 | Code | € |
| | - N. 10 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 10 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 XL PLUS - CONTROL MULTI 06 S solar control unit - 100 liter expansion vessel - String fittings kit (2 strings - 10 collectors) - Concentrated glycol 4 tanks of 10 liters | Tetto Piano / 10 x 2.5 | 37318038 | 12.526,00 |
| SOLAR EXPANSION VESSEL | solar thermal kit 12 x 2.5 m2 | Kit Solar HR 12 x 2.5 | Code | € |
| | - N. 12 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 12 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 XL PLUS - CONTROL MULTI 06 S solar control unit - 100 liter expansion vessel - String fittings kit (2 strings - 12 collectors) - Concentrated glycol 5 canisters of 10 liters | Tetto Piano / 12 x 2.5 | 37318039 | 14.300,00 |
|  | | Tetto Falda / 1 x 2.0 | 37308030 | 1.994,00 |
| | String fittings kit | Tetto Falda / 2 x 2.0 | 37308032 | 2.782,00 |
|  | | Tetto Falda / 2 x 2.5 | 37308033 | 3.066,00 |
| | Anti-freeze glycol kit | Tetto Falda / 3 x 2.0 | 37308034 | 3.600,00 |
| | | Tetto Falda / 3 x 2.5 | 37308035 | 4.016,00 |
| | | Tetto Falda / 5 x 2.5 | 37308036 | 6.036,00 |
| | | Tetto Falda / 6 x 2.5 | 37308037 | 7.002,00 |
| | | Tetto Falda / 10 x 2.5 | 37308038 | 12.130,00 |
| | | Tetto Falda / 12 x 2.5 | 37308039 | 13.800,00 |

SOLAR THERMAL

Accessori per sistemi solari termici a circolazione forzata e naturale

Solar thermal kits with fixed double coil domestic hot water tank

| | <p>solar thermal kit 200 liter - 1 x 2.5 m2</p> <ul style="list-style-type: none"> - N. 1 ADSF V 200 liter DHW boiler - N. 1 SELECTIVE HX + 2.5 m2 flat sheet panel - Anchoring kit for 1 SELECTIVE HX + 2.5 m2 manifold - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 18 liter expansion vessel - String fittings kit (1 string - 1 collector) - 3/4 "DHW mix valve kit - Concentrated glycol 1 tank of 4 liters | <p>Kit Solar 200 - 1 x 2.5</p> <p>Tetto Piano / 1 x 2.5</p> <p>Tetto Falda / 1 x 2.5</p> | <table border="1"> <thead> <tr> <th>Code</th> <th>€</th> </tr> </thead> <tbody> <tr> <td>37318131</td> <td>3.250,00</td> </tr> <tr> <td>37308130</td> <td>3.246,00</td> </tr> </tbody> </table> | Code | € | 37318131 | 3.250,00 | 37308130 | 3.246,00 |
|----------|---|---|---|------|---|----------|-----------|----------|-----------|
| Code | € | | | | | | | | |
| 37318131 | 3.250,00 | | | | | | | | |
| 37308130 | 3.246,00 | | | | | | | | |
| | <p>solar thermal kit 300 liters - 2 x 2.5 m2</p> <ul style="list-style-type: none"> - N. 1 DHW boiler ADSF V 300 liters - N. 2 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 2 SELECTIVE HX + 2.5 m2 collectors - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter solar expansion tank - String fittings kit (1 string - 2 collectors) - 3/4 "DHW mix valve kit - Concentrated glycol 2 tanks of 4 liters | <p>Kit Solar 300 - 2 x 2.5</p> <p>Tetto Piano / 2 x 2.5</p> <p>Tetto Falda / 2 x 2.5</p> | <table border="1"> <thead> <tr> <th>Code</th> <th>€</th> </tr> </thead> <tbody> <tr> <td>37318133</td> <td>4.450,00</td> </tr> <tr> <td>37308133</td> <td>4.380,00</td> </tr> </tbody> </table> | Code | € | 37318133 | 4.450,00 | 37308133 | 4.380,00 |
| Code | € | | | | | | | | |
| 37318133 | 4.450,00 | | | | | | | | |
| 37308133 | 4.380,00 | | | | | | | | |
| | <p>solar thermal kit 500 liter - 3 x 2.5 m2</p> <ul style="list-style-type: none"> - N. 1 ADSF V 500 liter sanitary boiler - N. 3 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 3 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 25 liter solar expansion tank - String fittings kit (1 string - 3 collectors) - 1 "DHW mix valve kit - Concentrated glycol 3 tanks of 4 liters | <p>Kit Solar 500 - 3 x 2.5</p> <p>Tetto Piano / 3 x 2.5</p> <p>Tetto Falda / 3 x 2.5</p> | <table border="1"> <thead> <tr> <th>Code</th> <th>€</th> </tr> </thead> <tbody> <tr> <td>37318135</td> <td>5.910,00</td> </tr> <tr> <td>37308135</td> <td>5.770,00</td> </tr> </tbody> </table> | Code | € | 37318135 | 5.910,00 | 37308135 | 5.770,00 |
| Code | € | | | | | | | | |
| 37318135 | 5.910,00 | | | | | | | | |
| 37308135 | 5.770,00 | | | | | | | | |
| | <p>solar thermal kit 800 liters - 5 x 2.5 m2</p> <ul style="list-style-type: none"> - N. 1 ADSF V 800 liter sanitary boiler - N. 5 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 5 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 40 liter expansion vessel - String fittings kit (1 string - 5 collectors) - 1 "DHW mix valve kit - Concentrated glycol 2 canisters of 10 liters | <p>Kit Solar 800 - 5 x 2.5</p> <p>Tetto Piano / 5 x 2.5</p> <p>Tetto Falda / 5 x 2.5</p> | <table border="1"> <thead> <tr> <th>Code</th> <th>€</th> </tr> </thead> <tbody> <tr> <td>37318136</td> <td>8.800,00</td> </tr> <tr> <td>37308136</td> <td>8.590,00</td> </tr> </tbody> </table> | Code | € | 37318136 | 8.800,00 | 37308136 | 8.590,00 |
| Code | € | | | | | | | | |
| 37318136 | 8.800,00 | | | | | | | | |
| 37308136 | 8.590,00 | | | | | | | | |
| | <p>solar thermal kit 1000 liters- 6 x 2.5 m2</p> <ul style="list-style-type: none"> - N. 1 ADSF V 1000 liter DHW boiler - N. 6 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 6 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 PLUS - CONTROL MULTI 06 S solar control unit - 60 liter expansion vessel - String fittings kit (1 string - 6 collectors) - 1 "DHW mix valve kit - Concentrated glycol 5 tanks of 5 liters | <p>Kit Solar 1000 - 6 x 2.5</p> <p>Tetto Piano / 6 x 2.5</p> <p>Tetto Falda / 6 x 2.5</p> | <table border="1"> <thead> <tr> <th>Code</th> <th>€</th> </tr> </thead> <tbody> <tr> <td>37318137</td> <td>10.580,00</td> </tr> <tr> <td>37308137</td> <td>10.300,00</td> </tr> </tbody> </table> | Code | € | 37318137 | 10.580,00 | 37308137 | 10.300,00 |
| Code | € | | | | | | | | |
| 37318137 | 10.580,00 | | | | | | | | |
| 37308137 | 10.300,00 | | | | | | | | |
| | <p>solar thermal kit 1500 liters - 10 x 2.5 m2</p> <ul style="list-style-type: none"> - N. 1 ADSF V 1500 liter domestic hot water tank - N. 10 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 10 SELECTIVE HX collectors + 2.5 m2 - 2-way solar station mod. UNIT 2 XL PLUS - CONTROL MULTI 06 S solar control unit - 100 liter expansion vessel - String fittings kit (2 strings - 10 collectors) - 1 "1/4 DHW mix valve kit - Concentrated glycol 4 tanks of 10 liters | <p>Kit Solar 1500 - 10 x 2.5</p> <p>Tetto Piano / 10 x 2.5</p> <p>Tetto Falda / 10 x 2.5</p> | <table border="1"> <thead> <tr> <th>Code</th> <th>€</th> </tr> </thead> <tbody> <tr> <td>37318138</td> <td>17.400,00</td> </tr> <tr> <td>37308138</td> <td>16.980,00</td> </tr> </tbody> </table> | Code | € | 37318138 | 17.400,00 | 37308138 | 16.980,00 |
| Code | € | | | | | | | | |
| 37318138 | 17.400,00 | | | | | | | | |
| 37308138 | 16.980,00 | | | | | | | | |
| | <p>solar thermal kit 2000 liters - 12 x 2.5 m2</p> <ul style="list-style-type: none"> - N. 1 DHW boiler ADSF V 2000 liters - N. 12 SELECTIVE HX + 2.5 m2 flat sheet panels - Anchoring kit for 12 SELECTIVE HX collectors + 2.5 m2) - 2-way solar station mod. UNIT 2 XL PLUS - CONTROL MULTI 06 S solar control un100 liter expansion vessel - String fittings kit (2 strings - 12 collectors) - 1 "1/2 DHW mix valve kit - Concentrated glycol 5 canisters of 10 liters | <p>Kit Solar 2000 - 12 x 2.5</p> <p>Tetto Piano / 12 x 2.5</p> <p>Tetto Falda / 12 x 2.5</p> | <table border="1"> <thead> <tr> <th>Code</th> <th>€</th> </tr> </thead> <tbody> <tr> <td>37318139</td> <td>21.900,00</td> </tr> <tr> <td>37308139</td> <td>21.330,00</td> </tr> </tbody> </table> | Code | € | 37318139 | 21.900,00 | 37308139 | 21.330,00 |
| Code | € | | | | | | | | |
| 37318139 | 21.900,00 | | | | | | | | |
| 37308139 | 21.330,00 | | | | | | | | |
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HUB RADIATOR BLACK

Domestic hot water producers with patented high efficiency system
in heat pump with direct refrigerant/water exchange for medium and large users



Technical and construction features

HUB RADIATOR BLACK is a patented product capable of offering the market the best response concerning energy efficiency in the production of instant domestic hot water for medium / large users. This system was created to supply large DHW production to power the users of condominiums, large buildings for civil, industrial, hotel, sports fields and wellness centers. The HUB RADIATOR BLACK units are mainly composed of very thick FE360 steel accumulators with one or more immersion exchangers / condensers on board connected to as many external boosters in cascade that produce thermal energy separately and independently to obtain power modulation with maximum reliability in case of malfunction.

The systems with HUB RADIATOR BLACK technical water accumulator in heat pump can be suitably combined with solar thermal and / or biomass collectors thanks to the models with single or double additional exchanger (S - 2S).

The steel accumulators are also designed to power a heating system with hydronic terminals.



PATENTED SYSTEM



RENEWABLE ENERGY



ENERGY SAVING



WIDE CONFIGURATIONS



COMBINABLE WITH INVERTER BOOSTER



HIGH EFFICIENCY



ECOLOGICAL GAS



SOLAR THERMAL COMBINATION



PHOTOVOLTAIC COMBINATION



DHW WITHOUT LEGIONELLA



HEATING UP TO 58 °C



HR BLACK



HR BLACK S



HR BLACK 2S

Technical accumulation HUB RADIATOR BLACK

| Models | Solar exchanger | Biomass exchanger | Codice | € |
|---------------------------|------------------------------|------------------------------|----------|----------|
| Accumulo HR BLACK 300 | - | - | 37306000 | 1.470,00 |
| Accumulo HR BLACK 500 | - | - | 37306001 | 1.660,00 |
| Accumulo HR BLACK 800 | - | - | 37306002 | 2.460,00 |
| Accumulo HR BLACK 1000 | - | - | 37306003 | 2.720,00 |
| Accumulo HR BLACK 1500 | - | - | 37306004 | 3.120,00 |
| Accumulo HR BLACK 2000 | - | - | 37306005 | 4.430,00 |
| Accumulo HR BLACK 2500 | - | - | 37306012 | 4.650,00 |
| Accumulo HR BLACK 3000 | - | - | 37306013 | 5.060,00 |
| Accumulo HR BLACK 4000 | - | - | 37306014 | 5.840,00 |
| Accumulo HR BLACK 5000 | - | - | 37306015 | 7.050,00 |
| Accumulo HR BLACK 300 S | Fixed by 1,40 m ² | - | 37306100 | 1.760,00 |
| Accumulo HR BLACK 500 S | Fixed by 2,00 m ² | - | 37306101 | 2.210,00 |
| Accumulo HR BLACK 800 S | Fixed by 2,50 m ² | - | 37306102 | 2.830,00 |
| Accumulo HR BLACK 1000 S | Fixed by 3,50 m ² | - | 37306103 | 2.910,00 |
| Accumulo HR BLACK 1500 S | Fixed by 4,00 m ² | - | 37306104 | 4.390,00 |
| Accumulo HR BLACK 2000 S | Fixed by 4,80 m ² | - | 37306105 | 4.910,00 |
| Accumulo HR BLACK 2500 S | Fixed by 4,80 m ² | - | 37306112 | 5.280,00 |
| Accumulo HR BLACK 3000 S | Fixed by 6,00 m ² | - | 37306113 | 5.680,00 |
| Accumulo HR BLACK 4000 S | Fixed by 7,00 m ² | - | 37306114 | 6.470,00 |
| Accumulo HR BLACK 5000 S | Fixed by 8,00 m ² | - | 37306115 | 7.690,00 |
| Accumulo HR BLACK 300 2S | Fixed by 1,40 m ² | Fixed by 1,10 m ² | 37306200 | 1.970,00 |
| Accumulo HR BLACK 500 2S | Fixed by 2,00 m ² | Fixed by 1,80 m ² | 37306201 | 2.660,00 |
| Accumulo HR BLACK 800 2S | Fixed by 2,50 m ² | Fixed by 2,00 m ² | 37306202 | 3.080,00 |
| Accumulo HR BLACK 1000 2S | Fixed by 3,50 m ² | Fixed by 2,50 m ² | 37306203 | 3.370,00 |
| Accumulo HR BLACK 1500 2S | Fixed by 4,00 m ² | Fixed by 2,80 m ² | 37306204 | 4.910,00 |
| Accumulo HR BLACK 2000 2S | Fixed by 4,80 m ² | Fixed by 3,80 m ² | 37306205 | 5.230,00 |
| Accumulo HR BLACK 2500 2S | Fixed by 4,80 m ² | Fixed by 3,80 m ² | 37306212 | 5.920,00 |
| Accumulo HR BLACK 3000 2S | Fixed by 6,00 m ² | Fixed by 3,80 m ² | 37306213 | 6.660,00 |
| Accumulo HR BLACK 4000 2S | Fixed by 7,00 m ² | Fixed by 4,50 m ² | 37306214 | 7.590,00 |
| Accumulo HR BLACK 5000 2S | Fixed by 8,00 m ² | Fixed by 5,00 m ² | 37306215 | 8.850,00 |








HUB RADIATOR BLACK

Domestic hot water producers with patented high efficiency system
in heat pump with direct refrigerant/water exchange for medium and large users

| External moto-evaporating unit model | Codice | € |
|---|-----------------|-----------------|
| Booster HR 3.0 solo caldo | 76010240 | 2.000,00 |
| Booster HR 7.8 solo caldo | 76010500 | 3.700,00 |
| Booster HR 9.0 solo caldo INVERTER | 76030500 | 4.760,00 |



















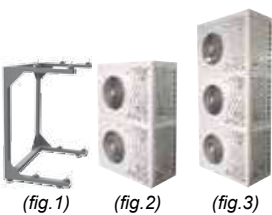
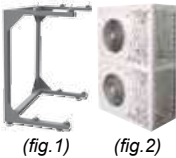

| DHW exchanger model | | |
|---|-----------------|-----------------|
| Finned exchanger ACS 4.54 m² for tank mod. 300/500 litri | 37370012 | 1.400,00 |
| Finned exchanger ACS 5.26 m² for tank mod. 800/1000 litri | 37370013 | 1.600,00 |
| Finned exchanger ACS 6.34 m² for tank mod. 1500/2000 litri | 37370014 | 1.950,00 |
| Finned exchanger ACS 12.64 m² for tank mod. 2500÷5000 litri | 37370015 | 3.900,00 |

Accessories HUB RADIATOR BLACK

| | | | | | | |
|---|---|---------------------|----------------------------------|---------------------|-----------------|-----------------|
|  | First mandatory ignition (net price) | da 1 a 2 Booster HR | 35639901 | 100,00 | | |
| | | da 3 a 4 Booster HR | 35639902 | 150,00 | | |
| | | da 5 a 8 Booster HR | 35639903 | 250,00 | | |
|  | Integrative single-phase 230 V electrical resistance IP 65 protection degree | mod. 1500 W | 75050102 | 150,00 | | |
| | | mod. 2000 W | 75050103 | 160,00 | | |
| | | mod. 3000 W | 75060300 | 170,00 | | |
|  | Integrative three-phase electrical resistance 400 V degree of protection IP 65 | mod. 6000 W | 75050105 | 300,00 | | |
| | | mod. 9000 W | 75050106 | 320,00 | | |
|  | Additional inverter electronic circulator max flow rate 3.3 m ³ / h, max head 6.2 m min. 4 W - max 45 W | | 35006001 | 214,00 | | |
|  | System pump kit which includes: Inverter electronic circulation pump complete with shut-off valves, air vent jolly valve, safety valve, threaded plugs and probe wells | | 75100011 | 380,00 | | |
|  | Hot / cold inverter system pump kit which includes: electronic circulation pump complete with shut-off valves, air vent jolly valve, safety valve, threaded caps and probe holders | | 75100009 | 674,00 | | |
|  | High efficiency inverter electronic circulator with wet rotor and motor magnet permanent ECM | mod. 3/6 | Q max 3,2 m³/h | H max 6,6 m | 35006002 | 540,00 |
| | | mod. 9/10 | Q max 9 m³/h | H max 10,5 m | 36576012 | 1.220,00 |
| | | mod. 18/12 | Q max 18 m³/h | H max 12,8 m | 36576013 | 2.380,00 |
| | | mod. 27/16 | Q max 27 m³/h | H max 16,0 m | 36576014 | 3.780,00 |
| | | mod. 30/18G | Q max 30 m³/h | H max 18,0 m | 36576015 | 6.590,00 |

HUB RADIATOR BLACK

Domestic hot water producers with patented high efficiency system
in heat pump with direct refrigerant/water exchange for medium and large users

| Accessories HUB RADIATOR BLACK | | | Codice | € |
|---|--|---|---|---|
|  | Command and remote control panel | mod. built-in mod. wall | 75100005 75100028 | 90,00 110,00 |
|  | Load control relay for managing the absorbed power | mod. BUS connection mod. Radio frequency | 37081062 37081063 | 148,00 336,00 |
|  | Web server home automation control unit | | 75101005 | 580,00 |
|  | Mixing valve for radiant systems | mod. fixed mechanical adjustment mod. motorized adjustment | 75101032 75101033 | 90,00 530,00 |
|  | Additional condenser for heat only HR Booster | | 26505565 | 300,00 |
|  | Anchoring shelf for external Booster including rubber anti-vibration mounts | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081060 37081061 | 50,00 90,00 |
|  | Anchoring bracket for sloped roof for external Booster mod. HR 3.0 - 7.8 - 9.0 including rubber anti-vibration mounts | | 37081064 | 130,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 - 9.0 (pack of 2 pieces) | | 75100018 | 94,00 |
|  | Anti-vibration kit for installation on shelves | | 75100022 | 18,00 |
|  | Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces) | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081065 37081066 | 52,00 56,00 |
|  | Condensate anti-freeze heating cable with thermal sensor, factory fitted | mod. 3 metri 90 W mod. 6 metri 120 W | 37081067 37081068 | 56,00 66,00 |
|  | Auxiliary basin for installation under the shelf equipped with 90 W heating cable | mod. HR 3.0 mod. HR 7.8 - 9.0 | 37081069 37081070 | 252,00 272,00 |
|  | Floor support complete with auxiliary basin equipped with 90 W heating cable | mod. HR 3.0 H fixed mod. HR 7.8 - 9.0 H fixed mod. HR 7.8 - 9.0 H variable | 37081071 37081073 37081074 | 308,00 330,00 354,00 |
|  | DHW thermostatic mixer for anti-scald solar thermal systems | mod. MIX L mod. MIX XL mod. MIX XXL | 50103015 50203015 50303015 | 370,00 396,00 1.370,00 |
|  | Electronic management kit and additional heat generator connection sleeves | | 75100024 | 194,00 |
|  | Anti-vibration flexible joint kit with flare and straight union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100014 75100015 | 120,00 60,00 |
|  | Anti-vibration flexible joint kit with connecting flange and 90 ° curved union | mod. HR 7.8 - 9.0 (5/8") mod. HR 3.0 (3/8") | 75100016 75100017 | 120,00 60,00 |
|  | Programmer clock kit | | 35639900 | 40,00 |
|  | <i>Open shelf for n. 2 Booster outdoor units mod. HR 7.8 - 9.0 complete with anti-vibration mounts (fig. 1)</i> | | 75060406 | 240,00 |
|  | <i>RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - 7.8 - 9.0 (fig. 2)</i> | | 75060306 | 890,00 |
|  | <i>RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - 7.8 - 9.0 Height 210 cm Width 96 cm Depth 54 cm (fig.3)</i> | | 75060206 | 980,00 |

HUB RADIATOR BLACK

Domestic hot water producers with patented high efficiency system in heat pump with direct refrigerant/water exchange for medium and large users

Kit solari termici da abbinare ad accumuli esistenti



Collettore solare
SELECTIVE

- solar thermal kit 1 x 2.0 m²**
- N. 1 SELECTIVE H + 2.0 m² flat sheet panel
 - Anchoring kit for 1 SELECTIVE H + 2.0 m² manifold
 - 2-way solar station mod. UNIT 2 PLUS
 - CONTROL MULTI 06 S solar control unit
 - 12 liter expansion vessel
 - String fittings kit (1 string - 1 collector)
 - Concentrated glycol 1 tank of 3 liters

- kit solare termico 1 x 2.5 m²**
- N. 1 SELECTIVE HX + 2.5 m² flat sheet panel
 - Anchoring kit for 1 SELECTIVE HX + 2.5 m² manifold
 - 2-way solar station mod. UNIT 2 PLUS
 - CONTROL MULTI 06 S solar control unit
 - 18 liter expansion vessel
 - String fittings kit (1 string - 1 collector)
 - Concentrated glycol 1 tank of 4 liters



Kit ancoraggio
SELECTIVE

- solar thermal kit 2 x 2.0 m²**
- N. 2 SELECTIVE H + 2.0 m² flat sheet panels
 - Anchoring kit for 2 SELECTIVE H + 2.0 m² collectors
 - 2-way solar station mod. UNIT 2 PLUS
 - CONTROL MULTI 06 S solar control unit
 - 25 liter expansion vessel
 - String fittings kit (1 string - 2 collectors)
 - Concentrated glycol 2 tanks of 3 liters



Stazione solare
UNIT 2 PLUS

- solar thermal kit 2 x 2.5 m²**
- N. 2 SELECTIVE HX + 2.5 m² flat sheet panels
 - Anchoring kit for 2 SELECTIVE HX + 2.5 m² collectors
 - 2-way solar station mod. UNIT 2 PLUS
 - CONTROL MULTI 06 S solar control unit
 - 25 liter solar expansion tank
 - String fittings kit (1 string - 2 collectors)
 - Concentrated glycol 2 tanks of 4 liters



Centralina solare
CONTROL
MULTI 06 S

- solar thermal kit 3 x 2.0 m²**
- N. 3 SELECTIVE H + 2.0 m² flat sheet panels
 - Anchoring kit for 3 SELECTIVE H + 2.0 m² collectors
 - 2-way solar station mod. UNIT 2 PLUS
 - CONTROL MULTI 06 S solar control unit
 - 25 liter solar expansion tank
 - String fittings kit (1 string - 3 collectors)
 - Concentrated glycol 3 tanks of 3 liters

- solar thermal kit 3 x 2.5 m²**
- N. 3 SELECTIVE HX + 2.5 m² flat sheet panels
 - Anchoring kit for 3 SELECTIVE HX collectors + 2.5 m²
 - 2-way solar station mod. UNIT 2 PLUS
 - CONTROL MULTI 06 S solar control unit
 - 25 liter solar expansion tank
 - String fittings kit (1 string - 3 collectors)
 - Concentrated glycol 3 tanks of 4 liters



Vaso
di espansione
solare

- solar thermal kit 5 x 2.5 m²**
- N. 5 SELECTIVE HX + 2.5 m² flat sheet panels
 - Anchoring kit for 5 SELECTIVE HX collectors + 2.5 m²
 - 2-way solar station mod. UNIT 2 PLUS
 - CONTROL MULTI 06 S solar control unit
 - 40 liter expansion vessel
 - String fittings kit (1 string - 5 collectors)
 - Concentrated glycol 2 canisters of 10 liters

- solar thermal kit 6 x 2.5 m²**
- N. 6 SELECTIVE HX + 2.5 m² flat sheet panels
 - Anchoring kit for 6 SELECTIVE HX collectors + 2.5 m²
 - 2-way solar station mod. UNIT 2 PLUS
 - CONTROL MULTI 06 S solar control unit
 - 60 liter expansion vessel
 - String fittings kit (1 string - 6 collectors)
 - Concentrated glycol 5 canisters of 5 liters



Kit raccordi
di stringa

- solar thermal kit 10 x 2.5 m²**
- N. 10 SELECTIVE HX + 2.5 m² flat sheet panels
 - Anchoring kit for 10 SELECTIVE HX collectors + 2.5 m²
 - 2-way solar station mod. UNIT 2 XL PLUS
 - CONTROL MULTI 06 S solar control unit
 - 100 liter expansion vessel
 - String fittings kit (2 strings - 10 collectors)
 - Concentrated glycol 4 tanks of 10 liters



Kit glicole
antigelo

- solar thermal kit 12 x 2.5 m²**
- N. 12 SELECTIVE HX + 2.5 m² flat sheet panels
 - Anchoring kit for 12 SELECTIVE HX collectors + 2.5 m²
 - 2-way solar station mod. UNIT 2 XL PLUS
 - CONTROL MULTI 06 S solar control unit
 - 100 liter expansion vessel
 - String fittings kit (2 strings - 12 collectors)
 - Concentrated glycol 5 canisters of 10 liters

| Kit Solar HR 1 x 2.0 | Codice | € |
|------------------------|----------|----------|
| Flat roof / 1 x 2.0 | 37318030 | 2.000,00 |
| Pitched roof / 1 x 2.0 | 37308030 | 1.994,00 |

| Kit Solar HR 1 x 2.5 | Codice | € |
|------------------------|----------|----------|
| Flat roof / 1 x 2.5 | 37318031 | 2.136,00 |
| Pitched roof / 1 x 2.5 | 37308031 | 2.122,00 |

| Kit Solar HR 2 x 2.0 | Codice | € |
|------------------------|----------|----------|
| Flat roof / 2 x 2.0 | 37318032 | 2.888,00 |
| Pitched roof / 2 x 2.0 | 37308032 | 2.782,00 |

| Kit Solar HR 2 x 2.5 | Codice | € |
|------------------------|----------|----------|
| Flat roof / 2 x 2.5 | 37318033 | 3.158,00 |
| Pitched roof / 2 x 2.5 | 37308033 | 3.066,00 |

| Kit Solar HR 3 x 2.0 | Codice | € |
|------------------------|----------|----------|
| Flat roof / 3 x 2.0 | 37318034 | 3.782,00 |
| Pitched roof / 3 x 2.0 | 37308034 | 3.600,00 |

| Kit Solar HR 3 x 2.5 | Codice | € |
|------------------------|----------|----------|
| Flat roof / 3 x 2.5 | 37318035 | 4.188,00 |
| Pitched roof / 3 x 2.5 | 37308035 | 4.016,00 |

| Kit Solar HR 5 x 2.5 | Codice | € |
|------------------------|----------|----------|
| Flat roof / 5 x 2.5 | 37318036 | 6.263,00 |
| Pitched roof / 5 x 2.5 | 37308036 | 6.036,00 |

| Kit Solar HR 6 x 2.5 | Codice | € |
|------------------------|----------|----------|
| Flat roof / 6 x 2.5 | 37318037 | 7.300,00 |
| Pitched roof / 6 x 2.5 | 37308037 | 7.002,00 |

| Kit Solar HR 10 x 2.5 | Codice | € |
|-------------------------|----------|-----------|
| Flat roof / 10 x 2.5 | 37318038 | 12.526,00 |
| Pitched roof / 10 x 2.5 | 37308038 | 12.130,00 |

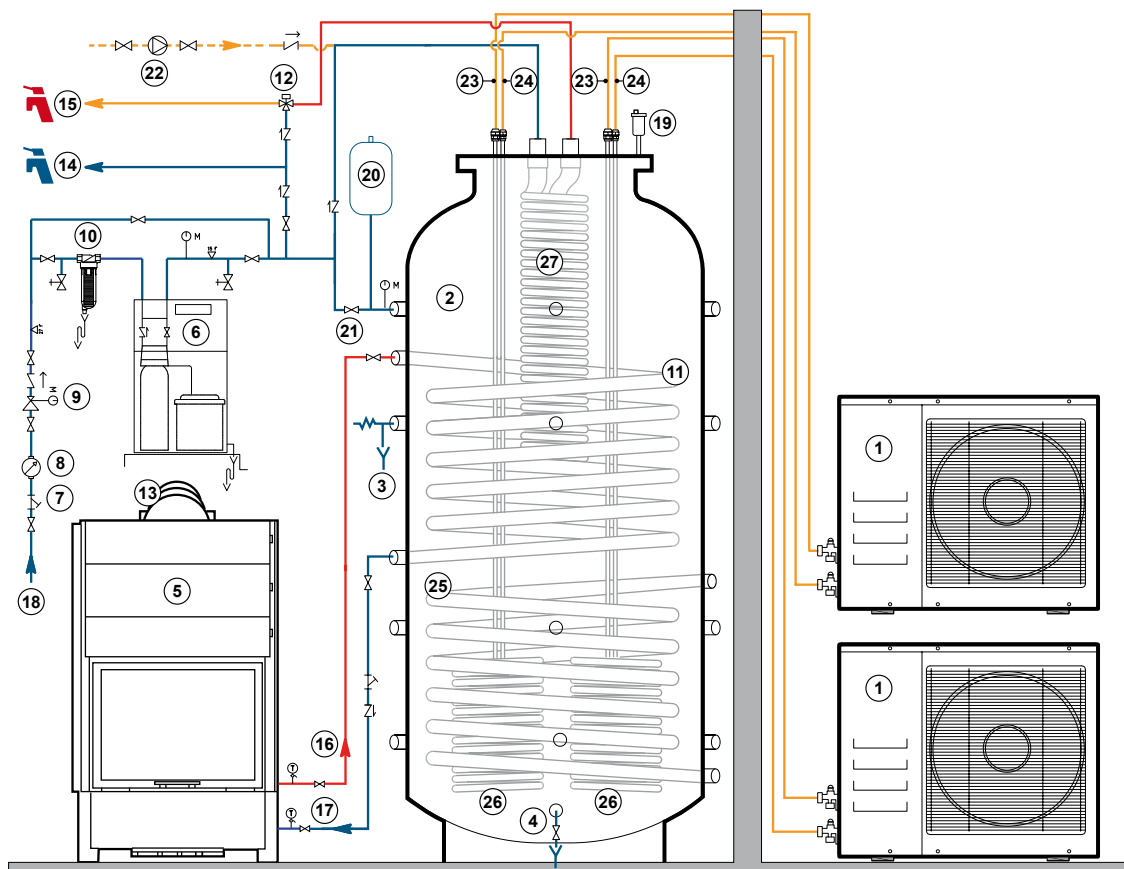
| Kit Solar HR 12 x 2.5 | Codice | € |
|-------------------------|----------|-----------|
| Flat roof / 12 x 2.5 | 37318039 | 14.300,00 |
| Pitched roof / 12 x 2.5 | 37308039 | 13.800,00 |

HUB RADIATOR BLACK

Domestic hot water producers with patented high efficiency system in heat pump with direct refrigerant/water exchange for medium and large users

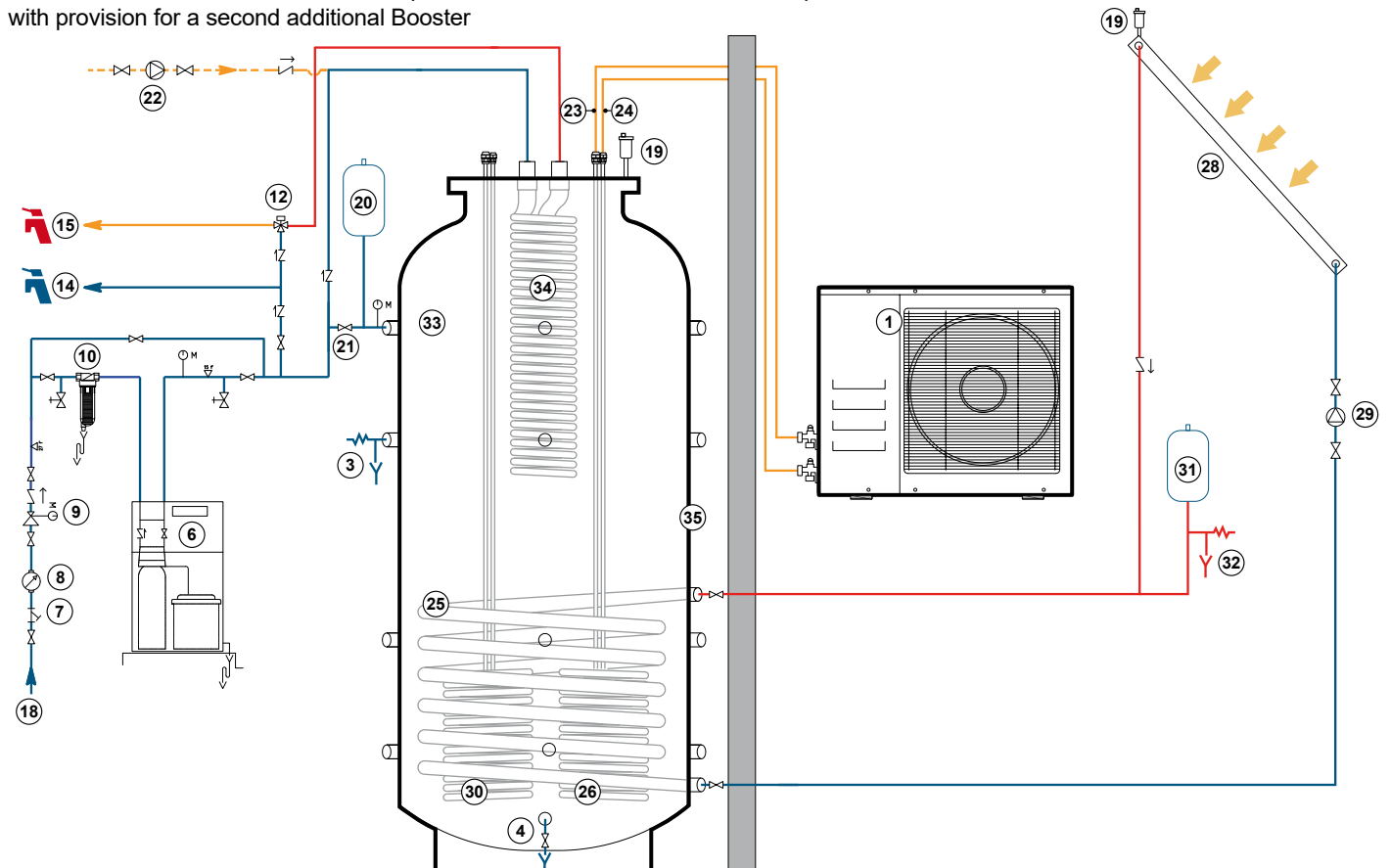
Application diagrams HUB RADIATOR BLACK

HUB RADIATOR BLACK with 800 liter technical water storage mod. A_RM3 800 powered by 2 external HR 7.8 boosters and by an open vessel hydro fireplace and solar thermal predisposition



- 1 External moto-evaporator Booster HR 7.8 only heat
- 2 800 l technical storage unit A_RM3 800
- 3 Safety valve
- 4 Drain cock
- 5 Open vessel hydro fireplace
- 6 Softener
- 7 "Y" Filter
- 8 Aqueduct meter
- 9 Pressure reducer
- 10 Sand trap filter
- 11 Fixed upper exchanger 12 DHW mixing valve
- 13 Thermal fireplace flue 14 Cold water delivery
- 15 DHW delivery
- 16 Integration mandate
- 17 Return integration
- 18 Water mains inlet
- 19 Jolly air vent valve
- 20 System expansion tank 21 System make-up cock 22 DHW recirculation pump
- 23 R410A refrigeration line 1/4 "(liquid)
- 24 R410A refrigeration line 5/8 "(gas)
- 25 Fixed lower heat exchanger for solar thermal predisposition
- 26 Patented exchanger ad External immersion Booster
- 27 Finned copper exchanger for DHW production without 5.26 m2 legionella
- 28 Number 3 SKY solar collectors
- 29 Thermal solar circulator
- 30 Booster exchanger additional
- 31 Solar expansion tank
- 32 Solar safety valve
- 33 Technical storage unit from 500 l A_RM2 500
- 34 Finned copper exchanger for DHW production without legionella of 4.54 m2

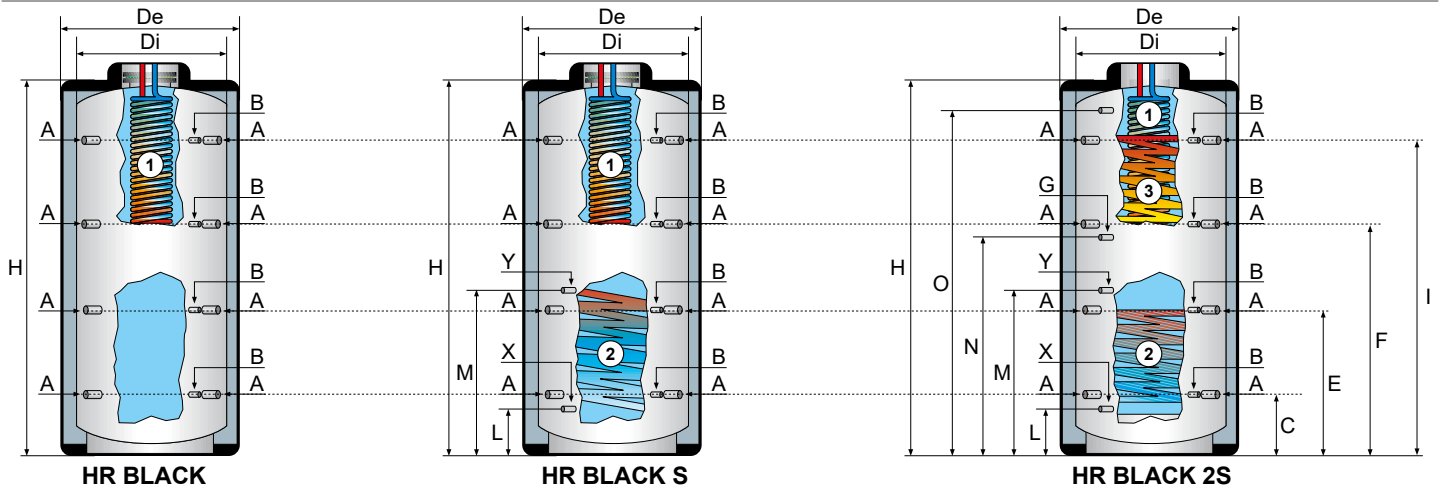
HUB RADIATOR BLACK with 500 liter technical water storage mod. A_RM2 500 powered by 1 external HR 7.8 booster and 3 SKY flat plate solar thermal collectors for DHW production, with provision for a second additional Booster



HUB RADIATOR BLACK

Domestic hot water producers with patented high efficiency system
in heat pump with direct refrigerant/water exchange for medium and large users

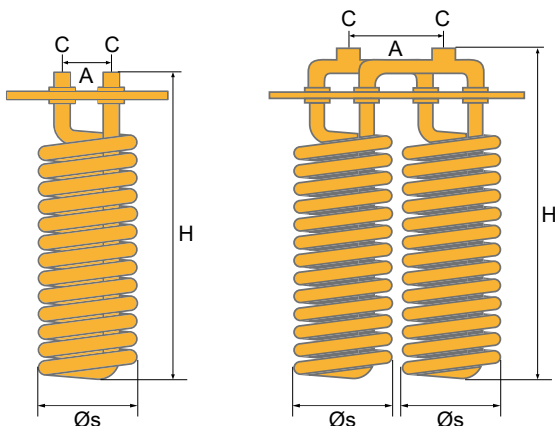
Dimensions and technical characteristics of technical accumulations HUB RADIATOR BLACK



| Technical accumulation dimensions | U.M. | 300 | 500 | 800 | 1000 | 1500 | 2000 | 2500 | 3000 | 4000 | 5000 |
|-------------------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| De | mm | 600 | 750 | 1050 | 1050 | 1260 | 1360 | 1400 | 1450 | 1600 | 1800 |
| Di | mm | 500 | 650 | 790 | 790 | 1000 | 1100 | 1200 | 1250 | 1400 | 1600 |
| H | mm | 1595 | 1645 | 1750 | 2110 | 2115 | 2380 | 2495 | 2710 | 2820 | 2850 |
| C | mm | 215 | 240 | 275 | 275 | 340 | 370 | 385 | 400 | 460 | 465 |
| E | mm | 595 | 615 | 655 | 810 | 765 | 930 | 940 | 1015 | 1085 | 1080 |
| F | mm | 1080 | 1105 | 1145 | 1355 | 1400 | 1435 | 1500 | 1645 | 1710 | 1710 |
| I | mm | 1350 | 1375 | 1410 | 1755 | 1725 | 1945 | 2050 | 2255 | 2315 | 2320 |
| L | mm | 290 | 315 | 355 | 350 | 420 | 450 | 480 | 490 | 550 | 555 |
| M | mm | 810 | 835 | 875 | 1035 | 1080 | 1090 | 1120 | 1210 | 1270 | 1275 |
| N | mm | 930 | 955 | 1015 | 1195 | 1220 | 1230 | 1300 | 1430 | 1490 | 1495 |
| O | mm | 1290 | 1315 | 1345 | 1675 | 1620 | 1710 | 1700 | 1830 | 1930 | 1895 |
| X - Y - G - D | | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" | 1" |
| A | | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 | 1" 1/2 | 2" | 2" | 2" | 2" |
| B | | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| Technical water volume | l | 289,8 | 499,8 | 749,3 | 931,0 | 1472,4 | 1950,0 | 2493,5 | 2957,5 | 3894,4 | 5005,2 |
| Sup. Exchange DHW * recommended (1) | m ² | 4,54 | 4,54 | 5,26 | 5,26 | 6,34 | 6,34 | 6,34 | 12,68 | 12,68 | 12,68 |
| Sup. Exchange bottom (2) | m ² | 1,4 | 2,0 | 2,5 | 3,5 | 4,0 | 4,8 | 4,8 | 6,0 | 7,0 | 8,0 |
| Sup. Exchange higher (3) | m ² | 1,1 | 1,8 | 2,0 | 2,5 | 2,8 | 3,8 | 3,8 | 3,8 | 4,5 | 5,0 |
| Insulation thickness | mm | 50 | 50 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Accumulation operating pressure | bar | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Max operating temperature | °C | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| Max pressure fixed exchangers | bar | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| Thermal dispersion | W | 57,3 | 69,7 | 109,9 | 113,8 | 132,8 | 143,5 | - | - | - | - |
| Accumulation empty weight BLACK 2S | Kg | 81 | 115 | 148 | 186 | 232 | 308 | 327 | 345 | 407 | 495 |
| Accumulation empty weight BLACK S | Kg | 92 | 129 | 168 | 208 | 260 | 356 | 375 | 393 | 457 | 537 |
| Accumulation empty weight BLACK 2S | Kg | 101 | 143 | 186 | 231 | 288 | 386 | 405 | 423 | 492 | 572 |

*Optional exchanger to be purchased separately from the storage unit.

Dimensions and overall dimensions of ACS finned exchangers



| Sup. (m ²) | H (mm) | Øs (mm) | C | A (mm) |
|------------------------|--------|---------|--------------|--------|
| 4,54 | 750 | 190 | 1" Ø esterno | 90 |
| 5,26 | 850 | 190 | 1" Ø esterno | 90 |
| 6,34 | 980 | 190 | 1" Ø esterno | 90 |
| 12,68 | 980 | 190 | 2" Ø esterno | 120 |

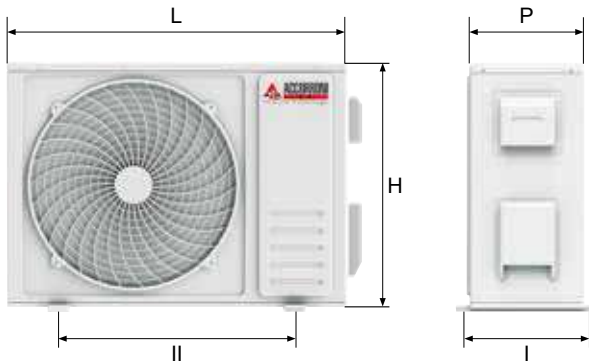
Mod. 4,54 - 5,26 , 6,34

Mod. 12,64

HUB RADIATOR BLACK

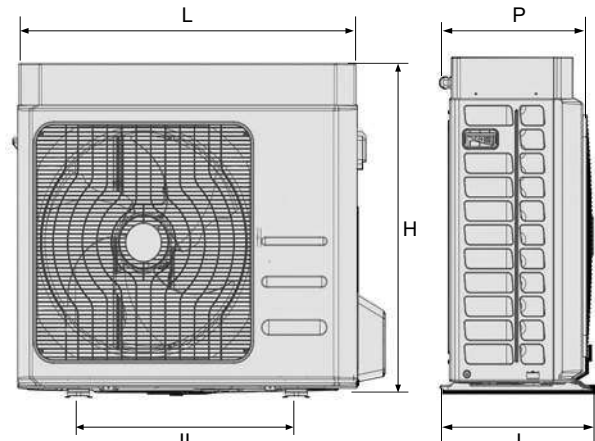
Domestic hot water producers with patented high efficiency system
in heat pump with direct refrigerant/water exchange for medium and large users

External booster dimensions HR 3.0 - 7.8



| Outdoor Unit Models | L | H | P | I | II | Peso |
|---------------------|-----|-----|-----|-----|-----|------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 3.0 | 700 | 552 | 256 | 275 | 435 | 33 |
| Booster HR 7.8 | 902 | 650 | 307 | 350 | 620 | 55 |

External booster dimensions HR 9.0 INVERTER



| Outdoor Unit Models | L | H | P | I | II | Peso |
|-------------------------|-----|-----|-----|-----|-----|------|
| | mm | mm | mm | mm | mm | kg |
| Booster HR 9.0 inverter | 925 | 785 | 380 | 358 | 540 | 62 |

Examples of DHW production with finned exchanger and storage at 55°C

| Mod. Tank | DHW exchanger surface | HR boosters installed | DHW available in a single withdrawal * | Recovery time ** |
|-----------|-----------------------|-----------------------|--|------------------|
| 300 l | 4,54 m ² | 7.8 | 173 l | 0,64 h |
| 300 l | 4,54 m ² | 9.0 | 176 l | 0,59 h |
| 500 l | 4,54 m ² | 7.8 + 3.0 | 288 l | 0,77 h |
| 800 l | 5,26 m ² | 7.8 x 2 | 482 l | 0,86 h |
| 800 l | 5,26 m ² | 9.0 x 2 | 488 l | 0,79 h |
| 1000 l | 5,26 m ² | 7.8 x 2 | 679 l | 1,08 h |
| 1000 l | 5,26 m ² | 9.0 x 2 | 692 l | 0,99 h |
| 1500 l | 6,34 m ² | 7.8 x 2 | 865 l | 1,61 h |
| 1500 l | 6,34 m ² | 9.0 x 2 | 872 l | 1,48 h |
| 2000 l | 6,34 m ² | 7.8 x 3 | 1210 l | 1,43 h |
| 2000 l | 6,34 m ² | 9.0 x 3 | 1236 l | 1,32 h |
| 2500 l | 6,34 m ² | 7.8 x 3 | 1510 l | 1,79 h |
| 3000 l | 12,68 m ² | 7.8 x 3 | 1810 l | 2,15 h |
| 4000 l | 12,68 m ² | 7.8 x 3 | 2420 l | 2,88 h |
| 5000 l | 12,68 m ² | 7.8 x 3 | 3026 l | 3,58 h |

*DHW withdrawn at 40 ° C, Technical starting water temp. At 55 ° C, Aqueduct temp. 10 ° C ** External air temp. 7 ° C, reset from 40 ° C to 55 ° C

Hypothesis of lower fixed exchanger heat output

| Mod. Tank | DHW exchanger surface | Power ΔT 10°C* | Power ΔT 15°C* | Power ΔT 20°C* | Flow | Perdita di carico |
|-----------|-----------------------|----------------|----------------|----------------|----------|-------------------|
| 300 l | 1,4 m ² | 9,0 kW | 13,4 kW | 17,9 kW | 620 l/h | 2 kPa |
| 500 l | 2,0 m ² | 12,8 kW | 19,2 kW | 25,6 kW | 880 l/h | 4 kPa |
| 800 l | 2,5 m ² | 16,0 kW | 24,0 kW | 32,0 kW | 1090 l/h | 5 kPa |
| 1000 l | 3,5 m ² | 22,4 kW | 33,6 kW | 44,8 kW | 1310 l/h | 6 kPa |
| 1500 l | 4,0 m ² | 25,6 kW | 38,4 kW | 51,2 kW | 1720 l/h | 8 kPa |
| 2000 l | 4,8 m ² | 30,7 kW | 46,0 kW | 61,4 kW | 1880 l/h | 10 kPa |
| 2500 l | 4,8 m ² | 30,7 kW | 46,0 kW | 61,4 kW | 1880 l/h | 10 kPa |
| 3000 l | 6,0 m ² | 38,4 kW | 57,6 kW | 76,7 kW | 2350 l/h | 12 kPa |
| 4000 l | 7,0 m ² | 44,8 kW | 67,6 kW | 89,5 kW | 2740 l/h | 13 kPa |
| 5000 l | 8,0 m ² | 51,2 kW | 76,7 kW | 10,23 kW | 3103 l/h | 14 kPa |

*Thermal power referred to the differential between the average temperature of the heating fluid inside the exchanger and the average temperature of the heated fluid

Hypothesis of thermal output of the upper fixed exchanger

| Mod. Tank | DHW exchanger surface | Power ΔT 10°C* | Power ΔT 15°C* | Power ΔT 20°C* | Flow | Perdita di carico |
|-----------|-----------------------|----------------|----------------|----------------|----------|-------------------|
| 300 l | 1,1 m ² | 7,0 kW | 10,6 kW | 14,1 kW | 400 l/h | 1 kPa |
| 500 l | 1,8 m ² | 11,5 kW | 17,3 kW | 23,0 kW | 700 l/h | 3 kPa |
| 800 l | 2,0 m ² | 12,8 kW | 19,2 kW | 23,6 kW | 900 l/h | 3 kPa |
| 1000 l | 2,5 m ² | 16,0 kW | 24,0 kW | 32,0 kW | 1100 l/h | 6 kPa |
| 1500 l | 2,8 m ² | 17,9 kW | 26,9 kW | 35,8 kW | 1400 l/h | 8 kPa |
| 2000 l | 3,8 m ² | 24,3 kW | 36,5 kW | 48,6 kW | 1600 l/h | 10 kPa |
| 2500 l | 3,8 m ² | 24,3 kW | 36,5 kW | 48,6 kW | 1600 l/h | 10 kPa |
| 3000 l | 3,8 m ² | 24,3 kW | 36,5 kW | 48,6 kW | 1600 l/h | 10 kPa |
| 4000 l | 4,5 m ² | 28,8 kW | 43,2 kW | 57,6 kW | 1890 l/h | 11 kPa |
| 5000 l | 5,0 m ² | 32,0 kW | 48,0 kW | 64,0 kW | 2100 l/h | 13 kPa |

*Thermal power referred to the differential between the average temperature of the heating fluid inside the exchanger and the average temperature of the heated fluid

HUB RADIATOR BLACK

Domestic hot water producers with patented high efficiency system
in heat pump with direct refrigerant/water exchange for medium and large users

Tabella dati tecnici Booster HUB RADIATOR BLACK

| DESCRIZIONE | U.M. | HR 3.0 | HR 7.8 | HR 9.0 INVERTER |
|---|-------|--|--------|---------------------|
| Thermal power (1) | kW | 3,11 | 8,12 | 3,54 / 8,01 / 8,81* |
| Absorbed power(1) | kW | 0,74 | 1,96 | 1,89 |
| C.O.P. (1) | W/W | 4,20 | 4,14 | 4,24 |
| Thermal power (2) | kW | 2,97 | 7,75 | 2,85 / 7,92 / 8,71* |
| Absorbed power(2) | kW | 0,94 | 2,52 | 2,39 |
| C.O.P. (2) | W/W | 3,16 | 3,07 | 3,31 |
| Thermal power(3) | kW | 2,58 | 6,73 | 2,54 / 7,04 / 7,74* |
| Absorbed power(3) | kW | 0,74 | 2,00 | 2,15 |
| C.O.P. (3) | W/W | 3,48 | 3,37 | 3,52 |
| Thermal power (4) | kW | 2,47 | 6,44 | 2,46 / 6,82 / 7,50* |
| Absorbed power (4) | kW | 0,94 | 2,54 | 2,74 |
| C.O.P. (4) | W/W | 2,67 | 2,53 | 2,68 |
| Thermal power (5) | kW | 2,11 | 5,52 | 2,31 / 6,41 / 7,05* |
| Absorbed power (5) | kW | 0,75 | 2,00 | 2,31 |
| C.O.P. (5) | W/W | 2,81 | 2,76 | 3,04 |
| Thermal power (6) | kW | 1,99 | 5,20 | 2,25 / 6,25 / 6,88* |
| Absorbed power (6) | kW | 0,94 | 2,53 | 2,78 |
| C.O.P. (6) | W/W | 2,11 | 2,05 | 3,39 |
| S.C.O.P. (7) | W/W | 3,78 | 3,71 | 3,94 |
| Seasonal heating efficiency (η _s) | % | 153,10 | 150,30 | 159,62 |
| Energy efficiency (8) | | A++ / A | | A++ / A+++ |
| Type of compressor | | Rotation ON-OFF | | Twin Rotary DC INV. |
| Number of compressor | | 1 | | |
| Defrosting Method | | 1 | | |
| Defrosting method | | Inversione di ciclo con condensatore ad immersione | | |
| Type of refrigerant | n. | R410A | | |
| Technical water temperature min / max | °C | +30 / +58 | | |
| Refrigerant quantity (pre-inserted) | kg | 1,1 | 2,0 | 2,2 |
| Min distance between outdoor and indoor unit | m | 3 | | |
| Max distance between outdoor and indoor unit without charging | m | 5 | | |
| Max distance between outdoor and indoor unit with recharge | m | 15 | | |
| Max difference in height between outdoor and indoor unit | m | 5 | | |
| Refrigerant gas line connection | | 3/8" | 5/8" | 5/8" |
| Coolant fluid line connection | | 1/4" | 1/4" | 3/8" |
| Sound power (9) | dB(A) | 65,1 | 68,4 | 64,0 |
| Sound pressure at one meter (10) | dB(A) | 51,2 | 54,7 | 32,8 |
| Outdoor temperature operating limits | °C | -15 / +45 | | -20 / +46 |
| Power supply | | 230V/1/50Hz | | |
| Max absorbed power | kW | 0,94 | 2,53 | 4,70 |
| Max absorbed current | A | 4,30 | 11,57 | 20,40 |
| Weight | Kg | 33 | 55 | 62 |

(1) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 30/35 °C

(2) Heating: external air temperature 7 °C d.b. - 6 °C b.u. ; inlet / outlet water temperature 40/45 °C

(3) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 30/35 °C

(4) Heating: external air temperature 0 °C d.b. ; inlet / outlet water temperature 40/45 °C

(5) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 30/35 °C

(6) Heating: external air temperature -7 °C d.b. ; inlet / outlet water temperature 40/45 °C

(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 °C

(8) Water 35 °C / 55 °C

(9) Measurements carried out according to UNI EN 14511 in heating mode and boundary conditions

(10) Value calculated according to ISO 3744: 2010

(11) (*) By activating the maximum HZ function

RED 120

Wall-mounted split heat pump water heater with sanitary storage



Technical and construction features

The RED 120 heat pump water heaters by A2B Accorroni E. G. are designed for the production of domestic hot water for domestic and commercial use. Thanks to their large 120-liter accumulation, it is possible to satisfy more contemporary withdrawals such as bathroom and kitchen. The thermodynamic cycle of the heat pump allows heat to be transferred from the external air to the water contained in the storage, increasing its temperature up to 55 °C.

Only a small amount of electricity is required for the operation of the compressor, in fact the thermal energy produced by the heat pump cycle is 3/4 times higher than that used for the operation of the compressor. The RED heat pump water heater consists of two main components:

- Outdoor unit that can also be installed on the wall, including the compressor, the exchanger-evaporator and the fan
- Indoor unit, consisting of accumulation with exchanger integrated capacitor and dedicated control electronics.

The two components are connected to each other with insulated copper pipes in which the refrigerant gas of the thermodynamic cycle flows. The storage of domestic hot water is made of steel protected by a high quality enamel, inside the storage there is a sacrificial magnesium anode.

The thermal insulation for maintaining the temperature of the domestic hot water consists of a layer of polyurethane foam covered externally with a steel sheet to which a layer of epoxy material has been coupled.

The water heaters are equipped with an additional electrical resistance that can be activated in an emergency.

Some advantages of the RED water heater are:

SAVINGS COMPARED TO THE TRADITIONAL WATER HEATER RED 120 has a coefficient of performance (COP) equal to 3.4 (water heating from 15 ° C to 55 ° C with 15 ° C of external temperature which allows to reach an energy saving of about 70%).

EASY INSTALLATION

Thanks to its compact size it is possible to install the new water heater in a simplified way even in the replacements of the old water heaters.

ELECTRONIC LAMINATION VALVE

This continuously adjustable valve guarantees the higher efficiency of the heat pump water heater even at the coldest outside temperatures.

INNOVATIVE CONDENSER

RED 120 is equipped with an aluminum heat exchanger wrapped outside the storage tank with a large exchange surface.

INNOVATIVE CONDENSER

RED 120 is equipped with an aluminum heat exchanger wrapped outside the storage tank with a large exchange surface.

THERMAL ANTI LEGIONELLA CYCLE

RED 120 automatically activates the electrical resistance to perform the anti-legionella heat treatment to ensure the hygiene of the domestic hot water.

HIGH EFFICIENCY INSULATION

Thanks to the thickness of the eco-polyurethane foam insulation, characterized by one of the best thermal resistance coefficients, RED 120 has negligible heat losses.



RENEWABLE ENERGY



ECOLOGICAL GAS



HIGH EFFICIENCY



ENERGY SAVING



DHW



INTEGRATED SIMPLE PROGRAMMING



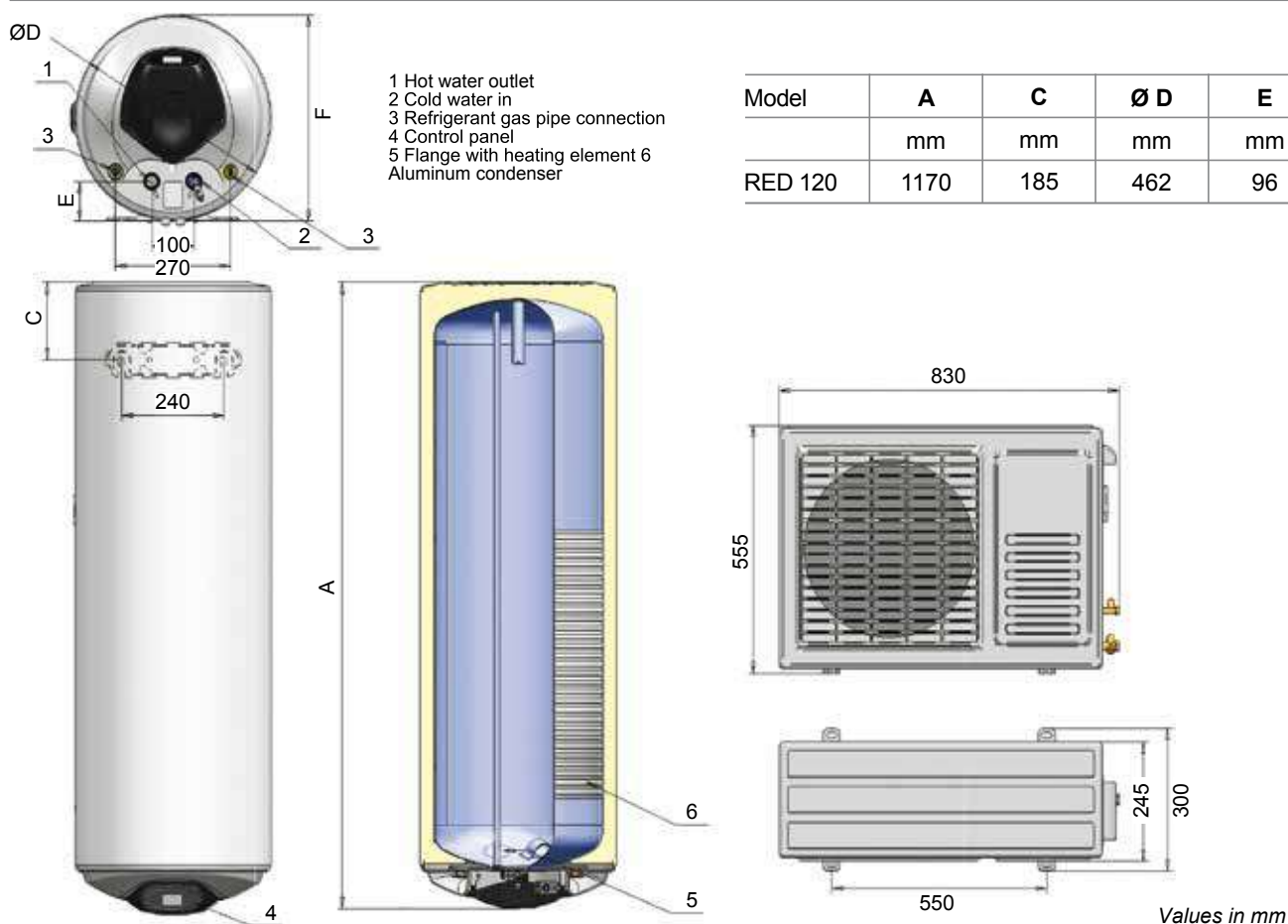
PHOTOVOLTAIC COMBINATION

| Model | Code | € |
|---------|----------|----------|
| RED 120 | 38010100 | 2.250,00 |

RED 120

Wall-mounted split heat pump water heater with sanitary storage

Dimensions and overall dimensions of heat pump water heater RED 120



Heat pump water heater technical data table RED 120

| Model | U.M. | RED 120 |
|--|-------|-------------|
| Volumetric unit | l | 120 |
| Nominal heat output of the heat pump | W | 1500 |
| Nominal power of the electrical resistance | W | 2000 |
| Nominal electrical power of the heat pump | W | 500 |
| Maximum electrical power of the heat pump | W | 850 |
| Power supply | | 230V/1/50Hz |
| COP* | W/W | 3,40 |
| Refrigerant gas charge R134a | kg | 0,85 |
| Operating temperature range | °C | -5 / +42 |
| Factory setting of the temperature range | °C | -2 / +40 |
| Max pressure with coolant | MPa | 2,7 |
| Min.pressure with coolant | MPa | 0,8 |
| Water accumulation nominal pressure | MPa | 0,7 |
| Recovery times (da 15 °C a 55 °C) | min | 105 |
| Inrush current | A | 21,15 |
| Degree of protection of the outdoor unit | | IP X4 |
| Indoor unit protection degree | | IP X1 |
| Sound level of outdoor unit** | dB(A) | 49 |
| Hot water outlet connections | | G1/2" M |
| Cold water outlet - drain connections | | G1/2" M |
| SAE threaded connection for refrigerant gas line R134a | | 3/8" M |
| SAE threaded connection for coolant line R134a | | 1/4" M |
| Indoor unit weight | kg | 38 |
| Outdoor unit weight | kg | 27 |

*External air temperature 15 °C - Domestic water temperature 15 °C (inlet) 55 °C (outlet)
 ** Measured in free field conditions with a reference distance of 1 meter

WHITE 110

Wall-hung monobloc heat pump water heater with sanitary storage



Technical and construction features

The WHITE 110 water heater is a water heater with a water capacity of 110 liters, made of S235 JR steel with internal vitrification treatment, insulation in high thickness rigid polyurethane foam (PU) free from CFC and HCFC.

- External coating in powder coated sheet metal epoxy (white color) and plastic material (ABS).
- Anchoring brackets for wall installation.
- Magnesium anode for corrosion protection.
- Hydraulic fittings positioned in the lower part.
- Condenser wrapped to the steel kettle (not immersed in water).
- Integrated electrical resistance of 1,5 kW 230V ~ which can be activated command placed in the control panel to heat the water from 60 ° C (max temperature with the heat pump only) to 70 ° C.
- Rotary compressor for maximum efficiency and silence.

- Centrifugal fan for the necessary air ducting correct operation of the heat pump.
- Finned pack evaporator.
- R134a refrigerant fluid.
- Safety thermostat calibrated at + 85 ° C
- ON-OFF contact to start the unit from an external switch - Electronic control equipped with control panel complete with LCD touch display, water temperature indicator, heat pump and electric resistance operating light indicator, controls with indicators for activating the different operating modes, reports of any alarm malfunctions, in particular:

- Anti-legionella function
- Setting / displaying time and day - Set the hot water temperature

STANDARD ACCESSORIES

- Bracket for wall fixing
- Fixing screws and plugs
- Spacers for wall support
- Dielectric joints



RENEWABLE ENERGY



GAS ECOLOGIC



PHOTOVOLTAIC COMBINATION



HIGH EFFICIENCY



ENERGY SAVING



DHW



INTEGRATED EASY PROGRAMMING



NO OUTDOOR UNIT

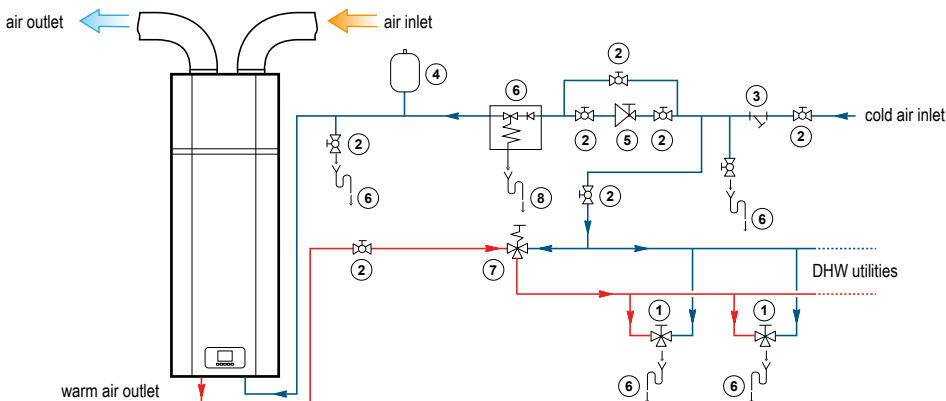


EASY INSTALLATION

Model
WHITE 110

Code
3801011 €
2.040,00

Installation diagram WHITE 110

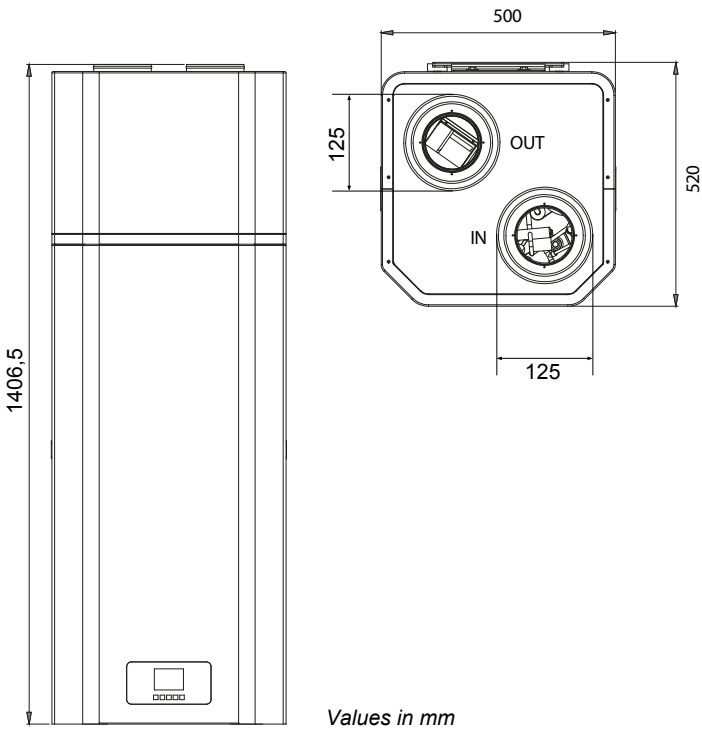


- 1 DHW mixing valve
- 2 Shut-off cock
- 3 Mechanical "Y" filter
- 4 Expansion vessel
- 5 Water pipeline pressure reducer
- 6 Safety valve
- 7 Anti-scald valve
- 8 Water drain

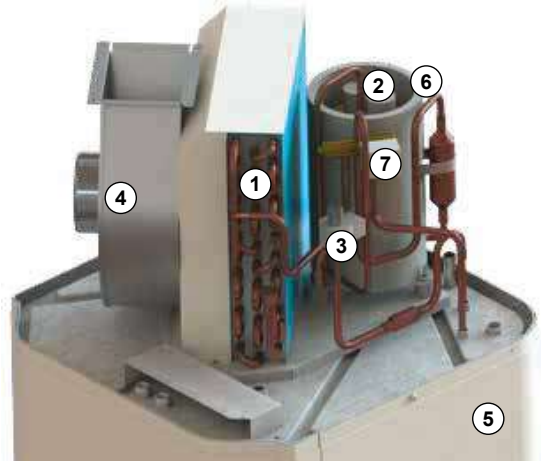
WHITE 110

Wall-hung monobloc heat pump water heater with sanitary storage

Dimensions WHITE 110



- 1 Finned pack evaporator
- 2 Rotary compressor
- 3 Electronic lamination valve
- 4 Centrifugal fan
- 5 110 liter DHW boiler
- 6 Compressor sound-absorbing insulation
- 7 Cycle inversion valve



Technical data table for wall-hung heat pump water heater WHITE 110

| DESCRIPTION | U.M. | WHITE 110 |
|---|----------------------|--------------|
| Energy rating (1) | | A+ |
| Load profile declared | | M |
| COP _{DHW} (ERP) (2) | W/W | 2,62 |
| Warm-up time (3) | h : min | 6 : 25 |
| Energy absorbed in heating | kWh | 1,58 |
| Annual electricity consumption (Temperate climatic condition) | kWh/anno | 462 |
| Nominal fan air flow heat pump | m ³ /h | 300 |
| Fan air flow heat pump 60 Pa | m ³ /h | 170 |
| Static pressure available | Pa | 60 |
| Heat pump heat output(3) | W | 850 |
| Absorbed electrical power heat pump (3) | W | 236 |
| Electric power resistance | W | 1500 |
| Nominal current of heat pump(3) | A | 1,14 |
| Rated electrical resistance current | A | 6,50 |
| Maximum absorbed current (resistance + heat pump at max power) | A | 8,31 |
| Max electrical absorption (resistance + heat pump at max power) | W | 1900 |
| Power supply | | 230V/1/50Hz |
| Maximum outlet temperature without integration resistance | °C | 60 |
| Refrigerant type | | R134a |
| Refrigerant charge | g | 650 |
| GWP refrigerant | | 1430 |
| Quantity of fluorinated greenhouse gases | t CO ₂ eq | 0,93 |
| Maximum refrigerant pressure in suction and delivery | bar | 0,2 / 25 |
| Safety valve calibration | bar | 8 |
| Hydraulic connections diameter | | G 1/2" M |
| Nominal tank volume | l | 110 |
| Internal tank treatment | | Vitrified |
| Sound power (4) | dB(A) | 48,5 |
| Diameter of inlet and outlet air ducts | mm | DN 125 |
| Degree of protection | | IPX1 |
| Operating temperature range | °C | -5~43 |
| Dimensions (LxHxP) | mm | 550x550x1460 |
| Net weight | kg | 72 |
| Gross weight (with filled tank) | kg | 182 |

(1) Tank at 20 °C ambient temperature, ducted inlet air 7 °C DB, 6 °C BU, inlet water temperature 10 °C and tank set at 55 °C (2) Measurement carried out with tank located in an ambient temperature of 20 °C, external air inlet 7 °C, in compliance with EN 16147

(3) Ambient temperature 20 °C, water temperature from 15 °C to 55 °C, external temperature 7 °C

(4) Measurement carried out according to EN 12102: ducted unit both at the inlet and the outlet through 2 rigid pipes Ø 125 mm long 2 meters each

GREEN 220 - 220 S - 220 2S

Monobloc heat pump water heater with sanitary storage with or without additional exchangers



Technical and construction features

GREEN 220 - 220 S - 220 2S heat pump water heaters are divided into 3 versions:

GREEN 220

Standard that includes the heat pump and the electrical resistance.

GREEN 220 S

Auxiliary coil for use in combination with solar panels.

GREEN 220 2S

Double coil to have three energy sources at the same time.

- Carbon steel tank with double layer vitrification
- Anti-corrosion magnesium anode to ensure durability of the tank.
- Condenser wound externally to the boiler free from incrustations and gas-water contamination.
- High thickness polyurethane foam (PU) thermal insulation.
- External covering in gray plastic material.
- Acoustically insulated plastic top cover.
- High efficiency compressor with R134a refrigerant.
- Safety devices for high and low gas pressure.
- Electric heater available in the unit as a back-up (with integrated safety thermostat at 90 °C), which ensures water warm at a constant temperature even in extreme winter conditions.
- ON-OFF contact to start the unit from an external switch.
- Weekly disinfection cycle.
- Possibility of managing the recirculation of domestic hot water or solar integration (presence of a dedicated temperature probe, flow switch input and command for an external pump).
- Electronic expansion valve for precise control.

ADVANTAGES

- The actual set of the heat pump is regulated by a curve climatic, to prevent high pressure alarms from occurring in the event of hot air drawn from the outside (over 25 °C with water at 65 °C, over 35 °C with water at 55 °C).
- The electric resistance automatically integrates the temperature of the tank to the desired set if the actual set is adjusted from the climatic curve.
- Preparation for integration with a photovoltaic system. Upon enabling the photovoltaic inverter, the temperature set is raised to the highest possible value (compatibly with climatic regulation).

FLEXIBILITY AND BENEFITS

- Heat recovery: the unit can be installed near the kitchen, in the technical room or garage. In practically any room with a fair amount of waste heat so that it has high energy efficiency even with very low outside temperatures.
- Hot water, cooling and dehumidification: the unit can be placed in the laundry room, in the garage, in the gym, in the basement. When it produces hot water, it cools and dehumidifies the room.
- Compatible with solar thermal: the unit can work with one second energy source such as solar panels, boilers or other different energy sources.



MADE
IN ITALY



RENEWABLE
ENERGY



ECOLOGIC
GAS



HIGH
EFFICIENCY



NO OUTDOOR
UNIT



LIMITS
OF WORK



PHOTOVOLTAIC
COMBINATION



SOLAR THERMAL
COMBINATION



DHW
65 °C



RESISTENSE
BACKUP



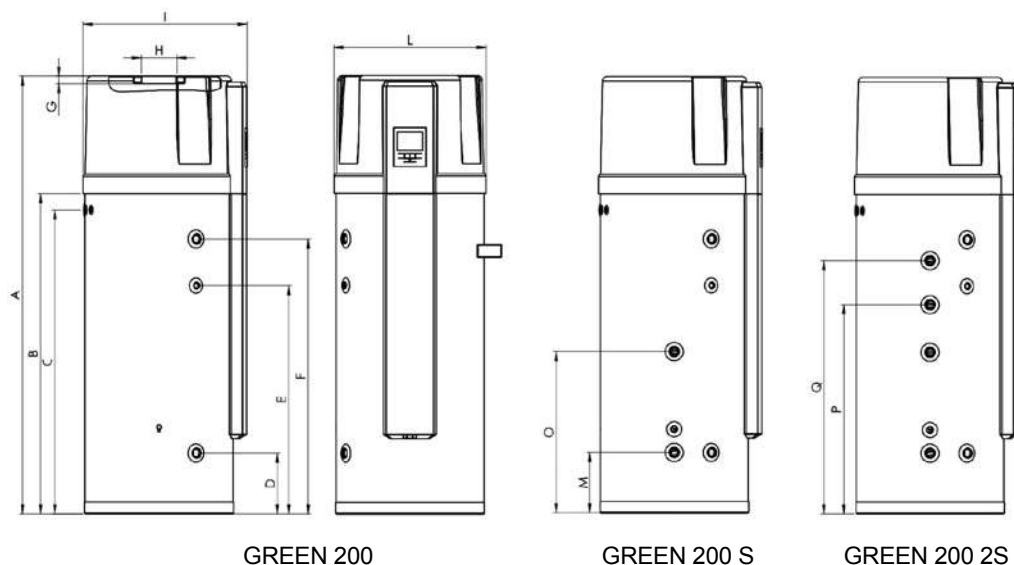
EASY
INSTALLATION

| Model | Code | € |
|---|-----------------|-----------------|
| GREEN 220 standard heat pump water heater | 63000074 | 2.715,00 |
| GREEN 220 S heat pump water heater with auxiliary coil | 63000075 | 2.934,00 |
| GREEN 220 2S heat pump water heater with double coil | 63000076 | 3.178,00 |

GREEN 220 - 220 S - 220 2S

Monobloc heat pump water heater with sanitary storage with or without additional exchangers

Dimensions and description GREEN 220 - 220 S - 220 2S



| Dimensions | GREEN |
|------------|----------------------|
| | 220 - 220 S - 220 2S |
| A | 1638 mm |
| B | 1124 mm |
| C | 1062 mm |
| D | 262 mm |
| E | 747 mm |
| F | 932 mm |
| G | 30 mm |
| H | Ø160 mm |
| I | 706 mm |
| L | Ø 655 mm |
| M | 258 mm |
| O | 692 mm |
| P | 787 mm |
| Q | 927 mm |

Heat pump water heater technical data table GREEN 220 - 220 S - 220 2S

| DESCRIPTION | U.M. | GREEN 220 | GREEN 220 S | GREEN 220 2S |
|--|-------------------|-----------|------------------------------|--------------|
| Effective tank capacity | l | 228 | 220 | 217 |
| Lower solar exchanger surface | m ² | - | 1,2 | 1,2 |
| Upper auxiliary exchanger surface | m ² | - | - | 0,5 |
| Lower solar exchanger flow rate* | m ³ /h | - | 1,2 | 1,2 |
| Upper auxiliary exchanger flow rate* | m ³ /h | - | - | 0,5 |
| Solar exchanger inlet / outlet diameter | | - | G 1" F | G 1" F |
| Auxiliary exchanger inlet / outlet diameter | | - | - | G 1" F |
| Max heat exchangers pressure | bar | | 6 | |
| Hot - cold water inlet / outlet diameter | | | G 1" F | |
| Energy rating ⁽¹⁾ | | | A | |
| COP _{DHV} (ERP) ⁽²⁾ | W/W | | 2,64 | |
| Heat pump heat output ⁽³⁾ | W | | 2060 | |
| Absorbed electrical power heat pump | W | | 700 | |
| Absorbed electrical power resistance | W | | 1200 | |
| Nominal current of heat pump ⁽³⁾ | A | | 2,21 | |
| Rated electrical resistance current | A | | 5,2 | |
| Maximum absorbed current (resistance + HEAT PUMP at max power) | A | | 8,4 | |
| Max electrical absorption (resistance + HP at max power) | W | | 1965 | |
| Power supply | | | 230V/1/50Hz | |
| HP fan nominal air flow | m ³ /h | | 450 | |
| Fan air flow HP 60 Pa | m ³ /h | | 350 | |
| Maximum outlet temperature without integration resistance | °C | | 65 | |
| Refrigerant type | | | R134a | |
| Refrigerant charge | g | | 1000 | |
| Maximum refrigerant pressure in delivery | bar | | 25 | |
| Maximum refrigerant pressure in suction | bar | | 10 | |
| Max tank pressure | bar | | 10 | |
| Diameter of inlet and outlet air ducts | mm | | DN 160 | |
| Internal tank treatment | | | Vetrificazione doppio strato | |
| Sound power ⁽⁴⁾ | dB(A) | | 58,2 | |
| Sound pressure ⁽⁵⁾ | dB(A) | | 42,8 | |
| Degree of protection | | | IPX1 | |
| Operating temperature | °C | | -10 +43 | |
| Packaging size(LxHxP) | mm | | 700 x 700 x 1760 | |
| Net weight | kg | 98 | 113 | 121 |
| Gross weight (with filled tank) | kg | 326 | 333 | 338 |

(1) Tank at 20 °C ambient temperature, ducted inlet air 7 °C DB, 6 °C BU, inlet water temperature 10 °C and tank set at 55 °C (2) Measurement carried out with tank located in an ambient temperature of 20 °C, external air inlet 7 °C, in compliance with EN 16147

(3) Ambient temperature 20 °C, water temperature from 15 °C to 55 °C, external temperature 7 °C

(4) Measurement carried out according to EN 12102, under the boundary conditions established by the EN 16147 standard

(5) Calculated according to ISO 3744: 2010 algorithm at 1 meter from the unit

(*) data referred to DIN 4708 standards (primary 80/60 °C, secondary 10/45 °C)

GREEN 300 - 300 S - 300 2S

Water heaters heat pump mono bloc with sanitary storage with or without additional exchangers



POWER RENEWABLE



GAS ECOLOGICAL



PROGRAMMING SIMPLE INTEGRATED



RESISTANCE OF BACKUP



NO UNIT EXTERNAL



SAVINGS ENERGETIC



PAIRING SOLAR THERMAL



PAIRING PHOTOVOLTAIC



HOT WATER SANITARY



INSTALLATION EASIER

Technical and construction features

Following major investments in the development of new technologies aimed at the use of renewable energy and energy saving, the A2B Accorroni E.G. has created a new range of high efficiency monobloc heat pump water heaters series GREEN 300 - GREEN 300 S - GREEN 300 2S.

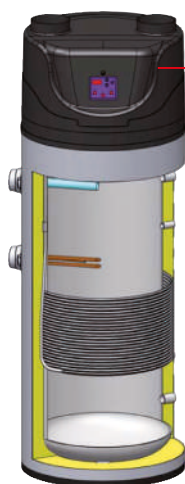
The GREEN heat pump water heater represents the ecological evolution of the traditional water heater, which uses a renewable energy system that absorbs heat directly from the external air heated for free by the sun. This innovative system allows you to obtain domestic hot water at 60 °C with average coefficients of performance (COP) > 3.

The GREEN heat pump water heater is characterized by ease of installation, silent operation and great reliability.

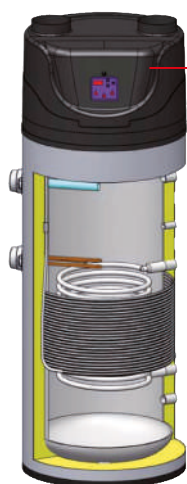
GREEN has the following technical characteristics:

- Condenser wrapped outside the boiler protected by any phenomenon of encrustation and which prevents the refrigerant gas contamination - sanitary water
- Additional exchanger for possible integration with solar thermal system, biomass or boiler (GREEN version 300 S - GREEN 300 2S)
- Tank made of steel and treated internally with double layer vitrification
- Anti-corrosion sacrificial anode of magnesium (optional)
- External coating made of high-density polyurethane foam thermal insulation coefficient
- High efficiency rotary compressor that uses gas ecological R134A
- Automatic regulation of the electric resistance thanks to a appropriate external temperature probe
- Inverter radial fans positioned directly on the part top of the accumulation together with the other components of the circuit thermodynamic in HP that communicate with the outside through special PVC insulated pipes.

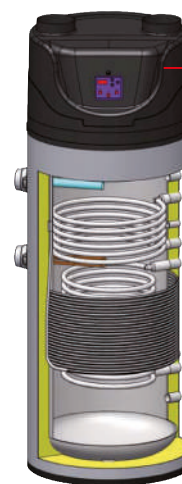
| Model | Code | € |
|---------------------|-----------------|-----------------|
| GREEN 300 | 37010100 | 2.990,00 |
| GREEN 300 S | 37010200 | 3.240,00 |
| GREEN 300 2S | 37010300 | 3.410,00 |



GREEN 300
Water heaters
Heat pump
Mono block



GREEN 300 S
Water heaters
heat
pump
mono block
with additional
serpentine
for integration
of solar thermal

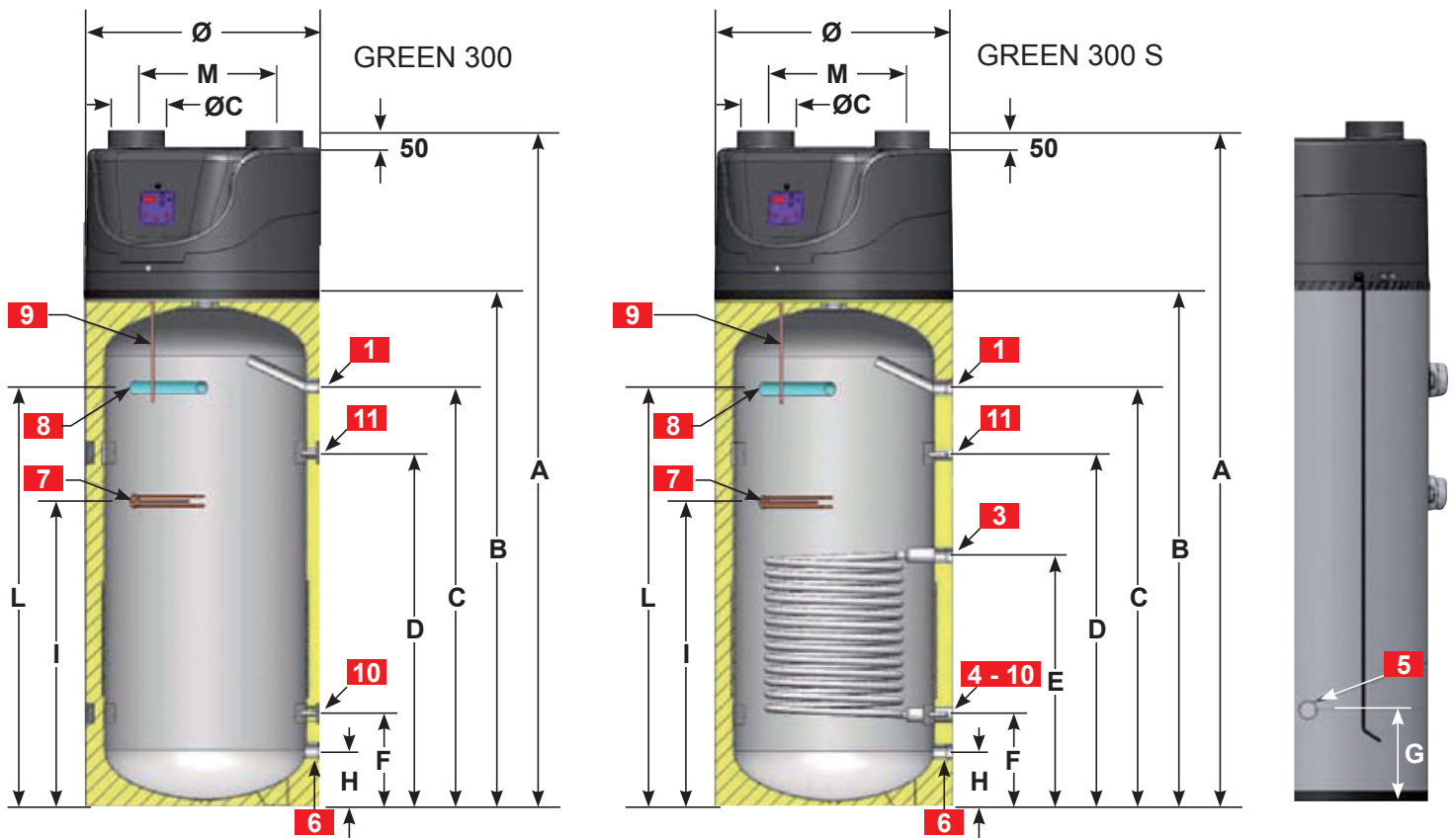


GREEN 300 2S
Water heaters
Heat pump
Mono block
with additional
doubleserpentine
for integration
of solar thermal
and biomass
or boiler

GREEN 300 - 300 S - 300 2S

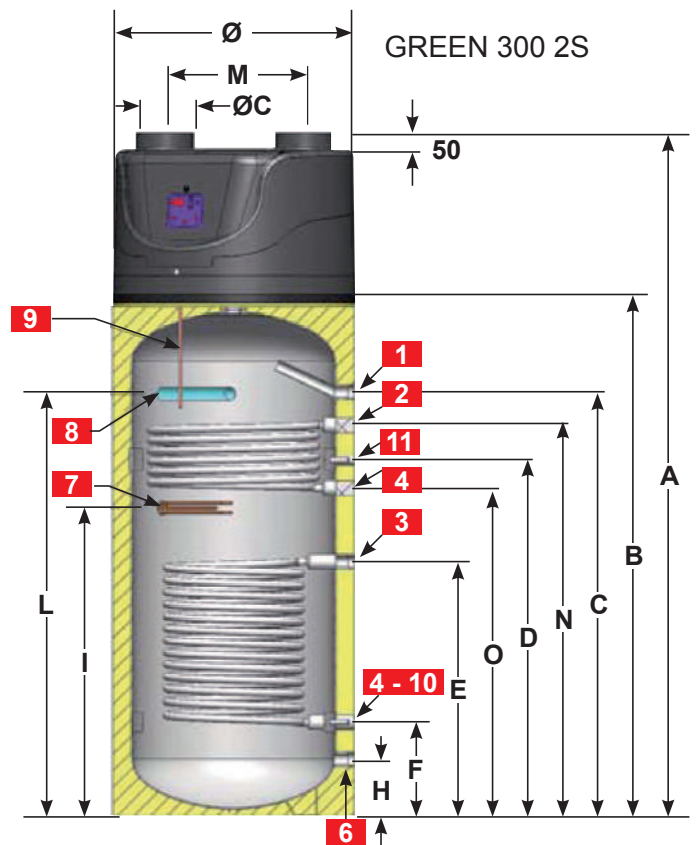
Water heaters heat pump mono bloc with sanitary storage with or without additional exchangers

Size and dimensions of heat pump water heaters GREEN 300 - GREEN 300 S - GREEN 300 2S



| | U.M. | 300 | 300 S | 300 2S |
|----|------|------|-------|--------|
| A | mm | 1845 | 1845 | 1845 |
| B | mm | 1410 | 1410 | 1410 |
| C | mm | 1150 | 1150 | 1150 |
| D | mm | 965 | 965 | 965 |
| E | mm | - | 690 | 690 |
| F | mm | - | 255 | 255 |
| G | mm | - | 365 | 365 |
| H | mm | 155 | 155 | 155 |
| I | mm | 835 | 835 | 835 |
| L | mm | 1145 | 1145 | 1145 |
| M | mm | 425 | 425 | 425 |
| N | mm | - | - | 1060 |
| O | mm | - | - | 890 |
| ØC | mm | 160 | 160 | 160 |
| Ø | mm | 660 | 660 | 660 |

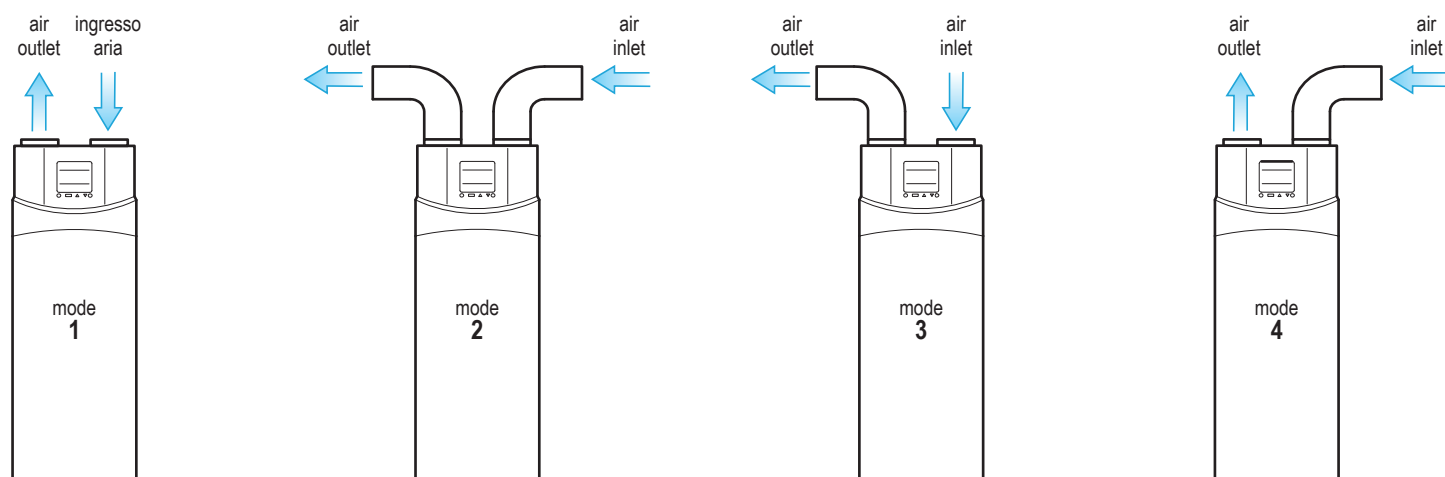
| | DESCRIPTION | DIMENSIONS |
|----|---------------------------|------------|
| 1 | Hot water | 1" |
| 2 | Heating flow | 1" |
| 3 | Alternative energy flow | 1" |
| 4 | Return alternative energy | 1" |
| 5 | Drain connection | Ø 20 mm |
| 6 | Cold water | 1" |
| 7 | Electrical resistance | 1" 1/4 |
| 8 | Anode | 1" 1/4 |
| 9 | Cockpit control probe | Ø 12 mm |
| 10 | Cockpit probe | Ø 12 mm |
| 11 | Recirculation | 1/2" |



GREEN 300 - 300 S - 300 2S

Water heaters heat pump mono bloc with sanitary storage with or without additional exchangers

Installation methods 300 - 300 S - 300 2S



Technical data table water heaters heat pumps GREEN 300 - GREEN 300 S - GREEN 300 2S

| Model | U.M. | GREEN 300 | GREEN 300 S | GREEN 300 2S |
|--|-------------------|-------------|-------------|--------------|
| Heating capacity (1) | W | 2427 | | |
| Absorbed power (1) | W | 639 | | |
| COP (2) | W/W | 3,25 | | |
| Power supply | | 230V/1/50Hz | | |
| Current consumption | A | 3,19 | | |
| Warm-up time (2) | h | 5,42 | | |
| Heating energy (2) | kWh | 3,46 | | |
| Standby consumption | W | 38 | | |
| Class | | L | | |
| Max power consumption heat pump + resistance | °C | 60 | | |
| Max power consumption heat pump | °C | 55 | | |
| Maximum quantity of used water (3) | l | 379 | | |
| Thermal power electrical resistance | kW | 1,50 | | |
| Current consumption electrical resistance | A | 6,52 | | |
| Max power consumption heat pump + resistance | kW | 2,14 | | |
| Max absorbed current heat pump + resistance | A | 9,71 | | |
| Storage volume | l | 273 | 268 | 265 |
| Maximum operating pressure | bar | 6 | | |
| Maximum air flow | m ³ /h | 450 | | |
| Minimum air flow | m ³ /h | 137 | | |
| Diameter ducts | mm | 160 | | |
| Maximum length ducts | m | 10 | | |
| Solar heat exchanger | m ² | - | 1,5 | 1,5 |
| Exchanger biomass - boiler | m ² | - | - | 0,6 |
| Solar heat flow | m ³ /h | - | 1,6 | 1,6 |
| Biomass - boiler flow | m ³ /h | - | - | 0,6 |
| Sound level (4) | dB(A) | 49 | | |
| Maximum operating pressure | bar | 10 | | |
| Load drops exchanger Solar | kPa | - | 38 | 38 |
| Load drops exchanger biomass | kPa | - | - | 22 |
| Empty weight | kg | 112 | 127 | 145 |
| Operating weight | kg | 385 | 395 | 410 |

(1) Data in accordance with ISO 255-3 storage temperature 50 °C

(2) Data in accordance with EN 16147 - ambient temperature 15 °C - domestic hot water temperature 10 °C / final 55 °C

(3) Water flow 600 l/h

(4) Sound pressure level measured in free field at 2 of distance from the unit

GREEN 500 S NEW

Monobloc heat pump water heater with sanitary storage with additional exchanger



Technical and construction features

Following major investments in the development of new technologies aimed at the use of renewable energy and energy saving, the A2B Accorroni E.G. has created a new range of high efficiency monobloc heat pump water heaters with a high content of domestic water, GREEN 500 S NEW series with integrated solar thermal exchanger.

The GREEN 500 S NEW heat pump water heater represents the ecological evolution of the traditional water heater, which uses a renewable energy thermodynamic system to absorb heat directly from the outside air heated for free by the sun. GREEN 500 S NEW can access the Thermal Account 2.0 incentive issued to encourage all those interventions aimed at increasing the energy efficiency of existing buildings. The GREEN 500 S NEW heat pump water heater is characterized in particular by ease of installation, silent operation and great reliability.

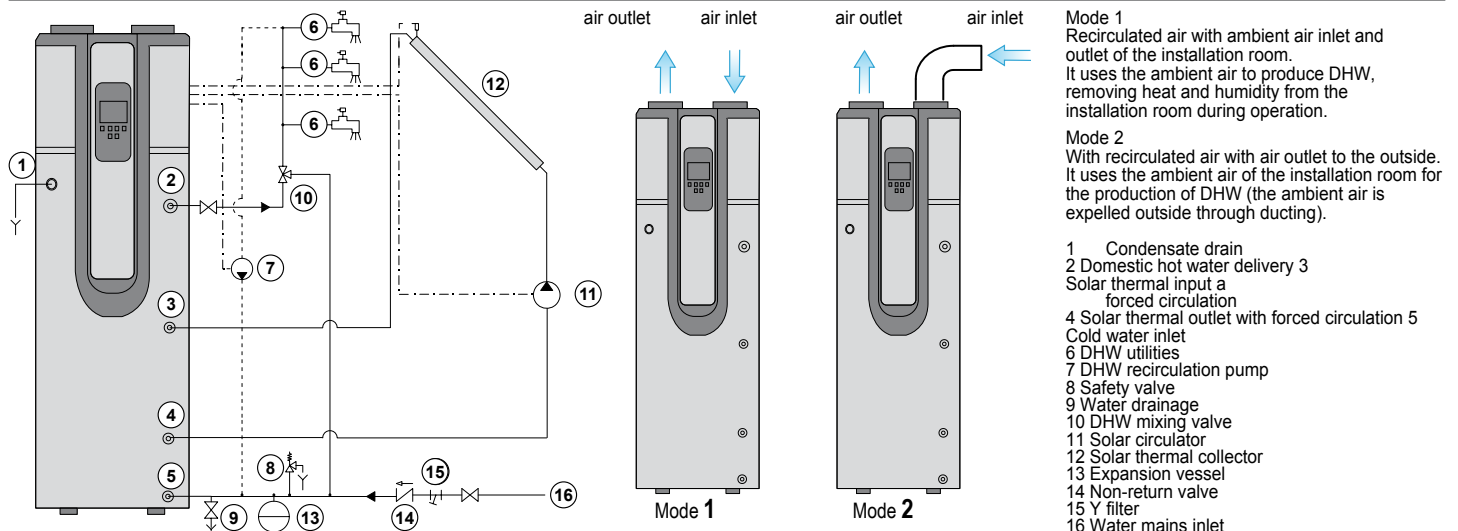
GREEN 500 S NEW has the following technical characteristics:

- Time programming, to take advantage of any time slots
- Advantageous on the electricity tariff
- Different operating modes: maximum savings with use of the compressor only or maximum speed to produce large quantities of DHW in a short time, using the heat pump and integrative electric resistance at the same time
- There is no possibility of contamination between water and fluid d refrigerant, the heat exchanger is external to the tank
- Water sterilization programs (anti-legionella cycle: the danger of the legionella bacterium is averted thanks to periodic cycles that raise the temperature of the storage water over 65 °C)
- Standard titanium anode that protects the tank from action corrosive. Compared to the solution with magnesium anode, greater reliability is guaranteed, with lower maintenance costs.



| Model | Code | € |
|------------------------|-----------------|-----------------|
| GREEN 500 S NEW | 37030501 | 6.320,00 |

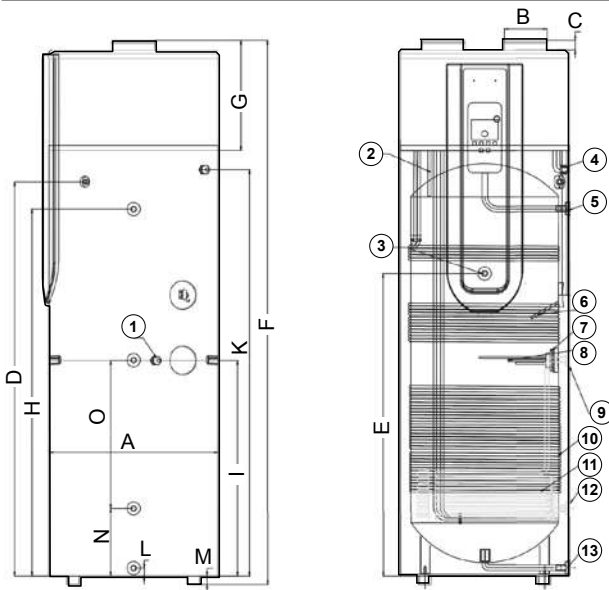
Installation example GREEN 500 S NEW



GREEN 500 S NEW

Monobloc heat pump water heater with sanitary storage with additional exchanger

Dimensions and description GREEN 500 S NEW



| | U.M. | GREEN 500 S NEW | |
|---|------|-----------------|--|
| A | mm | Ø 700 | 1 Input sensor solar thermal |
| B | mm | Ø 177 | 2 Temperature sensor upper water |
| C | mm | 40 | 3 Titanium anode |
| D | mm | 1633 | 4 Water drainage of condensation |
| E | mm | 1252 | 5 Hot water outlet |
| F | mm | 2253 | 6 Reset protection manual 85 °C |
| G | mm | 455 | 7 Electric resistance |
| H | mm | 1520 | 8 Temperature sensor tank bottom water / Manual reset protection 85 °C |
| I | mm | 893 | 9 Solar entrance thermal |
| K | mm | 1683 | 10 HP condenser |
| L | mm | 32,5 | 11 Solar exchanger thermal |
| M | mm | 35 | 12 Solar thermal outlet |
| N | mm | 280 | 13 Drain connection tank |
| O | mm | 610 | |

Heat pump water heater technical data table GREEN 500 S NEW

| Model | U.M. | GREEN 500 S NEW |
|---|----------------------|----------------------|
| Storage tank volume | l | 500 |
| Accumulation tank material | | Steel INOX 304 |
| Nominal heat output (1) | W | 3800 |
| Nominal electrical absorption (1) | W | 875 |
| Nominal DHW production capacity | l/h | 82,0 |
| COP nominal (1) | W/W | 4,34 |
| COP DHW (2) | W/W | 2,66 |
| Test cycle profile(2) | | XXL |
| Hot water volume at 40 °C (2) | l | 594 |
| Energy efficiency class (3) | | A |
| Degree of protection | | IPX1 |
| DHW temperature adjustment range | °C | 10 / 70 (50 default) |
| Maximum hot water temperature compressor only | °C | 60 |
| Power supply | | 230V/1/50Hz |
| Integrative electrical resistance | W/W | 1500 |
| Max current (HP + resistance) | A | 13 |
| Refrigerant gas type (4) | | R134a |
| Refrigerant gas quantity | g | 1600 |
| Quantity of fluorinated greenhouse gases | t CO ₂ eq | 2280 |
| Compressor | | Rotary ON - OFF |
| Sound power level | dB(A) | 59,2 |
| Average sound pressure level | dB(A) | 37,2 |
| DHW hydraulic connections | | 1" DN25 |
| Solar exchanger hydraulic connections | | 3/4" DN20 |
| Titanium anode with alarm led Max. | | G3/4 - Ø 3x550 |
| Accumulation operating pressure | bar | 10 |
| Operating range | °C | -5 +43 |
| Evaporator nominal air flow with ducting | m ³ /h | 800 |
| Fan head | Pa | 60 |
| Duct connection diameter | mm | 177 |
| Max length of ducting | m | 6 |
| Solar exchanger surface | m ² | 1 |
| Net weight | kg | 122 |

(1) Conditions: intake air 20 °C DB (15 °C WB), water inlet 15 °C / outlet 55 °C

(2) Test according to EN16147: air 15 °C

(3) Directive 2009/125 / EC - ERP EU no. 814/2013

(4) Leakage of refrigerant contributes to climate change. In case of release into the atmosphere, refrigerants with a heating potential Global warming (GWP) lower contribute less to global warming than those with a higher GWP. This appliance contains a refrigerant fluid with a GWP of 1430.

GREEN SOLAR

Monobloc heat pump water heater with integration solar thermal



Technical and construction features

GREEN SOLAR is a renewable energy system for the production of domestic hot water, which uses the thermal energy produced by the air / water heat pump in combination with a latest generation solar thermal system. This system is managed by an electronic control unit thanks to which it is always possible to give priority to the most renewable energy source, i.e. in the presence of a certain irradiation threshold the heat pump is replaced by the solar thermal collector. The GREEN SOLAR water heater contains all the components for the construction of the solar thermal system as standard (see table below) which allow the thermo-vector fluid (glycol water) to circulate from the solar thermal collector to the spiral exchanger immersed inside the 'sanitary accumulation.



RENEWABLE ENERGY



SOLAR THERMAL ENERGY



ECOLOGIC GAS



HIGH EFFICIENCY



ENERGY SAVING



PHOTOVOLTAIC COMBINATION



SIMPLE INTEGRATED PROGRAMMING



DHW

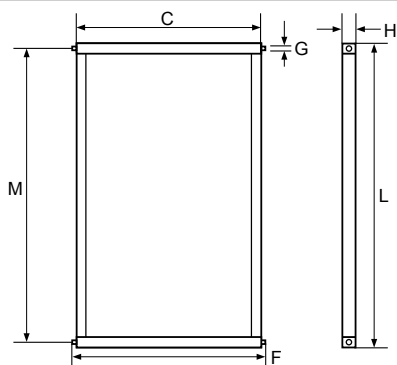
| KIT GREEN SOLAR | | 2.0 x 1 Pitch.roof | 2.0 x 1 Flat roof | 2.5 x 1 Pitch.roof | 2.5 x 1 Flat roof | 2.0 x 2 Pitch.roof | 2.0 x 2 Flat roof | 2.5 x 2 Pitch.roof | 2.5 x 2 Flat roof | 2.5 x 3 Pitch.roof | 2.5 x 3 Flat roof |
|-----------------|---------------------------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|
| | Solar collector SELECTIVE H+ | X | X | | | XX | XX | | | | |
| | Solar collector SELECTIVE HX+ | | | X | X | | | XX | XX | XXX | XXX |
| | Solar station UNIT-2 PLUS | X | X | X | X | X | X | X | X | X | X |
| | Unit CONTROL MULTI 06 S | X | X | X | X | X | X | X | X | X | X |
| | Anchoring kit Flat roof TPV H+ / HX+ | | X | | X | | XX | | XX | | XXX |
| | Anchoring kit Pitch roof TV1 H+ / HX+ | X | | X | | | | | | | |
| | Anchoring kit Pitch roof TV2 H+ / HX+ | | | | | X | | X | | | |
| | Anchoring kit Pitch roof TV3 HX+ | | | | | | | | | X | |
| | Expansion vessel 12 l | X | X | X | X | | | | | | |
| | Expansion vessel 18 l | | | | | X | X | X | X | | |
| | Expansion vessel 25 l | | | | | | | | | X | X |
| | String fittings kit KRS | X | X | X | X | X | X | X | X | X | X |
| | Collector fittings kit KRS + 1 | | | | | X | X | X | X | XX | XX |
| | Glycol tank 3 l | X | X | | | XX | XX | | | | |
| | Glycol tank 4 l | | | X | X | | | XX | XX | XXX | XXX |

GREEN SOLAR

Monobloc heat pump water heater with integration solar thermal

| Models to be assembled with solar thermal kit | Code | € |
|---|-----------------|-----------------|
| GREEN 220 S | 63000075 | 2.934,00 |
| GREEN 220 2S | 63000076 | 3.178,00 |
| GREEN 300 S | 37010200 | 3.240,00 |
| GREEN 300 2S | 37010300 | 3.410,00 |
| GREEN 500 S NEW | 37030501 | 6.320,00 |
| KIT SOLAR HR 1 x 2.0 pitched roof | 37308030 | 1.994,00 |
| KIT SOLAR HR 1 x 2.0 flat roof | 37318030 | 2.000,00 |
| KIT SOLAR HR 1 x 2.5 pitched roof | 37308031 | 2.122,00 |
| KIT SOLAR HR 1 x 2.5 flat roof | 37318031 | 2.136,00 |
| KIT SOLAR HR 2 x 2.0 pitched roof | 37308032 | 2.782,00 |
| KIT SOLAR HR 2 x 2.0 flat roof | 37318032 | 2.888,00 |
| KIT SOLAR HR 2 x 2.5 pitched roof | 37308033 | 3.066,00 |
| KIT SOLAR HR 2 x 2.5 flat roof | 37318033 | 3.158,00 |
| KIT SOLAR HR 3 x 2.5 pitched roof | 37308035 | 4.016,00 |
| KIT SOLAR HR 3 x 2.5 flat roof | 37318035 | 4.188,00 |

Technical characteristics of the solar collector SELECTIVE



| | SELECTIVE H+ | SELECTIVE HX+ |
|---|--------------|---------------|
| L | 1987 | 1987 |
| C | 984 | 1270 |
| H | 100 | 100 |
| M | 1876 | 1876 |
| G | 22 | 22 |
| F | 1050 | 1340 |

Values in mm

Technical data table for flat solar collector SELECTIVE

| DESCRIPTION | U.M. | SELECTIVE H+ | SELECTIVE HX+ |
|-------------------------------|--------------------|--|---------------|
| Weight | kg | 32,0 | 42,0 |
| Case color | | Grey | |
| Case material | | Aluminum | |
| Insulation thickness | mm | 45 | |
| Glass type | | Extra clear, AR, Hardened 3,2 mm anti-reflective | |
| Net absorbent surface | m ² | 1,82 | 2,40 |
| Coefficient of loss | W/m ² k | 3,53 | 3,18 |
| Total collector area | m ² | 1,95 | 2,52 |
| Absorbent plate material | | Aluminium | |
| Surface treatment | | Selective TITAN (titanium oxide) | |
| Efficiency (opening) η_0 | | 0,759 | 0,797 |
| Glass transparency | % | 93,8 | |
| Glass thickness | mm | 3,2 | |
| Recommended load / panel | l/h | 100 | 130 |
| Collector water capacity | l | 1,42 | 1,70 |
| Maximum working pressure | bar | 6 | |
| Stagnation temperature | °C | 204 | |

GREEN SOLAR

Monobloc heat pump water heater with integration solar thermal

Technical features 2-way solar station UNIT 2 PLUS

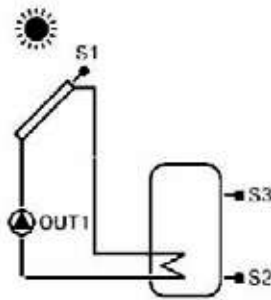


Circulation unit 2 ÷ 12 l / min with 3/4 "M flow and return connections. 3-way DN20 with 10 mbar non-return valve equipped with thermometer holder handle, 6 bar safety group with Ø 50 mm pressure gauge

0 ÷ 10 bar with 3/4 "M connection for expansion vessel. DN20 flanged ball valve with 10 mbar non-return valve equipped with thermometer holder handle, deaerator with manual vent valve, connecting pipe and connection.
Insulation box in EPP with preformed shell 277 × 425 × 150 and wall fixing bracket.

| DESCRIPTION | U.M. | UNIT 2 PLUS |
|---|------|----------------------|
| Max operating temperature short period 20 s | °C | 160 |
| continuous temperature | °C | 120 |
| Max working pressure | bar | 10 |
| Safety valve calibration | bar | 6 |
| Flow rate adjustment range | l/m | 2÷12 |
| Pressure gauge scale | bar | 0÷10 |
| Thermometer scale | °C | 0÷120 |
| External connections | | 3/4" M |
| Circulator model | | Wilo Yonos Para 25/7 |
| Body | | Ghisa |
| Power supply | | 230V/1/50Hz |
| Power max | W | 45 |
| Temperature max | °C | 110 |
| Degree of protection | | IP X4D |

Technical characteristics of the solar control unit CONTROL MULTI 06 S



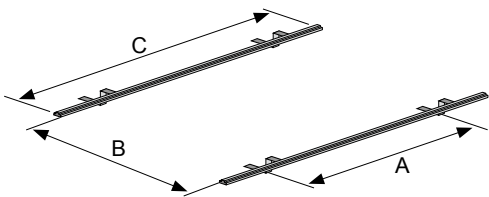
| Dimensions L x P x H | mm | 156 x 47 x 108 |
|-----------------------|----|----------------|
| Degree of protection | | IP 40 |
| Power supply | | 230V/1/50Hz |
| Electric absorption | W | 4 |
| Operating humidity | % | 20 - 80 |
| Operating temperature | °C | 0 + 40 |
| Number of probes | | 3 |
| Type of probes | | Pt 1000 |

CONTROL MULTI 06 S digital solar control unit equipped with 3 DT-PLUS probes for the control of systems with forced circulation solar thermal collectors.

Number 3 relay outputs, number 1 PWM output, number 1 0-10V output and number 6 preset functional schemes.

Technical features of fixing systems on pitched roof for SELECTIVE H + and SELECTIVE HX + collectors

Frames for pitched roofs complete with stainless steel strips for under-roof fixing and junction between one frame and another. You have to compose more frames based on the number of panels.

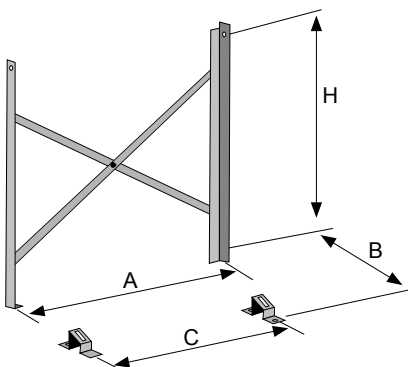


| | TV1 H+ | TV2 H+ | TV3 H+ | TV1 HX+ | TV2 HX+ | TV3 HX+ |
|---|-----------|-----------|-----------|------------|------------|------------|
| A | 84 | 190 | 295 | 113 | 245 | 380 |
| B | 180 | 180 | 180 | 180 | 180 | 180 |
| C | 112 | 220 | 324 | 144 | 290 | 420 |

Values in mm

Technical features of fixing systems on flat roof for SELECTIVE H + and SELECTIVE HX + collectors

Telaio di anchoring on flat surfaces for SELECTIVE model forced circulation solar collectors, complete with bracing to ensure adequate stability.



| | TPV H+ | | TPV HX+ | |
|---|--------|-----|---------|-----|
| A | 100 | | 128 | |
| B | 170 | 30° | 170 | 30° |
| | 103 | 45° | 103 | 45° |
| C | 60÷80 | | 60÷80 | |
| H | 103 | | 103 | |

Values in mm

TERMODINAMICO

Thermodynamic heat pump water heater with sanitary storage



Technical and construction features

THERMODINAMICO is an innovative system for the production of domestic hot water based on the classic operation of the heat pump connected to a thermodynamic solar panel capable of capturing any type of solar and environmental energy (Carnot's principle):

- Energy from diffuse and direct solar radiation
 - Convection energy of air and wind
 - Conduction energy of air, rain and snow
- This product is able to improve both the energy performance of the traditional heat pump and the classic solar thermal collector. THERMODINAMICO was created to work all year round in any weather condition and at any time of the day, both day and night. The thermodynamic panel is made of anti-corrosion anodized aluminum and can be installed in any position both horizontal and vertical on the roof or hung on a wall.

This particular technology allows to capture the energy on both sides of the panel thanks to the ecological gas R134A that circulates freely inside it.

However, to make the most of solar radiation, the ideal exposure remains towards the south with an inclination between 30 ° and 90 ° considering that the more direct the sun is irradiated, the more its yield will increase.

The following configurations are available:

- 1 Standard THERMODINAMICO with a solar panel thermodynamic 1800 x 800 mm
- 2 THERMODINAMICO S with a solar panel 1800 x 800 mm thermodynamic and auxiliary exchanger for use in combination with a wood or pellet or methane boiler



RENEWABLE ENERGY



OPERATION ALL YEAR ROUND



ECOLOGIC GAS



PHOTOVOLTAIC COMBINATION



ENERGY SAVING



DHW



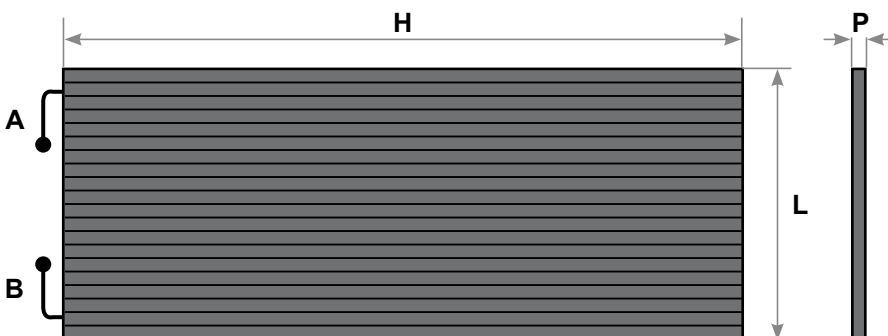
SIMPLE INTEGRATED PROGRAMMING



EASY INSTALLATION

| Model | Code | € |
|------------------------|-----------------|-----------------|
| TERMODINAMICO | 37020100 | 3.140,00 |
| TERMODINAMICO S | 37020200 | 3.380,00 |

Dimensions and overall dimensions of the thermodynamic panel

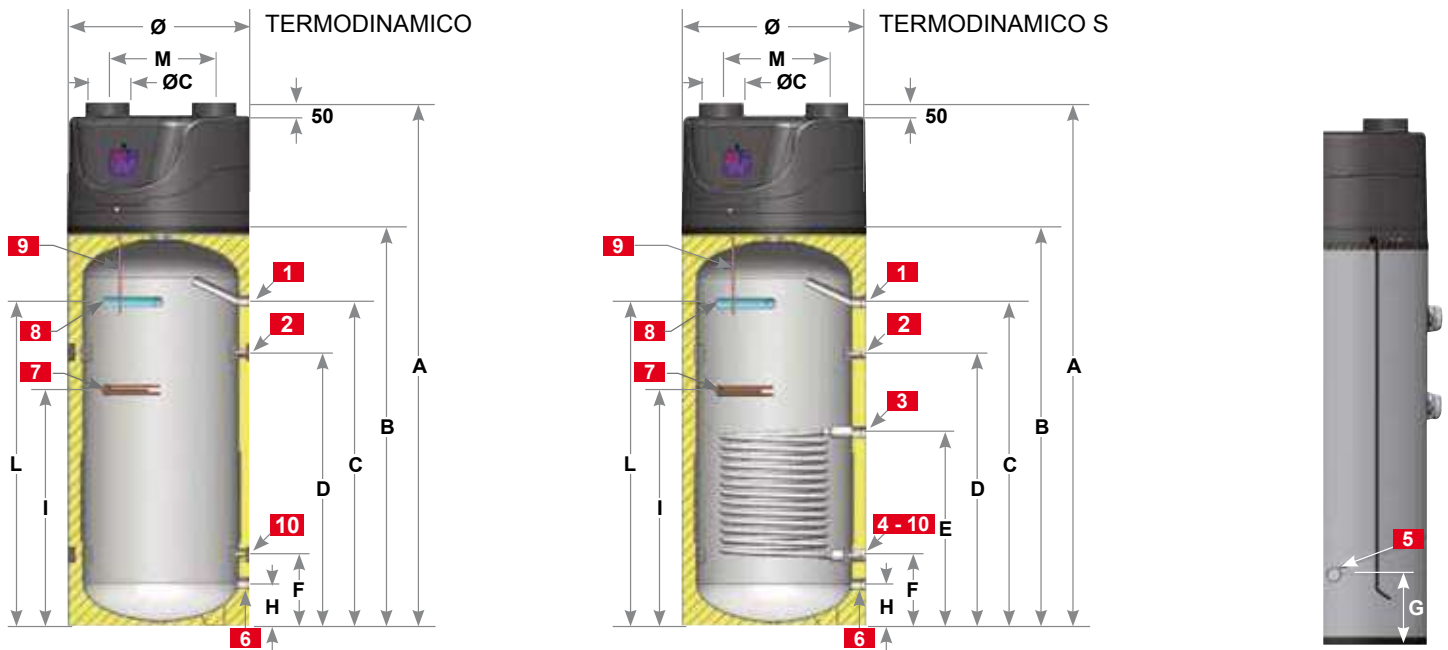


| | | |
|--------|----|----------|
| L | mm | 800 |
| H | mm | 2000 |
| P | mm | 40 |
| A | Ø | 3/8" SAE |
| B | Ø | 1/4" SAE |
| Weight | Kg | 7,3 |

TERMODINAMICO

Thermodynamic heat pump water heater with sanitary storage

Dimensions TERMODINAMICO



| MODEL | U.M. | TERMODINAMICO | TERMODINAMICO S |
|-------|------|---------------|-----------------|
| A | mm | 1845 | 1845 |
| B | mm | 1410 | 1410 |
| C | mm | 1150 | 1150 |
| D | mm | 965 | 965 |
| E | mm | - | 690 |
| F | mm | - | 255 |
| G | mm | - | 365 |
| H | mm | 155 | 155 |
| I | mm | 835 | 835 |
| L | mm | 1145 | 1145 |
| M | mm | 425 | 425 |
| Øc | mm | 160 | 160 |
| Ø | mm | 660 | 660 |

| | DESCRIPTION | DIMENSIONS |
|----|-----------------------------|------------|
| 1 | Hot water | 1" |
| 2 | Ricirculation | 1/2" |
| 3 | Alternative energy delivery | 1" |
| 4 | Alternative energy return | 1" |
| 5 | Condensate drain | Ø 20 mm |
| 6 | Cold water | 1" |
| 7 | Electrical resistance | 1" 1/4 |
| 8 | Anode | 1" 1/4 |
| 9 | Control probe well | Ø 12 mm |
| 10 | Probe well | Ø 12 mm |

Technical data table TERMODINAMICO - TERMODINAMICO S

| DESCRIPTION | U.M. | TERMODINAMICO | TERMODINAMICO S |
|--|-------------------|---------------|-----------------|
| Capacity | l | 273 | 268 |
| Auxiliary coil surface | m ² | - | 1,5 |
| Solar heat exchanger capacity 80/60 °C | m ³ /h | - | 1,6 |
| Domestic hot water production 80/60 °C - 10/45 °C (DIN 4708) | m ³ /h | - | 1,6 |
| Maximum operating pressure of the boiler | bar | 6 | |
| Max working pressure of the auxiliary coil | bar | 10 | |
| Power supply | | 230V/1/50Hz | |
| Max water temperature | °C | 60 | |
| Electric power resistance | W | 1500 | |
| Thermal power (average storage temperature 50 °C) | W | 1700 - 2500 | |
| Absorbed power (average storage temperature 50 °C) | W | 395 - 550 | |
| Charge gas refrigerant R134a | g | 1050 | |
| Sound level | dB(A) | 46 | |
| Maximum length of refrigerant pipes | m | 12 | |
| Maximum compressor height difference and thermodynamic panel | m | 5 | |
| Thermodynamic pannel weight | Kg | 7,3 | |
| Technical water tank weight empty | Kg | 112 | 127 |
| Technical water tank weight in operation | Kg | 385 | 395 |

TERMODINAMICO

Thermodynamic heat pump water heater with sanitary storage



Technical and construction features

THERMODINAMICO is an innovative system for the production of domestic hot water based on the classic operation of the heat pump connected to a thermodynamic solar panel capable of capturing any type of solar and environmental energy (Carnot's principle):

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 - Convection energy of air and wind
 - Conduction energy of air, rain and snow
- This product is able to improve both the energy performance of the traditional heat pump and the classic solar thermal collector. THERMODINAMICO was created to work all year round in any weather condition and at any time of the day, both day and night. The thermodynamic panel is made of anti-corrosion anodized aluminum and can be installed in any position both horizontal and vertical on the roof or hung on a wall.

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The following configurations are available:

- 1 Standard THERMODINAMICO with a solar panel thermodynamic 1800 x 800 mm
- 2 THERMODINAMICO S with a solar panel 1800 x 800 mm thermodynamic and auxiliary exchanger for use in combination with a wood or pellet or methane boiler



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OPERATION ALL YEAR ROUND



ECOLOGIC GAS



PHOTOVOLTAIC COMBINATION



ENERGY SAVING



DHW



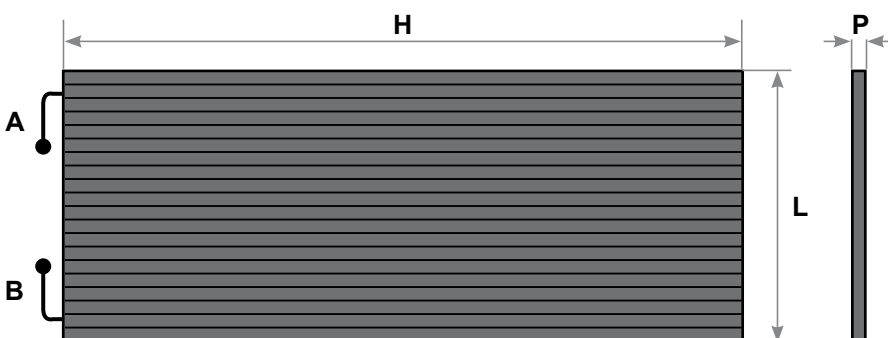
SIMPLE INTEGRATED PROGRAMMING



EASY INSTALLATION

| Model | Code | € |
|------------------------|-----------------|-----------------|
| TERMODINAMICO | 37020100 | 3.140,00 |
| TERMODINAMICO S | 37020200 | 3.380,00 |

Dimensions and overall dimensions of the thermodynamic panel

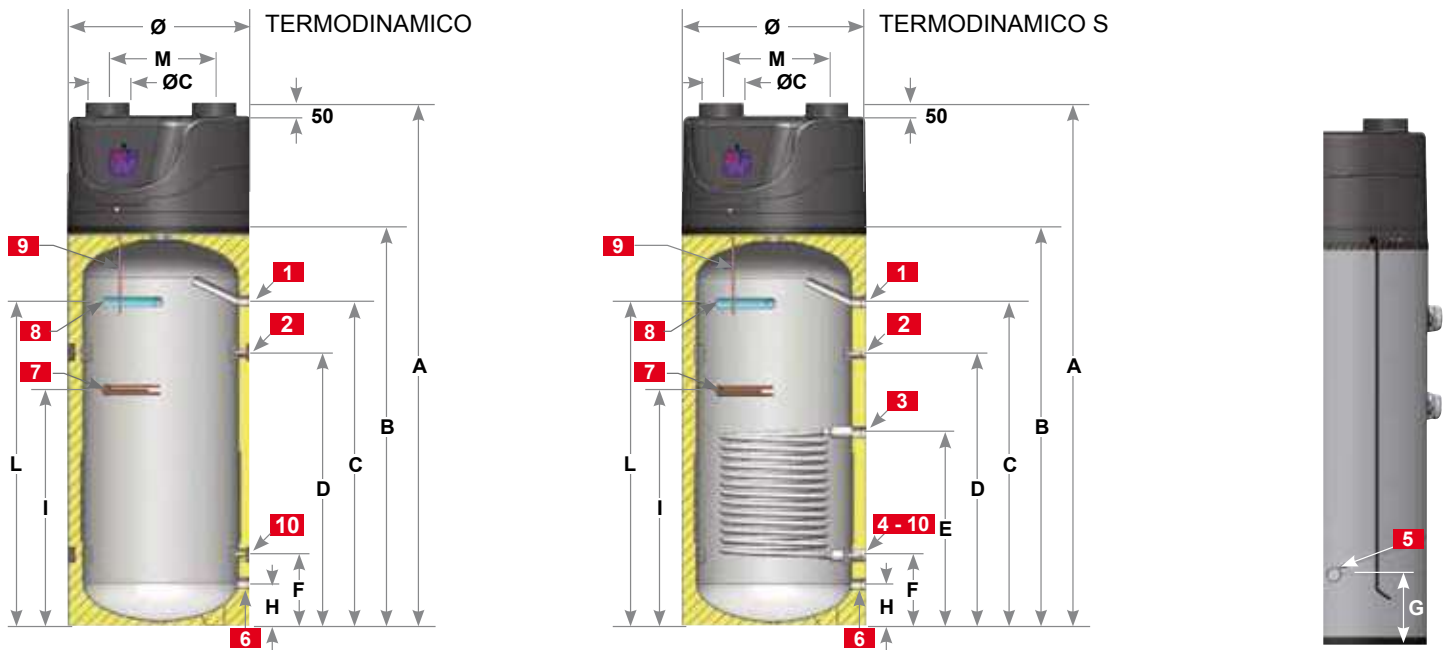


| | | |
|--------|----|----------|
| L | mm | 800 |
| H | mm | 2000 |
| P | mm | 40 |
| A | Ø | 3/8" SAE |
| B | Ø | 1/4" SAE |
| Weight | Kg | 7,3 |

TERMODINAMICO

Thermodynamic heat pump water heater with sanitary storage

Dimensions TERMODINAMICO



| MODEL | U.M. | TERMODINAMICO | TERMODINAMICO S |
|-------|------|---------------|-----------------|
| A | mm | 1845 | 1845 |
| B | mm | 1410 | 1410 |
| C | mm | 1150 | 1150 |
| D | mm | 965 | 965 |
| E | mm | - | 690 |
| F | mm | - | 255 |
| G | mm | - | 365 |
| H | mm | 155 | 155 |
| I | mm | 835 | 835 |
| L | mm | 1145 | 1145 |
| M | mm | 425 | 425 |
| Øc | mm | 160 | 160 |
| Ø | mm | 660 | 660 |

| | DESCRIPTION | DIMENSIONS |
|----|-----------------------------|------------|
| 1 | Hot water | 1" |
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| 3 | Alternative energy delivery | 1" |
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| 5 | Condensate drain | Ø 20 mm |
| 6 | Cold water | 1" |
| 7 | Electrical resistance | 1" 1/4 |
| 8 | Anode | 1" 1/4 |
| 9 | Control probe well | Ø 12 mm |
| 10 | Probe well | Ø 12 mm |

Technical data table TERMODINAMICO - TERMODINAMICO S

| DESCRIPTION | U.M. | TERMODINAMICO | TERMODINAMICO S |
|--|-------------------|---------------|-----------------|
| Capacity | l | 273 | 268 |
| Auxiliary coil surface | m ² | - | 1,5 |
| Solar heat exchanger capacity 80/60 °C | m ³ /h | - | 1,6 |
| Domestic hot water production 80/60 °C - 10/45 °C (DIN 4708) | m ³ /h | - | 1,6 |
| Maximum operating pressure of the boiler | bar | 6 | |
| Max working pressure of the auxiliary coil | bar | 10 | |
| Power supply | | 230V/1/50Hz | |
| Max water temperature | °C | 60 | |
| Electric power resistance | W | 1500 | |
| Thermal power (average storage temperature 50 °C) | W | 1700 - 2500 | |
| Absorbed power (average storage temperature 50 °C) | W | 395 - 550 | |
| Charge gas refrigerant R134a | g | 1050 | |
| Sound level | dB(A) | 46 | |
| Maximum length of refrigerant pipes | m | 12 | |
| Maximum compressor height difference and thermodynamic panel | m | 5 | |
| Thermodynamic pannel weight | Kg | 7,3 | |
| Technical water tank weight empty | Kg | 112 | 127 |
| Technical water tank weight in operation | Kg | 385 | 395 |

AGTX 80 - 120

Gas-fired storage water heater with sealed chamber for domestic and industrial use



Technical and construction features

The new AGTX 80 - 120 range has been designed in compliance with the new 2018 low NOx ErP regulation.

AGTX is a water heater for the production of domestic hot water with storage of 80 - 120 liters depending on the model.

- Sealed combustion chamber with forced draft
- Internal glass-lined tank
(corrosion protection with magnesium anode)
- Electronic ignition with ionization flame detection
- Temperature regulation and water safety thermostats
- Multi-gas burner (methane or propane) in high performance stainless steel - Wall installation
- Adjustable smoke hood for easy installation in any situation possibility of different flue gas exhaust configurations (horizontal or vertical coaxial, split)

AGTX 80 - 120 components

- Smoke extraction hood
- Standard overpressure safety valve
- Smoke safety pressure switch
- Flame control
- Gas valve
- Flange for inspection and cleaning calcium and magnesium anode for corrosion protection
- High quality sheet metal tank (thickness 2.5 and 4 mm) with internal double glazing treatment
- Instrument panel (thermometer, water regulation thermostat, water temperature safety thermostat)



ERP READY



LOW NOX



GAS BOILER



DHW

| Model | Thermal range kW | Thermal Power kW | Code | € |
|-----------------|------------------|------------------|-----------------|-----------------|
| AGTX 80 | 5,00 | 4,50 | 37301011 | 1.560,00 |
| AGTX 120 | 5,00 | 4,30 | 37301012 | 1.770,00 |

Accessories AGTX 80 - 120



Horizontal coaxial drain kit C12 Clamp and gasket Ø 38 x 40 Clamp and gasket Ø 60 x 75 Crown fixing Gasket Ø 60 x 75 Gasket Ø 38 x 40 Rose Ø 60 Terminal Ø 40 Pipe Ø 38 x 1000 M / M Pipe Ø 60 x 930 M / M

1 pz
1 pz
3 pz
1 pz
1 pz
2 pz
1 pz
1 pz
1 pz

37301014 90,00



Horizontal split exhaust kit C42 Curve Ø 38 at 90 ° M / M Clamp Ø 38 x 40 Clamp Ø 60 x 45 Gasket Ø 38 x 40 Gasket Ø 60 x 9.5 T fitting Ø 60/60 H = 240 Reduction Ø 60/38 Rose Ø 38 Rose Ø 60 Terminal Ø 60 Pipe Ø 38 x 1000 M / M Pipe Ø 60 x 1000 M / F
























1 pz
2 pz
1 pz
2 pz
2 pz
1 pz
1 pz
1 pz
2 pz
1 pz
1 pz
1 pz

37301015 140,00

AGTX 80 - 120

Gas-fired storage water heater with sealed chamber for domestic and industrial use

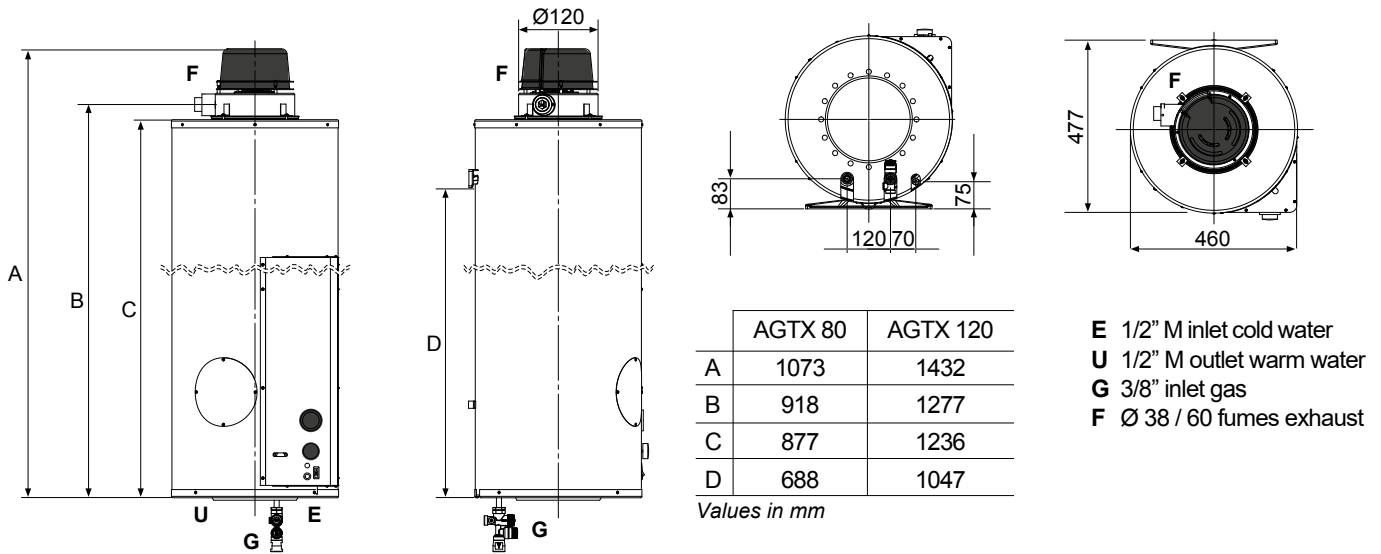
Accessories AGTX 80 - 120

| | | Code | € |
|---|--|-----------------|-----------------|
|  | Vertical coaxial drain kit C32 Curve Ø 60 / Ø 38 | 1 pz | |
| | Clamp Ø 38 x 40 | 1 pz | |
| | Clamp Ø 60 x 45 | 1 pz | |
| | Gasket Ø 38 x 40 | 1 pz | |
| | Reduction Ø 100 F / Ø 80 M | 1 pz | |
| | Reduction Ø 60/38 | 1 pz | 37301016 |
| | Reduction Ø 80 F / Ø 60 M Terminal Ø 60/100 | 1 pz | 250,00 |
| | Pipe Ø 38 X 250 M / M | 1 pz | |
|  | 45 ° bend with band and gasket Ø 38 | 37301020 | 20,00 |
|  | 90 ° bend with band and gasket Ø 38 | 37301021 | 20,00 |
|  | 45 ° bend with band and gasket Ø 60 | 37301022 | 28,00 |
|  | 90 ° bend with band and gasket Ø 90 | 37301023 | 28,00 |
|  | 45 ° coaxial bend with band and gasket Ø 38/60 | 37301024 | 50,00 |
|  | 90 ° coaxial bend with band and gasket Ø 38/60 | 37301025 | 64,00 |
|  | Clamp with gasket Ø 38 - H 40 mm | 37301026 | 6,00 |
|  | Clamp with gasket Ø 60 - H 45 mm | 37301027 | 8,00 |
|  | Clamp with gasket Ø 60 - H 75 mm | 37301028 | 10,00 |
|  | Coaxial extension with band and gasket Ø 38/60 - L 1000 mm | 37301029 | 64,00 |
|  | Coaxial extension with band and gasket Ø 38/60 - L 500 mm | 37301030 | 54,00 |
|  | Extension with band and gasket Ø 38 - L 1000 mm | 37301129 | 36,00 |
|  | Extension with band and gasket Ø 38/60 - L 500 mm | 37301130 | 24,00 |
|  | Extension with cup Ø 60 - L 1000 mm | 37301031 | 40,00 |
|  | Extension with cup Ø 60 - L 500 mm | 37301032 | 34,00 |
|  | Reduction Ø 60 - Ø 38 | 37301033 | 20,00 |
|  | Reduction Ø 80 - Ø 60 | 37301034 | 26,00 |
|  | Sheet metal canopy Ø 38 | 37301035 | 6,00 |
|  | Sheet metal canopy Ø 60 | 37301036 | 6,00 |
|  | Terminal for suction Ø 60 | 37301037 | 10,00 |
|  | Terminal for exhaust Ø 38 | 37301038 | 8,00 |
|  | Terminal for exhaust Ø 60 | 37301039 | 10,00 |

AGTX 80 - 120

Gas-fired storage water heater with sealed chamber for domestic and industrial use

Dimensions AGTX 80 - 120

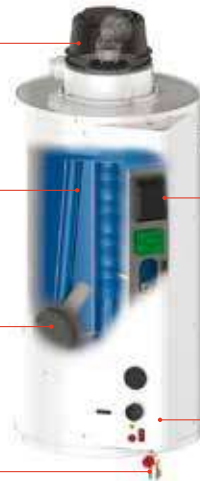


Smoke extraction hood

High quality sheet metal tank (thickness 2.5 mm) with internal double glazing treatment

Calcium inspection and cleaning flange and magnesium anode for corrosion protection

Hydraulic safety group EN 1487



Wall installation

Flame control

Instrument panel (thermometer, water regulation thermostat, water temperature safety thermostat)

Domestic hot water generators technical data table AGTX 80 - 120

| Description | U.M. | AGTX 80 | AGTX 120 |
|-------------------------------------|-------------------|-------------|----------|
| Thermal range | kW | 5,0 | |
| Thermal power | kW | 4,5 | 4,3 |
| Yield | % | 91 | 86 |
| Capacity | l | 75 | 115 |
| Gas consumption (G20 - methane) | m ³ /h | 0,52 | |
| Gas consumption (G31 - propane) | kg/h | 0,39 | |
| Nitrogen oxide (NOx) | ppm | 15 | 14 |
| Nitrogen oxide (NOx) | mg/kWh | 26 | 25 |
| Sanitary efficiency class | | B | |
| DHW profile | | M | L |
| Livello sonoro | dB(A) | 51 | |
| Continuous withdrawal - ΔT = 25 °C* | l/h | 157 | 148 |
| Continuous withdrawal - ΔT = 50 °C* | l/h | 78 | 74 |
| Heating time - ΔT = 25 °C* | min | 29 | 47 |
| Heating time - ΔT = 50 °C* | min | 58 | 93 |
| Single withdrawal - ΔT = 25 °C* | l | 180 | 276 |
| Single withdrawal - ΔT = 50 °C* | l | 90 | 138 |
| Power supply | | 230V/1/50Hz | |
| Max water pressure | kPa (bar) | 600 (6) | |
| Empty weight | Kg | 52 | 57 |
| Full weight | Kg | 127 | 172 |

(*) Storage temperature 70 °C - Domestic cold water inlet temperature 10 °C

AGTX 160 - 220 - 300 - 400 - 600 - 800

Gas-fired storage water heater with sealed chamber for domestic and industrial use



Technical and construction features

The new AGTX 160 - 220 - 300 - 400 - 600 - 800 range has been designed in compliance with the new 2018 ErP low NOx regulation. AGTX is a water heater for the production of domestic hot water with accumulations from 160 to 800 liters depending on the model. The function of these appliances is to generate domestic hot water by exchanging heat between the combustion products of the burner and the water present in the storage tank. Combustion takes place in a completely sealed manner with respect to the environment that contains the appliance, drawing the air necessary for combustion from the outside and always discharging the combustion products to the outside. The sealed combustion chamber is located in the lower part of the appliance.

BOILER

It is built with a sturdy sheet metal and guarantees a remarkable resistance to pressure.

It is also internally subjected to a glass coating treatment.

To allow inspection of the interior and cleaning, a Ø120 mm flange is provided.

COMBUSTION CHAMBER

It is located in the lower part of the appliance and contains: burner, manifold, injectors.

The chamber is watertight with respect to the environment in which the appliance is installed.

SMOKE EXTRACTION COVER

A fan located in the upper hood provides both the air supply and the evacuation of the combustion products. The cap can be rotated 360°.

In case of abnormal operation of the fan or obstruction of the ducts, a pressure switch interrupts the gas flow to the burner.

SMOKE EXHAUST KIT (mandatory to install the kit provided by the manufacturer of the appliance)

To be chosen from those provided according to the installation needs. Allows the connection of the combustion chamber with the outside (combustion air inlet to the burner and fumes expulsion).

INSTRUMENT PANEL

It contains everything you need to control and regulate the normal operation of the appliance: regulation thermostat, power switch, light release button, operating light, thermometer.

MAGNESIUM ANODE

To protect the appliance from galvanic currents that can corrode the inside of the appliance, two magnesium anodes are installed as standard, one in the inspection flange and one in the upper part of the appliance.



ERP
READY



LOW
NOX



GAS
BOILER



INDUSTRIAL
USE



DHW

| Model | Thermal range kW | Thermal power kW | Code | € |
|-----------------|------------------|------------------|-----------------|-----------------|
| AGTX 160 | 13,00 | 12,00 | 37301013 | 3.310,00 |
| AGTX 220 | 22,00 | 20,00 | 37301102 | 4.590,00 |
| AGTX 300 | 23,00 | 20,70 | 37301103 | 5.200,00 |
| AGTX 400 | 23,00 | 21,60 | 37301104 | 5.820,00 |
| AGTX 600 | 23,00 | 21,20 | 37301105 | 7.120,00 |
| AGTX 800 | 23,00 | 21,40 | 37301106 | 8.580,00 |

AGTX 160 - 220 - 300 - 400 - 600 - 800

Gas-fired storage water heater with sealed chamber for domestic and industrial use

Accessories AGTX 160 - 220 - 300 - 400 - 600 - 800

Code

€



Horizontal coaxial exhaust kit C12

| | |
|-------------------------|------|
| Intake / exhaust grille | 1 pc |
| Spring Ø 60/100 | 1 pc |
| Rose Ø 100 | 2 pc |
| Pipe Ø 100 x 640 M / M | 1 pc |
| Pipe Ø 60 x 700 M / M | 1 pc |

37301017

140,00



Split horizontal drain kit C42 - C82 Separate

| | |
|---------------------------|------|
| pipe Ø 80 | 1 pc |
| Diaphragm Ø 45 | 1 pc |
| Diaphragm Ø 47 | 1 pc |
| Diaphragm Ø 52 | 1 pc |
| Flange Ø 60 - Ø 130 | 1 pc |
| Gasket Ø 80 x 9.5 | 1 pc |
| Reduction Ø 80 F / Ø 60 M | 1 pc |
| Rose Ø 80 | 2 pc |
| Terminal Ø 80 | 2 pc |
| Pipe Ø 80 x 1000 M / M | 2 pc |

37301018

200,00



Vertical coaxial exhaust kit (Ø 60/100) C32

| | |
|--------------------------|------|
| Curve Ø 60 / 100 M / F | 1 pc |
| Gasket Ø 100 x 9,5 | 1 pc |
| Gasket Ø 60 x 9,5 | 1 pc |
| Roof terminal Ø 60 / 100 | 1 pc |

37301019

270,00



Operation transformation kit GPL

mod. 160
mod. 220 - 800

37301049

32,00

37301050

40,00



Coaxial extension M / F with socket Ø 60/100 - L 1000 mm

37301040

74,00



Coaxial extension M / F with socket Ø 60/100 - L 500 mm

37301041

60,00



Coaxial curve M / F with socket Ø 60/100 - 45°

37301042

56,00



Coaxial curve M / F with socket Ø 60/100 - 90°

37301043

60,00



Curve M / F with socket Ø 80 - 45°

37301044

44,00



Curve M / F with socket Ø 80 - 90°

37301045

44,00



Extension with socket Ø 80 - L 250 mm

37301046

38,00



Extension with socket Ø 80 - L 500 mm

37301047

44,00



Extension with socket Ø 80 - L 1000 mm

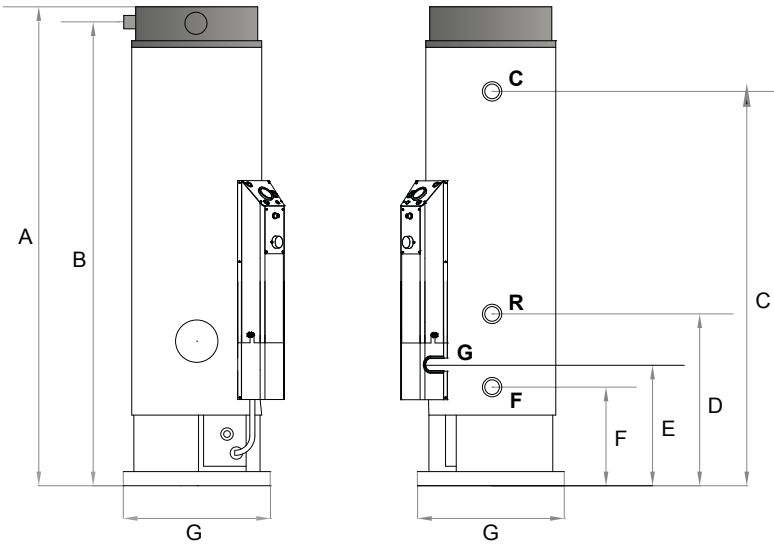
37301048

56,00

AGTX 160 - 220 - 300 - 400 - 600 - 800

Gas-fired storage water heater with sealed chamber for domestic and industrial use

Dimensions AGTX 60

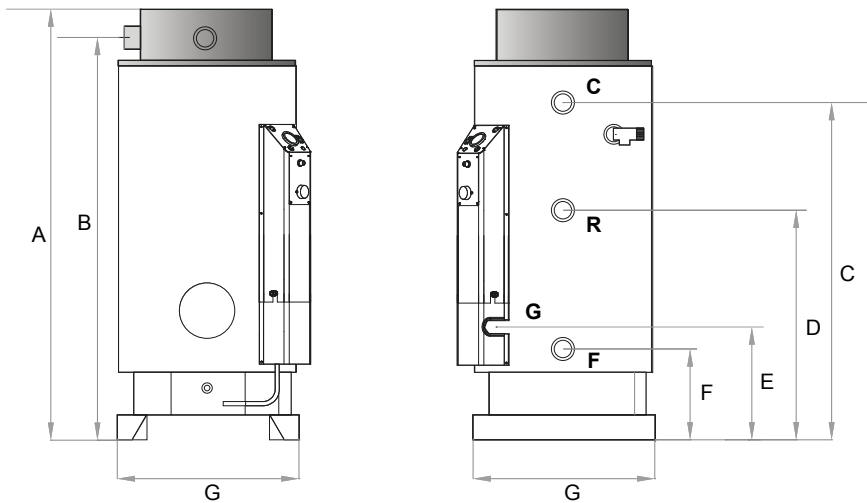


| | AGTX 160 |
|---|----------|
| A | 2005 |
| B | 1890 |
| C | 1725 |
| D | 720 |
| E | 415 |
| F | 395 |
| G | 520 |

Values in mm

- C** 3/4" warm water outlet
- R** 3/4" recirculation
- F** 3/4" cold water inlet
- G** 1/2" gas inlet

Dimensions AGTX 220 - 300 - 400

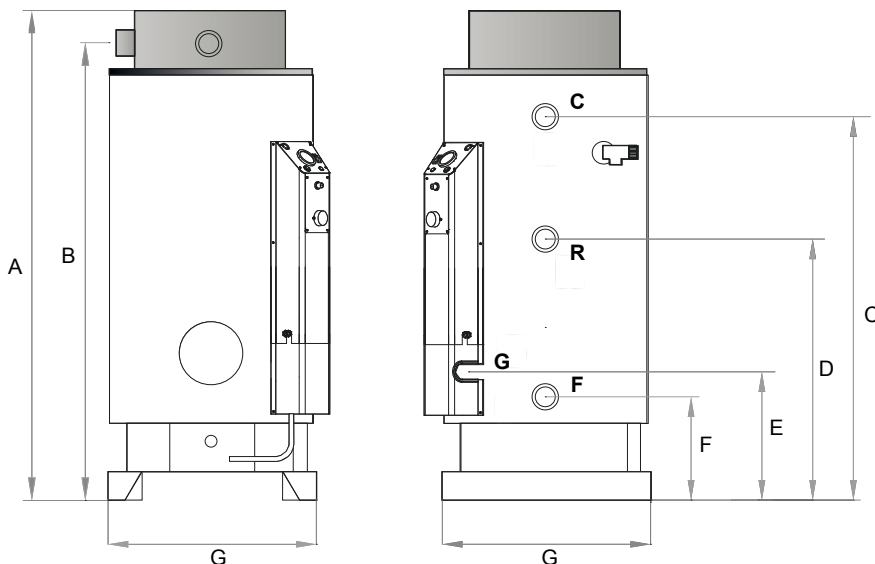


| | AGTX 220 | A_GTX 300 | AGTX 400 |
|---|----------|-----------|----------|
| A | 1560 | 1912 | 2275 |
| B | 1445 | 1795 | 2145 |
| C | 1285 | 1640 | 1985 |
| D | 960 | 960 | 1135 |
| E | 475 | 475 | 475 |
| F | 405 | 405 | 403 |
| G | 720 | 720 | 720 |

Values in mm

- C** 1" 1/4 warm water outlet
- R** 1" 1/4 recirculation
- F** 1" 1/4 cold water inlet
- G** 1/2" gas inlet

Dimensions AGTX 600 - 800



| | AGTX 600 | AGTX 800 |
|---|----------|----------|
| A | 1950 | 2310 |
| B | 1830 | 2195 |
| C | 1655 | 2030 |
| D | 950 | 950 |
| E | 475 | 475 |
| F | 410 | 410 |
| G | 920 | 920 |

Values in mm

- C** 1" 1/4 warm water outlet
- R** 1" 1/4 recirculation
- F** 1" 1/4 cold water inlet
- G** 1/2" gas inlet

AGTX 160 - 220 - 300 - 400 - 600 - 800

Gas-fired storage water heater with sealed chamber for domestic and industrial use

Smoke extraction hood

Instrument panel
(thermometer, water
regulation thermostat,
water temperature
safety thermostat)

Tank in first choice sheet
metal (thickness 2.5 and 4
mm) with internal double
enamelling treatment

Calcium inspection and cleaning
flange and magnesium anode for
corrosion protection



Overpressure safety
valve fitted as
standard

smoke safety
pressure
switch

Flame control

Gas valve

Domestic hot water generators technical data table AGTX 160 - 220 - 300 - 400 - 600 - 800

| Description | U.M. | AGTX 160 | AGTX 220 | AGTX 300 | AGTX 400 | AGTX 600 | AGTX 800 |
|-------------------------------------|-------------------|-------------|----------|----------|----------|----------|----------|
| Thermal range | kW | 13,0 | 22,0 | 23,0 | 23,0 | 23,0 | 23,0 |
| Thermal power | kW | 12,0 | 20,0 | 20,7 | 21,6 | 21,2 | 21,4 |
| Yield | % | 93 | 91 | 90 | 94 | 92 | 93 |
| Capacity | l | 160 | 220 | 300 | 400 | 585 | 740 |
| Gas consumption (G20 - methane) | m ³ /h | 1,4 | 2,3 | 2,4 | | | |
| Gas consumption (G31 - propane) | kg/h | 1,0 | 1,7 | 1,8 | | | |
| Nitrogen oxide (NOx) | ppm | 31 | 28 | 28 | 17 | 13 | 16 |
| Nitrogen oxide (NOx) | mg/kWh | 55 | 50 | | 30 | 24 | 28 |
| Sanitary efficiency class | | B | | | | | |
| DHW profile | | XXL | | | | | |
| Sound level | dB(A) | 51 | | | | | |
| Continuous withdrawal - ΔT = 25 °C* | l/h | 420 | 690 | 710 | 740 | 730 | 740 |
| Continuous withdrawal - ΔT = 50 °C* | l/h | 210 | 340 | 360 | 370 | 360 | 370 |
| Heating time - ΔT = 25 °C* | min | 22 | 19 | 25 | 32 | 48 | 60 |
| Heating time - ΔT = 50 °C* | min | 45 | 38 | 51 | 65 | 96 | 121 |
| Single withdrawal - ΔT = 25 °C* | l | 372 | 528 | 720 | 960 | 1404 | 1776 |
| Single withdrawal - ΔT = 50 °C* | l | 186 | 264 | 360 | 480 | 702 | 888 |
| Power supply | | 230V/1/50Hz | | | | | |
| Max water pressure | kPa (bar) | 600 (6) | | | | | |
| Empty weight | Kg | 120 | 175 | 208 | 245 | 248 | 303 |
| Full weight | Kg | 280 | 395 | 508 | 645 | 833 | 1043 |

(* Storage temperature 70 °C - Domestic cold water inlet temperature 10 °C)

ABGEO

Floor-standing gas water heater with natural draft storage and electronic ignition for industrial use



Technical and construction features

The upgraded industrial gas water heater has been designed to solve the need for hot water at the cheapest price for large consumers (sports centers, hospitals, large communities, campsites, hotels, retirement homes, gyms, saunas, etc.). The appliance consists of a water storage tank in electro-welded steel and covered with porcelain glass to protect it from water corrosion. The tank is contained in a painted metal casing within which the thermal insulation material is enclosed. The heating takes place by means of an atmospheric gas burner placed in the inner side of the appliance and inserted inside the combustion chamber obtained in the lower cap of the tank.

The smoke evacuation pipe departs from this and runs through the tank along its entire length.

The operation of the burner takes place by means of the thermostatic safety valve located on the side of the appliance. This valve performs the following functions:

- Adjustment of the water temperature in the tank;
- Interruption of the gas supply when a

accidental shutdown of the burner;

- Interruption of the gas supply, through the appropriate autonomous device, when the temperature of the water or the appliance itself should rise excessively for any abnormal operation;
- Interruption of the gas supply in case of intervention by the smoke evacuation control device. The ABGEO gas water heater is characterized by:

BOILER

- Constructed from high-thickness and premium steel sheet quality, which ensures greater resistance to limescale thanks to an accurate glass coating

EXTERNAL ENCLOSURE

- In pre-painted sheet metal

BURNER

- In stainless steel. Supplied with the kit of nozzles for gas transformation - Ignition and detection electrodes for the safety of the gas flow to the burner
- Electric valve equipped with pressure regulator and valve safety that blocks the gas escape in case of flame failure

ISOLATION

- Made with glass wool mats that ensure a uniform insulation
- In the 1500 and 2000 liter models, galvanizing is carried out a hot.



DHW



INDUSTRIAL
USE



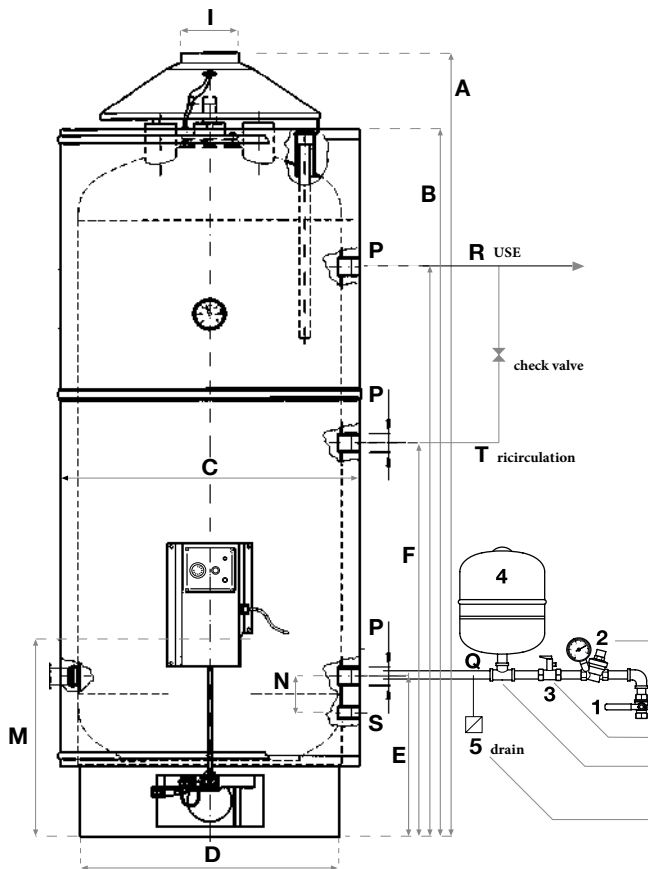
GAS
BOILER

| Model | Code | € |
|-------------------|-----------------|------------------|
| ABGEO 1000 | 37302007 | 9.400,00 |
| ABGEO 1500 | 37302008 | 12.660,00 |
| ABGEO 2000 | 37302009 | 14.100,00 |

ABGEO

Floor-standing gas water heater with natural draft storage and electronic ignition for industrial use

Dimensions and description of water heater ABGEO



| MODEL | ABGEO | ABGEO | ABGEO |
|-------|--|-------|-------|
| LITRI | 1000 | 1500 | 2000 |
| A | 2220 | 2180 | 2300 |
| B | 2020 | 1900 | 2100 |
| C | 990 | 1290 | 1290 |
| D | 900 | 1200 | 1200 |
| E | 460 | 340 | 340 |
| F | 1070 | 840 | 940 |
| G | 1680 | 1400 | 1800 |
| I | 160 | 160 | 160 |
| M | 720 | 450 | 450 |
| N | 120 | 120 | 120 |
| P | 1"1/4 | 1"1/4 | 1"1/4 |
| Q | COLD_WATER INLET 1 - SHUT-OFF VALVE 2 - PRESSURE REDUCER 3 - SAFETY VALVE 4 - EXPANSION VESSEL | | |
| R | HOT WATER OUTLET | | |
| S | DRAIN FITTING - 1/2 "5 - DRAIN TAP | | |
| T | FITTING FOR RECIRCULATION | | |

Values in mm

Water heater technical data table ABGEO

| DESCRIPTION | U.M. | ABGEO 1000 | ABGEO 1500 | ABGEO 2000 |
|--------------------------------|------|------------|-------------|------------|
| Real appliance capacity | l | 957 | 1479 | 1950 |
| Nominal heat output | kW | | 30,0 | |
| Useful thermal power | kW | | 26,1 | |
| Ø Smoke evacuation pipe | mm | | 150 | |
| Max water pressure | bar | | 6 | |
| Warm-up time at 45 °C | min. | | 56 | |
| Continuous withdrawal at 45 °C | l/h | | 741 | |
| Warm-up time at 60 °C | min. | 103 | 158 | 210 |
| Continuous withdrawal at 60 °C | l/h | | 494 | |
| Power supply | | | 230V/1/50Hz | |

Methane G20 - pression 20 mbar

| | | | | |
|------------------------|-------------------|--|----------|--|
| Consumption | m ³ /h | | 3,17 | |
| Ø Burner nozzle | mm | | 2,65 x 3 | |
| Pressure at the burner | mbar | | 12,7 | |
| Mass flow of fumes | g/s | | 23,0 | |

LPG G30/G31 30/37 mbar

| | | | | |
|-----------------------|------|-----|----------|-----|
| Consumption | Kg/h | | 2,00 | |
| Ø Burner nozzle | mm | | 1,55 x 3 | |
| Mass flow of fumes | mbar | | 23,7 | |
| Weight with packaging | Kg | 285 | 350 | 420 |

AGTF SOL

Floor standing storage gas water heater with sealed chamber forced draft with electronic ignition with additional exchanger for solar thermal



Technical and construction features

The AGTF SOL series water heaters are classified as gas-fired hot water generators with sealed combustion chamber with atmospheric burner equipped with a fan in the combustion circuit. The appliances belong to category II2H3+, which means that they can use gases of the second family (natural gas) and of the third family (liquid gases, butane and propane).

According to the European standard EN 483, these gas water heaters are distinguished according to the system used for air intake and exhaust fumes: type C13, C23 and C53.

In all three cases, the combustion circuit is sealed with respect to the environment in which the water heater is installed and the fan that ensures the expulsion of the fumes is upstream of the combustion circuit. These appliances require a drain kit.

A flange is inserted in the central part of the water heater for integration to the production of domestic hot water through forced circulation solar thermal.

Are offered n. 5 models of heat exchanger in finned copper tube for a correct combination with the available solar thermal surface. The following table exemplifies the choice of the water heater model and the relative solar surface on average useful for the purpose, depending on the number of people. A more accurate selection can only be made on a case-by-case basis based on location, exposure and type of use.

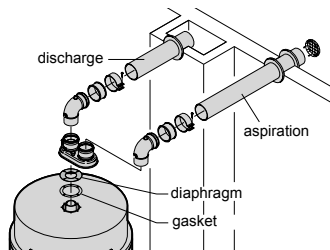
| Model | Thermal range kW | Thermal power kW | Code | € |
|---------------------|------------------|------------------|-----------------|------------------|
| AGTF SOL 220 | 30,00 | 26,80 | 37301200 | 5.732,00 |
| AGTF SOL 300 | 34,00 | 30,60 | 37301201 | 6.162,00 |
| AGTF SOL 400 | 34,00 | 30,60 | 37301202 | 6.862,00 |
| AGTF SOL 500 | 34,00 | 30,60 | 37301203 | 7.648,00 |
| AGTF SOL 800 | 34,00 | 30,60 | 37301204 | 11.034,00 |

Accessories AGTF SOL

Integrative solar heat exchanger with direct exchange in finned copper

| Mod. | Volume l | Surf. pannel solar m ² | Surface exchanger m ² | number people | | | | | |
|------|----------|-----------------------------------|----------------------------------|---------------|-----------|-----|----------------|-----------------|-----------------|
| 220 | 212 | 2,4 | 1,0 | 2 - 3 | Exchanger | 1,0 | m ² | 37310001 | 590,00 |
| 300 | 310 | 4,8 | 1,0 | 3 - 4 | Exchanger | 1,5 | m ² | 37310002 | 800,00 |
| 400 | 410 | 7,2 | 1,5 | 4 - 5 | Exchanger | 2,0 | m ² | 37310003 | 1.050,00 |
| 500 | 510 | 9,6 | 1,5 | 6 - 7 | | | | | |
| 800 | 810 | 12,0 | 2,0 | 10 - 11 | | | | | |

Split exhaust kit A_GTF 220 ÷ 800 the standard kit is 1 meter and contains:

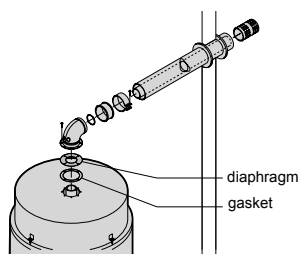


horizontal drain kit 80-120
split exhaust kit 80-120
vertical outlet kit 80-120 coaxial
extension Ø 60/38 cm 100 coaxial
bend Ø 60/38 at 90° coaxial bend
Ø 60/38 at 45° bend Ø 60 at 90°

bend Ø 60 at 45°
bend Ø 38 at 90°
bend Ø 38 at 45°
wall cover rose Ø 60
wall cover rose Ø 38
lead tile

37310101 **350,00**

Horizontal coaxial drain kit A_GTF 220 ÷ 800 the standard kit is 1 meter and contains:



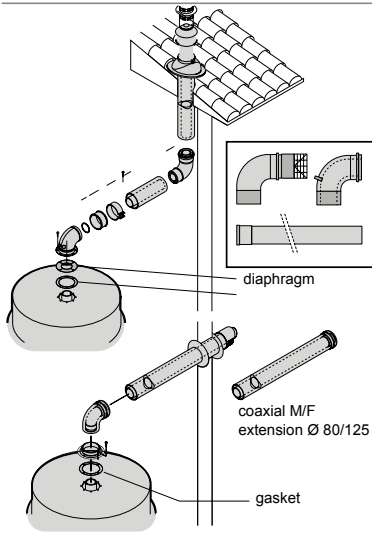
horizontal coaxial drain kit
A_GTF 220/300/400/500/800
the standard kit is 1 meter and contains:
- n. 1 coaxial pipe Ø 60/100 with terminal
- n.1 90° flanged bend Ø 60/100 flanged
- n. 2 wall cover rosettes Ø 100
- n. 1 clamp with gasket Ø 100
Max length without direction changes = 3 m

37310102 **210,00**

AGTF SOL

Floor standing storage gas water heater with sealed chamber forced draft with electronic ignition with additional exchanger for solar thermal

Accessories AGTF SOL



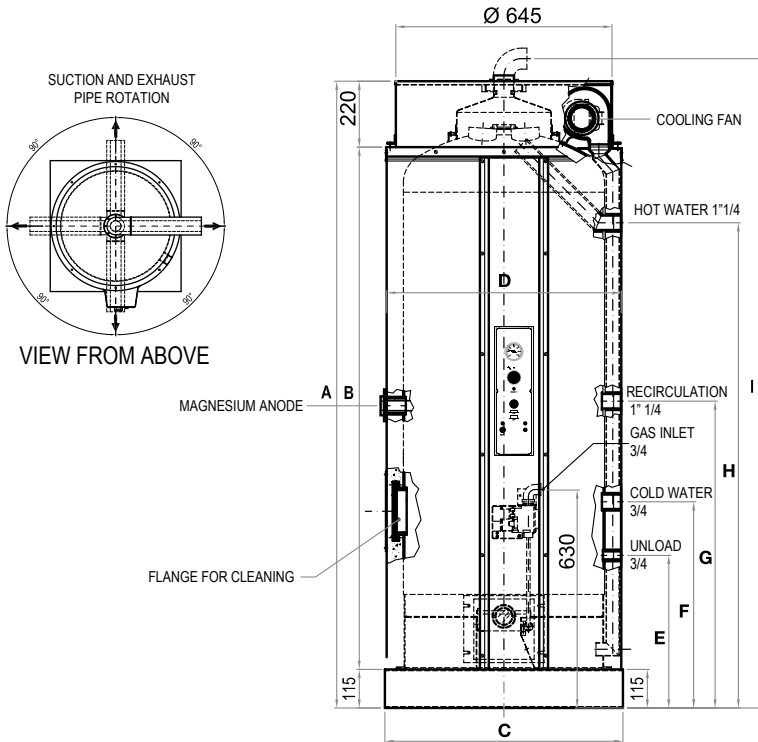
vertical drain kit AGTF SOL 220 + 800 the standard kit is 1 meter long and contains:
- n. 1 vertical terminal Ø 60/100 of 1 m - n.
1 clamp with gasket Ø 100
Max length without direction changes = 3 m

coaxial bend Ø 60/100 at 90 ° not flanged
coaxial extension Ø 60/100 at 90 ° from 1 m
extension Ø 80 at 90 ° from 1 m
90 ° coaxial bend Ø 60/100 flanged air
diaphragm Ø 71
air diaphragm Ø 74
air diaphragm Ø 80 included
bend Ø 80 at 90 °

coaxial wall exhaust kit AGTF SOL 500/800 - 2 m
coaxial intake Ø 80/125
- coaxial M / F extension Ø 80/125

| Code | € |
|-----------------|---------------|
| 37310103 | 430,00 |
| 37310104 | 170,00 |
| 37310105 | 190,00 |
| 37310106 | 130,00 |
| 37310107 | 160,00 |
| 37310108 | 50,00 |
| 37310109 | 50,00 |
| 37310110 | 50,00 |
| 37310111 | 80,00 |
| 37310112 | 280,00 |
| 37310113 | 180,00 |

Dimensions AGTF SOL



| Mod. | 220 | 300 | 400 | 500 | 800 |
|------|------|------|------|------|------|
| A | 1600 | 1950 | 1766 | 2036 | 2146 |
| B | 1265 | 1615 | 1430 | 1700 | 1810 |
| C | 710 | 710 | 810 | 810 | 1010 |
| D | 700 | 700 | 800 | 800 | 1000 |
| E | 480 | 480 | 460 | 460 | 545 |
| F | 645 | 645 | 625 | 625 | 645 |
| G | 890 | 950 | 1026 | 1026 | 990 |
| H | 1170 | 1460 | 1325 | 1595 | 1604 |
| I | 1700 | 2050 | 1866 | 2136 | 2246 |

Values in mm

Water heater technical data table AGTF SOL 220+800

| DESCRIPTION | U.M. | AGTF SOL 220 | AGTF SOL 300 | AGTF SOL 400 | AGTF SOL 500 | AGTF SOL 800 |
|-----------------------------|----------------------------------|----------------|--------------|--------------|--------------|--------------|
| Thermal range | kW | 30,00 | 34,00 | 34,00 | 34,00 | 34,00 |
| Thermal power | kW | 26,80 | 30,60 | 30,60 | 30,60 | 30,60 |
| Gas flow | Methane G20 m ³ /h | 3,17 | 3,60 | 3,60 | 3,60 | 3,60 |
| Power max | Buthane G30 kg/h | 2,13 | 2,50 | 2,50 | 2,50 | 2,50 |
| 15 °C - 1.013 mbar | Propane G31 kg/h | 2,13 | 2,50 | 2,50 | 2,50 | 2,50 |
| Warm-up time 45 °C | min. | 15 | 17 | 23 | 29 | 46 |
| Continuous withdrawal 45 °C | l/h | 921 | 1052 | 1052 | 1052 | 1052 |
| Maximum water pressure | bar | 6 | | | | |
| Hydraulic connections | | 1" 1/4 | | | | |
| Gas supply diameter | | 1/2" | | | | |
| Smoke outlet diameter | mm | coaxial 60/100 | | | | |
| Power supply | | 230V/1/50Hz | | | | |
| Empty weight | Kg | 142 | 166 | 177 | 207 | 300 |
| Operating weight | Kg | 354 | 476 | 587 | 717 | 1110 |

ASF V - ADSF V

High-performance glass-ceramic boilers with fixed coil



SOLAR THERMAL
COMBI-BOILER



BIOMASS



DHW

Technical and construction features







The high-performance boilers of the ASF V - ADSF V series are suitable for installation in civil and industrial systems for the production of domestic hot water. They allow to obtain high heat exchange yields with consistent hourly production of domestic hot water. Particularly suitable, thanks to the considerable exchange surface of the exchanger, to be used with solar panel primary circuit. Thanks to the internal protective vitrification treatment, it is possible to accumulate water up to a temperature of 95 ° C.

ASF V has a fixed coil exchanger contained within these boilers, sized to cope with high consumption peaks, and is designed with the last turns facing down to heat the entire volume of water available in the tank.

ADSF V are equipped with double fixed coil and have been designed for the exploitation of two energy sources: the lower coil exchanger, normally powered by solar panels and is designed with the last turns facing downwards to heat the entire volume of water available in the tank, thus avoiding any legionella problems; the upper coil exchanger is usually used as a solar integration and fed with the boiler.

| Model | Code | € |
|---|----------|----------|
| Fixed serpentine glass-ceramic boiler ASF V 150 | 37303011 | 960,00 |
| Fixed serpentine glass-ceramic boiler ASF V 200 | 37303001 | 1.070,00 |
| Fixed serpentine glass-ceramic boiler ASF V 300 | 37303002 | 1.240,00 |
| Fixed serpentine glass-ceramic boiler ASF V 400 | 37303003 | 1.450,00 |
| Fixed serpentine glass-ceramic boiler ASF V 500 | 37303004 | 1.600,00 |
| Fixed serpentine glass-ceramic boiler ASF V 800 | 37303006 | 2.400,00 |
| Fixed serpentine glass-ceramic boiler ASF V 1000 | 37303007 | 2.750,00 |
| Fixed serpentine glass-ceramic boiler ASF V 1500 | 37303008 | 4.430,00 |
| Fixed serpentine glass-ceramic boiler ASF V 2000 | 37303010 | 6.760,00 |
| Glass-ceramic boiler with double fixed coil ADSF V 200 | 37303100 | 1.140,00 |
| Glass-ceramic boiler with double fixed coil ADSF V 300 | 37303101 | 1.310,00 |
| Glass-ceramic boiler with double fixed coil ADSF V 400 | 37303102 | 1.630,00 |
| Glass-ceramic boiler with double fixed coil ADSF V 500 | 37303103 | 1.730,00 |
| Glass-ceramic boiler with double fixed coil ADSF V 800 | 37303104 | 2.600,00 |
| Glass-ceramic boiler with double fixed coil ADSF V 1000 | 37303105 | 3.050,00 |
| Glass-ceramic boiler with double fixed coil ADSF V 1500 | 37303106 | 5.210,00 |
| Glass-ceramic boiler with double fixed coil ADSF V 2000 | 37303107 | 6.948,00 |

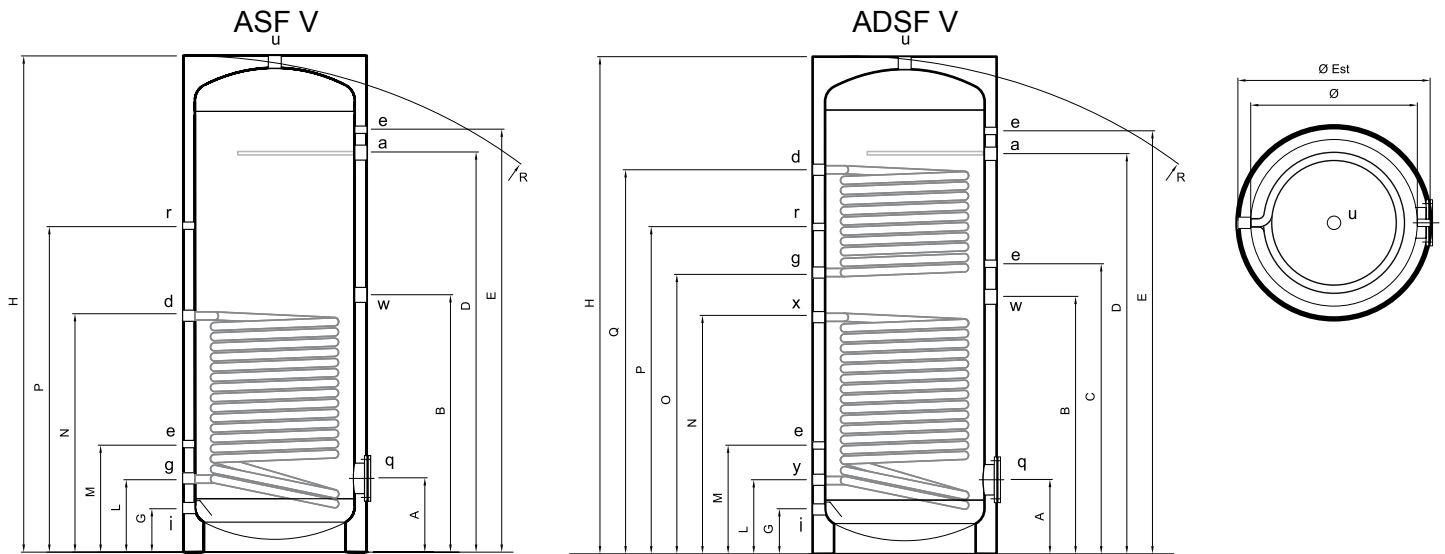
Accessories ASF V - ADSF V

| | | | | |
|---|---|--|----------------------------------|---------------------------|
|  | Impressed current electronic anode | mod. till 1000 l mod. from 1500 l to 2000 l | 75060401 75060399 | 182,00 218,00 |
|  | Electronic control unit | | 75060402 | 372,00 |
|  | Hot water thermostat with 1/2 "L 100 mm well | | 75060403 | 60,00 |
|  | Hot water thermometer with 1/2 "L 100 mm well | | 75060404 | 18,00 |
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W mod. 2000 W mod. 3000 W | 75050102 75050103 75060300 | 90,00 140,00 150,00 |
|  | 400 V three-phase integrative electrical resistance degree of protection IP 65 | mod. 6000 W mod. 9000 W | 75050105 75050106 | 300,00 320,00 |

ASF V - ADSF V

High-performance glass-ceramic boilers with fixed coil

Technical features ASF V - ADSF V



Legend

- a Magnesium anode
- d Boiler flow and Thermometer-probe
- g Boiler return
- i Domestic cold water inlet
- q Sanitary inspection flange
- r Recirculation
- u Domestic hot water outlet
- w Arrangement for electric heater flow
- x Solar flow
- y Solar return

Connection (gas)

| L | a | e | d g x y | i | u | r | w | q (mm) |
|------|-------|------|---------|-------|-------|------|-------|---------|
| 150 | 1"1/4 | 1/2" | 1" | 1" | 1"1/4 | 1/2" | 1"1/2 | 120/180 |
| 200 | 1"1/4 | 1/2" | 1" | 1" | 1"1/4 | 1/2" | 1"1/2 | 120/180 |
| 300 | 1"1/4 | 1/2" | 1" | 1" | 1"1/4 | 1/2" | 1"1/2 | 120/180 |
| 400 | 1"1/4 | 1/2" | 1" | 1" | 1"1/4 | 1/2" | 1"1/2 | 120/180 |
| 500 | 1"1/4 | 1/2" | 1" | 1" | 1"1/4 | 1/2" | 1"1/2 | 120/180 |
| 800 | 1"1/4 | 1/2" | 1" | 1"1/2 | 1"1/2 | 1" | 1"1/2 | 120/180 |
| 1000 | 1"1/4 | 1/2" | 1" | 1"1/2 | 1"1/2 | 1" | 1"1/2 | 120/180 |
| 1500 | 1"1/4 | 1/2" | 1" | 2" | 2" | 1" | 1"1/2 | 220/290 |
| 2000 | 1"1/4 | 1/2" | 1" | 2" | 2" | 1" | 1"1/2 | 220/290 |

| L | Dimensions (mm) | | | | | Quote (mm) | | | | | | | | | | | Exchanger m ² | | Weight Kg |
|------|-----------------|------|------|-------|-----|------------|------|------|------|-----|-----|-----|------|------|------|------|--------------------------|------|-----------|
| | I | Ø | H | Ø Est | R | A | B | C | D | E | G | L | M | N | O | P | Q | INF | |
| 150 | 450 | 1065 | 550 | 1210 | 260 | 560 | - | 730 | 840 | 110 | 190 | 300 | 530 | - | 730 | - | 0,85 | - | 54 |
| 200 | 450 | 1320 | 550 | 1440 | 260 | 690 | 850 | 980 | 1090 | 110 | 190 | 340 | 630 | 740 | 840 | 950 | 0,90 | 0,50 | 70 |
| 300 | 500 | 1610 | 600 | 1730 | 300 | 845 | 1050 | 1250 | 1365 | 120 | 230 | 405 | 790 | 900 | 1050 | 1200 | 1,30 | 0,85 | 93 |
| 400 | 650 | 1410 | 750 | 1610 | 310 | 745 | 900 | 1030 | 1140 | 145 | 240 | 375 | 690 | 800 | 900 | 1000 | 1,60 | 0,90 | 109 |
| 500 | 650 | 1660 | 750 | 1835 | 310 | 895 | 1095 | 1280 | 1390 | 145 | 240 | 395 | 840 | 950 | 1095 | 1250 | 1,95 | 1,10 | 125 |
| 800 | 790 | 1750 | 1050 | 1745 | 345 | 940 | 1095 | 1250 | 1425 | 150 | 275 | 425 | 870 | 1010 | 1200 | 1385 | 2,70 | 1,50 | 195 |
| 1000 | 790 | 2100 | 1050 | 2095 | 345 | 1090 | 1280 | 1450 | 1770 | 150 | 275 | 430 | 1020 | 1160 | 1400 | 1635 | 3,00 | 1,90 | 229 |
| 1500 | 1000 | 2115 | 1260 | 2145 | 475 | 1180 | 1345 | 1490 | 1740 | 230 | 375 | 530 | 1110 | 1250 | 1460 | 1675 | 3,70 | 2,30 | 351 |
| 2000 | 1100 | 2380 | 1360 | 2465 | 505 | 1340 | 1545 | 1750 | 1955 | 255 | 385 | 540 | 1270 | 1410 | 1675 | 1935 | 4,80 | 3,00 | 488 |

| | |
|----------------------------|--|
| Materials | Glass porcelain (S 235 Jr) |
| Glass porcelain | Internal protective treatment with inorganic food enamelling complying with DIN 4753.3 |
| Treat. external protective | Painted with anti-rust and industrial enamel |
| Exercise accumulation | 8 bar / 95°C |
| Exchanger exercise | 10 bar / 95°C |
| Insulation | Flexible insulation in polyester + PVC fire resistance class B2 (DIN 4102) |
| Cathodic protection | Magnesium anode |

AWP1 V - AWP2 V

Glass-lined boilers with increased exchangers for DHW production from HP



SOLAR THERMAL
COMBINATION



BIOMASS



DHW

Technical and construction features

The high-performance boilers of the AWP1 V and AWP2 V series are suitable for installation in civil and industrial systems for the production of domestic hot water.

They allow to obtain high heat exchange yields with consistent hourly production of domestic hot water.

The AWP1 V storage tank is equipped with a single internal fixed exchanger with a larger surface, suitable for being powered by heat pumps. The AWP2 V boiler, in addition to the increased exchanger dedicated to the heat pump, is equipped with a second fixed lower exchanger for solar thermal integration.

Both boilers are built in carbon steel (S 235 Jr) glass-porcelain with internal protective treatment.







The inorganic food enamelling is in accordance with DIN 4753.3. The external protective treatment is made with anti-rust paint and industrial enamel.

The insulation is in rigid polyurethane with sky coating.

The boilers are equipped as standard with cathodic protection with a magnesium anode.

| Model | Code | € |
|--|-----------------|-----------------|
| Glass-ceramic boiler for HP AWP1 V 300 | 37304000 | 1.940,00 |
| Glass-ceramic boiler for HP AWP1 V 400 | 37304001 | 2.440,00 |
| Glass-ceramic boiler for HP AWP1 V 500 | 37304002 | 2.670,00 |
| Glass-ceramic boiler for HP AWP1 V 600 | 37304003 | 3.060,00 |
| Glass-ceramic boiler for HP AWP1 V 800 | 37304004 | 3.770,00 |
| Glass-ceramic boiler for HP AWP1 V 1000 | 37304005 | 4.130,00 |
| Glass-ceramic boiler for HP AWP1 V 1500 | 37304006 | 6.710,00 |
| Glass-ceramic boiler for HP AWP2 V 300 | 37304298 | 2.170,00 |
| Glass-ceramic boiler for HP AWP2 V 400 | 37304299 | 2.480,00 |
| Glass-ceramic boiler for HP AWP2 V 500 | 37304300 | 3.000,00 |
| Glass-ceramic boiler for HP AWP2 V 600 | 37304301 | 3.710,00 |
| Glass-ceramic boiler for HP AWP2 V 800 | 37304302 | 4.150,00 |
| Glass-ceramic boiler for HP AWP2 V 1000 | 37304303 | 4.840,00 |
| Glass-ceramic boiler for HP AWP2 V 1500 | 37304304 | 7.550,00 |

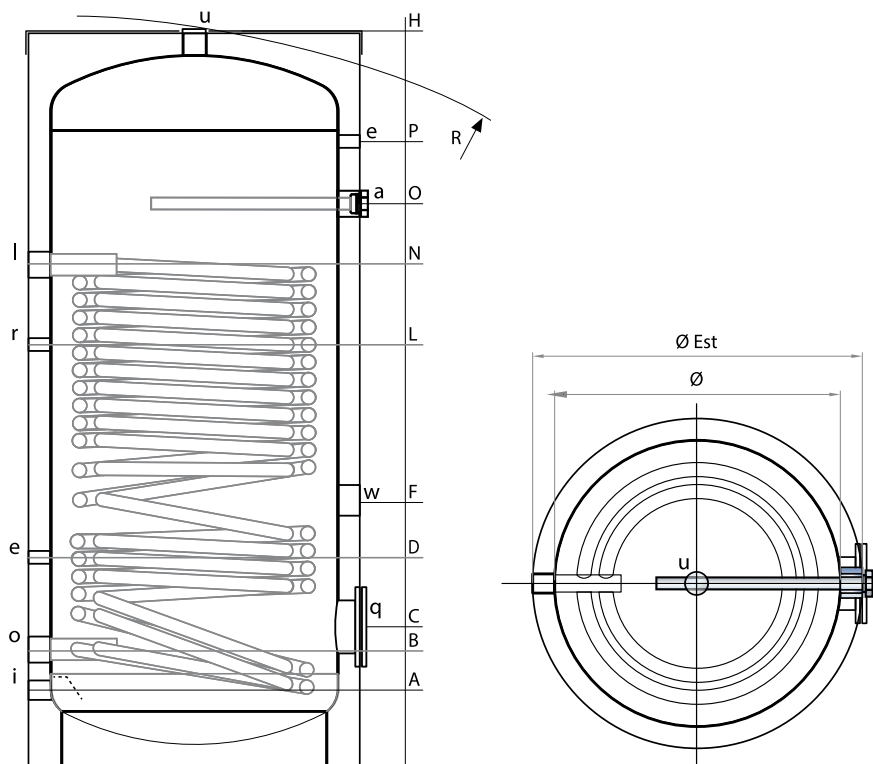
Accessories AWP1 V - AWP2 V

| | | | | |
|---|---|--|---|--|
|  | Impressed current electronic anode | mod. till 1000 l mod. from 1500 l to 2000 l | 75060401 75060399 | 182,00 218,00 |
|  | Electronic control unit | | 75060402 | 372,00 |
|  | Hot water thermostat with 1/2 "L 100 mm well | | 75060403 | 60,00 |
|  | Hot water thermometer with 1/2 "L 100 mm well | | 75060404 | 18,00 |
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W mod. 2000 W mod. 3000 W | 75050102 75050103 75060300 | 90,00 140,00 150,00 |
|  | 400 V three-phase integrative electrical resistance degree of protection IP 65 | mod. 6000 W mod. 9000 W | 75050105 75050106 | 300,00 320,00 |

AWP1 V - AWP2 V

Glass-lined boilers with increased exchangers for DHW production from HP

Technical features AWP1 V



Legend

- a** Magnesium anode
- e** Thermometer-probe
- i** Domestic cold water inlet
- l** Heat pump delivery
- o** Heat pump return
- q** Sanitary inspection flange
- r** Recirculation
- u** Domestic hot water outlet
- x** Solar flow
- w** Electric heater predisposition

Gas connections AWP1 V

| L | a | o | e | r | i | u | w | q (mm) |
|------|-------|------|------|------|-------|-------|-------|---------|
| 300 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1" | 1"1/4 | 1"1/2 | 120/180 |
| 400 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1" | 1"1/4 | 1"1/2 | 120/180 |
| 500 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1" | 1"1/4 | 1"1/2 | 120/180 |
| 600 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1" | 1"1/4 | 1"1/2 | 120/180 |
| 800 | 1"1/4 | 1/2" | 1" | 1" | 1"1/2 | 1"1/2 | 1"1/2 | 120/180 |
| 1000 | 1"1/4 | 1/2" | 1" | 1" | 1"1/2 | 1"1/2 | 1"1/2 | 120/180 |
| 1500 | 1"1/4 | 1/2" | 1" | 1" | 2" | 2" | 1"1/2 | 220/290 |

Technical data table AWP1 V

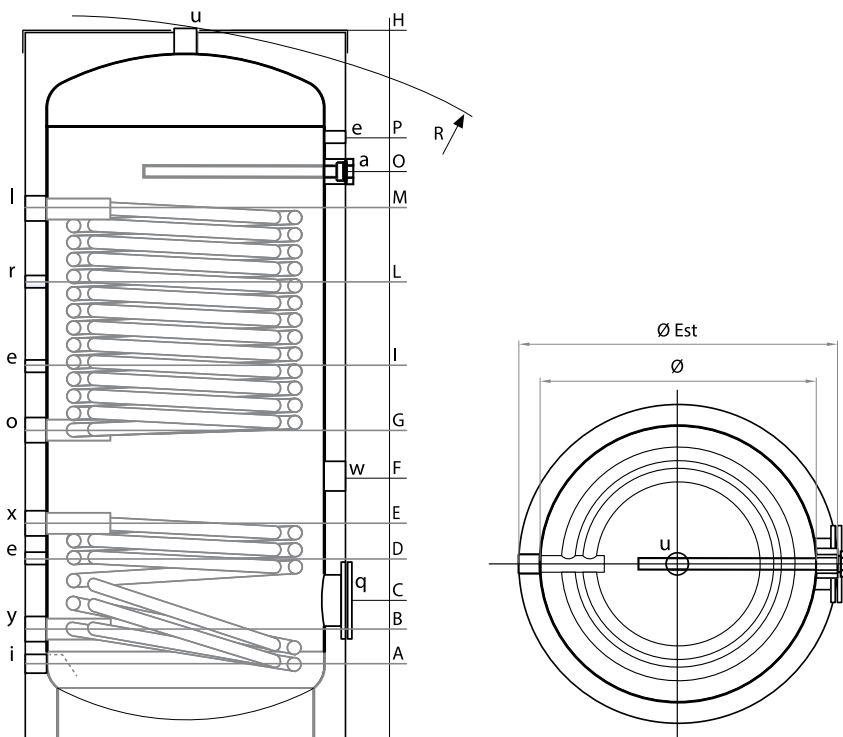
| L | Dimensions (mm) | | | | Quote (mm) | | | | | | | | Exchanger m ² | Weight Kg |
|------|-----------------|------|------|-------|------------|-----|-----|-----|------|------|------|------|-----------------------------|--------------|
| | I | Ø | H | Ø Est | A | B | C | D | F | L | N | O | | |
| 300 | 500 | 1580 | 600 | 120 | 210 | 300 | 320 | 320 | 925 | 1110 | 1160 | 1365 | 3,50 | 110 |
| 400 | 650 | 1380 | 750 | 145 | 240 | 310 | 340 | 340 | 870 | 1005 | 1030 | 1140 | 4,50 | 133 |
| 500 | 650 | 1630 | 750 | 145 | 240 | 310 | 350 | 350 | 1020 | 1250 | 1280 | 1390 | 5,70 | 159 |
| 600 | 650 | 1880 | 750 | 145 | 240 | 310 | 390 | 390 | 1070 | 1250 | 1510 | 1640 | 5,70 | 167 |
| 800 | 790 | 1735 | 990 | 150 | 275 | 345 | 405 | 405 | 1000 | 1170 | 1310 | 1425 | 6,00 | 215 |
| 1000 | 790 | 2080 | 990 | 150 | 275 | 345 | 475 | 475 | 1120 | 1275 | 1615 | 1770 | 6,00 | 251 |
| 1500 | 1000 | 2115 | 1200 | 230 | 345 | 475 | 535 | 535 | 1165 | 1325 | 1600 | 1740 | 7,50 | 383 |

| | |
|----------------------------|---|
| Materials | Glass porcelain (S 235 Jr) |
| Glass porcelain | Internal protective treatment with inorganic food enamel complying with the standard DIN 4753.3 |
| Treat. external protective | Painted with anti-rust and industrial enamel |
| Exercise accumulation | 8 bar / 95°C |
| Exchanger exercise | 12 bar / 95°C |
| Insulation | Flexible insulation in polyester + PVC fire resistance class B2 (DIN 4102) |
| Cathodic protection | Magnesium anode |

AWP1 V - AWP2 V

Glass-lined boilers with increased exchangers for DHW production from HP

Technical features AWP2 V



Legend

- a** Magnesium anode
- e** Thermometer-probe
- i** Domestic cold water inlet
- l** Heat pump delivery
- o** Heat pump return
- q** Sanitary inspection flange
- r** Recirculation
- u** Domestic hot water outlet
- x** Electric heater predisposition
- w** Solar flow
- y** Solar return

Gas connections AWP2 V

| L | a l o x y | e | r | i | u | w | q (mm) |
|------|-----------|------|------|-------|-------|-------|---------|
| 300 | 1"1/4 | 1/2" | 1/2" | 1" | 1"1/4 | 1"1/2 | 120/180 |
| 400 | 1"1/4 | 1/2" | 1/2" | 1" | 1"1/4 | 1"1/2 | 120/180 |
| 500 | 1"1/4 | 1/2" | 1/2" | 1" | 1"1/4 | 1"1/2 | 120/180 |
| 600 | 1"1/4 | 1/2" | 1/2" | 1" | 1"1/4 | 1"1/2 | 120/180 |
| 800 | 1"1/4 | 1/2" | 1" | 1"1/2 | 1"1/2 | 1"1/2 | 120/180 |
| 1000 | 1"1/4 | 1/2" | 1" | 1"1/2 | 1"1/2 | 1"1/2 | 120/180 |
| 1500 | 1"1/4 | 1/2" | 1" | 2" | 2" | 1"1/2 | 220/290 |

Technical data table AWP2 V

| L | (Dimensions mm) | | | | Quote (mm) | | | | | | | | | | | | Exchanger | | Weight Kg |
|------|-----------------|------|------|-------|------------|-----|-----|-----|-----|-----|-----|------|------|------|------|------|-----------|---------------------|-----------|
| | I | Ø | H | Ø Est | R | A | B | C | D | E | F | G | I | L | M | O | P | Inf. m ² | |
| 300 | 500 | 1610 | 600 | 1730 | 120 | 210 | 300 | 320 | 430 | 495 | 560 | 745 | 925 | 1110 | 1160 | 1365 | 1,00 | 2,40 | 108 |
| 400 | 650 | 1410 | 750 | 1610 | 145 | 240 | 310 | 340 | 440 | 525 | 565 | 720 | 870 | 1005 | 1030 | 1140 | 1,20 | 3,00 | 128 |
| 500 | 650 | 1660 | 750 | 1835 | 145 | 240 | 310 | 350 | 460 | 570 | 610 | 820 | 1020 | 1250 | 1280 | 1390 | 1,50 | 4,20 | 159 |
| 600 | 650 | 1910 | 750 | 2065 | 145 | 240 | 310 | 390 | 540 | 605 | 670 | 870 | 1070 | 1470 | 1510 | 1640 | 2,00 | 5,00 | 188 |
| 800 | 790 | 1750 | 990 | 1745 | 150 | 275 | 345 | 405 | 535 | 620 | 665 | 835 | 1000 | 1270 | 1310 | 1425 | 2,00 | 5,20 | 234 |
| 1000 | 790 | 2110 | 990 | 2095 | 150 | 275 | 345 | 475 | 675 | 750 | 825 | 975 | 1120 | 1575 | 1615 | 1770 | 3,30 | 6,00 | 285 |
| 1500 | 1000 | 2115 | 1200 | 2145 | 230 | 345 | 475 | 535 | 730 | 805 | 880 | 1025 | 1165 | 1560 | 1600 | 1740 | 3,60 | 7,50 | 417 |

| | |
|----------------------------|---|
| Materials | Glass porcelain (S 235 Jr) |
| Glass porcelain | Internal protective treatment: inorganic food enamelling complying with the standard DIN 4753.3 |
| Treat. External protective | Painted with anti-rust and industrial enamel |
| Boiler exercise | 8 bar / 95°C |
| Exchanger exercise | 12 bar / 95°C |
| Insulation | Flexible insulation in polyester + PVC fire resistance class B2 (DIN 4102) |
| Cathodic protection | Magnesium Anode |







GHIBLI 4 - 5 - 6 ELITE

Gas-fired convective air heaters with hermetically sealed combustion chamber and exhaust fan ejector



| Model | Heat Input kW | Heat Output kW | Code | € |
|---|------------------|-------------------|-----------------|-----------------|
| GHIBLI 4 ELITE electronic | 3,72 | 3,35 | 35630000 | 1.080,00 |
| GHIBLI 5 ELITE electronic 2 speeds | 4,83 | 4,37 | 35680000 | 1.210,00 |
| GHIBLI 6 ELITE electronic 2 speeds | 5,52 | 4,91 | 35730000 | 1.290,00 |

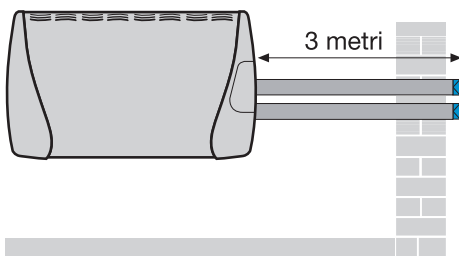
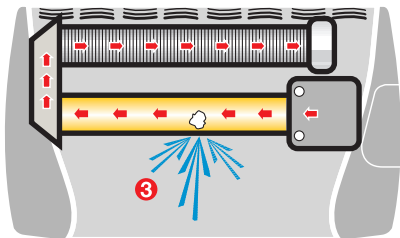
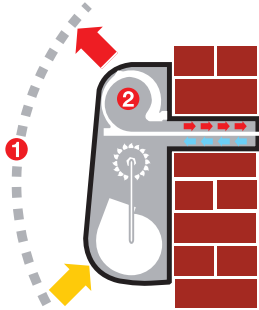
Accessories GHIBLI 4 - 5 - 6 - ELITE

| | | | | |
|---|--|-------|-----------------|---------------|
|  | intake and exhaust duct completed with clamp and gasket Ø 65 mm length 100 cm | | 35550060 | 60,00 |
|  | digital weekly clock programmer kit equipped with accessories for installation and instruction manual for Ghibli 4-5-6 Elite | | 35639900 | 110,00 |
|  | aluminium extension Ø 60 mm Ø 60 mm | m 0,5 | 37500045 | 20,00 |
| | | m 1 | 37500050 | 30,00 |
|  | Ø 60 mm elbow 90° completed with band and gasket | | 37800020 | 40,00 |
|  | ducts splitter with two terminals for Ø 60 mm pipescod. | | 35600070 | 170,00 |
|  | Weekly programmable thermostat with integrated GSM | | 36205222 | 550,00 |

GHIBLI 4 - 5 - 6 ELITE

Gas-fired convective air heaters with hermetically sealed combustion chamber and exhaust fan ejector

The advantages of GHIBLI 4-5-6 ELITE



ELITE CONSTRUCTION

The exchanger has special wings to increase the exchange. The special design of the burner allows a lower value of pollutant emissions of CO and NOx. The geometry of the shell allows you to have a contact with the outside temperatures (even accidentally) in line with the most stringent regulations. The burner chamber is realized entirely from steel with treatment of nickel; this characteristic makes the gas radiator Elite Ghibli extremely resistant during the time.

ELITE SECURITY

The special steel combustion chamber is completely sealed in depression. The fan is under the combustion circuit. These elements give the extreme safety of the unit.

- 1) Sealed combustion circuit respect to the environment
- 2) Circuit in depression With respect to the environment
- 3) The combustion circuit, thanks to the fan smoke extraction located upstream, is constantly in depression. In this way, any deterioration of the seal of the circuit (due solely to abnormal operating conditions) can never cause release of unburned gas or toxin.

ELITE AESTHETICS

The personalized design makes the gas radiator ELITE GHIBLI elegant and suitable to any furniture.

ELITE DIMENSIONS

The dimensions are the most compact ever among the products on the market. The reduced height allows easy installation under the window.

ELITE AND COMFORT

Through the use of fans with high air flow with reduced number of speeds, you get a comfortable air outlet temperature and a big silence, without the danger of getting burned if you touch accidentally covering exterior shell.

Emission of hot air with low thermal heads

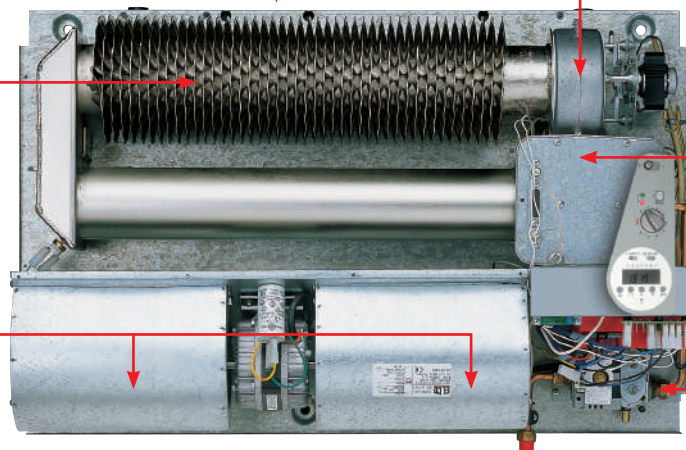
Steel finned exchanger with high thermal efficiency

Two speed centrifugal fan assembly

Special combustion circuit: a slight vacuum with respect to the installation area is achieved by the fume extractor located downstream of the exchanger

L'unico ad avere I bruciatore brevettato a sviluppo di fiamma assiale a basso NOx

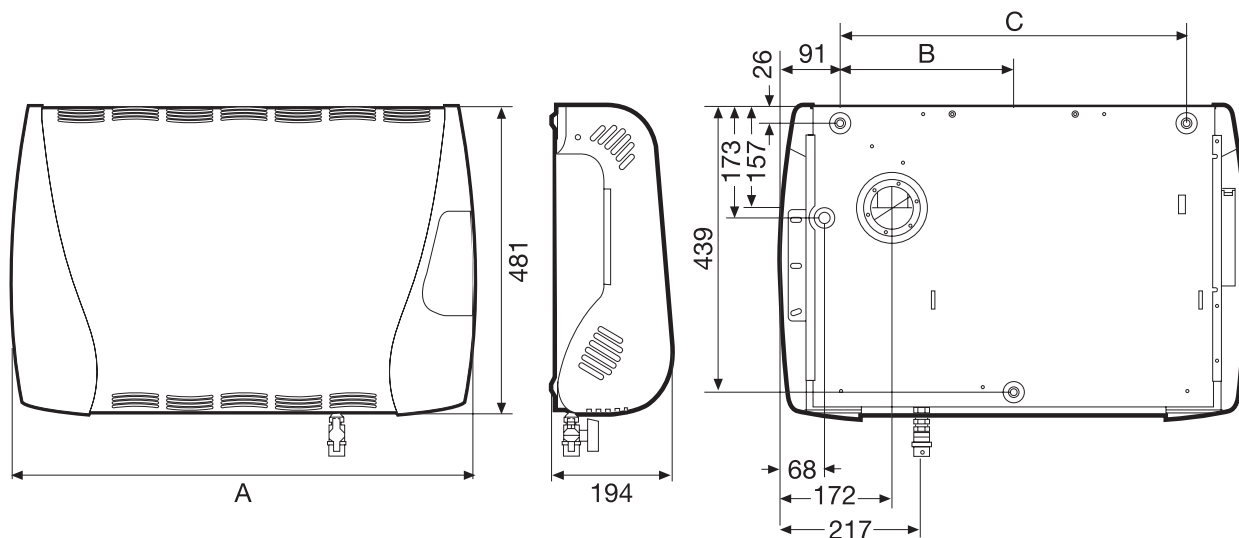
Dispositivi di comando e controllo elettronici



GHIBLI 4 - 5 - 6 ELITE

Gas-fired convective air heaters with hermetically sealed combustion chamber and exhaust fan ejector

Dimensions GHIBLI 4-5-6 ELITE



| Model | A | B | C | Aspiration/ Exhaust | Gas |
|----------------|-----|-----|-----|---------------------|------|
| | mm | mm | mm | | |
| GHIBLI 4 ELITE | 717 | 267 | 534 | 65 | 3/8" |
| GHIBLI 5 ELITE | 807 | 366 | 624 | 65 | 3/8" |
| GHIBLI 6 ELITE | 807 | 366 | 624 | 65 | 3/8" |

Technical datasheet GHIBLI 4-5-6 ELITE

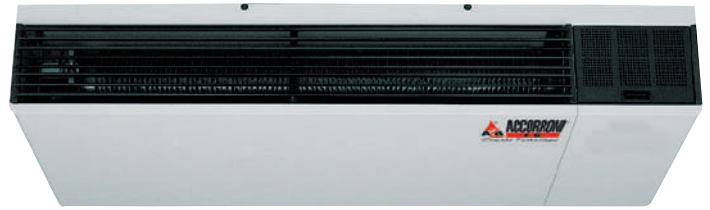
| Descrizione | U.M. | GHIBLI 4 ELITE | GHIBLI 5 ELITE | GHIBLI 6 ELITE | |
|---|-------------------------|-------------------|----------------|----------------|-----------|
| Heat output | kW | 3,35 | 4,37 | 4,91 | |
| Gas flow rate (15 °C - 1.013 mbar) | <i>Methane G20</i> | m ³ /h | 0,39 | 0,51 | 0,58 |
| | <i>Butane G30</i> | kg/h | 0,29 | 0,38 | 0,44 |
| | <i>Propane G31</i> | kg/h | 0,29 | 0,37 | 0,43 |
| Gas pressure at burner (15 °C-1.013 mbar) | <i>G20 p 20 mbar</i> | mbar | 11,5 | 11,5 | 11,5 |
| | <i>G30 p 28-30 mbar</i> | mbar | 27,8/29,8 | 27,7/29,8 | 27,7/29,8 |
| | <i>G31 p 37 mbar</i> | mbar | 36,5 | 36,5 | 36,5 |
| Gas nozzle diameter | <i>G20</i> | mm/100 | 170 | 190 | 205 |
| | <i>G30/G31</i> | mm/100 | 100 | 110 | 115 |
| Air blowe flow rate | <i>Speed min</i> | m ³ /h | 110 | 180 | 240 |
| | <i>Speed max</i> | m ³ /h | - | 240 | 300 |
| Gas supply connection | | G 3/8" | | | |
| Air/exhaust duct diameter | mm | 65 | | | |
| Fuse | A | 2 | | | |
| Power supply | | 230V/1/50Hz | | | |
| Power input | W | 47 | 80 | 102 | |
| Sound level at 3 m | dB(A) | 29,0 | 29,5/31,5 | 31,5/33,5 | |
| Net weight | Kg | 21 | 27 | 27 | |

W - WR - WD 10

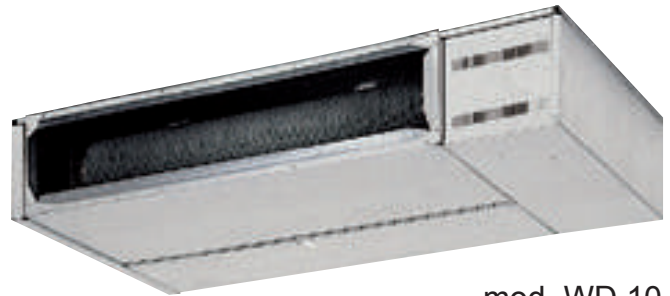
Gas-fired convective heaters air-tight units with forced draft



mod. W 10



mod. WR 10



mod. WD 10



MADE
IN ITALY



WATERPROOF
COMBUSTION
CIRCUIT WITH RESPECT
TO THE ENVIRONMENT



PATENTED
BURNER



MAXIMUM
THERMAL
COMFORT



ERP
READY

| Model | Heat Input kW | Heat Output kW | Code | € |
|--|------------------|-------------------|------------------|-----------------|
| W 10 electronic wall installation | 10,50 | 9,24 | 35250000P | 2.520,00 |
| WR 10 electronic ceiling installation | 10,50 | 9,24 | 35250000S | 2.550,00 |
| WD 10 electronic ducted | 10,50 | 9,24 | 35250000D | 2.610,00 |

Accessories GAS RADIATOR W - WR - WD 10



90 ° Ø 60 aluminum tubes and bend

| | | |
|------------|----------|-------|
| Pipe m 0,5 | 37500045 | 20,00 |
| Pipe m 1 | 37500050 | 30,00 |
| Curve 90° | 37800020 | 40,00 |



Ultra-flexible ducted double-wall polyethylene pipe
thermal - phonic, internal diameter 203 mm. Flexible duct 10 meters long

37900001 **208,00**




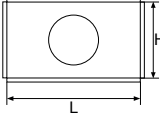

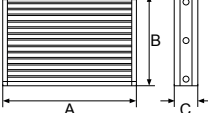

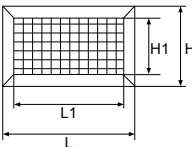

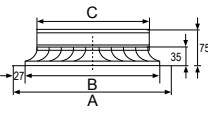

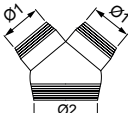

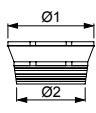


Ducted delivery plenum for flex
pipes

37060904 **480,00**

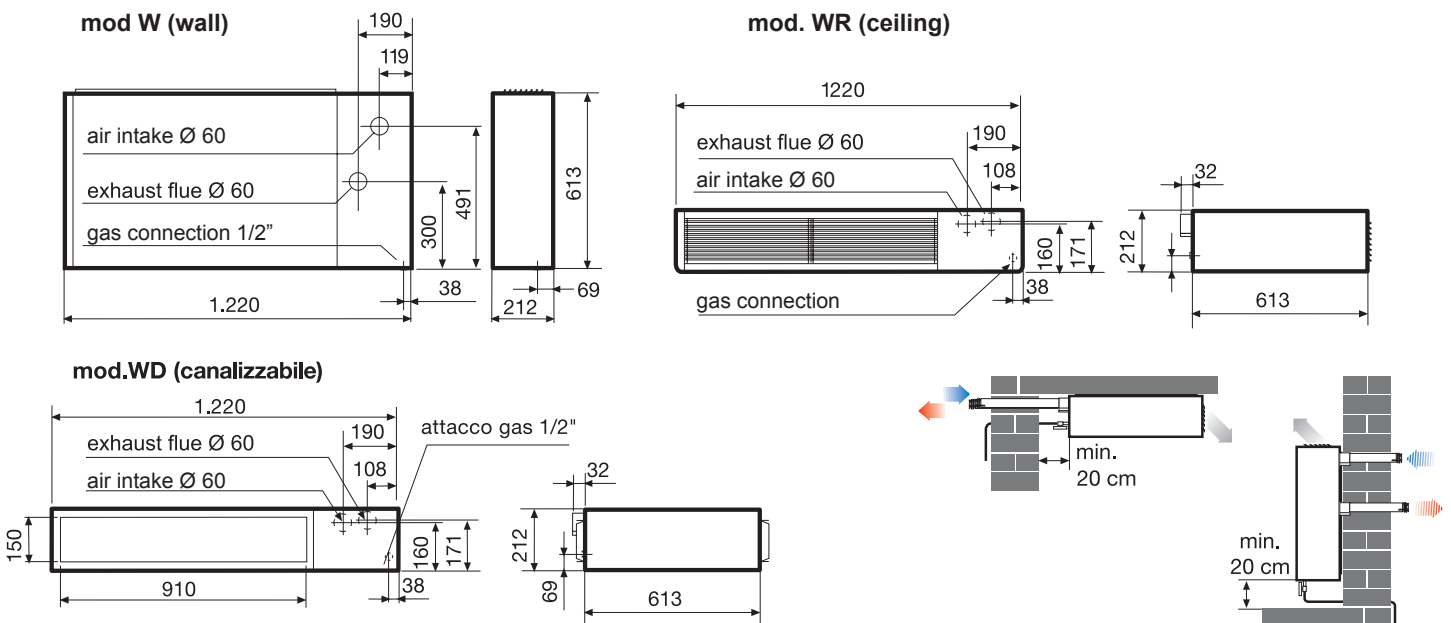
W - WR - WD 10

Gas-fired convective heaters air-tight units with forced draft

Accessories GAS RADIATORI W - WR - WD 10

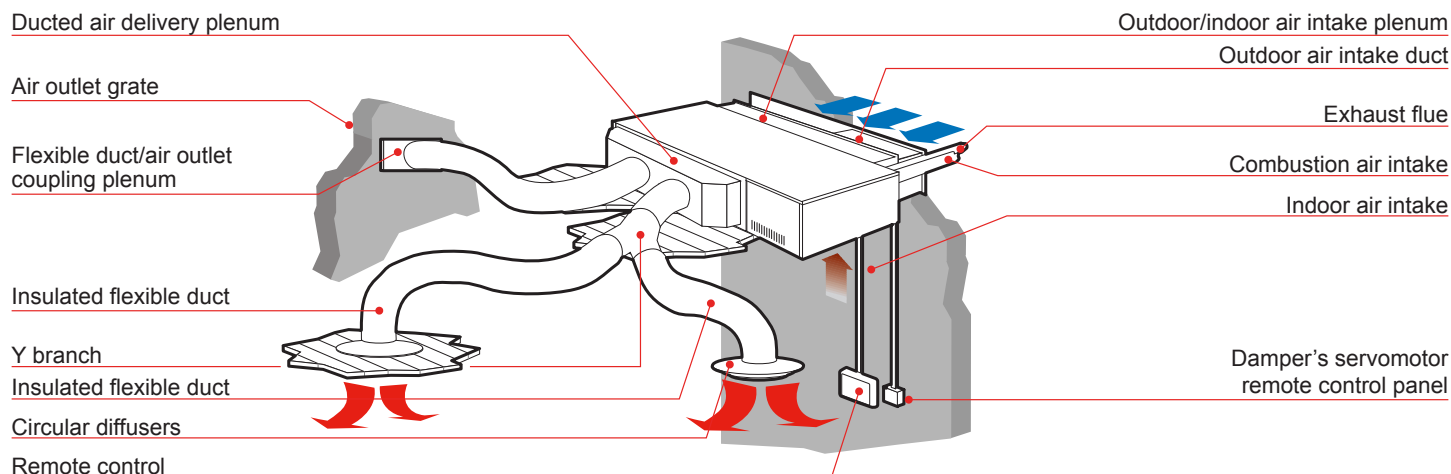
| | | Code | € |
|---|--|--|-------------------------------|
|  | Insulated plenum box designed for 3 entrances, made of galvanized sheet metal with external insulation in closed cell polyethylene 3 mm thick and equipped as standard with a circular PPS collar from 150/200 mm (L 410 mm - H 210 mm). |  | 37900069 138,00 |
|  | Calibration damper for plenum consisting of a frame and a double row of horizontal and vertical blades which are individually adjustable. (A 385 mm - B 180 mm - C 55 mm) |  | 37900073 42,00 |
|  | Calibration damper for plenum consisting of a frame and a double row of horizontal and vertical blades which are individually adjustable. (A 385 mm - B 180 mm - C 55 mm) |  | 37900070 70,00 |
|  | Circular diffuser in white painted aluminum RAL - 9016 with butterfly damper and integrated collar. (A 310 mm - B 260 mm - C 200 mm) |  | 37900027 108,00 |
|  | Insulated 3-way branch, operating temperature from 0 °C to +70 °C, material in PP and polyethylene insulating coating with aluminum coating. (Ø1 200 mm - Ø2 250 mm) |  | 37900216 110,00 |
|  | Insulated reduction for insulated 3-way derivation, operating temperature from 0 °C to +70 °C, material in PP and aluminum coating. (Ø1 250 mm - Ø2 200 mm) |  | 37900446 38,00 |
|  | Kit 10 clamps Ø 60 - 325 | | 37900017 62,00 |
|  | Flex hose connection sleeve Ø 200 | | 37900051 38,00 |

Dimensions e ingombri W - WR - WD 10

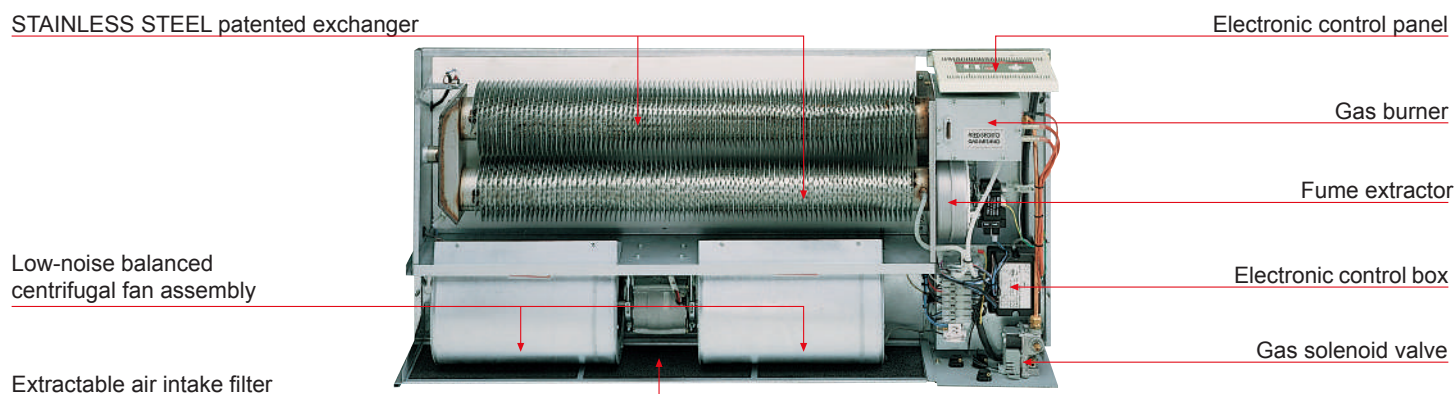


W - WR - WD 10

Gas-fired convective heaters air-tight units with forced draft



For all versions the air intake and exhaust ducts are included in the delivery, suitable for wall thickness up to 40 cm. Ducts can be extended up to maximum 3 m each but each 90° elbow reduces the maximum extension of 50 cm.



Technical datasheet W-WR-WD 10

| Descrizione | U.M. | W - WR 10 | WD 10 |
|---|------------------|-------------------|-------------|
| Heat output | kW | 9,24 | |
| Gas flow rate (15 °C - 1.013 mbar) | Methane G20 | m ³ /h | 1,11 |
| | Butane G30 | kg/h | 0,83 |
| | Propane G31 | kg/h | 0,81 |
| Gas pressure at burner (15 °C-1.013 mbar) | G20 p 20 mbar | mbar | 12,0 |
| | G30 p 28-30 mbar | mbar | 27,0 - 29,0 |
| | G31 p 37 mbar | mbar | 36,0 |
| Gas nozzle diameter | G20 | mm/100 | 280 |
| | G30/G31 | mm/100 | 170 |
| Air blower flow rate | Speed min | m ³ /h | 850 |
| | Speed max | m ³ /h | 1040 |
| Gas inlet diameter | | G 1/2" | |
| Exhaust outlet/Air inlet diameter | mm | 60 | |
| Fuse | A | 2 | |
| Power supply | | 230V/1/50Hz | |
| Power input | W | 180 | 190 |
| Noise level at 3 m | Velocità min | dB(A) | 43,0 |
| | Velocità max | dB(A) | 45,5 |
| Delivery static pressure | Pa | - | 40 |
| Net weight | Kg | 58 | 56 |

AXIAL AND DUCTABLE CONDENSING MEC MIX C

Axial and ductable condensing hot air generators with modulating premixed gas burner



mod. MEC MIX C
Axial 20/35 - 20/45



mod. MEC MIX C Duct
20/35 - 20/45 with
Centrifugal fans



mod. MEC MIX C Axial 20/70 - 20/90
with standard support shelf



mod. MEC MIX C Duct 20/70 - 20/90
with standard centrifugal fans with support bracket



MADE
IN ITALY



SYSTEM
CONDENSING



COMBUSTION
CHAMBER



ERP
READY



PERFORMANCE
104% CERTIFICAT



REMOTE CONTROL
INCLUDED

Technical and construction features

IMEC MIX C series hot air generators are an evolution of the MEC series and allow, with very high efficiency, to meet the environmental heating requirements of large production and commercial spaces.

The fuel used is natural gas or LPG.

The peculiarity of the range of air generators is that of operating with a premixed air gas burner which allows to drastically reduce, and even cancel, polluting emissions such as NOx and CO.

The new combustion system also makes it possible to significantly improve the combustion efficiency of the generators, which reaches and exceeds 100% of the fuel PCI.

MEC MIX C is a gas hot air generator that produces ecological thermal energy as a result of the clean combustion obtained from the premixed condensing burner.

The cover is made of epoxy powder coated steel sheet, guaranteeing long life. On the right side, inside a door, there are:

- the electrical panel with the relative wiring
- the microprocessor controlcard for burner premix and ionisation flame control
- the board manages the modulation of the thermal power e of the convective air flow rate only for the axial version
- the constant ratio gas valve
- the variable speed fan of the premix burner
- the ignition transformer
- the electrical terminal board for connecting the various parts and power supply

At the bottom there are the holes for the connection of the Ø 60 mm air intake and flue gas exhaust ducts (it is possible to add as an option a special splitter for the installation of the Ø 60/100 mm coaxial flue system).

Inside the device there are:

- the combustion chamber in stainless steel with welding robotic mig and heat exchangers
- the stainless steel multigas premix burner
- the ignition electrodes
- the flame detection electrode
- the flue gas collection duct, with condensate drain siphon
- the generator is complete with electronic remote control

The new axial MEC MIX C 20/70 and 20/90 condensing hot air generators and the ductable MEC MIX C 20/70 and 20/90 are supplied as standard with support shelves for wall mounting.

| Model | Thermal flow kW | Thermal Power kW | Code | € |
|--|----------------------|----------------------|-----------------|------------------|
| MEC MIX C 20/35 AXIAL CONDENSING | 19,80 ÷ 34,90 | 20,80 ÷ 34,20 | 30350000 | 4.200,00 |
| MEC MIX C 20/45 AXIAL CONDENSING | 20,00 ÷ 45,00 | 20,90 ÷ 43,40 | 30350100 | 5.200,00 |
| MEC MIX C 20/70 AXIAL CONDENSING | 39,60 ÷ 69,80 | 41,60 ÷ 68,40 | 30350200 | 8.400,00 |
| MEC MIX C 20/90 AXIAL CONDENSING | 40,00 ÷ 90,00 | 41,80 ÷ 86,90 | 30350300 | 10.600,00 |
| MEC MIX C 20/35 DUCTABLE CONDENSING | 19,80 ÷ 34,90 | 20,80 ÷ 34,20 | 30350001 | 5.240,00 |
| MEC MIX C 20/45 DUCTABLE CONDENSING | 20,00 ÷ 45,00 | 20,90 ÷ 43,40 | 30350101 | 6.100,00 |
| MEC MIX C 20/70 DUCTABLE CONDENSING | 39,60 ÷ 69,80 | 41,60 ÷ 68,40 | 30350201 | 12.000,00 |
| MEC MIX C 20/90 DUCTABLE CONDENSING | 40,00 ÷ 90,00 | 41,80 ÷ 86,90 | 30350301 | 13.100,00 |

AXIAL AND DUCTABLE CONDENSING MEC MIX C

Axial and ductable condensing hot air generators with modulating premixed gas burner

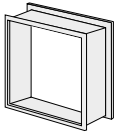
| Accessories Axial condensing and ductable MEC MIX C | | Code | € |
|---|---|---|----------------------------|
|  | <p>OUTDOOR COVERING BOX FOR INSTALLING MEC MIX OUTSIDE THE ROOM TO BE AIR CONDITIONED</p> <p>Height 100 cm Width 100 cm Depth 100 cm for mod. MEC MIX duct. 20/35 and 20/45</p> | 30322213 | 1.680,00 |
|  | Digital programmable thermostat with weekly programming wifi connectivity for remote control | 36205225 | 220,00 |
|  | Horizontal flue pipe MEC MIX Ø 60 length 1 m in PPs <i>n.2 ps MEC MIX 20/70 ax. and duct. n.2 ps MEC MIX 20/90 ax. and duct.</i> | 30351017 | 30,00 |
|  | Ø 60 horizontal air intake pipe, length 1 m in aluminum <i>n.2 ps MEC MIX 100 ax. and duct.</i> | 30351018 | 30,00 |
|  | Extension in PPs Ø 60 M / F length 1 m | 30351021 | 12,00 |
|  | Curve in PPs Ø 60 - 90° M/F | 30351025 | 10,00 |
|  | Curve in PPs Ø 60 - 45° M/F | 30351024 | 10,00 |
|  | Coaxial splitter mod. MEC MIX to convey flue gas exhaust and air intake Ø 60/100 <i>n.2 ps MEC MIX 20/70 ax. and duct. n.2 ps MEC MIX 20/90 ax. and duct.</i> | mod. MEC MIX ax. mod. MEC MIX duct. 30351026 30351027 | 100,00 105,00 |
|  | Coaxial smoke suction / discharge pipe in PPs complete with exhaust terminal and wall cover rosettes in EPDM Ø 60/100 - Length 1 m <i>n. 2 ps MEC MIX 20/70 ax. and duct. n.2 ps MEC MIX 20/90 ax. and duct.</i> | 30351015 | 40,00 |
|  | Coaxial extension in PPs Ø 60/100 M / F length 1 m | 30403002 | 28,00 |
|  | Coaxial curve in PPs Ø 60/100 - 90° M/F | 30403004 | 30,00 |
|  | coaxial curve in PPs Ø 60/100 - 45° | 30403003 | 30,00 |
|  | Coaxial roof terminal in PPs Ø 60/100 | 30403014 | 118,00 |
|  | Lead base inclined fandale | 30351010 | 70,00 |
|  | Support bracket MEC MIX 20/35 and 20/45 axial and ductable | mod. inside installation mod. outdoor installation 30350090 30350091 | 120,00 150,00 |
|  | Double-order air delivery grille of adjustable fins | mod. ax. inside install. 20/35 - 20/45 mod. duct. outdoor install. 20/35 - 20/45 mod. ax. inside install. 20/70 - 20/90 30322211 30322214 30322212 | 220,00 260,00 440,00 |

AXIAL AND DUCTABLE CONDENSING MEC MIX C

Axial and ductable condensing hot air generators with modulating premixed gas burner

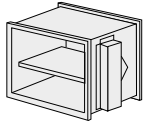
Accessories Axial and ductable MEC MIX C condensing

Code €



Connection duct for air delivery
MEC MIX C 20/35 and 20/45 ductable for
outdoor installation

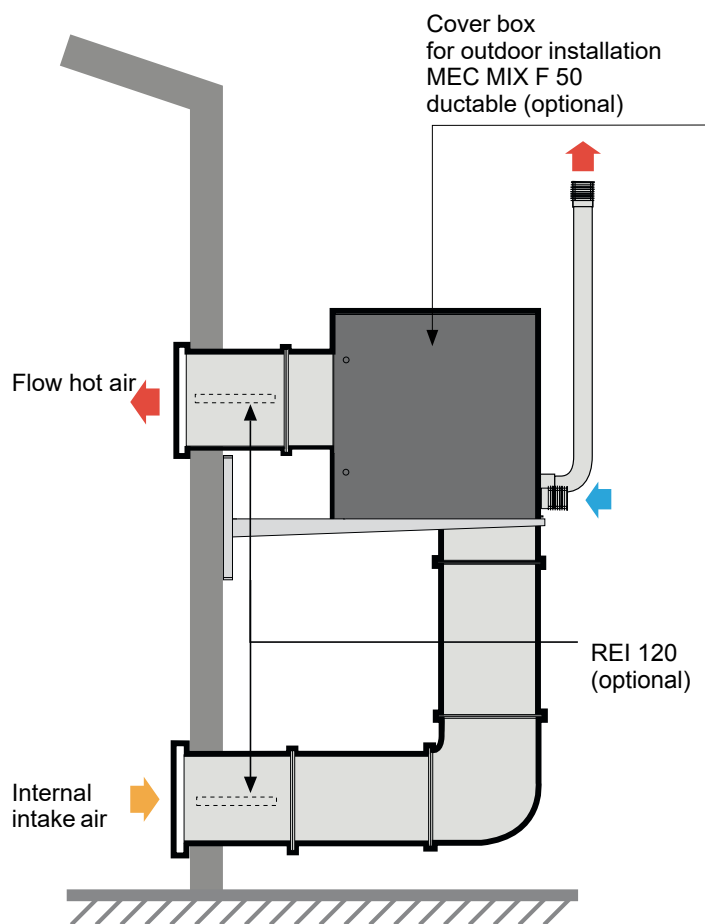
30322224 150,00



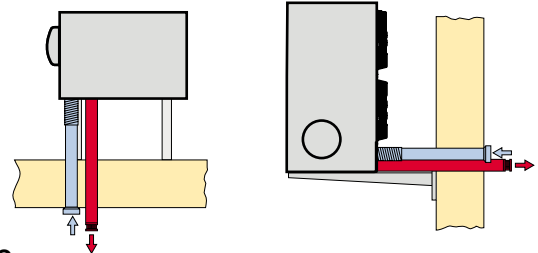
REI 120 fire damper
MEC MIX C 20/35 and 20/45 ductable for
outdoor installation

30322208 840,00

Example of MEC MIX C ductable outdoor installation



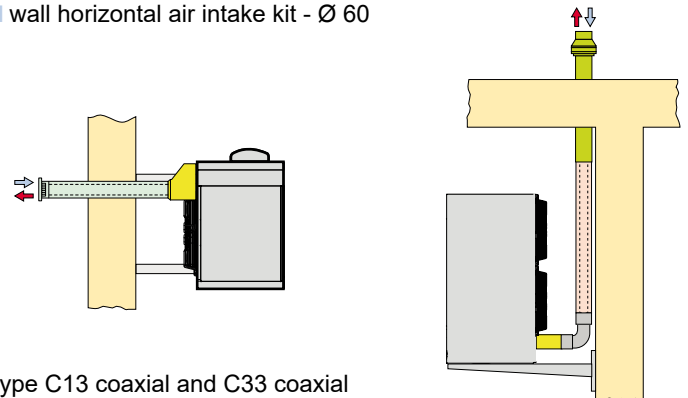
Esempio di MEC MIX C axiale installatione interna



Type C13

Combustion circuit sealed with respect to the environment.
The ducts pass directly through the external wall, with
terminals included within a 50 cm square.

- horizontal wall drain kit - Ø 60
- wall horizontal air intake kit - Ø 60



Type C13 coaxiale and C33 coaxiale

Combustion circuit sealed with respect to the environment.
The ducts pass directly through the external wall in a concentric
manner, with the terminals included within a Ø of 100 mm.

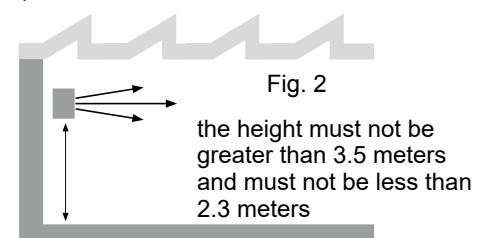
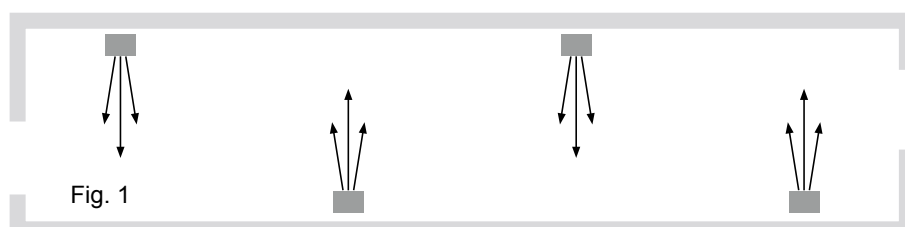
- coaxiale splitter - Ø 60/100
- horizontal coaxiale wall drain kit - Ø 60/100
- coaxiale curve 90° - Ø 60/100
- coaxiale extension - Ø 60/100
- coaxiale roof exhaust kit - Ø 60/100

Example of MEC MIX C installation for better heat distribution

For a better heat distribution, in case of installation with several machines, create alternating flows of hot air (see fig .1)

In some cases, it may also be appropriate to place the appliances in the vicinity of doors so that they also perform the function of an air barrier when the doors are opened.

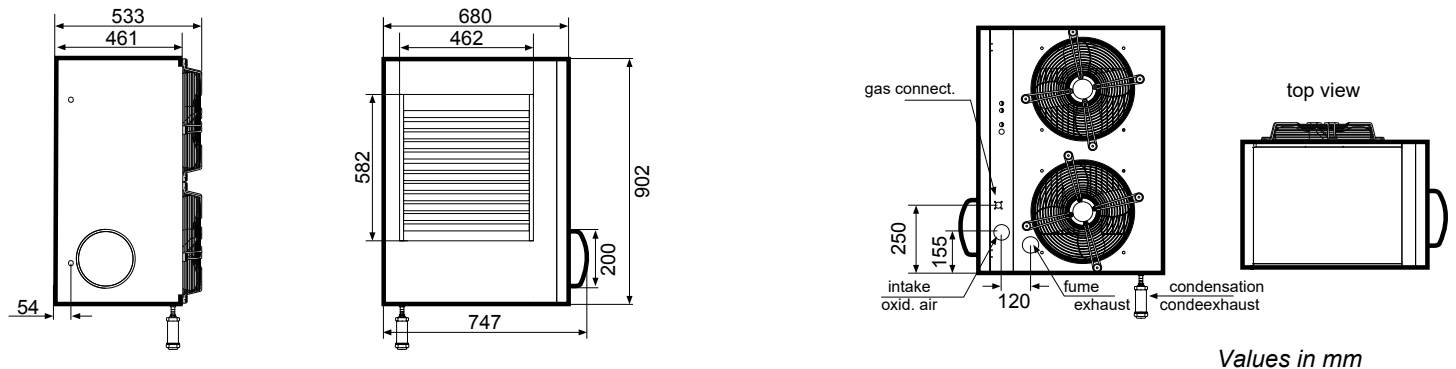
Installation at heights greater than 3.5 meters is not recommended as this does not ensure air recovery in the lower layers of the environment, generating potential situations of stagnation of cold air near the floor (see fig .2)



AXIAL AND DUCTABLE CONDENSING MEC MIX C

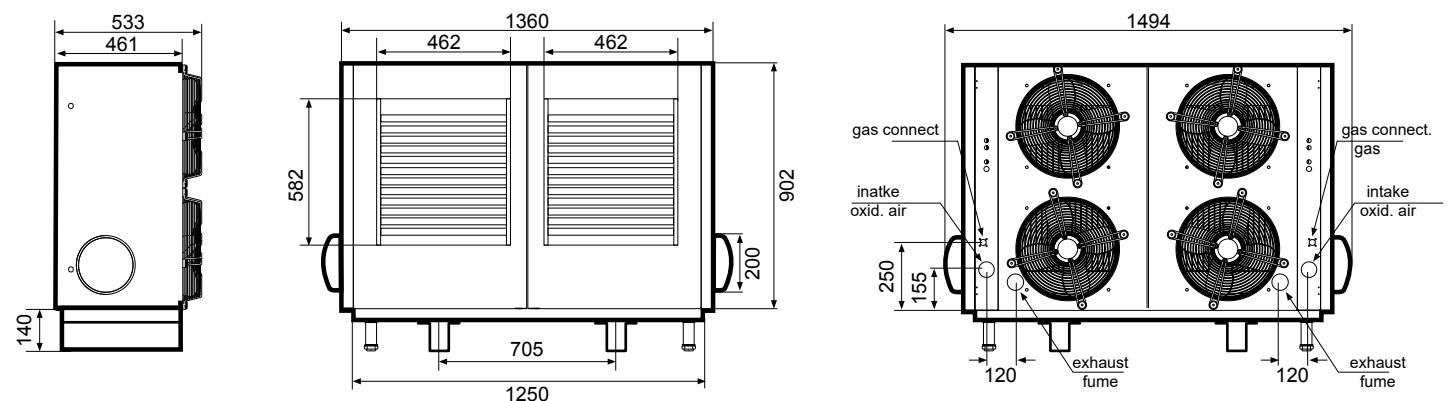
Axial and ductable condensing hot air generators with modulating premixed gas burner

Dimensions MEC MIX C 20/35 - 20/45 condensing with axial fans



Values in mm

Dimensions MEC MIX C 20/70 - 20/90 condensing with axial fans



Values in mm

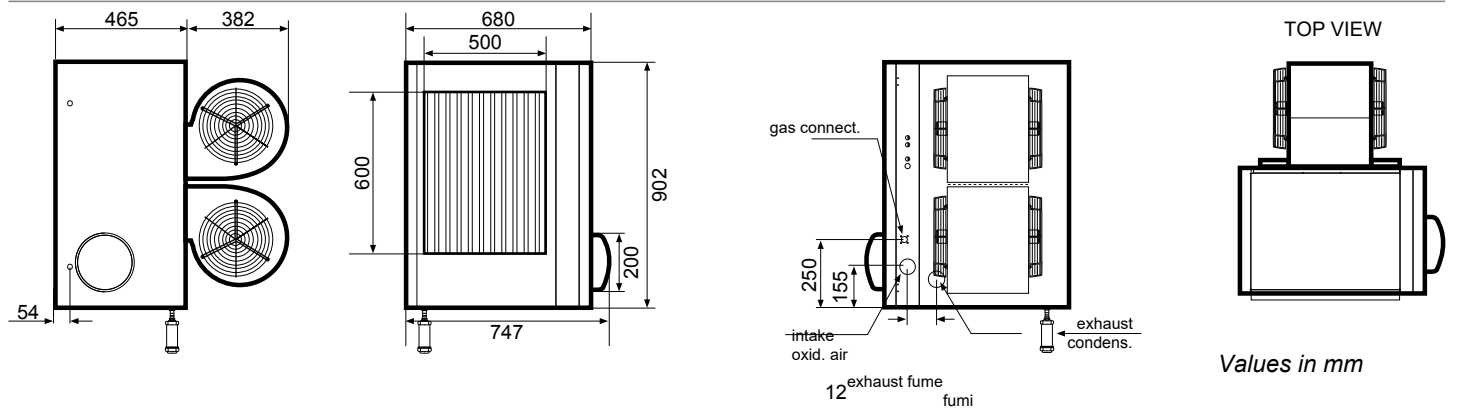
Technical data table of axial MEC MIX C condensing heaters

| DESCRIPTION | U.M. | MEC MIX C 20/35 A | MEC MIX C 20/45 A | MEC MIX C 20/70 A | MEC MIX C 20/90 A |
|---|-------------------|-----------------------------|-------------------|-------------------|-------------------|
| Category of unit | | II2H3P | | | |
| Type of unit | | B23 - C13 - C33 - C63 - C53 | | | |
| Gas | | Methane - L.P.G. | | | |
| Nominal heat output | kW | 34,93 | 42,64 | 70,06 | 85,28 |
| Thermal capacity min | kW | 20,62 | 19,54 | 20,62 | 19,54 |
| Nominal heat power | kW | 33,77 | 40,80 | 67,54 | 81,60 |
| Thermal power min | kW | 20,20 | 19,16 | 20,20 | 19,16 |
| Maximum condensation produced | l/h | 3,9 | 4,3 | 7,8 | 8,6 |
| Gas outp. max power | m ³ /h | 3,69 | 4,50 | 7,40 | 9,00 |
| 15°C-1.013 mbar | kg/h | 2,71 | 3,49 | 5,40 | 7,00 |
| Gas out. min. power | m ³ /h | 2,17 | 2,06 | 2,17 | 2,06 |
| 15°C-1.013 mbar | kg/h | 1,55 | 1,55 | 1,55 | 1,55 |
| Nominal efficiency at maximum flow rate | % | 96,5 | 95,7 | 96,5 | 95,7 |
| Energy efficiency class | | A | A | A | A |
| Gas supply diameter | | G 1/2" | | 2 x G 1/2" | |
| Air supply pipe diameter | mm | 60 | | 1 x 130 | |
| Exhaust fume pipe diameter | mm | 60 | | 2 x 60 | |
| Electrical supply | | 230V/1/50Hz | | | |
| Max air flow | m ³ /h | 3600 | 3600 | 7200 | 7200 |
| Min air flow | m ³ /h | 2100 | 2100 | 4200 | 4200 |
| Rpm fans | n. | 1210 | 1210 | 1210 | 1210 |
| Launch | m | 27 | 27 | 27 | 27 |
| Thermal power jump max | °C | 28,4 | 36,1 | 28,4 | 36,1 |
| Thermal power jump min | °C | 29,6 | 29,8 | 29,6 | 29,8 |
| Sound level (5 m) | dB(A) | 48 | 48 | 51 | 51 |
| Electrical power | W | 365 | 365 | 730 | 730 |
| Fuse | A | 6,3 | 6,3 | 2 x 6,3 | 2 x 6,3 |
| Wheight | Kg | 84 | 84 | 160 | 160 |

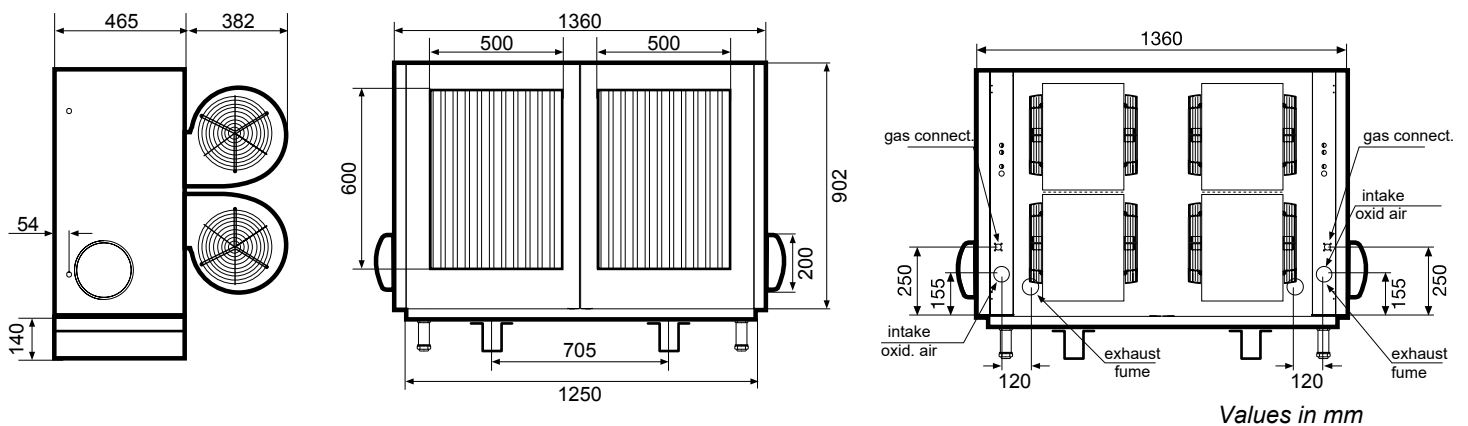
AXIAL AND DUCTABLE CONDENSING MEC MIX C

Axial and ductable condensing hot air generators with modulating premixed gas burner

Dimensions MEC MIX C 20/35 - 20/45 condensing with centrifugal fans



Dimensions MEC MIX C 20/70 - 20/90 condensing with centrifuge fans



Technical data table of MEC MIX C ductable condensing heaters

| DESCRIPTION | U.M. | MEC MIX C 20/35 C | MEC MIX C 20/45 C | MEC MIX C 20/70 C | MEC MIX C 20/90 C |
|---|--|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Category of unit | | II2H3P | | | |
| Type of unit | | B23 - C13 - C33 - C63 - C53 | | | |
| Gas | | Methane- L.P.G. | | | |
| Nominal heat output | kW | 34,95 | 43,22 | 70,56 | 86,44 |
| Thermal capacity min | kW | 20,09 | 20,13 | 20,09 | 20,13 |
| Nominal thermal power | kW | 34,22 | 41,49 | 68,44 | 82,98 |
| Min thermal power | kW | 19,59 | 19,64 | 19,59 | 19,64 |
| Maximum condensation produced | l/h | 3,9 | 4,3 | 7,8 | 8,6 |
| Gas flow power max | <i>Methane 20 mbar</i> <i>15°C-1.013 mbar</i> | <i>Propane 37 mbar</i> <i>kg/h</i> | <i>Methane 20 mbar</i> <i>m³/h</i> | <i>Propane 37 mbar</i> <i>kg/h</i> | <i>Methane 20 mbar</i> <i>m³/h</i> |
| Gas flow power min. | <i>Methane 20 mbar</i> <i>15°C-1.013 mbar</i> | <i>Propane 37 mbar</i> <i>kg/h</i> | <i>Methane 20 mbar</i> <i>m³/h</i> | <i>Propane 37 mbar</i> <i>kg/h</i> | <i>Methane 20 mbar</i> <i>m³/h</i> |
| Nominal efficiency at maximum flow rate | % | 97,0 | 96,0 | 97,0 | 96,0 |
| Energy efficiency class | | A | A | A | A |
| Gas supply diameter | | G 1/2" | | 2 x G 1/2" | |
| Air supply pipe diameter | mm | 60 | | 1 x 130 | |
| Smoke outlet pipe diameter | mm | 60 | | 2 x 60 | |
| Electrical supply | | 230V/1/50Hz | | | |
| Useful ventilation pressure | Pa | 100 | | | |
| Air flow max | m³/h | 3700 | 3750 | 7400 | 7500 |
| Air flow min | m³/h | 2200 | 2200 | 4400 | 4400 |
| Thermal jump power max | °C | 27,7 | 34,7 | 27,7 | 34,7 |
| Thermal jump power min | °C | 28,3 | 28,4 | 28,3 | 28,4 |
| Sound level(5 m) | dB(A) | 52 | 52 | 54 | 54 |
| Electrical power | W | 1050 | 1050 | 2100 | 2100 |
| Fuse | A | 10 | 10 | 2 x 10 | 2 x 10 |
| Weight | Kg | 93 | 94 | 185 | 188 |

MEC MIX F AXIAL AND DUCTABLE

Axial and ductable hot air generators with premixed gas burner



mod. MEC MIX F 50
Axial



mod. MEC MIX F 50
ductable
with centrifugal fans



mod. MEC MIX F 100 Axial with
standard support shelf



mod. MEC MIX F 100 ductable
with standard centrifugal fans with support bracket



MADE
IN ITALY



STAINLESS STEEL
COMBUSTION
CHAMBER



ERP
READY



HIGH
PERFORMANCE
96% CERTIFICATED



REMOTE
CONTROL

Technical and construction features

MEC MIX F series hot air generators are an evolution of the MEC series and allow, with very high efficiency, to meet the environmental heating requirements of large production and commercial spaces.

The fuel used is natural gas or LPG.

The peculiarity of the range of air generators is that of operating with a premixed air gas burner that allows you to drastically reduce, and even cancel, polluting emissions such as NOx and CO.

The new combustion system also makes it possible to significantly improve the combustion efficiency of the generators.

MEC MIX F is a gas hot air generator that produces ecological thermal energy due to the clean combustion obtained from the premix burner.

The cover is made of epoxy powder coated steel sheet, guaranteeing long life. On the right side, inside a door, there are:

- the electrical panel with the relative wiring
- the microprocessor card for burner control

premix and ionisation flame control

- the board manages the modulation of the thermal power

of the convective air flow rate only for the axial version -

- the constant ratio gas valve
- the variable speed fan of the premix burner
- the ignition transformer
- the electrical terminal board for connecting the various parts and the electrical supply

Below are the holes for the connection of the Ø 60 mm air intake and flue gas exhaust ducts (it is possible to add as an option a special splitter for the installation of the coaxial flue Ø 60/100 mm.). Inside the device there are:

- the combustion chamber in stainless steel with welding robotic mig and heat exchangers
- the stainless steel multigas premix burner
- the ignition electrodes
- the flame detection electrode
- the flue gas collection duct, with condensate drain siphon
- the generator is complete with electronic remote control

The new axial MEC MIX F 100 hot air generators and the ductable MEC MIX F 100 are supplied as standard with support brackets for wall mounting.

| Model | Thermal Flow kW | Thermal Power kW | Code | € |
|-------------------------------|-----------------|------------------|-----------------|------------------|
| MEC MIX F 50 AXIAL | 50,10 | 47,90 | 30360100 | 4.420,00 |
| MEC MIX F 100 AXIAL | 100,20 | 95,80 | 30360300 | 8.980,00 |
| MEC MIX F 50 DUCTABLE | 50,10 | 47,90 | 30360101 | 5.400,00 |
| MEC MIX F 100 DUCTABLE | 100,20 | 95,80 | 30360301 | 11.100,00 |

MEC MIX F AXIAL AND DUCTABLE

Axial and ductable hot air generators with premixed gas burner

Accessories MEC MIX F axial and ductable

Code

€



OUTDOOR COVERING BOX FOR INSTALLING MEC MIX F 50
OUTSIDE THE ROOM TO BE AIR CONDITIONED Height 100 cm
Width 100 cm
Depth 100 cm
for mod. MEC MIX F 50 ductable

30322213 1.680,00



Digital programmable thermostat with weekly programming
with wifi connectivity for remote control of hot air generators

36205225 220,00



MEC MIX Ø 60 horizontal flue pipe,
length 1 m in aluminum
n.2 ps for MEC MIX 100 ax. and duct.

30351017 30,00



MEC MIX Ø 60 horizontal air intake pipe,
length 1 m in aluminum
n.2 ps for MEC MIX 100 ax. and duct.

30351018 30,00



Extension pipe in aluminium Ø 60 M/F
length 1 m

37500050 30,00



Curve in aluminium Ø 60 -
90° M/F

37800020 40,00



Curve in aluminium Ø 60 -
45° M/F

30351007 30,00



Splitter mod. MEC MIX to convey
flue gas exhaust and air intake
on coaxial Ø 60/100
n.2 ps for MEC MIX 100 ax. and duct.

mod. MEC MIX ax.
mod. MEC MIX duct.

30351004 150,00
30351014 160,00



Coaxial aluminum flue gas intake / exhaust pipe
complete with exhaust terminal and wall cover
rosettes in EPDM Ø 60/100 - Length 1 m
n.2 ps for MEC MIX 100 ax. and duct.

30351001 80,00



Coaxial aluminum extension Ø
60/100 M / F length 1 m

30351002 60,00



Coaxial curve in aluminum
Ø 60/100 - 90° M/F

30351006 70,00



Coaxial curve in aluminum
Ø 60/100 - 45°

30351005 60,00



Coaxial roof exhaust kit in
aluminum Ø 60/100

30351009 190,00



Lead base inclined fandale

30351010 70,00



Support bracket
MEC MIX F 50 axial
and ductable

mod. inside inatallation
mod. outdoor installation

30350090 120,00
30350091 150,00



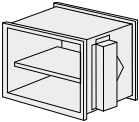
Double-order air
delivery grille
of adjustable fins

mod. axial inside 20/35 - 20/45 30322211 220,00
mod. duct. outdoor 20/35 - 20/45 30322214 260,00
mod. axial inside 20/70 - 20/90 30322212 440,00

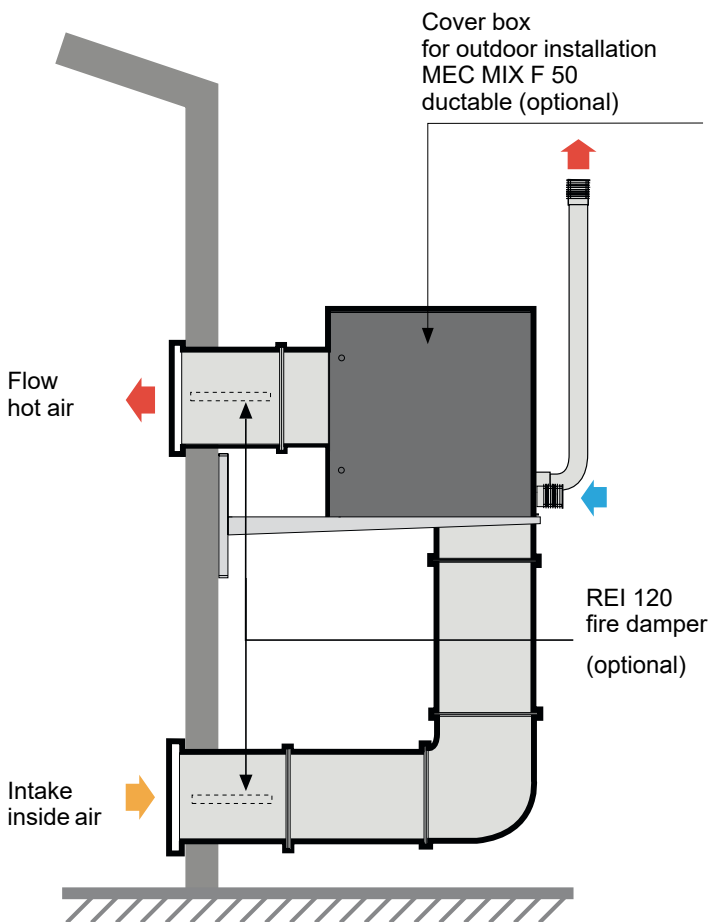
MEC MIX F AXIAL AND DUCTABLE

Axial and ductable hot air generators with premixed gas burner

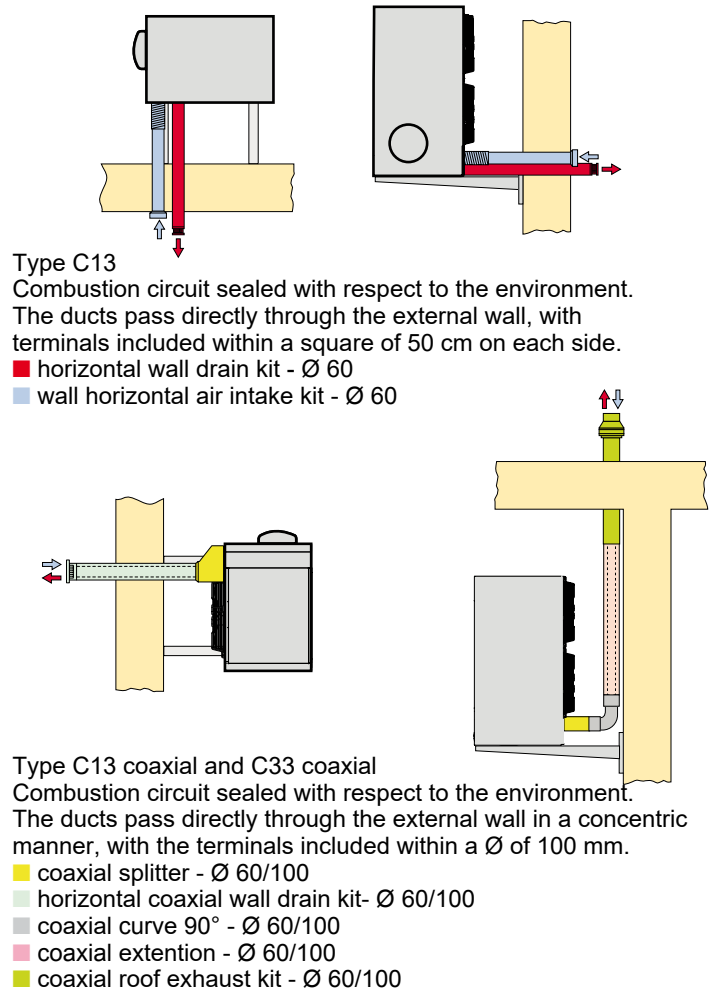
Axial and ductable MEC MIX F accessories

| | | Codice | € |
|--|--|----------|--------|
|  | Connection duct for air delivery MEC MIX F 50 ductable for installation outside the room to be air-conditioned | 30322224 | 150,00 |
|  | REI 120 fire damper MEC MIX F 50 ductable for installation outside the room to be air-conditioned | 30322208 | 840,00 |

Example of MEC MIX F installation that can be ducted outside the building to be air-conditioned



Examples of axial MEC MIX F installation inside the building to be air conditioned

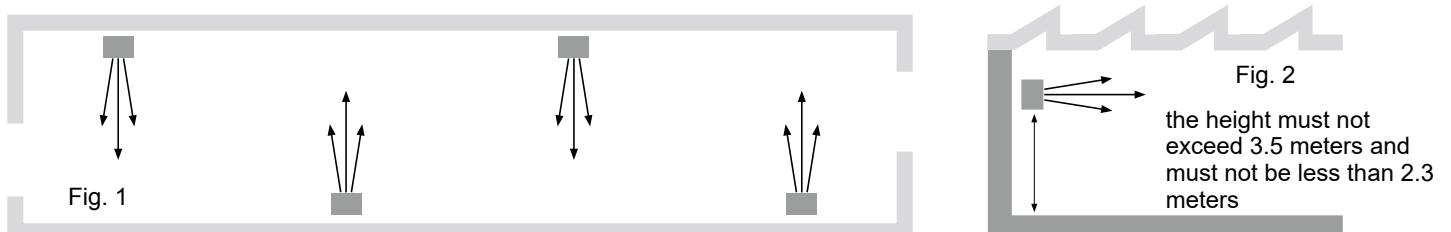


Example of MEC MIX F installation for better heat distribution

For a better heat distribution, in case of installation with several machines, create alternating flows of hot air (see fig .1)

In some cases, it may also be appropriate to place the appliances in the vicinity of doors so that they also perform the function of an air barrier when opening the doors.

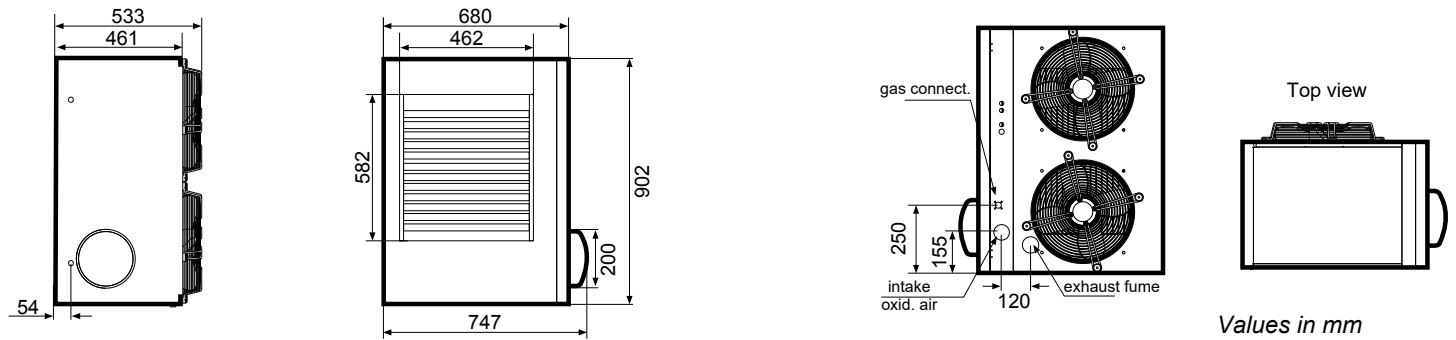
Installation at heights greater than 3.5 meters is not recommended as this does not ensure air recovery in the lower layers of the environment, generating potential situations of stagnation of cold air near the floor (see fig .2)



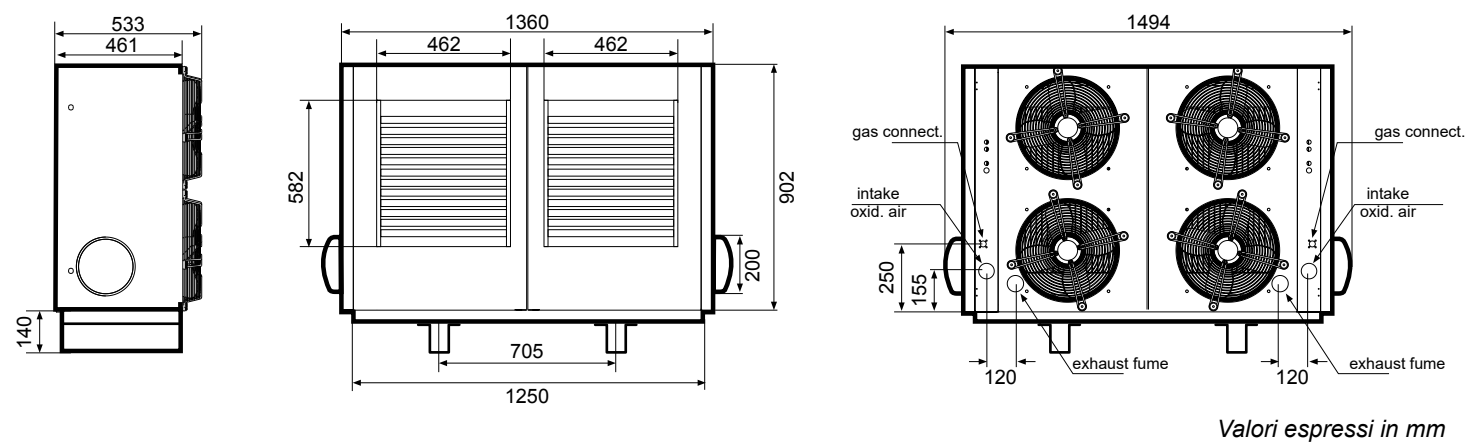
MEC MIX F AXIAL AND DUCTABLE

Axial and ductable hot air generators with premixed gas burner

Dimensions MEC MIX F 50 with axial fans



Dimensions MEC MIX F 100 with axial fans



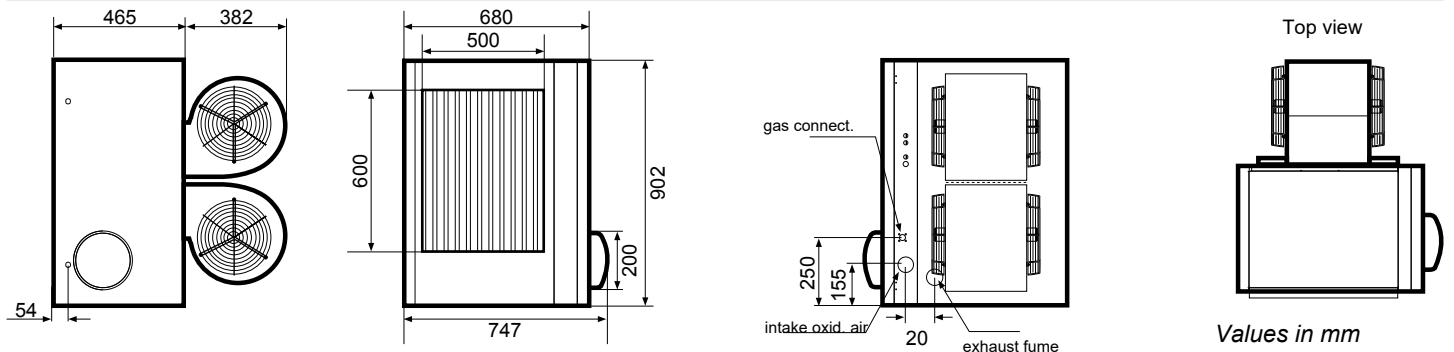
Technical data table of axial MEC MIX F suspended generators

| DESCRIPTION | U.M. | MEC MIX F 50 axial | MEC MIX F 100 axial |
|---|----------------------------------|-----------------------------|---------------------|
| Category of unit | | I12H3P | |
| Type of unit | | B23 - C13 - C33 - C63 - C53 | |
| Gas supply | | Methane - L.P.G. | |
| Thermal flow nom. | kW | 48,16 | 96,32 |
| thermal power nom. | kW | 44,74 | 89,48 |
| Gas flow 15° | <i>Methane</i> m ³ /h | 5,08 | 10,160 |
| C-1.013 mbar | <i>Propane</i> kg/h | 3,89 | 7,78 |
| Nominal efficiency at maximum flow rate | % | 92,9 | 92,9 |
| Natural gas supply pressure | mbar | 20 | |
| Supply pressure L.P.G. G31 | mbar | 37 | |
| Energy efficiency class | | A | A |
| Gas supply diameter | | G 1/2" | 2 x G 1/2" |
| Air supply pipe diameter | mm | 60 | 1 x 130 |
| Smoke outlet pipe diameter | mm | 60 | 2 x 60 |
| Power supply | | 230V/1/50Hz | |
| Air flowmax | m ³ /h | 3600 | 7200 |
| Air flow min | m ³ /h | 2100 | 4200 |
| Rpm air fans | n. | 1120 | 1210 |
| Launch | m | 27 | 27 |
| Thermal jump power max | °C | 39,8 | 39,8 |
| Sound level (5 m) | dB(A) | 48 | 51 |
| Electrical power | W | 365 | 730 |
| Fuse | A | 6,3 | 2 x 6,3 |
| Weight | Kg | 84 | 160 |

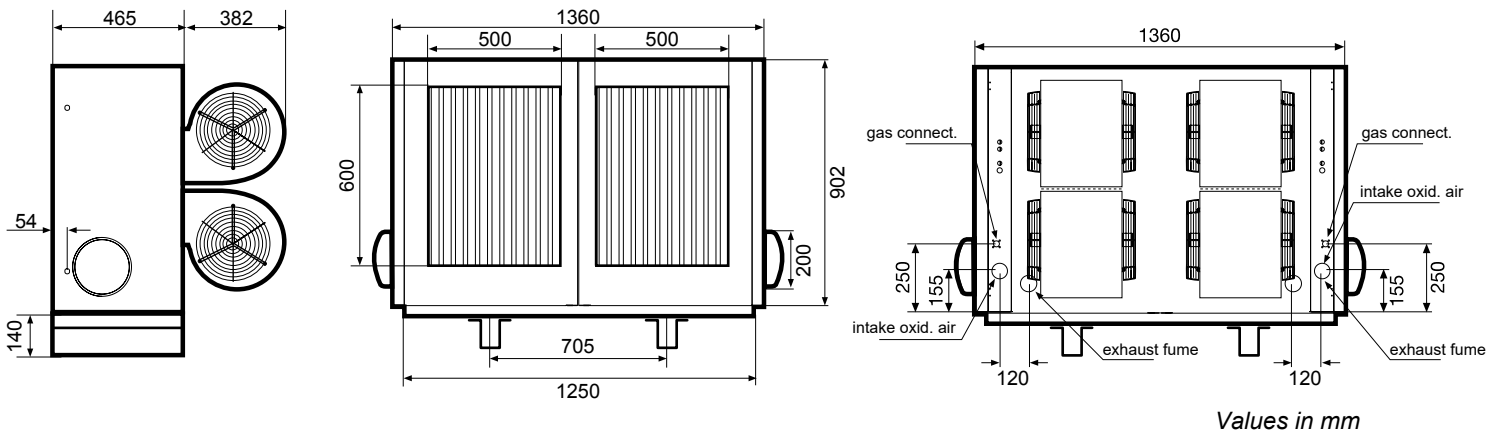
MEC MIX F AXIAL AND DUCTABLE

Axial and ductable hot air generators with premixed gas burner

Dimensions MEC MIX F 50 ductable with centrifugal fans



Dimensions MEC MIX F 100 ductable with centrifugal fans



Technical data table of MEC MIX F ductable suspended generators

| DESCRIPTION | U.M. | MEC MIX F 50 ductable | MEC MIX F 100 ductable |
|---|----------------------------------|-----------------------|-----------------------------|
| Category unit | | | II2H3P |
| Type unit | | | B23 - C13 - C33 - C63 - C53 |
| Gas supply | | | Methane - L.P.G. |
| Thermal flow nom. | kW | 46,02 | 92,04 |
| Thermal power nom. | kW | 43,21 | 86,42 |
| Gas flow 15° | <i>Methane</i> m ³ /h | 4,85 | 9,70 |
| C-1.013 mbar | <i>Propane</i> kg/h | 3,55 | 7,10 |
| Nominal efficiency at maximum flow rate | % | 93,9 | 93,9 |
| Natural gas supply pressure | mbar | | 20 |
| Supply pressure L.P.G. G31 | mbar | | 37 |
| Energy efficiency class | | B | B |
| Gas supply diameter | | G 1/2" | 2 x G 1/2" |
| Air supply pipe diameter | mm | 60 | 1 x 130 |
| Smoke outlet pipe diameter | mm | 60 | 2 x 60 |
| Power supply | | | 230V/1/50Hz |
| Useful ventilation pressure | Pa | | 100 |
| Air flow max | m ³ /h | 3750 | 7500 |
| Air flow min | m ³ /h | 2200 | 4400 |
| Thermal jump max | °C | 38,2 | 38,2 |
| Sound level (5 m) | dB(A) | 52 | 54 |
| Electrical power | W | 1050 | 2100 |
| Fuse | A | 10 | 2 x 10 |
| Weight | Kg | 94 | 188 |

AS - AS EX

Indoor / outdoor gas basement hot air generators



mod. AS



mod. AS EX



MADE
IN ITALY



HIGH
PERFORMANCE



STAINLESS STEEL
COMBUSTION
CHAMBER



ERP
READY



ON GAS
DIESEL, LPG,
METHANE

Technical and construction features

These floor standing hot air generators are suitable for the following uses:

A) To heat the air with direct diffusion or through channels, thrust from its fan unit, through the external walls of its combustion chamber and heat exchanger.

B) to air ventilation only.

To use the generator as in point (A), it must only be equipped with a blown air gas burner, compatible with it.

In addition, it must be connected to the power line, to the fuel line and to an evacuation duct for the combustion products.

To use it as in point (B), simply connect it to the power supply line.

This hot air generator must be used for heating the ambient air to a temperature of the air coming out of the appliance not higher than 80 °C.

Attention is drawn to the fact that the device is not suitable for use for other purposes; and in particular to be used at air outlet temperatures above 80 °C.

The hot air generator consists of an aluminum frame and an external paneling in pre-painted sheet metal: the panels are insulated on the inside with a glass wool mat.

In the heating section we find a combustion chamber and heat exchanger. The insulating mat is protected in this area with galvanized sheet metal, against the danger of overheating.

Under the combustion chamber, in the fan section, there is a double inlet centrifugal fan, driven by an electric motor with belt transmission.

The fan unit is protected against reaching the hands with a protective grid with 10x10mm holes.

The grid is screwed onto the frame and can only be removed with the help of a tool.

The combustion chamber, built in stainless steel for high temperatures, is bolted to the frame so that its thermal expansion does not compromise its duration over time.

The heat exchanger, made of steel tubes, is solidly welded with the combustion chamber.

Below, in the fan section, we find an electrical control panel with:

- Main switch
- Heating switch

BURNER STOP - VENTILATION

- Voltage warning light
- Thermal intervention of the contactor
- Warning light of the safety limit.

The hot air generator is equipped with a combination of 3 thermostats that ensure the following control and safety functions: they are placed high above the heat exchanger:

- FAN thermostat normally open for start and stop automatic of the HEATING fan unit, calibrated at 35 °C up to mod. AS 200 and at 30 °C for the remaining models.
- LIMIT, burner maximum thermostat, normally closed, to stop the burner in the event that the outlet air temperature reaches 80 °C. It automatically restarts the burner when the air drops below 65 °C.
- LIMIT2, burner safety limit thermostat, normally closed, for the safety shutdown of the burner in the event that the air temperature exceeds 100 °C.

The reset of the burner takes place by first cooling the exchanger and then manually pressing the reset button of LIMIT2.

OTHER ESSENTIAL SAFETY REQUIREMENTS:

- Electrical equipment on all air generators

AS - AS EX

Floor standing Air heaters

| MODEL | HEAT INPUT kW | HEAT OUTPUT kW | WITHOUT BURNER € | WITH DIESEL BURNER € | WITH L.P.G. BURNER € | WITH METHANE BURNER € | AIR OUTLET ON 4th SIDE € | 3 WAY PLENUM € | FILTER CASE € | AIR OUTLET FIRE DAMPER € | AIR INLET FIRE DAMPER € |
|-----------|------------------|-------------------|---------------------|-------------------------|-------------------------|--------------------------|-----------------------------|-------------------|------------------|-----------------------------|----------------------------|
| AS 25 | 32,60 | 30,40 | 4.048,00 | - | 7.570,00 | 7.570,00 | 67,00 | 834,00 | 280,00 | - | - |
| AS 25 EX | | | 4.930,00 | - | 8.450,00 | 8.450,00 | - | - | | 590,00 | 655,00 |
| AS 35 | 45,00 | 40,70 | 4.180,00 | 6.470,00 | 7.700,00 | 7.700,00 | 67,00 | 834,00 | 280,00 | - | - |
| AS 35 EX | | | 5.060,00 | 7.350,00 | 8.580,00 | 8.580,00 | - | - | | 590,00 | 655,00 |
| AS 50 | 65,10 | 59,30 | 5.120,00 | 7.650,00 | 8.600,00 | 8.600,00 | 114,00 | 1.200,00 | 420,00 | - | - |
| AS 50 EX | | | 6.000,00 | 8.540,00 | 9.500,00 | 9.500,00 | - | - | | 620,00 | 840,00 |
| AS 65 | 83,70 | 75,60 | 5.250,00 | 7.780,00 | 8.740,00 | 8.740,00 | 114,00 | 1.200,00 | 420,00 | - | - |
| AS 65 EX | | | 6.160,00 | 8.690,00 | 9.660,00 | 9.660,00 | - | - | | 620,00 | 840,00 |
| AS 80 | 104,70 | 95,30 | 6.950,00 | 9.830,00 | 11.880,00 | 11.880,00 | 135,00 | 1.240,00 | 500,00 | - | - |
| AS 80 EX | | | 8.170,00 | 11.060,00 | 13.100,00 | 13.100,00 | - | - | | 740,00 | 980,00 |
| AS 100 | 115,80 | 104,70 | 7.080,00 | 9.970,00 | 12.000,00 | 12.000,00 | 135,00 | 1.240,00 | 500,00 | - | - |
| AS 100 EX | | | 8.320,00 | 11.210,00 | 13.260,00 | 13.260,00 | - | - | | 740,00 | 980,00 |
| AS 150 | 183,00 | 164,90 | 10.100,00 | 13.480,00 | 15.700,00 | 15.700,00 | 145,00 | 1.390,00 | 550,00 | - | - |
| AS 150 EX | | | 11.940,00 | 15.320,00 | 17.550,00 | 17.550,00 | - | - | | 920,00 | 1.125,00 |
| AS 175 | 223,10 | 203,50 | 12.220,00 | 15.580,00 | 17.830,00 | 17.830,00 | 167,00 | 1.650,00 | 650,00 | - | - |
| AS 175 EX | | | 14.060,00 | 17.450,00 | 19.670,00 | 19.670,00 | - | - | | 980,00 | 1.260,00 |
| AS 200 | 257,80 | 232,60 | 12.360,00 | 15.740,00 | 18.270,00 | 18.270,00 | 167,00 | 1.650,00 | 650,00 | - | - |
| AS 200 EX | | | 14.250,00 | 17.630,00 | 20.170,00 | 20.170,00 | - | - | | 980,00 | 1.260,00 |
| AS 250 | 318,70 | 290,70 | 14.820,00 | 18.200,00 | 21.440,00 | 21.440,00 | 343,00 | 1.960,00 | 910,00 | - | - |
| AS 250 EX | | | 17.220,00 | 20.600,00 | 23.840,00 | 23.840,00 | - | - | | 1.710,00 | 1.840,00 |
| AS 300 | 336,00 | 304,40 | 15.080,00 | 20.000,00 | 24.240,00 | 24.240,00 | 343,00 | 1.960,00 | 910,00 | - | - |
| AS 300 EX | | | 17.620,00 | 22.550,00 | 26.770,00 | 26.770,00 | - | - | | 1.710,00 | 1.840,00 |
| AS 375 | 482,30 | 436,00 | 21.630,00 | 27.120,00 | 31.370,00 | 31.370,00 | 407,00 | 2.240,00 | 1.060,00 | - | - |
| AS 375 EX | | | 24.970,00 | 30.460,00 | 34.720,00 | 34.720,00 | - | - | | 1.710,00 | 2.660,00 |
| AS 425 | 541,90 | 494,20 | 26.020,00 | 32.150,00 | 36.230,00 | 36.230,00 | 440,00 | 2.525,00 | 1.330,00 | - | - |
| AS 425 EX | | | 30.290,00 | 36.420,00 | 40.500,00 | 40.500,00 | - | - | | 1.800,00 | 2.900,00 |
| AS 500 | 632,30 | 569,80 | 26.420,00 | 32.550,00 | 38.480,00 | 38.480,00 | 440,00 | 2.525,00 | 1.330,00 | - | - |
| AS 500 EX | | | 31.360,00 | 37.500,00 | 43.420,00 | 43.420,00 | - | - | | 1.840,00 | 2.900,00 |
| AS 600 | 800,00 | 743,20 | 34.940,00 | 41.560,00 | 48.490,00 | 48.490,00 | 503,00 | 3.115,00 | 2.240,00 | - | - |
| AS 600 EX | | | 40.280,00 | 46.900,00 | 53.830,00 | 53.830,00 | - | - | | 2.090,00 | 3.160,00 |
| AS 750 | 957,30 | 872,10 | 38.040,00 | 45.120,00 | 53.640,00 | 53.640,00 | 503,00 | 3.660,00 | 2.525,00 | - | - |
| AS 750 EX | | | 41.510,00 | 48.600,00 | 57.120,00 | 57.120,00 | - | - | | 2.090,00 | 3.160,00 |
| AS 900 | 1.136,00 | 1.046,50 | 51.560,00 | 59.600,00 | 68.360,00 | 68.360,00 | 675,00 | 4.200,00 | 3.080,00 | - | - |
| AS 900 EX | | | 55.070,00 | 63.100,00 | 71.870,00 | 71.870,00 | - | - | | su richiesta | 4.550,00 |

* For the version with air intake from BOTTOM (not lateral) increase the list price of the AS - AS EX generator by 10%

AS - AS EX

Floor standing Air heaters

Accessoires AS - AS EX

| MODEL | HEAT INPUT kW | HEAT OUTPUT kW | WITHOUT BURNER cod. | WITH DIESEL BURNER cod. | WITH L.P.G. BURNER cod. | WITH METHANE BURNER cod. | AIR OUTLET ON 4th SIDE cod. | 3 WAY PLENUM cod. | FILTER CASE cod. | AIR OUTLET FIRE DAMPER cod. | AIR INLET FIRE DAMPER cod. |
|-----------|---------------|----------------|---------------------|-------------------------|-------------------------|--------------------------|-----------------------------|-------------------|------------------|-----------------------------|----------------------------|
| AS 25 | 32,60 | 29,70 | 38200000 | 38201000 | 38202000 | 38203000 | 38000021 | 38000020 | 38000025 | - | - |
| AS 25 EX | | | 38200001 | 38201001 | 38202001 | 38203001 | - | - | | 38000026 | 38000027 |
| AS 40 | 45,00 | 40,70 | 38000000 | 38001000 | 38002000 | 38003000 | 38000021 | 38000020 | 38000025 | - | - |
| AS 40 EX | | | 38000001 | 38001001 | 38002001 | 38003001 | - | - | | 38000026 | 38000027 |
| AS 50 | 65,10 | 59,30 | 38010000 | 38011000 | 38012000 | 38013000 | 38010021 | 38010020 | 38010025 | - | - |
| AS 50 EX | | | 38010001 | 38011001 | 38012001 | 38013001 | - | - | | 38010026 | 38010027 |
| AS 70 | 83,70 | 75,60 | 38020000 | 38021000 | 38022000 | 38023000 | 38010021 | 38010020 | 38010025 | - | - |
| AS 70 EX | | | 38020001 | 38021001 | 38022001 | 38023001 | - | - | | 38010026 | 38010027 |
| AS 90 | 104,70 | 95,30 | 38030000 | 38031000 | 38032000 | 38033000 | 38030021 | 38030020 | 38030025 | - | - |
| AS 90 EX | | | 38030001 | 38031001 | 38032001 | 38033001 | - | - | | 38030026 | 38030027 |
| AS 110 | 128,60 | 116,30 | 38040000 | 38041000 | 38042000 | 38043000 | 38030021 | 38030020 | 38030025 | - | - |
| AS 110 EX | | | 38040001 | 38041001 | 38042001 | 38043001 | - | - | | 38030026 | 38030027 |
| AS 125 | 164,50 | 148,90 | 38050000 | 38051000 | 38052000 | 38053000 | 38050021 | 38050020 | 38050025 | - | - |
| AS 125 EX | | | 38050001 | 38051001 | 38052001 | 38053001 | - | - | | 38050026 | 38050027 |
| AS 170 | 192,10 | 173,30 | 38060000 | 38061000 | 38062000 | 38063000 | 38050021 | 38050020 | 38050025 | - | - |
| AS 170 EX | | | 38060001 | 38061001 | 38062001 | 38063001 | - | - | | 38050026 | 38050027 |
| AS 200 | 223,10 | 203,50 | 38070000 | 38071000 | 38072000 | 38073000 | 38070021 | 38070020 | 38070025 | - | - |
| AS 200 EX | | | 38070001 | 38071001 | 38072001 | 38073001 | - | - | | 38070026 | 38070027 |
| AS 230 | 257,80 | 232,60 | 38080000 | 38081000 | 38082000 | 38083000 | 38070021 | 38070020 | 38070025 | - | - |
| AS 230 EX | | | 38080001 | 38081001 | 38082001 | 38083001 | - | - | | 38070026 | 38070027 |
| AS 280 | 318,70 | 290,70 | 38100000 | 38101000 | 38102000 | 38103000 | 38100021 | 38100020 | 38100025 | - | - |
| AS 280 EX | | | 38100001 | 38101001 | 38102001 | 38103001 | - | - | | 38100026 | 38100027 |
| AS 340 | 387,20 | 348,40 | 38120000 | 38121000 | 38122000 | 38123000 | 38100021 | 38100020 | 38100025 | - | - |
| AS 340 EX | | | 38120001 | 38121001 | 38122001 | 38123001 | - | - | | 38100026 | 38100027 |
| AS 420 | 482,30 | 436,00 | 38140000 | 38141000 | 38142000 | 38143000 | 38140021 | 38140020 | 38140025 | - | - |
| AS 420 EX | | | 38140001 | 38141001 | 38142001 | 38143001 | - | - | | 38140026 | 38140027 |
| AS 500 | 541,90 | 494,20 | 38150000 | 38151000 | 38152000 | 38153000 | 38160021 | 38160020 | 38160025 | - | - |
| AS 500 EX | | | 38150001 | 38151001 | 38152001 | 38153001 | - | - | | 38160026 | 38160027 |
| AS 550 | 632,30 | 569,80 | 38160000 | 38161000 | 38162000 | 38163000 | 38160021 | 38160020 | 38160025 | - | - |
| AS 550 EX | | | 38160001 | 38161001 | 38162001 | 38163001 | - | - | | 38160026 | 38160027 |
| AS 600 | 763,40 | 697,70 | 38170000 | 38171000 | 38172000 | 38173000 | 38170021 | 38170020 | 38170025 | - | - |
| AS 60 EX | | | 38170001 | 38171001 | 38172001 | 38173001 | - | - | | 38170026 | 38170027 |
| AS 850 | 957,30 | 872,10 | 38180000 | 38181000 | 38182000 | 38183000 | 38170021 | 38180020 | 38180025 | - | - |
| AS 850 EX | | | 38180001 | 38181001 | 38182001 | 38183001 | - | - | | 38170026 | 38170027 |
| AS 900 | 1.136,00 | 1.047,00 | 38190000 | 38190000 | 38192000 | 38193000 | 38190021 | 38190020 | 38190025 | - | - |
| AS 900 EX | | | 38190001 | 38191001 | 38192001 | 38193001 | - | - | | 38190026 | 38190027 |

Diffusers with adjustable flaps

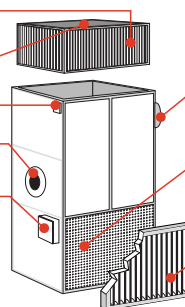
Exhaust outlet

3 way plenum

Fan limit sensor

Burner plate

Electric box



Air intake grid (supplied from factory on the left from model 40 to model 230, on the right from model 280 to model 850. For specific installations the grid position can be inverted)

Air intake filter

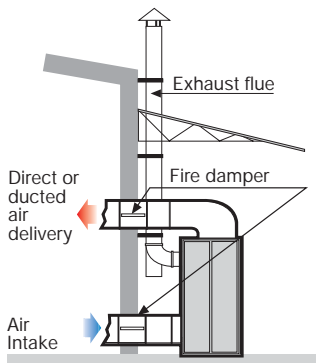
Air filter's holder

AS - AS EX

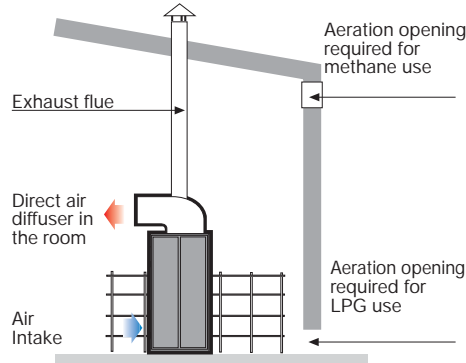
Floor standing Air heaters

Examples of installation AS - AS EX

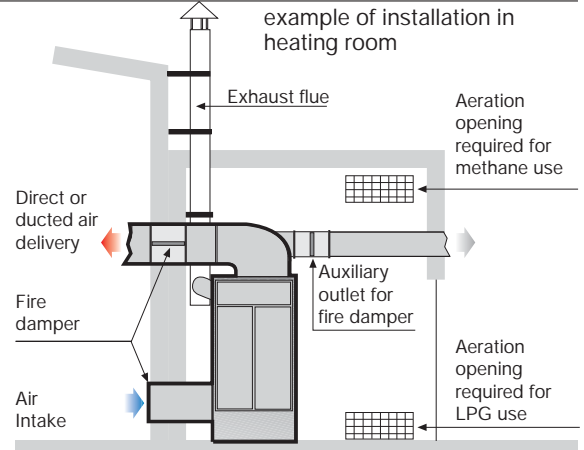
example of outdoor installation



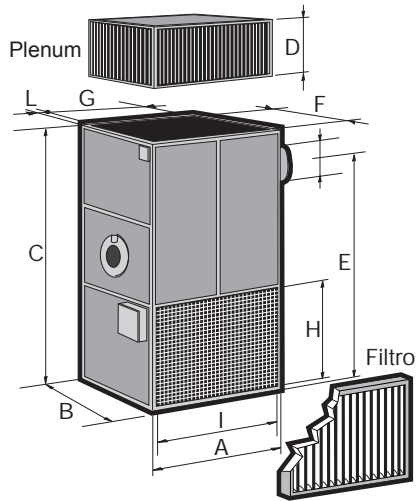
Example of indoor installation, inside the room to be heated



example of installation in heating room



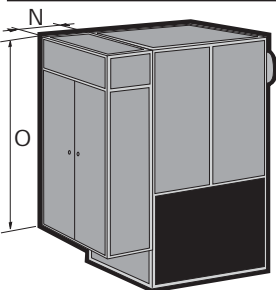
Dimensions AS



| Modelli | Dimensions in mm | | | H Plenum | H Ex. flue | Air delivery connection | | Air intake connection | | Exhaust |
|---------|------------------|------|------|----------|------------|-------------------------|------|-----------------------|------|---------|
| | A (*) | B | C | | | F | G | H | I | |
| AS 25 | 660 | 530 | 1430 | 305 | 1215 | 490 | 620 | 480 | 620 | 150 |
| AS 40 | 660 | 530 | 1430 | 305 | 1215 | 490 | 620 | 480 | 620 | 150 |
| AS 50 | 870 | 636 | 1750 | 305 | 1500 | 596 | 830 | 630 | 830 | 180 |
| AS 70 | 870 | 636 | 1750 | 305 | 1500 | 596 | 830 | 630 | 830 | 180 |
| AS 90 | 1000 | 750 | 1900 | 405 | 1675 | 670 | 920 | 770 | 920 | 200 |
| AS 110 | 1000 | 750 | 1900 | 405 | 1675 | 670 | 920 | 770 | 920 | 200 |
| AS 125 | 1260 | 900 | 2060 | 405 | 1750 | 820 | 1180 | 760 | 1180 | 250 |
| AS 170 | 1260 | 900 | 2060 | 405 | 1750 | 820 | 1180 | 760 | 1180 | 250 |
| AS 200 | 1440 | 1020 | 2340 | 405 | 1975 | 940 | 1360 | 760 | 1360 | 250 |
| AS 230 | 1440 | 1020 | 2340 | 405 | 1975 | 940 | 1360 | 760 | 1360 | 250 |
| AS 280 | 1790 | 1020 | 2340 | 405 | 1975 | 940 | 1710 | 760 | 1710 | 300 |
| AS 340 | 1790 | 1020 | 2340 | 405 | 1975 | 940 | 1710 | 760 | 1710 | 300 |
| AS 420 | 1960 | 1280 | 2660 | 405 | 2280 | 1200 | 1880 | 930 | 1880 | 300 |
| AS 500 | 2300 | 1340 | 2660 | 405 | 2280 | 1260 | 2220 | 930 | 2220 | 300 |
| AS 550 | 2300 | 1340 | 2660 | 405 | 2280 | 1260 | 2220 | 930 | 2220 | 300 |
| AS 600 | 2820 | 1550 | 2960 | 445 | 2572 | 1470 | 2740 | 970 | 2740 | 350 |
| AS 850 | 2820 | 1620 | 3100 | 445 | 2672 | 1540 | 2740 | 970 | 2740 | 400 |
| AS 900 | 3720 | 1620 | 3100 | 445 | 2672 | 1540 | 3640 | 970 | 3640 | 400 |

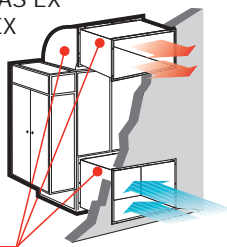
The A dimension does not include the burner size; about 90 cm clearance is needed for maintenance. The model AS 850 is composed by 2 sections with the following height C1 1050 (ventilation section) and C2 2050 (heating section).

Dimensions AS EX



Dimensions AS EX
Version AS EX
for outdoor

Accessories
not available

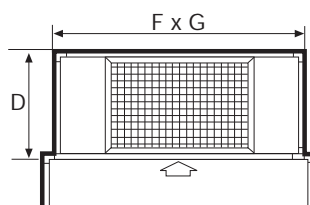


| Models | N | O | Models | N | O |
|-----------|-----|------|-----------|------|------|
| AS 25 EX | 500 | 1280 | AS 230 EX | 700 | 2130 |
| AS 40 EX | 500 | 1280 | AS 280 EX | 700 | 2130 |
| AS 50 EX | 500 | 1540 | AS 340 EX | 1000 | 2340 |
| AS 70 EX | 500 | 1540 | AS 420 EX | 1000 | 2410 |
| AS 90 EX | 700 | 1580 | AS 500 EX | 1000 | 2410 |
| AS 110 EX | 700 | 1580 | AS 550 EX | 1200 | 2710 |
| AS 125 EX | 700 | 1780 | AS 600 EX | 1200 | 2710 |
| AS 170 EX | 700 | 2130 | AS 850 EX | 1200 | 2850 |
| AS 200 EX | 700 | 2130 | AS 900 EX | 1200 | 2850 |

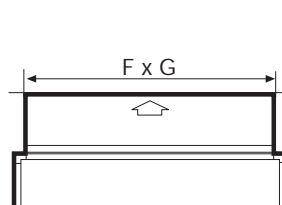
Ducted AS - AS EX

In case the heater is installed inside the heating room, the air diffusion is realised by means of ducting system.

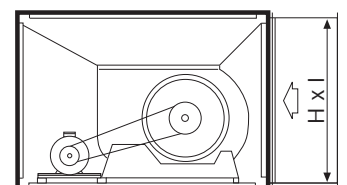
Fixing the plenum to the air heater



Connection of air delivery duct



Connection of air intake duct



AS - AS EX

Floor standing Air heaters

Technical datasheet floor standing heaters AS - AS EX 25÷170

| DESCRIPTION | | | AS 25 | AS 40 | AS 50 | AS 70 | AS 90 | AS 110 | AS 125 | AS 170 | AS 200 |
|---|-------------------------------|-------------------------|-------------|-------|-------|-------|---------------|--------|--------|--------|--------|
| Gas consumption (a 0 °C-1.013 mbar) | <i>Methane G20 a 20 mbar</i> | m ³ /h | 3,27 | 4,51 | 6,53 | 8,39 | 10,50 | 12,90 | 16,50 | 19,26 | 22,37 |
| | <i>Gas Nat. G25 a 25 mbar</i> | m ³ /h | 3,45 | 4,76 | 6,89 | 8,86 | 11,09 | 13,62 | 17,42 | 20,34 | 23,62 |
| | <i>Propane G31 a 37 mbar</i> | kg/h | 2,54 | 3,50 | 5,07 | 6,51 | 8,15 | 10,01 | 12,80 | 14,95 | 17,36 |
| | <i>Butane G30 a 28 mbar</i> | kg/h | 2,57 | 3,55 | 5,13 | 6,60 | 8,26 | 10,14 | 12,98 | 15,15 | 17,60 |
| Combustion chamber backpressure | | mbar | 0,20 | 0,22 | 0,20 | 0,22 | 0,23 | 0,25 | 0,20 | 0,25 | 0,30 |
| Combustion chamber's volume | | m ³ | 0,05 | 0,05 | 0,17 | 0,17 | 0,24 | 0,24 | 0,33 | 0,33 | 0,76 |
| Combustion circuit's volume | | m ³ | 0,08 | 0,08 | 0,22 | 0,22 | 0,32 | 0,32 | 0,46 | 0,46 | 0,98 |
| Minimum air volume for combustion circuit clean out | | m ³ (2) | 0,4 | 0,4 | 1,1 | 1,1 | 1,6 | 1,6 | 2,3 | 2,3 | 5,0 |
| Exhaust average temp. with combustion air temperature 20 °C | | °C | 195 | 228 | 196 | 229 | 196 | 228 | 229 | 241 | 202 |
| Diesel consumption PCI 10,200 cal/kg | | kg/h | 2,7 | 3,8 | 5,5 | 7,1 | 8,8 | 10,8 | 13,9 | 16,2 | 18,8 |
| Heating air flow rate | | m ³ /h a 18° | 1950 | 2.750 | 4000 | 5.100 | 6.300 | 7.800 | 9700 | 11.700 | 13700 |
| Effective air static pressure | | Pa | 60 | 50 | 200 | 90 | 170 | 150 | 200 | 220 | 210 |
| Motor fan input power | | kW x n° | 0,20 | 0,25 | 0,59 | 0,74 | 1,10 | 1,50 | 2,20 | 3,00 | 2,20 |
| Absorption of motors 400V 3Ph | | A | - | - | - | - | 2,9 | 3,6 | 3,6 | 5,1 | 5,1 |
| Absorption of motors 230V 1Ph | | A | 1,75 | 3,6 | 6,7 | 7,1 | 4,8 | 7,2 | 6,2 | 9,3 | 9,3 |
| Noise level (at 4 m) | | dB(A) | 61,0 | 62,0 | 71,0 | 72,0 | 71,0 | 72,0 | 73,0 | 72,0 | 73,0 |
| Number of fans | | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Minimum air throw in metres | | m | 18 | 18 | 29 | 32 | 35 | 38 | 40 | 46 | 52 |
| Maximum air throw in metres | | m | 18 | 18 | 29 | 32 | 35 | 38 | 40 | 46 | 52 |
| Power supply | | | 230V/1/50Hz | | | | 400V/3+N/50Hz | | | | |
| Net weight AS | | kg | 112 | 115 | 185 | 188 | 257 | 260 | 332 | 332 | 480 |
| Net weight AS EX | | kg | 131 | 144 | 205 | 208 | 279 | 282 | 356 | 356 | 510 |

Technical datasheet floor standing heaters AS - AS EX 230÷900

| DESCRIPTION | | | AS 230 | AS 280 | AS 340 | AS 420 | AS 500 | AS 550 | AS 600 | AS 850 | AS 900 |
|---|-------------------------------|-------------------------|---------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Gas consumption (a 0 °C-1.013 mbar) | <i>Methane G20 a 20 mbar</i> | m ³ /h | 25,85 | 31,96 | 38,83 | 48,36 | 54,84 | 63,41 | 76,55 | 96,00 | 113,92 |
| | <i>Gas Nat. G25 a 25 mbar</i> | m ³ /h | 27,30 | 33,74 | 41,00 | 51,07 | 57,38 | 66,95 | 80,83 | 101,36 | 120,28 |
| | <i>Propane G31 a 37 mbar</i> | kg/h | 20,06 | 24,80 | 30,13 | 37,53 | 42,17 | 48,21 | 59,41 | 74,50 | 88,40 |
| | <i>Butane G30 a 28 mbar</i> | kg/h | 20,33 | 25,14 | 30,54 | 38,04 | 42,74 | 49,87 | 60,22 | 75,51 | 89,61 |
| Combustion chamber backpressure | | mbar | 0,35 | 0,50 | 0,70 | 0,70 | 0,90 | 1,0 | 0,90 | 0,90 | 1,20 |
| Combustion chamber's volume | | m ³ | 0,76 | 0,95 | 0,95 | 1,44 | 1,70 | 1,70 | 2,70 | 3,27 | 4,44 |
| Combustion circuit's volume | | m ³ | 0,98 | 1,20 | 1,20 | 1,72 | 2,20 | 2,20 | 3,46 | 4,19 | 5,55 |
| Minimum air volume for combustion circuit clean out | | m ³ (2) | 5 | 6 | 6 | 8,6 | 11 | 11 | 17,3 | 21,0 | 27,8 |
| Exhaust average temp. with combustion air temperature 20 °C | | °C | 230 | 211 | 234 | 221 | 202 | 234 | 190 | 195 | 182 |
| Diesel consumption PCI 10,200 cal/kg | | kg/h | 21,7 | 26,9 | 32,6 | 40,7 | 45,7 | 53,3 | 64,4 | 80,7 | 95,8 |
| Heating air flow rate | | m ³ /h a 18° | 15600 | 19800 | 23500 | 29200 | 33000 | 38700 | 46500 | 55200 | 69500 |
| Effective air static pressure | | Pa | 190 | 170 | 200 | 190 | 220 | 160 | 240 | 260 | 290 |
| Motor fan input power | | kW x n° | 2,2x2 | 3x2 | 3x2 | 4x2 | 5,5x2 | 4x3 | 5,5x3 | 5,5x3 | 5,5x4 |
| Absorption of motors 400V 3Ph | | A | 7 | 5,1x2 | 7,2x2 | 7x2 | 9,2x2 | 12x2 | 9,2x3 | 12x3 | 12x4 |
| Absorption of motors 230V 1Ph | | A | 12 | 9,3x2 | 12x2 | 12x2 | 15x2 | 20x2 | 15x3 | 20x3 | 20x4 |
| Noise level (at 4 m) | | dB(A) | 73,0 | 74,0 | 75,0 | 75,0 | 75,0 | 76,0 | 75,0 | 76,0 | 78,0 |
| Number of fans | | n° | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 4 |
| Minimum air throw in metres | | m | 60 | 60 | 62 | 63 | 68 | 72 | 82 | 89 | 95 |
| Maximum air throw in metres | | m | 60 | 74 | 80 | 80 | 88 | 94 | 94 | 108 | 118 |
| Power supply | | | 400V/3+N/50Hz | | | | | | | | |
| Net weight AS | | kg | 485 | 580 | 598 | 920 | 1180 | 1240 | 1850 | 2300 | 2800 |
| Net weight AS EX | | kg | 515 | 615 | 638 | 980 | 1250 | 1320 | 1950 | 2450 | 3060 |

(*) The air throw is based on air speed 0,15 m/sec and flaps deflection 0°. With flap deflection 30° shall be multiplied by 0,65

AS COND - AS COND EX

Indoor / outdoor gas condensing floor standing hot air generators



Technical and construction features

The AS COND and AS COND EX models have the following features:

- Combustion chamber in AISI 430 stainless steel
- Heat exchanger with corrugated pipes in AISI stainless steel 316L and condensate drain (patented)
- Frame in aluminum profiles.
- Sandwich panels in galvanized and pre-painted sheet, with interposed thermoacoustic insulation and galvanized sheet protection inside.
- Fan unit with double centrifugal fans suction coupled to three-phase electric motors by transmission or direct for single-phase.
- Trimerostat for automatic start / stop of fans, operating limit and safety limit of the burner. - Electric control panel with main switch, winter / summer operating switch, protections, warning lights - Modulating premixed methane or LPG burner, low Nox, complete with gas ramp, microprocessor flame control equipment, which interfaces with the multifunction remote digital control.
- Multifunction digital remote control, with functions of: regulation of the modulation of the burner and room thermostat by means of its probe; timer programmer of times and operating modes; modulation compensation based on the outside temperature.
- Possibility of remote control and centralization of that of several devices, via the RS485 interface.



| MODEL | THERMAL FLOW kW | THERMAL POWER kW | WITH BURNER METHANE / LPG € | 3-WAY PLENUM € | NOZZLE ON FOUR SIDE € | FILTER BOX € | FIRE DAMPER ON THE DELIVERY CHANNEL € | FIRE DAMPER ON THE RETURN CHANNEL € |
|----------------|--------------------|---------------------|--------------------------------|-------------------|--------------------------|-----------------|--|--|
| AS COND 50 | 61,10 | 59,80 | 10.500,00 | 1.160,00 | 120,00 | 430,00 | - | - |
| AS COND 50 EX | | | 11.480,00 | - | - | | 645,00 | 880,00 |
| AS COND 65 | 76,00 | 73,00 | 10.685,00 | 1.160,00 | 120,00 | 430,00 | - | - |
| AS COND 65 EX | | | 11.690,00 | - | - | | 645,00 | 880,00 |
| AS COND 80 | 98,50 | 96,30 | 14.030,00 | 1.300,00 | 148,00 | 510,00 | - | - |
| AS COND 80 EX | | | 15.380,00 | - | - | | 770,00 | 1.025,00 |
| AS COND 100 | 122,00 | 116,60 | 14.230,00 | 1.300,00 | 148,00 | 510,00 | - | - |
| AS COND 100 EX | | | 15.600,00 | - | - | | 770,00 | 1.025,00 |
| AS COND 150 | 179,00 | 178,60 | 19.180,00 | 1.730,00 | 180,00 | 680,00 | - | - |
| AS COND 150 EX | | | 21.200,00 | - | - | | 960,00 | 1.180,00 |
| AS COND 175 | 203,00 | 201,80 | 19.750,00 | 1.730,00 | 180,00 | 680,00 | - | - |
| AS COND 175 EX | | | 21.770,00 | - | - | | 1.025,00 | 1.315,00 |
| AS COND 200 | 238,00 | 234,20 | 20.320,00 | 1.730,00 | 180,00 | 680,00 | - | - |
| AS COND 200 EX | | | 22.790,00 | - | - | | 1.025,00 | 1.315,00 |
| AS COND 250 | 270,00 | 269,00 | 41.040,00 | 2.220,00 | 390,00 | 1.030,00 | - | - |
| AS COND 250 EX | | | 43.580,00 | - | - | | 1.880,00 | 2.025,00 |
| AS COND 300 | 313,00 | 310,00 | 43.060,00 | 2.220,00 | 390,00 | 1.030,00 | - | - |
| AS COND 300 EX | | | 47.730,00 | - | - | | 1.880,00 | 2.025,00 |

* For the version with air intake from below (not lateral), increase the list price of the AS COND - AS COND EX generator by 10%

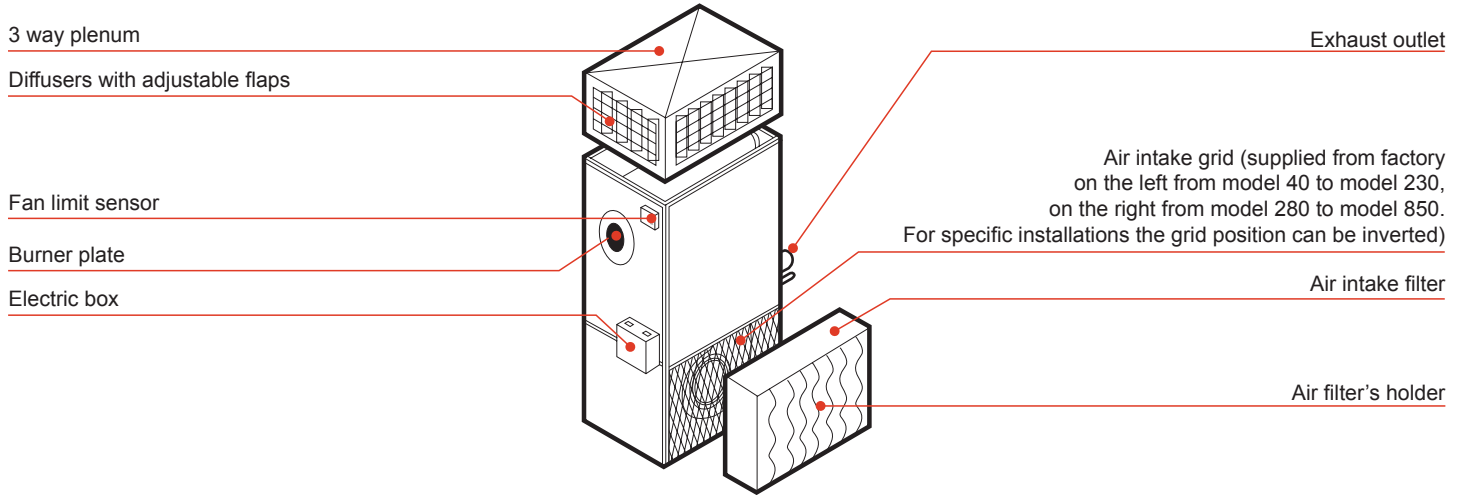
** On request it is possible to quote versions up to 620 kW

AS COND - AS COND EX

Floor standing Condensation Air Heater

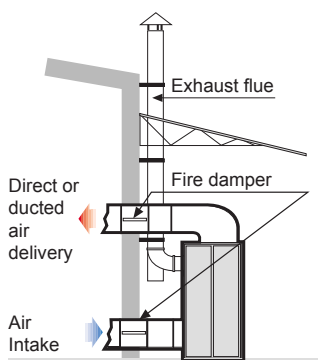
Accessoires AS COND - AS COND EX

| MODEL | HEAT INPUT kW | HEAT OUTPUT kW | WIT METHANE BURNER cod. | 3 WAY PLENUM cod. | AIR OUTLET ON 4th SIDE cod. | FILTER CASE cod. | AIR OUTLET FIRE DAMPER cod. | AIR INLET FIRE DAMPER cod. |
|----------------|---------------|----------------|-------------------------|-------------------|-----------------------------|------------------|-----------------------------|----------------------------|
| AS COND 50 | 61,10 | 59,80 | 38400000 | 38400020 | 384000201 | 38400025 | - | - |
| AS COND 50 EX | | | 38400001 | - | - | | 38400026 | 38400027 |
| AS COND 65 | 76,00 | 73,00 | 38410000 | 38410020 | 38410021 | 38410025 | - | - |
| AS COND 65 EX | | | 38410001 | - | - | | 38410026 | 38410027 |
| AS COND 80 | 98,50 | 96,30 | 38420000 | 38420020 | 38420021 | 38420025 | - | - |
| AS COND 80 EX | | | 38420001 | - | - | | 38420026 | 38420027 |
| AS COND 100 | 122,00 | 116,40 | 38430000 | 38430020 | 38430021 | 38430025 | - | - |
| AS COND 100 EX | | | 38430001 | - | - | | 38430026 | 38430027 |
| AS COND 150 | 179,00 | 178,60 | 38440000 | 38440020 | 38440021 | 38440025 | - | - |
| AS COND 150 EX | | | 38440001 | - | - | | 38440026 | 38440027 |
| AS COND 175 | 203,00 | 201,80 | 38450000 | 38450020 | 38450021 | 38450025 | - | - |
| AS COND 175 EX | | | 38450001 | - | - | | 38450026 | 38450027 |
| AS COND 200 | 238,00 | 234,20 | 38460000 | 38460020 | 38460021 | 38460025 | - | - |
| AS COND 200 EX | | | 38460001 | - | - | | 38460026 | 38460027 |
| AS COND 250 | 270,00 | 269,00 | 38470000 | 38470020 | 38470021 | 38470025 | - | - |
| AS COND 250 EX | | | 38470001 | - | - | | 38470026 | 38470027 |
| AS COND 300 | 313,00 | 310,00 | 38480000 | 38480020 | 38480021 | 38480025 | - | - |
| AS COND 300 EX | | | 38480001 | - | - | | 38480026 | 38480027 |

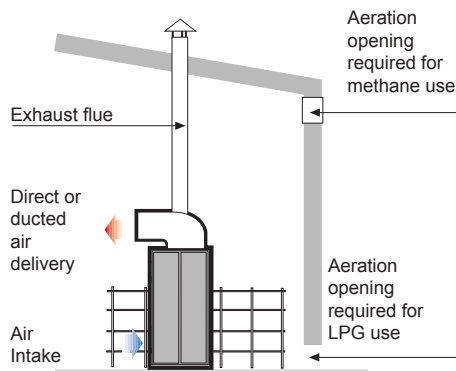


Examples of installation AS COND - AS COND EX

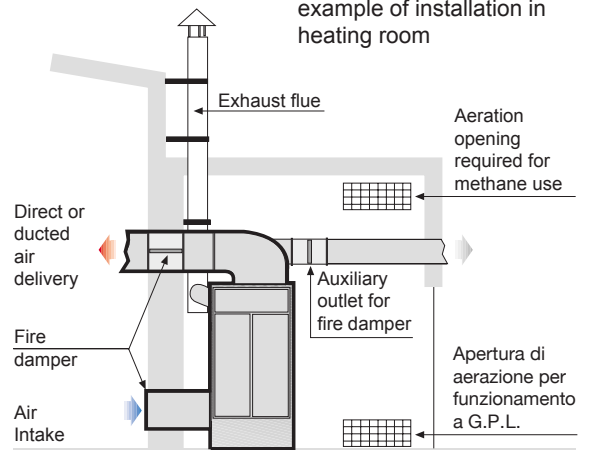
example of outdoor installation



Example of indoor installation, inside the room to be heated



example of installation in heating room



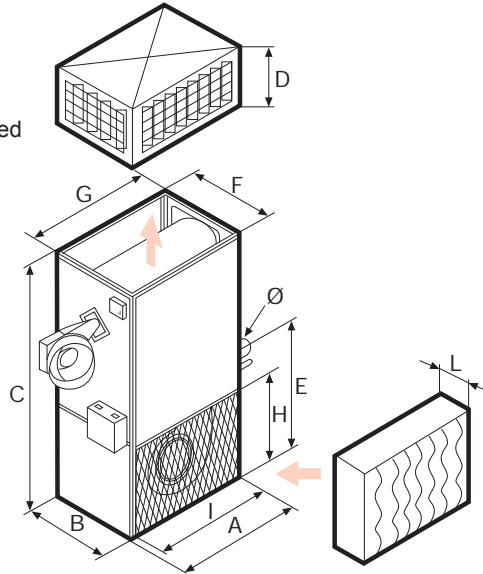
AS COND - AS COND EX

Floor standing Condensation Air Heater

Dimensions and Weight AS COND - AS COND EX

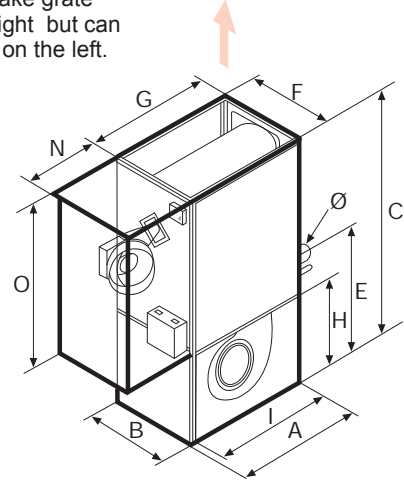
AS COND

The air intake grate is on the left but can be placed on the right



AS COND EX

The air intake grate is on the right but can be placed on the left.



Dimensions AS COND

| Models | Dimensions in mm | | | H Plenum | H Ex. flue | Air delivery connection | | Air intake connection | | Filter frame | Exhaust |
|-------------|------------------|-------|--------|----------|------------|-------------------------|------|-----------------------|------|--------------|---------|
| | Length | Width | Height | | | F | G | H | I | | |
| AS COND 50 | 870 | 636 | 1750 | 305 | 860 | 596 | 850 | 630 | 830 | 20 | 100 |
| AS COND 65 | 870 | 636 | 1750 | 305 | 860 | 596 | 850 | 630 | 830 | 20 | 100 |
| AS COND 80 | 1020 | 750 | 1950 | 405 | 935 | 670 | 940 | 690 | 940 | 40 | 130 |
| AS COND 100 | 1020 | 750 | 1950 | 405 | 935 | 670 | 940 | 690 | 940 | 40 | 130 |
| AS COND 150 | 1440 | 1020 | 2340 | 405 | 1070 | 940 | 1360 | 760 | 1360 | 40 | 150 |
| AS COND 175 | 1440 | 1020 | 2340 | 405 | 1070 | 940 | 1360 | 760 | 1360 | 40 | 150 |
| AS COND 200 | 1440 | 1020 | 2340 | 405 | 1070 | 940 | 1360 | 760 | 1360 | 40 | 150 |
| AS COND 250 | 1790 | 1020 | 2340 | 405 | 1130 | 940 | 1710 | 760 | 1710 | 40 | 200 |
| AS COND 300 | 1790 | 1020 | 2340 | 405 | 1130 | 940 | 1710 | 760 | 1710 | 40 | 200 |

Dimensions AS COND EX

| Models | Dimensions in mm | | | H Plenum | Air delivery connection | | Air intake connection | | Cabin Burner | | Exhaust |
|----------------|------------------|-------|--------|----------|-------------------------|------|-----------------------|------|--------------|--------|---------|
| | Length | Width | Height | | F | G | H | I | Depth | Height | |
| AS COND 50 EX | 890 | 636 | 1750 | 860 | 596 | 850 | 630 | 850 | 400 | 1100 | 100 |
| AS COND 65 EX | 890 | 636 | 1750 | 860 | 596 | 850 | 630 | 850 | 400 | 1100 | 100 |
| AS COND 80 EX | 1020 | 750 | 1950 | 935 | 670 | 940 | 690 | 940 | 400 | 1220 | 130 |
| AS COND 100 EX | 1020 | 750 | 1950 | 935 | 670 | 940 | 690 | 940 | 400 | 1220 | 130 |
| AS COND 150 EX | 1440 | 1020 | 2340 | 1070 | 940 | 1360 | 760 | 1360 | 650 | 1540 | 150 |
| AS COND 175 EX | 1440 | 1020 | 2340 | 1070 | 940 | 1360 | 760 | 1360 | 650 | 1540 | 150 |
| AS COND 200 EX | 1440 | 1020 | 2340 | 1070 | 940 | 1360 | 760 | 1360 | 650 | 1540 | 150 |
| AS COND 250 EX | 1790 | 1020 | 2340 | 1130 | 940 | 1710 | 760 | 1710 | 800 | 2170 | 200 |
| AS COND 300 EX | 1790 | 1020 | 2340 | 1130 | 940 | 1710 | 760 | 1710 | 800 | 2170 | 200 |

Weight AS COND

| Model | Weight generator* | | Plenum net weight |
|-------------|-------------------|----------|-------------------|
| | net | packaged | |
| AS COND 50 | 165 | 175 | 17 |
| AS COND 65 | 170 | 180 | 17 |
| AS COND 80 | 270 | 282 | 27 |
| AS COND 100 | 275 | 287 | 27 |
| AS COND 150 | 435 | 450 | 42 |
| AS COND 175 | 440 | 455 | 42 |
| AS COND 200 | 445 | 460 | 42 |
| AS COND 250 | 570 | 590 | 50 |
| AS COND 300 | 580 | 600 | 50 |

Weight AS COND EX

| Model | Weight* | |
|----------------|---------|----------|
| | net | packaged |
| AS COND 50 EX | 187 | 197 |
| AS COND 65 EX | 192 | 202 |
| AS COND 80 EX | 295 | 307 |
| AS COND 100 EX | 300 | 312 |
| AS COND 150 EX | 479 | 494 |
| AS COND 175 EX | 484 | 499 |
| AS COND 200 EX | 489 | 504 |
| AS COND 250 EX | 615 | 635 |
| AS COND 300 EX | 623 | 645 |

(* Completed with burner and gas unit

(* Completed with burner and gas unit

AS COND - AS COND EX

Floor standing Condensation Air Heater

Canalizzabili AS COND - AS COND EX

In case the heater is installed inside the heating room, the air diffusion is realised by means of ducting system.

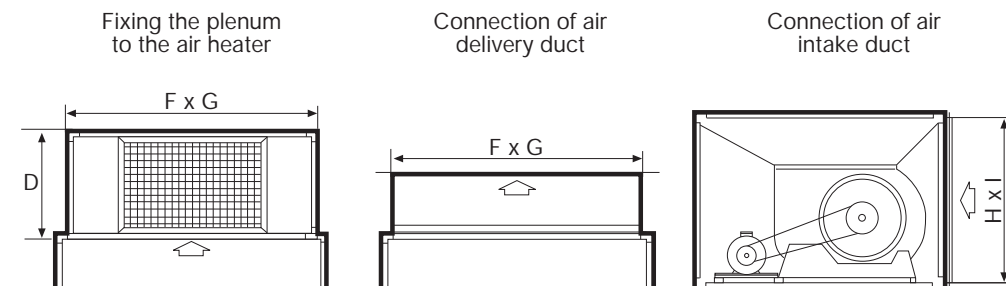


Tabella dati tecnici generatori a basamento AS COND - AS COND EX 50÷200

| DESCRIPTION | | 50 | 65 | 80 | 100 | | 175 | 200 | 250 | 300 | |
|---|------------------------|-------------------|-------|-------|-------|---------------|--------|--------|--------|--------|-------|
| Gas consumption (a 0 °C-1.013 mbar) | Metano G20 a 20 mbar | m ³ /h | 6,47 | 8,04 | 10,42 | 12,91 | | 21,48 | 25,19 | 28,57 | 33,12 |
| | Gas Nat. G25 a 25 mbar | m ³ /h | 7,52 | 9,40 | 12,1 | 15,0 | | 25,0 | 29,3 | 33,24 | 38,53 |
| | Propano G31 a 37 mbar | kg/h | 4,75 | 5,90 | 7,65 | 9,48 | | 15,77 | 18,49 | 20,98 | 24,32 |
| | Butano G30 a 28 mbar | kg/h | 4,82 | 5,49 | 7,77 | 9,62 | | 16,01 | 18,77 | 21,29 | 24,68 |
| | NOx (50 mg/kWh) | CL | | | | | | | | | |
| Nominal heat input Qn | kW | 61,1 | 76 | 98,5 | 122 | | 203 | 238 | 270 | 313 | |
| Nominal heat output Pn | kW | 59,8 | 73 | 96,3 | 116,4 | | 201,8 | 234,2 | 269,0 | 310,0 | |
| Heating efficiency ratio at nominal output | % | 97,9 | 96,1 | 97,8 | 95,4 | | 99,4 | 98,4 | 99,3 | 98,7 | |
| Heat input at 50% of the nominal heat input | kW | 30,55 | 38 | 49,25 | 61 | | 101,5 | 119,0 | 162,0 | 187,8 | |
| Heat output at 50% of the nominal heat input | kW | 31,8 | 39 | 51,6 | 62,1 | | 106 | 123,6 | 167,3 | 191,3 | |
| Heating efficiency ratio at 50% of the nominal heat input | % | 104,2 | 102,6 | 104,9 | 101,8 | | 104,5 | 103,9 | 103,3 | 101,8 | |
| Min. heat input Qmin | kW | 22 | 22 | 31 | 31 | | 53 | 53 | 88 | 102 | |
| Heat output at Qmin | kW | 23,3 | 23,3 | 33,4 | 33,4 | | 56,65 | 56,65 | 94,51 | 109,0 | |
| Heating efficiency ratio at Qmin | % | 106 | 106 | 107,8 | 107,8 | | 106,9 | 106,9 | 107,4 | 106,9 | |
| Combustion chamber backpressure with G20 at Qn | mbar | 4,3 | 7,5 | 3,4 | 5,1 | | 5,2 | 6,2 | 4,0 | 4,8 | |
| Combustion chamber backpressure with G30 at Qn | mbar | 4 | 7,4 | 3,1 | 4,7 | | 5,0 | 5,9 | 3,8 | 4,6 | |
| Air flow rate at 18 °C | m ³ /h | 4.700 | 6.500 | 7.560 | 9.200 | | 15.800 | 18.000 | 20.800 | 24.000 | |
| Air delivery static pressure | Pa | 150 | 150 | 150 | 150 | | 200 | 200 | 200 | 200 | |
| Air T at nominal heat input | °C | 37,4 | 35,1 | 37,2 | 37,2 | | 37,6 | 38,3 | 37,1 | 37,0 | |
| Motor fan power input | kW x n° | 0,736 | 0,736 | 1,5 | 2,2 | | 4,0 | 5,5 | 3x2 | 4x2 | |
| Motor fan power supply | | 230V/1/50Hz | | | | 400V/3+N/50Hz | | | | | |
| Motor fan absorption | A | 7,7 | 7,7 | 3,6 | 5,1 | | 9,2 | 12 | 7x2 | 9,2x2 | |
| Motor fan absorption at 3Ph 230V 60Hz | A | - | - | 6,2 | 9,3 | | 15 | 20 | 12x2 | 15x2 | |
| Sound pressure (at 5 m) | | 70,0 | 72,0 | 72,0 | 73,0 | | 73,0 | 74,0 | 74,0 | 75,0 | |
| EX versions protection class | dB(A) | X5D | | | | | | | | | |



Technical and construction features

The ASG series hot air generators are units powered by fuel gas or diesel oil, for direct exchange air heating and suitable for: sports facilities, tensile structures, pressure structures.

- CONTAINMENT STRUCTURE consisting of:
- supporting structure made with assembled aluminum profiles with die-cast aluminum corners;
 - containment enclosure made with type panels 20 mm thick sandwich whose external part is in pre-painted steel sheet while the internal part is in galvanized steel sheet. Between the two external / internal panels there is a layer of thermo-acoustic insulation in class 0 of reaction to fire and with rain protection;
 - technical compartment, applied laterally to the generator, for the protection of the burner, instrumentation and panel electrical control and management.

COMBUSTION CIRCUIT

The combustion chamber is made of stainless steel to guarantee high reliability and long life. The particular "polygonal" shape of the combustion chamber as well as the large volume available allow for perfect combustion and have a large exchange surface with uniform distribution of the thermal load.

The combinations between generators and gas burners must be made within the scope of the options allowed by the CE certification, according to the EEC directive 90/396.

All the ASG Series Generators are equipped with an electrical management and control panel compliant with the mandatory standards (in particular EN 60335-1) whose casing is made of steel sheet hot painted with epoxy powders.



HIGH PERFORMANCE
91% CERTIFICATED



ERP READY



STAINLESS STEEL COMBUSTION CHAMBER



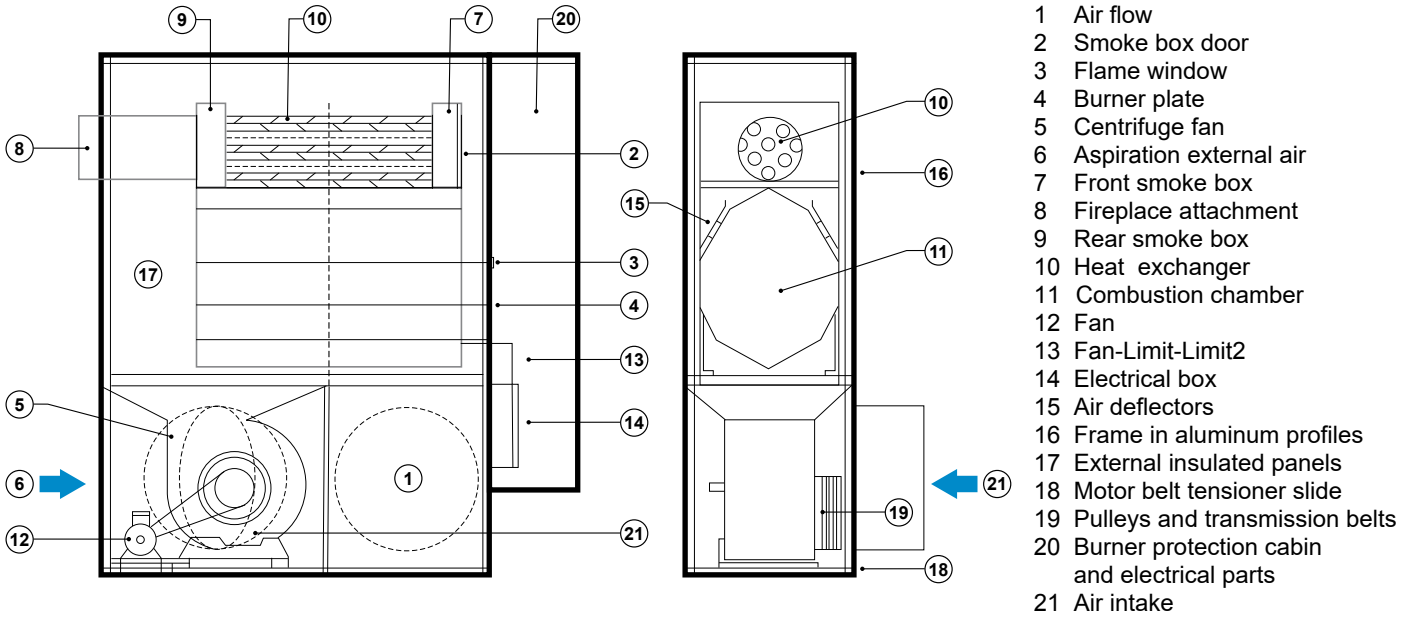
HOT AIR GAS DIESEL, LPG, METHANE

| MODEL | THERM. FLOW kW | POWER kW | WITHOUT BURNER € | METH/LPG BURNER € | DIESEL BURNER € | METH/MODUL. BURNER € | INTAKE THERM. € | SHUTTER THIRD WAY OF VENT € | FIRE DUMPER € | SINGLE WALL FIREPLACE € | DOUBLE WALL FIREPLACE € | AIR CALIBR. SHUTTER € | OVER PRESSURE DUMPER € |
|---------|-------------------|-------------|---------------------|----------------------|--------------------|-------------------------|--------------------|--------------------------------|------------------|----------------------------|----------------------------|--------------------------|---------------------------|
| ASG 80 | 104,7 | 97,9 | 11.300,00 | 16.330,00 | 14.300,00 | 21.320,00 | 620,00 | 470,00 | 970,00 | 1.110,00 | 2.280,00 | 310,00 | 650,00 |
| ASG 100 | 115,8 | 105,4 | 11.300,00 | 16.330,00 | 14.300,00 | 21.320,00 | 620,00 | 470,00 | 970,00 | 1.110,00 | 2.280,00 | 310,00 | 650,00 |
| ASG 150 | 178,0 | 162,0 | 13.160,00 | 18.780,00 | 16.330,00 | 23.560,00 | 620,00 | 470,00 | 1.230,00 | 1.160,00 | 2.590,00 | 360,00 | 650,00 |
| ASG 200 | 237,0 | 215,7 | 16.110,00 | 22.120,00 | 19.360,00 | 26.500,00 | 620,00 | 470,00 | 1.230,00 | 1.160,00 | 2.590,00 | 360,00 | 700,00 |
| ASG 250 | 290,0 | 264,0 | 20.000,00 | 30.110,00 | 25.230,00 | 32.640,00 | 620,00 | 470,00 | 1.430,00 | 1.220,00 | 2.890,00 | 470,00 | 790,00 |
| ASG 300 | 357,0 | 324,9 | 20.890,00 | 31.000,00 | 26.120,00 | 38.270,00 | 620,00 | 470,00 | 1.430,00 | 1.220,00 | 2.890,00 | 470,00 | 790,00 |
| ASG 375 | 440,0 | 397,0 | 25.640,00 | 35.380,00 | 31.140,00 | 38.680,00 | 620,00 | 470,00 | 1.580,00 | 1.220,00 | 2.890,00 | 470,00 | 950,00 |
| ASG 500 | 611,0 | 556,0 | 31.330,00 | 44.380,00 | 37.830,00 | 47.360,00 | 620,00 | 470,00 | 1.640,00 | 1.220,00 | 2.890,00 | 470,00 | 1.090,00 |

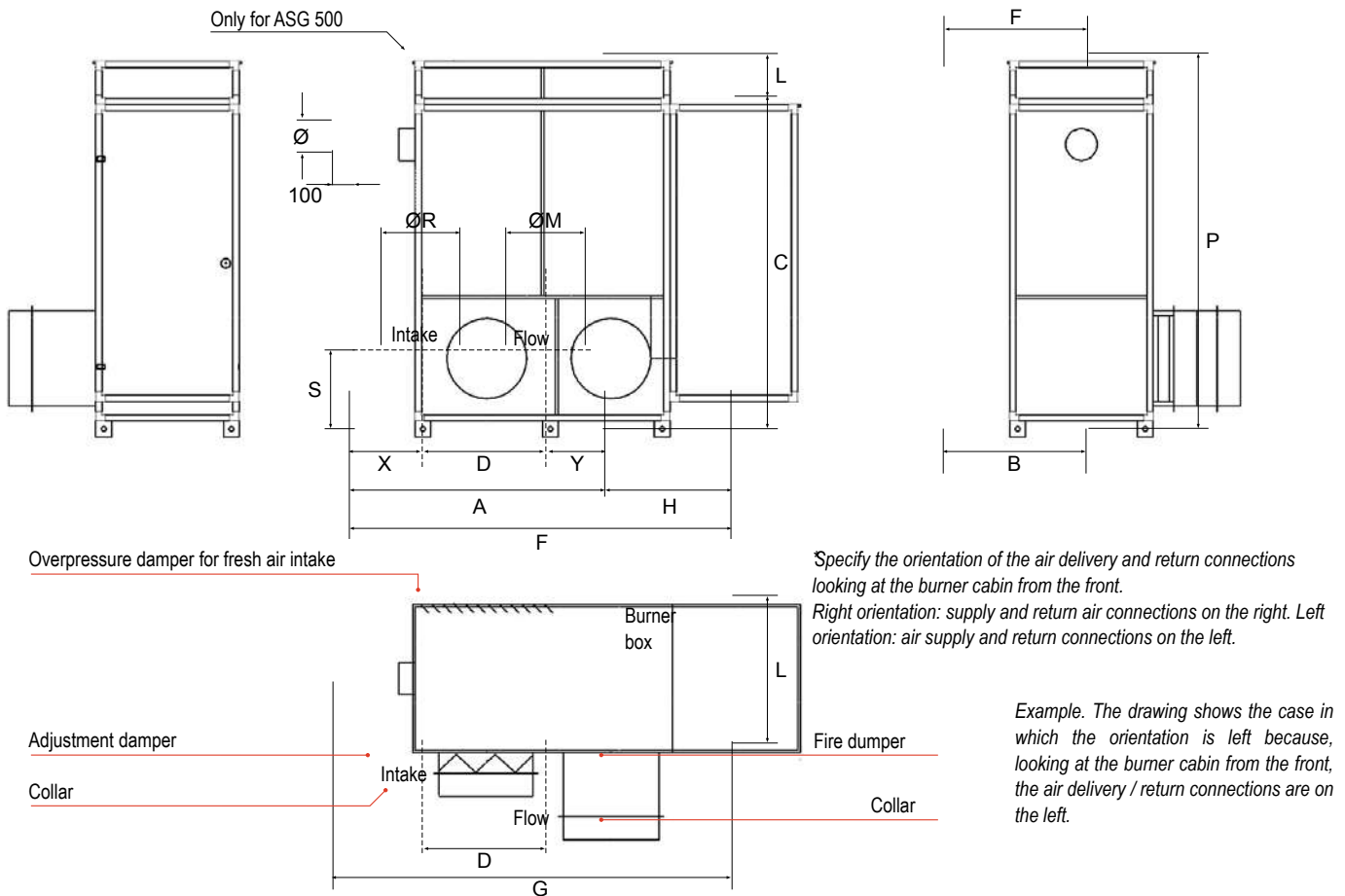
| MODEL | THERM. FLOW kW | POWER kW | WITHOUT BURNER Code | METH/LPG BURNER Code | DIESEL BURNER Code | METH/MODUL. BURNER Code | INTAKE THERM. Code | SHUTTER THIRD WAY OF VENT Code | FIRE DUMPER Code | SINGLE WALL FIREPLACE Code | DOUBLE WALL FIREPLACE Code | AIR CALIBR. SHUTTER Code | OVER PRESSURE DUMPER Code |
|---------|-------------------|-------------|------------------------|-------------------------|-----------------------|----------------------------|-----------------------|-----------------------------------|---------------------|-------------------------------|-------------------------------|-----------------------------|------------------------------|
| ASG 80 | 104,7 | 97,9 | 38300000 | 38300001 | 38300009 | 38300017 | 38300025 | 38300032 | 38300039 | 38300046 | 38300054 | 38300062 | 38300070 |
| ASG 100 | 115,8 | 105,4 | 38310000 | 38300002 | 38300010 | 38300018 | 38300025 | 38300033 | 38300040 | 38300047 | 38300055 | 38300063 | 38300071 |
| ASG 150 | 178,0 | 162,0 | 38320000 | 38300003 | 38300011 | 38300019 | 38300025 | 38300034 | 38300041 | 38300048 | 38300056 | 38300064 | 38300072 |
| ASG 200 | 237,0 | 215,7 | 38330000 | 38300004 | 38300012 | 38300020 | 38300025 | 38300035 | 38300042 | 38300049 | 38300057 | 38300065 | 38300073 |
| ASG 250 | 290,0 | 264,0 | 38340000 | 38300005 | 38300013 | 38300021 | 38300025 | 38300036 | 38300043 | 38300050 | 38300058 | 38300066 | 38300074 |
| ASG 300 | 357,0 | 324,9 | 38350000 | 38300006 | 38300014 | 38300022 | 38300025 | 38300037 | 38300044 | 38300050 | 38300058 | 38300066 | 38300075 |
| ASG 375 | 440,0 | 397,0 | 38360000 | 38300007 | 38300015 | 38300023 | 38300025 | 38300038 | 38300045 | 38300050 | 38300058 | 38300066 | 38300076 |
| ASG 500 | 611,0 | 556,0 | 38370000 | 38300008 | 38300016 | 38300024 | 38300025 | 38300028 | 38300029 | 38300050 | 38300058 | 38300066 | 38300077 |

SPECIFY IN THE ORDER PHASE IF THE GENERATOR IS FOR TENSOSTATIC OR PRESSOSTATIC STRUCTURES. of the fans due in case of power failure by keeping the pressure switch structure under pressure finally there is a customized wiring where the fans are always in operation.

Basement generator composition ASG



ASG basement generators dimensions with left view*



| Model | A | B | C | D | E | F | G | H | L | P | X | Y | S | Ø | ØR | ØM |
|-------------|------|------|------|------|------|------|------|------|-----|------|-----|-----|-----|-----|-----|-----|
| ASG 80 | 1600 | 900 | 2080 | 780 | 2400 | 940 | 2440 | 800 | 0 | - | 460 | 360 | 490 | 200 | 500 | 500 |
| ASG 100 | 1600 | 900 | 2080 | 780 | 2400 | 940 | 2440 | 800 | 0 | - | 460 | 360 | 490 | 200 | 500 | 500 |
| ASG 150 | 1700 | 900 | 2160 | 830 | 2500 | 940 | 2540 | 800 | 0 | - | 530 | 340 | 520 | 250 | 550 | 550 |
| ASG 200 | 1850 | 1100 | 2520 | 905 | 2650 | 1140 | 2690 | 800 | 0 | - | 580 | 365 | 560 | 250 | 600 | 600 |
| ASG 250-300 | 2150 | 1100 | 2520 | 1055 | 3250 | 1140 | 3290 | 1100 | 0 | - | 670 | 425 | 575 | 300 | 700 | 700 |
| ASG 375 | 2450 | 1300 | 2900 | 1205 | 3550 | 1340 | 3590 | 1100 | 0 | - | 755 | 490 | 665 | 300 | 800 | 800 |
| ASG 500 | 2800 | 1500 | 2900 | 1360 | 3900 | 1540 | 3940 | 1100 | 500 | 3400 | 920 | 520 | 720 | 300 | 900 | 900 |

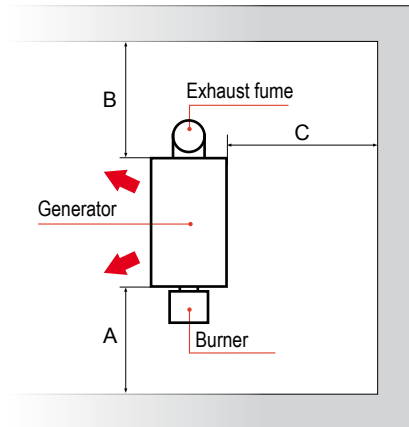
Values in mm

Minimum distances of the ASG floor standing generator from the walls

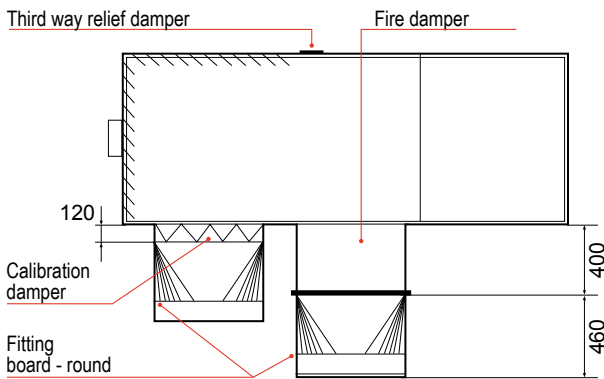
The diagram shown contains the indications of the minimum distances necessary for carrying out maintenance.

| Model | A | B | C |
|-------------|------|-----|-----|
| ASG 80 | 1000 | 600 | 600 |
| ASG 100 | 1000 | 600 | 600 |
| ASG 150 | 1300 | 600 | 600 |
| ASG 200 | 1300 | 600 | 600 |
| ASG 250-300 | 1300 | 650 | 600 |
| ASG 375 | 1500 | 650 | 600 |
| ASG 500 | 1500 | 650 | 600 |

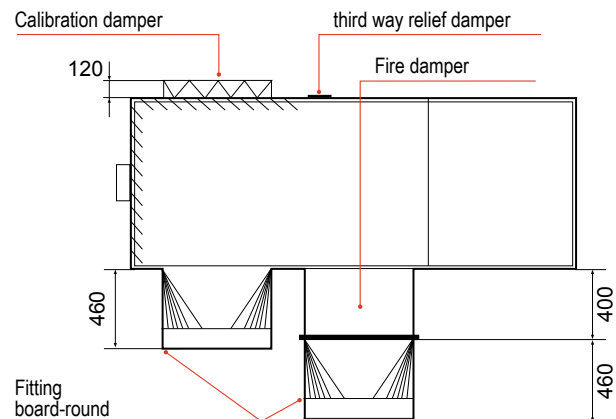
Values in mm



ASG basement generators for pressure structures



ASG basement generators for tensile structures



Values in mm

Floor standing generators technical data table ASG

| Description | U.M. | ASG | ASG | ASG | ASG | ASG | ASG | ASG | ASG |
|--|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | 80 | 100 | 150 | 200 | 250 | 300 | 375 | 500 |
| Thermal flow nom. | kW | 104,7 | 115,8 | 178,0 | 246,0 | 290,0 | 357,0 | 440,0 | 611,0 |
| Thermal power nom. | kW | 97,9 | 105,4 | 162,0 | 228,3 | 264,0 | 324,9 | 397,0 | 556,0 |
| Thermal efficiency at nominal flow | % | 93,5 | 91,0 | 91,0 | 92,8 | 91,0 | 91,0 | 90,2 | 91,0 |
| Minimum heat output | kW | 52,35 | 58,0 | 89,0 | 123,0 | 145,0 | 178,5 | 220,0 | 305,5 |
| Minimum heat output | kW | 50,2 | 55,1 | 84,6 | 118,0 | 137,8 | 169,6 | 206,8 | 290,2 |
| Efficiency at minimum heat input | % | 96,0 | 95,0 | 95,0 | 95,9 | 95,0 | 95,0 | 94,0 | 95,0 |
| Gas consumption at 15 °C 1013 mbar | | | | | | | | | |
| Methane G20 to 20 mbar | m ³ /h | 11,10 | 12,25 | 18,33 | 26,00 | 30,70 | 37,78 | 46,56 | 64,66 |
| Natural gas G25 to 25 mbar | m ³ /h | 12,80 | 14,24 | 20,74 | 28,60 | 35,67 | 43,91 | 54,12 | 75,15 |
| Propane G31 a 37 mbar | Kg/h | 4,28 | 4,73 | 7,28 | 9,98 | 11,86 | 14,59 | 17,99 | 24,98 |
| Butane G30 a 28 mbar | Kg/h | 3,24 | 3,59 | 5,52 | 7,56 | 8,99 | 11,06 | 13,63 | 18,93 |
| Back pressure in the combustion chamber | mbar | 0,23 | 0,35 | 0,35 | 0,45 | 0,60 | 0,80 | 0,80 | 1,00 |
| Volume combustion chamber | m ³ | 0,24 | 0,24 | 0,33 | 0,76 | 0,95 | 0,95 | 1,44 | 1,70 |
| Volume combustion circuit | m ³ | 0,32 | 0,33 | 0,47 | 0,99 | 1,21 | 1,21 | 1,73 | 2,20 |
| Minimum volume of pre-wash air | m ³ | 1,60 | 1,65 | 2,40 | 5,00 | 6,10 | 6,10 | 8,70 | 11,00 |
| Heating air flow at 18 ° C | m ³ /h | 9000 | 10000 | 13500 | 15000 | 17000 | 20000 | 24000 | 35000 |
| Useful static pressure on the air side - PRESS | Pa | 300 | | | | | | | |
| Useful static pressure on the air side - TENS | Pa | 250 | | | | | | | |
| Gas category | | | | | | | | | |
| is the category of the combined burner | | | | | | | | | |
| Fan motor power 3F | kW | 3,0 | 4,0 | 5,5 | 5,5 | 5,5 | 7,5 | 7,5 | 11,0 |
| Fan motor absorption 400V 3F | W | 6,3 | 9,2 | 12,0 | 12,0 | 12,0 | 16,5 | 16,5 | 21,0 |
| Motor absorption 230V 3F | A | 10,04 | 15 | 20 | 20 | 20 | 27 | 27 | 37 |
| Sound level at 3 m | dB(A) | 71 | 72 | 72 | 73 | 74 | 74 | 75 | 76 |
| Average temperature of the fumes with combustion air temperature 20 ° C | °C | 169 | 205 | 205 | 205 | 205 | 205 | 230 | 205 |
| Air temperature | °C | 20,0 | 20,0 | 24,0 | 20,0 | 21,0 | 21,0 | 20,0 | 20,0 |
| Consumption with diesel operation at nominal heat input Hi 11.86 kW / Kg | Kg/h | 11,00 | 11,00 | 16,60 | 22,20 | 24,45 | 33,30 | 41,50 | 53,20 |
| Net weight of the generator | Kg | 415 | 415 | 450 | 715 | 780 | 780 | 1370 | 1775 |
| Weight of the packed generator | Kg | 430 | 460 | 600 | 735 | 785 | 1080 | 1400 | 1815 |

ASX

Floor standing condensing hot air generators with low NOx modulating premixed gas burners for pressostatic and tensostatic structures



Technical and construction features

The condensing ASX series hot air generators are units powered by methane gas or LPG, and have been designed for heating environments such as: pressostatic and tensostatic roofs (tennis courts, soccer basketball courts, etc.). **CONTAINMENT STRUCTURE**

All ASX hot air generators are characterized by a robust containment structure consisting of:

- Supporting structure made with die-cast aluminum profiles;
- Containment envelope made with sandwich type panels 20 mm thick whose external part is in pre-painted steel sheet while the internal part is in reflective galvanized steel sheet. Between the 2 external / internal panels there is a layer of thermo-acoustic insulation in class 0 of fire reaction.

The ASX models are suitable for outdoor installation with:

- Rain protection;
- Technical compartment, applied laterally to the generator, for the protection of the burner, instrumentation and panel electrical control and management.

COUNTERCURRENT COMBUSTION CIRCUIT

- The combustion chamber is made of AISI 430 a stainless steel guarantee of high reliability and long life. The particular cylindrical shape of the combustion chamber as well as the large available volume allow for perfect combustion and have a large exchange surface with uniform distribution of the thermal load.

- The air-flue gas heat exchanger is of the shell and tube type made of AISI 316 stainless steel with high heat exchange efficiency achieved through an appropriate arrangement of the pipes and the particular surface corrugation which by producing a high turbulent effect both to the internal flow of combustion products and to the external flow of air, allows to achieve a excel heat exchange.

- The smoke manifold is made of AISI 304 steel complete with inspection flaps and condensate drain pipe. All ASX series heaters are equipped with an electrical management and control panel compliant with current standards (in particular EN 60335-1) whose casing is made of steel sheet hot painted with epoxy powders.



CONDENSING SYSTEM



ERP READY



STAIN STEEL COMBUSTION CHAMBER



HOT AIR GAS METHANE DIESEL

| MODEL | THERMAL FLOW kW | THERMAL POWER kW | BURNER METHANE/LPG € | ROOM THERMOSTAT € | THERMOSTAT SENSOR WITH CABLE 6 m € | DAMPER THIRD WAY OF RELIEF € | FIRE DAMPER FLOW € | SINGLE WALL FIREPLACE € |
|---------|--------------------|---------------------|-------------------------|----------------------|---------------------------------------|---------------------------------|-----------------------|----------------------------|
| ASX 80 | 98,5 | 96,3 | 19.000,00 | 650,00 | 110,00 | 520,00 | 1.080,00 | 1.220,00 |
| ASX 100 | 122,0 | 116,6 | 19.090,00 | 650,00 | 110,00 | 520,00 | 1.080,00 | 1.220,00 |
| ASX 150 | 179,0 | 178,6 | 22.800,00 | 650,00 | 110,00 | 520,00 | 1.350,00 | 1.280,00 |
| ASX 175 | 203,0 | 201,8 | 24.200,00 | 650,00 | 110,00 | 520,00 | 1.350,00 | 1.280,00 |
| ASX 200 | 238,0 | 234,2 | 26.000,00 | 650,00 | 110,00 | 520,00 | 1.350,00 | 1.280,00 |
| ASX 250 | 270,0 | 269,0 | 38.290,00 | 650,00 | 110,00 | 520,00 | 1.460,00 | 1.360,00 |
| ASX 300 | 313,0 | 310,0 | 43.760,00 | 650,00 | 110,00 | 520,00 | 1.460,00 | 1.360,00 |

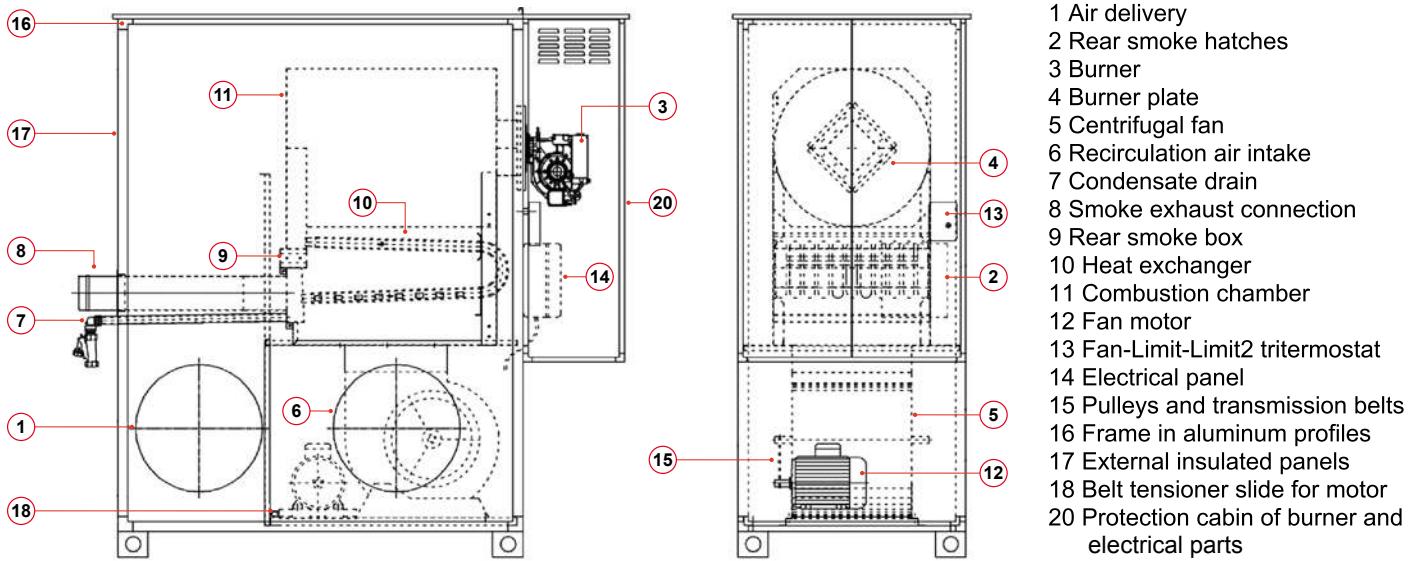
| MODEL | THERMAL FLOW | THERMAL POWER | BURNER METHANE/LPG Code | ROOM THERMOSTAT Code | THERMOSTAT SENSOR WITH CABLE 6 m Code | DAMPER THIRD WAY OF RELIEF Code | FIRE DAMPER FLOW Code | SINGLE WALL FIREPLACE Code |
|---------|--------------|---------------|----------------------------|-------------------------|--|------------------------------------|--------------------------|-------------------------------|
| ASX 80 | 98,5 | 96,3 | 38300059 | 38300051 | 38300052 | 38300053 | 38300078 | 38300080 |
| ASX 100 | 122,0 | 116,6 | 38300060 | 38300051 | 38300052 | 38300053 | 38300078 | 38300080 |
| ASX 150 | 179,0 | 178,6 | 38300061 | 38300051 | 38300052 | 38300053 | 38300079 | 38300081 |
| ASX 175 | 203,0 | 201,8 | 38300030 | 38300051 | 38300052 | 38300053 | 38300079 | 38300081 |
| ASX 200 | 238,0 | 234,2 | 38300031 | 38300051 | 38300052 | 38300053 | 38300079 | 38300081 |
| ASX 250 | 270,0 | 269,0 | 38300082 | 38300051 | 38300052 | 38300053 | 38300084 | 38300085 |
| ASX 300 | 313,0 | 310,0 | 38300083 | 38300051 | 38300052 | 38300053 | 38300084 | 38300085 |

SPECIFY IN THE ORDER PHASE IF THE GENERATOR IS FOR TENSOSTATIC OR PRESSOSTATIC STRUCTURES. The difference between generators with pressostatic and tensostatic series lies in the fact that in the generator with pressostatic series there is included the overpressure damper which closes when there is a stop of the fans due to a lack of electricity, keeping the pressure switch structure under pressure finally there is a customized wiring where the fans are always on.

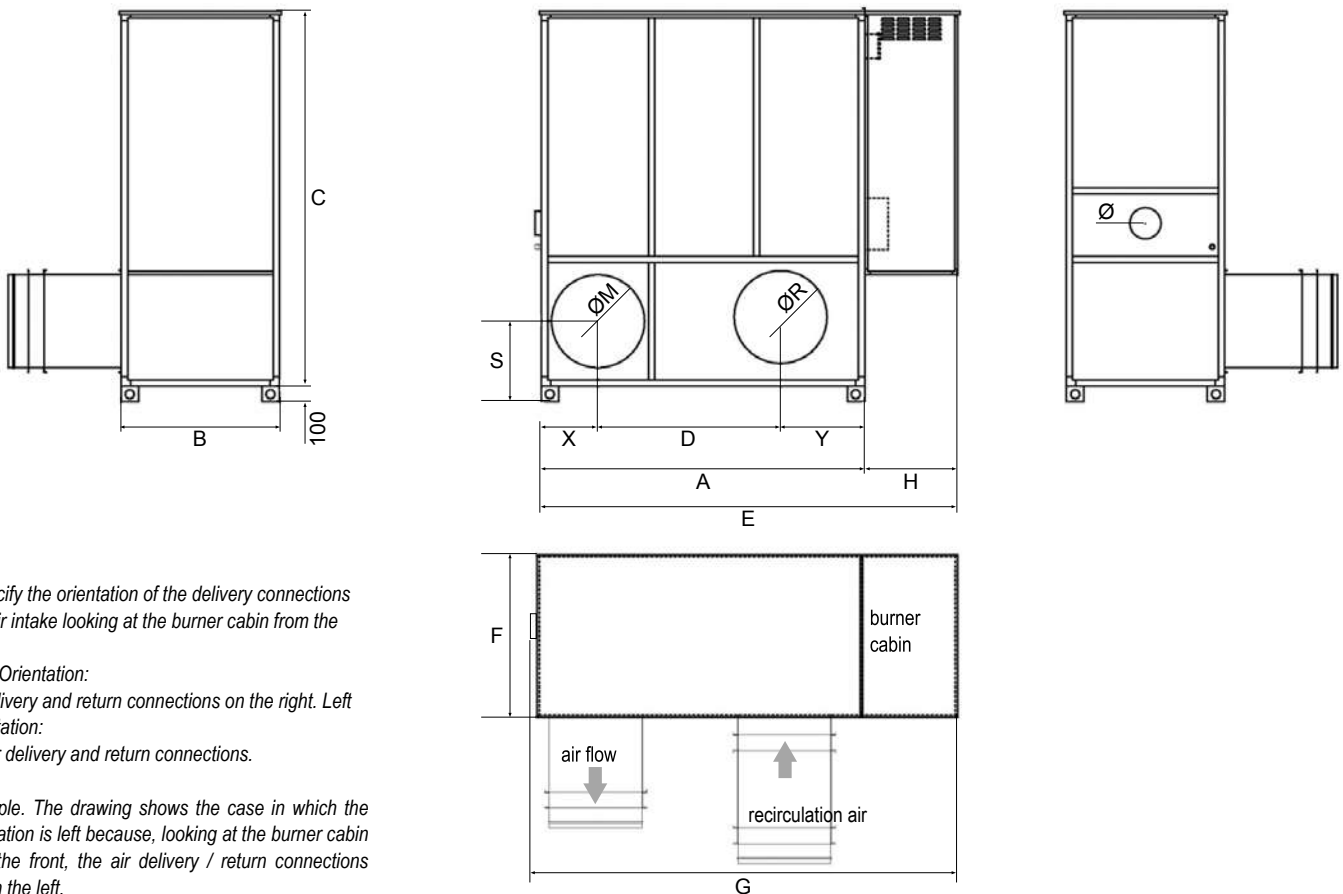
ASX

Floor standing condensing hot air generators with low NOx modulating premixed gas burners for pressosatic and tensostatic structures

Basement generator composition ASX



ASX basement generators dimensions with left view*



| Models | A | B | C | D | E | F | G | H | X | Y | S | Ø internal fireplace | ØR | ØM |
|---------|------|------|------|------|------|------|------|-----|-----|-----|-----|----------------------|-----|-----|
| ASX 80 | 1600 | 900 | 2200 | 780 | 2000 | 910 | 2010 | 400 | 320 | 500 | 505 | 130 | 500 | 500 |
| ASX 100 | 1600 | 900 | 2200 | 780 | 2000 | 910 | 2010 | 400 | 320 | 500 | 505 | 130 | 500 | 500 |
| ASX 150 | 2086 | 1020 | 2500 | 1221 | 2686 | 1030 | 2695 | 600 | 365 | 500 | 520 | 150 | 600 | 600 |
| ASX 175 | 2086 | 1020 | 2500 | 1221 | 2686 | 1030 | 2695 | 600 | 365 | 500 | 520 | 150 | 600 | 600 |
| ASX 200 | 2086 | 1020 | 2500 | 1221 | 2686 | 1030 | 2695 | 600 | 365 | 500 | 520 | 150 | 600 | 600 |
| ASX 250 | 2466 | 1100 | 2600 | 1430 | 3286 | 1140 | 3286 | 800 | 416 | 620 | 585 | 200 | 700 | 700 |
| ASX 300 | 2466 | 1100 | 2600 | 1430 | 3286 | 1140 | 3286 | 800 | 416 | 620 | 585 | 200 | 700 | 700 |

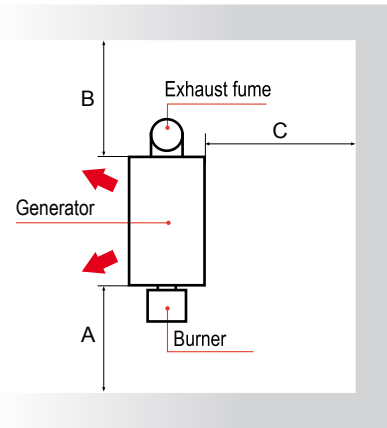
Values in mm

Minimum distances of the ASX floor standing generator from the walls

The diagram shown contains the indications of the minimum distances necessary for carrying out maintenance.

| Models | A | B | C |
|---------|------|-----|-----|
| ASX 80 | 1000 | 820 | 300 |
| ASX 100 | 1000 | 820 | 300 |
| ASX 150 | 1300 | 820 | 600 |
| ASX 175 | 1300 | 820 | 600 |
| ASX 200 | 1300 | 820 | 600 |
| ASX 250 | 1300 | 820 | 600 |
| ASX 300 | 1300 | 820 | 600 |

Values in mm



Floor standing generators technical data table ASX

| Description | U.M. | ASX | ASX | ASX | ASX | ASX | ASX | ASX | |
|--|----------------|-----------------------|-------|-----------|-------|-------|-----------|--------|--|
| | | 80 | 100 | 150 | 175 | 200 | 250 | 300 | |
| Gas category | IT | II 2H3B/P | | | | | | | |
| Type of appliance based on exhaust / combustion air intake | | B23 - C13 - C33 - C53 | | | | | | | |
| Nominal heat output Qn | kW | 98,5 | 122 | 179 | 203 | 238 | 270 | 313 | |
| Nominal heat power Pn | kW | 96,3 | 116,6 | 178,6 | 201,8 | 234,2 | 269,0 | 310,0 | |
| Thermal efficiency at nominal heat output Pn | % | 97,8 | 95,6 | 99,8 | 99,4 | 98,4 | 99,3 | 98,7 | |
| Heat input at 50% of the nominal heat input | kW | 49,25 | 61,0 | 89,5 | 101,5 | 119 | 162 | 187,8 | |
| Thermal power at 50% of the nominal heat input | kW | 51,6 | 62,1 | 93,8 | 106,0 | 123,6 | 167,3 | 191,3 | |
| Thermal efficiency at 50% of the nominal heat input | % | 104,9 | 101,8 | 104,8 | 104,5 | 103,9 | 103,3 | 101,8 | |
| Minimum heat output Qmin | kW | 31 | | 53 | | | 88 | 102 | |
| Thermal power at Qmin | kW | 33,40 | | 56,65 | | | 94,51 | 109,00 | |
| Thermal efficiency at minimum heat input Qmin | % | 107,8 | | 106,9 | | | 107,4 | 106,9 | |
| Back pressure in the combustion chamber with G20 at Qn | mbar | 3,4 | 5,1 | 3,9 | 5,2 | 6,2 | 4,0 | 4,8 | |
| Back pressure in the combustion chamber with G30 at Qn | mbar | 3,1 | 4,7 | 3,7 | 5,0 | 5,9 | 3,8 | 4,6 | |
| Condensation produced at room temperature 20 °C | l/h | 4,06 | | 4,50 | | | 5,52 | 5,20 | |
| Air flow at 18 °C | m³/h | 7560 | 9200 | 13000 | 15800 | 18000 | 20800 | 24000 | |
| Useful static pressure | Pa | 300 | | | | | | | |
| ΔT air at Pn | °C | 37,2 | | 40,4 | 37,6 | 38,3 | 37,1 | 37,0 | |
| Gas consumption at 15 °C 1013 mbar | | | | | | | | | |
| Methane G20 at 20 mbar | m³/h | 10,42 | 12,91 | 18,89 | 21,48 | 25,19 | 28,57 | 33,12 | |
| Natural gas G25 at 25 mbar | m³/h | 12,1 | 15,0 | 22,0 | 25,0 | 29,3 | 33,24 | 38,53 | |
| Propane G31 at 37 mbar | Kg/h | 7,65 | 9,48 | 13,91 | 15,77 | 18,49 | 20,98 | 24,32 | |
| Butane G30 at 28 mbar | Kg/h | 7,77 | 9,62 | 14,12 | 16,01 | 18,77 | 21,29 | 24,68 | |
| CO ₂ at Qn with G20 (tolerance ± 0,2) | % | 8,9 | | 8,8 | 8,7 | | 8,3 | | |
| CO ₂ at Qn with G31 (tolerance ± 0,2) | % | 10,50 | | | | | 10,00 | | |
| NO _x (≤ 50 Mg/kWh) | CL | Class 5 | | | | | | | |
| Electric power of the fan motor | kW | 3,0 | 4,0 | 5,5 | | 7,5 | | 11,0 | |
| Fan motor supply voltage | | 400V/3+N/50Hz | | | | | | | |
| Absorption of the fan motor | A | 5,9 | 7,8 | 9,2 | 9,9 | 11,5 | 12,8 | 19,8 | |
| Absorption of the fan motor voltage | 3F 230V/1/50Hz | 10,0 | 12,8 | 16,8 | 17,8 | 20,7 | 23,0 | 32,5 | |
| Sound level (at 5 m) | dB(A) | 72 | 73 | 71 | 73 | 74 | 75 | 76 | |
| Degree of protection IP | | X5D | | | | | | | |
| Fume exhaust connection / combustion air intake | mm | Ø 130/130 | | Ø 150/150 | | | Ø 200/200 | | |
| Gas line connection | | 3/4" | | 1" | | | 1" 1/2 | | |
| Net weight | Kg | 415 | | 700 | | | 780 | | |
| Gross weight | Kg | 425 | | 720 | | | 785 | | |

COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters



EXTRA 32
Heating boiler for outdoor installation with standard remote control



Aeroclima STYLE 10 - 15
Air heater with basic 3-speed control with standard mechanical consent thermostat



60 M - 75 M - 100 M
Heating boiler with cover for outdoor installation with standard remote control
Boiler 60 M - 75 M methane only version
Boiler 100 M methane / LPG versions

Technical and construction features

EXTRA BOILER 32

It is a 32 kW wall-mounted condensing gas boiler with IPX5D protection degree, the special flue kit (consisting of vertical start, 90 ° bend and exhaust terminal) and the remote control are supplied as standard.

The boiler is equipped with a primary exchanger in stainless steel and aluminum, total premix burner with high modulation 1 ÷ 10, and modulating HE circulator, 9-liter expansion tank and automatic by-pass.

BOILERS 60 M - 75 M - 100 M

Boiler 60 M - 75 M methane only version

Boiler 100 M methane / LPG versions

Monobloc boilers with external wall-mounted condensing cover for heating only, and premixing with very high and constant efficiency, running on natural gas or LPG. Consisting of: container for outdoor installation in the open air, stainless steel boiler body, sealed chamber and the appropriate smoke kit (consisting of a 90 ° bend and exhaust terminal).

Electronic ignition with flame ionization and continuous modulation, with microprocessor.

SART system automatic selection of the flow temperature range according to the one (high or low) required by the system. The COND SYSTEM is particularly suitable for heating laboratories, small warehouses and environments where work with flammable materials (wood, paper, paints, etc.) is carried out, avoiding lengthy bureaucratic procedures, as the system is not subject to V.V.F. (for versions with outdoor boiler).

AEROTERMO / I

Aeroclima STYLE unit heaters essentially consist of a heat exchange group between the fluid circulating inside the exchanger and the air flow exerted by a fan unit. The ambient air is sucked in by the fans and pushed through the heat exchanger, which releases in winter or removes heat from the air itself in summer. The treated air is introduced into the environment through the wide profile horizontal fin grille, in extruded aluminum, adjustable manually.

The fan motors are of the single-phase type with external rotor and it is possible to select 3 different operating speeds, chosen from 18 available by means of a special autotransformer.

The units are designed for use in 2-pipe type systems, with hydraulic connections on the right, looking at the appliance from the front. The 4-row heat exchange coil is made with copper pipes and aluminum fins blocked by mechanical expansion of the pipes and is also designed for air conditioning. The connections to the electrical panel, housed in a special watertight box, are located on the left side of the device. Both types of connection, hydraulic and electrical, are also accessible from the side, after removing the respective shaped panels. The appliance is supplied as standard with 3-speed wall control, mechanical consent thermostat and swivel wall mounting bracket.



HIGH PERFORMANCE
108% CERTIFICATED



2021
ErP
READY



REVOLVING
SHELF



CONDENSING
GAS SYSTEM






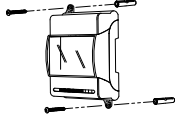
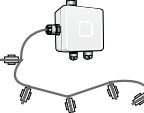






HEATING

| Model | Thermal output kW | Code | € |
|--|-------------------|-----------------|------------------|
| Boiler EXTRA 32 + n. 1 Aeroclima STYLE 15 (Mono) | 32,0 | 30415002 | 4.900,00 |
| Boiler EXTRA 32 + n. 2 Aeroclima STYLE 10 (Dual) | 32,0 | 30405002 | 6.160,00 |
| Boiler 60 M outdoor + n. 1 Aeroclima STYLE 15 (Mono) | 60,0 | 30405008 | 10.150,00 |
| Boiler 75 M outdoor + n. 2 Aeroclima STYLE 15 (Dual) | 75,8 | 30405005 | 11.495,00 |
| Boiler 75 M outdoor + n. 3 Aeroclima STYLE 15 (Tripl) | 97,1 | 30405009 | 13.195,00 |
| Boiler 100 M outdoor + n. 2 Aeroclima STYLE 15 (Dual) | 97,1 | 30405006 | 13.297,00 |
| Boiler 100 M outdoor + n. 3 Aeroclima STYLE 15 (Tripl) | 97,1 | 30405007 | 14.450,00 |
| Boiler 100 M outdoor + n. 4 Aeroclima STYLE 15 (Quadri) | 97,1 | 30405010 | 16.450,00 |




COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

Accessories for boiler EXTRA 32

| | | | Code | € |
|---|--|--------------|----------|--------|
|  | Outdoor sensor | | 30403109 | 22,00 |
|  | Advanced remote control for the management of any errors | | 30403110 | 224,00 |
|  | Programmable digital room thermostat | | 30403111 | 98,00 |
|  | Remote management kit (Wi-Fi) it is mandatory to combine it with the standard remote control | | 30403113 | 314,00 |
|  | Antifreeze resistance kit | | 30403114 | 224,00 |
|  | Control unit for the management of cascade boilers | | 30403115 | 396,00 |
|  | Extension Ø 80 M/F | Length 1 m | 30403011 | 38,00 |
| | | Length 0.5 m | 30403118 | 18,00 |
|  | Curve 90° Ø 80 M/F | | 30403013 | 24,00 |
|  | Curve 45° Ø 80 M/F | | 30403012 | 22,00 |
|  | Suction grille Ø 80 | | 30403121 | 18,00 |
|  | Smoke exhaust terminal | | 30403122 | 18,00 |

Accessories boiler 60 M - 75 M - 100 M

| | | | | |
|---|---------------------|-----------------------------------|----------|-------|
|  | Extension in PP | Ø 80 mod. 60 M-75 M - Leng. 0,5 m | 30403118 | 18,00 |
| | | Ø 100 mod. 100 M - Leng. 0,5 m | 30403126 | 25,00 |
| | | Ø 80 mod. 60 M-75 M - Leng. 1 m | 30403011 | 38,00 |
| | | Ø 100 per mod. 100 M - Leng. 1 m | 30403125 | 45,00 |
|  | Curve M F in PP 90° | Ø 80 mod. 60 M-75 M Ø | 30403119 | 24,00 |
| | | 100 mod. 100 M | 30403104 | 34,00 |
|  | Curve M F in PP 45° | Ø 80 mod. 60 M-75 M Ø | 30403120 | 22,00 |
| | | 100 mod. 100 M | 30403105 | 32,00 |

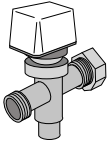
COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

Accessories Aeroclima STYLE 10 - 15

Code

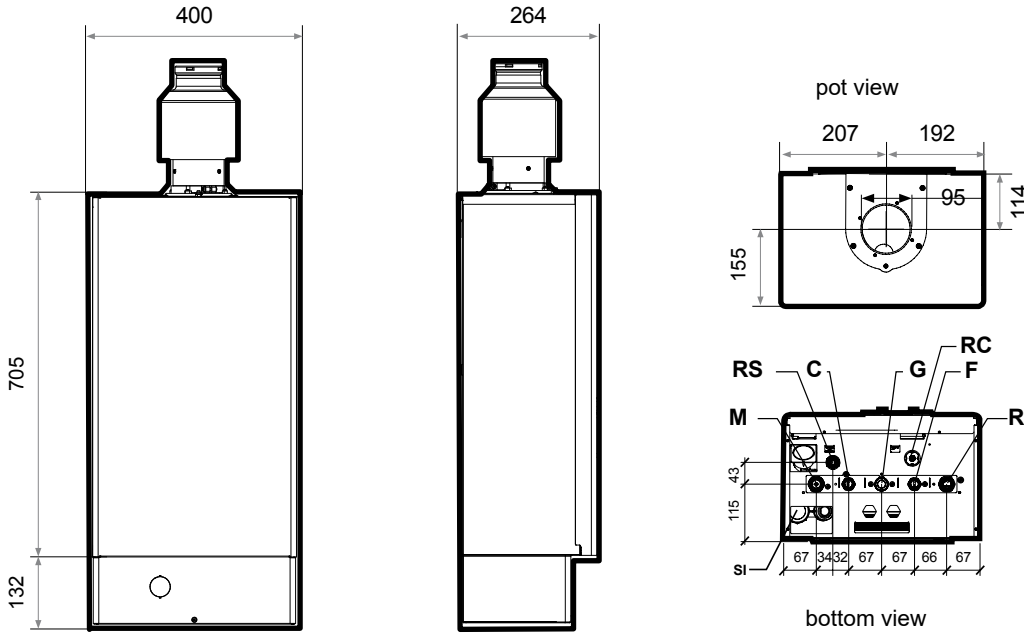
€



3-way valve
with ON / OFF actuator

36205404 180,00

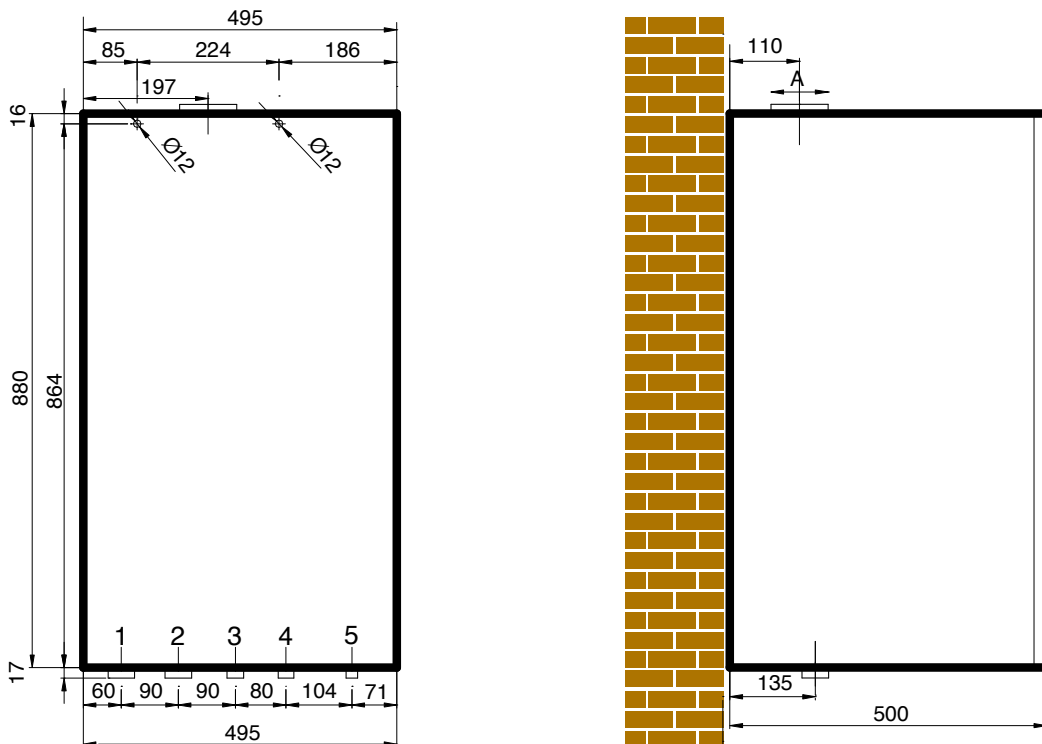
Dimensions boiler EXTRA 32



- F) Cold water inlet
- G) Gas inlet
- SI) Siphon inspection cap
- M) Heating system delivery
- C) Domestic hot water outlet
- R) Heating system return
- RS) Drain cock
- safety valve
- RC) Filling cock

Values in mm

Dimensions boiler 60 M - 75 M - 100 M



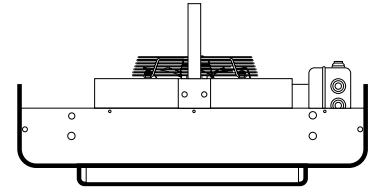
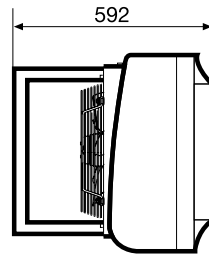
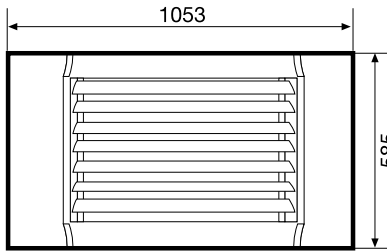
- 1) Heating delivery 1"
- 2) Heating return 1"
- 3) Gas 3/4"
- 4) Condensate drain
- 5) Safety valve drain

Values in mm

COND SYSTEM

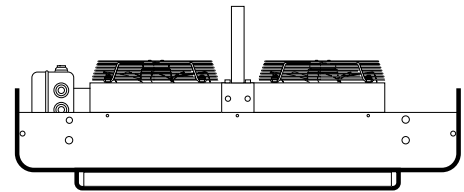
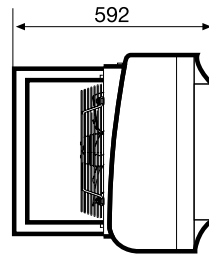
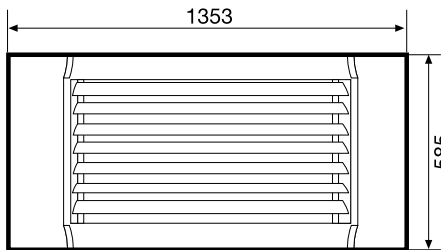
Outdoor / indoor condensing boiler combined with indoor air heaters

Dimensions air heater Aeroclima STYLE 1



Values in mm

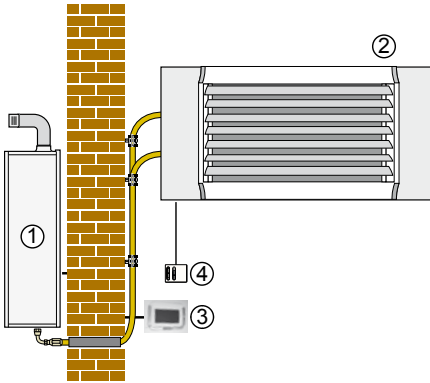
Dimensions air heater Aeroclima STYLE 15



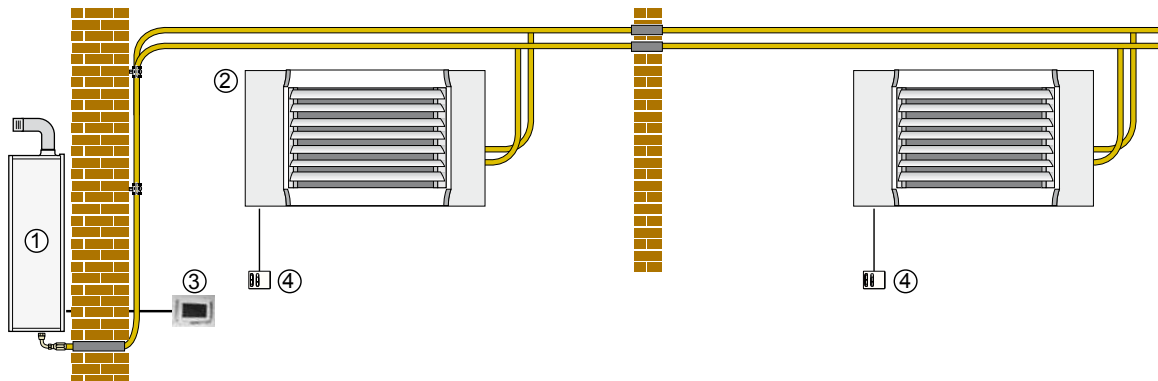
Values in mm

Examples of installation COND SYSTEM

COND SYSTEM installation example which includes the EXTRA 32 condensing boiler with the combination of 1 Aeroclima STYLE 15 unit heater for space heating.



COND SYSTEM installation example which includes the EXTRA 32 condensing boiler with the combination of n. 2 Aeroclima STYLE 10 unit heaters for space heating.



1 EXTRA 32 boiler - 2 Aeroclima STYLE unit heater - 3 Remote control - 4 Basic control

COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

EXTRA 32 boiler technical data table

| DESCRIPTION | | U.M. | EXTRA 32 |
|--|-------------|-------------------|-------------|
| Category unit | | | II2H3P |
| Heating capacity heating min. | | kW | 3,4 |
| Heating capacity max. | | kW | 32,0 |
| Heating thermal power min. (80-60 °C) | | kW | 3,3 |
| Heating thermal power max. (80-60 °C) | | kW | 30,8 |
| Heating thermal power min. (50-30 °C) | | kW | 3,5 |
| Heating thermal power max. (50-30 °C) | | kW | 33,5 |
| Seasonal efficiency class of space heating | | | A |
| Energy efficiency class of water heating | | | A |
| Supply pressure | Gas Methane | mbar | 20 |
| Supply pressure | LPG | mbar | 30 / 37 |
| Diaphragm diameter | | mm | 6,3 |
| CO ₂ value of the fumes min. | Gas Methane | % | 8,4 |
| CO ₂ value of the fumes max. | Gas Methane | % | 10,6 |
| CO ₂ value of the fumes min. | LPG | % | 10,5 |
| CO ₂ value of the fumes max. | LPG | % | 10,6 |
| Min.pressure of the heating circuit | | bar | 0,5 |
| Max pressure of the heating circuit | | bar | 3 |
| Min.pressure of the sanitary circuit | | bar | 0,5 |
| Max pressure of the sanitary circuit | | bar | 6 |
| Specific flow rate of sanitary water (Δt 30K) | | l/min | 14 |
| Power supply | | | 230V/1/50Hz |
| Power supply fuse | | A | 3,15 |
| Max absorbed power | | W | 102 |
| Methane gas consumption at max flow rate in heating* | | m ³ /h | 3,37 |
| LPG consumption at max flow rate in heating* | | m ³ /h | 0,97 |
| Fan speed G20 heating max. / min. (x 100) | | rpm | 52 / 11 |
| G20 DHW fan speed max. / min. (x 100) | | rpm | 62,5 |
| LPG heating fan speed max. / min. (x 100) | | rpm | 53 / 9 |
| Number of DHW LPG fan revolutions max. (x 100) | | rpm | 59,5 |
| Fan speed G20 ignition (x 100) | | rpm | 35 |
| Fan speed G20 ignition (x 100) | | rpm | 32 |
| Max temperature of operation in heating | | °C | 85 |
| Max temperature of operation in sanitary | | °C | 60 |
| Total expansion vessel capacity | | l | 9 |
| Degree of electrical protection | | | IP X4D |
| Net weight | | Kg | 32,4 |

Boiler combustion data table EXTRA 32

| DESCRIPTION | U.M. | Pmax | Pmin | Carico 30% |
|---|------|-------|-------|------------|
| Leaks in the casing with the burner running | % | 1,3 | 2,5 | - |
| Leaks when burner is off | % | 0,2 | 1,8 | - |
| Leaks in the chimney with the burner working | % | 2,4 | 1,8 | - |
| Mass flow of fumes | g/s | 15,0 | 1,9 | - |
| Smoke temperature | °C | 74,5 | 63 | - |
| Thermal efficiency useful for power max (60/80 °C) | % | 96,3 | - | - |
| Thermal efficiency useful for power max (30/50 °C) | % | 104,5 | - | - |
| Thermal efficiency useful for power min. (60/80 °C) | % | - | 95,7 | - |
| Thermal efficiency useful for power min. (30/50 °C) | % | - | 103,5 | - |
| Useful thermal efficiency at 30% of the load | % | - | - | 107,1 |
| Emissions class NOX | | | 6 | |

COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

Product details ERP BOILER EXTRA 32

| | |
|--|---|
| Supplier's name and brand | A2B Accorroni E.G. |
| Manufacturer's model identifier | EXTRA 32 |
| Condensing boilers: | YES |
| Low temperature boiler (**): | YES |
| Boiler type B: | NO |
| Cogeneration appliance for space heating: | If so, equipped with an additional heater |
| Mixed heater: | YES |
| Seasonal space heating energy efficiency class | A |
| Energy efficiency class of water heating | A |

| Element | Symbol | Value | U.M. |
|--|-------------------|-------|------|
| Nominal heat output | P _n | 32 | kW |
| For space heating boilers and mixed boilers: useful heat output | | | |
| At rated heat output and high temperature regime(*) | P ₄ | 31 | kW |
| At 30% of rated heat output and at a low temperature regime(**) | P ₁ | 9,3 | kW |
| Auxiliary electricity consumption | | | |
| Fully loaded | e _{lmax} | 0,102 | kW |
| Partial load | e _{lmin} | 0,062 | kW |
| In stand-by mode | P _{SB} | 0,105 | kW |
| For mixed heaters: | | | |
| Load profile declared | | XL | |
| Daily consumption of electricity | Q _{elec} | 0,16 | kWh |
| Annual consumption of electricity | AEC | 34,6 | kWh |

(*) High temperature regime: return temperature of 60 ° C at the inlet in the appliance and 80 ° C of use temperature at the appliance outlet.
 (**) Low temperature: return temperature (at the boiler inlet) for the boilers condensing 30 ° C, for low temperature appliances of 37 ° C and for other appliances of 50 ° C.

Contact details: A2B Accorroni E.G. s.r.l. Via d'Ancona, 37 - 60027 Osimo (An)

| Element | Symbol | Value | U.M. |
|---|-------------------|-----------------|--------|
| Seasonal energy efficiency of space heating | η ₁ | 92 | % |
| For space heating boilers and mixed boilers: useful efficiency | | | |
| At rated heat output and high temperature regime(*) | η ₄ | 86,7 | % |
| At 30% of rated heat output and high temperature regime (*) | η ₄ | 86,7 | % |
| Other elements | | | |
| Stand-by heat loss | P _{stby} | 0,071 | kW |
| Energy consumption of the ignition burner | P _{ign} | 0 | kW |
| Annual energy consumption | Q _{HE} | 62,7 | kWh |
| Nitrogen oxide emissions | NO _x | 55 | mg/kWh |
| Seasonal energy efficiency for water heating | | η _{wh} | 90 |
| Daily fuel consumption | Q _{fuel} | 21,3 | kWh |
| Annual fuel consumption | AFC | 16,4 | GJ |

Technical data table of boilers 60 M - 75 M - 100 M

| DESCRIPTION | U.M. | 60 M | 75 M | 100 M |
|---|-------------------|-----------------------------|-------|-------|
| Appliance type | | B33/B53/C13/C33/C43/C53/C83 | | |
| Category | | II2H | | |
| Reference gas | | G20 | | |
| Nominal heat output | kW | 57,0 | 70,0 | 90,0 |
| Nominal heat output (useful) 80/60 °C | kW | 55,3 | 67,9 | 87,6 |
| Nominal heat output (useful)50/30 °C | kW | 60,0 | 75,8 | 97,1 |
| Minimum heat output | kW | 13,4 | 13,4 | 17,1 |
| Useful thermal efficiency 80/60 | % | 97,0 | 97,0 | 97,3 |
| Useful thermal efficiency 50/30 | % | 106,0 | | |
| Useful thermal efficiency 40/30 | % | 108,3 | 108,3 | 107,9 |
| Max boiler working pressure | bar | 6,0 | | |
| Max heating operating temperature | °C | 90 | | |
| Max flow rate electronic inverter circulator | m ³ /h | 8,5 | | |
| Head available with flow rate4,8 m ³ /h | m | 8 | | |
| Smoke outlet diameter (A) | mm | 80 | 80 | 100 |
| Power supply | | 230V/1/50Hz | | |
| Total boiler capacity | l | 6 | 6 | 8 |
| Total rated electrical absorption of the boiler (including the circulator) | A | 2,3 | 2,3 | 2,8 |
| Total electrical power consumption of the boiler (including the circulator) | W | 303 | 303 | 357 |
| Max electrical power absorbed by the pump only | W | 190 | | |
| Degree of protection | | IPX4D | | |
| Class NOx | | 6 | | |
| Empty weight | Kg | 70 | 70 | 65 |

COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

Boiler combustion data table 60 M - 75 M - 100 M

| DESCRIPTION | U.M. | 60 M | 75 M | 100 M |
|------------------------------|------|------|-------|-------|
| Supply pressure G20 | mbar | 37 | | |
| Exhaust gas flow P max. | kg/h | 95,6 | 117,5 | 151,0 |
| Exhaust gas flow P min. | kg/h | 24,3 | 24,3 | 31,2 |
| CO ₂ in the fumes | % | 9,0 | | |
| CO maximum admitted at max. | ppm | 160 | 160 | 170 |
| CO maximum admitted at min. | ppm | 5 | | |
| Smoke temperature | °C | 70 | | |

Product sheet ERP boiler 60 M

| | |
|--|--------------------|
| Supplier's name and brand | A2B Accorroni E.G. |
| Manufacturer's model identifier | 60 M |
| Condensing boilers | SI |
| Low temperature boiler | NO |
| Boiler type B1 | NO |
| Cogeneration appliance for space heating | NO |
| Mixed heater | SI |
| Equipped with additional heating system | NO |
| Energy efficiency class | A |

| Element | Symbol | Value | U.M. |
|---|----------------|-----------|------|
| Nominal heat output: | P _n | 54 | kW |
| Seasonal thermal efficiency of space heating | η _s | 92 | % |
| Useful power at nominal heat output in high temperature regime (*) | P ₄ | 55,1 | kW |
| Useful efficiency at nominal heat output of high temperature(*) | η ₄ | 86,4 | % |
| Useful power at 30% of the rated heat output at a low temperature regime (**) | P ₁ | 13,6 | kW |
| Useful efficiency at 30% of nominal power at a low temperature regime(**) | η ₁ | 97,5 | % |

Auxiliary electricity consumption

| | | | |
|-----------------|-------------------|-------|----|
| Fully loaded | e _{lmax} | 0,14 | kW |
| Partial load | e _{lmin} | 0,05 | kW |
| In standby mode | P _{SB} | 0,005 | kW |

Other elements

| | | | |
|------------------------------------|-------------------|-------|--------|
| Standby heat loss | P _{STBY} | 0,1 | kW |
| Ignition burner energy consumption | P _{IGN} | 0,000 | kW |
| Annual energy consumption | Q _{HE} | 130 | GJ |
| Indoor / outdoor sound power level | L _{WA} | 56 | dB |
| Nitrogen oxide emissions | NO _x | 12 | mg/kWh |

Domestic hot water parameters

| | | | |
|------------------------------------|-------------------|-----|----|
| Load profile declared | N/A | | |
| Production yield of sanitary water | η _{WH} | N/A | % |
| Daily consumption of electricity | Q _{elec} | N/A | kW |
| Annual consumption of electricity | AEC | N/A | kW |
| Daily fuel consumption | Q _{fuel} | N/A | kW |
| Annual fuel consumption | AFC | N/A | GJ |

According to EU regulation n° 811/2013 and n° 813/2013.

N / A = Not applicable

(*) High temperature mode means 60 ° C in return and 80 ° C in delivery

(**) Low temperature regime for condensing boilers means 30 ° C, for low temperature boilers 37 ° C and for other appliances 50 ° C return temperature. Contact details: A2B Accorroni E.G. s.r.l. Via d'Ancona, 37 - 60027 Osimo (An)

COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

Product sheet ERP boiler 75 M

| | |
|--|--------------------|
| Supplier's name and brand | A2B Accorroni E.G. |
| Manufacturer's model identifier | 75 M |
| Condensing boilers | YES |
| Low temperature boiler | NO |
| Boiler type B1 | NO |
| Cogeneration appliance for space heating | NO |
| Mixed heater | YES |
| Equipped with additional heating system | NO |
| Energy efficiency class | A |

| Element | Symbol | Value | U.M. |
|--|----------|-----------|------|
| Nominal heat output | P_n | 68 | kW |
| Seasonal thermal efficiency of space heating | η_s | 92 | % |
| Useful power at nominal heat output in high temperature regime (*) | P_4 | 67,9 | kW |
| Useful efficiency at nominal heat output of high temperature (*) | η_4 | 87,3 | % |
| Useful power at 30% of the rated heat output at a low temperature regime (**) | P_1 | 20,4 | kW |
| Useful efficiency at 30% of the nominal power at a low temperature regime (**) | η_1 | 96,0 | % |

Auxiliary electricity consumption

| | | | |
|-----------------|------------|-------|----|
| Fully loaded | e_{lmax} | 0,14 | kW |
| Partial load | e_{lmin} | 0,05 | kW |
| In standby mode | P_{SB} | 0,005 | kW |

Other elements

| | | | |
|------------------------------------|------------|-------|--------|
| Standby heat loss | P_{STBY} | 0,1 | kW |
| Ignition burner energy consumption | P_{IGN} | 0,000 | kW |
| Annual energy consumption | Q_{HE} | 130 | GJ |
| Indoor / outdoor sound power level | LWA | 58 | dB |
| Nitrogen oxide emissions | NO_x | 45 | mg/kWh |

Domestic hot water parameters

| | | | |
|------------------------------------|-------------|-----|----|
| Load profile declared | | N/A | |
| Production yield of sanitary water | η_{WH} | N/A | % |
| Daily consumption of electricity | Q_{elec} | N/A | kW |
| Annual consumption of electricity | AEC | N/A | kW |
| Daily fuel consumption | Q_{fuel} | N/A | kW |
| Annual fuel consumption | AFC | N/A | GJ |

According to EU regulation n ° 811/2013 and n ° 813/2013.

N / A = Not applicable

(*) High temperature mode means 60 ° C in return and 80 ° C in delivery

(**) Low temperature regime for condensing boilers means 30 ° C, for low temperature boilers 37 ° C and for other appliances 50 ° C return temperature. Contact details: A2B Accorroni E. G. s.r.l. Via d'Ancona, 37 - 60027 Osimo (An)

COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

Product sheet ERP boiler 100 M

| | |
|--|--------------------|
| Supplier's name and brand | A2B Accorroni E.G. |
| Manufacturer's model identifier | 100 M |
| Condensing boilers | YES |
| Low temperature boiler | NO |
| Boiler type B1 | NO |
| Cogeneration appliance for space heating | NO |
| Mixed heater | YES |
| Equipped with additional heating system | NO |
| Energy efficiency class | A |

| Element | Simbolo | Valore | U.M. |
|---|----------|-----------|------|
| Nominal heat output: | P_n | 90 | kW |
| Seasonal thermal efficiency of space heating | η_s | 92 | % |
| Useful power at nominal heat output in high temperature regime (*) | P_4 | 87,3 | kW |
| Useful efficiency at nominal heat output of high temperature (*) | η_4 | 86,7 | % |
| Useful power at 30% of the rated heat output at a low temperature regime (**) | P_1 | 27 | kW |
| Useful efficiency at 30% of the nominal power at a low temperature regime(**) | η_1 | 97,2 | % |

Auxiliary electricity consumption

| | | | |
|-----------------|------------|-------|----|
| Fully loaded | e_{lmax} | 0,14 | kW |
| Partial load | e_{lmin} | 0,05 | kW |
| In standby mode | P_{SB} | 0,005 | kW |

Other elements

| | | | |
|------------------------------------|------------|-------|--------|
| Standby heat loss | P_{STBY} | 0,1 | kW |
| Ignition burner energy consumption | P_{IGN} | 0,000 | kW |
| Annual energy consumption | Q_{HE} | 130 | GJ |
| Indoor / outdoor sound power level | LWA | 58 | dB |
| Nitrogen oxide emissions | NO_x | 45 | mg/kWh |

Domestic hot water parameters

| | | | |
|------------------------------------|-------------|-----|----|
| Load profile declared | | N/A | |
| Production yield of sanitary water | η_{WH} | N/A | % |
| Daily consumption of electricity | Q_{elec} | N/A | kW |
| Annual consumption of electricity | AEC | N/A | kW |
| Daily fuel consumption | Q_{fuel} | N/A | kW |
| Annual fuel consumption | AFC | N/A | GJ |

According to EU regulation n ° 811/2013 and n ° 813/2013.

N / A = Not applicable

(*) High temperature mode means 60 ° C in return and 80 ° C in delivery

(**) Low temperature regime for condensing boilers means 30 ° C, for low temperature boilers 37 ° C and for other appliances 50 ° C return temperature. Contact details: A2B Accorroni E.G. s.r.l. Via d'Ancona, 37 - 60027 Osimo (An)

COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

Technical data table AEROCLIMA STYLE 10 - 15

| DESCRIPTION | U.M. | | STYLE 10 | STYLE 15 |
|--|--------------------------|----------|-----------------|------------------|
| Thermal power water ingr. 70 ° C (ΔT 10 ° C) room air temperature 20 ° C (1) | kW | max | 24,60 | 42,50 |
| | | med | 22,80 | 32,40 |
| | | min | 19,60 | 26,70 |
| Battery pressure drops at min | kPa | | 3,2 | 4,3 |
| Battery pressure drops at max | kPa | | 12,3 | 14,1 |
| Hydraulic circuit volume | l | | 4,0 | 6,0 |
| Air side thermal jump | °C | max | 33,5 | 31,5 |
| | | med | 34,1 | 34,9 |
| | | min | 35,9 | 37,2 |
| Thermal power water ingr. 50 ° C (ΔT 5 ° C) room air temperature 20 ° C (2) | kW | max | 14,90 | 25,80 |
| | | med | 13,80 | 19,60 |
| | | min | 11,90 | 16,20 |
| Battery pressure drops at min | kPa | | 4,2 | 5,6 |
| Battery pressure drops at max | kPa | | 16,2 | 21,4 |
| Air side thermal jump | °C | min | 20,3 | 19,1 |
| | | med | 20,7 | 21,1 |
| | | max | 21,8 | 22,6 |
| Air flow | m ³ /h | min | 2180 | 4000 |
| | | med | 1980 | 2750 |
| | | max | 1620 | 2130 |
| Auxiliary speeds (*) | n. / (m ³ /h) | | 15 / (450÷2200) | 15 / (1080÷4600) |
| Number of fans | n. | | 1 | 2 |
| Sound pressure (5 meters in free field with direction factor = 2) | dB(A) | max | 49,5 | 49,6 |
| | | med | 47,8 | 42,3 |
| | | min | 45,6 | 37,7 |
| Sound power | dB(A) | max | 71,5 | 71,6 |
| | | med | 69,8 | 64,3 |
| | | min | 67,6 | 59,7 |
| Sound pressure auxiliary speed min-max (**) | dB(A) | | 32,0÷56,3 | 34,8÷65,3 |
| Power supply | | | 230V/1/50Hz | |
| Launch | m | vel. max | 20 | 22 |
| | | vel. min | 14 | 15 |
| Absorbed electrical power | W | max | 115 | 220 |
| | | med | 105 | 200 |
| | | min | 85 | 180 |
| Max absorbed current | A | | 0,63 | 1,20 |
| Degree of protection fan / s | | | IP44 | |
| Degree of protection of the appliance | | | IP24 | |

(*) Fan speeds selectable in addition to the standard ones

(**) Sound pressure level at 1 meter, in free field with direction factor 2, in the minimum and maximum value of the available auxiliary speeds.

(1) Value referred to the maximum flow rate of the air-water coil, 2116 l/h for the STYLE 10 and 3655 l/h for the STYLE 15, this flow rate value may vary according to the type of selected boiler / air heater combination

(2) Value referred to the maximum flow rate of the air-water coil, 2563 l/h for the STYLE 10 and 4438 l/h for the STYLE 15, this flow rate value may vary according to the type of selected boiler / air heater combination

COND SYSTEM

Outdoor / indoor condensing boiler combined with indoor air heaters

Performance in heating STYLE 10

| Description | Heating yields $\Delta T 5^{\circ}C$ | | | | Thermal power kW - Air delivery temperature d.b. ($^{\circ}C$) | | | | | | | |
|---|--------------------------------------|------|------|------|--|------|------|------|--------------------|------|------|------|
| | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Battery inlet air temp ($^{\circ}C$) | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Air flow (m^3/h) | Velocità max 2.180 | | | | Velocità media 1.980 | | | | Velocità min 1.620 | | | |
| TP. water flow 45 $^{\circ}C$ (kW) | 12,1 | 15,0 | 18,0 | 26,1 | 11,2 | 13,9 | 16,7 | 19,5 | 9,7 | 12,0 | 14,4 | 16,6 |
| Battery outlet air temp ($^{\circ}C$) | 36,5 | 35,4 | 34,5 | 28,7 | 36,8 | 35,8 | 35,0 | 34,2 | 37,7 | 37,0 | 36,4 | 35,8 |
| TP. water flow 50 $^{\circ}C$ (kW) | 14,9 | 17,9 | 20,9 | 29,0 | 13,8 | 16,6 | 19,4 | 22,2 | 11,9 | 14,2 | 16,6 | 19,1 |
| Battery outlet air temp ($^{\circ}C$) | 40,3 | 39,3 | 38,4 | 32,6 | 40,7 | 39,9 | 39,1 | 37,2 | 41,8 | 41,0 | 40,4 | 40,0 |
| TP. water flow 55 $^{\circ}C$ (kW) | 17,8 | 20,7 | 23,8 | 26,9 | 16,4 | 19,2 | 22,0 | 24,9 | 14,1 | 16,5 | 18,9 | 21,4 |
| Battery outlet air temp ($^{\circ}C$) | 44,2 | 43,2 | 42,4 | 41,6 | 44,6 | 43,8 | 43,0 | 42,3 | 45,8 | 45,2 | 44,6 | 44,2 |

| Description | Heating yields $\Delta T 10^{\circ}C$ | | | | Thermal power kW - Air delivery temperature d.b. ($^{\circ}C$) | | | | | | | |
|---|---------------------------------------|------|------|------|--|------|------|------|-----------------|-------|------|------|
| | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Battery inlet air temp ($^{\circ}C$) | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Air flow (m^3/h) | Speed max 2.180 | | | | Speed media 1.980 | | | | Speed min 1.620 | | | |
| TP. water flow 60 $^{\circ}C$ (kW) | 18,9 | 21,9 | 25,0 | 28,2 | 17,5 | 20,3 | 23,2 | 26,1 | 15,1 | 17,5 | 20,0 | 22,5 |
| Battery outlet air temp ($^{\circ}C$) | 45,7 | 44,8 | 44,0 | 43,4 | 46,2 | 45,4 | 44,7 | 44,1 | 47,6 | 47,0 | 46,6 | 46,2 |
| TP. water flow 70 $^{\circ}C$ (kW) | 24,6 | 27,7 | 30,9 | 34,1 | 22,8 | 25,7 | 28,6 | 31,6 | 19,6 | 22,10 | 24,6 | 27,2 |
| Battery outlet air temp ($^{\circ}C$) | 53,5 | 52,7 | 52,0 | 51,4 | 54,1 | 53,5 | 52,8 | 52,3 | 55,9 | 55,5 | 55,0 | 54,8 |
| TP. water flow 80 $^{\circ}C$ (kW) | 30,4 | 33,5 | 36,7 | 40,0 | 28,1 | 31,0 | 34,0 | 37,0 | 24,2 | 26,6 | 29,2 | 31,9 |
| Battery outlet air temp ($^{\circ}C$) | 61,4 | 60,6 | 59,9 | 59,4 | 62,1 | 61,4 | 60,9 | 60,4 | 64,3 | 63,7 | 63,5 | 63,4 |

| Description | Heating yields $\Delta T 15^{\circ}C$ | | | | Thermal power kW - Air delivery temperature d.b. ($^{\circ}C$) | | | | | | | |
|---|---------------------------------------|------|------|------|--|------|------|------|-----------------|------|------|------|
| | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Battery inlet air temp ($^{\circ}C$) | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Air flow (m^3/h) | Speed max 2.180 | | | | Speed media 1.980 | | | | Speed min 1.620 | | | |
| TP. water flow 60 $^{\circ}C$ (kW) | 17,2 | 20,2 | 23,2 | 26,4 | 15,9 | 18,7 | 21,6 | 24,5 | 13,8 | 16,2 | 18,7 | 21,2 |
| Battery outlet air temp ($^{\circ}C$) | 43,4 | 42,5 | 41,6 | 40,9 | 43,8 | 42,0 | 41,4 | 40,7 | 45,3 | 44,7 | 44,2 | 43,8 |
| TP. water flow 70 $^{\circ}C$ (kW) | 23,0 | 26,1 | 29,2 | 32,4 | 21,3 | 24,2 | 27,1 | 30,0 | 18,4 | 20,9 | 23,4 | 25,9 |
| Battery outlet air temp ($^{\circ}C$) | 51,3 | 50,5 | 49,7 | 49,1 | 51,9 | 51,2 | 50,6 | 49,9 | 53,7 | 53,3 | 52,8 | 52,4 |
| TP. water flow 80 $^{\circ}C$ (kW) | 28,8 | 31,9 | 35,1 | 38,4 | 26,7 | 29,6 | 32,5 | 35,6 | 23,0 | 25,5 | 28,0 | 30,7 |
| Battery outlet air temp ($^{\circ}C$) | 59,2 | 58,4 | 57,7 | 57,2 | 60,0 | 59,3 | 58,7 | 58,3 | 62,1 | 61,7 | 61,3 | 61,2 |

Prestazioni in riscaldamento STYLE 15

| Description | Heating yields $\Delta T 5^{\circ}C$ | | | | Thermal power kW - Air delivery temperature d.b. ($^{\circ}C$) | | | | | | | |
|---|--------------------------------------|------|------|------|--|------|------|------|-----------------|------|------|------|
| | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Battery inlet air temp ($^{\circ}C$) | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Air flow (m^3/h) | Speed max 4.000 | | | | Speed media 2.750 | | | | Speed min 2.130 | | | |
| TP. water flow 45 $^{\circ}C$ (kW) | 20,9 | 26,0 | 31,1 | 36,4 | 16,0 | 19,8 | 23,7 | 27,7 | 13,2 | 16,3 | 19,5 | 22,8 |
| Battery outlet air temp ($^{\circ}C$) | 35,5 | 34,3 | 33,1 | 32,0 | 37,3 | 36,4 | 35,6 | 34,9 | 38,4 | 37,7 | 37,1 | 36,7 |
| TP. water flow 50 $^{\circ}C$ (kW) | 25,8 | 30,9 | 36,1 | 41,4 | 19,6 | 23,5 | 27,5 | 31,5 | 16,2 | 19,3 | 22,6 | 25,9 |
| Battery outlet air temp ($^{\circ}C$) | 39,1 | 37,9 | 36,8 | 35,7 | 41,1 | 40,3 | 39,7 | 39,0 | 42,6 | 41,9 | 41,5 | 41,1 |
| TP. water flow 55 $^{\circ}C$ (kW) | 30,7 | 35,8 | 41,1 | 46,5 | 23,3 | 27,2 | 31,2 | 35,3 | 19,2 | 22,4 | 25,7 | 29,0 |
| Battery outlet air temp ($^{\circ}C$) | 42,8 | 41,5 | 40,5 | 39,5 | 45,1 | 44,3 | 43,6 | 43,1 | 46,7 | 46,2 | 45,8 | 45,4 |

| Description | Heating yields $\Delta T 10^{\circ}C$ | | | | Thermal power kW - Air delivery temperature d.b. ($^{\circ}C$) | | | | | | | |
|---|---------------------------------------|------|------|------|--|------|------|------|-----------------|------|------|------|
| | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Battery inlet air temp ($^{\circ}C$) | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Air flow (m^3/h) | Speed max 4.000 | | | | Speed media 2.750 | | | | Speed min 2.130 | | | |
| TP. water flow 60 $^{\circ}C$ (kW) | 32,6 | 37,8 | 43,1 | 48,5 | 25,0 | 28,9 | 33,0 | 37,1 | 20,6 | 23,9 | 27,2 | 30,6 |
| Battery outlet air temp ($^{\circ}C$) | 44,2 | 43,0 | 42,0 | 41,0 | 47,0 | 46,2 | 45,6 | 45,0 | 48,7 | 48,3 | 47,9 | 47,6 |
| TP. water flow 70 $^{\circ}C$ (kW) | 42,5 | 47,8 | 53,2 | 58,8 | 32,4 | 36,5 | 40,6 | 44,8 | 26,7 | 30,0 | 33,4 | 36,9 |
| Battery outlet air temp ($^{\circ}C$) | 51,5 | 50,4 | 49,4 | 48,6 | 54,9 | 54,4 | 53,8 | 52,3 | 57,2 | 56,8 | 56,5 | 56,4 |
| TP. water flow 80 $^{\circ}C$ (kW) | 52,4 | 57,8 | 63,4 | 69,0 | 39,9 | 44,0 | 48,2 | 52,6 | 32,8 | 36,2 | 39,7 | 43,2 |
| Battery outlet air temp ($^{\circ}C$) | 58,8 | 57,9 | 57,0 | 56,2 | 63,0 | 62,4 | 62,0 | 61,7 | 65,7 | 65,4 | 65,3 | 65,1 |

| Description | Heating yields $\Delta T 15^{\circ}C$ | | | | Thermal power kW - Air delivery temperature d.b. ($^{\circ}C$) | | | | | | | |
|---|---------------------------------------|------|------|------|--|------|------|------|-----------------|------|------|------|
| | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Battery inlet air temp ($^{\circ}C$) | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 | 20 | 15 | 10 | 5 |
| Air flow (m^3/h) | Speed max 4.000 | | | | Speed media 2.750 | | | | Speed min 2.130 | | | |
| TP. water flow 60 $^{\circ}C$ (kW) | 29,5 | 34,7 | 40,0 | 45,4 | 22,8 | 26,8 | 30,8 | 34,9 | 18,9 | 22,2 | 25,5 | 28,9 |
| Battery outlet air temp ($^{\circ}C$) | 41,9 | 40,7 | 39,7 | 38,7 | 44,6 | 43,9 | 43,2 | 42,6 | 46,3 | 45,9 | 45,5 | 45,2 |
| TP. water flow 70 $^{\circ}C$ (kW) | 39,6 | 44,9 | 50,3 | 55,7 | 30,4 | 34,4 | 38,5 | 42,7 | 25,1 | 28,5 | 31,8 | 35,3 |
| Battery outlet air temp ($^{\circ}C$) | 49,4 | 48,3 | 47,3 | 46,3 | 52,8 | 52,1 | 51,5 | 51,0 | 54,9 | 54,7 | 54,3 | 54,1 |
| TP. water flow 80 $^{\circ}C$ (kW) | 49,6 | 55,0 | 60,5 | 66,1 | 38,0 | 42,1 | 46,3 | 50,6 | 31,3 | 34,7 | 38,2 | 41,7 |
| Battery outlet air temp ($^{\circ}C$) | 56,8 | 55,8 | 54,9 | 54,0 | 61,0 | 60,4 | 59,9 | 59,6 | 63,6 | 63,3 | 63,2 | 63,1 |

PLAY ENTRY 20

Wall-mounted gas condensing boiler for heating and DHW production



Technical and construction features

PLAY ENTRY is an ultra-compact gas condensing boiler to produce heating and DHW.

PLAY ENTRY is simple to install and use and is available with a power of 20 kW, the use of cutting-edge components and high quality standards guarantee a product with a high degree of reliability, the ultra-compact dimensions allow easy installation even in thinner walls.

PLAY ENTRY provides advanced electronics, easily manageable from the intuitive control panel with backlit display. Through the BEST System, combustion is analyzed at all times, guaranteeing the best performance in terms of efficiency and polluting emissions.

The BEST system also allows the use of LPG (or methane gas) by acting only on the electronics without the need for additional conversion kits.



HIGH PERFORMANCE
103,4 % CERTIFICATED



CONDENSING BOILER















HEATING



DHW

| Model | Thermal power kW | Thermal flow kW | Code | € |
|--|------------------|-----------------|-----------------|-----------------|
| PLAY ENTRY 20 (heating and DHW) | 20,0 | 19,2 | 30420020 | 1.600,00 |

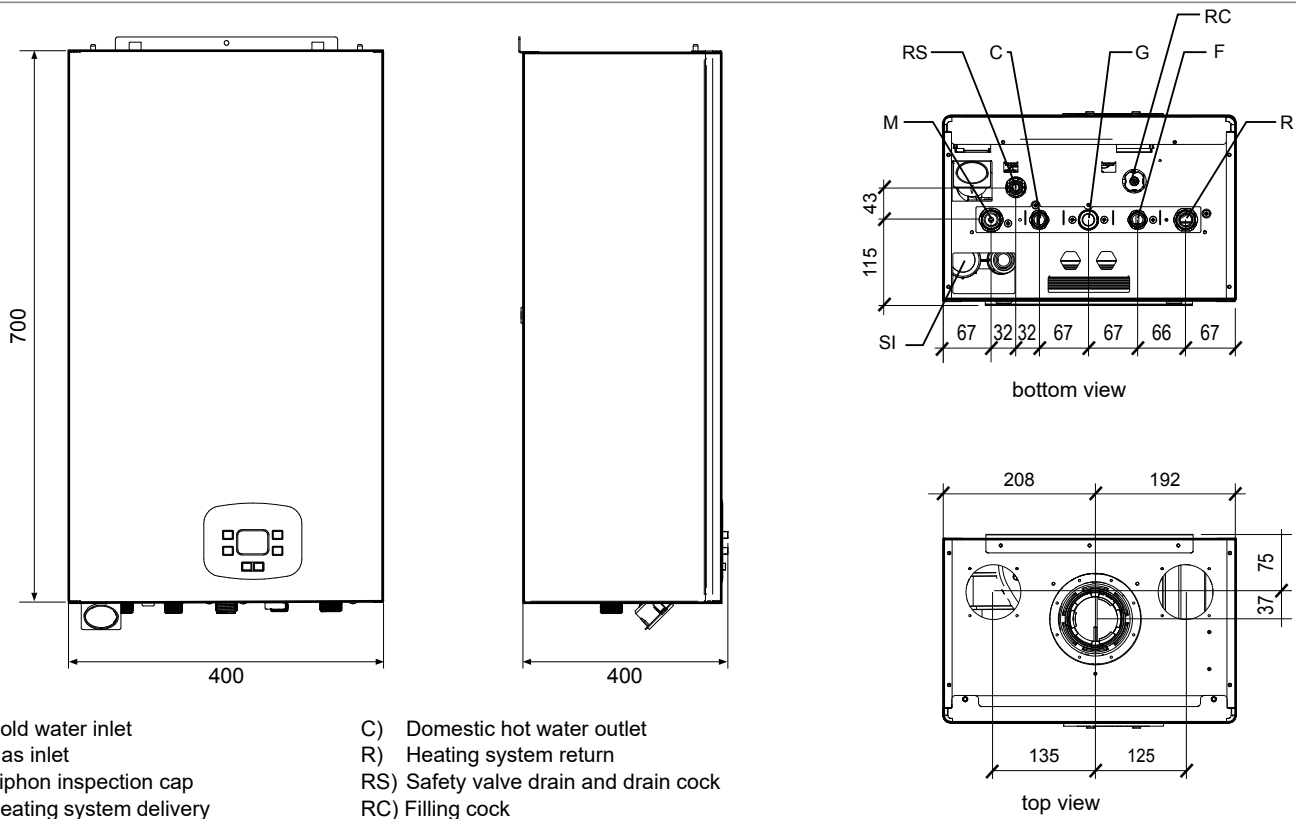
Accessories PLAY ENTRY 20

| | | | |
|---|--|-----------------|---------------|
|  | Coaxial starting curve Ø 60/100 at 90 ° with smoke extraction | 30403123 | 23,00 |
|  | Vertical coaxial outlet Ø 60/100 with smoke extraction | 30403124 | 25,00 |
|  | Coaxial flue gas exhaust kit Ø 60/100 | 30403000 | 50,00 |
|  | Coaxial roof terminal Ø 60/100 | 30403014 | 118,00 |
|  | Coaxial extension Ø 60/100 M / F = 1000 mm | 30403002 | 28,00 |
|  | Coaxial 90 ° bend Ø 60/100 M / F | 30403004 | 30,00 |
|  | 45 ° coaxial bend Ø 60/100 M / F | 30403003 | 30,00 |
|  | Splitter kit from Ø 60/100 to Ø 80/80 | 30403018 | 33,00 |
|  | Separate duct kits Ø 80/80 with smoke extraction | 30403022 | 22,00 |
|  | Extension Ø 80 M/F = 1000 mm | 30403011 | 8,00 |
|  | Coaxial 90 ° bend Ø 80 M / F | 30403013 | 5,00 |
|  | 45 ° coaxial bend Ø 80 M / F | 30403012 | 5,00 |

PLAY ENTRY 20

Wall-mounted gas condensing boiler for heating and DHW production

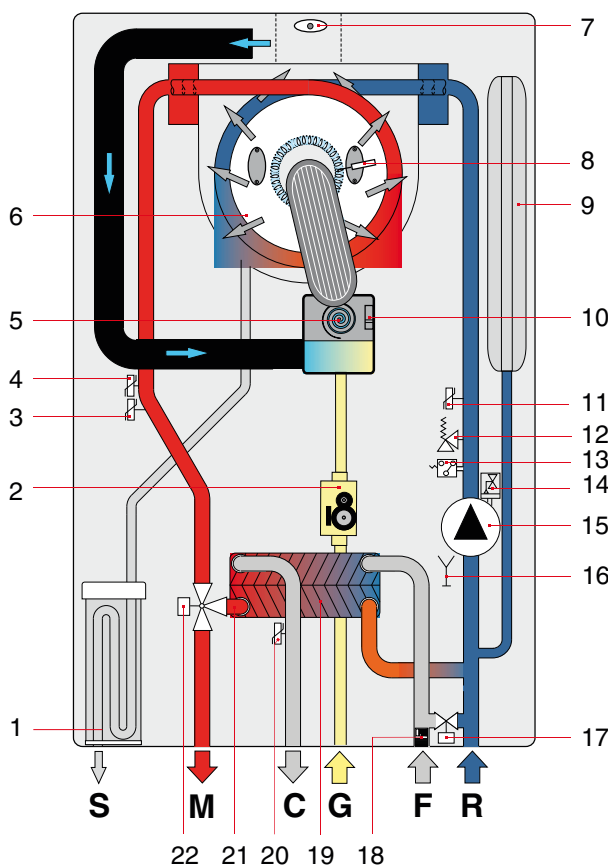
Dimensions PLAY ENTRY 20



- | | |
|----------------------------|---------------------------------------|
| F) Cold water inlet | C) Domestic hot water outlet |
| G) Gas inlet | R) Heating system return |
| SI) Siphon inspection cap | RS) Safety valve drain and drain cock |
| M) Heating system delivery | RC) Filling cock |

Values in mm

Hydraulic scheme PLAY ENTRY 20



- 1 Condensate drain siphon
- 2 Modulating gas valve
- 3 Safety thermostat
- 4 Flow temperature sensor
- 5 Modulating fan
- 6 Primary condensing exchanger
- 7 Flue gas temperature probe
- 8 Ignition and detection electrode
- 9 Expansion vessel
- 10 Fan control sensor
- 11 Return temperature sensor
- 12 3 bar safety valve
- 13 Pressure transducer
- 14 Deaerator
- 15 Circulator
- 16 Drain cock
- 17 Filling cock
- 18 Flowmeter with cold water filter
- 19 Secondary plate exchanger
- 20 Domestic hot water temperature sensor
- 21 Automatic by-pass integrated on plate heat exchanger
- 22 Motorized 3-way valve

- S** Condensate drain
G Gas inlet
M Heating system flow **C** Domestic hot water outlet
F Cold water inlet
R Heating system return

PLAY ENTRY 20

Wall-mounted gas condensing boiler for heating and DHW production

Boiler technical data table PLAY ENTRY 20

| DESCRIPTION | U.M. | PLAY ENTRY 20 |
|--|-------------------|---------------|
| Appliance category | | I12H3P |
| Minimum pressure of the heating circuit | bar | 0,5 |
| Maximum pressure of the heating circuit | bar | 3 |
| Minimum pressure of the sanitary circuit | bar | 0,5 |
| Maximum pressure of the sanitary circuit | bar | 6 |
| Specific flow rate of sanitary water (Δt 30K) | l/min | 11 |
| Power supply | | 230V/1/50Hz |
| Power supply fuse | A | 3,15 |
| Max absorbed power | W | 87 |
| Degree of electrical protection | | IP X4D |
| Methane gas consumption at max heating flow rate * | m ³ /h | 2,8 |
| LPG consumption at max flow rate in heating * | m ³ /h | 0,64 |
| Fan speed G20 heating max. / min. (x 100) | rpm | 45,5 / 9 |
| Number of DHW G20 fan revolutions max. / min. (x 100) | rpm | 51,5 |
| LPG heating fan speed max. / min. (x 100) | rpm | 41,5 / 9 |
| Numero di giri ventilatore GPL sanitario max. (x 100) | rpm | 50 |
| Fan speed G20 ignition (x 100) | rpm | 35 |
| Fan speed G20 ignition (x 100) | rpm | 32 |
| Maximum operating temperature in heating | °C | 85 |
| Maximum operating temperature in domestic hot water | °C | 60 |
| Total expansion vessel capacity | l | 7 |
| Net weight | Kg | 29,9 |

*Value referred to 15 ° C - 103 mbar

Boiler operating data table PLAY ENTRY 20

| FUNCTION | Heating thermal capacity kW | | Heating thermal capacity 80-60°C kW | | Heating thermal power 50-30 ° C kW | | Supply pressure mbar | Diameter diaphragm mm | Value CO ₂ fumes % | |
|-----------------|-----------------------------|-----|-------------------------------------|------|------------------------------------|------|----------------------|-----------------------|-------------------------------|------|
| | min | max | min | max | min | max | | | min | max |
| Gas methane G20 | 2,8 | 20 | 2,5 | 19,2 | 2,9 | 20,7 | 20 | 5,6 | 9,3 | 9,8 |
| Gas LPG | 2,8 | 20 | 2,5 | 19,2 | 2,9 | 20,7 | 30/37 | 5,6 | 10,4 | 10,7 |

Production of domestic hot water with ΔT of 45 ° C = 8 l / min

Production of domestic hot water with ΔT of 40 ° C = 9 l / min

Production of domestic hot water with ΔT of 35 ° C = 10 l / min

Production of domestic hot water with ΔT of 30 ° C = 11 l / min

Production of domestic hot water with ΔT of 25 ° C = 14 l / min

Boiler combustion data table PLAY ENTRY 20

| DESCRIPTION | U.M. | Pmax | Pmin | Carico 30% |
|---|------|-------|-------|------------|
| Leaks in the casing with the burner running | % | 0,4 | 8,2 | - |
| Leaks when burner is off | % | 0,3 | 2,4 | - |
| Leaks in the chimney with the burner working | % | 3,7 | 1,8 | - |
| Mass flow of fumes | g/s | 9,9 | 1,3 | - |
| Smoke temperature | °C | 70 | 62 | - |
| Thermal efficiency useful for power max (60/80 °C) | % | 95,8 | - | - |
| Thermal efficiency useful for power max (30/50 °C) | % | 103,4 | - | - |
| Thermal efficiency useful for power min. (60/80 °C) | % | - | 90,0 | - |
| Thermal efficiency useful for power min. (30/50 °C) | % | - | 102,1 | - |
| Thermal efficiency useful at 30% of charge | % | - | - | 107,1 |
| Class of emission NOX | | | 6 | |

PLAY ENTRY 20

Wall-mounted gas condensing boiler for heating and DHW production

ERP data and boiler labeling PLAY ENTRY 20

| | |
|--|---|
| Manufacturer's model identifier | PLAY ENTRY 20 |
| Condensing boilers: | YES |
| Low temperature boiler (**) | YES |
| Boiler type B | NO |
| Cogeneration appliance for ambient heating NO | If so, equipped with an additional heater |
| Mixed heater | YES |
| Seasonal space heating energy efficiency class | A |
| Energy efficiency class of water heating | A |

| Element | Symbol | Value | Unit |
|--|--------|-------|------|
| Nominal heat output | P_n | 20 | kW |
| For space heating boilers and mixed boilers: useful heat output | | | |
| At rated heat output and high temperature regime(*) | P_4 | 19 | kW |
| At 30% of rated heat output and at a low temperature regime (**) | P_1 | 6,5 | kW |

| Element | Symbol | Value | Unit |
|---|----------|-------|------|
| Seasonal energy efficiency of space heating | η_1 | 92 | % |
| For space heating boilers and mixed boilers: useful output | | | |
| At rated heat output and high temperature regime (*) | η_4 | 86,3 | % |
| At 30% of rated heat output and high temperature regime(*) | η_4 | 96,4 | % |

| Auxiliary electricity consumption | | | |
|-----------------------------------|------------|-------|----|
| Fully loaded | e_{lmax} | 0,073 | kW |
| Partial load | e_{lmin} | 0,054 | kW |
| In stand-by mode | P_{SB} | 0,004 | kW |

| Other elements | | | |
|---|------------|-------|--------|
| Stand-by heat loss | P_{stby} | 0,069 | kW |
| Energy consumption of the ignition burner | P_{ign} | 0 | kW |
| Annual energy consumption | Q_{HE} | 38,7 | kW |
| Nitrogen oxide emissions | NO_x | 23 | mg/kWh |

For mixed heaters:

| Load profile declared | L | | |
|-----------------------------------|------------|------|-----|
| Daily consumption of electricity | Q_{elec} | 0,18 | kWh |
| Annual consumption of electricity | AEC | 40,3 | kWh |

| Seasonal energy efficiency for water heating | η_{wh} | 80,9 | % |
|--|-------------|------|-----|
| Daily fuel consumption | Q_{fuel} | 14,6 | kWh |
| Annual fuel consumption | AFC | 11,0 | GJ |

Contact details: A2B Accorroni E.G. s.r.l. Via d'Ancona, 37 - 60027 Osimo (An)

(*) High temperature mode: return temperature of 60 ° C at the entrance to the appliance and 80 ° C of use temperature at the exit of the appliance.

(**) Low temperature: return temperature (at the boiler inlet) for condensing boilers 30 ° C, for low temperature of 37 ° C and for other appliances of 50 ° C.

| | |
|--|---|
| Seasonal energy efficiency class for space heating | A |
| Energy efficiency class of water heating | A |

HPE R410A 05÷16T INVERTER

Air / water inverter heat pumps with axial fans for Heating/ Cooling



Control box included



mod. HPE R410A
05/07



mod. HPE R410A
10/12/12T/14T/16T



ECOLOGIC
GAS



RENEWABLE
ENERGY



AXIAL FANS
DC BRUSHLESS



HIGH
EFFICIENCY



PLATE HEAT
EXCHANGER AISI 316



OPTIMIZED HEAT
EXCHANGE BATTERY



PUMP
DC INVERTER



COMPRESSOR
DC INVERTER

Technical and construction features

HPE R410A heat pumps allow you to cool and heat rooms using dedicated hydronic terminals such as fan coils or radiant floors. In heating, high efficiency tubular radiators can also be powered. An ultra compact design and the double control panel (on the machine or remote) make the HPE R410A a system that is easy to install and extremely functional.

The FULL DC INVERTER control of the compressor and the recent optimizations on the individual components guarantee maximum efficiency and great energy savings.

Main components:







- Integrated inverter control to optimize the modulation of the power supplied in cooling and heating
- Twin Rotary compressor with double balanced eccentric cam
- DC electric motor with high ventilation efficiency
- High air flow and reduced noise
- Plate heat exchangers and efficient and reliable in AISI stainless 316 and anti-corrosion paint steel
- Integrated frost protection system
- Optimized heat exchange coil, better passage of the air between the ranks
- High internal turbulence piping
- Anti-corrosion treatment
- Galvanized steel paneling with epoxy paint - Improved coolant flow control (500 pulses):
 - increase in energy performance and reduction of defrost cycles
- Possibility of purchasing the remote control as an option
- Possibility of using the remote control via contacts clean: ON / OFF, Hot / Cold Inversion
- Ultra compact fully integrated hydronic module in the external monobloc unit which includes: plate exchanger, circulator, expansion tank, safety valve, flow switch, antifreeze protection.

| Model | Thermal power kW | Cooling power kW | Code | € |
|---------------------------|------------------|------------------|----------|----------|
| HPE R410A 05 | 6,2 (2,1÷7,0) | 5,0 (1,9÷5,8) | 37950901 | 4.130,00 |
| HPE R410A 07 | 8,0 (2,3÷9,0) | 7,0 (2,1÷7,8) | 37960901 | 4.620,00 |
| HPE R410A 10 | 11,0 (3,2÷12,0) | 10,0 (3,0÷10,5) | 37970901 | 6.765,00 |
| HPE R410A 12 | 12,3 (3,3÷13,2) | 11,2 (3,1÷12,0) | 37980901 | 7.162,00 |
| HPE R410A 12T three-phase | 12,3 (3,3÷13,2) | 11,2 (3,1÷12,0) | 37980902 | 7.260,00 |
| HPE R410A 14T three-phase | 13,8 (3,5÷15,4) | 12,5 (3,3÷14,0) | 37990901 | 7.360,00 |
| HPE R410A 16T three-phase | 16,0 (3,7÷17,0) | 14,5 (3,5÷15,5) | 37990902 | 7.392,00 |

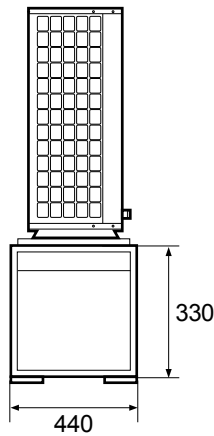
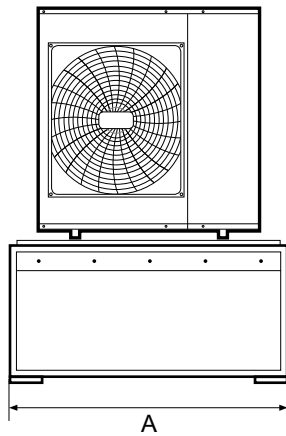
HPE R410A 05÷16T INVERTER

Air / water inverter heat pumps with axial fans for Heating/Cooling

Accessories HPE 410A

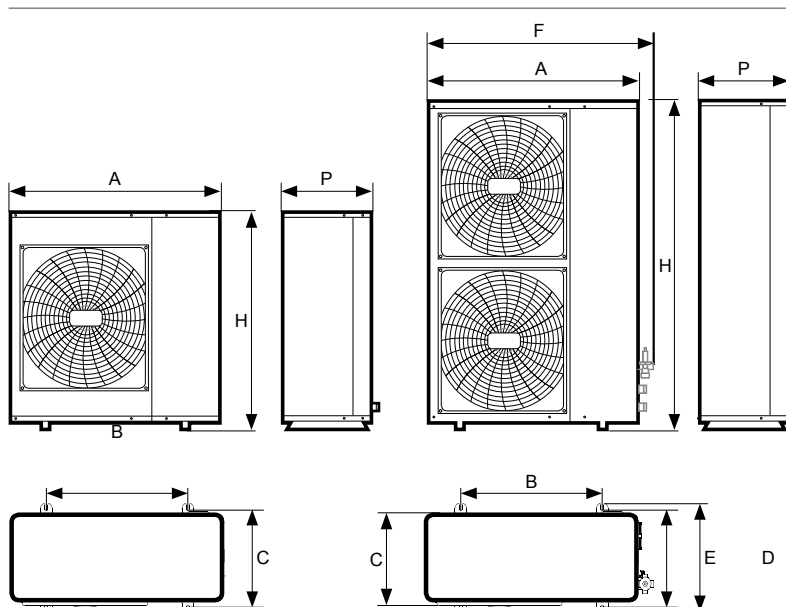
| | | Code | € | |
|---|---|--------------------|-----------------|---------------|
|  | First Start | 37920020 | 340,00 | |
|  | Wired control for protocol MODBUS | 37990904 | 240,00 | |
|  | ATC Technical inertial tank for hot and chilled technical water | mod. 55 l | 37900828 | 650,00 |
| | | mod. 75 l | 37900829 | 750,00 |
| | | mod. 90 l | 37900830 | 850,00 |
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W | 75050102 | 150,00 |
| | | mod. 2000 W | 75050103 | 160,00 |
| | | mod. 3000 W | 75060300 | 170,00 |
|  | 8 liter supplementary system expansion vessel | 10726304 | 80,00 | |
|  | Antivibration floor base in vulcanized rubber (height from the ground 95 mm) with level and screws for Booster HR 3.0 and Booster HR 7.8 (pack of 2 pieces) | 75100018 | 94,00 | |

ATC INERTIAL TECHNICAL ACCUMULATION 55 - 75 - 95 LITERS



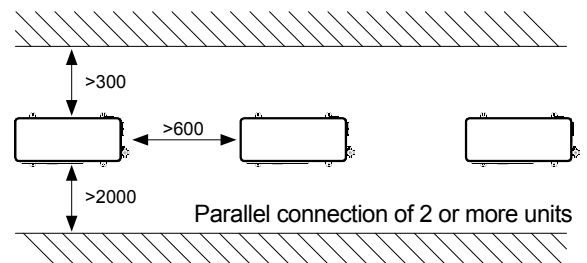
| DESCRIPTION | U.M. | 55 | 75 | 95 |
|---|------|------|-----|-----|
| Useful capacity | l | 55 | 75 | 95 |
| Insulation thickness | mm | 40 | | |
| Coefficient of thermal conductivity | W/mK | 0,03 | | |
| Max working temp | °C | 95 | | |
| Max working pressure | bar | 6 | | |
| Max testing pressure | bar | 3 | | |
| Empty weight | kg | 60 | 65 | 69 |
| Operating weight | kg | 115 | 140 | 165 |
| Overall length change (A) depending on the amount of technical water accumulation | | | | |
| Dimensions quote A | | mm | | |
| mod. 55 l | | 984 | | |
| mod. 75 l | | 1282 | | |
| mod. 95 l | | 1582 | | |

Dimensions HPE R410A



| | 05 | 07 | 10 | 12 | 12T | 14T | 16T |
|---|-----|-----|------|------|------|------|------|
| A | 990 | 990 | 900 | 900 | 900 | 900 | 900 |
| B | 624 | 624 | 600 | 600 | 600 | 600 | 600 |
| C | 366 | 366 | 348 | 348 | 348 | 348 | 348 |
| D | - | - | 360 | 360 | 360 | 360 | 360 |
| E | - | - | 400 | 400 | 400 | 400 | 400 |
| F | - | - | 970 | 970 | 970 | 970 | 970 |
| H | 966 | 966 | 1327 | 1327 | 1327 | 1327 | 1327 |
| P | 354 | 354 | 320 | 320 | 320 | 320 | 320 |

Values in mm



HPE R410A 05÷16T INVERTER

Air / water inverter heat pumps with axial fans for Heating/Cooling

Technical data table HPE R410A 05÷16T

| Model HPE 410A | | | U.M. | 05 | 07 | 10 | 12 | 12T | 14T | 16T | |
|---|------------------------|-------------------------|---|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| Power supply | | | | 230V/1/50Hz | | | | 380V/3/50Hz | | | |
| Cooling | Nominal power | Air 35 °C - Water 18 °C | kW | 5,6 | 8,0 | 10,6 | 12,0 | 12,2 | 14,2 | 15,6 | |
| | Electric absorption | | kW | 1,15 | 1,85 | 2,30 | 2,65 | 2,60 | 3,10 | 3,60 | |
| Cooling | Nominal power | Air 35 °C - Water 7 °C | kW | 5,0 | 7,0 | 10,0 | 11,2 | 11,2 | 12,5 | 14,5 | |
| | Assorbimento elettrico | | kW | 1,55 | 2,25 | 2,95 | 3,50 | 3,38 | 3,90 | 4,70 | |
| Heating | Nominal power | Air 7 °C - Water 35 °C | kW | 6,2 | 8,6 | 11,5 | 13,0 | 13,0 | 15,1 | 16,5 | |
| | Electric absorption | | kW | 1,35 | 2,10 | 2,65 | 2,92 | 2,85 | 3,35 | 3,92 | |
| Heating | Nominal power | Air 7 °C - Water 45 °C | kW | 6,2 | 8,0 | 11,0 | 12,3 | 12,3 | 13,8 | 16,0 | |
| | Electric absorption | | kW | 1,90 | 2,50 | 3,14 | 3,78 | 3,72 | 4,25 | 4,85 | |
| Range power | Heating | Air 35 °C - Water 7 °C | kW | 5,0 (1,9+5,8) | 7,0 (2,1+7,8) | 10,0 (2,9+10,5) | 11,2 (3,1+12,0) | 11,2 (3,1+12,0) | 12,5 (3,3+14,0) | 12,5 (3,3+15,5) | |
| | Cooling | Air 7 °C - Water 45 °C | kW | 6,2 (2,1+7,0) | 8,0 (2,3+9,0) | 11,0 (3,2+12,0) | 12,3 (3,3+13,2) | 12,3 (3,3+13,2) | 13,8 (3,5+15,4) | 16,0 (3,7+17,0) | |
| EER | | Air 35 °C - Water 18 °C | W/W | 4,87 | 4,32 | 4,61 | 4,60 | 4,69 | 4,58 | 4,33 | |
| EER | | Air 35 °C - Water 7 °C | W/W | 3,23 | 3,11 | 3,39 | 3,20 | 3,31 | 3,21 | 3,09 | |
| SEER | | Air 35 °C - Water 18 °C | W/W | 5,83 | 6,07 | 5,7 | 6,0 | 6,0 | 7,0 | 7,0 | |
| COP | | Air 7 °C - Water 35 °C | WW | 4,59 | 4,10 | 4,34 | 4,45 | 4,56 | 4,51 | 4,21 | |
| COP | | Air 7 °C - Water 45 °C | WW | 3,26 | 3,20 | 3,50 | 3,25 | 3,31 | 3,25 | 3,30 | |
| SCOP | | Air 7 °C - Water 35 °C | WW | 3,55 | 3,46 | 3,34 | 3,46 | 3,66 | 3,78 | 3,39 | |
| Seasonal heating efficiency (η _s) | | | | 142,0% | 138,4% | 133,6% | 138,4% | 146,4% | 151,2% | 135,6% | |
| Heating energy efficiency class | | | | A+ | | | | | | | |
| Air temperature | Cooling | | °C | -5 +46 | | | | | | | |
| | Heating | | °C | -15 +27 | | | | | | | |
| Water temperature | Cooling | | °C | +4 +20 | | | | | | | |
| | Heating | | °C | +30 +55 | | | | | | | |
| Maximum electrical absorption | | | kW | 2,1 | 2,6 | 4,7 | 3,6 | 5,0 | 5,4 | 5,7 | |
| | | | A | 11,4 | 13,7 | 25,0 | 19,1 | 8,9 | 9,6 | 10,1 | |
| Compressor | Type | | Twin Rotary DC Inverter | | | | | | | | |
| Refrigerant | Type | | R410A | | | | | | | | |
| | Charge | Kg | 2,5 | 2,8 | | | | 2,9 | 3,2 | | |
| Expansion valve | Tipo | | Elettronica | | | | | | | | |
| Air exchanger | Tipo | | Tubo rame scanalato interamente alette alluminio idrofilico | | | | | | | | |
| Pump | Flow | litri/h | 240 | | | | | | | | |
| | Prevalence | m | 5,5 | 8,5 | | | | | | | |
| Pump | Type | | Elettronico | | | | | | | | |
| | Brand | | WILO | | | | | | | | |
| Nominal water flow | | | m ³ /h | 0,86 | 1,20 | 1,72 | 1,92 | | 2,15 | 2,49 | |
| Water exchanger | Type | | Piastrre saldobrasate INOX | | | | | | | | |
| | Volume | l | 5,3 | | 7,0 | 7,8 | | 10,6 | | | |
| | Flow | litri/h | 860 | 1200 | 1720 | 1920 | | 2150 | 2490 | | |
| Maximum / minimum | Load losses | kPa | 15 | | 18 | 18 | | 19 | | | |
| | water pressure | bar | 5,0 / 1,5 | | | | | | | | |
| Expansion vessel | Pre-charge | bar | 2 | | 3 | | | | | | |
| | Volume | bar | 1 | | | | | | | | |
| Fan | Motor | Tipo | Brushless DC | | | | | | | | |
| | Flow | n. | 1 | | | | 2 | | | | |
| Sound pressure level(*) | | m ³ /h | 5100 | | | | 7000 | | | | |
| | | dB(A) | 58 | | 59 | | | 62 | | | |
| Sound power level | | dB(A) | 63 | 66 | 68 | | | 70 | 72 | | |
| | Electric cables | Power | n. x mm ² | 3 x 2,5 | 3 x 4 | | | 5 x 4 | | | |
| | Signal (shielded) | n. x mm ² | 3 x 0,75 | | | | | | | | |
| Hydraulic connections | | | | 1" | | | | 1" 1/4 | | | |
| Net / gross weight | | | Kg | 81 / 91 | | | | 110 / 121 | | 111 / 122 | |

(*)Sound pressure measured at 1 m distance in open field.

Above data referred to the following standards: EN14511: 2013; EN14825: 2013; EN50564: 2011; EN12102: 2011; (EU) No: 811: 2013; (EU) No: 813: 2013; OJ 2014 / C 207/02: 2014.

HPE R32 04÷18T INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production



mod. HPE R32
14/14T/16
16T/18T

mod. HPE R32
04/06/08/10
10T/12/12T

Technical and construction features

The use of R32 inverter technology together with brushless DC motors ensures a very high overall energy efficiency due both to the reduction of the specific consumption of each motor and to the high modulation capacity.

The extended use of these technologies to all components results in high COP and EER values with a consistent increase in efficiencies at partial loads.

Main components:

- Proprietary control system with a microcontroller, superheat control logic by means of an electronic expansion valve.
- Twin Rotary DC inverter compressors
Fans, axial type with brushless DC motor
- Source exchanger, circuitry optimized by a battery finned with copper pipes and aluminum fins.
- User exchanger, with brazed plates in AISI stainless steel 304 with reduced pressure drop on the water side.
- Refrigerant circuit, The circuit, made of copper tube, includes: condensation control, electronic thermostatic valve, inversion valve, high / low pressure switches, liquid separator and receiver, valves for maintenance and control, double pressure tap, high and low pressure transducers.
- Integrated hydraulic circuit: high brushless circulator variable speed efficiency, expansion tank, flow switch, air bleed valve, overpressure valve (6 bar), pressure gauge, system filling and draining cock.

LOGICS AND CONTROLS:

- All units can operate in 3 different modes: heating, cooling and sanitary, with specific programs that enhance the performance in all conditions, with possible management of the climatic curve.
 - The units of the HPE R32 series are able to manage valves secondary side mixers, deviators and circulators; they are also able to control the solar thermal system, any integration with external heat sources, and integration with external Home / Building automation or Domotic systems.
- The whole series has a reversible heat pump and can be controlled with the remote control on the wall as (accessory) by directly accessing the system from any browser (connection to an existing network with an ethernet cable).



ECOLOGIC
GAS



RENEWABLE
ENERGY



AXIAL FAN
DC BRUSHLESS



REMOTE
CONTROL TOUCH



COMPRESSOR
DC INVERTER



PLATE EXCHANGER
AISI 304



EXCHANGER
DC INVERTER






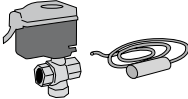
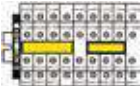






DHW DIVERTER
VALVE

| Model | Power Heating kW | Power Cooling kW | Code | € |
|-------------------------|------------------|------------------|----------|----------|
| HPE R32 04 | 4,55 | 4,23 | 37920000 | 4.666,00 |
| HPE R32 06 | 6,08 | 5,02 | 37920001 | 4.756,00 |
| HPE R32 08 | 7,81 | 6,08 | 37920002 | 5.090,00 |
| HPE R32 10 | 10,10 | 7,53 | 37920003 | 6.160,00 |
| HPE R32 10T Three-phase | 10,10 | 7,53 | 37920021 | 6.850,00 |
| HPE R32 12 | 11,80 | 8,51 | 37920004 | 6.430,00 |
| HPE R32 12T Three-phase | 11,80 | 8,51 | 37920022 | 7.120,00 |
| HPE R32 14 | 14,10 | 11,48 | 37920005 | 7.694,00 |
| HPE R32 14T Three-phase | 14,10 | 11,48 | 37920006 | 7.700,00 |
| HPE R32 16 | 16,30 | 13,80 | 37920007 | 8.170,00 |
| HPE R32 16T Three-phase | 16,30 | 13,80 | 37920008 | 7.900,00 |
| HPE R32 18T Three-phase | 17,90 | 15,04 | 37920009 | 8.440,00 |

HPE R32 04÷18T INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

Accessories HPE R32 04÷18T

| | | Code | € |
|---|--|---|-----------------|
|  | First strat | 37920020 | 340,00 |
|  | Remote control from the wall | 37920017 | 270,00 |
|  | Centralized multifunction touch screen remote control | 37920012 | 536,00 |
|  | Diverter valve and DHW sensor kit | DHW sensor 37920014 | 40,00 |
| | | Diverter valve 37920013 | 334,00 |
|  | GI module for managing system terminals terminal block expansion | 37920018 | 334,00 |
|  | Solar probe per module GI | 37920026 | 28,00 |
|  | Exogel Kit - Frost protection Protects the machine and system from damage caused by unexpected cooling of the working temperature of the technical water near the freezing point by emptying the system | 37920011 | 336,00 |
|  | ATC Technical inertial tank for hot and chilled technical water | mod. 55 l 37900828 | 650,00 |
| | | mod. 75 l 37900829 | 750,00 |
| | | mod. 90 l 37900830 | 850,00 |
|  | 230 V single-phase integrative electrical resistance degree of protection IP 65 | mod. 1500 W 75050102 | 150,00 |
| | | mod. 2000 W 75050103 | 160,00 |
| | | mod. 3000 W 75060300 | 170,00 |
|  | 8 liter supplementary system expansion vessel | 10726304 | 80,00 |
|  | Antivibration floor base in vulcanized rubber (height from the ground 95 mm) with level and screws for Booster HR 3.0 and Booster HR 7.8 (pack of 2 pieces) | 75100018 | 94,00 |
| | | | |
| | Anti-corrosion treatment | mod. 04-06-08 37920023 | 1.004,00 |
| | | mod. 10-10T-12 37920024 | 1.730,00 |
| | | mod. 12T-14-14T-16-16T-18T 37920025 | 1.875,00 |

HPE R32 04÷18T INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

Accessories HPE R32 04÷18T

Code

€



AWP1 V storage tank Glass-ceramic boiler with increased exchanger for heat pump

| | | |
|----------------------|-----------------|-----------------|
| AWP1 V 200 I | 37304007 | 1.258,00 |
| AWP1 V 300 I | 37304000 | 1.670,00 |
| AWP1 V 400 I | 37304001 | 2.100,00 |
| AWP1 V 500 I | 37304002 | 2.298,00 |
| AWP1 V 600 I | 37304003 | 2.640,00 |
| AWP1 V 800 I | 37304004 | 3.314,00 |
| AWP1 V 1000 I | 37304005 | 3.624,00 |
| AWP1 V 1500 I | 37304006 | 5.894,00 |

| Models | U.M. | 200 | 300 | 400 | 500 | 600 | 800 | 1000 | 1500 |
|--------------------|----------------|------|--------|--------|--------|--------|--------|--------|--------|
| Outer diameter* | mm | 550 | 600 | 750 | 750 | 750 | 1050 | 1050 | 1260 |
| Total height | mm | 1320 | 1610 | 1410 | 1660 | 1910 | 1750 | 2110 | 2115 |
| Exchanger HP | m ² | 2,1 | 3,5 | 4,5 | 5,7 | 5,7 | 6,0 | 6,0 | 7,50 |
| Attacchi ricircolo | | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1" | 1" | 1" |
| hp entry | | 1" | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 |
| HP output | | 1" | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 |
| Empty weight | kg | 78 | 110 | 133 | 159 | 167 | 215 | 251 | 383 |

* All the insulations are removable except for the models from 200 to 600 Lt



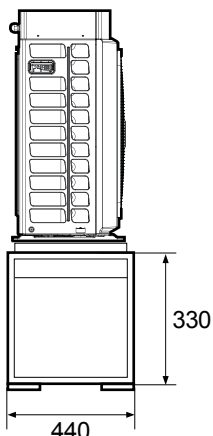
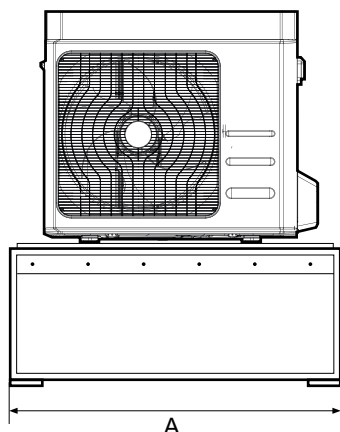
AWP2 V storage tank Glass-ceramic boiler with increased exchanger for heat pump and heat exchanger for solar thermal

| | | |
|----------------------|-----------------|-----------------|
| AWP2 V 300 I | 37304298 | 1.972,00 |
| AWP2 V 400 I | 37304299 | 2.138,00 |
| AWP2 V 500 I | 37304300 | 2.588,00 |
| AWP2 V 600 I | 37304301 | 3.200,00 |
| AWP2 V 800 I | 37304302 | 3.644,00 |
| AWP2 V 1000 I | 37304303 | 4.236,00 |
| AWP2 V 1500 I | 37304304 | 6.614,00 |

| Models | U.M. | 300 | 400 | 500 | 600 | 800 | 1000 | 1500 |
|---------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|
| Outer diameter* | mm | 500 | 650 | 650 | 650 | 790 | 790 | 1000 |
| Total height | mm | 1610 | 1410 | 1660 | 1910 | 1750 | 2110 | 2115 |
| Lower exchanger Sol. | m ² | 1,0 | 1,2 | 1,5 | 2,0 | 2,0 | 3,3 | 3,6 |
| Upper heat exchanger HP | m ² | 2,4 | 3,0 | 4,2 | 5,0 | 5,2 | 6,0 | 7,5 |
| Recirculation connections | | 1/2" | 1/2" | 1/2" | 1/2" | 1" | 1" | 1" |
| HP entry | | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 |
| HP output | | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 | 1" 1/4 |
| Empty weight | Kg | 108 | 128 | 159 | 188 | 234 | 285 | 417 |

* All insulations are removable except for models from 300 to 600 liters

ATC INERTIAL TECHNICAL ACCUMULATION 55 - 75 - 95 LITERS



| DESCRIPTION | U.M. | 55 | 75 | 95 |
|--|------|------|-----|-----|
| Useful capacity | l | 55 | 75 | 95 |
| Insulation thickness | mm | 40 | | |
| Coefficient of thermal conductivity | W/mK | 0,03 | | |
| Max working temp | °C | 95 | | |
| Max working pressure | bar | 6 | | |
| Max testing pressure | bar | 3 | | |
| Empty weight | kg | 60 | 65 | 69 |
| Operating weight | kg | 115 | 140 | 165 |
| Overall length change (A) depending on the amount of technical water accumulation | | | | |
| Dimensions quote A | mm | | | |
| mod. 55 l | | 984 | | |
| mod. 75 l | | 1282 | | |
| mod. 95 l | | 1582 | | |

HPE R32 04÷18T INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

HPE R32 18 functional diagram for heating and DHW production

DHW production mode:

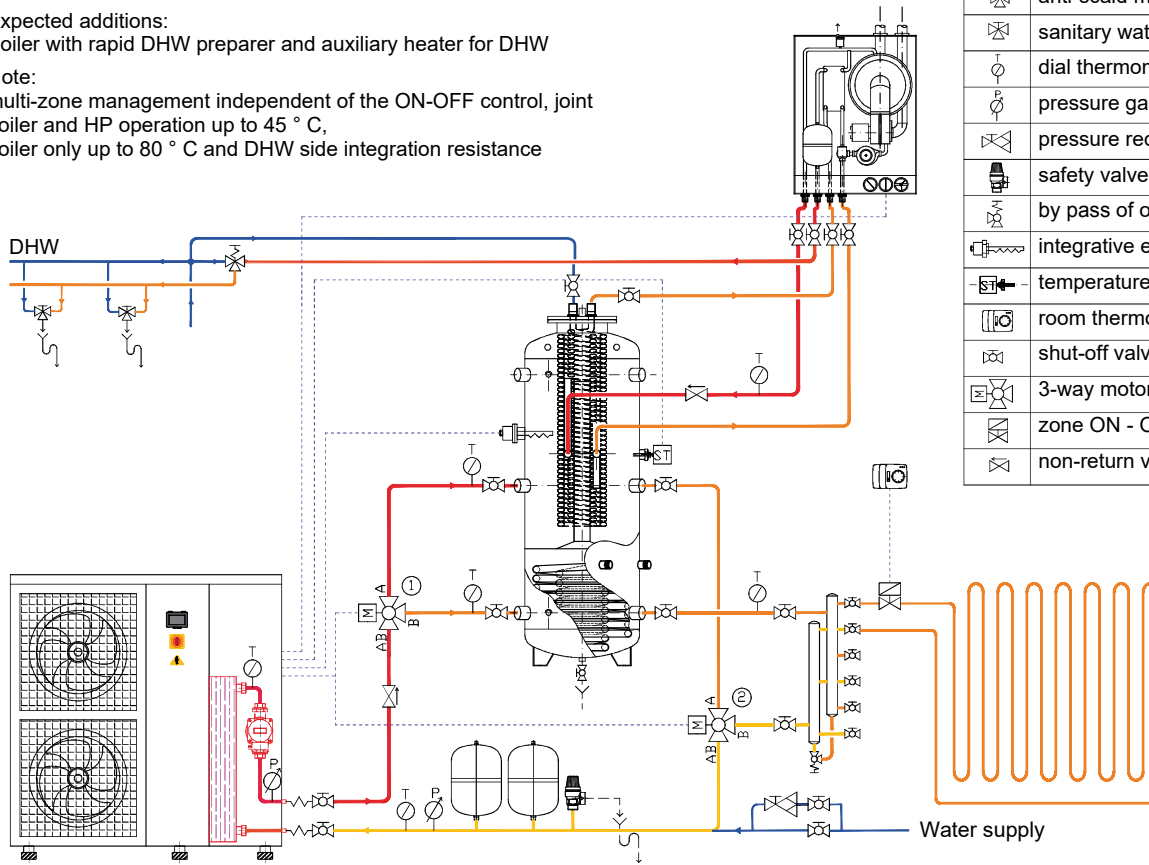
Technical water puffer with immersed DHW exchanger, for rapid preparation with condensing boiler integration

Expected additions:

Boiler with rapid DHW preparer and auxiliary heater for DHW

Note:

multi-zone management independent of the ON-OFF control, joint boiler and HP operation up to 45 ° C, boiler only up to 80 ° C and DHW side integration resistance



Legend

| | |
|--|-----------------------------------|
| | anti-scald mix valve |
| | sanitary water mixer |
| | dial thermometer |
| | pressure gauge 0 - 6 bar |
| | pressure reducer |
| | safety valve 3 bar |
| | by pass of overpressure |
| | integrative electrical resistance |
| | temperature probe NTC |
| | room thermostat |
| | shut-off valve |
| | 3-way motorized valve |
| | zone ON - OFF solenoid valve |
| | non-return valve |

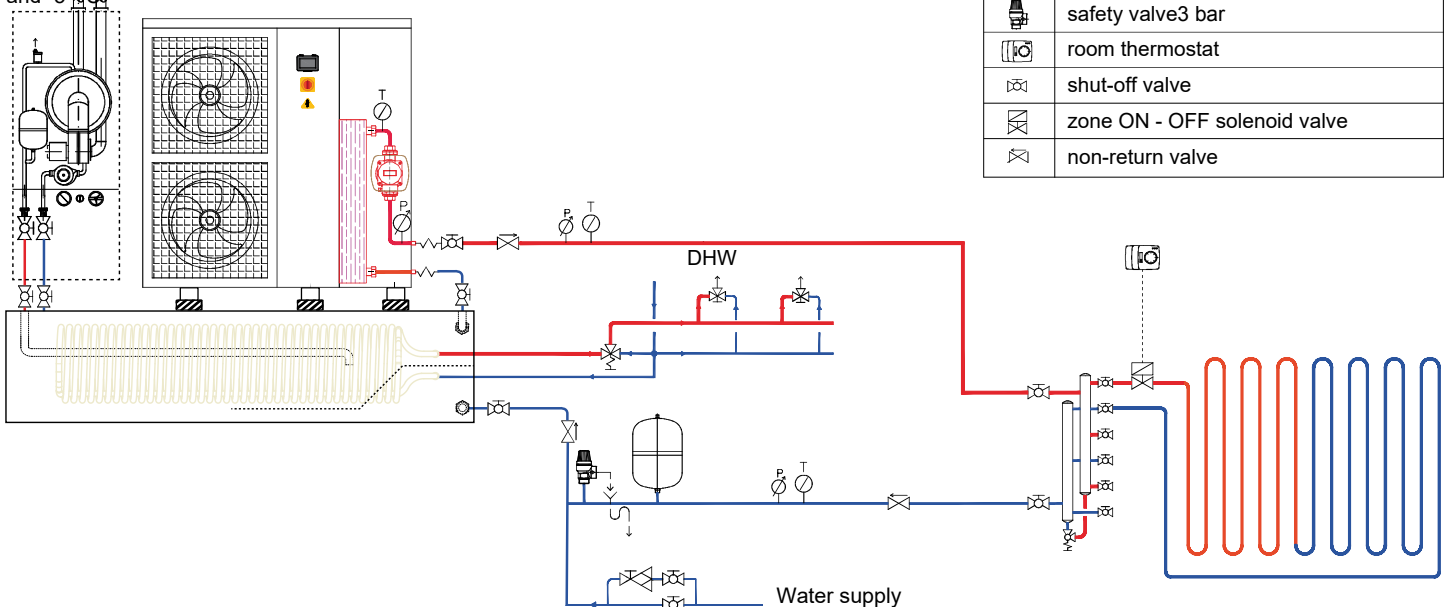
HPE R32 18 functional diagram for the production of heating and DHW in the monobloc version

Expected additions:

external integration boiler that works by calling an external probe directly on a 90-liter inertial technical water puffer on board the machine with DHW rapid exchanger located below the heat pump (special monobloc version available on request).

Note:

multi-zone management independent from the ON-OFF control, boiler replacement operation below -5 ° C and in integration between 7 ° C and -5 ° C



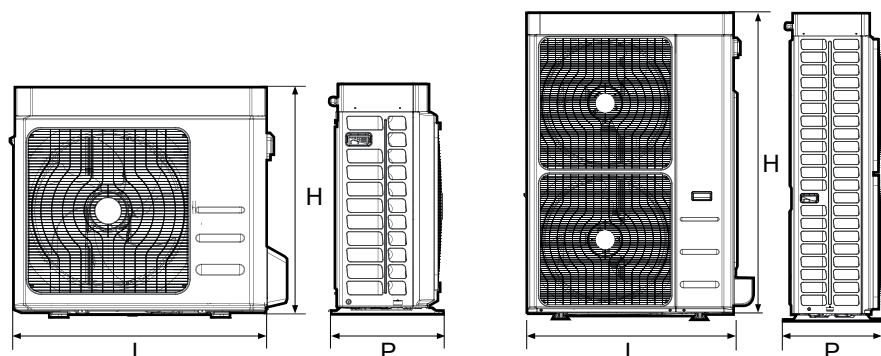
Legend

| | |
|--|------------------------------|
| | anti-scald mix valve |
| | sanitary water mixer |
| | dial thermometer |
| | pressure gauge 0 - 6 bar |
| | pressure reducer |
| | safety valve 3 bar |
| | room thermostat |
| | shut-off valve |
| | zone ON - OFF solenoid valve |
| | non-return valve |

HPE R32 04÷18T INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

Dimensionis HPE R32 04 - 06 - 08 - 10 - 10T - 12



| HPE R32 | 04 | 06 | 08 | 10 | 10T | 12 |
|---------|-----|-----|-----|------|------|------|
| L | 924 | 924 | 924 | 1047 | 1047 | 1047 |
| P | 377 | 377 | 377 | 456 | 456 | 456 |
| H | 828 | 828 | 828 | 936 | 936 | 936 |

Values in mm

Heat pumps technical data table HPE R32 04 - 06 - 08 - 10 - 10T - 12

| Model HPE R32 | U.M. | 04 | 06 | 08 | 10 | 10T | 12 |
|--------------------------|-------|-------------------------|-------------|-------------|-------------|---------------|-------------|
| Cooling | | | | | | | |
| Cooling capacity (1) | kW | 4,23 | 5,02 | 6,08 | 7,53 | 7,53 | 8,51 |
| Absorbed power (1) | kW | 1,29 | 1,60 | 1,99 | 2,39 | 2,39 | 2,79 |
| E.E.R. (1) | W/W | 3,28 | 3,14 | 3,05 | 3,15 | 3,15 | 3,05 |
| Cooling capacity (2) | kW | 5,51 | 6,18 | 7,72 | 9,5 | 9,5 | 11,6 |
| Absorbed power (2) | kW | 1,10 | 1,28 | 1,76 | 2,15 | 2,15 | 2,79 |
| E.E.R. (2) | W/W | 5,02 | 4,82 | 4,38 | 4,41 | 4,41 | 4,16 |
| Water flow (1) | l/s | 0,20 | 0,24 | 0,28 | 0,36 | 0,36 | 0,41 |
| Useful prevalence (1) | kPa | 80,8 | 78,8 | 76,0 | 68,9 | 68,9 | 63,4 |
| Heating Thermal | | | | | | | |
| power (3) | kW | 4,55 | 6,08 | 7,81 | 10,1 | 10,1 | 11,80 |
| Absorbed power (3) | kW | 0,95 | 1,35 | 1,78 | 2,28 | 2,28 | 2,73 |
| C.O.P. (3) | W/W | 4,78 | 4,51 | 4,38 | 4,43 | 4,43 | 4,32 |
| Thermal power (4) | kW | 4,47 | 5,88 | 7,58 | 9,76 | 9,76 | 11,47 |
| Absorbed power (4) | kW | 1,17 | 1,66 | 2,17 | 2,80 | 2,80 | 3,33 |
| C.O.P. (4) | W/W | 3,82 | 3,54 | 3,50 | 3,48 | 3,48 | 3,44 |
| Water flow (4) | l/s | 0,22 | 0,28 | 0,37 | 0,47 | 0,47 | 0,55 |
| Useful prevalence (4) | kPa | 80,0 | 75,8 | 66,3 | 55,2 | 55,2 | 43,4 |
| S.E.E.R. (5) | W/W | 4,07 | 4,12 | 4,25 | 4,15 | 4,15 | 4,25 |
| S.C.O.P. (6) | W/W | 4,52 | 4,46 | 4,46 | 4,53 | 4,53 | 4,47 |
| Energy efficiency | | A+++ / A++ | | | | | |
| Compressor | | | | | | | |
| Type | | Twin Rotary DC inverter | | | | | |
| Compressors | n. | 1 | | | | | |
| Refrigerant circuits | n. | 1 | | | | | |
| Refrigerant quantity(7) | kg | 1,5 | 1,5 | 1,5 | 2,5 | 2,5 | 2,5 |
| Hydraulic circuit | | | | | | | |
| Hydraulic connections | | 1" M | | | | | |
| Minimum water volume (8) | l | 35 | 40 | 40 | 50 | 50 | 60 |
| Noise | | | | | | | |
| Sound power (9) | dB(A) | 64 | 64 | 64 | 64 | 64 | 65 |
| Sound pressure (10) | dB(A) | 49,8 | 49,8 | 49,8 | 49,4 | 49,4 | 50,4 |
| Electrical data | | | | | | | |
| Power supply Max | | 230V/1/50Hz | 230V/1/50Hz | 230V/1/50Hz | 230V/1/50Hz | 400V/3+N/50Hz | 230V/1/50Hz |
| absorbed power Max | kW | 2,9 | 3,5 | 3,9 | 4,6 | 4,6 | 5,1 |
| absorbed current | A | 12,6 | 15,1 | 17,0 | 20,2 | 6,6 | 22,1 |
| Weight | | | | | | | |
| Shipping weight | Kg | 84 | 84 | 84 | 110 | 110 | 110 |
| Operating weight | Kg | 72 | 72 | 72 | 96 | 96 | 96 |

Performance referred to the following conditions:

(1) Cooling: outdoor air temperature 35 °C; water temperature in / out 12/7 °C. - (2) Cooling: external air temperature 35 °C; water temperature in / out 23/18 °C. (3) Heating: external air temperature 7 °C d.b. 6 °C w.b.; water temp. in / out 30/35 °C. - (4) Heating: external air temperature 7 °C d.b. 6 °C w.b.; water temp. in / out 40/45 °C. (5) Cooling: water temperature in / out. 12/7 °C. - (6) Heating: average climatic conditions; T_{biv} = -7 °C; water temp. in / out 30/35 °C.

(7) Data indicative and subject to change. For the correct data, always refer to the technical label on the unit.

(8) Calculated for a decrease in the system water temperature of 10 °C with a defrost cycle lasting 6 minutes.

(9) Sound power: heating mode condition (3); value determined on the basis of measurements carried out in accordance with the UNI EN ISO 9614-2 standard,

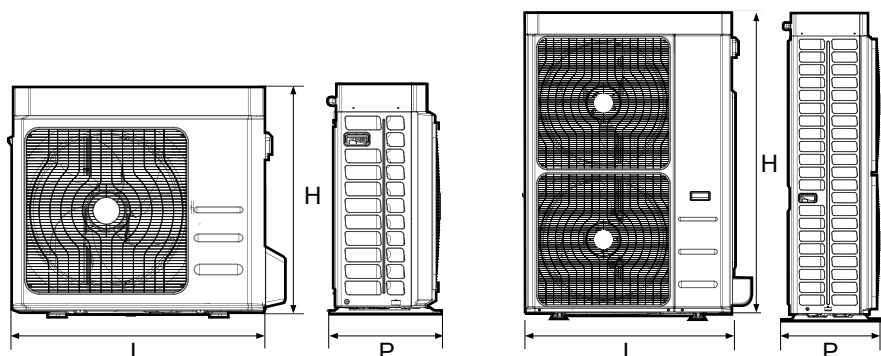
in compliance with the requirements of Eurovent certification.

(10) Sound pressure: value calculated from the sound power level using ISO 3744: 2010 at a distance of 1 m. - (*) by activating the maximum Hz function

HPE R32 04÷18T INVERTER

Air / water inverter heat pumps with axial fans for Hot / Cold and DHW production

Dimensions HPE R32 12T - 14 - 14T - 16 - 16T - 18T



| HPE R32 | 12T | 14 | 14T | 16 | 16T | 18T |
|---------|------|------|------|------|------|------|
| L | 1047 | 1044 | 1044 | 1044 | 1044 | 1044 |
| P | 456 | 455 | 455 | 455 | 455 | 455 |
| H | 936 | 1409 | 1409 | 1409 | 1409 | 1409 |

Values in mm

Heat pumps technical data table HPE R32 12T - 14 - 14T - 16 - 16T - 18T

| Model HPE R32 | U.M. | 12T | 14 | 14T | 16 | 16T | 18T |
|------------------------------|-------|-------------------------|-------------|---------------|-------------|---------------|---------------|
| Cooling | | | | | | | |
| Cooling capacity (1) | kW | 8,51 | 11,48 | 11,48 | 13,8 | 13,8 | 15,04 |
| Absorbed power (1) | kW | 2,79 | 3,53 | 3,53 | 4,38 | 4,38 | 4,88 |
| E.E.R. (1) | W/W | 3,05 | 3,25 | 3,25 | 3,15 | 3,15 | 3,08 |
| Cooling capacity (2) | kW | 11,6 | 14,0 | 14,0 | 15,8 | 15,8 | 17,1 |
| Absorbed power (2) | kW | 2,79 | 2,59 | 2,59 | 3,15 | 3,15 | 3,59 |
| E.E.R. (2) | W/W | 4,16 | 5,40 | 5,40 | 5,02 | 5,02 | 4,76 |
| Water flow (1) | l/s | 0,41 | 0,55 | 0,55 | 0,66 | 0,66 | 0,71 |
| Useful head (1) | kPa | 63,4 | 75,0 | 75,0 | 62,3 | 62,3 | 55,6 |
| Heating | | | | | | | |
| Thermal power(3) | kW | 11,80 | 14,10 | 14,10 | 16,30 | 16,30 | 17,90 |
| Absorbed power (3) | kW | 2,73 | 2,91 | 2,91 | 3,49 | 3,49 | 4,07 |
| C.O.P. (3) | W/W | 4,32 | 4,85 | 4,85 | 4,67 | 4,67 | 4,40 |
| Thermal power(4) | kW | 11,47 | 13,56 | 13,56 | 15,77 | 15,77 | 17,32 |
| Absorbed power (4) | kW | 3,33 | 3,55 | 3,55 | 4,24 | 4,24 | 4,92 |
| C.O.P. (4) | W/W | 3,44 | 3,82 | 3,82 | 3,72 | 3,72 | 3,52 |
| Water flow (4) | l/s | 0,55 | 0,65 | 0,65 | 0,76 | 0,76 | 0,83 |
| Useful head (4) | kPa | 43,4 | 63,6 | 63,6 | 48,5 | 48,5 | 37,3 |
| S.E.E.R. (5) | W/W | 4,25 | 4,62 | 4,62 | 4,80 | 4,80 | 4,91 |
| S.C.O.P. (6) | W/W | 4,47 | 4,48 | 4,48 | 4,49 | 4,49 | 4,46 |
| Efficienza energetica | | A+++ / A++ | | | | | |
| Compressor | | | | | | | |
| Type | | Twin Rotary DC inverter | | | | | |
| Compressors | n. | 1 | | | | | |
| Refrigerant circuits | n. | 1 | | | | | |
| Refrigerant quantity (7) | kg | 2,5 | 3,6 | 3,6 | 4,0 | 4,0 | 4,0 |
| Hydraulic circuit | | | | | | | |
| Hydraulic connections | | 1" M | | | | | |
| Minimum water volume(8) | l | 60 | 60 | 60 | 70 | 70 | 70 |
| Noise Sound | | | | | | | |
| Power (9) Sound | dB(A) | 65 | 68 | 68 | 68 | 68 | 68 |
| Pressure (10) | dB(A) | 50,4 | 52,7 | 52,7 | 52,7 | 52,7 | 52,7 |
| Electrical data Power | | | | | | | |
| supply Max absorbed power | | 400V/3+N/50Hz | 230V/1/50Hz | 400V/3+N/50Hz | 230V/1/50Hz | 400V/3+N/50Hz | 400V/3+N/50Hz |
| power Max absorbed | kW | 5,1 | 6,6 | 6,6 | 7,0 | 7,0 | 8,3 |
| current | A | 7,3 | 28,6 | 9,5 | 30,4 | 10,1 | 12,0 |
| Weight | | | | | | | |
| Shipping weight | Kg | 110 | 134 | 148 | 140 | 154 | 154 |
| Operating weight | Kg | 96 | 121 | 136 | 126 | 141 | 141 |

Performance referred to the following conditions:

(1) Cooling: outdoor air temperature 35 ° C; water temperature in / out 12/7 ° C. - (2) Cooling: external air temperature 35 ° C; water temperature in / out 23/18 ° C. (3) Heating: external air temperature 7 ° C d.b. 6 ° C w.b.; water temp. in / out 30/35 ° C. - (4) Heating: external air temperature 7 ° C d.b. 6 ° C w.b.; water temp. in / out 40/45 ° C. (5) Cooling: water temperature in / out. 12/7 ° C. - (6) Heating: average climatic conditions; T_{biv} = -7 ° C; water temp. in / out 30/35 ° C.

(7) Data indicative and subject to change. For the correct data, always refer to the technical label on the unit.

(8) Calculated for a decrease in the system water temperature of 10 ° C with a defrost cycle lasting 6 minutes.

(9) Sound power: heating mode condition (3); value determined on the basis of measurements carried out in accordance with the UNI EN ISO 9614-2 standard,

in compliance with the requirements of Eurovent certification.

(10) Sound pressure: value calculated from the sound power level using ISO 3744: 2010 at a distance of 1 m. - (*) by activating the maximum Hz function

HPE 25÷70 INVERTER - HPE LT 25÷50 INVERTER

Air / water inverter heat pumps with axial fans and steam injection versions



Technical and construction features

The HPE series reaches high SEER and SCOP values thanks to DC Inverter scroll compressors, the EC fan and high efficiency exchangers.

Available versions:

- HPE with DC inverter compressor
- HPE LT with vapor injection DC inverter compressor The DC inverter compressors used allow to save up to 25% of the absorbed power.

The installation of high efficiency DC inverter scroll compressors optimized for heat pump operation in severe working conditions, integrated with a steam injection system, allows to obtain a high level of comfort with low energy consumption even in the winter seasons. colder (down to -25 °C). The injection technology consists in injecting the refrigerant, in the form of vapor, in the middle of the compression process to significantly increase the capacity and efficiency of the compressor, increasing the performance of this system compared to all traditional gas compression technologies. With this type of machine it is also possible to produce hot water up to 58 °C even with low external temperatures. The HPE - HPE LT 25 ÷ 70 heat pumps are particularly suitable to be combined with radiant panel heating systems or for applications where maximum efficiency is required in heating mode.

Main components:

- Single and double inverter Scroll compressor
- Double mixed compressor (1 Scroll inverter + 1 Scroll on-off)
- Single or double inverter scroll compressor with injection of steam for operation down to -25 °C (HPE LT version)
- DC Brushless fan (standard)
- DC Brushless circulator (optional)
- Compact size
- Possibility of cascade installation
- The highest EER and COP values on the market
- Integrated condensation control
- Mixing valve management



ECOLOGIC GAS



TECHNOLOGY STEAM INJECTION



AXIAL FANS DC BRUSHLESS



SILENT VENTILATION



COMPRESSOR DC INVERTER



CONTROL V.415



PLATE EXCHANGER



PUMP DC INVERTER



DHW CONTROL WITH DEVIATION VALVE

| Model | Refrigeration power kW | Heating Power kW | Code | € |
|---|------------------------|------------------|-----------------|------------------|
| HPE 25 INVERTER | 21,04 | 24,72 | 37980802 | 18.000,00 |
| HPE 35 INVERTER | 27,80 | 32,65 | 37980803 | 20.400,00 |
| HPE 50F INVERTER | 39,44 | 48,25 | 37980809 | 24.460,00 |
| HPE 60 INVERTER | 41,10 | 52,00 | 37980805 | 27.520,00 |
| HPE 70 INVERTER | 53,30 | 65,10 | 37980810 | 31.230,00 |
| HPE LT 25 INVERTER (steam injection) | 21,00 | 24,15 | 37980806 | 20.830,00 |
| HPE LT 35 INVERTER (steam injection) | 28,40 | 32,50 | 37980807 | 25.090,00 |
| HPE LT 50 INVERTER (steam injection) | 36,10 | 47,78 | 37980808 | 28.800,00 |

Accessories HPE 25÷70 - HPE LT 25÷50

| | | |
|---|-----------------|-----------------|
| First mandatory ignition | 37980000 | 600,00 |
| Integrated circulator EC HPE/HPE LT 25-35 | 37980001 | 1.100,00 |
| Integrated circulator EC HPE/HPE 50F - LT 50 | 37980002 | 2.260,00 |
| Integrated circulator EC HPE 60 | 37980003 | 4.060,00 |
| AC pump with inverter HPE 70 | 37980005 | 2.580,00 |
| Shut-off valve HPE/HPE LT 25 - 35 - 50F - 60 - 70 | 37980004 | 1.090,00 |

HPE 25÷70 INVERTER - HPE LT 25÷50 INVERTER

Air / water inverter heat pumps with axial fans and steam injection versions

Accessories HPE 25÷60 - HPE LT 25÷50 INVERTER

| | Code | € |
|---|--------------------------|-----------------|
| ACF External thermal flywheel for the storage of technical water insulated with rigid polyurethane insulation 50 mm thick for mod. up to 1000 liters and in flexible polyester thickness 100 mm for mod. 1500 and 2000 liters | ACF 200 37306120 | 610,00 |
| | ACF 300 37306130 | 710,00 |
| | ACF 500 37306150 | 1.000,00 |
| | ACF 800 37306160 | 1.480,00 |
| | ACF 1000 37306170 | 1.660,00 |
| | ACF 1500 37306180 | 2.530,00 |
| | ACF 2000 37306190 | 3.180,00 |
| Interface activation Modbus | 37980011 | 800,00 |
| Antifreeze kit | 37980006 | 300,00 |
| System management module for terminal block expansion | 37980007 | 160,00 |
| Silencing kit HPE/HPE LT 25 - 35 | 37980008 | 180,00 |
| Silencing kit HPE/HPE LT 5F0 - 60 - 70 | 37980009 | 240,00 |
| Super silencing kit HPE/HPE LT 25 - 35 | 37980010 | 1.030,00 |
| Super silencing kit HPE/HPE LT 50F - 60 - 70 | 37980011 | 1.670,00 |
| Finguard anti-corrosion treatment | 37980014 | 2.280,00 |
| Sequence control device, phase failure + minimum and maximum voltage relay | 37980016 | 360,00 |

Optional accessories supplied separately HPE 25÷70 - HPE LT 25÷50

| | | |
|----------------------------|-----------------|---------------|
| Remote control touchscreen | 37980013 | 610,00 |
| Wall remote control | 37980017 | 300,00 |
| Anti-vibration mounts | 37980015 | 230,00 |
| Battery protection nets | 37980018 | 470,00 |

Control V.415

New control logic and display interface installed on all A2B Accorroni E.G. new generation HPE 25 ÷ 70 INVERTER - HPE LT 25 ÷ 50 INVERTER. Allows quick maintenance with parameters and firmware updates from USB peripheral. Memory increase with implementation of new logics.



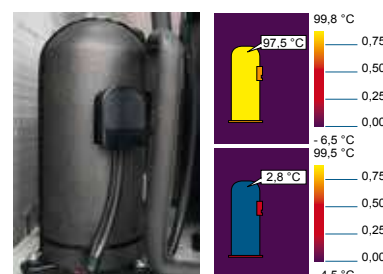
Technology EC

The EC technology at the base of the fan motor allows an efficiency of up to 90% and allows high levels of energy savings, significantly extending its life and making it almost maintenance-free. These values pay off in safeguarding the environment and saving for the user. This product today presents the greatest possible link between economy and ecology.



Thermal and acoustic insulation (silencing kit)

The innovative thermoacoustic coat allows a reduction of noise up to 10% at certain rotation frequencies of the compressor. The particular multilayer structure allows thermal insulation which at very low temperatures reduces losses by up to 2% compared to standard insulation.



HPE 25÷70 INVERTER - HPE LT 25÷50 INVERTER

Air / water inverter heat pumps with axial fans and steam injection versions

Diffuser (super silencing kit)

This diffuser increases the efficiency of the fan by allowing you to reduce its speed, lowering the sound pressure up to 7.2 dB (A) and energy consumption up to 27%. In this way it is possible to save substantial amounts of electricity for each fan per year. Alternatively, you can count on greater efficiency to improve air flow rates by up to 9% for the same energy consumption.



- Compact size
- Energy savings up to 27%
- Greater air flow
- Noise reduced up to 7.2dB(A)

New circulation pumps

Over 90% of wet rotor circulation pumps currently on the market will soon no longer be able to be sold due to the entry into force of the EcoDesign directive which imposes increasingly restrictive requirements on energy efficiency. In the future, only EC pumps with high efficiency and very low electricity consumption will have to be used; the transition to this last generation therefore guarantees security for the future and immediate convenience. The pumps adopted (optional) have synchronous motor according to ECM technology with maximum efficiency and high starting torque, automatic release function, integral motor protection and error signaling.

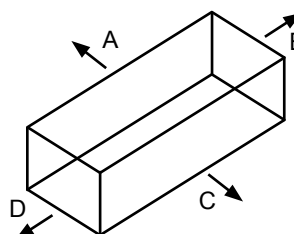
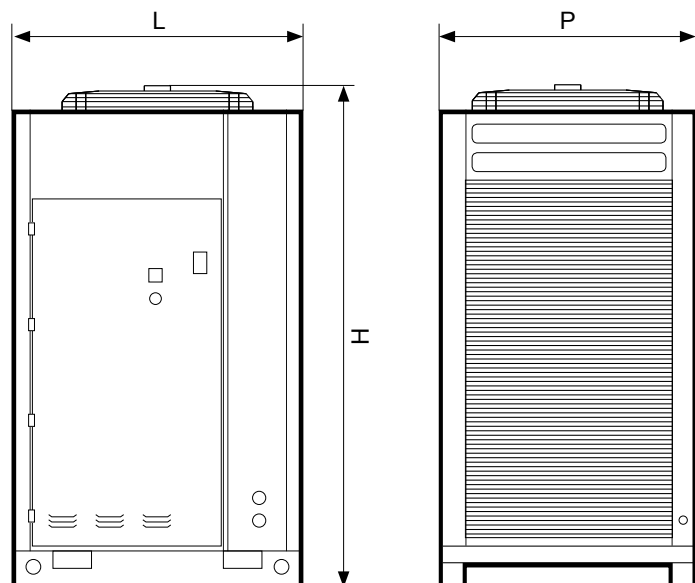


HPE 50F INVERTER

HPE 50F INVERTER has a fixed 50 Hz on-off compressor and an inverter with a displacement of 20% greater than the size Q250 inverters, with a working range between 36 and 96 Hz (20% more than 30 and 80 Hz). This involves a minimum of 36Hz (1 inverter compressor at minimum) up to a maximum of 146 Hz = 50Hz + 96Hz (compressor on-off and inverter compressor at maximum). Also in this case, depending on the external temperature, the maximum capacity is appropriately modulated in order to increase efficiency.



Dimensions HPE 25÷70 - HPE LT 25÷50 INVERTER



Minimum distances of respect

| | |
|----------|------|
| A | 1000 |
| B | 850 |
| C | 500 |
| D | 1550 |

Values in mm

| HPE - HPE LT INVERTER | HPE 25 | HPE 35 | HPE 50F | HPE 60 | HPE 70 | HPE LT 25 | HPE LT 35 | HPE LT 50 |
|----------------------------------|--------|--------|---------|--------|--------|-----------|-----------|-----------|
| L | 1198 | 1198 | 1198 | 1198 | 1198 | 1198 | 1198 | 1198 |
| P | 1198 | 1198 | 1198 | 1198 | 1198 | 1198 | 1198 | 1198 |
| H | 1673 | 1673 | 1745 | 1745 | 1745 | 1673 | 1673 | 1745 |
| H S version. Silenced (optional) | 1915 | 1915 | 1920 | 1920 | 1920 | 1915 | 1915 | 1915 |

Values in mm

HPE 25÷70 INVERTER - HPE LT 25÷50 INVERTER

Air / water inverter heat pumps with axial fans and steam injection versions

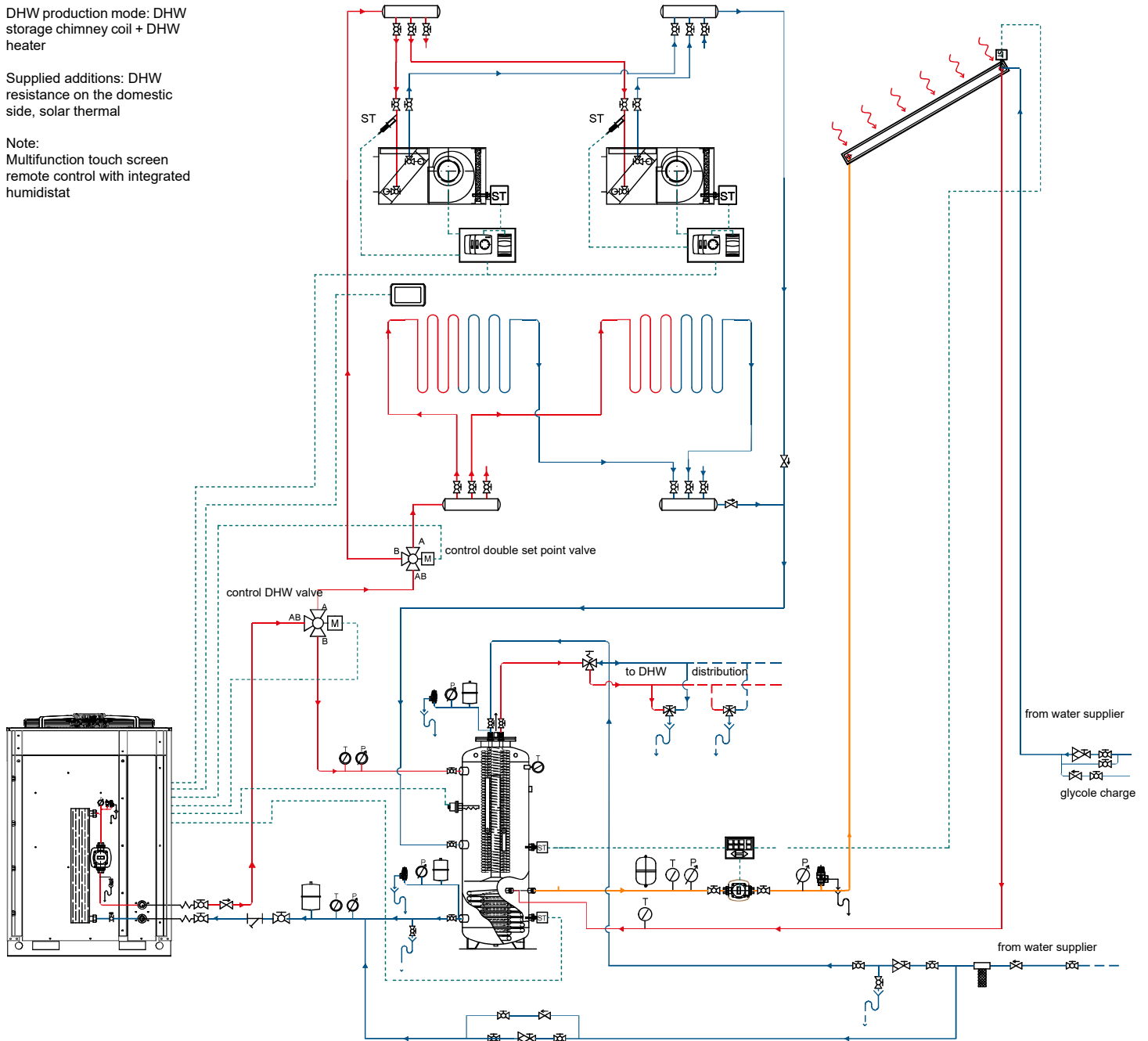
1 - HPE INVERTER system diagram for the production of heating, air conditioning and DHW

System regulation mode:
multizone with management
double set point fixed point
on radiant panels
main area

DHW production mode: DHW
storage chimney coil + DHW
heater

Supplied additions: DHW
resistance on the domestic
side, solar thermal

Note:
Multifunction touch screen
remote control with integrated
humidistat



LEGEND

| | |
|--|------------------------------------|
| | DHW mixer |
| | dial thermometer |
| | pressure gauge 0 - 6 bar |
| | loading unit with pressure reducer |
| | safety valve set at 3 bar |
| | air bleed valve with tap |
| | mechanical Y filter |
| | non-return valve |

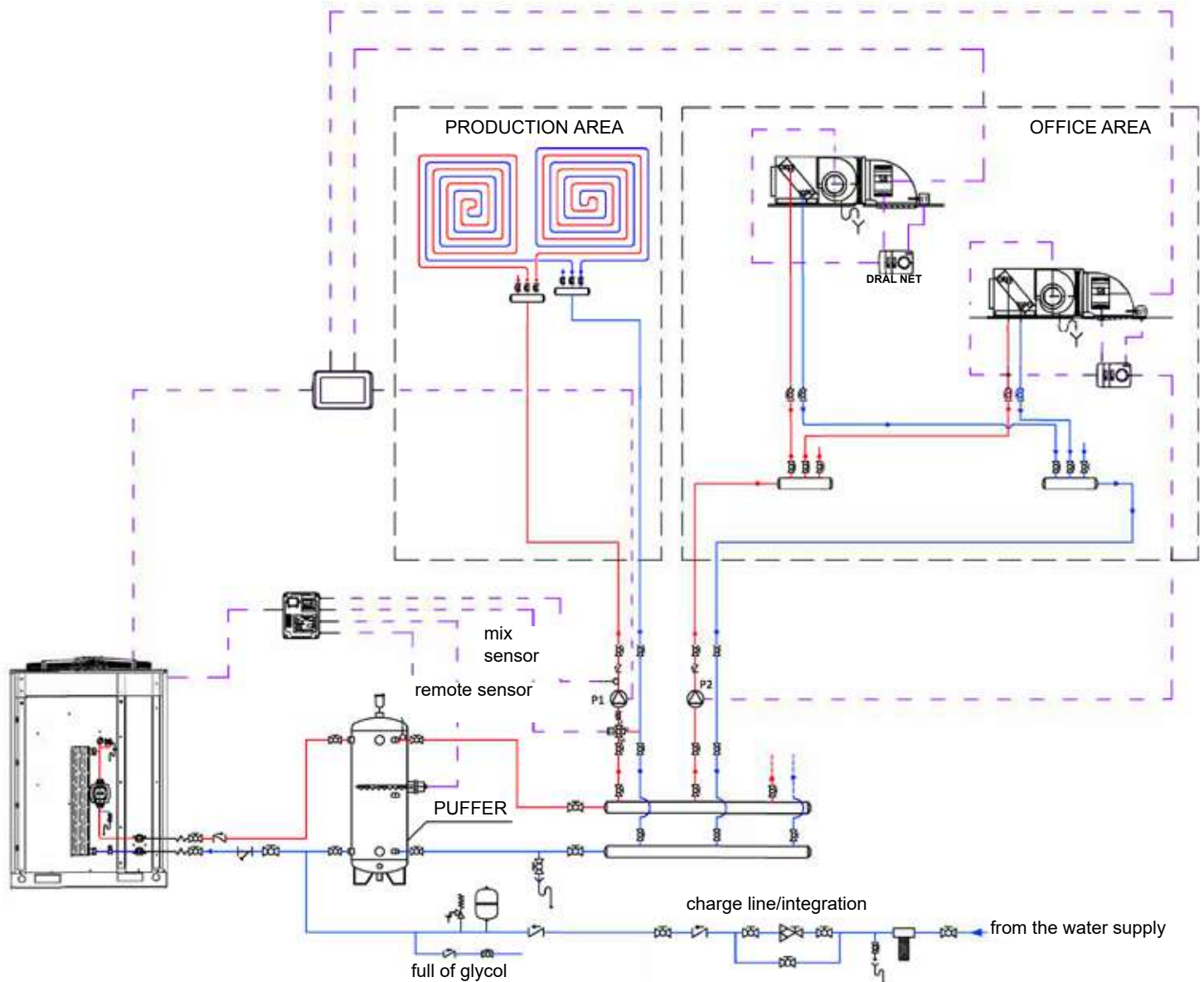
| | |
|--|---|
| | shut-off gate valve |
| | 2-way motorized valve |
| | sand trap filter |
| | 2-position motorized 3-way valve |
| | immersion NTC type temperature probe |
| | external management control |
| | 3-way thermostatic anti-scald valve |
| | multifunction touch screen remote control |

HPE 25÷70 INVERTER - HPE LT 25÷50 INVERTER

Air / water inverter heat pumps with axial fans and steam injection versions

2 - HPE INVERTER system diagram for the production of heating, air conditioning and DHW

System description: Hot / Cold mode, touch screen remote control with hardware expansion unit for mixing and heating management. Remote touch screen control for supervisor management, each zone is controlled by DRAL NET with SB which activates the booster pump (one for each thermostated zone) remote probe on the system puffer. Mixing probe on the floor system side. DHW production mode - Integration: Plant side resistance.



LEGEND

| | |
|--|-------------------------------------|
| | filter with removable cartridge |
| | loading unit with pressure reducer |
| | drain cock |
| | 3 bar safety valve |
| | shut-off valve |
| | non-return valve |
| | thermometer |
| | pressure gauge 0 - 6 bar |
| | 3-way thermostatic anti-scald valve |
| | flux regulator |
| | domestic hot water mixer |
| | immersion NTC temperature probe |
| | pump |
| | 2-position motorized 3-way valve |

| | |
|--|---|
| | remote keypad remote control touch screen |
| | expansion valve |
| | vent valve |
| | differential by-pass valve |
| | flow switch |

HPE 25÷70 INVERTER - HPE LT 25÷50 INVERTER

Air / water inverter heat pumps with axial fans and steam injection versions

Technical data table HPE 25÷70 INVERTER

| DESCRIPTION | U.M. | HPE INV 25 | HPE INV 35 | HPE INV 50F | HPE INV 60 | HPE INV 70 | |
|---|-------------------|--------------------|------------|---------------------------------------|--------------------|------------|------|
| Cooling | | | | | | | |
| Cooling capacity (1) | kW | 21,04 | 27,80 | 39,44 | 41,10 | 53,30 | |
| Absorbed power (1) | kW | 6,44 | 8,69 | 12,29 | 14,17 | 17,77 | |
| E.E.R. (1) | W/W | 3,26 | 3,20 | 3,21 | 2,90 | 3,00 | |
| Cooling capacity (2) | kW | 30,45 | 36,37 | 49,32 | 57,20 | 70,11 | |
| Absorbed power (2) | kW | 6,83 | 8,91 | 12,06 | 13,99 | 18,45 | |
| E.E.R. (2) | W/W | 4,46 | 4,08 | 4,09 | 4,09 | 3,80 | |
| SEER (5) | W/W | 4,00 | 4,15 | 4,11 | 3,86 | 3,93 | |
| Water flow (1) | l/s | 1,01 | 1,33 | 1,89 | 1,97 | 2,55 | |
| Useful head (1) | kPa | 30 | 35 | 25 | 56 | 20 | |
| Heating | | | | | | | |
| Thermal power (3) | kW | 24,72 | 32,65 | 48,25 | 52,00 | 65,10 | |
| Absorbed power (3) | kW | 5,74 | 7,89 | 11,43 | 12,84 | 16,07 | |
| C.O.P. (3) | W/W | 4,31 | 4,14 | 4,22 | 4,05 | 4,05 | |
| Thermal power (4) | kW | 22,16 | 32,33 | 41,07 | 48,60 | 60,30 | |
| Absorbed power (4) | kW | 6,44 | 9,80 | 12,08 | 15,14 | 18,84 | |
| C.O.P. (4) | W/W | 3,44 | 3,30 | 3,40 | 3,21 | 3,20 | |
| SCOP (6) | W/W | 3,94 | 4,10 | 3,90 | 4,01 | 3,80 | |
| Water flow (4) | l/s | 1,06 | 1,55 | 1,97 | 2,33 | 2,89 | |
| User side exchanger pressure drops (4) | kPa | 33 | 46 | 27 | 74 | 25 | |
| Energy efficiency | | | | A++/A+ | | A+/A+ | |
| Compressor | | | | | | | |
| Type | | Scroll DC Inverter | | Scroll DC Inverter + Scroll ON-OFF | Scroll DC Inverter | | |
| Compressors | n. | 1 | | 1+1 | 2 | | |
| Refrigerant circuits | n. | 1 | | | | | |
| Refrigerant quantity (7) | kg | 9,5 | 9 | 16,8 | 16,1 | 15 | |
| Fan | | | | | | | |
| Nominal air flow | m ³ /s | 3,90 | 4,10 | 6,94 | 7,72 | 8,28 | |
| Hydraulic circuit | | | | | | | |
| Water flow (1) | l/s | 1,01 | 1,33 | 1,89 | 1,97 | 2,55 | |
| Hydraulic connections | | 2" F | | | | | |
| Minimum water volume (8) | l | 84 | 108 | 145 | 173 | 214 | |
| Noise level | | | | | | | |
| Sound power (9) | Standard | dB(A) | 72,5 | 75,5 | 78 | 83 | 83 |
| | Silenced | dB(A) | 70,7 | 73,7 | 76,2 | 81,2 | 81,2 |
| | Super Silenced | dB(A) | 69,8 | 72,8 | 75,3 | 80,3 | 80,3 |
| Sound pressure (10) | Standard | dB(A) | 40,9 | 43,9 | 46,4 | 51,4 | 51,4 |
| | Silenced | dB(A) | 39,1 | 42,1 | 44,6 | 49,6 | 49,6 |
| | Super Silenced | dB(A) | 39,1 | 42,1 | 43,7 | 48,7 | 48,7 |
| Electrical data | | | | | | | |
| Power supply Max | | 400V/3+N/50Hz | | | | | |
| absorbed power Max | kW | 14,83 | 19,16 | 28,62 | 31,19 | 34,12 | |
| absorbed current | A | 21,4 | 27,7 | 41,4 | 45,1 | 48,2 | |
| Weight | | | | | | | |
| Shipping weight | Kg | 369 | 396 | 414/434 | 430/450 | 441/461 | |
| Operating weight | Kg | 357 | 384 | 422 | 438 | 449 | |

Performance referred to the following conditions:

(1) Cooling: outdoor air temperature 35 ° C; inlet / outlet water temperature 12/7 ° C.

(2) Cooling: outside air temperature 35 ° C; inlet / outlet water temperature 23/18 ° C

(3) Heating: external air temperature 7 ° C d.b. 6 ° C w.b.; inlet / outlet water temperature 30/35 ° C.

(4) Heating: external air temperature 7 ° C d.b. 6 ° C w.b.; inlet / outlet water temperature 40/45 ° C

(5) Cooling: inlet / outlet water temperature 12/7 ° C.

(6) Heating: average climatic conditions; T_{biv} = -7 ° C; inlet / outlet water temperature 30/35 ° C.

(7) Data indicative and subject to change. For the correct data, always refer to the technical label on the unit.

(8) Calculated for a decrease in the system water temperature of 10 ° C with a defrost cycle lasting 6 minutes.

(9) Sound power: condition (3); value determined on the basis of measurements carried out in accordance with the UNI EN ISO 9614-2 standard, in compliance with the requirements of Eurovent certification.

(10) Sound pressure: Value calculated from the sound power level using ISO 3744: 2010, referred to 10 m away from the unit.

(*) The data of useful head and characteristics of the pump refer to the EC integrated circulator (as optional) for all sizes except the HPE 70 INVERTER for which the data are specified for the AC pump kit with INVERTER

N.B. the performance data shown are indicative and may be subject to change. Furthermore, the yields declared in points (1), (2), (3) and (4) are to be understood as referring to the instantaneous power according to EN 14511. The data declared in points (5) and (6) is determined according to UNI EN 14825.

HPE 25÷70 INVERTER - HPE LT 25÷50 INVERTER

Air / water inverter heat pumps with axial fans and steam injection versions

Technical data table HPE LT 25÷50 INVERTER

| DESCRIPTION | U.M. | HPE LT INV 25 | HPE LT INV 35 | HPE LT INV 50 | |
|---|-------------------|--------------------|---------------|---------------|------|
| Cooling | | | | | |
| Cooling capacity (1) | kW | 21,00 | 28,40 | 36,10 | |
| Absorbed power (1) | kW | 6,44 | 8,61 | 12,45 | |
| E.E.R. (1) | W/W | 3,26 | 3,30 | 2,90 | |
| Cooling capacity (2) | kW | 30,67 | 36,37 | 47,56 | |
| Absorbed power (2) | kW | 7,34 | 8,91 | 12,52 | |
| E.E.R. (2) | W/W | 4,18 | 4,08 | 3,80 | |
| SEER (5) | W/W | 3,98 | 4,17 | 3,90 | |
| Water flow (1) | l/s | 1,00 | 1,36 | 1,73 | |
| Pressure drops (1) | kPa | 32 | 37 | 20 | |
| Heating | | | | | |
| Thermal power (3) | kW | 24,15 | 32,50 | 47,78 | |
| Absorbed power (3) | kW | 5,79 | 7,99 | 12,15 | |
| C.O.P. (3) | W/W | 4,17 | 4,07 | 3,93 | |
| Thermal power (4) | kW | 23,76 | 32,50 | 45,10 | |
| Absorbed power (4) | kW | 6,88 | 9,97 | 13,56 | |
| C.O.P. (4) | W/W | 3,45 | 3,26 | 3,33 | |
| SCOP (6) | W/W | 4,02 | 4,04 | 3,81 | |
| Water flow (4) | l/s | 1,14 | 1,56 | 2,16 | |
| User side exchanger pressure drops (4) | kPa | 37 | 47 | 34 | |
| Energy efficiency | | A++/A++ | A++/A+ | | |
| Compressor | | | | | |
| Type | | Scroll DC Inverter | | | |
| Compressors | n. | 1 | 2 | | |
| Refrigerant circuits | n. | 1 | | | |
| Refrigerant quantity (7) | kg | 10,5 | 11,2 | 16,5 | |
| Cooling fan | | | | | |
| Nominal air flow | m ³ /s | 5 | 5,56 | 6,94 | |
| Hydraulic circuit | | | | | |
| Water flow (1) | l/s | 1,00 | 1,36 | 1,73 | |
| Hydraulic connections | | 2" F | | | |
| Minimum water volume (8) | l | 90 | 108 | 151 | |
| Noisiness | | | | | |
| Sound power (9) | Standard | dB(A) | 72,5 | 75,5 | 78 |
| | Silenced | dB(A) | 70,7 | 73,7 | 76,2 |
| | Super Silenced | dB(A) | 69,8 | 72,8 | 75,3 |
| Sound pressure (10) | Standard | dB(A) | 56 | 59 | 61,4 |
| | Silenced | dB(A) | 54,2 | 57,2 | 59,6 |
| | Super Silenced | dB(A) | 53,9 | 56,9 | 58,5 |
| Electrical data | | | | | |
| Power supply Max | | 400V/3+N/50Hz | | | |
| absorbed power Max | kW | 14,83 | 19,16 | 28,62 | |
| absorbed current | A | 21,4 | 27,7 | 41,4 | |
| Weight | | | | | |
| Shipping weight | Kg | 385 | 444 | 460 | |
| Operating weight | Kg | 373 | 432 | 442 | |

Performance referred to the following conditions:

(1) Cooling: outdoor air temperature 35 ° C; inlet / outlet water temperature 12/7 ° C.

(2) Cooling: outside air temperature 35 ° C; inlet / outlet water temperature 23/18 ° C

(3) Heating: external air temperature 7 ° C d.b. 6 ° C w.b.; inlet / outlet water temperature 30/35 ° C.

(4) Heating: external air temperature 7 ° C d.b. 6 ° C w.b.; inlet / outlet water temperature 40/45 ° C

(5) Cooling: inlet / outlet water temperature 12/7 ° C.

(6) Heating: average climatic conditions; T_{biv} = -7 ° C; inlet / outlet water temperature 30/35 ° C.

(7) Data indicative and subject to change. For the correct data, always refer to the technical label on the unit.

(8) Calculated for a decrease in the system water temperature of 10 ° C with a defrost cycle lasting 6 minutes.

(9) Sound power: condition (3); value determined on the basis of measurements carried out in accordance with the UNI EN ISO 9614-2 standard, in compliance with the requirements of Eurovent certification.

(10) Sound pressure: Value calculated from the sound power level using ISO 3744: 2010, referred to 10 m away from the unit.

(*) The data of useful head and characteristics of the pump refer to the EC integrated circulator (as optional)

N.B. the performance data shown are indicative and may be subject to change. Furthermore, the yields declared in points (1), (2), (3) and (4) they are to be understood as referring to the instantaneous power according to EN 14511. The data declared in points (5) and (6) is determined according to UNI EN 14825.

HPE 66÷115 INVERTER

Air / water inverter heat pumps with axial fans with double refrigerant circuit



Technical and construction features

The reversing cycle heat pumps of the HPE 66 ÷ 115 INVERTER series have been designed for commercial and industrial applications, they are extremely versatile and designed for heat pump operation with the production of hot water for space heating and / or for sanitary use at a temperature up to 58 ° C.

The use of scroll compressor technology, specially designed for operation with R410A, combined with a compressor with brushless INVERTER motor, the fans always driven by inverter, as well as the integrated variable flow circulators together with the electronic expansion valve, optimize consumption and the operational efficiency of the system as a whole.

All units are supplied as standard with the following control and protection devices: return water temperature probe, work and antifreeze probe, high and low pressure transducers, compressor suction and discharge temperature probes, fan thermal protection, side flow switch water, high pressure switch.

HYDRAULIC CIRCUIT

The HPE 66 ÷ 115 INVERTER series heat pump chillers are equipped with: plate heat exchanger with double refrigerant circuit and single hydraulic circuit, pressure gauge at the inlet and outlet connection of the exchanger for the evaluation of pressure drops, service cock, flow switch protection valve, automatic air vent valve and safety valve (6 bar).

The version with integrated circulator, provides a pump with AC motor driven by an inverter for regulating the water flow rate between 60 and 100%, also suitable for the use of water refrigerated and directly managed by the machine control.



ECOLOGIC GAS



COMPRESSOR DC INVERTER



DHW UP TO 65 °C WITH RESISTANCE



PLATE EXCHANGER



PUMP DC INVERTER



PARTIALIZATION



DOUBLE COOLING CIRCUIT



AXIAL FANS DC BRUSHLESS



CONTROL V. 415

| Model | Cooling power kW | Thermal power kW | Code | € |
|------------------|------------------|------------------|----------|-----------|
| HPE 66 INVERTER | 65,59 | 68,40 | 37981801 | 40.200,00 |
| HPE 75 INVERTER | 74,60 | 74,70 | 37981802 | 42.700,00 |
| HPE 85 INVERTER | 83,90 | 85,60 | 37981803 | 44.820,00 |
| HPE 95 INVERTER | 94,70 | 93,34 | 37981804 | 49.350,00 |
| HPE 105 INVERTER | 105,60 | 102,47 | 37981805 | 52.230,00 |
| HPE 115 INVERTER | 114,30 | 111,47 | 37981806 | 53.420,00 |

Accessories HPE 66÷115 INVERTER

| | | | |
|--|----------|----------|----------|
| | ACF 200 | 37306120 | 610,00 |
| | ACF 300 | 37306130 | 710,00 |
| | ACF 500 | 37306150 | 1.000,00 |
| | ACF 800 | 37306160 | 1.480,00 |
| | ACF 1000 | 37306170 | 1.660,00 |
| | ACF 1500 | 37306180 | 2.530,00 |
| | ACF 2000 | 37306190 | 3.180,00 |
| First start | | 37980000 | 740,00 |
| Integrated AC pump | | 37981001 | 2.260,00 |
| Antifreeze kit | | 37981002 | 530,00 |
| GI module for terminal block extension | | 37981003 | 580,00 |
| Muting HPE 66÷115 INVERTER | | 37981007 | 900,00 |

HPE 66÷115 INVERTER

Air / water inverter heat pumps with axial fans with double refrigerant circuit

| Accessories HPE 66÷115 INVERTER | Code | € |
|---|-----------------|---------------|
| Super muting HPE 66 - 75 - 85 - 95 INVERTER | 37981004 | 2.710,00 |
| Super muting HPE 105 - 115 INVERTER | 37981005 | 4.230,00 |
| Anti corrosion treatment | 37981006 | 5.060,00 |
| Magnetothermic switches | 37981008 | 740,00 |
| Remote control touchscreen | 37980013 | 610,00 |
| Wall remote control | 37980017 | 300,00 |
| Anti-vibration mounts | 37981009 | 440,00 |
| Interface activation Modbus RS485 | 37980011 | 800,00 |
| Sequence control device, phase failure + minimum and maximum voltage relay | 37980016 | 360,00 |

Carpentry

All the units of the HPE 66 ÷ 115 INVERTER series are produced in hot-dip galvanized sheet metal and painted after processing with polyurethane powders in an oven at 180 ° C to ensure the best resistance to atmospheric agents.

Cooling fan

The fan is made of plastic material loaded with fiber, it is of the axial type with wing profile blades. It is statically and dynamically balanced and supplied complete with protective grille and mouthpiece. The electric motor used is modulated by an inverter, directly coupled and equipped with integrated thermal protection.

The motor has an IP 54 degree of protection according to CEI EN 60529.



Control V.415

New control logic and display interface installed on all A2B Accorroni E.G. new generation HPE 66 ÷ 115 INVERTER.

Allows quick maintenance with parameters and firmware updates from USB peripheral. Memory increase with implementation of new logics.



Cooling circuits

The refrigeration circuits are made using components of leading international companies and according to the UNI EN 13134 standard concerning the brazing-brazing processes.

The refrigerant gas used is R410A.

Each refrigerant circuit includes in its basic version: 4-way reverse cycle valve, electronic expansion valve, liquid separator, liquid receivers, auxiliary circuit to reduce defrosting times, oil recovery circuit, non-return valves, inspection valves for maintenance and control, safety device according to PED regulations (high pressure switch), pressure transducers, precision probes, high capacity filter drier, mechanical filters.



Compressors

The compressors are of the Scroll type, mounted on rubber vibration dampers.

For each of the 2 circuits there is a DC inverter compressor.

In this way it is possible, in each circuit, to continuously modulate between the minimum power of the inverter compressor alone and the sum of the maximum powers of all the compressors in the circuit. On all units it is therefore possible to partialize the power delivered and that absorbed up to 9% of the maximum on models with 4 compressors and up to 6% in models with 6 compressors.

The crankcase resistance is standard.

Inspection of the compressors is possible through the front panel of the unit which allows maintenance even with the unit in operation.



HPE 66÷115 INVERTER

Air / water inverter heat pumps with axial fans with double refrigerant circuit

Electrical cabinet

The electrical panel made in compliance with the European regulations in force, with IP54 protection degree and contains all the electromechanical and electronic regulation and control components.

The electrical panel equipped with a terminal block with clean contacts for remote ON-OFF, summer / winter switching, the sanitary water sensor, and the remote control panel.

The addition of the optional GI module allows the management of further plant functions.



Control system

All HPE 66 ÷ 115 INVERTER units are equipped with a control unit equipped with a microprocessor with superheat control logic, an electronic thermostatic valve and solenoid valves, pressure transducers and temperature probes.

The CPU also controls the following functions: water temperature regulation, anti-freeze protection, timing and sequential activation of the compressors, management and reset of alarms, fan and pump modulation.

Upon request, the microprocessor can be connected to remote control BMS systems using the ModBus protocol.

The control system, together with the INVERTER technology and the on-board sensors, quickly and continuously monitors and adapts the performance of the inverter compressor, circulator and fan.



Multifunction touch screen remote control

The remote touch screen control is used for the centralized management of a chiller / heat pump network.

It can also be used for partial functions (for example as a remote panel for a single chiller / heat pump or as a room thermostat to manage some fancoil zones). It integrates humidity and temperature sensors for the thermo-hygrometric analysis of the environment and double set point management for radiant floor systems that use a dehumidification system.

The very intuitive interface simplifies the use of the control; all functions can be easily set thanks to the use of synoptics of immediate understanding.

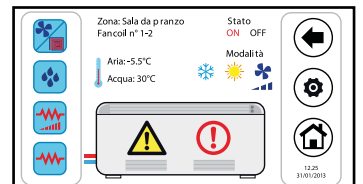
The remote control periodically monitors and queries the network, there is a cycle time between the signaling or command request and the activation of the function, the cycle time depends on the size of the fan coil and / or heat pump network.



Sanitary water function

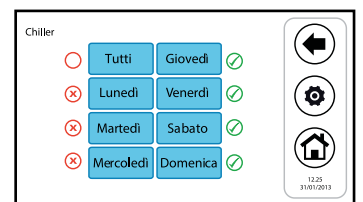
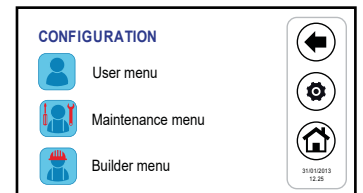
The heat pumps can also produce domestic hot water by managing an external 3-way valve and a suitably sized boiler.

By connecting multiple heat pumps in cascade, the user can decide whether all or only part of them can participate in the "domestic water" function.



Chronothermostat function

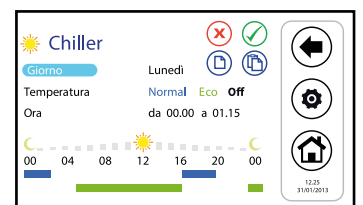
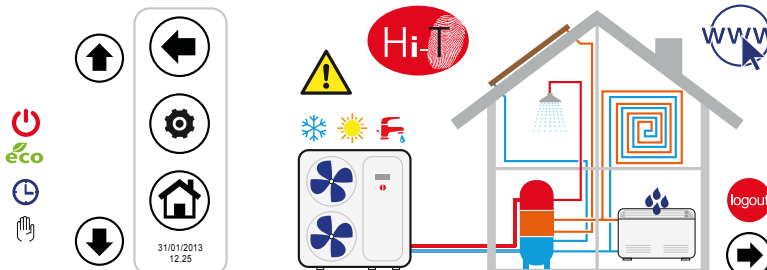
The panel contains within it the weekly chronothermostat function with 2 temperature levels, T and Teco, both for controlling the hydronic terminals and for controlling the heat pumps. The "chronothermostat" is performed separately for hydronic terminals and for heat pumps.



STATUS SETTING

System

- Chiller
- Zone 1
- Zone 2
- Zone 3



HPE 66÷115 INVERTER

Air / water inverter heat pumps with axial fans with double refrigerant circuit

Hi-T multifunction touch screen remote control legend



Room thermostat

The thermostat function allows perfect management of the room temperature in the various declared fan coil zones, adjusting the air conditioning according to the temperature detected.



Humidity control

Integrated humidity and temperature sensor for double set point management and room thermohygroscopic regulation.



Web server

Integrated humidity and temperature sensor for double set point management and room thermohygroscopic regulation.



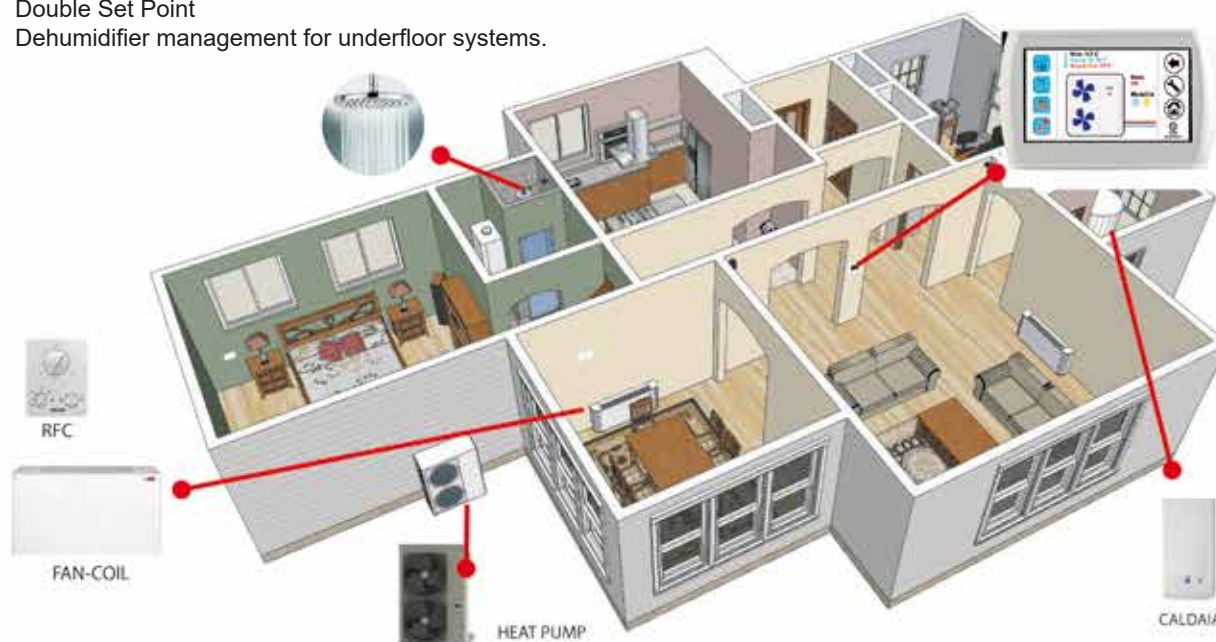
Web server

Supervision, firmware update, system status, alarm history via ethernet port.



Double Set Point

Dehumidifier management for underfloor systems.



Screed function

Screed drying by setting the time and temperature parameters.



USB

Software programming, alarm log download, connected unit parameters update.



Boiler enabling

Advanced management of backup sources, with replacement and / or integration logic according to climatic conditions for different external operating temperature ranges.



Instructions

Off-line and on-line integration of instructions for immediate understanding of the use of the control, equipped with graphic support for intuitive consultation.



Timer

Graphical weekly programming of the system's operating status and management of the legionella disinfection cycle.



External to service units in parallel

Management of a circulation pump external to the HPE 66 ÷ 115 INVERTER series heat pumps. Operation is possible if the units are connected to a Hi-T keyboard, the machines are configured in hydraulic parallel, option CI = 2. In this configuration the production of domestic hot water is allowed.



Single pump in the network

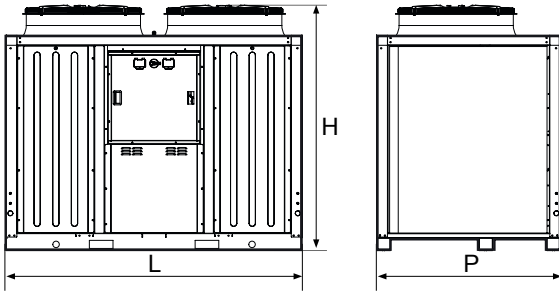
It allows the management of a network of heat pumps, up to 7 HPE INVERTER.

The units are hydraulically connected in parallel with the water outlet circuits, and there is a solenoid valve that excludes or includes any heat pump.

HPE 66÷115 INVERTER

Air / water inverter heat pumps with axial fans with double refrigerant circuit

Dimensions HPE HPE 66÷115 INVERTER



| Model | HPE 66 | HPE 75 | HPE 85 | HPE 95 | HPE 105 | HPE 115 |
|-------|--------|--------|--------|--------|---------|---------|
| L | 2250 | 2250 | 2250 | 2250 | 2250 | 2250 |
| P | 1170 | 1170 | 1170 | 1170 | 1170 | 1170 |
| H | 1985 | 1985 | 1985 | 1985 | 1985 | 1985 |

Values in mm

TECHNICAL DATA HPE 66÷115 INVERTER

| DESCRIPTION | U.M. | HPE INV 66 | HPE INV 75 | HPE INV 85 | HPE INV 95 | HPE INV 105 | HPE INV 115 | |
|--|-------------------|------------|---------------|------------|------------|-------------|-------------|------|
| Cooling | | | | | | | | |
| Cooling capacity (1) | kW | 65,59 | 74,6 | 83,9 | 94,7 | 105,6 | 114,3 | |
| Absorbed power (1) | kW | 22,62 | 25,72 | 28,83 | 32,66 | 36,16 | 39,40 | |
| E.E.R. (1) | W/W | 2,90 | 2,90 | 2,91 | 2,90 | 2,92 | 2,90 | |
| Cooling capacity (2) | kW | 79,60 | 90,16 | 102,8 | 113,3 | 127,3 | 139,3 | |
| Absorbed power (2) | kW | 21,81 | 24,64 | 28,16 | 31,04 | 34,88 | 38,16 | |
| E.E.R. (2) | W/W | 3,65 | 3,66 | 3,65 | 3,65 | 3,65 | 3,65 | |
| SEER (5) | W/W | 3,82 | 3,85 | 3,81 | 3,80 | 3,83 | 3,81 | |
| Water flow (1) | l/s | 3,14 | 3,57 | 4,01 | 4,53 | 5,05 | 5,47 | |
| Pressure drops (1) | kPa | 32 | 36 | 37 | 34 | 33 | 38 | |
| Heating | | | | | | | | |
| Thermal power (3) | kW | 68,40 | 74,70 | 85,6 | 93,34 | 102,47 | 111,47 | |
| Absorbed power (3) | kW | 16,85 | 18,44 | 21,14 | 23,87 | 25,3 | 28,58 | |
| C.O.P. (3) | W/W | 4,06 | 4,05 | 4,05 | 3,91 | 4,05 | 3,90 | |
| Thermal power (4) | kW | 65,86 | 71,0 | 82,12 | 88,57 | 97,13 | 108,28 | |
| Absorbed power (4) | kW | 20,52 | 22,19 | 25,66 | 27,68 | 30,35 | 36,09 | |
| C.O.P. (4) | W/W | 3,21 | 3,20 | 3,20 | 3,20 | 3,20 | 3,00 | |
| SCOP (6) | W/W | 3,58 | 3,55 | 3,53 | 3,54 | 3,57 | 3,50 | |
| Water flow (4) | l/s | 3,15 | 3,40 | 3,93 | 4,24 | 4,65 | 5,18 | |
| User side exchanger pressure drops (4) | kPa | 30 | 31 | 31 | 32 | 27 | 27 | |
| Energy efficiency | | | | A+/A+ | | | A+/A++ | |
| Compressor | | | | | | | | |
| Type Compressors | | | | Scroll | | | | |
| Refrigerant circuits | n. | | 4 | | | 6 | | |
| Refrigerant quantity (7) | n. | | | 2 | | | | |
| Cooling fan | kg | 13,4 | 14,2 | 14,3 | 13,4 | 14,2 | 14,3 | |
| Nominal air flow | | | | | | | | |
| Hydraulic circuit | m ³ /s | 6,5x2 | 7x2 | 7,5x2 | 8x2 | 8,5x2 | 9x2 | |
| Maximum pressure hydronic tit | | | | | | | | |
| Hydraulic connections | bar | | | 6 | | | | |
| Minimum water volume (8) | | | | 2" 1/2 | | | | |
| Acoustic data | | | | | | | | |
| | | l | 200 | | | 260 | | |
| Sound power (9) | Standard | dB(A) | 82,5 | 83 | 83,5 | 84 | 84 | 84,5 |
| | Silenced | dB(A) | 81 | 81,5 | 82 | 82,2 | 82,2 | 82,7 |
| | Super Silenced | dB(A) | 80,2 | 80,7 | 81,2 | 81,7 | 81,7 | 82,2 |
| Sound pressure (10) | Standard | dB(A) | 50,7 | 51,2 | 51,7 | 52,2 | 52,5 | 52,7 |
| | Silenced | dB(A) | 49,2 | 49,7 | 50,2 | 50,4 | 50,4 | 50,9 |
| | Super Silenced | dB(A) | 48,4 | 48,9 | 49,4 | 49,9 | 49,9 | 50,4 |
| Electrical data | | | | | | | | |
| Power supply | | | 400V/3+N/50Hz | | | | | |
| Max absorbed power | kW | 39,90 | 42,3 | 46,7 | 52,3 | 55,8 | 63,0 | |
| Max absorbed current | A | 60,1 | 63,5 | 70,3 | 78,7 | 83,9 | 94,7 | |
| Weight | | | | | | | | |
| Shipping weight | Kg | 943 | 955 | 1011 | 1026 | 1128 | 1142 | |
| Operating weight | Kg | 923 | 946 | 996 | 1011 | 1105 | 1120 | |

Performance referred to the following conditions:

- (1) Cooling: outdoor air temperature 35 °C; inlet / outlet water temperature 12/7 °C
- (2) Cooling: outdoor air temperature 35 °C; inlet / outlet water temperature 23/18 °C
- (3) Heating: external air temperature 7 °C d.b. 6 °C w.b.; inlet / outlet water temperature 30/35 °C
- (4) Heating: external air temperature 7 °C d.b. 6 °C w.b.; inlet / outlet water temperature 40/45 °C
- (5) Cooling: inlet / outlet water temperature 12/7 °C
- (6) Heating: average climatic conditions; T_{biv} = -7 °C; inlet / outlet water temperature 30/35 °C
- (7) Data indicative and subject to change. For the correct data, always refer to the technical label on the unit.
- (8) Calculated for a decrease in the system water temperature of 10 °C with a defrost cycle lasting 6 minutes.

- (9) Sound power: condition (3); value determined on the basis of measurements made in accordance with the regulations UNI EN ISO 9614-2, in compliance with the requirements of Eurovent certification.
- (10) Sound pressure: Value calculated from the sound power level using ISO 3744: 2010, referred to 10 m away from the unit.
 (*) The data of useful head and characteristics of the pump refer to the EC integrated circulator (as optional)
 N.B. the performance data shown are indicative and may be subject to change.
 Furthermore, the yields declared in points (1), (2), (3) and (4) are to be understood as referring to the instantaneous power according to EN 14511. The data declared in points (5) and (6) is determined according to UNI EN 14825.

RPE 19÷44 - HPE 18÷40

Water chillers and air / water heat pumps with axial fans



Technical and construction features

The chillers and heat pumps of the RPE - HPE series are designed for outdoor installation, in residential and commercial use.

The range uses the R410A refrigerant which ensures high performance with low energy consumption and is made up of different models in chiller and heat pump versions, with cooling capacities from 18 to 44 kW and with thermal capacities from 20 to 45 kW.

The finned pack exchangers have been optimized for R410A and use 8 mm copper pipes that allow for better heat exchange and silent operation of the fans.

Their generous sizing guarantees the production of chilled water even with external air temperatures of 51 °C.

In the RPE 44 model, with double compressor on the same refrigeration circuit, the working range is further extended and the efficiency at partial loads increased.

In fact, in particularly severe conditions, the microprocessor control activates the partial operation, doubling the condensing surface available to the single compressor.

The self-adaptive logic allows you to automatically adjust the setpoint according to the external temperature to reduce consumption and extend the working range.

Operation in systems with low water content is possible even without the use of a storage tank thanks to the automatic adjustment that limits the number of compressor starts, thus increasing its duration over time.

The exclusive Smart Defrost System (optional with advanced controller) is able to correctly identify the decay of the performance of the external exchanger due to the formation of ice and allows to minimize the process time compared to the regular operation of the unit.



ECOLOGIC
GAS



AXIAL
FANS



ErP
Ready



COMPRESSOR
SCROLL



COMPRESSOR
ROTATIVE



MONOBLOC

| Model | Heating power kW | Cooling power kW | Version STANDARD Code | Version HYDRO Code | Version STANDARD € | Version HYDRO € |
|------------------------|------------------|------------------|-----------------------|--------------------|--------------------|-----------------|
| RPE 19 only cooling | - | 19,70 | 37990000 | 37990015 | 9.610,00 | 11.130,00 |
| RPE 23 only cooling | - | 22,50 | 37990001 | 37990016 | 10.550,00 | 12.080,00 |
| RPE 27 only cooling | - | 26,40 | 37990002 | 37990017 | 11.600,00 | 13.080,00 |
| RPE 28 only cooling | - | 27,90 | 37990003 | 37990018 | 12.710,00 | 14.600,00 |
| RPE 32 only cooling | - | 31,30 | 37990004 | 37990019 | 13.600,00 | 15.540,00 |
| RPE 35 only cooling | - | 34,70 | 37990005 | 37990020 | 14.540,00 | 16.490,00 |
| RPE 40 only cooling | - | 39,40 | 37990006 | 37990021 | 15.700,00 | 17.640,00 |
| RPE 44 only cooling | - | 43,80 | 37990007 | 37990022 | 19.800,00 | 21.740,00 |
| HPE 18 cooling/heating | 20,30 | 16,70 | 37990008 | 37990023 | 9.030,00 | 10.490,00 |
| HPE 20 cooling/heating | 23,10 | 19,10 | 37990009 | 37990024 | 10.400,00 | 11.870,00 |
| HPE 24 cooling/heating | 27,40 | 23,10 | 37990010 | 37990025 | 11.600,00 | 13.070,00 |
| HPE 28 cooling/heating | 31,50 | 27,30 | 37990011 | 37990026 | 13.340,00 | 15.280,00 |
| HPE 32 cooling/heating | 35,90 | 30,60 | 37990012 | 37990027 | 14.390,00 | 16.330,00 |
| HPE 35 cooling/heating | 39,50 | 34,00 | 37990013 | 37990028 | 15.910,00 | 17.800,00 |
| HPE 40 cooling/heating | 45,20 | 38,60 | 37990014 | 37990029 | 17.900,00 | 19.830,00 |

RPE 19÷44 - HPE 18÷40

Water chillers and air / water heat pumps with axial fans

Accessories RPE 19÷44 - HPE 18÷40

| | | | Code | € |
|---|--|-----------------|----------|----------|
|  | Compressor compartment sound-absorbing insulation | RPE/HPE 019/027 | 37990030 | 120,00 |
| | | RPE/HPE 028/040 | 37990040 | 150,00 |
| | | RPE T44 | 37990041 | 220,00 |
|  | Refrigerant pressure gauge | | 37990031 | 140,00 |
|  | Battery protection grid | RPE/HPE 019/027 | 37990033 | 210,00 |
| | | RPE/HPE 028/T44 | 37990039 | 360,00 |
|  | Soft start | RPE/HPE 019/032 | 37990032 | 920,00 |
| | | RPE/HPE 035/T44 | 37990042 | 1.810,00 |
|  | Compressor crankcase electric heater | RPE/HPE 019/040 | 37990034 | 80,00 |
| | | RPE T44 | 37990043 | 230,00 |
|  | Controllo remoto Remote control remote user interface for basic control remote user interface for basic control | | 37990035 | 500,00 |
|  | Rubber anti-vibration mounts | RPE/HPE 019/027 | 37990037 | 140,00 |
| | | RPE/HPE 028/T44 | 37990038 | 240,00 |

Main components RPE 19÷44 - HPE 18÷40

Structure

Galvanized and painted sheet metal carpentry (RAL9002) for effective resistance to corrosive agents and pleasant aesthetics. The fixing systems are made of non oxidizable carbon steel materials with surface passivation treatments.

Custom hydronic kits

The structure can house hydronic kits with pump, expansion tank and storage tank.

High head pump made entirely of stainless steel already prepared for use with mixtures of water and ethylene glycol up to 35% and equipped with internal thermal protection.

Fan motor group

Electric fan with external rotor motor directly keyed to the axial fan, with internal thermal protection on the windings.

Finned pack heat exchanger

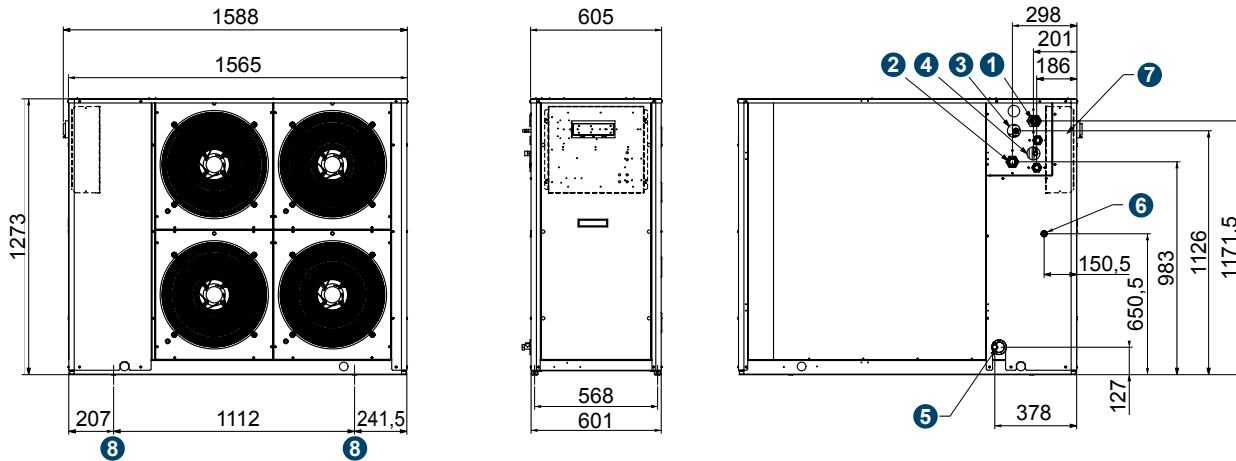
In 8 mm diameter copper tube and aluminum fins.

The particular design criterion of the exchangers allows the defrosting phases to be speeded up to the maximum in the heat pump versions with obvious benefits on seasonal efficiency during heating operation.

RPE 19÷44 - HPE 18÷40

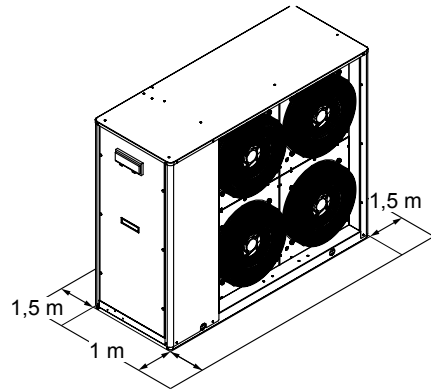
Water chillers and air / water heat pumps with axial fans

Dimensions RPE - HPE 18÷27

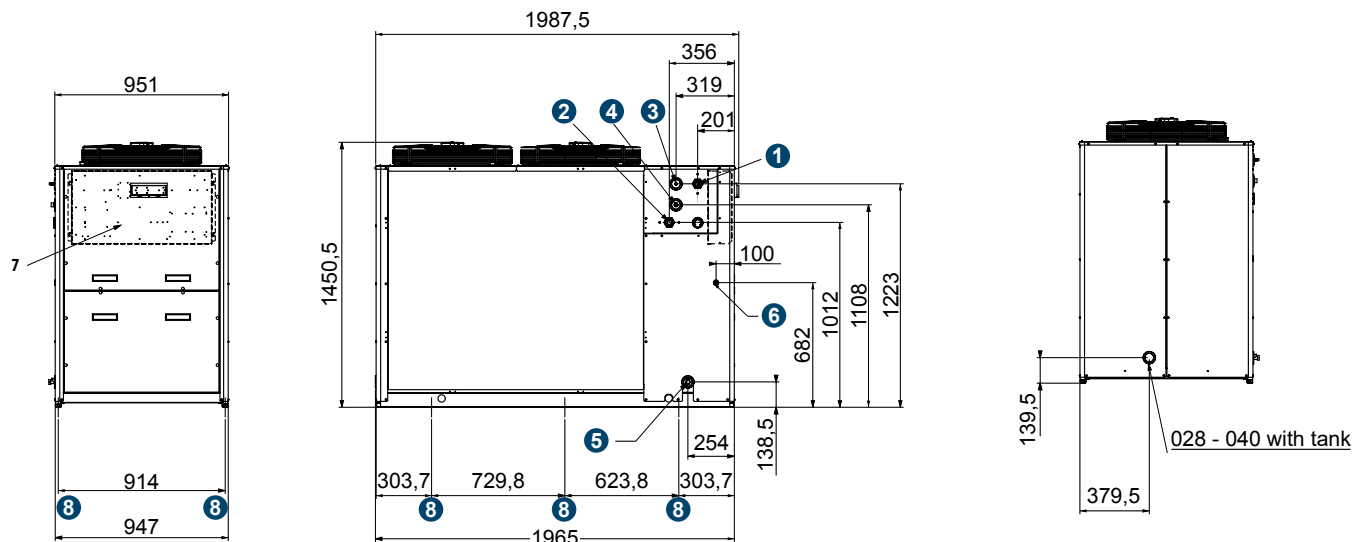


Values in mm

- 1 Water inlet 1 "1/4 female
- 2 Water outlet 1 "1/4 female
- 3 Safety valve drain with hose connection
- 4 Water supply 1/2 "male (optional tap)
- 5 Water drain 1/2" female
- 6 Power supply Ø 28 mm
- 7 Electrical panel
- 8 Antivibration mounts

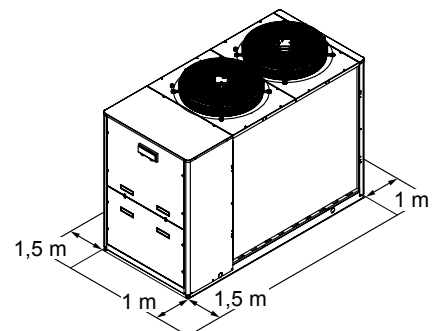


Dimensions RPE - HPE 28÷44



Values in mm

- 1 Water inlet 1 "1/4 female
- 2 Water outlet 1 "1/4 female
- 3 Safety valve drain with hose connection
- 4 Water supply 1/2 "male (optional tap)
- 5 Water drain 1/2" female
- 6 Power supply Ø 37 mm
- 7 Electrical panel
- 8 Antivibration mounts



RPE 19÷44 - HPE 18÷40

Water chillers and air / water heat pumps with axial fans

Technical data table for chillers RPE 19÷44

| DESCRIPTION | U.M. | RPE 19 cooling | RPE 23 cooling | RPE 27 cooling | RPE 28 cooling | RPE 32 cooling | RPE 35 cooling | RPE 40 cooling | RPE 44 cooling | |
|---|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--|
| Cooling power ⁽¹⁾ (E) | kW | 19,7 | 22,5 | 22,5 | 27,9 | 31,3 | 34,7 | 39,4 | 43,8 | |
| Total absorbed power ⁽¹⁾ (E) | kW | 6,60 | 7,53 | 7,53 | 8,87 | 10,3 | 11,7 | 13,0 | 15,1 | |
| E.E.R. ⁽¹⁾ (E) | W/W | 2,98 | 2,99 | 2,99 | 3,15 | 3,04 | 2,97 | 3,03 | 2,90 | |
| S.E.E.R. ⁽²⁾ (E) | W/W | 3,80 | 3,80 | 3,80 | 3,99 | 3,98 | 3,82 | 3,87 | 4,18 | |
| Water flow ⁽¹⁾ | l/h | 3373 | 4090 | 4090 | 4823 | 5415 | 6008 | 6816 | 7648 | |
| Pressure drops on the water side ⁽¹⁾ | kPa | 51 | 49 | 34 | 40 | 51 | 40 | 43 | 57 | |
| Useful head pump low prev.OR ⁽¹⁾ | kPa | 123 | 113 | 113 | 141 | 123 | 128 | 117 | 94 | |
| Max absorbed current | A | 24 | 26 | 32 | 33 | 34 | 39 | 40 | 63 | |
| Inrush current | A | 105 | 159 | 133 | 134 | 167 | 162 | 164 | 150 | |
| Starting current with soft starter | A | 72 | 110 | 91 | 91 | 114 | 111 | 112 | 110 | |
| Power supply | | 400V/3+N/50Hz | | | | | | | | |
| Compressors / Circuits | n. | 1/1 | | | | | | | 2/1 | |
| Expansion vessel capacity | dm ³ | 5 | | | | 8 | | | | |
| Tank capacity | dm ³ | 50 | | | | 125 | | | | |
| Sound level ⁽³⁾ (E) | dB(A) | 71 | 72 | 72 | 73 | 73 | 73 | 75 | 72 | |
| Net weight | Kg | 281 | 297 | 313 | 427 | 456 | 487 | 516 | 555 | |
| Operating weight | Kg | 317 | 333 | 350 | 534 | 563 | 595 | 624 | 663 | |

(1) Outdoor air temperature 35 ° C, water temperature 12 ° C / 7 ° C (EN14511: 2013)

(2) The efficiency values η in heating and cooling are calculated respectively with the following formulas: $[\eta = SCOP / 2,5 - F (1) - F (2)]$ and $[\eta = SEER / 2,5 - F (1) - F (2)]$

(3) Determined from measurements made in accordance with ISO 9614

(E) EUROVENT certified data

Technical data table for chillers and heat pumps RPE - HPE 18÷40

| DESCRIPTION | U.M. | HPE 18 cooling/heating | HPE 20 cooling/heating | HPE 24 cooling/heating | HPE 28 cooling/heating | HPE 32 cooling/heating | HPE 35 cooling/heating | HPE 40 cooling/heating | |
|---|-----------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|
| Cooling power ⁽¹⁾ (E) | kW | 16,7 | 19,1 | 23,1 | 27,3 | 30,6 | 34,0 | 38,6 | |
| Total absorbed power ⁽¹⁾ (E) | kW | 6,51 | 7,30 | 8,31 | 8,86 | 10,3 | 11,7 | 13,0 | |
| E.E.R. ⁽¹⁾ (E) | W/W | 2,57 | 2,62 | 2,78 | 3,08 | 2,97 | 2,91 | 2,97 | |
| S.E.E.R. ⁽²⁾ (E) | W/W | 3,17 | 3,14 | 3,32 | 3,71 | 3,58 | 3,58 | 3,66 | |
| Water flow ⁽¹⁾ | l/h | 2894 | 3306 | 4008 | 4727 | 5307 | 5888 | 6681 | |
| Pressure drops on the water side ⁽¹⁾ (E) | kPa | 49 | 49 | 47 | 39 | 49 | 39 | 42 | |
| Useful head pump low prev.OR ⁽¹⁾ | kPa | 130 | 123 | 113 | 141 | 123 | 128 | 117 | |
| Heating power ⁽³⁾ (E) | kW | 20,3 | 23,1 | 27,4 | 31,5 | 35,9 | 39,5 | 45,2 | |
| Total absorbed power ⁽³⁾ (E) | kW | 6,87 | 7,42 | 8,38 | 9,38 | 10,8 | 11,9 | 13,5 | |
| COP ⁽³⁾ (E) | W/W | 2,95 | 3,11 | 3,27 | 3,36 | 3,32 | 3,32 | 3,35 | |
| SCOP ⁽²⁾ (E) | W/W | 3,22 | 3,22 | 3,44 | 3,60 | 3,64 | 3,70 | 3,64 | |
| Efficiency class. energy in heating. ⁽⁴⁾ (E) | | A+ | A+ | A+ | A+ | A+ | A+ | A+ | |
| Water flow ⁽³⁾ | l/h | 3493 | 3976 | 4721 | 5431 | 6173 | 6813 | 7800 | |
| Water side pressure drop ⁽³⁾ (E) | kPa | 71 | 70 | 63 | 50 | 64 | 51 | 54 | |
| Useful head pump low prev.OR ⁽³⁾ | kPa | 107 | 101 | 93 | 127 | 109 | 114 | 99 | |
| Max absorbed current | A | 22 | 24 | 26 | 33 | 34 | 39 | 40 | |
| Inrush current | A | 76 | 105 | 159 | 134 | 167 | 162 | 164 | |
| Inrush current with soft starter | A | 51 | 72 | 110 | 91 | 114 | 111 | 112 | |
| Power supply | | 400V/3+N/50Hz | | | | | | | |
| Compressors / Circuits | n. | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | |
| Expansion vessel capacity | dm ³ | 5 | | | | 8 | | | |
| Tank capacity | dm ³ | 50 | | | | 125 | | | |
| Sound level ⁽⁵⁾ (E) | dB(A) | 71 | 71 | 72 | 73 | | | 75 | |
| Net weight | Kg | 265 | 281 | 297 | 427 | 456 | 487 | 516 | |
| Operating weight | Kg | 301 | 317 | 333 | 534 | 563 | 595 | 624 | |

(1) Outdoor air temperature 35 ° C, water temperature 12 ° C / 7 ° C (EN14511: 2013)

(2) The efficiency values η in heating and cooling are calculated respectively with the following formulas: $[\eta = SCOP / 2,5 - F (1) - F (2)]$ and $[\eta = SEER / 2,5 - F (1) - F (2)]$

(3) Outdoor air temperature 7 ° C, dry bulb / 6.2 ° C wet bulb, water temperature 40 ° C / 45 ° C (EN14511: 2013)

(4) Seasonal energy efficiency class of space heating at LOW TEMPERATURE in AVERAGE climatic conditions [REGULATION (EU) No. 811/2013] (5) Determined by measurements carried out in accordance with ISO 9614

(E) EUROVENT certified data

RPE X - HPE X 58÷170

Water chillers and air / water heat pumps with axial fans



Technical and construction features

The RPE X - HPE X 58 ÷ 170 series are water chillers and air / water heat pumps with axial fans.

These models have the following technical characteristics:

- Compressors. Scroll, hermetic, with oil level warning light. They have built-in thermal protection and resistance carter, and are mounted on rubber anti-vibration mounts.
- Fans. Axial type directly coupled to motors three-phase with external rotor. A safety net is placed on the air outlet.
- Capacitor. Consisting of a finned coil with tubes in copper and aluminum fins.
- Evaporator. Of the brazed plate type in AISI stainless steel 316, with one circuit on the refrigerant side and one on the water side.
- The antifreeze heater is standard in the heat pump units. - Microprocessor control and regulation system.
- Hydraulic circuit includes: evaporator, working probe, probe antifreeze, water differential pressure switch and manual air bleed valves.
- Circulation pump (s), technical water storage, panel remote commands, Soft start can be chosen among the various accessories.
- **The STANDARD version and the SUPER SILENT version** they can be integrated with a water kit (storage tank and circulation pump) which is factory mounted inside the machine.



ECOLOGIC
GAS



VERSION
STANDARD



VERSION
SUPER SILENCED



COMPRESSORS
SCROLL



AXIAL
FANS



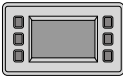
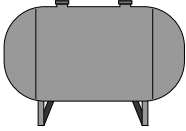
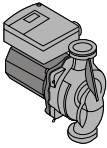
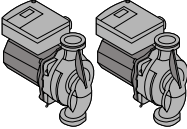
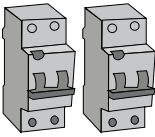


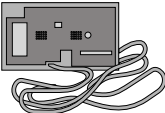
PLATE
EXCHANGER

| Model | Standard Code | Super silenced Code | Cooling power kW | Thermal power kW | Standard € | Super silenced € |
|---------------------|---------------|---------------------|------------------|------------------|------------|------------------|
| RPE X 58 cooling | 38604399 | 38604499 | 46,80 | - | 19.710,00 | 21.260,00 |
| RPE X 62 cooling | 38604400 | 38604500 | 54,20 | - | 21.330,00 | 23.190,00 |
| RPE X 72 cooling | 38605400 | 38605500 | 62,60 | - | 23.000,00 | 25.660,00 |
| RPE X 80 cooling | 38606400 | 38606500 | 72,00 | - | 24.180,00 | 26.910,00 |
| RPE X 90 cooling | 38607400 | 38607500 | 82,30 | - | 27.480,00 | 29.040,00 |
| RPE X 105 cooling | 38608400 | 38608500 | 95,10 | - | 33.130,00 | 34.580,00 |
| RPE X 120 cooling | 38609400 | 38609500 | 108,40 | - | 35.230,00 | 38.310,00 |
| RPE X 135 cooling | 38610400 | 38610500 | 124,90 | - | 37.390,00 | 39.940,00 |
| RPE X 155 cooling | 38611400 | 38611500 | 144,50 | - | 44.080,00 | 48.620,00 |
| RPE X 170 cooling | 38611402 | - | 174,90 | - | 49.230,00 | - |
| HPE X 58 heat pump | 38604398 | 38604498 | 46,80 | 52,10 | 22.360,00 | 24.340,00 |
| HPE X 62 heat pump | 38604401 | 38604501 | 54,20 | 59,60 | 24.230,00 | 26.330,00 |
| HPE X 72 heat pump | 38605401 | 38605501 | 62,60 | 68,70 | 26.840,00 | 29.520,00 |
| HPE X 80 heat pump | 38606401 | 38606501 | 72,00 | 77,30 | 28.590,00 | 31.180,00 |
| HPE X 90 heat pump | 38607401 | 38607501 | 82,30 | 87,00 | 32.360,00 | 34.950,00 |
| HPE X 105 heat pump | 38608401 | 38608501 | 95,10 | 101,30 | 38.940,00 | 40.830,00 |
| HPE X 120 heat pump | 38609401 | 38609501 | 108,40 | 115,30 | 40.710,00 | 42.880,00 |
| HPE X 135 heat pump | 38610401 | 38610501 | 124,90 | 131,00 | 43.160,00 | 47.780,00 |
| HPE X 155 heat pump | 38611401 | 38611501 | 144,50 | 149,90 | 50.900,00 | 55.740,00 |
| HPE X 170 heat pump | 38611403 | - | 174,90 | 179,80 | 57.560,00 | - |

RPE X - HPE X 58÷170



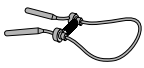







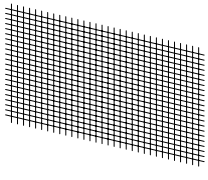
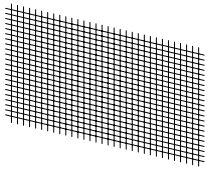
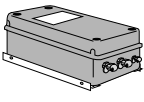

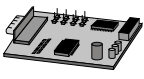
Water chillers and air / water heat pumps with axial fans

Accessories RPE X - HPE X 58÷170

| | | Code | € |
|---|---|-----------------------|-----------|
|  | Remote control | 38600428 | 370,00 |
|  | 400 liter storage tank 12 liter expansion vessel | mod. 58÷135 38600430 | 2.780,00 |
| | Accumulation tank 600 liters Expansion vessel 18 liters | mod. 155÷170 38600431 | 3.210,00 |
|  | Circulation pump | mod. 58÷80 38600432 | 1.830,00 |
| | | mod. 90 38600433 | 1.900,00 |
| | | mod. 105÷155 38600434 | 1.940,00 |
| | | mod. 170 38600473 | 2.080,00 |
|  | Double circulation pump | mod. 58÷80 38600441 | 3.290,00 |
| | | mod. 90 38600442 | 3.440,00 |
| | | mod. 105÷170 38600443 | 3.530,00 |
|  | Magnetothermic switches | mod. 58÷62 38600464 | 660,00 |
| | | mod. 72÷80 38600465 | 970,00 |
| | | mod. 90 38600466 | 1.030,00 |
| | | mod. 105÷120 38600467 | 1.070,00 |
| | | mod. 135 38600468 | 1.290,00 |
| | | mod. 155 38600469 | 1.410,00 |
|  | Total heat recovery | mod. 58 38600444 | 5.340,00 |
| | | mod. 62 38600445 | 5.580,00 |
| | | mod. 72 38600446 | 5.830,00 |
| | | mod. 80 38600447 | 6.070,00 |
| | | mod. 90 38600448 | 6.500,00 |
| | | mod. 105 38600449 | 7.070,00 |
| | | mod. 120 38600450 | 7.650,00 |
| | | mod. 135 38600451 | 8.300,00 |
| | | mod. 155 38600452 | 10.790,00 |
| | | mod. 170 38604453 | 11.620,00 |
|  | Desuperheater | mod. 58÷62 38600454 | 2.090,00 |
| | | mod. 72 38600455 | 2.200,00 |
| | | mod. 80 38600456 | 2.380,00 |
| | | mod. 90 38600457 | 2.500,00 |
| | | mod. 105÷120 38600458 | 2.950,00 |
| | | mod. 135 38600459 | 3.260,00 |
| | | mod. 155 38600460 | 4.620,00 |
| | | mod. 170 38600461 | 4.850,00 |
|  | Device for low temperature operation | mod. 58÷90 38600471 | 3.630,00 |
| | | mod. 105-135 38600476 | 4.000,00 |
| | | mod. 155-170 38600477 | 5.550,00 |

RPE X - HPE X 58÷170

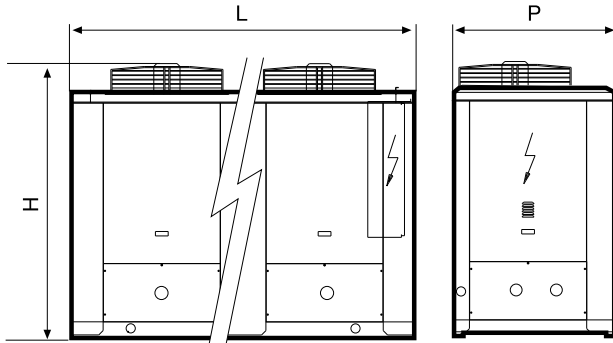
Water chillers and air / water heat pumps with axial fans

| Accessories RPE X - HPE X 58÷170 | | | Code | € |
|---|--|------------------|----------|----------|
|  | Refrigerant circuit tap on delivery | mod. 58÷135 | 38600480 | 380,00 |
| | | mod. 155÷170 | 38600516 | 770,00 |
|  | Liquid line refrigerant circuit tap | mod. 58÷135 | 38600517 | 380,00 |
| | | mod. 155÷170 | 38600518 | 720,00 |
|  | Evaporator antifreeze heater | | 38600522 | 500,00 |
|  | Tank antifreeze heater | | 38600523 | 1.210,00 |
|  | Coil with pre-painted fins | mod. 58÷80 | 38600519 | 1.440,00 |
| | | mod. 90-135 | 38600520 | 1.950,00 |
| | | mod. 155-170 | 38600521 | 2.740,00 |
|  | High prevalence fan | | 38600531 | 2.540,00 |
|  | Soft start | mod. 58÷62 | 38600524 | 2.040,00 |
| | | mod. 72÷80 | 38600525 | 2.320,00 |
| | | mod. 90 | 38600526 | 2.500,00 |
| | | mod. 105÷120 | 38600527 | 3.470,00 |
| | | mod. 135 | 38600528 | 3.750,00 |
| | | mod. 155 | 38600529 | 4.630,00 |
|  | Compressor acoustic insulation only for BASIC version | mod. 58÷80 | 38600416 | 590,00 |
| | | mod. 90 | 38600417 | 690,00 |
| | | mod. 105÷120 | 38600418 | 920,00 |
| | | mod. 135 | 38600419 | 1.020,00 |
| | | mod. 155 | 38600420 | 1.090,00 |
| | | mod. 170 | 38600472 | 1.420,00 |
|  | Rubber anti-vibration mounts BASE version | mod. 58÷90 | 38600421 | 430,00 |
| | | mod. 105÷135 | 38600422 | 540,00 |
| | | mod. 155÷170 | 38600423 | 950,00 |
|  | Rubber anti-vibration mounts SILENT version | mod. 58÷90 | 38600424 | 430,00 |
| | | mod. 105÷135 | 38600425 | 530,00 |
| | | mod. 155÷170 | 38600426 | 950,00 |
|  | BASE version heat exchanger protection net | mod. 58÷80 | 38600435 | 420,00 |
| | | mod. 90÷135 | 38600436 | 480,00 |
| | | mod. 155÷170 | 38600437 | 700,00 |
|  | SUPER SILENT version heat exchanger protection grid | mod. 58÷80 | 38600438 | 420,00 |
| | | mod. 90÷105 | 38600439 | 480,00 |
| | | mod. 120÷155 | 38600440 | 700,00 |
|  | Condensation control | mod. -20 °C | 38600427 | 2.210,00 |
| | | mod. 58÷62 0 °C | 38600475 | 990,00 |
| | | mod. 72÷155 0 °C | 38600478 | 360,00 |
| | | mod. 170 0 °C | 38600479 | 550,00 |
|  | High / low pressure gauges | mod. 58÷135 | 35600462 | 240,00 |
| | | mod. 155÷170 | 35600463 | 480,00 |
|  | Serial interface RS 485 | | 38600429 | 360,00 |

RPE X - HPE X 58÷170

Water chillers and air / water heat pumps with axial fans

Dimensions RPE X - HPE X 58÷170



| RPE X - HPE X | 58 | 62 | 72 | 80 | 90 |
|-----------------|------|------|------|------|------|
| Base | 2350 | 2350 | 2350 | 2350 | 2350 |
| L Supersilenced | 2350 | 2350 | 2350 | 2350 | 2350 |
| P | 1100 | 1100 | 1100 | 1100 | 1100 |
| H | 1920 | 1920 | 1920 | 1920 | 2220 |

| RPE X - HPE X | 105 | 120 | 135 | 155 | 170 |
|-----------------|------|------|------|------|------|
| Base | 2350 | 2350 | 2350 | 3550 | 3550 |
| L Supersilenced | 2350 | 3550 | 3550 | 3550 | - |
| P | 1100 | 1100 | 1100 | 1100 | 1100 |
| H | 2220 | 2220 | 2220 | 2220 | 2220 |

Values in mm

Technical data table for chillers and heat pumps RPE X - HPE X 58÷90

| DESCRIPTION | U.M. | 58 | 62 | 72 | 80 | 90 |
|--------------------------------|------|----------|----------|----------|----------|----------|
| Cooling power ⁽¹⁾ | kW | 46,8 | 54,2 | 62,6 | 72,0 | 82,3 |
| Absorbed power ⁽¹⁾ | kW | 16,3 | 19,0 | 22,1 | 25,3 | 28,6 |
| Cooling power ^(1A) | kW | 46,6 | 54,4 | 62,2 | 71,3 | 81,7 |
| Absorbed power ^(1A) | kW | 16,6 | 19,4 | 22,25 | 25,7 | 29,1 |
| EER ^(1A) | W/W | 2,80 - C | 2,80 - C | 2,76 - C | 2,77 - C | 2,81 - C |
| Heating power ⁽²⁾ | kW | 52,1 | 59,6 | 68,7 | 77,3 | 87,0 |
| Absorbed power ⁽²⁾ | kW | 17,4 | 19,7 | 23,3 | 25,6 | 29,0 |
| Heating power ^(2A) | kW | 53,3 | 60,9 | 70,3 | 79,1 | 89,0 |
| Absorbed power ^(2A) | kW | 17,5 | 19,8 | 23,4 | 25,7 | 29,1 |
| COP ^(2A) | W/W | 3,05 - B | 3,07 - B | 3,01 - B | 3,08 - B | 3,06 - B |
| Compressors | n. | 2 | | | | |
| Refrigeration circuits | n. | 1 | | | | |
| Partialization steps | n. | 2 | | | | |
| Water flow | l/s | 2,20 | 2,60 | 3,00 | 3,40 | 3,90 |
| Load losses | kPa | 45 | 48 | 43 | 48 | 43 |
| Hydraulic connections | | 1" 1/2 | | | | |

TECHNICAL FEATURES OF THE STANDARD VERSION FANS

| | | | | | | |
|----------------|-------------------|-----|-----|-----|--|-----|
| Fans | n. | 1 | | 2 | | |
| Air flow | m ³ /s | 4,8 | 4,7 | 7,1 | | 7,3 |
| Absorbed power | kW | 1,3 | | 2,0 | | |

TECHNICAL FEATURES FANS SUPER SILENT VERSION

| | | | | | | |
|----------------|-------------------|-----|-----|-----|--|-----|
| Fans | n. | 2 | | | | |
| Air flow | m ³ /s | 4,1 | 3,9 | 5,7 | | 6,0 |
| Absorbed power | kW | 0,6 | | 1,5 | | |

| | | | | | | |
|--|-------|---------------|-----|-----|------|------|
| Power supply | | 400V/3+N/50Hz | | | | |
| Max operating current | A | 40 | 43 | 52 | 56 | 65 |
| Max starting current | A | 163 | 165 | 175 | 188 | 232 |
| Sound pressure (vers. STANDARD) ⁽³⁾ | dB(A) | 56,5 | | | 60,5 | |
| Sound pressure (vers. STANDARD/SUPERSILENCED) ⁽³⁾ | dB(A) | 54,5 | | | 58,5 | |
| Sound pressure (vers. SUPERSILENCED) ⁽³⁾ | dB(A) | 52,5 | | | 56,5 | |
| Pump power | kW | 0,75 | | | | 1.10 |
| Useful head | kPa | 120 | 110 | | 140 | |
| Expansion vessel | l | 12 | | | | |
| Hydraulic connections | | 2" 1/2 | | | | |
| Shipping weight | Kg | 595 | 624 | 663 | 682 | 791 |
| Operating weight | Kg | 600 | 630 | 670 | 690 | 800 |

(1) Chilled water from 12 to 7 °C, external air temperature 35 °C

(1A) Chilled water from 12 to 7 °C, external air temperature 35 °C - EN14511

(2) Water heated from 40 to 45 °C, external air temperature 7 °C d.b. / 6 °C w.b.

(2A) Water heated from 40 to 45 °C, external air temperature 7 °C d.b. / 6 °C w.b. - EN14511

(3) Average sound pressure level measured in free field at 1 m from the unit (Q = 2) according to ISO

3744 (4) Unit without tank and pump

RPE X - HPE X 58÷170

Water chillers and air / water heat pumps with axial fans

Technical data table for chillers and heat pumps RPE X - HPE X 105÷170

| DESCRIPTION | U.M. | 105 | 120 | 135 | 155 | 170 |
|-------------------------------------|------|----------|----------|----------|----------|----------|
| Cooling power ⁽¹⁾ | kW | 95,1 | 108,4 | 124,9 | 144,5 | 174,9 |
| Absorbed power ⁽¹⁾ | kW | 31,6 | 38,4 | 43,9 | 50,7 | 58,7 |
| Potenza frigorifera ^(1A) | kW | 94,3 | 108,15 | 124,2 | 144,5 | 174,3 |
| Absorbed power ^(1A) | kW | 32,5 | 39,0 | 44,5 | 51,6 | 59,9 |
| EER ^(1A) | W/W | 2,9 - B | 2,77 - C | 2,79 - C | 2,85 - C | 2,91 - B |
| Heating power ⁽²⁾ | kW | 101,3 | 115,5 | 131,0 | 149,9 | 179,8 |
| Absorbed power ⁽²⁾ | kW | 33,6 | 38,8 | 44,3 | 50,7 | 60,8 |
| Heating power ^(2A) | kW | 104,0 | 118,4 | 133,5 | 152,8 | 184,3 |
| Absorbed power ^(2A) | kW | 33,7 | 38,9 | 44,4 | 50,8 | 61,0 |
| COP ^(2A) | W/W | 3,08 - B | 3,04 - B | 3,01 - B | 3,01 - B | 3,02 - B |
| Compressors | n. | 3 | | | 4 | |
| Refrigeration circuits | n. | 1 | | | 2 | |
| Partialization steps | n. | 3 | | | 4 | |
| Water flow | l/s | 4,5 | 5,2 | 6,0 | 6,9 | 8,4 |
| Load losses | kPa | 58 | 46 | 53 | 48 | |
| Hydraulic connections | | 2" 1/2 | | | | |

TECHNICAL FEATURES OF THE STANDARD VERSION FANS

| | | | | | | |
|----------------|-------------------|-----|-----|--|------|------|
| Fans | n. | 2 | | | 3 | |
| Air flow | m ³ /s | 7,1 | 9,7 | | 11,4 | 15,0 |
| Absorbed power | kW | 2,0 | 4,0 | | | 5,6 |

TECHNICAL FEATURES FANS SUPER SILENT VERSION

| | | | | | | |
|----------------|-------------------|-----|-----|-----|------|---|
| Fans | n. | 2 | | | 3 | - |
| Air flow | m ³ /s | 7,7 | 9,2 | 8,9 | 11,8 | - |
| Absorbed power | kW | 2,5 | | | 3,8 | - |

| | | | | | | |
|--|-------|---------------|------|------|------|------|
| Power supply | | 400V/3+N/50Hz | | | | |
| Max operating current | A | 75 | 85 | 103 | 111 | 133 |
| Max starting current | A | 199 | 218 | 265 | 243 | 300 |
| Sound pressure (vers. STANDARD) ⁽³⁾ | dB(A) | 60,5 | 61,5 | | | |
| Sound pressure (vers. STANDARD/SUPERSILENCED) ⁽³⁾ | dB(A) | 58,5 | 59,5 | | | |
| Sound pressure (vers. SUPERSILENCED) ⁽³⁾ | dB(A) | 55,5 1,50 | | 56,5 | | - |
| Pump power | kW | 1,85 | | | | |
| Useful head | kPa | 150 | 140 | 120 | 110 | 100 |
| Expansion vessel | l | 12 | | | 18 | |
| Hydraulic connections | | 2" 1/2 | | | | |
| Shipping weight ⁽⁴⁾ | Kg | 878 | 927 | 1036 | 1135 | 1374 |
| Operating weight ⁽⁴⁾ | Kg | 890 | 940 | 1050 | 1150 | 1390 |

(1) Chilled water from 12 to 7 °C, external air temperature 35 °C
 (1A) Chilled water from 12 to 7 °C, external air temperature 35 °C - EN14511
 (2) Water heated from 40 to 45 °C, external air temperature 7 °C d.b. / 6 °C wb.
 (2A) Water heated from 40 to 45 °C, external air temperature 7 °C d.b. / 6 °C wb. - EN14511
 (3) Average sound pressure level measured in free field at 1 m from the unit (Q = 2) according to ISO 3744 (4) Unit without tank and pump

RPE X - HPE X 195÷300

Water chillers and air / water heat pumps with axial fans



ECOLOGIC GAS



AXIAL FANS



VERSION STANDARD



VERSION SUPER SILENCED



PLATE EXCHANGER



COMPRESSORS SCROLL

Technical and construction features

The new multi-compressor chiller range, thanks to the capacity control with management from 6 to 10 steps, does not require the use of the storage tank.

The management software operates the number of compressors required according to the system's request, alternating them cyclically with each other in order to ensure an equal number of hours of operation.

VERSIONS:

RPE cooling only

Super silenced cooling only RPE

HPE reversible heat pump

HPE super silenced reversible heat pump

- Compressors. Scroll, hermetic, with oil level warning light.

They are equipped with built-in thermal protection and crankcase heater, where provided by the manufacturer, and are mounted on rubber anti-vibration mounts.

- Axial type fans directly coupled to motors three-phase with external rotor.

- Condenser consisting of two finned coils with tubes in copper and aluminum fins.

- Brazed plate evaporator in AISI 316 stainless steel.

- Microprocessor control and regulation system.

- Basic version hydraulic circuit, includes: evaporator, work, antifreeze probe, water differential pressure switch and valve manual air vent.

The antifreeze heater is standard in the heat pump units.

| Model | Cooling power kW | Heating power kW | Code | € |
|------------------------------------|------------------|------------------|----------|------------|
| RPE X 195 cooling standard | 200,2 | - | 38611405 | 62.950,00 |
| RPE X 220 cooling standard | 227,9 | - | 38611406 | 64.100,00 |
| RPE X 250 cooling standard | 242,2 | - | 38611407 | 65.780,00 |
| RPE X 270 cooling standard | 278,8 | - | 38611408 | 75.480,00 |
| RPE X 300 cooling standard | 303,5 | - | 38611409 | 82.360,00 |
| RPE X 195 cooling super silenced | 200,2 | - | 38611502 | 72.450,00 |
| RPE X 220 cooling super silenced | 227,9 | - | 38611503 | 73.780,00 |
| RPE X 250 cooling super silenced | 242,2 | - | 38611504 | 75.410,00 |
| RPE X 270 cooling super silenced | 278,8 | - | 38611505 | 84.440,00 |
| RPE X 300 cooling super silenced | 303,5 | - | 38611506 | 95.170,00 |
| HPE X 195 heat pump standard | 200,2 | 224,8 | 38611415 | 77.050,00 |
| HPE X 220 heat pump standard | 227,9 | 253,1 | 38611416 | 78.890,00 |
| HPE X 250 heat pump standard | 242,2 | 278,8 | 38611417 | 82.300,00 |
| HPE X 270 heat pump standard | 278,8 | 308,8 | 38611418 | 92.370,00 |
| HPE X 300 heat pump standard | 303,5 | 323,6 | 38611419 | 101.560,00 |
| HPE X 195 heat pump super silenced | 200,2 | 224,8 | 38611512 | 88.780,00 |
| HPE X 220 heat pump super silenced | 227,9 | 253,1 | 38611513 | 90.660,00 |
| HPE X 250 heat pump super silenced | 242,2 | 278,8 | 38611514 | 94.330,00 |
| HPE X 270 heat pump super silenced | 278,8 | 308,8 | 38611515 | 103.330,00 |
| HPE X 300 heat pump super silenced | 303,5 | 323,6 | 38611516 | 117.370,00 |

RPE X - HPE X 195÷300

Water chillers and air / water heat pumps with axial fans

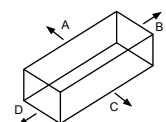
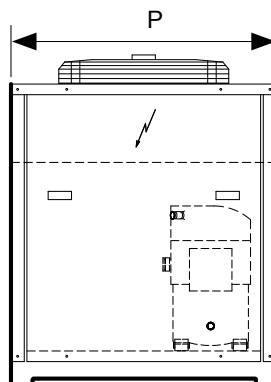
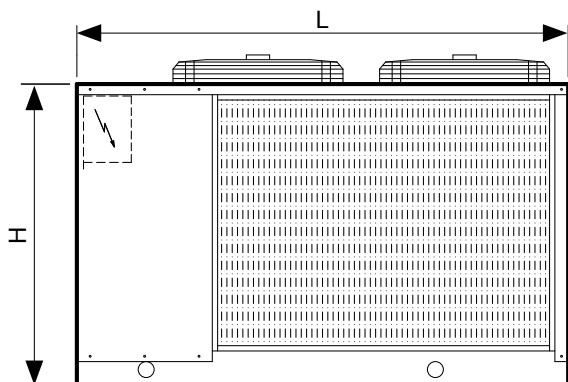
Factory fitted accessories RPE X - HPE X 195÷300

| | Code | € | |
|---|---------------------|-----------------|------------------|
| Storage tank liters 400 | 38611517 | 7.372,00 | |
| Magnetothermic switches | 38600481 | 2.310,00 | |
| Drive mute | 38600482 | 1.251,00 | |
| Condensation control up to 0 ° C | 38600483 | 482,00 | |
| Condensation control down to -20 ° C | 38600484 | 1.841,00 | |
| Device for operation with low water temperature | 38600485 | 4.495,00 | |
| Desuperheater | 38600486 | 3.637,00 | |
| Total heat recovery | 38600487 | 11.286,00 | |
| Circulation pump | 38600489 | 3.320,00 | |
| Double circulation pump | 38600490 | 7.428,00 | |
| Serial interface RS 485 | 38600493 | 911,00 | |
| Refrigerant circuit tap on delivery | 38600505 | 740,00 | |
| Liquid line refrigerant circuit tap | 38600506 | 740,00 | |
| Fans EC Inverter | 38600507 | 22.940,00 | |
| Coil with pre-painted fins | 38600508 | 10.700,00 | |
| | mod. 195÷220 | 38600509 | 19.020,00 |
| Soft start | mod. 250 | 38600510 | 19.550,00 |
| | mod. 270 | 38600511 | 20.570,00 |

Accessories supplied separately RPE X - HPE X 195÷300

| | | |
|---|----------|-----------|
| High / low pressure gauges | 38600491 | 455,00 |
| Remote control panel | 38600492 | 993,00 |
| Rubinetto circuito frigorifero in mandata | 38600512 | 1.050,00 |
| Ventilatori EC Inverter | 38600513 | 22.940,00 |
| Batteria con alette preverniciate | 38600514 | 15.040,00 |
| Reti protezione batterie | 38600494 | 924,00 |
| Antivibranti in gomma | 38600495 | 1.175,00 |
| Soft start | 38600515 | 25.370,00 |

Dimensions RPE X - HPE X 195÷300



Minimum distances

| | |
|----------|------|
| A | 500 |
| B | 1800 |
| C | 1000 |
| D | 1800 |

Values in mm

| | RPE X - HPE X | RPE X - HPE 195 | RPE X - HPE 220 | RPE X - HPE 250 | RPE X - HPE 270 | RPE X - HPE 300 |
|---|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| L | Standard | 2800 | 2800 | 2800 | 2800 | 4000 |
| L | Super Silenced | 2800 | 2800 | 2800 | 2800 | 4000 |
| P | Standard | 2200 | 2200 | 2200 | 2200 | 2200 |
| P | Super Silenced | 2200 | 2200 | 2200 | 2200 | 2200 |
| H | Standard | 2100 | 2100 | 2100 | 2100 | 2100 |
| H | Super Silenced | 2100 | 2100 | 2100 | 2100 | 2100 |

Values in mm

RPE X - HPE X 195÷300

Water chillers and air / water heat pumps with axial fans

Technical data table RPE X - HPE X 195÷300

| DESCRIPTION | U.M. | 195 | 220 | 250 | 270 | 300 |
|--------------------------------|------|----------|----------|----------|----------|----------|
| Cooling power ⁽¹⁾ | kW | 202,2 | 227,9 | 242,2 | 278,0 | 305,5 |
| Absorbed power ⁽¹⁾ | kW | 71,4 | 8,03 | 89,0 | 98,3 | 108,4 |
| Cooling power ^(1A) | kW | 195,2 | 221,6 | 245,9 | 270,6 | 290,0 |
| Absorbed power ^(1A) | kW | 70,7 | 81,8 | 87,5 | 96,3 | 100,0 |
| EER ^(1A) | W/W | 2,76 - C | 2,71 - C | 2,81 - C | 2,81 - C | 2,90 - B |
| Heating power ⁽²⁾ | kW | 224,8 | 253,1 | 278,8 | 308,8 | 323,6 |
| Absorbed power ⁽²⁾ | kW | 73,5 | 84,2 | 91,1 | 103,1 | 109,0 |
| Heating power ^(2A) | kW | 224,7 | 252,5 | 278,8 | 309,2 | 333,0 |
| Absorbed power ^(2A) | kW | 73,9 | 84,2 | 91,1 | 103,0 | 109,2 |
| COP ^(2A) | W/W | 3,04 - B | 3,00 - B | 3,06 - B | 3,00 - B | 3,05 - B |
| Compressors | n. | 3+3 | 3+3 | 3+3 | 3+3 | 4+4 |
| Refrigeration circuits | n. | 2 | 2 | 2 | 2 | 2 |
| Partialization steps | n. | 6 | 6 | 6 | 6 | 8 |
| Water flow | l/s | 9,4 | 10,7 | 11,8 | 13,0 | 14,3 |
| Load losses | kPa | 40 | 51 | 62 | 54 | 50 |
| Hydraulic connections | | 3" | 3" | 3" | 3" | 3" |

TECHNICAL FEATURES OF THE STANDARD VERSION FANS

| | | | | | | |
|----------------|-------------------|------|------|------|------|------|
| Fans | n. | 4 | 4 | 4 | 4 | 4 |
| Air flow | m ³ /s | 20,5 | 20,5 | 20,5 | 19,4 | 22,5 |
| Absorbed power | kW | 8 | 8 | 8 | 8 | 8 |

TECHNICAL FEATURES FANS SUPER SILENT VERSION

| | | | | | | |
|----------------|-------------------|------|------|------|------|------|
| Fans | n. | 4 | 4 | 4 | 4 | 6 |
| Air flow | m ³ /s | 15,3 | 15,3 | 15,3 | 15,3 | 25,0 |
| Absorbed power | kW | 5,1 | 5,1 | 5,1 | 7,6 | 7,6 |

| | | 400V/3+N/50Hz | | | | |
|--|-------|---------------|------|------|------|------|
| Power supply | | | | | | |
| Max operating current | A | 158 | 172 | 182 | 203 | 224 |
| Max starting current | A | 182 | 304 | 311 | 332 | 356 |
| Sound pressure (vers. STANDARD) ⁽³⁾ | dB(A) | 66,5 | 66,5 | 67,5 | 69,5 | 67,5 |
| Sound pressure (vers. STANDARD/SUPERSILENCED) ⁽³⁾ | dB(A) | 63,5 | 63,5 | 64,5 | 66,5 | 64,5 |
| Sound pressure (vers. SUPERSILENCED) ⁽³⁾ | dB(A) | 57,5 | 57,5 | 59,5 | 61,5 | 58,5 |
| Pump power | kW | 3 | 3 | 4 | 4 | 5,5 |
| Useful head | kPa | 199 | 167 | 228 | 215 | 237 |
| Expansion vessel | l | 18 | 18 | 18 | 18 | 18 |
| Hydraulic connections | | 4" | 4" | 4" | 4" | 4" |
| Shipping weight | Kg | 1654 | 1674 | 1763 | 1961 | 2199 |
| Operating weight | Kg | 1690 | 1690 | 1780 | 1980 | 2220 |

(1) Chilled water from 12 to 7 ° C, external air temperature 35 ° C

(1A) Chilled water from 12 to 7 ° C, external air temperature 35 ° C - EN14511

(2) Water heated from 40 to 45 ° C, external air temperature 7 ° C d.b. / 6 ° C wb.

(2A) Water heated from 40 to 45 ° C, external air temperature 7 ° C d.b. / 6 ° C wb. - EN14511

(3) Average sound pressure level measured in free field at 1 m from the unit (Q = 2) according to ISO

3744

RPE X - HPE X 195÷300

Water chillers and air / water heat pumps with axial fans

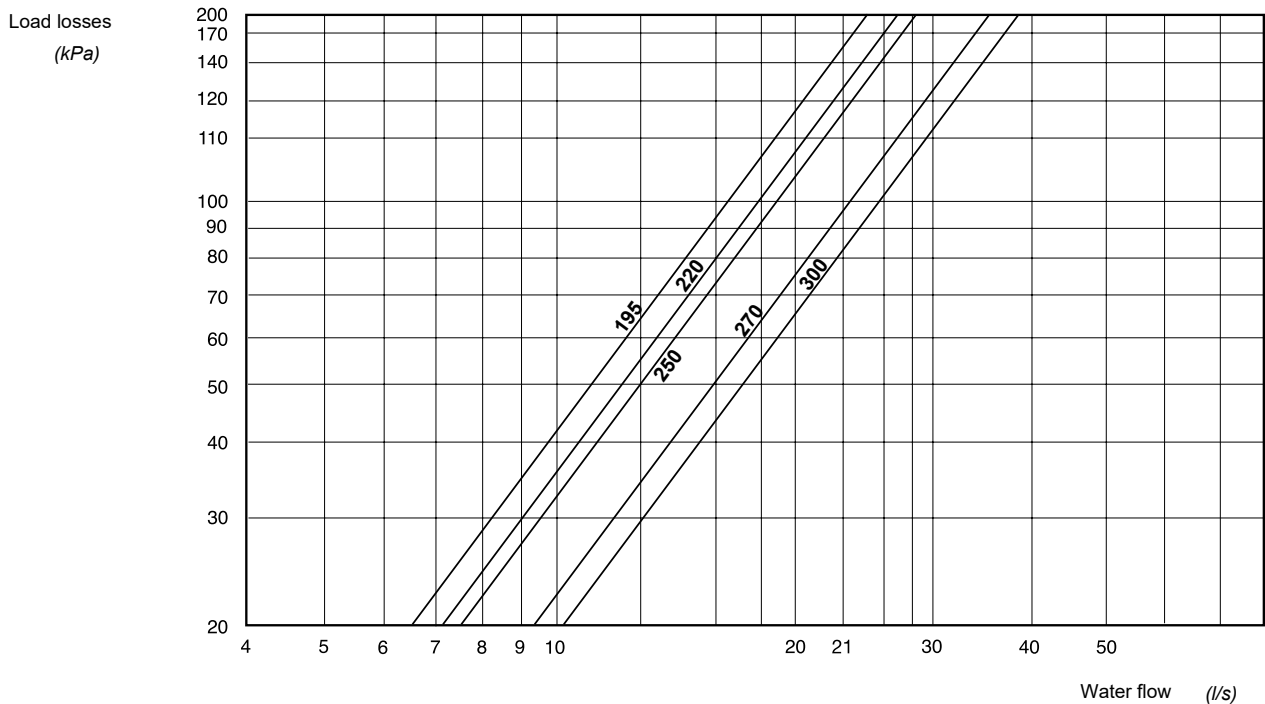
Operating limits RPE X - HPE X 195÷300

| DESCRIPTION | U.M. | Cooling | | Heating | |
|--|------|---------|-----|---------|-----|
| | | min | max | min | max |
| Inlet water temperature | °C | 8 | 20 | 25 | 45 |
| Outlet water temperature | °C | 5** | 15 | 30 | 50 |
| Water temperature jump | °C | 3 | 9 | 3 | 10 |
| Outside air temperature | °C | 10* | 46 | -10 | 20 |
| Minimum chilled water temperature with the use of glycol | °C | - 8** | | - | |
| Max operating pressure | | 1000 | | | |
| Exchanger water side | kPa | 1000 | | | |

* It can be brought to - 20 ° C with the condensation control accessory

** For temperatures below 5 ° C, the accessory is required (device for operation with low water temperature)

Circuit pressure drops RPE X - HPE X 195÷300



Evaporator water flow limits RPE X - HPE X 195÷300

| Model | U.M. | 195 | 220 | 250 | 270 | 300 |
|-----------|------|-----|-----|-----|-----|-----|
| Min. flow | l/s | 5,8 | 6,5 | 6,8 | 7,7 | 8,6 |
| Max flow | l/s | 35 | | | | |

TCPO 07÷11 - TCPV 16÷35

Heat pump heaters for swimming pools with horizontal and vertical expulsion



mod. TCPO da 7 - 11 kW
horizontal ejection



mod. TCPV da 16 - 24 - 35 kW
vertical ejection

Technical and construction features

The A2B Accorroni E.G. they are applicable to indoor and outdoor swimming pools of small, medium and large dimensions. They are an effective solution for heating the pool water, even in late autumn or in the event of sudden drops in temperature, anticipating and extending the period of use of the pool. Equipped with titanium heat exchanger and high efficiency compressor, the A2B Accorroni E.G. they guarantee absolute operating reliability, high energy performance and reduced operating consumption.

The air source heat pumps take 80% of the energy to heat the pool that comes from the outside air.

The heat pump takes the (free) thermal energy from the outside air and transforms it into heat which it transfers to the water. Heat pumps for swimming pools TCPO horizontal expulsion Heat pump with horizontal expulsion, available in 2 power sizes:

- 7 - 11 kW single-phase
- Titanium heat exchanger
- Control panel with LCD display
- ABS outer shell resistant to atmospheric agents
- High efficiency rotary compressor
- Unit protections (refrigeration circuit pressure, overload electrical, compressor overheating)

Heat pumps for swimming pools TCPV vertical expulsion Heat pump with vertical expulsion, available in 3 power sizes:

- 16 kW single-phase, 24 - 35 kW three-phase
- Titanium heat exchanger
- Control panel with 128x128 mm LCD display with waterproof front protection
- Outer shell in weather resistant ABS
- High efficiency scroll compressor
- Evaporator with hydrophilic treatment and grooved tube internally

All A2B Accorroni E.G. are equipped with high efficiency compressors:

- Rotary for TCPO models from 7 to 11 kW
- Scroll for TCPV models from 16 to 35 kW.



RENEWABLE
ENERGY



ECOLOGIC
GAS



TITANIUM
EXCHANGER



SILENT
HEATERS



ABS
SHELL



INSTALLATION
PLUG AND PLAY

For correct installation, it is mandatory to provide a suitable hydraulic bypass equipped with special calibration gate valves in correspondence with the hydraulic connections of the heat pump.

| Model | Heating power kW | Pool volume * m ³ | Code | € |
|---|---------------------|---------------------------------|----------|-----------|
| TCPO 07 with horizontal expulsion | 6,95 | < 40 | 39000000 | 3.770,00 |
| TCPO 11 with horizontal expulsion | 10,99 | < 60 | 39000002 | 4.780,00 |
| TCPV 16 with vertical expulsion | 16,51 | < 95 | 39000003 | 7.780,00 |
| TCPV 24 with three-phase vertical expulsion | 24,21 | < 140 | 39000005 | 9.680,00 |
| TCPV 35 with three-phase vertical expulsion | 35,26 | < 200 | 39000006 | 14.180,00 |

* Volumes expressed as an indication. For the actual estimate it is appropriate to consider the specific characteristics of each pool (according to the thermal study).

TCPO 07÷11 - TCPV 16÷35

Heat pump heaters for swimming pools with horizontal and vertical expulsion

4 good reasons to choose heat pump heaters for swimming pools

1) Titanium heat exchanger: safety guarantee e reliability

All A2B Accorroni E.G. they are equipped with a titanium exchanger capable of heating any type of water, regardless of its origin and treatment used (chlorine treatment, salt, bromine, ozone sterilization, etc.) and all systems with extensive disinfection needs . The titanium alloy ensures maximum protection, guaranteed over time, against corrosion caused by chlorine.

2) Evaporator

The evaporator of the TPCV units from 16 to 35 kW is made with hydrophilic aluminum fins and internally grooved copper tube to increase the heat exchange capacity, efficiency and

corrosion resistance.

All A2B Accorroni E.G. they work with R410A refrigerant fluid.

3) Durable materials: ABS pump body

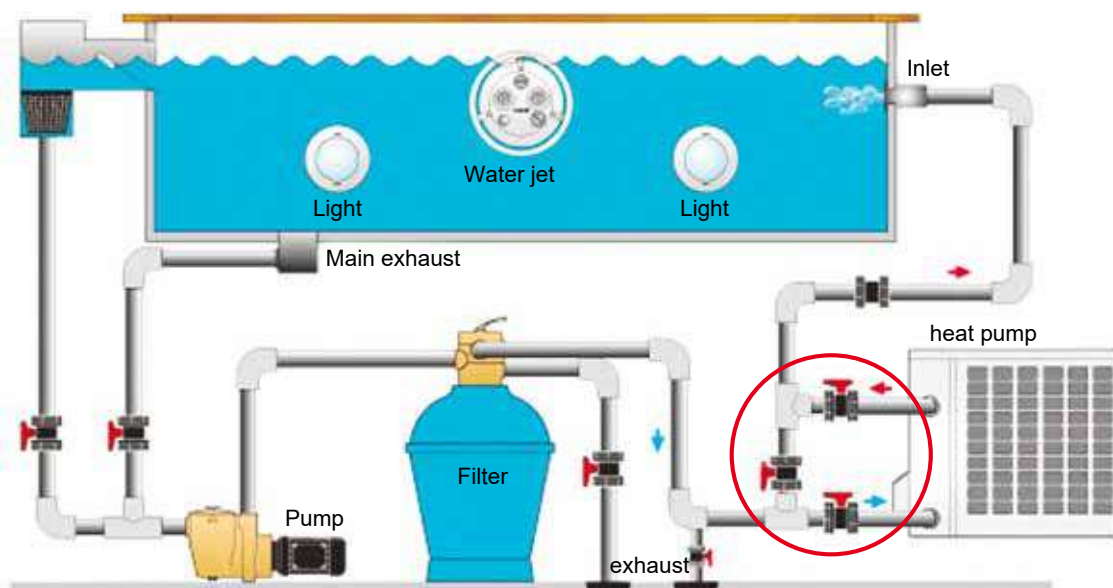
All the units are covered with an external thermoformed ABS shell not subject to corrosion.

This coating makes it possible for all products to be installed outdoors, without the risk of deterioration caused by atmospheric agents or the need for special maintenance.

4) Warm up in silence

The A2B Accorroni E.G. boast the best silence values available on the market today: up to a minimum of 32 dB (A).

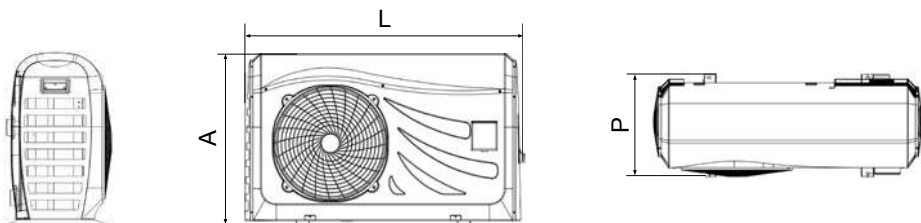
Scheme of a heat pump heater system for swimming pools TCPO 07÷11 - TCPV 16÷35



All A2B Accorroni E.G. they can be installed easily and immediately: by simply connecting the pool and the system, the hot water produced will be directly introduced between the inlet and outlet pipes of the unit.

For correct installation, it is always mandatory to provide a suitable hydraulic bypass equipped with special calibration gate valves as shown in the diagram above.

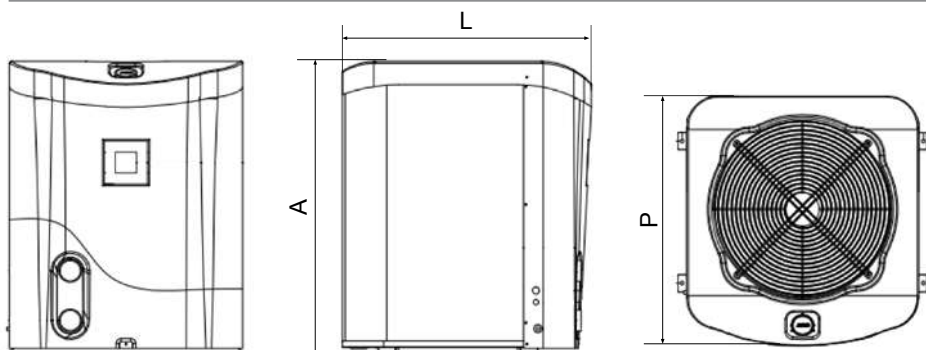
Dimensions TCPO 07÷11 horizontal ejection



| TCPO | 07 | 11 |
|------|--------|----|
| L | 1074,7 | |
| P | 400,0 | |
| A | 666,5 | |

Values in mm

Dimensions TCPV 16÷35 vertical ejection



| TCPV | 16 | 24 | 35 |
|------|-------|-------|--------|
| L | 702,0 | 751,0 | 901,0 |
| P | 700,0 | 750,0 | 920,0 |
| A | 842,5 | 892,5 | 1056,0 |

Values in mm

TCP0 07÷11 - TCPV 16÷35

Heat pump heaters for swimming pools with horizontal and vertical expulsion

Tabella dati tecnici TCP0 07÷11 espulsione orizzontale

| DESCRIPTION | U.M. | TCP0 07 | TCP0 11 |
|--|-------------------|-------------|---------|
| Performance under the following conditions: outside air temperature 15 ° C / inlet water temperature 13 ° C | | | |
| Heating power | kW | 6,95 | 10,99 |
| Absorbed power | kW | 1,11 | 1,80 |
| Current consumption | A | 5,12 | 9,10 |
| COP | W/W | 6,26 | 6,11 |
| Performance under the following conditions: outside air temperature 15 ° C / inlet water temperature 26 ° C | | | |
| Heating power | kW | 6,29 | 10,18 |
| Potenza assorbita | kW | 1,28 | 2,08 |
| Current consumption | A | 5,85 | 9,92 |
| COP | W/W | 4,91 | 4,89 |
| Performance under the following conditions: external air temperature 20 ° C / inlet water temperature 24 ° C | | | |
| Heating power | kW | 6,98 | 11,20 |
| Absorbed power | kW | 1,20 | 1,94 |
| Current consumption | A | 5,48 | 9,33 |
| COP | W/W | 5,82 | 5,77 |
| Compressor | | Rotary | |
| Refrigerant gas R410A | Kg | 0,95 | 1,50 |
| Water flow | m ³ /h | 3,10 | 4,80 |
| Water temperature range settable for heating | °C | +15 +40 | +15 +40 |
| Air temperature range | °C | -10 +43 | -10 +43 |
| Power supply | | 230V/1/50Hz | |
| Sound level | dB(A) | 32 | 34 |
| Degree of protection | | IPX4 | |
| Net weight | Kg | 49 | 61 |

Technical data table TCPV 16 ÷ 35 vertical expulsion

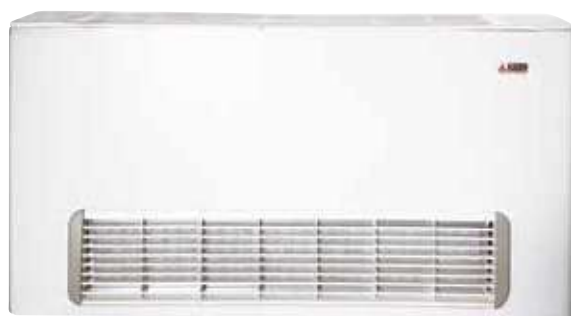
| DESCRIPTION | U.M. | TCPV 16 | TCPV 24 | TCPV 35 |
|--|-------------------|-------------|---------------|----------|
| Performance under the following conditions: outside air temperature 15 ° C / inlet water temperature 13 ° C | | | | |
| Heating power | kW | 16,51 | 24,21 | 35,26 |
| Absorbed power | kW | 2,68 | 3,93 | 5,78 |
| Current consumption | A | 13,68 | 6,32 | 9,30 |
| COP | W/W | 6,16 | 6,16 | 6,10 |
| Performance under the following conditions: outside air temperature 15 ° C / inlet water temperature 26 ° C | | | | |
| Heating power | kW | 15,02 | 22,01 | 32,05 |
| Absorbed power | kW | 2,95 | 4,31 | 6,41 |
| Current consumption | A | 15,06 | 6,94 | 10,32 |
| COP | W/W | 5,10 | 5,11 | 5,00 |
| Performance under the following conditions: external air temperature 20 ° C / inlet water temperature 24 ° C | | | | |
| Heating power | kW | 16,98 | 24,90 | 36,30 |
| Absorbed power | kW | 3,005 | 4,40 | 6,47 |
| Current consumption | A | 15,15 | 6,93 | 10,19 |
| COP | W/W | 5,65 | 5,66 | 5,61 |
| Compressor | | Scroll | | |
| Refrigerant gas R410A | Kg | 2,50 | 3,40 | 4,60 |
| Water flow | m ³ /h | 4,2÷8,6 | 6,3÷12,6 | 9,2÷18,0 |
| Water temperature range settable for heating | °C | +15 +40 | +15 +40 | +15 +40 |
| Air temperature range | °C | -10 +43 | -10 +43 | -10 +43 |
| Power supply | | 230V/1/50Hz | 400V/3+N/50Hz | |
| Sound level | dB(A) | 32 | 34 | 35 |
| Degree of protection | | IPX4 | | |
| Net weight | Kg | 103 | 116 | 166 |

FR - FC - FCO - FCR

Wall, ceiling and recessed hydronic fan coils



Basic version FR (wall and ceiling)



FR G version with cabinet complete with front intake grille and air filter



MADE IN ITALY



SILENT VENTILATION



WALL CEILING INSTALLATION



BATTERY REVERSIBLE



HEATING HIGH PERFORMANCE



COOLING DEHUMIDITY

Technical and construction features

The pleasantly soft and elegant line of the FR models, which can be installed both on the wall and on the ceiling, integrates perfectly into any environment intended for commercial and residential activities, such as hotels, residences, offices, shops and homes.

The battery is reversible, the cover cabinet is made of galvanized sheet metal and pre-painted in RAL 9002 color, protected by transparent adhesive film to avoid damage during transport and installation.

On request, the version can be supplied with a cover cabinet equipped with a front air intake grille, complete with filter, for floor and ceiling installation.

The air delivery grille is made up of modular elements in heat-resistant plastic material in RAL 7032 color.

The right and left terminal elements include the seat for the control panel and the relative access doors, equipped with an exclusive snap closure system. In environments where access to the control panel is to be denied (public places, schools, etc.), the doors can be locked by means of a screw with a suitable hole cover. The FR fan coils are supplied as standard designed for housing the control panel on the right side.

On request, versions with customized coat with various chromatic patterns are also available with a small surcharge.

The extremely quiet operation, the rational construction and a wide choice of controls complete the versatility of these devices, designed to ensure maximum comfort even in all those environments where a low noise level is required.

| Model | Battery water content |
|-------|-----------------------|
| 100 | 0,675 l |
| 200 | 0,882 l |
| 300 | 1,090 l |
| 400 | 1,300 l |
| 600 | 1,700 l |
| 800 | 1,700 l |

| Model | Thermal Power kW | Refrigeration power kW | Code | € |
|----------------------------------|------------------|------------------------|----------|--------|
| Wall and ceiling fan coil FR 100 | 2,83 | 1,15 | 36200110 | 434,00 |
| Wall and ceiling fan coil FR 200 | 4,98 | 2,10 | 36220110 | 526,00 |
| Wall and ceiling fan coil FR 300 | 5,64 | 2,73 | 36240110 | 578,00 |
| Wall and ceiling fan coil FR 400 | 7,05 | 3,11 | 36260110 | 598,00 |
| Wall and ceiling fan coil FR 600 | 9,77 | 4,66 | 36280110 | 640,00 |
| Wall and ceiling fan coil FR 800 | 12,33 | 5,14 | 36300110 | 752,00 |

Version with cabinet complete with front intake grille and air filter

| Model | Thermal Power kW | Refrigeration power kW | Code | € |
|------------------------------------|------------------|------------------------|----------|--------|
| Wall and ceiling fan coil FR 100 G | 2,83 | 1,15 | 36200111 | 474,00 |
| Wall and ceiling fan coil FR 200 G | 4,98 | 2,10 | 36220111 | 568,00 |
| Wall and ceiling fan coil FR 300 G | 5,64 | 2,73 | 36240111 | 618,00 |
| Wall and ceiling fan coil FR 400 G | 7,05 | 3,11 | 36260111 | 640,00 |
| Wall and ceiling fan coil FR 600 G | 9,77 | 4,66 | 36280111 | 712,00 |
| Wall and ceiling fan coil FR 800 G | 12,33 | 5,14 | 36300111 | 804,00 |

FR - FC - FCO - FCR

Wall, ceiling and recessed hydronic fan coils



mod. FC wall recessed vertical throw



mod. FCR recessed ceiling



mod. FCO wall recessed horizontal throw

Technical and construction features

The supporting structure is made of galvanized sheet metal of adequate thickness and is designed for fixing the unit to the wall or ceiling with bayonet slots, as well as for mounting the various components and accessories. The internal walls are suitably insulated with self-extinguishing closed cell material.

The heat exchange coil is of the type for 2-pipe systems, consisting of 3 rows of copper pipes and continuous aluminum finning.

The aluminum finned pack is integral with the tube bundle by mechanical expansion of the tubes themselves.

The frame is in galvanized steel and the manifolds are in cast brass, equipped with G 1/2" female threaded connections and G 1/8" manual air vent valves.

The fan coils are supplied as standard with hydraulic connections on the left side.

The fan unit consists of one (sizes 100 and 200) or two double suction centrifugal fans, with high air flow and low noise level, with impellers and screws made of plastic material. The groups are electronically balanced even after mounting on the units.

The 230 V single-phase electric motors, with permanently inserted capacitor and with built-in thermal protection, have 6 speeds, obtained by means of an autotransformer, of which three are connected as standard and can be selected from the control panel. The motor, directly coupled to the fans, is mounted on elastic supports and the unit is assembled with the suitably insulated condensate collection tray.

The electrical connection with the control panel is ensured by un connettore del tipo ad innesto rapido polarizzato.

Il filtro aria è in fibra sintetica, montato su telaio metallico con rete di contenimento su entrambi i lati ed è estraibile tramite apposite linguette da sbloccare per mezzo di un utensile.


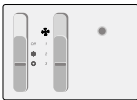

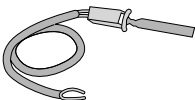

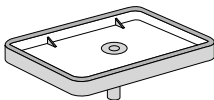
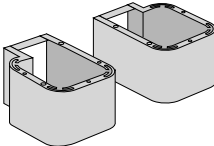
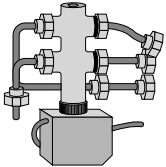
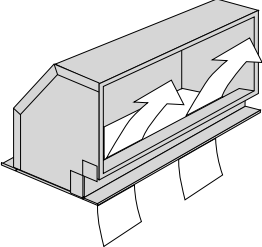
In the built-in versions FC - FCO - FCR the air filter is supplied on request. The FC - FCO - FCR vertical and horizontal recessed models, extremely practical and functional, are equipped with a complete range of accessories that allow you to solve any system problem and are particularly suitable in all those cases where it is necessary to occupy the least possible space. on the ground and on the ceiling. The units are designed for use in 2-pipe systems. For 4-pipe systems with two independent circuits, an additional heat exchange coil is available on request.

| Model | Thermal Power kW | Refrigeration power kW | Code | € |
|--------------------------------|------------------|------------------------|----------|--------|
| Wall recessed fan coil FC 100 | 2,83 | 1,15 | 36200200 | 402,00 |
| Wall recessed fan coil FC 200 | 4,98 | 2,10 | 36220200 | 454,00 |
| Wall recessed fan coil FC 300 | 5,64 | 2,73 | 36240200 | 506,00 |
| Wall recessed fan coil FC 400 | 7,05 | 3,11 | 36260200 | 526,00 |
| Wall recessed fan coil FC 600 | 9,77 | 4,66 | 36280200 | 588,00 |
| Wall recessed fan coil FC 800 | 12,33 | 5,14 | 36300200 | 670,00 |
| Wall recessed fan coil FCO 100 | 2,83 | 1,15 | 36200201 | 392,00 |
| Wall recessed fan coil FCO 200 | 4,98 | 2,10 | 36220201 | 454,00 |
| Wall recessed fan coil FCO 300 | 5,64 | 2,73 | 36240201 | 494,00 |
| Wall recessed fan coil FCO 400 | 7,05 | 3,11 | 36260201 | 516,00 |
| Wall recessed fan coil FCO 600 | 9,77 | 4,66 | 36280201 | 588,00 |
| Wall recessed fan coil FCO 800 | 12,33 | 5,14 | 36300201 | 640,00 |
| Wall recessed fan coil FCR 100 | 2,83 | 1,15 | 36200300 | 402,00 |
| Wall recessed fan coil FCR 200 | 4,98 | 2,10 | 36220300 | 454,00 |
| Wall recessed fan coil FCR 300 | 5,64 | 2,73 | 36240300 | 506,00 |
| Wall recessed fan coil FCR 400 | 7,05 | 3,11 | 36260300 | 526,00 |
| Wall recessed fan coil FCR 600 | 9,77 | 4,66 | 36280300 | 588,00 |
| Wall recessed fan coil FCR 800 | 12,33 | 5,14 | 36300300 | 670,00 |

FR - FC - FCO - FCR

Wall, ceiling and recessed hydronic fan coils

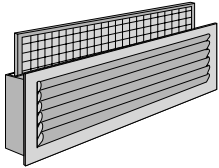
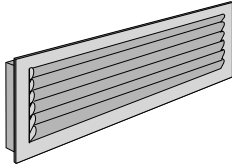
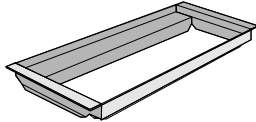
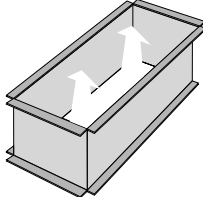
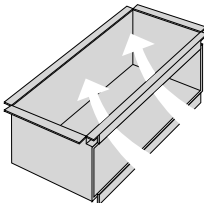
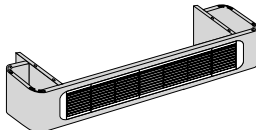
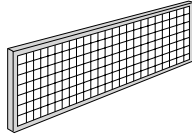
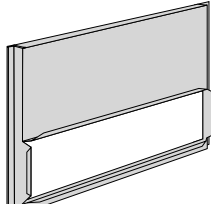
Accessories FR - FC - FCO - FCR

| | | Code | € |
|---|--|--|--|
|  | Digital room thermostat on board the machine with battery probe included | 36205226 | 100,00 |
|  | Basic control on the machine for the management of the 3 speeds and for the winter / summer selection | 36205212 | 52,00 |
|  | Wall-mounted electronic room thermostat with summer-off-winter selector and 3-speed switch (with valve control complete with 4m cable) | 36205221 | 82,00 |
|  | Mechanical consent thermostat for wall electronic room thermostat or basic control | 36205214 | 36,00 |
|  | Wall-mounted digital room thermostat with LCD display for daily / weekly hourly programming and built-in consent probe | 36205224 | 106,00 |
|  | Auxiliary condensate collection tray for the vertical versions FR - FC - FCO | 36200501 | 20,00 |
|  | Pair of sockets for FR version | 36200512 | 44,00 |
|  | Valve kit for standard 3-row coil only, complete with pipes and fittings | 36205303 | 180,00 |
|  | 90° air delivery connection mod. FC - FCR for built-in versions | mod. 100 36202201 mod. 200 36222201 mod. 300 36242201 mod. 400 36262201 mod. 600 36282201 mod. 800 36282201 | 30,00 34,00 38,00 78,00 88,00 88,00 |

FR - FC - FCO - FCR

Wall, ceiling and recessed hydronic fan coils

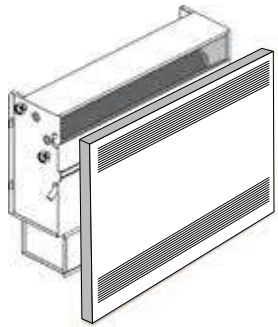
Accessories FR - FC - FCO - FCR

| | | Code | € | |
|---|---|----------|----------|--------|
|  | Air intake grille mod. FC - FCR in aluminum with fixed fins complete with filter for built-in versions | mod. 100 | 36201502 | 70,00 |
| | | mod. 200 | 36221502 | 90,00 |
| | | mod. 300 | 36241502 | 110,00 |
| | | mod. 400 | 36261502 | 112,00 |
| | | mod. 600 | 36281502 | 124,00 |
| | | mod. 800 | 36281502 | 124,00 |
|  | Air delivery grille mod. FC - FCR in aluminum with adjustable fins for built-in versions | mod. 100 | 36201501 | 44,00 |
| | | mod. 200 | 36221501 | 58,00 |
| | | mod. 300 | 36241501 | 64,00 |
| | | mod. 400 | 36261501 | 68,00 |
| | | mod. 600 | 36281501 | 76,00 |
| | | mod. 800 | 36281501 | 76,00 |
|  | Lower air intake panel mod. FCR | mod. 100 | 36200007 | 26,00 |
| | | mod. 200 | 36220007 | 36,00 |
| | | mod. 300 | 36240007 | 42,00 |
| | | mod. 400 | 36260007 | 48,00 |
| | | mod. 600 | 36280007 | 50,00 |
| | | mod. 800 | 36280007 | 50,00 |
|  | Straight air delivery connection mod. FC - FCR for built-in versions FC - FCR | mod. 100 | 36202202 | 34,00 |
| | | mod. 200 | 36222202 | 36,00 |
| | | mod. 300 | 36242202 | 38,00 |
| | | mod. 400 | 36262202 | 44,00 |
| | | mod. 600 | 36282202 | 62,00 |
| | | mod. 800 | 36282202 | 62,00 |
|  | 90° air intake fitting mod. FC - FCO - FCR for built-in versions | mod. 100 | 36202203 | 80,00 |
| | | mod. 200 | 36222203 | 82,00 |
| | | mod. 300 | 36242203 | 84,00 |
| | | mod. 400 | 36262203 | 92,00 |
| | | mod. 600 | 36282203 | 98,00 |
| | | mod. 800 | 36282203 | 98,00 |
|  | Plinth complete with grid mod. FR | mod. 100 | 36200019 | 98,00 |
| | | mod. 200 | 36220019 | 114,00 |
| | | mod. 300 | 36240019 | 124,00 |
| | | mod. 400 | 36260019 | 134,00 |
| | | mod. 600 | 36280019 | 156,00 |
| | | mod. 800 | 36280019 | 156,00 |
|  | Air filter for built-in versions mod. FC - FCO - FCR | mod. 100 | 36205601 | 12,00 |
| | | mod. 200 | 36225601 | 14,00 |
| | | mod. 300 | 36245601 | 16,00 |
| | | mod. 400 | 36265601 | 16,00 |
| | | mod. 600 | 36285601 | 18,00 |
| | | mod. 800 | 36285601 | 18,00 |
|  | Front air intake panel mod. FC | mod. 100 | 36200006 | 40,00 |
| | | mod. 200 | 36220006 | 50,00 |
| | | mod. 300 | 36240006 | 60,00 |
| | | mod. 400 | 36260006 | 70,00 |
| | | mod. 600 | 36280006 | 80,00 |
| | | mod. 800 | 36280006 | 80,00 |

FR - FC - FCO - FCR

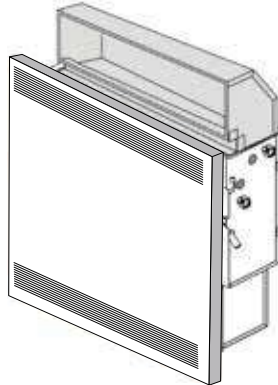
Wall, ceiling and recessed hydronic fan coils

Accessories FR - FC - FCO - FCR



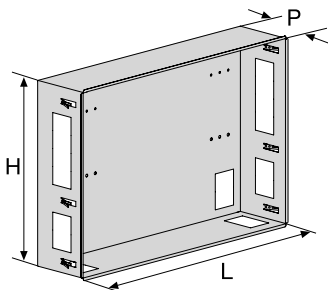
Front panel
mod. FCO
for recessed wall template
in pre-painted sheet metal

| | Code | € |
|----------|----------|--------|
| mod. 100 | 36200404 | 82,00 |
| mod. 200 | 36220404 | 92,00 |
| mod. 300 | 36240404 | 104,00 |
| mod. 400 | 36260404 | 116,00 |
| mod. 600 | 36280404 | 138,00 |
| mod. 800 | 36280404 | 138,00 |



Front panel
mod. FC
for recessed wall template
in pre-painted sheet metal

| | | |
|----------|----------|--------|
| mod. 100 | 36200504 | 88,00 |
| mod. 200 | 36220504 | 98,00 |
| mod. 300 | 36240504 | 110,00 |
| mod. 400 | 36260504 | 122,00 |
| mod. 600 | 36280504 | 144,00 |
| mod. 800 | 36280504 | 144,00 |

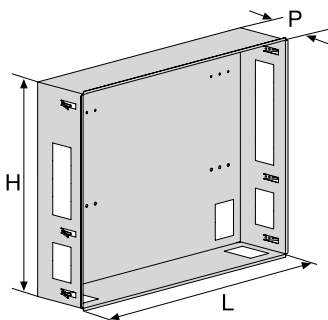


Built-in templ. FCO wall mounted in galvanized sheet

| Mod. | 100 | 200 | 300 | 400 | 600 | 800 |
|------|-----|-----|-----|-----|------|------|
| P | 235 | 235 | 235 | 235 | 235 | 235 |
| L | 632 | 742 | 852 | 962 | 1182 | 1182 |
| H | 730 | 730 | 730 | 730 | 730 | 730 |

Values in mm

| | | |
|----------|----------|--------|
| mod. 100 | 36200403 | 128,00 |
| mod. 200 | 36220403 | 132,00 |
| mod. 300 | 36240403 | 138,00 |
| mod. 400 | 36260403 | 156,00 |
| mod. 600 | 36280403 | 166,00 |
| mod. 800 | 36280403 | 166,00 |



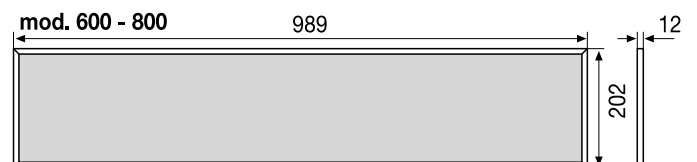
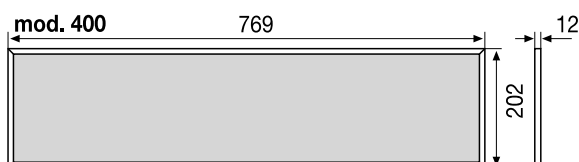
Built-in templ. FC wall mounted in galvanized sheet

| Mod. | 100 | 200 | 300 | 400 | 600 | 800 |
|------|-----|-----|-----|-----|------|------|
| P | 235 | 235 | 235 | 235 | 235 | 235 |
| L | 632 | 742 | 852 | 962 | 1182 | 1182 |
| H | 900 | 900 | 900 | 900 | 900 | 900 |

Values in mm

| | | |
|----------|----------|--------|
| mod. 100 | 36200503 | 150,00 |
| mod. 200 | 36220503 | 154,00 |
| mod. 300 | 36240503 | 160,00 |
| mod. 400 | 36260503 | 178,00 |
| mod. 600 | 36280503 | 186,00 |
| mod. 800 | 36280503 | 186,00 |

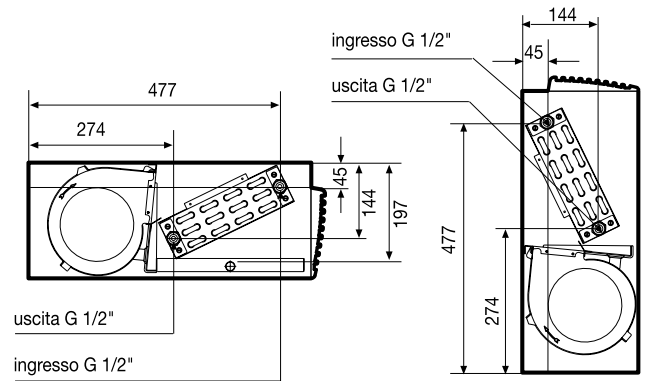
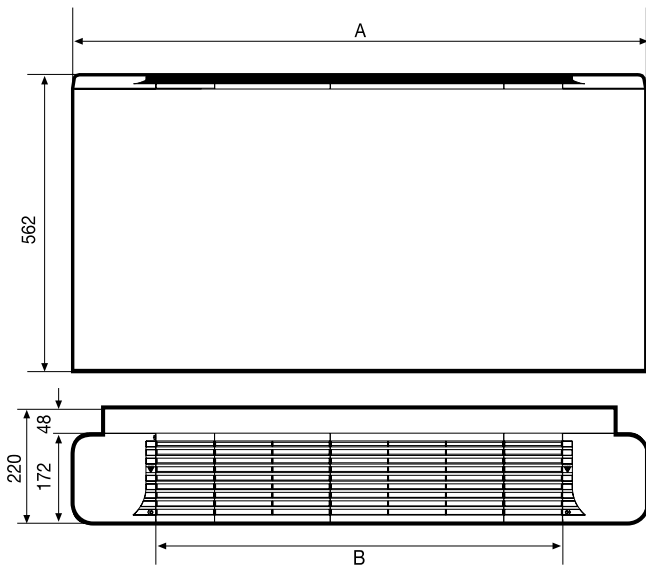
Dimensions air filters FR - FC - FCO - FCR



FR - FC - FCO - FCR

Wall, ceiling and recessed hydronic fan coils

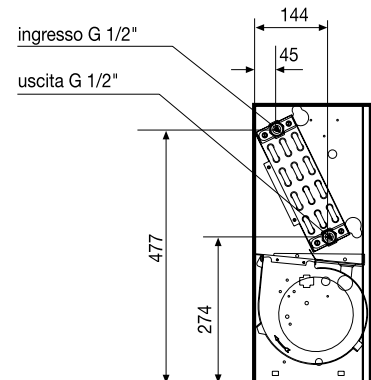
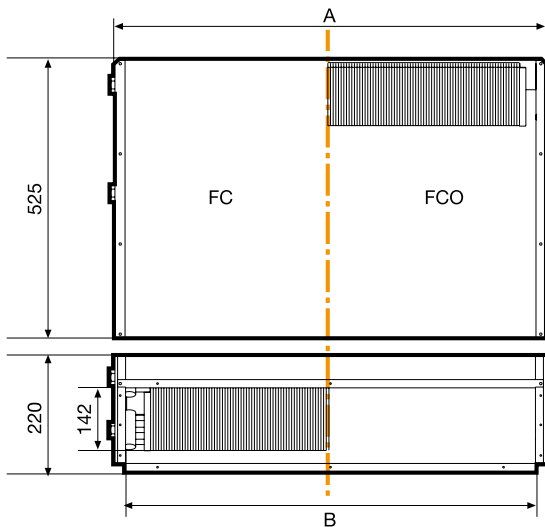
Dimensions FR wall models



| Mod. | 100 | 200 | 300 | 400 | 600 | 800 |
|------|-----|-----|-----|------|------|------|
| A | 760 | 870 | 980 | 1090 | 1310 | 1310 |
| B | 440 | 550 | 660 | 770 | 990 | 990 |

Values in mm

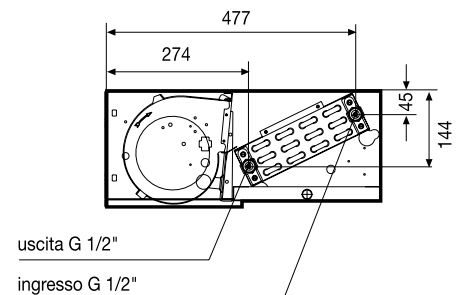
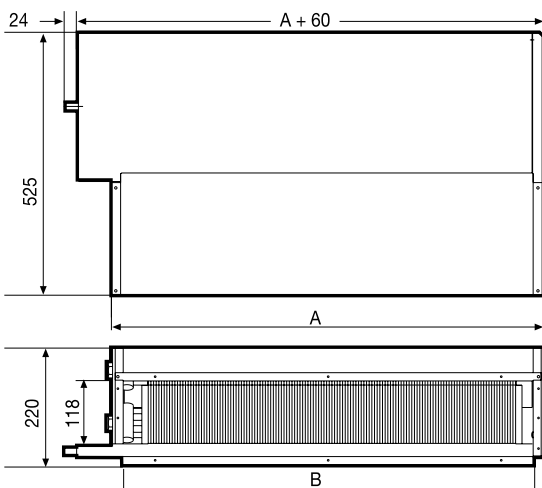
Dimensions FC - FCO vertical recessed models



| Mod. | 100 | 200 | 300 | 400 | 600 | 800 |
|------|-----|-----|-----|-----|------|------|
| A | 480 | 590 | 700 | 810 | 1030 | 1030 |
| B | 440 | 550 | 660 | 770 | 990 | 990 |

Values in mm

Dimensions recessed horizontal FCR models



| Mod. | 100 | 200 | 300 | 400 | 600 | 800 |
|------|-----|-----|-----|-----|------|------|
| A | 480 | 590 | 700 | 810 | 1030 | 1030 |
| B | 440 | 550 | 660 | 770 | 990 | 990 |

Values in mm

FR - FC - FCO - FCR

Wall, ceiling and recessed hydronic fan coils

Technical data table FR - FC - FCO - FCR

| DESCRIPTION | U.M. | 100 | 200 | 300 | 400 | 600 | 800 | |
|--|-------------------|-------------|------|-------|-------|-------|-------|-------|
| Thermal power (water inlet 70 ° C) | W | max | 2830 | 4980 | 5640 | 7050 | 9770 | 12330 |
| | | med | 2530 | 4250 | 5140 | 6290 | 8860 | 11230 |
| | | min | 2220 | 3840 | 4670 | 5230 | 7480 | 10580 |
| Water flow max | l/h | 243 | 423 | 485 | 606 | 825 | 1060 | |
| Max water pressure drop70 °C | kPa | 1,50 | 3,90 | 7,30 | 11,45 | 23,50 | 33,00 | |
| Thermal power (water inlet 50 ° C) | W | max | 1620 | 2700 | 3370 | 4050 | 5190 | 6050 |
| | | med | 1450 | 2250 | 3070 | 3640 | 4640 | 5610 |
| | | min | 1270 | 2060 | 2790 | 3240 | 4070 | 5090 |
| Max water pressure drops 50 ° C | kPa | 1,03 | 2,27 | 6,45 | 8,90 | 22,25 | 27,20 | |
| 1-row additional coil thermal power | W | max | 1860 | 2420 | 3380 | 4100 | 5930 | 6530 |
| | | med | 1710 | 2240 | 3160 | 3800 | 5510 | 6270 |
| | | min | 1540 | 2060 | 2970 | 3490 | 4630 | 6070 |
| Battery water flow 1 row | l/h | 160 | 208 | 291 | 352 | 516 | 559 | |
| Max water pressure drop 1 row | kPa | 4,50 | 7,60 | 16,00 | 26,50 | 46,00 | 51,00 | |
| Total cooling capacity | W | max | 1150 | 2100 | 2730 | 3110 | 4210 | 5140 |
| | | med | 1030 | 1780 | 2410 | 2880 | 3820 | 4740 |
| | | min | 880 | 1640 | 2190 | 2630 | 3420 | 4360 |
| Sensible cooling capacity | W | max | 930 | 1600 | 2220 | 2550 | 3370 | 4150 |
| | | med | 830 | 1350 | 1940 | 2180 | 2980 | 3670 |
| | | min | 700 | 1200 | 1720 | 1970 | 2640 | 3340 |
| Max cooling water flow | l/h | 192 | 359 | 460 | 552 | 790 | 868 | |
| Max pressure drops of cooling water | kPa | 1,22 | 2,70 | 7,65 | 10,55 | 26,45 | 31,00 | |
| Air flow | m ³ /h | max | 210 | 356 | 450 | 560 | 760 | 1.000 |
| | | med | 180 | 324 | 400 | 485 | 630 | 890 |
| | | min | 150 | 289 | 340 | 434 | 540 | 780 |
| Number of fans | | 1 | | | 2 | | | |
| Sound pressure | dB(A) | max | 30,6 | 42,4 | 40,7 | 42,3 | 44,7 | 50,0 |
| | | med | 27,7 | 39,5 | 37,4 | 39,4 | 41,8 | 48,1 |
| | | min | 22,9 | 37,1 | 34,2 | 36,7 | 38,1 | 45,5 |
| Sound power | dB(A) | max | 39,1 | 50,9 | 49,2 | 50,8 | 53,2 | 58,5 |
| | | med | 36,2 | 48,0 | 45,9 | 47,9 | 50,3 | 56,6 |
| | | min | 31,4 | 45,6 | 42,7 | 45,2 | 46,6 | 54,0 |
| Power supply | | 230V/1/50Hz | | | | | | |
| Motor power max | W | 34 | 57 | 58 | 77 | 100 | 123 | |
| Current consumption max. | A | 0,15 | 0,27 | 0,25 | 0,34 | 0,47 | 0,59 | |
| Weight (referred to version F) | Kg | 17,0 | 19,0 | 22,0 | 24,6 | 28,8 | 30,2 | |

Summer cooling: ambient air temperature: 27 ° C b.d., 19 ° C b.w.
 water temperature: inlet 7 ° C, outlet 12 ° C at max speed. Winter
 heating: room air temperature: 20 ° C
 water temperature: inlet 70 ° C, ΔT 10 ° C at max speed.
 (with inlet water temperature at 50 ° C same water flow as in cooling at max. speed)







EOLO SLIM

High efficiency hydronic fan coils



| Model | Thermal Power W | Cooling Capacity W | Code | € |
|-------------------------|-----------------|--------------------|----------|----------|
| Fan coil EOLO SLIM 250 | 1250 | 800 | 52200010 | 550,00 |
| Fan coil EOLO SLIM 400 | 2400 | 1650 | 52220010 | 670,00 |
| Fan coil EOLO SLIM 600 | 3250 | 2500 | 52240010 | 780,00 |
| Fan coil EOLO SLIM 800 | 4000 | 3250 | 52260010 | 970,00 |
| Fan coil EOLO SLIM 1000 | 4750 | 4050 | 52280010 | 1.134,00 |




Accessories EOLO SLIM

| | | | |
|---|--|----------|--------|
|  | Electronic LCD control on board with temperature probe | 52200101 | 147,00 |
|  | Electronic LCD + Modbus control on board machine with edge temperature probe | 52200102 | 157,00 |
|  | Design feet kit for anchoring to the floor | 52200103 | 58,00 |
|  | Hydraulic connection kit and motorized 2-way valve | 52200104 | 118,00 |
|  | Hydraulic connection kit and motorized 3-way valve | 52200105 | 150,00 |
|  | Remote controller Infrared | 52200106 | 42,00 |

EOLO SLIM

High efficiency hydronic fan coils

Accessories EOLO SLIM

| | | Code | € |
|---|---|----------|--------|
|  | Chrono On / Off programmer daily / weekly collection | 52200107 | 218,00 |
|  | Chrono On / Off programmer daily / weekly electrical panel | 52200108 | 163,00 |
|  | HD electrothermal head 230V per kit motorized hydraulic connection | 52200109 | 32,00 |

EOLO SLIM complete climate control



Every single EOLO SLIM allows to set the temperature value desired on the appropriate panel, like this that is the electronic control to regulate the operation of the thermal device according to a logic that optimizes.

The balance between energy efficiency and climate comfort.

Advanced electronic systems, and in particular the most modern systems of building-automation and home automation, they can count on EOLO SLIM as the optimal implant terminal to fulfill the widest functions climatic, leaving the designer total freedom of realization.

The reliability and flexibility of the Modbus technology allows a complete control of the device e of climatic zones.

Communication protocols can therefore also lead to the control of the remote home environments with web based cloud solutions.

You can set it on each one EOLO SLIM the desired temperature in the specific environment, so that, ad example, it is possible to have in winter more or less hot in the rooms from read, and maybe a few degrees less in the living room. Or, equally comfortably, it will be possible to set up manually the desired power, maybe to get in a certain room the maximum dehumidifying power in summer operation.

EOLO SLIM is available with on board the electronic PCB module with Modbus technology, which allows the integration of EOLO SLIM inside of the most advanced air conditioning systems and BMS.

Climate control of the environments can thus take place by exploiting fully the multiple solutions arising from these technologies.

EOLO SLIM technology DC INVERTER

EOLO SLIM is equipped as standard with the new DC Inverter technology with high permanent magnet motors efficiency.

The DC Inverter motor is adjusted in speed (number of revolutions) and in power via electronic control in PWM pulse modulation (Pulse Width Modulation): transmit in one pulse direction in high frequency, and at the same time detect the state and the

DC Inverter



period of the same impulse. This technology drastically reduces the power absorbed, and at the same time get effective control of the permanent magnet motor.

The maximum electrical consumption is similar to that of an LED light bulb: the maximum power absorbed by EOLO SLIM 1000 is, at maximum speed, of only 32 W (15 W for EOLO SLIM 250), and with the 10: 1 Inverter modulation, seasonal electric absorption it will really be beneficial.

EOLO SLIM flexible installation

Each EOLO SLIM is supplied as standard with passive steel plate.

The form is designed to collect the eventual condense in order to make installable both vertically and horizontally without any further accessory or change.

EOLO SLIM maximum silence

EOLO SLIM comes standard with a fan coil type asymmetrical driven by a motor DC Inverter.

In addition to the compactness of the fan, which allowed to reduce it just 13 cm thick, this technology allows you to move high flow rates of air with low linear velocity, to which they correspond negligible levels of turbulence, rustling and noises, which make the silence silent device.

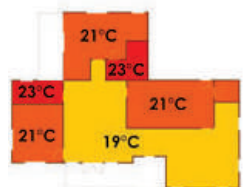
ACOUSTIC COMPARISON with traditional solutions

EOLO SLIM 250 arrives at one reference silence of 21 dB (A) in super silence mode and 24 dB (A) in ordinary mode and no later than 30 dB (A) even at maximum power.

The average reference data of the most widespread fan coils instead of 33 dB (A) running at minimum power, and 50 dB (A) at maximum.

It is good to remember that the Decibels they represent a quantification logarithmic: means that noise perceived in the presence of a traditional fan coil at minimum, or 33 dB (A), it is exponentially stronger than an EOLO SLIM in a way Super-silence with 21 dB (A).

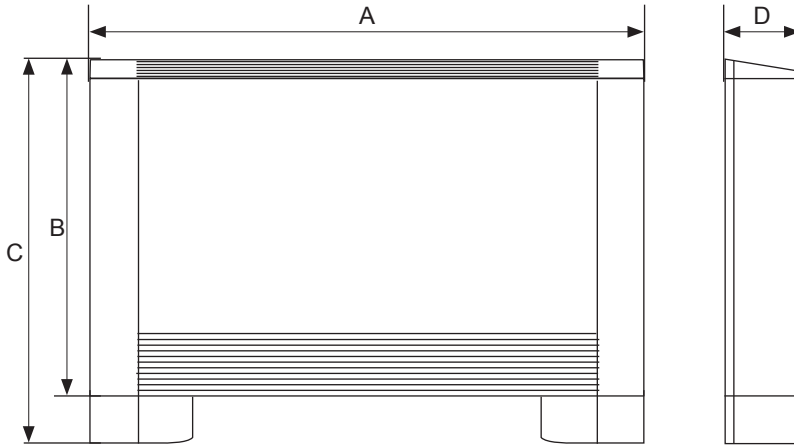
Always by way of example, remember that human breath has a level of average noise level of 20 dB (A).



EOLO SLIM

High efficiency hydronic fan coils

EOLO SLIM dimensions



| Model | A mm | B mm | C mm | D mm |
|-----------------------|---------|---------|---------|---------|
| EOLO SLIM 250 | 700 | 670 | 745 | 130 |
| EOLO SLIM 400 | 900 | 670 | 745 | 130 |
| EOLO SLIM 600 | 1100 | 670 | 745 | 130 |
| EOLO SLIM 800 | 1300 | 670 | 745 | 130 |
| EOLO SLIM 1000 | 1500 | 670 | 745 | 130 |

Technical data table EOLO SLIM

| Description | U.M. | 250 | 400 | 600 | 800 | 1000 |
|---|-------------------|-------------|-------|-------|-------|-------|
| Thermal power 70 °C (1) | kW | 2,00 | 3,80 | 5,45 | 6,95 | 8,60 |
| Water flow (1) | l/min | 2,80 | 5,50 | 7,92 | 10,10 | 12,45 |
| Pressure drops (1) | kPa | 6,5 | 13,0 | 29,0 | 23,5 | 26,2 |
| Thermal power 50 °C (2) | kW | 1,25 | 2,40 | 3,25 | 4,00 | 4,75 |
| Water flow (2) | l/min | 2,80 | 5,50 | 7,92 | 10,10 | 12,45 |
| Pressure drops (2) | kPa | 6,5 | 13,0 | 29,0 | 23,5 | 26,2 |
| Thermal power with stationary ventilation (1) | W | 340 | 390 | 460 | 570 | 700 |
| Cooling capacity 7 °C (3) | kW | 0,80 | 1,65 | 2,50 | 3,25 | 4,05 |
| Water flow (3) | l/min | 2,35 | 4,70 | 7,00 | 9,15 | 11,40 |
| Pressure drops (3) | kPa | 6,50 | 12,50 | 30,25 | 24,20 | 28,20 |
| Air flow | m ³ /h | 160 | 320 | 460 | 580 | 650 |
| Sound pressure mode SUPER SILENCE (4) | dB(A) | 16,5 | 14,2 | 15,4 | 16,10 | 16,60 |
| Sound pressure mode max speed (4) | dB(A) | 37,7 | 38,0 | 39,6 | 39,9 | 42,9 |
| Sound pressure mode min. Speed | dB(A) | 24,3 | 22,7 | 23,9 | 24,3 | 27,2 |
| Power supply | | 230V/1/50Hz | | | | |
| Degree of protection | | IP23 | | | | |
| Max absorbed current | W | 11,70 | 15,10 | 16,60 | 23,10 | 30,28 |
| Hydraulic connections | | 3/4" M | | | | |
| Inner tube drainage diameter (5) | mm | 12 | 14 | 16 | 18 | 20 |
| Weight | Kg | 16 | 20 | 24 | 28 | 33 |

(1) Winter heating: Temp.water.in = 70 °C, Temp. Diff = 10 °C; Temp.air. in = 20 °C - Bd (UNI EN 1397)

(2) Winter heating: Water temp.in = 50 °C, Flow rate = cool; Temp.air.in = 20 °C - Bd (UNI EN 1397)

(3) Summer cooling: Temp.water.in = 7 °C, Temp.diff = 5 °C; Temp. Air.in = 27 °C - Bd / 19 °C - Bh (UNI EN 1397)

(4) Noise level: r = 2 meters, Q = 2, reverberation = 0.5s, v = 45 m³

GHIBLI H2O

Wall standing fan-coil only heating



| Model | Code | € |
|--|-----------------|---------------|
| Wall-mounted fan coil GHIBLI H2O only heat mode | 35370001 | 630,00 |

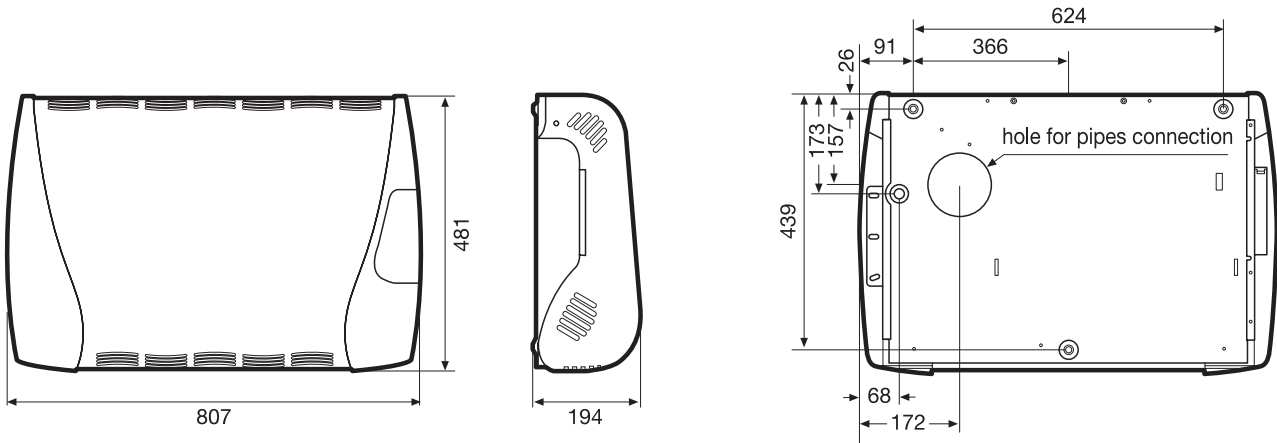
Accessories GHIBLI H2O

| | | | |
|---|--|-----------------|---------------|
|  | Weekly clock programmer kit including everything required for installation plus instructions | 35639900 | 110,00 |
|  | Fan thermostat | 35265200 | 36,00 |

GHIBLI H2O

Wall standing fan-coil only heating

Dimensions GHIBLI H2O



Technical datasheet fan-coil GHIBLI H2O

| Description | | | U.M. | Air flow rate m ³ /h | |
|------------------------------------|-------------|-------|-------|---------------------------------|---------|
| | | | | 210 max | 170 min |
| Heating output (*) ΔT 10°C | Water inlet | 80 °C | W | 3190 | 2660 |
| | | 70 °C | W | 2580 | 2150 |
| | | 60 °C | W | 1970 | 1640 |
| Heating output (*) ΔT 20°C | Water inlet | 80 °C | W | 2770 | 2320 |
| | | 70 °C | W | 2150 | 1800 |
| | | 60 °C | W | 1530 | 1280 |
| Heating output (*) ΔT 5°C | Water inlet | 50 °C | W | 1570 | 1310 |
| Electric power supply | | 45 °C | W | 1270 | 1060 |
| Electric protection class | | | | 230V/1/50Hz | |
| Fuse | | | | I | |
| Power input | | | A | 2 | |
| IP protection | | | W | 40 | |
| Net weight | | | | IP20 | |
| Hydraulic circuit water content | | | kg | 18 | |
| Max water pressure | | | l | 0,8 | |
| Noise level (**) | | | kPa | 60 | |
| | | | dB(A) | 29,0 | 31,0 |

* Noise pressure level measured from 3m free field with direction factor = 2

Air ΔT table

| Description | Water inlet | ΔT °C | |
|--------------------------------------|-------------|---------------|------------|
| | | max. speed | min. speed |
| Heating output** ΔT 10 °C | 80 °C | 45 | 46 |
| | 70 °C | 36 | 38 |
| | 60 °C | 28 | 29 |
| Heating output** ΔT 20 °C | 80 °C | 39 | 40 |
| | 70 °C | 30 | 31 |
| | 60 °C | 22 | 22 |
| Heating output** ΔT 5 °C | 50 °C | 22 | 23 |
| | 45 °C | 18 | 18 |

** Aria ingresso 20 °C

Table of water flow and pressure drop fan-coil GHIBLI H2O

| Description | | U.M. | Air flow rate m ³ /h | | Water flow rate l/h | |
|---------------|-----------------------------|------|---------------------------------|------------|---------------------|------------|
| | | | max. speed | min. speed | max. speed | min. speed |
| Pressure drop | ΔT 10 (80 °C÷70 °C) | kPa | 5,24 | 3,81 | 274 | 229 |
| Pressure drop | ΔT 10 (70 °C÷60 °C) | kPa | 3,72 | 2,71 | 222 | 185 |
| Pressure drop | ΔT 10 (60 °C÷50 °C) | kPa | 2,39 | 1,74 | 169 | 141 |
| Pressure drop | ΔT 20 (80 °C÷60 °C) | kPa | 1,23 | 0,89 | 119 | 100 |
| Pressure drop | ΔT 20 (70 °C÷50 °C) | kPa | 0,81 | 0,59 | 92 | 77 |
| Pressure drop | ΔT 20 (60 °C÷40 °C) | kPa | 0,46 | 0,34 | 66 | 55 |
| Pressure drop | ΔT 5 (50 °C÷45 °C) | kPa | 5,59 | 4,07 | 270 | 225 |
| Pressure drop | ΔT 5 (45 °C÷40 °C) | kPa | 3,92 | 2,85 | 218 | 182 |

FIJI

Wall mounted fan-coils



- Multifunction remote control IR
- Filter inspection

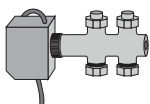
| Model | Heating Output kW | Cooling Output kW | Code | € |
|--|----------------------|----------------------|-----------------|---------------|
| Fan-coil FIJI FIJI 100 with remote infrared control | 1,64 | 0,89 | 35390000 | 730,00 |
| Fan-coil FIJI 200 with remote infrared control | 3,24 | 1,58 | 35400000 | 810,00 |
| Fan-coil FIJI 300 with remote infrared control | 4,95 | 2,39 | 35410000 | 840,00 |

Accessories FIJI



kit digital weekly programmer clock,
mounting instruction included

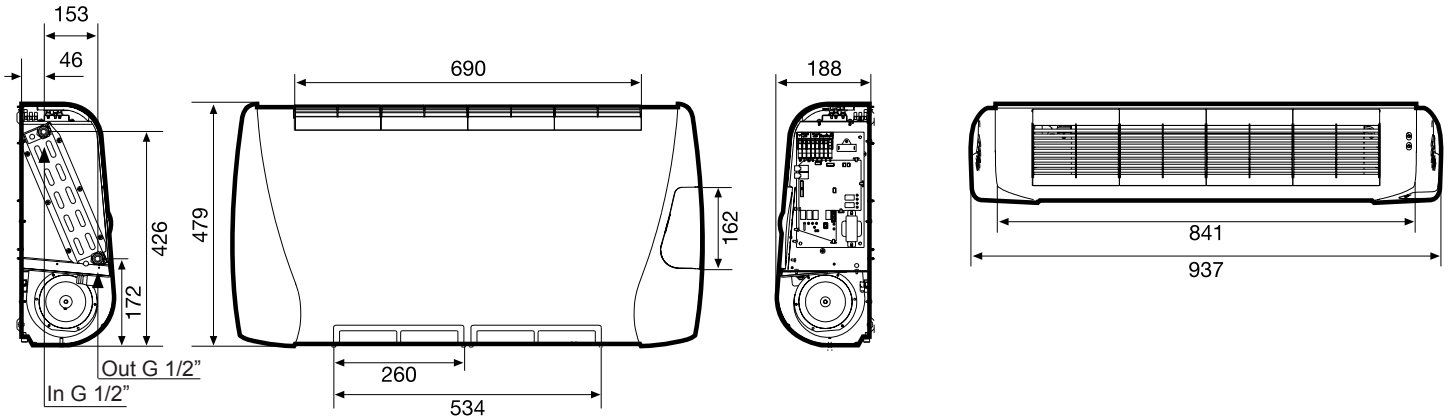
35639900 110,00



kit valve for standard exchanger
including couplings

36205303 180,00

Dimensions FIJI



Technical datasheet FIJI 100 - 200 - 300

| DESCRIPTION | U.M. | FIJI 100 | FIJI 200 | FIJI 300 | |
|---------------------------------------|-------------------|-------------|----------|----------|------|
| Heating output (intake water T=70 °C) | W | max | 1640 | 3240 | 4950 |
| | | med | - | - | - |
| | | min | 1250 | 2560 | 3930 |
| Max water flow rate | l/h | 143 | 281 | 430 | |
| Water pressure drop (T=70 °C) | kPa | 1,8 | 5,9 | 12,4 | |
| Heating output (intake water T=50 °C) | W | max | 950 | 1820 | 2750 |
| | | med | - | - | - |
| | | min | 720 | 1440 | 2180 |
| Water pressure drop (T=50 °C) | kPa | 2,1 | 7,9 | 16,3 | |
| Auxiliary exchanger | l/h | - | - | - | |
| row heating output | kPa | - | - | - | |
| Total cooling output | W | max | 890 | 1580 | 2390 |
| | | med | - | - | - |
| | | min | 680 | 1280 | 1960 |
| Sensible cooling output | W | max | 600 | 1150 | 1730 |
| | | med | - | - | - |
| | | min | 445 | 846 | 1264 |
| Max water flow rate in cooling | l/h | 154 | 270 | 411 | |
| Water pressure drop in cooling | kPa | 2,9 | 8,3 | 15,4 | |
| Air flow rate | m ³ /h | max | 110 | 240 | 405 |
| | | med | - | - | - |
| | | min | 80 | 180 | 300 |
| Number of fans | n. | 1 | 2 | | |
| Noise pressure | dB(A) | max | 39,1 | 40,0 | 41,8 |
| | | med | - | - | - |
| | | min | 37,0 | 36,4 | 38,0 |
| Noise level | dB(A) | max | 47,1 | 48,3 | 50,2 |
| | | med | - | - | - |
| | | min | 45,2 | 45,2 | 46,4 |
| Power supply | | 230V/1/50Hz | | | |
| Max motor's input power | W | 32 | 40 | 58 | |
| Max absorbed current | A | 0,16 | 0,20 | 0,25 | |
| Weight | kg | 19,0 | 20,5 | 21,0 | |

Winter heating: room air temperature: 20 °C water temperature: entry 70 °C, ΔT 10 °C max speed (entry water temperature 50 °C same water flow like in cooling max speed)
 Summer cooling: room air temperature: 27 °C dry bulb, 19 °C wet bulb water temperature: entry 7 °C, outgoing 12 °C max speed

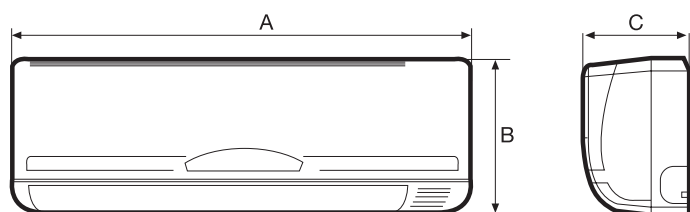
FW EN NEW

Water fan coils wall installation



| Model | Heating Output kW | Cooling Output kW | Code | € |
|-----------------------|-------------------|-------------------|----------|--------|
| Fan-coil FW EN NEW 10 | 3,36 | 2,62 | 62770001 | 730,00 |
| Fan-coil FW EN NEW 15 | 4,37 | 3,27 | 62780001 | 810,00 |
| Fan-coil FW EN NEW 22 | 5,81 | 4,25 | 62790001 | 980,00 |

Dimensions fan-coil FW EN NEW



| Model | FW EN NEW 10 | FW EN NEW 15 | FW EN NEW 22 |
|-------|--------------|--------------|--------------|
| A | 915 | 915 | 1072 |
| B | 230 | 230 | 230 |
| C | 290 | 290 | 315 |

Values in mm

Technical datasheet fan-coil FW EN NEW

| DESCRIPTION | U.M. | FW EN NEW 10 | FW EN NEW 15 | FW EN NEW 22 | |
|---------------------|-------------------|--------------|--------------|--------------|------|
| Cooling output* | kW | 2,62 | 3,27 | 4,25 | |
| Heating output** | kW | 3,36 | 4,37 | 5,81 | |
| Power input | W | 24 | 40 | 50 | |
| Absorbed current | A | 0,11 | 0,18 | 0,22 | |
| Water inlet | " | 3/4 | | | |
| Water outlet | " | 3/4 | | | |
| Condensate drain | mm | 20 | | | |
| Air flow rate | m ³ /h | max | 510 | 680 | 850 |
| | | med | 430 | 580 | 720 |
| | | min | 380 | 510 | 640 |
| Water flow rate | l/h | 511 | 564 | 731 | |
| Power supply | | 230V/1/50Hz | | | |
| Water pressure drop | kPa | 29,4 | 43,5 | 31,8 | |
| Sound level*** | dB(A) | max | 35,0 | 37,0 | 33,0 |
| | | med | 29,0 | 31,0 | 28,0 |
| | | min | 24,0 | 26,0 | 34,0 |
| Weight | kg | 13,0 | 13,0 | 16,0 | |

(*) Cooling: Room air temperature: 27 °C d.b., 19 °C w.b. - Water inlet temperature 7 °C, exit 12 °C(**)

(**) Heating: Room air temperature: 20 °C -Water inlet temperature 60 °C, outlet 55 °C; Water inlet temperature 50 °C, outlet 45 °C

(***) Measured at 1 m distance - Sound power values according to ISO 23741

CVCB NEW (2 pipes) CVCX NEW (4 pipes)

Inverter hydronic cassettes



Technical and construction features

The innovative CVCB NEW - CVCX NEW INVERTER hydronic cassettes with brushless DC motor are designed to fully satisfy the requirements of efficiency, silence and aesthetics required by the market.

The microprocessor control ensures accurate comfort in the environment.

The small dimensions meet the installation needs in false ceilings thanks to the reduced dimensions of 57 x 57 cm or 84 x 84 cm in the more powerful versions:

CVCB NEW (2 pipes) Box for 2 pipes system with electronic control and remote control

CVCX NEW (4 pipes) Cassette for 4-pipe system with electronic control and remote control

Unit composition:

- High efficiency finned coils and low pressure drops
- Internal closed cell insulation to minimize the heat dispersion and noise emission.
- Automatic flap movement.
- Pump for lifting the condensate up to a maximum of 200 mm, present as standard.
- Infrared control and condensate pump as standard.



INFRA RED CONTROL



SILENT VENTILATION



FAN DC BRUSHLESS



2 PIPES PLANT



4 PIPES PLANT



CONDENSATE PUMP

| Model | Heat power kW | Cooling power kW | Code | € |
|------------------------------|---------------|------------------|-----------------|-----------------|
| CVCB NEW 22 (2 pipes) | 2,24 | 2,00 | 61031200 | 840,00 |
| CVCB NEW 29 (2 pipes) | 2,61 | 2,98 | 61041200 | 890,00 |
| CVCB NEW 35 (2 pipes) | 4,63 | 3,96 | 61061200 | 920,00 |
| CVCB NEW 42 (2 pipes) | 4,95 | 4,20 | 61081200 | 990,00 |
| CVCB NEW 60 (2 pipes) | 8,49 | 7,84 | 61091200 | 1.290,00 |

| Model | Heat power kW | Cooling power kW | Code | € |
|------------------------------|---------------|------------------|-----------------|-----------------|
| CVCX NEW 35 (4 pipes) | 5,52 | 3,08 | 64020001 | 1.110,00 |
| CVCX NEW 50 (4 pipes) | 5,97 | 3,05 | 64030001 | 1.200,00 |
| CVCX NEW 60 (4 pipes) | 7,66 | 5,62 | 64040001 | 1.580,00 |

Accessories CVCB NEW (2 pipes) CVCX NEW (4 pipes)



3-way valve kit including 3-way valve with ON / OFF actuator complete with pipes

| | | |
|----------------------------|-----------------|---------------|
| mod. CVCB NEW 22÷42 | 61031201 | 100,00 |
| mod. CVCB NEW 60 | 61031202 | 80,00 |
| mod. CVCX NEW 35-50 | 64010017 | 180,00 |
| mod. CVCX NEW 60 | 64010018 | 146,00 |



Follow me remote control for mod. CVCB NEW / CVCX NEW

63000071 **160,00**



Wall digital control 1 for each unit for multiple management (from 2 to 6 units) for mod. CVCB NEW / CVCX NEW

64010012 **460,00**

CVCB NEW (2 pipes) CVCX NEW (4 pipes)

Inverter hydronic cassettes

3-way valve kit CVCB NEW (2 pipes) CVCX NEW (4 pipes)

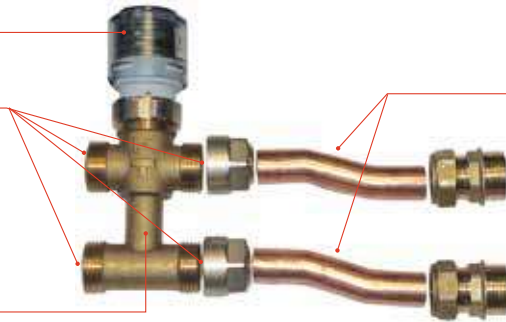
Action ON - OFF

O-ring

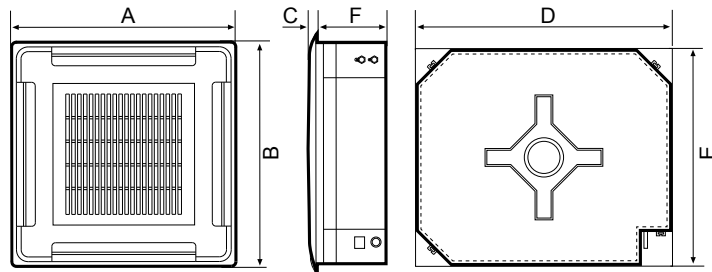
Copper pipes

Nipples

3-way valve body



Dimensions



CVCB NEW (2 pipes)

CVCX NEW (4 pipes)

| | 22 | 29 | 35 | 42 | 60 |
|---|-----|-----|-----|-----|-----|
| A | 647 | 647 | 647 | 647 | 950 |
| B | 647 | 647 | 647 | 647 | 950 |
| C | 50 | 50 | 50 | 50 | 45 |
| D | 575 | 575 | 575 | 575 | 840 |
| E | 575 | 575 | 575 | 575 | 840 |
| F | 261 | 261 | 261 | 261 | 300 |

| | 35 | 50 | 60 |
|---|-----|-----|-----|
| A | 647 | 647 | 950 |
| B | 647 | 647 | 950 |
| C | 50 | 50 | 46 |
| D | 575 | 575 | 840 |
| E | 575 | 575 | 840 |
| F | 261 | 261 | 300 |

Values in mm

Technical data table CVCB NEW (2 pipes)

| DESCRIPTION | | CVCB NEW 22 | CVCB NEW 29 | CVCB NEW 35 | CVCB NEW 42 | CVCB NEW 60 |
|-------------------|-----|-------------|-------------|-------------|-------------|-------------|
| Cooling power (1) | kW | 2,00 | 2,98 | 3,96 | 4,20 | 7,84 |
| Heat power (2) | kW | 2,24 | 2,61 | 4,63 | 4,95 | 8,49 |
| Sound level (*) | max | dB(A) | 39 | 39 | 42 | 44 |
| | med | dB(A) | 33 | 33 | 36 | 40 |
| | min | dB(A) | 27 | 27 | 30 | 34 |
| Electrical supply | | 230V/1/50Hz | | | | |
| Weight | Kg | 19 | | | | 33,5 |

- (1) Inlet air temperature: 27 ° C b.s./19.5° C b.u. maximum speed
 Inlet / outlet water temperature: 7 ° C / 12 ° C maximum speed (2)
 Inlet air temperature: 20 ° C d.b. maximum speed
 Inlet water temperature: 50 ° C maximum speed
 (3) At a distance of 1 m and reverberation time 0.5 s maximum speed

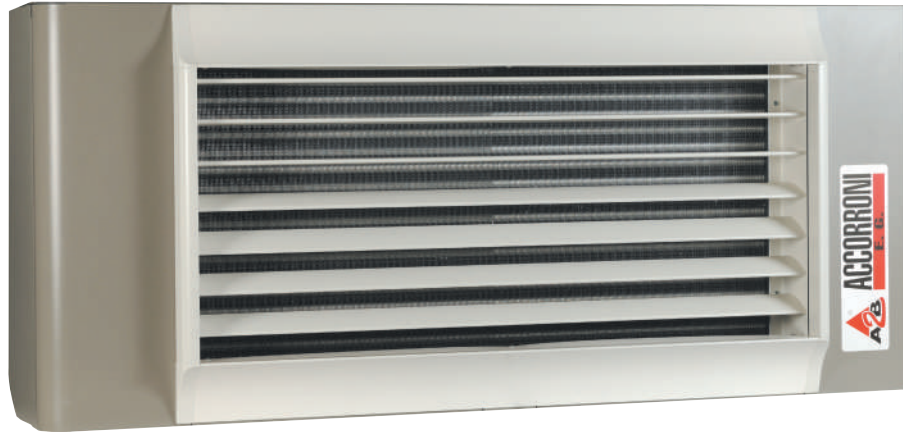
Technical data table CVCX NEW (4 pipes)

| DESCRIPTION | | CVCX NEW 35 | CVCX NEW 50 | CVCX NEW 60 |
|-------------------|-----|-------------|-------------|-------------|
| Cooling power (1) | kW | 3,08 | 3,41 | 5,62 |
| Heat power (2) | kW | 5,52 | 5,97 | 7,66 |
| Sound level (*) | max | dB(A) | 42 | 44 |
| | med | dB(A) | 35 | 39 |
| | min | dB(A) | 30 | 31 |
| Electrical supply | | 230V/1/50Hz | | |
| Weight | Kg | 19 | | 33,5 |

- (1) Inlet air temperature: 27 ° C b.s./19.5° C b.u. maximum speed
 Inlet / outlet water temperature: 7 ° C / 12 ° C maximum speed (2)
 Inlet air temperature: 20 ° C d.b. maximum speed
 Inlet water temperature: 50 ° C maximum speed
 (3) At a distance of 1 m and reverberation time 0.5 s maximum speed

AEROCLIMA STYLE

Horizontal Wall unit for heating and cooling



| Model | Cooling Output kW | Heating Output* kW | Heating Output** kW | Code | € |
|---------------------------|-------------------|--------------------|---------------------|-----------------|-----------------|
| AEROCLIMA STYLE 10 | 10,20 | 24,60 | 14,90 | 30400001 | 1.900,00 |
| AEROCLIMA STYLE 15 | 17,40 | 42,50 | 25,80 | 30410001 | 2.440,00 |

* heating power for intake water $T=70\text{ }^{\circ}\text{C}$

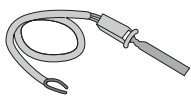
** heating power for intake water $T=50\text{ }^{\circ}\text{C}$

Accessories AEROCLIMA STYLE



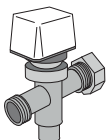
Remote control
whit thermostat
switch off summer/winter and
3 speeds selector

50005230 82,00



Fan control thermostat

30402004 36,00



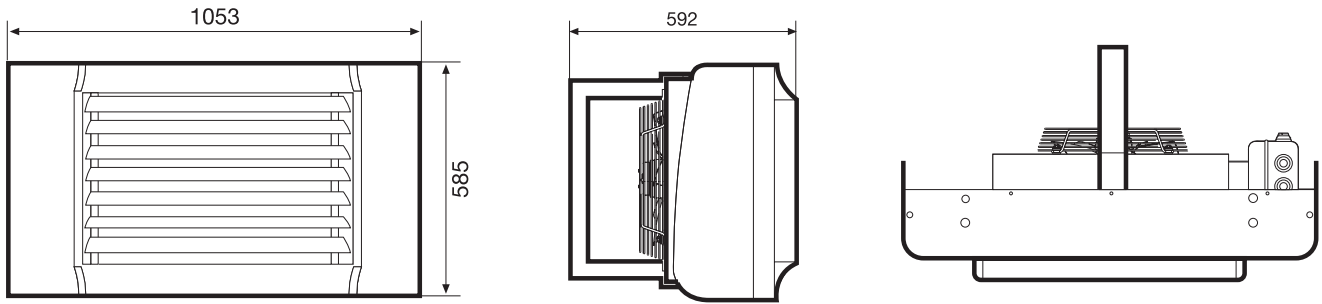
Kit 3-ways valve including
ON/OFF actuator
pipes and couplings

36205404 180,00

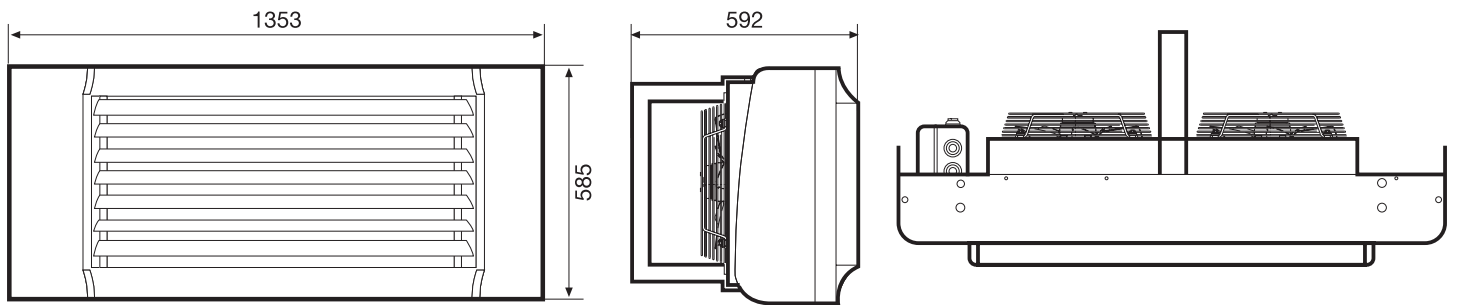
AEROCLIMA STYLE

Horizontal Wall unit for heating and cooling

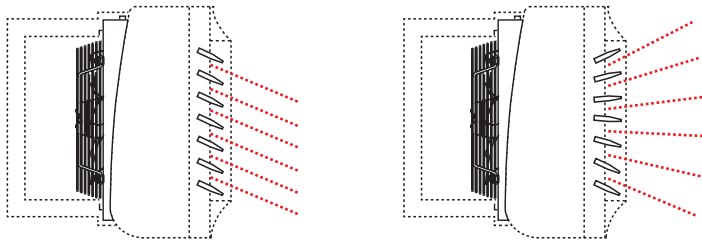
Dimensions aerotermino Aeroclima STYLE 10



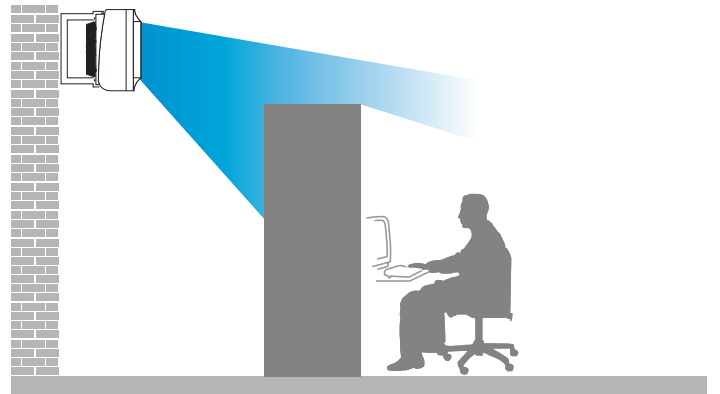
Dimensions aerotermino Aeroclima STYLE 15



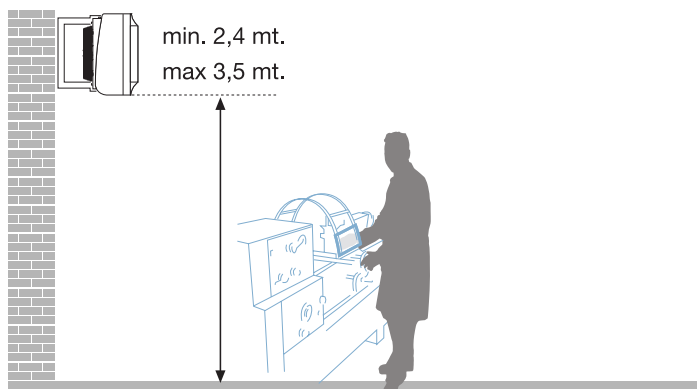
Possible fins orientation



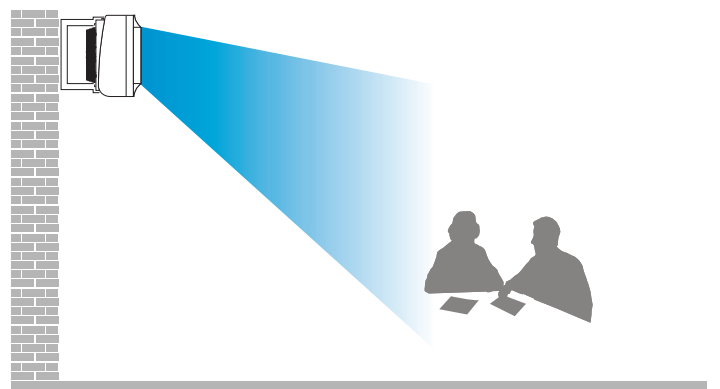
Wrong air flow direction



Installation's height



Optimal air flow direction



AEROCLIMA STYLE

Horizontal Wall unit for heating and cooling

Technical datasheet AEROCLIMA STYLE 10 - 15

| DESCRIPTION | U.M. | | STYLE 10 | STYLE 15 |
|--|--------------------------------|----------|---------------|----------------|
| Heating output - water inlet $\Delta T = 70\text{ }^{\circ}\text{C}$ ($\Delta T 10\text{ }^{\circ}\text{C}$) Room temperature $\Delta T = 20\text{ }^{\circ}\text{C}$ | kW | max | 24,60 | 42,50 |
| | | med | 22,80 | 32,40 |
| | | min | 19,60 | 26,70 |
| Water flow rate | l/h | | 2116 | 3655 |
| Water pressure drop | kPa | | 12,3 | 14,1 |
| Hydraulic circuit's volume | l | | 4,0 | 6,0 |
| Air temperature rise | $^{\circ}\text{C}$ | max | 33,5 | 31,5 |
| | | med | 34,1 | 34,9 |
| | | min | 35,9 | 37,2 |
| Heating output - water inlet $\Delta T = 50\text{ }^{\circ}\text{C}$ ($\Delta T 5\text{ }^{\circ}\text{C}$) Room temperature $\Delta T = 20\text{ }^{\circ}\text{C}$ | kW | max | 14,90 | 25,80 |
| | | med | 13,80 | 19,60 |
| | | min | 11,90 | 16,20 |
| Water flow rate | l/h | | 2563 | 4438 |
| Water pressure drop | kPa | | 16,2 | 21,4 |
| Air temperature rise | $^{\circ}\text{C}$ | max | 20,3 | 19,1 |
| | | med | 20,7 | 21,1 |
| | | min | 21,8 | 22,6 |
| Cooling output Water inlet $\Delta T = 7\text{ }^{\circ}\text{C}$ ($\Delta T 5\text{ }^{\circ}\text{C}$) Room temperature d.b. $27\text{ }^{\circ}\text{C}$, w.b. $19\text{ }^{\circ}\text{C}$ (47% R.H.) | kW | max | 10,20 | 17,40 |
| | | med | 9,60 | 13,90 |
| | | min | 8,48 | 11,80 |
| Sensitive cooling capacity Water inlet $\Delta T = 7\text{ }^{\circ}\text{C}$ ($\Delta T 5\text{ }^{\circ}\text{C}$) Room temperature d.b. $27\text{ }^{\circ}\text{C}$, w.b. $19\text{ }^{\circ}\text{C}$ (47% R.H.) | kW | max | 8,39 | 14,50 |
| | | med | 7,78 | 11,10 |
| | | min | 6,72 | 9,20 |
| Water flow rate | l/h | | 1754 | 2993 |
| Water pressure drop | kPa | | 9,2 | 11,4 |
| Air flow rate | m^3/h | max | 2180 | 4000 |
| | | med | 1980 | 2750 |
| | | min | 1620 | 2130 |
| Auxiliary fan speeds (*) | n. / (m^3/h) | | 15/(450÷2200) | 15/(1080÷4600) |
| Fans number | n. | | 1 | 2 |
| Sound pressure level (5 m. in open field, direction factor = 2) | dB(A) | max | 49,5 | 49,6 |
| | | med | 47,8 | 42,3 |
| | | min | 45,6 | 37,7 |
| Sound power level | dB(A) | max | 71,5 | 71,6 |
| | | med | 69,8 | 64,3 |
| | | min | 67,6 | 59,7 |
| Sound pressure auxiliary speeds (**) | dB(A) | | 32,0÷56,3 | 34,8÷65,3 |
| Power supply | | | 230V/1/50Hz | |
| Launching | m | vel. max | 20 | 22 |
| | | vel. min | 14 | 15 |
| Electrical power input | W | max | 115 | 220 |
| | | med | 105 | 200 |
| | | min | 85 | 180 |
| Max absorbed current | A | | 0,63 | 1,20 |
| Fan/s IP code | | | IP44 | |
| Unit IP code | | | IP24 | |
| Functional limits | | | | |
| Water inlet temperature min÷max | $^{\circ}\text{C}$ | | 3÷80 | |
| Max pressure | kPa | | 800 | |
| Air inlet temperature max | $^{\circ}\text{C}$ | | 45 | |
| Net weight | kg | | 44 | 59 |

(*) Additional fan speed selectable

(**) Sound pressure level calculated, for all speeds, at 1 m, in open field with and direction factor = 2, in the value of min. and max. of the speeds available.

LC

Hot only hydronic suspended unit heaters



LC 28



LC 40

Technical and construction features

The new LC water air heater has been designed for heating industrial, artisanal, commercial, sports and tertiary environments. This new system terminal consists of a 2-row coil and a single speed axial fan for the LC 28 version and two single speed axial fans for the LC 40 version. The main components of the LC air heater are:

- Pre-painted steel sheet structure complete with fins adjustable deflectors placed on the delivery in such a way as to obtain a correct distribution of the flow of hot air in the environment to be conditioned
- 2-row heat exchange coil made of copper and aluminum fins with high thermal conductivity
- Axial fans with balanced blades inserted in a suitable mouthpiece that enhances its performance and reduces noise to a minimum, complete with safety grille in painted steel

The main features of the LC air heater are:

- Low noise with external rotor fan motor - Compact size
- Reversibility of hydraulic connections
- Can also be mounted on the ceiling with a special kit



MADE IN ITALY



SILENT VENTILATION



BATTERY REVERSIBLE



ONLY HEATING



INSTALLATION EASY

installation supplied as an accessory

- Support brackets supplied as an accessory
- Special compartment for electrical connections inserted on board
- Single-phase power supply

| Model | Thermal power kW | Air flow ³ /h | Code | € |
|----------------------------------|------------------|--------------------------|-----------------|-----------------|
| LC 28 hot only air heater | 28,1 | 2250 | 30401020 | 1.150,00 |
| LC 40 hot only air heater | 42,4 | 4300 | 30401030 | 1.780,00 |

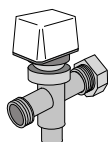
Accessories LC 28 - LC 40



On / off room thermostat with display

75100007

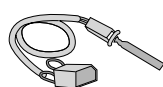
80,00



3-way valve with ON / OFF actuator

36205404

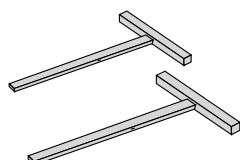
180,00



Thermostat of mechanical consent

36205214

36,00



Support shelf for wall installation

30240090

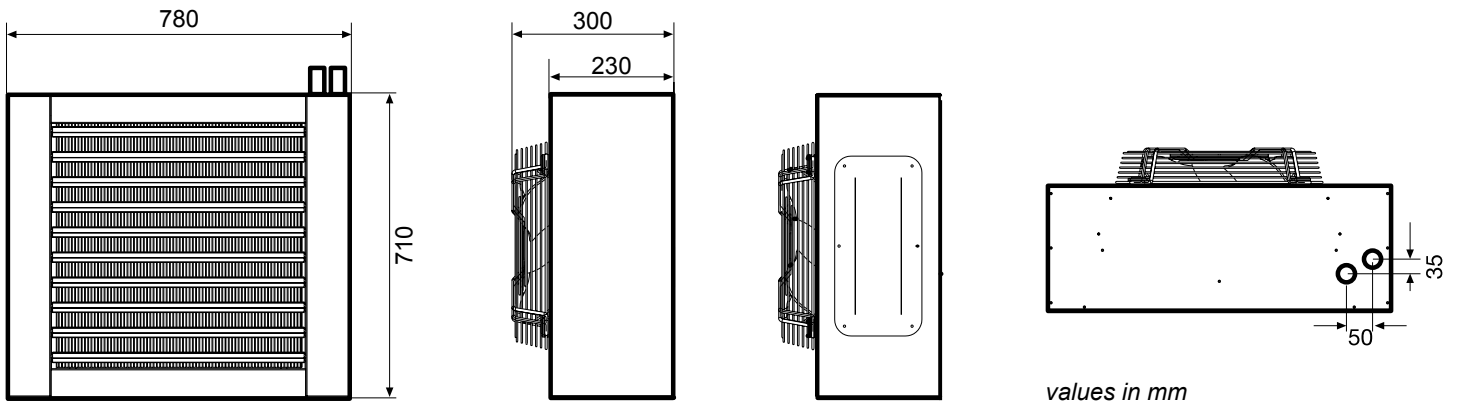
110,00

LC

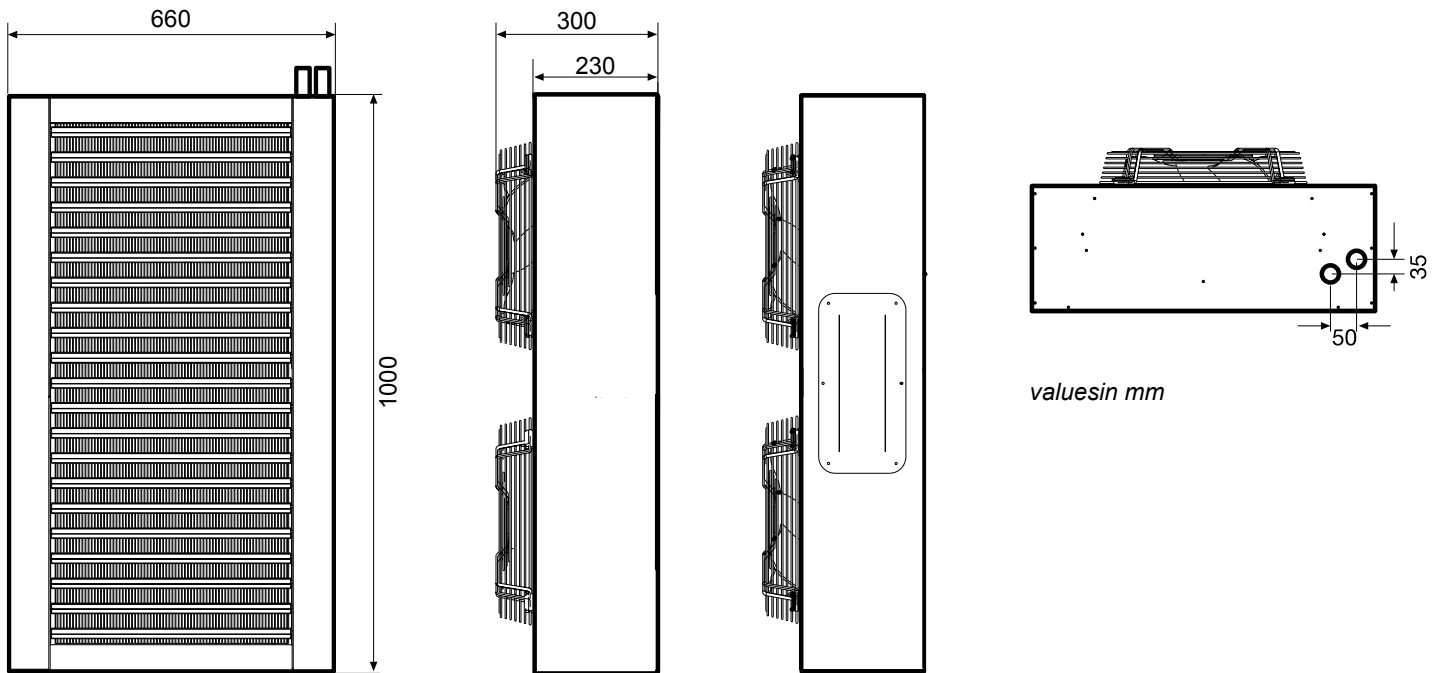
Hot only hydronic suspended unit heaters

Dimensions LC

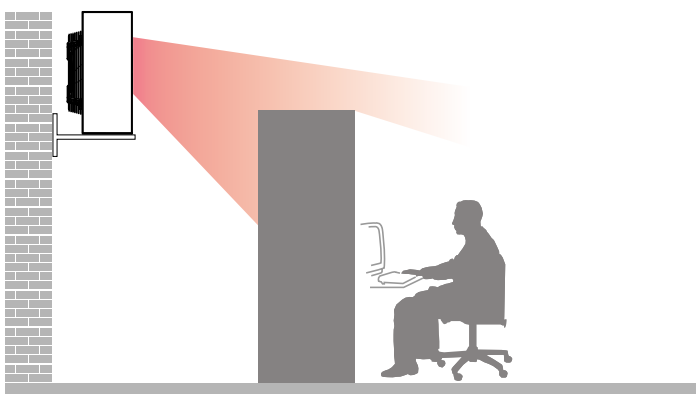
LC 28



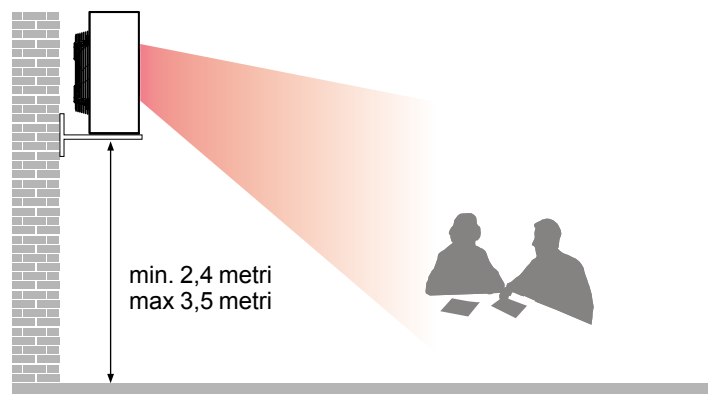
LC 40



Incorrect air flow



Optimal air flow



LC 28 - Table 1 - heating yields ΔT 5 °C

| DESCRIPTION | | Thermal capacity (kW) variable temp. air to d.b. (°C) | | | |
|----------------------------|-------|---|-------|-------|-------|
| Inlet air temp °C | | 20 | 15 | 10 | 5 |
| Air flow m ³ /h | | 2250 | | | |
| Water inlet | 45 °C | 13,79 | 17,09 | 20,50 | 24,04 |
| | 50 °C | 17,00 | 20,40 | 23,82 | 27,36 |
| | 55 °C | 20,32 | 23,62 | 27,14 | 30,68 |

LC 28 - Table 2 - heating yields ΔT 10 °C

| DESCRIPTION | | Thermal capacity (kW) variable temp. air to d.b. (°C) | | | |
|----------------------------|-------|---|-------|-------|-------|
| Inlet air temp °C | | 20 | 15 | 10 | 5 |
| Air flow m ³ /h | | 2250 | | | |
| Water inlet | 60 °C | 21,58 | 25,01 | 28,53 | 32,17 |
| | 65 °C | 24,89 | 28,32 | 31,84 | 35,48 |
| | 70 °C | 28,10 | 31,64 | 35,28 | 38,92 |
| | 80 °C | 34,68 | 43,08 | 41,89 | 45,65 |

LC 28 - Tabella 3 - heating yields ΔT 15 °C

| DESCRIPTION | | Thermal capacity (kW) variable temp. air to d.b. (°C) | | | |
|----------------------------|-------|---|-------|-------|-------|
| Inlet air temp °C | | 20 | 15 | 10 | 5 |
| Air flow m ³ /h | | 2250 | | | |
| Water inlet | 60 °C | 29,65 | 34,80 | 39,96 | 45,50 |
| | 65 °C | 34,65 | 39,80 | 45,14 | 50,66 |
| | 70 °C | 39,65 | 44,98 | 50,32 | 55,84 |
| | 80 °C | 49,64 | 54,98 | 60,47 | 66,17 |

LC 28 - Tabella 3 - heating yields ΔT 20 °C

| DESCRIPTION | | Thermal capacity (kW) variable temp. air to d.b. (°C) | | | |
|----------------------------|-------|---|-------|-------|-------|
| Inlet air temp °C | | 20 | 15 | 10 | 5 |
| Air flow m ³ /h | | 2250 | | | |
| Water inlet | 60 °C | 32,91 | 38,97 | 45,15 | 51,87 |
| | 65 °C | 38,46 | 44,58 | 51,00 | 57,75 |
| | 70 °C | 44,01 | 50,37 | 56,86 | 63,65 |
| | 80 °C | 55,10 | 61,57 | 68,33 | 75,43 |

LC 40 - Table 4 - heating yields ΔT 5 °C

| DESCRIPTION | | Thermal capacity (kW) variable temp. air to d.b. (°C) | | | |
|----------------------------|-------|---|-------|-------|-------|
| Inlet air temp °C | | 20 | 15 | 10 | 5 |
| Air flow m ³ /h | | 4300 | | | |
| Water inlet | 45 °C | 20,81 | 25,78 | 30,94 | 36,28 |
| | 50 °C | 25,66 | 30,79 | 35,94 | 41,28 |
| | 55 °C | 30,66 | 35,63 | 40,95 | 46,29 |

LC 40 - Table 5 - heating yields ΔT 10 °C

| DESCRIPTION | | Thermal capacity (kW) variable temp. air to d.b. (°C) | | | |
|----------------------------|-------|---|-------|-------|-------|
| Inlet air temp °C | | 20 | 15 | 10 | 5 |
| Air flow m ³ /h | | 4300 | | | |
| Water inlet | 60 °C | 32,56 | 37,74 | 43,05 | 48,54 |
| | 65 °C | 37,56 | 42,74 | 48,05 | 53,54 |
| | 70 °C | 42,40 | 47,74 | 53,23 | 58,73 |
| | 80 °C | 52,32 | 65,01 | 63,20 | 68,88 |

LC 40 - Tabella 6 - heating yields ΔT 15 °C

| DESCRIPTION | | Thermal capacity (kW) variable temp. air to d.b. (°C) | | | |
|----------------------------|-------|---|-------|-------|-------|
| Inlet air temp °C | | 20 | 15 | 10 | 5 |
| Air flow m ³ /h | | 4300 | | | |
| Water inlet | 60 °C | 43,88 | 51,50 | 57,54 | 67,34 |
| | 65 °C | 51,28 | 58,92 | 66,80 | 72,95 |
| | 70 °C | 58,62 | 64,72 | 70,44 | 78,17 |
| | 80 °C | 69,08 | 76,44 | 81,63 | 89,32 |

LC 40 - Tabella 6 - heating yields ΔT 20 °C

| DESCRIPTION | | Thermal capacity (kW) variable temp. air to d.b. (°C) | | | |
|----------------------------|-------|---|-------|-------|--------|
| Inlet air temp °C | | 20 | 15 | 10 | 5 |
| Air flow m ³ /h | | 4300 | | | |
| Water inlet | 60 °C | 48,04 | 56,89 | 65,01 | 73,65 |
| | 65 °C | 56,15 | 64,64 | 73,44 | 82,01 |
| | 70 °C | 64,25 | 73,03 | 81,87 | 90,38 |
| | 80 °C | 80,44 | 89,27 | 98,39 | 105,60 |

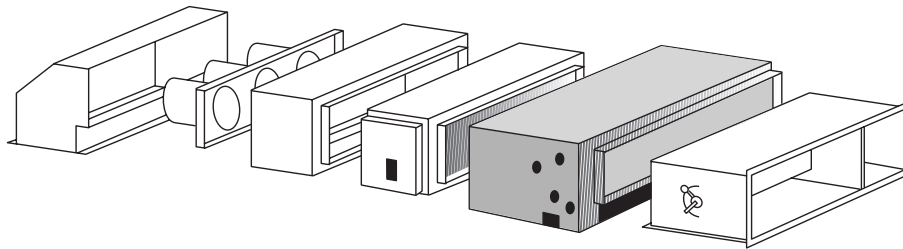
Air heaters technical data table LC 28 - LC 40

| DESCRIPTION | U.M. | LC 28 | LC 40 |
|----------------------------------|-------------------|-------------|----------|
| Thermal power (1) | kW | 28,1 | 42,4 |
| Thermal power (2) | kW | 17,0 | 25,66 |
| Air flow | m ³ /h | 2250 | 4300 |
| Water flow | l/h | 2420 | 3640 |
| Load losses | kPa | 12,6 | 21,4 |
| Number of fans | | 1 | 2 |
| Speed number | | 1 | |
| Fan diameter | mm | 350 | 350 x 2 |
| Number of revolutions per minute | n. | 1300 | 1300 x 2 |
| Launch | m | 16 | 20 |
| Sound pressure | dB(A) | 52 | 65 |
| Hydraulic connections | | 1" | |
| Power supply | | 230V/1/50Hz | |
| Electric absorption | W | 90 | 180 |
| Max inlet water temperature | °C | 80 | |
| Max inlet air temperature | °C | 50 | |
| Max working pressure | kPa | 800 | |
| Degree of protection | | IP 24 | |
| Weight | Kg | 38 | 63 |

(1) Winter heating: Ambient air temperature 20 °C - Inlet water temperature 70 °C, ΔT 10 °C (2) Winter heating: Ambient air temperature 20 °C - Inlet water temperature 50 °C, ΔT 5 °C

MHD

Ducted terminal air treatment units



| Model | Cooling Output kW | Heating Output kW | Air Flow Rate m ³ /h | Code | € |
|---|-------------------|-------------------|---------------------------------|-----------------|-----------------|
| MHD 4/3 (heat-exchanger 3 rows) | 3,87 | 8,31 | 837 | 52200000 | 850,00 |
| MHD 7/3 (heat-exchanger 3 rows) | 7,04 | 14,19 | 1423 | 52220000 | 1.140,00 |
| MHD 9/3 (heat-exchanger 3 rows) | 9,20 | 18,71 | 1951 | 52240000 | 1.240,00 |
| MHD 11/3 (heat-exchanger 3 rows) | 10,59 | 21,34 | 2131 | 52260000 | 1.320,00 |
| MHD 13/3 (heat-exchanger 3 rows) | 13,09 | 28,25 | 3002 | 52280000 | 1.930,00 |
| MHD 28/4 (heat-exchanger 4 rows) | 27,81 | 53,88 | 4678 | 52300000 | 3.300,00 |
| MHD 51/4 (heat-exchanger 4 rows) | 50,63 | 100,06 | 9250 | 52320000 | 6.080,00 |

Data measured based on the following conditions:

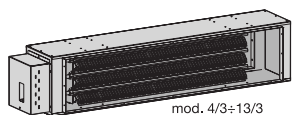
Standard unit (output static pressure = 0 Pa)

Max fan speed

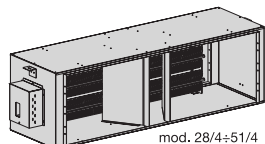
Cooling: incoming water temperature 7 °C - outgoing water temperature 12 °C - incoming air temperature 27 °C dry bulb - 19 °C wet bulb

Heating: incoming water temperature 70 °C - outgoing water temperature 60 °C - incoming air temperature 20 °C

Accessories MHD



mod. 4/3-13/3



mod. 28/4-51/4

Electric heating section (380 V)

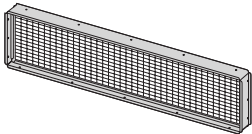
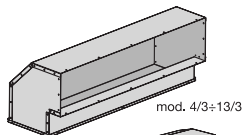
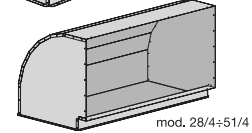
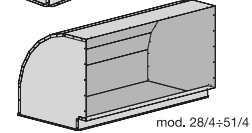
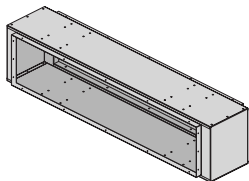
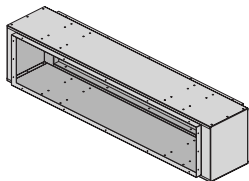
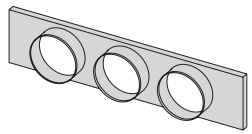
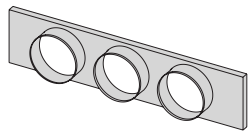
| Electric heater | | | | |
|-----------------|-----------|-------------|----------|----------|
| 4/3 | 7/3 - 9/3 | 11/3 - 13/3 | 28/4 | 51/4 |
| 3.000 W | 6.000 W | 9.000 W | 12.000 W | 18.000 W |

| | | |
|------------------|-----------------|-----------------|
| mod. 4/3 | 52202805 | 632,00 |
| mod. 7/3 | 52222805 | 836,00 |
| mod. 11/3 | 52262805 | 996,00 |
| mod. 13/3 | 52282805 | 996,00 |
| mod. 28/4 | 52302805 | 1.060,00 |
| mod. 51/4 | 52322805 | 1.140,00 |

MHD

Ducted terminal air treatment units

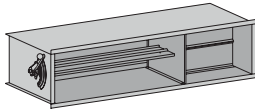
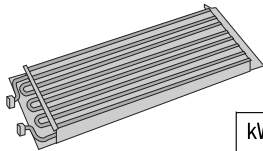
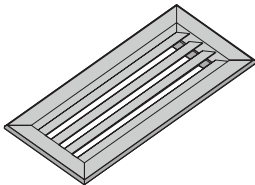
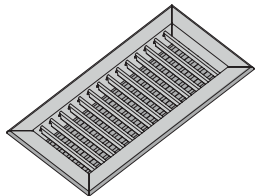
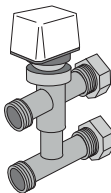

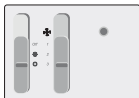

Accessories MHD

| | | Code | € | | | | | | | | | | | | | | | | |
|--|---|---|-----------------|-------------|-------------------------------------|-----------|--|--|--|-----|-----------|-------------|------|------|-----------|-----------|-----------|-----------|-----------|
|  | Extractable air intake filter (metal frame + filter) | mod. 4/3 | 52205600 48,00 | | | | | | | | | | | | | | | | |
| | | mod. 7/3 | 52225600 60,00 | | | | | | | | | | | | | | | | |
| | | mod. 9/3 | 52245600 64,00 | | | | | | | | | | | | | | | | |
| | | mod. 11/3 | 52265600 66,00 | | | | | | | | | | | | | | | | |
| | | mod. 13/3 | 52285600 70,00 | | | | | | | | | | | | | | | | |
| | | mod. 28/4 | 52305600 120,00 | | | | | | | | | | | | | | | | |
| | | mod. 51/4 | 52325600 176,00 | | | | | | | | | | | | | | | | |
|   | Air intake plenum 90° | mod. 4/3 | 52202220 126,00 | | | | | | | | | | | | | | | | |
| | | mod. 7/3 | 52222220 154,00 | | | | | | | | | | | | | | | | |
| | | mod. 9/3 | 52242220 160,00 | | | | | | | | | | | | | | | | |
| | | mod. 11/3 | 52262220 170,00 | | | | | | | | | | | | | | | | |
| | | mod. 13/3 | 52282220 186,00 | | | | | | | | | | | | | | | | |
| | | mod. 28/4 | 52302220 274,00 | | | | | | | | | | | | | | | | |
| | | mod. 51/4 | 52322220 372,00 | | | | | | | | | | | | | | | | |
|  | Air delivery plenum 90° | mod. 4/3 | 52202221 136,00 | | | | | | | | | | | | | | | | |
| | | mod. 7/3 | 52222221 164,00 | | | | | | | | | | | | | | | | |
| | | mod. 9/3 | 52242221 170,00 | | | | | | | | | | | | | | | | |
| | | mod. 11/3 | 52262221 184,00 | | | | | | | | | | | | | | | | |
| | | mod. 13/3 | 52282221 198,00 | | | | | | | | | | | | | | | | |
| | | mod. 28/4 | 52302221 290,00 | | | | | | | | | | | | | | | | |
| | | mod. 51/4 | 52322221 398,00 | | | | | | | | | | | | | | | | |
|  | Straight intake plenum | mod. 4/3 | 52202210 154,00 | | | | | | | | | | | | | | | | |
| | | mod. 7/3 | 52222210 178,00 | | | | | | | | | | | | | | | | |
| | | mod. 9/3 | 52242210 194,00 | | | | | | | | | | | | | | | | |
| | | mod. 11/3 | 52262210 220,00 | | | | | | | | | | | | | | | | |
| | | mod. 13/3 | 52282210 250,00 | | | | | | | | | | | | | | | | |
| | | mod. 28/4 | 52302210 340,00 | | | | | | | | | | | | | | | | |
| | | mod. 51/4 | 52322210 464,00 | | | | | | | | | | | | | | | | |
|  | Air delivery straight plenum | mod. 4/3 | 52202211 164,00 | | | | | | | | | | | | | | | | |
| | | mod. 7/3 | 52222211 188,00 | | | | | | | | | | | | | | | | |
| | | mod. 9/3 | 52242211 204,00 | | | | | | | | | | | | | | | | |
| | | mod. 11/3 | 52262211 236,00 | | | | | | | | | | | | | | | | |
| | | mod. 13/3 | 52282211 268,00 | | | | | | | | | | | | | | | | |
| | | mod. 28/4 | 52302211 364,00 | | | | | | | | | | | | | | | | |
| | | mod. 51/4 | 52322211 492,00 | | | | | | | | | | | | | | | | |
|  | Air intake plenum for flexible ducts | mod. 4/3 | 52202216 120,00 | | | | | | | | | | | | | | | | |
| | | mod. 7/3 | 52222216 142,00 | | | | | | | | | | | | | | | | |
| | | mod. 9/3 | 52242216 154,00 | | | | | | | | | | | | | | | | |
| | | mod. 11/3 | 52262216 202,00 | | | | | | | | | | | | | | | | |
| | | mod. 13/3 | 52282216 204,00 | | | | | | | | | | | | | | | | |
| | | mod. 28/4 | 52302216 278,00 | | | | | | | | | | | | | | | | |
| | | mod. 51/4 | 52322216 364,00 | | | | | | | | | | | | | | | | |
|  | Insulated air delivery plenum for flexible ducts | <table border="1"> <thead> <tr> <th colspan="5">Number of connection for each model</th> </tr> <tr> <th>4/3</th> <th>7/3 - 9/3</th> <th>11/3 - 13/3</th> <th>28/4</th> <th>51/4</th> </tr> </thead> <tbody> <tr> <td>2 x Ø 200</td> <td>3 x Ø 200</td> <td>4 x Ø 200</td> <td>2 x Ø 400</td> <td>4 x Ø 400</td> </tr> </tbody> </table> | | | Number of connection for each model | | | | | 4/3 | 7/3 - 9/3 | 11/3 - 13/3 | 28/4 | 51/4 | 2 x Ø 200 | 3 x Ø 200 | 4 x Ø 200 | 2 x Ø 400 | 4 x Ø 400 |
| | | Number of connection for each model | | | | | | | | | | | | | | | | | |
| | | 4/3 | 7/3 - 9/3 | 11/3 - 13/3 | 28/4 | 51/4 | | | | | | | | | | | | | |
| | | 2 x Ø 200 | 3 x Ø 200 | 4 x Ø 200 | 2 x Ø 400 | 4 x Ø 400 | | | | | | | | | | | | | |
| | | mod. 4/3 | 52202215 134,00 | | | | | | | | | | | | | | | | |
| | | mod. 7/3 | 52222215 156,00 | | | | | | | | | | | | | | | | |
| | | mod. 9/3 | 52242215 168,00 | | | | | | | | | | | | | | | | |
| mod. 11/3 | 52262215 184,00 | | | | | | | | | | | | | | | | | | |
| mod. 13/3 | 52282215 288,00 | | | | | | | | | | | | | | | | | | |
| mod. 28/4 | 52302215 300,00 | | | | | | | | | | | | | | | | | | |
| mod. 51/4 | 52322215 406,00 | | | | | | | | | | | | | | | | | | |


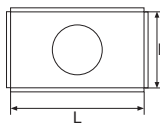

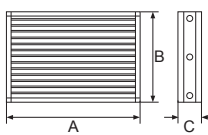

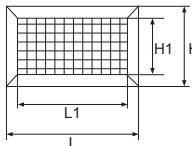

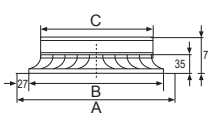

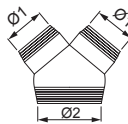

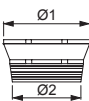


MHD

Ducted terminal air treatment units

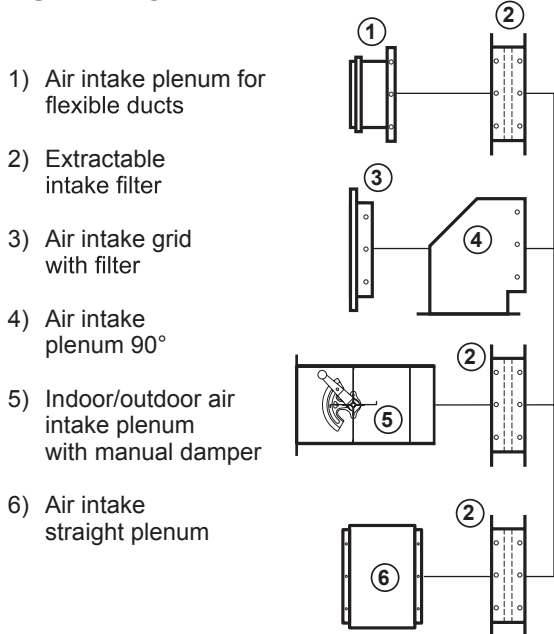
Accessories MHD

| | | Code | € | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-----------------|--------------|--------------|---------------|---------------|----------------|----------------|----|------|------|------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|--------|--------|----------|----------|--------|
|  <p>Indoor/outdoor air intake plenum with manual damper</p> | mod. 4/3 | 52202205 | 330,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 7/3 | 52222205 | 418,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 9/3 | 52242205 | 438,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 11/3 | 52262205 | 546,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 13/3 | 52282205 | 646,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 28/4 | 52302205 | 912,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 51/4 | 52322205 | 1.400,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>Additional heat-exchanger</p> <table border="1"> <thead> <tr> <th></th> <th>4/3 1 row</th> <th>7/3 1 row</th> <th>9/3 1 row</th> <th>11/3 1 row</th> <th>13/3 1 row</th> <th>28/4 2 rows</th> <th>51/4 2 rows</th> </tr> </thead> <tbody> <tr> <td>kW</td> <td>4,19</td> <td>6,99</td> <td>9,15</td> <td>10,54</td> <td>13,98</td> <td>38,83</td> <td>70,19</td> </tr> <tr> <td>kcal/h</td> <td>3.607</td> <td>6.031</td> <td>7.890</td> <td>9.086</td> <td>12.057</td> <td>33.475</td> <td>60.514</td> </tr> </tbody> </table> | | 4/3 1 row | 7/3 1 row | 9/3 1 row | 11/3 1 row | 13/3 1 row | 28/4 2 rows | 51/4 2 rows | kW | 4,19 | 6,99 | 9,15 | 10,54 | 13,98 | 38,83 | 70,19 | kcal/h | 3.607 | 6.031 | 7.890 | 9.086 | 12.057 | 33.475 | 60.514 | mod. 4/3 | 52202800 | 202,00 |
| | | 4/3 1 row | 7/3 1 row | 9/3 1 row | 11/3 1 row | 13/3 1 row | 28/4 2 rows | 51/4 2 rows | | | | | | | | | | | | | | | | | | | |
| | kW | 4,19 | 6,99 | 9,15 | 10,54 | 13,98 | 38,83 | 70,19 | | | | | | | | | | | | | | | | | | | |
| | kcal/h | 3.607 | 6.031 | 7.890 | 9.086 | 12.057 | 33.475 | 60.514 | | | | | | | | | | | | | | | | | | | |
| | mod. 7/3 | 52222800 | 290,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 9/3 | 52242800 | 300,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 11/3 | 52262800 | 332,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 13/3 | 52282800 | 396,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| mod. 28/4 | 52302800 | 868,00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| mod. 51/4 | 52322800 | 1.378,00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>Air intake grid (aluminium metal frame + filter)</p> | mod. 4/3 | 52202230 | 156,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 7/3 | 52222230 | 176,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 9/3 | 52242230 | 192,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 11/3 | 52262230 | 218,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 13/3 | 52262230 | 218,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 28/4 | 52302230 | 336,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 51/4 | 52322230 | 460,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>Air delivery grid with adjustable fins (metal frame, without filter)</p> | mod. 4/3 | 52202231 | 156,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 7/3 | 52222231 | 176,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 9/3 | 52242231 | 192,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 11/3 | 52262231 | 218,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 13/3 | 52262231 | 218,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | mod. 28/4 | 52302231 | 336,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| |  <p>3-way on-off valve for 2-pipe systems</p> | mod. 4/3 Ø 1/2" | 37900080 | 170,00 | | | | | | | | | | | | | | | | | | | | | | | |
| mod. 7/3 Ø 3/4" | | 37900081 | 178,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| mod. 9/3-11/3 Ø 3/4" | | 37900082 | 204,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| mod. 13/3 Ø 1" | | 37900083 | 204,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| mod. 28/4 Ø 1" | | 37900084 | 608,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| mod. 51/4 Ø 1" 1/2 | | 37900085 | 680,00 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>Mechanical consent thermostat for wall electronic room thermostat or basic control</p> | 50005205 | 36,00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>Wall base control for the management of the 3 speeds and for the winter / summer selection</p> | 36205212 | 52,00 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  <p>Wall-mounted electronic room thermostat with summer-off-winter selector and 3-speed switch</p> | 50005230 | 82,00 | | | | | | | | | | | | | | | | | | | | | | | | | |

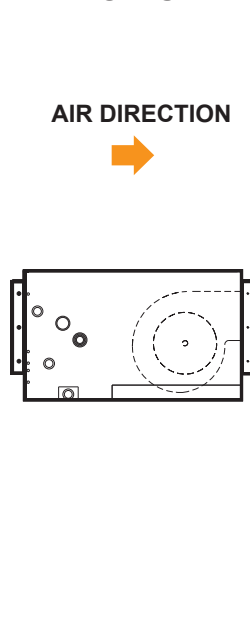
Accessories MHD

| | | Code | € |
|---|--|--|-------------------------------|
|  | Insulated plenum designed for 3 entrances, made of galvanized sheet with external insulation in closed cell polyethylene 3 mm thick and equipped as standard with a circular PPS collar from 150/200 mm (L 410 mm - H 210 mm). |  | 37900069 138,00 |
|  | Calibration damper for plenum consisting of one frame and a double row of horizontal flaps and verticals which are individually adjustable. (A 385 mm - B 180 mm - C 55 mm) |  | 37900073 42,00 |
|  | Delivery grille in white painted aluminum consisting of a frame and a double row of flaps horizontally and vertically individually adjustable with clip fixing. (L 432 mm - L1 400 mm - H 232 mm - H1 200 mm) |  | 37900070 70,00 |
|  | Circular diffuser in white painted aluminum RAL - 9016 with butterfly damper and integrated collar. (A 310 mm - B 260 mm - C 200 mm) |  | 37900027 108,00 |
|  | 3-way insulated branch, operating temperature 0 ° C to +70 ° C, PP material and coating polyethylene insulation with aluminum coating. (Ø1 200 mm - Ø2 250 mm) |  | 37900216 110,00 |
|  | Insulated reduction for 3-way derivation insulated, operating temperature from 0 ° C to +70 ° C, PP material and aluminum coating. (Ø1 250 mm - Ø2 200 mm) |  | 37900446 38,00 |
|  | Kit 10 clamps Ø 60 - 325 | | 37900017 62,00 |
|  | Junction sleeve flex tube Ø 200 | | 37900051 38,00 |

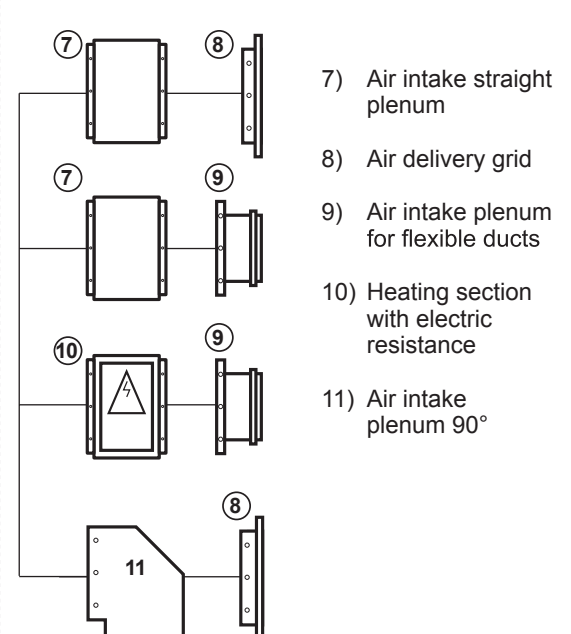
ASPIRATION



BASIC UNIT



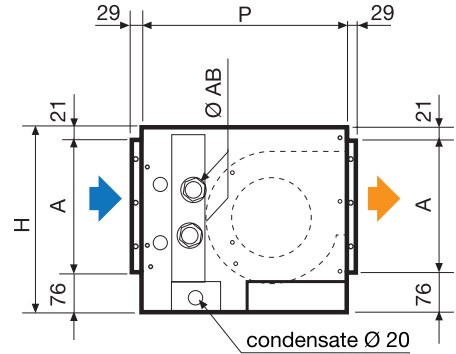
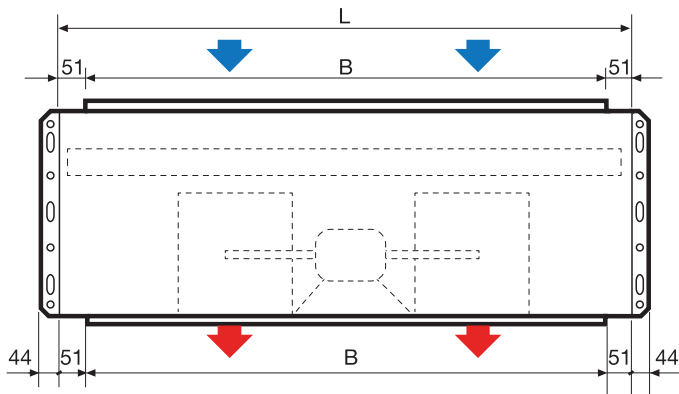
AIR DELIVERY



MHD

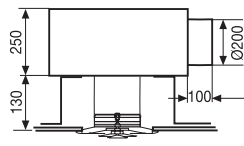
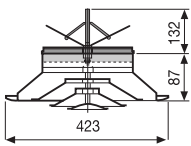
Ducted terminal air treatment units

Dimensions MHD



Diffuseur circulaire

Connecting plenum



| Mod. | 4/3 | 7/3 | 9/3 | 11/3 | 13/3 | 28/3 | 51/4 |
|------|------|------|------|------|------|-------|-------|
| A | 197 | 197 | 197 | 222 | 272 | 572 | 572 |
| B | 548 | 898 | 898 | 1237 | 1237 | 1239 | 1926 |
| L | 650 | 1000 | 1000 | 1339 | 1339 | 1341 | 2028 |
| P | 533 | 533 | 533 | 533 | 533 | 853 | 853 |
| H | 299 | 299 | 299 | 324 | 374 | 675 | 675 |
| Ø AB | 1/2" | 1/2" | 1/2" | 3/4" | 1" | 1"1/4 | 1"1/2 |

Values in mm

Technical datasheet MHD

| DESCRIPTION | U.M. | 4/3 | 7/3 | 9/3 | 11/3 | 13/3 | 28/4 | 51/4 | |
|---|-------------------|-------------|-------|-------|-------|-------|-------|--------|------|
| Total cooling output (**) | kW | 3,87 | 7,04 | 9,20 | 10,59 | 13,09 | 27,81 | 50,63 | |
| Heating output standard battery 70 °C (**) | kW | 8,31 | 14,19 | 18,71 | 21,34 | 28,25 | 53,88 | 100,06 | |
| Heating output standard battery 60 °C (**) | kW | 6,69 | 11,43 | 15,07 | 17,19 | 22,76 | 43,41 | 80,61 | |
| Air flow rate (**) | m ³ /h | max. | 837 | 1423 | 1951 | 2131 | 3002 | 4678 | 9250 |
| | | med. | 739 | 1149 | 1686 | 1801 | 2282 | 3733 | 7470 |
| | | min. | 644 | 852 | 1278 | 1275 | 1597 | 3066 | 6151 |
| Total cooling output (***) | kW | 3,51 | 6,16 | 8,56 | 9,86 | 12,44 | 25,98 | 47,30 | |
| Heating output standard battery 70 °C (***) | kW | 7,03 | 12,04 | 17,05 | 19,43 | 26,38 | 49,24 | 91,48 | |
| Heating output standard battery 50 °C (***) | kW | 4,46 | 8,47 | 11,17 | 12,74 | 16,87 | 32,18 | 59,76 | |
| Air flow rate (***) | m ³ /h | max. | 598 | 1017 | 1601 | 1749 | 2615 | 3875 | 7662 |
| | | med. | 506 | 786 | 1435 | 1532 | 2014 | 3155 | 6311 |
| | | min. | 413 | 448 | 1026 | 959 | 1228 | 2486 | 4988 |
| Water flow rate (cooling) | l/h | 604 | 1061 | 1472 | 1696 | 2140 | 4469 | 8137 | |
| Water pressure drop (cooling) | kPa | 15,2 | 23,7 | 29,4 | 27,6 | 32,5 | 29,6 | 34,8 | |
| Water flow rate (heating) | l/h | 605 | 1036 | 1467 | 1671 | 2269 | 4235 | 7867 | |
| Water pressure drop (heating) | kPa | 11,9 | 17,6 | 22,7 | 20,9 | 28,4 | 20,7 | 25,3 | |
| Heat-exchanger rows | n. | 3 | 3 | 3 | 3 | 3 | 4 | 4 | |
| Heat-exchanger connections | " | 1/2 | 1/2 | 3/4 | 3/4 | 1 | 1 1/4 | 1 1/4 | |
| Air delivery static pressure | Pa | 80 | 80 | 80 | 80 | 100 | 150 | 150 | |
| Minimum back-pressure | Pa | 0 | 0 | 0 | 0 | 0 | 60 | 60 | |
| Fans | n. | 1 | 2 | 2 | 2 | 2 | 1 | 2 | |
| Power supply | | 230V/1/50Hz | | | | | | | |
| Electric power input | W | 162 | 218 | 322 | 340 | 582 | 1320 | 2600 | |
| Max running current | A | 0,74 | 1,00 | 1,47 | 1,55 | 2,65 | 6,01 | 12,05 | |
| Noise level (*) | dB(A) | min. | 63 | 58 | 61 | 58 | 62 | 69 | 71 |
| | | med. | 67 | 65 | 68 | 65 | 69 | 73 | 76 |
| | | max. | 68 | 69 | 70 | 69 | 74 | 78 | 81 |
| Net weight | kg | 28 | 36 | 41 | 46 | 57 | 117 | 192 | |

Data measured based on the following conditions:

Cooling: incoming water temperature 7 °C - outgoing water temperature 12 °C - incoming air temperature 27 °C dry bulb - 19 °C wet bulb

Heating: incoming water temperature 70 °C - outgoing water temperature 60 °C - incoming air temperature 20 °C

(*) Noise levels measured according to ISO 23741 standards

(**) Referred to air delivery static pressure = 0 Pa (without ducting)

(***) Referred to air delivery static pressure = 80 Pa (4-7-9-11) 100 Pa (13) 150 Pa (28-51) (with ducting)

ALNH EC

Extremely silent horizontal recessed convectors with inverter fans



Technical and construction features

The ALNH EC horizontal recessed fan coils have been designed to achieve maximum energy savings and maximum silence which are difficult to obtain with traditional air units such as split, fancoils, etc.

The false ceiling installation is ideal for hotel rooms or for the residential sector.

Various models are available as optional for wall or infrared regulation and control.

Its performance makes this product ideal for installations that require compliance with strict acoustic regulations. ALNH EC is extremely quiet thanks to its technical solutions: the careful study of an integrated silencer plenum and the use of a particular high sound-absorbing insulation. Standard control with advanced functions including Master / Slave up to 32 units and the possibility of using the remote control or the wall control (supplied as optional).

Possibility of controlling up to 255 units with our TOP2-BMS Modbus protocol multifunctional digital thermostat, also in combination with all A2B Accorroni terminal units.

The insulation of the silencer plenum and of the structure is made of ecological materials (recycled polyester fiber) with low environmental impact and closed cells.

ALNH is designed for maximum convenience during maintenance: the fan, as well as the main tank and the battery, can be inspected and removed quickly with the same procedure.



MAX SILENT



ECOLOGICAL MATERIALS



ADVANCED FUNCTION



CONTROL OF 255 UNITS



SIMPLE MAINTENANCE

| Model | Cooling power kW | Heating power kW | Air flow m ³ /h | Code | € |
|------------|------------------|------------------|----------------------------|----------|----------|
| ALNH EC 3 | 2,20 | 2,80 | 343 | 52430000 | 799,00 |
| ALNH EC 6 | 3,14 | 4,16 | 535 | 52460000 | 911,00 |
| ALNH EC 8 | 5,21 | 6,57 | 850 | 52480000 | 1.010,00 |
| ALNH EC 12 | 5,90 | 7,49 | 1004 | 52412000 | 1.036,00 |






Accessories ALNH EC

| | | | | |
|-----------------------------|---|-----------------------------|----------|--------|
| | Delivery plenum with Ø 160 mm fittings without insulation | mod. ALNH EC 3 | 52430100 | 99,00 |
| | | mod. ALNH EC 6 | 52460100 | 119,00 |
| | | mod. ALNH EC 8 - 12 | 52480100 | 129,00 |
| | Delivery plenum insulation | mod. ALNH EC 3 | 52431903 | 23,00 |
| | | mod. ALNH EC 6 | 52431904 | 26,00 |
| | | mod. ALNH EC 8 - 12 | 52431905 | 33,00 |
| | Intake plenum with circular fittings | mod. ALNH EC 3 | 52430200 | 99,00 |
| | | mod. ALNH EC 6 | 52460200 | 116,00 |
| | | mod. ALNH EC 8 - 12 | 52480200 | 125,00 |
| | 90° plenum without insulation | mod. ALNH EC 3 mandata | 52430300 | 53,00 |
| | | mod. ALNH EC 6 mandata | 52460300 | 59,00 |
| | | mod. ALNH EC 8 - 12 mandata | 52480300 | 66,00 |
| | | mod. ALNH EC 3 ripresa | 52430400 | 76,00 |
| | | mod. ALNH EC 6 ripresa | 52460400 | 83,00 |
| mod. ALNH EC 8 - 12 ripresa | 52480400 | 92,00 | | |
| | Fixed aluminum return grille | mod. ALNH EC 3 | 52430500 | 73,00 |
| | | mod. ALNH EC 6 | 52460500 | 102,00 |
| | | mod. ALNH EC 8 - 12 | 52480500 | 125,00 |
| | Delivery grille with double aluminum adjustment | mod. ALNH EC 3 | 52430600 | 92,00 |
| | | mod. ALNH EC 6 | 52460600 | 122,00 |
| | | mod. ALNH EC 8 - 12 | 52480600 | 158,00 |
| | High efficiency air filter | mod. ALNH EC 3 | 52430700 | 23,00 |
| | | mod. ALNH EC 6 | 52460700 | 30,00 |
| | | mod. ALNH EC 8 - 12 | 52480700 | 40,00 |

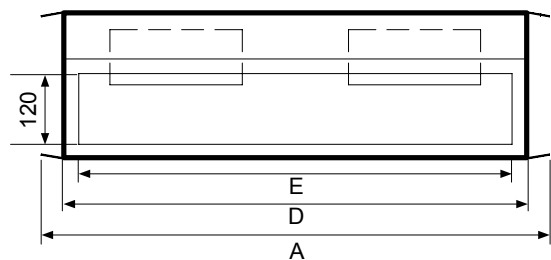
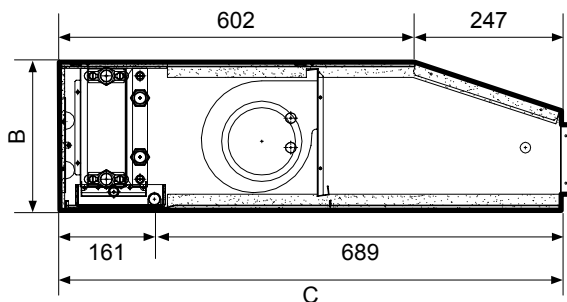
ALNH EC

Extremely silent horizontal recessed convectors with inverter fans

Accessories ALNH EC

| | | Code | € |
|---|---|--|--|
|  | 1 row auxiliary coil for 4-pipe systems | mod. ALNH EC 3 mod. ALNH EC 6 mod. ALNH EC 8 - 12 | 52430800 73,00 52460800 83,00 52480800 102,00 |
| | Digital room thermostat with LCD display for daily / weekly hourly programming and built-in consent probe | | 36205224 106,00 |
| | Minimum water temperature thermostat | | 52431200 23,00 |
|  | Relay for electrical resistance | mod. ALNH EC 3 mod. ALNH EC 6 - 12 | 52430900 59,00 52460900 83,00 |
| | | Transformer | 52431300 50,00 |
|  | Keepers | mod. 2 pipes ALNH EC 3 - 6 mod. 2 pipes ALNH EC 8 - 12 mod. 4 pipes ALNH EC 3 - 6 mod. 4 pipes ALNH EC 8 - 12 | 52431000 43,00 52431400 50,00 52431100 86,00 52431500 99,00 |
| | | pump kit not assembled | 52431600 168,00 |
| | | mounted horizontal pump kit | 52431700 254,00 |
| | | silenced mounted horizontal pump kit | 52431800 851,00 |
|  | Electronic board on the machine for connecting the digital room thermostat | | 52431909 172,00 |
|  | 3-way ON-OFF valve with n. 4 connections, mounted on the machine | mod. ALNH EC 3 - 6 - 8 mod. ALNH EC 12 | 52431906 96,00 52431907 100,00 |

Dimensions and weights ALNH EC

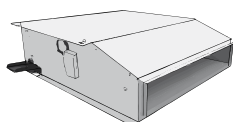


| Mod. | A | B | C | D | E |
|------|------|-----|-----|------|-----|
| 3 | 600 | 250 | 850 | 525 | 475 |
| 6 | 880 | 250 | 850 | 785 | 735 |
| 8 | 1120 | 250 | 850 | 1045 | 995 |
| 12 | 1120 | 250 | 850 | 1045 | 995 |

| Mod. | Peso Kg |
|------|---------|
| 3 | 23 |
| 6 | 33 |
| 8 | 41 |
| 12 | 43 |

Values in mm

Hydraulic connections ALNH EC



The standard unit has hydraulic connections on the right; when ordering, always specify if the position is on the left SX

ALNH EC

Extremely silent horizontal recessed convectors with inverter fans

Technical data table ALNH EC

| DESCRIPTION | U.M. | ALNH EC 3 | ALNH EC 6 | ALNH EC 8 | ALNH EC 12 | |
|-------------------------------|------|-------------------|-------------|-----------|------------|------|
| Air flow | max | m ³ /h | 359 | 535 | 850 | 1004 |
| | med | m ³ /h | 251 | 346 | 538 | 624 |
| | min | m ³ /h | 187 | 259 | 304 | 372 |
| Total cooling capacity | max | kW | 2,20 | 3,14 | 5,21 | 5,90 |
| | med | kW | 1,64 | 2,12 | 3,61 | 4,08 |
| | min | kW | 1,27 | 1,68 | 2,23 | 2,61 |
| Sensible cooling capacity | max | kW | 1,55 | 2,33 | 3,64 | 4,11 |
| | med | kW | 1,18 | 1,65 | 2,56 | 2,87 |
| | min | kW | 0,93 | 1,27 | 1,60 | 1,90 |
| Exchanger water flow | max | l/h | 378 | 588 | 894 | 1012 |
| | med | l/h | 282 | 364 | 619 | 699 |
| | min | l/h | 218 | 289 | 383 | 448 |
| Main exchanger pressure drops | max | kPa | 13,9 | 5,4 | 16,9 | 21,2 |
| | med | kPa | 8,1 | 2,7 | 8,7 | 10,8 |
| | min | kPa | 5,1 | 1,8 | 3,7 | 4,8 |
| Heat exchanger power | max | kW | 2,80 | 4,16 | 6,57 | 7,49 |
| | med | kW | 2,09 | 2,89 | 4,52 | 5,11 |
| | min | kW | 1,62 | 2,26 | 2,76 | 3,29 |
| Exchanger water flow | max | l/h | 378 | 538 | 894 | 1012 |
| | med | l/h | 282 | 364 | 619 | 699 |
| | min | l/h | 218 | 289 | 383 | 448 |
| Heat exchanger pressure drop | max | kPa | 12,1 | 4,5 | 14,3 | 18,0 |
| | med | kPa | 7,0 | 2,2 | 7,3 | 9,1 |
| | min | kPa | 4,4 | 1,5 | 3,0 | 4,0 |
| Added heat exchanger power | max | kW | 2,05 | 3,05 | 4,47 | 5,21 |
| | med | kW | 1,63 | 2,33 | 3,56 | 3,88 |
| | min | kW | 1,36 | 1,95 | 2,45 | 2,80 |
| Added exchanger water flow | max | l/h | 180 | 268 | 417 | 458 |
| | med | l/h | 143 | 205 | 313 | 341 |
| | min | l/h | 119 | 172 | 215 | 246 |
| Pressure drop added exchanger | max | kPa | 6,0 | 2,6 | 6,9 | 8,2 |
| | med | kPa | 3,9 | 1,5 | 4,1 | 4,8 |
| | min | kPa | 2,8 | 1,1 | 2,0 | 2,6 |
| Sound level | max | dB(A) | 46 | 48 | 52 | 56 |
| | med | dB(A) | 36 | 37 | 38 | 45 |
| | min | dB(A) | 27 | 29 | 27 | 32 |
| Absorbed power | max | W | 14 | 19 | 35 | 58 |
| | med | W | 7 | 9 | 12 | 19 |
| | min | W | 5 | 7 | 7 | 8 |
| Electric absorption | A | 0,12 | 0,15 | 0,25 | 0,41 | |
| EER Cooling | | 236 A | 230 A | 282 A | 233 A | |
| COP Heating 2 pipes | | 302 A | 310 A | 351 A | 298 A | |
| COP Heating 4 pipes | | 246 B | 259 B | 259 B | 241 B | |
| Sound level | max | dB(A) | 37 | 39 | 43 | 47 |
| | med | dB(A) | 27 | 28 | 29 | 36 |
| | min | dB(A) | 18 | 20 | 18 | 23 |
| Hydraulic connections | | | 1/2" | | | |
| Electrical supply | | | 230V/1/50Hz | | | |
| Motors speed | max | V | 8,5 | 9,0 | 8,5 | |
| | med | V | | 4,5 | 4,5 | |
| | min | V | | 2,5 | 2,0 | |
| Number of coil ranks | | | 4 | | | |

Cold: Ambient temperature: 27 ° C - DB 19 ° C - Water temperature (in / out) 7/12 ° C

Hot: Ambient temperature: 20 ° C - Water temperature 50 ° C

Warm: Ambient temperature: 20 ° C - Water temperature (in / out): 70/60 ° C

FAN DRIVE

Air conditioning system with integrated inverter recovery fan coil

Technical and construction features

With the advent of cutting-edge building technologies, the newly designed housing units are increasingly thermally insulated with a direct consequence of the limited thermal loads necessary to achieve the desired comfort.

At the same time, thanks to the absence of dispersions, constant air exchange and renewal is essential through an evolved controlled mechanical ventilation system to ensure the appropriate air quality in the rooms.

FAN DRIVE is a flexible system that turns out to be a winning plant choice and allows optimal management of the environmental thermohygrometric comfort based on real needs, with extremely rapid response times, without unnecessary waste. FAN DRIVE is the ideal solution to meet all these needs in a professional and effective way, it is the new concept unit, which in just 225 mm thickness contains a high efficiency air conditioning system capable of heating, cooling (with relative dehumidification), filter and renew the air with integrated recovery, also through the free-cooling and free-heating functions.

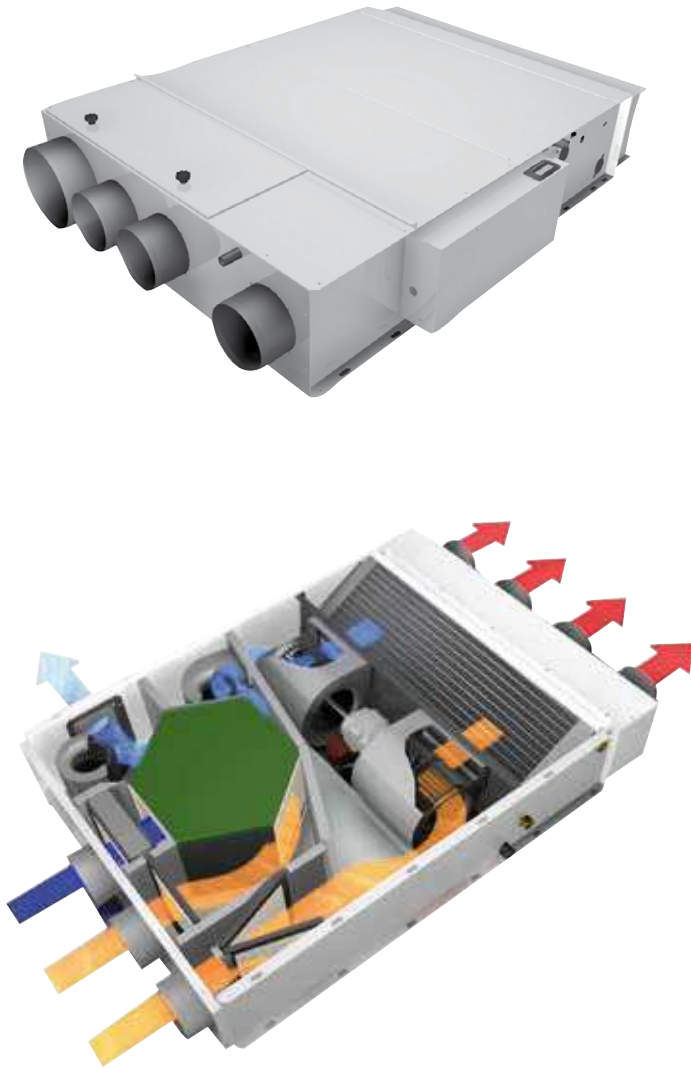
All this through a single extremely compact unit, capable of fully replacing traditional plant systems in residential / commercial environments.

The range consists of 2 models of 300 m³ / h or 700 m³ / h (system made of galvanized sheet metal or RAL 9010 painted sheet) with thermal outputs from 2.2 to 4.6 kW and cooling outputs from 2.6 to 4,7 kW, each unit can be installed in both landscape and portrait mode.

FAN DRIVE is only equipped with latest generation brushless ECM motors, guaranteeing a perfect combination of high performance, excellent reduction in energy consumption up to 75% and lower noise emissions in the environment. A fundamental plus of these innovative fan units is the ability to precisely and constantly modulate the air flow rates based on the actual workloads required for the benefit of a net reduction in consumption, thus ensuring maximum silence.

Plus FAN DRIVE

- Avoid unnecessary heat loss due to air changes, significantly reducing the cost of the energy bill - Heat recovery with efficiencies up to 95%
- Reduction of electricity consumption up to 75% thanks to the motors ECM of brushless type
- Extremely compact dimensions that guarantee flexibility of installation
- Simplification and reduction of system costs
- A single air distribution network to ensure the complete thermohygrometric comfort
- Fast set-up, with immediate adaptation to different ones thermal loads required
- Simple, intuitive and precise management, thanks to the dedicated regulation
- No waste of living space; the unit and system of distribution can be located on the false ceiling or below track
- Minimum maintenance for cleaning the filters only

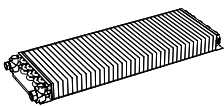
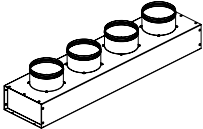
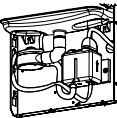
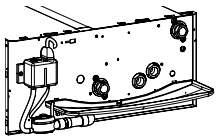
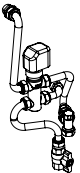
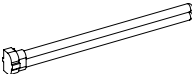
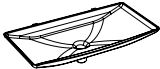









| Model | Air conditioning flow m ³ /h | Air flow VMC m ³ /h | Code | € |
|--|--|-----------------------------------|-----------------|-----------------|
| FAN DRIVE 300 in galvanized sheet metal | 300 | 120 | 75800701 | 4.280,00 |
| FAN DRIVE 700 in galvanized sheet metal | 700 | 150 | 75800702 | 5.350,00 |
| FAN DRIVE 300 in painted sheet metal RAL 9010 | 300 | 120 | 75810701 | 4.820,00 |
| FAN DRIVE 700 in painted sheet metal RAL 9010 | 700 | 150 | 75820702 | 6.150,00 |

FAN DRIVE

Air conditioning system with integrated inverter recovery fan coil

Accessories FAN DRIVE

| | | | Code | € |
|---|---|--|----------------------|----------------------|
|  | Supplement for 4-row heat exchange coils | mod. 300 mod. 700 | 75800774 75800775 | 90,00 150,00 |
|  | Delivery plenum for circular pipes | mod. 300 - 4 attachments Ø 125 mod. 700 - 4 attachments Ø 200 | 75800760 75800761 | 260,00 300,00 |
|  | Condensate evacuation pump for vertically installed units | mod. 300 mod. 700 | 75800776 75800777 | 542,00 542,00 |
|  | Condensate evacuation pump for units installed horizontally | mod. 300 mod. 700 | 75800778 75800779 | 534,00 534,00 |
|  | 3-way ON - OFF valve kit for standard coil with valve and holder | mod. 300 mod. 700 | 75800770 75800771 | 190,00 210,00 |
| | ON - OFF 3-way valve kit for 4-row coil with valve and lockshield valve | mod. 300 mod. 700 | 75800772 75800773 | 210,00 270,00 |
|  | UV germicidal lamp for active sanitation | mod. 300 mod. 700 | 75800724 75800783 | 310,00 310,00 |
|  | Auxiliary condensate collection tray | mod. 300/700 vertical mod. 300/700 horizontal | 75800781 75800780 | 8,00 8,00 |
|  | Replacement filter kit | mod. 300 mod. 700 | 42320007 42320005 | 268,00 268,00 |
|  | PLUS adjustment kit on the machine | mod. 300 mod. 700 | 75800720 75800721 | 1.700,00 1.700,00 |
|  | Wall remote control for PLUS regulation kit mod. 300/700 | | 75800782 | 174,00 |
|  | Duct CO2 probe kit installed on board the unit for PLUS regulation kit | mod. 300 mod. 700 | 75800740 75800741 | 2.120,00 2.120,00 |
| | Wall mounted CO2 probe kit mod. 300/700 for PLUS regulation kit | | 75800730 | 1.700,00 |
|  | Wall-mounted humidity probe kit mod. 300/700 for PLUS regulation kit | | 75800743 | 418,00 |
|  | Voc air quality probe kit for duct mod. 300/700 for PLUS regulation kit | | 75800742 | 836,00 |
|  | Wall-mounted Voc air quality probe kit mod. 300/700 for PLUS regulation kit | | 75800744 | 760,00 |

FAN DRIVE

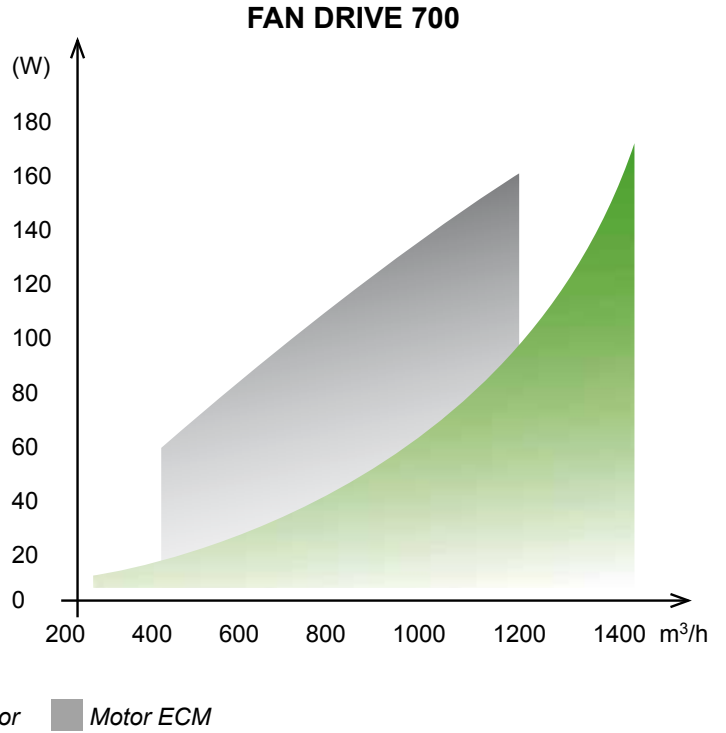
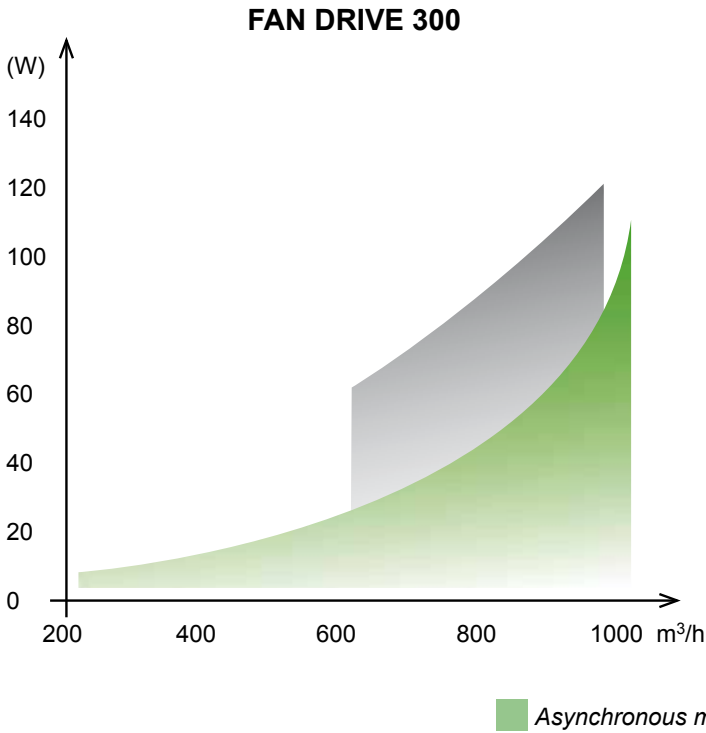
Air conditioning system with integrated inverter recovery fan coil

Technical characteristics of ECM brushless motors

The FAN DRIVE system is equipped with latest generation brushless motors, a guarantee of a perfect combination of high performance, excellent reduction in energy consumption and lower noise emissions in the environment.

A fundamental plus of these innovative fan units is the ability to precisely and constantly modulate the air flow rates based on the actual workloads required for the benefit

a net reduction in consumption, the absence of unnecessary waste and greater psychophysical comfort in the environment guaranteed by greater management sensitivity and maximum silence thanks to intelligent management of air flow rates. The graphs below simulate the comparison between the absorption of an asynchronous centrifugal motor and the brushless centrifugal motor installed in the FAN DRIVE series.



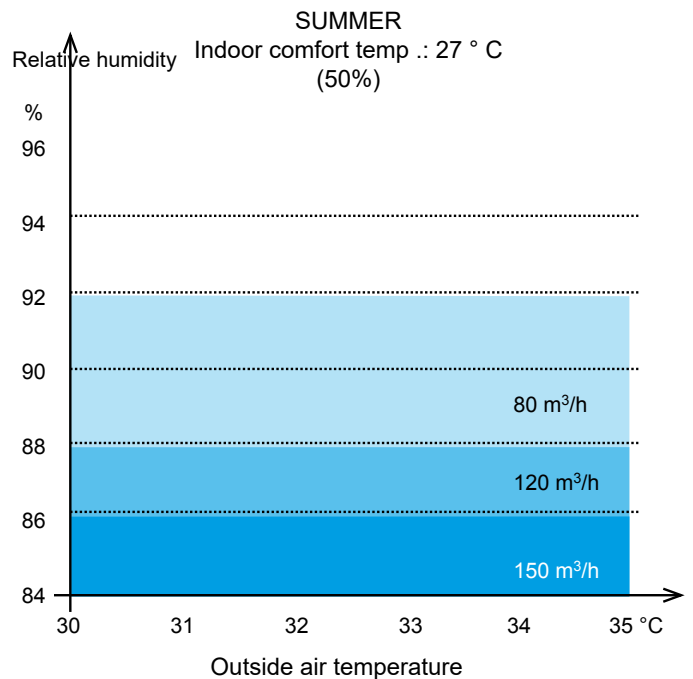
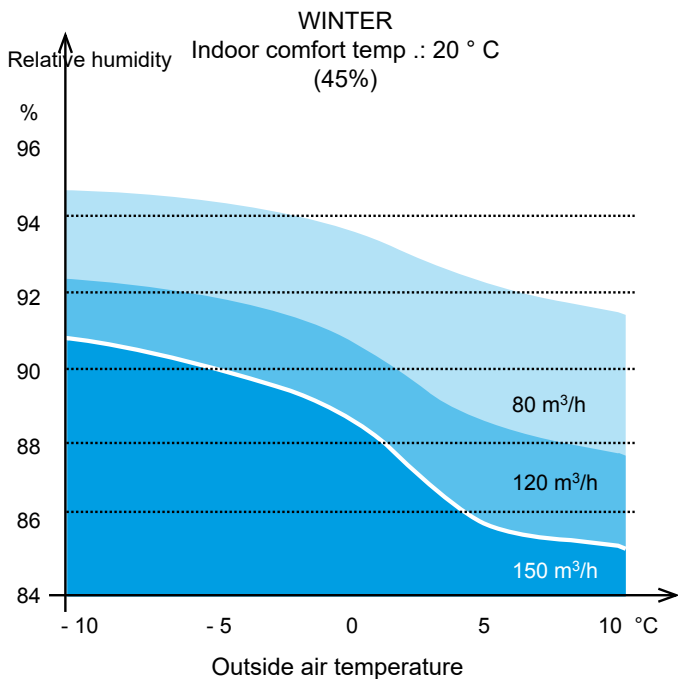
Recovery efficiency of FAN DRIVE

WINTER

Representation of the degree of efficiency of the cross-flow recuperator, with external temperatures between -10 °C and +10 °C; relative humidity 70%.

SUMMER

Representation of the degree of efficiency of the cross-flow recuperator, with external temperatures between 30 °C and 35 °C; relative humidity 50%.



FAN DRIVE

Air conditioning system with integrated inverter recovery fan coil

FAN DRIVE cooling mode



1 RECIRCULATION AIR INLET

The air is taken from rooms less predisposed to generate stale air such as living rooms, bedrooms and hallways, after proper filtration, it is made to flow towards the part used for treatment.

2 POOR AIR INLET

Stale air, usually taken from kitchens, bathrooms and walk-in closets before being expelled, is made to flow through the counter-current flow recuperator in order to recover up to 92% of the thermal energy that otherwise would be unnecessarily wasted.

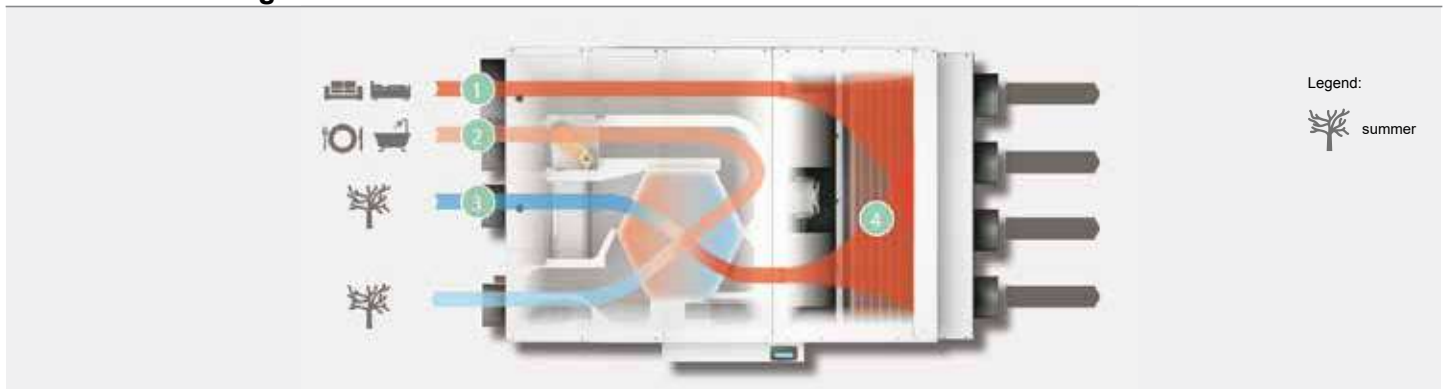
3 EXTERNAL RENEWAL AIR INLET

The hot and humid air taken from outside and used for renewal is introduced into the unit and after appropriate filtration in order to remove pollutants, it is conveyed through the recuperator, assimilating up to 92% of the thermal energy released by the air spoiled at the outlet, and then flow towards the part used for treatment. If the external conditions are in line with the required internal load, the primary air, thanks to the By-pass function which is automatically activated, will be introduced directly into the room after appropriate filtration.

4 TREATMENT WITH HYDRONIC BATTERY

The air mix thus obtained, composed partly of recirculation air and partly of pre-treated fresh air, is now cooled and dehumidified by the part used for the treatment according to the exact comfort needs selected by the user, before being re-introduced in the rooms through the dedicated ducted distribution network.

FAN DRIVE heating mode



1 RECIRCULATION AIR INLET

The air is taken from rooms less predisposed to generate stale air such as living rooms and / or bedrooms and, after appropriate filtration, it is made to flow towards the part used for treatment.

2 POOR AIR INLET

Stale air, usually taken from kitchens and bathrooms, before being expelled is made to flow through the counter-current flow recuperator in order to recover up to 94% of the thermal energy that otherwise would be unnecessarily wasted.

3 EXTERNAL RENEWAL AIR INLET

The cold air taken from outside and used for renewal is introduced into the unit and, after appropriate filtration in order to remove pollutants, is conveyed through the recuperator, assimilating up to 94% of the thermal energy released by the stale air outgoing, to then flow towards the part used for treatment. If the external conditions are in line with the required internal load, the primary air, thanks to the By-pass function which is activated automatically, will be introduced directly into the room after appropriate filtration.

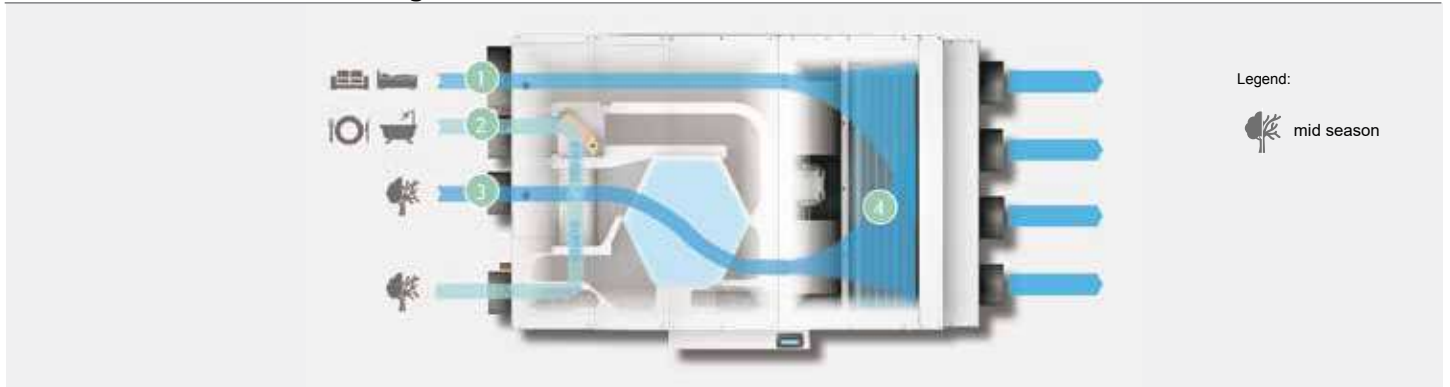
4 TREATMENT WITH HYDRONIC BATTERY

The air mix thus obtained, composed partly of recirculated air and partly of pre-treated fresh air, is now heated by the part used for the treatment, according to the exact comfort needs selected by the user, before being re-introduced into the environments through the dedicated ducted distribution network.

FAN DRIVE

Air conditioning system with integrated inverter recovery fan coil

FAN DRIVE mode free-cooling



1 RECIRCULATION AIR INLET

The air is taken from rooms less predisposed to generate stale air such as living rooms and / or bedrooms and, after appropriate filtration, it is made to flow towards the part used for treatment.

2 POOR AIR INLET

Stale air, usually taken from kitchens and bathrooms, is expelled directly to the outside.

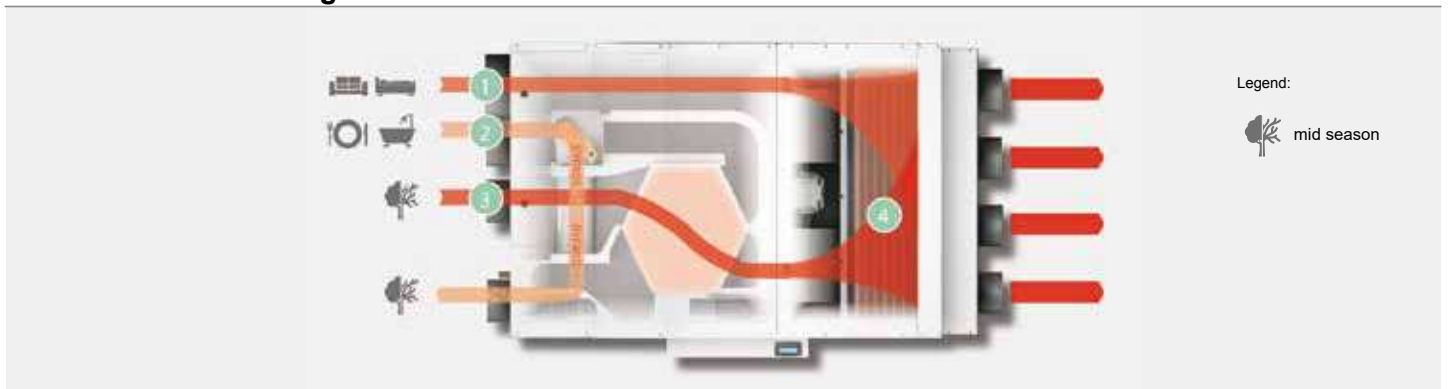
3 EXTERNAL RENEWAL AIR INLET

If the external temperature conditions are in line with the required internal loads, the primary air passes through the By-pass function which is automatically activated by the dedicated control, and sent directly into the room after appropriate filtration.

4 TREATMENT WITH HYDRONIC BATTERY (ONLY IF NECESSARY)

The air mix thus obtained, composed partly of recirculation air and partly of pre-treated fresh air, is now cooled and dehumidified by the part used for the treatment according to the exact comfort needs selected by the user, before being the dedicated ducted distribution network was re-introduced into the rooms.

FAN DRIVE free-heating



1 RECIRCULATION AIR INLET

The air is taken from rooms less predisposed to generate stale air such as living rooms and / or bedrooms and, after appropriate filtration, it is made to flow towards the part used for treatment.

2 POOR AIR INLET

Stale air, usually taken from kitchens and bathrooms, is expelled directly to the outside.

3 EXTERNAL RENEWAL AIR INLET

If the external temperature conditions are in line with the required internal loads, the primary air passes through the By-pass function which is automatically activated by the dedicated control, and sent directly into the room after appropriate filtration.

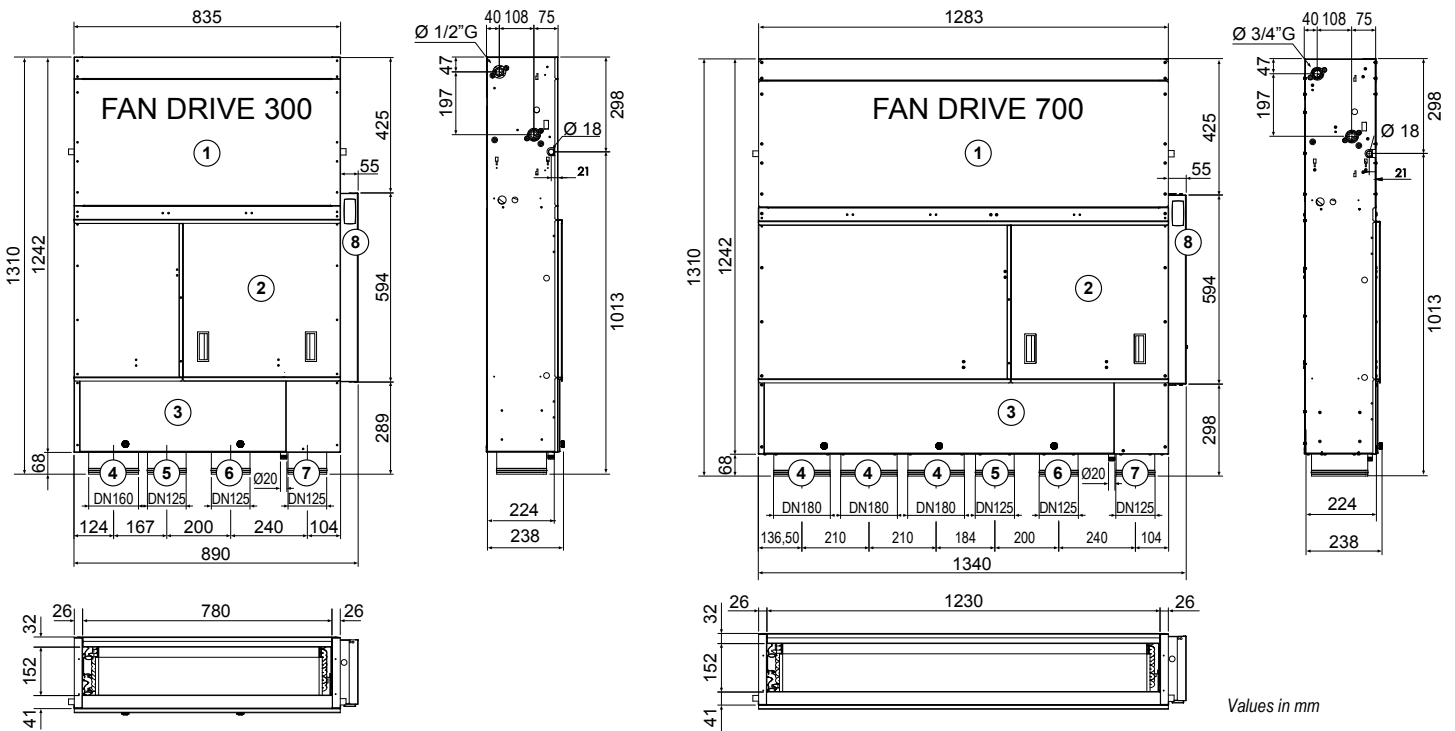
4 TREATMENT WITH HYDRONIC BATTERY (ONLY IF NECESSARY)

The air mix thus obtained, composed partly of recirculating air and partly of pre-treated fresh air, is now cooled and dehumidified by the part used for the treatment according to the exact comfort needs selected by the user, before being the dedicated ducted distribution network was re-introduced into the rooms.

FAN DRIVE

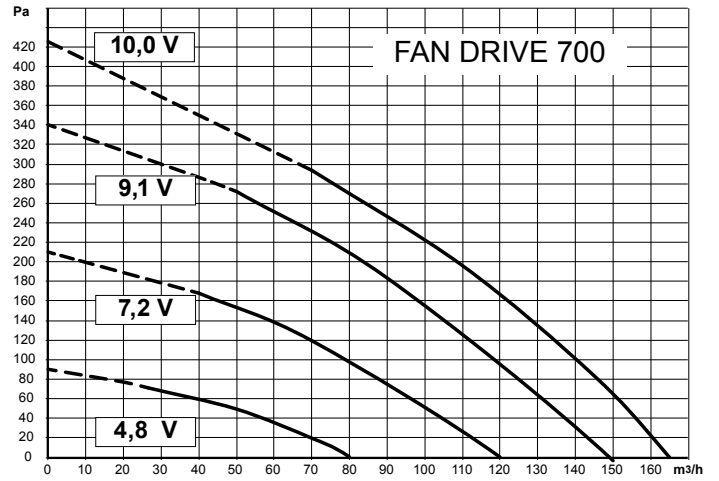
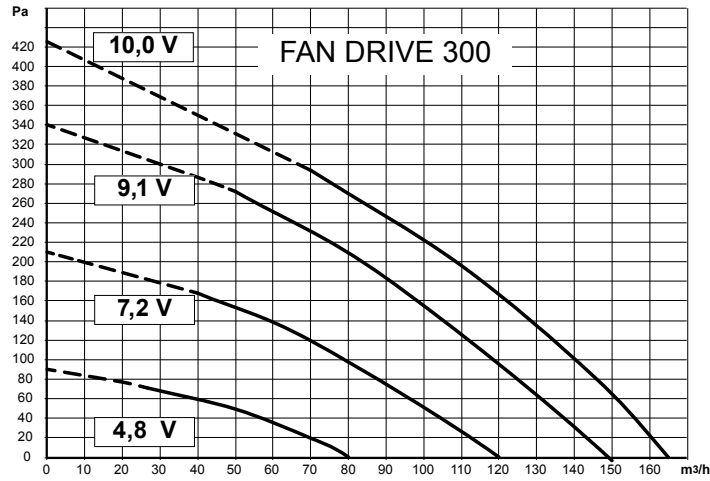
Air conditioning system with integrated inverter recovery fan coil

Dimensions FAN DRIVE 300 - 700

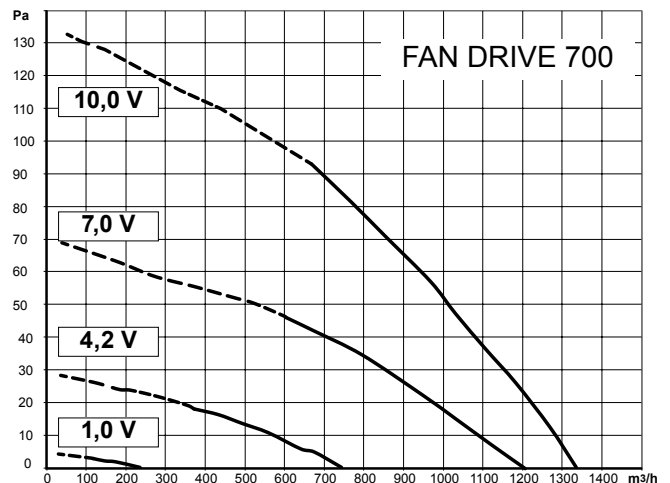
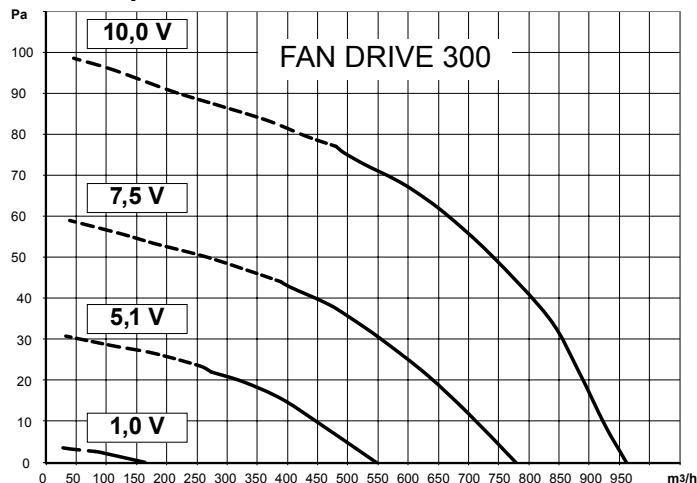


- 1 Hydronic heat treatment coil
- 2 "Counter-current" recuperator
- 3 Filter inspection hatch
- 4 Connection sleeve for internal air recirculation pipe
- 5 Stale air extraction pipe connection sleeve
- 6 Connection sleeve for external fresh air inlet pipe
- 7 Connection sleeve for stale air expulsion pipe to the outside
- 8 Electrical connection compartment

Aeraulic performance of recovery fans



Aeraulic performance of air treatment fans



FAN DRIVE

Air conditioning system with integrated inverter recovery fan coil

Technical performance data table FAN DRIVE 300 with 3-row coil

| Air flow m ³ /h | | Summer operation* | | | Winter operation** | |
|----------------------------|------|-------------------|------------------|---------------------|--------------------|---------------------|
| Renewal | Unit | Ttl power W | Sensible power W | Temp. air outlet °C | Ttl power W | Temp. air outlet °C |
| 80 | 200 | 1540 | 861 | 14,3 | 1693 | 44,3 |
| | 300 | 2480 | 1454 | 12,6 | 2675 | 45,9 |
| | 400 | 3150 | 1954 | 12,4 | 3824 | 47,9 |
| | 500 | 3645 | 2332 | 13,1 | 4571 | 46,7 |
| | 600 | 4283 | 2770 | 13,2 | 5407 | 46,4 |
| | 700 | 4672 | 3114 | 13,7 | 6091 | 45,5 |
| 120 | 200 | 1663 | 875 | 14,3 | 1735 | 44,2 |
| | 300 | 2618 | 1471 | 12,6 | 2719 | 45,8 |
| | 400 | 3323 | 1973 | 12,4 | 3871 | 47,9 |
| | 500 | 3838 | 2349 | 13,1 | 4616 | 46,7 |
| | 600 | 4408 | 2784 | 13,2 | 5452 | 46,4 |
| | 700 | 4806 | 3127 | 13,7 | 6134 | 45,5 |
| 150 | 200 | 1758 | 889 | 14,3 | 1774 | 44,1 |
| | 300 | 2704 | 1485 | 12,6 | 2760 | 45,8 |
| | 400 | 3423 | 1986 | 12,4 | 3915 | 47,9 |
| | 500 | 3952 | 2363 | 13,1 | 4660 | 46,7 |
| | 600 | 4538 | 2799 | 13,2 | 5494 | 46,3 |
| | 700 | 4941 | 3140 | 13,7 | 6175 | 45,4 |

*Water temp. 7/12 °C - air 33 °C / r.h. 50%

**Water temp. 50/45 °C - air -5 °C / r.h. 70%

Technical performance data table FAN DRIVE 700 with 3-row coil

| Air flow m ³ /h | | Summer operation* | | | Winter operation** | |
|----------------------------|------|-------------------|------------------|---------------------|--------------------|---------------------|
| Renewal | Unit | Ttl power W | Sensible power W | Temp. air outlet °C | Ttl power W | Temp. air outlet °C |
| 80 | 200 | 1670 | 968 | 12,7 | 1928 | 47,8 |
| | 400 | 2923 | 1844 | 13,3 | 3515 | 45,6 |
| | 600 | 4105 | 2692 | 13,6 | 4882 | 43,8 |
| | 800 | 5167 | 3516 | 13,8 | 6394 | 43,4 |
| | 1000 | 6107 | 4269 | 14,2 | 7809 | 42,9 |
| | 1100 | 6392 | 4601 | 14,5 | 8406 | 42,4 |
| 120 | 200 | 1936 | 1047 | 11,7 | 1974 | 47,8 |
| | 400 | 3085 | 1864 | 13,2 | 3558 | 45,6 |
| | 600 | 4224 | 2707 | 13,6 | 4922 | 43,8 |
| | 800 | 5316 | 3533 | 13,8 | 6435 | 43,4 |
| | 1000 | 6140 | 4282 | 14,2 | 7847 | 42,9 |
| | 1100 | 6566 | 4615 | 14,5 | 8444 | 42,4 |
| 150 | 200 | 2047 | 1065 | 11,7 | 2019 | 47,7 |
| | 400 | 3179 | 1877 | 13,2 | 3599 | 45,5 |
| | 600 | 4349 | 2724 | 13,6 | 4960 | 43,7 |
| | 800 | 5344 | 3544 | 13,9 | 6473 | 43,4 |
| | 1000 | 6303 | 4296 | 14,2 | 7882 | 42,9 |
| | 1100 | 6741 | 4629 | 14,5 | 8482 | 42,4 |

*Water temp. 7/12 °C - air 33 °C / r.h. 50%

**Water temp. 50/45 °C - air -5 °C / r.h. 70%

FAN DRIVE

Air conditioning system with integrated inverter recovery fan coil

FAN DRIVE technical data table

| Model | U.M. | FAN DRIVE 300 | | | FAN DRIVE 700 | | |
|-------------------------------------|-------------------|---------------|--|--|---------------|--|--|
| Air flow nom. air conditioning fans | m ³ /h | 300 | | | 700 | | |
| Useful static delivery pressure | Pa | 5 - 98 | | | 5 - 132 | | |

WINTER THERMAL RECOVERY (1)

| Air flow | m ³ /h | 80 | 120 | 150 | 80 | 120 | 150 |
|------------------------|-------------------|-------|-------|-------|-------|-------|-------|
| Recovery efficiency | % | 88,5 | 85,4 | 83,5 | 88,5 | 85,4 | 83,5 |
| Recovery thermal power | W | 628 | 922 | 1134 | 628 | 922 | 1134 |
| Air outlet temperature | °C | 18,23 | 17,73 | 17,38 | 18,23 | 17,73 | 17,38 |

SUMMER THERMAL RECOVERY (2)

| Air flow | m ³ /h | 80 | 120 | 150 | 80 | 120 | 150 |
|------------------------|-------------------|-------|-------|-------|-------|-------|-------|
| Recovery efficiency | % | 88,7 | 85,6 | 83,5 | 88,7 | 85,6 | 83,5 |
| Recovery thermal power | W | 141 | 204 | 249 | 141 | 204 | 249 |
| Air outlet temperature | °C | 27,68 | 27,86 | 27,99 | 27,68 | 27,86 | 27,99 |

FAN

Centrifugal fan with Brushless EC motor for air handling units

Radial motor with Brushless EC motor for heat recovery unit

WATER BATTERYA

| Ranks | n. | 3 | 3 |
|------------------------------|-----|------|------|
| Total heat output (3) | W | 2240 | 4608 |
| Air outlet temperature | °C | 41,2 | 38,9 |
| Water side pressure drop | kPa | 8,4 | 10,5 |
| Nominal water flow | l/h | 390 | 803 |
| Total cooling capacity (4) | W | 2618 | 4780 |
| Sensible cooling performance | W | 1471 | 3083 |
| Air outlet temperature | °C | 12,6 | 14,0 |
| Water side pressure drop | kPa | 13,0 | 13,2 |
| Nominal water flow | l/h | 449 | 820 |

ELECTRICAL ABSORPTIONS

| Power supply | | 230V/1/50Hz | |
|----------------------|---|-------------|------|
| Max absorbed power | W | 260 | 340 |
| Max absorbed current | A | 1,15 | 1,48 |

(1) Fresh air temperature - 5 ° C; Expelled air temperature 20 ° C

(2) Fresh air temperature 33 ° C r.h. 50%; Expulsion air temperature 27 ° C 50%

(3) Outdoor air - 5 ° C; Water 45 - 40 ° C; Referred to the nominal air flow (300 m³ / h FAN DRIVE 300 - 700 m³ / h FAN DRIVE 700)

(4) External air 33 ° C 50%; Water 7 - 12 ° C; Referred to the nominal air flow (300 m³ / h FAN DRIVE 300 - 700 m³ / h FAN DRIVE 700) Evaporation temperature 7 ° C; Overheating: 5 ° C; Condensing temperature: 50 ° C

Operating limits FAN DRIVE

| Model | U.M. | FAN DRIVE 300 | FAN DRIVE 700 |
|-------------------------------|------|------------------------|---------------|
| Outside air temperature | °C | min (- 5) - max (+ 45) | |
| Outside air humidity | % | min 10 - max 75 | |
| Indoor air temperature | °C | min 15 - max 30 | |
| Indoor air humidity | % | min 10 - max 75 | |
| Max working water pressure | bar | 8 | |
| Max working water temperature | °C | 70 | |

COMPRESSOR DRIVE CFR HP - CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and supporting thermodynamic compressor



Driver dedicated to fans with motors EC



RENEWABLE ENERGY



ENERGY SAVING



SYSTEM BIOXGEN



INSTALLATION EASY



ENERGY RECOVERY



GAS ECOLOGIC



DIMENSIONS COMPACT



AIR FILTRATION



RENEWABLE AIR

Technical and construction features

The COMPRESSOR DRIVE air renewal units are characterized by the adoption of a double energy recovery system, otherwise lost in the stale air expulsion phase: the first, static type, through a cross-flow recuperator with plates in aluminum, the second (in cascade to the previous one), active type, made by a reversible refrigeration circuit.

COMPRESSOR DRIVE allows greater accessibility to the electrical panel for easier maintenance, made up of 21 models in the horizontal version, it is able to cover the ventilation needs from 300 to 5400 m³ / h.

The HP models are equipped with AC fans and ON-OFF compressors, the HPE models are equipped with EC fans and ON-OFF compressors while the HPEI models are equipped with EC fans and variable capacity rotary inverter compressors with dedicated motor and driver, together with fans with EC motors, they allow high efficiency and extreme flexibility in operation, allowing the choice of several control logics. COMPRESSOR DRIVE is composed of:

- Aluminum profile frame with preloaded nylon joints - Sandwich type infill panels sp. 23 mm, with

- injected polyurethane insulation with density 45 kg / m³
- Synthetic filters in efficiency class ISO 16890 COARSE 55% - Cross-flow air-air recovery unit with aluminum plates - R410A reversible refrigeration circuit with compressor hermetic on-off for the HP / HPE versions, or modulating with DC inverter on HPEI and electronic expansion valve.

- Double inlet centrifugal fans and motor electric directly coupled at fixed speed.

- On HPE / HPEI models high efficiency EC fans with constant flow operation for models from size 100 to 450; on HPEI possibility of modulating flow rate in combination with air quality probe.

- Electric panel complete with regulation and control panel.

| Model with fan AC and compressor ON-OFF | Air flow m ³ /h | Code | € |
|---|----------------------------|-----------------|------------------|
| COMPRESSOR DRIVE CFR-HP 35 | 350 | 75800601 | 7.287,00 |
| COMPRESSOR DRIVE CFR-HP 60 | 600 | 75800602 | 7.559,00 |
| COMPRESSOR DRIVE CFR-HP 100 | 1000 | 75800603 | 8.853,00 |
| COMPRESSOR DRIVE CFR-HP 150 | 1500 | 75800604 | 9.933,00 |
| COMPRESSOR DRIVE CFR-HP 230 | 2300 | 75800605 | 12.151,00 |
| COMPRESSOR DRIVE CFR-HP 320 | 3200 | 75800606 | 13.381,00 |
| COMPRESSOR DRIVE CFR-HP 450 | 4500 | 75800607 | 15.958,00 |








| Model with fan EC and compressor ON-OFF | Air flow m ³ /h | Code | € |
|---|----------------------------|-----------------|------------------|
| COMPRESSOR DRIVE CFR-HPE 35 | 350 | 75801601 | 8.810,00 |
| COMPRESSOR DRIVE CFR-HPE 60 | 600 | 75801602 | 9.184,00 |
| COMPRESSOR DRIVE CFR-HPE 100 | 1000 | 75801603 | 10.387,00 |
| COMPRESSOR DRIVE CFR-HPE 150 | 1500 | 75801604 | 11.542,00 |
| COMPRESSOR DRIVE CFR-HPE 230 | 2300 | 75801605 | 14.119,00 |
| COMPRESSOR DRIVE CFR-HPE 320 | 3200 | 75801606 | 16.075,00 |
| COMPRESSOR DRIVE CFR-HPE 450 | 4500 | 75801607 | 18.647,00 |

| Model with fan EC and compressor INVERTER | Air flow m ³ /h | Code | € |
|---|----------------------------|-----------------|------------------|
| COMPRESSOR DRIVE CFR-HPEI 35 | 350 | 75801608 | 10.131,00 |
| COMPRESSOR DRIVE CFR-HPEI 60 | 600 | 75801609 | 10.505,00 |
| COMPRESSOR DRIVE CFR-HPEI 100 | 1000 | 75801610 | 12.216,00 |
| COMPRESSOR DRIVE CFR-HPEI 150 | 1500 | 75801611 | 13.467,00 |
| COMPRESSOR DRIVE CFR-HPEI 230 | 2300 | 75801612 | 16.214,00 |
| COMPRESSOR DRIVE CFR-HPEI 320 | 3200 | 75801613 | 18.225,00 |
| COMPRESSOR DRIVE CFR-HPEI 450 | 4500 | 75801614 | 20.796,00 |

COMPRESSOR DRIVE CFR HP - CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and supporting thermodynamic compressor







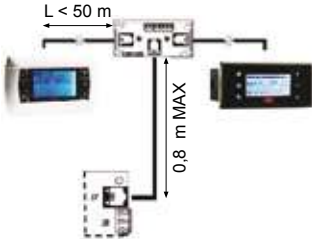


Accessories COMPRESSOR DRIVE

| | | Code | € |
|--|---------------------|----------|----------|
|  <p>PRE/POST electrical heating</p> | mod. PRE 35 - 60 | 75800620 | 581,00 |
| | mod. PRE 100 - 150 | 75800621 | 642,00 |
| | mod. PRE 230 | 75800622 | 813,00 |
| | mod. PRE 320 | 75800623 | 1.015,00 |
| | mod. PRE 450 | 75800624 | 1.230,00 |
| | mod. POST 35 - 60 | 75801615 | 581,00 |
| | mod. POST 100 - 150 | 75801616 | 642,00 |
| | mod. POST 230 | 75801617 | 813,00 |
| | mod. POST 320 | 75801618 | 1.015,00 |
| | mod. POST 450 | 75801619 | 1.230,00 |
|  <p>Section with hot / cold water coil</p> | mod. 35 - 60 | 75800630 | 674,00 |
| | mod. 100 | 75800631 | 770,00 |
| | mod. 150 | 75800632 | 991,00 |
| | mod. 230 | 75800633 | 1.144,00 |
| | mod. 320 | 75800634 | 1.219,00 |
| | mod. 450 | 75800635 | 1.459,00 |
|  <p>2 or 3 way valve kit with on / off servomotor for adjusting the auxiliary water coil</p> | mod. 2 vie 35 - 320 | 75800640 | 447,00 |
| | mod. 2 vie 450 | 75800641 | 464,00 |
| | mod. 3 vie 35 - 320 | 75800645 | 480,00 |
| | mod. 3 vie 450 | 75800646 | 501,00 |
|  <p>High efficiency filters class F7</p> | mod. 35 - 60 | 75800650 | 75,00 |
| | mod. 100 | 75800651 | 153,00 |
| | mod. 150 | 75800652 | 171,00 |
| | mod. 230 | 75800653 | 198,00 |
| | mod. 320 | 75800654 | 230,00 |
| | mod. 450 | 75800655 | 374,00 |
|  <p>Circular attacks</p> | mod. 35 - 60 | 75800670 | 207,00 |
| | mod. 100 | 75800671 | 243,00 |
| | mod. 150 | 75800672 | 278,00 |
| | mod. 230 | 75800673 | 323,00 |
| | mod. 320 | 75800674 | 366,00 |
| | mod. 450 | 75800675 | 408,00 |
|  <p>Damper with ON - OFF servocontrol</p> | mod. 35 - 60 | 75800611 | 331,00 |
| | mod. 100 | 75800612 | 353,00 |
| | mod. 150 | 75800613 | 369,00 |
| | mod. 230 | 75800614 | 422,00 |
| | mod. 320 | 75800615 | 444,00 |
| | mod. 450 | 75800616 | 470,00 |
|  <p>Damper with ON - OFF spring return actuator</p> | mod. 35 - 60 | 75801620 | 508,00 |
| | mod. 100 | 75801621 | 529,00 |
| | mod. 150 | 75801622 | 545,00 |
| | mod. 230 | 75801623 | 609,00 |
| | mod. 320 | 75801624 | 636,00 |
| | mod. 450 | 75801625 | 658,00 |

COMPRESSOR DRIVE CFR HP - CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and supporting thermodynamic compressor

Accessories COMPRESSOR DRIVE

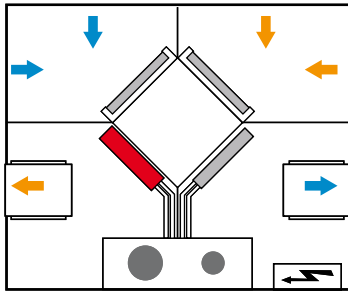
| | | Code | € |
|---|---|----------------|-------------------|
|  | Channel silencer | mod. 35 - 60 | 75800680 447,00 |
| | | mod. 100 | 75800681 829,00 |
| | | mod. 150 | 75800682 906,00 |
| | | mod. 230 | 75800683 1.005,00 |
| | | mod. 320 | 75800684 1.069,00 |
| | | mod. 450 | 75800685 1.272,00 |
|  | Section 3 Shutters for mixing / recirculation with ON - OFF servo control | mod. 35 - 60 | 75801626 2.192,00 |
| | | mod. 100 - 150 | 75801627 2.299,00 |
| | | mod. 230 | 75801628 2.673,00 |
| | | mod. 320 | 75801629 2.726,00 |
| | | mod. 450 | 75801630 2.769,00 |
|  | Pressure switch to signal filter clogging | 75800610 | 159,00 |
|  | Sanitation system Bioxigen® | mod. 35 - 60 | 75800690 385,00 |
| | | mod. 100 | 75800691 599,00 |
| | | mod. 150 | 75800692 620,00 |
| | | mod. 230 | 75800693 695,00 |
| | | mod. 320 | 75800694 909,00 |
| | | mod. 450 | 75800695 1.048,00 |
|  | Weatherproof canopy | mod. 35 - 60 | 75801631 519,00 |
| | | mod. 100 - 150 | 75801632 567,00 |
| | | mod. 230 - 320 | 75801633 871,00 |
| | | mod. 450 | 75801634 1.080,00 |
|  | Direct air intake hoods | mod. 35 - 60 | 75801635 107,00 |
| | | mod. 100 | 75801636 160,00 |
| | | mod. 150 | 75801637 214,00 |
| | | mod. 230 | 75801638 267,00 |
| | | mod. 320 | 75801639 321,00 |
| | | mod. 450 | 75801640 321,00 |
|  | Remote user terminal | 75800696 | 577,00 |
|  | Card Modbus | 75800697 | 235,00 |
|  | CO2 probe for ventilation control according to the quality of the ambient air | mod. duct | 75800698 813,00 |
| | | mod. wall | 75800699 706,00 |

COMPRESSOR DRIVE CFR HP - CFR HPE - CFR HPEI

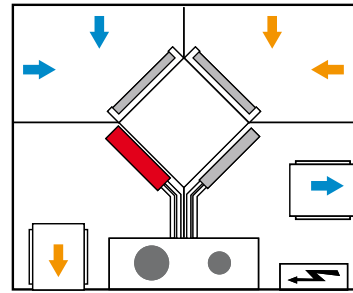
Air conditioning and dehumidification system with air renewal and supporting thermodynamic compressor

Possible orientations COMPRESSOR DRIVE

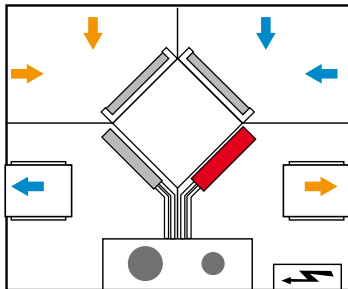
Orientation type 01 for mod. HP-HPE-HPEI



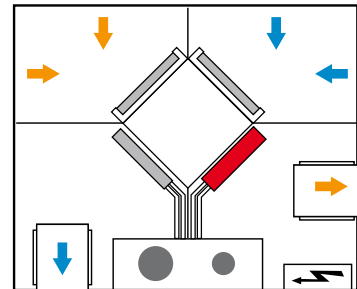
Orientation type 02 for mod. HP-HPE



Orientation type 01S for mod. HP-HPE-HPEI

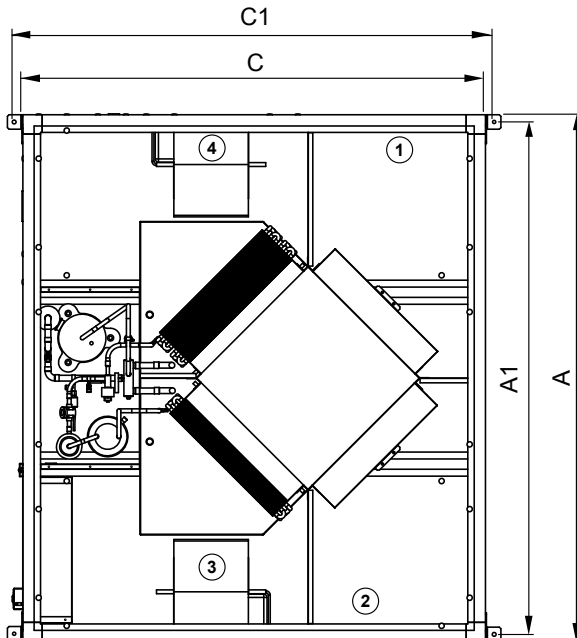
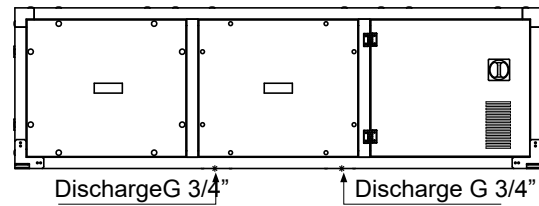
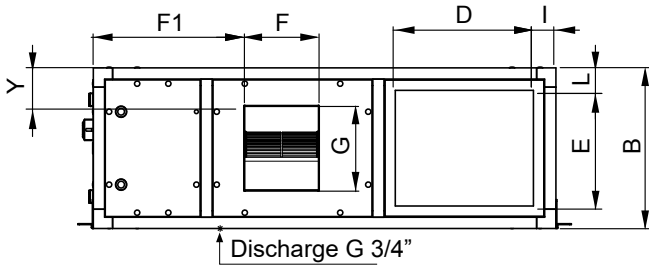


Orientation type 02S for mod. HP-HPE



Legend: Air expelled Fresh air - The guidelines shown refer to the machines seen from above

Dimensions and weights of models COMPRESSOR DRIVE



(1) external air intake
(2) ambient air intake
(3) treated air intake (4) stale air expulsion

| Model | U.M. | 35 | 60 | 100 | 150 | 230 | 320 | 450 |
|--------|------|------|------|------|------|------|------|------|
| A | mm | 1540 | 1540 | 1840 | 1840 | 2040 | 2040 | 2240 |
| B | mm | 370 | 370 | 410 | 500 | 550 | 650 | 710 |
| C | mm | 1240 | 1240 | 1440 | 1440 | 1690 | 1690 | 1890 |
| A1 | mm | 1495 | 1495 | 1795 | 1795 | 1995 | 1995 | 2195 |
| C1 | mm | 1294 | 1294 | 1494 | 1494 | 1744 | 1744 | 1944 |
| D | mm | 300 | 300 | 400 | 400 | 500 | 500 | 600 |
| E | mm | 210 | 210 | 250 | 350 | 410 | 510 | 550 |
| F | mm | 232 | 232 | 233 | 233 | 299 | 332 | 332 |
| F1 | mm | 458 | 458 | 703 | 470 | 571 | 500 | 604 |
| G | mm | 115 | 115 | 264 | 264 | 264 | 291 | 291 |
| I | mm | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| L | mm | 80 | 80 | 80 | 75 | 70 | 70 | 80 |
| Y | mm | 90 | 90 | 55 | 118 | 120 | 180 | 180 |
| Weight | Kg | 122 | 125 | 185 | 228 | 267 | 281 | 329 |

COMPRESSOR DRIVE CFR HP - CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and supporting thermodynamic compressor

Technical data table COMPRESSOR DRIVE HP - HPE

| Model | U.M. | 35 | | 60 | | 100 | | 150 | | 230 | | 320 | | 450 | |
|---------------------------------|-------------------|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|----------|-----|
| | | HP | HPE | HP | HPE | HP | HPE | HP | HPE | HP | HPE | HP | HPE | HP | HPE |
| Nominal air flow | m ³ /h | 350 | | 600 | | 1000 | | 1500 | | 2300 | | 3200 | | 4500 | |
| Useful static delivery pressure | Pa | 165 | 270 | 170 | 285 | 195 | 295 | 155 | 290 | 155 | 365 | 185 | 265 | 175 | 270 |
| Useful static pressure resumed | Pa | 140 | 245 | 100 | 215 | 140 | 240 | 95 | 230 | 95 | 305 | 115 | 195 | 110 | 205 |
| Sound pressure level (1) | dB(A) | 59/47/52 | | 64/50/55 | | 62/49/54 | | 67/54/57 | | 65/51/59 | | 68/54/59 | | 70/56/59 | |

FUNCTIONAL LIMITS

| | | | | | | | | | | | | | | | |
|-----------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Winter limit conditions(2) | | MIN -10 °C OUT & MIN 19 °C 50% IN (6) MIN - 20 °C OUT & MIN 19 °C 50% IN (7) | | | | | | | | | | | | | |
| Summer limit conditions (2) | | MAX 38 °C 50% OUT & MAX 27 °C IN | | | | | | | | | | | | | |
| Flow rate variation range | % | - 10 +10 | | | | | | | | | | | | | |

ELECTRICAL DATA

| Power supply | | 230V/1/50Hz | | | | 450V/3+N/50Hz | | | |
|------------------------------|---|-------------|-----|------|----|---------------|------|------|--|
| Maximum absorbed current (2) | A | 5,3 | 9,0 | 13,2 | 20 | 10,0 | 15,4 | 16,8 | |

HEATING PERFORMANCE (3)

| | | | | | | | | |
|-------------------------------|-----|------|------|------|-------|-------|-------|-------|
| Static recovery efficiency | % | 62 | 51 | 50 | 50 | 50 | 50 | 50 |
| Total heat output | W | 3580 | 5790 | 9410 | 14390 | 21190 | 30260 | 36010 |
| Active recovery thermal power | W | 1740 | 2960 | 5010 | 7690 | 11090 | 16300 | 17300 |
| COP global (4) | W/W | 10,9 | 9,6 | 9,2 | 8,6 | 8,9 | 9,9 | 12,6 |

PERFORMANCE IN COOLING (5)

| | | | | | | | | |
|----------------------------------|-----|------|------|------|------|-------|-------|-------|
| Static recovery efficiency | % | 56 | 50 | 50 | 50 | 50 | 50 | 49 |
| Total cooling capacity | W | 2210 | 3450 | 5840 | 8720 | 12830 | 18390 | 21440 |
| Active recovery cooling capacity | W | 1810 | 2680 | 4890 | 7270 | 10580 | 15310 | 16990 |
| EER global (4) | W/W | 4,2 | 3,9 | 4,2 | 3,9 | 3,9 | 4,1 | 5,0 |

REFRIGERANT CIRCUIT

| | | |
|--------------------|--|-------|
| Refrigerant | | R410A |
| Number compressors | | 1 |

(1) Referred to the nominal flow rate

(2) Sound pressure level evaluated at 1 meter from: ducted pressure socket / suction socket / compressor compartment

(3) Foreign air -5 °C 80% RH; ambient air 20 °C 50% RH

(4) Foreign air 32 °C 50% RH; ambient air 26 °C 50% RH

(5) Excluding the power absorbed for ventilation

(6) Standard lower limit

(7) Lower limit with 3 damper section mixing chamber accessory, at nominal flow rate and with maximum fresh air percentage of 40%

COMPRESSOR DRIVE CFR HP - CFR HPE - CFR HPEI

Air conditioning and dehumidification system with air renewal and supporting thermodynamic compressor

Technical data table COMPRESSOR DRIVE HPEI

| Model | U.M. | 35 HPEI | 60 HPEI | 100 HPEI | 150 HPEI | 230 HPEI | 320 HPEI | 450 HPEI |
|-------------------------------------|-------------------|----------|----------|----------|----------|----------|----------|----------|
| Nominal air flow | m ³ /h | 350 | 600 | 1000 | 1500 | 2300 | 3200 | 4500 |
| Useful static delivery pressure (1) | Pa | 270 | 285 | 295 | 290 | 365 | 265 | 270 |
| Useful static pressure resumed (1) | Pa | 215 | 215 | 240 | 230 | 305 | 195 | 205 |
| Sound pressure level (2) | dB(A) | 59/47/51 | 64/50/55 | 62/49/55 | 67/54/57 | 65/51/60 | 68/54/59 | 70/56/60 |

FUNCTIONAL LIMITS

| | | | | | | | | |
|--|---|-----------------------------------|---------|---------|---------|---------|---------|---------|
| Winter limit conditions standard version | | MIN -10 °C OUT & MIN 19 °C 50% IN | | | | | | |
| Winter limit conditions with sect. 3 shutters(6) | | MIN -20 °C OUT & MIN 19 °C 50% IN | | | | | | |
| Summer limit conditions | | MAX 38 °C 50% OUT & MAX 27 °C IN | | | | | | |
| Flow rate variation range | % | -15 +20 | -35 +20 | -25 +20 | -35 +20 | -30 +20 | -35 +20 | -35 +20 |

ELECTRICAL DATA

| Power supply | | 230V/1/50Hz | | | | 450V/3+N/50Hz | | |
|--------------------------|---|-------------|-----|------|------|---------------|------|------|
| Maximum absorbed current | A | 5,5 | 9,0 | 13,0 | 20,0 | 10,0 | 16,0 | 18,0 |

HEATING PERFORMANCE(3)

| | | | | | | | | |
|-------------------------------|-----|------|------|------|------|------|------|------|
| Static recovery efficiency | % | 62 | 51 | 50 | 50 | 50 | 50 | 50 |
| Total heat output | kW | 3,4 | 5,7 | 9,8 | 14,3 | 20,8 | 29,6 | 35,6 |
| Active recovery thermal power | kW | 1,7 | 3,0 | 5,1 | 7,4 | 10,1 | 15,3 | 16,6 |
| COP global (5) | W/W | 10,3 | 8,9 | 9,4 | 9,6 | 12,6 | 10,6 | 13,8 |
| Intake temperature | °C | 23,5 | 23,2 | 24,1 | 23,0 | 21,5 | 23,0 | 19,0 |

PERFORMANCE IN COOLING (5)

| | | | | | | | | |
|----------------------------------|-----|------|------|------|------|------|------|------|
| Static recovery efficiency | % | 54 | 50 | 50 | 50 | 50 | 50 | 49 |
| Total cooling capacity | kW | 2,2 | 3,6 | 6,3 | 9,0 | 13,4 | 19,4 | 21,9 |
| Active recovery cooling capacity | kW | 1,8 | 3,0 | 5,3 | 7,5 | 11,0 | 16,2 | 17,7 |
| EER global (5) | W/W | 4,7 | 4,3 | 4,5 | 4,3 | 5,6 | 4,7 | 5,9 |
| Intake temperature | °C | 18,5 | 19,6 | 19,6 | 19,9 | 19,6 | 19,5 | 21,2 |

REFRIGERANT CIRCUIT

| | | |
|--------------------|--|-------|
| Refrigerant | | R410A |
| Number compressors | | 1 |

(1) Referred to the nominal flow rate

(2) Sound pressure level evaluated at 1 meter from: ducted pressure socket / suction socket / compressor compartment

(3) Foreign air -5 °C 80% RH; ambient air 20 °C 50% RH

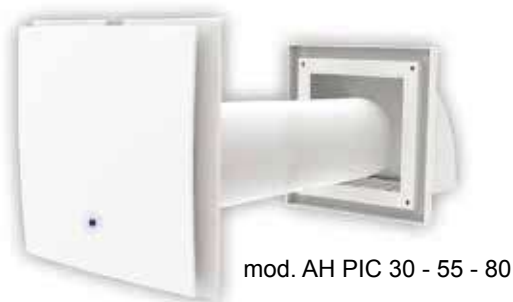
(4) Foreign air 32 °C 50% RH; ambient air 26 °C 50% RH

(5) Excluding the power absorbed for ventilation

(6) Lower limit with 3 damper section mixing chamber accessory, at nominal flow rate and with maximum fresh air percentage of 40%

AH PIC

Static single-flow point heat recovery units and wall-mounted cross flows



mod. AH PIC 30 - 55 - 80



mod. AH PIC 100



Remote control included



ENERGY
SAVING



AIR
EXCHANGE



HEAT
RECOVERY



WI - FI



EFFICIENCY
95%



ENERGY
RECOVER

Technical and construction features

AH PIC 30 - 55 - 80

Thanks to its reversible operation, the AH PIC 30 - 65 - 80 wall-mounted point recovery unit allows you to create a comfortable microclimate and at the same time allows air to be changed in homes.

AH PIC 30 - 65 - 80 offers the best solution for energy saving and ventilation of residential or commercial premises. The high efficiency of the aspirator - extractor (up to 90%) is guaranteed by the presence of a honeycomb structure heat exchanger made of ceramic material AH PIC 30 - 65 - 80 is easy to install and maintain, it is characterized by an operation silent.

AH PIC 100

The AH PIC 100 point wall recovery unit is an innovative cross-flow heat recovery system that ensures proper air exchange in closed environments. thanks to the adoption of a high efficiency exchanger up to 95%, it allows the introduction of fresh air at a temperature close to that of the environment concerned, reducing the energy costs that would be incurred with traditional ventilation systems. AH PIC 100 is equipped with two fans which respectively provide for the expulsion of stale ambient air (unhealthy smells, smoke, pollutants, etc.), the other for the simultaneous introduction of new air from the outside. thanks to the particular shape of the exchanger, the expelled stale air and the new one introduced never come into contact with each other.

- all AH PIC models are designed for wall installation - available with flow rates from 30 to 93 m³ / h
- no condensation during operation
- heat exchanger in high efficiency ceramic material - hole in wall Ø 103 mm - 128 mm - 153 mm - 204 mm
- built-in G2 grade filters
- low energy consumption fan
- suitable for continuous operation
- equipped with 3-speed remote control
- 220VAC - 12VDC power supply supplied
- minimum installation thickness 300 mm for mod. 30-55-80 -
- minimum installation thickness 370 mm for mod. 100

| Model | Air flow m ³ /h | Code | € |
|------------|----------------------------|----------|----------|
| AH PIC 30 | 23 ÷ 28 | 75801319 | 668,00 |
| AH PIC 55 | 23 ÷ 46 | 75801320 | 732,00 |
| AH PIC 80 | 39 ÷ 74 | 75801321 | 806,00 |
| AH PIC 100 | 70 ÷ 91 | 75801322 | 1.050,00 |

Accessories AH PIC



Cable in coil of 100 meters - 6P
for the connection of 4 AH PIC recuperators in
cascade

75801323

254,00



Connectors for RJ11 cascade
connection cable - pack of 100 pcs

75801324

60,00



Power supply for connection of
4 AH PIC 36W cascade recuperators

mod. 30/55
mod. 80/100

75801326

included
42,00

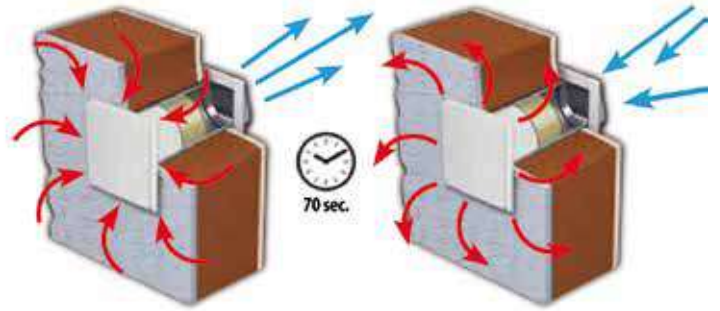
AH PIC

Static single-flow point heat recovery units and wall-mounted cross flows

Operation diagram AH PIC

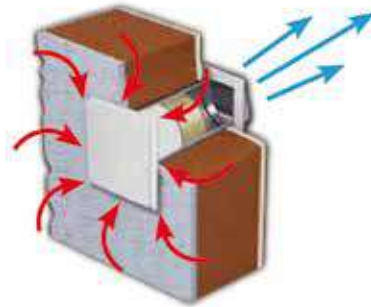
RECOVERER

The device works for 70 seconds on suction and 70 seconds on injection, with the possibility of adjusting the three speeds. In the case of the recuperator mod. AH PIC 100 the fans work at the same time (extraction and supply).



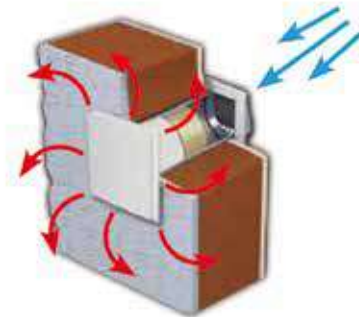
EXTRACTION

The device works by extracting the internal air of the premises only with the possibility of adjusting the three speeds.



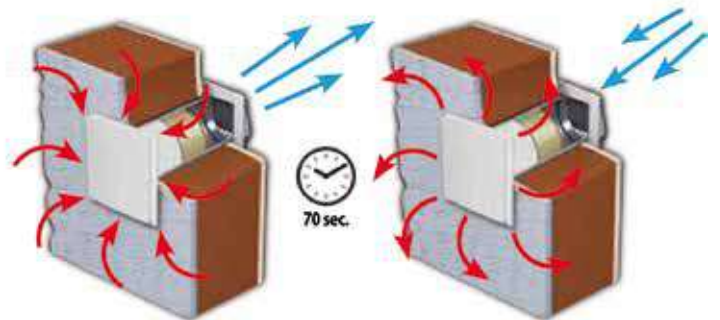
INTAKE

The device works in intake only by sucking the air outside the house by introducing it into the room, it is possible to adjust the three speeds.



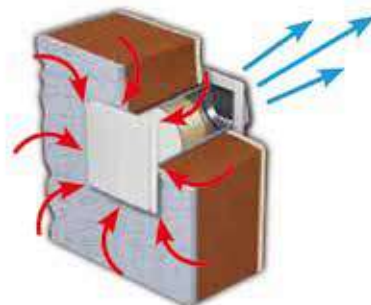
AUTO1

The device is in stand-by when the air in the environment exceeds the humidity threshold set at 60%, the device starts in a recovery function until the humidity is brought back within the required parameters.



AUTO2

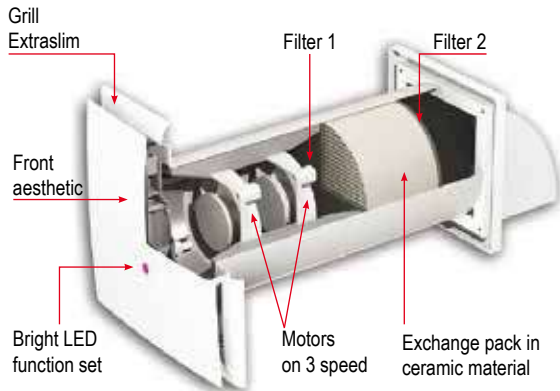
The device is in stand-by when the air in the room exceeds the humidity threshold set at 60%, the device starts in extraction only until the humidity is brought back within the required parameters.



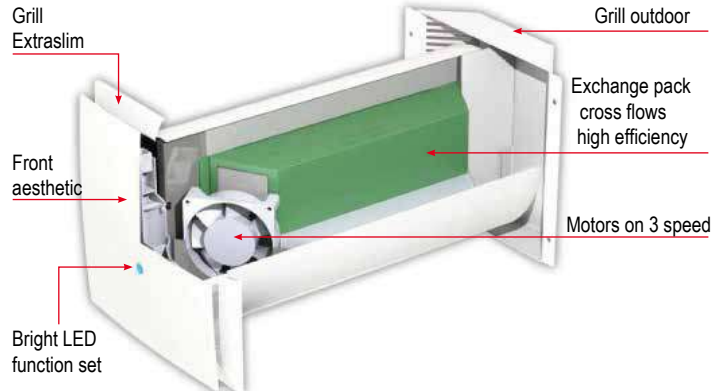
AH PIC

Static single-flow point heat recovery units and wall-mounted cross flows

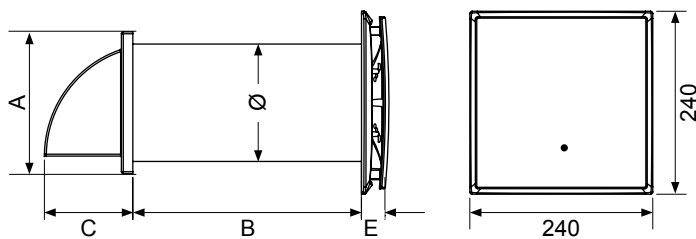
exploded view AH PIC 30-55-80



exploded view AH PIC 100



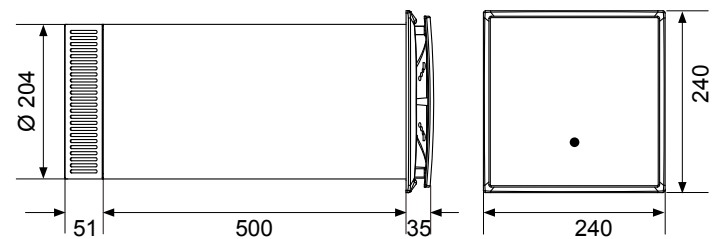
Dimensions AH PIC 30 - 55 - 80



| Mod. | A | B | C | Ø | E |
|------|-----|-----|-----|-----|----|
| 30 | 154 | 500 | 86 | 103 | 35 |
| 55 | 186 | 500 | 101 | 128 | 35 |
| 80 | 186 | 500 | 101 | 153 | 35 |

Values in mm

Dimensions AH PIC 100



Technical data table AH PIC

| Model | U.M. | AH PIC 30 | | | AH PIC 55 | | | AH PIC 80 | | | AH PIC 100 | | |
|---------------------------|-------------------|-------------|------|------|-----------|------|------|-----------|------|------|------------|------|------|
| | | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| Speed | n. | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| Power supply | | 230V/1/50Hz | | | | | | | | | | | |
| Power | W | 1,3 | 1,4 | 1,4 | 1,3 | 1,6 | 2,2 | 1,7 | 2,6 | 3,6 | 6,6 | 7,7 | 8,4 |
| Max current consumption | mA | 38 | 42 | 47 | 65,5 | 73 | 81 | 162 | 180 | 200 | 550 | 640 | 700 |
| Air flow | m ³ /h | 23 | 25 | 28 | 23 | 35 | 46 | 39 | 64 | 74 | 70 | 81 | 91 |
| RPM | min-1 | 1863 | 2070 | 2300 | 2016 | 2340 | 2600 | 2350 | 2610 | 2900 | 3395 | 4070 | 4500 |
| Sound pression* | dB(A) | 27 | 28 | 29 | 24 | 28 | 34 | 28 | 35 | 39 | 46 | 48 | 50 |
| Sound pression** | dB(A) | 25 | 26 | 27 | 23 | 26 | 32 | 26 | 33 | 37 | 43 | 46 | 47 |
| Temp. max air | °C | -10 / +50 | | | | | | | | | | | |
| Regenerator efficiency | % | ≤ 90 | | | | | | | | | ≤ 95 | | |
| Degree of protection | | IP 24 | | | | | | | | | | | |
| Exchange package material | | ceramic | | | | | | | | | polyester | | |
| Pipe diameter | mm | 103 | | | 128 | | | 153 | | | 204 | | |

* Measured in free field at a distance of 1 meter

** Measured in free field at 3 meters distance

AREVENT PRH - AOXYVENT PRH

Residential heat recovery unit for horizontal and vertical installation



Optional user interface



ERP 2018
COMPLIANT



ENERGY
SAVING



HEAT RECOVERY
HIGH EFFICIENCY



ENERGY
RECOVERY



DIMENSIONS
COMPACT



INSTALLATION
SIMPLE

Technical and construction features

AREVENT PRH

The AREVENT PRH heat recovery unit extracts stale air and introduces fresh air with high efficiency heat recovery for residential applications.

AREVENT PRH units can be integrated with existing heating and air conditioning systems.

AREVENT PRH recovery units are the ideal solution to facilitate installations of any type, allowing for easy handling and reducing assembly times.

The range consists of four models for horizontal ceiling or vertical wall installation, consisting of:





- Enclosure and lid in expanded polypropylene equipped with sheets reinforcement terns for closing the sealing elements and for fixing to the ceiling / wall; internal aerodynamic shaping of the air circuits designed to minimize pressure drops and noises.
- Synthetic filters in efficiency class ISO 16890 ePM10 50% (optional and in addition, compact ePM1 70% polypropylene filters with low pressure drop).
- Static air-to-air recovery unit in very high counter-current efficiency in polystyrene complete with motorized bypass system.
- Free impeller fans in polyamide and reinforced glass fiber directly coupled to EC electric motor.
- Circular aeraulic connections in plastic material equipped with additional sealing gasket.
- Recovery unit complete with motorized partial by-pass system
- Electronic control complete with NTC probes and user interface
- User interface and wireless remote sensors.

AOXYVENT PRH

The AOXYVENT PRH unit differs from the AREVENT PRH series due to the presence of the Bioxygen® sanitation system with channel module. Bioxygen® is the only ionization technology to have obtained the validation of TÜV-PROFI CERT efficacy tests.

| Model | Air flowm ³ /h | Winter thermal efficiency | Code | € |
|-------------------------|---------------------------|---------------------------|-----------------|-----------------|
| AREVENT PRH 150 | 170 | 90,2% | 75800853 | 1.989,00 |
| AREVENT PRH 280 | 260 | 90,0% | 75800854 | 2.299,00 |
| AOXYVENT PRH 150 | 170 | 90,2% | 75800855 | 2.416,00 |
| AOXYVENT PRH 280 | 260 | 90,0% | 75800856 | 2.726,00 |








Accessories AREVENT PRH - AOXYVENT PRH

| | | | | |
|---|-----------------------------------|---|------------------------------------|--------------------------------|
|  | PRE/POST electric heating | mod. PRE 150 - 280 mod. POST 150 - 280 | 75800857 75800858 | 479,00 479,00 |
|  | POST water cooling / heating coil | | 75800859 | 500,00 |
|  | 2-way on-off valve | | 75800860 | 123,00 |
|  | Modulating 3-way valve | | 75800861 | 331,00 |

AREVENT PRH - AOXYVENT PRH

Residential heat recovery unit for horizontal and vertical installation

Accessories AREVENT PRH - AOXYVENT PRH

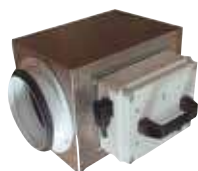
| | | Code | € | |
|---|--|---|-----------------|---------------|
|  | Circular duct silencer | 75800864 | 101,00 | |
|  | Push-button panel with 4 keys, wireless remote user interface communicating in radio frequency | 75800865 | 104,00 | |
|  | Control panel | 75800866 | 235,00 | |
|  | Additional antenna | 75800869 | 26,00 | |
|  | Compact filter ePM ₁ e70% | mod. 150 | 75800862 | 60,00 |
| | | mod. 280 | 75800863 | 69,00 |
|  | Probe for ventilation control according to air quality and humidity in the environment | Sonda CO₂ aria ambiente | 75800867 | 426,00 |
| | | Sonda umidità da parete | 75800868 | 211,00 |
|  | Ethernet network bridge to interface the heat recovery unit with external devices through its connection to the Ethernet network | 75800896 | 300,00 | |

AREVENT MRN - AOXYVENT MRN optional accessories compatibility

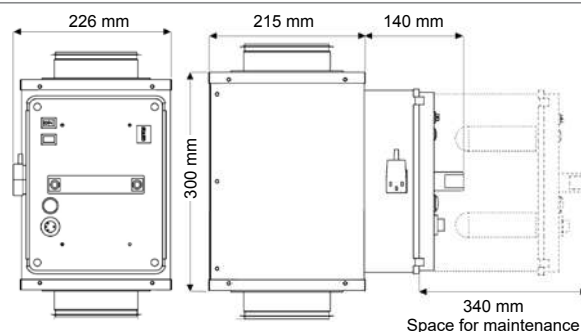
The following table illustrates the compatibility between the various optional accessories and the regulation and control systems. Each possible configuration is identified by a number at the top of the column which must be read vertically: the point indicates the compatibility between the accessory and the electronic controller. Example: if you want to adjust the recovery unit, having the duct pre-heating electrical resistance accessory, 3-way valve kit with modulating servomotor, wall humidity sensor, compatibility is checked at configuration 3.

| Configuration identifier | ➔ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|---|---|---|---|---|---|---|
| Duct pre-heating electrical resistance | | • | | • | • | | | |
| Duct post-heating electrical resistance | | | • | | | | | |
| Duct water pre-heating coil | | | | | | • | • | • |
| Canal water post-heating coil | | | | • | | | • | |
| Duct cooling and heating water post-treatment coil | | | | | • | | | • |
| 2-way valve kit with ON / OFF servomotor | | | | | | • | • | • |
| 3-way valve kit with modulating servomotor with post-treatment | | | | • | • | | • | • |
| Version AOXYVENT MRN | | • | • | | | | | |
| User interface 4 keys | | • | • | • | • | • | • | • |
| Sensor CO ₂ | | • | • | • | • | • | • | • |
| Wall humidity sensor | | • | • | • | • | • | • | • |
| Additional antenna | | • | • | • | • | • | • | • |
| Control panel | | • | • | • | • | • | • | • |
| Ethernet network bridge | | • | • | • | • | • | • | • |

Technical characteristics of the Bioxygen® module for AOXYVENT PRH



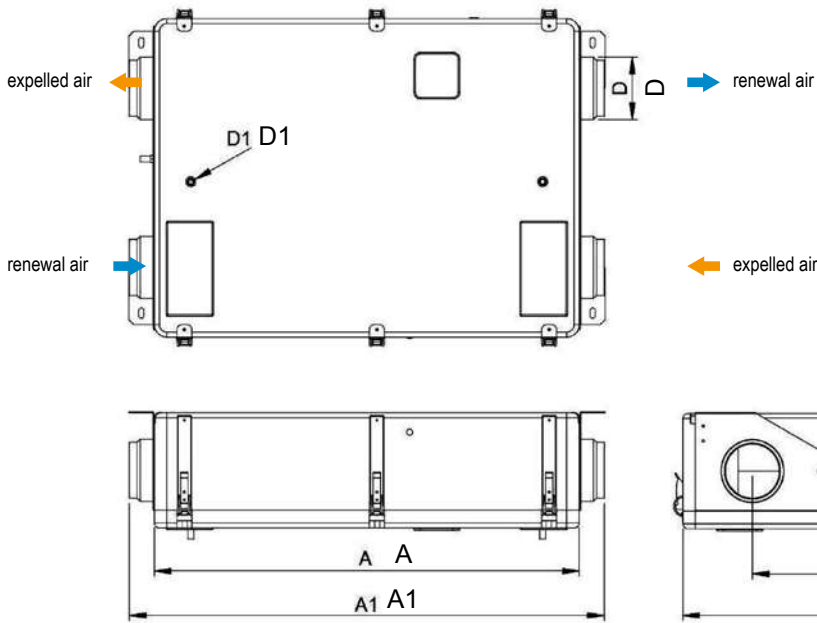
Stainless steel module to be channeled. It is active when the unit is switched on and is able to achieve effective antibacterial abatement, ensuring perfect sanitization of the treated air. It is inserted in the external / supply air circuit, in correspondence with the air delivery duct. The insertion of the module does not induce appreciable pressure losses; take into account the maximum absorbed electrical power of 20 W.



AREVENT PRH - AOXYVENT PRH

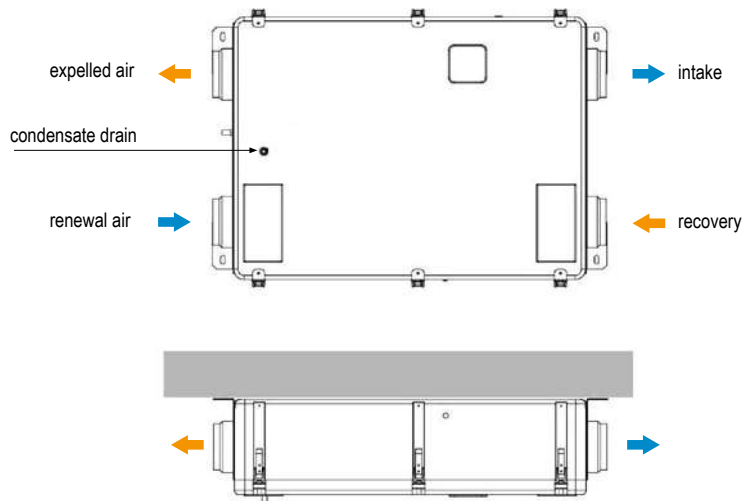
Residential heat recovery unit for horizontal and vertical installation

Dimensions and weights AREVENT PRH - AOXYVENT PRH

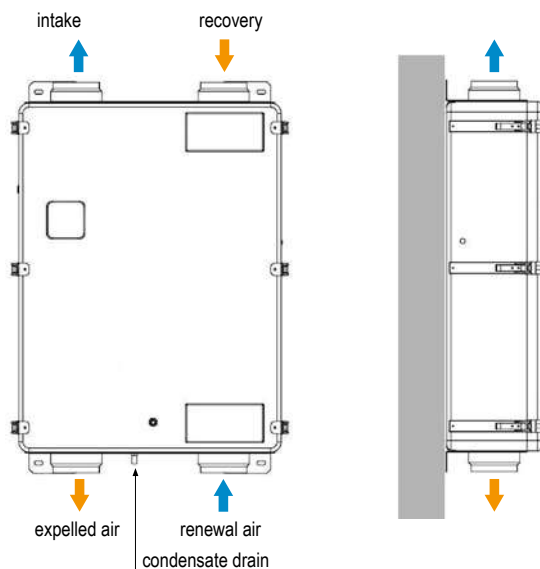


| Model | U.M. | 150 | 280 |
|--------|------|-----|-----|
| A | mm | 874 | 874 |
| A1 | mm | 972 | 972 |
| B | mm | 240 | 300 |
| C | mm | 655 | 655 |
| C1 | mm | 360 | 360 |
| D | mm | 125 | 125 |
| D1 | mm | 16 | 16 |
| Weight | Kg | 12 | 17 |

Configuration for horizontal ceiling installation AREVENT PRH - AOXYVENT PRH



Configuration for vertical wall installation AREVENT PRH - AOXYVENT PRH



AREVENT PRH - AOXYVENT PRH

Residential heat recovery unit for horizontal and vertical installation

Technical data table AREVENT PRH - AOXYVENT PRH

| | | | |
|---|-------------------|-------------|------------|
| Model | U.M. | 150 | 280 |
| Max nominal air flow at 100 Pa useful | m ³ /h | 170 | 260 |
| Nominal air flow | m ³ /h | 155 | 200 |
| Max useful static pressure at nominal flow rate | Pa | 150 | 170 |
| Power supply | | 230V/1/50Hz | |
| Total rated absorbed power | W | 58 | |
| Total rated absorbed current | A | 0,6 | 0,7 |
| Absorbed electrical power max | W | 136 | 172 |
| Total absorbed current | A | 1,0 | 1,2 |

OPERATIONAL LIMITS

| | | | |
|--|--------|-------------------|--|
| Temperature conditions - external limit humidity | °C / % | -5 +45 / 5 ÷ 95 | |
| Temperature conditions - external limit humidity (with electric pre-heating coil accessory) | °C / % | -15 +45 / 5 ÷ 95 | |
| Internal temperature - humidity conditions | °C / % | +10 +35 / 10 ÷ 90 | |

HEAT RECOVERY

| | | | |
|-------------------------------|----|------|------|
| Winter thermal efficiency (1) | % | 90,2 | 90,0 |
| Supply air temperature (1) | °C | 17,5 | 17,4 |
| Summer thermal efficiency(2) | % | 84,2 | 83,9 |
| Supply air temperature(2) | °C | 26,9 | 27,0 |

ECODESIGN SPECIFIC DATA (3)

| | | | |
|--|-----------------------|----------------|-------|
| Type declared | | RVU - BVU duct | |
| Drive type installed and prescribed | | >3 Multispeed | |
| Type of recovery systemHRS | | Recovery | |
| SEC class temperate climate | | A | |
| Specific energy savings in the temperate climate | kWh(m ² a) | 34,5 | 34,3 |
| SEC class cold climate | | A+ | |
| Specific energy savings in cold climates | kWh(m ² a) | 71,7 | 70,8 |
| SEC class warm climate | | E | |
| Specific energy savings in hot climates | kWh(m ² a) | 10,6 | 10,7 |
| System dry thermal efficiency | % | 85,0 | 83,0 |
| Reference air flow | m ³ /s | 0,033 | 0,051 |
| Specific absorbed power | W(m ³ /h) | 0,336 | 0,308 |
| Reference pressure | Pa | 50 | |
| Control factor and typology | Timer | 0,95 | |
| Annual electricity consumption per 100m ² | kWh/a | 4,25 | 4,11 |
| Annual savings of temperate climate heating | kWh | 44,5 | 43,9 |
| Annual savings in cold climate heating | kWh | 87,0 | 85,8 |
| Annual savings of warm climate heating | kWh | 21,0 | 19,8 |
| Massimo trafilemento esterno dell'involucro | % | < 3,8 | |
| Maximum internal leakage or residual flow | % | < 3 | |
| Sound power level radiated by the casing | dB(A) | 51 | 55 |

(1) Outdoor air 5 °C, RH 80%, ambient air 20 °C, RH 50%

(2) Outdoor air 32 °C, RH 50%, ambient air 26 °C, RH 50%

(3) According to EU regulation 1253/2014: at the reference flow rate equal to 70% of the maximum, at 50 Pa useful

AREVENT MRN - AOXYVENT MRN

Residential heat recovery unit for vertical installation



Optional user interface



ERP 2018 COMPLIANT



ENERGY SAVING



HEAT RECOVERY HIGH EFFICIENCY



ENERGY RECOVERY



DIMENSIONS COMPACT



EASY INSTALLATION

Technical and construction features

AREVENT MRN

The AREVENT MRN heat recovery unit extracts the stale air and introduces fresh air with very high efficiency heat recovery for residential and commercial applications with moderate air exchange requirements.

AREVENT MRN heat recovery unit can be integrated with existing heating and air conditioning systems. AREVENT MRN is the ideal solution for installation in environments such as laundries, cellars, technical rooms in general, with vertical connections to the ducts.

The range for vertical floor or suspended installation consists of:

- High density expanded polypropylene casing and lid; internal aerodynamic shaping of the air circuits suitable for a minimize pressure drops and noises.
- Filters in efficiency class ISO 16890 and PM1 70% in polypropylene with low pressure drop.
- High efficiency counter-current static air-air recovery unit in polystyrene, complete with motorized by-pass system (total on 350, 500 and 600).
- Free impeller fans in polyamide and glass fiber reinforced directly coupled to EC electric motor.
- Reversible upper aeraulic connections between the room side and external side.
- Electronic control complete with temperature probes and user interface; integrated thermal by-pass.
- User interface and optional AOXYVENT MRN wireless remote sensors

OXYVENT differs from the REVENT series for the presence of the Bioxigen® sanitation system with channel module. Bioxigen® is the only ionization technology to have obtained the validation of TÜV-PROFI CERT efficacy tests.

| Model | Air flow m ³ /h | Winter thermal efficiency | Code | € |
|------------------|----------------------------|---------------------------|----------|----------|
| AREVENT MRN 150 | 152 | 87,2% | 75800874 | 2.213,00 |
| AREVENT MRN 250 | 250 | 87,0% | 75800876 | 2.609,00 |
| AREVENT MRN 350 | 352 | 85,7% | 75800877 | 2.694,00 |
| AREVENT MRN 500 | 500 | 88,2% | 75800879 | 3.325,00 |
| AREVENT MRN 600 | 610 | 84,8% | 75800880 | 3.689,00 |
| AOXYVENT MRN 150 | 152 | 87,2% | 75800881 | 2.641,00 |
| AOXYVENT MRN 250 | 250 | 87,0% | 75800883 | 3.037,00 |
| AOXYVENT MRN 350 | 352 | 85,7% | 75800884 | 3.282,00 |
| AOXYVENT MRN 500 | 500 | 88,2% | 75800886 | 3.967,00 |
| AOXYVENT MRN 600 | 610 | 84,8% | 75800887 | 4.330,00 |

Accessories AREVENT MRN - AOXYVENT MRN



PRE/POST electrical heating

| | | |
|---------------------|----------|--------|
| mod. PRE 150 - 250 | 75800857 | 494,00 |
| mod. PRE 350 | 75800888 | 581,00 |
| mod. PRE 500 - 600 | 75800889 | 593,00 |
| mod. POST 150 - 250 | 75800858 | 479,00 |
| mod. POST 350 | 75800890 | 581,00 |
| mod. POST 500 - 600 | 75800891 | 593,00 |











Battery POST cooling/heating water

| | | |
|----------------|----------|--------|
| mod. 150 - 250 | 75800859 | 500,00 |
| mod. 350 | 75800892 | 590,00 |
| mod. 500 - 600 | 75800893 | 618,00 |

AREVENT MRN - AOXYVENT MRN

Residential heat recovery unit for vertical installation

| Accessories AREVENT MRN - AOXYVENT MRN | | Code | € | |
|---|--|------------------------------------|-----------------|---------------|
|  | 2-way valve with on-off servomotor | 75800860 | 123,00 | |
|  | 3-way valve with modulating servomotor | 75800861 | 331,00 | |
|  | Circular duct silencer | mod. 150 - 250 | 75800864 | 101,00 |
| | | mod. 350 | 75800894 | 115,00 |
| | | mod. 500 - 600 | 75800895 | 155,00 |
|  | Push-button panel with 4 keys, wireless remote user interface communicating in radio frequency | 75800865 | 104,00 | |
|  | Control panel | 75800866 | 235,00 | |
|  | Probe for ventilation control according to air quality and humidity in the environment | Ambient air CO2 probe | 75800867 | 426,00 |
| | | Wall-mounted humidity probe | 75800868 | 211,00 |
|  | Additional antenna | 75800869 | 26,00 | |
|  | Ethernet network bridge to interface the heat recovery unit with external devices through its connection to the Ethernet network | 75800896 | 300,00 | |

AREVENT MRN - AOXYVENT MRN optional accessories compatibility

The following table illustrates the compatibility between the various optional accessories and the regulation and control systems. Each possible configuration is identified by a number at the top of the column which must be read vertically: the point indicates the compatibility between the accessory and the electronic controller. Example: if you want to adjust the recovery unit, having the duct pre-heating electric resistor accessory, 3-way valve kit with modulating servomotor, wall humidity sensor, compatibility is checked at configuration 3.

| Configuration identifier | ➔ | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|---|---|---|---|---|---|---|
| Duct pre-heating electrical resistance | | • | | • | • | | | |
| Duct post-heating electrical resistance | | | • | | | | | |
| Duct water pre-heating coil | | | | | | • | • | • |
| Channel water post-heating coil | | | | • | | | • | |
| Duct cooling and heating water post-treatment coil | | | | | • | | | • |
| 2-way valve kit with ON / OFF servomotor | | | | | | • | • | • |
| 3-way valve kit with modulating servomotor with post-treatment | | | | • | • | | • | • |
| Version AOXYVENT MRN | | • | • | | | | | |
| 4 button user interface | | • | • | • | • | • | • | • |
| Sensor CO2 | | • | • | • | • | • | • | • |
| Sensor wall humidity | | • | • | • | • | • | • | • |
| Additional antenna | | • | • | • | • | • | • | • |
| Control panel | | • | • | • | • | • | • | • |
| Ethernet network bridge | | • | • | • | • | • | • | • |

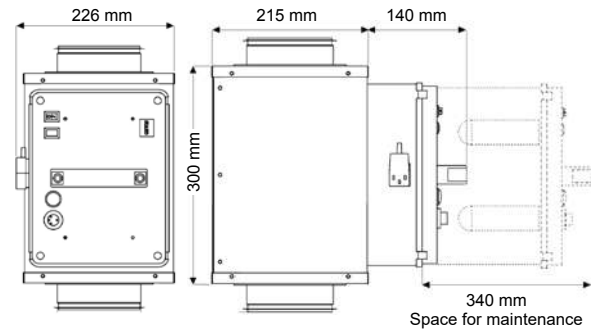
AREVENT MRN - AOXYVENT MRN

Residential heat recovery unit for vertical installation

Technical characteristics of the module Bioxigen® per AOXYVENT MRN



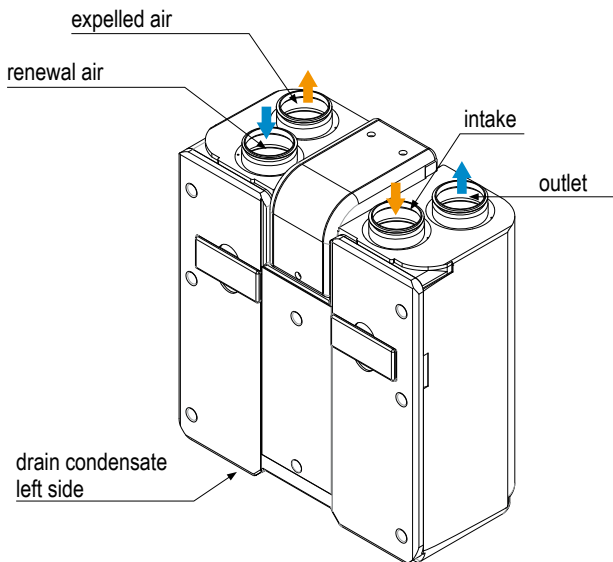
Stainless steel module to be channeled. It is active when the unit is switched on and is able to achieve effective antibacterial abatement, ensuring perfect sanitization of the treated air. It is inserted in the external / supply air circuit, in correspondence with the air delivery duct. The insertion of the module does not induce appreciable pressure losses; take into account the maximum absorbed electrical power of 20 W.



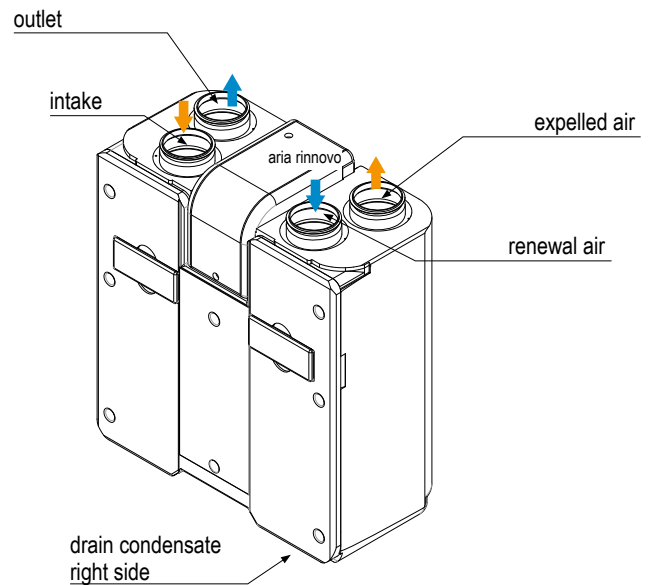
Configuration for vertical floor or suspended installation AREVENT MRN - AOXYVENT MRN

mod. 150 - 250

Orientation 1 Standard supply

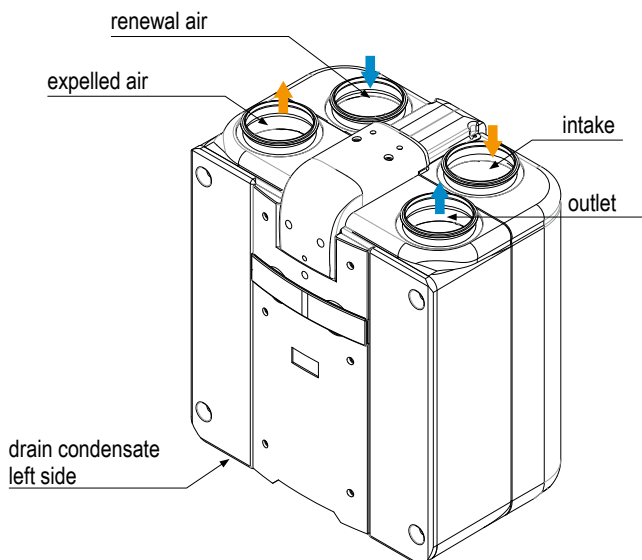


Orientation 2

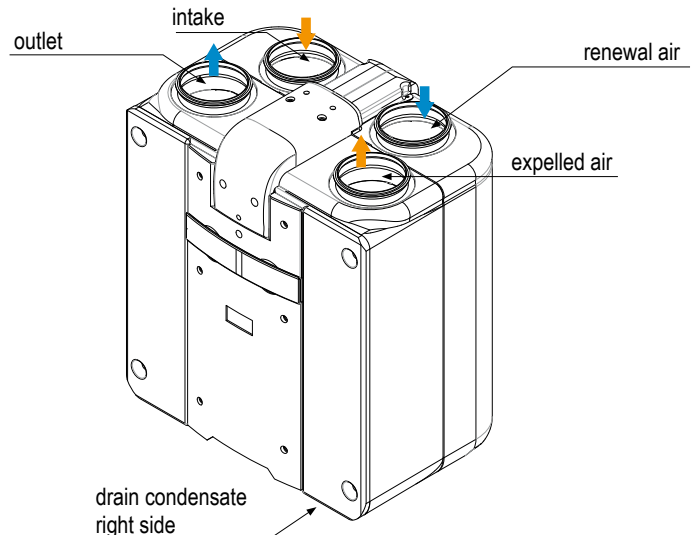


mod. 350 - 500 - 600

Orientation 1 Standard supply



Orientation 2

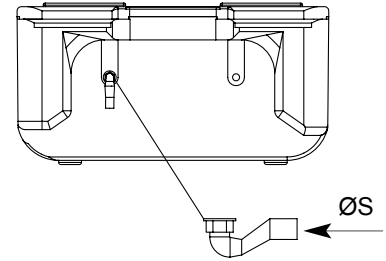
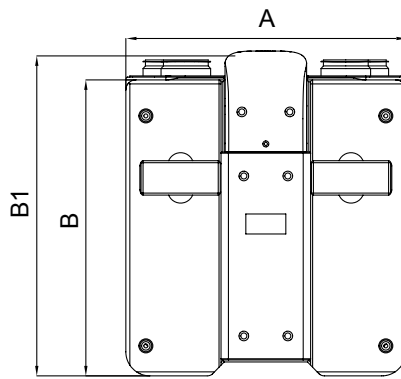
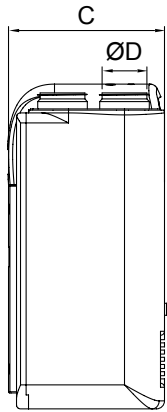


AREVENT MRN - AOXYVENT MRN

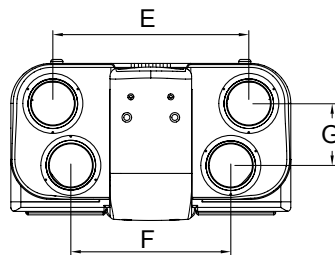
Residential heat recovery unit for vertical installation

Dimensions AREVENT MRN 150-250-350-500-600 - AOXYVENT MRN 150-250-350-500-600

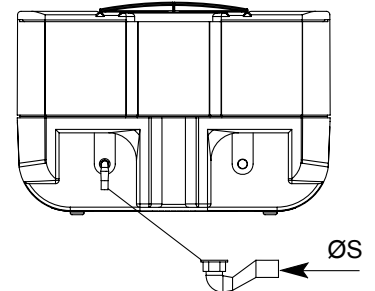
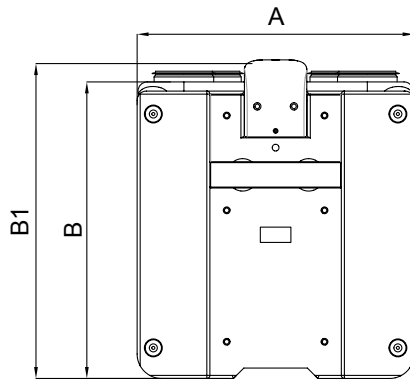
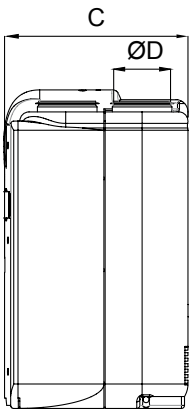
AREVENT MRN 150-250 - AOXYVENT MRN 150-250



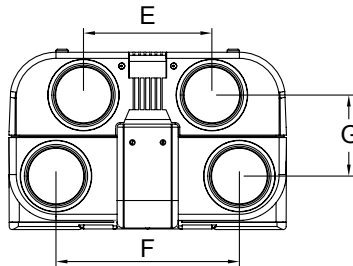
Standard version condensate drain
(on the left side of the unit)



AREVENT MRN 350-500-600 - AOXYVENT MRN 350-500-600



Standard version condensate drain
(on the left side of the unit)



| Model | U.M. | 150 | 250 | 350 | 500 | 600 |
|--------|------|-----|-----|------|------|------|
| A | mm | 700 | 700 | 905 | 905 | 905 |
| B | mm | 740 | 740 | 970 | 970 | 970 |
| B1 | mm | 800 | 800 | 1030 | 1030 | 1030 |
| C | mm | 390 | 390 | 600 | 600 | 600 |
| E | mm | 490 | 490 | 418 | 418 | 418 |
| F | mm | 400 | 400 | 600 | 600 | 600 |
| G | mm | 155 | 155 | 265 | 265 | 265 |
| ØD | mm | 125 | 125 | 200 | 200 | 200 |
| ØS | mm | 20 | 20 | 20 | 20 | 20 |
| Weight | Kg | 15 | 18 | 28 | 30 | 35 |

AREVENT MRN - AOXYVENT MRN

Residential heat recovery unit for vertical installation

Technical data table AREVENT MRN - AOXYVENT MRN

| Model | U.M. | 150 | 250 | 350 | 500 | 600 |
|---|-------------------|-------------|-----|-----|-----|-----|
| Max nominal air flow at 100 Pa useful | m ³ /h | 152 | 250 | 352 | 500 | 610 |
| Max useful static pressure at nominal flow rate | Pa | 300 | 100 | 280 | 100 | 100 |
| Power supply | | 230V/1/50Hz | | | | |
| Total rated absorbed power | W | 54 | 58 | 58 | 86 | 153 |
| Total rated absorbed current | A | 0,6 | 1,3 | 1,3 | 1,7 | 1,3 |
| Absorbed electrical power max | W | 136 | 136 | 196 | 196 | 340 |
| Max total absorbed current | A | 1,3 | 1,3 | 1,7 | 1,7 | 3,4 |

OPERATIONAL LIMITS

| | | | | | | |
|--|--------|-------------------|--|--|--|--|
| Temperature conditions - external limit humidity | °C / % | -5 +45 / 5 ÷ 95 | | | | |
| Temperature conditions - external limit humidity (with electric pre-heating coil accessory) | °C / % | -15 +45 / 5 ÷ 95 | | | | |
| Internal temperature - humidity conditions | °C / % | +10 +35 / 10 ÷ 90 | | | | |

HEAT RECOVERY

| | | | | | | |
|-------------------------------|----|------|------|------|------|------|
| Winter thermal efficiency (1) | % | 87,2 | 87,0 | 85,7 | 88,2 | 84,8 |
| Supply air temperature (1) | °C | 17,0 | 22,0 | 16,4 | 17,0 | 16,2 |
| Summer thermal efficiency (2) | % | 82,4 | 79,9 | 80,4 | 81,0 | 79,2 |
| Supply air temperature (2) | °C | 27,1 | 27,2 | 27,2 | 27,1 | 27,2 |

SPECIFIC DATA CODESIGN⁽³⁾

| | | | | | | |
|--|-----------------------|----------------|-------|-------|-------|-------|
| Type declared | | RVU - BVU duct | | | | |
| Drive type installed and prescribed | | >3 Multispeed | | | | |
| Type of recovery system HRS | | Recovery | | | | |
| Class SEC temperate weather | | A | | | | |
| Specific energy savings in the temperate climate | kWh(m ² a) | 35,4 | 35,1 | 36,9 | 38,7 | 35,2 |
| Class SEC cold weather | | A+ | | | | |
| Specific energy savings in cold climates | kWh(m ² a) | 72,6 | -70,7 | 73,7 | 76,1 | 71,6 |
| SEC class warm climate | | E | | | | |
| Specific energy savings in hot climates | kWh(m ² a) | 11,4 | 10,5 | 13,3 | 14,7 | 11,7 |
| System dry thermal efficiency | % | 85,4 | 83,1 | 83,6 | 84,2 | 82,4 |
| Reference air flow | m ³ /s | 0,030 | 0,049 | 0,068 | 0,097 | 0,119 |
| Specific absorbed power | W(m ³ /h) | 0,310 | 0,331 | 0,235 | 0,246 | 0,286 |
| Reference pressure | Pa | 50 | | | | |
| Control factor and type (Timer) | | 0,95 | | | | |
| Annual electricity consumption per 100m ² | kWh/a | 4,0 | 4,2 | 3,1 | 2,7 | 3,7 |
| Annual savings in temperate climate heating | kWh | 44,6 | 43,9 | 44,0 | 44,7 | 43,7 |
| Annual savings in cold climate heating | kWh | 87,2 | 85,9 | 86,2 | 87,5 | 85,4 |
| Annual savings of warm climate heating | kWh | 20,2 | 19,8 | 19,9 | 20,2 | 19,8 |
| Maximum external leakage of the casing | % | < 3,8 | | | | |
| Maximum internal leakage or residual flow | % | < 3 | | | | |
| Sound power level radiated by the casing | dB(A) | 49 | 52 | 54 | 55 | 55 |

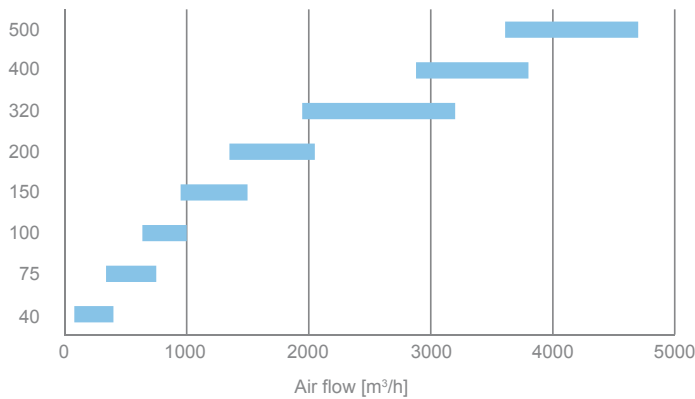
(1) Outdoor air 5 ° C, RH 80%, ambient air 20 ° C, RH 50%

(2) Outdoor air 32 ° C, RH 50%, ambient air 26 ° C, RH 50%

(3) According to EU regulation 1253/2014: at the reference flow rate equal to 70% of the maximum, at 50 Pa useful

ACFR+ ACFRE+

Horizontal heat recovery unit with static aluminum counter-current exchanger



Technical and construction features

The air renewal units of the ACFR + and ACFRE + series are characterized by the adoption of a special air-to-air aluminum exchanger with counter-current flows.

This makes it possible to avoid, or at least significantly reduce, the use of replacement air post-treatment systems, with the resulting energy and plant engineering.

The units of the ACFR + and ACFRE + series, intended for false ceiling or similar applications, allow large system configurations and have standard fans that can be replaced, alternatively, by the corresponding EC technology (ACFRE + series).

They are equipped as standard with compact filters with F7 efficiency on the renewal flow and M5 on the expulsion flow (F7 in optional expulsion) and are optimally integrated with traditional environmental heating / conditioning systems, whether they are located in series or in parallel.

The ACFR + series consists of n. 6 models, while the ACFRE + series consists of n. 8 models, all exclusively in the horizontal version, to cover an air exchange requirement from a minimum of 400 m³ / h up to a maximum of 5000 m³ / h. All models can be supplied in combination with an air ionization system called BIOXIGEN®.

This system, unique in its kind, has the purpose of sanitizing and deodorizing the air and surfaces of the machine, ducts and confined spaces.



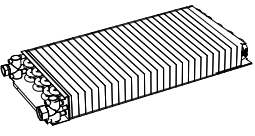









The general characteristics are:

- Double suction centrifugal fans with technology AC on mod. ACFR +
- Double suction centrifugal fans with technology EC on mod. ACFRE +
- Integrated thermal by-pass device
- Sandwich type panel structure with a thickness of 23 mm in sheet metal galvanized on the inside and pre-painted on the outside, with insulation thermoacoustic in injected polyurethane with density 45 kg / m³.
- Filtration sections consisting of compact cell filters in polypropylene with low pressure drop, laterally removable, in efficiency class ISO 16890 ePM1 55% in the renewal flow and ePM10 55% in the expulsion flow.
- Integrated dirty filter pressure switch.
- Condensate collection tray in galvanized sheet with connection of bottom drain that guarantees total drainage.

| Model | Winter efficiency % | Summer efficiency % | Code | € |
|-------------------|---------------------|---------------------|-----------------|-----------------|
| ACFR+ 40 | 83,6 | 75,5 | 75800301 | 2.923,00 |
| ACFR+ 75 | 82,9 | 75,9 | 75800302 | 4.062,00 |
| ACFR+ 100 | 81,6 | 74,5 | 75800303 | 4.276,00 |
| ACFR+ 150 | 83,3 | 75,1 | 75800304 | 4.703,00 |
| ACFR+ 200 | 83,7 | 75,6 | 75800305 | 5.751,00 |
| ACFR+ 320 | 86,8 | 78,0 | 75800306 | 6.190,00 |
| ACFRE+ 40 | 83,6 | 75,5 | 75801301 | 3.902,00 |
| ACFRE+ 75 | 82,9 | 75,9 | 75801302 | 5.377,00 |
| ACFRE+ 100 | 81,6 | 74,5 | 75801303 | 5.607,00 |
| ACFRE+ 150 | 83,3 | 75,1 | 75801304 | 6.264,00 |
| ACFRE+ 200 | 83,7 | 75,6 | 75801305 | 7.195,00 |
| ACFRE+ 320 | 86,8 | 78,0 | 75801306 | 7.927,00 |
| ACFRE+ 400 | 84,1 | 75,0 | 75801307 | 9.114,00 |
| ACFRE+ 500 | 84,2 | 75,1 | 75801308 | 9.910,00 |











ACFR+ ACFRE+

Horizontal heat recovery unit with static aluminum counter-current exchanger

| Accessories ACFR+ | ACFRE+ | | Code | € |
|---|--|---|---|---|
|  | Automatic free cooling bypass kit for opening the bypass by reading the air conditions | | 75800361 | 342,00 |
|  | Electrical resistance integrated post-heating system complete with safety thermostats and control relays | mod. 40 mod. 75 - 100 mod. 150 - 200 mod. 320 - 400 mod. 500 | 75800321 75800322 75800323 75800326 75800328 | 581,00 620,00 813,00 1.015,00 1.529,00 |
|  | Internal water post-heating coil fixed inside the recovery unit | mod. 40 mod. 75 - 100 mod. 150 mod. 200 mod. 320 mod. 400 mod. 500 | 75800331 75800332 75800334 75800335 75800336 75800337 75800338 | 364,00 444,00 561,00 604,00 650,00 786,00 861,00 |
|  | 2-way valve kit with ON-OFF servomotor for internal post-heating coil | mod. 40 - 400 mod. 500 | 75800340 75800360 | 246,00 326,00 |
|  | 3-way valve kit with modulating servomotor for internal post-heating coil | mod. 40 - 400 mod. 500 | 75801397 75801399 | 433,00 438,00 |
|  | Section with water coil promiscuous for post-heating and cooling positioned outside the machine in front of the mouth of entry | mod. 40 mod. 75 - 100 mod. 150 mod. 200 mod. 320 mod. 400 mod. 500 | 75800341 75800342 75800344 75800345 75800346 75800347 75800348 | 727,00 957,00 1.064,00 1.219,00 1.390,00 1.572,00 1.807,00 |
|  | 2-way valve kit with ON-OFF servomotor for post-heating and cooling external coil | mod. 40 - 200 mod. 320 - 400 mod. 500 | 75800479 75800481 75800482 | 246,00 326,00 342,00 |
|  | 3-way valve kit with ON-OFF servomotor for post-heating and cooling external coil | mod. 40 - 200 mod. 320 - 400 | 75801388 75801389 | 336,00 342,00 |
|  | 3-way valve kit with modulating servomotor for post-heating and cooling external coil | mod. 40 - 200 mod. 320 - 400 mod. 500 | 75801390 75801398 75801400 | 433,00 438,00 524,00 |
|  | Adjustment damper consisting of a galvanized sheet metal frame with adjustable fins | mod. 40 mod. 75 - 100 mod. 150 mod. 200 mod. 320 mod. 400 - 500 | 75800351 75800352 75800353 75800354 75800355 75800356 | 142,00 217,00 232,00 252,00 263,00 289,00 |
|  | 230V servo motor for regulation shutters, 2/3 points control | mod. 40 - 500 | 75801366 | 278,00 |
|  | Servomotor for 230V regulation shutters ON-OFF control with spring return | mod. 40 - 500 | 75800370 | 464,00 |






ACFR+ ACFRE+

Horizontal heat recovery unit with static aluminum counter-current exchanger

| Accessories ACFR+ | ACFRE+ | Code | € | |
|---|---|----------------|----------|----------|
|  | Section 3 Shutters defrost in galvanized sheet with adjustable fins and equipped with pin for servomotor | mod. 40 | 75800333 | 781,00 |
| | | mod. 75 - 100 | 75800343 | 877,00 |
| | | mod. 150 | 75800357 | 1.219,00 |
| | | mod. 200 | 75800358 | 1.379,00 |
| | | mod. 320 | 75800365 | 1.433,00 |
| | | mod. 400 | 75801365 | 1.454,00 |
| | | mod. 500 | 75800366 | 1.636,00 |
|  | Servomotors kit for section 3 230V shutters, 2/3 points control | mod. 40 - 500 | 75800483 | 834,00 |
| | | mod. 40 - 500 | 75800484 | 1.206,00 |
|  | Circular connection kit for a quick connection of the input and the expulsion of air | mod. 40 | 75800390 | 192,00 |
| | | mod. 75 - 100 | 75800372 | 246,00 |
| | | mod. 150 | 75800374 | 289,00 |
| | | mod. 200 | 75800375 | 299,00 |
| | | mod. 320 | 75800376 | 310,00 |
| | | mod. 400 - 500 | 75800377 | 353,00 |
|  | Antifreeze thermostat | 75800362 | 167,00 | |
|  | Pressure switch for signaling dirty filters suitable for installation on the machine | 75800364 | 159,00 | |
|  | Outdoor installation kit including: - Weather hood - Rain cover - Basement - Outdoor electrical box | mod. 40 | 75801391 | 674,00 |
| | | mod. 75 - 100 | 75801392 | 743,00 |
| | | mod. 150 | 75801393 | 781,00 |
| | | mod. 200 | 75801394 | 823,00 |
| | | mod. 320 - 400 | 75801395 | 909,00 |
| | | mod. 500 | 75801396 | 957,00 |
|  | External headphones kit for the inlet of fresh air and the expulsion of exhausted air without the need for ducts | mod. 40 | 75800471 | 107,00 |
| | | mod. 75 - 100 | 75800472 | 160,00 |
| | | mod. 150 | 75800473 | 214,00 |
| | | mod. 200 | 75800474 | 267,00 |
| | | mod. 320 | 75800475 | 321,00 |
| | | mod. 400 - 500 | 75800476 | 321,00 |
|  | Duct silencers to reduce the noise of the air flow | mod. 40 | 75800381 | 447,00 |
| | | mod. 75 - 100 | 75800382 | 829,00 |
| | | mod. 150 | 75800384 | 906,00 |
| | | mod. 200 | 75800385 | 1.005,00 |
| | | mod. 320 | 75800386 | 1.069,00 |
| | | mod. 400 - 500 | 75800387 | 1.272,00 |
|  | High efficiency filters in expulsion class F7 | mod. 40 | 75800477 | 74,00 |
| | | mod. 75 - 100 | 75800478 | 128,00 |
| | | mod. 150 | 75800380 | 144,00 |
| | | mod. 200 | 75800371 | 176,00 |
| | | mod. 320 - 400 | 75800368 | 210,00 |
| | | mod. 500 | 75800453 | 225,00 |
|  | Sanitation system Bioxygen® | mod. 40 | 75800391 | 385,00 |
| | | mod. 75 - 100 | 75800392 | 599,00 |
| | | mod. 150 | 75800394 | 620,00 |
| | | mod. 200 | 75800395 | 695,00 |
| | | mod. 320 | 75800396 | 909,00 |
| | | mod. 400 - 500 | 75800397 | 1.048,00 |

ACFR+ ACFRE+

Horizontal heat recovery unit with static aluminum counter-current exchanger

| Accessories ACFR+ ACFRE+ | | Code | € |
|---|--|------------------------------------|--------------------------------|
|  3-speed selector for AC fans | mod. 40 ÷ 320 | 75801367 | 43,00 |
|  Control panel | mod. 40 ÷ 320 fan AC mod. 40 ÷ 500 fan EC | 75800369 75800461 | 187,00 227,00 |
|  Control panel with possibility Modbus connection for EC fans | | 75800388 | 305,00 |
|  Control panel with 010V output with possibility of Modbus connection for EC fans | | 75800363 | 312,00 |
|  CO2 probe for ventilation control according to the quality of the ambient air | mod. duct mod. wall | 75801382 75800451 | 898,00 957,00 |

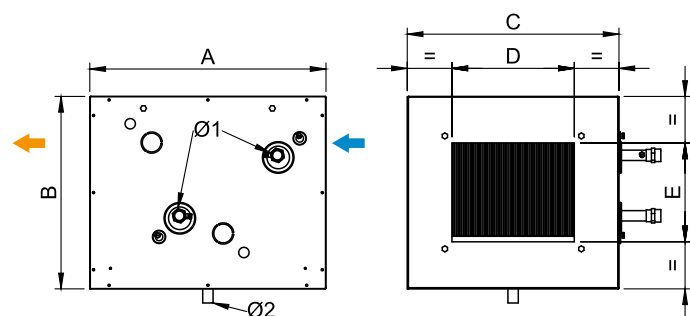
Technical data table for section with external hot / cold water coil dimensions and weights

Module to be positioned outside the machine in front of the inlet, complete with stainless steel condensate collection tray

| Model | U.M. | 40 | 75 | 100 | 150 | 200 | 320 | 400 | 500 |
|---------------------------|-------------------|------|------|------|------|------|------|------|------|
| Geometry | | 2522 | 2522 | 2522 | 2522 | 2522 | 2522 | 2522 | 2522 |
| Tubes by rank | n. | 13 | 16 | 16 | 24 | 26 | 28 | 32 | 32 |
| Ranks | n. | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Fin pitch | mm | 2,1 | 2,1 | 2,1 | 2,1 | 2,1 | 2,1 | 2,1 | 2,1 |
| Thermal power* | kW | 5,1 | 9,5 | 11,8 | 18,6 | 23,9 | 35,5 | 41,6 | 49,2 |
| Water outlet temperature | °C | 52,3 | 52,1 | 49,5 | 48,9 | 49,0 | 47,9 | 47,8 | 45,6 |
| Heating water flow | m ³ /h | 0,4 | 0,8 | 1,0 | 1,6 | 2,1 | 3,1 | 3,7 | 4,3 |
| Water pressure drops | kPa | 3 | 5 | 7 | 7 | 19 | 46 | 11 | 14 |
| Air pressure drops | Pa | 17 | 19 | 30 | 34 | 37 | 47 | 43 | 64 |
| Refrigeration power** | kW | 2,6 | 5,1 | 6,2 | 9,8 | 13,3 | 18,7 | 22,1 | 25,6 |
| Sensible cooling capacity | kW | 1,4 | 2,7 | 3,3 | 5,2 | 7,0 | 9,9 | 11,7 | 13,7 |
| Air outlet temperature | °C | 16,7 | 16,3 | 17,1 | 17,3 | 16,8 | 17,8 | 17,5 | 15,3 |
| Cooling water flow | m ³ /h | 0,4 | 0,9 | 1,1 | 1,7 | 2,3 | 3,2 | 3,8 | 4,4 |
| Water pressure drops | kPa | 4,2 | 6,7 | 9,5 | 10,2 | 28,6 | 20,6 | 15,0 | 19,5 |
| Air pressure drops | Pa | 25 | 26 | 45 | 50 | 54 | 65 | 64 | 70 |

(*) Values referred to: Air ting 15 ° C - Water in / out 70/60 ° C nominal air flow rate

(*) Values referred to: Ting air 27 ° C RH 65% - Water in / out 7/12 ° C nominal air flow



| Model | A | B | C | D | E | Ø1 | Ø2 | Weight Kg |
|---------------|-----|-----|-----|-----|-----|------|----|-----------|
| 40 | 430 | 370 | 420 | 200 | 210 | 3/4" | 22 | 14 |
| 75/100 | 500 | 470 | 510 | 300 | 310 | 3/4" | 22 | 17 |
| 150 | 620 | 540 | 520 | 300 | 410 | 3/4" | 22 | 21 |
| 200 | 700 | 540 | 670 | 500 | 410 | 3/4" | 22 | 26 |
| 320 | 700 | 670 | 720 | 400 | 510 | 3/4" | 22 | 31 |
| 400 | 700 | 680 | 720 | 500 | 510 | 1" | 22 | 42 |
| 500 | 700 | 680 | 870 | 500 | 510 | 1" | 22 | 42 |

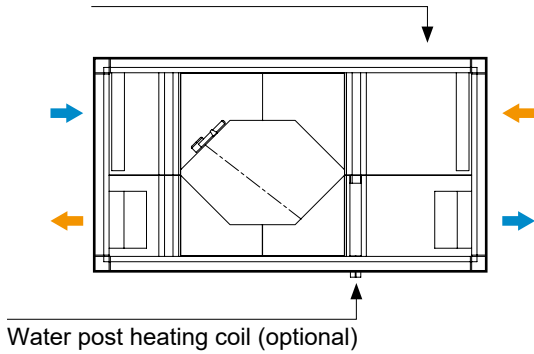
Values in mm

ACFR+ ACFRE+

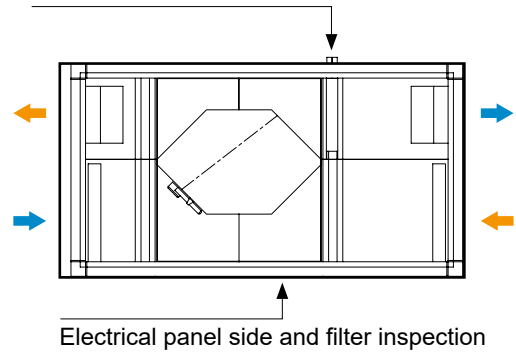
Horizontal heat recovery unit with static aluminum counter-current exchanger

Available orientations

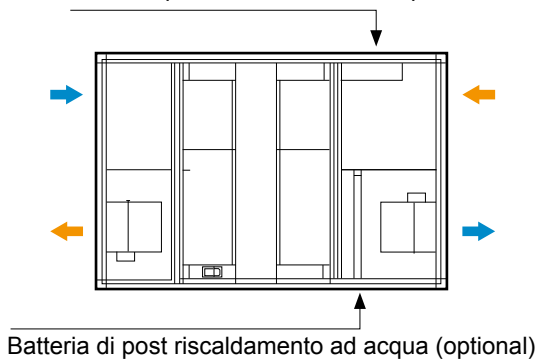
Orientation type 01 mod. ACFR+ ACFRE+ 40
Electrical panel side and filter inspection



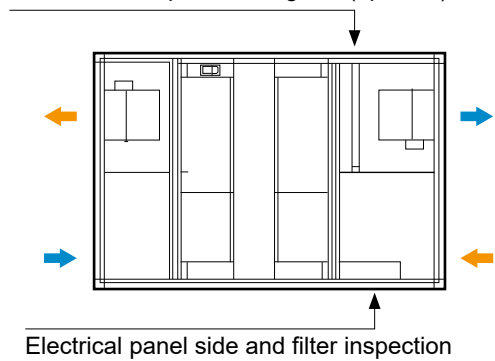
Orientation type 02 mod. ACFR+ ACFRE+ 40
Water post heating coil (optional)



Orientation type 01 mod. ACFR+ ACFRE+ 75 - 500
Electrical panel side and filter inspection

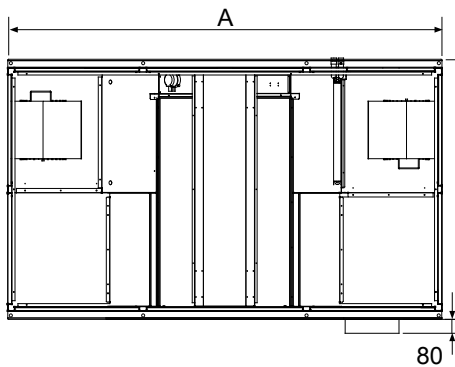
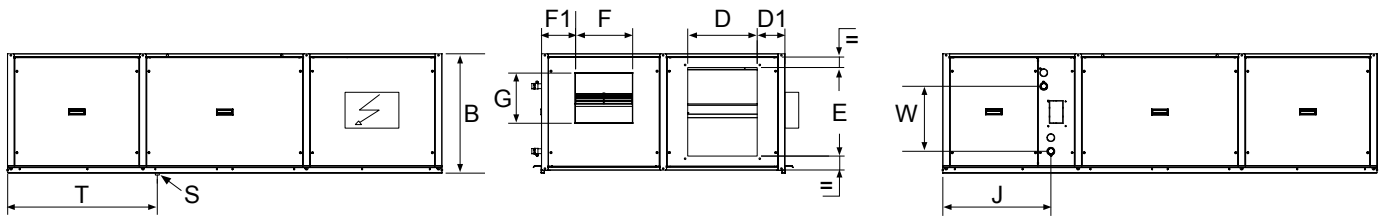


Orientamento tipo 02 mod. ACFR+ ACFRE+ 75 - 500
Water post heating coil (optional)



Legend: Expelled air Fresh air - The guidelines shown refer to the machines seen from above

Dimensions models ACFR+ ACFRE+



| Mod. | Dimensions | | | | | | | | | | | | | Weight Kg | |
|------------|------------|-----|------|-----|-----|-----|-----|-----|-----|------|------|-----|-----|--------------|-----|
| | A | B | C | D | D1 | E | F | F1 | G | G1* | S** | T | J* | | W* |
| | mm | mm | mm | mm | mm | mm | mm | mm | mm | Ø | Ø | mm | mm | mm | |
| 40 | 1480 | 380 | 800 | 200 | 110 | 210 | 230 | 90 | 70 | 3/4" | 1/2" | 355 | 412 | 177 | 90 |
| 75 | 1940 | 480 | 990 | 300 | 100 | 310 | 230 | 140 | 210 | 3/4" | 1/2" | 697 | 550 | 190 | 140 |
| 100 | 1940 | 480 | 990 | 300 | 100 | 310 | 230 | 140 | 260 | 3/4" | 1/2" | 697 | 550 | 190 | 150 |
| 150 | 2200 | 550 | 1000 | 300 | 100 | 410 | 230 | 145 | 260 | 3/4" | 1/2" | 778 | 550 | 265 | 170 |
| 200 | 2200 | 550 | 1400 | 500 | 100 | 410 | 300 | 215 | 260 | 3/4" | 1/2" | 779 | 550 | 350 | 200 |
| 320 | 2500 | 680 | 1400 | 400 | 150 | 510 | 330 | 195 | 290 | 3/4" | 1/2" | 863 | 620 | 375 | 230 |
| 400 | 2500 | 680 | 1400 | 500 | 100 | 510 | 405 | 157 | 405 | 1" | 1/2" | 863 | 620 | 375 | 260 |
| 500 | 2500 | 680 | 1700 | 500 | 185 | 510 | 405 | 232 | 405 | 1" | 1/2" | 863 | 620 | 375 | 300 |

(*) Optional post-heating water coil connections
(**) Condensate drain

ACFR+ ACFRE+

Horizontal heat recovery unit with static aluminum counter-current exchanger

Technical data table ACFR+ ACFRE+ 40÷150

| Model | U.M. | ACFR+ 40 | ACFRE+ 40 | ACFR+ 75 | ACFRE+ 75 | ACFR+ 100 | ACFRE+ 100 | ACFR+ 150 |
|--------------------------------|-------------------|-------------|-----------|----------|-----------|-----------|------------|-----------|
| Nominal air flow | m ³ /h | 400 | | 750 | | 1000 | | 1500 |
| Nominal useful static pressure | Pa | 160 | | 120 | | 180 | | 160 |
| Useful static pressure max | Pa | 160 | 340 | 120 | 210 | 180 | 520 | 160 |
| Power supply | | 230V/1/50Hz | | | | | | |
| Max total absorbed current | kW | 0,35 | 0,56 | 0,68 | 0,56 | 1,41 | 2,12 | 1,41 |
| Max total absorbed current | A | 1,5 | 2,4 | 2,9 | 2,4 | 6,0 | 9,0 | 6,0 |

OPERATING LIMITS

| | | | | | | | | |
|--|--|-------------------------------------|--|--|--|--|--|--|
| External limit humidity temperature conditions | | (-5 °C) ÷ (+45 °C) / (5%) ÷ (95%) | | | | | | |
| External limit humidity temperature conditions with 3 damper section | | (-15 °C) ÷ (+45 °C) / (5%) ÷ (95%) | | | | | | |
| Internal limit humidity temperature conditions | | (+10 °C) ÷ (+35 °C) / (10%) ÷ (90%) | | | | | | |

FANS

| Motor type | | AC | EC | AC | EC | AC | EC | AC |
|--------------------------------|----|------|------------|------|------------|------|------------|-------|
| Number of speeds (1) | | 3 | Multiple | 3 | Multiple | 3 | Multiple | 3 |
| Ventilation control (1) | | MAN | 0 -10V VSD | MAN | 0 -10V VSD | MAN | 0 -10V VSD | MAN |
| Total nominal absorbed power | kW | 0,17 | 0,16 | 0,38 | 0,30 | 0,60 | 0,57 | 0,80 |
| Total nominal absorbed current | A | 0,7 | 0,7 | 1,6 | 1,3 | 2,5 | 2,4 | 3,4 |
| Static efficiency of the fans | % | N.A. | 32,7 | 38,6 | 32,7 | 38,6 | 53,2 | 38,64 |

HEAT RECOVERY

| | | | | | | | | |
|--------------------------------|----|------|--|------|--|------|--|-------|
| Winter thermal efficiency (2) | % | 83,6 | | 82,9 | | 81,6 | | 83,3 |
| Recovered thermal power (2) | kW | 2,76 | | 5,13 | | 6,73 | | 10,30 |
| Supply air temperature (2) | °C | 15,9 | | 15,7 | | 15,4 | | 15,8 |
| Summer thermal efficiency (3) | % | 75,5 | | 75,9 | | 74,5 | | 75,1 |
| Recovered cooling capacity (3) | kW | 0,61 | | 1,15 | | 1,50 | | 2,20 |
| Supply air temperature (3) | °C | 27,5 | | 27,4 | | 27,5 | | 27,5 |
| Dry thermal efficiency (4) | % | 75,9 | | 76,4 | | 75,0 | | 75,6 |

Specific data table ECODESIGN ACFR+ ACFRE+ 40÷150

| | U.M. | 40 | 40E | 75 | 75E | 100 | 100E | 150 |
|---|----------------------|------------|-------|-------|-------|-------|-------|-------|
| Type declared | | NRVU - BVU | | | | | | |
| Internal specific power of ventilation - SFP int (4) | W(m ³ /s) | 740 | 705 | 934 | 742 | 1105 | 1059 | 1102 |
| Maximum specific internal power of the ventilation components (SFPint_limite) | W(m ³ /s) | 1170 | 1170 | 1171 | 1171 | 1118 | 1118 | 1116 |
| Front speed at nominal flow | m/s | 0,93 | 0,93 | 1,36 | 1,36 | 1,81 | 1,81 | 2,00 |
| Pressure loss of internal ventilation components (Δps, int) | Pa | 140 | 140 | 119 | 119 | 179 | 179 | 202 |
| Maximum external leakage of the casing | % | < 3,5 | < 3,5 | < 3,5 | < 3,5 | < 3,5 | < 3,5 | < 3,5 |
| Maximum internal leakage or residual flow | % | < 4 | < 4 | < 4 | < 4 | < 4 | < 4 | < 4 |
| Calculated annual energy consumption of the filters (8760 h of operation) | kWh/a | 613 | 487 | 1228 | 1448 | 2320 | 1684 | 3945 |
| Sound power level radiated by the casing(5) | dB(A) | 58 | 57 | 61 | 60 | 61 | 59 | 64 |

(1) Multiple = Multispeed > 3

Man = Manual from selector or keyboard;

0-10V = From potentiometer or keyboard;

VSD = Constant flow rate or modulation by air quality / humidity sensor

(2) Outdoor air -5 °C 80% RH; ambient air 20 °C 50% RH

(3) Outdoor air 32 °C 50% RH; ambient air 26 °C 50% RH

(4) According to EU regulation 1253/2014: at nominal pressure; temperature and humidity conditions referred to EN 308

(5) Sound power level at nominal operating conditions

ACFR+ ACFRE+

Horizontal heat recovery unit with static aluminum counter-current exchanger

Technical data table ACFR+ ACFRE+ 150÷500

| Model | U.M. | ACFRE+ 150 | ACFR+ 200 | ACFRE+ 200 | ACFR+ 320 | ACFRE+ 320 | ACFRE+ 400 | ACFRE+ 500 |
|--------------------------------|-------------------|-------------|-----------|------------|-----------|------------|------------|------------|
| Nominal air flow | m ³ /h | 1500 | 2050 | 2050 | 3200 | 3200 | 3800 | 4700 |
| Nominal useful static pressure | Pa | 160 | 120 | 120 | 180 | 180 | 200 | 200 |
| Max useful static pressure | Pa | 500 | 120 | 540 | 180 | 375 | 330 | 200 |
| Power supply | | 230V/1/50Hz | | | | | | |
| Max total absorbed current | kW | 2,12 | 1,41 | 2,12 | 3,29 | 2,35 | 2,07 | 2,07 |
| Max total absorbed current | A | 9,0 | 6,0 | 9,0 | 14,0 | 10,0 | 8,8 | 8,8 |

OPERATING LIMITS

| | | | | | | | | |
|--|--|------------------------------------|--|--|--|--|--|--|
| External limit humidity temperature conditions | | (-5 °C) ÷ (+45 °C) / (5%) ÷ (95%) | | | | | | |
| External limit humidity temperature conditions with 3 damper section | | (-15 °C) ÷ (+45 °C) / (5%) ÷ (95%) | | | | | | |
| Internal limit humidity temperature conditions | | (10 °C) ÷ (+35 °C) / (10%) ÷ (90%) | | | | | | |

FANS

| Motor type | | EC | AC | EC | AC | EC | EC | EC |
|--------------------------------|----|------------|------|------------|------|------------|------------|------------|
| Number of speeds (1) | | Multiple | 3 | Multiple | 3 | Multiple | Multiple | Multiple |
| Ventilation control (1) | | 0 -10V VSD | MAN | 0 -10V VSD | MAN | 0 -10V VSD | 0 -10V VSD | 0 -10V VSD |
| Total nominal absorbed power | kW | 0,76 | 1,00 | 0,84 | 1,79 | 1,77 | 1,78 | 2,19 |
| Total nominal absorbed current | A | 3,2 | 4,3 | 3,6 | 7,6 | 7,5 | 7,6 | 9,3 |
| Static efficiency of the fans | % | 53,2 | 40,4 | 55,9 | 43,4 | 59,8 | 66,9 | 66,9 |

HEAT RECOVERY

| | | | | | | | | |
|--------------------------------|----|-------|-------|-------|-------|-------|-------|-------|
| Winter thermal efficiency (2) | % | 83,3 | 83,7 | 83,7 | 86,8 | 86,8 | 84,1 | 84,2 |
| Recovered thermal power (2) | kW | 10,30 | 14,14 | 14,14 | 22,90 | 22,90 | 26,34 | 32,62 |
| Supply air temperature (2) | °C | 15,8 | 15,9 | 15,9 | 16,7 | 16,7 | 16,0 | 16,1 |
| Summer thermal efficiency (3) | % | 75,1 | 75,6 | 75,6 | 78,0 | 78,0 | 75,0 | 75,1 |
| Recovered cooling capacity (3) | kW | 2,27 | 3,12 | 3,12 | 5,02 | 5,02 | 5,73 | 7,10 |
| Supply air temperature (3) | °C | 27,5 | 27,5 | 27,5 | 27,3 | 27,3 | 27,5 | 27,5 |
| Dry thermal efficiency (4) | % | 75,6 | 75,0 | 75,0 | 75,3 | 75,3 | 75,5 | 75,6 |

Specific data table ECODESIGN ACFR+ ACFRE+ 150÷500

| | U.M. | 150E | 200 | 200E | 320 | 320E | 400E | 500E |
|---|----------------------|------------|-------|-------|-------|-------|-------|-------|
| Type declared | | NRVU - BVU | | | | | | |
| Internal specific power of ventilation - SFP int (4) | W(m ³ /s) | 1048 | 1078 | 898 | 1054 | 1040 | 949 | 935 |
| Maximum specific internal power of the ventilation components (SFPint_limite) | W(m ³ /s) | 1116 | 1105 | 1105 | 1066 | 1066 | 1017 | 982 |
| Front speed at nominal flow | m/s | 2,00 | 1,83 | 1,83 | 2,06 | 2,06 | 2,44 | 2,42 |
| Pressure loss of internal ventilation components (Δps, int) | Pa | 202 | 177 | 177 | 194 | 194 | 252 | 248 |
| Maximum external leakage of the casing | % | < 3,5 | < 3,5 | < 3,5 | < 3,5 | < 3,5 | < 3,5 | < 3,5 |
| Maximum internal leakage or residual flow | % | < 4 | < 4 | < 4 | < 4 | < 4 | < 4 | < 4 |
| Calculated annual energy consumption of the filters (8760 h of operation) | kWh/a | 2862 | 4601 | 3325 | 5562 | 4036 | 5456 | 6649 |
| Sound power level radiated by the casing (5) | dB(A) | 61 | 64 | 59 | 68 | 64 | 66 | 68 |

(1) Multiple = Multispeed > 3

Man = Manual from selector or keyboard;

0-10V = From potentiometer or keyboard;

VSD = Constant flow rate or modulation by air quality / humidity sensor

(2) Outdoor air -5 °C 80% RH; ambient air 20 °C 50% RH

(3) Outdoor air 32 °C 50% RH; ambient air 26 °C 50% RH

(4) According to EU regulation 1253/2014: at nominal pressure; temperature and humidity conditions referred to

EN 308 (5) Sound power level at nominal operating conditions

ACFR MICRO E

Heat recovery unit with enthalpy exchanger



Technical and construction features

The air renewal units of the ACFR MICRO E series are characterized by the adoption of a special enthalpy type air / air exchanger.

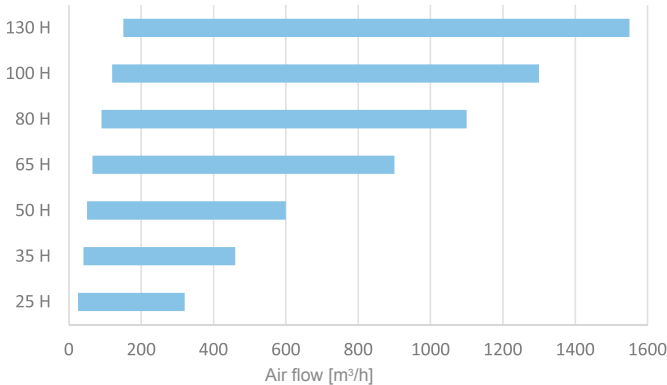
This makes it possible to avoid, or at least significantly reduce the use of replacement air post-treatment systems with the resulting energy and plant engineering. These units are optimally integrated with traditional heating and environmental conditioning systems, whether they are located in series or in parallel.

All models can be supplied in combination with an air ionization system called BIOXIGEN®.

This unique system, unique of its kind, aims to sanitize

or deodorize the air and the surfaces of the machine, ducts and neighboring environments.

- Self-supporting structure in internally insulated galvanized sheet and externally; accessibility through a side door.
- Air filtration in ISO 16890 ePM2.5 efficiency class 95% (with COARSE 50% pre-filter) on the fresh air, filter COARSE 50% on the recovery flow.
- Integrated dirty filter pressure switch.
- Motorized by-pass system of the implemented recuperator automatically by the electronic control to ensure free cooling with outside air when convenient.
- Electric fans with high consumption low consumption EC motor performance and silence; possibility of managing 10 levels of speed.
- Connections to the ducts with plastic material fittings.
- Built-in electrical panel with electronic card for controlling the ventilation and free-cooling functions.



ERP 2018 COMPLIANT



ENERGY SAVING



HEAT RECOVERY HIGH EFFICIENCY



EXCHANGER ENTALPICO



TECHNOLOGY EC



EASY INSTALLATION

| Model | Air flow m³/h | Winter thermal efficiency | Code | € |
|--------------------------|---------------|---------------------------|-----------------|-----------------|
| ACFR MICRO E 25H | 250 | 73,0% | 75800500 | 1.443,00 |
| ACFR MICRO E 35H | 350 | 74,0% | 75800511 | 1.834,00 |
| ACFR MICRO E 50H | 500 | 76,0% | 75800512 | 2.149,00 |
| ACFR MICRO E 65H | 650 | 74,0% | 75803300 | 2.694,00 |
| ACFR MICRO E 80H | 800 | 76,0% | 75800513 | 3.101,00 |
| ACFR MICRO E 100H | 1000 | 76,0% | 75800514 | 3.502,00 |
| ACFR MICRO E 130H | 1300 | 74,0% | 75800515 | 3.956,00 |

Accessories ACFR MICRO E



Unit control panel Touch Screen

75801800

180,00



Wall sensor CO2

75802500

373,00



Humidity sensor wall installation




75802600

187,00

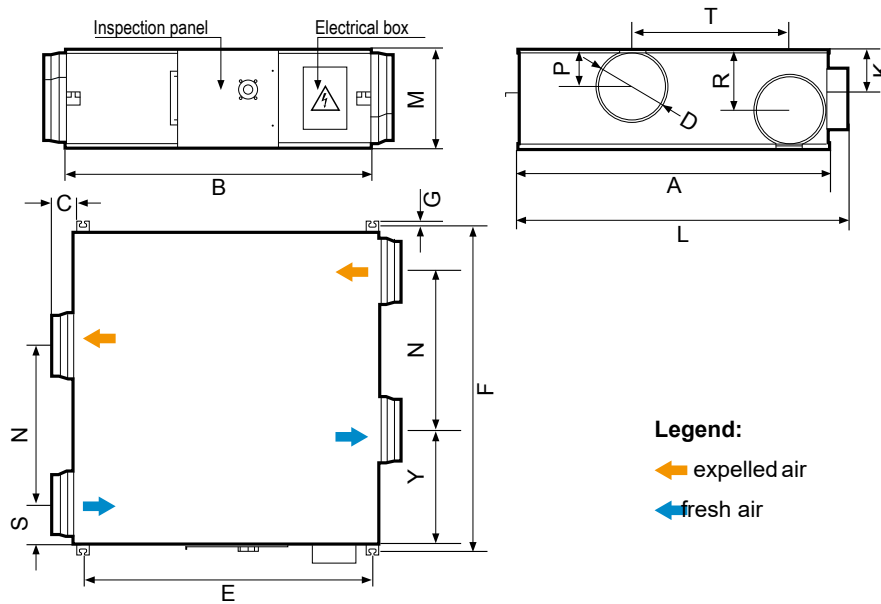
ACFR MICRO E

Heat recovery unit with enthalpy exchanger



Accessories ACFR MICRO E

| | | Code | € |
|---|-----------------------------|--------------------|-----------------|
|  | PRE/POST electrical heating | mod. PRE 25 - 35 | 75802700 484,00 |
| | | mod. PRE PRE 50 | 75802800 620,00 |
| | | mod. PRE 65 - 130 | 75802900 716,00 |
| | | mod. POST 25 - 35 | 75803000 631,00 |
| | | mod. POST PRE 50 | 75803100 695,00 |
| | | mod. POST 65 - 130 | 75803200 866,00 |
|  | Circular duct silencer | mod. 25 - 35 | 75801900 107,00 |
| | | mod. 50 | 75802000 125,00 |
| | | mod. 65 - 130 | 75802100 151,00 |
|  | Sanitation system BIOXGEN® | mod. 25 - 35 | 75802200 599,00 |
| | | mod. 50 | 75802300 642,00 |
| | | mod. 65 - 130 | 75802400 727,00 |

Dimensions ACFR MICRO E



Legend:

-  expelled air
-  fresh air

| Model | U.M. | 25H | 35H | 50H | 65H | 80H | 100H | 130H |
|--------------------|------|-------|-------|-------|-------|-------|-------|-------|
| A | mm | 599 | 804 | 904 | 884 | 1134 | 1216 | 1216 |
| B | mm | 814 | 814 | 894 | 1186 | 1186 | 1199 | 1199 |
| C | mm | 100 | 100 | 107 | 85 | 85 | 85 | 85 |
| D | mm | 150 | 150 | 200 | 250 | 250 | 250 | 250 |
| E | mm | 675 | 675 | 754 | 1115 | 1115 | 1130 | 1130 |
| F | mm | 657 | 862 | 960 | 940 | 1190 | 1273 | 1273 |
| G | mm | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| L | mm | 650 | 855 | 955 | 945 | 1200 | 1290 | 1290 |
| T | mm | 315 | 480 | 500 | 428 | 678 | 621 | 621 |
| K | mm | 111 | 111 | 135 | 170 | 170 | 171 | 171 |
| M | mm | 270 | 270 | 270 | 388 | 388 | 388 | 388 |
| N | mm | 315 | 480 | 500 | 428 | 678 | 621 | 621 |
| P | mm | 111 | 111 | 135 | 170 | 170 | 146 | 146 |
| R | mm | 111 | 111 | 135 | 170 | 170 | 241 | 241 |
| S | mm | 142 | 162 | 202 | 228 | 228 | 151 | 151 |
| Y | mm | 142 | 162 | 202 | 228 | 228 | 442 | 442 |
| Net / Gross Weight | Kg | 30/33 | 37/41 | 43/47 | 65/70 | 71/76 | 83/88 | 83/88 |

ACFR MICRO E

Heat recovery unit with enthalpy exchanger

Technical data table ACFR MICRO E

| Model | U.M. | 25H | 35H | 50H | 65H | 80H | 100H | 130H |
|------------------------------|-------------------|-------------|------|------|------|------|------|------|
| Nominal air flow | m ³ /h | 250 | 350 | 500 | 650 | 800 | 1000 | 1300 |
| Useful static pressure | Pa | 90 | 140 | 110 | 100 | 140 | 140 | 135 |
| Power supply | | 230V/1/50Hz | | | | | | |
| Total rated absorbed power | kW | 0,11 | 0,14 | 0,15 | 0,27 | 0,33 | 0,49 | 0,63 |
| Total rated absorbed current | A | 0,5 | 0,6 | 0,6 | 1,2 | 1,4 | 2,1 | 2,7 |

FUNCTIONAL LIMITS

| | | | | | | | | |
|-------------------------------|--|--------------------------------------|--|--|--|--|--|--|
| Limiting operating conditions | | (-15 °C) ÷ (+40 °C) / (+10%) ÷ (95%) | | | | | | |
|-------------------------------|--|--------------------------------------|--|--|--|--|--|--|

FANS

| | | | | | | | | |
|--|----|-----------|-------|-------|-------|-------|-------|-------|
| Motor type | | EC | | | | | | |
| Speed | n. | 10 | | | | | | |
| Ventilation control (1) | | Man - VDS | | | | | | |
| Total rated absorbed power | kW | 0,08 | 0,13 | 0,15 | 0,23 | 0,32 | 0,39 | 0,49 |
| Total rated absorbed current | A | 0,35 | 0,55 | 0,65 | 0,97 | 1,36 | 1,65 | 2,10 |
| Static efficiency of fans according to (EU) no. 327/2011 | % | 49,25 | 41,80 | 40,20 | 47,30 | 48,55 | 54,50 | 55,00 |

HEAT RECOVERY

| | | | | | | | | |
|---------------------------------|----|------|------|------|------|------|------|------|
| Winter thermal efficiency (3) | % | 73,0 | 74,0 | 76,0 | 74,0 | 76,0 | 76,0 | 74,2 |
| Winter enthalpy efficiency (3) | % | 65,0 | 65,0 | 67,0 | 65,0 | 65,0 | 62,0 | 59,0 |
| Total heat output recovered (3) | kW | 1,53 | 2,17 | 3,19 | 4,03 | 5,10 | 6,37 | 8,09 |
| Supply air temperature (3) | °C | 13,3 | 13,5 | 14,0 | 13,5 | 14,0 | 14,0 | 13,6 |
| Summer thermal efficiency (4) | % | 73,0 | 74,0 | 76,0 | 74,0 | 76,0 | 76,0 | 74,0 |
| Summer enthalpy efficiency (4) | % | 62,0 | 62,0 | 63,0 | 60,0 | 63,0 | 60,0 | 58,0 |
| Cooling capacity recovered (4) | kW | 0,36 | 0,51 | 0,75 | 0,95 | 1,20 | 1,50 | 1,90 |
| Supply air temperature (4) | °C | 27,6 | 27,6 | 27,4 | 27,6 | 27,4 | 27,4 | 27,6 |
| Dry thermal efficiency (5) | % | 73,0 | 74,0 | 76,0 | 74,0 | 76,0 | 76,0 | 74,0 |

ECODESIGN SPECIFIC DATA

| Type declared | | NRVU - BVU | | | | | | |
|---|----------------------|------------|------|------|------|------|------|------|
| Internal specific power of ventilation- SFP int (5) | W/(m ³ s) | 812 | 670 | 547 | 846 | 865 | 881 | 873 |
| Maximum specific internal power of the ventilation components | W/(m ³ s) | 940 | 965 | 1019 | 953 | 1007 | 998 | 926 |
| Front speed at nominal flow | m/s | 4,24 | 5,96 | 4,70 | 3,94 | 4,83 | 6,05 | 7,85 |
| Pressure loss of internal ventilation components | Pa | 200 | 140 | 110 | 200 | 210 | 240 | 240 |
| Maximum external leakage of the casing | % | < 3 | | | | | | |
| Maximum internal leakage or residual flow | % | 7,8 | 7,8 | 7,7 | 7,7 | 7,8 | 7,8 | 7,8 |
| Annual energy consumption of filters F7 and M5 (8760h of operation) | kWh/a | 91 | 129 | 139 | 399 | 480 | 461 | 609 |
| Sound power level radiated to the casing (2) | dB(A) | 46 | 49 | 51 | 53 | 54 | 55 | 55 |

(1) Multiple = Multi-speed > 3

Man = Manual from selector or keyboard: 0-10V = from potentiometer or keyboard

VDS = Modulation from air quality / humidity sensor

(2) Sound power level at nominal operating conditions












(3) Outdoor air -5 °C 80% RH; ambient air 20 °C 50% RH

(4) Outdoor air 32 °C 50% RH; ambient air 26 °C 50% RH

(5) According to EU regulation 1253/2014: at nominal pressure; temperature and humidity conditions referred to EN 308










VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

| Accessori VCM | | Code | € |
|--|--|------------------------------------|--------------------------------|
|  | DISTRIBUTION BOX made of galvanized sheet with 12 connections for pipes Ø 75 dimensions mm: length 600, width 200, height 110 12 outlets box Ø 75 - collar Ø 125 12 outlets box Ø 75 - collar Ø 160 | 37900076 37900077 | 362,00 362,00 |
|  | DISTRIBUTION BOX made of galvanized sheet with 12 connections for pipes Ø 92 dimensions mm: length 600, width 200, height 160 12 outlets box Ø 92 - collar Ø 125 12 outlets box Ø 92 - collar Ø 160 | 37900078 37900079 | 366,00 366,00 |
|  | DISTRIBUTION BOX with twelve connections made of galvanized sheet, equipped internal sound-absorbing insulation with 12 connections for pipes Ø 75 and Ø 92, plenum collar Ø 150 dimensions mm: length 400, width 400, height 110 | 37900093 | 288,00 |
|  <small>collarino posteriore</small> | DISTRIBUTION PLENUM for flexible ducted pipe Ø 75 made of externally insulated galvanized sheet metal equipped with rear air inlet collar with double diameter Ø 150 / Ø 200 complete with fixing brackets | | |
|  | plenum 4 departures L 220mm H 230mm P 250mm | 37900400 | 236,00 |
| | plenum 6 departures L 330mm H 230mm P 250mm | 37900401 | 300,00 |
| | plenum 8 departures L 440mm H 230mm P 250mm | 37900402 | 385,00 |
| | plenum 10 departures L 550mm H 230mm P 250mm | 37900403 | 462,00 |
| | plenum 12 departures L 660mm H 230mm P 250mm | 37900404 | 524,00 |
|  <small>collarino posteriore</small> | DISTRIBUTION PLENUM for flexible ducted pipe Ø 92 made of externally insulated galvanized sheet metal equipped with rear air inlet collar with double diameter Ø 150 / Ø 200 complete with fixing brackets | | |
|  | plenum 4 departures L 220mm H 230mm P 250mm | 37900405 | 242,00 |
| | plenum 6 departures L 330mm H 230mm P 250mm | 37900406 | 312,00 |
| | plenum 8 departures L 440mm H 230mm P 250mm | 37900407 | 402,00 |
| | plenum 10 departures L 550mm H 230mm P 250mm | 37900408 | 484,00 |
| | plenum 12 departures L 660mm H 230mm P 250mm | 37900409 | 548,00 |
|  <small>collarino posteriore</small> | DISTRIBUTION PLENUM for 120 x 35 oval flexible ducted pipe made of externally insulated galvanized sheet metal with rear air inlet collar with double diameter Ø 150 / Ø 200 complete with fixing brackets | | |
|  | plenum 4 departures L 350mm H 210mm P 250mm | 37900410 | 332,00 |
| | plenum 6 departures L 520mm H 210mm P 250mm | 37900411 | 456,00 |
| | plenum 8 departures L 690mm H 210mm P 250mm | 37900412 | 590,00 |
| | plenum 10 departures L 860mm H 210mm P 250mm | 37900413 | 698,00 |
| | plenum 12 departures L 1030mm H 210mm P 250mm | 37900414 | 818,00 |
|  <small>collarino posteriore</small> | DISTRIBUTION PLENUM for flexible ducted pipe Ø 150 made of externally insulated galvanized sheet metal equipped with rear air inlet collar with double diameter Ø 150 / Ø 200 complete with fixing brackets | | |
|  | plenum 2 departures L 380mm H 210mm P 250mm | 37900415 | 136,00 |
| | plenum 3 departures L 570mm H 210mm P 250mm | 37900416 | 152,00 |
| | plenum 4 departures L 760mm H 210mm P 250mm | 37900417 | 170,00 |
| | plenum 5 departures L 950mm H 210mm P 250mm | 37900418 | 182,00 |

VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

| Accessories VMC | | Code | € |
|---|---|------------------------------------|--------------------------------|
|  | CONNECTORS FOR FLEXIBLE PIPES FOR BOXES AND PLENUMS complete with sealing hooks | | |
| | connector for flexible hose for cassette and plenum Ø 75 connector for flexible hose for cassette and plenum Ø 92 | 37900343 37900066 | 20,00 22,00 |
|  | DIAPHRAGM FOR MANIFOLD BOX air flow regulator dimensions: Ø 81 mm - Ø neck 30 mm | 37900344 | 8,00 |
|  | FLEXIBLE ROUND HDPE PIPES double wall, self-extinguishing treatment, anti UV, antistatic, length 50 m | | |
| | flexible round tube for air inlet Ø 75 flexible round air inlet pipe Ø 92 | 37900345 37900065 | 264,00 330,00 |
|  | 120 mm x 35 mm HDPE FLEXIBLE OVAL TUBE double-skinned, self-extinguishing, anti UV, antistatic treatment Roll length 20 m | 37900062 | 860,00 |
|  | SLEEVE FOR FLEXIBLE ROUND TUBE tube-tube connection with sealing hooks sleeve for flexible air inlet hose | | |
| | Ø 75 sleeve for flexible air inlet hose Ø 92 | 37900346 37900064 | 19,00 22,00 |
|  | DUST CAPS dust protection cap for tubes and connectors | | |
| | dust cap for Ø 75 hose. dust cap for Ø 92 hose | 37900347 37900348 | 4,00 4,00 |
|  | 90 ° ELBOW BEND WITH CONNECTION for corrugated pipes, with sealing hooks and o-rings | | |
| | sharp bend 90° Ø 75 sharp bend 90° Ø 92 | 75800930 37900301 | 30,00 32,00 |
|  | 90 ° ELBOW BEND FOR FLOOR WITH CONNECTION for corrugated pipes, to be positioned on the floor, with sealing hooks and o-rings | | |
| | 90 ° elbow bend for floor Ø 75 90 ° elbow bend for floor Ø 92 | 37900350 37900300 | 31,00 33,00 |
|  | STRAIGHT FITTING BETWEEN Ø 75 FLEXIBLE HOSE AND GRID for connection to the distribution terminal grid complete with connection plate, sealing hooks and dust caps | 37900351 | 88,00 |





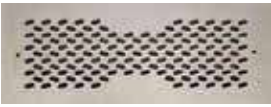
VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

| Accessories VMC | Code | € |
|---|--|--|
|  | <p>90 ° FITTING BETWEEN Ø 75 FLEXIBLE HOSE AND GRID for connection to the distribution terminal grid complete with connection plate, sealing hooks and dust caps</p> | <p>37900352 88,00</p> |
|  | <p>90 ° FITTING BETWEEN Ø 92 FLEXIBLE HOSE AND GRID for connection to the distribution terminal grid complete with connection plate, sealing hooks</p> | <p>37900353 50,00</p> |
|  | <p>STRAIGHT CONNECTION BETWEEN Ø 92 FLEXIBLE HOSE AND GRID for connection to the distribution terminal grid complete with connection plate, sealing hooks</p> | <p>37900339 50,00</p> |
|  | <p>"LUCINA" RETURN GRILLE max delivery flow rate 75 m³ / h, 360 ° adjustable slats</p> | <p>37900341 38,00</p> |
|  | <p>"CLOE" DELIVERY / RETURN GRID suitable for wall application max delivery flow rate 75 m³ / h, max return flow rate 50 m³ / h</p> | <p>37900342 38,00</p> |
|  | <p>SLEEVE FOR FLEXIBLE OVAL HOSE AIR INLET hose-hose connection with sealing hooks</p> | <p>37900305 38,00</p> |
|  | <p>EXTENDED SLEEVE FOR FLEXIBLE OVAL AIR INLET PIPE tube-tube connection with sealing hooks</p> | <p>37900354 54,00</p> |
|  | <p>HORIZONTAL OVAL ELBOW CURVE 90 ° with connection for corrugated pipes with sealing hooks and O-RING gaskets</p> | <p>37900063 42,00</p> |
|  | <p>VERTICAL OVAL ELBOW BEND 90 ° with connection for corrugated pipes with sealing hooks and O-RING gaskets</p> | <p>37900060 44,00</p> |
|  | <p>90 ° FITTING FOR OVAL FLEXIBLE HOSE AND OVAL GRID complete with sealing hooks and O-RING gaskets</p> | <p>37900061 68,00</p> |

VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

| Accessories VMC | | Code | € |
|--|---|-----------------|---------------|
|  | ROUND-OVAL FITTING FOR AIR INLET FLEXIBLE HOSE adapter for connecting the oval hose and the Ø 92 round hose | 37900059 | 54,00 |
|  | EPDM OVAL GASKET for oval hose made of EPDM | 37900055 | 8,00 |
|  | INSULATED PLENUMS FOR LINEAR DIFFUSERS | | |
| | mod. 1 slot 2 connections | 37900356 | 210,00 |
| | Ø 75 mod. 1 slot 2 connections | 37900357 | 214,00 |
| | Ø 90 mod. 2 slots 2 connections | 37900358 | 224,00 |
| | Ø 75 mod. 2 slots 2 connections Ø 90 | 37900057 | 228,00 |
|  | LINEAR DIFFUSERS IN ANODIZED / WHITE PAINTED ALUMINUM | | |
| | mod. 1 slot length 1 mt. White | 37900150 | 90,00 |
| | mod. 1 slot length 1 mt. aluminum | 37900359 | 72,00 |
| | mod. 2 slots length 1 mt. White | 37900058 | 126,00 |
| | mod. 2 slots length 1 mt. aluminum | 37900360 | 120,00 |
|  | PLENUM CEILING / WALLS / FLOORS designed for side, top and rear pipe inlet, supplied complete with fitting for flexible air inlet pipe | | |
| | mod. 330x180 profondità 110 mm 1 attacco Ø 75 | 37900361 | 108,00 |
| | mod. 330x180 profondità 110 mm 1 attacco Ø 90 | 37900336 | 110,00 |
| | mod. 430x180 profondità 110 mm 1 attacco Ø 75 | 37900362 | 132,00 |
| | mod. 430x180 profondità 110 mm 1 attacco Ø 90 | 37900086 | 140,00 |
| | mod. 430x180 profondità 110 mm 2 attacchi Ø 75 | 37900363 | 152,00 |
| | mod. 430x180 profondità 110 mm 2 attacchi Ø 90 | 37900338 | 162,00 |
|  | "VANESSA" STAINLESS STEEL GRILLS made of satin stainless steel, fixing by screws (customization possible) | | |
| | mod. 340x190 mm | 37900337 | 56,00 |
| | mod. 440x190 mm | 37900068 | 82,00 |
|  | "GALATEA" STAINLESS STEEL GRILLS made of satin stainless steel, fixing by screws (customization possible) | | |
| | mod. 340x190 mm | 37900364 | 56,00 |
| | mod. 440x190 mm | 37900365 | 82,00 |
|  | "IRIDE" STAINLESS STEEL GRILLS made of satin stainless steel, fixing by screws (customization possible) | | |
| | mod. 340x190 mm | 37900366 | 56,00 |
| | mod. 440x190 mm | 37900367 | 82,00 |

VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

Accessories VMC

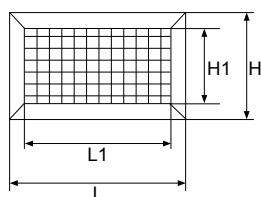
Codice

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DELIVERY PORTS IN ANODIZED ALUMINUM

The vents consisting of a frame and a double row of horizontal and vertical fins are individually adjustable.

fixing by means of invisible clips allows an aesthetically valid application.

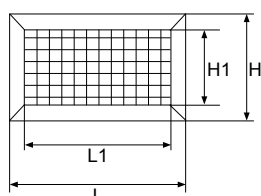
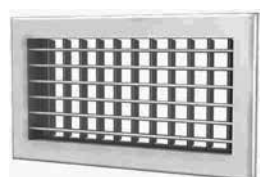


| | | | | |
|----------|-------------------|---------------------|----------|--------|
| mod. 01A | L 232 x H 132 mm | L1 200 x H1 100 mm | 37900368 | 46,00 |
| mod. 02A | L 332 x H 132 mm | L1 300 x H1 100 mm | 37900369 | 54,00 |
| mod. 03A | L 432 x H 132 mm | L1 400 x H1 100 mm | 37900370 | 66,00 |
| mod. 04A | L 632 x H 132 mm | L1 600 x H1 100 mm | 37900371 | 82,00 |
| mod. 05A | L 1032 x H 132 mm | L1 1000 x H1 100 mm | 37900372 | 128,00 |
| mod. 06A | L 332 x H 182 mm | L1 300 x H1 150 mm | 37900373 | 68,00 |
| mod. 07A | L 332 x H 232 mm | L1 300 x H1 200 mm | 37900374 | 70,00 |
| mod. 08A | L 432 x H 182 mm | L1 400 x H1 150 mm | 37900375 | 74,00 |
| mod. 09A | L 432 x H 232 mm | L1 400 x H1 200 mm | 37900376 | 84,00 |
| mod. 10A | L 532 x H 182 mm | L1 500 x H1 150 mm | 37900377 | 80,00 |
| mod. 11A | L 532 x H 232 mm | L1 500 x H1 200 mm | 37900378 | 94,00 |

DELIVERY PORT IN ALUMINUM PAINTED WHITE

The vents consisting of a frame and a double row of horizontal and vertical fins are individually adjustable.

fixing by means of invisible clips allows an aesthetically valid application.

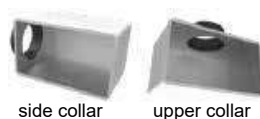


| | | | | |
|----------|-------------------|---------------------|----------|--------|
| mod. 01V | L 232 x H 132 mm | L1 200 x H1 100 mm | 37900088 | 38,00 |
| mod. 02V | L 332 x H 132 mm | L1 300 x H1 100 mm | 37900104 | 46,00 |
| mod. 03V | L 432 x H 132 mm | L1 400 x H1 100 mm | 37900105 | 56,00 |
| mod. 04V | L 632 x H 132 mm | L1 600 x H1 100 mm | 37900379 | 82,00 |
| mod. 05V | L 1032 x H 132 mm | L1 1000 x H1 100 mm | 37900380 | 128,00 |
| mod. 06V | L 332 x H 182 mm | L1 300 x H1 150 mm | 37900091 | 58,00 |
| mod. 07V | L 332 x H 232 mm | L1 300 x H1 200 mm | 37900106 | 60,00 |
| mod. 08V | L 432 x H 182 mm | L1 400 x H1 150 mm | 37900107 | 62,00 |
| mod. 09V | L 432 x H 232 mm | L1 400 x H1 200 mm | 37900070 | 70,00 |
| mod. 10V | L 532 x H 182 mm | L1 500 x H1 150 mm | 37900108 | 68,00 |
| mod. 11V | L 532 x H 232 mm | L1 500 x H1 200 mm | 37900109 | 86,00 |

INSULATED PLENUM PREPARED FOR 3 INPUTS Made of galvanized sheet metal with external insulation in closed cell polyethylene 3 mm thick and equipped as standard with one or two PPS collars for connecting flexible circular pipes.

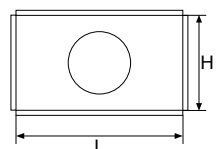


rear collar



side collar

upper collar



| | | | | |
|---------|-------------------|--------------------------|----------|--------|
| mod. 01 | L 210 x H 110 mm | (attacco 125/150 mm) | 37900005 | 116,00 |
| mod. 02 | L 310 x H 110 mm | (attacco 125/150 mm) | 37900098 | 120,00 |
| mod. 03 | L 410 x H 110 mm | (attacco 125/150 mm) | 37900099 | 138,00 |
| mod. 04 | L 610 x H 110 mm | (attacco 2 x 125/150 mm) | 37900043 | 168,00 |
| mod. 05 | L 1010 x H 110 mm | (attacco 2 x 125/150 mm) | 37900382 | 180,00 |
| mod. 06 | L 310 x H 160 mm | (attacco 150 mm) | 37900090 | 124,00 |
| mod. 07 | L 310 x H 210 mm | (attacco 150/200 mm) | 37900103 | 144,00 |
| mod. 08 | L 410 x H 160 mm | (attacco 150 mm) | 37900101 | 172,00 |
| mod. 09 | L 410 x H 210 mm | (attacco 150/200 mm) | 37900069 | 138,00 |
| mod. 10 | L 510 x H 160 mm | (attacco 2 x 150 mm) | 37900102 | 150,00 |
| mod. 11 | L 510 x H 210 mm | (attacco 2 x 150/200 mm) | 37900130 | 180,00 |

VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

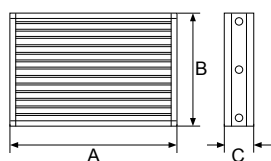
Accessories VMC

Code

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CALIBRATION DAMPER

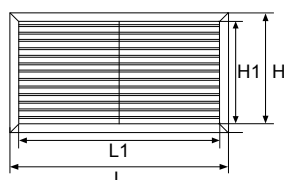
The vents consisting of a frame and a double row of horizontal and vertical fins are individually adjustable. fixing by means of invisible clips allows an aesthetically valid application.



| for vents | mm | A mm | B mm | C mm | | |
|-----------|------------|------|------|------|----------|-------|
| mod. 01 S | 232 x 132 | 185 | 80 | 55 | 37900094 | 26,00 |
| mod. 02 S | 332 x 132 | 285 | 80 | 55 | 37900110 | 32,00 |
| mod. 03 S | 432 x 132 | 385 | 80 | 55 | 37900113 | 52,00 |
| mod. 04 S | 632 x 132 | 585 | 80 | 55 | 37900383 | 40,00 |
| mod. 05 S | 1032 x 132 | 985 | 180 | 55 | 37900384 | 62,00 |
| mod. 06 S | 332 x 182 | 285 | 130 | 55 | 37900092 | 36,00 |
| mod. 07 S | 332 x 232 | 285 | 180 | 55 | 37900111 | 36,00 |
| mod. 08 S | 432 x 182 | 385 | 130 | 55 | 37900113 | 52,00 |
| mod. 09 S | 432 x 232 | 385 | 180 | 55 | 37900073 | 42,00 |
| mod. 10 S | 532 x 182 | 485 | 130 | 55 | 37900114 | 42,00 |
| mod. 11 S | 532 x 232 | 485 | 180 | 55 | 37900115 | 68,00 |



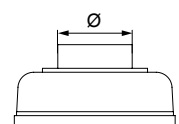
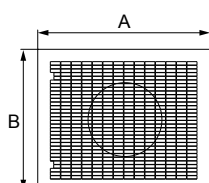
RETURN GRILLE IN WHITE PAINTED ALUMINUM WITH REMOVABLE FILTER FOR FALSE CEILING
White RAL 9016 painted aluminum material with fixing by means of screws for wall and ceiling installation with G4 filtration degree (ref. EN 779/2012 STANDARD)



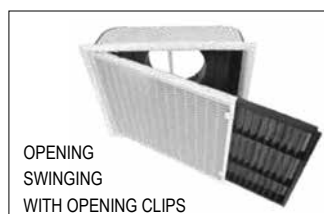
| | | | |
|-----------------------|--------------------|----------|--------|
| mod. L 432 x H 132 mm | L1 390 x H1 90 mm | 37900385 | 58,00 |
| mod. L 332 x H 182 mm | L1 290 x H1 140 mm | 37900386 | 62,00 |
| mod. L 332 x H 232 mm | L1 290 x H1 190 mm | 37900387 | 66,00 |
| mod. L 432 x H 232 mm | L1 390 x H1 190 mm | 37900388 | 78,00 |
| mod. L 532 x H 332 mm | L1 490 x H1 290 mm | 37900389 | 110,00 |



OPENABLE INTAKE GRILLE IN WHITE ABS PLASTIC WITH REMOVABLE FILTER AND INTEGRATED PLENUM FOR CEILING 48 °
C, G2 filtration degree (ref. EN 779/2012 STANDARD)



| | | | | |
|---------|------------------|----------------------------|----------|--------|
| mod. 01 | A 660 x B 540 mm | (innesto Ø 1 x 350 mm) | 37900390 | 340,00 |
| mod. 02 | A 760 x B 440 mm | (innesto ovale 1 x 350 mm) | 37900391 | 340,00 |
| mod. 03 | A 960 x B 440 mm | (innesto Ø 2 x 350 mm) | 37900392 | 396,00 |
| mod. 04 | A 965 x B 565 mm | (innesto Ø 2 x 350 mm) | 37900393 | 474,00 |



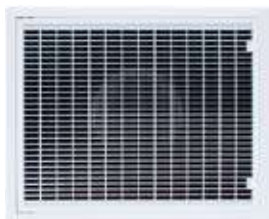
VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

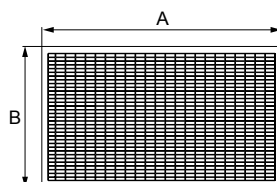
Accessories VMC

Code

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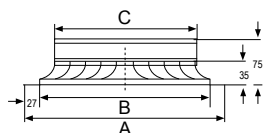
OPENABLE INTAKE GRILLE IN WHITE ABS PLASTIC WITH REMOVABLE FILTER FOR FALSE CEILING
Grid made of white anti-condensation ABS, removable filter made of pleated nylon with fixing by clips operating temperature: from +5 ° C to +48 ° C, filtration degree G2 (ref. STANDARD EN 779/2012)



| | | | | |
|----------------|-------------------------|---------------------------|-----------------|---------------|
| mod. 01 | A 660 x B 540 mm | (profondità 60 mm) | 37900131 | 156,00 |
| mod. 02 | A 760 x B 440 mm | (profondità 60 mm) | 37900132 | 156,00 |
| mod. 03 | A 960 x B 440 mm | (profondità 60 mm) | 37900133 | 178,00 |
| mod. 04 | A 965 x B 565 mm | (profondità 60 mm) | 37900198 | 216,00 |



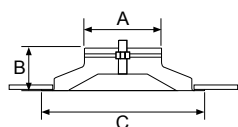
CIRCULAR DIFFUSERS IN ALUMINUM PAINTED WHITE RAL - 9016 WITH BUTTERFLY SHUTTERS AND INTEGRATED COLLAR
They are used for delivery and return of air. Thanks to the high induction, they can also be used at significant temperature differences between the supply air and the environment. They stand out for their high efficiency, silent operation and modern design.



| | A mm | B mm | C mm | | |
|----------------|--------------|--------------|--------------|-----------------|---------------|
| mod. 01 | Ø 260 | Ø 210 | Ø 150 | 37900135 | 90,00 |
| mod. 02 | Ø 310 | Ø 260 | Ø 200 | 37900027 | 108,00 |
| mod. 03 | Ø 360 | Ø 310 | Ø 250 | 37900137 | 134,00 |



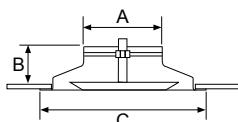
ADJUSTABLE VENTILATION VALVE FOR AIR DELIVERY IN WHITE PAINTED METAL
The delivery valves can be applied to the ceiling in service rooms and bathrooms. the air flow is regulated by rotating the central cone. Made of steel sheet and painted white RAL 9010.



| | A mm | B mm | C mm | | |
|-----------------|----------------|-------------|--------------|-----------------|--------------|
| mod. 100 | Ø 97,5 | Ø 40 | Ø 138 | 37900138 | 14,00 |
| mod. 125 | Ø 122,5 | Ø 46 | Ø 164 | 37900139 | 16,00 |
| mod. 150 | Ø 147,5 | Ø 50 | Ø 202 | 37900140 | 18,00 |
| mod. 200 | Ø 197,5 | Ø 63 | Ø 248 | 37900141 | 28,00 |



ADJUSTABLE AIR INTAKE VENTILATION VALVE IN WHITE PAINTED METAL
The return valves can be applied to the ceiling in utility rooms, bathrooms or shops. the air flow is regulated by rotating the central body. Made of steel sheet and painted white RAL 9010.



| | A mm | B mm | C mm | | |
|-----------------|----------------|-------------|--------------|-----------------|--------------|
| mod. 100 | Ø 97,5 | Ø 40 | Ø 138 | 37900142 | 14,00 |
| mod. 125 | Ø 122,5 | Ø 46 | Ø 164 | 37900045 | 16,00 |
| mod. 150 | Ø 147,5 | Ø 50 | Ø 202 | 37900143 | 18,00 |
| mod. 200 | Ø 197,5 | Ø 63 | Ø 248 | 37900144 | 28,00 |

VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

Accessories VMC

Code

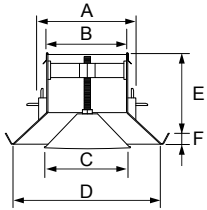
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ADJUSTABLE AIR INTAKE VENTILATION VALVE IN WHITE ABS PLASTIC

The return valves can be applied to the ceiling in service rooms and bathrooms. The air flow is regulated by rotating the central cone.

Made of white ABS material RAL 9010.



| | A mm | B mm | C mm | D mm | E mm | F mm | | |
|------------|------|------|------|------|------|------|----------|-------|
| mod. Ø 80 | 80 | 76 | 65 | 120 | 55 | 20 | 37900330 | 10,00 |
| mod. Ø 100 | 100 | 96 | 78 | 140 | 55 | 20 | 37900467 | 14,00 |
| mod. Ø 125 | 125 | 120 | 110 | 165 | 55 | 20 | 37900468 | 16,00 |
| mod. Ø 150 | 150 | 145 | 125 | 188 | 55 | 20 | 37900469 | 18,00 |
| mod. Ø 200 | 200 | 195 | 180 | 235 | 55 | 20 | 37900470 | 34,00 |

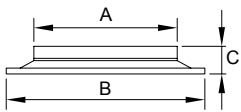


SQUARE DIFFUSER IN WHITE ABS PLASTIC WITH PERFORATED SCREEN

White ABS material

operating temperature from -15 ° C to +48 ° C

37900145 168,00



| A mm | B mm | C mm |
|------|------|------|
| 450 | 595 | 80 |



CIRCULAR ADAPTER WITH SHUTTERS FOR SQUARE DIFFUSERS

Black ABS material

with circular adapter equipped with butterfly damper

mod. connection Ø 200 for square diffuser 450 x 450 mm

mod. connection Ø 250 for square diffuser 450 x 450 mm

reduction for adapter 200-150 mm

37900146 62,00

37900147 68,00

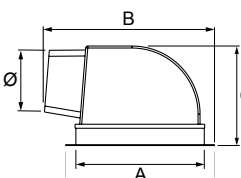
37900148 28,00



300x300 SQUARE MESH DIFFUSER IN WHITE ABS PLASTIC WITH PLENUM

Prevents condensation phenomena, operating temperature from +5 ° C to +48 ° C.

Fixing by means of clips suitable for supply and return of the Air



| External frame A mm | Total height C mm | Footprint max B mm | Lateral oval neck graft Ø mm | | |
|------------------------|----------------------|-----------------------|---------------------------------|----------|--------|
| 430 x 430 | 250 | 450 | 200 | 37900394 | 144,00 |

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1-SLOT LINEAR DIFFUSERS IN ANODIZED ALUMINUM AND WHITE PAINTED ALUMINUM

| | | L1 mm | H1 mm | L2 mm | H2 mm | | |
|-------------------------|--------------------|-------|-------|-------|-------|----------|--------|
| <p>VISTA ANTERIORE</p> | mod. 600 white | 607 | 50 | 660 | 75 | 37900149 | 74,00 |
| | mod. 600 anotized | 607 | 50 | 660 | 75 | 37900395 | 66,00 |
| | mod. 800 white | 807 | 50 | 860 | 75 | 37900096 | 84,00 |
| | mod. 800 anotized | 807 | 50 | 860 | 75 | 37900396 | 72,00 |
| | mod. 1000 white | 1007 | 50 | 1060 | 75 | 37900150 | 90,00 |
| | mod. 1000 anotized | 1007 | 50 | 1060 | 75 | 37900359 | 72,00 |
| <p>VISTA POSTERIORE</p> | mod. 1500 white | 1507 | 50 | 1560 | 75 | 37900097 | 132,00 |
| | mod. 1500 anotized | 1507 | 50 | 1560 | 75 | 37900397 | 114,00 |
| | mod. 2000 white | 2007 | 50 | 2060 | 75 | 37900151 | 146,00 |
| | mod. 2000 anotized | 2007 | 50 | 2060 | 75 | 37900431 | 126,00 |



INSULATED PLENUM WITH UPPER CONNECTION FOR 1 SLOT LINEAR DIFFUSER

In insulated galvanized sheet metal with external closed cell polyethylene coating (3 mm thick). Collars for upper attachments supplied

| | A mm | B mm | C mm | Ø mm | | |
|--|-----------|------|------|------|----------|-----------------|
| | mod. 600 | 630 | 65 | 280 | 150 1 pz | 37900152 126,00 |
| | mod. 800 | 830 | 65 | 280 | 150 1 pz | 37900153 140,00 |
| | mod. 1000 | 1030 | 65 | 280 | 150 1 pz | 37900154 152,00 |
| | mod. 1500 | 1530 | 65 | 280 | 150 1 pz | 37900155 214,00 |
| | mod. 2000 | 2030 | 65 | 280 | 150 2 pz | 37900156 272,00 |



LINEAR DIFFUSER WITH 2 SLOTS IN ANODIZED ALUMINUM AND WHITE PAINTED ALUMINUM

| | L1 mm | H1 mm | L2 mm | H2 mm | | |
|-------------------|--------------------|-------|-------|-------|-----|-----------------|
| <p>FRONT VIEW</p> | mod. 600 white | 607 | 90 | 660 | 115 | 37900157 112,00 |
| | mod. 600 anotized | 607 | 90 | 660 | 115 | 37900398 98,00 |
| | mod. 800 white | 807 | 90 | 860 | 115 | 37900158 124,00 |
| | mod. 800 anotized | 807 | 90 | 860 | 115 | 37900399 110,00 |
| | mod. 1000 white | 1007 | 90 | 1060 | 115 | 37900058 126,00 |
| | mod. 1000 anotized | 1007 | 90 | 1060 | 115 | 37900360 120,00 |
| <p>REAR VIEW</p> | mod. 1500 white | 1507 | 90 | 1560 | 115 | 37900159 184,00 |
| | mod. 1500 anotized | 1507 | 90 | 1560 | 115 | 37900419 160,00 |
| | mod. 2000 white | 2007 | 90 | 2060 | 115 | 37900160 224,00 |
| | mod. 2000 anotized | 2007 | 90 | 2060 | 115 | 37900420 194,00 |



INSULATED PLENUM WITH PREPARED UPPER CONNECTION WITH POST / LAT INPUTS FOR LINEAR DIFFUSER 2 SLOTS

In insulated galvanized sheet metal with external closed cell polyethylene coating (3 mm thick). Collars for upper attachments supplied. Collars for rear and side entrances available on request

| | A mm | B mm | C mm | Ø mm | | |
|--|-----------|------|------|------|----------|-----------------|
| | mod. 600 | 630 | 105 | 280 | 150 1 pz | 37900161 150,00 |
| | mod. 800 | 830 | 105 | 280 | 150 1 pz | 37900162 170,00 |
| | mod. 1000 | 1030 | 105 | 280 | 150 1 pz | 37900163 178,00 |
| | mod. 1500 | 1530 | 105 | 280 | 150 2 pz | 37900164 220,00 |
| | mod. 2000 | 2030 | 105 | 280 | 150 2 pz | 37900165 284,00 |

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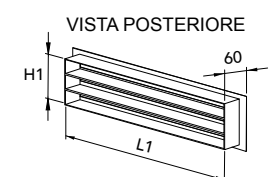
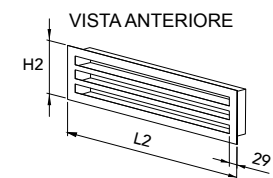
Code

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LINEAR DIFFUSERS WITH 3 SLOTS IN ANODIZED ALUMINUM AND WHITE PAINTED ALUMINUM

| | L1 mm | H1 mm | L2 mm | H2 mm | Code | € |
|---------------------------|-------|-------|-------|-------|----------|--------|
| mod. 600 white | 607 | 130 | 660 | 155 | 37900166 | 142,00 |
| mod. 600 anodised | 607 | 130 | 660 | 155 | 37900421 | 122,00 |
| mod. 800 white | 807 | 130 | 860 | 155 | 37900046 | 158,00 |
| mod. 800 anodised | 807 | 130 | 860 | 155 | 37900422 | 136,00 |
| mod. 1000 white | 1007 | 130 | 1060 | 155 | 37900167 | 192,00 |
| mod. 1000 anodised | 1007 | 130 | 1060 | 155 | 37900423 | 172,00 |
| mod. 1500 white | 1507 | 130 | 1560 | 155 | 37900072 | 248,00 |
| mod. 1500 anodised | 1507 | 130 | 1560 | 155 | 37900424 | 216,00 |
| mod. 2000 white | 2007 | 130 | 2060 | 155 | 37900168 | 302,00 |
| mod. 2000 anodised | 2007 | 130 | 2060 | 155 | 37900425 | 260,00 |

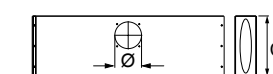
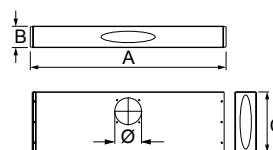


INSULATED PLENUM WITH PREPARED UPPER CONNECTION WITH POST / LAT INPUTS FOR LINEAR DIFFUSER 3 SLOTS

In insulated galvanized sheet metal with external closed cell polyethylene coating (3 mm thick). Collars for upper attachments supplied.

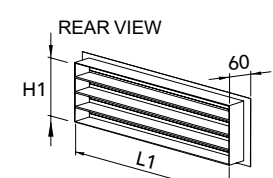
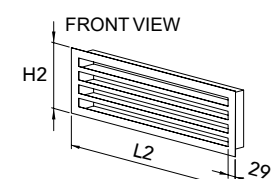
Collars for rear and side entrances available on request

| | A mm | B mm | C mm | Ø mm | Code | € |
|------------------|------|------|------|----------|----------|--------|
| mod. 600 | 630 | 145 | 280 | 150 1 pz | 37900169 | 156,00 |
| mod. 800 | 830 | 145 | 280 | 150 1 pz | 37900047 | 176,00 |
| mod. 1000 | 1030 | 145 | 280 | 150 1 pz | 37900170 | 188,00 |
| mod. 1500 | 1530 | 145 | 280 | 150 2 pz | 37900071 | 246,00 |
| mod. 2000 | 2030 | 145 | 280 | 150 2 pz | 37900172 | 314,00 |



LINEAR DIFFUSERS WITH 4 SLOTS IN ANODIZED ALUMINUM AND WHITE PAINTED ALUMINUM

| | L1 mm | H1 mm | L2 mm | H2 mm | Code | € |
|---------------------------|-------|-------|-------|-------|----------|--------|
| mod. 600 white | 607 | 165 | 660 | 190 | 37900173 | 188,00 |
| mod. 600 anodised | 607 | 165 | 660 | 190 | 37900426 | 162,00 |
| mod. 800 white | 807 | 165 | 860 | 190 | 37900049 | 208,00 |
| mod. 800 anodised | 807 | 165 | 860 | 190 | 37900427 | 180,00 |
| mod. 1000 white | 1007 | 165 | 1060 | 190 | 37900054 | 224,00 |
| mod. 1000 anodised | 1007 | 165 | 1060 | 190 | 37900428 | 196,00 |
| mod. 1500 white | 1507 | 165 | 1560 | 190 | 37900174 | 312,00 |
| mod. 1500 anodised | 1507 | 165 | 1560 | 190 | 37900429 | 270,00 |
| mod. 2000 white | 2007 | 165 | 2060 | 190 | 37900175 | 392,00 |
| mod. 2000 anodised | 2007 | 165 | 2060 | 190 | 37900430 | 340,00 |

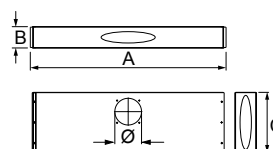


INSULATED PLENUM WITH PREPARED UPPER CONNECTION WITH POST / LAT INPUTS FOR LINEAR DIFFUSER 4 SLOTS

In insulated galvanized sheet metal with external closed cell polyethylene coating (3 mm thick). Collars for upper attachments supplied.

Collars for rear and side entrances available on request

| | A mm | B mm | C mm | Ø mm | Code | € |
|------------------|------|------|------|--------------|----------|--------|
| mod. 600 | 630 | 145 | 280 | 200-150 1 pz | 37900176 | 182,00 |
| mod. 800 | 830 | 180 | 280 | 200-150 1 pz | 37900048 | 184,00 |
| mod. 1000 | 1030 | 180 | 280 | 200-150 2 pz | 37900053 | 196,00 |
| mod. 1500 | 1530 | 180 | 280 | 200-150 2 pz | 37900177 | 270,00 |
| mod. 2000 | 2030 | 180 | 280 | 200-150 2 pz | 37900178 | 348,00 |



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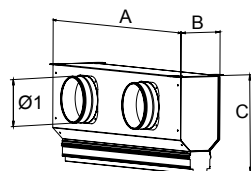
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LINEAR DIFFUSER WITH SINGLE HIDDEN SLOT WITH DEFLECTOR COMPLETE WITH INSULATED PLENUM AND COLLAR

Diffuser in black extruded anodized aluminum (RAL 9005).

Plenum in galvanized sheet, external covering in closed cell polyethylene (thickness 3 mm). Ceiling or wall installation, suitable for supply and return of air. Collars included



| | A mm | B mm | C mm | Ø1 mm | Attacks | | |
|-----------|------|------|------|-------|---------|----------|--------|
| mod. 600 | 600 | 143 | 305 | 150 | n. 1 | 37900179 | 294,00 |
| mod. 800 | 800 | 143 | 305 | 150 | n. 2 | 37900180 | 350,00 |
| mod. 1000 | 1000 | 143 | 305 | 150 | n. 2 | 37900181 | 384,00 |
| mod. 1500 | 1500 | 143 | 305 | 150 | n. 3 | 37900182 | 542,00 |
| mod. 2000 | 2000 | 143 | 305 | 150 | n. 4 | 37900183 | 640,00 |

SIMPLE ARMORED FLEXIBLE ALUMINUM DUCT HOSE This is a flexible conduit 10 meters long and compressed

in a single package, consisting of a spiral armor

in rigid steel enclosed between two layers of aluminum / polyester.



MANDATA MAX
 $\text{Ø} \leq 204 \text{ p} = 4500 \text{ Pa}$
 $\text{Ø} > 204 \text{ p} = \frac{1,5 \times 10^7}{\sqrt{D^3}} \text{ Pa}$

RIPRESA MAX
 $\text{Ø} \leq 204 \text{ p} = 3400 \text{ Pa}$
 $\text{Ø} > 204 \text{ p} = \frac{10^7}{\sqrt{D^3}} \text{ Pa}$

| | Ø indoor | | |
|--------------------------|----------|----------|--------|
| mod. 85 Lunghezza 10 mt | 85 mm | 37900432 | 32,00 |
| mod. 102 Lunghezza 10 mt | 102 mm | 37900433 | 38,00 |
| mod. 127 Lunghezza 10 mt | 127 mm | 37900434 | 44,00 |
| mod. 140 Lunghezza 10 mt | 140 mm | 37900435 | 48,00 |
| mod. 152 Lunghezza 10 mt | 152 mm | 37900436 | 50,00 |
| mod. 160 Lunghezza 10 mt | 102 mm | 37900437 | 54,00 |
| mod. 180 Lunghezza 10 mt | 180 mm | 37900438 | 64,00 |
| mod. 203 Lunghezza 10 mt | 203 mm | 37900439 | 68,00 |
| mod. 254 Lunghezza 10 mt | 254 mm | 37900440 | 88,00 |
| mod. 305 Lunghezza 10 mt | 305 mm | 37900441 | 112,00 |
| mod. 356 Lunghezza 10 mt | 356 mm | 37900442 | 140,00 |
| mod. 457 Lunghezza 10 mt | 457 mm | 37900443 | 198,00 |
| mod. 610 Lunghezza 10 mt | 610 mm | 37900444 | 284,00 |

FLEXIBLE DUCTED HOSE IN SIMPLE ALUMINUM WITH INTERNAL ANTIBACTERIAL TREATMENT Made of

aluminum, available from Ø 85 to Ø 610 mm.



| | Ø indoor | | |
|-----------------------|----------|----------|--------|
| mod. 85 Length 10 mt | 85 mm | 37900203 | 42,00 |
| mod. 102 Length 10 mt | 102 mm | 37900204 | 48,00 |
| mod. 127 Length 10 mt | 127 mm | 37900205 | 58,00 |
| mod. 152 Length 10 mt | 152 mm | 37900206 | 60,00 |
| mod. 160 Length 10 mt | 102 mm | 37900207 | 66,00 |
| mod. 180 Length 10 mt | 180 mm | 37900208 | 70,00 |
| mod. 203 Length 10 mt | 203 mm | 37900209 | 84,00 |
| mod. 254 Length 10 mt | 254 mm | 37900210 | 88,00 |
| mod. 305 Length 10 mt | 305 mm | 37900211 | 114,00 |
| mod. 356 Length 10 mt | 356 mm | 37900212 | 182,00 |
| mod. 457 Length 10 mt | 457 mm | 37900213 | 258,00 |
| mod. 610 Length 10 mt | 610 mm | 37900214 | 370,00 |

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Code

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ULTRA FLEXIBLE DUCTED PIPE IN POLYETHYLENE DOUBLE WALL THERMAL - PHONIC

It is a 10 m long heat-resistant flexible conduit compressed in a single package consisting of a double-walled polyethylene flexible pipe; 25 mm thick glass wool thermal insulation and 16 kg / m³ density; a polyethylene film to avoid condensation.



DELIVERY MAX
 $\varnothing \leq 152$ p= 7000 Pa
 $\varnothing > 204$ p= $\frac{13 \times 10^6}{\sqrt{D^3}}$ Pa

RECOVERY MAX
 $\varnothing \leq 152$ p= 4000 Pa
 $\varnothing > 204$ p= $\frac{10^6}{\sqrt{D^3}}$ Pa

| | Ø interno | | |
|-----------------------|-----------|----------|--------|
| mod. 85 Length 10 mt | 85 mm | 37900193 | 102,00 |
| mod. 102 Length 10 mt | 102 mm | 37900089 | 130,00 |
| mod. 127 Length 10 mt | 127 mm | 37900004 | 142,00 |
| mod. 140 Length 10 mt | 140 mm | 37900194 | 154,00 |
| mod. 152 Length 10 mt | 152 mm | 37900039 | 164,00 |
| mod. 160 Length 10 mt | 160 mm | 37900196 | 170,00 |
| mod. 185 Length 10 mt | 185 mm | 37900075 | 192,00 |
| mod. 203 Length 10 mt | 203 mm | 37900001 | 208,00 |
| mod. 254 Length 10 mt | 254 mm | 37900199 | 270,00 |
| mod. 305 Length 10 mt | 305 mm | 37900200 | 310,00 |
| mod. 356 Length 10 mt | 356 mm | 37900201 | 358,00 |
| mod. 457 Length 10 mt | 457 mm | 37900202 | 502,00 |



COLLAR FOR PLENUM "A1" Ø 100 - 125 - 150

Anti-condensation PP material for simple / double wall ducted pipes, prepared with 4 holes for fixing to the plenum

Collarino per plenum "A1" Ø 100 - 125 - 150

37900263 20,00



COLLAR FOR PLENUM "B2" Ø 150 - 200

Anti-condensation PP material for simple / double wall ducted pipes, prepared with 4 holes for fixing to the plenum

Collarino per plenum "B2" Ø 150 - 200

37900226 22,00

COLLAR FOR PLENUM WITH INCORPORATED SHUTTER PP material available from Ø 102 to Ø 254,

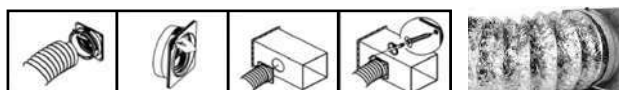
operating temperature: from -30 ° C to +150 ° C,

reaction to fire: C-s1, d1



usable
only for single
or double wall
aluminum flexible pipe

| | | |
|---|----------|-------|
| Connection for flexible pipes with damper Ø 102 | 37900184 | 22,00 |
| Connection for flexible pipes with damper Ø 127 | 37900185 | 26,00 |
| Connection for flexible pipes with damper Ø 152 | 37900186 | 30,00 |
| Connection for flexible pipes with damper Ø 160 | 37900187 | 30,00 |
| Connection for flexible pipes with damper Ø 203 | 37900188 | 34,00 |
| Connection for flexible pipes with damper Ø 254 | 37900189 | 38,00 |



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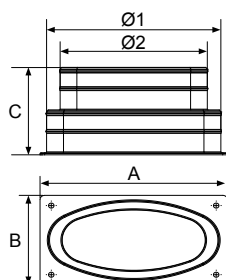
mod. C3



mod. C4

OVAL COLLAR FOR PLENUM "C3" / "D4"

Anti-condensation PP material for simple / double wall ducted pipes, prepared with 4 holes for fixing to the plenum



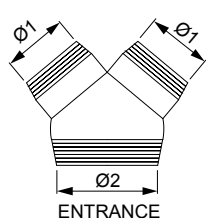
| | A mm | B mm | C mm | Ø1 mm | Ø2 mm | Code | € |
|-------------------|------|------|------|-------|-------|----------|-------|
| mod. C3 Ø 125/150 | 192 | 102 | 102 | 150 | 125 | 37900191 | 22,00 |
| mod. D4 Ø 150/200 | 280 | 105 | 102 | 200 | 150 | 37900192 | 26,00 |



ANTICONDENSATION

INSULATED 3-WAY JUNCTION SUITABLE FOR PIPES FROM 150 TO 450 mm

- Operating temperature from 0 ° C to +70 ° C
- PP material
- insulating coating: polyethylene with aluminum coating
- for heating and air conditioning hoses (insulated and not)
- insulated reductions as an option



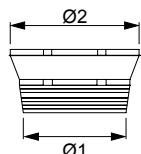
| | Ø2 mm | Ø1 mm | Code | € |
|----------------------|-------|-------|----------|--------|
| mod. 200 x 150 x 150 | 200 | 150 | 37900215 | 100,00 |
| mod. 250 x 200 x 200 | 250 | 200 | 37900216 | 110,00 |
| mod. 300 x 250 x 250 | 300 | 250 | 37900217 | 120,00 |
| mod. 350 x 300 x 300 | 350 | 300 | 37900218 | 136,00 |
| mod. 400 x 350 x 350 | 400 | 350 | 37900219 | 152,00 |
| mod. 450 x 350 x 350 | 450 | 350 | 37900220 | 198,00 |



ANTICONDENSATION

REDUCTION (INSULATED) FOR INSULATED 3-WAY DERIVATIONS

- Operating temperature from 0 ° C to +70 ° C
- PP material
- insulating coating: polyethylene with aluminum coating
- only in combination with insulated 3-way outlets
- for heating and air conditioning hoses (insulated and not)



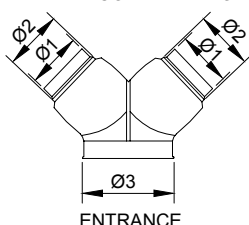
| | Ø1 mm | Ø2 mm | Code | € |
|-----------------------|-------|-------|----------|-------|
| mod. da Ø 200 a Ø 150 | 150 | 200 | 37900445 | 34,00 |
| mod. da Ø 250 a Ø 200 | 200 | 250 | 37900446 | 38,00 |
| mod. da Ø 300 a Ø 250 | 250 | 300 | 37900447 | 42,00 |
| mod. da Ø 350 a Ø 300 | 300 | 350 | 37900448 | 46,00 |



ANTICONDENSATION

3-WAY MULTIPLE JUNCTION FOR DUCTED PIPES

Material in PE H.D. with n. 3 multi-diameter connections



| | Ø1 mm | Ø2 mm | Ø3 mm | Code | € |
|----------------------------|-------|-------|-------|----------|--------|
| mod. Ø 250 x Ø 200 x Ø 150 | 150 | 200 | 250 | 37900449 | 118,00 |
| mod. Ø 350 x Ø 250 x Ø 250 | 250 | 300 | 350 | 37900450 | 150,00 |

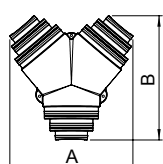
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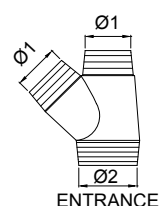


MULTIPLE "Y" POLYSTYRENE JUNCTION FOR DUCTED PIPES Sintered polystyrene material, suitable for ducted pipes

| | A mm | B mm | C mm | Ø Attacchi mm | | |
|------------|------|------|------|---------------|----------|--------|
| mod. big | 560 | 566 | 260 | 250/200/150 | 37900451 | 114,00 |
| mod. small | 523 | 531 | 210 | 250/150/125 | 37900452 | 102,00 |



ANTICONDENSATION

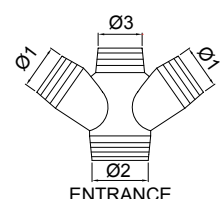


3-WAY SIDE OFFSET FOR DUCTED PIPES Material in PE H.D. with 3 multidiameter connections

| | Ø1 mm | Ø2 mm | | |
|--------------------------------|---------|-------|----------|--------|
| Graft from Ø 200 mm - Ø 150 mm | 150 | 200 | 37900221 | 94,00 |
| Graft from Ø 250 mm - Ø 150 mm | 150/200 | 200 | 37900222 | 102,00 |
| Graft from Ø 250 mm - Ø 200 mm | 200 | 250 | 37900223 | 110,00 |



ANTICONDENSATION

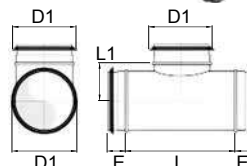


DERIVAZIONE A 4 VIE PER TUBI CANALIZZATI Materiale in PE H.D. con 4 attacchi multidiametro

| | Ø1 mm | Ø2 mm | Ø3 mm | | |
|--------------------------------|-------|-------|-------|----------|--------|
| Ingressi per tubi Ø 200/150 mm | 150 | 200 | 150 | 37900453 | 106,00 |

DERIVAZIONE SIMMETRICA A 90°

Materiale: acciaio zincato con guarnizione in EPDM a doppio labbro



| | Ø mm | Ø D1 mm | E mm | L mm | L1 mm | | |
|------------|------|---------|------|------|-------|----------|--------|
| mod. Ø 80 | 80 | 80 | 36 | 180 | 65 | 37900237 | 52,00 |
| mod. Ø 100 | 100 | 100 | 36 | 200 | 75 | 37900238 | 48,00 |
| mod. Ø 125 | 125 | 125 | 36 | 225 | 88 | 37900041 | 54,00 |
| mod. Ø 160 | 160 | 160 | 36 | 280 | 115 | 37900239 | 66,00 |
| mod. Ø 200 | 200 | 36 | 36 | 300 | 125 | 37900224 | 84,00 |
| mod. Ø 250 | 250 | 55 | 55 | 350 | 138 | 37900240 | 82,00 |
| mod. Ø 300 | 300 | 50 | 50 | 400 | 175 | 37900241 | 180,00 |
| mod. Ø 355 | 355 | 75 | 75 | 455 | 203 | 37900242 | 228,00 |
| mod. Ø 400 | 400 | 75 | 75 | 500 | 225 | 37900243 | 264,00 |

VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

Accessories VMC

Code

€

AIR INTAKE GRILLS IN WHITE PAINTED ALUMINUM consisting of a frame and a single row of adjustable wings arranged horizontally, they are equipped with a practical system fixing by means of invisible clips, offering a pleasant aesthetic result.



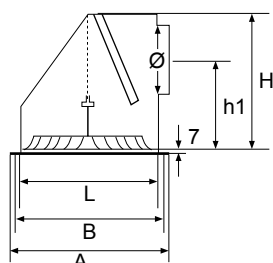
Dimensions mm

Air passage mm

| | | | |
|-----------------|------------|----------|-------|
| mod. 232 x 132 | 200 x 100 | 37900044 | 28,00 |
| mod. 332 x 132 | 300 x 100 | 37900122 | 32,00 |
| mod. 432 x 132 | 400 x 100 | 37900123 | 36,00 |
| mod. 632 x 132 | 600 x 100 | 37900455 | 90,00 |
| mod. 1032 x 132 | 1000 x 100 | 37900456 | 90,00 |
| mod. 332 x 182 | 300 x 150 | 37900124 | 38,00 |
| mod. 332 x 232 | 300 x 200 | 37900125 | 40,00 |
| mod. 432 x 182 | 400 x 150 | 37900126 | 44,00 |
| mod. 432 x 232 | 400 x 200 | 37900127 | 48,00 |
| mod. 532 x 182 | 500 x 150 | 37900128 | 60,00 |
| mod. 532 x 232 | 500 x 200 | 37900129 | 66,00 |
| mod. 532 x 332 | 500 x 300 | 37900457 | 68,00 |



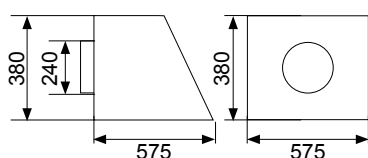
SQUARE DIFFUSERS IN ALUMINUM COMPLETE WITH DAMPERS AND 4-WAY PLENUMS PAINTED WHITE RAL - 9016



| A | B | L | H | h1 | Ø | | |
|------------------------|-----------------|---------------|------------------|-----|------------------|----------|--------|
| External dimensions mm | Width plenum mm | Hole Width mm | Height plenum mm | mm | Collar plenum mm | | |
| 295x295 | 250x250 | 295x295 | 235x235 | 160 | 100 | 37900458 | 226,00 |
| 370x370 | 370x370 | 325x325 | 310x310 | 205 | 150 | 37900459 | 278,00 |
| 445x445 | 445x445 | 400x400 | 385x385 | 220 | 200 | 37900460 | 316,00 |
| 520x520 | 520x520 | 475x475 | 460x460 | 220 | 200 | 37900461 | 430,00 |
| 598x598 | 598x598 | 550x550 | 535x535 | 245 | 250 | 37900462 | 566,00 |



HELICAL DIFFUSER 48 SLOTS IN ALUMINUM PAINTED WHITE RAL - 9016 COMPLETE WITH DAMPER AND PLENUM WITH HIGH OPERATING EFFICIENCY

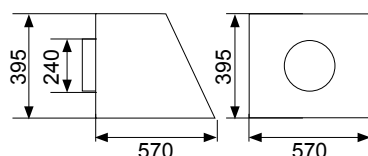


37900463 396,00

Values expressed in mm



HIGH INDUCTION DIFFUSER WITH ADJUSTABLE NOZZLES PAINTED WHITE RAL - 9010 COMPLETE WITH SHUTTER AND PLENUM



37900465 376,00

Values expressed in mm

VMC ACCESSORIES

Complete range of professional accessories for controlled mechanical ventilation

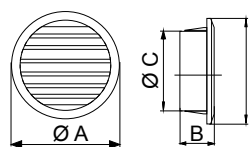
Accessories VMC

Code

€



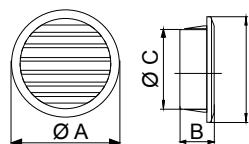
ROUND BUILT-IN COPPER GRID WITH NET



| | Ø A mm | Ø B mm | C mm | | |
|------------|--------|--------|------|----------|-------|
| mod. Ø 110 | 110 | 55 | 75 | 37900254 | 18,00 |
| mod. Ø 125 | 125 | 55 | 93 | 37900255 | 22,00 |
| mod. Ø 145 | 145 | 55 | 115 | 37900256 | 24,00 |
| mod. Ø 170 | 170 | 55 | 135 | 37900257 | 34,00 |
| mod. Ø 220 | 220 | 55 | 185 | 37900258 | 50,00 |



ROUND BUILT-IN ALUMINUM GRID WITH NET



| | Ø A mm | Ø B mm | C mm | | |
|------------|--------|--------|------|----------|-------|
| mod. Ø 110 | 110 | 55 | 75 | 37900136 | 10,00 |
| mod. Ø 125 | 125 | 55 | 93 | 37900195 | 12,00 |
| mod. Ø 145 | 145 | 55 | 115 | 37900197 | 14,00 |
| mod. Ø 170 | 170 | 55 | 135 | 37900381 | 16,00 |
| mod. Ø 220 | 220 | 55 | 185 | 37900471 | 20,00 |

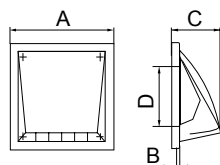


SQUARE GRILL WITH RECESSED WINDPROOF PROTECTION IN WHITE ABS PLASTIC

Designed for both recovery and delivery of air

- recessed wall mounting or screws

- operating temperature: from -40 ° C to +40 ° C



| | A mm | B mm | C mm | D mm | | |
|----------|------|------|------|------|----------|-------|
| mod. 102 | 154 | 15 | 86 | 100 | 37900259 | 12,00 |
| mod. 122 | 187 | 15 | 101 | 125 | 37900040 | 16,00 |
| mod. 152 | 187 | 15 | 101 | 150 | 37900260 | 22,00 |

MIXED-FLOW IN-LINE FAN

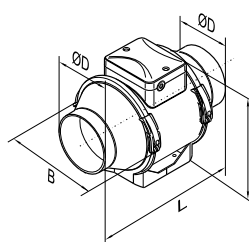


The in-line extraction fan is ideal for ventilation in rigid and / or flexible circular ducts for the delivery or expulsion of air in domestic rooms, offices, shops and bathrooms. It is made of plastic material to reduce the formation of condensation and the already low noise of the fan both at minimum and maximum speed. Equipped with double power supply terminal board, it can be managed to work at two different speeds. The quick coupling / uncoupling system guarantees maximum speed during installation and routine maintenance. The supplied support allows installation both vertically and horizontally, on the floor, wall or ceiling.



TECHNICAL FEATURES

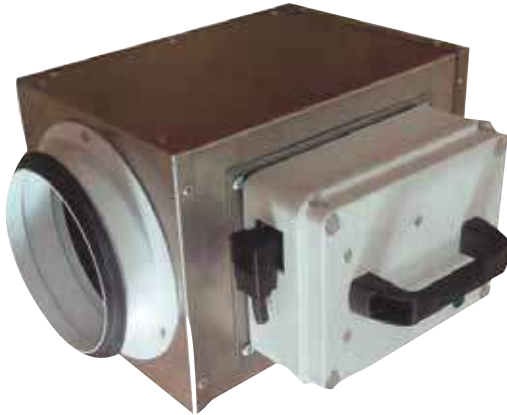
- made of ABS
- easy installation
- easily inspected
- 2 speeds
- operated by ON / OFF switch (not supplied)
- recommended for kitchens, bathrooms, offices, shops



| | ØD mm | B mm | H mm | L mm | Peso | | |
|------------|-------|------|------|-------|--------|----------|--------|
| mod. Ø 100 | 96 | 167 | 190 | 246 | 1,4 Kg | 37900074 | 122,00 |
| mod. Ø 125 | 123 | 167 | 190 | 246 | 1,4 Kg | 37900326 | 160,00 |
| mod. Ø 150 | 146 | 223 | 250 | 295 | 3,0 Kg | 37900318 | 234,00 |
| mod. Ø 200 | 199 | 239 | 261 | 295,5 | 6,4 Kg | 37900319 | 314,00 |
| mod. Ø 250 | 247 | 287 | 323 | 383 | 8,3 Kg | 37900038 | 622,00 |

ABIOX AIR

Active sanitation system with bipolar ionization



Technical and construction features

ABIOX AIR is the only sanitizing system of ducts that allows you to reduce the microbial load in the air and on surfaces using the tested and certified ABIOX AIR technology that uses the principle of controlled bipolar ionization.

ABIOX AIR products are equipped with particular ionizer tubes made of quartz which are powered by a single-phase electric field; the aforementioned ionizing tubes have the ability to produce O⁺ and O⁻ oxygen ions which are chemically bonded with the H₂O particles contained in the air that passes through the active sanitation modules, thus forming hydrogen peroxide molecules (H₂O₂).

Hydrogen peroxide (more commonly known as hydrogen peroxide) has a high oxidizing power and allows to damage the cell wall of molds, viruses and bacteria, thus making them harmless. ABIOX AIR products can be applied to the service of existing aeraulic pipes or in newly built ducted systems.

ABIOX AIR guarantees effective prevention activity in a controlled manner during 24 hours and can be used continuously and in conjunction with the presence of human activity. ABIOX AIR is equipped with an electronic system that alerts the user in the event of malfunctions or a reduction in the effectiveness of the product. The reduced power consumption from 6 to 18 Watt make the ABIOX AIR series very versatile and eco-sustainable. The products are designed to be installed in the delivery ducts of heating, air conditioning and controlled mechanical ventilation (VMC) systems.



WELFARE AND HEALTH



EFFECT ANTIBACTERIAL EFFECTIVE



INACTIVATION OF MOLDS



REDUCTION OF BAD SMELLS



EASY INSATALLATION

| Model | Air flow m ³ /h | Code | € |
|----------------------|----------------------------|-----------------|-----------------|
| ABIOX AIR 125 | ≤ 250 | 75800452 | 877,00 |
| ABIOX AIR 160 | ≤ 600 | 75800454 | 914,00 |
| ABIOX AIR 200 | ≤ 1200 | 75800459 | 1.016,00 |

Accessories ABIOX AIR



Spare capacitor kit

| | | |
|---------------------------|-----------------|---------------|
| mod. ABIOX AIR 125 | 42320009 | 224,00 |
| mod. ABIOX AIR 160 | 42320010 | 251,00 |
| mod. ABIOX AIR 200 | 42320011 | 502,00 |

Performance ABIOX AIR



Effective antibacterial effect

Tests carried out by the department of infectious medicine of the University of Padua have shown over 95% reduction of the microbial load on gram (+) and gram (-) bacterial strains.



A healthier environment: inactivation of molds Thanks to the oxidizing power of ABIOX AIR, molds, spores, fungi and pollen are inactivated by improving environmental comfort with benefits for all people who find themselves staying indoors for a prolonged period of time.



Removal of odors and harmful pollutants present in indoor environments

The oxygen molecules activated by ABIOX AIR attack unpleasant odors by breaking down odorous substances into simple compounds. Even harmful volatile pollutants (VOCs normally present in closed environments) are attacked by the active oxygen molecules generated by ABIOX AIR.



More well-being and health for people

ABIOX AIR improves the quality of the air we breathe by limiting not only the diseases of viral and bacterial origin transmitted by air, but also the causes of many allergies with significant benefits for the respiratory system. ABIOX AIR also allows you to sanitize the internal surfaces of the aeraulic pipes and the inlet and return vents of internal air



Elimination of the microbial content

STAPHYLOCOCCUS

Abbattimento %

| | |
|------------|---------|
| After 3 h | - 70,90 |
| After 8 h | - 97,02 |
| After 24 h | - 98,80 |



Elimination of the microbial content

ESCHERICHIA

Abbattimento %

| | |
|------------|---------|
| After 3 h | - 84,70 |
| After 8 h | - 89,77 |
| After 24 h | - 99,53 |



Elimination of the microbial content

SACCAROMICES

Abbattimento %

| | |
|------------|---------|
| After 3 h | - 97,71 |
| After 8 h | - 98,14 |
| After 24 h | - 99,05 |



Elimination of the microbial content

LEGIONELLA

UFC/01 ml

| | |
|------------------|-----|
| Negative control | 0 |
| Positive control | 191 |
| After 5 min | 180 |
| After 15 min | 3 |
| After 30 min | 0 |
| After 60 min | 0 |

ABIOX AIR

Active sanitation system with bipolar ionization

Technological pluses ABIOX AIR

In the air ducts and in particular in the most critical sections (curves, changes of direction, section angles, etc.) accumulations of dust, stagnation of humidity, various condensates, mucilage are concentrated, which determine the optimal conditions for the formation of the biofilm .

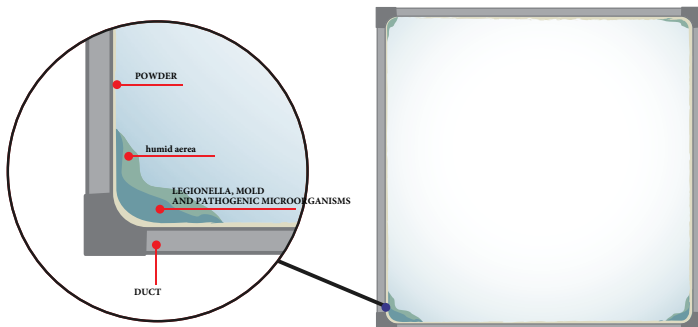
The consequence is the proliferation of bacterial colonies and the formation of legionella, a danger not to be underestimated for the environments and above all for the health of those who live there. Infections caused by this bacterium are in fact monitored by the World Health Organization (WHO) and in Italy by the Istituto Superiore di Sanità in order to raise awareness in the design and construction of distribution networks, especially in the community and healthcare environment.

And it is at this point that ABIOX AIR can prove to be the optimal solution to all these problems, since it carries out preventive and continuous action.

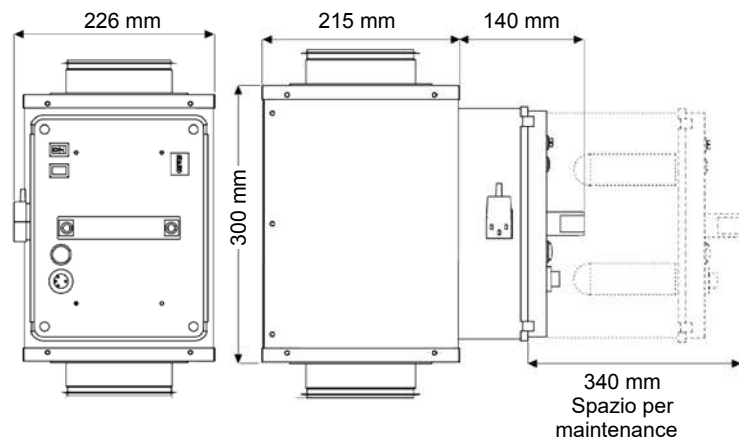
Traditional cleaning systems, through the use of chemical agents or mechanical remediation, act when the problem of environmental hygiene is now serious.

On the contrary, ABIOX AIR is a system capable of preventing the transmission of pathogens, thus avoiding the negative consequences linked to the achievement of criticality.

The extremely low energy consumption is the result of particular attention in the product development phase.



Dimensions ABIOX AIR



Technological pluses ABIOX AIR

ABIOX AIR technology drastically reduces the microbial load in the air and on surfaces, reduces fine dust and maintains the correct ionic balance thanks to the special quartz condenser. In particular, the benefits are due to the impact ionization process, the condenser triggers controlled redox reactions on volatile organic compounds (VOCs) thus reducing airborne pollutants. In addition, the oxygen ions generated by the oscillating electric field can reach all points, producing a microbicidal effect in all areas where air can pass.

The developments of the ABIOX AIR technology have been conducted in collaboration with important universities and research institutes (University of Padua, University of Udine, Maugeri Institute, Laboratori A.r.c.h.a. and University of Pisa), testing their effects even in critical conditions. Modern bioclimatology has clearly demonstrated that the ideal condition of environmental psychophysical well-being for humans corresponds to an ionic concentration of 1800 small ions per cm³ of air, divided between positive and negative with a ratio of 80 to 100. In indoor environments , where natural ionization processes catalyzed by sunlight cannot take place and human activity causes its negative effects to be felt, it is essential to restore the ionic balance in an artificial way. The ABIOX AIR system, by releasing calibrated quantities of negative oxygen ions, allows you to re-establish the correct ionic balance of the air, a necessary condition for recreating an optimal habitat.

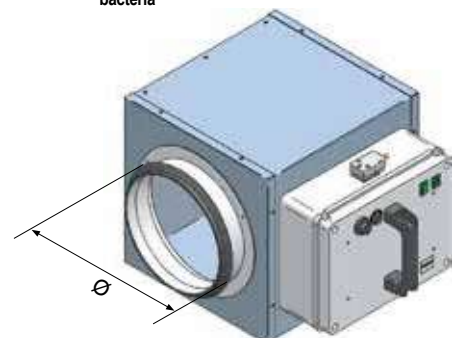
Particulate abatement

The particulate matter present in the air represents a vehicle for the transmission of a large number of pathogens, such as viruses and bacteria that are harmful to humans.

ABIOX AIR through the emission of negative and positive ions is able to form "clusters" of oxygen molecules that break down suspended particulate matter by electrostatic and gravitational effect.



~~✗~~ Mites of powder
~~✗~~ mushrooms and bacteria
~~✗~~ Virus and mold
~~✗~~ Pollen spores and allergens



Technical data table ABIOX AIR

| Model | U.M. | ABIOX AIR 125 | ABIOX AIR 160 | ABIOX AIR 200 |
|------------------------------|-------------------|---------------|---------------|---------------|
| Air flow | m ³ /h | ≤ 250 | ≤ 600 | ≤ 1200 |
| Room dimensions | m ² | 80 - 100 | 200 - 250 | 400 - 500 |
| Piping connection diameter Ø | mm | 125 | 160 | 200 |
| Electric absorption | W | 6 | 9 | 18 |

ARIANNE 3

Air mixers



ENERGY SAVING



REGULAR TEMPERATURE



LARGE VOLUMES OF AIR

Technical and construction features

ARIANNE 3 air mixers have been designed to equalize the temperature and humidity of large rooms and reduce the energy consumption necessary for their heating.

ARIANNE 3 also solves the problems caused by the summer environmental conditions which, due to the high temperatures, the high degree of relative humidity and poor ventilation, produce a climate that is not ideal for people and structures.

Another advantage is also the fact that ARIANNE 3 acts on areas even larger than 120 m², treating large volumes of air.

In warehouses, churches, swimming pools, etc. the heat losses typical of large environments are reduced, optimizing the yields of thermal plants, through the reduction of energy requirements.

After defining the number of destratifiers required, it is advisable to check the ceiling fixing system of each ARIANNE 3 bearing in mind the following indications:

Installation

1 ARIANNE 3 is suspended with four chains fixed to ceiling with special expansion plugs following the diagram shown. Adequate anchoring is essential as shown in Figure 2 to avoid rotation of the ARIANNE 3 during start-up.

2 ARIANNE 3 must be installed at a distance of 1 to 2 meters from the ceiling of the room as shown in figure 2.

| Model | Air flow m ³ /h | Code | € |
|----------------------------|----------------------------|-----------------|---------------|
| AIR MIXER ARIANNE 3 | 2500 | 39800000 | 780,00 |

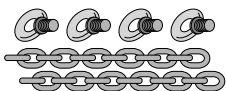
Accessories ARIANNE 3



Remote control panel with minimum thermostat

36205230

120,00



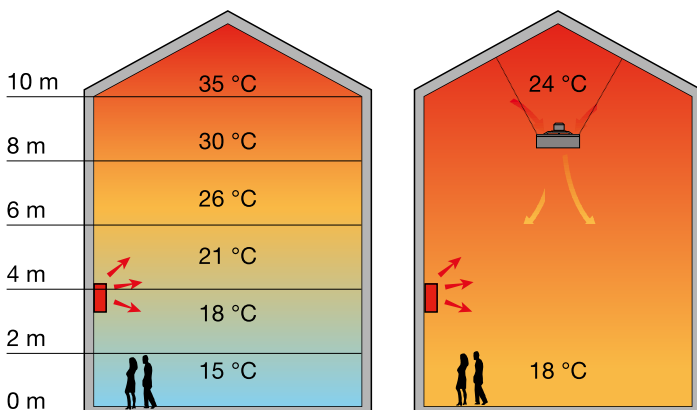
Ceiling installation kit includes chains and eyebolts

30150092

60,00

Example of the temperatures that can be measured in an industrial room with and without ARIANNE 3

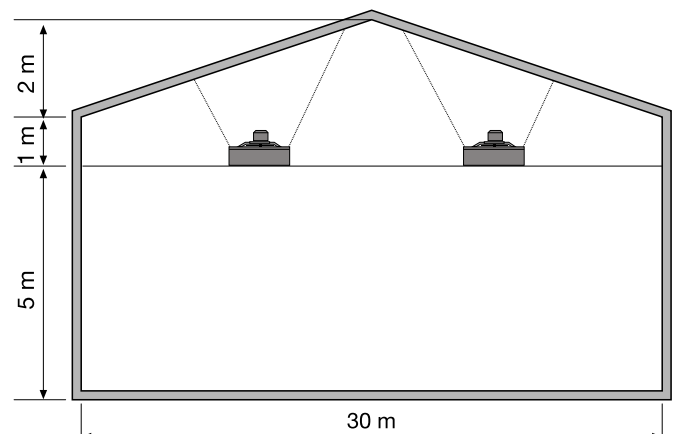
Fig. 1



Installation without ARIANNE 3

Installation with ARIANNE 3

Fig. 2

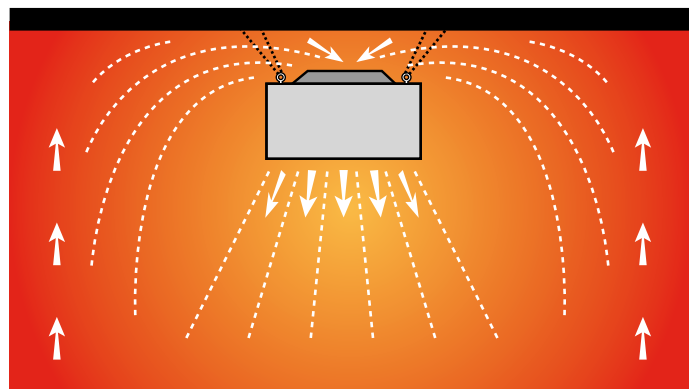


ARIANNE 3

Air mixers

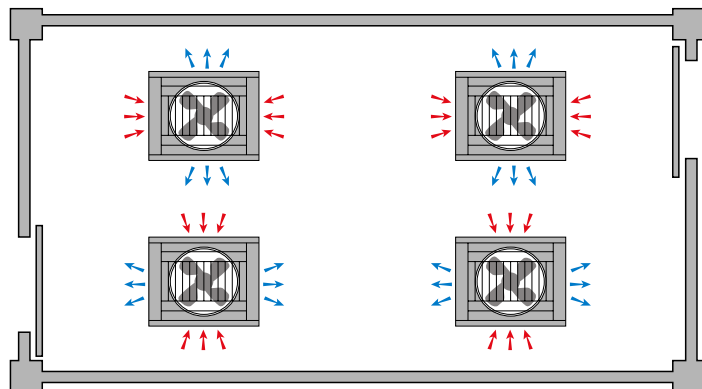
ARIANNE 3 energy saving

The installation of an ARIANNE 3 allows significant economic savings by reducing fuel consumption. Furthermore, the improvement of housing conditions can also translate into an economic advantage. In fact, a higher degree of temperature at human level and uniformity in the various areas generate a more acceptable living condition.

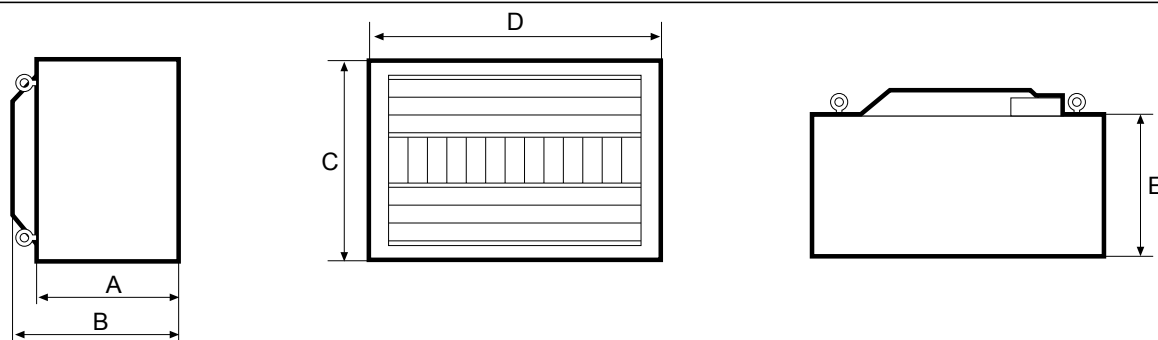


ARIANNE 3 function

The ARIANNE 3 air mixers are particularly innovative as they offer a cross-flow operation thus making it unnecessary to install counter-rotating destratifiers (to avoid the triggering of circular movements of the air inside the room).



Dimensions ARIANNE 3



Technical data table ARIANNE 3

| DESCRIPTION | U.M. | ARIANNE 3 |
|---------------------|-------------------|-------------|
| Air flow max | m ³ /h | 2500 |
| Local height | m | 5 ÷ 8 |
| Installation height | m | 4 ÷ 7 |
| Fan diameter | mm | 350 |
| R. P. M. fan | n. | 1380 |
| Sound pressure max* | dB(A) | 49,5 |
| Electric power max | W | 150 |
| Power supply | | 230V/1/50Hz |
| A | mm | 310 |
| B | mm | 317 |
| C | mm | 539 |
| D | mm | 790 |
| E | mm | 310 |
| Weight | Kg | 23 |

*Values referred in free field at a distance of 5 meters

ARIANNE 1 - 2

Fans - Mixers for the uniform distribution of air in large volume environments



Technical and construction features

The ARIANNE 1 and 2 air mixers have been designed to equalize the temperature and humidity of large rooms and reduce the energy consumption required for their heating. The special helical centrifugal impellers used in the ARIANNE allow the total mixing of the layers of air thanks to a bottom-up suction and radial distribution action that immediately restores a thermal balance throughout the treated volume.

With the same operating principle, ARIANNE also solves the problems caused by the summer environmental conditions which, due to the high temperatures, the high degree of relative humidity and poor ventilation, produce an intolerable climate for people and structures.

Unlike traditional blade methods, which work in vertical projection, ARIANNE acts on large areas (even greater than two hundred square meters) by treating huge volumes of air, without creating those annoying and harmful currents for humans.

In warehouses, churches, swimming pools, etc. the heat losses typical of large environments are reduced, optimizing the yields of thermal plants, through the reduction of energy requirements. Effective even in rooms 18 meters high, ARIANNE

homogenizes the heat throughout the room with the absence of disturbing air flows. The installation of an ARIANNE system, through the abatement of the thermal gradient, reduces the dispersion of the building and its thermal needs.

The economic advantage derives from the savings on fuel consumption and from that on management and maintenance costs of the heating system that will keep better and longer as it is not subject to continuous operation and always at full capacity. Furthermore, the improvement of housing conditions can also translate into an economic advantage.

In fact, a higher degree of temperature at human level and uniformity in the various areas generate a more acceptable working condition, the reduction of the percentage degree of relative humidity can improve the good conservation of equipment, machines, materials and building structures of the building. The ARIANNE system is very easy to install, just hang the mixers from the ceiling and connect them to the power supply.



MIXING
SAIR TRAITS



ECONOMIC
ADVANTAGES



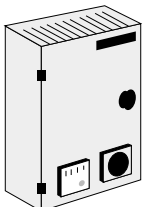
AIR MOVEMENT
INNOVATIVE



EASY
INSTALLATION

| Model | Air flow m ³ /h | Code | € |
|-------------------------------|----------------------------|-----------------|---------------|
| ARIANNE 1 Single phase | 7500 | 39500001 | 820,00 |
| ARIANNE 2 Single phase | 10000 | 39600001 | 880,00 |
| ARIANNE 1 Three phase | 7500 | 39500000 | 800,00 |
| ARIANNE 2 Three phase | 10000 | 39600000 | 850,00 |

Accessories ARIANNE 1 - 2



Electrical cabinet
4-speed control

| | | |
|--|-----------------|-----------------|
| mod. Single-phase till 2 units | 39600005 | 720,00 |
| mod. Single-phase till 6 units | 39600006 | 1.390,00 |
| mod. Single-phase till 10 units | 39600012 | 1.950,00 |
| mod. three-phase till 2 units | 39600007 | 1.459,00 |
| mod. three-phase till 4 units | 39600008 | 1.587,00 |
| mod. three-phase till 6 units | 39600009 | 1.980,00 |
| mod. three-phase till 10 units | 39600013 | 2.330,00 |
| mod. three-phase till 16 units | 39600014 | 2.520,00 |

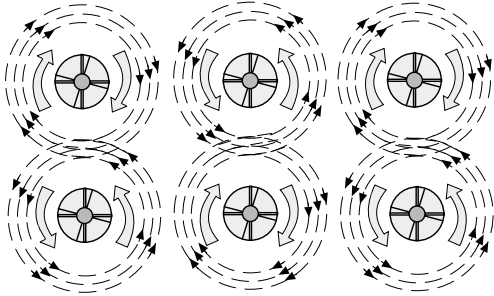
ARIANNE 1 - 2

Fans - Mixers for the uniform distribution of air in large volume environments

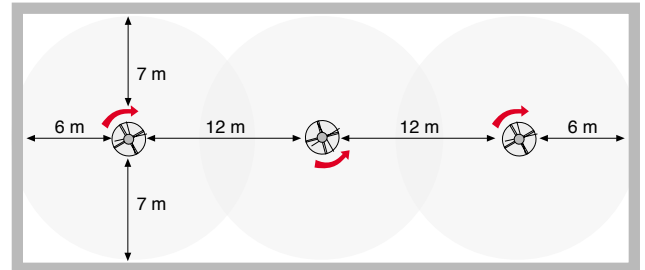
Examples of installation ARIANNE 1 - 2

In the event that more appliances are installed, it is necessary to alternate the directions of rotation to obtain a better mixing of the air.

Accorroni for orders of more ARIANNE automatically sends machines with opposite directions of rotation.



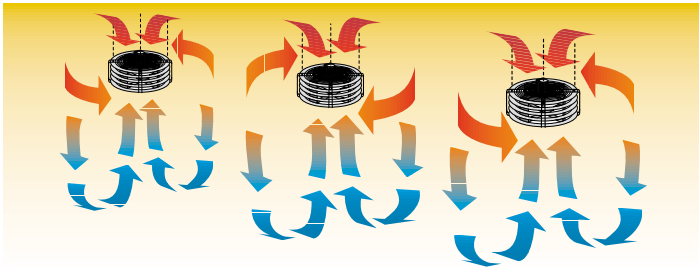
The figure shows an example of installation of 3 ARIANNE 1 (radius of action 7 m) in a building of 14 x 36 meters. The destratifiers are installed so that the range of action covers the entire surface of the building with alternating directions of rotation.



Advantages of the system ARIANNE 1 - 2

The ARIANNE uses a special helicentrifugal impeller that creates an innovative air movement: the "convergent - divergent" system. The air is sucked in from the lower part (less hot air) and at the same time from the upper part (warmer air), mixed inside the impeller and expelled radially through the battery of circular deflectors

The operation generates the continuous mixing of the layers of air that exchange the values of temperature, humidity and pressure with each other, putting them in balance without causing disturbing currents at eye level.



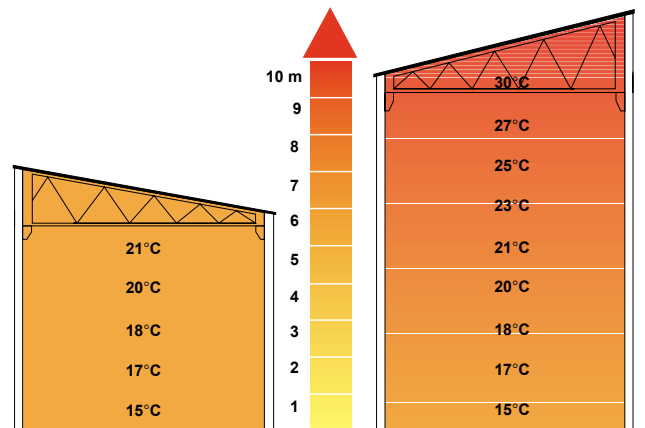
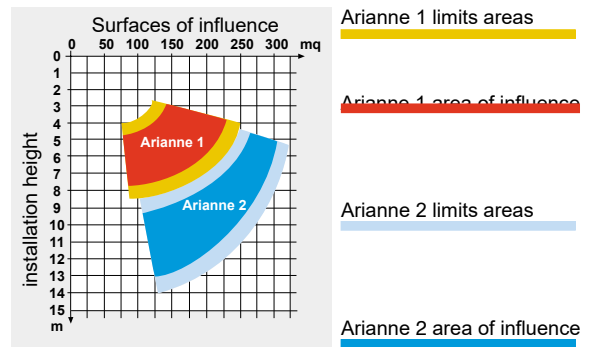
Even for the summer season, the ARIANNE system allows for numerous advantages:

- Global and uniform ventilation in the environment.
- Activation of the exchange and renewal with external air.
- Reduction of the concentration of fumes and odors.
- Reduction of the percentage degree of relative humidity. The installation of an ARIANNE system, through the abatement of the thermal gradient, reduces the dispersion of the building and its thermal needs.

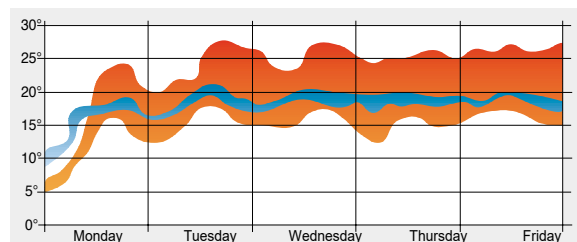
The economic advantage comes from the savings on fuel consumption and from the cost of managing and maintaining the heating system which will keep better and longer as it is not subject to continuous operation and always at full capacity.

Furthermore, the improvement of housing conditions can also translate into an economic advantage.

In fact, a higher degree of temperature at human level and uniformity in the various areas generate a more acceptable working condition, the reduction of the percentage degree of relative humidity can improve the good conservation of equipment, machines, materials and building structures of the building.



Thermal stratigraphy in heated environments

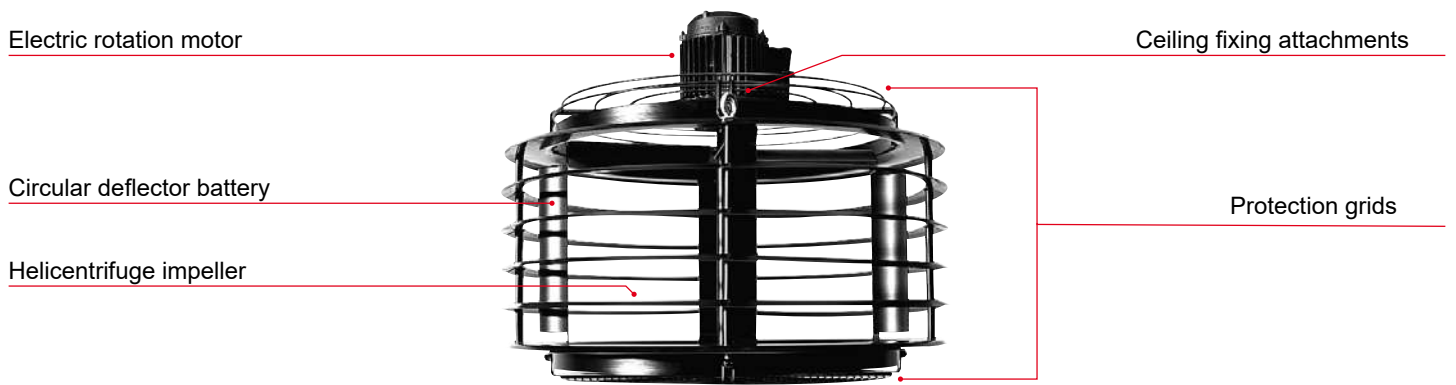


Δt° measured between 1.5 m and 9.5 m from the floor of an industrial building with the heating system on.

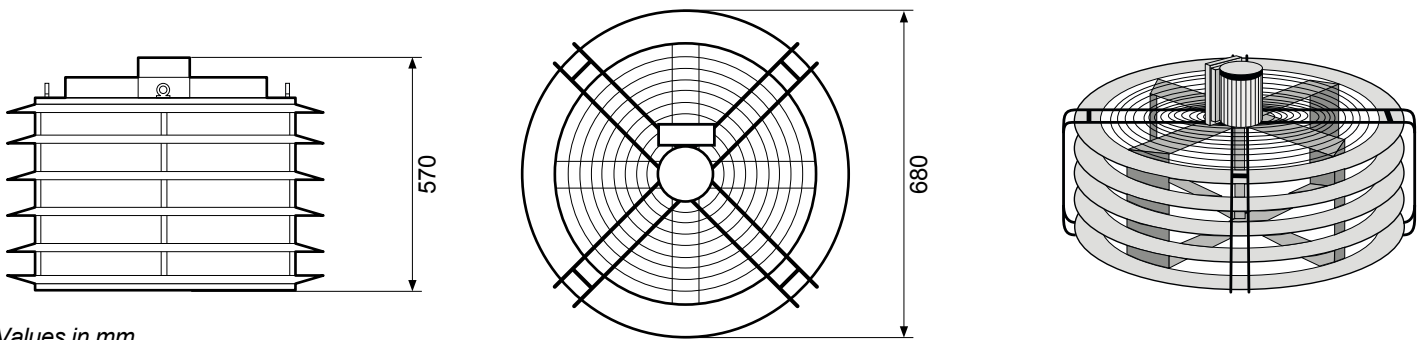


ARIANNE 1 - 2

Fans - Mixers for the uniform distribution of air in large volume environments



Dimensions ARIANNE 1 - 2



Values in mm

Technical data table ARIANNE 1 - 2

| DESCRIPTION | U.M. | ARIANNE 1 | ARIANNE 2 |
|---------------------------------|-------------------|-----------------------------|-----------|
| Average intervention area | m ² | 200 | 250 |
| Power absorbed | W | 200 | 300 |
| Air flow | m ³ /h | 7500 | 10000 |
| Speed | giri/min' | 700 | |
| Motors | | single phase (three phase) | |
| Power supply | | 230V/1/50Hz / 400V/3+N/50Hz | |
| Sound level | dB(A) | 30 | |
| Degree of protection watertight | l/min | IP 44 | |
| Ventilator | | helicentrifuge | |
| Current consumption | A | 1,7 / 1,0 | |
| Paint color | | Black | |
| Weight | Kg | 16 | 18 |



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