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E-mail: info@hitecsa.su

Maximum flexibility in HVAC

General catalogue 2016


Air-Air
autonomous units


Air-Air
roof top units


Water-Air
autonomous units


Water
chilling units


Fan coils and Air
Handling Units


Control and
adjustment

HITECSA
COOL AIR

GENERAL CATALOGUE

2016

The guarantee of the leader,
the quality of the specialist.

HITECSA
COOL AIR

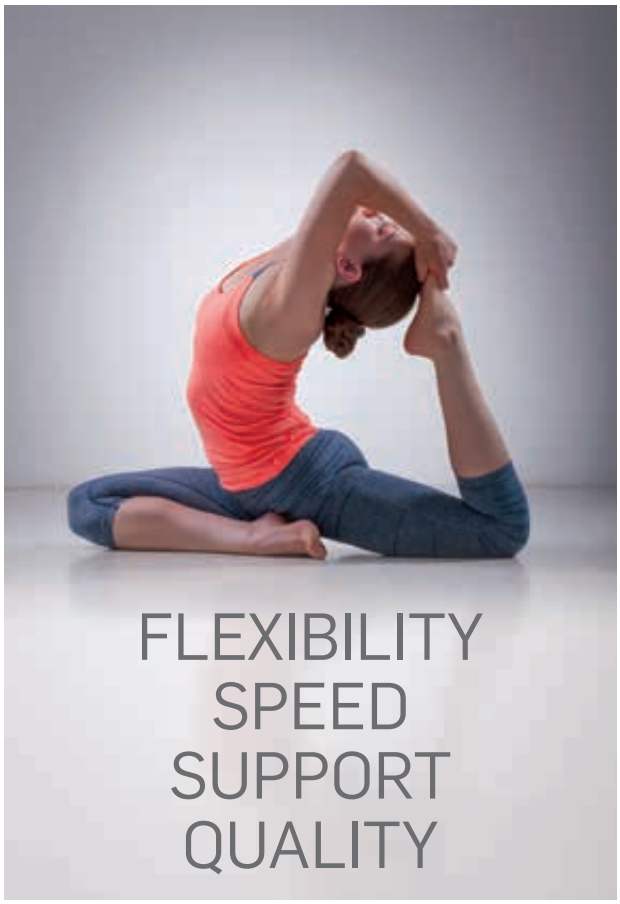
A COMPREHENSIVE SERVICE AIMED AT PROVIDING THE BEST AIR-CONDITIONING SOLUTIONS

Hitecsa
The Service: our vocation

Since 1982 Hitecsa has been the Spanish market leader in the design and manufacture of medium and high-powered air-conditioning equipments, always committed to the constant research for high energy efficiency, superior comfort and the best air quality solutions. It is an international benchmark known for flexibility and just in time productivity.

GLOBAL AND PERSONALISED SERVICE IN AIR-CONDITIONING

We adapt our products in line with our customers' needs, both in terms of delivery times and with regard to the specific characteristics of their units, offering the best pre-sale advices and after-sales services with the highest quality.



OUR TEAMS OF SPECIALISTS AND ENGINEERS OFFER PERSONALISED TECHNICAL ADVISORY SERVICES AND TAILOR-MADE SOLUTIONS.

We design solutions which meet customers' expectations regarding technical features, energy efficiency, costs and delivery times - all in line with the timing of the project and the site conditions. In addition, we make available to the customer **cutting-edge calculation software for the chosen units.**

ENERGY EFFICIENCY

ENVIRONMENT-FRIENDLY

OUR RAISON D'ÊTRE IS TO SUPPORT OUR CUSTOMERS THROUGHOUT THE ENTIRE LIFE-CYCLE OF THEIR EQUIPMENT

WE STRIVE TO UNDERSTAND OUR CUSTOMERS' NEEDS FOR COMFORT AND WELL-BEING AND PROVIDE THEM WITH ADVICES ON THE SOLUTIONS AND SELECTIONS OF THE RIGHT EQUIPMENTS, AND TOGETHER WITH THE TOP LEVEL OF AFTER-SALES SERVICE

INNOVATION

RESEARCH AND DEVELOPMENT

Our brands: Hitecsa and Adisa

In-house manufacture with the highest European standards

Our **production capacities** are ready to offer the highest level of service both in manufacture and assembly, as well as in logistics and R&D, thanks to **our flexibility and a total of 20,000 m² covered area.**

Our factories are ISO 9001 certified and our products meet all current international standards, such as the Ecodesign European Directive ErP Ready. We are a member of the Eurovent certification programme (refer to the website for products and models).

Factory in Vilanova i la Geltrú (Barcelona - Spain)

Our head office in Vilanova i la Geltrú with over 10,000 m², the productions of roof-top units, autonomous units, chilling units, fan coils... with a specific quality of our refrigeration piping and with the flexibility expected of our service.

Factory in Arenys de Mar (Barcelona - Spain)

10,000 m² at our factory in Arenys de Mar, acquired in July 2014, for the production of high-performance heating systems under our Adisa brand. With this factory we complete our global approach in terms of air-conditioning.

GLOBAL AIR-CONDITIONING PACKAGE

Factory in **Vilanova i la Geltrú**

Specialists in high energy-efficient air-conditioning units.

European market leader in commercial applications.

Factory in **Arenys de Mar**

Specialists in boilers and high-performance autonomous heat-production units.

In these facilities, our units are fully tested to ensure a high level quality of all products. Our production system, structured into separate cells, allows us to offer a totally flexible assembly chain so that we can manufacture products which are 100% tailor-made within the agreed delivery time, and with the expected high quality level.

Research, Development and Innovation at our customers disposal

Our R&D&I Department guarantees the continuous development of efficient and environmentally-friendly products. Our units fulfil the Eurovent certification process (consult products and models on the Eurovent website). The demanding market for new standards requires continual investments in this field, which is, for Hitecsa, a part of our main business perspective.

We look after our products throughout their entire life-cycle

We support you throughout the life-cycle of your air-conditioning unit. Both with training at our **Hitecsa School**, and with **spare parts** within our **SERV-HIPLUS division**. Our **Technical Support Department,** thanks to the help of an extensive network of technical and professional people, is in charge of coordinating and giving technical assistance. Our website provides all the up-to-date technical information about our products.

SERV-HIPLUS
HITECSA SPARES & SERVICES

HISTORY

We have been market leaders since 1982. From that date, all of our departments have improved their product ranges due to the customers' needs as well as the changes brought by the new standards regarding a cleaner environment and better energy efficiency.

1982
Hitecsa was founded in Vilanova i la Geltrú (Barcelona).

1995
The H2 plant was opened, where the head office and production plant are currently located.

2007
Start-up of the HITECSA School **training courses**.

2012
PHI INDUSTRIAL took over the company management and a new modernistation period starts for the industrial plant, as well as the product portfolio development.

2014
In July 2014 **Hitecsa increased its production capacity** and its product ranges thanks to the integration of **Adisa** which is, since 1961, a leader in the manufacture of high-performance boilers and autonomous Roof Top heat production units.

CONSTANTLY IMPROVING SINCE 1982

Range Launch

2013
KUBIC
ROOF TOP SERIES BY HITECSA

2014
MOSAIC
INVERTER SERIES BY HITECSA

2015
KRONO²
CHILLER SERIES BY HITECSA

MISTRAL
AXIAL CONDENSING SERIES BY HITECSA

VERNE
WATER-AIR SERIES BY HITECSA

Today

Over 150 workers within the factory.

20,000 m² of facilities devoted to the design and manufacture of air-conditioning equipment.

Plans for the future

- **Continuous innovation** of our product ranges in terms of energy efficiency, respect for the environment and quality in order to adapt them to the needs of our customers.
- **Continuous improvement** of our customer services.
- **Geographic expansion** and increase of our network of collaborators.

HITECSA
COOL AIR

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Compact and split, horizontal, inverter

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Roof Top Units
Air - Air

54 **KUBIC | RMXCBA, RMXCA - RCF - VRC** NEW
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Autonomous Units
Water - Air

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78 **WCHBZ, WCHZ**
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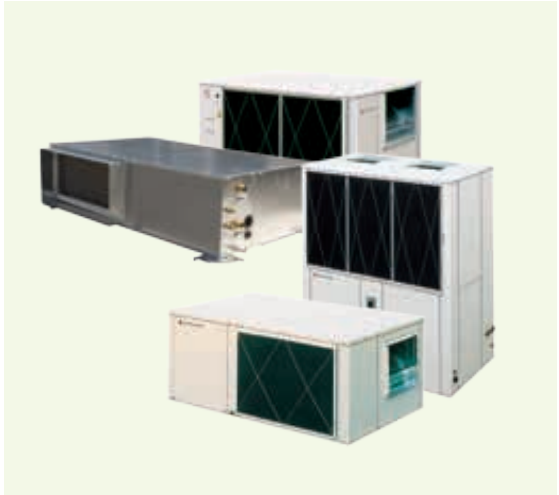
84 **VERNE | WPHBA, WPHA** NEW
Compact, horizontal, plates, on-off

87 **WPVBZ, WPVZ**
Compact, vertical, plates, on-off



Water Chilling Units

96 **MINI KRONO 2 | EKWXBA, EKWXA**
Air-Water, scroll, axial fans

99 **KRONO 2 | EKWXBA, EKWXA** NEW
Air-Water, scroll, axial fans

104 **ADVANCE AS | EQUH, EQUL, EQUH PF, EQUL PF, EQPHU, EQPLU, EQPH, EQPL**
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128 **ADVANCE AT | EQSL**
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Horizontal/vertical fan coils with 2 and 4 pipes

167 **FC SERIES | FCW, FCCW**
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Water cassette fan coils with 2 and 4 pipes

179 **FP SERIES | FPW/FPWS | FPW+V3V/FPWS + V3V**
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Air-flow up to 140,000 m^3/h

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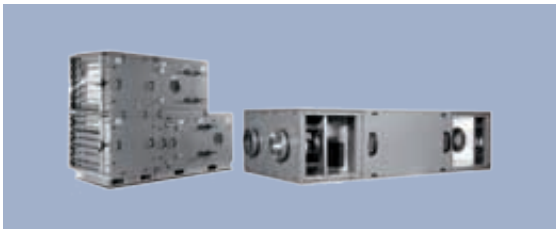
Compact, air-flow up to 8,000 m^3/h



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200 **CONTROL FOR AUTONOMOUS AIR-AIR UNITS, COOLING UNITS, AUTONOMOUS WATER-AIR UNITS**

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Autonomous Units
Air - Air

HITECSA
COOL AIR

HITECSA INVERTER TECHNOLOGY
Comfort and Savings with the Highest Energy Efficiency

inverter

MOSAIC
INVERTER SERIES BY HITECSA

Hitecsa offers a product range which incorporates this revolutionary technology, allowing energy savings whilst maintaining all levels of comfort and quality.

WHAT IS INVERTER TECHNOLOGY?

The Inverter technology can control, by means of a converter, the electronic cycle of the compressor in order to obtain greater comfort and energy savings.

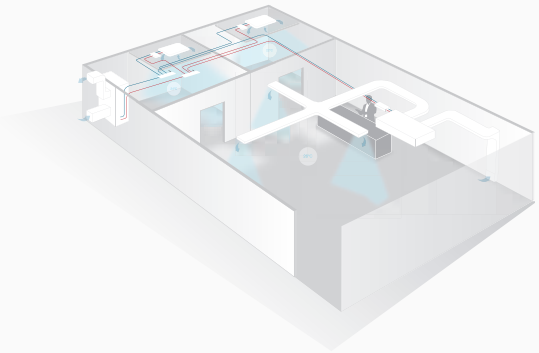
• How does a traditional system work?

Traditional air-conditioning units work by means of on/off refrigeration cycles. Once a comfortable temperature has been set and under specific energy requirements, the control system of a traditional air-conditioning unit starts the compressor, making the unit running at full capacity in order to reach that set point.
The control of temperature is achieved by starting and stopping the system; this means the system works either at full capacity (100%) or not at all (0%) which generate electrical peak consumption as well as peak of cold or heat production.

• How does an inverter system work?

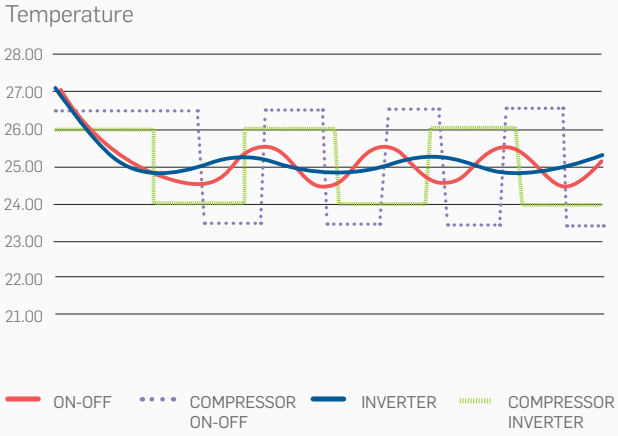
The inverter system controls the compressor speed and, therefore, the system's thermal capacity, in such a way that the ideal temperature can be reached faster, and maintained with lower energy consumption and minimum cold or heat excesses. Once the desired temperature has been reached, the compressor works at minimum frequency, thus providing significant electrical consumption savings without damaging comfort.

EXAMPLE OF AN INSTALLATION WITH INVERTER UNITS FROM THE MOSAIC RANGE



COMPRESSOR WITH INVERTER TECHNOLOGY AND PROGRESSIVE FAN CONTROL

INVERTER SYSTEM



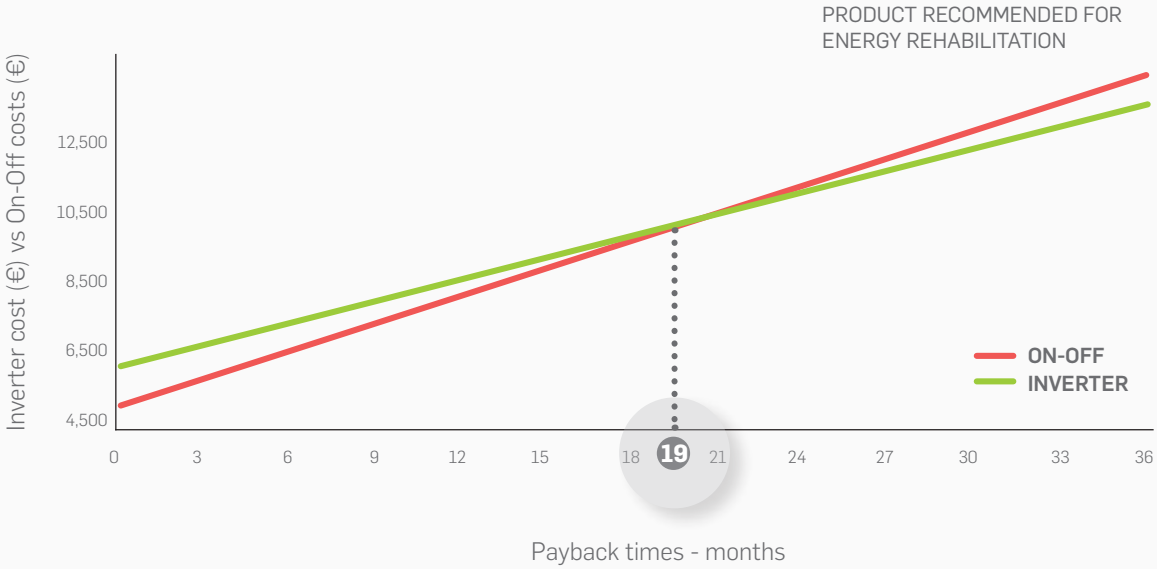
ADVANTAGES OF INVERTER TECHNOLOGY

- **TOTALLY ADAPTABLE** to the real needs of the facilities.
- **GREATER COMFORT.** The duration and intensity of cold or heat are reduced. Furthermore, the desired temperature is quickly reached, as heating or cooling a room requires half the time when compared to a conventional air-conditioning unit.
- **ENERGY SAVING.** This avoids the constant start-up of the system and optimises the production of thermal energy depending on demand. An inverter unit can generate electrical energy savings of up to 50%.
- **QUIETER:** an inverter air-conditioning unit produces a sound level 40% lower than a traditional unit.
- **LONGER LIFESPAN:** by avoiding these constant on/off cycles, the lifespan of both the compressor and the parts increases significantly.
- **MORE EFFICIENCY IN HEAT PUMP MODE:** the units with an inverter heat pump run correctly when the outside temperature is lower (for traditional equipment, the temperature limit is around -6 ºC; for inverter units, it can reach -15 ºC).
- **ENVIRONMENTALLY FRIENDLY:** they reduce considerably the CO^2 emissions to the atmosphere.

PAYBACK STUDY

Comparative study and calculation of the payback period for replacing the existing fixed speed unit by an inverter one in the banking sector. This corresponds to a standard office in the Madrid climate area. Estimated calculation based on data provided by the customer.

Hitecsa keep the Technical Department at your disposal
In order to make technical simulations for replacing your units.



Units Inverter

Capacities kW: 1 | 5 | 6 | 7 | 8 | 10

Heat Pump

CCHIBA+CSTIBA 301 MOSAIC CAS	MOSAIC	Split configuration | Horizontal outdoor unit + Cassette
CCVIBA+CSTIBA 301 MOSAIC CAS	MOSAIC	Split configuration | Vertical outdoor unit + Cassette
ACHIBA	MOSAIC	Compact configuration | Horizontal
CCHIBA	MOSAIC	Split configuration | Horizontal outdoor unit
ECHIBA	MOSAIC	Split configuration | Horizontal indoor unit
ACVIBA	MOSAIC	Compact configuration | Vertical
CCVIBA	MOSAIC	Split configuration | Vertical outdoor unit
ECVIBA	MOSAIC	Split configuration | Vertical indoor unit

Units ON-OFF

Capacities kW: 12 | 20 | 26 | 30 | 40 | 50

Cooling only

ACHA		Compact configuration | Horizontal
CCHA		Low-profile split configuration | Horizontal outdoor unit | Centrifugal fan
ECHA		Split configuration | Horizontal indoor unit
ACVA		Compact configuration | Vertical
CCVA		Split configuration | Vertical outdoor unit
UMXCA	MISTRAL	Split configuration | Outdoor unit | Axial fan
ECVA		Split configuration | Vertical indoor unit
CLVA		Indoor units | Vertical ducts
DXCZ		Split configuration | Outdoor unit | Axial fan
AXCZ		Split configuration | Outdoor unit | Axial fan

Heat pump

ACHBA		Compact configuration | Horizontal
CCHBA		Low-profile split configuration | Horizontal outdoor unit | Centrifugal fan
ECHBA		Split configuration | Horizontal indoor unit
ACVBA		Compact configuration | Vertical
CCVBA		Split configuration | Vertical outdoor unit
UMXCBA	MISTRAL	Split configuration | Outdoor unit | Axial fan
ECVBA		Split configuration | Vertical indoor unit
CLVBA		Indoor units | Vertical ducts
FTBA		Split configuration | Indoor unit | Universal combinable
DXCBZ		Split configuration | Outdoor unit | Axial fan
AXCBZ		Split configuration | Oudoor unit | Axial fan
FTBZ		Split configuration | Low profile indoor unit | Combinable with AX and DX ranges


15
20
22
25
28
60
70
80
100
114
135

ACHIBA
Heat pump
CCHIBA / ECHIBA
Heat pump

inverter

MOSAIC
INVERTER SERIES BY HITECSA

R-410A

ACHIBA - Compact configuration
CCHIBA / ECHIBA - Split configuration

Inverter High Energy Efficiency for improving the consumption when refurbishing the Commercial Sector

Autonomous, compact and split horizontal inverter units suitable for duct connections on both indoor and outdoor sections

MAIN FEATURES

- Maximum cooling capacities from 8 to 26.5 kW
- Variable outdoor fan airflow
- Three speeds indoor fan
- High EER/COP and SCOP/SEER ratios, up to 3.8 under nominal temperature conditions
- Scroll compressors with soft-start
- R-410A refrigerant

AVAILABLE VERSIONS

- Heat pump

ADVANTAGES

- DC inverter technology: maximum savings and comfort
- Low sound level
- High performance in heat pump for outdoor temperatures as low as -15 ˚C
- Operating limit in cooling mode with outdoor temperature of 48 ˚C
- Soft-start for the indoor and/or outdoor fan
- Oil separator (only for split units)
- Remote On/Off
- Remote cooling/heating
- Scheduling function
- Can be connected with the RCAH range of heat recovery units

APPLICATIONS

Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

CONTROL

Standard controller:

TH TUNE

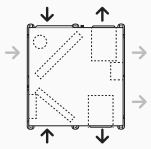
See control and adjustment on page 200.

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

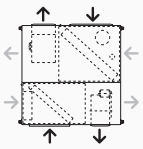
→ standard
→ option

ACHIBA

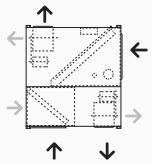
301



601, 741

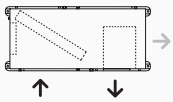


901

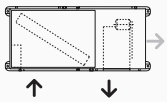


ECHIBA/CCHIBA

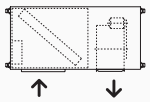
ECHIBA 301



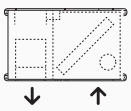
ECHIBA 601, 741



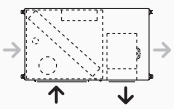
ECHIBA 901



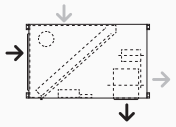
CCHIBA 301



CCHIBA 601, 741



CCHIBA 901



ACHIBA SERIES *Compact configuration*

MODEL		301	601	741	901
Maximum cooling capacity (1)	kW	8.1	17.3	22.4	26.5
Maximum heating capacity (1)	kW	8.3	18.6	24.2	28.9
Nominal cooling capacity (2)	kW	7.4	12.9	16.6	20.6
Nominal heating capacity (2)	kW	7.5	13.0	15.7	20.4
Maximum EER ratio	kW/kW	> 8	2.87	2.83	2.93
Maximum COP ratio	kW/kW	-	2.92	2.91	2.83
SCOP ratio (warm area)	kW/kW	4.1	-	-	-
Power supply (50 Hz ~)	V	230.1	400.3+N	400.3+N	400.3+N
Indoor airflows in cooling	m^3/h	1,000/1,400/1,800	2,300/2,800/3,600	3,000/3,600/4,600	3,700/4,400/5,500
Indoor airflows in heating	m^3/h	1,100/1,400/1,600	2,300/2,800/3,600	3,000/3,600/4,600	3,700/4,400/5,500
Max. int. airflow - static pressure	m^3/h - Pa	1,800 - 50	3,600 - 70	4,600 - 80	5,500 - 90
Max ext. airflow - static pressure	m^3/h - Pa	3,000 - 50	5,600 - 50	6,200 - 50	7,500 - 50
Dimensions (length x width x height)	mm	1,445 x 1,339 x 504	1,755 x 1,697 x 640	1,755 x 1,697 x 640	1,998 x 1,755 x 672
Net weight	Kg	220	375	420	495

CCHIBA SERIES *Split configuration / Outdoor unit*

MODEL		301	601	741	901
Maximum cooling capacity (1)	kW	8.1	17.3	22.4	26.5
Maximum heating capacity (1)	kW	8.3	18.6	24.2	28.9
Nominal cooling capacity (2)	kW	7.4	12.9	16.6	20.6
Nominal heating capacity (2)	kW	7.5	13.0	15.7	20.4
Maximum EER ratio	kW/kW	> 8	2.87	2.83	2.93
Maximum COP ratio	kW/kW	-	2.92	2.91	2.83
SCOP ratio (warm area)	kW/kW	4.1	-	-	-
Power supply (50 Hz ~)	V	230.1	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	1/2	1/2	5/8	5/8
Refrigerating connect. Gas line	Ø (")	3/4	7/8	1 1/8	1 1/8
Max out. airflow - static pressure	m^3/h - Pa	3,000 - 50	5,600 - 50	6,200 - 50	7,500 - 50
Dimensions (length x width x height)	mm	1,445 x 825 x 504	1,755 x 1,004 x 640	1,755 x 1,004 x 640	1,750 x 1,057 x 662
Net weight	Kg	148	240	295	312

(1) The maximum frequency for the model 301 is 110 Hz, other models: 120 Hz.
(2) The nominal frequency for the model 301 is 100 Hz, other models: 80 Hz.

ECHIBA SERIES *Split configuration / Indoor unit*

MODEL		301	601	741	901
Maximum cooling capacity (1)	kW	8.1	17.3	22.4	26.5
Maximum heating capacity (1)	kW	8.3	18.6	24.2	28.9
Nominal cooling capacity (2)	kW	7.4	12.9	16.6	20.6
Nominal heating capacity (2)	kW	7.5	13.0	15.7	20.4
Maximum EER ratio	kW/kW	> 8	2.87	2.83	2.93
Maximum COP ratio	kW/kW	-	2.92	2.91	2.83
SCOP ratio (warm area)	kW/kW	4.1	-	-	-
Power supply (50 Hz ~)	V	230.1	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	1/2	1/2	5/8	5/8
Refrigerating connect. Gas line	Ø (")	3/4	7/8	1 1/8	1 1/8
Indoor airflows in cooling	m^3/h	1,000/1,400/1,800	2,300/2,800/3,600	3,000/3,600/4,600	3,700/4,400/5,500
Indoor airflows in heating	m^3/h	1,100/1,400/1,600	2,300/2,800/3,600	3,000/3,600/4,600	3,700/4,400/5,500
Max. int. airflow - static pressure	m^3/h - Pa	1,800 - 50	3,600 - 70	4,600 - 80	5,500 - 90
Dimensions (length x width x height)	mm	1,445 x 600 x 504	1,755 x 752 x 640	1,755 x 752 x 640	1,750 x 900 x 662
Net weight	Kg	83	145	150	180

(1) The maximum frequency for the model 301 is 110 Hz, other models: 120 Hz.
(2) The nominal frequency for the model 301 is 100 Hz, other models: 80 Hz.

OPTIONS AVAILABLE

ENERGY SAVING

- Option of mixing module for semi-enthalpy freecooling with two dampers

AIR QUALITY

- G4 Gravimetric return filter
- F6 to F9 class Opacimetric return filter (together with a G4 or Fx+Fy)

SOUND LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation around compressor

UNIT INSTALLATION

- Option of manufacturing units with symmetrical configuration
- Kit for outdoor installation
- Upgraded motors
- Drip tray anti-freeze trace heater
- Hot water heating coils
- Electric heater for helping the defrosting mode
- Anti-corrosion pre-treated coils
- Prepared for disassembly
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Only for split configuration:
  - Quick-connection valves with load of refrigerant gas

MAINTENANCE

- Service valves
- Outdoor pressure connections
- Dirty filter sensor
- Filter in condenser
- Split filter

CONTROL AND ADJUSTMENT

- Alarm indication
- Smoke detection
- Separate electrical panel
- Ambient temperature or wall-mounted sensor
- Discharge temperature sensor
- Centralised integrated management operation
- Neutral free electrical supply
- Modbus connection

On top of these options, if you don't find yours please consult our Sales Department.

ACVIBA
Heat pump
CCVIBA / ECVIBA
Heat pump

inverter

MOSAIC
INVERTER SERIES BY HITECSA

R-410A

ACVIBA - Compact configuration
CCVIBA / ECVIBA - Split configuration

Inverter High Energy Efficiency for improving the consumption when refurbishing the Commercial Sector

Autonomous, compact and split inverter vertical units suitable for duct connections on both indoor and outdoor sections.

MAIN FEATURES

- Maximum cooling capacities from 8.3 to 28.3 kW
- High EER/COP and SCOP/SEER levels of up to 2.9 under nominal temperature conditions
- Scroll compressors with soft-start
- R-410A refrigerant

AVAILABLE VERSIONS

- Heat pump

ADVANTAGES

- DC inverter technology: maximum savings and comfort
- Low sound level
- High performance in heat pump for outdoor temperatures as low as -15 ˚C
- Operating limit in cooling mode with outdoor temperature of 48˚C
- Soft-start for the indoor and/or outdoor fan
- Oil separator (only for split units)
- Remote run/stop
- Remote cooling/heating
- Scheduling function
- Can be connected with the RCAH range of heat recovery units

APPLICATIONS

Designed to be installed inside the building, they are characterised by offering great flexibility during installation.

Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

CONTROL

Standard controller:

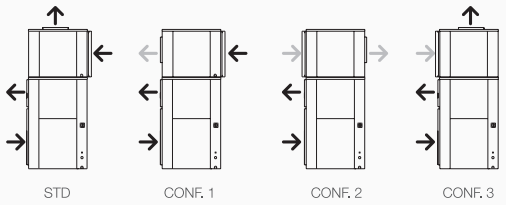
TH TUNE

See control and adjustment on page 200.

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

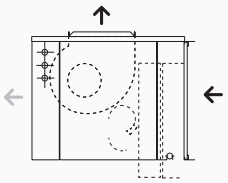
→ standard → option

ACVIBA

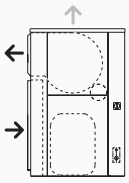


ECVIBA - CCVIBA

ECVIBA 301, 601, 741, 901



CCVIBA 301, 601, 741, 901



ACVIBA SERIES *Compact configuration*

MODEL		301	601	741	901
Maximum cooling capacity (1)	kW	8.3	18.5	23.9	28.3
Maximum heating capacity (1)	kW	8.5	19.8	25.8	30.2
Nominal cooling capacity (2)	kW	7.5	13.8	17.7	22.0
Nominal heating capacity (2)	kW	7.6	13.9	17.8	22.2
Maximum EER ratio	kW/kW	5.2	2.90	2.86	2.96
Maximum COP ratio	kW/kW	-	2.95	2.94	2.99
SCOP ratio (warm area)	kW/kW	4.1	-	-	-
Power supply (50 Hz ~)	V	230.1	400.3+N	400.3+N	400.3+N
Indoor airflows	m^3/h	1,000/1,400/1,800	2,700/3,200/4,000	3,200/3,800/4,800	3,900/4,650/5,900
Max. int. airflow - static pressure	m^3/h - Pa	1,800 - 50	4,000 - 70	4,800 - 75	5,900 - 90
Max out. airflow - static pressure	m^3/h - Pa	3,000 - 50	6,800 - 50	7,300 - 50	10,000 - 50
Dimensions (length x width x height)	mm	937 x 750 x 1,604	1,130 x 800 x 1,900	1,130 x 800 x 1,900	1,700 x 870 x 1,900
Net weight	Kg	290	400	470	600

CCVIBA SERIES *Split configuration / Outdoor unit*

MODEL		301	601	741	901
Maximum cooling capacity (1)	kW	8.3	18.5	23.9	28.3
Maximum heating capacity (1)	kW	8.5	19.8	25.8	30.2
Nominal cooling capacity (2)	kW	7.5	13.8	17.7	22.0
Nominal heating capacity (2)	kW	7.6	13.9	17.8	22.2
Maximum EER ratio	kW/kW	5.2	2.90	2.86	2.96
Maximum COP ratio	kW/kW	-	2.95	2.94	2.99
SCOP ratio (warm area)	kW/kW	4.1	-	-	-
Power supply (50 Hz ~)	V	230.1	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	1/2	1/2	5/8	5/8
Refrigerating connect. Gas line	Ø (")	3/4	7/8	1 1/8	1 1/8
Max out. airflow - static pressure	m^3/h - Pa	3,000 - 50	6,800 - 50	7,300 - 50	10,000 - 50
Dimensions (length x width x height)	mm	937 x 750 x 1,020	1,130 x 800 x 1,250	1,130 x 800 x 1,250	1,700 x 870 x 1,250
Net weight	Kg	190	260	320	390

(1) The maximum frequency for the model 301 is 110 Hz, other models: 120 Hz.
(2) The nominal frequency for the model 301 is 100 Hz, other models: 80 Hz.

ECVIBA SERIES *Split configuration / Indoor unit*

MODEL		301	601	741	901
Maximum cooling capacity (1)	kW	8.3	18.5	23.9	28.3
Maximum heating capacity (1)	kW	8.5	19.8	25.8	30.2
Nominal cooling capacity (2)	kW	7.5	13.8	17.7	22.0
Nominal heating capacity (2)	kW	7.6	13.9	17.8	22.2
Maximum EER ratio	kW/kW	5.2	2.90	2.86	2.96
Maximum COP ratio	kW/kW	-	2.95	2.94	2.99
SCOP ratio (warm area)	kW/kW	4.1	-	-	-
Power supply (50 Hz ~)	V	230.1	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	1/2	1/2	5/8	5/8
Refrigerating connect. Gas line	Ø (")	3/4	7/8	1 1/8	1 1/8
Indoor airflows	m^3/h	1,000/1,400/1,800	2,700/3,200/4,000	3,200/3,800/4,800	3,900/4,650/5,900
Max. int. airflow - static pressure	m^3/h - Pa	3,000 - 50	4,000 - 70	4,800 - 75	5,900 - 90
Dimensions (length x width x height)	mm	937 x 750 x 580	1,130 x 800 x 650	1,130 x 800 x 650	1,700 x 870 x 650
Net weight	Kg	100	140	150	210

(1) The maximum frequency for the model 301 is 110 Hz, other models: 120 Hz.
(2) The nominal frequency for the model 301 is 100 Hz, other models: 80 Hz.

OPTIONS AVAILABLE

ENERGY SAVING
- Option of mixing module for freecooling with two dampers

AIR QUALITY
- G4 Gravimetric return filter.
- F6 to F9 class Opacimetric return filter (together with a G4 or Fx+Fy)

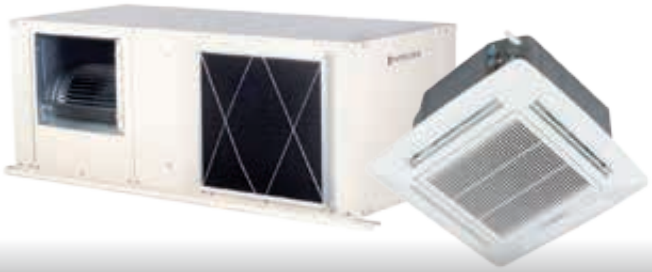
SOUND LEVEL
- Double thermo-acoustic insulation
- Acoustic insulation around compressor

UNIT INSTALLATION
- Option of manufacturing units with symmetrical configuration
- Kit for outdoor installation
- Upgraded motors
- Drip tray anti-freeze trace heater
- Hot water heating coils
- Electric heater for helping the defrosting mode
- Anti-corrosion pre-treated coils
- Prepared for disassembly
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Only for split configuration:
  - Quick-connection valves with load of refrigerant gas

MAINTENANCE
- Service valves.
- Outdoor pressure connections
- Dirty filter sensor
- Filter in condenser
- Split filter

CONTROL AND ADJUSTMENT
- Alarm indication
- Smoke detection
- Separate electrical panel
- Ambient temperature or wall-mounted sensor
- Discharge temperature sensor
- Centralised integrated management operation
- Neutral free electrical supply
- Modbus connection

On top of these options, if you don't find yours please consult our Sales Department.



NEW

MOSAIC CAS

CCHIBA / CCVIBA 301 + CSTIBA

Heat pump *Cassette*

inverter

MOSAIC
INVERTER SERIES BY HITECSA

R-410A

CCHIBA / CCVIBA - Split configuration
CSTIBA - Cassette up to 8.1 kW

Easy installation in refurbishment

Autonomous split system with a centrifugal outdoor unit, and indoor cassette unit with inverter technology, for installation inside the building.

MAIN FEATURES

- Cooling capacities up to 8.1 kW
- R-410A refrigerant
- Rotary compressor DC Inverter
- Outdoor and indoor EC fans
- Single-phase 230 V power supply
- To be installed inside the building

MAIN BENEFITS

- High energy efficiency with DC Inverter technology: maximum savings and comfort
- Low sound level
- Great possibilities for adjusting to specific architect enquiries, given its reduced dimensions

AVAILABLE VERSIONS

- Heat pump

CONTROL

Standard controller:

TH TUNE

See control and adjustment on page 200.

APPLICATIONS

Specially designed for energy refurbishment in the commercial sector, particularly in small-size business premises (up to 60 m^2 depending on needs, applications and zones).

CCHIBA - CCVIBA SERIES / **CASSETTE MODEL 301** *Split units*

301		CCHIBA - CCVIBA	CSTIBA
CAPACITIES (1)			
Nominal cooling capacity (1)	kW	7.4	
Cool. cap. (1) (20 Hz - 100 Hz -110 Hz)	kW	1.2 x 7.4 x 8.1	
Maximum EER		> 8	
SEER		4.6	
Class		B	
Nominal heating capacity (2)	kW	7.5	
Heat. cap. (2) (20 Hz - 100 Hz -110 Hz)	kW	1.3 x 7.5 x 8.3	
SCOP (warm area)		4.1	
Class		A+	
POWER SUPPLY			
Voltage	V/F/Hz	220-240 / 1 / 50	220-240 / 1 / 50
Electrical wiring	mm^2	2 x 2.5 + T	2 x 1.5 + T
Interconnection with ambient thermostat		-	BELDEN - 8672 twisted pair + screen
Interconnection between units		BELDEN - 8672 twisted pair + screen	
REFRIGERANT			
TYPE		R-410A	
Global warming potential (GWP)		1725	
Liquid line connection	"	3/8	3/8
Gas line connection	"	1/2	5/8
Number of refrigerant circuits		1	1
Maximum length between units	m	30	30
Maximum slope between units	m	20	20
Refrigerant charge	Kg	3.5	-
COMPRESSOR			
TYPE		MOTOR DC BRUSHLESS	-
Number of cylinders		2	-
Oil type		Ester VG74	-
Oil volume	ml	650	-
OUTDOOR HEAT EXCHANGER			
TYPE		Coil with aluminium fins and copper pipes	-
Face area	m^2	0.372	-
Fin space	mm	1.8	-
Pipe diameter	"	5/16	-
OUTDOOR CIRCUIT FAN			
TYPE		CENTRIFUGAL, DUAL INTAKE	-
Model		10/10 DD	-
Power supply	V	230/1/50	-
Motor capacity	kW	0.55	-
Transmission speed		Integrated motor, separate electronics	-
Nominal airflow	m^3/h	2,600	-
Available static pressure	Pa	50	-
Maximum airflow	m^3/h	3,000	-
Maximum fan speed (8 volts)	rpm	1,014	-

EXAMPLE OF AN INSTALLATION WITH INVERTER UNITS

CCHIBA - CCVIBA SERIES / **CASSETTE MODEL 301** *Split units*

301		CCHIBA - CCVIBA	CSTIBA
INDOOR HEAT EXCHANGER			
TYPE		-	Coil with aluminium fins and copper pipes
Face area	m^2	-	0.360
Fin space	mm	-	2.1
Pipe diameter	mm	-	7.2
INDOOR CIRCUIT FAN			
Diameter	mm	-	380
Power supply	V	-	220-240 / 1 / 50
Motor capacity	W	-	130
Transmission speed		-	Integrated AC motor (3 speed)
Low airflow	m^3/h	-	840
Medium airflow	m^3/h	-	1,000
High airflow	m^3/h	-	1,200
SOUND LEVEL			
Indoor unit, low speed	db (A)	-	34
Indoor unit, medium speed	db (A)	-	40
Indoor unit, high speed	db (A)	-	50
Outdoor unit	db (A)	70	-
DRAINAGE			
Condensate pump		NO	YES
Available pressure	mmWC	-	650
DIMENSIONS AND WEIGHT			
Length	mm	1,445	830
Width	mm	825	830
Height	mm	504	300
Weight	Kg	148	31

(1) Nominal cooling conditions. Indoor dry temperature: 27 ºC. Indoor wet temperature: 19 ºC. Outdoor temperature: 35 ºC.
(2) Nominal heating conditions. Indoor dry temperature: 20 ºC. Outdoor temperature 7 ºC. Outdoor wet temperature: 6 ºC.

OPTIONS AVAILABLE

ACCESSORIES FOR HEAT PUMP UNITS

- Modbus connection
- Kit for outdoor installation (condensing unit)
- Quick-connection valves including refrigerant charge(condensing unit)
- Filter in condenser
- Condenser anti-corrosion treated coil
- Acoustic insulation around compressor
- Separate electrical panel
- For the condensing unit:
  - Fireproof filter class M1
  - Thermal insulation Euroclass A1 (M0)

On top of these options, if you don't find yours please consult our Sales Department.

ACHBA
Heat pump
ACHA
Cooling only

CCHBA / ECHBA
Heat pump
CCHA / ECHA
Cooling only

R-410A

ACHBA / ACHA - Compact configuration
CCHBA / ECHBA CCHA / ECHA - Split configuration

Maximum flexibility for commercial premises air-conditioned via ducts system

Autonomous, compact and split horizontal construction units suitable for duct connections on both indoor and outdoor sections

MAIN FEATURES

- Maximum cooling capacities from 12.4 to 33.5 kW
- Scroll compressors
- R-410A refrigerant

MAIN BENEFITS

- Can be connected with the RCAH range of heat recovery units

AVAILABLE VERSIONS

- Heat pump
- Cooling only

CONTROL

Standard controller:
SUPER SI 24V

Option:
DSX@

See control and adjustment on page 200.

APPLICATIONS

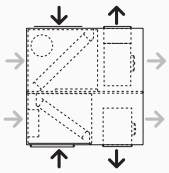
Designed to be installed inside the building, they are characterised by offering great flexibility during installation.
Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

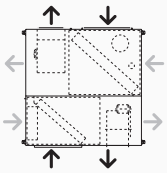
→ standard → option

ACHA/ACHBA

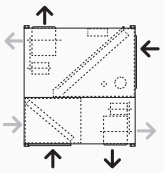
401, 501



701, 721, 751, 801

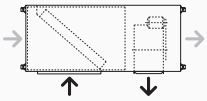


1001, 1201

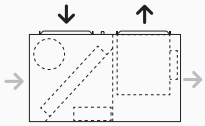


ECHA/CCHA - ECHBA/CCHBA

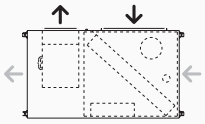
ECHA/ECHBA 401, 1201



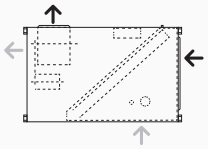
CCHA/CCHBA 401, 501



CCHA/CCHBA 701, 721, 751, 801



CCHA/CCHBA 1001, 1201



ACHBA - ACHA SERIES *Compact configuration*

MODEL		401	501	701	721	751	801
Nominal cooling capacity	kW	12.4	14.1	17.2	18.5	20.8	21.9
Nominal heating capacity	kW	13.8	16.4	18.9	20.4	21.9	24.6
Total power input - cooling	kW	5.7	7.4	8.6	9.1	9.5	10.7
Total power input - heating	kW	5.3	6.7	7.9	8.3	8.7	9.8
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Airflow - int. static pressure	m^3/h - Pa	2,700 - 32	3,200 - 48	4,300 - 50	4,300 - 50	4,300 - 50	4,300 - 50
Airflow - out. static pressure	m^3/h - Pa	3,800 - 40	4,150 - 50	5,600 - 50	5,600 - 50	5,700 - 50	6,200 - 50
Dimensions (length x width x height)	mm	1,505 x 1,389 x 560	1,505 x 1,389 x 562	1,697 x 1,755 x 640	1,697 x 1,755 x 640	1,697 x 1,755 x 640	1,697 x 1,755 x 640
Net weight	Kg	266	260	384	384	402	408

MODEL		1001	1201
Nominal cooling capacity	kW	28.4	33.5
Nominal heating capacity	kW	29.8	37.2
Total power input - cooling	kW	14.6	16.7
Total power input - heating	kW	13.4	15.2
Power supply (50 Hz ~)	V	400.3+N	400.3+N
Airflow - int. static pressure	m^3/h - Pa	5,900 - 60	7,550 - 82
Airflow - out. static pressure	m^3/h - Pa	7,600 - 50	11,500-70
Dimensions (length x width x height)	mm	1,998 x 1,755 x 672	2,347 x 2,300 x 772
Net weight	Kg	425	620

CCHBA - CCHA SERIES *Split configuration / Outdoor unit*

MODEL		401	501	701	721	751	801
Nominal cooling capacity	kW	12.4	14.1	17.2	18.5	20.8	21.9
Nominal heating capacity	kW	13.8	16.4	18.9	20.4	21.9	24.6
Total power input - cooling	kW	5.3	6.9	7.9	8.7	9.5	10.0
Total power input - heating	kW	4.7	6.1	6.9	7.7	8.4	8.8
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	1/2	1/2	1/2	1/2	5/8	5/8
Refrigerating connect. Gas line	Ø (")	7/8	7/8	7/8	7/8	7/8	7/8
Airflow - out. static pressure	m^3/h - Pa	3,800 - 40	4,150 - 50	5,600 - 50	5,600 - 50	5,700 - 50	6,200 - 50
Dimensions (length x width x height)	mm	1,455 x 843 x 562	1,455 x 843 x 562	1,755 x 1,004 x 640	1,755 x 1,004 x 640	1,755 x 1,004 x 640	1,755 x 1,004 x 640
Net weight	Kg	172	172	223	223	263	272

MODEL		1001	1201
Nominal cooling capacity	kW	28.4	33.5
Nominal heating capacity	kW	29.8	37.2
Total power input - cooling	kW	13.1	15.2
Total power input - heating	kW	11.5	13.4
Power supply (50 Hz ~)	V	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	5/8	5/8
Refrigerating connect. Gas line	Ø (")	1 1/8	1 1/8
Airflow - out. static pressure	m^3/h - Pa	7,600 - 50	11,500-70
Dimensions (length x width x height)	mm	1,750 x 1,057 x 662	2,300 x 1,382 x 782
Net weight	Kg	292	410

ECHBA - ECHA SERIES *Split configuration / Indoor unit*

MODEL		401	501	701	721	751	801
Nominal cooling capacity	kW	12.4	14.1	17.2	18.5	20.8	21.9
Nominal heating capacity	kW	13.8	16.4	18.9	20.4	21.9	24.6
Total power input - cooling	kW	0.4	0.6	0.8	0.8	0.8	0.8
Total power input - heating	kW	0.4	0.6	0.8	0.8	0.8	0.8
Power supply (50 Hz ~)	V	230.1 - 400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"
Refrigerating connect. Gas line	Ø (")	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"
Airflow - out. static pressure	m^3/h - Pa	2,700-32	3,200-48	4,300-50	4,200 - 40	4,300 - 50	4,300 - 50
Dimensions (length x width x height)	mm	1,455 x 642 x 562	1,455 x 642 x 562	1,775 x 752 x 640	1,755 x 752 x 640	1,755 x 752 x 640	1,755 x 752 x 640
Net weight	Kg	89	96	136	136	137	137

MODEL		1001	1201
Nominal cooling capacity	kW	28.4	33.5
Nominal heating capacity	kW	29.8	37.2
Total power input - cooling	kW	1.5	1.5
Total power input - heating	kW	1.5	1.5
Power supply (50 Hz ~)	V	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	5/8"	5/8"
Refrigerating connect. Gas line	Ø (")	1 1/8"	1 1/8"
Airflow - out. static pressure	m^3/h - Pa	5,900 - 60	7,550 - 82
Dimensions (length x width x height)	mm	1,750 x 900 x 662	2,300 x 972 x 782
Net weight	Kg	172	209

For dimensioning refrigerating pipes depending on vertical and horizontal distances please consult our Sales Department.

OPTIONS AVAILABLE

ENERGY SAVING

- Option of mixing module for freecooling with two and three dampers
- Thermal or enthalpy regulation with µPC control card
- Condensation control by frequency converter or voltage converter
- Compressor soft-start (depending on models)
- Soft-start for the indoor and/or outdoor fan (depending on models)

AIR QUALITY

- G4 Gravimetric return filter
- F6 to F9 class Opacimetric return filter (together with a G4 or Fx+Fy)

SOUND LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation around compressor

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc.
- Option of manufacturing units with symmetrical configuration
- Kit for outdoor installation
- Upgraded motors
- Drip tray anti-freeze trace heater
- Hot gas bypass
- Hot water heating coils
- Electric heaters for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- R407C refrigerant models available upon request
- Prepared for disassembly
- Only for split configuration:
  - Oil separator
  - Quick-connection valves with load of refrigerant gas

MAINTENANCE

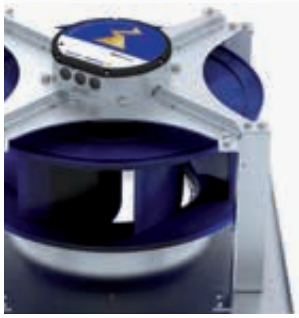
- Service valves
- Outdoor pressure connections
- Dirty filter sensor
- Filter in condenser
- Split filter

CONTROL AND ADJUSTMENT

- PGD thermostat
- DSX@ thermostat (24 V)
- Alarm indication
- Smoke detection
- Remote run/stop
- Separate electrical panel
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant unit
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and ModBus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.

PLUGFAN OPTION FOR HIGHER STATIC PRESSURE



PLUGFANS

- Greater energy efficiency
- Lower consumption
- Quieter
- High pressures available
- Low maintenance cost

Refer to page 38.

CCHBA
Heat pump
CCHA
Cooling only

FTBA

R-410A

Low-profile split configuration

Maximum flexibility for commercial premises air-conditioned via ducts system

Sets including a centrifugal condensing unit (outdoor unit) and a low-profile direct expansion fan-coil evaporator unit (indoor unit).

MAIN FEATURES

- Maximum cooling capacities from 14.5 to 19.3 kW
- Outdoor units with coils pre-treated with standard blue fin
- 3-speed indoor fan

ADVANTAGES

- The reduced height of the indoor units make them ideal for fast installation in false ceilings, with the unit either supported or hanged.
- Maximum connection distances between indoor and outdoor units of 50 metres

APPLICATIONS

Designed to be installed inside the building, they are characterised by offering great flexibility during installation.
Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

CONTROL

Standard controller: **SUPER SI 24V**

Option: **DSX@**

See control and adjustment on page 200.

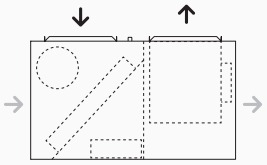
AVAILABLE VERSIONS

- Heat pump
- Cooling only

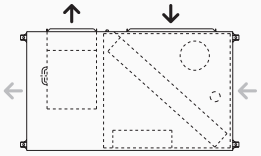
POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

→ standard → option

CCHA/CCHBA
501



CCHA/CCHBA
701, 721



CCHBA - CCHA / FTBA SERIES *Split configuration / Outdoor and indoor units*

OUTDOOR UNIT		**501**	**701**	**721**
INDOOR UNIT		**501**	**721**	**721**
Nominal cooling capacity	kW	14.5	18.0	19.3
Nominal heating capacity	kW	15.3	19.8	20.6
Total power input - cooling	kW	7.5	8.5	9.4
Total power input - heating	kW	6.7	7.6	8.4
Power supply (50 Hz ~)	V	230.3 or 400.3 +N	400.3+N	230.3 or 400.3 +N
Airflow - static pressure (in.)	m^3/h - Pa	2,500 - 76	3,000 - 105	3,000 - 105
Airflow - static pressure (out.)	m^3/h - Pa	4,150 - 50	5,600-50	5,600 - 50
Liquid pipe diameter	Ø (")	1/2	1/2	1/2
Gas pipe diameter	Ø (")	7/8	7/8	7/8
Outdoor unit dimensions (length x width x height)	mm	1,455 x 843 x 562	1,755 x 1,004 x 640	1,755 x 1,004 x 640
Indoor unit dimensions (length x width x height)	mm	1,250 x 750 x 315	1,250 x 805 x 369	1,250 x 805 x 369
Total distance indoor/outdoor unit	m	50	50	50
Vertical distance indoor/outdoor unit	m	25	25	25
Outdoor unit net weight	Kg	172	223	223
Indoor unit net weight	Kg	61	71	71

Voltage for indoor unit 230.1 50 Hz ~
For dimensioning refrigerating pipes depending on vertical and horizontal distances please consult our Sales Department.

OPTIONS AVAILABLE

ENERGY SAVING

- Compressor soft-start (depending on models)
- Condensation control by frequency converter or voltage converter

AIR QUALITY

- G4 Gravimetric return filter

SOUND LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation around compressor

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc.
- Side return and discharge (outdoor unit)
- Option of manufacturing units with symmetrical configuration (outdoor unit)
- Rear connections (outdoor unit)
- Indoor unit equipment and accessories painted in RAL 1013 polyester powder coating
- Kit for outdoor installation
- Upgraded motors
- Drip tray anti-freeze trace heater
- Hot gas bypass
- Hot water heating coils
- Electric heaters for auxiliary electric heating
- Anti-corrosion pre-treated coils
- R407C refrigerant models available on request
- Prepared for disassembly
- Only for split configuration:
  - Oil separator
  - Quick-connection valves with load of refrigerant gas
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Discharge plenum and return
- Grille discharge plenum and return
- 3 and 5 outlet nozzle plenum
- Condensate pump

MAINTENANCE

- Service valves
- Outdoor pressure connections
- Dirty filter sensor
- Filter in condenser
- Split filter

CONTROL AND ADJUSTMENT

- Electromagnetic regulation
- PGD thermostat
- DSX@ thermostat (24 V)
- Alarm indication
- Smoke detection
- Remote run/stop
- Separate electrical panel
- Option for master-slave operation
- Defrost evaporator fan stop
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant unit
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and ModBus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.

ACVBA
Heat pump
ACVA
Cooling only

CCVBA / ECVBA
Heat pump
CCVA / ECVA
Cooling only

ACVBA / ACVA - Compact configuration
CCVBA / ECVBA CCVA / ECVA - Split configuration

Maximum flexibility for commercial premises air-conditioned via ducts system

Autonomous, compact and split vertical units suitable for duct connections on both indoor and outdoor sections

MAIN FEATURES

- Maximum cooling capacities from 12.5 to 114.3 kW
- Scroll compressors
- R-410A refrigerant
- 2 independent refrigerating circuits (inquire about available models)

ADVANTAGES

- Option of operating as a multi-split set 2x1 (inquire about available models)
- Two indoor units connected to one outdoor unit (operation with one or two thermostats)
- One indoor unit connected to two outdoor units (operation with only one thermostat)
- Piping distance between indoor and outdoor (split configuration) up to a total of 50 m
- Can be connected with the RCAH range of heat recovery units

APPLICATIONS

Designed to be installed inside the building, they are characterised by offering great flexibility during installation.
Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

CONTROL

Standard controller:
SUPER SI 24V

Option:
DSX@

See control and adjustment on page 200.

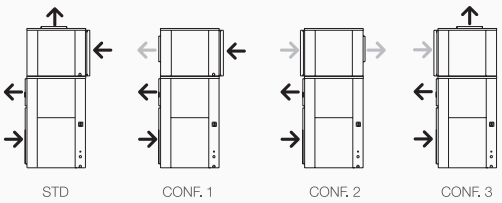
AVAILABLE VERSIONS

- Heat pump
- Cooling only

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

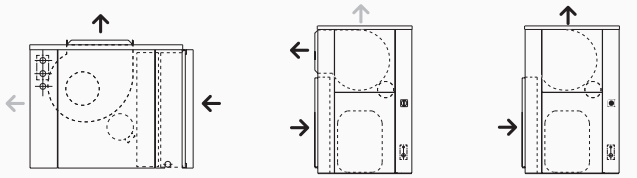
→ standard → option

ACVA/ACVBA



ECVA/CCVA - ECVBA/CCVBA

ECVA-ECVBA 401, 3502 CCVA-CCVBA 401, 3002 CCVA-CCVBA 3502



ACVBA - ACVA SERIES *Compact configuration*

MODEL		401	501	701	721	751	801
Nominal cooling capacity	kW	12.5	14.4	18.9	19.6	22.7	24.2
Nominal heating capacity	kW	13.7	15.0	20.0	21.0	23.9	25.3
Total power input - cooling	kW	5.9	7.2	8.6	9.1	9.8	11.2
Total power input - heating	kW	5.4	6.5	7.8	8.2	8.9	9.9
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Airflow - int. static pressure	m^3/h - Pa	2,600-50	3,540-60	4,720-55	4,720-55	5,133-53	5,125 - 83
Airflow - out. static pressure	m^3/h - Pa	3,950-50	4,900-50	6,800-50	6,800-50	7,400-50	7,714-57
Dimensions (length x width x height)	mm	937 x 750 x 1,604	1,087 x 750 x 1,604	1,130 x 800 x 1,900	1,130 x 800 x 1,900	1,130 x 800 x 1,900	1,130 x 800 x 1,900
Net weight	Kg	276	290	367	392	423	440
MODEL		**1001**	**1201**	**1402**	**1502**	**1602**	**2002**
Nominal cooling capacity	kW	30.1	34.9	37.8	43.4	50.2	63.1
Nominal heating capacity	kW	31.7	38.2	39.5	44.2	51.9	65.5
Total power input - cooling	kW	13.5	15.9	17.3	19.6	22.5	29.2
Total power input - heating	kW	12.4	14.2	15.5	17.8	20.0	26.2
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Airflow - int. static pressure	m^3/h - Pa	6,200-73	8,000-91	8,000-130	10,000-145	10,000-145	11,000-175
Airflow - out. static pressure	m^3/h - Pa	10,000-50	12,500-50	13,600-88	15,600-110	16,000-110	22,000-123
Dimensions (length x width x height)	mm	1,700 x 870 x 1.900	1,700 x 870 x 1,900	2,000 x 939 x 1,997	2,000 x 939 x 1997	2,000 x 939 x 1,997	2,600 x 980 x 2,174
Net weight	Kg	553	558	730	810	820	1,080
MODEL		**2302**	**2402**				
Nominal cooling capacity	kW	73.6	78.5				
Nominal heating capacity	kW	81.9	81.9				
Total power input - cooling	kW	33.3	34.3				
Total power input - heating	kW	29.7	29.0				
Power supply (50 Hz ~)	V	400.3+N	400.3+N				
Airflow - int. static pressure	m^3/h - Pa	12,000-160	12,000-160				
Airflow - out. static pressure	m^3/h - Pa	21,000 - 140	21,000 - 140				
Dimensions (length x width x height)	mm	2,600 x 980 x 2,174	2,600 x 980 x 2,174				
Net weight	Kg	1,115	1,135				

CCVBA - CCVA SERIES *Split configuration / Outdoor unit*

MODEL		401	501	701	721	751	801
Nominal cooling capacity	kW	12.5	14.4	18.9	19.6	22.7	24.2
Nominal heating capacity	kW	13.7	15.0	20.0	21.0	23.9	25.3
Total power input - cooling	kW	5.3	6.5	7.9	8.3	8.7	10.0
Total power input - heating	kW	4.8	5.9	7.2	7.6	7.9	9.1
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	1/2	1/2	1/2	1/2	5/8	5/8
Refrigerating connect. Gas line	Ø (")	3/4	7/8	7/8	7/8	7/8	7/8
Airflow - out. static pressure	m^3/h - Pa	3,950-50	4,900-50	6,800-50	6,800-50	7,400-50	7,714-57
Dimensions (length x width x height)	mm	937 x 750 x 1,022	1,087 x 750 x 1,022	1,130 x 800 x 1,250	1,130 x 800 x 1,250	1,130 x 800 x 1,250	1,130 x 800 x 1,250
Net weight	Kg	189	200	253	272	297	304
MODEL		**1001**	**1201**	**1402**	**1502**	**1602**	**2002**
Nominal cooling capacity	kW	30.1	34.9	37.8	43.4	50.2	63.1
Nominal heating capacity	kW	31.7	38.2	39.5	44.2	51.9	65.5
Total power input - cooling	kW	12.4	14.4	15.7	17.4	20.0	26.2
Total power input - heating	kW	11.3	13.1	14.3	15.8	18.2	23.8
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	5/8	5/8	1/2	5/8	5/8	5/8
Refrigerating connect. Gas line	Ø (")	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8
Airflow - out. static pressure	m^3/h - Pa	10,000-50	12,500-50	13,600-88	15,600-110	16,000-110	22,000-123
Dimensions (length x width x height)	mm	1,700 x 870 x 1,250	1,700 x 870 x 1,250	2,000 x 939 x 1,250	2,000 x 939 x 1,250	2,000 x 939 x 12.50	2,600 x 980 x 1,422
Net weight	Kg	373	397	477	538	548	747
MODEL		**2302**	**2402**	**3002**	**3502**		
Nominal cooling capacity	kW	73.6	78.5	86.6	114.3		
Nominal heating capacity	kW	81.9	81.9	88.8	119.6		
Total power input - cooling	kW	23.4	24.2	35.5	45.6		
Total power input - heating	kW	25.7	25.5	32.3	41.5		
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N		
Refrigerating connect. Liquid line	Ø (")	5/8	5/8	5/8	7/8		
Refrigerating connect. Gas line	Ø (")	1 1/8	1 1/8	1 3/8	1 5/8		
Airflow - out. static pressure	m^3/h - Pa	23,000-142	23,000-142	27,000-140	32,000-160		
Dimensions (length x width x height)	mm	2,600 x 980 x 1,422	2,600 x 980 x 1,422	2,800 x 1,050 x 1722	2,800 x 1,050 x 1,722		
Net weight	Kg	782	802	978	1,058		

ECVBA - ECVA SERIES *Split configuration / Indoor unit*

MODEL		401	501	701	721	751	801
Nominal cooling capacity	kW	12.5	14.4	18.9	19.6	22.7	24.2
Nominal heating capacity	kW	13.7	15.0	20.0	21.0	23.9	25.3
Total power input - cooling	kW	0.6	0.6	0.8	0.8	1.1	1.1
Total power input - heating	kW	0.6	0.6	0.8	0.8	1.1	1.1
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	1/2	1/2	1/2	1/2	5/8	5/8
Refrigerating connect. Gas line	Ø (")	3/4	7/8	7/8	7/8	7/8	7/8
Airflow - static pressure	m^3/h - Pa	2,600-50	3,540-60	4,720-55	4,720-55	5,133-53	5,125-83
Dimensions (length x width x height)	mm	937 x 750 x 582	1,087 x 750 x 582	1,130 x 800 x 650	1,130 x 800 x 650	1,130 x 800 x 650	1,130 x 800 x 650
Net weight	Kg	95	99	126	126	136	136
MODEL		**1001**	**1201**	**1402**	**1502**	**1602**	**2002**
Nominal cooling capacity	kW	30.1	34.9	37.8	43.4	50.2	63.1
Nominal heating capacity	kW	31.7	38.2	39.5	44.2	51.9	65.5
Total power input - cooling	kW	1.1	1.5	1.5	2.2	2.2	3.0
Total power input - heating	kW	1.1	1.5	1.5	2.2	2.2	3.0
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	5/8	5/8	1/2	5/8	5/8	5/8
Refrigerating connect. Gas line	Ø (")	1 1/8	1 1/8	7/8	7/8	1 1/8	1 1/8
Airflow - static pressure	m^3/h - Pa	6,277-73	8,000-91	8,000-130	10,000-145	10,000-145	11,000-175
Dimensions (length x width x height)	mm	1,700 x 870 x 650	1,700 x 870 x 650	2,000 x 939 x 747	2,000 x 939 x 747	2,000 x 939 x 747	2,600 x 980 x 752
Net weight	Kg	197	199	253	272	272	333
MODEL		**2302**	**2402**	**3002**	**3502**		
Nominal cooling capacity	kW	73.6	78.5	86.6	114.3		
Nominal heating capacity	kW	81.9	81.9	88.8	119.6		
Total power input - cooling	kW	3.3	3.6	4.0	4.0		
Total power input - heating	kW	2.4	2.9	4.0	4.0		
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N		
Refrigerating connect. Liquid line	Ø (")	5/8	5/8	5/8	7/8		
Refrigerating connect. Gas line	Ø (")	1 1/8	1 1/8	1 3/8	1 5/8		
Airflow - static pressure	m^3/h - Pa	12,000-160	12,000-160	14,000-200	18,000-250		
Dimensions (length x width x height)	mm	2,600 x 980 x 752	2,600 x 980 x 752	2,800 x 1,050 x 915	2,800 x 1,050 x 915		
Net weight	Kg	333	333	418	524		

For dimensioning refrigerating pipes depending on vertical and horizontal distances please consult our Sales Department.

OPTIONS AVAILABLE

ENERGY SAVING

- Option of mixing module for freecooling with two and three dampers
- Thermal or enthalpy regulation with µPC control card and PGD control
- Compressor soft-start (depending on models)
- Soft-start for the indoor and/or outdoor fan (depending on models)
- Condensation control by frequency converter or voltage converter
- EC radial indoor fan (depending on models)

AIR QUALITY

- G4 Gravimetric return filter
- F6 to F9 class Opacimetric return filter (together with a G4 or Fx+Fy)

SOUND LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation around compressor

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc.
- Option of manufacturing units with symmetrical configuration
- Kit for outdoor installation
- Upgraded motors
- Drip tray anti-freeze trace heater
- Hot gas bypass
- Hot water heating coils
- Electric heaters for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- R407C refrigerant models available upon request
- Prepared for disassembly
- Only for split configuration:
  - Oil separator
  - Quick-connection valves with load of refrigerant gas (split)
- Multi-split 2x1 operation (inquire about available models)

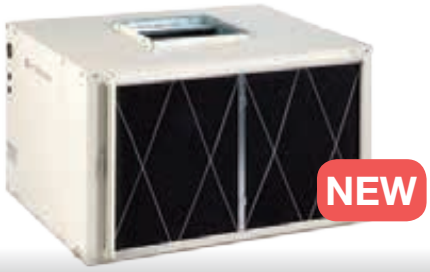
MAINTENANCE

- Service valves
- Outdoor pressure connections
- Dirty filter sensor
- Filter in condenser
- Split filter

CONTROL AND ADJUSTMENT

- PGD thermostat (when the unit incorporates freecooling)
- DSX@ thermostat (24 V)
- Alarm indication
- Smoke detection
- Remote run/stop
- Separate electrical panel
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant unit
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and Modbus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.



UMXCBA / ECVBA
Heat pump

UMXCA / ECVA
Cooling only

MISTRAL

R-410A

Split configuration
Axial fan

Up to 135 kW in less than 5 m²

Split units especially suitable for installation on rooftops, terraces or in other outdoor areas.

MAIN FEATURES

- Maximum cooling capacities from 25.9 to 134.7 kW
- Scroll compressors
- R-410A refrigerant
- 2 refrigerant circuits (inquire about available models)

ADVANTAGES

- Piping distance between outdoor and indoor unit up to 50 m in total
- Extremely compact for easy outdoor installation
- Condensation control in cooling and evaporation control in pump by stages: as standard
- Indoor unit that can be connected with the range of heat recovery units RCAH

AVAILABLE VERSIONS

- Heat pump / cooling only
- Possible combinations:
  - 2x1: 2 indoor units x 1 outdoor unit (models 1602 to 4502)
  - 1x2: 1 indoor unit x 2 outdoor units (inquire about available models)

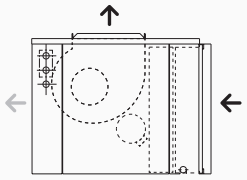
CONTROL

Standard controller:
SUPER SI 24V

Option:
DSX@

See control and adjustment on page 200.

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS



→ standard

→ option

UMXCBA - UMXCA SERIES *Split configuration / Outdoor unit*

MODEL		801	1001	1201	1501	1602	2002
Nominal cooling capacity	kW	25.9	31.2	38.1	42.9	50.4	62.8
Nominal heating capacity	kW	27.3	30.7	39.5	43.6	53.2	61.8
Power supply (50 Hz ~)	V	400.3 + N	400.3 + N	400.3 + N	400.3 + N	400.3 + N	400.3 + N
Total power input - cooling	kW	8.8	9.8	12.5	14.3	17.4	19
Total power input - heating	kW	7.1	8.4	10.9	11.4	15	17.4
Dimensions (length x width x height)	mm	1,200 x 1,050 x 1,470	1,200 x 1,050 x 1,470	1,200 x 1,050 x 1,470	1,200 x 1,050 x 1,470	2,215 x 1,350 x 1,510	2,215 x 1,350 x 1,510
Net weight (UMXCBA/UMXCA)	Kg	256 / 246	277 / 267	283 / 275	287 / 280	506 / 486	549 / 530

MODEL		2402	3002	3502	4002	4502
Nominal cooling capacity	kW	74	85	108.8	123.9	134.7
Nominal heating capacity	kW	76.6	86.7	118.2	131	142.4
Power supply (50 Hz ~)	V	400.3 + N	400.3 + N	400.3 + N	400.3 + N	400.3 + N
Total power input - cooling	kW	24.4	28.2	35.7	40.3	44.7
Total power input - heating	kW	22.8	24.3	32.5	36.8	40.8
Dimensions (length x width x height)	mm	2,215 x 1,350 x 1,510	2,215 x 1,350 x 1,510	2,215 x 1,960 x 2,170	2,215 x 1,960 x 2,170	2,215 x 1,960 x 2,170
Net weight (UMXCBA/UMXCA)	Kg	560 / 543	568 / 555	914 / 882	978 / 949	981 / 958

ECVBA - ECVA SERIES *Split configuration / Indoor unit*

MODEL		801	1001	1201	1501	1602	2002
Nominal cooling capacity	kW	25.9	31.2	38.1	42.9	50.4	62.8
Nominal heating capacity	kW	27.3	30.7	39.5	43.6	53.2	61.8
Total power input - cooling	kW	0.9	0.8	1.3	1.5	2	1.8
Total power input - heating	kW	0.9	0.8	1.3	1.5	2	1.8
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	5/8	5/8	5/8	5/8	5/8	5/8
Refrigerating connect. Gas line	Ø (")	7/8	1 1/8	1 1/8	1 1/8	1 1/8	1 1/8
Airflow - static pressure	m^3/h - Pa	5,150-83	6,200-73	8,000-91	9,000-130	10,000-145	11,000-175
Dimensions (length x width x height)	mm	1,130 x 800 x 650	1,700 x 870 x 650	1,700 x 870 x 650	2,000 x 939 x 747	2,000 x 939 x 747	2,600 x 980 x 752
Net weight	Kg	136	197	199	272	272	333

MODEL		2402	3002	3502	4002	4502
Nominal cooling capacity	kW	74	85	108.8	123.9	139.7
Nominal heating capacity	kW	76.6	86.7	118.2	131	142.4
Total power input - cooling	kW	2.2	2.5	3.4	4.2	4.6
Total power input - heating	kW	2.2	2.5	3.4	4.2	4.6
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3 + N	400.3+N	400.3+N
Refrigerating connect. Liquid line	Ø (")	5/8	5/8	7/8	7/8	7/8
Refrigerating connect. Gas line	Ø (")	1 1/8	1 3/8	1 5/8	1 5/8	1 5/8
Airflow - out. static pressure	m^3/h - Pa	12,000-160	14,000-200	18,000-200	20,500-210	22,000-200
Dimensions (length x width x height)	mm	2,600 x 980 x 752	2,800 x 1,050 x 915	2,900 x 1,200 x 1,115	2,900 x 1,200 x 1,115	2,900 x 1,200 x 1,115
Net weight	Kg	333	418	550	550	570

For dimensioning refrigerating pipes depending on vertical and horizontal distances please consult our Sales Department.

OPTIONS AVAILABLE

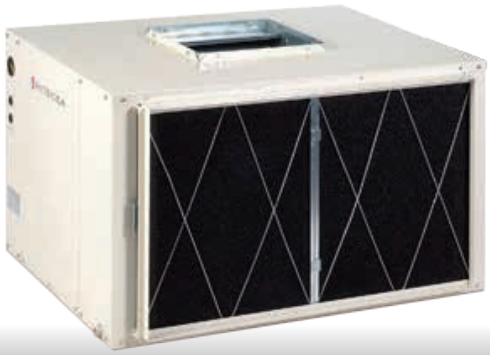
UMXCBA OUTDOOR UNIT

- Anti-corrosion pre-treated coils
- Condensation control by speed regulator
- Coil protection grilles on outside unit
- Compressor soft-start
- Circuit breakers in electrical panel
- Anti-vibration supports
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)

ECVBA INDOOR UNIT

- Back-up electrical resistance (inquire for power ratings)
- Back-up coil for hot water
- Anti-corrosion pre-treated coils
- Soft-start for the indoor fan
- Upgraded motors
- Can be connected with the RCAH range of heat recovery units
- Freecooling box with anti-freeze heater
- Gravimetric filter G4
- Gravimetric filter G4 + opacimetric filter (F6 to F9)

On top of these options, if you don't find yours please consult our Sales Department.



NEW

ECV SP

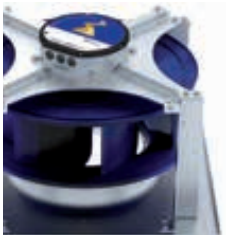
Tailor Made
SOLUTIONS

TAILOR-MADE SOLUTIONS FOR VRF OUTDOOR UNITS

Direct expansion evaporator indoor units for use with outdoor units with variable refrigerant volume

Hitecsa offers the indoor units adaptation of the direct expansion evaporators so that they can be suitable with other manufacturer outdoor units which have a variable refrigerant volume.

PLUGFAN OPTION: please check availability with our sales team.



Example: ECVBA indoor unit – it can be fitted with a coil especially designed to operate with VRF outdoor units.

ECV SP SERIES *Units for kit EXV*

MODEL Evaporator unit	No. of refrigerant circuits	Dedicated expansion kit	Flow m^3/h	Static pressure available (Pa)	Coil code	Coil T/R/L/pa/geom	Circ. volume (l)	Volume min.	Volume max.
ECVBA-1001	1	EXV-8.0 E1	6,200	150	73405	24/3/1250 18C/2.4/0722	3.48	2.92	3.89
ECVBA-1001		EXV-10.0 E1	6,300	150	73402	24/4/1250 24C/2.4/0722	4.63	3.89	4.76
ECVBA-1502	2	2 x EXV-8.0 E1	9,000	200	73395	28/4/1500 14C+14C/2.1/0722	3.23	2.92	3.89
ECVBA-1502		EXV 8.0E1 + EXV10.0E1	9,000	200	73406	28/5/1500 15C+20C/2.4/0722	3.46 / 4.62	2.92 / 3.89	3.89 / 4.76
ECVBA-1602		2 x EXV-10.0 E1	11,200	200	73266	28/3/1500 11C+11C/1.8/1022	4.28	3.89	4.76
ECVBA-2003	3	3 x EXV-8.0 E1	12,000	200	73407	27/4/2300 18C+18C+18C/2.4/0722	3.15	2.92	3.89
ECVBA-2303		3 x EXV-10.0 E1	13,000	200	73263	28/5/2300 23C+23C+23C/2.4/0722	4.03	3.89	4.76

Please check for aviability with our Sales Department.

CLVBA
Heat pump

CLVA
Cooling only

Indoor units for duct installations

Maximum flexibility for commercial premises air-conditioned via ducts system

Direct expansion evaporator units suitable for connection to a network of air distribution ducts. These units are designed to work together with any Hitecsa outdoor unit as long as the cooling capacity is equivalent.

MAIN FEATURES

- Maximum cooling capacities from 12.1 to 45.4 kW
- Airflows up to 10,200 m^3/h
- Miscellaneous installation possibilities
- Scroll compressors
- R-410A refrigerant
- Can be connected to any Hitecsa condensing unit

ADVANTAGES

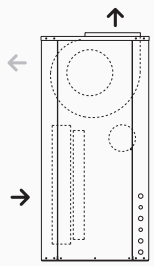
- All models can operate on direct discharge thanks to the discharge plenum option which is fitted with an anodised aluminium grille.

AVAILABLE VERSIONS

- Heat pump
- Cooling only

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

→ standard
→ option



APPLICATIONS

Designed to be installed inside the building, they are characterised by offering great flexibility during installation.

Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

CLVBA - CLVA SERIES *Indoor units*

MODEL		401	501	701	721	751	801
Nominal cooling capacity	kW	12.1	14.4	18.2	22.1	22.1	23.2
Nominal heating capacity	kW	12.7	15.5	19.3	23.5	23.5	24.4
Total power input	kW	0.6	0.6	0.9	0.9	1.3	1.3
Power supply (50 Hz ~)	V	230 or 400.3+N	230 or 400.3+N	230 or 400.3+N	230 or 400.3+N	230 or 400.3+N	230 or 400.3+N
Airflow - static pressure	m^3/h - Pa	3,000-56	3,400-100	4,200-115	4,400-109	4,800-120	5,200-84
Liquid pipe diameter	Ø (")	1/2	1/2	1/2	1/2	5/8	5/8
Gas pipe diameter	Ø (")	3/4	7/8	7/8	7/8	1 1/8	1 1/8
Dimensions (length x width x height)	mm	697 x 500 x 1,000	757 x 500 x 1,100	1,152 x 600 x 1,200	1,152 x 600 x 1,200	1,152 x 600 x 1,200	1,152 x 600 x 1,200
Net weight	Kg	73	94	118	118	119	125

MODEL		1001	1201	1402	1502	1602
Nominal cooling capacity	kW	29.7	35.0	36.4	44.2	45.4
Nominal heating capacity	kW	31.7	37.0	38.6	46.6	48.8
Total power input	kW	1.3	1.8	1.8	2.6	2.6
Power supply (50 Hz ~)	V	230 or 400.3+N	230 or 400.3+N	230 or 400.3+N	230 or 400.3+N	230 or 400.3+N
Airflow - static pressure	m^3/h - Pa	7,200-78	8,000-85	8,400-72	9,600-129	10,200-123
Liquid pipe diameter	Ø (")	5/8	5/8	2x1/2	2x5/8	2x5/8
Gas pipe diameter	Ø (")	1 1/8	1 1/8	2x7/8	2x7/8	2x1 1/8
Dimensions (length x width x height)	mm	1,700 x 600 x 1,300	1,700 x 600 x 1,300	1,800 x 675 x 1,400	1,800 x 675 x 1,400	1,800 x 675 x 1,400
Net weight	Kg	175	175	187	187	197

For sizing of refrigerated pipes depending on layout and total installation distance consult our Commercial Department.

OPTIONS AVAILABLE

ENERGY SAVING

- Mixing module option for freecooling with two and three dampers
- Thermal or enthalpy regulation with µPC control card and PGD control
- EC radial indoor fan (depending on models)
- Fan soft-start (depending on models)

AIR QUALITY

- G4 Gravimetric return filter
- Return F6 to F9 class opacimetric filter (can be added to a G4 or Fx+Fy)

SOUND LEVEL

- Double thermo-acoustic insulation

UNIT INSTALLATION

- Front discharge
- Power supply at 60 Hz and voltages 230, 208, etc.
- Kit for outdoor installation
- Upgraded motors
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)
- Hot gas bypass
- Hot water heating coils (cooling only)
- Electric heater coils for auxiliary electric heating
- Return for connection
- Connections opposite side
- Discharge plenum
- Return grille
- Anti-corrosion pre-treated coils
- R407C models available upon request
- Prepared for disassembly
- Base guides

MAINTENANCE

- Service valves
- Dirty filter sensor
- Split filter

On top of these options, if you don't find yours please consult our Sales Department.

DXCBZ
Heat pump
DXCZ
Cooling only

AXCBZ
Heat pump
AXCZ
Cooling only

FTBZ

R407C

Split configuration
UE axial | UI low profile

Maximum flexibility for air-conditioning through ducts of commercial premises

Sets including an axial condenser unit (outdoor unit) and a low-profile direct expansion fan-coil evaporator unit (indoor unit).

MAIN FEATURES

- Maximum cooling capacities from 13.5 to 18.6 kW
- Scroll compressors
- Outdoor units with coils pre-treated with standard blue fin
- 3-speed indoor fan
- R407C refrigerant

ADVANTAGES

- Maximum distance between indoor and outdoor units of 50 metres
- Quick-connection valves with charge ofrefrigerant gas for 5 metres
- The reduced height of the indoor units make them ideal for fast installation in false ceilings, with the unit either supported or hanged.

AVAILABLE VERSIONS

- Heat pump
- Cooling only

CONTROL

Standard controller:
SUPER SI 24V

Option:
DSX@

See control and adjustment on page 200.

APPLICATIONS

Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

DXCBZ - AXCBZ / FTBZ SERIES *Split configuration / Outdoor and indoor units*

OUTDOOR UNIT		451	501	701	721
INDOOR UNIT		451	501	721	721
Nominal cooling capacity	kW	13.5	14.8	16.8	18.6
Nominal heating capacity	kW	14.0	15.3	19.8	20.7
Total power input - cooling	kW	5.4	5.7	7.3	7.8
Total power input - heating	kW	4.9	5.0	6.7	7.5
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N
Airflow - static pressure	m^3/h - Pa	2,400 - 94	2,500 - 76	3,000 - 140	3,000 - 140
Liq. pipe diameter	Ø (")	1/2	1/2	1/2	1/2
Gas pipe diameter	Ø (")	7/8	7/8	7/8	7/8
Ext. dimensions (length x width x height)	mm	950 x 374 x 1,143	950 x 374 x 1,143	950 x 374 x 1,143	1,035 x 424 x 1,335
Int. dimensions (length x width x height)	mm	1,250 x 750 x 315	1,250 x 750 x 315	1,250 x 805 x 369	1,250 x 805 x 369
Total in./out. unit dist. (1)	m	50	50	50	50
Vertical in./out. unit dist. (1)	m	25	25	25	25
Net weight - outdoor	Kg	109	109	120	125
Net weight - indoor	Kg	61	61	80	80

1) For greater distances we recommend installing an oil separator
Voltage for indoor unit 50 Hz

DXCZ - AXCZ / FTBZ SERIES *Split configuration / Outdoor and indoor units*

OUTDOOR UNIT		451	501	701	721
INDOOR UNIT		451	501	721	721
Nominal cooling capacity	kW	13.5	14.8	17.2	19.0
Total power input	kW	5.4	5.7	7.3	7.8
Power supply (50 Hz ~)	V	400.3	400.3	400.3	400.3
Airflow - static pressure	m^3/h - Pa	2,400 - 94	2,500 - 76	3,000 - 140	3,000 - 140
Liq. pipe diameter	Ø (")	1/2	1/2	1/2	1/2
Gas pipe diameter	Ø (")	7/8	7/8	7/8	7/8
Ext. dimensions (length x width x height)	mm	950 x 374 x 1,143	950 x 374 x 1,143	950 x 374 x 1,143	950 x 374 x 1,143
Int. dimensions (length x width x height)	mm	1,250 x 750 x 315	1,250 x 750 x 315	1,250 x 805 x 369	1,250 x 805 x 369
Total dist. in./out. units	m	50	50	50	50
Vertical in./out. unit dist. (1)	m	25	25	25	25
Net weight - outdoor	Kg	101	101	115	120
Net weight - indoor	Kg	61	61	80	80

1) For greater distances we recommend installing an oil separator
Voltage for indoor unit 50 Hz

OPTIONS AVAILABLE

ENERGY SAVING

- Condensation control by frequency converter or voltage converter

AIR QUALITY

- G4 Gravimetric return filter

SOUND LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation around compressor

UNIT INSTALLATION

- Indoor unit equipment and accessories painted in RAL 1013 polyester powder coating
- Rear connections, outdoor unit
- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230 V, 208 V, etc. (depending on models)
- Option of manufacturing units with symmetric configuration
- Drip tray anti-freeze trace heater
- Hot gas bypass
- Discharge and return plenums
- Discharge and return plenum grilles
- 3 and 5 outlet nozzle plenum
- Condensate heat pump
- Hot water heating coils
- Electric heater coils for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Anti-corrosion treatment on piping with galva-type coating
- Prepared for disassembly
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)
- Oil separator
- No refrigerant charge and no flare valves

MAINTENANCE

- Service valves
- Outdoor pressure connections
- Dirty filter sensor
- Split filter

CONTROL AND ADJUSTMENT

- DSX@ thermostat (24 V)
- Alarm indication
- Smoke detection
- Remote start/stop
- Separate electrical panel
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant machine
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and ModBus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.

AXCBZ “Dual”
Heat pump
AXCZ “Dual”
Cooling only

FTBZ

SPLIT CONFIGURATION
Axial condenser | Low profile Advance

Maximum flexibility for air-conditioning through ducts of commercial premises

Sets including a two-circuit axial condenser unit, in general not balanced, and two direct expansion fan coil evaporator units.

MAIN FEATURES

- Maximum cooling capacities from 10.8 to 15.8 kW
- Outdoor units with coils pre-treated with standard blue fin
- 3-speed indoor fan

ADVANTAGES

- Maximum distance between indoor and outdoor units of 50 metres.

AVAILABLE VERSIONS

- Heat pump
- Cooling only

CONTROL

Standard controller:
SUPER SI 24V

Option:
DSX@

See control and adjustment on page 200.

APPLICATIONS

Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

AXCBZ "Dual"/ FTBZ SERIES *Split configuration / Outdoor and indoor units*

OUTDOOR UNIT		AXCBZ 452	AXCBZ 472	AXCBZ 502	AXCBZ 542
INDOOR UNIT		FTBZ 201 + 251	FTBZ 221 + 251	FTBZ 251 + 251	FTBZ 271 + 271
Nominal cooling capacity	kW	5.2 + 7.0	6.0 + 7.0	7.0 + 7.0	7.5 + 7.5
Nominal heating capacity	kW	6.2 + 8.1	6.6 + 8.1	8.1 + 8.1	8.3 + 8.3
Total power input - cooling	kW	4.7	4.8	5.14 - 5.06	5.38 - 5.46
Total power input - heating	kW	4.0	4.0	4.40 - 4.32	4.60 - 4.64
Power supply (50 Hz ~)	V	230.1	230.1	230.1 - 400.3+N	230.1 - 400.3+N
Airflow	m^3/h	1,100 - 1,150	1,100 - 1,150	1,150 - 1,150	1,400 - 1,400
Static Pressure	Pa	44 - 72	44 - 72	72 - 72	96 - 96
Liq. pipe diameter	Ø (")	3/8 - 3/8	3/8 - 3/8	3/8 - 3/8	3/8 - 3/8
Gas pipe diameter	Ø (")	1/2 - 5/8	1/2 - 5/8	5/8 - 5/8	3/4 - 3/4
Ext. dimensions (length x width x height)	mm	950 x 407 x 1349	950 x 407 x 1349	950 x 407 x 1349	950 x 407 x 1349
Int. dimensions (length x width x height)	mm	See FTBZ models	See FTBZ models	See FTBZ models	See FTBZ models
Total dist. in./out. units	m	50	50	50	50
Vertical dist. in./out. units	m	25	25	25	25
Net weight - outdoor	Kg	143	145	148	182
Net weight - indoor	Kg	37 + 39	37 + 39	39 + 39	43 + 43

Voltage for indoor unit 230.1 50 Hz ~

AXCZ "Dual"/ FTBZ SERIES *Split configuration / Outdoor and indoor units*

OUTDOOR UNIT		452	472	502	542
INDOOR UNIT		FTBZ 201 + 251	FTBZ 221 + 251	FTBZ 251 + 251	FTBZ 271 + 271
Nominal cooling capacity	kW	5.4 + 7.4	6.0 + 7.4	7.4 + 7.4	7.9 + 7.9
Total power input	kW	4.7	4.8	5.14 - 5.06	5.38 - 5.46
Power supply (50 Hz ~)	V	230.1	230.1	230.1 or 400.3+N	230.1 or 400.3+N
Airflow	m^3/h	1,100 - 1,150	1,100 - 1,150	1,150 - 1,150	1,400 - 1,400
Static Pressure	Pa	44 - 72	44 - 72	72 - 72	96 - 96
Liq. pipe diameter	Ø (")	3/8 - 3/8	3/8 - 3/8	3/8 - 3/8	3/8 - 3/8
Gas pipe diameter	Ø (")	1/2 - 5/8	1/2 - 5/8	5/8 - 5/8	3/4 - 3/4
Ext. dimensions (length x width x height)	mm	950 x 407 x 1349	950 x 407 x 1349	950 x 407 x 1349	950 x 407 x 1349
Int. dimensions (length x width x height)	mm	See FTBZ models	See FTBZ models	See FTBZ models	See FTBZ models
Total dist. in./out. units	m	50	50	50	50
Vertical dist. in./out. units	m	25	25	25	25
Net weight - outdoor	Kg	138	139	141	176
Net weight - indoor	Kg	37 + 39	37 + 39	39 + 39	43 + 43

OPTIONS AVAILABLE

ENERGY SAVING

- Compressor soft-start (depending on models)
- Condensation control by frequency converter or voltage converter

AIR QUALITY

- G4 Gravimetric return filter

SOUND LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation around compressor

UNIT INSTALLATION

- Indoor unit equipment and accessories painted in RAL 1013 polyester powder coating
- Rear connections, outdoor unit
- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc. (depending on models)
- Drip tray anti-freeze trace heater
- Hot gas bypass
- Hot water heating coils
- Electric heater coils for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Anti-corrosion treatment on piping with galva-type coating
- No refrigerant charge and no flare valves
- Discharge and return plenums
- Discharge and return plenum grilles
- 3 and 5 outlet nozzle plenum
- Condensate heat pump
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)

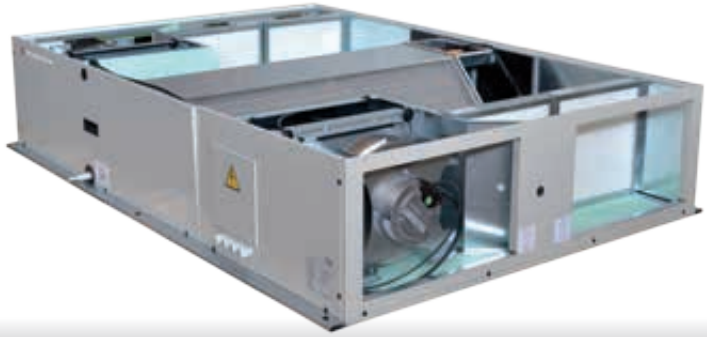
MAINTENANCE

- Service valves
- Outdoor pressure connections
- Dirty filter sensor
- Split filter

CONTROL AND ADJUSTMENT

- PGD thermostat
- DSX@ thermostat (24 V)
- Alarm indication
- Smoke detection
- Remote start/stop
- Separate electrical panel
- Option for master-slave operation
- High pressure switch reset from thermostat
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant machine
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and ModBus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.



RCAH / RCAH RCF

Heat recovery

Optimisation of the performance of the air-conditioning facilities

Static heat recovery units with cross flow that can be combined with air-air or water-air conditioning systems to provide significant energy savings.

MAIN FEATURES

- Airflows from 300 to 4,600 m³/h
- Aluminium cross flows exchanger, with Eurovent certification
- Multiple air inlet and outlet options
- 25 mm double-panel insulated structure
- Horizontal/vertical configuration

ADVANTAGES

- Easy accessibility and maintenance of components
- M5 (return) and F7 (fresh air) filters included
- Reduction of consumptions with a minimum thermal recovery of 75%
- EC plugfans as standard

AVAILABLE VERSIONS

- RCAH: efficiency over 75%
- RCAH RCF: with built-in R-410A refrigerated circuit

APPLICATIONS

Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

Air-conditioning through air ducts for commercial premises, offices, small supermarkets etc.

CONTROL

Standard controller:

Integrated control panel and electronic thermostat as standard.

See control and adjustment on page 200.

OPTIONS AVAILABLE

- Air quality control
- Electric heater
- Hot water coil (indoor or outdoor)
- Cold water coil
- Direct expansion coil
- 3-way valve with actuator
- Dirty filter detector
- Circular opening
- Flexible gasket
- Outdoor installation kit

On top of these options, if you don't find yours please consult our Sales Department.

RCAH SERIES *Efficiency > 75%*

MODEL		5	10	15	20	30	40
Maximum airflow	m^3/h	500	900	1400	2100	3000	4100
Available static pressure (1)	Pa	200	170	205	180	195	175
Efficiency (2)	%	80.1	80.5	80	79.9	80.6	80.6
Efficiency according to Regulation EU 1253/2014 (3)	%	74.2	74.6	74.3	74.4	74.5	74.1
Recovered capacity	kW	3.6	6.4	10	15	21.5	29.5
Power supply (50 Hz ~)	V	230.1-50	230.1-50	230.1-50	230.1-50	400.3+N-50	400.3+N-50
Maximum input current	A	2.8	2.9	5.9	5.9	3.3	3.5
Sound level at 1 m	dB (A)	53	52	53	60	62	60
Dimensions (length x width x height) (4)	mm	1,175 x 900 x 325	1,450 x 820 x 370	1,760 x 1,180 x 455	1,850 x 1,460 x 390	2,150 x 1,460 x 590	2,150 x 1,460 x 590
Weight	Kg	100	130	175	215	250	290

(1) Outdoor air circuit.
(2) Performance based on fresh air at -7 ºC (80% RH) and extract air temperature at 25 ºC (50% RH).
(3) Outdoor air 5 ºC - ambient air 25 ºC.
(4) Horizontal version.
Maximum fan speed.
*The measurements shown correspond to the standard unit. They do not include connections or protrusions.

RCAH RCF SERIES *Cooling recovery*

MODEL		10	15	20	25
Maximum airflow	m^3/h	900	1,400	2,000	2,600
Discharge static pressure	Pa	225	154	187	179
Return static pressure	Pa	184	122	130	148
Efficiency (1)	%	46.7	44.6	49.2	47.8
Total cooling capacity (1)	kW	5.4	8.2	12.2	15.0
EER (1)	W/W	2.8	2.6	2.6	2.9
Efficiency (2)	%	54.0	51.4	56.9	55.2
Total heating capacity (2)	kW	8.9	13.7	21.1	26.5
COP (2)	W/W	6.1	5.6	5.7	5.9
Power supply (50 Hz ~)	V	230.1	230.1	230.1	400.3
Maximum input current	A	14.6	21.6	36.3	22.6
Sound level at 1 m	dB (A)	55.0	52.0	59.0	58.0
Dimensions (length x width x height)	mm	1,450 x 1,230 x 470	1,450 x 1,230 x 470	1,700 x 1,560 x 530	1,700 x 1,560 x 530
Weight	Kg	212	225	258	258

MODEL		30	40
Maximum airflow	m^3/h	3,300	4,000
Discharge static pressure	Pa	211	159
Return static pressure	Pa	153	133
Efficiency (1)	%	48.8	47.8
Total cooling capacity (1)	kW	20.6	23.5
EER (1)	W/W	2.9	2.8
Efficiency (2)	%	56.4	55.2
Total heating capacity (2)	kW	35.1	40.4
COP (2)	W/W	6.0	5.6
Power supply (50 Hz ~)	V	400.3	400.3
Maximum input current	A	26.9	24.8
Sound level at 1 m	dB (A)	58.0	62.0
Dimensions (length x width x height)	mm	1,900 x 1,700 x 705	1,900 x 1,700 x 705
Weight	Kg	405	415

Performance based on fresh air at -5 ºC (80% RH) and extract air temperature at 20 ºC (50% RH).
Maximum fan speed.
*The measurements shown correspond to the standard unit. They do not include connections or protrusions.

Roof Top Units
Air - Air

HITECSA
COOL AIR

Roof Top Air - Air

HIGH ENERGY EFFICIENCY

R-410A R407C

COMPACT, EFFICIENT AND SUSTAINABLE

Autonomous, compact units specially designed for installation on rooftops, roof terraces or in any other outdoor location. Air is distributed via ducts.

ADVANTAGES

- HIGH ENERGY EFFICIENCY (COP/EER UP TO 3.5) AND REDUCED CONSUMPTION
  - Scroll compressors which guarantee a stable and quiet operation
  - High-efficiency fans
  - Freecooling option (taking advantage of outdoor temperature)
  - Option of thermodynamic recovery
- COMPACT UNIT

  Roof Top units are compact and they include all the components for heating, cooling, ventilation and filtering system for air renovation with a single power outlet.
- HIGH INSTALLATION AND OPERATIONAL VERSATILITY FOR EACH AND EVERY PROJECT

APPLICATIONS

Roof Top units are the best technical solution to meet the needs of medium and large size areas with regards to comfort, air quality and energy efficiency.

Roof Top units allow to handle big volumes which need high power without interfering with the commercial area, from the date of their installation on the roof of a building. Also, all technical and maintenance tasks are performed outdoors.

OFFICES TERTIARY HOTELS HOSPITALS INDUSTRY NAVAL

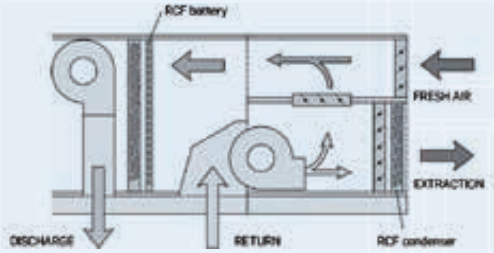
- Large retail outlets, shopping centres, specialist retailers, airports, restaurants, shops, cinemas and theatres, industrial buildings, logistics centres, offices...

ACTIVE THERMODYNAMIC RECOVERY

Heat recovery modules are innovative energy recovery and air renovation systems which allow to recover part of the energy that would otherwise be lost. They also introduce purified and conditionned fresh air, removing air pollutants.

Through heat recovery we can increase both the power and the nominal and seasonal performance of the unit, maximising energy efficiency and reducing operational costs.

EFFICIENCY AND AIR QUALITY IN THE INSTALLATIONS

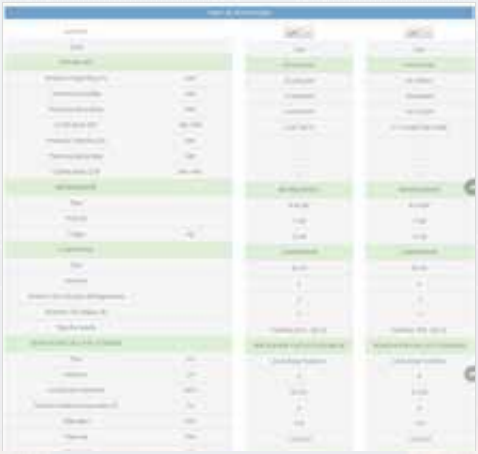


INSTALLATION EXAMPLE WITH ROOF TOP KUBIC SERIES

KUBIC

SELECTION SOFTWARE FOR ROOF TOP UNITS

Access to parameters via screen...

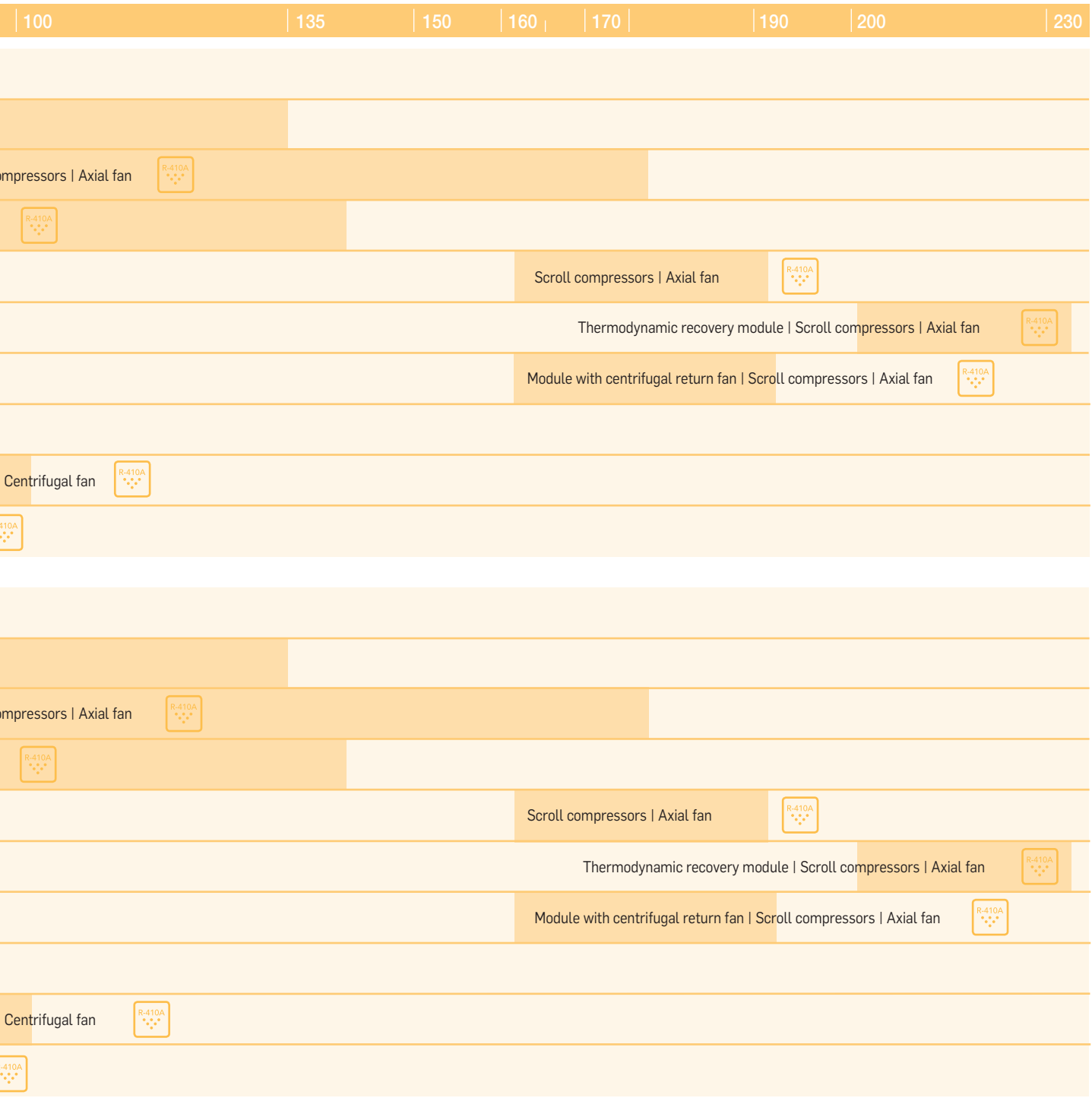


Load loss screen

PDF with selection results and technical sheet

Roof Top units
Air - Air

		Capacities kW	20	30	40	50	60	70	80
Cooling only	RXCZ		Scroll compressors | Axial fan R407C						
	RMXCA		Scroll compressors | Axial fan R-410A						
	RMXCA RCF	KUBIC 	Thermodynamic recovery module | Scroll co						
	RMXCA VRC		Module with centrifugal return fan | Scroll compressors | Axial fan						
	RXCA								
	RXCA RCF								
	RXCA VRC								
	RCCA		Scroll compressors | Centrifugal fan R-410A						
	RCCA RCF		Thermodynamic recovery module | Scroll compressors |						
	RCCA VRC		Module with centrifugal return fan | Scroll compressors | Centrifugal fan R-						
Heat pump	RXCBZ		Scroll compressors | Axial fan R407C						
	RMXCBA		Scroll compressors | Axial fan R-410A						
	RMXCBA RCF	KUBIC 	Thermodynamic recovery module | Scroll co						
	RMXCBA VRC		Module with centrifugal return fan | Scroll compressors | Axial fan						
	RXCBA								
	RXCBA RCF								
	RXCBA VRC								
	RCCBA		Scroll compressors | Centrifugal fan R-410A						
	RCCBA RCF		Thermodynamic recovery module | Scroll compressors |						
	RCCBA VRC		Module with centrifugal return fan | Scroll compressors | Centrifugal fan R-						


100
135
150
160
170
190
200
230
ompressors | Axial fan
R-410A
R-410A
Scroll compressors | Axial fan
R-410A
Thermodynamic recovery module | Scroll compressors | Axial fan
R-410A
Module with centrifugal return fan | Scroll compressors | Axial fan
R-410A
Centrifugal fan
R-410A
410A
ompressors | Axial fan
R-410A
R-410A
Scroll compressors | Axial fan
R-410A
Thermodynamic recovery module | Scroll compressors | Axial fan
R-410A
Module with centrifugal return fan | Scroll compressors | Axial fan
R-410A
Centrifugal fan
R-410A
-410A

RMXCBA
Heat pump

RMXCA
Cooling only

KUBIC
ROOFTOP SERIES

ROOF TOP AIR - AIR UNITS | STD - RCF - VRC - GB
Axial fans

A different Roof Top unit

The units of the KUBIC series are autonomous rooftop units that are specially designed for installation on rooftops, roof terraces or in any other outdoor location.

MAIN FEATURES

- Cooling capacities: from 46 to 178.4 kW (RCF)
- Heating capacities: from 46.8 to 193.5 kW (RCF)
- Dimensions: 8 (next available: 10)
- R-410A refrigerant
- Scroll compressors, specially designed for heat pump applications; they provide very wide operational limits
- EER: up to 3.26
- COP: up to 3.94
- Axial-type fans, hermetic, prepared for outdoor installation and with permanent lubrication
- Made up of aluminium blades and designed to produce low noise levels
- Cabinet: built from galvanised steel plate with a polymerised polyester resin finish (RAL 1013); high protection against corrosion and weather

ADVANTAGES

- Extra-compact modular design: high versatility for both installation and operation, which can be adapted to each and every project
- Units will be delivered completely finished and tested, with the appropriate charge of R-410A refrigerant for their correct operation
- Anti-vibration operation thanks to the internal damping system in each compressor and the assembly with anti vibratil items into the unit

LESS WEIGHT	-12% WEIGHT
LESS HEIGHT	-37% HEIGHT
LESS VOLUME	-34% VOLUME

* When compared to an equivalent model from other manufacturers. Ref. model 3002.2 with 87 kW

APPLICATIONS

Specially designed to be installed outdoors (rooftops, roof terraces, etc.) for large areas with air duct installation.

CONTROL

Standard controller: **SUPER SI 24V**

Option:

DSX@
(for standard units)

TH TUNE
(for standard units)

PGD *(compulsory for units with freecooling or RCF, VRC and GB modules)*

See control and adjustment on page 200.

OPTIONS AVAILABLE

Scroll-type compressors

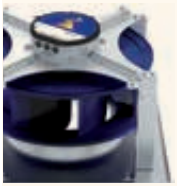
PGD thermostat
(compulsory for units with freecooling or RCF, VRC and GB modules)

Combinable filters G4, F6 to F9

Thermostat **TH-TUNE**

OPTION: PLUGFANS

- Greater energy efficiency
- Lower consumption
- Quieter
- High pressures available
- Low maintenance cost
- Lower installation cost
- Plug and play: the flow is adjusted to the installation
- The flow can be modified on-site just by changing a few parameters



MORE OPTIONS

- Freecooling, thermal or enthalpy control
- Compressor soft-start
- Soft-start for the indoor and/or outdoor fan
- EC plugfan type indoor fan
- EC type axial fans
- G4 Gravimetric return filter
- Opacimetric filter in return class F7 or F9 (can be added to a G4 or Fx+Fy)
- Air quality sensor
- Double thermo-acoustic insulation
- Acoustic insulation around compressor
- Service valves
- Outdoors pressure gauges to read pressures
- Outdoor pressure connections
- Dirty filter sensor
- Motor protection by means of magneto-thermal switches
- Upgraded motors
- Indoor flow rate control when the filters clog up (with EC plugfan type indoor fan)
- Hot water heating coils as backup
- Hot water heating coils
- Electric heater coils for auxiliary electric heating
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)
- Copper-copper coils
- Anti-corrosion pre-treated coils
- Double speed condensation control by pressostatic system
- Condensation tray in outdoor section
- Protective grille in outdoor section exchangers
- Smoke detection
- Remote start/stop
- Separate electrical panel
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant machine
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and Modbus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.

AVAILABLE VERSIONS

- STD: standard
- RCF: built-in cooling recovery circuit
- VRC: centrifugal return fan
- GB: module with gas burner

KUBIC STD
Standard unit

Basic unit (all return) with standard thermostat SUPER SI (option: PGD and TH TUNE)

KUBIC RCF
Thermodynamic recovery module

The thermodynamic recovery module includes an additional circuit which operates at high cooling capacities. This circuit uses the extraction air to recover part of the wasted heat. Through heat recovery it can increase both the power and the nominal and seasonal performance of the unit.

It is necessary to change to controller µPC and PGD.

KUBIC VRC
Module with centrifugal return fan

The VRC module allows to manage different fresh air flow percentages. Furthermore, its assembly combines three dampers and this allows for the management of freecooling, either with thermal, enthalpy or thermo- enthalpy control.

It is necessary to change to controller µPC and PGD.

KUBIC GB
Module with a gas burner

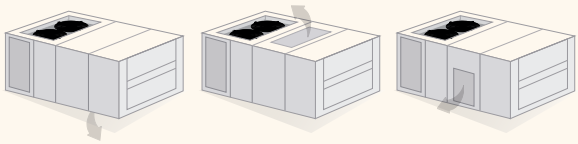
The module with a burner is specially designed for the climate control of large areas in the industrial and commercial sectors, and in areas with extremely low temperatures.

It is necessary to change to controller µPC and PGD.

KUBIC STD

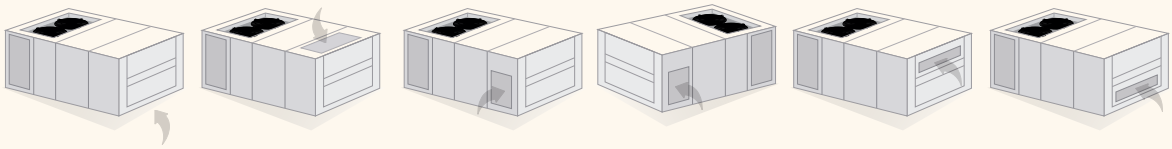
POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

DISCHARGE CONFIGURATIONS



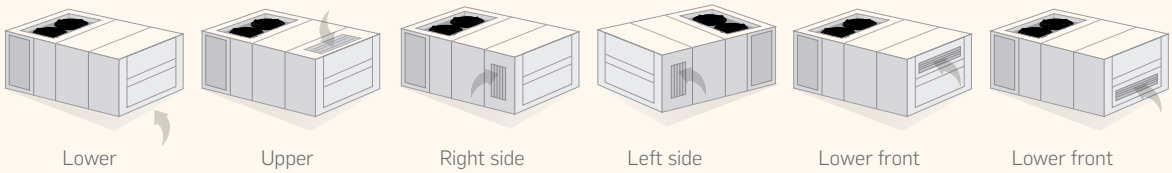
Lower Upper Side

RETURN CONFIGURATIONS



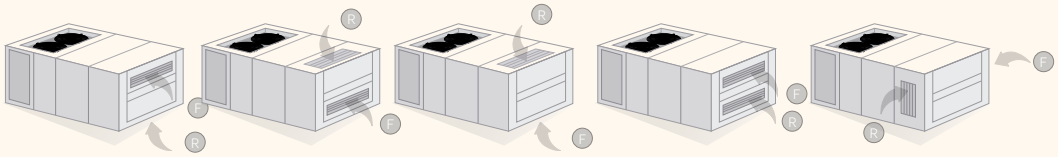
Lower Upper Right side Left side Lower front Lower front

FRESH AIR DAMPER CONFIGURATIONS



Lower Upper Right side Left side Lower front Lower front

FREECOOLING CONFIGURATIONS

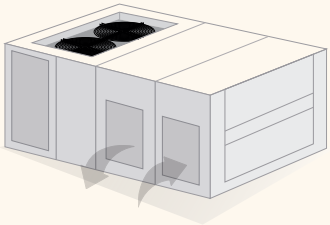


Lower + upper front Upper + lower front Upper + lower Front Side

F: new air damper / R: return air damper.

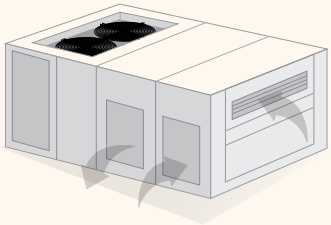
*For specific configurations, consult the Technical Department.

CONFIGURATION EXAMPLES



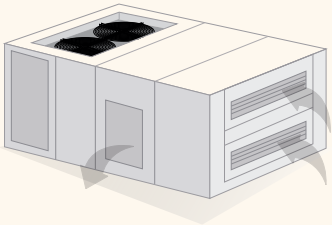
DISCHARGE/RETURN

Any combination of discharge and return is valid, taking into account that there can only be one discharge and one return.



DISCHARGE/FRESH AIR

Any combination of discharge and return is valid, taking into account that there can only be one discharge and one return and one new air damper.



DISCHARGE/FREECOOLING

Any combination of discharge and freecooling configuration is valid, taking into account that there can only be one discharge and two dampers.

KUBIC STD SERIES

MODEL		1402.2	1602.2	2002.2	2402.2	3002.2	3502.2	4002.2	4502.2
CAPACITIES									
Cooling capacity (1)	kW	46.1	52.4	65.1	79.1	86.9	113.6	125.3	134.8
Power input (3)	kW	15.5	19.2	21.2	27.7	32.7	39.5	44.4	49.9
EER coefficient	kW/kW	2.97	2.73	3.07	2.86	2.66	2.88	2.82	2.70
Heating capacity (2)	kW	46.8	53.9	66.1	80.4	88.7	119.1	132.7	143.0
Power input (3)	kW	13.3	16.6	18.0	24.0	27.8	35.6	41.4	45.8
COP coefficient	kW/kW	3.52	3.25	3.67	3.35	3.19	3.35	3.21	3.12
REFRIGERANTS									
TYPE		R-410A							
PCA (4)		1720							
Load	Kg	12.5	13.2	14	15.6	16	31	32	33
COMPRESSOR									
TYPE		scroll							
Number		2							
Number of refrigerant circuits		2							
Number of steps (5)		2							
Oil type		Danfoss POE 160 SZ							
OUTDOOR CIRCUIT FAN									
TYPE	An	outdoor axial rotor							
Number	An	2						4	
Nominal airflow	m^3/h	31,724		39,332			46,556	60,088	
Available static pressure	Pa	0							
Diameter	mm	710		800				710	
Capacity	kW	1.25/0.97		1.9/1.2				1.25/0.97	
Speed	rpm	950/825		890/690				950/825	
INDOOR CIRCUIT									
Nominal airflow	m^3/h	9,000	10,200	11,500	14,000	15,500	21,000	23,000	25,000
Available static pressure	Pa	100		125			150		
Quantity/Dimensions	-	15/15		2x15/11			2x18/18		
Capacity	kW	1.5	2.2	2.2	4	4	4	5.5	5.5
Speed	rpm	616	677	712	802	860	642	673	707
Condensate evacuation	Ø	Junction 3/4" M							
ELECTRICAL SPECIFICATIONS									
Power supply		400V - 3N 50Hz							
Maximum power input	kW	22.6	26.7	30.6	34.4	40.4	56.3	63.5	69.7
Starting current	A	72.8	90.1	96.9	192.5	202.1	261.2	295.1	327.2
DIMENSIONS									
Length	mm	2,886					3,900		
Width	mm	2,219					2,219		
Height	mm	1,240					1,900		
Weight	Kg	944	975	1,023	1,043	1,072	1,594	1,704	1,721

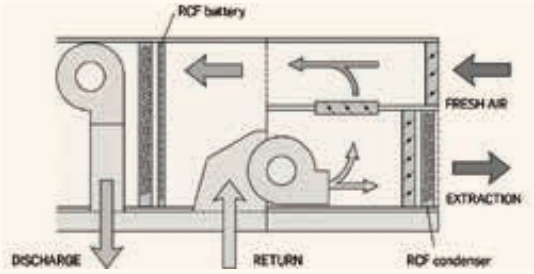
(1) Calculated in accordance with standard UNE-EN-14511, for interior temperature of 27 ºC, 50% RH and outside temperature of 35 ºC.
(2) Calculated in accordance with standard UNE-EN-14511, for interior temperature of 20 ºC (dry bulb) and 7 ºC (dry bulb) / 6 ºC (wet bulb) outside temperature.
(3) Total power input per compressor and motor fans in nominal conditions, calculated in accordance with UNE-EN-14511.
(4) Global warming potential of a kg of fluorinated greenhouse gas in relation to a kg of carbon dioxide gas over a period of 100 years.
(5) The number of steps increases with freecooling (FC).

KUBIC RCF

DESCRIPTION

The thermodynamic recovery module includes an additional circuit which operates at high cooling capacities.
This circuit uses the extraction air to recover part of the wasted heat. Through heat recovery we can increase both the power and the nominal and seasonal performance of the unit.

It is necessary to change to controller µPC and PGD.



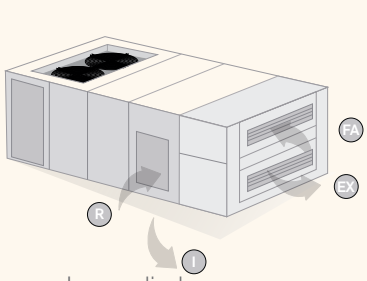
OPTIONS AVAILABLE

- Freecooling, thermal or enthalpy control
- Compressor soft-start
- Fan soft-start
- EC plugfan type indoor fan
- Air quality sensor
- Acoustic insulation around compressor
- Service valves
- Outdoor pressure connections
- Motor protection by means of magneto-thermal switches
- Upgraded motors
- Copper-copper coils
- Anti-corrosion pre-treated coils
- Protective grille in outdoor section exchangers
- Smoke detection
- Remote start/stop
- Separate electrical panel
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant machine
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and Modbus connection, etc. (refer to the Thermostats chapter)

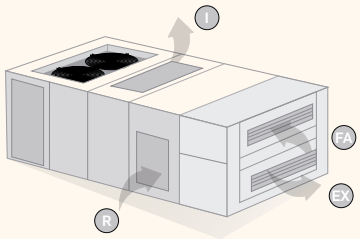
On top of these options, if you don't find yours please consult our Sales Department.

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

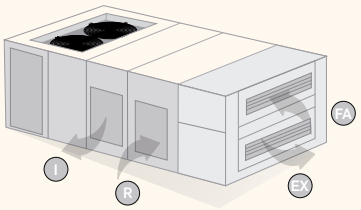
RETURN SIDE CONFIGURATIONS



Lower discharge

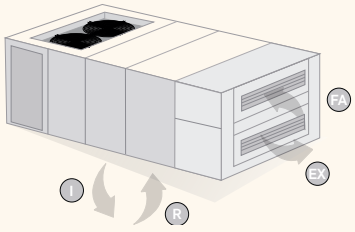


Upper discharge

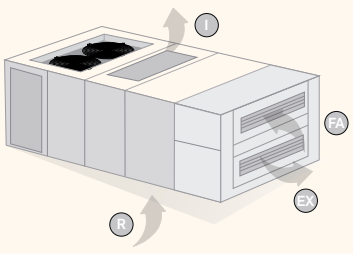


Side discharge

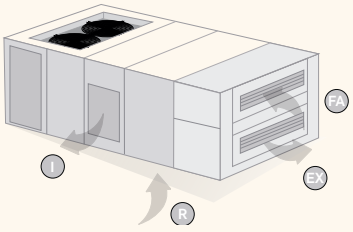
RETURN LOWER CONFIGURATIONS



Lower discharge



Upper discharge



Side discharge

I: DISCHARGE R: RETURN FA: FRESH AIR EX: EXTRACTION AIR

KUBIC RCF SERIES

MODEL		1402.2	1602.2	2002.2	2402.2	3002.2	3502.2	4002.2	4502.2
CAPACITIES									
Cooling capacity (1)	kW	64.1	71.1	87.4	103.5	116.4	152.0	164.8	178.4
Power input (3)	kW	20.3	23.9	26.8	34.4	41.6	49.7	55.7	63.1
EER coefficient	kW/kW	3.16	2.97	3.26	3.01	2.80	3.06	2.96	2.83
Heating capacity (2)	kW	67.4	76.8	89.2	106.0	120.8	163.8	177.6	193.5
Power input (3)	kW	17.1	19.9	22.7	28.2	34.4	42.4	48.6	54.8
COP coefficient	kW/kW	3.94	3.85	3.92	3.76	3.51	3.86	3.65	3.53
REFRIGERANTS									
TYPE		R-410A							
PCA (4)		1720							
Load	Kg	12.6 + 3.3	13.2 + 3.5	14 + 4	15.6 + 4	16 + 4.3	31 + 6	32 + 6	33 + 6.5
COMPRESSOR									
TYPE		scroll							
Number		3							
Number of refrigerant circuits		3							
Number of steps (5)		3							
Oil type		Danfoss POE 160 SZ							
OUTDOOR CIRCUIT FAN									
TYPE	An	outdoor axial rotor							
Number	An	2						4	
Nominal airflow	m³/h	31,724	31,724	39,332	39,332	39,332	46,556	60,088	60,088
Available static pressure	Pa	0							
Diameter	mm	710		800				710	
Capacity	kW	1.25/0.97		1.9/1.2				1.25/0.97	
Speed	rpm	950/825		890/690				950/825	
INDOOR CIRCUIT									
Nominal airflow	m³/h	9,000	10,200	11,500	14,000	15,500	21,000	23,000	25,000
Available static pressure	Pa	100	100	125	125	125	150	150	150
Quantity/Dimensions	-	15/15		2x15/11			2x18/18		
Capacity	kW	1.5	2.2	2.2	4	4	5.5	5.5	7.5
Speed	rpm	649	726	712	802	860	716	756	798
Condensate evacuation	Ø	Junction 3/4" M							
RETURN CIRCUIT									
Nominal airflow	m³/h	9,000	10,200	11,500	14,000	15,500	21,000	23,000	25,000
Available static pressure	Pa	75	75	100	100	100	100	100	100
Quantity/Dimensions	-	15/15		2x15/11			2x18/18		
Capacity	kW	1.5	2.2	2.2	4	5.5	4	5.5	7.5
Speed	rpm	616	681	731	835	897	661	703	746
Condensate evacuation	Ø	Junction 3/4" M							
ELECTRICAL SPECIFICATIONS									
Power supply		400V - 3N 50Hz							
Maximum power input	kW	30.0	34.3	39.5	46.9	53.7	72.4	80.4	89.2
Starting current	A	96.6	115.9	142.0	262.6	268.6	335.7	374.0	418.9
DIMENSIONS									
Length	mm	3,988					5,845		
Width	mm	2,219					2,219		
Height	mm	1,240					1,900		
Weight	Kg	1,315	1,353	1,417	1,445	1,531	2,373	2,519	2,549

All the data have been measured for a fresh air flow of 90%.

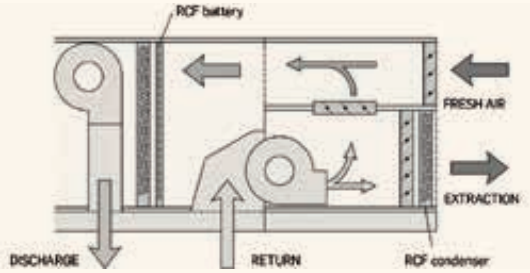
(1) Nominal cooling conditions: outside air temperature: 35 ºC. Return temperature 27 ºC (dry bulb) / 19 ºC (wet bulb).
(2) Nominal heat pump conditions: outside air temperature 7 ºC (dry bulb) / 6 ºC (wet bulb). Return temperature 20 ºC.
(3) Total power input per compressor and motor fans under nominal conditions.
(4) Global warming potential of a kg of fluorinated greenhouse gas in relation to a kg of carbon dioxide gas over a period of 100 years.
(5) The number of steps increases with freecooling (FC).

KUBIC VRC

DESCRIPTION

The VRC module allows to manage different fresh air flow percentages.
Its combined assembly with three dampers allows to also manage freecooling, whether with thermal, enthalpy or thermo-enthalpy control.

It is necessary to change to controller µPC and PGD.



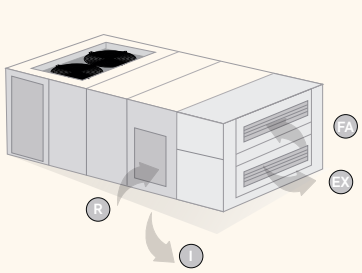
OPTIONS AVAILABLE

- Freecooling, thermal or enthalpy control
- Fan soft-start
- EC plugfan type indoor fan
- Air quality sensor
- Motor protection by means of magneto-thermal switches
- Upgraded motors
- Assembly bench
- Remote start/stop
- Separate electrical panel
- Option for master-slave operation
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant machine
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and Modbus connection, etc. (refer to the Thermostats chapter)

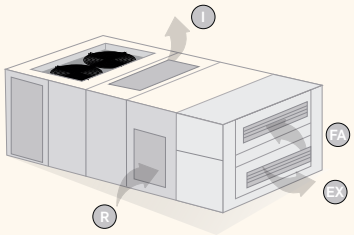
On top of these options, if you don't find yours please consult our Sales Department.

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

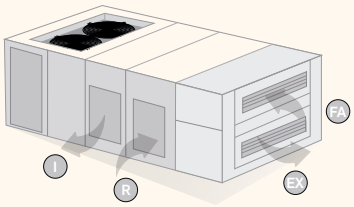
RETURN SIDE CONFIGURATIONS



Lower discharge

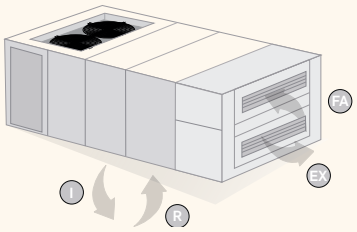


Upper discharge

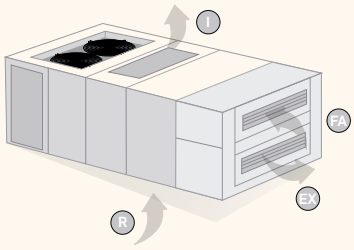


Side discharge

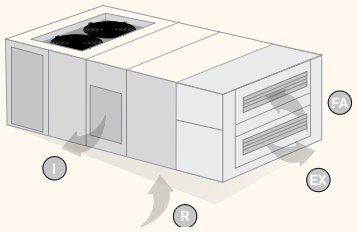
RETURN LOWER CONFIGURATIONS



Lower discharge



Upper discharge



Side discharge

I: DISCHARGE R: RETURN FA: FRESH AIR EX: EXTRACTION AIR

KUBIC VRC SERIES

MODEL		1402.2	1602.2	2002.2	2402.2	3002.2	3502.2	4002.2	4502.2
CAPACITIES									
Cooling capacity (1)	kW	48.2	54.9	68.0	82.8	91.0	118.7	131.1	141.2
Power input (3)	kW	17.2	21.4	23.2	30.8	36.5	43.3	49.3	55.7
EER coefficient	kW/kW	2.80	2.56	2.93	2.69	2.49	2.74	2.66	2.53
Heating capacity (2)	kW	48.4	56.7	67.3	83.2	93.3	121.2	137.3	150.4
Power input (3)	kW	14.9	18.8	19.9	27.0	31.5	39.4	46.5	51.9
COP coefficient	kW/kW	3.24	3.01	3.38	3.09	2.96	3.08	2.95	2.90
REFRIGERANTS									
TYPE		R-410A							
PCA (4)		1720							
Load	Kg	12.5	13.2	14	15.6	16	31	32	33
COMPRESSOR									
TYPE		scroll							
Number		2							
Number of refrigerant circuits		2							
Number of steps (5)		2							
Oil type		Danfoss POE 160 SZ							
OUTDOOR CIRCUIT FAN									
TYPE	An	outdoor axial rotor							
Number	An	2						4	
Nominal airflow	m³/h	31,724	31,724	39,332	39,332	39,332	39,332	60,088	60,088
Available static pressure	Pa	0							
Diameter	mm	710		800				710	
Capacity	kW	1.25/0.97		1.9/1.2				1.25/0.97	
Speed	rpm	950/825		890/690				950/825	
INDOOR CIRCUIT									
Nominal airflow	m³/h	9,000	10,200	11,500	14,000	15,500	21,000	23,000	25,000
Available static pressure	Pa	100	100	125	125	125	150	150	150
Quantity/Dimensions	-	15/15		2x15/11			2x18/18		
Capacity	kW	1.5	2.2	2.2	4	5.5	4	5.5	5.5
Speed	rpm	616	677	712	802	860	642	673	707
Condensate evacuation	Ø	Junction 3/4" M							
RETURN CIRCUIT									
Nominal airflow	m³/h	9,000	10,200	11,500	14,000	15,500	21,000	23,000	25,000
Available static pressure	Pa	75	75	100	100	100	100	100	100
Quantity/Dimensions	-	15/15		2x15/11			2x18/18		
Capacity	kW	1.5	2.2	2.2	3	4	4	4	5.5
Speed	rpm	575	604	602	686	742	568	603	637
Condensate evacuation	Ø	Junction 3/4" M							
ELECTRICAL SPECIFICATIONS									
Power supply		400V - 3N 50Hz							
Maximum power input	kW	23.7	28.1	32.3	37.2	44.0	59.0	66.8	73.8
Starting current	A	76.0	95.0	102.3	208.4	220.1	273.5	310.7	346.7
DIMENSIONS									
Length	mm	3,988					5,845		
Width	mm	2,219					2,219		
Height	mm	1,240					1,900		
Weight	Kg	1,233	1,265	1,347	1,376	1,442	2,238	2,380	2,405

All the data have been measured for a fresh air flow of 25%.

(1) Nominal cooling conditions: outside air temperature: 35 ºC. Return temperature 27 ºC (dry bulb) / 19 ºC (wet bulb).
(2) Nominal heat pump conditions: outside air temperature 7 ºC (dry bulb) / 6 ºC (wet bulb). Return temperature 20 ºC.
(3) Global warming potential of a kg of fluorinated greenhouse gas in relation to a kg of carbon dioxide gas over a period of 100 years.
(4) The number of steps increases with freecooling (FC).

RXCBA
Heat pump
RXCA
Cooling only

RCF

VRC

ROOF TOP AIR - AIR UNITS | STD - RCF - VRC
Axial fans

Roof top solutions for high flow rates, flexible and adaptable for each project

Autonomous compact rooftop units specially designed for installation on rooftops, roof terraces or in any other outdoor location with air distributed via ducts.

MAIN FEATURES

- Maximum cooling capacities from 162 to 192.3 kW (up to 233.4 kW with RCF module and an air renovation of 20%)
- Scroll compressors
- Cabinet: built from galvanised steel plate corrosion resistant and providing weather protection
- Axial fans in outdoor section, prepared for outdoor installation
- Centrifugal fans in indoor section with low noise level

ADVANTAGES

- Maximum capacity steps up to 9 steps depending on models
- Optimised design for easy access to the main components, facilitating maintenance tasks
- Scroll compressors, specially designed for heat pump applications; they provide very wide operational limits

AVAILABLE VERSIONS

- STD: standard
- RCF: built-in cooling recovery circuit
- VRC: centrifugal return fan
- VRA: axial return fan
- GAS: gas burner (inquire)
- ATA: high ambient temperatures

CONTROL

Standard controller:

PGD

See control and adjustment on page 200.

RXCBA / RXCA STD SERIES

MODEL		5002	6002
Nominal cooling capacity	kW	162.0	192.3
Nominal heating capacity	kW	167.8	199.4
Power supply (50 Hz ~)	V	400.3+N	400.3+N
EER	kW/kW	3.0	2.9
COP	kW/kW	3.3	3.3
Cooling energy rating (1)		B	B
Heating energy rating (1)		B	B
Airflow - static pressure	m^3/h - Pa	28,100 - 150	32,800 - 175
Dimensions (length x width x height)	mm	4,800 x 2,100 x 2,222	4,800 x 2,100 x 2,222
Net weight	Kg	2,600	2,710

RXCBA / RXCA RCF SERIES

MODEL		5002	6002
Total cooling capacity	kW	202.9	233.4
Main circuits cooling capacity	kW	160.9	190.9
Recovery circuit cooling capacity	kW	42.0	42.5
Total heating capacity	kW	202.9	233.9
Main circuits heating capacity	kW	163.1	193.8
Recovery circuit heating capacity	kW	39.8	40.1
Power supply (50 Hz ~)	V	400.3+N	400.3+N
EER	kW/kW	3.1	3.0
COP	kW/kW	3.4	3.3
Cooling energy rating (1)		A	B
Heating energy rating (1)		B	B
Airflow	m^3/h	28,100	32,800
Available discharge pressure	Pa	150	175
Available return pressure	Pa	85	100
Dimensions (length x width x height)	mm	4,800 x 2,100 x 2,760	4,800 x 2,100 x 2,760
Net weight	Kg	3,450	3,480

All the data have been measured for a fresh air flow of 20%.

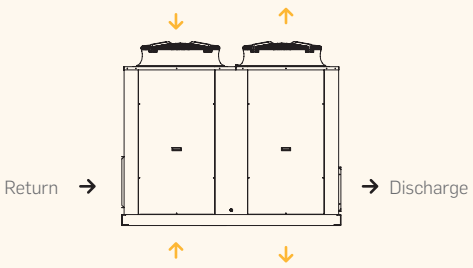
RXCBA / RXCA VRC SERIES

MODEL		5002	6002
Nominal cooling capacity	kW	162.0	192.3
Nominal heating capacity	kW	167.8	199.4
Power supply (50 Hz ~)	V	400.3+N	400.3+N
EER	kW/kW	2.81	2.81
COP	kW/kW	3.23	3.21
Cooling energy rating (1)		B	B
Heating energy rating (1)		B	B
Airflow	m^3/h	28,100	32,800
Available static pressure (discharge)	Pa	150	175
Available static pressure (return)	Pa	85	100
Dimensions (length x width x height)	mm	4,800 x 2,100 x 2,760	4,800 x 2,100 x 2,760
Net weight	Kg	3,289	3,308

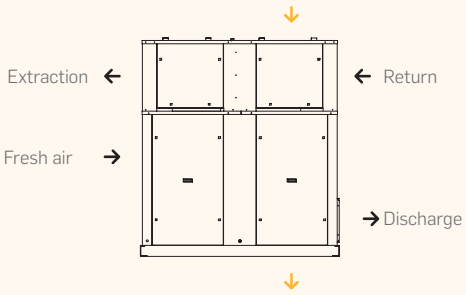
FLEXIBILITY OF INSTALLATION STD

→ Standard
→ Option

FLEXIBILITY OF INSTALLATION STD



FLEXIBILITY OF INSTALLATION RCF / VRC



Any combination of discharge and return is valid, taking into account that there can only be one discharge and one return.

OPTIONS AVAILABLE

ENERGY SAVING

- Mixing module option for freecooling with two and three dampers
- Thermal or enthalpy regulation for incorporated freecooling with µPC control card and PGD control
- Compressor soft-start
- Soft-start for the indoor and/or outdoor fan
- Condensation control by voltage converter
- Heat recovery of cooling units (R-404, etc.)
- EC plugfan type indoor fan
- EC type axial fans

AIR QUALITY

- G4 Gravimetric return filter
- Return F6 to F9 class opacimetric filter (can be added to a G4 or Fx+Fy)
- Outdoor module for F Filters on rail

SOUND LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation around compressor
- Outdoor section fans with low sound level

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc.
- Option of manufacturing units with symmetric configuration
- Upgraded motors
- Drip tray anti-freeze trace heater
- Bottom indoor air discharge
- Top indoor air return
- Thermo-acoustic insulation
- Hot gas bypass
- Hot water heating coils
- Electric heater coils for auxiliary electric heating
- Anti-corrosion pre-treated coils
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)
- Condensation fan with pressure available
- Condensation tray in outdoor section
- Protective grille in outdoor section exchangers
- Drop eliminator

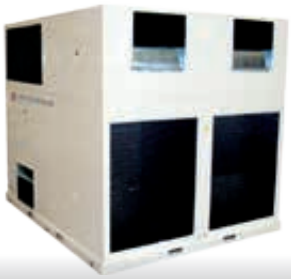
MAINTENANCE

- Service valves
- Outdoors pressure gauges to read pressures
- Outdoor pressure connections
- Dirty filter sensor

CONTROL AND ADJUSTMENT

- PGD thermostat
- Alarm indication
- Smoke detection
- Remote start/stop
- Separate electrical panel
- Unit without thermostat
- Option for master-slave operation
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Air quality sensor
- Operation for redundant machine
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and Modbus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.



RCCBA
Heat pump
RCCA
Cooling only

RCF

VRC

ROOF TOP AIR - AIR UNITS | STD - RCF - VRC
Centrifugal fans

Solutions for indoor installation with high flow rates, flexible and adaptable for each project

Autonomous compact Roof Top units with centrifuge fans on the two sections, suitable for indoor installation. Air is distributed via ducts.

MAIN FEATURES

- Cooling capacities from 40.7 up to 84.5 kW with 20% air renovation (up to 101.9 with RCF module)
- Scroll compressors
- Centrifugal fans in indoor and outdoor sections

ADVANTAGES

- Maximum capacity steps up to 4 steps depending on models
- Optimised design for easy access to the main components, facilitating maintenance tasks

AVAILABLE VERSIONS

- STD: standard
- RCF: built-in cooling recovery circuit
- VRC: centrifugal return fan
- GAS: gas burner (inquire)
- ATA: high ambient temperatures

CONTROL

Standard controller: **SUPER SI 24V**

Option: **DSX@** *(for standard units)*

TH TUNE *(for standard units)*

PGD *(compulsory for units with freecooling or RCF and VRC modules)*

See control and adjustment on page 200.

RCCBA / RCCA STD SERIES

MODEL		1402	1602	2002	2402	3002
Nominal cooling capacity	kW	40.7	47.2	62.6	73.1	86.4
Nominal heating capacity	kW	42.2	48.6	63.4	74.6	87.5
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
EER	kW/kW	2.2	2.2	2.5	2.7	2.7
COP	kW/kW	2.4	2.4	2.8	3.0	3
Cooling energy rating		C	D	D	C	C
Heating energy rating		D	D	D	D	C
Airflow - static pressure	m^3/h - Pa	7,800-100	9,500 - 100	12,318 - 135	14,075 - 115	14,980 - 115
Dimensions (length x width x height)	mm	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,360	2,702 x 2,300 x 2,540
Net weight	Kg	1,500	1,500	1,536	1,550	1,600

RCCBA / RCCA RCF SERIES

MODEL		1402	1602	2002	2402	3002
Total cooling capacity	kW	53.1	60.6	75.4	92.3	101.9
Main circuit cooling capacity	kW	40.2	46.6	58.9	71.1	80.2
Recovery circuit cooling capacity	kW	12.9	14	16.5	21.2	21.7
Total heating capacity	kW	55.7	60.1	76.9	93.1	105.5
Main circuit heating capacity	kW	43.8	47.2	61.7	72.5	85.1
Recovery circuit heating capacity	kW	11.9	12.9	15.2	20.6	20.4
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
EER	kW/kW	2.9	2.9	2.8	2.9	3
COP	kW/kW	3.3	3.3	3.1	3.1	3.2
Cooling energy rating		B	B	C	B	B
Heating energy rating		B	B	C	C	C
Airflow	m^3/h	7,800	9,500	12,318	14,075	14,980
Available discharge pressure	Pa	100	100	135	115	115
Available return pressure	Pa	75	85	85	85	85
Dimensions (length x width x height)	mm	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,360	2,702 x 2,300 x 2,540
Net weight	Kg	1,720	1,725	1,775	1,840	1,904

All the data have been measured for a fresh air flow of 20%.

RCCBA / RCCA VRC SERIES

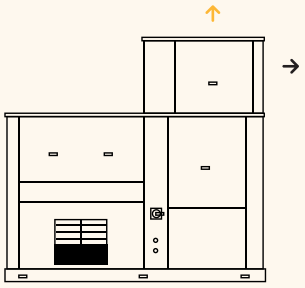
MODEL		1402	1602	2002	2402	3002
Nominal cooling capacity	kW	40.7	47.2	62.6	73.1	86.4
Nominal heating capacity	kW	42.2	48.6	63.4	74.6	87.5
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
EER	kW/kW	2	2	2.2	2.4	2.4
COP	kW/kW	2.2	2.2	2.5	2.6	2.6
Cooling energy rating		C	D	D	C	C
Heating energy rating		D	D	D	D	C
Airflow - static pressure	m^3/h - Pa	7,800-100	9,500 - 100	12,318 - 135	14,075 - 115	14,980 - 115
Dimensions (length x width x height)	mm	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,175	2,702 x 2,300 x 2,360	2,702 x 2,300 x 2,540
Net weight	Kg	1,720	1,725	1,775	1,840	1,904

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

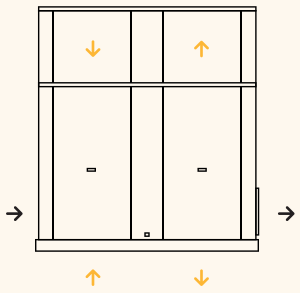
→ Standard
→ Option

RCCBA/RCCA STD

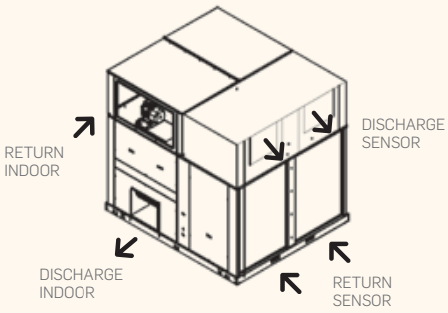
OUTER SECTION



INNER SECTION



RCCBA/RCCA RCF | VRC



OPTIONS AVAILABLE

ENERGY SAVING

- Mixing module option for freecooling with two and three dampers
- Thermal or enthalpy regulation with control card and PGD control
- Compressor soft-start
- Soft-start for the indoor and/or outdoor fan
- Heat recovery of cooling units (R-404, etc.)
- Condensation control by voltage converter
- EC plugfan type indoor fan

AIR QUALITY

- G4 Gravimetric return filter
- Return F6 to F9 class opacimetric filter (can be added to a G4 or Fx+Fy)
- Outdoor module for F Filters on rail
- New air supply damper

SOUND LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation around compressor

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230 V, 208 V, etc.
- Option of manufacturing units with symmetric configuration
- Upgraded motors
- Drip tray anti-freeze trace heater
- Thermo-acoustic insulation
- Hot gas bypass
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)
- Hot water heating coils
- Electric heater coils for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Condensation fan with higher pressure available
- Protective grille in outdoor section exchangers
- Drop eliminator

MAINTENANCE

- Service valves
- Outdoors pressure gauges to read pressures
- Outdoor pressure connections
- Dirty filter sensor

CONTROL AND ADJUSTMENT

- PGD thermostat
- DSX@ thermostat (24 V)
- Alarm indication
- Smoke detection
- Remote start/stop
- Separate electrical panel
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Air quality sensor
- Operation for redundant machine
- Centralised integrated management operation
- Neutral free electrical supply
- Scheduling function and Modbus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.

RXCBZ
Heat pump
RXCZ
Cooling only

R407C

ROOF TOP AIR-AIR UNITS
Axial fans

Roof top solutions, flexible and adaptable for each project

Compact rooftop units specially designed for installation on rooftops, terraces, roof terraces or in any other outdoor location with treated air being distributed by ducts.

MAIN FEATURES

- Cooling capacities: from 28 to 42 kW
- Heating capacities: from 30 to 44 kW
- R-407C refrigerant
- Scroll compressors, specially designed to operate under extreme conditions

ADVANTAGES

- Units will be delivered completely finished and tested, with the appropriate charge of refrigerant for their correct operation
- Weather protection frame. The base has been built with highly-resistant steel profiles. The rest of the structure is made of galvanised steel plates
- Air filter: high filtering efficiency

OPTIONS AVAILABLE

- Electric heaters
- Hot water coils
- G4 filters
- Condensation pressure regulators
- Axial return or extraction fans
- Freecooling with enthalpy control
- Freecooling with thermal control
- M1 fireproof filter
- A1 Euroclass thermal insulation (M0)
- Magneto-thermal switches for the compressor and fan motor Indoor and outdoor
- Special projects (inquire)

On top of these options, if you don't find yours please consult our Sales Department.

CONTROL

Standard controller: **SUPER SI 24V**

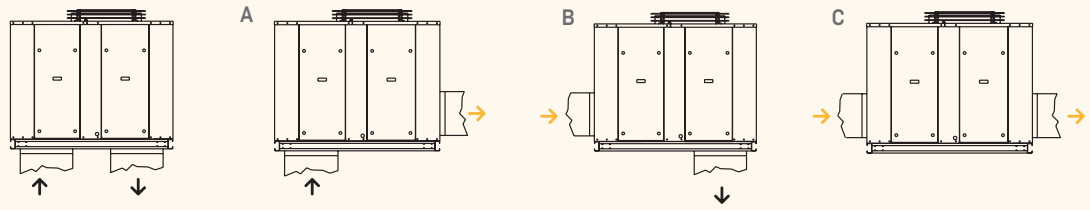
Option: **DSX@** *(for standard units)*

PGD *(compulsory for units with freecooling)*

See control and adjustment on page 200.

FLEXIBILITY OF INSTALLATION

→ Standard → Option



RXCBZ / RXCZ SERIES

MODEL		1001	1201	1501
CAPACITIES				
Nominal cooling capacity	kW	28	35	42
Nominal heating capacity	kW	30	36	44
POWER SUPPLY (50 Hz ~)	V			
COMPRESSOR				
Type		Herm. altern.		scroll
Quantity		1	1	1
INDOOR COIL				
Type		Coil with aluminium fins and copper pipe		
Front area	m^2	1.26	1.26	1.26
Fin spacing - Ø tubes	mm - (")	2.5 - 3/8	1.8 - 3/8	1.8 - 3/8
INDOOR COIL				
Type		Coil with aluminium fins and copper pipe		
Front area	m^2	1.14	1.14	1.50
Fin spacing - Ø tubes	mm - (")	1.8 - 3/8	1.8 - 3/8	1.8 - 3/8
INDOOR FAN				
Type		Centrifugal, dual return		
Motor capacity	kW	1.1	1.5	2.2
Motor speed	rps	23.3		
Power supply (50 Hz ~)	V	230.III / 400.III		
OUTDOOR FAN				
Type		Axial		
Quantity		1	1	1
Diameter Ø	mm	710	800	800
Motor capacity	kW	0.76	1.25	1.25
Motor speed	rps	15		
Power supply (50 Hz ~)	V	230.I	400.III	400.III
REFRIGERANT				
No. of circuits		1	1	1
407C charge per circuit	Kg	7.7	9.0	10.8
GENERAL CHARACTERISTICS FOR THE ELECTRICAL WIRING				
POWER SUPPLY (50 Hz ~)	V	400.III (1)		
Control circuit voltage	V	24		
Total power input, cooling *	kW	13	15.2	19
Total input current, cooling *	A	22	26	33
Total power input, heating *	kW	12.1	14.2	18.2
Total input current, heating *	A	21	24	31
Max. power input, cooling *	kW	15.7	18.1	22.9
Max. input current, cooling *	A	27	31	39
Max. power input, heating *	kW	14.3	16.7	21.5
Max. input current, heating *	A	24	28	37
Starting current	A	116	143	190
SOUND LEVEL (at 5 m)				
Unit	dB (A)	63	65	65
APPROXIMATE DIMENSIONS				
Height	mm	1,460	1,580	1,580
Length	mm	1,707	1,707	1,707
Width	mm	2,543	2,543	2,543
Weight	Kg	730	780	820

(1) All models can function at 230.III. In order to know the amperage at such voltage, multiply the values in the table by 1.74. *Nominal cooling conditions: outside air temperature: 35 ºC. Outdoor air wet temperature: 19 ºC. *Maximum cooling conditions: outside air temperature: 46 ºC. Outdoor air wet temperature: 21 ºC. ***Nominal heat pump: outdoor air wet temperature: 6 ºC. Outdoor air temperature. 21 ºC. ***Maximum heat pump: outdoor air wet temperature: 18 ºC.

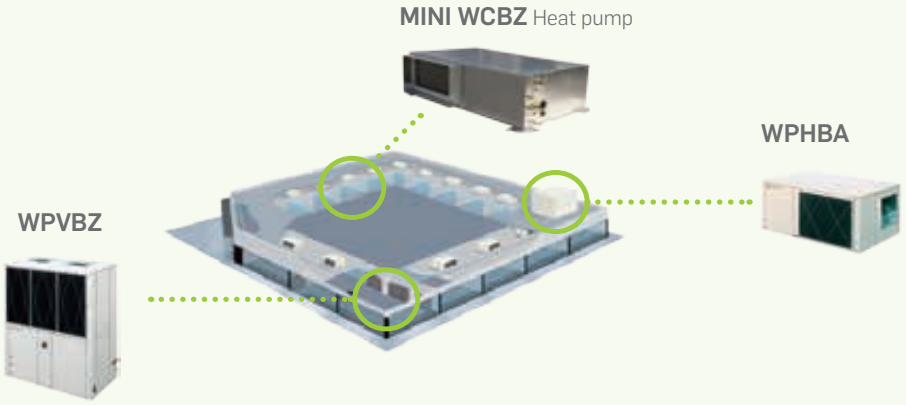
Autonomous Units
Water - Air

HITECSA
COOL AIR

HITECSA, EUROPEAN LEADER IN WATER-AIR SOLUTIONS

Hitecsa offers the widest range of Water - Air solutions for installations in shopping centres. These buildings are usually designed with energy loop systems which supply heated water to the different premises for the shops that make up the shopping centre.

INSTALLATION EXAMPLE WITH A WATER LOOP



ADVANTAGES OF THE HITECSA RANGE

- 2 ranges with two different models

PLATE HEAT EXCHANGER

- Horizontal model
  WPHBA - WPHA NEW
- Vertical model
  WPVBZ - WPVZ

COAXIAL EXCHANGER

- Horizontal model
  Mini WCBZ NEW | WCHBZ - WCHZ
- Vertical model
  WCVBZ - WCVZ

- Only high-quality components
- Well renowned products, experience and high installed capacity for large retail areas
- Maximum manufacture flexibility
- Fast production times for the correct planning of building works
- Adaptable to the application

Special needs: Hitecsa will surely have already designed it!

THERMOSTATS AND CONTROLS

• MINI WCBZ

STANDARD CONTROLLER		FUNCTIONS
TH TUNE		3 speed selection Auto mode. 1 electric heater step (active only in defrost). Option for ModBus protocol with RS485 card (see accessories). Time/date programming (2 events per day).

- Option

		FUNCTIONS
PGD		Centralised management for a network of units with Th Tune thermostat. Each of the machines connected in a network can be accessed from a single PGD control, up to a maximum of 15 units.

• WCHBZ - WCHZ / WCVBZ - WCVZ / WPHBA - WPHA / WPVBZ - WPVZ

STANDARD CONTROLLER		FUNCTIONS
SUPER SI 24V		Digital thermostat with LCD screen. Operation at 24 V. Automatic cooling/heating selection. Fan speed selection. Economy function.

- Option

		FUNCTIONS
DSX@		Digital thermostat with LCD screen. Operation at 24 V. Time programming. Integrated Modbus protocol communications output.

Centralised control for group management.
The protocol ModBus is necessary in the MINI WCBZ, and the DSX@ thermostat is needed for other units.

• For all units:

		FUNCTIONS
PGD TOUCH screen		The touch screen carries out the centralised control function. This offers the possibility to access the control the unit via an access code.

Up to 30 units can be connected, with a bus length of 500 m.

PROTECTION AGAINST LOW FLOW

In these units, the most serious problem is the lack of flow in heat pump mode, whenever the unit uses a plate heat exchanger or a coaxial exchanger.

In order to prevent this, our control operates as follows:

- **Low pressure**

  The alarm will activate when the PB is open for more than 90 seconds. If this happens 3 times within one hour, the H8 (serious alarms) blimks and the machine is stopped.

- **Anti-freeze**

  The anti-freeze alarm will activate under any of the following circumstances:

  1. If the input temperature is equal or below 11 ºC.
  2. If the output temperature is equal or below 6 ºC. When the temperature rises to 11 degrees, it will reset again.
  3. If there is a difference of 8 ºC or more between the input and output temperatures, and if the input temperature is also below 15 ºC.
  4. When the compressor = ON, if the difference between the input and output temperatures is less than 1.5 ºC.

TIPS FOR INSTALLING THESE UNITS

In these units, water quality control is of the utmost importance, especially when plate exchangers are used.

For the commissioning process and until the pipe system has been cleaned, we recommend the use of mechanical filters with a filtration level of 400 µm. Once cleaned, you need to ensure that the filter located in the filling pipe meets the same requirements.

Apart from the safety systems of low pressure switch and anti-freeze sensor, a differential pressure switch or flow switch must also be installed to control the water pressure drop and avoid freezing, which might otherwise break the exchangers.

Autonomous Units Water - Air

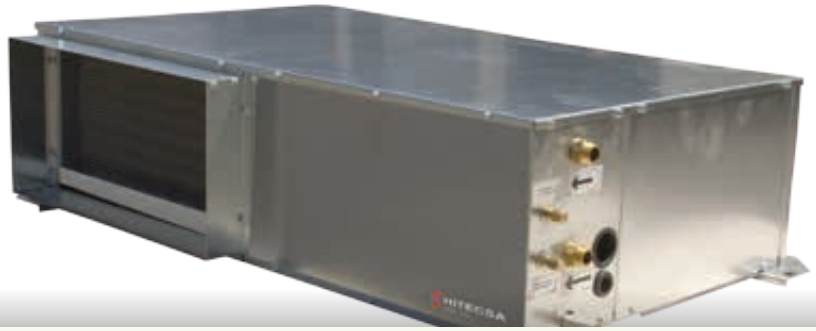
Capacities kW: 2 | 5 | 8 | 13 | 16 | 25 | 30 | 40 | 65 | 95 | 120 | 132

Cooling only

WCHZ		Compact configuration | Horizontal | Coaxial exchanger — R407C
WCVZ		Compact configuration | Vertical | Coaxial exchanger — R407C
WPHA VERNE		Compact configuration | Horizontal | Plate exchanger — R410A
WPVZ		Compact configuration | Vertical | Plate exchanger — R407C

Heat pump

MINI WCBZ		Compact configuration | Horizontal | Coaxial exchanger — R407C
WCHBZ		Compact configuration | Horizontal | Coaxial exchanger — R407C
WCVBZ		Compact configuration | Vertical | Coaxial exchanger — R407C
WPHBA VERNE		Compact configuration | Horizontal | Plate exchanger — R410A
WPVBZ		Compact configuration | Vertical | Plate exchanger — R407C



NEW

MINI WCBZ

Heat pump

COMPACT CONFIGURATION
Horizontal | Coaxial

25cm-high ultracompact solution for installations via energy loop

Autonomous horizontal ultracompact units with water condensation, especially designed for installations in small spaces.

MAIN FEATURES

- Maximum cooling capacities from 1.9 to 3.0 kW
- Maximum heating capacities from 2.7 to 3.6 kW
- R407C refrigerant
- Functions:
  - Cooling mode and heat pump
  - Cooling only mode
  - Cooling and heat pump mode or heating via electric heater
  - Cooling and heating mode via electric heater
- Configurations: horizontal air inlet / outlet

ADVANTAGES

- Low height, 250 mm
- Robust water coaxial exchanger
- Wide operational range from +9 ºC to 49 ºC
- High energy performance with EC motor and high COP/EER
- Discharge coil which makes it unnecessary to install an oversized siphon
- Electronic regulation with ModBus communication
- Easy access to components thanks to the removable panels
- Flexible configuration, both aeraulic and hydraulic, which allows to easily replace R22 units already installed
- Compressor acoustic insulation, assembled over some vibration absorbers for optimum acoustic comfort
- Condensate drip tray with anti-corrosion treatment

AVAILABLE VERSIONS

- Heat pump

CONTROL

Standard controller:
TH TUNE

Option:
PGD

See control and adjustment on page 200.

OPTIONS AVAILABLE

- Two-stage electric heater
- General alarm dry contact
- Main isolator
- Return sensor (compulsory with PGD control)
- Differential pressure switch

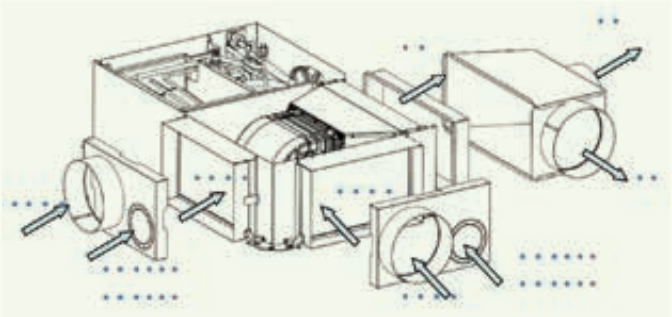
MAIN ACCESSORIES

- Open/close water valve
- Supervision PGD mini-plant
- G2/M1 filter
- Discharge plenum for front or side air
- Outside air intake.

Coaxial exchanger

Horizontal compressor > low profile

Flexibility of configuration



OPERATING LIMITS *Standard model*

Water inlet temperature	Cooling	Min.	18 ºC
		Max.	49 ºC
	Heating	Min.	9 ºC
		Max.	32 ºC
Air return temperature	Cooling	Min.	21 ºC (dry bulb) / 15 ºC (wet bulb)
		Max.	32 ºC (dry bulb) / 23 ºC (wet bulb)
	Heating	Min.	15 ºC
		Max.	25 ºC
Maximum operating hydraulic pressure			31 bars

MINI WCBZ SERIES *Heat pump*

MODEL		2000	2500	3000
CAPACITIES				
Total cooling capacity (1)	W	2,057	2,405	2,983
Sensible cooling capacity (1)	W	1,686	1,983	2,346
Heating capacity (1)	W	2,706	2,997	3,558
PERFORMANCE				
COP (1)		4.12	4.17	4.3
EER (1)		3.88	4.13	3.85
VENTILATION				
Nominal airflow	m^3/h - Pa	452	503	605
Number of air filters / Efficiency		1 / G2	1 / G2	1 / G2
Dimensions / Air filter thickness	mm	225 x 365 x 20	225 x 365 x 20	225 x 365 x 20
HYDRONIC CIRCUIT				
Nominal water flow	l/s	0.116	0.127	0.173
Minimum operating flow vs nominal water flow (2)	%	43	39	29
Nominal water flow PDC	kPa	11	13	23
Nominal water flow PDC with valve	kPa	27	30	44
Hydronic connection	inches		Male type ISO 1/2' INT	
Condensates outlet – Ø outside	mm	16	16	16
ELECTRICITY:				
Power supply	V/Ph/Hz	230 / 1 / 50	230 / 1 / 50	230 / 1 / 50
Power input – Cooling mode (3)	W	595	648	879
Power input – Heating mode (3)	W	722	785	932
Electric heating (4)	W	1,200	1,600	2,000
Maximum fan current	A	0.85	0.85	1.4
Nominal compressor current	A	2.8	3	4
Starting compressor current	A	16	16	18.9
NOISE LEVELS				
Return sound level + radiation (5)	dB(A)	55/57/59	56/58/60	56/58/62
Discharge sound level (5)	dB(A)	53/55/56	54/56/58	58/61/65
Sound pressure (6)	dB(A)	34/36/38	35/37/39	37/40/44
NR (6)	dB(A)	30/32/34	31/34/36	34/37/42
DIMENSIONS				
Length x width x height	mm	900 x 530 x 250	900 x 530 x 250	900 x 530 x 250
NET WEIGHT				
Unit weight	Kg	51	51	51

(1) Performance indicated according to the following nominal conditions: cooling mode: Air temp. = 27 ºC, Water temp. = 30 ºC; Heating mode: Air temp. = 20 ºC, Water temp. = 20 ºC.

(2) Protection via a flow switch (accessory).

(3) Power input according to the following nominal conditions (compressor + fan at high speed).

(4) Heating with electric coil available.

(5) Sound level at 50 Pa of static pressure at high speed including air filter.

(6) Sound level considering a decrease of 21 dB acoustic of the installation.

WCHBZ
Heat pump

WCHZ
Cooling only

COMPACT CONFIGURATION
Horizontal | Coaxial

Robust and adaptable solutions for installations with an energy loop

Autonomous compact horizontal units equipped with a water-cooled coaxial condenser, suitable for connection to a duct distribution network.

MAIN FEATURES

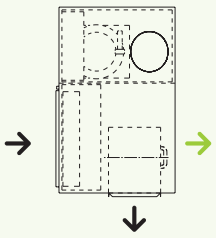
- Maximum cooling capacities ranging from 6.4 to 25.1 kW
- Coaxial condenser
- Airflows up to 4,600 m³/h

AVAILABLE VERSIONS

- Heat pump
- Cooling only

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

→ Standard
→ Option



ADVANTAGES

- Efficient when running with dirty circuit.
- Easy access for maintenance inside the unit
- Reduced dimensions
- The design and layout of the components offers high versatility to adapt to each type of installation

CONTROLLER

Standard controller:
SUPER SI 24V

Option:
DSX@

See regulation and control on page 200.

APPLICATIONS

Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

Shopping centres, housing, offices and commercial premises. Climate control for boats (inquire)

WCHBZ SERIES *Heat pump*

MODEL		201	251	351	401	501
Nominal cooling capacity (1)	kW	6.0	8.1	11.1	13.0	16.5
Nominal heating capacity (2)	kW	6.9	9.1	12.6	16.0	19.6
Total power input, cooling (1)	kW	1.9	2.6	3.4	4.3	5.1
Total power input, heating (2)	kW	1.8	2.5	3.2	4.2	5.0
Power supply (50 Hz ~)	V	230.1	230.1 or 400.3+N	230.1-230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N
Airflow - static pressure	m^3/h - Pa	1,500 - 58	2,000 - 55	2,300 - 86	2,400 - 94	3,500 - 70
Water connections	Ø (")	1/2	1/2	1/2	3/4	3/4
Dimensions (length x width x height)	mm	1,080 x 675 x 484	1,200 x 750 x 484	1,200 x 750 x 484	1,280 x 850 x 542	1,400 x 900 x 542
Net weight	Kg	104	130	130	160	185

WCHZ SERIES *Cooling only*

MODEL		201	251	271	351	401
Nominal cooling capacity (1)	kW	6.4	8.1	9.0	11.3	13.4
Total power input, cooling (1)	kW	2.1	2.7	2.7	3.3	4.4
Power supply (50 Hz ~)	V	230.1	230.1	230.1 or 400.3+N	230.1- 230.3 or 400.3+N	230.3 or 400.3+N
Airflow - static pressure	m^3/h - Pa	1,500 - 58	1,600 - 55	2,000 - 77	2,300 - 86	2,400 - 94
Water connections	Ø (")	1/2	1/2	1/2	1/2	3/4
Dimensions (length x width x height)	mm	990 x 520 x 425	1,080 x 657 x 484	1,200 x 750 x 484	1,200 x 750 x 484	1,280 x 850 x 542
Net weight	Kg	87	104	123	130	147

MODEL		501	701	721	751
Nominal cooling capacity (1)	kW	16.6	20.6	22.2	25.1
Total power input, cooling (1)	kW	5.2	6.6	6.2	7.7
Power supply (50 Hz ~)	V	230.3 or 400.3+N	400.3+N	230.3 or 400.3+N	230.3 or 400.3+N
Airflow - static pressure	m^3/h - Pa	3,500 - 70	4,300 - 80	4,500 - 75	4,600 - 120
Water connections	Ø (")	3/4	1	1	1
Dimensions (length x width x height)	mm	1,400 x 900 x 542	1,600 x 1,030 x 630	1,600 x 1,030 x 630	1,600 x 1,030 x 630
Net weight	Kg	160	240	259	259

(1) Dry air temperature 27 ºC. Indoor wet air temperature 19 ºC. Water inlet temperature 30 ºC, Water outlet 35 ºC.
(2) Dry air temperature 20 ºC. Indoor wet air temperature 14 ºC. Air inlet temperature 16 ºC.

OPTIONS AVAILABLE

ENERGY SAVING

- Option of mixing module for freecooling with two and three dampers (depending on models)
- Thermal or enthalpy regulation with µPC control card and PGD control
- Compressor soft-start (depending on models)
- Fan soft-start (depending on models)
- EC radial indoor fan (depending on models)

AIR QUALITY

- Gravimetric filter in return G4
- Return F6 to F9 opacimetric filter (combinable with a G4 or Fx+Fy)

NOISE LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation in compressor

UNIT INSTALLATION

- Differential pressure switch
- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc.
- Kit for installation outdoor
- Upgraded motors
- Anti-freeze trace heater in drip tray
- Hot gas bypass
- Pressostatic water valve
- Reverse intake or discharge
- Base guides
- Heating coils for hot water
- Electric heater for auxiliary electric heating
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Anti-corrosion pre-treated coils
- Seawater condenser
- Without water condenser

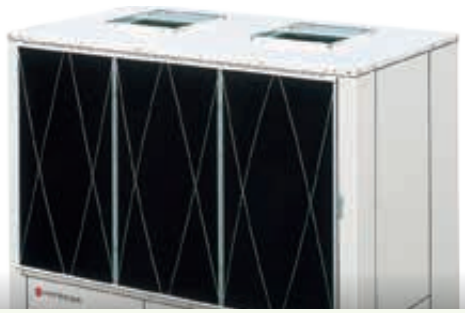
MAINTENANCE

- Service valves
- Outside pressure connections
- Dirty filter sensor
- Split filter
- Pressure gauges

CONTROLLER AND ADJUSTMENT

- PGD thermostat
- DSX@ thermostat
- Alarm indication
- Smoke detection
- Remote run/stop
- Separate electrical panel
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant machine
- Centralised integrated management operation
- Operation without neutral
- Scheduling function and ModBus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.



WCVBZ
Heat pump
WCVZ
Cooling only

COMPACT CONFIGURATION
Vertical | Coaxial

Robust and adaptable solutions for installations with an energy loop

Autonomous compact vertical units equipped with a water-cooled coaxial condenser, suitable for connection to a duct distribution network.

MAIN FEATURES

- Maximum cooling capacities ranging from 6 to 120 kW
- Coaxial condenser
- Airflows up to 21,500 m³/h

ADVANTAGES

- Efficient when running with dirty circuit.
- Easy access for maintenance inside the unit
- Reduced dimensions

AVAILABLE VERSIONS

- Heat pump
- Cooling only

CONTROLLER

Standard controller:
SUPER SI 24V

Option:
DSX@

See regulation and control on page 200.

APPLICATIONS

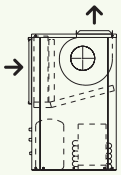
Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

Shopping centres, housing, offices and commercial premises.
Climate control for boats (inquire)

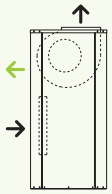
POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

→ standard
→ option

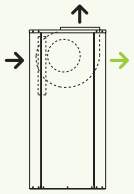
WCVBZ 201-351



WCVZ 201-751
WCVBZ 401



WCVZ 1001-3603



OPTIONS AVAILABLE

ENERGY SAVING

- Option of mixing module for freecooling with two and three dampers
- Thermal or enthalpy regulation with µPC control card and PGD control
- Compressor soft-start (depending on models)
- Fan soft-start (depending on models)
- EC radial indoor fan (depending on models)

AIR QUALITY

- Gravimetric filter in return G4
- Return F6 to F9 opacimetric filter (combinable with a G4 or Fx+Fy)

NOISE LEVEL

- Double thermo-acoustic insulation.
- Acoustic insulation in compressor

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc.
- Kit for installation outdoor
- Upgraded motors
- Anti-freeze trace heater in drip tray
- Hot gas bypass
- Pressostatic water valve
- More compact WCVSZ units
- WCVCZ units for heating swimming pools
- Heating coils for hot water (only WCVZ models – cooling only)
- Electric heater for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Front discharge (mod. 201/751)
- Rear discharge (mod. 1001/3603)
- Without water condenser
- Seawater condenser
- Without compressor
- Discharge plenum
- Intake grille
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Return filter
- Base guides
- Pressure gauges
- Differential pressure switch
- Prepared for disassembly

MAINTENANCE

- Service valves
- Outside pressure connections
- Dirty filter sensor
- Split filter

CONTROLLER AND ADJUSTMENT

- PGD thermostat
- DSX@ thermostat
- Alarm indication
- Smoke detection
- Remote run/stop
- Separate electrical panel
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant machine
- Centralised integrated management operation
- Operation without neutral
- Scheduling function and ModBus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.

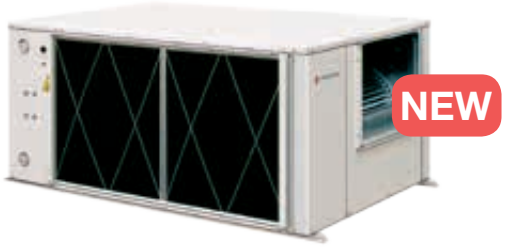
WCVBZ SERIES *Heat pump*

MODEL		201	251	351	401
Nominal cooling capacity (1)	kW	6	8.1	11	13
Nominal heating capacity (2)	kW	6.9	9.1	12.6	16
Total power input, cooling (1)	kW	1.8	2.5	3.3	3.8
Total power input, heating (2)	kW	1.8	2.4	3.2	3.8
Power supply (50 Hz ~)	V	230.1	230.1 or 400.3+N	230.1-230.3 or 400.3+N	230.3 or 400.3+N
Water connections	Ø (")	1/2	1/2	1/2	1/2
Airflow - static pressure	m^3/h - Pa	1,500 - 58	2,000 - 55	2,300 - 86	2,400 - 94
Dimensions (length x width x height)	mm	601 x 625 x 1,000	601 x 625 x 1,000	601 x 625 x 1,000	780 x 550 x 1,350
Net weight	Kg	105	134	141	165

WCVZ SERIES *Cooling only*

MODEL		201	251	271	351	401	501
Nominal cooling capacity (1)	kW	6.4	8.1	9.0	11.9	13.4	16.6
Total power input, cooling (1)	kW	1.7	2.1	2.3	3.3	3.5	4.5
Power supply (50 Hz ~)	V	230.1	230.1	230.1 or 400.3+N	230.1-230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N
Airflow - static pressure	m^3/h - Pa	1,500 - 58	2,000 - 55	2,000 - 77	2,300 - 86	2,400 - 94	3,500 - 70
Water connections	Ø (")	1/2	1/2	1/2	1/2	1/2	3/4
Dimensions (length x width x height)	mm	628 x 440 x 1,060	720 x 550 x 1,200	720 x 550 x 1,200	720 x 550 x 1,200	780 x 550 x 1,350	1,140 x 600 x 1,700
Net weight	Kg	105	134	134	141	160	245
MODEL		**701**	**721**	**751**	**1001**	**1201**	**1002**
Nominal cooling capacity (1)	kW	20.6	23.0	25.1	35.4	40.5	35.6
Total power input, cooling (1)	kW	5.4	5.9	6.3	9.8	11.2	9.7
Power supply (50 Hz ~)	V	400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N
Airflow - static pressure	m^3/h - Pa	4,300 - 80	4,500 - 75	4,800 - 100	7,400 - 70	8,200 - 80	7,300 - 87
Water connections	Ø (")	1	1	1	2	2	2
Dimensions (length x width x height)	mm	1,140 x 600 x 1,700	1,140 x 600 x 1,700	1,140 x 600 x 1,700	1,700 x 870 x 1,600	1,700 x 870 x 1,600	1,700 x 870 x 1,600
Net weight	Kg	252	252	258	445	472	470
MODEL		**1402**	**1502**	**2002**	**2402**	**3003**	**3603**
Nominal cooling capacity (1)	kW	41.2	50.2	70.8	81.0	105.0	120.0
Total power input, cooling (1)	kW	11.3	13.7	19.7	22.4	28.9	33.3
Power supply (50 Hz ~)	V	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N
Airflow - static pressure	m^3/h - Pa	8,200 - 80	9,000 - 110	11,000 - 190	12,000 - 190	18,000 - 270	21,500 - 190
Water connections	Ø (")	2	2	2	2	2	2
Dimensions (length x width x height)	mm	1,700 x 870 x 1,600	1,700 x 870 x 1,600	1,700 x 980 x 1,950	1,700 x 980 x 1,950	2,307 x 1,157 x 2,062	2,307 x 1,157 x 2,062
Net weight	Kg	515	525	645	706	968	1,060

(1) Dry air temperature 27 ºC. Indoor wet air temperature 19 ºC. Water inlet temperature 30 ºC, Water outlet 35 ºC.
(2) Dry air temperature 20 ºC. Indoor wet air temperature 14 ºC. Air inlet temperature 16 ºC.



WPHBA
Heat pump

WPHA
Cooling only

VERNE
WATER-AIR SERIESB Y HITECSA

COMPACT CONFIGURATION
Horizontal | Plates

Robust and adaptable solutions for installations with an energy loop

Autonomous horizontal units with water refrigerated plate condensers, suitable for operating connected to a duct air distribution network.

MAIN FEATURES

- Cooling capacities ranging from 2.4 to 41 kW
- Plate condenser
- Airflow up to 7,000 m^3/h
- Plate heat exchanger
- Scroll compressors (from model 351)
- Centrifugal fans with built-in motor from model 091 up to model 401
- R-410A refrigerant
- Thermal insulation M1
- Fireproof filter M1

ADVANTAGES

- High energy performance
- Compact and resistant construction
- Easy access for maintenance inside the unit
- The design and layout of the components offers high versatility to adapt to each type of installation

AVAILABLE VERSIONS

- Heat pump
- Cooling only

CONTROLLER

Standard controller:
SUPER SI 24V

Option:
DSX@

See regulation and control on page 200.

APPLICATIONS

Discreet solution for centralised installations with closed water loop. Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

Shopping centres, housing, offices and commercial premises.

WPHBA / WPHA SERIES

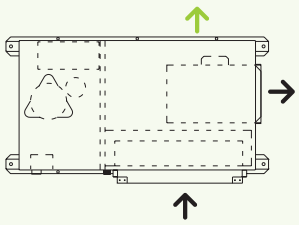
MODEL		091	121	141	171
Nominal cooling capacity (1)	kW	2.44	3.26	3.93	4.86
Nominal heating capacity (2)	kW	2.83	3.87	4.72	5.56
Total power input, cooling (1)	kW	0.72	0.97	1.12	1.14
Total power input, heating (2)	kW	0.78	1.05	1.31	1.26
Power supply (50 Hz ~)	V	230.1	230.1	230.1	230.1
Airflow - static pressure	m^3/h - Pa	500 - 25	600 - 25	700 - 54	900 - 25
Water flow	m^3/h	0.50	0.68	0.83	0.99
Thread water connections GAS	Ø (")	3/4	3/4	3/4	3/4
Dimensions (length x width x height)	mm	1,055 x 560 x 410	1,055 x 560 x 410	1,055 x 560 x 410	1,055 x 560 x 470
Net weight	Kg	60	62	65	75
MODEL		**201**	**251**	**351**	**401**
Nominal cooling capacity (1)	kW	5.91	7.55	11.50	13.30
Nominal heating capacity (2)	kW	7.11	9.23	14.15	16.36
Total power input, cooling (1)	kW	1.58	1.84	2.87	3.31
Total power input, heating (2)	kW	1.79	1.86	3.10	3.60
Power supply (50 Hz ~)	V	230.1	230.1	400.3+N	400.3+N
Airflow - static pressure	m^3/h - Pa	1,100 - 25	1,500 - 37	2,000 - 37	2,300 - 60
Water flow	m^3/h	1.23	1.56	2.41	2.78
Thread water connections GAS	Ø (")	3/4	3/4	3/4	3/4
Dimensions (length x width x height)	mm	1,055 x 560 x 470	1,135 x 670 x 530	1,135 x 670 x 530	1,135 x 670 x 530
Net weight	Kg	77	90	110	115
MODEL		**501**	**701**	**751**	**1001**	**1201**
Nominal cooling capacity (1)	kW	16.90	20.36	25.93	35.40	41.06
Nominal heating capacity (2)	kW	18.89	23.07	30.60	39.82	46.41
Total power input, cooling (1)	kW	3.37	4.26	5.85	7.52	8.90
Total power input, heating (2)	kW	3.96	4.94	7.01	8.37	10.10
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Airflow - static pressure	m^3/h - Pa	2,800 - 50	3,400 - 50	4,300 - 62	6,200 - 75	7,000 - 75
Water flow	m^3/h	3.41	4.13	5.32	7.18	8.39
Thread water connections GAS	Ø (")	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
Dimensions (length x width x height)	mm	1,385 x 940 x 620	1,385 x 940 x 620	1,385 x 940 x 620	1,930 x 1040 x 690	1,930 x 1,040 x 690
Net weight	Kg	160	160	180	230	250

(1) Dry air temperature 27 ºC. Dry air temperature 19 ºC. Water inlet temperature 30 ºC, Water outlet 35 ºC.
(2) Dry air temperature 20 ºC. Indoor wet air temperature 14 ºC. Air inlet temperature 20 ºC.

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

→ standard

→ option



OPTIONS AVAILABLE

ENERGY SAVING

- Compressor soft-start (depending on models)
- Fan soft-start (depending on models)
- EC radial indoor fan (depending on models)

AIR QUALITY

- Gravimetric filter in return G4
- Return F6 to F9 opacimetric filter

NOISE LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation in compressor

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc.
- Rear air discharge
- Water shut-off electric valves
- Kit for outdoor installation (upon request)
- Thermal insulation Euroclass A1 (M0)
- Upgraded motors
- Pressostatic water valve
- Back-up coils for hot water
- Electric heater for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Flow switch

MAINTENANCE

- Service valves
- Outside pressure connections

CONTROLLER AND ADJUSTMENT

- DSX@ thermostat (24 V)
- Remote run/stop
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation without neutral
- Scheduling function and ModBus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.

WPVBZ
Heat pump

WPVZ
Cooling only

COMPACT CONFIGURATION
Vertical | Plates

Robust and adaptable solutions for installations with an energy loop

Autonomous vertical units equipped with water-cooled plate heat exchangers (one or two depending on the model), suitable for connection to a network of air distribution ducts.

MAIN FEATURES

- Cooling capacities ranging from 8.1 to 132 kW
- Plate condenser
- Airflow up to 21,500 m^3/h

ADVANTAGES

- Easy access for maintenance inside the unit

AVAILABLE VERSIONS

- Heat pump
- Cooling only

CONTROLLER

Standard controller:
SUPER SI 24V

Option:
DSX@

See regulation and control on page 200.

APPLICATIONS

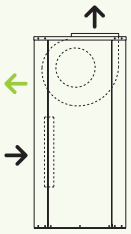
Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

Shopping centres, housing, offices and commercial premises. Climate control for boats (inquire)

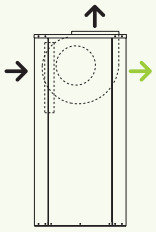
POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

→ standard → option

WPVZ 201-751



WPVZ/BZ 1001-4002



OPTIONS AVAILABLE

ENERGY SAVING

- Option of mixing module for freecooling with two and three dampers
- Thermal or enthalpy regulation with µPC control card and PGD control
- Compressor soft-start (depending on models)
- Fan soft-start (depending on models)
- EC radial fan (depending on models)

AIR QUALITY

- Gravimetric filter in return G4
- Return F6 to F9 opacimetric filter (combinable with a G4 or Fx+Fy)

NOISE LEVEL

- Double thermo-acoustic insulation
- Acoustic insulation in compressor

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230, 208, etc.
- Option of manufacturing units with symmetric configuration
- Kit for installation outdoor
- Upgraded motors
- Thermo-acoustic insulation class M0
- Return filter
- Differential pressure switch
- Intake grille
- Without water condenser
- Pressostatic water valve
- Rear discharge (mod. 1001-4002)
- Front discharge (mod. 201-751)
- Discharge plenum
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Hot gas bypass
- Heating coils for hot water
- Electric heater for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Prepared for disassembly

MAINTENANCE

- Service valves
- Outside pressure connections
- Dirty filter sensor
- Split filter

CONTROLLER AND ADJUSTMENT

- PGD thermostat
- DSX@ thermostat (24 V)
- Alarm indication
- Smoke detection
- Remote run/stop
- Separate electrical panel
- Option for master-slave operation
- Unit without thermostat
- Ambient temperature or wall-mounted sensor
- Return temperature sensor in duct
- Operation for redundant machine
- Centralised integrated management operation
- Operation without neutral
- Scheduling function and ModBus connection, etc. (refer to the Thermostats chapter)

On top of these options, if you don't find yours please consult our Sales Department.

WPVBZ / WPVZ SERIES

MODEL		251	351	401	501
Nominal cooling capacity (1)	kW	8.1	11.9	13.4	16.6
Nominal heating capacity (2)	kW	9.6	14.0	15.8	19.6
Total power input, cooling (1)	kW	2.5	3.7	4.3	4.8
Total power input, heating (2)	kW	2.57	3.8	4.49	4.9
Power supply (50 Hz ~)	V	230.1	230.1 or 400.3+N	400.3+N	400.3+N
Airflow - static pressure	m^3/h - Pa	2,000 - 55	2,300 - 86	2,400 - 94	3,500 - 70
Water connections	Ø (")	3/4	1	1	1 1/4
Dimensions (length x width x height)	mm	720 x 650 x 1,230	720 x 650 x 1,230	780 x 650 x 1,380	1,140 x 700 x 1,730
Net weight	Kg	139	146	166	251

MODEL		701	751	1001	1201
Nominal cooling capacity (1)	kW	21.0	25.5	35.4	42.0
Nominal heating capacity (2)	kW	24.8	30.1	41.8	49.6
Total power input, cooling (1)	kW	6.4	8.3	11.0	13.4
Total power input, heating (2)	kW	6.6	8.6	11.3	13.8
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N
Airflow - static pressure	m^3/h - Pa	4,300 - 80	4,800 - 100	7,400 - 70	8,200 - 80
Water connections	Ø (")	1 1/4	1 1/2	1 1/2	1 1/2
Dimensions (length x width x height)	mm	1,140 x 700 x 1,730	1,140 x 700 x 1,730	1,790 x 870 x 1,630	1,790 x 870 x 1,630
Net weight	Kg	258	265	450	478

MODEL		1501	2002	2402	3002	4002
Nominal cooling capacity (1)	kW	54.0	70.8	84.0	108.0	132.0
Nominal heating capacity (2)	kW	63.7	83.5	99.1	127.4	155.8
Total power input, cooling (1)	kW	15.9	22.6	26.5	35.0	43.0
Total power input, heating (2)	kW	16.4	23.3	27.3	36.0	44.3
Power supply (50 Hz ~)	V	400.3+N	400.3+N	400.3+N	400.3+N	400.3+N
Airflow - static pressure	m^3/h - Pa	9,000 - 110	11,000 - 190	12,000 - 190	18,000 - 270	21,500 - 190
Water connections	Ø (")	2	1 1/2	1 1/2	2	2
Dimensions (length x width x height)	mm	1,790 x 870 x 1,630	1,790 x 980 x 1,980	1,790 x 980 x 1,980	2,404 x 1,157 x 2,092	2,404 x 1,157 x 2,092
Net weight	Kg	515	650	711	973	1,065

(1) Dry air temperature 27 ºC. Indoor wet air temperature 19 ºC. Water inlet temperature 30 ºC, Water outlet 35 ºC.
(2) Dry air temperature 20 ºC. Indoor wet air temperature 14 ºC. Air inlet temperature 16 ºC.

Water-chilling units

HITECSA
COOL AIR

WATER-CHILLERS FOR ALL TYPES OF APPLICATIONS

Hitecsa was founded in 1982. From that date and up to now, product development has been a constant feature for the company.

This process made us evolve from being the market leader in the manufacture of autonomous equipment to being a reference for air-water units.

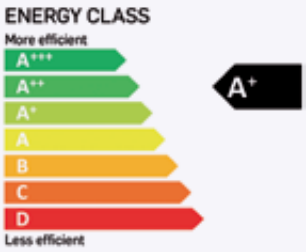
CONSTANTS/FRAMEWORK/CRITERION

- ENVIRONMENT AND ENERGY SAVINGS

  We can include A & A+ units in our catalogue, available upon request. Our units are exclusively made of materials which can be recycled at the end of their working life.

- ORIGINALITY

  Our R+D team is constantly surprising us with the development of new and innovative projects which, in many cases, anticipate market needs.



AIR-COOLED WATER UNITS:

We have all possible variations, from the 22 kW with EKWXBA to the 1,583 kW of EQSFA.

Condensation fans with EC motors which adapt their flow in order to maintain accurate condensing pressure, allowing them to be ducted which, in special cases, do not allow outdoor discharge.

Also important are the units for indoor installation, which include **plugfans** and may have up to 700 Pa for ducts and grilles.

Freecooling and partial and total heat recovery systems, make our units a reference model for energy savings.

For industrial processes, we can incorporate **shell & tube exchangers** in our units for working in open systems.

WATER-WATER UNITS:

Offering **compact sizes** essential for the replacement of existing units.

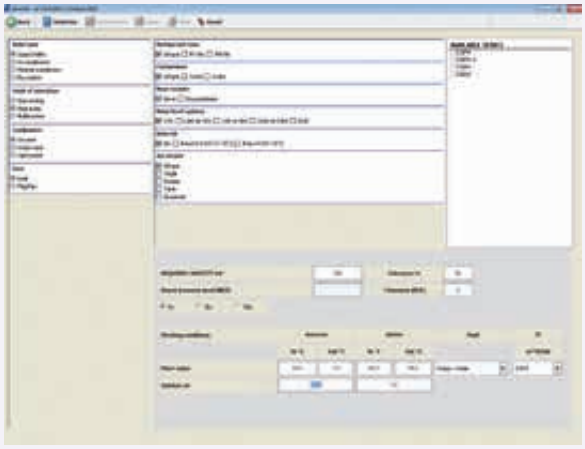
Incorporating the appropriate technology to connect to alternative energy sources, like geothermal systems.

By combining geothermal systems with heat-recovery units we can produce units which offer maximum energy savings thanks to combination of climate-control and DHW.

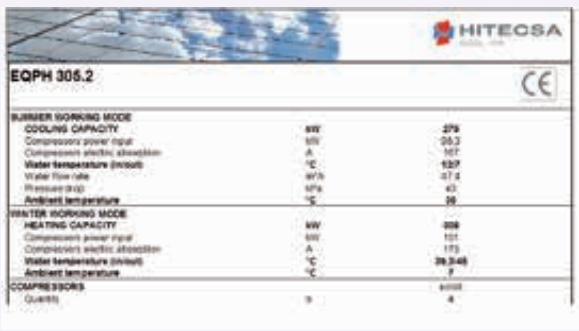
SELECTION SOFTWARE FOR WATER-CHILLERS

When our clients require solutions that are out of the standard ranges, we can help...

The solution is called eCHILL 400.2. This advanced software allows our sales engineers to explain the features of a chiller at any working point, within the limits of the machine.



By using filters, such as the ones for the required capacity depending on outdoor temperature, water inlet and outlet or even noise level, we can select the appropriate unit and options and provide you with the perfect solution for your needs.



We never improvise; we make all calculations according to your needs; we optimise, select and cooperate with our clients.

We are a specialist in customised solution

Water chillers Air-cooled

Capacities kW: 5 | 20 | 30 | 40 | 50 | 70 | 90 | 100 | 150 | 200 | 270 | 300

Cooling only

MINI KRONO 2 - EKWXA scroll	KRONO	 1 circuit | Scroll compressor | Axial R-410A
KRONO 2 - EKWXA scroll	KRONO	 1 circuit | Scroll compressors | Axial R-410A
EQUL scroll	ADVANCE	 1 and 2 circuits | Scroll compressors | Axial R-410A
EQUL PF scroll	ADVANCE	 1 and 2 circuits | Scroll compressors | Plugfans | Ducts R-410A
EQPLU scroll	ADVANCE	 1 and 2 circuits | Scroll compressors |
EQPL scroll	ADVANCE	 2, 3 a
EQSL (EQSLA) screw	ADVANCE	 2 circu

Heat pump

MINI KRONO 2 - EKWBXA scroll	KRONO	 1 circuit | Scroll compressor | Axial R-410A
KRONO 2 - EKWXBA scroll	KRONO	 1 circuit | Scroll compressors - Axial R-410A
EQUH scroll	ADVANCE	 1 and 2 circuits | Scroll compressors | Axial R-410A
EQUH PF scroll	ADVANCE	 1 and 2 circuits | Scroll compressors | Plugfans | Ducts R-410A
EQPHU scroll	ADVANCE	 2 circuits | Scroll compressors | Axial
EQPH scroll	ADVANCE	 2, 3 and 4 circu

Freecooling

EQMF scroll	ADVANCE	 1 and 2 circuits | Scroll compressors | Axial - Freecooling R-410A
EQMF PF scroll	ADVANCE	 1 and 2 circuits | Scroll compressors | Plugfans | Ducts | Freecooling R-410A
EQEF scroll	ADVANCE	 1 and 2 circuits | Scroll compressors | Axial | Freecooling
EQSFA screw	ADVANCE	 2 ci

Water chillers Water-cooled

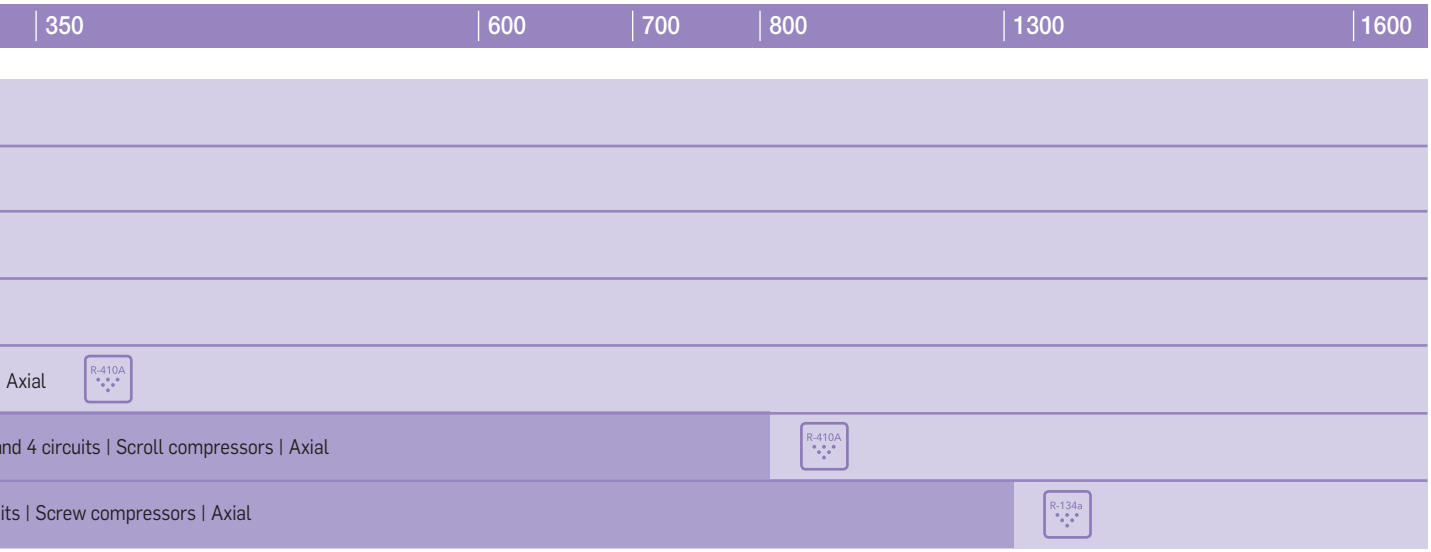
Capacities kW: 5 | 20 | 30 | 40 | 50 | 70 | 90 | 100 | 150 | 200 | 270 | 300

Cooling only

EWNL scroll	ADVANCE	 1 circuit | Scroll compressor R-410A
EWML EVO scroll	ADVANCE	 1 and 2 circuits | Scroll compressors

Heat pump

EWNH scroll	ADVANCE	 1 circuit | Scroll compressor R-410A
EWMH scroll	ADVANCE	 1 and 2 circuits | Scroll compressors


350
600
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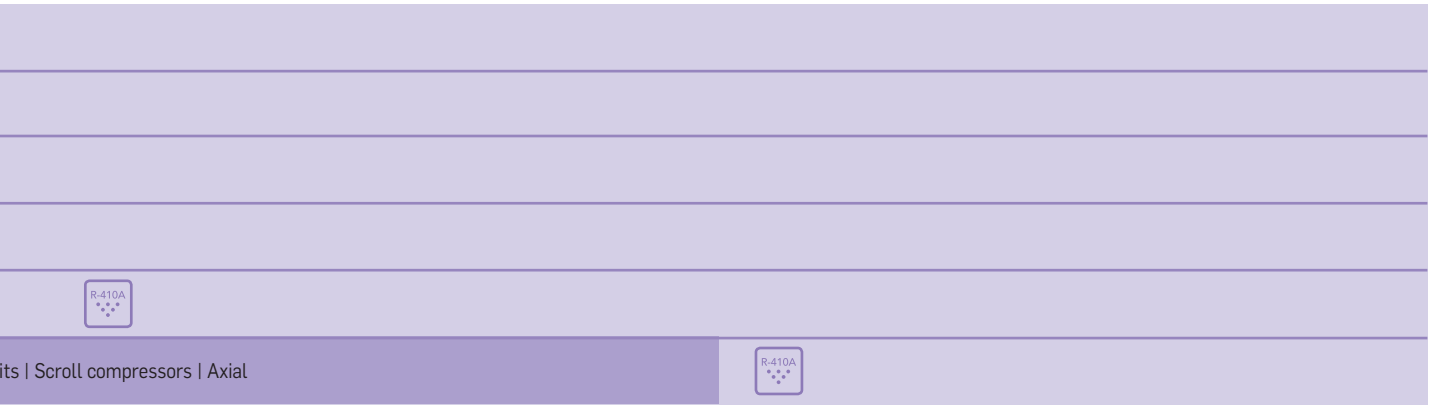
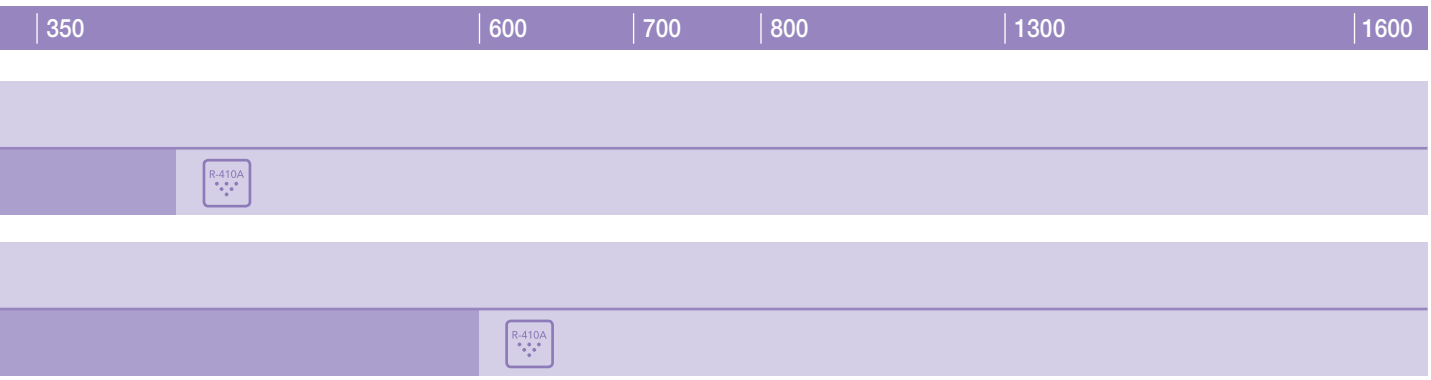
Axial
R-410A
nd 4 circuits | Scroll compressors | Axial
R-410A
its | Screw compressors | Axial
R-134a


R-410A
its | Scroll compressors | Axial
R-410A


R-410A
rcuits | Screw compressors | Axial | Class A | Freecooling
R-134a


350
600
700
800
1300
1600
R-410A
R-410A

EKWXBA
Heat pump

EKWXA
Cooling only

MINI KRONO²
CHILLER SERIES BY HITECSA

AIR-COOLED WATER CHILLERS < 40 kW
Axial fans

Maximum versatility with ultra-compact units

Compact chillers designed to be installed outdoor, either on terraces or on the ground.

MAIN FEATURES

- Cooling capacities ranging from 22.4 to 38.7 kW
- Heating capacities ranging from 25 to 40.3 kW
- R-410A refrigerant
- EER: up to 3.10
- COP: up to 3.21
- Scroll-type compressor for the whole range
- Option for integrated hydraulic kit
- A single cooling circuit with a scroll compressor
- Cooling condensation control and evaporation control in the heat pump by means of a two-speed fan
- Compatible with the Hydrofan system (option)
- Alarm indication signal
- Remote run/stop
- Second set point.

AVAILABLE VERSIONS

- Heat pump
- Cooling only

ADVANTAGES

- High energy efficiency
- Multiple possible configuration and accessories
- Ultra-compact units with optional hydraulic kit included in the unit
- Units will be delivered completely finished and tested, with the appropriate load of R-410A refrigerant for their correct operation

APPLICATIONS

- Compact units designed to be installed outdoor, either on roofs, terraces or on the ground
- Their multiple acoustic possible configuration and the option of incorporating the hydraulic kit offers great installation and operating versatility and can be adapted to each specific project

CONTROLLER

Standard controller: **LCX**

See regulation and control on page 200.

EKWXBA/EKWXA SERIES

MODEL		801.1	1001.1	1201.1	1501.1
COOLING MODE					
COOLING CAPACITY	kW	22.4	26.3	30.4	38.7
Compressor absorbed power	kW	5.8	7.6	7.9	11.5
Nominal compressor amps	A	14.9	15.9	18	23
Water temperature (inlet)	ºC	12	12	12	12
Water temperature (outlet)	ºC	7	7	7	7
Evaporator water flow	m^3/h	3.9	4.5	5.2	6.7
Evaporator pressure drop	Kpa	24.7	32.9	27.1	45
Outside air temperature	ºC	35	35	35	35
ENERGY EFFICIENCY RATES					
EER		3.1	2.92	3.1	2.89
HEATING MODE					
Heating Capacity	kW	25.2	29.3	33.7	40.3
Compressor absorbed power	kW	6.5	7.8	8.6	11.6
Nominal compressor amps	A	15	16.1	18.2	23.2
Water temperature (inlet)	ºC	39.4	39.4	39.5	39.8
Water temperature (outlet)	ºC	45	45	45	45
Outside air temperature	ºC	7	7	7	7
ENERGY EFFICIENCY RATES					
COP coefficient		3.21	3.2	3.2	2.99
REFRIGERANT					
Number of circuits		1	1	1	1
Gas type		R-410A	R-410A	R-410A	R-410A
Refrigerant charge (without options)	kg	8.2	8.4	9	9.2
COMPRESSORS					
Type		scroll	scroll	scroll	scroll
Number of compressors		1	1	1	1
Number of power stages		1	1	1	1
Max. running amps	A	18.7	20.1	23.1	29.3
Locked rotor amps	A	145	145	155	205
FANS					
Type		axial	axial	axial	axial
Number of fans		1	1	1	1
Nominal airflow	m^3/h	16,700	16,700	19,500	19,500
Absorbed power	kW	1.4	1.4	1.9	1.9
Nominal amps	A	2.9	2.9	3.5	3.5
EVAPORATOR					
Quantity		1	1	1	1
Water volume	l	2.3	2.9	3.4	3.4
Minimum water flow	m^3/h	2.4	2.8	3.3	4.2
Maximum water flow	m^3/h	6.4	7.5	8.7	11.1
Anti-freeze	%	0	0	0	0
Fouling factor	m^2 K/kW	0.044	0.044	0.044	0.044
ELECTRICAL WIRING					
Supply voltage	V/Hz-/Phase	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50	400 / 3 / 50
Nominal amps (cooling)	A	17.8	18.8	21.6	26.6
WATER CONNECTIONS					
Type		Groove - Victaulic type			
External diameter	(")	1 1/2	1 1/2	1 1/2	1 1/2
NOISE LEVEL					
Noise level	dB(A)	79.7	79.9	79.9	80.5
Sound pressure (5 m)	dB(A)	58.2	58.4	58.4	59.1
DIMENSIONS					
Length	mm	1,200	1,200	1,200	1,200
Width	mm	1,050	1,050	1,050	1,050
Height	mm	1,470	1,470	1,470	1,470
NET WEIGHT	kg	312	340	348	354

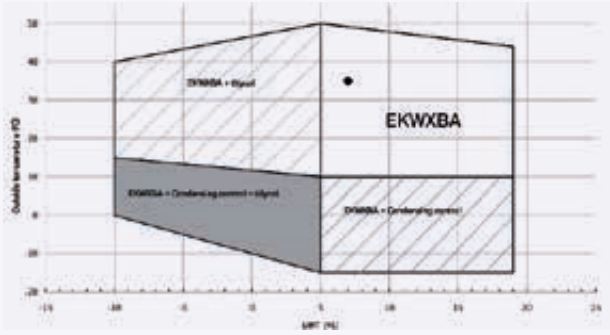
OPERATING LIMITS

The table below specifies the chiller running limits for the plate exchangers.

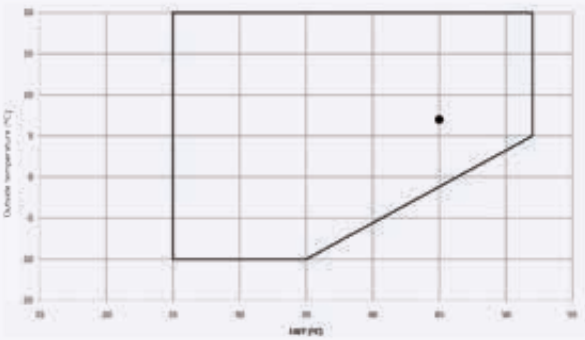
EKWXBA/EKWXA SERIES

OPERATING LIMITS		801.1	1001.1	1201.1	1501.1
Nominal water flow	m^3/h	3.9	4.5	5.2	6.7
Evaporator nominal pressure drop	Kpa	30	42	62	45
Minimum water flow	m^3/h	2.4	2.8	3.3	4.2
Maximum water flow	m^3/h	6.4	7.5	8.7	11.1
Minimum water volume	l	54	63	73	93
Water thermal expansion coefficient (7-50 ºC)	ºC	0.01233			
Water thermal expansion coefficient (7-55 ºC)	ºC	0.014554			
Maximum water volume (7-50 ºC)	ºC	619			
Maximum water volume (7-55 ºC)	ºC	525			

COOLING ONLY



HEAT PUMP



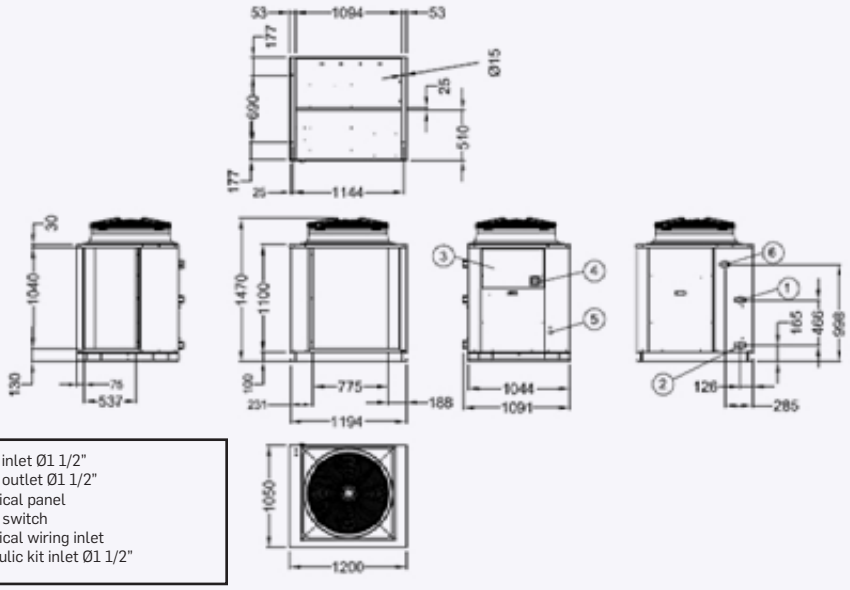
NOISE LEVELS | *Measured in free field, directivity 2 and at 1.5 metres from the ground.*

SOUND PRESSURE LEVELS dB(A)	801.1	1001.1	1201.1	1501.1
1 m	72.2	72.4	72.4	73.1
2 m	66.2	66.4	66.4	67
5 m	58.2	58.4	58.4	59.1
10 m	52.2	52.4	52.4	53.1

Note: the sound pressure level depends on the conditions of the installation and, therefore, is only given as a general indication. Values obtained according to standard ISO 3744.

DIMENSIONS

MODELS 801.1 - 1501.1



1. Water inlet Ø1 1/2"
2. Water outlet Ø1 1/2"
3. Electrical panel
4. Mains switch
5. Electrical wiring inlet
6. Hydraulic kit inlet Ø1 1/2"

EKWXBA
Heat pump
EKWXA
Cooling only

NEW

KRONO 2

AIR-COOLED WATER CHILLERS < 230 kW
Axial fans

Maximum versatility with medium capacity ultra-compact units

The KRONO 2 water-chillers are compact, designed to be installed outdoor, either on terraces or on the ground.

MAIN FEATURES

- Cooling capacities ranging from 48 to 227.7 kW
- Heating capacities ranging from 51 to 255.8 kW
- R-410A refrigerant
- EER: up to 3.13
- COP: up to 3.31
- Option for integrated hydraulic kit
- Scroll-type compressors specially designed to be applied on the heat pump
- A single cooling circuit with two scroll compressors in tandem assembly
- Cooling condensation control and evaporation control in the heat pump by means of two-speed fans
- Compatible with the Hydrofan system (option)
- Alarm indication signal
- Remote run/stop
- Second set point
- Scheduling function

ADVANTAGES

- High energy efficiency
- Multiple possible configuration and accessories
- Option of partial heat recovery system
- Ultra-compact units with optional hydraulic kit included in the unit
- Units will be delivered completely finished and tested, with the appropriate load of R-410A refrigerant for their correct operation

APPLICATIONS

- Compact units designed to be installed outdoor, either on roofs, terraces or on the ground.
- Their multiple acoustic possible configuration and the option of incorporating the hydraulic kit offers great installation and operating versatility and can be adapted to each specific project

AVAILABLE VERSIONS

- Heat pump
- Cooling only

CONTROLLER

Standard controller:

MCX

See regulation and control on page 200.

EKWXBA / EKWXA SERIES

MODEL		1601.2	2001.2	2401.2	2501.2	3001.2	3501.2	4001.2	4501.2	5002.4*	6002.4*	7002.4*	8002.4*	9002.4*
COOLING MODE														
COOLING CAPACITY	kW	48.1	53.7	68	71.4	77.4	98	110.8	120.2	136.9	149.2	189.4	211.6	227.7
Compressor absorbed power	kW	13.3	15.6	18.6	20.4	23.2	28.4	32.8	37.3	38.9	44.1	54	62.2	70.4
Nominal compressor amps	A	27	30.1	35.1	38.9	42.2	49.3	56.2	64.2	73.8	80.8	95.2	108	122.6
Water temperature (inlet)	ºC	12	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	ºC	7	7	7	7	7	7	7	7	7	7	7	7	7
Evaporator water flow	m^3/h	8.3	9.2	11.7	12.3	13.3	16.8	19	20.6	23.5	25.6	32.5	36.3	39.1
Evaporator pressure drop	Kpa	22.4	27.5	27.5	30.4	35.6	29.1	31.9	38.2	28.3	33.3	29.4	32.3	38.7
Outside air temperature	ºC	35	35	35	35	35	35	35	35	35	35	35	35	35
ENERGY EFFICIENCY RATES														
EER		2.96	2.9	3.03	2.95	2.9	3.07	2.98	2.88	3.02	2.96	3.13	3.01	2.90
HEATING MODE														
Heating Capacity	kW	51.1	57.8	71.3	75.7	83.1	108.3	122.5	133.2	143.2	157.6	201.9	233.7	255.8
Compressor absorbed power	kW	13.6	16	19.6	21.3	24.4	29	33.7	37.9	41.1	46.2	56.5	65.3	72.8
Nominal compressor amps	A	27.2	30.4	35.6	39.3	42.7	50.2	57.4	65	76.7	83.8	98.5	111.9	125.7
Water temperature (inlet)	ºC	39.7	39.6	39.8	39.7	39.6	39.5	39.5	39.5	39.7	39.7	39.6	39.4	39.3
Water temperature (outlet)	ºC	45	45	45	45	45	45	45	45	45	45	45	45	45
Outside air temperature	ºC	7	7	7	7	7	7	7	7	7	7	7	7	7
ENERGY EFFICIENCY RATES														
COP coefficient		3.09	3.05	3.04	3.01	2.94	3.31	3.22	3.15	2.94	2.93	3.17	3.15	3.13
REFRIGERANT														
Number of circuits		1	1	1	1	1	1	1	1	2	2	2	2	2
Gas type		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Refrigerant charge (without options)	kg	13	13.5	15.5	16	16.5	26	27	28.5	31.0	33.0	52.0	54.0	57.0
COMPRESSORS														
Type		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Number of compressors		2	2	2	2	2	2	2	2	4	4	4	4	4
Number of power stages		3	3	3	3	3	3	3	3	6	6	6	4	6
Max. running amps	A	15.3+18.7	15.3+23.1	20.1+25.3	20.1+29.3	25.3+29.3	30+40	40+40	40+47	119.2	130.2	156.2	178.2	196.6
Locked rotor amps	A	165	170	190	225	235	255	265	310	288.2	300.7	334.7	362.1	416.3
FANS														
Type		axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial	axial
Number of fans		2	2	2	2	2	2	3	3	4	4	4	6	6
Nominal airflow	m^3/h	33,200	33,200	38,700	38,700	38,700	46,000	52,700	52,700	94,300	94,300	91,100	104,700	104,700
Absorbed power (each fan)	kW	1.5	1.5	1.9	1.9	1.9	1.9	1.4	1.4	1.6	1.6	1.6	1.3	1.3
Nominal amps (each fan)	A	2.9	2.9	3.5	3.5	3.5	3.5	2.9	2.9	3.2	3.2	3.2	2.6	2.6
EVAPORATOR														
Quantity		1	1	1	1	1	1	1	1	2	2	2	2	2
Water volume	l	6	6	7	7	7	8.4	8.4	8.4	14	14	16.8	16.8	16.8
Minimum water flow	m^3/h	5.2	5.8	7.3	7.7	8.3	10.5	11.9	12.9	14.7	16.1	20.4	22.8	24.5
Maximum water flow	m^3/h	13.8	15.4	19.5	20.5	22.2	28.1	31.8	34.5	39.3	42.8	54.3	60.7	65.3
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044	0.044
ELECTRICAL WIRING														
Supply voltage	V/Hz-/ Phase	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50	400/3/ 50
Nominal amps (cooling)	A	32.8	35.9	42.3	46.1	49.4	56.5	64.9	72.9	86.3	93.3	107.7	123.6	138.2
WATER CONNECTIONS														
Type		Groove - Victaulic type												
External diameter	(")	2	2	2	2	2	2	2	2	2 1/2	2 1/2	3	3	3
NOISE LEVEL														
Noise level	dB(A)	82.6	82.7	83	83.2	83.3	86.2	87.4	87.4	86.2	86.3	89.2	90.5	90.5
Sound pressure (5 m)	dB(A)	61.1	61.3	61.5	61.7	61.8	64.8	65.9	65.9	64.7	64.8	67.8	69.0	69.0
DIMENSIONS														
Length	mm	2,215	2,215	2,215	2,215	2,215	3,200	3,200	3,200	3,200	3,200	3,200	3,200	3,200
Width	mm	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	2,250	2,250	2,250	2,250	2,250
Height	mm	1,510	1,510	1,510	1,510	1,510	2,150	2,150	2,150	2,150	2,150	2,150	2,150	2,150
NET WEIGHT	kg	540	543	597	599	606	950	952	997	1,476	1,486	1,720	1,753	1,759

* Next models: 5002.4, 6002.4, 7002.4, 8002.4 and 9002.4

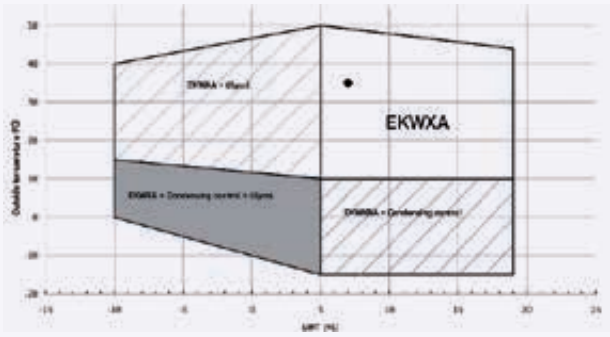
OPERATING LIMITS

The table below specifies the chiller running limits for the plate exchangers.

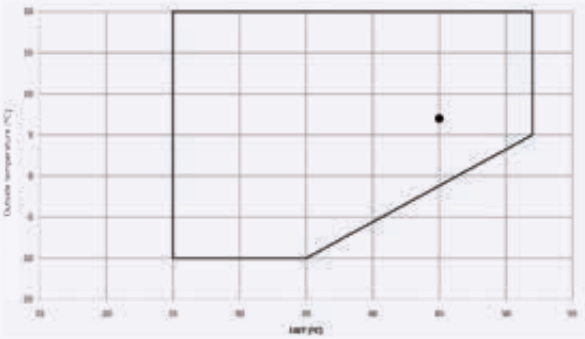
EKWXBA / EKWXA SERIES

OPERATING LIMITS		1601.2	2001.2	2401.2	2501.2	3001.2	3501.2	4001.2	4501.2
Nominal water flow	m^3/h	8.3	9.2	11.7	12.3	13.3	16.8	19	20.6
Evaporator nominal pressure drop	Kpa	22	24	26	26	32	29	32	38
Minimum water flow	m^3/h	5.2	5.8	7.3	7.7	8.3	10.5	11.9	12.9
Maximum water flow	m^3/h	13.8	15.4	19.5	20.5	22.2	29.1	31.8	34.5
Minimum water volume	l	115	129	163	171	185	235	266	288
Water thermal expansion coefficient (7-50 ºC)	ºC	0.01233							
Water thermal expansion coefficient (7-55 ºC)	ºC	0.01454							
Maximum water volume (7-50 ºC)	ºC	928					1290		
Maximum water volume (7-55 ºC)	ºC	787					1094		

COOLING ONLY



HEAT PUMP



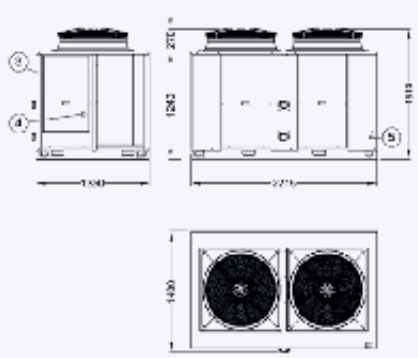
NOISE LEVELS | *Measured in free field, directivity 2 and at 1.5 metres from the ground.*

SOUND PRESSURE LEVELS dB(A)	1601.2	2001.2	2401.2	2501.2	3001.2	3501.2	4001.2	4501.2
1 m	75.1	75.2	75.5	75.7	75.8	78.8	79.9	79.9
2 m	69.1	69.2	69.5	69.7	69.8	72.7	73.9	73.9
5 m	61.1	61.3	61.5	61.7	61.8	64.8	65.9	65.9
10 m	55.1	55.2	55.5	55.7	55.8	55.8	59.9	59.9

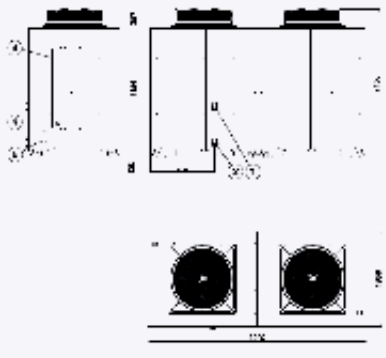
Note: the sound pressure level depends on the conditions of the installation and, therefore, is only given as a general indication. Values obtained according to standard ISO 3744.

DIMENSIONS

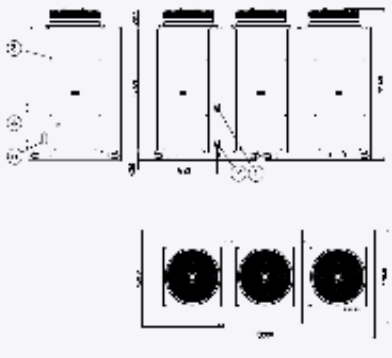
MODELS 1601.1 - 3001.1



MODEL 3501.2



MODELS 4001.2 - 4501.2



OPTIONS FOR CHILLERS RANGES MINI KRONO 2 AND KRONO 2

WATER CIRCUIT SAFETY

HYDRAULIC KIT

For Mini Krono 2 chillers (from 801.1 to 1501.1)

Hydraulic kit with the following options:

- 1 pump only
- Tank + 1 pump

** Low pressure pump: STD - High pressure pump: option*

For Krono 2 chillers (from 1601.2 to 4501.2)

Hydraulic kit with the following options:

- 1 pump only
- 2 pumps only
- Tank + 1 pump
- Tank + 2 pumps

** Low pressure pump: STD - High pressure pump: option*

DIFFERENTIAL PRESSURE SWITCH

This is an option in chillers.

FLOW SWITCH

Accessory for Mini Krono 2 chillers: this component is supplied separately to be mounted during installation.

WATER FILTER

This accessory is supplied separately and is to be mounted at the installation.

ELECTRIC OPERATION

Running meter for all units supplied without a water pump.

ELECTRIC HEATER

If there is a tank, in all heat pump models, we can include the optional support electric heater for their operation in heating mode with low outdoor temperatures.

FOR ENERGY SAVINGS

COMPRESSOR SOFT-START

This element is an electronic protection device for the compressors that allows to reduce the high intensity during the compressor start-up process.

CONDENSATION CONTROL BY VOLTAGE CONVERTER

This element is necessary if the chiller operates in cooling mode with outdoor temperatures below 10 ºC (refer to the section about operating limits in cooling mode).
Condensation control adjusts the fan speed in cooling mode depending on the refrigerant condensation pressure.
This increases the performance and efficiency of the unit.

EC FAN

The use of axial EC fans can increase the efficiency of the chiller and improve noise levels. An EC fan is a direct amps motor with electronic commutation.

These fans significantly reduce the energy consumption which increases the efficiency of the unit both in cooling and heating modes. At the same time, and for the same airflow, the noise level is much lower thanks to the shape of the teethed blades.

FOR THE NOISE LEVEL

COMPRESSOR ACOUSTIC INSULATION.

Acoustic insulation around the compressor aimed at reducing the noise level produced by the unit.

FOR THE INSTALLATION OF THE UNIT

MAGNETO-THERMAL SWITCHES IN THE ELECTRICAL PANEL

Magneto-thermal switches for the compressor, fan and water pump if it includes this option.

SEPARATE ELECTRICAL PANEL

Supply in an electrical panel, independent from the whole operation needed for controlling a chiller.

OPERATION WITHOUT NEUTRAL

The operation or control of these units requires a voltage of 230 volts. For that purpose, where there is no neutral terminal, a supplementary transformer can be connected to the unit, which will generate the single-phase needed for controlling the unit.

ELECTRIC SUPPLY AT 60 Hz AND VOLTAGES OF 230, 208

For cases where there are supply voltages other than 400 volts and 50 Hz.

PRE-TREATED COIL

Additional protection against corrosion for coils or outdoor exchangers.

PROTECTIVE GRILLE ON OUTDOOR EXCHANGER

Installation of a grille in the outdoor exchanger to protect the fins of that component against accidental knocks and scrapes.

Modbus CONNECTION

Serial communication protocol for cases in which we want to remotely control or supervise the parameters of the chiller; option for models 801.1 - 1501.1.

For the other models with 2 compressors, this option is included as standard.

REMOTE CONTROL

In this case the unit is controlled by a remote signal. For this option, the unit must be previously adapted for ModBus connection.

NETWORK UNITS

Option to interconnect units within a network with a master-slave configuration. One unit is defined as the master and the remaining ones (up to a maximum of 3) will be the slaves.

* In Mini Krono 2 units, this is only installed if it includes a hydraulic kit.

TECHNICAL FEATURES WITH **HYDRAULIC KIT** | *Mini Krono 2 801.1 - 1501.1*

MINI KRONO 2 SERIES		801.1	1001.1	1201.1	1501.1
	OPTION: HYDRAULIC KIT				
Expansion vessel volume	l	12			
Buffer tank volume	l	90			
Water flow	m^3/h	3.9	4.5	5.2	6.7
Option for 2 water pumps		NO			
	OPTION: ELECTRIC HEATER, HEATING SUPPORT				
Supply voltage	v/Phases/Hz	400/3/50			
Heating capacity	kW	8			
	OPTION: WATER PUMP, LOW PRESSURE TYPE				
Available static pressure	kPa	157	141	136	93
Nominal capacity	kW	0.55			
Pump reference	-	120/3			
Supply voltage	v/Phases/Hz	400/3/50			
Maximum running amps	A	1.6			
	OPTION: WATER PUMP, HIGH PRESSURE TYPE				
Available static pressure	kPa	246	231	223	178
Nominal capacity	kW	0.9			
Pump reference	-	120/5			
Supply voltage	v/Phases/Hz	400/3/50			
Maximum running amps	A	2.4			

TECHNICAL FEATURES WITH **HYDRAULIC KIT** | *Krono 2 1601.2 - 4501.2*

KRONO 2 SERIES		1601.2	2001.2	2401.2	2501.2	3001.2	3501.2	4001.2	4501.2
	OPTION: HYDRAULIC KIT								
Expansion vessel volume	l	18					25		
Buffer tank volume	l	200	200	200	200	200	300	300	300
Water flow	m^3/h	8.3	9.2	11.7	12.3	13.3	15	15	15
Option for 2 water pumps		YES							
	OPTION: ELECTRIC HEATER, HEATING SUPPORT								
Supply voltage	v/Phases/Hz	400/3/50							
Heating capacity	kW	15					25		
	OPTION: WATER PUMP, LOW PRESSURE TYPE								
Available static pressure	kPa	168	160	149	144	134	147	131	118
Nominal capacity	kW	1.1					1.95		
Pump reference	-	210/3					370/2		
Supply voltage	v/Phases/Hz	400/3/50							
Maximum running amps	A	2.5					3.43		
	OPTION: WATER PUMP, HIGH PRESSURE TYPE								
Available static pressure	kPa	252	244	233	229	219	239	224	211
Nominal capacity	kW	1.9					3.26		
Pump reference	-	210/5					370/5		
Supply voltage	v/Phases/Hz	400/3/50							
Maximum running amps	A	4.5					5.86		

EQUH

Heat pump

ADVANCE AS
CHILLER SERIES BY HITECSA

AIR-COOLED WATER UNITS | SCROLL
Scroll compressors - Axial fans

Perfect for installations in difficult locations

Monobloc water-chillers with air to water heat pump for outdoor installation.

MAIN FEATURES

- Cooling capacities from 19.2 to 261 kW
- Heating capacities from 23.9 to 333 kW
- R-410A refrigerant
- EER up to 2.88
- ESEER up to 4.02
- COP up to 3.74
- Available with 1 or 2 cooling circuits
- 1 or 2 scroll compressors per circuit installed on anti-vibration supports
- Condensation coil only on one side of the unit
- Perfect for installations in difficult locations

AVAILABLE VERSIONS

- Partial heat recovery version
- Super-silent version

ADVANTAGES

- Installation on corners against walls
- Scroll compressors for high efficiency
- Option for 1 or 2 circuits
- High ESEER levels
- Buffer tank for a better load distribution with a more compact size
- Easy access to components
- Wide variety of sound versions
- Total or partial heat recovery
- EC fans for available pressure
- Remote capacity limit via an interface card
- Temperature regulation / set point variation
- Easy maintenance
- Shut-off valves in gas and liquid pipes

CONTROLLER

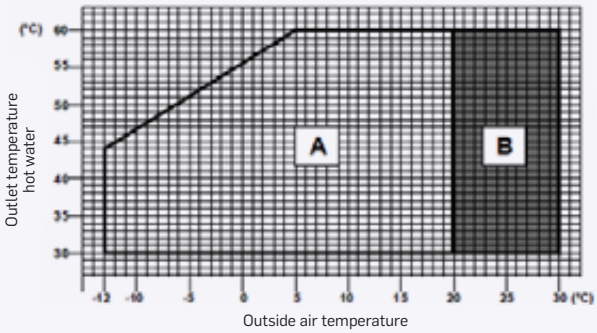
Regulation with microprocessor

MP.COM

See regulation and control on page 200.

HEAT PUMP OPERATING LIMITS

Operating limits diagram for heating hot water production in relation to the outdoor temperature and to the outlet water temperature from the heat pump.

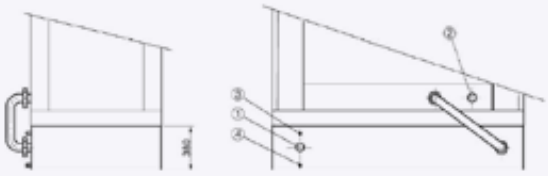


OPTIONS AVAILABLE

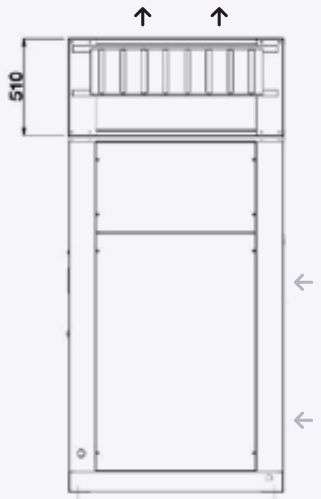
81 Phase controller
83 Running compressor indicator
85 Capacity step limit
88 Analogue set-point compensator
118 Low temperature variant, type A
119 Low temperature variant, type B
150 Low noise level
151 Super-silent
170 Anti-vibration spring support (not installed)
172 Anti-vibration rubber support (not installed)
175 Victaulic connections
251 Coil protection grille
351 Coil with pre-painted fins
450 Partial heat-recovery unit
605 Compressor power factor (0.9)
731 Water flow control
739 Pump group (1 pump)
740 Pump group (2 pumps)
756 LN pump group (1 pump)
757 LN pump group (2 pumps)
768 Buffer tank
923 Serial RC-Comb MBUS/JBUS card
926 Serial LON card
931 Serial BACnet card for Ethernet - SNMP - TCP/IP
932 Serial BACnet for MS/TP
942 Serial GSM card for modem
943 Data log
1002 Compressor soft-start

On top of these options, if you don't find yours please consult our Sales Department.

BUFFER TANK AS SUPPORT



SOUNDPROOFING KIT FOR AXIAL FANS



EQUH SERIES

MODEL		21.1	24.1	28.1	30.1	34.1	40.1	50.1	52.1	52.2	58.1	58.2	62.1
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
SUMMER OPERATING MODE													
COOLING CAPACITY	kW	19.2	21.6	25.5	27.7	32.7	37.6	46.8	47.7	47.2	54.3	54.6	58
Compressor absorbed power	kW	6.05	7.07	8.16	10.2	10.1	12.2	15.7	16.8	16.2	17.9	18.9	19.9
Compressors amps consumption	A	11.1	13.2	15.2	18.2	18.5	23.6	27.6	31.3	30.2	32.1	33.9	34.6
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	3.3	3.72	4.38	4.77	5.62	6.46	8.05	8.21	8.11	9.33	9.38	9.98
Pressure drop	kPa	26	33	36	27	35	36	31	32	18	32	17	27
Outside air temperature	°C	35	35	35	35	35	35	35	35	35	35	35	35
WINTER OPERATING MODE													
Heating Capacity	kW	23.9	27.2	31.8	32.1	41	47.2	60	61.7	61.5	70.7	70.9	74.8
Compressor absorbed power	kW	6.17	7.11	8.16	9.37	10.3	12.2	15.9	17	16.6	18.2	18.5	20
Compressors amps consumption	A	11.2	13.3	15.2	16.7	19	23.6	25.6	31.8	30.8	32.6	35	35.1
Water temperature (inlet)	°C	38.7	38.6	38.7	39.2	38.7	38.6	38.5	38.5	38.4	38.4	38.4	38.5
Water temperature (outlet)	°C	45	45	45	45	45	45	45	45	45	45	45	45
Outside air temperature	°C	7	7	7	7	7	7	7	7	7	7	7	7
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	1	1	1	1	2	2	2	2
Max. amps consumption [FLA]	A	16	21	22	25	31	34	40	44	44	50	50	48.5
Starting amps [LRA]	A	95	111	118	118	140	174	225	140	140	143	143	272
Capacity steps	no.	1	1	1	1	1	1	1	1	2	2	2	2
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	1.9	1.9	1.9	2.5	2.5	2.5	3.1	3.9	3.6	3.9	3.6	3.9
Maximum water flow	m^3/h	4.89	5.57	6.55	7.08	7.77	8.95	11.19	11.4	11.31	13.02	13.01	13.87
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	1	1	1	1	2	2	2	2	2	3	3	3
Airflow	m^3/h	8,500	8,500	11,000	11,000	13,000	15,000	20,500	20,500	20,500	22,000	22,000	23,000
Absorbed power	kW	0.46	0.46	0.76	0.76	0.5	0.78	1.62	1.62	1.62	1.13	1.13	1.3
Max. amps consumption [FLA]	A	1.6	1.6	1.6	1.6	3.2	3.2	3.3	3.3	3.3	4.7	4.7	4.7
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	kg	10.5	10.6	10.6	10.8	12.9	12.9	14.3	18.1	14.6	19.6	17.9	22.9
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	2	1	2	1
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES													
EER Eurovent	kW/kW	2.88	2.79	2.78	2.48	3	2.83	2.65	2.54	2.61	2.8	2.69	2.69
COP Eurovent	kW/kW	3.56	3.54	3.51	3.14	3.74	3.59	3.39	3.28	3.35	3.62	3.59	3.48
ESEER = Eurovent Standard		3.52	3.44	3.47	3.15	3.71	3.45	3.27	3.25	3.3	4.12	3.56	3.82
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	64.6	64.9	65.6	64.8	64.9	67.7	71.8	68.9	68.9	68	68	73.8
Noise level Lw (ISO EN 9614-2)	dB(A)	81.1	81.5	82.2	81.4	82.2	84.9	89	86.1	86.1	85.9	85.9	91.6
DIMENSIONS													
Length	mm	1,250	1,250	1,250	1,250	1,800	1,800	1,800	1,800	1,800	2,600	2,600	2,600
Width	mm	890	890	890	890	1,040	1,040	1,040	1,040	1,040	1,200	1,200	1,200
Height	mm	2,010	2,010	2,010	2,010	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060
NET WEIGHT	kg	390	390	400	410	410	420	650	650	650	720	730	700

	65.1	65.2	76.1	76.2	98.1	98.2	124.1	124.2	158.1	158.2	180.1	180.2	197.1	197.2	230.1	240.2	260.2
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	60.6	61.3	70.3	71.4	89.6	91.8	111	116	150	155	170	176	188	194	227	223	261
	20.5	20.7	24.4	24.4	30.8	31	39	39.5	52.5	53.1	58.4	59.3	66.1	66.8	79.7	85.2	100
	37.6	37.9	47.3	47.3	54.4	55	68.1	69	89.8	91	100	102	114	115	136	146	170
	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	10.4	10.5	12.1	12.3	15.4	15.8	19.2	19.9	25.8	26.6	29.1	30.3	32.4	33.4	39	38.4	45
	32	18	33	20	32	23	34	27	32	26	34	33	41	32	41	36	33
	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	79.1	79.2	91.6	90.8	118	118	149	150	182	195	215	215	238	238	280	288	333
	20.5	20.9	24.3	24.6	31.8	31.9	40.6	40.3	61.3	41.3	57.3	57.4	64	64.5	75.4	80.8	90.1
	37.8	38.3	47.4	47.6	56.2	56.2	70.2	69.9	86.2	71.4	98.9	99.4	110	112	130	141	156
	38.4	38.5	38.4	38.6	38.3	38.5	38.2	38.4	38.9	38.6	38.6	38.8	38.6	38.8	38.8	38.5	38.6
	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4
	62	62	68	68	80	80	97	97	130.8	130.8	147.4	147.4	164	164	196.2	194	294.8
	171	171	208	208	265	265	320.5	320.5	375.4	375.4	439.4	439.4	456	456	440.8	417.5	586.8
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4.7	4.2	5.8	5.1	5.8	6.7	7.2	6.7	8.7	8.3	11.1	9.5	17.6	15.8	17.6	20.3	20.3
	14.64	14.53	17.42	16.87	21.98	21.48	27.73	26.71	37.87	37.67	42.22	40.56	48.3	46.9	55.29	54.49	60.58
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	5
	24,000	24,000	30,000	30,000	40,000	40,000	46,000	46,000	55,800	55,800	60,000	60,000	66,000	66,000	69,000	69,000	69,000
	1.47	1.47	2.38	2.38	2.47	2.47	3.59	3.59	6.41	6.41	4.57	4.57	6.08	6.08	6.95	8.06	8.06
	4.7	4.7	4.9	4.9	6.5	6.5	11.4	11.4	11.4	11.4	14.3	14.3	14.3	14.3	14.3	14.3	14.3
	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
	18.3	23.3	21.6	24	32.3	35.4	36.7	39.8	37.7	40.4	60.6	63.7	78.8	95.6	79.5	106.8	106.7
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	2
	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
	2.71	2.73	2.58	2.63	2.65	2.71	2.57	2.66	2.51	2.57	2.66	2.72	2.57	2.63	2.58	2.36	2.39
	3.56	3.52	3.4	3.34	3.42	3.41	3.35	3.39	2.67	4.06	3.45	3.44	3.37	3.35	3.37	3.22	3.37
	3.91	3.56	3.61	3.34	3.73	3.46	3.59	3.39	3.53	3.26	3.81	3.46	3.66	3.35	4.02	3.66	3.88
	67.8	67.8	68.2	68.2	65.6	65.6	69.5	69.5	72	72	69.3	69.3	71.1	71.1	71.9	73.6	73.8
	85.7	85.7	86.1	86.1	84.2	84.2	88.1	88.1	90.6	90.6	88.6	88.6	90.4	90.4	91.2	92.9	93
	2,600	2,600	2,600	2,600	3,700	3,700	3,700	3,700	3,700	3,700	4,950	4,950	4,950	4,950	4,950	4,950	4,950
	1,200	1,200	1,200	1,200	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
	2,060	2,060	2,060	2,060	2,050	2,050	2,050	2,050	2,050	2,050	2,090	2,090	2,090	2,090	2,090	2,090	2,090
	730	730	920	930	1,120	1,120	1,510	1,500	1,600	1,590	1,650	1,640	2,050	2,040	2,220	2,380	2,430

EQUL

Cooling only

ADVANCE AS
CHILLER SERIES BY HITECSA

R-410A

AIR-COOLED WATER UNITS | SCROLL
Scroll compressors - Axial fans

High resistance, perfect for outdoor installation and in difficult locations

Air-cooled water-chillers, with scroll compressors and axial fans for producing chilled water.

MAIN FEATURES

- Cooling capacities from 19.8 a 260 kW
- R-410A refrigerant
- EER up to 3.22
- ESEER up to 4.80
- Available with 1 or 2 cooling circuits
- 1 or 2 scroll compressors per circuit installed on anti-vibration supports
- Plate heat exchanger
- Condensation coil only on one side of the unit

AVAILABLE VERSIONS

- Partial heat recovery version
- Total heat recovery version
- Super-silent version
- Low and very-low temperature version
- Standard operation for all seasons (-12 °C)

ADVANTAGES

- Installation on corners against walls
- Scroll compressors for high efficiency
- Option for 1 or 2 circuits
- High ESEER levels
- Buffer tank for a better load distribution and a more compact size
- Easy access to components
- Wide variety of sound versions
- Total or partial heat recovery
- EC fans for available pressure in PF version
- Remote capacity limit via an interface card
- Temperature regulation / set point variation
- Easy maintenance
- Shut-off valves in gas and liquid pipes

CONTROLLER

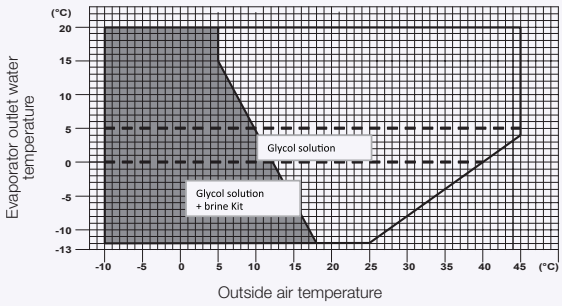
Regulation with microprocessor

MP.COM

See regulation and control on page 200.

COOLING OPERATING LIMITS

Reference values. The operating temperature depends on a series of parameters: operating conditions, thermal load, settings, etc. These data should be confirmed before making the selection.



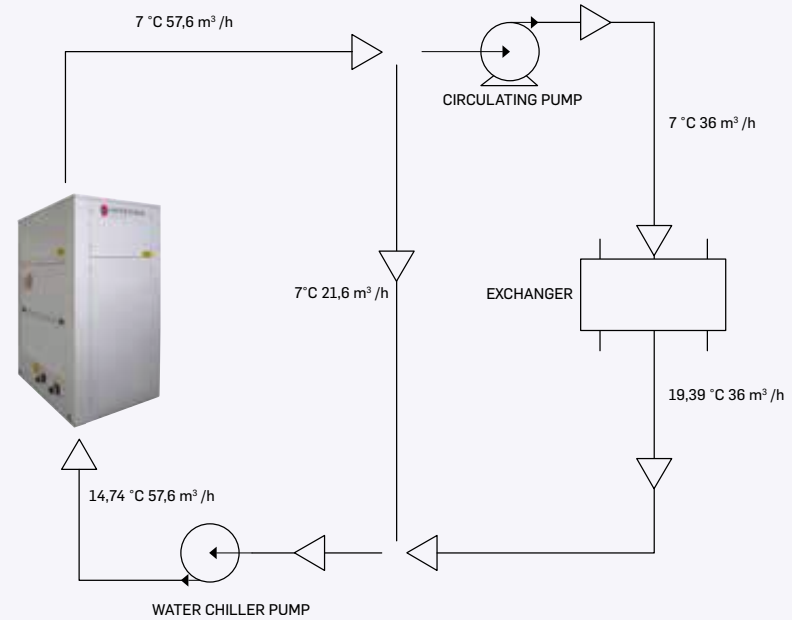
OPTIONS AVAILABLE

81 Phase controller
83 Compressor operation indicator
85 Capacity step limit
88 Analogue set-point compensator
118 Low temperature variant, type A
119 Low temperature variant, type B
150 Low noise level
151 Super-silent
170 Anti-vibration spring support (not installed)
172 Anti-vibration rubber support (not installed)
175 Victaulic connections
251 Coil protection grille
351 Coil with pre-painted fins
450 Partial heat-recovery unit
451 Total heat recovery (100%)
605 Compressor power factor (0.9)
731 Water flow control
739 Hydraulic kit 1 pump
740 Hydraulic kit 2 pumps
756 Hydraulic kit LN 1 pump
757 Hydraulic kit LN 2 pumps
768 Buffer tank
919 Clock card
923 Serial port Com MBUS/JBUS card
926 Serial port LON card
931 BACnet Ethernet - SNMP - Serial port TCP/IP card
932 BACnet Ethernet - MS/TP - Serial port card
934 Extension MP.COM card
942 Serial port card for GSM modem
943 Data logs
1002 Compressor soft-start

On top of these options, if you don't find yours please consult our Sales Department.

WATER FLOW OUTSIDE LIMITS

Circuit used when the installation needs to work with a lower flow than the one required by the unit's exchanger.



EQUL SERIES

MODEL		21.1	24.1	28.1	30.1	34.1	40.1	50.1	52.1	52.2	58.1	58.2	62.1
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
COOLING CAPACITY	kW	19.8	22.4	26.5	29.2	34	39	49.6	50.5	50.5	57.7	60.8	61.2
Compressor absorbed power	kW	6.07	7.14	8.2	9.66	10.2	12.4	15.9	16.7	16.4	18.6	17.5	20
Compressors amps consumption	A	11.1	13.3	15.3	17.2	18.6	23.9	28	31.1	30.5	33.5	31.4	34.6
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	3.41	3.85	4.55	5.03	5.84	6.71	8.53	8.69	8.68	9.92	10.5	10.5
Pressure drop	kPa	28	36	38	29	38	39	35	36	21	36	19	30
Outside air temperature	°C	35	35	35	35	35	35	35	35	35	35	35	35
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	1	1	1	2	2	2	2	1
Max. amps consumption [FLA]	A	16	21	22	25	31	34	40	44	44	50	50	48.5
Starting amps [LRA]	A	95	111	118	118	140	174	225	140	140	143	143	272
Capacity steps	no.	1	1	1	1	1	1	1	2	2	2	2	1
EVAPORATOR	no.	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	1.9	1.9	2.1	2.8	2.9	3.3	4.2	4.2	4.3	4.8	5.3	5.7
Maximum water flow	m^3/h	5.05	5.78	6.79	7.1	8.22	9.46	12.07	12.29	12.33	14.03	14.11	14.9
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	1	1	1	1	2	2	2	2	2	3	3	3
Airflow	m^3/h	8,500	8,500	11,000	11,000	13,000	15,000	20,500	20,500	20,500	22,000	22,000	23,000
Absorbed power	kW	0.46	0.46	0.76	0.76	0.5	0.78	1.62	1.62	1.62	1.13	1.13	1.3
Max. amps consumption [FLA]	A	1.6	1.6	1.6	1.6	3.2	3.2	3.3	3.3	3.3	4.7	4.7	4.7
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	kg	5.3	5.3	5.3	5.5	7.7	7.7	9	12.9	9.3	9	12.7	12.4
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	2	1	2	1
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES													
EER Eurovent	kW/kW	2.95	2.86	2.87	2.74	3.09	2.88	2.77	2.7	2.76	2.86	3.22	2.82
ESEER = Eurovent Standard		3.59	3.5	3.56	3.45	3.8	3.5	3.38	3.91	3.57	4.18	4.16	3.47
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	64.6	64.9	65.6	64.8	64.9	67.7	71.8	68.9	68.9	68	68	73.8
Noise level Lw (ISO EN 9614-2)	dB(A)	81.1	81.5	82.2	81.4	82.2	84.9	89	86.1	86.1	85.9	85.9	91.6
DIMENSIONS													
Length	mm	1,250	1,250	1,250	1,250	1,800	1,800	1,800	1,800	1,800	2,600	2,600	2,600
Width	mm	890	890	890	890	1,040	1,040	1,040	1,040	1,040	1,200	1,200	1,200
Height	mm	2,010	2,010	2,010	2,010	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060
NET WEIGHT	kg	350	350	360	360	520	520	610	590	590	810	810	850

	65.1	65.2	76.1	76.2	98.1	98.2	124.1	124.2	158.1	158.2	180.1	180.2	197.1	197.2	230.1	240.2	260.2
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	64.8	64.7	75.4	75	97.3	96.1	123	120	155	157	177	178	194	197	227	234	260
	20.9	21	24.9	24.9	31.5	31.4	40	39.8	53	53.2	59.2	59.2	66.8	67.1	80.8	85.3	102
	38.3	38.2	48	47.9	55.5	55.3	69.5	69.3	90.8	90.9	102	102	115	115	138	146	172
	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	11.1	11.1	13	12.9	16.7	16.5	21.1	20.5	26.6	27	30.3	30.6	33.4	33.9	39	40.3	44.7
	35	21	37	23	36	27	38	31	32	28	34	36	41	35	41	40	36
	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4
	62	62	68	68	80	80	97	97	130.8	130.8	147.4	147.4	164	164	196.2	194	294.8
	171	171	208	208	265	265	320.5	320.5	375.4	375.4	439.4	439.4	456	456	440.8	417.5	586.8
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5.5	5.6	6.3	5.9	8.4	7.5	10.5	8.8	10.5	11	13	17.2	16	19.6	18.8	22	23.6
	15.76	15.78	18.37	18.34	23.72	23.48	29.9	29.18	37.87	38.43	43.08	43.36	47.35	48.09	55.29	57.08	63.31
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	5
	24,000	24,000	30,000	30,000	40,000	40,000	46,000	46,000	55,800	55,800	60,000	60,000	66,000	66,000	69,000	69,000	69,000
	1.47	1.47	2.38	2.38	2.47	2.47	3.59	3.59	6.41	6.41	4.57	4.57	6.08	6.08	6.95	8.06	8.06
	4.7	4.7	4.9	4.9	6.5	6.5	11.4	11.4	11.4	11.4	14.3	14.3	14.3	14.3	14.3	14.3	14.3
	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
	13.1	12.7	13.6	13.5	18.9	19.3	23.5	24.1	24.6	24.9	47.4	47.8	49.3	49.6	49.9	60.8	60.6
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	2
	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
	2.84	2.84	2.71	2.71	2.81	2.8	2.77	2.73	2.57	2.6	2.74	2.75	2.62	2.66	2.55	2.47	2.34
	4.08	3.65	3.78	3.4	3.93	3.52	3.86	3.42	3.62	3.27	3.92	3.47	3.74	3.35	3.97	3.82	3.8
	67.8	67.8	68.2	68.2	65.6	65.6	69.5	69.5	72	72	69.3	69.3	71.1	71.1	71.9	73.6	73.8
	85.7	85.7	86.1	86.1	84.2	84.2	88.1	88.1	90.6	90.6	88.6	88.6	90.4	90.4	91.2	92.9	93
	2,600	2,600	2,600	2,600	3,700	3,700	3,700	3,700	3,700	3,700	4,950	4,950	4,950	4,950	4,950	4,950	4,950
	1,200	1,200	1,200	1,200	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
	2,060	2,060	2,060	2,060	2,050	2,050	2,050	2,050	2,050	2,050	2,090	2,090	2,090	2,090	2,090	2,090	2,090
	820	820	840	840	1,310	1,310	1,380	1,380	1,410	1,410	1,860	1,860	1,870	1,870	2,020	2,130	2,170

EQUH PF

Heat pump

ADVANCE AS
CHILLER SERIES BY HITECSA

AIR-COOLED WATER UNITS | SCROLL
For ducts - Scroll compressors – Plugfan

High resistance, perfect for difficult locations

Monobloc water chiller/air-cooled water heat pump, for installations inside buildings and equipped with scroll compressors and plugfans.

MAIN FEATURES

- Cooling capacities from 20 a 231 kW
- Heating capacities from 23 to 291 kW
- R-410A refrigerant
- EER up to 2.68
- ESEER up to 3.88
- COP up to 3.47
- Reversible mode operation
- Available with 1 or 2 cooling circuits
- 1 or 2 scroll compressors per circuit installed on anti-vibration supports
- Side condenser
- Installation in difficult locations
- Unit for static-pressure ducts available from 50 to 700 Pa depending on models

ADVANTAGES

- Standard plugfan
- Installation on corners against walls
- Option for 1 or 2 circuits
- Buffer tank for a better load distribution and a more compact size (options on request)
- High performance
- Easy access to components
- Wide variety of sound versions
- Total or partial heat recovery
- Standard EC fan motor
- Remote capacity limit via an interface card
- Temperature regulation / set point variation
- Easy maintenance
- Shut-off valves in gas and liquid pipes
- Buffer tank (option), for a more compact size and better load distribution

AVAILABLE VERSIONS

- Partial heat recovery version
- Super-silent version

CONTROLLER

Regulation with microprocessor

MP.COM

See regulation and control on page 200.

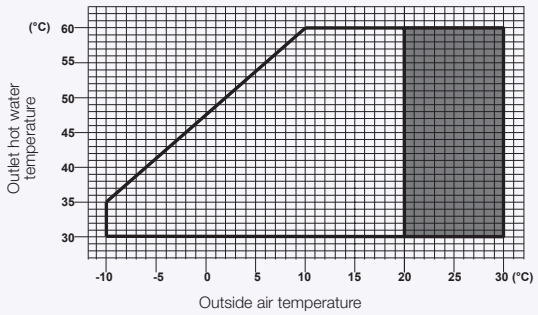
OPTIONS AVAILABLE

150 Low noise level
160 Supply plenum with attenuator
170 Anti-vibration spring supports (not installed)
172 Rubber supports
175 Victaulic connections
251 Outside coil protection kit
351 Coil hydrophobic treatment
450 Partial heat-recovery unit
460 Outside installation equipment
605 Condenser coil for Cos Phi (0.9) in the compressor motor
731 Water flow switch
739 Hydraulic equipment, 1 pump
740 Hydraulic equipment, 2 pumps
756 Low-pressure hydraulic equipment, 1 pump
757 Low-pressure hydraulic equipment, 2 pumps
768 Buffer tank
919 Clock card
923 Serial port COM MBUS/JBUS card
926 Serial port LON card
931 BACnet Ethernet - SNMP - Serial port TCP/IP card
932 Serial port BACnet MS/TP card
934 Extension MP.COM card
942 Serial port card for GSM modem
943 Data log

On top of these options, if you don't find yours please consult our Sales Department.

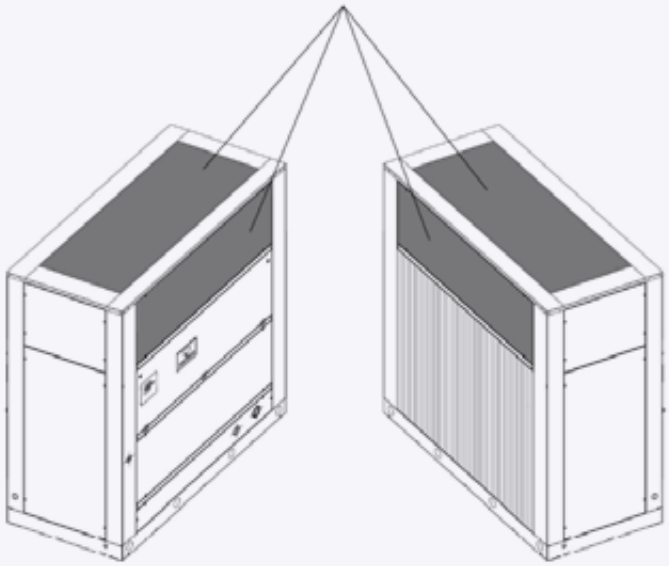
HEAT PUMP OPERATING LIMITS

Reference values. The operating temperature depends on a series of parameters: operating conditions, thermal load, settings, etc. These data should be confirmed before making the selection.



AIR FLOW DISCHARGE

AS STANDARD, NO OPTIONS



EQUH PF SERIES

MODEL		22.1	24.1	28.1	32.1	36.1	42.1	53.1	67.1	55.1	55.2	62.1	62.2
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
SUMMER OPERATING MODE													
COOLING CAPACITY	kW	19.1	20.7	24.2	28.8	32	36.5	46.2	58.4	48.7	48.4	54.8	54.8
Compressor absorbed power	kW	6.41	7.43	8.69	9.85	11	13.4	16.6	21.1	17.1	17.1	19.6	19.6
Compressors amps consumption	A	11.5	13.7	16	17.4	19.9	25.3	28.7	36.1	31.6	31.4	34.7	34.7
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	3.28	3.55	4.16	4.95	5.51	6.28	7.9	10	8.38	8.32	9.43	9.42
Pressure drop	kPa	27	35	37	29	35	36	32	29	36	21	35	18
Outside air temperature	°C	35	35	35	35	35	35	35	35	35	35	35	35
WINTER OPERATING MODE													
Heating Capacity	kW	23.7	25.1	29.3	35.5	39.8	45.6	58.2	73.1	61.5	62	69.5	69.3
Compressor absorbed power	kW	6.2	7.03	8.14	9.25	10.3	12.1	16.1	20	16.9	16.7	19.1	18.7
Compressors amps consumption	A	11.3	13.3	15.2	16.5	18.8	23.4	28.2	34.7	31.2	30.9	34	33.5
Water temperature (inlet)	°C	38.7	38.9	38.9	38.8	38.7	38.7	38.6	38.7	38.6	38.5	38.6	38.6
Water temperature (outlet)	°C	45	45	45	45	45	45	45	45	45	45	45	45
Outside air temperature	°C	7	7	7	7	7	7	7	7	7	7	7	7
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	1	1	1	1	2	2	2	2
Max. amps consumption [FLA]	A	16	21	22	25	31	34	40	48.5	44	44	50	50
Starting amps [LRA]	A	95	111	118	118	140	174	225	272	140	140	143	143
Capacity steps	no.	1	1	1	1	1	1	1	1	2	2	2	2
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	1.9	1.9	2.1	2.8	2.9	3.3	4.2	5.7	4.2	4.3	4.8	5.3
Maximum water flow	m^3/h	6.9	7.8	9	10.3	11.6	13.4	16.9	21.4	17.6	17.6	19.9	20
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
Centrifugal fans	no.	1	1	1	1	1	1	2	2	2	2	2	2
Airflow	m^3/h	6,500	7,000	8,500	10,000	11,000	12,000	16,000	21,000	18,000	18,000	20,500	20,500
External static pressure	Pa	50	50	50	50	50	50	50	50	50	50	50	50
Absorbed power	kW	0.55	0.67	1.13	1.24	1.61	2.06	2.02	2.29	2.03	2.03	2.15	2.15
Max. amps consumption [FLA]	A	4.3	4.3	4.3	4.9	4.9	4.9	8.6	8.4	9.8	9.8	8.4	8.4
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	kg	10.5	10.6	10.6	10.8	10.8	10.8	14.3	14.8	14.6	19.6	14.5	19.6
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	1	2	1	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES													
EER Eurovent	kW/kW	2.68	2.49	2.4	2.54	2.48	2.31	2.43	2.46	2.49	2.49	2.47	2.49
COP Eurovent	kW/kW	3.47	3.22	3.12	3.35	3.3	3.18	3.18	3.25	3.22	3.29	3.24	3.3
ESEER = Eurovent Standard		3.29	3.07	3	3.2	3.07	2.81	3	3.04	3.65	3.24	3.67	3.26
SOUND PRESSURE AT 1m in free field (ISO3744)	dB(A)	70.6	72.1	76.3	75.6	77.6	79.4	77.6	79.5	75.9	75.9	69.6	69.6
Noise level Lw (ISO EN 9614-2)	dB(A)	87.1	88.7	92.9	92.1	94.2	96	94.8	96.7	93.1	93.1	86.8	86.8
DIMENSIONS													
Length	mm	1,250	1,250	1,250	1,250	1,250	1,250	1,800	1,800	1,800	1,800	1,800	1,800
Width	mm	890	890	890	890	890	890	1,040	1,040	1,040	1,040	1,040	1,040
Height	mm	1,950	1,950	1,950	1,950	1,950	1,950	2,000	2,000	2,000	2,000	2,000	2,000
NET WEIGHT	kg	390	390	400	410	410	420	650	700	650	650	720	730

	71.1	71.2	85.1	85.2	107.1	107.2	135.1	135.2	170.1	170.2	195.1	195.2	220.1	220.2	250.1	265.2
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	62	61.5	72.8	71.9	93.1	91	115	112	150	146	175	170	201	195	230	231
	21.8	21.8	25.4	25.3	32.6	32.3	41.9	41.7	52.9	52.6	63.1	62.3	68	67.4	84.7	85.4
	39.5	39.3	48.4	48.4	56.8	56.2	71.6	71.3	90.3	89.9	107	106	116	115	143	145
	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	10.7	10.5	12.5	12.4	16	15.7	19.8	19.3	25.8	25.1	30.2	29.3	34.6	33.6	39.6	39.8
	34	20	37	23	35	26	36	30	35	33	41	35	42	36	40	41
	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	77.7	77.4	85.7	92.4	117	117	147	147	189	189	211	198	241	241	273	291
	20.8	20.6	24.4	24.4	32	31.6	40.4	40.1	51.4	51.4	57.6	56.7	64.2	63.7	75.9	79.4
	38.1	37.7	47.2	47.1	56.2	55.7	69.9	69.6	88.5	88.3	99.8	98.1	111	110	131	138
	38.7	40	39.1	38.5	38.6	38.5	38.6	38.4	38.6	38.4	38.9	39.1	39	38.8	39	38.6
	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4
	62	62	68	68	80	80	97	97	130.8	130.8	147.4	147.4	164	164	196.2	194
	171	171	208	208	265	265	320.5	320.5	375.4	375.4	439.4	439.4	456	456	440.8	417.5
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	5.5	5.6	6.3	5.9	8.4	7.5	10.5	8.8	14.7	11.4	14	17.2	16	19.6	18.8	22
	22.7	22.7	27	27	34.1	33.8	42.4	41.9	55	54.2	60.9	61.9	70	71.1	79.6	84.6
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	2	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5
	23,000	23,000	25,500	25,500	32,000	32,000	40,000	40,000	52,000	52,000	54,000	54,000	62,500	62,500	64,000	66,000
	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2.91	2.91	2.66	2.66	4.95	4.95	3.62	3.62	7.64	7.64	8.47	8.47	8.21	8.21	8.76	10.12
	8.4	8.4	14.7	14.7	14.7	14.7	16.8	16.8	16.8	16.8	16.8	16.8	21	21	21	21
	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
	15	19.9	21.6	24	30.1	33.1	33.2	36.4	37.7	40.4	38.8	41.8	78.8	95.6	79.5	106.8
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
	2.46	2.46	2.55	2.54	2.44	2.41	2.49	2.44	2.44	2.39	2.41	2.37	2.6	2.54	2.43	2.39
	3.25	3.29	3.14	3.39	3.14	3.18	3.31	3.34	3.18	3.18	3.17	3.02	3.3	3.33	3.2	3.23
	3.55	3.17	3.2	3.61	3.04	3.39	3.1	3.61	3.03	3.43	3.47	3.01	3.69	3.22	3.88	3.68
	72	72	76	76	80.8	80.8	74	74	77.3	77.3	78	78	77.3	77.3	77.7	78.1
	89.2	89.2	93.9	93.9	98.7	98.7	92.6	92.6	95.9	95.9	96.6	96.6	96.6	96.6	96.9	97.4
	1,800	1,800	2,600	2,600	2,600	2,600	3,700	3,700	3,700	3,700	3,700	3,700	4,950	4,950	4,950	4,950
	1,040	1,040	1,200	1,200	1,200	1,200	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,040	2,040	2,040	2,040
	730	740	920	930	1,120	1,120	1,510	1,500	1,600	1,590	1,650	1,640	2,050	2,040	2,220	2,380

EQUL PF

Cooling only

ADVANCE AS
CHILLER SERIES BY HITECSA

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For ducts - Scroll compressors – Plugfans

High resistance, perfect for difficult locations

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- Cooling capacities from 20 a 264 kW
- R-410A refrigerant
- EER up to 2.73
- ESEER up to 3.84
- Available with 1 or 2 cooling circuits
- 1 or 2 scroll compressors per circuit installed on anti-vibration supports
- Side condenser
- Installation in difficult locations
- Available static pressure: 50 to 700 Pa depending on models
- Standard plugfans

ADVANTAGES

- Units for ducts
- Option for vertical or horizontal blow
- Installation inside premises
- Option for 1 or 2 circuits
- High performance
- Easy access to components
- Wide variety of sound versions
- Buffer tank for a better load distribution and a more compact size (options on request)
- Total or partial heat recovery
- Standard EC fan motor
- Remote capacity limit via an interface card
- Temperature regulation / set point variation
- Easy maintenance
- Shut-off valves in gas and liquid pipes

AVAILABLE VERSIONS

- Partial heat recovery version
- Total heat recovery version
- Super-silent version
- Low-temperature version
- Standard operation for all seasons (-12 °C)

CONTROLLER

Regulation with microprocessor

MP.COM

See regulation and control on page 200.

OPTIONS AVAILABLE

118 Low temperature variant, type A
119 Low temperature variant, type B
150 Low noise level
151 Super-silent version
160 Supply plenum with attenuator
170 Anti-vibration spring supports (not installed)
172 Rubber supports
175 Victaulic connections
251 Outside coil protection kit
351 Coil hydrophobic treatment
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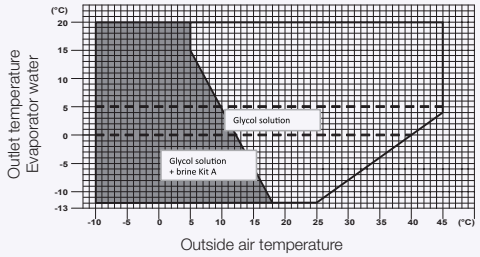
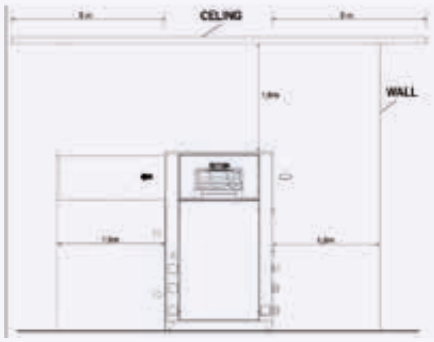
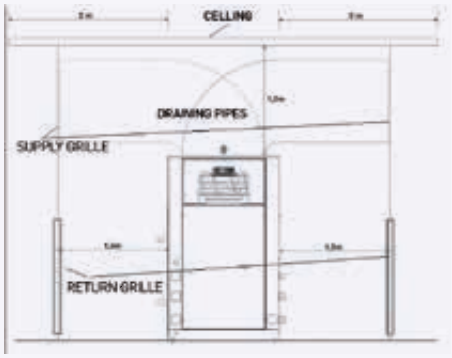


CLOSED AT THE TOP AND ON ONE SIDE



CLOSED ON TWO SIDES



EQUL PF SERIES

MODEL		22.1	24.1	28.1	32.1	36.1	42.1	53.1	67.1	55.1	55.2	62.1	62.2
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
COOLING CAPACITY	kW	19.6	22.3	26	29.4	32.5	37.3	48.1	60.3	50.7	50.8	57	56.9
Compressor absorbed power	kW	6.47	7.51	8.75	9.96	11.1	13.5	16.8	22.2	17.3	17.3	19.7	19.7
Compressors amps consumption	A	11.6	13.8	16.1	17.6	20.1	25.4	29.1	37.9	31.8	31.8	34.9	35
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	3.36	3.83	4.47	5.06	5.59	6.42	8.27	10.4	8.72	8.74	9.81	9.79
Pressure drop	kPa	27	35	37	29	36	36	33	29	36	21	35	18
Outside air temperature	°C	35	35	35	35	35	35	35	35	35	35	35	35
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	1	1	1	1	2	2	2	2
Max. amps consumption [FLA]	A	16	21	22	25	31	34	40	48.5	44	44	50	50
Starting amps [LRA]	A	95	111	118	118	140	174	225	272	140	140	143	143
Capacity steps	no.	1	1	1	1	1	1	1	1	2	2	2	2
EVAPORATOR	no.	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	1.9	1.9	1.9	2.5	2.5	2.5	3.1	3.9	3.9	3.6	3.9	3.6
Maximum water flow	m^3/h	5.19	5.87	6.78	7.76	8.76	10.11	12.78	16.16	13.26	13.31	15.02	15.09
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
CENTRIFUGAL FANS	no.	1	1	1	1	1	1	2	2	2	2	2	2
Airflow	m^3/h	6,500	7,000	8,500	10,000	11,000	12,000	16,000	21,000	18,000	18,000	20,500	20,500
External static pressure	Pa	50	50	50	50	50	50	50	50	50	50	50	50
Absorbed power	kW	0.55	0.67	1.13	1.24	1.61	2.06	2.02	2.29	2.03	2.03	2.15	2.15
Max. amps consumption [FLA]	A	4.3	4.3	4.3	4.9	4.9	4.9	8.6	8.4	9.8	9.8	8.4	8.4
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	kg	5.3	5.3	5.3	5.5	5.6	5.6	9	9.5	9.3	9	9.3	9
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	1	2	1	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES													
EER Eurovent	kW/kW	2.73	2.65	2.56	2.57	2.5	2.35	2.51	2.42	2.57	2.59	2.56	2.57
ESEER = Eurovent Standard		3.34	3.27	3.19	3.23	3.09	2.85	3.09	3.75	3.36	3.78	3.36	3
SOUND PRESSURE AT 1m in free field (ISO3744)	dB(A)	70.6	72.1	76.3	75.6	77.6	79.4	77.6	79.5	75.9	75.9	69.6	69.6
Noise level Lw (ISO EN 9614-2)	dB(A)	87.1	88.7	92.9	92.1	94.2	96	94.8	96.7	93.1	93.1	86.8	86.8
DIMENSIONS													
Length	mm	1,250	1,250	1,250	1,250	1,250	1,250	1,800	1,800	1,800	1,800	1,800	1,800
Width	mm	890	890	890	890	890	890	1,040	1,040	1,040	1,040	1,040	1,040
Height	mm	1,950	1,950	1,950	1,950	1,950	1,950	2,000	2,000	2,000	2,000	2,000	2,000
NET WEIGHT	kg	370	370	380	390	390	400	630	670	630	630	690	700

	71.1	71.2	85.1	85.2	107.1	107.2	135.1	135.2	170.1	170.2	195.1	195.2	220.1	220.2	250.1	265.2	290.2
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	59.1	63.4	75.6	75.2	96.8	95.7	120	118	156	154	176	173	202	199	227	239	264
	21.5	22	25.7	25.8	33	32.8	42.3	42.3	53.5	53.2	62.4	62.9	67.3	67.6	83.7	86.2	102
	38.9	39.8	49.1	49.3	57.5	57.2	72.4	72.4	91.3	91	106	107	115	116	142	147	173
	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	10.2	10.9	13	12.9	16.7	16.4	20.6	20.3	26.8	26.4	30.3	29.8	34.8	34.2	39	41.1	45.4
	35	20	37	23	36	26	37	30	36	33	42	36	43	37	41	41	45
	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4
	62	62	68	68	80	80	97	97	130.8	130.8	147.4	147.4	164	164	196.2	194	294.8
	171	171	208	208	265	265	320.5	320.5	375.4	375.4	439.4	439.4	456	456	440.8	417.5	586.8
	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	4	4
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	4.7	4.2	5.8	5.1	5.8	6.7	7.2	6.7	8.7	8.3	11.1	9.5	17.6	15.8	17.6	20.3	20.3
	17.15	17.11	20.41	20.38	25.76	25.51	32.05	31.61	41.48	40.92	46.05	46.77	53.65	52.81	60.17	63.85	70.03
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	2	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5
	23,000	23,000	25,500	25,500	32,000	32,000	40,000	40,000	52,000	52,000	54,000	54,000	62,500	62,500	64,000	66,000	66,000
	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	2.91	2.91	2.66	2.66	4.95	4.95	3.62	3.62	7.64	7.64	8.47	8.47	8.21	8.21	8.76	10.12	10.12
	8.4	8.4	14.7	14.7	14.7	14.7	16.8	16.8	16.8	16.8	16.8	16.8	21	21	21	21	21
	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
	9.7	9.3	13.7	13.5	16.9	17.3	20.1	20.6	24.6	24.6	25.7	26	49.3	49.6	49.9	60.8	60.7
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	2
	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
	2.38	2.51	2.62	2.61	2.51	2.5	2.57	2.53	2.52	2.5	2.45	2.39	2.63	2.59	2.42	2.45	2.33
	3.42	3.23	3.7	3.28	3.47	3.15	3.72	3.22	3.52	3.15	3.5	3.03	3.71	3.26	3.84	3.75	3.74
	72	72	76	76	80.8	80.8	74	74	77.3	77.3	78	78	77.3	77.3	77.7	78.1	78.1
	89.2	89.2	93.9	93.9	98.7	98.7	92.6	92.6	95.9	95.9	96.6	96.6	96.6	96.6	96.9	97.4	97.4
	1,800	1,800	2,600	2,600	2,600	2,600	3,700	3,700	3,700	3,700	3,700	3,700	4,950	4,950	4,950	4,950	4,950
	1,040	1,040	1,200	1,200	1,200	1,200	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,040	2,040	2,040	2,040	2,040
	700	710	890	890	1,080	1,080	1,460	1,460	1,550	1,550	1,600	1,600	1,970	1,970	2,140	2,290	2,340

EQPHU

Heat pump

ADVANCE AS
CHILLER SERIES BY HITECSA

AIR TO WATER UNITS | SCROLL
Scroll compressors - Axial fans

High performance heat pump

Reversible air to water heat pumps for outdoor installation, equipped with scroll compressors and axial fans.

MAIN FEATURES

- Cooling capacities: from 197 to 267 kW
- Heating capacities: from 219 to 301 kW
- R-410A refrigerant
- EER up to 2.70
- COP up to 2.87
- ESEER up to 4.23
- Scroll compressors
- Available with 1 or 2 refrigerant circuits
- Plate heat exchanger
- AC axial fans
- One or two air circuits
- Suitable for outdoor installations

ADVANTAGES

- Unit with two scroll compressors per circuit for high efficiency
- Choice for one or two refrigerant circuits
- Unit with separate circuits, which guarantee continuous operating during defrost phases
- Electronic expansion valve
- High EER, COP and ESEER
- Noise reduction kit available
- Easy maintenance

AVAILABLE VERSIONS

- Partial heat recovery version
- Total heat recovery version
- Super-silent version
- Version with EC motor for available pressure
- Low-temperature version
- Standard operation for all seasons (-10 °C)

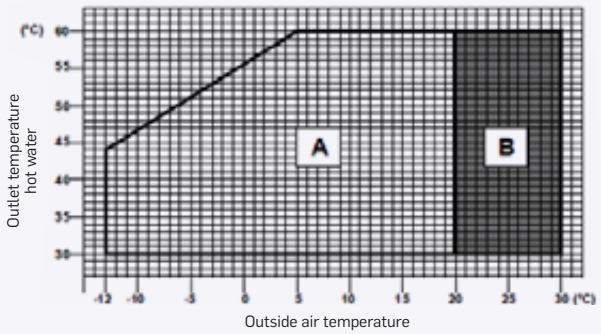
CONTROL

Regulation with microprocessor
MP.COM

See control and adjustment on page 200

HEAT PUMP OPERATING LIMITS

Operating limits diagram for heating hot water production in relation to the outdoor temperature and to the outlet water temperature from the heat pump.



OPTIONS AVAILABLE

79 Electric heater for electric panel
81 Phase controller
83 Compressor operation indicator
84 Contacts for extra alarms
85 Capacity step limit
101 EC fans
118 Low-temperature kit A (between 0 and -6 ºC)
119 Low-temperature kit B (> -6 ºC)
150 Low noise level
151 Super-silent
171 Anti-vibration rubber supports (kit)
220 Electronic expansion valve
251 Coil protection grille
449 Free voltage contact for activating the partial recovery unit
450 Partial heat-recovery unit
459 Shell & tube evaporator
605 Condenser with correction of the power over compression factor (0.9)
610 Compressor insulation
719 Hydraulic kit 1 pump, high pressure
720 Hydraulic kit 1 pump, medium pressure
721 Hydraulic kit 2 pumps, medium pressure
722 Hydraulic kit 1 pump, low pressure
723 Hydraulic kit 2 pumps, low pressure
724 Hydraulic kit 2 pumps, high pressure
725 Tank + 1 pump, medium pressure
726 Tank + 2 pumps, medium pressure
727 Tank + 1 pump, low pressure
728 Tank + 2 pumps, low pressure
729 Tank + hydraulic kit 1 pump, high pressure
730 Tank + hydraulic kit 2 pumps, high pressure
923 Serial RC-Comb MBUS/JBUS card
926 Serial LON card
931 Serial BACnet card for Ethernet - SNMP - TCP/IP
932 Serial BACnet for MS/TP
934 Additional MPCOM module
942 Serial GSM card for modem
943 Data log
1002 Compressor soft-start
1003 Analogue flowmeter
1004 Trace heater for hydraulic module

On top of these options, if you don't find yours please consult our Sales Department.

EQPHU SERIES

MODEL		215.2	235.2	255.2	305.2
Option for noise level		STD	STD	STD	STD
SUMMER OPERATING MODE					
COOLING CAPACITY	kW	197	213	237	267
Compressor absorbed power	kW	67.4	77.3	85.5	103
Compressor amps consumption	A	121	133	146	173
Water temperature (inlet)	°C	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7
Water flow	m^3/h	33.8	36.7	40.8	46
Pressure drop	kPa	47	47	49	41
Outside air temperature	°C	35	35	35	35
WINTER OPERATING MODE					
Heating Capacity	kW	219	239	268	301
Compressor absorbed power	kW	71.5	79.5	89	101
Compressor amps consumption	A	128	128	153	173
Water temperature (inlet)	°C	39.4	39.3	39.3	39.3
Water temperature (outlet)	°C	45	45	45	45
Outside air temperature	°C	7	7	7	7
COMPRESSORS		scroll	scroll	scroll	scroll
Quantity	no.	4	4	4	4
Max. amps consumption [FLA]	A	165	177	194	228
Starting amps [LRA]	A	388.5	400.5	417.5	472.4
Capacity steps	no.	4	4	4	4
HEAT EXCHANGER	no.	1	1	1	1
Water contents	l	9.8	9.8	14	11.7
Maximum water flow	m^3/h	42.1	41.4	46.7	46.8
Anti-freeze	%	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043
AXIAL FANS	no.	4	4	4	4
Airflow	m^3/h	80,000	80,000	78,000	78,000
Absorbed power	kW	4.3	3.1	4.3	4.3
Max. amps consumption [FLA]	A	11.7	7.9	11.7	11.7
REFRIGERANT		R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	67	69	75	77
Refrigerant circuits	no.	2	2	2	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES					
EER Eurovent	kW/kW	2.7	2.61	2.6	2.46
COP Eurovent	kW/kW	2.87	2.87	2.85	2.84
ESEER = Eurovent Standard		4.22	4.21	4.14	4.23
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	76.5	76.5	77.4	77.4
Noise level Lw (ISO EN 9614-2)	dB(A)	95.2	95.2	96.2	96.2
DIMENSIONS					
Length	mm	4,800	4,800	4,800	4,800
Width	mm	1,800	1,800	1,800	1,800
Height	mm	1,965	1,965	1,965	1,965
NET WEIGHT	Kg	1,900	2,070	2,250	2,320

EQPLU

Cooling only

ADVANCE AS
CHILLER SERIES BY HITECSA

R-410A

AIR TO WATER UNITS | SCROLL
Scroll compressors - Axial fans

Reduced refrigerant charge thanks to microchannel technology

Air-cooled monobloc water chiller for the production of chilled water and equipped with scroll compressors and microchannel condenser coils.

MAIN FEATURES

- Cooling capacity from 200 to 284 kW
- R-410A refrigerant
- EER up to 2.98
- ESEER up to 4.22
- Available with 1 or 2 refrigerant circuits
- 2 scroll compressors installed on antivibratil supports
- Aluminium microchannel condenser

ADVANTAGES

- 2 scroll compressors per circuit for higher efficiency
- High ESEER levels
- Reduced refrigerant charge thanks to microchannel technology
- Wide variety of sound versions
- Total or partial heat recovery
- EC fans for available pressure
- Remote capacity limit via an interface card
- Temperature control / set point variation
- Easy maintenance

AVAILABLE VERSIONS

- Partial heat recovery version
- Total heat recovery version
- Super-silent version
- Version with EC motor for available pressure
- Low-temperature version
- Operation for all seasons down to -12 °C

CONTROL

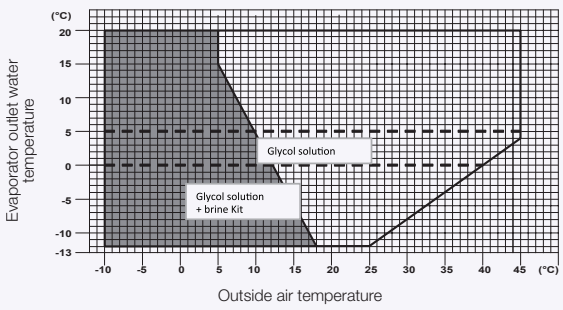
Regulation with microprocessor

MP.COM

See control and adjustment on page 200

COOLING OPERATING LIMITS

Reference values. The operating temperature depends on several parameters: operating conditions, thermal charge, settings, etc. These data should be confirmed when making the selection.



OPTIONS AVAILABLE

- **79** Electric heater for electric panel
- **83** Compressor operation indicator
- **101** EC fan motors
- **118** Low temperature variant, type A
- **119** Low temperature variant, type B
- **150** Low noise level
- **170** Anti-vibration spring supports (not installed)
- **171** Anti-vibration rubber supports (not installed)
- **250** Outside coil protection kit
- **350** Coil protective cover for extreme conditions
- **449** Dry contact for partial heat recovery by activating the circulation pump
- **450** Partial heat-recovery unit
- **451** Total heat-recovery unit
- **454** Dry contact for 100% heat recovery by activating the circulation pump
- **720** Single hydraulic system with medium pressure pump
- **721** Single hydraulic system with medium pressure double pump
- **722** Single hydraulic system with low pressure pump
- **723** Single hydraulic system with low pressure double pump
- **725** Buffer tank + 1 medium pressure pump
- **726** Buffer tank + 2 medium pressure pumps
- **727** Buffer tank + 1 low pressure pump
- **728** Buffer tank + 2 low pressure pumps
- **923** Serial port COM MBUS/JBUS card
- **926** Serial port LON card
- **931** BACnet Ethernet - SNMP - Serial port TCP/IP card
- **932** Serial port BACnet MS/TP card
- **934** Extension MP.COM card
- **943** Data log

On top of these options, if you don't find yours please consult our Sales Department.

EQPLU SERIES

MODEL		204.1	204.2	215.2	235.2	255.2	305.2
Option for noise level		STD	STD	STD	STD	STD	STD
COOLING CAPACITY	kW	199	200	210	229	250	284
Compressor absorbed power	kW	68.5	68.5	62.8	71.1	81.5	96.8
Compressor amps consumption	A	116	116	115	125	142	166
Water temperature (inlet)	°C	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7
Water flow	m^3/h	34.3	34.3	36	39.3	43	48.8
Pressure drop	kPa	50	48	54	54	54	46
Outside air temperature	°C	35	35	35	35	35	35
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	2	2	4	4	4	4
Max. amps consumption [FLA]	A	165.2	165.2	165	177	194	227.8
Starting amps [LRA]	A	490.6	490.6	388.5	400.5	417.5	472.4
Capacity steps	no.	2	2	4	4	4	4
EVAPORATOR	no.	1	1	1	1	1	1
Water contents	l	14	11.7	11.7	13.26	15.13	22.8
Maximum water flow	m^3/h	65.7	65.8	50.4	55.1	60.2	68.3
Anti-freeze	%	0	0	0	0	0	0
Fouling factor	$m^2°K/kW$	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	3	3	4	4	4	4
Airflow	m^3/h	63,540	63,540	84,720	84,720	84,720	84,720
Absorbed power	kW	4.7	4.7	6.32	6.32	6.32	6.32
Max. amps consumption [FLA]	A	11.7	11.7	15.6	15.6	15.6	15.6
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	21.4	24.3	19.3	19.6	19.9	19.9
Refrigerant circuits	no.	1	2	2	2	2	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES							
EER Eurovent	kW/kW	2.67	2.69	2.98	2.91	2.8	2.72
ESEER = Eurovent Standard		3.82	3.39	4.22	4.21	4.14	4.19
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	77.4	77.4	68.9	70	71.2	71.2
Noise level Lw (ISO EN 9614-2)	dB(A)	96.2	96.2	87.7	88.8	90	90.6
DIMENSIONS							
Length	mm	4,000	4,000	4,940	4,940	4,940	4,940
Width	mm	1,200	1,200	1,800	1,800	1,800	1,800
Height	mm	1,970	1,970	1,965	1,965	1,965	1,965
NET WEIGHT	Kg	1,060	1,070	1,700	1,870	1,950	2,020

EQPH

Heat pump

ADVANCE AS
CHILLER SERIES BY HITECSA

R-410A

AIR TO WATER UNITS | SCROLL
Scroll compressors - Axial fans

Heat pump for large applications

Reversible air to water heat pumps for outdoor installation, equipped with scroll compressors and axial fans.

MAIN FEATURES

- Cooling capacity from 275 to 776 kW
- Heating capacity from 308 to 911 kW
- R-410A refrigerant
- EER up to 2.59
- ESEER up to 3.62
- COP up to 3.02
- Available with 1, 2, 3 or 4 refrigerant circuits
- 2 scroll compressors installed on antivibratil supports per circuit
- Modern and modular design
- Shell &tube evaporator from size 430

AVAILABLE VERSIONS

- Partial heat recovery version
- Super-silent version
- Version with EC motor for available pressure
- Low-temperature version
- Operation for all seasons down to -12 °C

OPERATING LIMITS

Standard model

COOLING MODE	
Water outlet temperature (without glycol)	5 / 20 °C
Water outlet temperature (with glycol max. 40%)	-12 / 5 °C
Maximum outdoor air temperature	45 °C
Minimum outdoor air temperature	-10 °C
HEATING MODE	
Maximum water outlet temperature	55 °C
Maximum outdoor air temperature	20 °C
Minimum outdoor air temperature	-10 °C

ADVANTAGES

- Wide power range thanks to the scroll technology which offers optimum reliability (multi-circuit)
- 2 scroll compressors per circuit for higher efficiency and reliability
- Standard condensation control
- High COP levels
- User interface with screen and graphic symbols for easy reading
- Wide variety of sound versions
- EC fans for available pressure
- Remote capacity limit via an interface card
- Temperature control / set point variation
- Easy maintenance

CONTROL

Regulation with microprocessor

MP.COM

See control and adjustment on page 200

OPTIONS AVAILABLE

- **70** Anti-vibration spring supports (not installed)
- **79** Electric heater for electric panel
- **83** Compressor operation indicator
- **101** EC fan motors
- **118** Low temperature variant, type A
- **119** Low temperature variant, type B
- **150** Low noise level
- **171** Anti-vibration rubber supports (not installed)
- **180** Condenser coil for Cos Phi in compressor motors
- **183** Complete Victaulic connection
- **251** Outside coil protection kit
- **350** Coil protective cover for extreme conditions
- **449** Dry contact for partial heat recovery by activating the circulation pump
- **450** Partial heat-recovery unit
- **459** Shell &tube exchanger
- **720** Single hydraulic system with medium pressure pump
- **721** Single hydraulic system with medium pressure double pump
- **722** Single hydraulic system with low pressure pump
- **723** Single hydraulic system with low pressure double pump
- **725** Buffer tank + 1 medium pressure pump
- **726** Buffer tank + 2 medium pressure pumps
- **727** Buffer tank + 1 low pressure pump
- **728** Buffer tank + 2 low pressure pumps
- **923** Serial port COM MBUS/JBUS card
- **926** Serial port LON card
- **931** BACnet Ethernet - SNMP - Serial port TCP/IP card
- **934** Extension MP.COM card
- **943** Data log

On top of these options, if you don't find yours please consult our Sales Department.

EQPH SERIES

MODEL		305.2	340.2	380.2	410.2	430.3	470.3	500.3	560.3	610.3	680.4	750.4	800.4	830.4
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
SUMMER OPERATING MODE														
COOLING CAPACITY	kW	275	308	342	382	409	432	471	508	545	619	671	734	776
Compressor absorbed power	kW	98.3	110	129	145	147	149	167	193	224	220	258	269	279
Compressor amps consumption	A	167	187	217	242	251	256	284	326	374	375	435	453	469
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	47.4	52.9	58.8	65.7	70.5	74.3	81.1	87.5	93.5	106	115	126	134
Pressure drop	kPa	43	45	43	46	31	34	40	44	50	59	70	80	57
Outside air temperature	°C	35	35	35	35	35	35	35	35	35	35	35	35	35
WINTER OPERATING MODE														
Heating Capacity	kW	308	352	393	446	472	502	546	605	664	711	805	851	911
Compressor absorbed power	kW	101	108	131	147	153	158	174	187	210	227	247	274	292
Compressor amps consumption	A	173	186	222	248	261	271	296	318	355	388	421	464	492
Water temperature (inlet)	°C	39.3	39.2	39.2	39.1	39.2	39.1	39.1	39	38.8	39.2	38.9	39.1	39.1
Water temperature (outlet)	°C	45	45	45	45	45	45	45	45	45	45	45	45	45
Outside air temperature	°C	7	7	7	7	7	7	7	7	7	7	7	7	7
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	4	4	4	4	6	6	6	6	6	8	8	8	8
Max. amps consumption [FLA]	A	228	262	296	330	342	359	393	444	496	523	592	626.4	660.8
Starting amps [LRA]	A	472	506	621	656	586	603	718	769	821	866	917	951.8	986.2
Capacity steps	no.	4	4	4	4	6	6	6	6	6	8	8	8	8
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	22.8	22.8	26	29.2	133.4	124.7	124.7	221.7	221.7	221.7	206.5	184.4	184.4
Maximum water flow	m^3/h	65.7	73.6	81.7	91.4	107	110	110	135	135	135	160	190	190
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	6	6	6	8	9	9	9	9	9	12	12	14	16
Airflow	m^3/h	106,920	102,600	102,600	142,560	160,380	153,900	153,900	153,900	153,900	205,200	205,200	239,400	273,600
Absorbed power	kW	8.5	8.5	8.5	11.4	12.8	12.8	12.8	12.8	12.8	17.1	17.1	19.9	22.8
Air circuits	no.	2	2	2	2	3	3	3	3	3	4	4	4	4
Max. amps consumption [FLA]	A	23.4	23.4	23.4	31.2	35.1	35.1	35.1	35.1	35.1	46.8	46.8	54.6	62.4
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	77.4	100.9	101.9	102.9	141.9	162.5	164	182.5	182.5	233.3	237.8	269.4	294.8
Refrigerant circuits	no.	2	2	2	2	3	3	3	3	3	4	4	4	4
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES														
EER Eurovent	kW/kW	2.54	2.57	2.46	2.41	2.54	2.64	2.59	2.44	2.27	2.57	2.4	2.49	2.54
COP Eurovent	kW/kW	2.8	3	2.8	2.8	2.84	2.93	2.91	3.01	2.96	2.89	3.02	2.87	2.88
ESEER = Eurovent Standard		3.49	3.52	3.37	3.33	3.48	3.62	3.55	3.36	3.11	3.53	3.3	3.44	3.5
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	80.3	80.2	80.3	82.1	83.1	83.3	84.1	82.5	82.9	82.9	83.3	84.2	85.1
Noise level Lw (ISO EN 9614-2)	dB(A)	99.7	99.7	99.7	101.6	102.6	103.4	104.1	102.5	103.4	103.4	104.2	105.2	106
DIMENSIONS														
Length	mm	3,530	3,530	3,530	4,650	5,770	5,770	5,770	5,770	5,770	6,890	6,890	8,010	9,130
Width	mm	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
Height	mm	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304
NET WEIGHT	Kg	2,751	2,796	2,834	3,408	4,455	4,483	4,521	4,746	4,803	5,751	5,827	6,400	6,961

EQPL

Cooling only

ADVANCE AS
CHILLER SERIES BY HITECSA

R-410A

AIR TO WATER UNITS | SCROLL
Scroll compressors - Axial fans

Water chillers for large processes and equipped with an aluminium coil

Air-cooled monobloc water chiller for the production of chilled water and equipped with scroll compressors and microchannel condenser coils.

MAIN FEATURES

- Cooling capacity from 302 to 808 kW
- R-410A refrigerant
- EER up to 2.98
- ESEER up to 4.35
- Available with 2, 3 or 4 refrigerant circuits
- 2 scroll compressors installed on antivibratil supports per circuit
- Aluminium microchannel condenser
- Modern and modular design
- Shell &tube evaporator from size 430

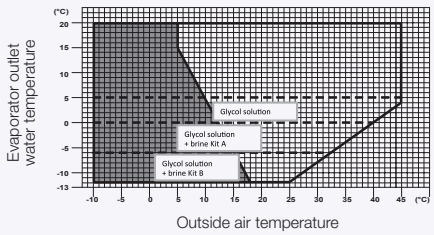
ADVANTAGES

- Wide power range thanks to scroll technology which offers optimum reliability (multi-circuit)
- 2 scroll compressors per circuit for higher efficiency and reliability
- Standard condensation control
- High ESEER levels
- User interface with screen and graphic symbols for easy reading
- Reduced refrigerant charge thanks to microchannel technology
- Wide variety of sound versions
- Total or partial heat recovery
- EC fans for available pressure
- Remote capacity limit via an interface card
- Temperature control / set point variation
- Easy maintenance

AVAILABLE VERSIONS

- Partial heat recovery version
- Total heat recovery version
- Super-silent version
- Version with EC motor for available pressure
- Low-temperature version
- Operation for all seasons down to -12 °C

COOLING OPERATING LIMITS



CONTROL

Regulation with microprocessor

MP.COM

See control and adjustment on page 200

OPTIONS AVAILABLE

79 Electric heater for electric panel
83 Compressor operation indicator
101 EC fan motors
118 Low temperature variant, type A
119 Low temperature variant, type B
150 Low noise level
170 Anti-vibration spring supports (not installed)
171 Anti-vibration rubber supports (not installed)
180 Condenser coil for Cos Phi in compressor motors
183 Complete Victaulic connection
251 Outside coil protection kit
350 Coil protective cover for extreme conditions
449 Dry contact for partial heat recovery by activating the circulation pump
450 Partial heat-recovery unit
451 Total heat-recovery unit
454 Dry contact for 100% heat recovery by activating the circulation pump
459 Shell &tube exchanger
720 Single hydraulic system with medium pressure pump
721 Single hydraulic system with medium pressure double pump
722 Single hydraulic system with low pressure pump
723 Single hydraulic system with low pressure double pump
725 Buffer tank + 1 medium pressure pump
726 Buffer tank + 2 medium pressure pumps
727 Buffer tank + 1 low pressure pump
728 Buffer tank + 2 low pressure pumps
923 Serial port COM MBUS/JBUS card
926 Serial port LON card
931 BACnet Ethernet - SNMP - Serial port TCP/IP card
934 Extension MP.COM card
943 Data log

On top of these options, if you don't find yours please consult our Sales Department.

EQPL SERIES

MODEL		305.2	340.2	380.2	410.2	430.3	470.3	500.3	540.3	560.3	610.3	630.3	680.4	720.4	750.4	800.4	830.4
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
COOLING CAPACITY	kW	302	332	369	404	422	455	496	526	547	603	615	666	701	729	775	808
Compressor absorbed power	kW	90.3	104	122	141	149	145	164	182	183	211	202	201	220	238	256	276
Compressor amps consumption	A	158	179	209	239	255	251	282	310	313	357	342	349	378	406	435	467
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	51.8	57.1	63.4	69.4	72.7	78.2	85.3	90.4	94	104	106	114	120	125	133	139
Pressure drop	kPa	52	53	51	52	32	37	43	48	51	82	60	67	74	81	87	55
Outside air temperature	°C	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	4	4	4	4	6	6	6	6	6	6	6	8	8	8	8	8
Max. amps consumption [FLA]	A	228	262	296	330	342	359	393	427	444	496	496	523	558	592	626	661
Starting amps [LRA]	A	472	506	621	656	586	603	718	753	769	821	821	866	883	917	952	986
Capacity steps	no.	4	4	4	4	6	6	6	6	6	6	6	8	8	8	8	8
EVAPORATOR	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	22.8	22.8	26	29.2	133.4	133.4	124.7	124.7	124.7	221.7	221.7	221.7	206.5	206.5	206.5	184.4
Maximum water flow	m^3/h	72.7	80.1	88.9	97.3	107	107	110	110	110	135	135	135	160	160	160	190
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	6	6	6	6	6	8	8	8	9	9	10	12	12	12	12	12
Airflow	m^3/h	127,080	127,080	127,080	127,080	127,080	169,440	169,440	169,440	190,620	190,620	211,800	254,160	254,160	254,160	254,160	254,160
Absorbed power	kW	9.5	9.5	9.5	9.5	9.5	12.6	12.6	12.6	14.2	14.2	15.8	19	19	19	19	19
Max. amps consumption [FLA]	A	23.4	23.4	23.4	23.4	23.4	31.2	31.2	31.2	35.1	35.1	39	46.8	46.8	46.8	46.8	46.8
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	27.6	28.1	28.3	28.3	29.9	38.6	38.6	38.6	42.4	42.6	46.4	56.3	56.6	56.6	56.6	56.7
Refrigerant circuits	no.	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES																	
EER Eurovent	kW/kW	2.98	2.88	2.76	2.65	2.64	2.85	2.77	2.67	2.74	2.62	2.78	2.97	2.88	2.78	2.76	2.7
ESEER = Eurovent Standard		4.3	4.26	4.21	4.13	4.33	4.41	4.35	4.24	4.29	4.18	4.22	4.35	4.27	4.17	4.19	4.23
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	80.3	80.2	80.3	82.1	83.1	83.3	84.1	82.5	82	82.9	82.9	83.3	84.2	85.1	85.5	86.2
Noise level Lw (ISO EN 9614-2)	dB(A)	99.7	99.7	99.7	101.6	102.6	103.4	104.1	102.5	102.5	103.4	103.4	104.2	105.2	106	106.4	107.1
DIMENSIONS																	
Length	mm	3,530	3,530	3,530	3,530	3,530	4,650	4,650	4,650	5,770	5,770	5,770	6,890	6,890	6,890	6,890	6,890
Width	mm	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
Height	mm	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304	2,304
NET WEIGHT	Kg	2,671	2,697	2,749	2,800	3,379	3,860	3,913	3,951	4,434	4,671	4,671	5,502	5,567	5,605	5,643	5,721

EQSL

Cooling only

CLASS A VERSION AVAILABLE
EQSLA RANGE
- Cooling capacity from 283 to 1,510 kW
- Dimensions: 26
- EER up to 3.38
- ESEER up to 3.95

ADVANCE AT
CHILLER SERIES BY HITECSA

R-134a

AIR TO WATER UNITS | SCREW
Screw compressors - Axial fans

Units equipped with screw compressors for high-power installations

Air-cooled monobloc water chillers for chilled water production.

MAIN FEATURES

- Cooling capacity from 300 to 1,313 kW
- R-134a refrigerant
- EER up to 2.78
- ESEER up to 3.46
- Available with 2 refrigerant circuits
- 2 screw compressors installed on rubber supports
- Modern and modular design
- Shell &tube evaporator

ADVANTAGES

- Wide power range thanks to the screw compressors
- Compressors per circuit for higher efficiency and reliability
- Standard condensation control
- Stepless capacity adjustment
- User interface with screen and graphic symbols for easy reading
- Wide variety of sound versions
- Total or partial heat recovery
- Remote capacity limit via an interface card
- Temperature control / set point variation
- Easy maintenance

AVAILABLE VERSIONS

- Partial heat recovery version
- Total heat recovery version
- Super-silent version
- Version with EC motor for available pressure
- Low-temperature version
- Standard operation for all seasons (-10 °C)

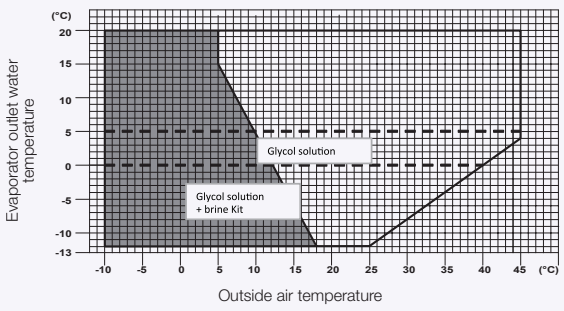
CONTROL

Regulation with microprocessor
MP.COM

See control and adjustment on page 200

COOLING OPERATING LIMITS

Reference values. The operating temperature depends on several parameters: operating conditions, thermal charge, settings, etc. These data should be confirmed when making the selection.



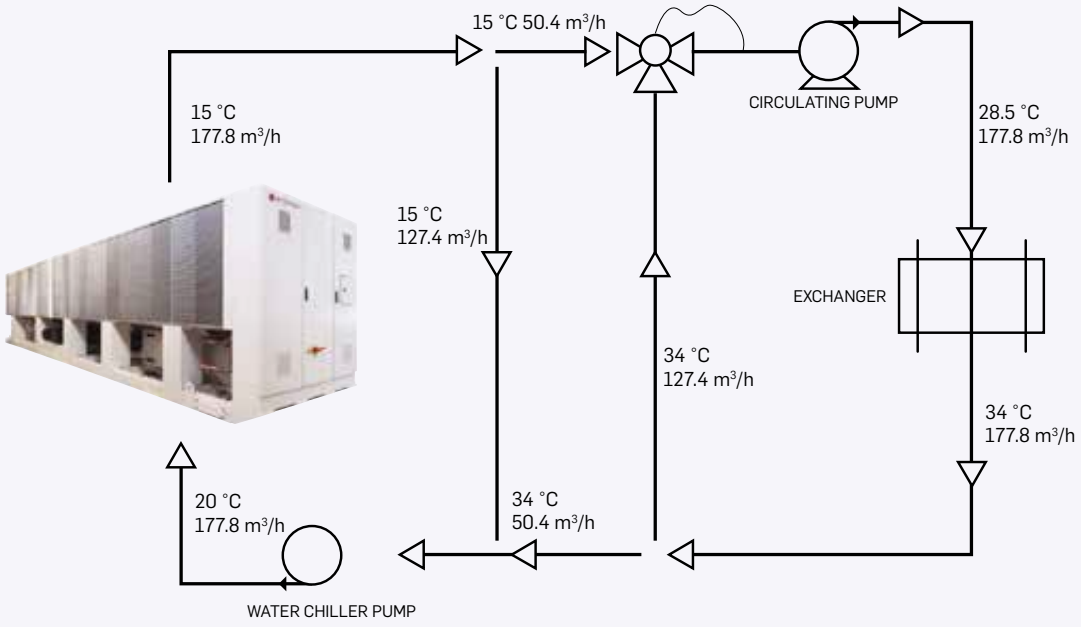
OPTIONS AVAILABLE

101 EC fan motors
118 Low temperature variant, type A
119 Low temperature variant, type B
143 Without glycol
150 Low noise level
151 Super-silent version
170 Anti-vibration spring supports (not installed)
172 Rubber supports
175 Victaulic connections
351 Coil hydrophobic treatment
450 Partial heat-recovery unit
451 Total heat-recovery unit
550 Shut-off valve in the returntube to the compressors
605 Condenser coil for Cos Phi (0.9) in compressor motors
650 Compressor thermal relay

731 Water flow controller
739 Hydraulic equipment, 1 pump
740 Hydraulic equipment, 2 pumps
769 Hydraulic equipment with 1 pump + 1 pump on standby
770 Hydraulic equipment with 2 pumps + 1 pump standby
919 Clock card
923 Serial port COM MBUS/JBUS card
926 Serial port LON card
931 BACnet Ethernet - SNMP - Serial port TCP/IP card
932 Serial port BACnet MS/TP card
934 Extension MP.COM card
942 Serial port card for GSM modem
943 Data log

On top of these options, if you don't find yours please consult our Sales Department.

WATER CHILLER OPERATING WITH WATER TEMPERATURES OUT OF RANGE



EQSL SERIES

MODEL		300	320	360	390	430	480	530	540
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD
COOLING CAPACITY	kW	300	316	336	392	431	477	524	543
Compressor absorbed power	kW	94.8	101	115	123	138	156	172	179
Compressor amps consumption	A	162	163	200	208	237	261	286	298
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7
Water flow	m^3/h	51.5	54.2	57.6	67.3	74.1	81.9	90	93.3
Pressure drop	kPa	47	52	48	59	54	38	38	45
Outside air temperature	°C	35	35	35	35	35	35	35	35
COMPRESSORS		screw	screw	screw	screw	screw	screw	screw	screw
Quantity	no.	2	2	2	2	2	2	2	2
Max. amps consumption [FLA]	A	201.8	205	235.6	269.6	288.2	309.3	330.4	348.6
Starting amps [LRA]	A	403.9	382.5	468.8	629.8	639.1	790.1	811.2	526.2
Capacity steps	no.	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%
EVAPORATOR	no.	1	1	1	1	1	1	1	1
Water contents	l	113	113	113	160	160	150	150	143
Maximum water flow	m^3/h	63	63	63	90	90	95	95	100
Anti-freeze	%	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	6	6	6	8	8	8	8	8
Airflow	m^3/h	135,498	135,498	135,498	180,664	180,664	180,664	180,664	177,924
Absorbed power	kW	11.58	11.7	11.7	15.44	15.44	15.44	15.44	15.52
Max. amps consumption [FLA]	A	23.4	23.4	23.4	31.2	31.2	31.2	31.2	31.2
REFRIGERANT		R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a
Total refrigerant charge	Kg	110	146	146	145	145	145	145	170
Refrigerant circuits	no.	2	2	2	2	2	2	2	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES									
EER Eurovent	kW/kW	2.78	2.76	2.62	2.78	2.77	2.75	2.77	2.76
ESEER = Eurovent Standard		3.27	3.26	3.13	3.27	3.35	3.39	3.4	3.4
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	73.1	71.7	72	71.6	76	76.2	76.4	76.4
Noise level Lw (ISO EN 9614-2)	dB(A)	92.9	91.4	91.8	91.9	96.2	96.4	96.7	96.7
DIMENSIONS									
Length	mm	3,520	3,520	3,520	4,490	4,490	4,490	4,490	4,490
Width	mm	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
Height	mm	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550
NET WEIGHT	Kg	3,992	4,258	4,411	4,544	4,753	4,890	5,012	5,117

	560	610	650	710	770	850	910	950	1060	1120	1180	1310
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	562	611	647	709	771	855	908	952	1065	1123	1184	1313
	185	203	214	234	254	286	299	315	352	372	392	438
	311	333	354	377	400	456	479	515	597	634	680	742
	12	12	12	12	12	12	12	12	12	12	12	12
	7	7	7	7	7	7	7	7	7	7	7	7
	96.6	105	111	122	132	147	156	164	183	193	204	226
	45	56	56	73	73	55	63	70	41	49	49	59
	35	35	35	35	35	35	35	35	35	35	35	35
	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw
	2	2	2	2	2	2	2	2	2	2	2	2
	366.8	390.4	414	444.1	474.2	535.8	567.4	615.4	709.6	753.6	797.6	896
	544.4	544.4	568	581	611.1	720.9	826.7	902.7	1,057.8	1,137.8	1,181.8	1,324
	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%	mod. 25%... 100%
	1	1	1	1	1	1	1	1	1	1	1	1
	143	256	256	256	247	238	223	223	382	382	370	359
	100	127	127	127	143	154	172	172	208	208	220	241
	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	8	8	8	9	10	10	12	12	16	16	16	16
	175,184	175,184	175,184	197,082	218,980	212,690	262,776	262,776	361,328	361,328	361,328	350,368
	15.6	15.6	15.6	17.55	19.5	20.1	23.4	23.4	30.88	30.88	30.88	31.2
	31.2	31.2	31.2	35.1	39	39	46.8	46.8	62.4	62.4	62.4	62.4
	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a
	194	194	194	241	241	302	289	289	290	290	290	389
	2	2	2	2	2	2	2	2	2	2	2	2
	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
	2.77	2.75	2.78	2.77	2.77	2.75	2.77	2.77	2.75	2.75	2.77	2.76
	3.4	3.4	3.44	3.4	3.37	3.43	3.39	3.39	3.4	3.44	3.46	3.44
	76.4	78	79.2	79.4	80	79.7	78.8	78.8	81.1	81.1	81.1	81.4
	96.7	98.2	99.4	100.1	100.7	100.4	99.8	99.8	102.9	102.9	102.9	103.2
	4,490	4,490	4,490	5,460	5,460	5,460	6,430	6,430	8,720	8,720	8,720	8,720
	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550
	5,221	5,321	5,241	6,232	6,517	7,032	7,354	7,414	9,491	9,975	9,995	10,075

EQMF

Cooling only - Freecooling

ADVANCE ASF
CHILLER SERIES BY HITECSA

AIR TO WATER UNITS | SCROLL | FREECOOLING
Scroll compressors - Axial fans

Perfect for installations in difficult locations

Air-cooled monobloc water chillers with built-in freecooling system for chilled water production in outdoor installations.

MAIN FEATURES

- Cooling capacity from 20 to 299 kW
- Freecooling cooling capacity: 19.8 to 197 kW
- R-410A refrigerant
- EER up to 2.91
- ESEER up to 3.80
- Freecooling
- Available with 1 or 2 refrigerant circuits
- 1 or 2 scroll compressors installed on antivibratil supports, depending on size
- Side condenser
- Installation in difficult locations

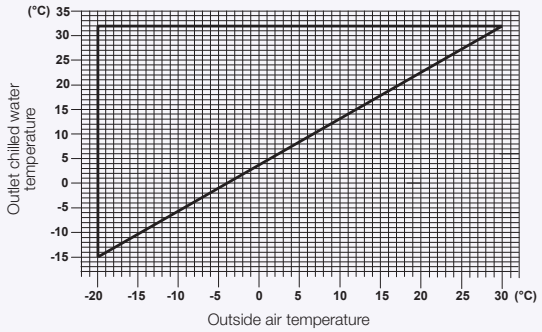
AVAILABLE VERSIONS

- Partial heat recovery version
- Super-silent version
- Low-temperature version
- Standard operation for all seasons (-10 °C)

ADVANTAGES

- Freecooling = 'free' energy recovery
- Installation on corners and walls
- Option for 1 or 2 circuits
- High ESEER levels
- Axial EC fans for higher efficiency
- Easy access to components
- Wide variety of sound versions
- Electronic pressure regulator from size 98
- Remote capacity limit via an interface card
- Temperature control / set point variation
- Easy maintenance
- Shut off valves in the liquid and return pipes
- Buffer tank (option), for a more compact size and better capacity distribution
- Freecooling coil with 3-way valve and ambient controller. Control management

FREECOOLING OPERATING LIMITS



CONTROL

Regulation with microprocessor

MP.COM

See control and adjustment on page 200

OPTIONS AVAILABLE

118 Low temperature variant, type A
119 Low temperature variant, type B
150 Low noise level
151 Super-silent version
170 Anti-vibration spring supports (not installed)
172 Rubber supports
175 Victaulic connections
251 Outside coil protection kit
351 Coil hydrophobic treatment
450 Partial heat-recovery unit
605 Condenser coil for Cos Phi 0.9 in compressor motors
650 Compressor thermal relay
731 Water flow controller
739 Hydraulic equipment, 1 pump
740 Hydraulic equipment, 2 pumps
768 Buffer tank
919 Clock card
923 Serial port COM MBUS/JBUS card
926 Serial port LON card
931 BACnet Ethernet - SNMP - Serial port TCP/IP card
932 Serial port BACnet MS/TP card
934 Extension MP.COM card
942 Serial port card for GSM modem
943 Data log

On top of these options, if you don't find yours please consult our Sales Department.

EQMF SERIES

MODEL		21.1	24.1	28.1	30.1	34.1	40.1	50.1	52.1	52.2
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD
REFRIGERATION										
COOLING CAPACITY	kW	22.2	25	29.6	32.4	39	43.9	54	56	55.8
Compressor absorbed power	kW	7.03	8.29	10.1	11.4	11.9	14.2	18.7	19.6	19.7
Amps consumption [OA]	A	12.7	15.3	18.7	20.1	21.6	27.1	29.2	35.9	36.1
Water temperature (inlet)	°C	15	15	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10	10	10
Water flow	m^3/h	4.1	4.61	5.45	5.98	7.19	8.09	9.96	10.3	10.3
Pressure drop	kPa	102	128	161	170	146	168	169	180	159
Outside air temperature	°C	35	35	35	35	35	35	35	35	35
FREECOOLING										
COOLING CAPACITY	kW	19.8	20.6	24.9	25.7	33.3	37.5	44.7	45.1	45.1
Inlet water temperature	°C	15	15	15	15	15	15	15	15	15
Outside air temperature	°C	3	3	3	3	3	3	3	3	3
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	1	1	1	2	2
Max. amps consumption [FLA]	A	16	21	22	25	31	34	40	44	44
Starting amps [LRA]	A	95	111	118	118	140	174	225	140	140
Capacity steps	no.	1	1	1	1	1	1	1	2	2
EVAPORATOR	no.	1	1	1	1	1	1	1	1	1
Water contents (evap. + freecooling coil)	l	18	18	18	18.7	27.1	27.1	27.8	28.8	28.4
Maximum water flow	m^3/h	4.7	5.3	6.3	6.9	8.3	9.4	11.4	11.9	11.9
Anti-freeze	%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	1	1	1	1	2	2	2	2	2
Airflow	m^3/h	7,500	7,500	9,650	9,650	12,000	14,000	17,300	17,300	17,300
Absorbed power	kW	0.45	0.45	0.81	0.81	0.62	0.98	1.65	1.65	1.65
Max. amps consumption [FLA]	A	1.5	1.5	1.6	1.6	3	3	3.2	3.2	3.2
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	11.3	11.3	11.3	11.5	13.7	13.7	15	15.3	16
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES										
EER Eurovent	kW/kW	2.79	2.67	2.52	2.47	2.91	2.7	2.5	2.49	2.47
ESEER = Eurovent Standard		3.31	3.2	3.18	3.07	3.52	3.22	3	3.13	3.55
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	64.2	64.6	66	65.2	66.4	69.4	72.5	70	70
Noise level Lw (ISO EN 9614-2)	dB(A)	80.8	81.2	82.6	81.8	83.6	86.6	89.8	87.2	87.2
DIMENSIONS										
Length	mm	1,250	1,250	1,250	1,250	1,800	1,800	1,800	1,800	1,800
Width	mm	1,010	1,010	1,010	1,010	1,180	1,180	1,180	1,180	1,180
Height	mm	2,010	2,010	2,010	2,010	2,060	2,060	2,060	2,060	2,060
NET WEIGHT	Kg	430	440	440	440	600	600	740	700	700

EQMF SERIES

MODEL		58.1	58.2	62.1	65.1	65.2	76.1	76.2	98.1
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD
REFRIGERATION									
COOLING CAPACITY	kW	65.1	65.3	69.3	73.1	72.8	83.4	83.1	109
Compressor absorbed power	kW	21	21.4	23.1	23.8	23.8	29.1	28.8	36.7
Amps consumption [OA]	A	37.4	38.2	39.8	43.1	43.2	55.2	54.7	63.7
Water temperature (inlet)	°C	15	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10	10
Water flow	m^3/h	12	12	12.8	13.5	13.4	15.4	15.3	20
Pressure drop	kPa	157	134	163	182	161	173	154	131
Outside air temperature	°C	35	35	35	35	35	35	35	35
FREECOOLING									
COOLING CAPACITY	kW	56.7	56.7	59.2	61.6	61.6	68.1	68	88
Inlet water temperature	°C	15	15	15	15	15	15	15	15
Outside air temperature	°C	3	3	3	3	3	3	3	3
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	2	2	1	2	2	2	2	2
Max. amps consumption [FLA]	A	50	50	48.5	62	62	68	68	80
Starting amps [LRA]	A	143	143	272	171	171	208	208	265
Capacity steps	no.	2	2	1	2	2	2	2	2
EVAPORATOR	no.	1	1	1	1	1	1	1	1
Water contents (evap. + freecooling coil)	l	42.2	41.9	42	43.2	42.6	44.5	43.7	62
Maximum water flow	m^3/h	13.9	14	14.8	15.6	15.6	17.9	17.9	23.2
Anti-freeze	%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	3	3	3	3	3	3	3	4
Airflow	m^3/h	21,000	21,000	22,000	23,000	23,000	25,750	25,750	35,000
Absorbed power	kW	1.49	1.49	1.72	1.96	1.96	2.47	2.47	2.7
Max. amps consumption [FLA]	A	4.5	4.5	4.5	4.5	4.5	4.8	4.8	6.4
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	21.7	19.3	18.9	22.1	19.6	28.6	25.5	33.9
Refrigerant circuits	no.	1	2	1	1	2	1	2	1
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES									
EER Eurovent	kW/kW	2.74	2.71	2.65	2.67	2.68	2.51	2.53	2.65
ESEER = Eurovent Standard		3.44	3.8	3.16	3.34	3.68	3.09	3.47	3.25
SOUND PRESSURE AT 1m in free field (ISO3744)	dB(A)	70.3	70.3	75.1	70.2	70.2	69.4	69.4	68.4
Noise level Lw (ISO EN 9614-2)	dB(A)	88.2	88.2	93	88.1	88.1	87.3	87.3	87
DIMENSIONS									
Length	mm	2,600	2,600	2,600	2,600	2,600	2,600	2,600	3,700
Width	mm	1,340	1,340	1,340	1,340	1,340	1,340	1,340	1,490
Height	mm	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,050
NET WEIGHT	Kg	930	920	970	940	930	1,000	1,000	1,470

	98.2	124.1	124.2	158.1	158.2	180.1	180.2	197.1	197.2	230.1	240.2	270.2
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	108	**133**	**131**	**171**	**173**	**196**	**198**	**215**	**212**	**242**	**270**	**299**
	36	47.5	45.8	61.2	63.1	67.6	68.4	79.9	76.9	97.2	94.1	112
	62.6	81.1	78.2	104	107	115	116	135	129	163	162	189
	15	15	15	15	15	15	15	15	15	15	15	15
	10	10	10	10	10	10	10	10	10	10	10	9.9
	19.8	24.6	24.2	31.5	31.9	36.2	36.4	39.7	39.1	44.7	49.8	54.5
	116	113	102	142	134	102	106	147	138	168	159	171
	35	35	35	35	35	35	35	35	35	35	35	35
	87.7	**103**	**103**	**118**	**118**	**140**	**141**	**151**	**150**	**159**	**171**	**197**
	15	15	15	15	15	15	15	15	15	15	15	15
	3	3	3	3	3	3	3	3	3	3	3	3
	scroll	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**
	2	2	2	2	2	2	2	2	2	3	4	4
	80	97	97	130.8	130.8	147.4	147.4	164	164	196.2	194	227.8
	265	320.5	320.5	375.4	375.4	459.4	459.4	476	476	440.8	417.5	472.4
	2	2	2	2	2	2	2	2	2	3	4	4
	1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	63.1	63.7	63.1	65.5	65	116.2	114.2	124	121.8	104.8	161.2	161.2
	23	28.6	28.2	36.7	37.2	42.2	42.4	45.6	46.3	51.9	54.5	54.5
	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	4	**4**	**4**	**4**	**4**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
	35,000	42,000	42,000	46,800	46,800	53,000	53,000	54,000	54,000	56,300	69,000	69,000
	2.7	4.7	4.7	7.06	7.06	6.81	6.81	7.2	7.2	8.16	9.13	9.13
	6.4	11.4	11.4	11.4	11.4	14.3	14.3	14.3	14.3	14.3	14.3	14.3
	R-410A	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**
	31.3	38.6	42.1	50.9	42.9	73.7	65.8	83.1	102.2	83.7	127	126.6
	2	1	2	1	2	1	2	1	2	1	2	2
	400/3/50	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**
	2.69	2.46	2.51	2.41	2.38	2.56	2.55	2.38	2.43	2.21	2.51	2.37
	3.64	3.01	3.41	2.96	3.3	3.12	3.51	2.96	3.43	3.52	3.66	3.64
	68.4	**72.3**	**72.3**	**74.4**	**74.4**	**74.1**	**74.1**	**74.4**	**74.4**	**75.4**	**74.1**	**74.1**
	87	90.9	90.9	93	93	93.3	93.3	93.7	93.7	94.7	93.4	93.4
	3,700	3,700	3,700	3,700	3,700	4,950	4,950	4,950	4,950	4,950	4,950	4,950
	1,490	1,490	1,490	1,490	1,490	1,500	1,500	1,500	1,500	1,500	1,500	1,500
	2,050	2,050	2,050	2,050	2,050	2,090	2,090	2,090	2,090	2,090	2,090	2,090
	1,470	**1,610**	**1,610**	**1,660**	**1,640**	**2,240**	**2,210**	**2,220**	**2,230**	**2,370**	**2,510**	**2,510**

EQMF PF

Cooling only - Freecooling

ADVANCE ASF
CHILLER SERIES BY HITECSA

AIR TO WATER UNITS | SCROLL | FREECOOLING | FOR DUCTS
Scroll compressors - Plugfans

Perfect for installations in difficult locations

Air-cooled monobloc water chillers with built-in freecooling system for chilled water production in installations inside buildings.

MAIN FEATURES

- Cooling capacity from 20 to 277 kW
- Freecooling cooling capacity: 18 to 176 kW
- R-410A refrigerant
- EER up to 2.79
- ESEER up to 3.47
- Freecooling
- EC plugfans
- Available with 1 or 2 refrigerant circuits
- 1 or 2 scroll compressors installed on antivibratil supports, depending on size
- Side condenser
- Installation in difficult locations
- Available static pressure: 50 to 700 Pa, depending on models

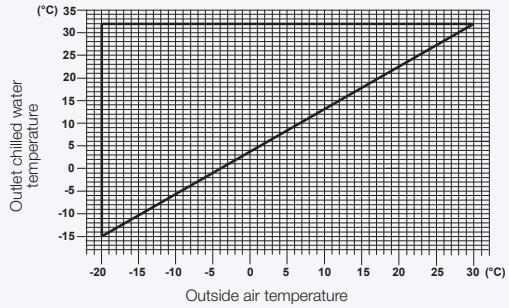
AVAILABLE VERSIONS

- Partial heat recovery version
- Super-silent version
- Low-temperature version

ADVANTAGES

- Freecooling = 'free' energy recovery
- Installation on corners and walls
- Option for 1 or 2 circuits
- High ESEER levels
- Axial EC fans for higher efficiency
- Easy access to components
- Wide variety of sound versions
- Electronic pressure regulator from size 98
- Remote capacity limit via an interface card
- Temperature control / set point variation
- Easy maintenance
- Shut off valves in the liquid and return pipes
- Buffer tank (option), for a more compact size and better capacity distribution
- Freecooling coil with 3-way valve and ambient controller. Control management

FREECOOLING OPERATING LIMITS



CONTROL

Regulation with microprocessor

MP.COM

See control and adjustment on page 200

OPTIONS AVAILABLE

81 Phase reversal controller
83 Compressor operation indicator
118 Low-temperature kit A (between 0 and -6 ºC)
119 Low-temperature kit B (> -6 ºC)
150 Low noise level
160 Air discharge attenuator plenum
170 Anti-vibration spring supports (kit)
172 Rubber supports (kit)
175 Victaulic
251 Coil protection grille
351 Coils with pre-painted fins
450 Partial heat-recovery unit
460 Outside installation kit
605 Capacitor for correction of the power compressor motor factor (0.9)
731 Water flow control
739 Hydraulic kit (1 pump)
740 Hydraulic kit (2 pumps)
768 Buffer tank
822 Plenum assembly kit
919 Clock card
923 Serial RC-Comb MBUS/JBUS card
926 Serial LON card
931 Serial BACnet card for Ethernet - SNMP - TCP/IP
932 Serial BACnet for MS/TP
942 Serial card for GSM modem
943 Data log
143 Without glycol
1002 Compressor soft-start

On top of these options, if you don't find yours please consult our Sales Department.

EQMF PF SERIES

MODEL		22.1	24.1	28.1	32.1	36.1	42.1	53.1	67.1	55.1
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD
REFRIGERATION										
COOLING CAPACITY	kW	21.4	23.9	27.9	31.6	35.2	39.6	51.4	64.4	54.1
Compressor absorbed power	kW	6.62	7.67	8.95	10.2	11.4	14	17.3	22	18.3
Amps consumption [OA]	A	11.9	14.1	16.4	17.9	20.6	26.1	29.8	37.4	33.6
Water temperature (inlet)	°C	15	15	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10	10	10
Water flow	m^3/h	3.95	4.4	5.15	5.82	6.49	7.31	9.48	11.9	9.97
Pressure drop	kPa	98	123	151	166	150	174	160	212	175
Outside air temperature	°C	35	35	35	35	35	35	35	35	35
FREECOOLING										
COOLING CAPACITY	kW	18.1	19.5	22.9	26	28.2	29.9	42.3	52.1	45.7
Inlet water temperature	°C	15	15	15	15	15	15	15	15	15
Outside air temperature	°C	3	3	3	3	3	3	3	3	3
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	1	1	1	1	2
Max. amps consumption [FLA]	A	16	21	22	25	31	34	40	48.5	44
Starting amps [LRA]	A	95	111	118	118	140	174	225	272	140
Capacity steps	no.	1	1	1	1	1	1	1	1	2
Evaporator	no.	1	1	1	1	1	1	1	1	1
Water contents (evap. + freecooling coil)	l	15	15	15.2	15.9	16	16.4	24.3	25.8	24.3
Maximum water flow	m^3/h	5.2	5.9	6.8	7.8	8.8	10.1	12.8	16.2	13.3
Anti-freeze	%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth.Glycol 20%
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
CENTRIFUGAL FANS	no.	1	1	1	1	1	1	2	2	2
Airflow	m^3/h	6,500	7,000	8,500	10,000	11,000	11,500	16,000	21,000	18,000
Outside static pressure	Pa	50	50	50	50	50	50	50	50	50
Absorbed power	kW	0.6	0.73	1.25	0.74	1.89	2.14	2.32	2.29	2.48
Max. amps consumption [FLA]	A	4.3	4.3	4.3	4.9	4.9	4.9	8.6	8.4	9.8
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	11.3	11.3	11.3	11.5	11.6	11.6	18	18.5	18.3
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	1
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES										
EER Eurovent	kW/kW	2.79	2.66	2.55	2.68	2.48	2.3	2.47	2.48	2.45
ESEER = Eurovent Standard		3.24	3.1	3.01	3.21	2.92	2.66	2.9	3.04	3.35
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	70.7	72.3	76.4	75.5	77.9	78.9	77.8	80	76.4
Noise level Lw (ISO EN 9614-2)	dB(A)	87.3	88.9	93	92.1	94.5	95.5	95	97.2	93.6
DIMENSIONS										
Length	mm	1,250	1,250	1,250	1,250	1,250	1,250	1,800	1,800	1,800
Width	mm	1,010	1,010	1,010	1,010	1,010	1,010	1,180	1,180	1,180
Height	mm	1,950	1,950	1,950	1,950	1,950	1,950	2,000	2,000	2,000
NET WEIGHT	Kg	450	460	460	470	470	480	750	790	740

EQMF PF SERIES

MODEL		55.2	62.1	62.2	71.1	71.2	85.1	85.2	107.1	107.2
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD
REFRIGERATION										
COOLING CAPACITY	kW	54.2	60.7	60.9	68.4	68.3	80.5	80.1	103	102
Compressor absorbed power	kW	18.2	19.8	19.8	22.8	22.7	26.5	26.5	34	33.9
Amps consumption [OA]	A	33.4	35.1	35.1	40.9	40.8	50.4	50.1	58.9	58.5
Water temperature (inlet)	°C	15	15	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10	10	10
Water flow	m^3/h	9.99	11.2	11.2	12.6	12.6	14.9	14.8	19.1	18.9
Pressure drop	kPa	153	203	179	239	218	167	147	233	216
Outside air temperature	°C	35	35	35	35	35	35	35	35	35
FREECOOLING										
COOLING CAPACITY	kW	45.7	50.6	50.6	55.6	55.5	67.1	67	81.1	80.9
Inlet water temperature	°C	15	15	15	15	15	15	15	15	15
Outside air temperature	°C	3	3	3	3	3	3	3	3	3
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	2	2	2	2	2	2	2	2	2
Max. amps consumption [FLA]	A	44	50	50	62	62	68	68	80	80
Starting amps [LRA]	A	140	143	143	171	171	208	208	265	265
Capacity steps	no.	2	2	2	2	2	2	2	2	2
EVAPORATOR	no.	1	1	1	1	1	1	1	1	1
Water contents (evap. + freecooling coil)	l	24.4	24.9	25.4	25.6	25.7	37.6	37.2	39.7	38.8
Maximum water flow	m^3/h	13.3	15	15.1	17.2	17.1	20.4	20.4	25.8	25.5
Anti-freeze	%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
CENTRIFUGAL FANS	no.	2	2	2	2	2	3	3	3	3
Airflow	m^3/h	18,000	20,500	20,500	23,000	23,000	25,500	25,500	32,000	32,000
Outside static pressure	Pa	50	50	50	50	50	50	50	50	50
Absorbed power	kW	2.48	2.97	2.97	4.07	4.07	3.22	3.22	6.04	6.04
Max. amps consumption [FLA]	A	9.8	8.4	8.4	8.4	8.4	14.7	14.7	14.7	14.7
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	16	18.3	16	18.7	16.2	28.7	25.5	32	29.3
Refrigerant circuits	no.	2	1	2	1	2	1	2	1	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES										
EER Eurovent	kW/kW	2.48	2.5	2.53	2.37	2.39	2.57	2.57	2.41	2.4
ESEER = Eurovent Standard		3.08	3.4	2.9	2.89	3.16	3.08	3.42	2.88	3.15
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	76.4	70.3	70.3	72.6	72.6	76.5	76.5	81.3	81.3
Noise level Lw (ISO EN 9614-2)	dB(A)	93.6	87.5	87.5	89.8	89.8	94.4	94.4	99.2	99.2
DIMENSIONS										
Length	mm	1,800	1,800	1,800	1,800	1,800	2,600	2,600	2,600	2,600
Width	mm	1,180	1,180	1,180	1,180	1,180	1,340	1,340	1,340	1,340
Height	mm	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
NET WEIGHT	Kg	740	810	810	820	820	1,050	1,050	1,240	1,240

	135.1	135.2	170.1	170.2	195.1	195.2	220.1	220.2	250.1	265.2	290.2
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	128	**126**	**166**	**164**	**182**	**185**	**210**	**214**	**240**	**253**	**277**
	43.6	43.6	55	55	55.4	65.9	69.8	70.1	87.2	90	108
	74.4	73.7	94.6	93.3	111	111	119	119	147	152	180
	15	15	15	15	15	15	15	15	15	15	15
	10	10	10	10	10	10	10	10	10	10	10
	23.5	23.2	30.6	30.2	33.6	34.2	38.8	39.4	44.4	46.7	51.3
	110	99	145	139	169	165	148	143	172	183	211
	35	35	35	35	35	35	35	35	35	35	35
	99.5	**99**	**124**	**123**	**127**	**127**	**163**	**163**	**171**	**173**	**176**
	15	15	15	15	15	15	15	15	15	15	15
	3	3	3	3	3	3	3	3	3	3	3
	scroll	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**
	2	2	2	2	2	2	2	2	3	4	4
	97	97	130.8	130.8	147.4	147.4	164	164	196.2	194	294.8
	320.5	320.5	375.4	375.4	439.4	439.4	456	456	440.8	417.5	586.8
	2	2	2	2	2	2	2	2	3	4	4
	1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	56.4	54.7	60.6	57.3	59.9	63.1	81.6	85.2	84.4	87.6	89.2
	32	31.6	41.5	40.9	46	46.8	53.6	52.8	60.2	63.9	70
	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	4	**4**	**4**	**4**	**4**	**4**	**5**	**5**	**5**	**5**	**5**
	40,000	40,000	52,000	52,000	52,000	52,000	62,500	62,500	64,000	64,000	64,000
	50	50	50	50	50	50	50	50	50	50	50
	4.8	4.8	10.21	10.21	11.34	11.34	11.66	11.66	12.46	13.03	13.03
	16.8	16.8	16.8	16.8	16.8	16.8	21	21	21	21	21
	R-410A	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**
	35.1	38.6	50.9	42.6	51.9	44	83.1	102.2	83.7	113.3	113.2
	1	2	1	2	1	2	1	2	1	2	2
	400/3/50	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**
	2.56	2.52	2.45	2.42	2.6	2.3	2.48	2.52	2.31	2.35	2.18
	3.03	3.47	2.9	3.21	2.78	3.44	3.02	3.28	3.42	3.39	3.36
	74.1	**74.1**	**77.6**	**77.6**	**77.6**	**77.6**	**77.6**	**77.6**	**77.9**	**78**	**78**
	92.7	92.7	96.2	96.2	96.2	96.2	96.8	96.8	97.2	97.3	97.3
	3,700	3,700	3,700	3,700	3,700	3,700	4,950	4,950	4,950	4,950	4,950
	1,490	1,490	1,490	1,490	1,490	1,490	1,500	1,500	1,500	1,500	1,500
	2,000	2,000	2,000	2,000	2,000	2,000	2,040	2,040	2,040	2,040	2,040
	1,690	**1,690**	**1,800**	**1,780**	**1,850**	**1,820**	**2,320**	**2,330**	**2,490**	**2,670**	**2,720**

EQEF

Cooling only - Freecooling

ADVANCE ASF
CHILLER SERIES BY HITECSA

R-410A

AIR TO WATER UNITS | SCROLL | FREECOOLING
Scroll compressors - Axial fans

Unit with freecooling

Air-cooled monobloc water chillers with built-in freecooling system for chilled water production in outdoor installations.

MAIN FEATURES

- Cooling capacity from 70 to 313 kW
- Freecooling cooling capacity: 47.5 to 194 kW
- R-410A refrigerant
- EER up to 2.92
- ESEER up to 3.85
- Freecooling
- Available with 1 or 2 refrigerant circuits
- 2 scroll compressors installed on antivibratil supports

ADVANTAGES

- Freecooling = 'free' energy recovery
- 2 scroll compressors per circuit for higher efficiency and reliability
- High ESEER levels
- Standard condensation control
- Axial EC fans for higher efficiency
- Easy access to components
- Wide variety of sound versions
- Shut off valves in the liquid and return pipes
- Freecooling coil with 3-way valve and ambient controller. Control management

AVAILABLE VERSIONS

- Partial heat recovery version
- Super-silent version
- Low-temperature version

CONTROL

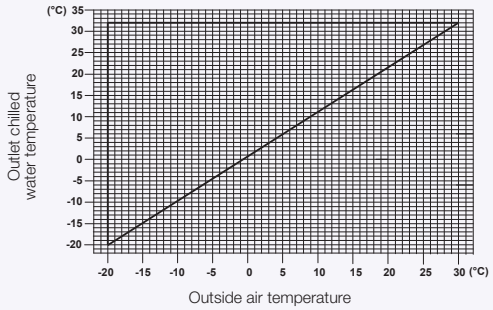
Regulation with microprocessor

MP.COM

See control and adjustment on page 200

FREECOOLING OPERATING LIMITS

Reference values. The operating temperature depends on several parameters: operating conditions, thermal charge, settings, etc. These data should be confirmed when making the selection.

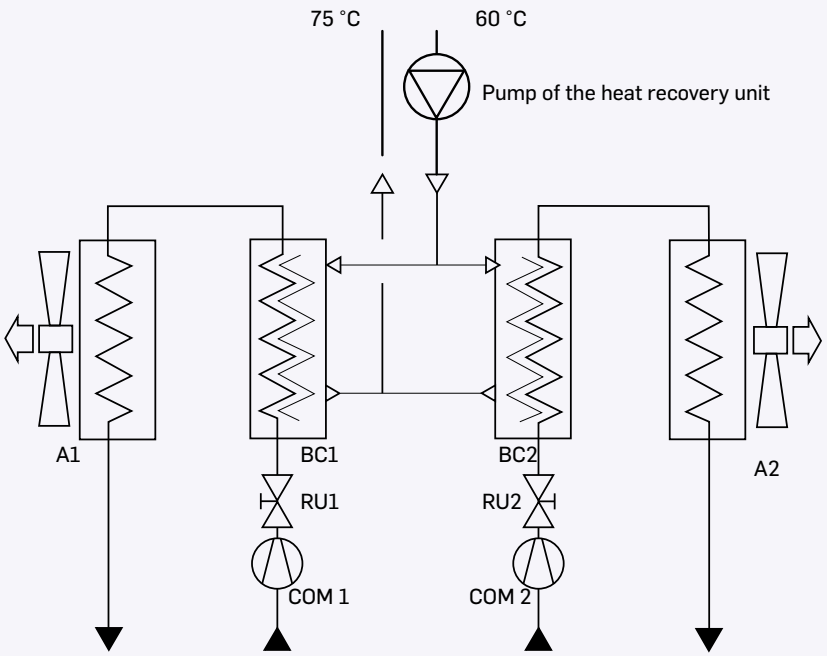


OPTIONS AVAILABLE

83 Compressor operation indicator
118 Low-temperature kit A (between 0 and -6 ºC)
119 Low-temperature kit B (> -6 ºC)
150 Low noise level
151 Super-silent
170 Anti-vibration spring supports (kit)
172 Rubber supports (kit)
251 Coil protection grille
450 Partial heat-recovery unit
605 Capacitor for correction of the power compressor motor factor (0.9)
731 Water flow control
739 Hydraulic kit (1 pump)
740 Hydraulic kit (2 pumps)
919 Clock card
923 Serial RC-Comb MBUS/JBUS card
926 Serial LON card
931 Serial BACnet card for Ethernet - SNMP - TCP/IP
932 Serial BACnet for MS/TP
942 Serial card for GSM modem
943 Data log
1002 Compressor soft-start
143 Without glycol
923 Serial RC-Comb MBUS/JBUS card

On top of these options, if you don't find yours please consult our Sales Department.

PARTIAL HEAT RECOVERY UNIT
Heat recovery from refrigerant circuit without phase change



EQEF SERIES

MODEL		60.1	60.2	70.2	70.1	90.2	90.1	120.2
Option for noise level		STD	STD	STD	STD	STD	STD	STD
REFRIGERATION								
COOLING CAPACITY	kW	69.7	69.7	79.6	79.8	103	104	124
Compressor absorbed power	kW	21	21	25.2	25.3	31.6	31.7	41.4
Amps consumption [OA]	A	38.5	38.5	48.7	48.7	55.7	55.8	71.7
Water temperature (inlet)	°C	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10
Water flow	m^3/h	12.8	12.8	14.7	14.7	18.9	19.1	22.9
Pressure drop	kPa	187	165	204	225	132	148	180
Outside air temperature	°C	35	35	35	35	35	35	35
FREECOOLING								
COOLING CAPACITY	kW	47.5	47.5	51.4	51.4	63.9	64.2	71
Inlet water temperature	°C	15	15	15	15	15	15	15
Outside air temperature	°C	3	3	3	3	3	3	3
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	2	2	2	2	2	2	2
Max. amps consumption [FLA]	A	62	62	68	68	80	80	97
Starting amps [LRA]	A	171	171	207	207	265	265	320.5
Capacity steps	no.	2	2	2	2	2	2	2
EVAPORATOR	no.	1	1	1	1	1	1	1
Water contents (evap. + freecooling coil)	l	22	22	22	22	33	33	33
Maximum water flow	m^3/h	17.4	17.5	20	20	25.6	25.9	31.5
Anti-freeze	%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	6	6	6	6	2	2	2
Airflow	m^3/h	30,000	30,000	33,000	33,000	44,000	44,000	48,000
Absorbed power	kW	1.5	1.5	1.5	1.5	3.4	3.4	3.4
Max. amps consumption [FLA]	A	2.36	2.36	2.36	2.36	7.8	7.8	7.8
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	31.6	34.6	35.6	32	40.8	42	41.4
Refrigerant circuits	no.	1	2	2	1	2	1	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES								
EER Eurovent	kW/kW	2.9	2.92	2.79	2.77	2.82	2.82	2.62
ESEER = Eurovent Standard		3.78	3.49	3.31	3.68	3.31	3.58	3.15
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	66.3	66.3	66.4	66.4	74.2	74.2	74.4
Noise level Lw (ISO EN 9614-2)	dB(A)	83.3	83.3	83.8	83.8	92.3	92.3	92.5
DIMENSIONS								
Length	mm	2,580	2,580	2,580	2,580	3,020	3,020	3,020
Width	mm	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Height	mm	1,630	1,630	1,630	1,630	1,950	1,950	1,950
NET WEIGHT	Kg	830	810	850	870	1,150	1,170	1,270

	120.1	135.1	150.1	150.2	190.2	200.1	200.2	240.2	270.2	300.2
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	126	**141**	**168**	**171**	**202**	**203**	**208**	**247**	**292**	**331**
	41.6	48.8	52.1	52.4	68	70	69.6	87.4	95.7	108
	71.9	83.5	89.8	90.1	118	118	117	149	164	184
	15	15	15	15	15	15	15	15	15	15
	10	10	10	10	10	10	10	10	10	10
	23.3	26.1	31	31.4	37.3	37.4	38.4	45.6	53.9	60.9
	194	230	193	184	146	193	193	202	241	288
	35	35	35	35	35	35	35	35	35	35
	71.3	**73.8**	**108**	**109**	**117**	**118**	**119**	**132**	**176**	**194**
	15	15	15	15	15	15	15	15	15	15
	3	3	3	3	3	3	3	3	3	3
	scroll	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**
	2	2	2	2	4	2	2	4	4	4
	97	113.9	130.8	130.8	160	164	164	194	227.8	261.6
	320.5	358.5	375.4	375.4	345	466	466	417.5	472.4	506.2
	2	2	2	2	4	2	2	4	4	4
	1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	33	33	54	54	68	54	54	68	84	84
	31.1	45	42.6	42	50.9	51.6	50.7	61.7	72.8	81.3
	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	2	**2**	**3**	**3**	**3**	**3**	**4**	**4**	**6**	**6**
	48,000	50,000	66,000	66,000	72,000	72,000	76,000	88,000	108,000	126,000
	3.4	3.4	5.1	5.1	5.1	5.1	6.8	6.8	10.2	10.2
	7.8	7.8	11.7	11.7	11.7	11.7	15.6	15.6	23.4	23.4
	R-410A	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**
	42.9	43.6	62.6	64.6	68.4	66.4	67	68	94.2	95.8
	1	1	1	2	2	1	2	2	2	2
	400/3/50	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**
	2.64	2.53	2.78	2.82	2.65	2.57	2.58	2.49	2.59	2.61
	3.53	3.47	3.6	3.33	3.85	3.49	3.09	3.64	3.64	3.74
	74.4	**75.4**	**76**	**76**	**75.4**	**75.4**	**75.4**	**80.2**	**81.5**	**81.5**
	92.5	93.5	95.4	95.4	94.8	94.8	94.8	100	101.8	101.8
	3,020	3,020	4,400	4,400	3,600	4,400	4,400	3,600	4,600	4,600
	1,200	1,200	1,800	1,800	2,290	1,800	1,800	2,290	2,290	2,290
	1,950	1,950	1,990	1,990	2,250	1,990	1,990	2,250	2,250	2,250
	1,280	**1,350**	**1,560**	**1,580**	**1,840**	**1,710**	**1,730**	**1,850**	**2,260**	**2,710**

EQSFA

CLASS A

Cooling only - Freecooling

ADVANCE ATF
CHILLER SERIES BY HITECSA

AIR TO WATER UNITS | SCREW | FREECOOLING
Screw compressors - Axial fans

Screw unit with freecooling and class A compressors

Air-cooled monobloc water chillers with built-in freecooling system, for chilled water production in outdoor installations.

MAIN FEATURES

- Cooling capacity from 288 to 1.445 kW
- R-134a refrigerant
- EER up to 3.34
- ESEER up to 3.83
- Class A
- Freecooling
- Available with 2 refrigerant circuits
- 2 screw compressors installed on rubber supports
- Modern design
- Shell &tube evaporator

ADVANTAGES

- Class A = energy efficiency
- Freecooling = 'free' energy recovery
- Wide power range thanks to the screw compressors
- Standard condensation control
- Axial EC fans for higher efficiency and reliability
- Stepless capacity adjustment
- User interface with screen and graphic symbols for easy reading
- Wide variety of sound versions
- Specific freecooling exchanger
- Remote capacity limit via an interface card
- Temperature control / set point variation
- Easy maintenance
- Freecooling coil with 3-way valve and ambient controller. Control management

AVAILABLE VERSIONS

- Super-silent version
- Version with EC motor for available pressure
- Low temperature operation -20 °C freecooling

CONTROL

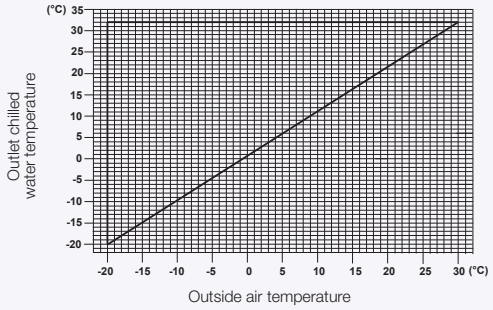
Regulation with microprocessor

MP.COM

See control and adjustment on page 200

FREECOOLING OPERATING LIMITS

Reference values. The operating temperature depends on several parameters: operating conditions, thermal charge, settings, etc. These data should be confirmed when making the selection.

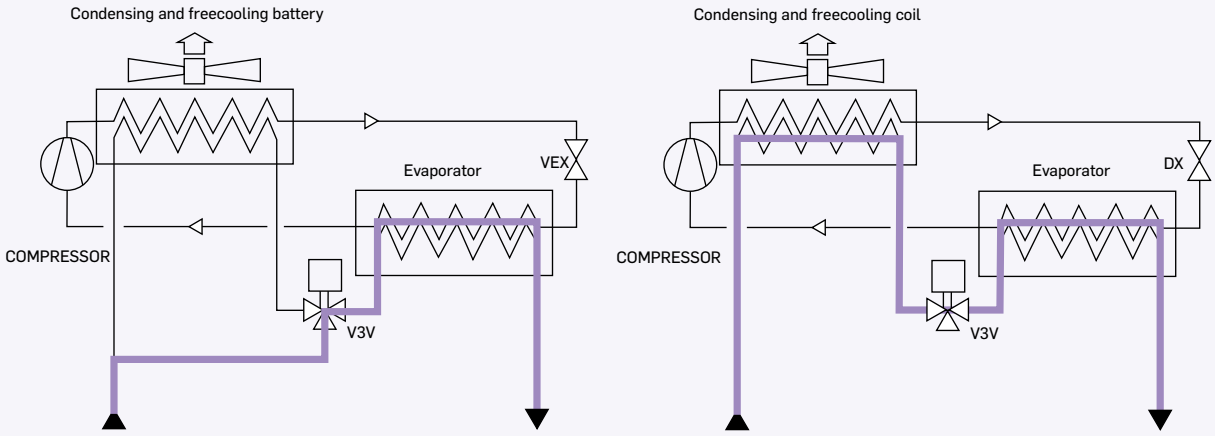


OPTIONS AVAILABLE

101 EC fan motors
143 Without glycol
170 Anti-vibration spring supports (not installed)
171 Anti-vibration rubber supports (not installed)
175 Victaulic connections
351 Coil hydrophobic treatment
605 Condenser coil for Cos Phi (0.9) in compressor motors
650 Compressor thermal relay
731 Water flow controller
739 Hydraulic equipment, 1 pump
740 Hydraulic equipment, 2 pumps
769 Hydraulic equipment with 1 pump + 1 pump on standby
770 Hydraulic equipment with 2 pumps + 1 pump standby
919 Clock card
923 Serial port COM MBUS/JBUS card
926 Serial port LON card
931 BACnet Ethernet - SNMP - Serial port TCP/IP card
932 Serial port BACnet MS/TP card
934 Extension MP.COM card
942 Serial port card for GSM modem
943 Data log

On top of these options, if you don't find yours please consult our Sales Department.

Freecooling operating diagram



EQSFA SERIES

MODEL		290	310	330	360	380	420	460	490	540	590
Option for noise level		STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
REFRIGERATION											
COOLING CAPACITY	kW	319	335	361	386	409	451	501	532	584	638
Compressor absorbed power	kW	81.3	86.6	92.1	98.4	105	118	128	138	154	170
Amps consumption [OA]	A	139	146	155	164	165	202	210	234	257	279
Water temperature (inlet)	°C	15	15	15	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10	10	10	10
Water flow	m^3/h	57.2	60	64.6	69.2	73.2	80.8	89.8	95.2	105	114
Pressure drop	kPa	54	53	69	74	76	89	54	68	71	73
Outside air temperature	°C	35	35	35	35	35	35	35	35	35	35
FREECOOLING											
COOLING CAPACITY	kW	323	325	397	435	438	452	520	533	553	570
Inlet water temperature	°C	15	15	15	15	15	15	15	15	15	15
Outside air temperature	°C	3	3	3	3	3	3	3	3	3	3
COMPRESSORS		screw	screw	screw	screw	screw	screw	screw	screw	screw	screw
Quantity	no.	2	2	2	2	2	2	2	2	2	2
Max. amps consumption [FLA]	A	163.4	179.2	190.5	201.8	205	235.6	269.6	288.2	309.3	330.4
Starting amps [LRA]	A	350.7	356.6	392.6	403.9	382.5	468.8	629.8	639.1	790.1	811.2
Capacity steps	no.	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%
EVAPORATOR	no.	1	1	1	1	1	1	1	1	1	1
Water contents (evap. + freecooling coil)	l	160	143	256	256	256	247	247	247	223	223
Maximum water flow	m^3/h	90	100	127	127	127	143	143	143	172	172
Anti-freeze	%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
AXIAL FANS	no.	6	6	7	8	8	8	10	10	10	10
Airflow	m^3/h	122,336	119,280	142,772	163,168	159,040	159,040	198,800	198,800	198,800	198,800
Absorbed power	kW	12.37	12.52	14.43	16.49	16.7	16.7	20.87	20.87	20.87	20.87
Max. amps consumption [FLA]	A	23.4	23.4	27.3	31.2	31.2	31.2	39	39	39	39
REFRIGERANT		R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a
Total refrigerant charge	Kg	110	146	145	145	194	194	241	241	241	241
Refrigerant circuits	no.	2	2	2	2	2	2	2	2	2	2
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES											
EER Eurovent	kW/kW	3.34	3.32	3.31	3.28	3.28	3.26	3.31	3.28	3.27	3.27
ESEER = Eurovent Standard		3.78	3.77	3.78	3.74	3.76	3.77	3.74	3.75	3.75	3.75
SOUND PRESSURE AT 1m in free field (ISO3744)	dB(A)	72.4	72.8	72.5	72.7	71.3	71.7	71.4	75.6	75.8	76
Noise level Lw (ISO EN 9614-2)	dB(A)	92.1	92.5	92.7	92.9	91.5	91.9	92.1	96.2	96.5	96.7
DIMENSIONS											
Length	mm	3,520	3,520	4,490	4,490	4,490	4,490	5,484	5,484	5,484	5,484
Width	mm	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
Height	mm	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550
NET WEIGHT	Kg	5,330	5,923	6,633	6,638	6,857	6,895	8,018	8,030	8,182	8,304

	630	680	720	790	860	910	960	1050	1110	1170	1240	1310	1380	1450
	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
	691	735	781	863	943	993	1043	1146	1215	1285	1361	1438	1508	1583
	180	194	207	227	248	264	279	313	328	344	367	392	409	427
	301	321	339	344	353	397	442	501	520	537	580	623	668	714
	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	124	132	140	155	169	178	187	205	218	230	244	258	270	284
	92	110	113	118	125	141	147	133	153	80	89	71	88	91
	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	655	735	773	868	917	930	943	965	1056	1144	1165	1185	1273	1370
	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw	screw
	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	366.8	390.4	414	444.1	474.2	505	535.8	615.4	662.5	709.6	753.6	797.6	846.8	896
	544.4	544.4	568	581	611.1	690.1	720.9	826.7	1,010.7	1,057.8	1,137.8	1,181.8	1,274.8	1,324
	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%	25...100%
	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	247	238	238	370	370	359	359	348	348	348	620	620	620	620
	143	154	154	220	220	241	241	265	265	265	385	385	385	385
	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%	Eth. Glycol 20%
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	12	13	14	15	16	16	16	16	18	20	20	20	22	24
	238,560	261,794	278,320	302,070	318,080	318,080	318,080	318,080	357,840	397,600	397,600	397,600	437,360	477,120
	25.04	26.96	29.22	31.11	33.39	33.39	33.39	33.39	37.57	41.74	41.74	41.74	45.91	50.09
	46.8	50.7	54.6	58.5	62.4	62.4	62.4	62.4	70.2	78	78	78	85.8	93.6
	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a	R-134a
	289	294.5	337	339.5	389	389	389	389	436	482	482	482	530	578
	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
	3.28	3.22	3.2	3.24	3.24	3.22	3.21	3.2	3.2	3.26	3.25	3.25	3.24	3.24
	3.71	3.72	3.77	3.74	3.72	3.71	3.72	3.83	3.79	3.77	3.78	3.83	3.81	3.79
	76.7	77.9	79	79.3	79.9	79.8	79.6	78.1	79.5	81.5	81.5	81.5	81.4	81.3
	97.7	99.3	100.4	101.1	101.7	101.6	101.4	99.9	101.7	103.9	103.9	103.9	104.1	104.2
	6,428	7,398	7,398	8,767	8,767	8,767	8,767	8,767	9,737	10,660	10,660	10,660	11,630	12,600
	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550	2,550
	9,086	9,669	9,872	11,754	12,233	12,267	12,277	12,376	13,934	15,142	15,402	15,422	16,101	16,780

EWNH

Heat pump

AVAILABLE
EWNH RC RANGE
- Remote Condenser

MICRO ADVANCE WS
CHILLER SERIES BY HITECSA

R-410A

WATER TO WATER UNITS | SCROLL
Scroll compressors - Plate heat exchangers

Water to water unit for household and geothermal installations

Water-chilling unit equipped with scroll compressors and built-in water cooled condenser, ideal for indoor installation.

MAIN FEATURES

- Cooling capacity from 5 to 30 kW
- Heating capacity from 7 to 37 kW
- R-410A refrigerant
- EER up to 4.44
- ESEER up to 6.68
- COP up to 4.18
- Heat pump (reverse refrigerating circuit)
- The perfect solution for households and small companies
- Scroll compressor
- Evaporator with brazed plates
- Condenser with brazed plates

ADVANTAGES

- Simple and reliable
- Plug and play
- Electronic control
- Standard, 3-speed circulation pump (evap)
- 0-10 V signal
- Shut-off valves in compressor suction and discharge

AVAILABLE VERSIONS

- Single-phase up to 13 kW
- Three-phase for the whole range
- Cooling only (EWNL range)
- Cooling only remote condenser (EWNL RC range)
- Reversible remote condenser (EWNH RC range)

CONTROL

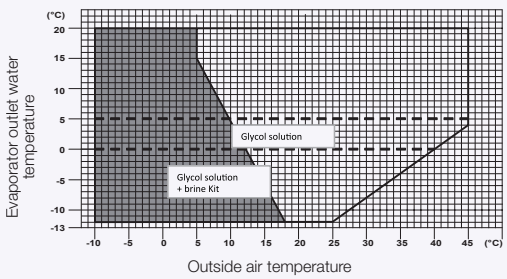
Regulation with microprocessor

ELIWELL

See control and adjustment on page 200

HEAT PUMP OPERATING LIMITS

Reference values. The operating temperature depends on several parameters: operating conditions, thermal charge, settings, etc. These data should be confirmed when making the selection.



OPTIONS AVAILABLE

450 Partial recovery unit
610 Compressor sound attenuator
920 Remote control system
923 Serial port COM MBUS/JBUS card
1002 Condensation control with 2-way valve

On top of these options, if you don't find yours please consult our Sales Department.

EWNH SERIES

MODEL		06T	06M	08T	08M	10T	10M	13T	13M	15T	17T	20T	25T	30T
Option for noise level		None	None	None	None	None	None	None	None	None	None	None	None	None
SUMMER OPERATING MODE														
COOLING CAPACITY	kW	5.3	5.57	6.76	7.57	9.51	10.5	12.3	13	13.9	16.6	18.6	23.4	30
Compressor absorbed power	kW	1.41	1.41	1.79	1.79	2.33	2.32	2.94	2.95	3.46	4	4.51	5.6	6.24
Amps consumption [OA]	A	2.81	2.82	3.62	3.61	4.14	4.12	5.06	5.08	6.44	7.41	9.27	11.3	12.5
HEAT EXCHANGER														
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	0.91	0.96	1.16	1.3	1.63	1.8	2.12	2.23	2.39	2.85	3.19	4.02	5.16
Pressure drop	kPa	33	37	30	33	34	38	38	42	35	40	37	40	41
HEAT EXCHANGER														
Water temperature (inlet)	°C	30	30	30	30	30	30	30	30	30	30	30	30	30
Water temperature (outlet)	°C	35.3	35	35	35.1	35.1	35.3	35.1	35	35	35.1	35.1	35	35.4
Water flow	m^3/h	1.1	1.2	1.48	1.6	2	2.1	2.6	2.76	3	3.5	3.9	5	5.8
Pressure drop	kPa	45	54	45	48	47	49	53	59	51	56	50	53	40
WINTER OPERATING MODE														
Heating Capacity	kW	7.22	7.56	9.21	9.54	12.7	13.1	16.5	17.2	18.5	21.8	24.7	30.8	37.4
Compressor absorbed power	kW	1.85	1.85	2.35	2.32	3.03	3.05	3.84	3.87	4.34	5.15	5.82	7.09	8.55
Amps consumption [OA]	A	3.37	3.36	4.29	4.28	5.13	5.16	6.41	6.44	7.77	8.93	10.8	13.1	16
HEAT EXCHANGER														
Water temperature (inlet)	°C	38.1	38.1	38.1	38.6	38.2	38.7	38.2	38.3	38.3	38.4	38.3	38.3	38.7
Water temperature (outlet)	°C	45	45	45	45	45	45	45	45	45	45	45	45	45
Water flow	m^3/h	0.91	0.96	1.16	1.3	1.63	1.8	2.12	2.23	2.39	2.85	3.19	4.02	5.16
Pressure drop	kPa	26	29	23	30	27	34	29	33	27	32	29	30	34
HEAT EXCHANGER														
Water temperature (inlet)	°C	15	15	15	15	15	15	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10	10	10	10	10	10	10
Water flow	m^3/h	0.92	0.98	1.18	1.24	1.66	1.73	2.18	2.3	2.43	2.87	3.24	4.09	4.95
Pressure drop	kPa	27	31	25	28	28	32	31	35	29	33	31	34	35
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Max. amps consumption [FLA]	A	4.7	12.8	6.5	17.1	8	21	10.3	31	11.8	15	15	21	22
Starting amps [LRA]	A	28	60	38	67	43	98	51.5	115.5	64	75	101	111	118
Capacity steps	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.2	1.3	1.6	2	2.4
Maximum water flow	m^3/h	1.6	1.6	2.1	2.2	2.7	2.9	3.6	3.7	4	4.7	5.3	6.7	7.8
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	$m^{2°}K/kW$	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	0.5	0.5	0.7	0.7	0.9	0.9	1.1	1.1	1.2	1.3	1.6	2	2.4
Maximum water flow	m^3/h	1.1	1.2	1.6	1.6	2	2.1	2.6	2.8	3	3.5	3.9	5	5.8
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	0.7	0.7	0.9	0.9	1.1	1.1	1.4	1.4	1.5	1.8	1.8	2.5	3.1
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
ELECTRIC SUPPLY		400/3/50	230/1/50	400/3/50	230/1/50	400/3/50	230/1/50	400/3/50	230/1/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES														
EER = Eurovent	kW/kW	3.36	3.47	3.4	3.77	3.68	4.05	3.77	3.93	3.65	3.76	3.78	3.83	4.44
COP = Eurovent	kW/kW	3.67	3.8	3.7	3.85	3.95	4.02	4.04	4.16	4.03	4	4.03	4.12	4.18
ESEER = Eurovent Standard		4.6	4.78	4.86	6.23	6.62	5.19	6.49	5.46	5.28	5.38	5.28	6.47	6.68
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	42	42	42	42	44	44	44	44	47	51	48	50	50
Noise level Lw (ISO EN 9614-2)	dB(A)	56.2	56.2	56.2	56.2	58.2	58.2	58.2	58.2	61.2	65.2	62.2	64.2	64.2
DIMENSIONS														
Length	mm	555	555	555	555	555	555	555	555	555	555	555	555	555
Width	mm	650	650	650	650	650	650	650	650	650	650	650	650	650
Height	mm	900	900	900	900	900	900	900	900	900	900	900	900	900
NET WEIGHT	Kg	90.8	90.8	93.5	93.5	103.6	103.6	108.4	108.4	116.6	118.1	120.6	143.8	149.5

EWNL

Cooling only

AVAILABLE
EWNL RC RANGE
- Remote Condenser

MICRO ADVANCE WS
CHILLER SERIES BY HITECSA

R-410A

WATER TO WATER UNITS | SCROLL
Scroll compressors - Plate heat exchangers

Water to water unit for household and geothermal installations

Water-chilling unit equipped with scroll compressors and built-in water cooled condenser, ideal for indoor installation.

MAIN FEATURES

- Cooling capacity from 5 to 30 kW
- R-410A refrigerant
- EER up to 4.42
- ESEER up to 4.75
- The perfect solution for households and small companies
- Scroll compressor
- Evaporator with brazed plates
- Condenser with brazed plates

ADVANTAGES

- Simple and reliable
- Plug and play
- Electronic control
- Standard, 3-speed circulation pump (evap)
- 0 10 V signal to manage the condenser 2-way valve
- Shut-off valves in compressor suction and discharge

AVAILABLE VERSIONS

- Single-phase up to 13 kW
- Three-phase for the whole range
- Cooling only remote condenser (EWNL RC range)
- Reversible remote condenser (EWNH RC range)

CONTROL

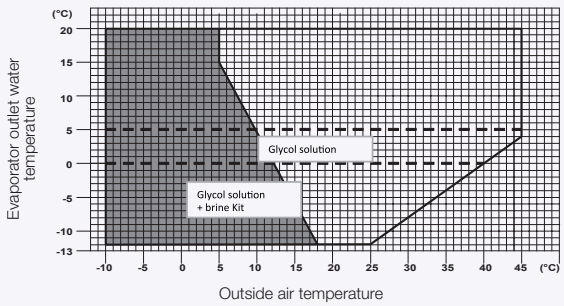
Regulation with microprocessor

ELIWELL

See control and adjustment on page 200

COOLING OPERATING LIMITS

Reference values. The operating temperature depends on several parameters: operating conditions, thermal charge, settings, etc. These data should be confirmed when making the selection.



OPTIONS AVAILABLE

450 Partial recovery unit
610 Compressor sound attenuator
920 Remote control system
923 Serial port COM MBUS/JBUS card
1002 Condensation control with 2-way valve

On top of these options, if you don't find yours please consult our Sales Department.

EWNL SERIES

MODEL		06M	08M	10M	13M	06T	08T	10T	13T	15T	17T	20T	25T	30T
Option for noise level		None	None	None	None	None	None	None	None	None	None	None	None	None
COOLING CAPACITY	kW	5.73	7.4	11.1	14.1	5.71	7.3	10.4	13.3	15.1	17.4	20.1	24.8	30.5
Compressor absorbed power	kW	1.39	1.81	2.4	3	1.39	1.76	2.32	2.92	3.41	3.98	4.49	5.58	6.3
Compressor amps consumption	A	6.46	8.18	11.9	14.9	2.75	3.56	4.11	5.03	6.35	7.38	9.24	11.2	12.7
EVAPORATOR														
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	0.98	1.27	1.91	2.41	0.98	1.25	1.78	2.29	2.58	2.99	3.45	4.26	5.24
Pressure drop	kPa	35	33	37	40	35	32	36	40	37	43	40	40	44
CONDENSER														
Water temperature (inlet)	°C	30	30	30	30	30	30	30	30	30	30	30	30	30
Water temperature (outlet)	°C	35	35	35	35	35	35	35	35	35	35	35	35	35
Water flow	m^3/h	1.23	1.6	2.34	2.95	1.23	1.57	2.2	2.81	3.2	3.7	4.26	5.26	6.38
Pressure drop	kPa	54	49	53	58	53	48	53	57	53	61	55	53	49
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Max. amps consumption [FLA]	A	12.8	17.1	21	31	4.7	6.5	8	10.3	11.8	15	15	21	22
Starting amps [LRA]	A	60	67	98	115.5	28	38	43	51.5	64	75	101	111	,
Capacity steps	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
EVAPORATOR	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	0.5	0.7	0.9	1.1	0.5	0.7	0.9	1.1	1.2	1.3	1.6	2	2.4
Maximum water flow	m^3/h	1.5	2	2.7	3.5	1.4	1.9	2.5	3.3	3.8	4.4	5	6.3	7.4
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
CONDENSER														
Quantity	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Water contents	l	0.5	0.7	0.9	1.1	0.5	0.7	0.9	1.1	1.2	1.3	1.6	2	2.4
Maximum water flow	m^3/h	1.8	2.4	3.2	4.1	1.7	2.2	3	3.9	4.5	5.2	5.9	7.4	8.7
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	0.7	0.9	1.1	1.4	0.7	0.9	1.1	1.4	1.5	1.8	1.8	2.5	3.1
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
ELECTRIC SUPPLY	V/ph/Hz	230/1/50	230/1/50	230/1/50	230/1/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES														
EER = Eurovent	Kw/Kw	3.62	3.65	4.11	4.18	3.61	3.7	3.99	4.06	4	3.93	4.06	4.06	4.42
ESEER = Eurovent Standard		3.68	3.77	4.22	4.3	3.85	3.99	4.28	4.35	4.26	4.15	4.34	4.33	4.75
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	42	42	44	44	42	42	44	44	47	51	48	50	50
Noise level Lw (ISO EN 9614-2)	dB(A)	56.2	56.2	58.2	58.2	56.2	56.2	58.2	58.2	61.2	65.2	62.2	64.2	64.2
DIMENSIONS														
Length	mm	555	555	555	555	555	555	555	555	555	555	555	555	555
Width	mm	650	650	650	650	650	650	650	650	650	650	650	650	650
Height	mm	900	900	900	900	900	900	900	900	900	900	900	900	900
NET WEIGHT	Kg	88.7	91.4	101.5	106.3	88.7	91.4	101.5	106.3	114.5	116	118.5	141.7	147.4

EWMH

Heat pump

AVAILABLE
EWMH RC RANGE
- Remote Condenser

ADVANCE WS
CHILLER SERIES BY HITECSA

R-410A

WATER TO WATER UNITS | SCROLL
Scroll compressors - Plate heat exchangers

For residential and industrial installations

Water-chilling unit equipped with scroll compressors and plate exchangers, ideal for indoor installation.

MAIN FEATURES

- Cooling capacity from 27 to 609 kW
- Heating capacity from 33 to 780 kW
- R-410A refrigerant
- EER up to 4.01
- ESEER up to 6.63
- COP up to 4.06
- Heat pump (reverse refrigerating circuit)
- Scroll compressors
- Plate exchanger in condenser and evaporator

ADVANTAGES

- Plug and play
- Condenser water outlet up to 60 ºC
- Universal electronic regulation, easy reading and access to data
- Standard condensation control
- 0 10 V signal to manage the condenser 2-way valve
- Shut-off valves in compressor suction and discharge

AVAILABLE VERSIONS

- 1 or 2 refrigerant circuits
- Partial heat-recovery unit
- Cooling only (see EWML range)
- Cooling only remote condenser (EWML RC range)
- Reversible remote condenser (EWMH RC range)
- Low-temperature version

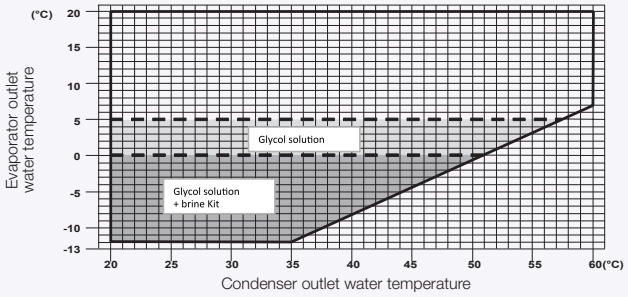
CONTROL

Regulation with microprocessor
MP.COM

See control and adjustment on page 200

HEAT PUMP OPERATING LIMITS

Reference values. The operating temperature depends on several parameters: operating conditions, thermal charge, settings, etc. These data should be confirmed when making the selection.



OPTIONS AVAILABLE

- **118** Low temperature variant, type A
- **119** Low temperature variant, type B
- **172** Anti-vibration rubber supports
- **175** Victaulic connections
- **450** Partial recovery unit
- **605** Condenser coil for Cos Phi (0.9) in compressor motors
- **919** Clock card
- **923** Serial port COM MBUS/JBUS card
- **926** Serial port LON card
- **931** BACnet Ethernet - SNMP - Serial port TCP/IP card
- **932** Serial port BACnet MS/TP card
- **942** Serial port card for GSM modem
- **943** Data log
- **1002** Condensation control with 2-way valve

On top of these options, if you don't find yours please consult our Sales Department.

EWMH SERIES

MODEL		27.1	30.1	33.1	39.1	40.1	40.2	48.1	48.2
SUMMER OPERATING MODE									
COOLING CAPACITY	kW	27	27.5	34	37.4	42.2	43.8	50	52
Compressor absorbed power	kW	6.66	6.7	8.51	9.96	11.6	12.2	13.7	13.4
Amps consumption [OA]	A	13.3	12.7	16.4	20.5	22.9	24.4	27.2	27
HEAT EXCHANGER									
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7
Water flow	m^3/h	4.63	4.73	5.83	6.42	7.24	7.51	8.58	8.93
Pressure drop	kPa	55	56	50	37	46	28	47	29
HEAT EXCHANGER									
Water temperature (inlet)	°C	30	30	30	30	30	30	30	30
Water temperature (outlet)	°C	35	35	35	35	35	35	35	35
Water flow	m^3/h	5.82	5.92	7.35	8.2	9.3	9.7	11	11.3
Pressure drop	kPa	69	63	64	47	57	38	57	38
WINTER OPERATING MODE									
Heating Capacity	kW	33	37.1	43.8	50.2	54.8	56	64.5	65.9
Compressor absorbed power	kW	8.21	9.34	10.5	12.5	14.9	14.7	17.3	17.2
Amps consumption [OA]	A	15.3	16.7	18.9	23.5	27.6	27.2	31.8	31.8
HEAT EXCHANGER									
Water temperature (inlet)	°C	38.8	38.2	38.5	38.2	38.4	38.5	38.5	38.6
Water temperature (outlet)	°C	45	45	45	45	45	45	45	45
Water flow	m^3/h	4.63	4.73	5.83	6.42	7.24	7.51	8.58	8.93
Pressure drop	kPa	48	39	37	25	33	22	33	23
HEAT EXCHANGER									
Water temperature (inlet)	°C	15	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10	10
Water flow	m^3/h	4.26	4.78	5.74	6.48	6.87	7.1	8.12	8.39
Pressure drop	kPa	48	47	42	31	38	22	38	23
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	2	2	2	2
Max. amps consumption [FLA]	A	22	25	31	34	42	42	44	44
Starting amps [LRA]	A	118	118	140	173	132	132	140	140
Capacity steps	no.	1	1	1	1	2	2	2	2
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1
Water contents	l	2.8	2.8	2.8	3.1	3.1	3.6	3.1	4.2
Maximum water flow	m^3/h	6.4	7.3	8.1	9	10.2	10.5	12.4	12.1
Anti-freeze	%	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1
Water contents	l	2.8	2.8	2.8	3.1	3.1	3.6	3.1	4.2
Maximum water flow	m^3/h	8	9.1	10.1	11.5	13	13.4	15.7	15.4
Anti-freeze	%	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	2.9	2.9	3	3.9	4.2	5	4.3	5.7
Refrigerant circuits	no.	1	1	1	1	1	2	1	2
ELECTRIC SUPPLY		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES									
EER = Eurovent	kW/kW	3.67	3.73	3.67	3.52	3.39	3.41	3.41	3.68
COP = Eurovent	kW/kW	3.79	3.77	3.96	3.86	3.53	3.69	3.59	3.72
ESEER = Eurovent Standard		5.87	5.84	5.86	6.02	5.2	6.14	5.46	6.43
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	50	51	52	53	53	53	53	53
Noise level Lw (ISO EN 9614-2)	dB(A)	65.4	66.4	67.4	68.8	68.9	68.9	68.9	68.9
DIMENSIONS									
Length	mm	1,000	1,000	1,000	1,000	1,200	1,200	1,200	1,200
Width	mm	650	650	650	650	750	750	750	750
Height	mm	1,400	1,400	1,400	1,400	1,700	1,700	1,700	1,700
NET WEIGHT	Kg	263	266	275	288	445	455	455	470

EWMH SERIES

MODEL		54.1	54.2	60.1	60.2	70.1	70.2	90.1	90.2	120.1	120.2
SUMMER OPERATING MODE											
COOLING CAPACITY	kW	56.9	57.2	63.5	62.9	84.7	80.3	96.9	98.2	122	120
Compressor absorbed power	kW	15.8	15.1	17.7	16.7	20.1	19.1	25.7	25.1	34.4	33.4
Amps consumption [OA]	A	29.6	28.4	34	32.2	41.1	39.4	47.5	46.7	63.2	62.1
HEAT EXCHANGER											
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	9.77	9.82	10.9	10.8	14.5	13.8	16.6	16.8	20.9	20.5
Pressure drop	kPa	50	28	43	28	50	29	46	29	48	38
HEAT EXCHANGER											
Water temperature (inlet)	°C	30	30	30	30	30	30	30	30	30	30
Water temperature (outlet)	°C	35	35	35	35	35	35	35	35	35	35
Water flow	m^3/h	12.6	12.5	14.1	13.8	18.2	17.2	21.2	21.3	27.1	26.5
Pressure drop	kPa	60	37	51	36	60	37	52	36	53	47
WINTER OPERATING MODE											
Heating Capacity	kW	72.5	72.9	80.2	80.1	101	94.6	132	132	158	156
Compressor absorbed power	kW	19.7	19.5	21.8	21.6	25.1	24.1	32.5	31.7	42.7	42.3
Amps consumption [OA]	A	34.9	34.4	39.2	39.1	47.1	46.1	55.6	54.5	72.5	72
HEAT EXCHANGER											
Water temperature (inlet)	°C	38.6	38.5	38.6	38.5	39	39	38.1	38.2	38.5	38.4
Water temperature (outlet)	°C	45	45	45	45	45	45	45	45	45	45
Water flow	m^3/h	9.77	9.82	10.9	10.8	14.5	13.8	16.6	16.8	20.9	20.5
Pressure drop	kPa	35	22	31	21	40	26	27	19	30	26
HEAT EXCHANGER											
Water temperature (inlet)	°C	15	15	15	15	15	15	15	15	15	15
Water temperature (outlet)	°C	10	10	10	10	10	10	10	10	10	10
Water flow	m^3/h	9.09	9.2	10.1	10.1	13.1	12.1	17.1	17.3	19.8	19.6
Pressure drop	kPa	40	22	35	22	41	24	37	23	39	31
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	2	2	2	2	2	2	2	2	2	2
Max. amps consumption [FLA]	A	50	50	62	62	68	68	80	80	97	97
Starting amps [LRA]	A	143	143	171	171	207	207	265	265	321	321
Capacity steps	no.	2	2	2	2	2	2	2	2	2	2
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1	1	1
Water contents	l	3.9	4.2	3.9	4.2	4.7	6.4	5.8	6.7	7.2	8.3
Maximum water flow	m^3/h	13.7	13.8	15	15.3	20.3	17.9	23.2	23.5	29.3	28.7
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
HEAT EXCHANGER	no.	1	1	1	1	1	1	1	1	1	1
Water contents	l	3.9	4.2	3.9	4.2	4.7	6.4	5.8	6.7	7.2	8.3
Maximum water flow	m^3/h	17.4	17.4	19.2	19.3	25.5	23	29.7	29.8	37.4	36.7
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	5.7	5.7	5.8	5.7	6.6	8.1	8.7	10.4	10.7	12.7
Refrigerant circuits	no.	1	2	1	2	1	2	1	2	1	2
ELECTRIC SUPPLY		400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES											
EER = Eurovent	kW/kW	3.37	3.61	3.39	3.6	3.94	4.01	3.57	3.75	3.38	3.44
COP = Eurovent	kW/kW	3.54	3.64	3.56	3.61	3.87	3.82	3.93	4.06	3.6	3.6
ESEER = Eurovent Standard		5.38	6.15	5.09	5.79	5.45	6.3	5.2	5.96	5.13	5.99
SOUND PRESSURE at 1 m in free field (ISO3744)	dB(A)	54	54	55	55	56	56	61	61	64	64
Noise level Lw (ISO EN 9614-2)	dB(A)	69.9	69.9	70.9	70.9	71.9	71.9	76.9	76.9	80.1	80.1
DIMENSIONS											
Length	mm	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200
Width	mm	750	750	750	750	750	750	750	750	750	750
Height	mm	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
NET WEIGHT	Kg	465	480	470	495	475	506	730	770	785	800

	150.1	150.2	170.2	190.2	200.1	200.2	220.1	240.2	290.1	300.2	340.2	380.2	460.2	570.2
	158	154	190	209	220	208	250	250	328	314	364	405	483	609
	44.3	42.3	46.5	56.1	54.7	54.6	66.7	66.7	81.4	85.6	97.6	109	126	166
	79.3	76.2	92.5	99	97.9	97.7	124	124	146	154	175	194	228	295
	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	27.1	26.5	32.6	35.8	37.8	35.7	42.9	42.9	56.3	53.9	62.5	69.6	82.9	104
	46	42	43	34	46	53	61	61	49	70	70	64	63	85
	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	35.1	34.1	41	45.9	47.6	45.5	54.8	54.8	70.9	69.3	79.9	89	106	134
	45	47	69	42	62	71	81	81	60	89	86	74	64	83
	203	201	243	253	264	256	319	319	393	398	464	513	616	779
	54.4	53.8	61.2	73.3	67.4	67.4	83.9	83.9	101	107	121	135	161	203
	92.9	91.2	110	119	115	115	143	143	175	182	206	229	295	346
	38.5	38.4	38.5	38.9	38.9	38.8	38.5	38.5	38.9	38.6	38.5	38.6	38.5	38.5
	45	45	45	45	45	45	45	45	45	45	45	45	45	45
	27.1	26.5	32.6	35.8	37.8	35.7	42.9	42.9	56.3	53.9	62.5	69.6	82.9	104
	26	27	57	58	45	45	48	48	45	53	51	44	38	49
	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	25.7	25.4	31.3	30.9	33.8	32.5	40.5	40.5	50.2	50.2	59.1	65.1	78.4	99.1
	38	34	44	29	44	44	51	51	47	58	58	53	52	70
	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
	2	2	4	4	2	2	3	4	3	4	4	4	6	6
	131	131	148	160	164	164	197	246	194	262	295	328	393	492
	375	375	333	345	466	466	441	584	418	507	597	630	637	794
	2	2	4	4	2	2	3	4	3	4	4	4	6	6
	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	8.7	12.3	12.3	20.3	20.7	20.3	20.7	20.3	27	27.5	33.8	44.6	44.6	57.2
	37.8	37	46.6	49.6	49.8	52.8	63	60.1	78.8	75.2	87.6	97.3	115.8	145.6
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	8.7	12.3	12.3	20.3	20.7	20.3	20.7	20.3	27	27.5	33.8	44.6	44.6	57.2
	48.3	47.3	58.1	63	63	65.9	78.3	76	98.4	95.8	111	123.5	147	184.8
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
	12.4	17	17.8	23.9	22.4	22.8	23.1	24.7	30.3	31.6	31.1	48.1	49.5	62.4
	1	2	2	2	1	2	1	2	1	2	2	2	2	2
	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
	3.42	3.49	3.89	3.61	3.84	3.63	3.55	3.55	3.86	3.47	3.53	3.54	3.67	3.48
	3.64	3.65	3.87	3.39	3.81	3.69	3.69	3.69	3.79	3.6	3.72	3.69	3.73	3.72
	5.1	6	5.46	6.63	5.17	6.01	6.37	5.53	6.23	5.65	5.75	5.66	6	5.93
	64	64	64	64	64	64	65.8	67	65.8	67	67	67	68.8	68.8
	81	81	81	81	81	81	82.8	84.1	82.8	84.1	84.5	84.5	86.3	86.3
	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,800	1,800	1,800	1,800
	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740
	1,035	1,040	1,140	1,345	1,100	1,135	1,310	1,570	1,390	1,615	1,710	1,796	2,270	2,365

EWML EVO

Cooling only

AVAILABLE
EWML RC RANGE
- Remote Condenser

ADVANCE WS
CHILLER SERIES BY HITECSA

R-410A

WATER TO WATER UNITS | SCROLL
Scroll compressors - Plate heat exchangers

For residential and industrial installations

Water-cooled condenser monobloc water chiller unit for indoor installation, equipped with hermetic scroll compressors, brazed plate evaporator and condenser.

MAIN FEATURES

- Cooling capacity from 21 to 464 kW
- R-410A refrigerant
- EER up to 4.36
- ESEER up to 6.87
- The perfect solution for household and industrial installations
- Up to 3 scroll compressors per refrigerating circuit for higher efficiency
- Evaporator with brazed plates
- Condenser with brazed plates

ADVANTAGES

- Plug and play
- More compact structure
- Hydronic connections on the upper side of the unit
- High cooling density, up to 220 kW per m^2 of occupied space
- Reduced noise emissions
- Full front access for easy maintenance
- Built-in pump group (option)
- Universal electronic regulation, easy reading and access to data
- Shut-off valves in compressor intake and discharge

AVAILABLE VERSIONS

- S version with a single refrigerating circuit - cooling capacity from 21 to 355 kW
- Version D: twin refrigerating circuit - cooling capacity from 154 to 464 kW
- Partial heat recovery
- Total heat recovery
- Three-phase for the whole range
- Remote condenser for cooling only (EWML RC range)
- Reversible remote condenser (EWMH RC range)

CONTROLLER

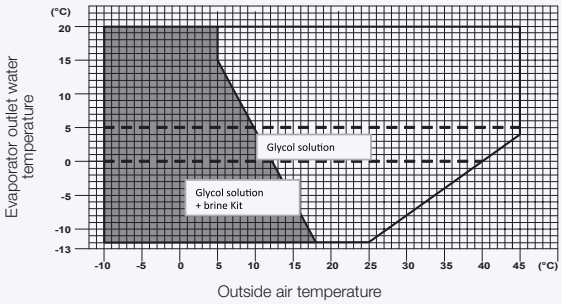
Regulation with microprocessor

MP.COM

See regulation and control on page 200.

COOLING OPERATING LIMITS

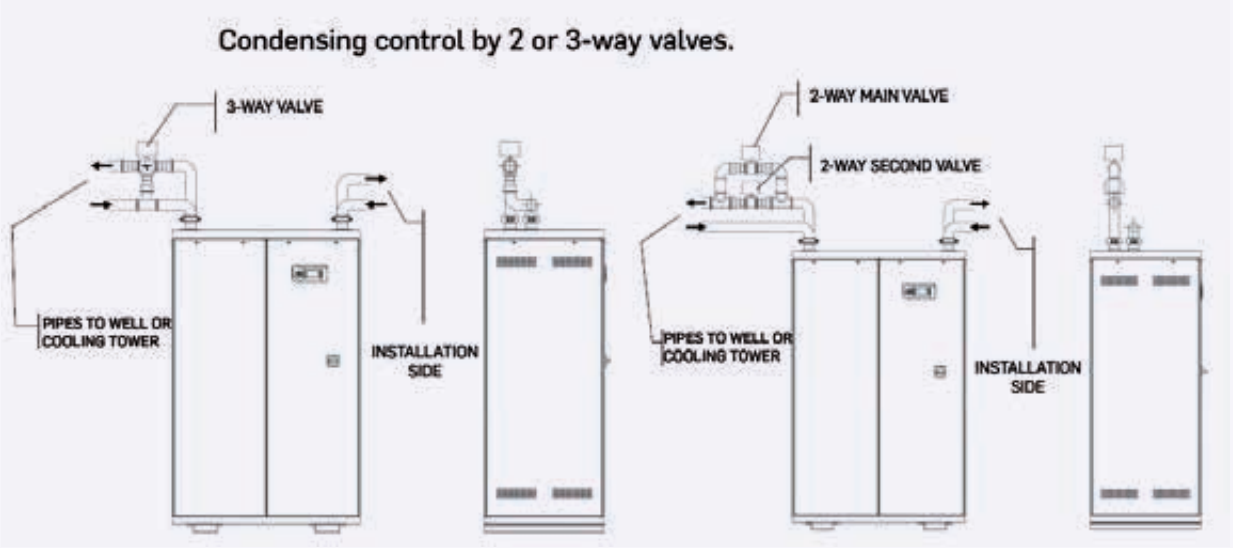
Reference values. The operating temperature depends on several parameters: operating conditions, thermal charge, settings, etc. These data should be confirmed when making the selection.



OPTIONS AVAILABLE

83 Compressor operation indicator
84 Additional external alarm
85 Demand limitr
923 Serial RC-Comb MBUS/JBUS card
926 Serial LON card
931 Serial BACnet card for Ethernet - SNMP - TCP/IP
118 Low-temperature kit A (between 0 and -6 ºC)
119 Low-temperature kit B (> -6 ºC)
171 Anti-vibration rubber supports (kit)
450 Partial heat-recovery unit
451 Total heat-recovery unit
780 Sound attenuator housing
460 Outside installation kit
552 Compressor shut-off valve
605 Capacitor for correction of the power compressor motor factor (0.9)
610 Compressor sound attenuator
651 Special electrical voltage 230/3/50 Hz
739 Pump group (1 pump)
752 Hydraulic group (1 pump)
753 Hydraulic group (2 pumps)
764 Water tank
785 Trace heater for hydraulic module
960 Voltage free contact for pump on/off
1002 Compressor soft-start
1004 Trace heater for hydraulic module
1018 Condensation control with 3-way valves
1092 Condensation control with 2-way valve

On top of these options, if you don't find yours please consult our Sales Department.



EWML EVO SERIES

MODEL		22.1	30.1	37.1	44.1	40.1	50.1	60.1	72.1	88.1	114.1
Option for sound level		None	None	None	None	None	None	None	None	None	None
COOLING CAPACITY	kW	21.4	29.3	37.6	43.6	39.6	49.8	59.6	73.7	87.2	112
Compressors absorbed power	kW	5.08	6.71	8.35	10.2	9.34	11.6	13.3	17.4	20.6	26.1
Compressors amps consumption	A	9.78	13.2	16	20.8	18.8	22.9	26.1	33	42	48.1
EVAPORATOR											
Water temperature (inlet)	°C	12	12	12	12	12	12	12	12	12	12
Water temperature (outlet)	°C	7	7	7	7	7	7	7	7	7	7
Water flow	m^3/h	3.67	5.02	6.45	7.48	6.8	8.54	10.2	12.6	15	19.2
Pressure drop	kPa	33	30	38	27	22	33	29	33	25	37
CONDENSER											
Water temperature (inlet)	°C	30	30	30	30	30	30	30	30	30	30
Water temperature (outlet)	°C	35	35	35	35	35	35	35	35	35	35
Water flow	m^3/h	4.58	6.24	7.96	9.31	8.48	10.6	12.6	15.8	18.7	23.9
Pressure drop	kPa	49	45	57	42	30	28	29	45	26	34
COMPRESSORS		scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll	scroll
Quantity	no.	1	1	1	1	2	2	2	2	2	2
Max. amps consumption [FLA]	A	16	22	31	34	30	42	44	62	68	80
Starting amps [LRA]	A	95	118	140	174	116	132	140	171	208	265
Capacity steps	no.	1	1	1	1	2	2	2	2	2	2
EVAPORATOR	no.	1	1	1	1	1	1	1	1	1	1
Water contents	l	1.4	2.1	2.4	3.3	2.7	2.7	3.4	4	4	5.6
Maximum water flow	m^3/h	4.8	6.5	8.4	9.7	8.9	11.1	13.4	16.5	19.3	24.9
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
CONDENSER											
Quantity	no.	1	1	1	1	1	1	1	1	1	1
Water contents	l	1.4	2.1	2.4	3.3	2.7	3.4	4	4	5.6	7.4
Maximum water flow	m^3/h	5.95	8.1	10.35	12.12	11.05	13.85	16.43	20.55	24.01	31.02
Anti-freeze	%	0	0	0	0	0	0	0	0	0	0
Fouling factor	m^2 K/kW	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
REFRIGERANT		R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A	R-410A
Total refrigerant charge	Kg	1.3	2.1	2.2	2.7	2.2	4.6	4.8	4.9	5.6	7.8
Refrigerant circuits	no.	1	1	1	1	1	1	1	1	1	1
ELECTRIC SUPPLY	V/ph/Hz	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50	400/3/50
ENERGY EFFICIENCY RATES											
EER = Eurovent	Kw/Kw	3.87	4.06	4.15	4.02	4.03	4.08	4.26	4.01	4.07	4.1
ESEER = Eurovent Standard		5.1	5.38	5.39	5.22	6.24	6.19	6.56	6.05	6.31	6.04
SOUND PRESSURE at 1m in free field (ISO3744)	dB(A)	51	53	55	56	54	56	56	58	59	64
Sound level Lw (ISO EN 9614-2)	dB(A)	66.7	68.7	70.7	71.7	70	72	72	74	75	80.6
DIMENSIONS											
Length	mm	785	785	785	785	1,085	1,085	1,085	1,085	1,085	1,480
Width	mm	725	725	725	725	725	725	725	725	725	935
Height	mm	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,875
NET WEIGHT	Kg	220	245	260	270	330	375	380	390	400	675

	142.1	186.1	211.1	236.1	280.1	354.1	148.2	176.2	228.2	284.2	328.2	372.2	422.2	472.2
	None	None	None	None	None	None	None	None	None	None	None	None	None	None
	140	**183**	**207**	**230**	**275**	**355**	**154**	**178**	**226**	**283**	**326**	**365**	**413**	**464**
	32.9	42.2	48.7	55.6	62.2	81.6	33.9	41.1	52.5	66	75.6	84.4	97.5	111
	60.7	75.6	86	97.1	112	143	64.9	83.8	96.6	122	137	151	172	193
	12	12	12	12	12	12	12	12	12	12	12	12	12	12
	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	24	31.4	35.6	39.4	47.2	60.9	26.5	30.5	38.8	48.7	55.9	62.6	70.9	79.7
	34	31	33	36	42	48	28	36	41	44	41	50	39	52
	30	30	30	30	30	30	30	30	30	30	30	30	30	30
	35	35	35	35	35	35	35	35	35	35	35	35	35	35
	29.9	39	44.3	49.4	58.4	75.6	32.5	37.9	48.2	60.5	69.5	77.8	88.4	99.6
	36	41	47	48	48	67	37	37	43	55	51	48	33	54
	scroll	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**	**scroll**
	2	2	2	2	3	3	4	4	4	4	4	4	4	4
	97	130.8	148	165	146	248	124	136	160	194	228	262	296	330
	320	375	473	490	406	572	233	276	345	416	471	505	620	654
	2	2	2	2	3	3	4	4	4	4	4	4	4	4
	1	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	7.4	10.4	11.7	12.6	14.4	22.5	16.1	16.1	19.2	23.4	28.6	28.6	32.8	39
	31.2	40.8	46.2	51.2	61.4	79.2	34.4	39.7	50.4	63.3	72.7	81.4	92.2	103.6
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9.2	11.7	12.6	14.4	19.8	27	16.1	19.2	23.4	28.6	32.8	39	44.2	54.6
	38.94	50.7	57.62	64.21	75.96	98.24	42.24	49.27	62.67	78.69	90.34	101.13	114.92	129.44
	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043	0.043
	R-410A	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**	**R-410A**
	9.9	108	12.5	13.3	17.3	21.4	13	14.2	18.6	23.8	25.8	27.8	31	35
	1	1	1	1	1	1	2	2	2	2	2	2	2	2
	400/3/50	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**	**400/3/50**
	4.08	4.17	4.09	3.99	4.25	4.15	4.36	4.16	4.14	4.11	4.15	4.16	4.11	4.01
	5.95	6.08	5.96	5.84	6.45	6.29	6.67	6.87	6.47	6.39	6.5	6.49	6.36	6.25
	67	**67**	**69.5**	**71**	**68.8**	**72.8**	**61**	**62**	**67**	**70**	**70**	**70**	**72.5**	**74**
	83.6	83.6	86.1	87.6	86	90	78.2	79.2	84.2	87.2	87.2	87.2	89.7	91.2
	1,480	1,480	1,480	1,480	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360	2,360
	935	935	935	935	935	935	935	935	935	935	935	935	935	935
	1,875	1,875	1,875	1,875	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025	2,025
	710	**775**	**810**	**845**	**1,270**	**1,380**	**1,000**	**1,010**	**1,350**	**1,470**	**1,500**	**1,520**	**1,650**	**1,800**

Fan coils

HITECSA
COOL AIR

Hitecsa Water Terminal Units

One of the most versatile and reliable air-conditioning solutions.

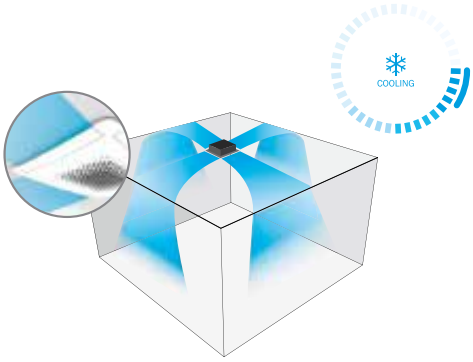
Hitecsa fan coils are synonymous of experience, reliability and design in air-treatment solutions.

THE MOST COMPLETE RANGE

- cased fan coils and easy to install; the SOHO version offers decorative, modern and very ecological units manufactured by keeping in mind the recycling of most of the components at the end of their lifecycle. Equipped with EC motors without fan brushes, they help cut energy costs.
- Non cased fan coils which can be integrated in any environment, they may be part of the decoration, placed behind decorative panels or anywhere else as designed by architects and decorators.
- Ducted fan coils for false ceiling can distribute air to a single or several rooms. They offer high-pressure fans to overcome the ducts pressure drops without creating sound problems thanks to their low noise level.
- There are also wall-mounted units which can be strategically placed to allow the treated air to be blown directly into the rooms without the need of false ceilings.
- For commercial premises, offices, hotels, function rooms and restaurants, we have the FKZEN cassette which, thanks to its drop ceiling design, can perfectly overcome the main problems encountered when the air-conditioning comes from a high central point.

COANDA EFFECT

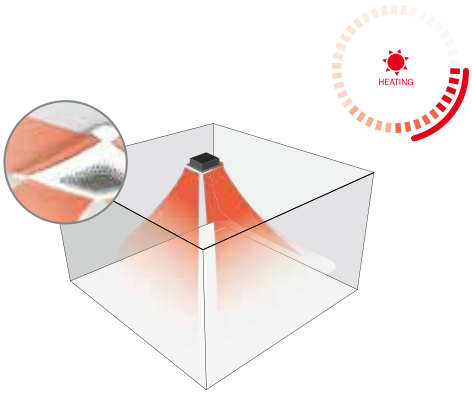
The configuration of the side fins takes full advantage of the Coanda effect in cooling mode, providing ideal comfort without the typical draughts generated by cold air. This works by creating a laminar effect that causes the cold air to flow along the ceiling and then to be distributed with uniformity and gradually through the area. This guarantees perfect air-conditionning without unpleasant thermal conditions caused by direct cold air stream.



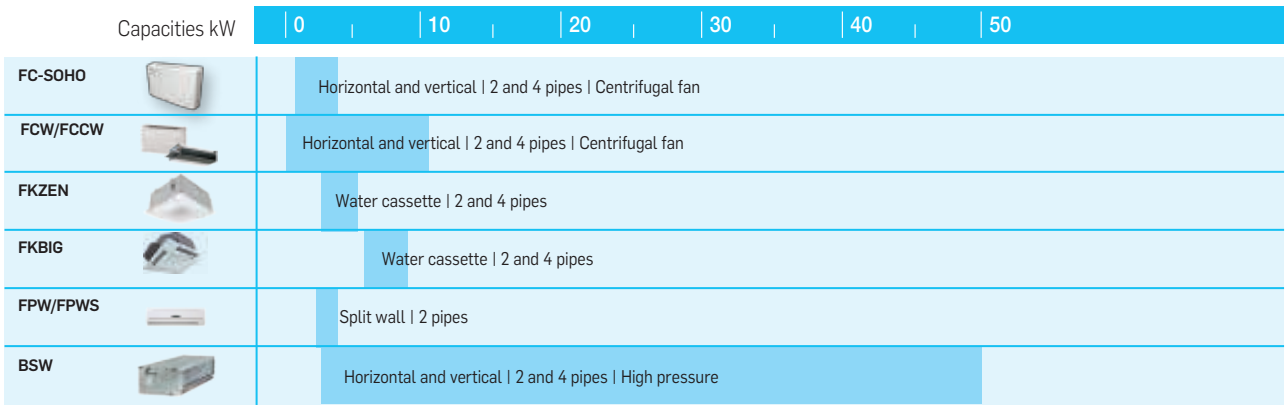
ANTISTRATIFICATION EFFECT

In heating mode, the fins are automatically placed (option) with a 35° opening to create, along with the hot air, a downwards-oriented stream. This will guarantee a uniform distribution of the temperature within a room as well as avoid stratification-related problems.

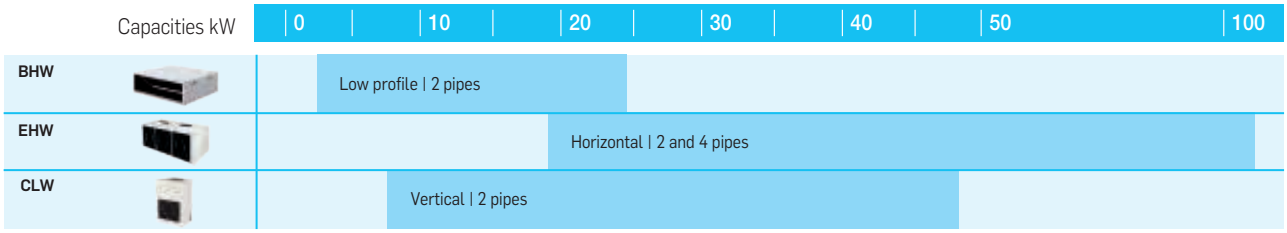
Facing the direct-expansion systems, it offers higher flexibility, thanks to the use of water as refrigerant transfer energy fluid; therefore, it can be installed with flexible pipes and shut-off valves. This allows easy relocation of the units in rental offices and offers wall-moving flexibility not provided by any other system.



Fan coils



Air-conditioning units



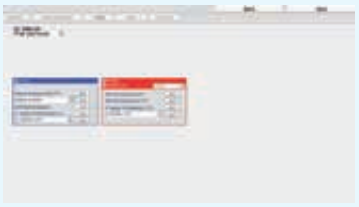
SELECTION SOFTWARE FOR FAN COIL UNITS

When selecting fan coils, our dedicated back office department uses state-of-the-art selection software to optimise performance calculations.

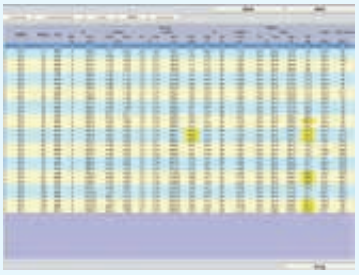
By using different parameters, such as:

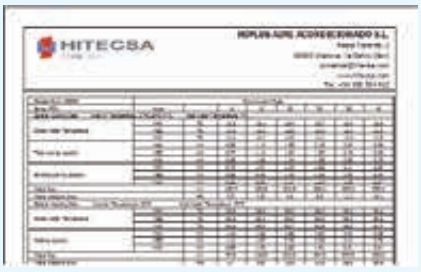
power, air flow

the pressure drop of the ducts



We supply all data and measured charts to fully optimise the selections of the units...





... providing our clients with technical sheets according to their demands

NEW

FC SOHO

Ssshhhh... Silence

CENTRIFUGAL FAN COIL
Horizontal and vertical | 2 and 4 pipes | Centrifugal fan

Design and comfort with absolute silence

Floor or ceiling cabinet fan coils for horizontal or vertical installation.

MAIN FEATURES

- Cooling capacities: from 1.32 to 4.4 kW
- Heating capacities: from 1.4 to 4.4 kW
- 2 or 4 pipes
- Centrifugal fan
- EC motor, in compliance with Ecodesign requirements
- Reversible discharge air grille
- Right/left reversible water coil
- 3R coil with 2 pipes and 3R + 1R in the 4-pipe version
- Vertical and horizontal positions

ADVANTAGES

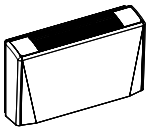
- Technology and design
- High performance compact unit
- Silent operation for maximum comfort
- Eco-friendly: built with fully recyclable materials
- Vertical/horizontal drip tray, double outlet

APPLICATIONS

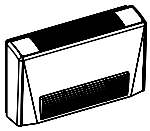
Perfect for households, offices, hotels or places which require terminal unit that perfectly suit both modern and traditional areas, thanks to its design, quiet operation, high performance and compact size.

AVAILABLE VERSIONS

VERTICAL CASED UNIT

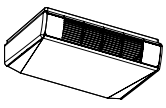


FC SOHO xM
Lower air return
Vertical air discharge
Without support feet
With support feet
With support feet and rear panels

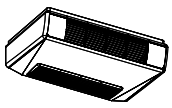


FC SOHO xMF
Front air return
Vertical air discharge

CABINET HORIZONTAL UNIT



FC SOHO xM
Back return
Horizontal discharge



FC SOHO xMF
Vertical air return
Horizontal discharge

CONTROLLER

i-Digit zero

i-Digit 2

i-Digit 1

i-Digit 3

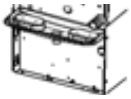
For additional control types, see page 191.

OPTIONS AVAILABLE


1 row auxiliary hot water coil when 4 pipes configuration


4 row coil with 2 pipes (supplied assembled) Technical data Cooling 7/12 ºC Heating 50 ºC


Auxiliary drip tray, horizontal unit


Auxiliary drip tray vertical unit


Two support feet


Two plastic support feet


Two plastic support feet + rear mounted panel


Electrical heater kit (heater + safety thermostat). Supplied 1 row hot water when 4 pipes configuration


Condensate pump Horizontal fan coil Installed kit


Condensate pump Vertical fan coil Installed kit


Fresh air intake kit (includes supporting feet). Max. 8% outdoor air. Vertical fan coil


Fresh air intake kit (includes supporting feet). Max. 8% outdoor air. Horizontal fan coil


Valve motor


Return sensor

FC SOHO SERIES - Installation with 2 pipes (3R coil)

MODEL			20	30	40	50	60	80
Factory wired speed			4º3º2º	4º3º2º	4º3º2º	4º3º2º	4º3º2º	4º3º2º
COOLING								
Total cooling capacity	kW	Max.	1.32	1.94	2.36	2.89	3.20	4.41
	kW	med.	1.16	1.72	1.95	2.38	2.67	3.60
	kW	min.	0.98	1.48	1.64	1.81	2.13	2.92
Sensible cooling capacity	kW	Max.	0.95	1.41	1.70	2.06	2.29	3.22
	kW	med.	0.84	1.25	1.38	1.68	1.90	2.59
	kW	min.	0.70	1.07	1.16	1.27	1.51	2.06
Water flow	l/h	min.	227	333	404	496	548	757
Water pressure drop	kPa	Max.	8.4	20.2	10.8	17.9	10.8	11.5
KIT								
Capacity	kW	Max.	1.66	2.46	3.05	3.74	4.15	5.71
	kW	med.	1.47	2.15	2.53	3.14	3.47	4.61
	kW	min.	1.17	1.88	2.16	2.36	2.86	3.87
Water flow	l/h	Max.	227	333	404	496	548	757
Water pressure drop	kPa	Max.	6.8	16.4	8.8	14.6	8.8	9.3
Airflow	m^3/h	Max.	211	292	359	398	503	728
	m^3/h	med.	184	256	295	336	419	586
	m^3/h	min.	152	221	249	249	244	476
Sound level	db(A)	Max.	40	45	40	40	43	51
	db(A)	med.	36	41	35	36	36	45
	db(A)	min.	30	36	31	30	33	40
Sound pressure	db(A)	Max.	31	36	31	31	34	42
	db(A)	med.	27	32	26	27	29	36
	db(A)	min.	21	27	22	21	24	31
Fan motor capacity	W	Max.	10.3	12.6	11.5	10.6	15.9	26
	W	med.	8.4	10.1	8.7	8.1	11.7	18
	W	min.	7	8.3	7.4	5.9	9.15	11
Control voltage	V	-	2.7/3.7/4.8	3.2/4/4.8	2.5/3.2/4.2	1.6/2.9/3.8	2.6/3.5/4.6	2.4/3.1/4.1

- Standard unit: static pressure = 0 Pa.
- Sound level: as per ISO 23741.
- Sound pressure: considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 area with a reverberation time of 0.5 s.
- Accepted voltage values: ~230 V ± 10% / 1ph / 50 Hz.

FC SOHO SERIES - Installation with 4 pipes (3R + 1R coil)

MODEL			20	30	40	50	60	80
Factory wired speed			4º3º2º	4º3º2º	4º3º2º	4º3º2º	4º3º2º	4º3º2º
COOLING								
Total cooling capacity	kW	Max.	1.30	1.91	2.31	2.25	3.14	4.33
	kW	med.	1.14	1.69	1.92	1.85	2.62	3.53
	kW	min.	0.97	1.45	1.61	1.41	2.09	2.87
Sensible cooling capacity	kW	Max.	0.94	1.39	1.67	1.77	2.25	3.16
	kW	med.	0.82	1.23	1.36	1.44	1.87	2.55
	kW	min.	0.70	1.05	1.14	1.09	1.47	2.04
Water flow	l/h	min.	223	327	397	488	539	742
Water pressure drop	kPa	Max.	7.6	18.7	10.1	17	10	11
KIT								
Capacity	kW	Max.	1.45	2.22	2.24	2.81	3.39	4.40
	kW	med.	1.36	2.02	1.94	2.42	2.95	3.91
	kW	min.	1.18	1.83	1.72	1.94	2.58	3.45
Water flow	l/h	Max.	127	195	196	270	298	386
Water pressure drop	kPa	Max.	3.9	10.2	12.3	17.3	4.8	8.6
Airflow	m^3/h	Max.	201	291	349	400	496	733
	m^3/h	med.	174	248	284	329	407	581
	m^3/h	min.	146	214	240	245	335	469
Sound level	db(A)	Max.	40	43	40	38	43	51
	db(A)	med.	36	39	35	34	38	45
	db(A)	min.	30	36	32	27	33	40
Sound pressure	db(A)	Max.	31	34	31	29	34	42
	db(A)	med.	27	30	26	25	29	36
	db(A)	min.	21	27	23	18	24	31
Fan motor capacity	W	Max.	10.3	12.6	11.5	10.6	15.9	26
	W	med.	8.4	10.1	8.7	8.1	11.7	18
	W	min.	7	8.3	7.4	5.9	9.15	11
Control voltage	V	-	2.7/3.7/4.8	3.2/4/4.8	2.5/3.2/4.2	1.6/2.9/3.8	2.6/3.5/4.6	2.4/3.1/4.1

- Standard unit: static pressure = 0 Pa.
- Sound level: as per ISO 23741.
- Sound pressure: considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 area with a reverberation time of 0.5 s.
- Accepted voltage values: ~230 V ± 10% / 1ph / 50 Hz.

FC SERIES

FCW / FCCW

Without casing *With casing*

Water terminal units for the hotel and tertiary sector

The FCW-FCCW fan coil is a terminal with a centrifuge fan. It is characterised by its modern design and can be installed in any environment.

MAIN FEATURES

- Cooling capacities: from 0.9 to 11 kW
- Horizontal or vertical configuration
- Cased or non-cased versions

ADVANTAGES

- Can be connected to the whole range of water chiller units from the KRONO and ADVANCE ranges

AVAILABLE VERSIONS

- 4 installation versions:
  - FCW 3R: without casing with 2 pipes
  - FCCW 3R: with casing with 2 pipes
  - FCW 3R+1: without casing with 4 pipes
  - FCCW 3R+1: with casing with 4 pipes
- Different air discharge or return options:
  - FCCW: vertical V version
  - FCCW: horizontal H version
  - FCW: vertical V version
  - FCW: horizontal H version

CONTROLLER

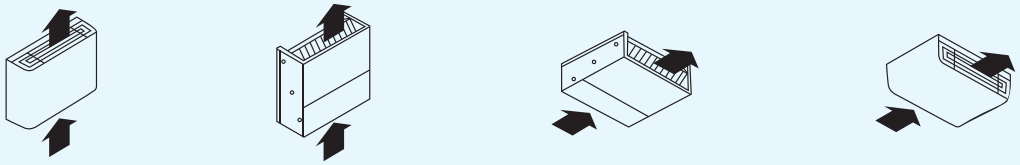
Different control possibilities.

For additional control types, see page 191.

APPLICATIONS

Designed to be installed inside the building, their characteristic is to offer great flexibility for the installation.

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS



FCW 3R / FCCW 3R SERIES (2 pipes)

MODEL		10	15	20	25	30	40
Water cooling capacity	kW	0.9	1.3	2	2.5	3.1	3.8
Water heating capacity 50 ºC	kW	1.3	1.9	2.6	3.3	3.7	4.5
Water heating capacity 70/60 ºC	kW	2.2	3.2	4.4	5.5	6.1	7.5
Absorbed power	W	30	30	40	50	60	80
Power supply (50 Hz ~)	V	230.1	230.1	230.1	230.1	230.1	230.1
Airflow (1)	m^3/h	227	289	404	453	575	685
Water flow	l/h	149	220	357	436	536	664
Water connections	Ø (")	3/4	3/4	3/4	3/4	3/4	3/4
Sound pressure (2)	db(A)	46	44	44	47	47	52
Weight	Kg	14	17	22	23	27	28
Dimensions with cabinet (length x height x width)	mm	480 x 660 x 225	480 x 860 x 225	480 x 1,060 x 225	480 x 1,060 x 225	480 x 1,260 x 225	480 x 1,260 x 225
MODEL		**50**	**60**	**70**	**80**	**100**	**110**
Water cooling capacity	kW	4.7	5.6	6.9	8	10	11
Water heating capacity 50 ºC	kW	5.1	6.7	8.1	10.1	13.1	14.1
Water heating capacity 70/60 ºC	kW	8.5	11.1	13.5	16.9	22	23.8
Absorbed power	W	70	160	180	213	277	273
Power supply (50 Hz ~)	V	230.1	230.1	230.1	230.1	230.1	230.1
Airflow (1)	m^3/h	708	1,058	1,242	1,356	2,012	2,003
Water flow	l/h	808	964	1,186	1,376	1,727	1,898
Water connections	Ø (")	3/4	3/4	3/4	3/4	3/4	3/4
Sound pressure (2)	db(A)	52	58	64	63	67	66
Weight	Kg	30	35	36	46	55	56
Dimensions with cabinet (length x height x width)	mm	585 x 1,260 x 225	585 x 1,460 x 225	585 x 1,460 x 225	602 x 1,660 x 257	602 x 1,960 x 257	602 x 1,960 x 257

(1) available static pressure 0 Pa

(2) considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 room with a reverberation time of 0.5 sec.

Data calculated at maximum speed.

FCW 3R+1 / FCCW 3R+1 SERIES (4 pipes)

MODEL		10	15	20	25	30	40
Water cooling capacity	kW	0.8	1.2	20.8	2.4	2.9	3.7
Water heating capacity 70/60 ºC	kW	1.3	1.9	2.7	2.9	3.5	4.1
Absorbed power	W	30	30	40	56	60	80
Power supply (50 Hz ~)	V	230.1	230.1	230.1	230.1	230.1	230.1
Airflow (1)	m^3/h	216	275	384	430	546	651
Water flow	l/h	144	213	358	410	511	635
Water connections	Ø (")	3/4	3/4	3/4	3/4	3/4	3/4
Sound pressure (2)	db(A)	45	47	44	48	46	53
Weight	Kg	15	18	23	24	28	29
Dimensions with cabinet (length x height x width)	mm	480 x 660 x 225	480 x 860 x 225	480 x 1,060 x 225	480 x 1,060 x 225	480 x 1,260 x 225	480 x 1,260 x 225
MODEL		**50**	**60**	**70**	**80**	**100**	**110**
Water cooling capacity	kW	4.5	5.3	6.6	7.7	9.7	10.7
Water heating capacity 70/60 ºC	kW	5	6.2	7.7	8.4	10.1	11.4
Absorbed power	W	78	160	180	182	273	273
Power supply (50 Hz ~)	V	230.1	230.1	230.1	230.1	230.1	230.1
Airflow (1)	m^3/h	673	1,005	1,180	1,291	1,916	1,908
Water flow	l/h	771	919	1,133	1,330	1,673	1,837
Water connections	Ø (")	3/4	3/4	3/4	3/4	3/4	3/4
Sound pressure (2)	db(A)	53	59	65	63	67	67
Weight	Kg	32	38	39	49	58	60
Dimensions with cabinet (length x height x width)	mm	585 x 1,260 x 225	585 x 1,460 x 225	585 x 1,460 x 225	602 x 1,660 x 257	602 x 1,960 x 257	602 x 1,960 x 257

(1) available static pressure 0 Pa

(2) considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 room with a reverberation time of 0.5 sec.

Data calculated at maximum speed.

OPTIONS AVAILABLE

ENERGY SAVING

- DC brushless motor

UNIT INSTALLATION

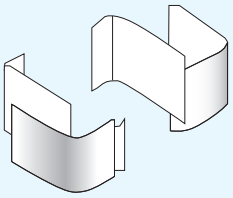
- Motor dimensioned for 60 Pa
- 2-pipe model 3-way valve
- 2-pipe model shut-off and control valve

CONTROLLER AND ADJUSTMENT

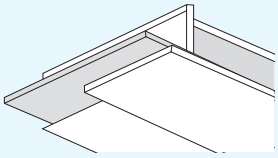
- Electronic thermostat

On top of these options, if you don't find yours please consult our Sales Department.

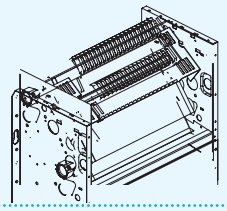
OPTIONS AVAILABLE



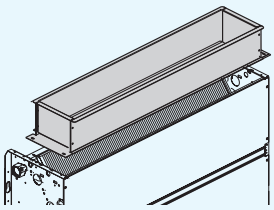
Fan coil support set



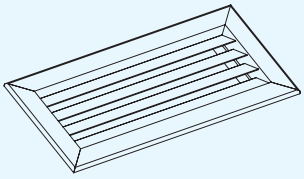
Auxiliary drip tray



Electric heaters Includes safety thermostat (230-i)

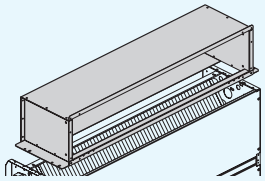


Discharge plenum for units without casing

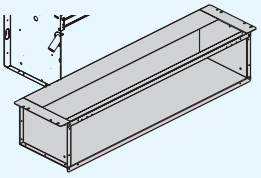


Adjustable discharge grilles for units without casing

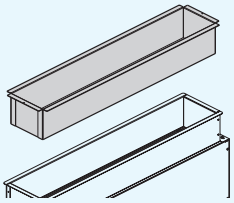
For models	kW
FCW 10	0.6
FCW 15, 20, 25	1
FCW 30, 40, 50	2
FCW 60, 70	3
FCW 80, 100, 110	4



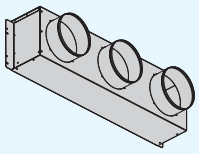
90° discharge plenum for units with no casing



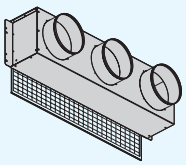
Return plenum for units without casing



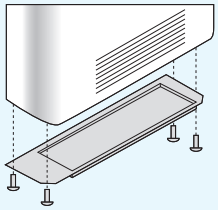
Extension for straight plenum at 90° for unit with no casing



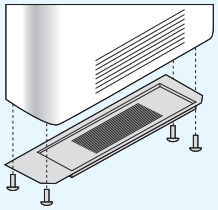
Circular discharge plenum for units with no casing



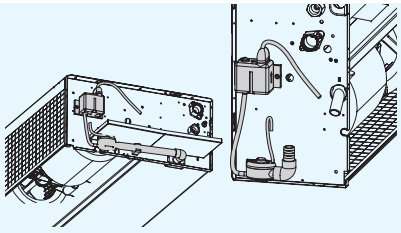
Circular return plenum with filter for units with no casing



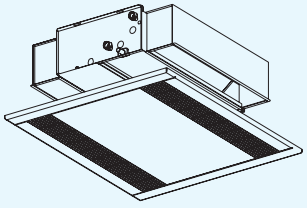
Painted bottom panel without grille for units with casing



Painted lower panel with filter and grille for units with casing

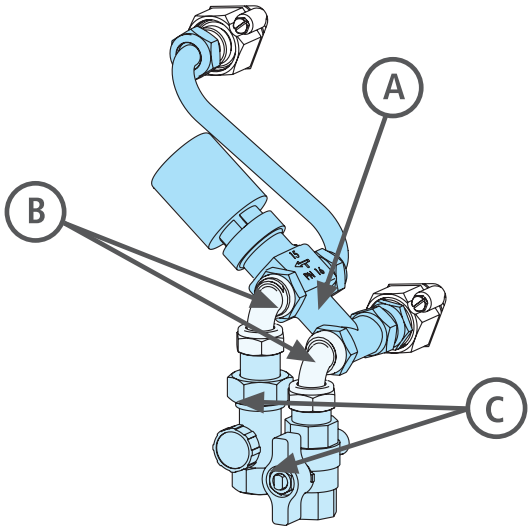


Condensate pump



Painted ceiling panel plus 90° return and discharge plenum for units with no casing

OPTIONS AVAILABLE



COMPONENTS

A. Valve + actuator
B. Connection elbows
C. Shut-off / regulating valve

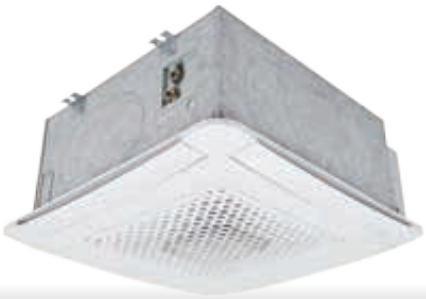
IMPORTANT NOTE:
Elbow connections are not supplied with the valves. Please order separately.

For models	DESCRIPTION	Ø "
FCW / FCCW 10 - 40	2 pipe-3-way valve	1/2
	2-pipe-3-point floating 3 way valve	1/2
	2-pipe-0-10 V modulating 3-way valve	1/2
	4 pipe-3-way valve	1/2 - 1/2
	4-pipe-3-point floating 3 way valve	1/2 - 1/2
	4-pipe-0-10 V modulating 3-way valve	1/2 - 1/2
	2 pipe-2-way valve	1/2
	2-pipe-3-point floating 3 way valve	1/2
	2-pipe-0-10 V modulating 3-way valve	1/2
	4 pipe-2-way valve	1/2 - 1/2
	4-pipe-3-point floating 3 way valve	1/2 - 1/2
	4-pipe-0-10 V modulating 3-way valve	1/2 - 1/2
	Shut-off/flow control valve. 2 pipe system.	1/2
	Shut-off/flow control valve. 4 pipe system.	1/2 - 1/2
	2 shut-off valves. 2 pipe system.	1/2
	2 shut-off valves. 4 pipe system.	1/2 - 1/2
	Elbow connections 2 pipe system.	-
	Elbow connections 4 pipe system.	-
FCW / FCCW 50 - 70	2 pipe-3-way valve	3/4
	2-pipe-3-point floating 3 way valve	3/4
	2-pipe-0-10 V modulating 3-way valve	3/4
	4 pipe-3-way valve	3/4 - 3/4
	4-pipe-3-point floating 3 way valve	3/4 - 3/4
	4-pipe-0-10 V modulating 3-way valve	3/4 - 3/4
	2 pipe-2-way valve	3/4
	2-pipe- 3-point 2-way floating valve system	3/4
	2-pipe- 0-10 V 2-way modulating valve system	3/4
	4 pipe-2-way valve	3/4 - 3/4
	4-pipe- 3-point 2-way floating valve system	3/4 - 3/4
	4-pipe- 0-10 V 2-way modulating valve system	3/4 - 3/4
	Shut-off/flow control valve. 2 pipe system.	3/4
	Shut-off/flow control valve. 4 pipe system.	3/4 - 3/4
	2 shut-off valves. 2 pipe system.	3/4
	2 shut-off valves. 4 pipe system.	3/4 - 3/4
	Elbow connections 2 pipe system.	-
	Elbow connections 4 pipe system.	-

For models	DESCRIPTION	Ø "
FCW / FCCW 80 - 110	2 pipe-3-way valve	1
	2-pipe-3-point floating 3 way valve	1
	2-pipe-0-10 V modulating 3-way valve	1 - 3/4
	4 pipe-3-way valve	1 - 3/4
	4-pipe-3-point floating 3 way valve	1 - 3/4
	4-pipe-0-10 V modulating 3-way valve	1
	2 pipe-2-way valve	1
	2-pipe- 3-point 2-way floating valve system	1
	2-pipe- 0-10 V 2-way modulating valve system	1 - 3/4
	4 pipe-2-way valve	1 - 3/4
	4-pipe- 3-point 2-way floating valve system	1 - 3/4
	4-pipe- 0-10 V 2-way modulating valve system	1
	Shut-off/flow control valve. 2 pipe system.	1 - 3/4
	Shut-off/flow control valve. 4 pipe system.	1
	2 shut-off valves. 2 pipe system.	1 - 3/4
	2 shut-off valves. 4 pipe system.	-
	Elbow connections 2 pipe system.	-
	Elbow connections 4 pipe system.	-

OTHER ACCESSORIES

- Return sensor
- Outdoor air damper
- Rear panel for units with casing
- Discharge grilles for units without casing
- Other accessories: consult the Sales Network



NEW

FKZEN

WATER CASSETTE FAN COIL
2 and 4 pipes | Centrifugal fan

Coanda effect in winter and anti-stratification in summer

Water cassette fan coils with modular dimensions.

MAIN FEATURES

- Cooling capacities: from 1.5 to 5.5 kW
- Heating capacities: from 1.9 to 6.5 kW
- Modular dimensions 600 x 600 mm
- Centrifugal fan
- Front panel available with manual or automatic adjustable fins

AVAILABLE VERSIONS

- 2 and 4 pipes
- Standard Motor and EC motor

CONTROLLER

 i-Basic 1

 i-Digit 1

 i-Basic 2

 i-Digit 2

 i-Basic 3

 i-Digit 3

 i-Digit zero

 Infra-red remote control

For additional control types, see page 191.

ADVANTAGES

- EC motor, in compliance with Ecodesign requirements
- Possibility to include built-in electric heater
- Motorised fins for perfect air-conditioning comfort
- Low noise emissions
- Built-in valves to avoid heat loss
- Easy installation and maintenance
- Low consumption, up to 78% saving

Coanda Effect

The configuration of the side fins takes full advantage of the Coanda effect in cooling mode, providing ideal comfort without the typical draughts generated by cold air. This works by creating a laminar effect that causes the cold air to flow along the ceiling and then to be distributed with uniformity and gradually through the area. This guarantees perfect air-conditionning without unpleasant thermal conditions caused by direct cold air stream.

Anti-stratification effect

In heating mode, the fins are automatically placed (option) with a 35° opening to create, along with the hot air, a downwards-oriented flow. This will guarantee a uniform distribution of the temperature within a room as well as avoid stratification-related problems.

APPLICATIONS

Thanks to its modern and minimalist design, it fits perfectly in any installation: residential, commercial (offices, shops...) and public buildings.

The cassette panel respects the 600 x 600 mm modularity in order to integrate perfectly the standard false ceiling dimensions

FKZEN SERIES - **System with 2 pipes**

MODEL			61	62	63	64	65
COOLING							
Total cooling capacity	kW	max.	2.27	2.71	4.31	5.05	5.47
	kW	med.	1.87	2.47	3.08	3.70	4.73
	kW	min.	1.58	1.97	2.17	2.73	4.03
Sensible cooling capacity	kW	max.	1.89	2.07	3.17	3.77	4.08
	kW	med.	1.52	1.85	2.22	2.68	3.43
	kW	min.	1.26	1.45	1.52	1.94	2.86
Water flow	l/h	max.	391	467	742	869	941
	l/h	med.	322	425	532	637	814
	l/h	min.	272	339	374	470	694
Water pressure drop	kPa	max.	20	16	24	24	30
	kPa	med.	14	14	18	18	24
	kPa	min.	11	10	11	16	18
HEATING 50 ºC							
Capacity	kW	max.	2.80	3.15	4.91	5.90	6.50
	kW	med.	2.30	2.85	3.52	4.15	5.90
	kW	min.	1.90	2.30	2.51	3.10	4.90
Water pressure drop	kPa	max.	19	16	19	21	29
	kPa	med.	13	13	17	18	23
	kPa	min.	10	9	10	15	18
Sound level	db(A)	max.	46	44	52	58	62
	db(A)	med.	39	41	44	49	59
	db(A)	min.	33	34	34	39	53
Sound pressure	db(A)	max.	37	35	43	49	53
	db(A)	med.	30	32	35	40	50
	db(A)	min.	24	25	25	30	44
Airflow	m^3/h	max.	367	398	550	660	760
	m^3/h	med.	295	355	398	468	660
	m^3/h	min.	224	269	269	328	550
Standard MOTOR							
Absorbed power	W	max.	48	43	63	75	89
Absorbed amps	A	max.	0.22	0.19	0.28	0.33	0.39
EC MOTOR							
Absorbed power	W	max.	12	11.2	25.5	40	58
Absorbed amps	A	max.	0.11	0.11	0.2	0.33	0.47
Dimensions (length x width x height)	mm	638 x 572 x 281.5					

- Standard unit: static pressure = 0 Pa.
- Sound level: as per ISO 23741.
- Sound pressure: considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 area with a reverberation time of 0.5 s.
- Compatible supply: ~230 V ± 10% / 1ph / 50 Hz.

FKZEN SERIES - System with 4 pipes

MODEL			81	82	83	83C	84	84C
COOLING								
Total cooling capacity	kW	max.	2.35	2.75	3.40	3.89	3.90	4.47
	kW	med.	1.94	2.41	2.55	3.00	3.10	3.46
	kW	min.	1.63	1.89	1.91	2.00	2.40	2.66
Sensible cooling capacity	kW	max.	1.92	2.02	2.61	2.92	3.05	3.42
	kW	med.	1.54	1.75	1.91	2.20	2.36	2.57
	kW	min.	1.25	1.37	1.39	1.43	1.78	1.93
Water flow	l/h	max.	405	473	585	670	671	769
	l/h	med.	334	415	439	516	534	596
	l/h	min.	281	326	329	344	413	458
Water pressure drop	kPa	max.	18	14	17	22	21	28
	kPa	med.	15	12	14	19	17	22
	kPa	min.	10	10	10	15	12	17
HEATING 70/60ºC								
Capacity	kW	max.	3.05	3.50	4.45	3.30	5.00	3.71
	kW	med.	2.60	3.05	3.50	2.67	4.00	2.98
	kW	min.	2.01	2.45	2.45	1.91	3.15	2.39
Water pressure drop	kPa	max.	15	15	18	23	22	27
	kPa	med.	14	12	15	19	19	24
	kPa	min.	11	9	9	14	12	17
Sound level	db(A)	max.	46	44	52	52	58	58
	db(A)	med.	39	41	44	44	49	49
	db(A)	min.	33	34	34	34	39	39
Sound pressure	db(A)	max.	37	35	43	43	49	49
	db(A)	med.	30	32	35	35	40	40
	db(A)	min.	24	25	25	25	30	30
Airflow	m^3/h	max.	367	398	550	550	660	660
	m^3/h	med.	295	355	398	398	468	468
	m^3/h	min.	224	269	269	269	328	328
Standard MOTOR								
Absorbed power	W	max.	48	43	63	63	75	75
Absorbed amps	A	max.	0.22	0.19	0.28	0.28	0.33	0.33
EC MOTOR								
Absorbed power	W	max.	12	11.2	25.5	25.5	40	40
Absorbed amps	A	max.	0.11	0.11	0.22	0.22	0.33	0.33
Dimensions (length x width x height)	mm	638 x 572 x 281.5						

- Standard unit: static pressure = 0 Pa.
- Sound level: as per ISO 23741.
- Sound pressure: considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 area with a reverberation time of 0.5 s.
- Compatible supply: ~230 V ± 10% / 1ph / 50 Hz.

OPTIONS AVAILABLE

LOOSE ACCESSORIES

DESCRIPTION

- Exposed cabinet RAL9010 68x68 cm
- Cold air inlet pipe Ø 80 mm
- Ø 100 mm coupling for outdoor air intake (box + nozzle)
- Discharge air outlet damper
- Ø 150 mm pipe for discharge to adjacent room (with lock)
- Plugging kit for the complete primary air nozzle with Ø 150 mm
- Return sensor

FK ZEN 2 TUBES

INSTALLED VALVES

DESCRIPTION

- 2-way valve - On/Off (230 Vca)
- 3-way valve - On/Off (230 Vca)

ACCESSORIES

- 2 M/F copper pipes
- 2 90º M/F copper pipes
- 2 expandable stainless-steel pipes
- 1 ball valve / 1 expansion valve
- 2 ball valves

LOOSE VALVES

DESCRIPTION

- 2-way valve - On/Off (230 Vca)
- 3-way valve - On/Off (230 Vca)

ACCESSORIES

- 1 copper pipe for 2-way valve
- 2 copper pipes for 3-way valve
- 1 ball valve / 1 expansion valve
- 2 ball valves

FK ZEN 4 TUBES

INSTALLED VALVES

DESCRIPTION

- 2-way valve - On/Off (230 Vca)
- 3-way valve - On/Off (230 Vca)

ACCESSORIES

- 4 M/F copper pipes
- 4 90º M/F copper pipes
- 4 expandable flexible stainless-steel pipes
- 2 ball valves / 2 expansion valves
- 4 ball valves

LOOSE VALVES

DESCRIPTION

- 2-way valve - On/Off (230 Vca)
- 3-way valve - On/Off (230 Vca)

ACCESSORIES

- 2 copper pipes for 2-way valve
- 4 copper pipes for 2-way valve
- 2 ball valves / 2 expansion valves
- 4 ball valves

On top of these options, if you don't find yours please consult our Sales Department.

NEW

FK BIG

WATER CASSETTE FAN COIL
2 and 4 pipes | Centrifugal fan

High air quality at 90 x 90

Water cassette fan coils with medium capacity.

MAIN FEATURES

- Cooling capacities: from 3.7 to 8.2 kW
- Heating capacities: from 5.1 to 15 kW
- Dimensions: 835 x 835 mm
- Built-in condensate pump
- Valves not installed. Delivered loose
- Extremely silent centrifugal fan
- Infra-red remote control

ADVANTAGES

- Modern design for commercial and public areas
- Extremely silent operation for maximum comfort
- Full unit accessibility with very few handling for easy maintenance
- Double drip tray system
- Presetting for air distribution in adjacent rooms by means of pre-cut rectangular holes of Ø 120 x 80 mm located on both sides of the unit

AVAILABLE VERSIONS

- 2 pipes
- 4 pipes

APPLICATIONS

Thanks to their square shape (90 x 90 cm), these units are ideal for integration into a technical ceiling, used in modern structures for commercial premises and offices.

CONTROLLER


i-Com


i-Basic 3


i-Basic 1


i-Digit


i-Basic 2


Infra-red remote control

For additional control types, see page 191.

HITECSA COOL AIR

OPTIONS AVAILABLE

- Pre-painted casing cover
- Ø 80 mm coupling for outdoor air intake (nozzle only)
- Ø 100 mm coupling for outdoor air intake (box + nozzle)
- Damper for air discharge deflector flap
- Ø 150 mm coupling for air discharge to an adjacent room (with lock for the deflector flap)
- Complete primary air nozzle plugging kit Ø 150 mm
- Presetting for master-slave operation with a single control (up to 3 units). Slave units do not use a control.
- Return sensor
- Wall control, which can be mounted on the wall for operating the cassette as an alternative to the remote control
- Front panel paint (any RAL different from the standard RAL9010)
- Thermoregulation with on/off valves (compulsory for the correct operation of the unit):
  - 2-way valves
  - 3-way valves
- With accessories: copper pipe, ball valves, balancing valves.

On top of these options, if you don't find yours please consult our Sales Department.

FK BIG SERIES **- Installation with 2 pipes (standard coil)**

MODEL			31	32	33	34
COOLING						
Total cooling capacity	kW	Smax.	5.94	7.00	7.79	8.22
	kW	max.	5.59	6.40	7.05	7.61
	kW	med.	5.23	5.89	6.55	6.96
	kW	min.	4.85	5.43	6.16	6.42
Sensible cooling capacity	kW	Smax.	4.59	5.48	6.22	6.53
	kW	max.	4.29	4.95	5.53	5.98
	kW	med.	3.98	4.52	5.11	5.37
	kW	min.	3.66	4.16	4.83	4.96
Water flow	l/h	Smax.	1,020	1,260	1,338	1,416
Water pressure drop	kPa	Smax.	8.6	16.8	19.3	23.1
HEATING 50 ºC						
Capacity	kW	Smax.	7.74	8.07	8.70	9.02
	kW	max.	7.29	7.34	8.02	8.33
	kW	med.	6.81	6.69	7.45	7.55
	kW	min.	6.30	6.13	6.89	6.92
Water flow	l/h	Smax.	1,020	1,207	1,337	1,416
Water pressure drop	kPa	Smax.	7	15	17.2	20.6
HEATING 70/60 ºC						
Capacity	W	Smax.	13,150	13,480	14,660	15,010
	W	max.	12,390	12,260	13,380	13,860
	W	med.	11,560	11,160	12,430	12,550
	W	min.	10,690	10,220	11,480	11,500
Water flow	l/h	Smax.	1,150	1,290	1,460	1,500
Water pressure drop	kPa	Smax.	8	13	16.5	18
Airflow	m^3/h	Smax.	1,150	1,200	1,410	1,290
	m^3/h	max.	1,050	1,050	1,210	1,160
	m^3/h	med.	950	940	1,090	1,020
	m^3/h	min.	850	840	1,000	915
Sound level	db(A)	Smax.	56	58	61	61
	db(A)	max.	54	55	59	58
	db(A)	med.	52	53	58	54
	db(A)	min.	49	50	54	51
Sound pressure	db(A)	Smax.	47	49	52	52
	db(A)	max.	45	46	50	49
	db(A)	med.	43	44	49	45
	db(A)	min.	40	41	45	42
Fan motor capacity	W	max.	125	158	205	229
Fan amps consumption	A	max.	0.61	0.7	0.9	1.0
Water volume	L	-	2.45	3.25	3.25	3.25

- Standard unit: static pressure = 0 Pa.
- Sound level: as per ISO 23741.
- Sound pressure: considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 area with a reverberation time of 0.5 s.
- Accepted voltage values: ~230 V ± 10% / 1ph / 50 Hz.
- Smax = super-maximum speed.

FK BIG SERIES - Installation with 4 pipes (standard + auxiliary coil)

MODEL			51	52	53	54
COOLING						
Total cooling capacity	kW	Smax.	4.52	5.42	6.00	5.51
	kW	max.	4.28	4.98	5.45	6.10
	kW	med.	4.03	4.64	5.10	5.61
	kW	min.	3.76	4.31	4.83	5.22
Sensible cooling capacity	kW	Smax.	3.62	4.17	4.66	5.03
	kW	max.	3.40	3.80	4.20	4.66
	kW	med.	3.18	3.51	3.90	4.25
	kW	min.	2.94	3.24	3.67	3.92
Water flow	l/h	Smax.	780	932	1,030	1,120
Water pressure drop	kPa	Smax.	11	20	24	28
HEATING 70/60 ºC						
Capacity	kW	Smax.	6.30	7.21	8.03	9.06
	kW	max.	5.93	6.59	7.25	8.60
	kW	med.	5.55	6.12	6.76	7.88
	kW	min.	5.15	5.67	6.38	7.31
Water flow	l/h	Smax.	550	630	702	790
Water pressure drop	kPa	Smax.	15	26	31	39
Airflow	m^3/h	Smax.	1,150	1,200	1,410	1,290
	m^3/h	max.	1,050	1,050	1,210	1,160
	m^3/h	med.	950	940	1,090	1,020
	m^3/h	min.	850	840	1,000	915
Sound level	db(A)	Smax.	56	58	61	61
	db(A)	max.	54	55	59	58
	db(A)	med.	52	53	58	54
	db(A)	min.	49	50	54	51
Sound pressure	db(A)	Smax.	47	49	52	52
	db(A)	max.	45	46	50	49
	db(A)	med.	43	44	49	45
	db(A)	min.	40	41	45	42
Fan motor capacity	W	max.	125	158	205	229
Fan amps consumption	A	max.	0.61	0.7	0.9	1
Water contents (standard)	L	-	1.65	2.2	2.2	2.2
Water contents (auxiliary)	L		0.8	1.05	1.05	1.05

- Standard unit: static pressure = 0 Pa.
- Sound level: as per ISO 23741.
- Sound pressure: considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 area with a reverberation time of 0.5 s.
- Accepted voltage values: ~230 V ± 10% / 1ph / 50 Hz.
- Smax = super-maximum speed.

FP SERIES

FPW / FPWS
FPW+V3V / FPWS+V3V

WALL FAN COIL
2 pipes

Solutions for small capacity

Wall fan coils with 2 pipes. The fan coil wall mounted units is a terminal to treat the air of an environment, in both the winter and the summer periods.

MAIN FEATURES

- Maximum cooling capacities ranging from 2 to 4 kW
- VRV option, with 3-way valve built into the unit

AVAILABLE VERSIONS

- FPW (with its own infra-red control)
- FPWS (without control and ready for installation with a wall mounted control)
- FPW+V3 (with infra-red control and with a 3-way valve)
- FPWS+V3 (without control and with a 3-way valve)

ADVANTAGES

- Attractive design: simple, modern and refined
- High efficiency and performance
- Minimum sound level: with a tangential fan to offer the greatest acoustic comfort
- Built-in valve
- An innovative solution that prevents wasting energy and facilitates installation and maintenance tasks

CONTROLLER

- FPW: infra-red control
- FPWS: wall-mounted control

Compatible with the Hydrofan system

For additional control types, see page 191.

APPLICATIONS

Ideal solution for installations in difficult locations in commercial areas, residences and offices.

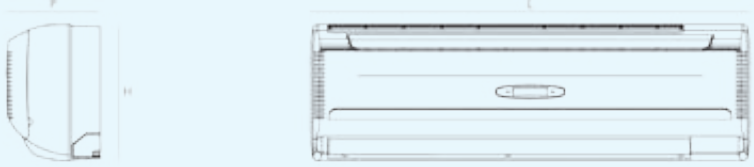
FP SERIES

MODEL		20	25	35	40
Cooling capacity (1)	kW	2	2.4	3.3	4
Heating capacity (2)	kW	2.6	3	4.4	4.9
Heating capacity (3)	kW	4.4	5	7.5	8.3
Absorbed power	W	29	29	48	51
Power supply (50 Hz ~)	V	230.1	230.1	230.1	230.1
Water flow	l/h	336	409	573	686
Water connections	Ø (")	1/2	1/2	1/2	1/2
Sound pressure (4)	db(A)	45	45	45	48
Dimensions (length x height x width)	mm	880 x 298 x 205	990 x 305 x 210	1,172 x 360 x 220	1,172 x 360 x 220
Weight	Kg	11.5	12.4	19	20.5

(1) Water inlet 7 ºC, Water outlet 12 ºC. Air temperature 27 ºC dry bulb, 19 ºC wet bulb.
(2) Water inlet 50 ºC. Air temperature 20 ºC.
(3) Water inlet 60/70 ºC. Air temperature 20 ºC.
(4) considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 room with a reverberation time of 0.5 sec.
These data have been calculated at maximum speed, with an available static pressure of 0 Pa.

GENERAL DIMENSIONS

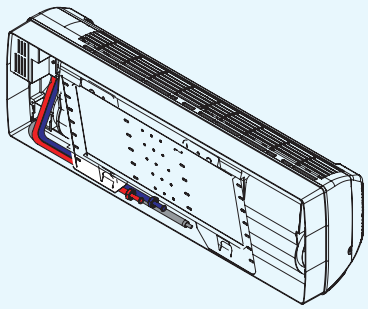
FPW 20-25



FPW 35-40

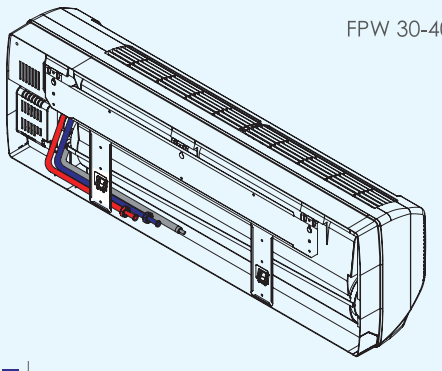
HYDRAULIC CONNECTIONS AND CONDENSATION DISCHARGE

FPW 20-25



- Flow Ø 1/2"
- Return Ø 1/2"
- Condensate draining Ø 16,5 mm

FPW 30-40



- Flow Ø 1/2"
- Return Ø 1/2"
- Condensate draining Ø 16,5 mm

BSW

FAN COIL HIGH PRESSURE
Horizontal and vertical | 2 and 4 pipes

Flexible and adjustable for applications with water installations.

Ducted fan coil units are designed with a low profile, making them ideal for installation in false ceilings.

MAIN FEATURES

- Maximum cooling capacities ranging from 3.6 to 50.6 kW
- High pressure available: from 105 up to 260 Pa depending on models
- Standard model without filter. EU3 filter option

ADVANTAGES

- Low height
- Easy maintenance
- High pressure available
- Compatible with the Hydrofan system

AVAILABLE VERSIONS

- BSW H (horizontal installation)
- BSW V (vertical installation)
- A 2 pipes
- A 4 pipes

CONTROLLER

MP-10

MPD-50

For additional control types, see page 191.

APPLICATIONS

Ideal for installations in false ceilings thanks to its reduced height and available static pressure.

BSW H / BSW V SERIES (2 pipes)

MODEL		10	20	30	40
Cooling capacity (1)	kW	4.01	7.1	9.2	10.6
Heating capacity (2)	kW	5	8.6	11.3	12.9
Maximum absorbed power	W	155	195	325	355
Power supply (50 Hz ~)	V	230.1	230.1	230.1	230.1
Airflow	m^3/h	895	1423	1951	2131
Available pressure	Pa	105	105	135	135
Water flow	l/h	691	1215	1586	1827
Water connections	Ø (")	1/2	1/2	3/4	3/4
Sound pressure (3)	db(A)	59.4	57.4	61.4	60.4
Dimensions (height x length x width) H	mm	300 x 650 x 533	300 x 1,000 x 533	325 x 1,100 x 533	325 x 1,340 x 533
Dimensions (height x length x width) V	mm	738 x 330 x 603	1,088 x 330 x 603	1,188 x 355 x 623	1,428 x 355 x 623
Weight	Kg	28	36	41	46

MODEL		50	60	70
Cooling capacity (1)	kW	13.1	27.8	50.6
Heating capacity (2)	kW	16.9	32.4	60.1
Maximum absorbed power	W	525	1,300	2,400
Power supply (50 Hz ~)	V	230.1	230.1	230.1
Airflow	m^3/h	3,002	4,678	9,250
Available pressure	Pa	205	260	260
Water flow	l/h	1,945.0	4,234.6	7,802.1
Water connections	Ø (")	1	1 1/4	1 1/2
Sound pressure (3)	db(A)	74	78	81
Dimensions (height x length x width) H	mm	375 x 1,340 x 533	675 x 1,341 x 853	675 x 2,028 x 853
Dimensions (height x length x width) V	mm	1,428 x 405 x 723	1,481 x 703 x 1,294	2,168 x 703 x 1,294
Weight	Kg	57	117	192

(1) Water inlet 7 ºC, Water outlet 12 ºC. Air temperature 27 ºC dry bulb, 19 ºC wet bulb.
(2) Water inlet 50 ºC. Air temperature 20 ºC.
(3) considered 8.6 dB(A) lower with regard to the sound level of a 90 m^3 room with a reverberation time of 0.5 sec.
Data calculated at maximum speed.

BSW H / BSW V SERIES (4 pipes)

MODEL		10	20	30	40
Cooling capacity (1)	kW	3.6	6.4	8.3	9.6
Heating capacity (2)	kW	4.2	7	9.2	10.6
Maximum absorbed power	W	155	195	325	355
Power supply (50 Hz ~)	V	230.1	230.1	230.1	230.1
Airflow	m^3/h	795	1,353	1,850	2,025
Available pressure	Pa	95	90	120	120
Water flow	l/h	606.5	1092.2	1489.1	1684.3
Water connections	Ø (")	1/2	1/2	3/4	3/4
Sound pressure (3)	db(A)	60.4	57.4	61.4	61.4
Dimensions (height x length x width) H	mm	300 x 650 x 533	300 x 1,000 x 533	325 x 1,100 x 533	325 x 1,340 x 533
Dimensions (height x length x width) V	mm	738 x 330 x 603	1,088 x 330 x 603	1,188 x 355 x 623	1,428 x 355 x 623
Weight	Kg	28	36	41	46

MODEL		50	60	70
Cooling capacity (1)	kW	12.3	25	45.6
Heating capacity (2)	kW	14	38.8	70.2
Maximum absorbed power	W	525	1,300	2,400
Power supply (50 Hz ~)	V	230.1	230.1	230.1
Airflow	m^3/h	2,852	4,445	8,788
Available pressure	Pa	180	220	220
Water flow	l/h	2,114	4,308	7,856
Water connections	Ø (")	1	1 1/4	1 1/2
Sound pressure (3)	db(A)	64.4	69.4	72.4
Dimensions (height x length x width) H	mm	375 x 1,340 x 533	675 x 1,341 x 853	675 x 2,028 x 853
Dimensions (height x length x width) V	mm	1,428 x 405 x 723	1,481 x 703 x 1,294	2,168 x 703 x 1,294
Weight	Kg	57	117	192

(1) Water inlet 7 ºC, Water outlet 12 ºC. Air temperature 27 ºC dry bulb, 19 ºC wet bulb.
(2) Water inlet 60/70 ºC. Air temperature 20 ºC.

OPTIONS AVAILABLE

AIR QUALITY
- Air filter

UNIT INSTALLATION
- 2-pipe model 3-way valve
- 2-pipe model shut-off and control valves
- Elbow connections for 2-pipe installation
- 4-pipe model 3-way valve
- 4-pipe model shut-off and control valve
- Elbow connections for 4-pipe installation
- Hot water coil
- Electric heater
- Condensate drip tray

CONTROLLER AND ADJUSTMENT
- Wall mounted electronic thermostat

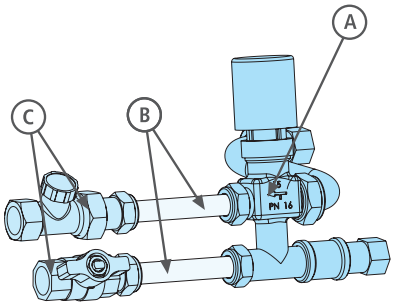
On top of these options, if you don't find yours please consult our Sales Department.

OPTIONS AVAILABLE

IMPORTANT NOTE:
Elbow connections are not supplied with the valves.
Please order separately.

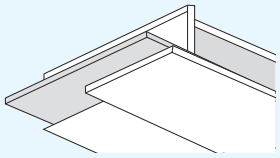
COMPONENTS

A. Valve + actuator
B. Interconnecting elbow joint
C. Shut-off / regulating valve

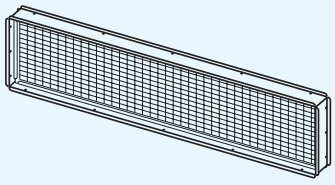


Valves, 2 and 4 pipes

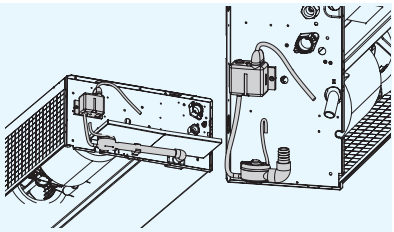
Valve model	BSW 10 Ø (“)	BSW 20 Ø (“)	BSW 30 A 50 Ø (“)	BSW 60 Ø (“)	BSW 70 Ø (“)
2 pipe system - 3 way	1/2	3/4	1	1 1/2	2
2 pipe system - 3-point 3-way floating valve	1/2	3/4	1	1 1/2	2
2 pipe system - 0-10 V 3-way modulating valve	1/2	3/4	1	1 1/2	2
4 pipe system - 3 way	1/2 - 1/2	3/4 - 1/2	1 - 3/4	1 1/2 - 1 1/2	2 - 1 1/2
4 pipe system - 3-point 3-way floating valve	1/2 - 1/2	3/4 - 1/2	1 - 3/4	1 1/2 - 1 1/2	2 - 1 1/2
4 pipe system - 0-10 V 3-way modulating valve	1/2 - 1/2	3/4 - 1/2	1 - 3/4	1 1/2 - 1 1/2	2 - 1 1/2
2 pipe system - 2 way	1/2	3/4	1	1 1/2	2
2 pipe system - 3-point 2-way floating valve	1/2	3/4	1	1 1/2	2
2 pipe system - 0-10 V 2-way modulating valve	1/2	3/4	1	1 1/2	2
4 pipe system - 2 way	1/2 - 1/2	3/4 - 1/2	1 - 3/4	1 1/2 - 1 1/2	2 - 1 1/2
4 pipe system - 3-point 2-way floating valve	1/2 - 1/2	3/4 - 1/2	1 - 3/4	1 1/2 - 1 1/2	2 - 1 1/2
4 pipe system - 0-10 V 2-way modulating valve	1/2 - 1/2	3/4 - 1/2	1 - 3/4	1 1/2 - 1 1/2	2 - 1 1/2
Shut-off/flow control valve. 2 pipe system.	1/2	3/4	1	1 1/2	2
Shut-off/flow control valve. 4 pipe system.	1/2 - 1/2	3/4 - 1/2	1 - 3/4	1 1/2 - 1 1/2	2 - 1 1/2
2 shut-off valves. 2 pipe system.	1/2	3/4	1	1 1/2	2
2 shut-off valves. 4 pipe system.	1/2 - 1/2	3/4 - 1/2	1 - 3/4	1 1/2 - 1 1/2	2 - 1 1/2
Elbow joint connection for 2-pipe system	-	-	-	-	-
Elbow joint connection for 4-pipe system	-	-	-	-	-



Auxiliary drip tray



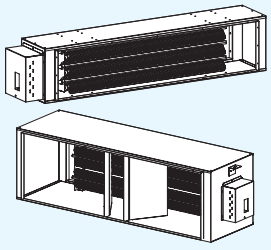
Air filter



Condensate pump

Auxiliary hot water coils
1R for 4p systems

For models	kW
BSW 10	4.2
BSW 20	7
BSW 30	9.2
BSW 40	10.5
BSW 50	14
BSW 60	38.8
BSW 70	70.2



Heating coils
Electric heater

For models	kW
BSW 10	3
BSW 10	4.5
BSW 20	6
BSW 20	6
BSW 30	9
BSW 30	9
BSW 40	9
BSW 40	9
BSW 50	12
BSW 50	12
BSW 60	12
BSW 60	18
BSW 70	18
BSW 70	24

OTHER ACCESSORIES

- Coils 4R
- Coils 5R
- Coils 6R
- Fresh air dampers
- Discharge plenum
- Return plenum

BHW

LOW PROFILE AIR-CONDITIONING UNIT
Low-medium capacity | Centrifugal fans

Flexible and adaptable applications for water installations.

Low profile type air-conditioning units are equipped with a heat exchanger made of copper pipes and aluminium fins.

MAIN FEATURES

- Maximum cooling capacities ranging from 4.5 to 25 kW
- Exchanger made of copper pipes and aluminium fins
- Centrifugal fans driven by three-speed motors
- External cabinet manufactured in high-quality steel sheet covered with an aluminium, zinc and silicon alloy
- Inside, the unit is fitted with thermo-acoustic insulation

ADVANTAGES

- Easy maintenance
- Maximum adaptability to the needs of the installation
- Low sound level

APPLICATIONS

Thanks to its reduced height it can be installed in false ceilings, either supported or suspended.

Especially suitable for commercial premises and large spaces.

BHW SERIES

MODEL		174	205	358	410
Water temperature cooling capacity 7 ºC	Speed I-II-III (kW)	3.1 x 4.1 x 4.5	4.4 x 5.0 x 5.3	6.0 x 5.9 x 8.9	7.9 x 9.1 x 10.8
Water temperature heating capacity 50 ºC	Speed I-II-III (kW)	4.5 x 5.8 x 6.3	6.4 x 7.1 x 7.5	8.6 - 9.7-11.9	11.1 x 12.6 x 14.9
Water temperature heating capacity 70 ºC	Speed I-II-III (kW)	7.6 x 9.8 x 10.7	10.8 - 12.1- 12.7	14.6 x 16.5 x 20.1	18.8 x 21.4 x 25.2
Total absorbed power	kW	0.2	0.3	0.5	0.6
Voltage (50 Hz~)	V	230.1	230.1	230.1	230.1
Water flow speed I-II-III	l/h	530 x 690 x 760	760 x 850 x 895	1,030 x 1,180 x 1,440	1,360 x 1,560 x 1,850
Airflow speed I-II-III	m^3/h	600 x 900 x 1,050	950 x 1,130 x 1,220	1,100 x 1,340 x 1,850	1,400 x 1,700 x 2,200
Available pressure speed I-II-III	mmca	2 x 2.5 x 3	2.5 x 3 x 4	6 x 7 x 8	6 x 7.5 x 8
Water connections	Ø (")	3/4	3/4	3/4	3/4
Dimensions (width x length x height)	mm	829 x 791 x 219	829 x 791 x 258	915 x 791 x 285	915 x 791 x 315
Net weight	Kg	30	34	44	45

MODEL		515	720	724
Water temperature cooling capacity 7 ºC	Speed I-II-III (kW)	12.2 x 13.9 x 15.3	20.2	25
Water temperature heating capacity 50 ºC	Speed I-II-III (kW)	16.1 x 18.2 x 19.7	26.5	32.7
Water temperature heating capacity 70 ºC	Speed I-II-III (kW)	27.2 x 30.8 x 33.5	44.8	55.5
Total absorbed power	kW	0.6	0.8	1.6
Voltage (50 Hz~)	V	230.1	230.1	230.1
Water flow speed I-II-III	l/h	2,090-2,360-2,565	3,365	4,190
Airflow speed I-II-III	m^3/h	2,200-2,600-2,900	3,850	5,200
Available pressure speed I-II-III	mmca	3 x 4 x 5.5	5	5
Water connection	Ø (")	1	1 1/4	1 1/4
Dimensions (width x length x height)	mm	1,200 x 826 x 352	1,350 x 900 x 412	1,350 x 900 x 412
Net weight	Kg	62	80	80

OPTIONS AVAILABLE

AIR QUALITY

- G4 gravimetric return filter

SOUND LEVEL

- Double thermo-acoustic insulation

UNIT INSTALLATION

- Power supply at 60 Hz and voltages 230, 208, etc.
- Electric panel with fan contact, thermal relay and circuit breaker
- Upgraded motors (depending on models)
- Connections opposite side
- Grille discharge plenum
- Circular discharge plenum (depending on models)
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Heating coils for hot water
- Additional coil for 4-pipe operation
- Thermostats
- 2-way valves
- 3-way valves
- Condensate drip tray
- Return sensor
- Electric heater coils for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Filter with bottom outlet
- Insertable filter
- Mains switch
- Prepared for vertical assembly

MAINTENANCE

- Dirty filter sensor
- Ductable filter

CONTROLLER AND ADJUSTMENT

- Control for Hydrofan
- Alarm indication
- Smoke detection
- Remote run/stop

On top of these options, if you don't find yours please consult our Sales Department.

EHW

HORIZONTAL AIR-CONDITIONING UNIT
Low-medium capacity | Centrifugal fans

Flexible and adaptable applications for water installations.

The EHW series are ceiling air-conditioning units designed to optimise air-conditioning using hydraulic systems.

MAIN FEATURES

- Maximum cooling capacities ranging from 18 to 110 kW
- Airflows up to 18,000 m³/h
- Can be integrated in Hydrofan system
- Option of outdoor installation
- Exchanger made of copper pipes and aluminium fins

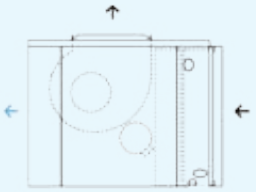
ADVANTAGES

- Easy maintenance
- Maximum adaptability to the needs of the installation
- Low sound level

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

→ standard

→ option



APPLICATIONS

Commercial premises and large rooms that need considerable air flows.

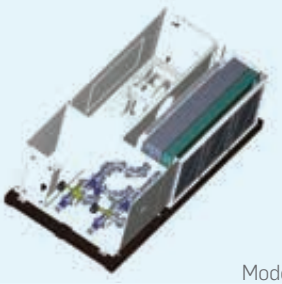
EHW KH PF

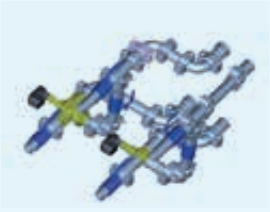
NEW

Tailor Made SOLUTIONS

EHW unit equipped as standard with a **plugfan** for higher available pressure and built-in valve kit made of:

- 3-way valves
- plugfan EC motor 0.10V
- shut-off valves





Models from 518 up to 1657.
Under development for the remaining units.

EHW SERIES

MODEL		518	725	830	1036	1042	1250
Water temperature cooling capacity 7 ºC	kW	18	25	30	36	42	50
Water temperature heating capacity 50 ºC	kW	26.7	36	32.9	50	57.7	69.9
Water temperature heating capacity 85 ºC	kW	59.3	79.2	94.2	110	127	145
Total absorbed power	kW	0.6	0.8	1.1	0.8	1.1	1.5
Power supply (50 Hz ~)	V	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3
Water flow	l/h	2,978	4,637	5,381	6,028	6,841	7,753
Airflow	m^3/h	3,500	4,200	5,200	5,500	6,500	8,200
Available static pressure	mmca	8	10.5	7.4	10.8	8	7
Water connections	Ø (")	1 1/4	1 1/2	1 1/2	2	2	2
Dimensions (length x width x height)	mm	1,085 x 750 x 580	1,130 x 900 x 650	1,130 x 900 x 650	1,700 x 870 x 650	1,700 x 870 x 650	1,700 x 870 x 650
Net weight	Kg	108	150	150	214	214	217

MODEL		1657	2069	2476	3097	35110
Water temperature cooling capacity 7 ºC	kW	57	69	76	97	110
Water temperature heating capacity 50 ºC	kW	82.8	100	110	132	155
Water temperature heating capacity 85 ºC	kW	183	220	241	290	342
Total absorbed power	kW	2.2	3	3	4	4
Power supply (50 Hz ~)	V	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N	230.3 or 400.3+N
Water flow	l/h	9,676	11,776	12,829	15,534	17,575
Airflow	m^3/h	9,500	11,200	12,500	14,800	18,000
Available static pressure	mmca	11.3	14.5	15	18	20.5
Water connections	Ø (")	2	2	2	2 1/2	2 1/2
Dimensions (length x width x height)	mm	2,000 x 937 x 747	2,600 x 980 x 752	2,600 x 980 x 752	2,800 x 1,050 x 915	2,800 x 1,050 x 915
Net weight	Kg	291	356	356	452	558

OPTIONS AVAILABLE

ENERGY SAVING

- Option of mixing module for freecooling with two or three dampers
- EC radial ventilation

AIR QUALITY

- G4 gravimetric return filter
- Return opacimetric filter class F6 to F9 (can be connected to a G4 or Fx+Fy)

SOUND LEVEL

- Double thermo-acoustic insulation

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230 V, 208 V, etc.
- Kit for outdoor installation
- Upgraded motors
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Connections opposite side
- Thermostats
- 2-way valves
- 3-way valves
- Condensate drip tray
- Return sensor
- Base guides
- Horizontal evap. air discharge
- Heating coils for hot water
- Heating coils for use in a 4-pipe system
- Electric heater coils for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Prepared for disassembly

MAINTENANCE

- Dirty filter sensor
- Split filter

CONTROLLER AND ADJUSTMENT

- Control for Hydrofan
- Alarm indication
- Smoke detection
- Remote run/stop
- Separate electrical panel

On top of these options, if you don't find yours please consult our Sales Department.

CLW

VERTICAL AIR-CONDITIONING UNIT
Low-medium capacity | Centrifugal fans

Flexible and adaptable applications for water installations.

Indoor air-conditioning units for connection to vertical ducts, designed to complement and optimise air-conditioning using hydraulic systems.

MAIN FEATURES

- Maximum cooling capacities ranging from 7.6 to 47.6 kW
- Airflows up to 8,200 m^3/h
- Can be integrated in Hydrofan system
- Option of assembly outdoors
- Exchanger made of copper pipes and aluminium fins
- Centrifugal fans with pressure available

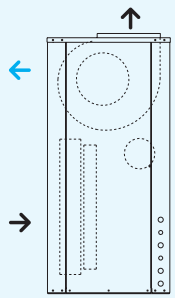
ADVANTAGES

- Easy maintenance
- Maximum adaptability to the needs of the installation
- Low sound level

POSSIBLE AIR INLET/OUTLET CONFIGURATIONS

→ standard

→ option



APPLICATIONS

Commercial premises and large rooms that need considerable air flows.

Especially suitable for spaces where it is difficult to install units.

CLW SERIES

MODEL		270	412	515	720	824
Water temperature cooling capacity 7 ºC	kW	7.6	14	15.6	18.6	22.4
Water temperature heating capacity 50 ºC	kW	11.7	20.7	23.5	27.9	29.2
Water temperature heating capacity 85 ºC	kW	25.8	45.6	51.8	61.4	64
Water temperature cooling capacity 7 ºC	R.T.	2.2	4	4.4	5.3	6.4
Water temperature heating capacity 50 ºC	R.T.	3.3	5.9	6.7	7.9	8.3
Water temperature heating capacity 85 ºC	R.T.	7.3	13	14.7	17.5	18.2
Total absorbed power	kW	0.3	0.5	0.6	0.8	0.4
Power supply (50 Hz ~)	V	230.1	230.1 - 400.3+N	230.3 - 400.3+N	230.3 - 400.3+N	230.3 - 400.3+N
Water flow	l/h	1,314	2,411	2,684	3,193	3,859
Airflow	m^3/h	1,900	2,801	3,500	4,200	3,500
Available pressure	Pa	100	50	150	135	100
Water connections	Ø (")	3/4	1	1	1 1/4	1 1/2
Dimensions (length x width x height)	mm	697 x 500 x 1,000	697 x 500 x 1,000	757 x 500 x 1,100	1,152 x 600 x 1,200	1,152 x 600 x 1,200
Net weight	Kg	45	71	94	115	151

MODEL		830	1036	1042	1250
Water temperature cooling capacity 7 ºC	kW	29.5	36.7	41	47.6
Water temperature heating capacity 50 ºC	kW	40.1	48.6	55.7	66.9
Water temperature heating capacity 85 ºC	kW	88	107	122	147
Water temperature cooling capacity 7 ºC	R.T.	8.4	10.4	11.7	13.5
Water temperature heating capacity 50 ºC	R.T.	11.4	13.8	15.8	19
Water temperature heating capacity 85 ºC	R.T.	2.1	3.7	4.2	5
Total absorbed power	kW	1.1	0.8	1.1	1.5
Power supply (50 Hz ~)	V	230.3 - 400.3+N	230.3 - 400.3+N	230.3 - 400.3+N	230.3 - 400.3+N
Water flow	l/h	5,079	6,313	7,052	8,191
Airflow	m^3/h	5,200	5,500	6,500	8,200
Available pressure	Pa	100	85	75	85
Water connections	Ø (")	1 1/2	2	2	2
Dimensions (length x width x height)	mm	1,152 x 600 x 1,200	1,700 x 600 x 1,300	1,700 x 600 x 1,300	1,700 x 600 x 1,300
Net weight	Kg	151	171	171	182

OPTIONS AVAILABLE

ENERGY SAVING

- Option of mixing box with actuator
- Fan soft-start
- EC radial ventilation

AIR QUALITY

- G4 gravimetric return filter
- Return opacimetric filter class F6 to F9 (can be connected to a G4 or Fx+Fy)

SOUND LEVEL

- Double thermo-acoustic insulation

UNIT INSTALLATION

- Circuit breakers in electrical panel
- Power supply at 60 Hz and voltages 230 V, 208 V, etc. (depending on models)
- Kit for outdoor installation
- Upgraded motors
- Fireproof filter class M1
- Thermal insulation Euroclass A1 (M0)
- Connections opposite side
- Base guides
- Horizontal evap. air discharge
- Heating coils for hot water
- Heating coils for use in a 4-pipe system
- Electric heater coils for auxiliary electric heating
- Anti-corrosion pre-treated coils
- Prepared for disassembly
- Intake grille

MAINTENANCE

- Dirty filter sensor
- Split filter

CONTROLLER AND ADJUSTMENT

- Control for Hydrofan
- Alarm indication
- Smoke detection
- Remote run/stop
- Separate electrical panel

On top of these options, if you don't find yours please consult our Sales Department.

CONTROLS FOR FAN COIL UNITS

I-BASIC 1

Analogue electronic thermostat for fan coils with 2 or 4 pipes

Main functions:
- On/Off
- Ambient temperature regulation
- Manual winter/summer selection
- Manual three-speed selection
- Inlet for return air sensor and minimum water
- Power supply at 220 V

I-BASIC 2

Electronic thermostat with microprocessor for fan coils with 2 or 4 pipes

Main functions:
- On/Off
- Ambient temperature regulation
- Winter/summer selection, either manual or automatic (via the inlet water sensor)
- Anti-stratification programme function, ventilation mode, installation type with 2 or 4 pipes, operating mode with electric heater
- Manual fan 3-speed selection
- Inlet for return air sensor and minimum water
- Power supply at 220 V

I-BASIC 3

Electronic thermostat for fan coils

Main functions:
- Ambient temperature control
- Winter/summer selection, either manual or automatic
- Three-speed selection, either manual or automatic

Programmable functions:
- Anti-stratification, ventilation mode, installation type with 2 or 4 pipes, operating mode with electric heater, neutral zone, modulating motor control.
- Power supply at 220 V

I-DIGIT

Programmable electronic thermostat for fan coils with 2 or 4 pipes and with LCD display

Main functions:
- Temperature display and setpoint on the backlit LCD display
- Current time display
- Power supply at 220 V
- Programmable functions for systems with 2 and 4 pipes
- Temperature control
- Motor speed automatic control
- Modulating motor control
- On-off or modulating valve control
- Electric heater control
- Economy function
- Anti-freeze function
- Alarm indication
- Filter status control
- ModBus protocol

SDI-V

Interface relay socket to control up to 4 fan coils and 8 actuators per cooling/heating valve from a single thermostat (230 V / CA / 50 Hz)

Main functions:
- 1 power input fans and valves
- 1 input min.-med.-max. speed for the thermostat
- 2 inputs on-off valves for the thermostat
- 2 outputs for on-off valve control
- 4 outputs min.-med.-max. speed for fan control

RWI ECM2

KKZEN cassettes include an infra-red remote control system; if the user wishes to maintain these electronic features with a controller connected by cable, the controller will be mounted on the wall; the connection is made by disconnecting the terminal strip on the circuit board and connecting the cable of the controller instead.

CT CONTROL + THERMOSTAT

Electronic thermostat for units with 2 or 4 pipes

Main functions:
- Temperature control
- Stop/Winter/Summer
- 3 speeds
- Outdoor sensor
- 230 V
- Only included in vertical models of FCCW units (with casing)

MP-10

Electronic thermostat for fan coils with 2 or 4 pipes

Main functions:
- On/Off
- Ambient temperature regulation
- Manual winter/summer selection
- Manual 3-speed selection
- Inlet for return air sensor and minimum water
- Power supply at 220 V

MPD-50

Programmable electronic thermostat for fan coils with 2 or 4 pipes and with LCD display

Main functions:
- On/Off
- Ambient temperature regulation
- Winter/summer selection, either manual or automatic
- Three-speed selection, either manual or automatic
- Inlet for return air sensor, minimum water temperature
- Reading/viewing display for ambient temperature and setpoint
- Programmable functions for systems with 2 and 4 pipes
- Temperature control
- Motor speed control, either manual or automatic
- Electric heater control
- On-off or modulating valve control
- Economy function
- Anti-freeze function
- Alarm indication
- Filter status control

FW BASIC CONTROL

Main functions:
- Stop/Winter/Summer
- 3 speeds
- Without thermostat
- Installed in the fan coil
- Only included in vertical models of FCCW units (with casing)

Basic control accessories:
- Ambient thermostat (mounted or loose)
- Low-temperature thermostat (mounted or loose)

Air-Handling Units

HITECSA
COOL AIR

PR SERIES

PR²

HIGH-PERFORMANCE AIR-HANDLING UNITS
Up to 140,000 m³ /h of air flow

Designed, step by step, to meet the specific needs of every building

High-performance air-handling units up to 140,000 m³ /h of airflow.

MAIN FEATURES

- Water cooling capacity: from 10 to 500 kW
- Water heating capacity: from 20 to 1,400 kW
- Airflows ranging from 500 to 140,000 m³/h
- Stone-wool insulation: 47 mm thickness and 90 kg/m³ density

CONSTRUCTION

Panels made up of two sheets of galvanised steel with stone-wool insulation of 0.3 mm inside and 1 mm outside, and finished in epoxy RAL 9006.

Construction options:

- Aluzinc panels
- Interior panels with epoxy finish
- Stainless-steel interior panels
- Several thicknesses available (upon request)

ADVANTAGES

- Plug & play units
- Modular system for easy transport and installation
- Plate and rotary recovery units
- Removable coils for easy maintenance
- Stainless steel drip trays
- Aluminium coil supports and rails
- EC and AC fans
- Option for a direct-expansion coil in R-410A to connect to VRV systems
- Option for coils with marine treatment

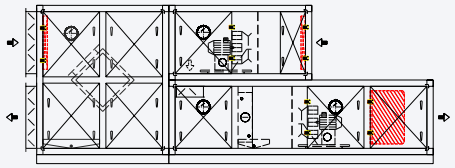
CHARACTERISTICS OF THE CONSTRUCTION

- Mechanical heater: D1
- Leak-tightness: L1 / L1
- Filter leakage factor: G1 – F9
- Thermal transmittance: T2
- Thermal bridge factor: TB2

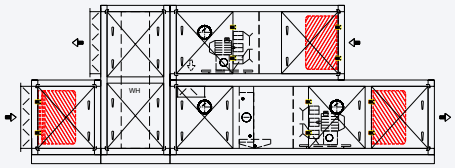
MULTIPLE CONFIGURATIONS

Examples:

DOUBLE DECK WITH PLATES RECOVERY UNIT



DOUBLE DECK WITH ROTARY RECOVERY UNIT



PR² SERIES

MODEL		01	02	03	04	05	06	07	08	09	10	11	12	13
Min. air flow	m³/h	711	1,715	2,705	3,695	5,815	7,940	7,375	10,070	12,195	15,460	18,725	15,335	19,450
Max. air flow	m³/h	965	23.20	3,660	4,995	7,870	10,745	9,980	13,625	16,500	20,915	25,330	20,750	26,300
Cooling coil flow rate, min.	m/s	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Cooling coil flow rate, max.	m/s	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Coil front area	m²	0.12	0.28	0.44	0.60	0.95	1.30	1.20	1.64	1.99	2.53	3.06	2.51	3.18
Dimensions outlet (width x height)	mm	830 x 520	830 x 830	1,135 x 830	1,440 x 830	1,440 x 1,135	1,440 x 1,440	1,745 x 1,135	1,745 x 1,135	2,050 x 1,440	2,050 x 1,745	2,050 x 2,050	2,500 x 1,440	2,500 x 1,745
MODEL		**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**
Min. air flow	m³/h	22,180	26,865	33,770	37,875	43,215	27,575	47,900	36,660	52,585	57,270	64,225	71,185	78,145
Max. air flow	m³/h	30,010	36,345	45,690	51,245	58,465	37,310	64,800	49,600	71,140	77,480	86,895	96,310	105,725
Cooling coil flow rate, min.	m/s	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
Cooling coil flow rate, max.	m/s	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
Coil front area	m²	3.62	4.39	5.52	6.19	7.06	4.51	7.83	5.99	8.59	9.36	10.49	11.63	12.77
Dimensions outlet (width x height)	mm	2,810 x 1,745	2,810 x 2,050	2,810 x 25.00	3,115 x 2,500	3,115 x 2,810	3,420 x 1,745	3,420 x 2,810	3,725 x 2,050	3,725 x 2,810	4,030 x 2,810	4,030 x 3,115	4,030 x 3,420	4,030 x 3,725

Selection conditions:
New air 0 ºC, 85% RH - Return air 20 ºC, 60% RH. *Version with coil. *Version with bypass.
Note: non-standard models available upon request.

OPTIONS AVAILABLE

- Extraction and discharge mixing sections with: actuators, freecooling, temperature and humidity sensors
- Steam, direct-expansion or electrical coils. Option for marine treatment
- Steel or copper pipes and fins
- 2 and 3 way actuators
- Filters: G4 up to H14
- Differential pressure switch
- Sloping-pipe or differential pressure gauges
- Mufflers from 200 mm up to 2,100 mm (upon request: made of stainless steel)
- Adiabatic or steam humidifiers
- Plate heat exchangers:
  - Acrylic aluminium for corrosive areas
  - Bypass for freecooling
  - Regulated by motorised bypass
- Rotary recovery units:
  - Hygroscopic
  - Aluminium absorption
  - Treatment for marine environments
  - Acrylic aluminium for corrosive areas
  - Regulated by a speed variator
- Heat-recovery coils
- Indirect gas-heating system
- Modulating or on-off regulation

On top of these options, if you don't find yours please consult our Sales Department.

AC FAN

EC FAN

INDIRECT GAS HEATING

FILTERS

PLATES RECOVERY UNIT

ROTARY RECOVERY UNIT

NEW

PR SERIES

PR² small

HIGH-PERFORMANCE COMPACT AIR-HANDLING UNITS
Up to 8,000 m³ /h of air flow

Ideal solution for commercial, industrial or residential air-conditioning

High-performance compact air-handling units up to 8,000 m³ /h of air.
With crossed-flow exchanger with more than 50% efficiency.

MAIN FEATURES

- Water cooling capacity: from 1.6 to 25.5 kW
- Water heating capacity: from 2.5 to 41.2 kW
- Airflows ranging from 500 to 8,000 m³/h
- Rockwool insulation: 30 mm thickness and 40 kg/m³ density
- Crossed-flow exchanger
- Centrifugal or radial fans
- Horizontal or vertical construction

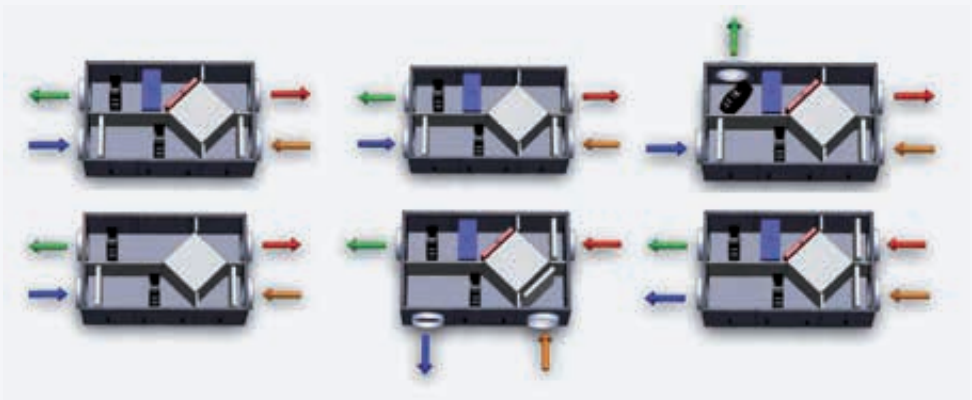
ADVANTAGES

- Multiple configurations possible: interchangeable panels, horizontal and vertical construction
- Hygienic construction, completely smooth over the whole inside and outside surfaces: easy cleaning, without coarse surfaces where dirt might build up
- Solid construction and optimum insulation
- Easy opening and closing for quick access to components for maintenance tasks
- Possibility of integrating upper or lower access to components

CONSTRUCTION

- Removable panels made of anti-corrosion galvanised steel (M1 fire resistant)
- Structure and corners manufactured in reinforced polyamide technopolymer with galvanised steel for optimum stability and mechanical resistance

MULTIPLE CONFIGURATIONS



PR² small SERIES

MODEL		0.5	1.0	1.5	2.0	2.5	3.0
Airflow	m³/h	500	1,000	1,500	2,000	2,500	3,000
Efficiency	%	62	59	59	57	63	59
Discharge temperature	ºC	12.4	11.7	11.7	11.4	12.6	11.8
Recovery capacity	kW	2.1	3.9	5.9	7.7	10.5	10.8
DIMENSIONS							
Length	mm	1,032	1,152	1,272	1,492	1,632	1,832
Length*	mm	1,432	1,552	1,672	1,892	2,032	2,232
Width	mm	712	832	952	1,172	1,312	1,512
Height	mm	366	416	486	526	576	586
Height**	mm	526	576	666	676	686	766
Diameter	Ø mm	200	300	350	400	400	450
Weight	Kg	100	130	170	200	255	287
Weight**	Kg	125	160	200	230	300	345

MODEL		4.0	5.0	8.0
Airflow	m³/h	4,000	5,100	8,000
Efficiency	%	59	60	58
Discharge temperature	ºC	11.7	12	11.5
Recovery capacity	kW	15.6	20.5	31.2
DIMENSIONS				
Length	mm	2,092	2,432	2,952
Length*	mm	2,492	2,832	3,352
Width	mm	1,672	2,012	2,532
Height	mm	686	706	866
Height**	mm	886	886	1,086
Diameter	Ø mm	500	550	650
Weight	Kg	333	409	435
Weight**	Kg	400	495	523

Selection conditions: new air 0 ºC, 85% RH - Return air 20 ºC, 60% RH. *Version with coil. **Version with bypass.
Note: non-standard models available upon request

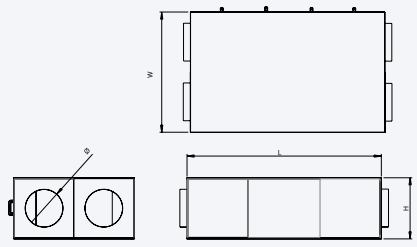
MODEL with coil

MODEL		0.5	1.0	1.5	2.0	2.5	3.0	4.0	5.0	8.0
HEATING COIL*										
Airflow	m³/h	500	1,000	1,500	2,000	2,500	3,000	4,000	5,000	8,000
Total cooling capacity	kW	2.5	5.13	7.7	10.2	12.8	15.4	20.5	25.6	41.02
Water flow	l/h	108	216	324	432	540	648	864	1,116	1,764
Water pressure drop	kPa	1	2	2.5	3	6	6	5	9	10
COOLING COIL*										
Total cooling capacity	kW	1.6	3.2	5	6.35	7.5	9.5	13.2	16.4	25.52
Sensible cooling capacity	kW	1.30	2.56	3.96	5.08	5.88	7.63	10.56	13.12	20.41
Airflow	l/h	288	540	864	1,080	1,404	1,620	2,268	2,808	4,392
Water pressure drop	kPa	2	8	9	10	18	10	20	16	12

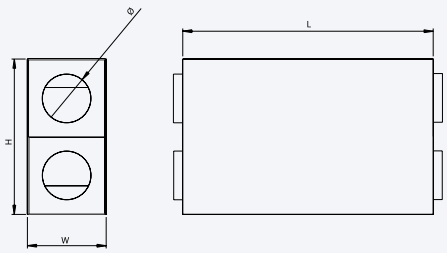
*Selection conditions: fresh air 10 ºC; Water inlet/outlet 90/70 ºC.
**Selection conditions: Fresh air 28.5 ºC; Water inlet/outlet 7/12 ºC.
Note: reference values and indications are given at running point. The product features may vary depending on running points required by the customer. Non-standard models available upon request

DIMENSIONS

Horizontal models



Vertical models



OPTIONS AVAILABLE

- Motorised bypass
- EPDM filter class M6 or F7
- Floor or ceiling supports
- Upper and lower access to filters
- Roof for outdoor installation
- Nano-purification system: highly efficient decontamination of the surface and air purification based on ultraviolet radiation

As well as these options, consult our Commercial Department for any other configuration or function not described as available.

CONTROL AND ADJUSTMENT

HITECSA
COOL AIR

CONTROL AND ADJUSTMENT FOR:
AUTONOMOUS AIR-AIR | ROOF TOP AIR-AIR | AUTONOMOUS WATER-AIR

th TUNE

Thermostat including a user interface terminal installed in the room, and an input and output connection board (µPC) located on the outdoor unit (electric panel). For inverter R-410A, AIR - AIR units.

For machines with 1 inverter compressor.

Cooling only and heat pump.

Power supply at 220 V.

Fan 3-speed selection, interior or automatic.

1 step electric heater (active only in defrost).

Return control sensor (remote).

Parameter adjustable thermostat, with 3 access levels: User, Maintenance, Manufacturer.

Option of ModBus communications protocol using RS-485 card.

Super-SI

Digital thermostat with LCD screen.

Running with 24 V.

Cooling/heating/automatic selection. Speed selection of the fan.

For machines with 1 or 2 compressors.

Cooling only and heat pump.

1 or 2 capacity steps.

Contact window/economy function.

Indoor/outdoor sensor (remote).

PGD (with PCOC, PCOC3, µPc control cards)

Thermostat including a user interface terminal installed in the room, and an input and output board (PCOC, PCO3, µPc) located on the outdoor unit (electric panel). For AIR - AIR units only.

For machines with 1 or 2 compressors.

Cooling only and heat pump.

Control of 2 or 3 electric capacity steps, hot water valve and gas burner module.

Option of adapting and modifying the internal software to meet specific customer needs and functions.

Option of interconnecting units in a network (refer to Centralised Management Systems section).

Several options available: clock card for function scheduling, ModBus card, BacNet, Lonworks, TCP-IP... communication protocols.

DSX@

Digital thermostat with LCD screen.

Running with 24 V.

Cooling/heating/automatic selection.

Speed selection of the fan.

For machines with 1 or 2 compressors.

Cooling only and heat pump.

1 or 2 capacity steps.

Scheduling function.

Indoor/outdoor sensor (remote).

Integrated ModBus protocol communications output.

CONTROL AND ADJUSTMENT FOR WATER CHILLERS

LCX

Parameter adjustable thermostat typically used for R-410A refrigerant AIR-WATER or WATER-WATER coolers. Made up of only one set that is used as a user interface and electronic board.

For machines of up to 1 compressor.

Cooling only and heat pump.

Management of the recirculation pump and inertia module.

Scheduling function.

Parameter adjustable thermostat, with 3 access levels: User, Maintenance, Manufacturer

User communication screen via LED display.

Output for the ModBus communication protocol via a RS-485 communication card.

MCX08

Parameter adjustable thermostat typically used for R-410A refrigerant AIR-WATER or WATER-WATER coolers. Made up of only one set that is used as a user interface and electronic board.

For machines of up to 4 compressors.

Cooling only and heat pump.

Management of the circulation pump and inertia module

Scheduling function.

Parameter adjustable thermostat, with 3 access levels: User, Maintenance, Manufacturer.

Option of interconnecting units in a network (refer to Centralised Management Systems section)

Option of output ModBus communication protocol via a RS-485 communication card.

MP.COM

MP.COM regulation based on a microprocessor, with graphical symbols for controlling and supervising the status of the operation and the alarms.

Dry contacts for the general remote alarm.

Hour count meter for the main components.

Non-volatile Flash memory for storing data and keeping the information in the event of a power cut.

Password-protected menu.

LAN connection.

ELIWELL

The control via a microprocessor includes 4 buttons and one display to see all the information using easily-identifiable symbols.

Display for viewing alarm codes, setpoints and temperature values.

Dynamic setpoint.

Hour count meter for the operation of the compressor.

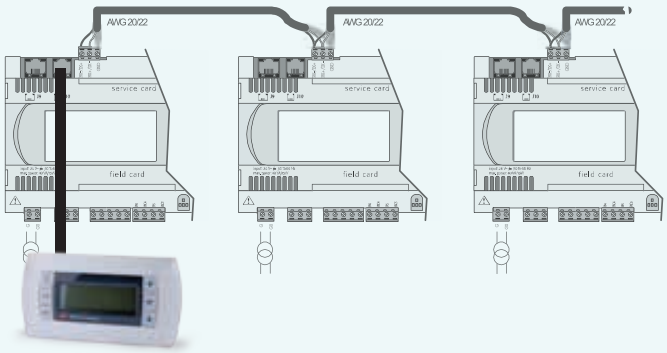
Contact for the remote signal of the general alarm.

'Low temperature' configuration for operating with refrigerated water production up to -10 ºC.

CENTRALISED MANAGEMENT SYSTEM AND BMS

Centralised control for units with PGD thermostat and PCOC, PCO3, µPc boards

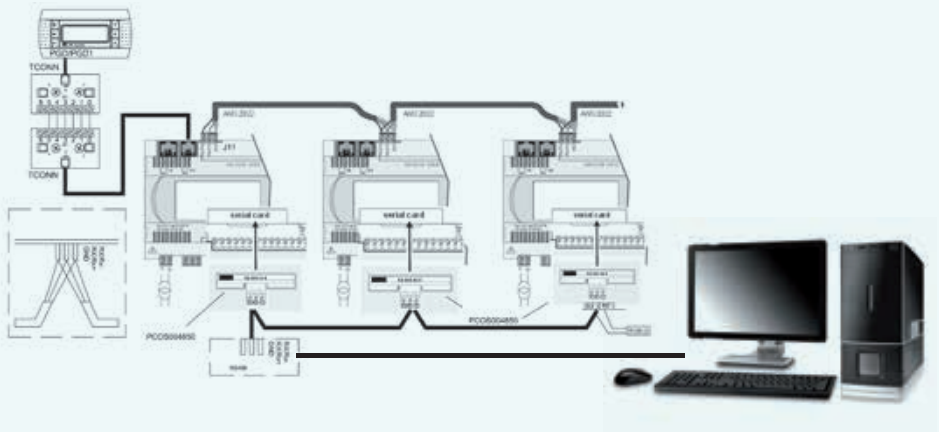
Connection of several units using the pLAN network belonging to the PCOC, PCO3, µPc board. Each of the machines connected in a network can be accessed from a single PGD thermostat. Maximum of 15 connection units.



Connection of several units with PCOC, PCO3, µPc cards via RS485 cards towards a supervision system.

BMS connection using the following integration languages:

ModBus - Lonworks - BacNet. Please ask for details if you require other integration languages.



Centralised control for units with Microchiller 2 thermostat

Output towards BMS supervision system via FCSER cards.

BMS connection using the following integration languages:

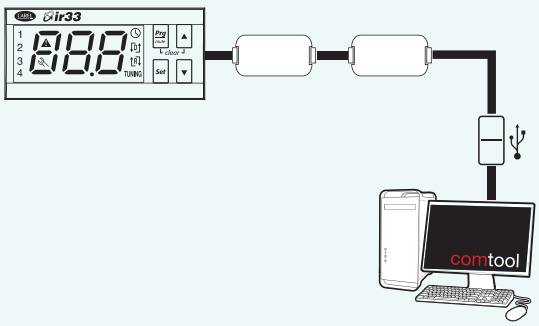
ModBus. Please ask for details if you require other integration languages.

Maximum number of connected units varies according to the integration language, please ask for details.

Centralised control for units with DN33 thermostat

Output towards BMS supervision system using specific RS485 card for DN33.

ModBus. Please ask for details if you require other integration languages.
Maximum number of connected units varies according to the integration language, please ask for details.



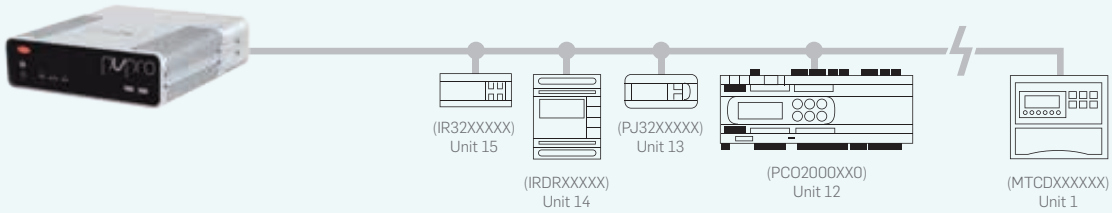
SUPERVISION SYSTEM (BMS) PLANT VISOR

Carel supervision and monitoring system designed to control facilities.
All thermostats with ModBus output can be integrated via RS-485.

- Pro 2: 90 nodes
- Hyper: 300 nodes
- 2 presentations: PC or tablet

MAIN FEATURES

· Monitoring functions with visual and graphic elements
· User management for access control and operations register
· Management of configurable reports
· Alarm management
· Local and remote connectivity
· Scheduling function
· Energy saving management
· Option of screen personalisation, emulating installation (SCADA)
· Activity planning and controls for instruments or groups of instruments



Maximum number of connected units depends on to the Plant Visor model.

Site overview (example): a personalisation of the facility can be carried out.

Personalised screen for Roof Top, basic unit control: it allows to perform basic operations: on-off, cooling/heating mode, modifying temperature setpoints and viewing the status of the main components.

Roof Top unit details screen: allows displaying all the data and changing all the parameters via the Plant Visor.

Screen with a complete parameter list (access depending on user level): for reading/viewing values and for saving them (backup copy).

Screen with a complete alarm list (access depending on user level): for viewing and resetting alarms.

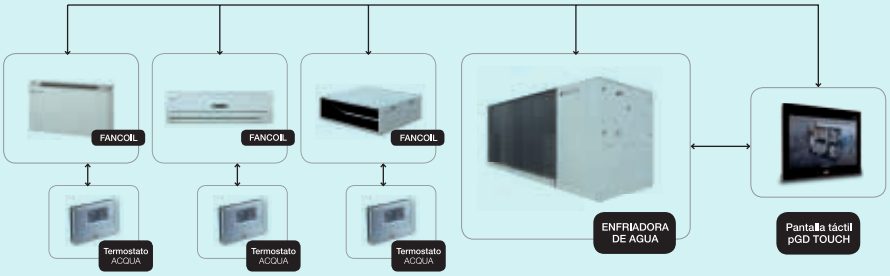
Report management screen (access according to user level): allows configuring and making reports, according to recording dates and data selected.

HYDROFAN SYSTEM

System designed to control water installations in a centralised, simple and efficient way. Made up of a set of components, including a touch screen, to control installations with water chilling units, fan coils and AHU's.

It controls 20 directions; wherever fan coils are installed, 5 slave cards may be installed, reaching 100 units.

Centralised control system for optimising the energy efficiency of the installation.



SYSTEM COMPONENTS

Cards

FCC base card
4 relay card
Card 2 x (0-10 V) + 2 relays
RS485 serial card

Thermostat

AMBIENT ACQUA

PGD TOUCH touch screen

The touch screen carries out the centralised control function. This offers the possibility of using a user and password access to control the units on site.

Screen with all the network's elements (14 FCC, 1 AHU and 1 cooler appear in this installation).

We can access each fan coil, to turn it on-off, change the setpoint, select automatic or manual low, medium or high speed and check the cooling or heating status.

AHU detail screen, to turn to on-off, change setpoint, see valve opening and cold or heat status.

Chiller detail screen, turn ON/OFF, select cold or heat, see supply and return temperature, and if the cooler has an alarm.

This screen can be used to configure a timetable to start and stop all the units.

The touch screen can control installations of up to 30 fan coils with 1 chiller. For installations with more units consult us.

OTHER CONTROLS

Fan coil controls: refer to page 191.

SOME RECENT REFERENCES

(please contact our commercial team to locate others in your area)

DOLLAR BAY Waterside Luxury Apartments

London - UK

EQUIPMENT INSTALLED: FCW fan coils

THE HOSPITAL OF LITHUANIAN UNIVERSITY OF HEALTH SCIENCES

Kaunas - Lithuania

EQ. INST.: EQPL, fan coils

ITALMAS SHOPPING CENTRE

Izhevsk - Russia

EQ. INST.: EQSL, fan coils

ALPENDURADA CIVIC CENTRE

Portugal

EQUIPMENT INSTALLED: EWXBA 5001.2

MAPFRE BUILDING

Malaga - Spain

EQ. INST.: EWCZ / EWCBZ 3603

PUERTA EUROPA

Madrid - Spain

EQUIPMENT INSTALLED: WCVBZ

SILVER BREEZE OFFICE CENTRE

Kiev - Ukraine

EQUIPMENT INSTALLED: WPHZ

ARGUN MOSQUE

Argun - Russia

EQUIPMENT INSTALLED: RXCBA

BAUHAUS

Madrid - Spain

EQ. INST.: RMXCBA-3002.2-4-00

TERMINAL T1 BARCELONA AIRPORT

Barcelona - Spain

EQUIPMENT INSTALLED: RXCBZ

HOTEL TURIM LIBERDADE LISBON

Lisbon - Portugal

EQ. INST.: EWXBA + Fan coils, AHU's

HEATHROW AIRPORT

London UK

EQUIPMENT INSTALLED: RXCBZ

SOME REFERENCES PER SECTORS

SHOPPING CENTRES

GALERÍA WARMINSKA (POLAND)
MAX CENTER (VIZCAYA)
PACIFIC MALL (PANAMA)
7 PALMAS (LAS PALMAS DE GRAN CANARIA)
MIRAMAR (MÁLAGA)
HOLEA (HUELVA)
PLAZA ÉBOLI (MADRID)
XANADÚ (MADRID)
ISLAZUL (MADRID)
LA GAVIA (MADRID)
LA MAQUINISTA (BARCELONA)
L'LLA (BARCELONA)
GLÒRIES (BARCELONA)
GRAN VIA 2 (BARCELONA)
ÀNEC BLAU (CASTELLDEFELS)
SPLAU (CORNELLÀ)
RIBERA DEL XÚQUER (VALENCIA)
ESPACIO CORUÑA (A CORUÑA)
PARQUE EMPRESARIAL TORNEO (SEVILLE)
MAX CENTER (BILBAO)
BALLONTI (BILBAO)
JINAMAR (GRAN CANARIA)
WHITE CITY (ENGLAND)
WIJNEGEM SHOPPING (BELGIUM)
WAASLAND SHOPPING (BELGIUM)
CORA SHOPPING (BELGIUM)
DOLCEVITA (PORTUGAL)
LEIRIA (PORTUGAL)
MALL VARNA (VARNA, BULGARIA)
STARY BROWAR (POZNA, POLAND)

MEDICAL CENTRES AND HOSPITALS

PUERTA DEL HIERRO CLINIC (MADRID)

LA CONCEPCION CLINIC (MADRID)

CORACHAN CLINIC (BARCELONA)

TRES TORRES CLINIC (BARCELONA)

NAVARRA UNIVERSITY CLINIC (PAMPLONA)

LA ELIANA HEALTH CENTRE (VALENCIA)

LA ELIANA HEALTH CENTRE (VALENCIA)

VALL D'HEBRON MATERNITY AND CHILDREN'S HOSPITAL (BARCELONA)

HOSPITAL PARC TAULÍ (SABADELL)

HOSPITAL ARNAU DE VILANOVA (LLEIDA)

HOSPITAL INFANTA CRISTINA (BADAJOZ)

HOSPITAL MEDINA DEL CAMPO (VALLADOLID)

HOSPITAL SAN CARLOS USP (MURCIA)

HOSPITAL COMARCAL D'INCA (INCA)

PUBLIC BUILDINGS

ALCUDIA MARITIME TERMINAL (MALLORCA)

BENAGUASIL MULTI-USE BUILDING (VALENCIA)

CASTUERA MULTI-USE BUILDING (BADAJOZ)

COX AUDITORIUM (ALICANTE)

CAMPOS MUNICIPAL ARCHIVE BUILDING (MALLORCA)

ANTIGUAS COCHERAS DEL PUERTO MUSEUM (HUELVA)

TGSS (MOLLET)

CONSELL COMARCAL DEL BAIX CAMP (REUS)

MISCELLANEOUS

GOVERNMENT OFFICES (HUELVA)

MALAGA CITY COUNCIL

REGIONAL TAX OFFICES OF BALMASEDA AND BASAURI (BASQUE COUNTRY)

TSS BUILDING TARRAGONA

MINISTRY OF AVIATION (CUBA)

SECRÉTARIAT PARTICULIER DE SA MAJESTÉ LE ROI (MOROCCO)

ANKARA MUNICIPAL BUILDING (TURKEY)

CENTRAL NUCLEAR ALMARAZ (CÁCERES)

ARMÓN SHIPYARD (NAVÍA)

INDUSTRIAL BUILDING FINANZAUTO (SEVILLE)

RENAULT CAR DEALER (ALMERÍA)

INDITEX SHOPS

UNIVERSITY OF HUELVA

GENERAL TERMS OF SALES AND SERVICES

PURPOSE AND FIELD OF APPLICATION

1. The purpose of these General Terms of Sales and Services is to set forth the terms applying to any sale of any good(s) and/or service(s) by HIPLUS AIRE ACONDICIONADO S.L. hereafter HIPLUS, whose headquarters is located at: Masia Torrents 2, 08800 Vilanova i la Geltru – Barcelona – Spain.
2. These terms apply to any heating, ventilating and air conditioning equipment and associated service sold under the brand HITECSA by HIPLUS.
3. Any order implies full and total acceptance of these General Terms of Sales and Services. Any condition or clause to the contrary, or general purchasing terms of the Buyer, shall therefore be, in the absence of express written acceptance, non-opposable to HIPLUS. Acceptance of these General Terms by the Buyer constitutes a material condition without which HIPLUS would not have entered into an agreement with the Buyer.
4. The present General Terms of Sales and Services cancel and replace any former published or printed version in any HITECSA documentation.

CATALOGUES AND DOCUMENTATIONS

1. Due to the rapidly changing technologies and standards, or security improvements, instructions of values provided by HIPLUS on any support media whatsoever have been given for information purposes only. HIPLUS reserves the right to make modifications, at any time and without prior notice, to their equipment or parts of equipment.
2. When HIPLUS makes an equipment selection based on information provided by the Buyer, HIPLUS will not be liable for errors which may result from inaccurate, vague or incomplete data provided to HIPLUS. The Buyer will be the only responsible to ensure that the proposed equipment feature actually correspond to his requirements, both in terms of performance and implementation feasibility.
3. The Buyer shall not amend markings affixed on the equipment or on its packing, nor add any marking, nor make any use of markings, logos and brand which is not expressly authorized by HIPLUS.

OFFERS AND ORDERS

1. The commercial offers established by HIPLUS have a maximum validity of 2 months.
2. The acceptance of a HIPLUS offer includes the acceptance of the present General Terms of Sales and Service and will be considered as a firm order and the Buyer shall not cancel it.
3. Every order is valid only after acceptation and written confirmation of HIPLUS headquarters. HIPLUS is not bound by orders placed unless written confirmation has been given by acknowledgement of order. HIPLUS reserves the right to accept or refuse any order within 10 days of order receipt date.
4. HIPLUS reserves the right, even after partial fulfillment of an order, to demand guarantee or cancel the order(s) after notification, or remaining portion of order(s) in progress, in the name of the Buyer, without indemnity whatsoever, in the following cases:
- Deterioration of Buyer's financial situation;
- Non-registration of documents and deeds at the commercial court registry;
- Lowering of Buyer's quote by HIPLUS or credit insurance to cover the sales amount;
- Change or modification of Buyer's financial or legal capacity;
- More generally, change in Buyer's situation.

5. When the equipment ordered has to be approved by organisms or control offices, reception and vacation expenses are always covered by the Buyer.

ORDER MODIFICATION AND CANCELLATION

1. The Buyer shall check the acknowledgement of order and notice HIPLUS any error or omission within 48 hours maximum from reception. After this period of time, the order shall be considered as accepted by the Buyer and shall be binding for the Buyer.
2. Once accepted, the order shall not be amended nor cancelled without HIPLUS prior and express approval. If an order, or a part of it, is cancelled by the Buyer after being acknowledged, HIPLUS has the right to a monetary settlement equivalent to the cancelled amount.

MANUFACTURING TIMES AND DELIVERY CONDITIONS

1. Except expressly stated otherwise, the manufacturing times are given as an indication. Consequently no delay penalty can be requested, except prior specific agreement at the time of the order.
2. Eventual manufacturing delays cannot justify, in any case, any order cancellation.
3. The manufacturing date mentioned on the acknowledgement of order may be extended when the manufacturing is delayed because of:
- Lack of communication from the Buyer to HIPLUS of all the instructions necessary to the execution of the order;
- 'Force majeure' such as defined by custom authorities;
- Absence of payment or payment guarantee.

4. For the equipment to be delivered outside the Spanish metropolitan territory, the delivery conditions are in accordance to the INCOTERM 2010 provisions, related to the transfer of risks and to the taking out of an insurance policy, available at the International Chamber of Commerce.
5. The INCOTERM term inherent to each delivery is defined in the purchase order, with eventual transportation costs given as extra, and duly confirmed in the acknowledgement of order.
6. Delivery ex-works manufacturing plant (EXW), with standard packing, is at no extra-cost.
7. For equipment whose withdrawal from HIPLUS factory is delayed for more than 14 days, for whatever reason not imputable to HIPLUS, storage costs will be invoiced at 5 € per m^2 and per week.

All information contained in this catalogue may be changed without notice.

PRICES AND PAYMENT CONDITIONS

1. HIPLUS prices are tax free, EXW manufacturing plant, basic packing included.
2. Special packing and transportation may be quoted specifically per project, as well as local equipment commissioning.
3. HIPLUS prices may be modified at any time without prior notification. Final contractual prices are confirmed in the acknowledgement of order.
4. To cover administrative expenses, all orders the amount of which is lower than 100 € will be charged for a lump sum of 100 € without taxes.
5. Our invoices are payable by bank wire to the account indicated by HIPLUS, net and without discount, in Euros or in the currency agreed upon in the order.
6. Unless otherwise agreed in writing, payment of invoices must be made at maturity date, following the payment conditions agreed upon between HIPLUS and the Buyer for each order.
7. In case of delay in payment, the due sums will bear an interest based on the interest rate applied by the European Central Bank (ECB) to its most recent refinancing operations, increased by 8 percentage points with a contractual minimum sum of 40 €.
8.The maturity of each payment cannot be delayed, under whatever reasons, even if litigious: any stoppage in payment invoice involves the immediate suspension, if not the cancellation, of the current orders and their associated foreseen warrantee.

WARRANTY

Conditions of application
1. The contractual warranty is applicable only if the Buyer is fully up-to-date in his payment obligations toward HIPLUS.
2. In order to benefit from the warranty, the Buyer must notify HIPLUS, without delay and by writing, of the faults attributed to the equipment and provide all the justifications.
3. The Buyer will permit HIPLUS to assess the faults, and to take remedial actions.
4. Furthermore, the Buyer will not, except if expressly agreed by HIPLUS, carried out himself the repair, or have it carried out by a third party.

Warranty period
1. HIPLUS equipment is guaranteed for parts only against manufacturing defects.
2. Its duration is 24 months from date of dispatch ex-factory.

Limits of liability
1. The warranty does not apply:
- If problems occur from equipment or spare parts provided by the Buyer or from a design imposed by him;
- If the equipment and/or accessories have been modified by the Buyer or by a third party without HIPLUS prior approval;
- To wear parts, consumables and fluid refills, corrosion and abrasion due to conditions in which the equipment is used in contradiction to HIPLUS specifications, or to particular use of equipment not priory known to HIPLUS;
- If the equipment is not installed in rules of art by authorized installer.

3. The responsibility of HIPLUS is strictly limited to the obligations defined in the present general conditions. In particular, HIPLUS will have no obligation regarding any compensation, including non material or indirect damage.

APPLICABLE LAW – DISPUTES

1. All sales are submitted to the Spanish law.
2. Any litigation will be exclusively submitted to the Court of Vilanova i la Geltru – Barcelona – Spain.

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