



EMICON

INNOVATION AS ENERGY



AN ENEX TECHNOLOGIES COMPANY

EMIBYTE for IT COOLING

Products catalogue

Index

| | |
|---|-----------|
| About | 4 |
| Our numbers | 6 |
| Our segments | 8 |
| | |
| DX.A | 16 |
| DIRECT EXPANSION CLOSE CONTROL UNIT AIR CONDENSER WITH ON/OFF COMPRESSOR | |
| | |
| DXi.A | 24 |
| DIRECT EXPANSION CLOSE CONTROL UNIT AIR CONDENSED WITH INVERTER COMPRESSOR | |
| | |
| DXi.AF | 28 |
| DIRECT EXPANSION CLOSE CONTROL UNIT AIR CONDENSED WITH ADDITIONAL FREECOOLING COIL, INVERTER COMPRESSOR | |
| | |
| DXi.H | 32 |
| DIRECT EXPANSION CLOSE CONTROL UNIT WATER COOLED WITH INVERTER COMPRESSOR | |
| | |
| DXi.HF | 38 |
| DIRECT EXPANSION CLOSE CONTROL UNIT WATER COOLED WITH ADDITIONAL FREECOOLING COIL AND INVERTER COMPRESSORS | |
| | |
| WU | 42 |
| WATER COOLED CLOSE CONTROL UNIT | |
| | |
| WUL | 46 |
| WATER COOLED CLOSE CONTROL UNIT (EXTENDED VERSION) | |
| | |
| IRDXi | 50 |
| DIRECT EXPANSION CLOSE CONTROL UNIT AIR CONDENSED FOR HIGH DENSITY RACKS – 30 – 60 cm | |
| | |
| IRWU | 52 |
| WATER COOLED CLOSE CONTROL UNIT FOR HIGH DENSITY RACKS – 30 – 60 cm | |
| | |
| RCE / RCE-S | 54 |
| EXTERNAL CONDENSING FOR PRECISION AIR CONDITIONING UNITS | |
| | |
| CONFIGURATIONS | 60 |

About

Enex Technologies is a transformative world leader in natural and energy efficient cooling, heating, ventilation and refrigeration equipment that began in the 1930s by producing ammonia natural refrigeration equipment, later adding CO₂, water and propane as natural refrigerants with low global warming potential.

1934
SAMIFI FRANCE
INNOVATION AS ENERGY

1948
MORGANA
HEAT EXCHANGERS NATURALLY

1968
kobci
HEAT EXCHANGERS NATURALLY

1984
EMICON
INNOVATION AS ENERGY

1997
Arctic
INNOVATION AS ENERGY

1983
ROENEST
HEAT EXCHANGERS NATURALLY

1993
Hidros
INNOVATION AS ENERGY

1999
ETHRATECH
INNOVATION AS ENERGY

2004
enex
INNOVATION AS ENERGY

**Pioneers and innovators
in natural HVACR since the 1930s**



2022



Our numbers

200M€
Revenues

1000+
Employees

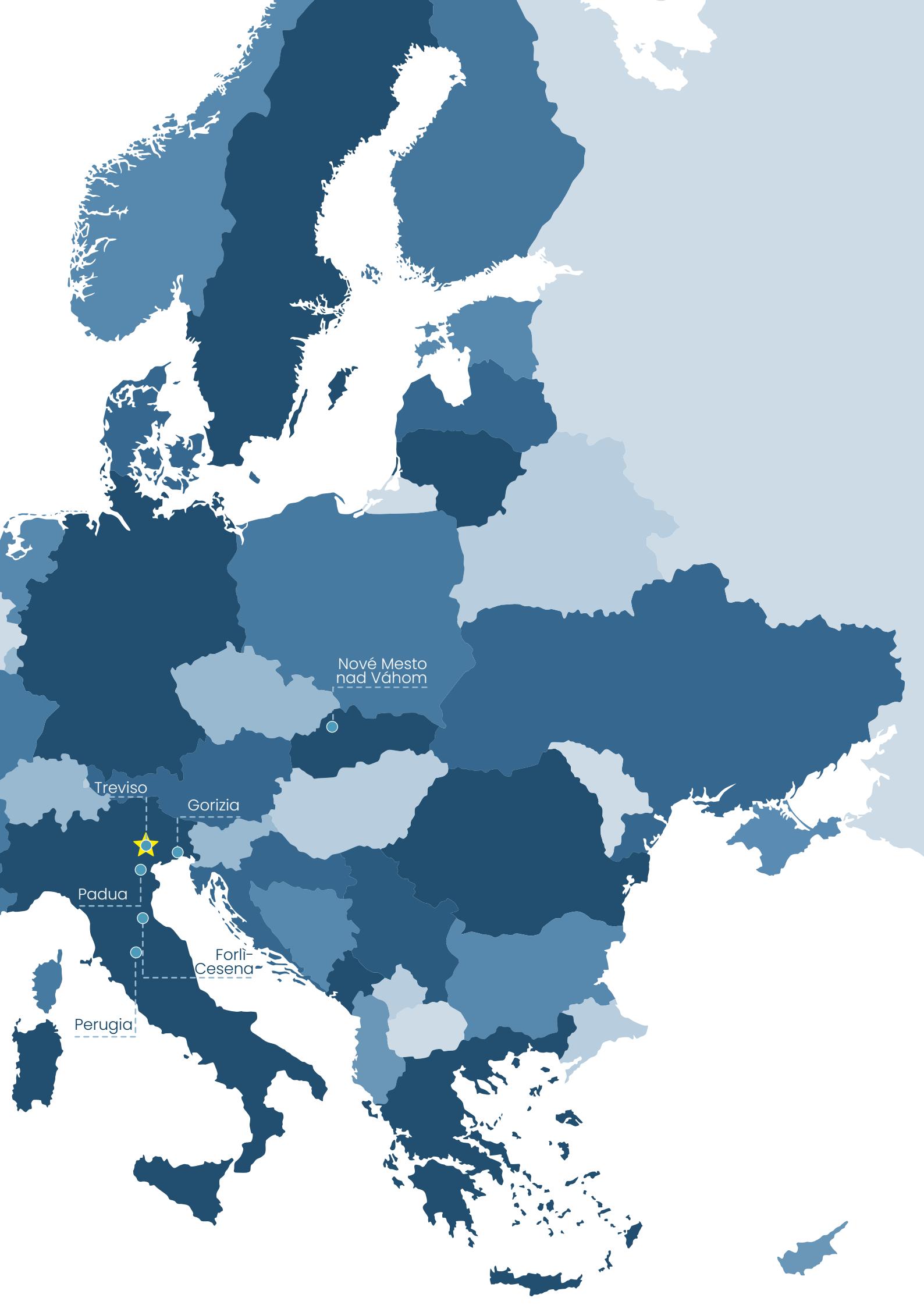
12
Factories

125
Countries

★ Headquarter

- Manufacturing, R&D site and commercial office





Our segments

Our leading natural refrigerant, energy efficiency and energy transition technologies transform the HVACR industry.



COOLING

Our chillers are designed to operate efficiently with all refrigerants, generating cold water for climatization or industrial processes.



REFRIGERATION

Our commercial and industrial refrigeration systems are designed for high performance, quality, reliability and carbon footprint reduction through the use of natural refrigerants Ammonia and CO₂.



HEATING

Our high efficiency heat pump range using natural refrigerant CO₂ is a simple-to use, elegant solution for applications requiring high quantities of sanitary hot water.

We are driven by strong values to create a better and more sustainable world



ENVIRONMENT

Buildings consume 40% of the energy used in the developed world. HVACR systems use 60% of the energy in buildings. Our high efficiency solutions are central to reducing global warming, and we strive every day to help our customers reduce their carbon footprint by using natural refrigerants.



INNOVATION

Always leading. From pioneering the efficient and safe use of natural refrigerants to helping the industry move away from gas heat towards systems that use electricity.



COMMUNITIES

We are a European industrial champion, building clean factories that support new jobs, growth and expansion to new markets.



DIVERSITY & INCLUSION

At Enex Technologies we ensure that every colleague feels respected, valued and motivated to support our customers, every day.

THE EMICON

LABS

CLIMATIC ROOMS

EMICON has **climatic rooms** and **testing stations** where units produced are subject to strict **functional** and **performance** tests, with the possibility of simulating the real design climatic conditions. A double hydronic circuit (hot and cold) allows to carry out **operation tests on all types** of units, both for IT Cooling and hydronic units, packaged, 2 or 4 pipes, air cooled, water cooled and split, up to a cooling capacity of 1500 kW.

It is possible, for our customers, to attend the functioning and performance test. Thanks to some webcams, it is possible to **remotely attend the test**.

CHARACTERISTICS

The climatic room is an environment inside of which, by means of auxiliary and heat recovery systems, we create a **controlled microclimate** in terms of air **temperature** and **humidity**, where the heat transfer fluids are treated according to the specific characteristics of the unit.

The types of units that can be tested are **air or water cooled units**, available as **chiller** or **reversible heat pump** versions according to **EN14511** standard.

The operating limits of fluid temperature can vary between **-5°C** and **65°C**. The ambient temperature (inside the room) can reach a maximum of 52°C for summer operation and a minimum of -7°C for winter cycle.

CLOSE CONTROL UNITS

EMICON's Laboratory allows the **performance test** of chilled water and air cooled direct expansion **close control units**, with the possibility to simulate climatic conditions from 15°C to 35°C.

PROPANE

We recently built a the test area **exclusively** dedicated to chillers and heat pumps operating with natural **Propane refrigerant (R290)**, making us able to carry out performance and functional tests of units with a cooling capacity up to 700 kW both in cooling only and in winter cycle reversible configurations. The use of **ATEX** components, refrigerant leak detection systems, connected to acoustic signals and forced-type exhaust systems guarantee a **high safety degree** in this area.



Mission critical **Cooling & Thermal management** has been Emicon core focus since 1984. Our range of precision air conditioning solutions have been designed for a wide range of applications where **close control**, **high precision cooling** is essential, including **data centres**, telecom switching stations, theatres, museum and high technological density environments in general. Throughout its history, the data center and server room has consistently been asked to do more: handle **more capacity**, deliver **more availability** and achieve **more efficiency**. Thanks to the resourcefulness and dedication of the people responsible for managing these business-critical facilities, they have largely responded. The question now is can they continue to do so within the existing paradigms, or are we on the verge of fundamental changes in data center technologies, designs and processes?

The logo for EMIBYTE, featuring the word "EMIBYTE" in a bold, white, sans-serif font. The letters are slightly slanted to the right, and there is a small gap between each letter.

KNOWLEDGE AND
CONSOLIDATED
ITALIAN QUALITY
AT THE CENTER
OF YOUR DATA

The result to this main question nowadays is **EMIBYTE**, the new partner in **IT cooling** with his new series of products entirely designed and produced in the **Emicon factories**.

Reliable, integrated cooling, from **chiller** and computer room **air conditioners**, tackles the issues head on to lower costs and reduce downtime risk. We provide **all levels of heat removal** for different sized rooms and applications. Whether you're building new, retrofitting, or modernizing, achieve a **healthy data center environment** with our **EMIBYTE** cooling solutions.

LEGEND

| | | | |
|---|------------------------|---|-----------------------------|
|  AIR | Air cooled |  | Cooling only |
|  H2O | Water cooled |  | Scroll Compressors |
|  | Remote condensing |  | Scroll inverter Compressors |
|  FC | Free cooling |  | R410a Refrigerant (Kc) |
|  | High efficiency | | |
|  | Silenced version |  | Axial fan with EC motor |
|  | Ultra-silenced version |  | Plug-fan with EC motor |

| SÉRIE | FEATURES | COMPRESSOR | FANS | REFRIGERANT | PERFORMANCE RANGE | |
|--------|----------|------------|------|-------------|-------------------|-------|
| | | | | | 0 kW | 30 kW |
| DX.A | AIR | | | R410a | | |
| DXi.A | AIR | | | R410a | | |
| DXi.AF | AIR | | | R410a | | |
| DXi.H | H2O | | | R410a | | |
| DXi.HF | H2O | | | R410a | | |
| WU | H2O | | | R410a | | |
| WUL | H2O | | | R410a | | |
| IR.DXi | AIR | | | R410a | | |
| IR.WU | H2O | | | R410a | | |
| RCE | AIR | | | R410a | | |
| RCE-S | AIR | | | R410a | | |

COMPONENTS

FULLY CUSTOMIZABLE AND INTUITIVE TOUCH SCREEN DISPLAY

The new 4.3" touch screen designed to maximise the users system management experience. System usability is enhanced by the web server pages shown on the display relating to each individual controller connected to the network, allowing users to monitor the situation across the entire system from just one single location. Ethernet connectivity makes installation even more practical, without any constraints in terms of location relative to the monitored system.



BUILT-IN TEMPERATURE AND HUMIDITY PROBE

Can share the values read with the colour display making the comprehension of operating data easier.

Micro-USB port

At the front, concealed by a faceplate, for easier access.



INVERTER SCROLL COMPRESSOR

The best solution in terms of variable cooling capacity

PRECISE TEMPERATURE CONTROL

Inverter compressor-based technology allows close monitoring and control of room temperature.



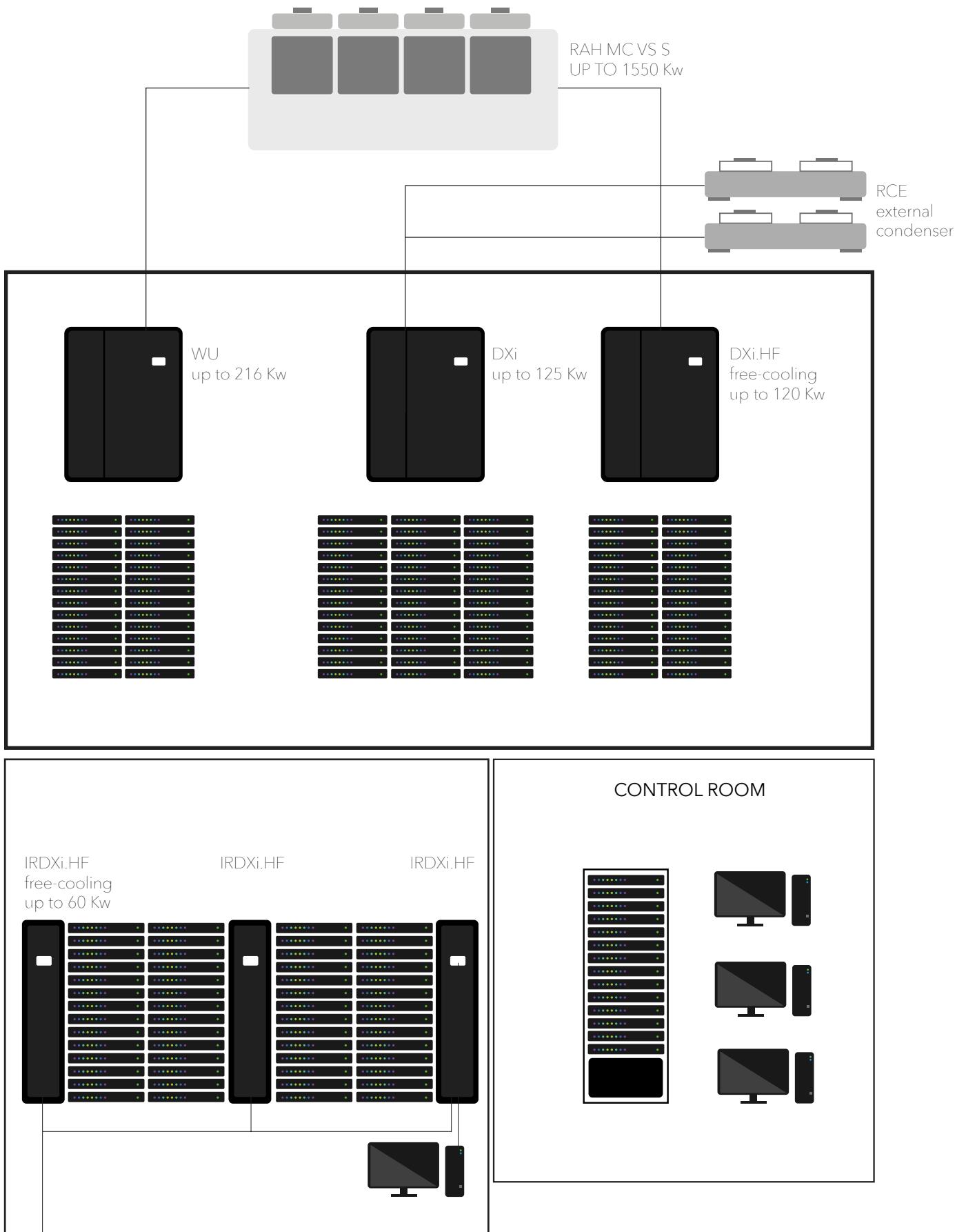
EC PREMIUM FAN

The new generation of Emicon EC Fan 2.0 is the core of EMIBYTE Precision Air Conditioner, significantly minimizing noise levels and increasing the efficiency of the unit.

ULTRASONIC HUMIDIFIER

Ultrasonic Humidifier option is the new ultrasound cool mist large room humidifier. It has been developed to control and maintain the desired level of humidity for a specific environment or in any large room or storage area constant.





RCE-S
external
condenser
(Silenced)

DIRECT EXPANSION CLOSE CONTROL UNIT

AIR CONDENSER WITH ON/OFF COMPRESSOR



Close control air-conditioners for vertical installations and cooling only, with optional heating by means of heating element, optional humidifier and dehumidifier for precise temperature and humidity control. Particularly suitable for precision air conditioning in servers and IT rooms and all technological applications in general. Units fitted with EC Inverter fans, up flow or downflow. External air condenser. Emibyte equipment are fully designed and tested in the Emicon validation laboratories.

Features

Unit for installing inside or outside the room to be air-conditioned. Maximum resistance to rust thanks to the galvanized sheet metal structures and panels with bevelled corner uprights to enhance its unique, clean and attractive design. The panels are lined with sound-insulating material to limit noise levels. New generation EC Inverter centrifugal fan made in hight class technological material with 5 backward curved blades. Impeller with bionic 3D profile thanks to an innovative design in the form of a blade geometry with specific buckling. Special V-shaped rear edge allows a wide characteristic field. Together with the rotating diffuser that opens, exceptional performances of the impeller and the entire system are thus obtained. In combination with the undulated surface of the blade surface, a diffused sound emission takes place which guarantees a very low noise level. Standard COARSE 60% (ISO EN 16890) EU4/G4 filtering section installed, The filter is self-extinguishing. The microprocessor controls the compressor activation times thereby regulating the cooling capacity; it also controls the operating alarms with the possibility of interfacing to supervisor and remote-servicing systems. Refrigerant circuit consisting of Electronic Expansion Valve, sight glass filter dryer on liquid line, pressure transducer with indication, control and protection functions on low and high refrigerant pressure, high pressure safety switch with manual reset, liquid receiver with accessories

Control

Semi-graphic display 132x64 pixel, programmable software, record storage of 200 alarms, general alarm, automatic reset after blackout, integral LAN system, standby management, automatic rotation, serious alarms, operating contemporaneity, clock function modality.

VERSIONS

- D** - Downflow air supply
- U** - Up flow air supply
- E** - Front supply (Displacement)
- B** - Up supply (Rear return)
- V** - Up supply (Down suction)

ACCESSORIES

- Remote user terminal
- Electric Heating coil
- Humidifier
- Vibration isolation frame with rubber mountings
- Interface electronic board
- Air distribution plenum
- Condensing pump discharge
- Interface card for TCP/IP Protocol
- Longwork, modbus, bacnet
- Touch screen graphic terminal
- Power supply different from standard

ALSO AVAILABLES

- DX.H** - Water cooled air expansion
- DX.AF** - Air cooled direct expansion with Dual-Fluid
- DX.HF** - Water cooled direct expansion with Dual-Fluid
- DX.E** - Evaporating with external condensing unit



TECHNICAL DATA

DX. / \

| DX.A | | 61 | 71 | 91 | 111 | 151 | 181 | 201 | 221 | 232 |
|--|------------------------|----------|----------|----------|----------|---------------|----------|----------|----------|----------|
| Cooling capacity (Total) ⁽¹⁾ ESP 20 Pa | kW | 6,1 | 8,4 | 9,9 | 11,2 | 15,9 | 18,4 | 20,1 | 22,6 | 22,9 |
| Cooling capacity (Sensible) ⁽¹⁾ ESP 20 Pa | kW | 6 | 8 | 9,6 | 11,2 | 14,5 | 17,9 | 20 | 21,7 | 22,9 |
| Tot. absorbed power ⁽²⁾ ESP 20 Pa | kW | 1,9 | 2,5 | 2,7 | 3,6 | 4,6 | 5,4 | 5,5 | 6,4 | 6,9 |
| SHR | | 0,99 | 0,96 | 0,97 | 1,00 | 0,91 | 0,97 | 1,00 | 0,96 | 1,00 |
| Air flow | m ³ /h | 2700 | 2700 | 2700 | 3900 | 3900 | 6050 | 6050 | 6050 | 8150 |
| Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Max. ESP | Pa | 542 | 521 | 479 | 506 | 465 | 655 | 612 | 612 | 446 |
| Unit EER without remote condenser to max. frequency | W/W | 3,2 | 3,3 | 3,7 | 3,1 | 3,5 | 3,4 | 3,7 | 3,5 | 3,3 |
| Maximum absorbed power | Kw | 3,8 | 4,5 | 5 | 6,2 | 7,6 | 10,5 | 10,5 | 11,8 | 12 |
| Maximum absorbed current | A | 12,8 | 16,5 | 18,7 | 10,2 | 12,4 | 17 | 17 | 19,1 | 19,8 |
| Starting current | A | 41,4 | 64,4 | 66,4 | 50,4 | 65,4 | 71 | 71 | 78 | 60 |
| Power supply | V/ph/Hz | | | | | 400/3/50+N+PE | | | | |
| Humidifier | | | | | | | | | | |
| Steam production (nominal) | kg/h | 1,5 | 1,5 | 1,5 | 3 | 3 | 5 | 5 | 5 | 8 |
| Steam production (max.) | kg/h | 3 | 3 | 3 | 3 | 3 | 8 | 8 | 8 | 8 |
| Max. absorbed power | kW | 1,12 | 1,12 | 1,12 | 2,25 | 2,25 | 3,75 | 3,75 | 3,75 | 6,0 |
| Max. absorbed current | A | 5,0 | 5,0 | 5,0 | 10,0 | 10,0 | 5,5 | 5,5 | 5,5 | 8,7 |
| Specific conductibility at 20°C (min/max) | µS/cm | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 |
| Total hardness (min/max) | mg/l CaCO ₃ | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 |
| Electrical heaters | | | | | | | | | | |
| Steps | n° | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 |
| Power | kW | 3,0 | 3,0 | 3,0 | 4,5 | 4,5 | 6,0 | 6,0 | 6,0 | 9,0 |
| Absorbed current | A | 4,3 | 4,3 | 4,3 | 6,5 | 6,5 | 8,7 | 8,7 | 8,7 | 13,0 |
| Oversized electrical heaters | | | | | | | | | | |
| Steps | n° | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 |
| Power | kW | 4,5 | 4,5 | 4,5 | 6,0 | 6,0 | 9,0 | 9,0 | 9,0 | 12,0 |
| Absorbed current | A | 6,5 | 6,5 | 6,5 | 8,7 | 8,7 | 13,0 | 13,0 | 13,0 | 17,3 |
| Hot water coil | | | | | | | | | | |
| Heating capacity ⁽³⁾ | kW | 4,9 | 4,9 | 4,9 | 7,3 | 7,3 | 10,6 | 10,6 | 10,6 | 16,7 |
| Water flow | m ³ /h | 0,85 | 0,85 | 0,85 | 1,3 | 1,3 | 1,86 | 1,86 | 1,86 | 2,91 |
| Pressure drop (coil + 3 way valve) | kPa | 36 | 36 | 36 | 31 | 31 | 48 | 48 | 48 | 56 |
| Coil internal volume | dm ³ | 1,1 | 1,1 | 1,1 | 1,4 | 1,4 | 2,1 | 2,1 | 2,1 | 3,3 |
| On / Off Compressors | | | | | | | | | | |
| Circuits / Compressors | n°/n° | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 1/1 | 2/2 |
| Condensing water pump | | | | | | | | | | |
| Nominal flow | l/h | 27,5 | 27,5 | 27,5 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 |
| Max. flow (prevalence = 0 m) | l/h | 34 | 34 | 34 | 500 | 500 | 500 | 500 | 500 | 500 |
| Max. discharge height (flow=0 m ³ /h) | m | 15,0 | 15,0 | 15,0 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 |
| Condensing water pump + humidifier | | | | | | | | | | |
| Nominal flow | l/h | - | - | - | - | - | - | - | - | 600 |
| Max. flow (prevalence = 0 m) | l/h | - | - | - | - | - | - | - | - | 900 |
| Max. discharge height (flow=0 m ³ /h) | m | - | - | - | - | - | - | - | - | 6,0 |
| Dimensions and weight | | | | | | | | | | |
| Frame | n° | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 |
| Width | mm | 550 | 550 | 550 | 750 | 750 | 980 | 980 | 980 | 1160 |
| Depth | mm | 550 | 550 | 550 | 550 | 550 | 750 | 750 | 750 | 850 |
| Height | mm | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 |
| Weight (Configuration U) | Kg | 169 | 179 | 182 | 223 | 230 | 293 | 301 | 301 | 385 |
| Weight (Configuration V) | Kg | 171 | 181 | 185 | 226 | 232 | 297 | 305 | 305 | 390 |
| Weight (Configuration D) | Kg | 172 | 182 | 186 | 228 | 234 | 299 | 307 | 307 | 392 |
| Weight (Configuration B) | Kg | 171 | 181 | 185 | 226 | 232 | 297 | 305 | 305 | 390 |

(1) Ambient temperature 24°C, Relative humidity 50%, Condensing temperature 48°C, Evaporation temperature 9°C.

(2) The fans electrical power has to be added to the ambient load.

| DX.A | | 251 | 301 | 321 | 322 | 391 | 392 | 431 | 442 | 451 |
|--|------------------------|------------|------------|------------|------------|---------------|------------|------------|------------|------------|
| Cooling capacity (Total) ⁽¹⁾ ESP 20 Pa | kW | 24,3 | 29,5 | 33,3 | 32,4 | 39,3 | 39,1 | 42,8 | 44 | 45,7 |
| Cooling capacity (Sensible) ⁽¹⁾ ESP 20 Pa | kW | 23,9 | 29,5 | 30,4 | 30,1 | 39,1 | 39 | 42,1 | 42,1 | 45,5 |
| Tot. absorbed power ⁽²⁾ ESP 20 Pa | kW | 6,7 | 7,7 | 8,8 | 9 | 10,1 | 11,2 | 11,3 | 12,9 | 11,4 |
| SHR | | 0,99 | 1,00 | 0,91 | 0,93 | 1,00 | 1,00 | 0,98 | 0,96 | 1,00 |
| Air flow | m ³ /h | 8150 | 8150 | 8150 | 8150 | 11500 | 11500 | 11500 | 11500 | 14500 |
| Fan | n° | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 |
| Max. ESP | Pa | 446 | 446 | 405 | 405 | 406 | 406 | 406 | 406 | 432 |
| Unit EER without remote condenser to max. frequency | W/W | 3,6 | 3,8 | 3,8 | 3,6 | 3,9 | 3,5 | 3,8 | 3,4 | 4 |
| Maximum absorbed power | Kw | 11,7 | 12,3 | 14,2 | 14,8 | 16,6 | 18,4 | 18,3 | 21 | 20 |
| Maximum absorbed current | A | 20,2 | 22,4 | 25,8 | 24,2 | 30,6 | 29,6 | 36,6 | 33,8 | 39,4 |
| Starting current | A | 99,2 | 132,2 | 143,2 | 77,2 | 123,6 | 83,6 | 145,6 | 92,7 | 148,4 |
| Power supply | V/ph/Hz | | | | | 400/3/50+N+PE | | | | |
| Humidifier | | | | | | | | | | |
| Steam production (nominal) | kg/h | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Steam production (max.) | kg/h | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Max. absorbed power | kW | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 |
| Max. absorbed current | A | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 |
| Specific conductibility at 20°C (min/max) | µS/cm | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 |
| Total hardness (min/max) | mg/l CaCO ₃ | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 |
| Electrical heaters | | | | | | | | | | |
| Steps | n° | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Power | kW | 9,0 | 9,0 | 9,0 | 9,0 | 9,0 | 9,0 | 9,0 | 9,0 | 15,0 |
| Absorbed current | A | 13,0 | 13,0 | 13,0 | 13,0 | 13,0 | 13,0 | 13,0 | 13,0 | 21,7 |
| Oversized electrical heaters | | | | | | | | | | |
| Steps | n° | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Power | kW | 12,0 | 12,0 | 12,0 | 12,0 | 12,0 | 12,0 | 12,0 | 12,0 | 18,0 |
| Absorbed current | A | 17,3 | 17,3 | 17,3 | 17,3 | 17,3 | 17,3 | 17,3 | 17,3 | 26,0 |
| Hot water coil | | | | | | | | | | |
| Heating capacity ⁽³⁾ | kW | 16,7 | 16,7 | 16,7 | 16,7 | 24,5 | 24,5 | 24,5 | 24,5 | 31,1 |
| Water flow | m ³ /h | 2,91 | 2,91 | 2,91 | 2,91 | 4,3 | 4,3 | 4,3 | 4,3 | 5,43 |
| Pressure drop (coil + 3 way valve) | kPa | 56 | 56 | 56 | 56 | 46 | 46 | 46 | 46 | 53 |
| Coil internal volume | dm ³ | 3,3 | 3,3 | 3,3 | 3,3 | 4,7 | 4,7 | 4,7 | 4,7 | 5,8 |
| On / Off Compressors | | | | | | | | | | |
| Circuits / Compressors | n°/n° | 1/1 | 1/1 | 1/1 | 2/2 | 1/1 | 2/2 | 1/1 | 2/2 | 1/1 |
| Condensing water pump | | | | | | | | | | |
| Nominal flow | l/h | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 |
| Max. flow (prevalence = 0 m) | l/h | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| Max. discharge height (flow=0 m ³ /h) | m | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 |
| Condensing water pump + humidifier | | | | | | | | | | |
| Nominal flow | l/h | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| Max. flow (prevalence = 0 m) | l/h | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 |
| Max. discharge height (flow=0 m ³ /h) | m | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 |
| Dimensions and weight | | | | | | | | | | |
| Frame | n° | 4 | 4 | 4 | 4 | 4,5 | 4,5 | 4,5 | 4,5 | 5 |
| Width | mm | 1160 | 1160 | 1160 | 1160 | 1505 | 1505 | 1505 | 1505 | 1860 |
| Depth | mm | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 |
| Height | mm | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 |
| Weight (Configuration U) | Kg | 342 | 360 | 361 | 398 | 429 | 454 | 433 | 454 | 522 |
| Weight (Configuration V) | Kg | 346 | 365 | 365 | 403 | 434 | 459 | 438 | 459 | 528 |
| Weight (Configuration D) | Kg | 349 | 367 | 368 | 405 | 437 | 462 | 441 | 462 | 531 |
| Weight (Configuration B) | Kg | 346 | 365 | 365 | 403 | 434 | 459 | 438 | 459 | 528 |

(1) Ambient temperature 24°C, Relative humidity 50%, Condensing temperature 48°C, Evaporation temperature 9°C.

(2) The fans electrical power has to be added to the ambient load.

| DX.A | | 472 | 511 | 512 | 531 | 602 | 672 | 742 | 761 |
|--|------------------------|------------|------------|------------|---------------|------------|------------|------------|------------|
| Cooling capacity (Total) ⁽¹⁾ ESP 20 Pa | kW | 47,3 | 51 | 50,9 | 53,2 | 59,8 | 67,3 | 74,3 | 77 |
| Cooling capacity (Sensible) ⁽¹⁾ ESP 20 Pa | kW | 47,1 | 50,8 | 50,7 | 53,1 | 59,7 | 64 | 66,8 | 76,6 |
| Tot. absorbed power ⁽²⁾ ESP 20 Pa | kW | 12,9 | 13,3 | 13,5 | 13,9 | 15,6 | 17,8 | 19,5 | 20 |
| SHR | | 1,00 | 1,00 | 1,00 | 1,00 | 1,00 | 0,95 | 0,90 | 1,00 |
| Air flow | m ³ /h | 14500 | 14500 | 14500 | 17600 | 17600 | 17600 | 17600 | 20900 |
| Fan | n° | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Max. ESP | Pa | 432 | 432 | 432 | 382 | 383 | 382 | 383 | 436 |
| Unit EER without remote condenser to max. frequency | W/W | 3,7 | 3,8 | 3,8 | 3,8 | 3,8 | 3,8 | 3,8 | 3,8 |
| Maximum absorbed power | Kw | 22,7 | 22,2 | 23,4 | 22,2 | 24,6 | 28,4 | 31,3 | 33,2 |
| Maximum absorbed current | A | 36,6 | 42,4 | 40,4 | 42,4 | 44,8 | 51,6 | 58,4 | 61,2 |
| Starting current | A | 95,5 | 182,4 | 119,4 | 182,4 | 154,6 | 169,0 | 151,4 | 154,2 |
| Power supply | V/ph/Hz | | | | 400/3/50+N+PE | | | | |
| Humidifier | | | | | | | | | |
| Steam production (nominal) | kg/h | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Steam production (max.) | kg/h | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Max. absorbed power | kW | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 |
| Max. absorbed current | A | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 |
| Specific conductibility at 20°C (min/max) | µS/cm | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 |
| Total hardness (min/max) | mg/l CaCO ₃ | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 |
| Electrical heaters | | | | | | | | | |
| Steps | n° | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Power | kW | 15,0 | 15,0 | 15,0 | 18,0 | 18,0 | 18,0 | 18,0 | 24,0 |
| Absorbed current | A | 21,7 | 21,7 | 21,7 | 26,0 | 26,0 | 26,0 | 26,0 | 34,6 |
| Oversized electrical heaters | | | | | | | | | |
| Steps | n° | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Power | kW | 18,0 | 18,0 | 18,0 | 24,0 | 24,0 | 24,0 | 24,0 | 27,0 |
| Absorbed current | A | 26,0 | 26,0 | 26,0 | 34,6 | 34,6 | 34,6 | 34,6 | 39,0 |
| Hot water coil | | | | | | | | | |
| Heating capacity ⁽³⁾ | kW | 31,1 | 31,1 | 31,1 | 37,4 | 37,4 | 37,4 | 37,4 | 48,9 |
| Water flow | m ³ /h | 5,43 | 5,43 | 5,43 | 6,5 | 6,5 | 6,5 | 6,5 | 8,5 |
| Pressure drop (coil + 3 way valve) | kPa | 53 | 53 | 53 | 34 | 34 | 34 | 34 | 48 |
| Coil internal volume | dm ³ | 5,8 | 5,8 | 5,8 | 7,1 | 7,1 | 7,1 | 7,1 | 10,45 |
| On / Off Compressors | | | | | | | | | |
| Circuits / Compressors | n°/n° | 2/2 | 1/1 | 2/2 | 1/1 | 2/2 | 2/2 | 2/2 | 1/2 |
| Condensing water pump | | | | | | | | | |
| Nominal flow | l/h | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 |
| Max. flow (prevalence = 0 m) | l/h | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| Max. discharge height (flow=0 m ³ /h) | m | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 |
| Condensing water pump + humidifier | | | | | | | | | |
| Nominal flow | l/h | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| Max. flow (prevalence = 0 m) | l/h | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 |
| Max. discharge height (flow=0 m ³ /h) | m | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 |
| Dimensions and weight | | | | | | | | | |
| Frame | n° | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 |
| Width | mm | 1860 | 1860 | 1860 | 2210 | 2210 | 2210 | 2210 | 2565 |
| Depth | mm | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 |
| Height | mm | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 |
| Weight (Configuration U) | Kg | 543 | 521 | 544 | 579 | 616 | 618 | 647 | 738 |
| Weight (Configuration V) | Kg | 549 | 528 | 551 | 586 | 624 | 625 | 654 | 746 |
| Weight (Configuration D) | Kg | 552 | 531 | 554 | 590 | 627 | 629 | 658 | 750 |
| Weight (Configuration B) | Kg | 549 | 528 | 551 | 586 | 624 | 625 | 654 | 746 |

(1) Ambient temperature 24°C, Relative humidity 50%, Condensing temperature 48°C, Evaporation temperature 9°C.

(2) The fans electrical power has to be added to the ambient load.

| DX.A | | 762 | 772 | 841 | 862 | 982 | 1002 | 1102 | 1252 |
|--|------------------------|----------|----------|----------|---------------|----------|----------|----------|----------|
| Cooling capacity (Total) ⁽¹⁾ ESP 20 Pa | kW | 77 | 76,8 | 84 | 86,8 | 98,7 | 98,9 | 111,9 | 124,5 |
| Cooling capacity (Sensible) ⁽¹⁾ ESP 20 Pa | kW | 76,3 | 76,2 | 77,8 | 78,7 | 95,6 | 95,7 | 101,4 | 104,9 |
| Tot. absorbed power ⁽²⁾ ESP 20 Pa | kW | 20 | 22 | 21,9 | 25,2 | 26,8 | 26,4 | 29,9 | 34,2 |
| SHR | | 0,99 | 0,99 | 0,93 | 0,91 | 0,97 | 0,97 | 0,91 | 0,84 |
| Air flow | m ³ /h | 20900 | 20900 | 20900 | 20900 | 25700 | 25700 | 25700 | 25700 |
| Fan | n° | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| Max. ESP | Pa | 436 | 436 | 436 | 436 | 458 | 458 | 458 | 458 |
| Unit EER without remote condenser to max. frequency | W/W | 3,8 | 3,5 | 3,8 | 3,4 | 3,7 | 3,7 | 3,7 | 3,6 |
| Maximum absorbed power | Kw | 33,2 | 36,8 | 36,6 | 42 | 47,1 | 44,6 | 49,5 | 57,1 |
| Maximum absorbed current | A | 61,2 | 59,2 | 73,2 | 67,6 | 80,8 | 84,8 | 89,6 | 103,2 |
| Starting current | A | 154,2 | 113,2 | 182,2 | 126,5 | 159,8 | 224,8 | 199,4 | 220,6 |
| Power supply | V/ph/Hz | | | | 400/3/50+N+PE | | | | |
| Humidifier | | | | | | | | | |
| Steam production (nominal) | kg/h | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Steam production (max.) | kg/h | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Max. absorbed power | kW | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 |
| Max. absorbed current | A | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 | 8,7 |
| Specific conductibility at 20°C (min/max) | µS/cm | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 | 300/1250 |
| Total hardness (min/max) | mg/l CaCO ₃ | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 | 100/400 |
| Electrical heaters | | | | | | | | | |
| Steps | n° | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Power | kW | 24,0 | 24,0 | 24,0 | 24,0 | 27,0 | 27,0 | 27,0 | 27,0 |
| Absorbed current | A | 34,6 | 34,6 | 34,6 | 34,6 | 39,0 | 39,0 | 39,0 | 39,0 |
| Oversized electrical heaters | | | | | | | | | |
| Steps | n° | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Power | kW | 27,0 | 27,0 | 27,0 | 27,0 | 36,0 | 36,0 | 36,0 | 36,0 |
| Absorbed current | A | 39,0 | 39,0 | 39,0 | 39,0 | 52,0 | 52,0 | 52,0 | 52,0 |
| Hot water coil | | | | | | | | | |
| Heating capacity ⁽³⁾ | kW | 48,9 | 48,9 | 48,9 | 48,9 | 60,8 | 60,8 | 60,8 | 60,8 |
| Water flow | m ³ /h | 8,5 | 8,5 | 8,5 | 8,5 | 10,6 | 10,6 | 10,6 | 10,6 |
| Pressure drop (coil + 3 way valve) | kPa | 48 | 48 | 48 | 48 | 42 | 42 | 42 | 42 |
| Coil internal volume | dm ³ | 10,45 | 10,45 | 10,45 | 10,45 | 12,6 | 12,6 | 12,6 | 12,6 |
| On / Off Compressors | | | | | | | | | |
| Circuits / Compressors | n°/n° | 2/2 | 2/4 | 1/2 | 2/4 | 2/4 | 2/2 | 2/4 | 2/4 |
| Condensing water pump | | | | | | | | | |
| Nominal flow | l/h | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 | 390,0 |
| Max. flow (prevalence = 0 m) | l/h | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| Max. discharge height (flow=0 m ³ /h) | m | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 | 5,4 |
| Condensing water pump + humidifier | | | | | | | | | |
| Nominal flow | l/h | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 |
| Max. flow (prevalence = 0 m) | l/h | 900 | 900 | 900 | 900 | 900 | 900 | 900 | 900 |
| Max. discharge height (flow=0 m ³ /h) | m | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 | 6,0 |
| Dimensions and weight | | | | | | | | | |
| Frame | n° | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 |
| Width | mm | 2565 | 2565 | 2565 | 2565 | 3100 | 3100 | 3100 | 3100 |
| Depth | mm | 850 | 850 | 850 | 850 | 850 | 850 | 850 | 850 |
| Height | mm | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 | 1980 |
| Weight (Configuration U) | Kg | 743 | 780 | 745 | 780 | 937 | 904 | 969 | 972 |
| Weight (Configuration V) | Kg | 752 | 788 | 753 | 788 | 947 | 914 | 979 | 982 |
| Weight (Configuration D) | Kg | 756 | 792 | 758 | 792 | 952 | 920 | 984 | 988 |
| Weight (Configuration B) | Kg | 752 | 788 | 753 | 788 | 947 | 914 | 979 | 982 |

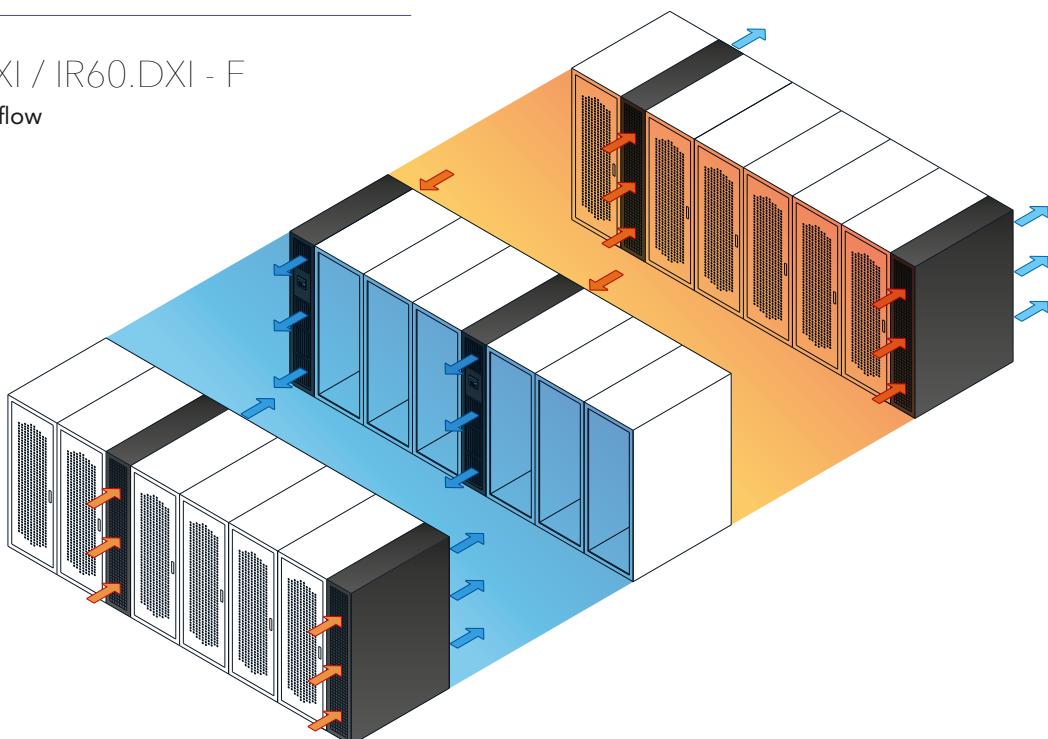
(1) Ambient temperature 24°C, Relative humidity 50%, Condensing temperature 48°C, Evaporation temperature 9°C.
(3) Water temperature 40/45°C, Ambient temperature 20°C, Relative humidity 50%.

(2) The fans electrical power has to be added to the ambient load.

CONFIGURATIONS

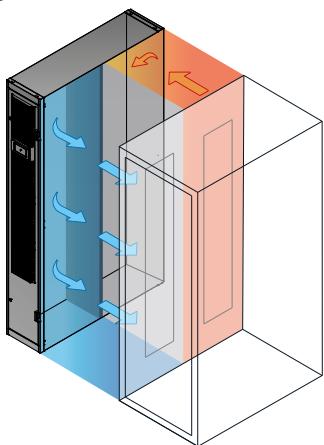
IR30.DXI / IR60.DXI - F

Frontal air flow



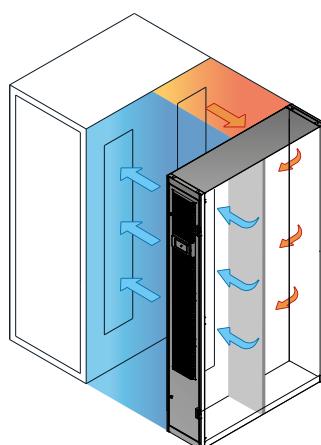
IR30.DXI - LR

Side air flow to the right



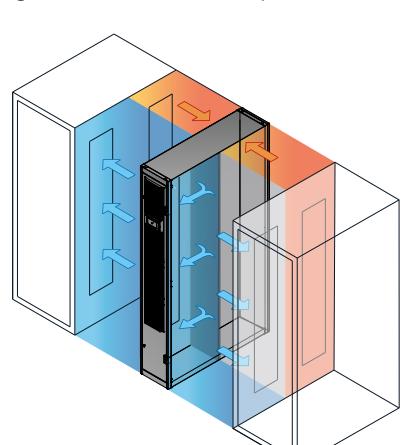
IR30.DXI - LL

Side air flow to the left

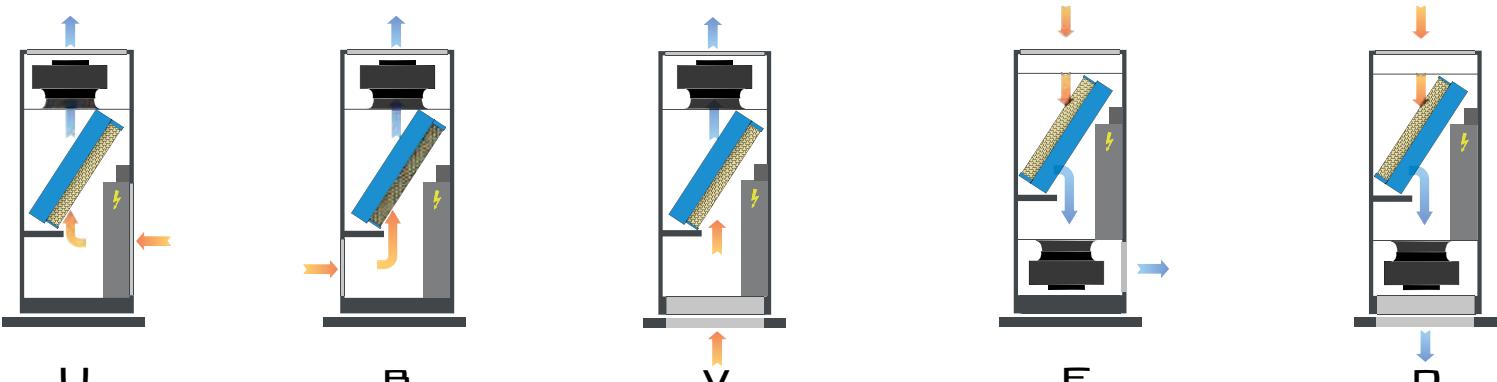


IR30.DXI - CL

Side air flow right and left (Close Loop)



AIR FLOW CONFIGURATIONS: DX / DXI / WU



Notes



EMIBYTE for IT COOLING - Products Catalogue | Rev.I Version November 2024 | ENG

Copyright © Enex Technologies

All rights reserved in all Countries.

The technical data and information expressed in this publication are owned by Enex Technologies and have general information. With a view to continuous improvement, Enex Technologies has the right to make at any time, without any obligation or commitment, all the modifications deemed necessary for the improvement of the product, for this reason even substantial changes can be made to the documentation without notice. The example images of the products and components inside the units are illustrative and therefore any brands of the components functional to the construction of the units may differ from any brands represented in this document. This catalog has been prepared with the utmost care and attention to the contents displayed, nevertheless Enex Technologies cannot assume any responsibility deriving from the use, direct or indirect, of the information contained therein.



 enex technologies
cooling and heating naturally

www.enextechnologies.com • info@enextechnologies.com