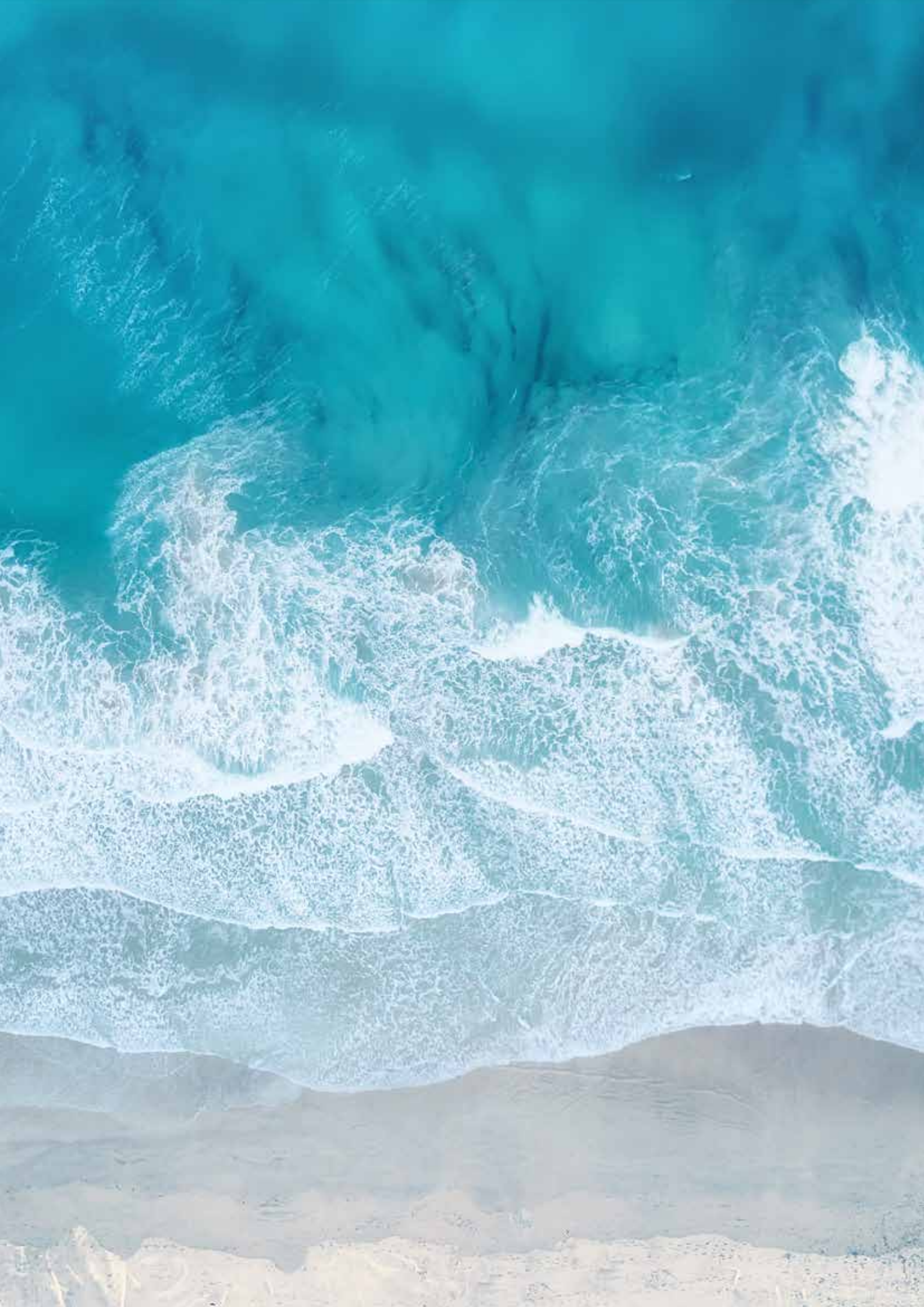




PRODUCTS

o v e r v i e w



THE PROJECT

ALWAYS FORWARD, POWERFULLY

EMICON is a manufacturer of climate control equipment that is tailored to both commercial applications and IT cooling, where reliability and performance are vital parameters in every project design. Emicon manufactures products covering multiple sectors from commercial climate control through to IT cooling with a large range of industry leading Chillers, Heat pumps, CRAC units and Roof-Top packages. The designs are highly flexible and incorporate numerous versions and accessories which allow selections to be tailored to the application. In addition, the flexibility of the manufacturing division allows non-standard designs to be considered.

THE ENVIRONMENT

EFFICIENCY AND SUSTAINABILITY

For Emicon, Research and Development into materials and products to enhance their efficiency and lower their environmental impact is fundamental to the group culture. The company is represented in the industry bodies that continually advise on climate change impact and are thus at the forefront of current knowledge. These efforts have resulted in Emicon launching new ranges of units that utilize refrigerants with the lowest Global warming impact such as HFO 1234ze, a gas with very high efficiency and low GWP (=6), as well as natural refrigerants such as R290 (GWP=3).

THE ENVIRONMENTAL POLICY

In addition to meeting the customer's requirements and maintaining a leading market position, EMICON maintains a quality culture in its operations that safeguards the environment by protecting the ecosystem and preventing pollution by adherence to national environmental standards. We invest heavily in personnel training, which generates a culture of involvement and motivation and maintains a healthy work environment. Emicon also ensure that the necessary infrastructures for safe and proper performance of their employees work activities are in place.



LOS **LAB**ORATORIOS EMICON

In all EMICON manufacturing plants, product testing on completion of manufacture is standard. In addition, at the Emicon plant in Meldola there are two climatic chambers and numerous testing stations where it is possible to simulate the project's actual climatic conditions. A double hydraulic ring circuit (one hot and one cold) is available to all chambers thus allowing performance testing to be performed on all types of product (hydronic or IT cooling, monoblock, with 2 or 4 pipes, air or water condensing and split units within a cooling capacity of 1200kW). The test chambers have been approved for testing to Eurovent standard.

Witness testing, with representatives from the customer and end user client being present, are welcomed, however, using a webcam that is installed in the test facility, the testing department can also perform such tests which can be witnessed remotely by the customer.

EMICON INNOVATION and COMFORT

EMICON Innovation & Comfort is the division within the company that performs research and development of new technologies and products that are applied to all product divisions within the HiDem group. By focusing the development resource in this manner, Emicon ensure that their products attain the highest levels of performance and have extremely low sound levels. Such expertise, backed by the testing resources, enable most products to have EUROVENT® listing.





REFERENCES



POCKOCMOC



MEDICALPARK



POLITECNICO
DI TORINO

BT Group

F
FENDI

TIM



Royal Albert Hall

Yandex



PHILHARMONIE
DE PARIS

amazon.de

ADX | سوق
أبوظبي
للأوراق المالية
ABU DHABI SECURITIES EXCHANGE



ENGIE

BnF | Bibliothèque
nationale de France

ERICSSON



ERP2021 unit conformity



Air condensing units



Water condensing units



Chiller



Heat Pump reversible



High efficiency and energetical saving



Scroll compressors



Scroll inverter compressors



Inverter rotative compressors



Centrifugal and magnetic levitation compressors



Screw compressors



Low sound emissions



Microchannel coil Aluminium/aluminium



free-cooling integrated sistem



Remote condensation



Thermodynamic recovery



Active thermodynamic recovery



Plug fan EC brushless fans



EC brushless axial fans

IT PRECISION COOLING



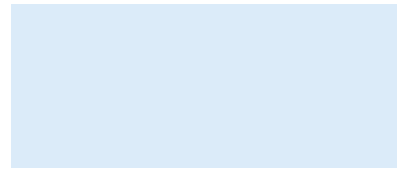
CHILLERS



PROPANE



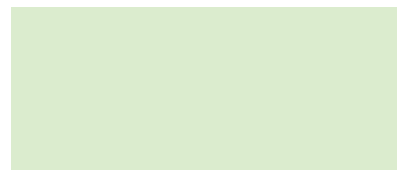
HEAT PUMPS



WATER CONDENSER UNITS



MOTOCONDENSER AND
MOTOEVAPORATING



ROOFTOP



Emibyte DX



COOL
INNOVATION

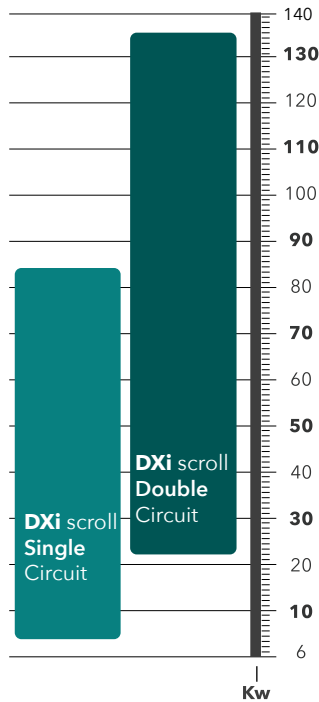
EMIBYTE

DIRECT EXPANSION PRECISION CONDITIONING UNIT AIR/WATER CONDENSED EQUIPPED WITH ON/OFF COMPRESSOR COMPRESSOR AND E.C. FANS 6,1 - 135 kW

Emibyte is the EMICON answer for ITcooling and the precision conditioning market. The EMICON technical department undertook the complete redesign of the range and produced products that exceed in performance, both the previous range and the industry standard. The Emibyte range includes direct expansion perimeter type Close Control units, chilled water and dual fluid configurations and chilled water and direct expansion InRow units with On/Off or Inverter compressors.

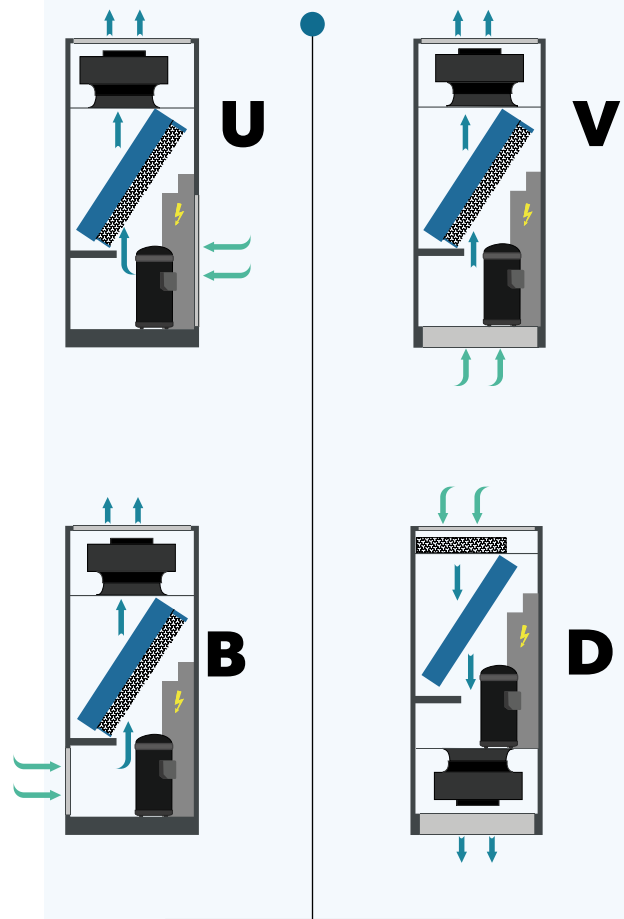
Development of the controller package resulted in the provision of Touchscreen Interface, control grouping and remote supervision systems.

Close Control, Precision cooling for vertical installation. Available with humidifier and dehumidification system, incorporating electrical step heaters for perfect humidity and temperature control. Specifically designed for technical environments such as server or control rooms or anywhere that a high sensible load is present. The units are equipped with an Inverter EC radial fan with down/up or front discharge (with optional plenum). All Emibyte units are tested in the Emicon certified laboratories.



VERSIONS

- DX.A**
 AIR CONDENSED AIR EXPANSION, EQUIPPED WITH ON / OFF COMPRESSORS
- DX.H**
 WATER CONDENSED DIRECT EXPANSION, EQUIPPED WITH ON / OFF COMPRESSORS
- DX.AF**
 AIR CONDENSED DIRECT EXPANSION WITH ON-OFF COMPRESSORS AND WATER COOLED ADDITIONAL COIL (DUAL FLUID)
- DX.HF**
 WATER CONDENSED DIRECT EXPANSION WITH ON-OFF COMPRESSORS AND FREE-COOLING ADDITIONAL COIL (DUAL FLUID) INDIRECT FREE-COOLING
- DX.E**
 EVAPORATING WITH EXTERNAL MOTOCONDENSER



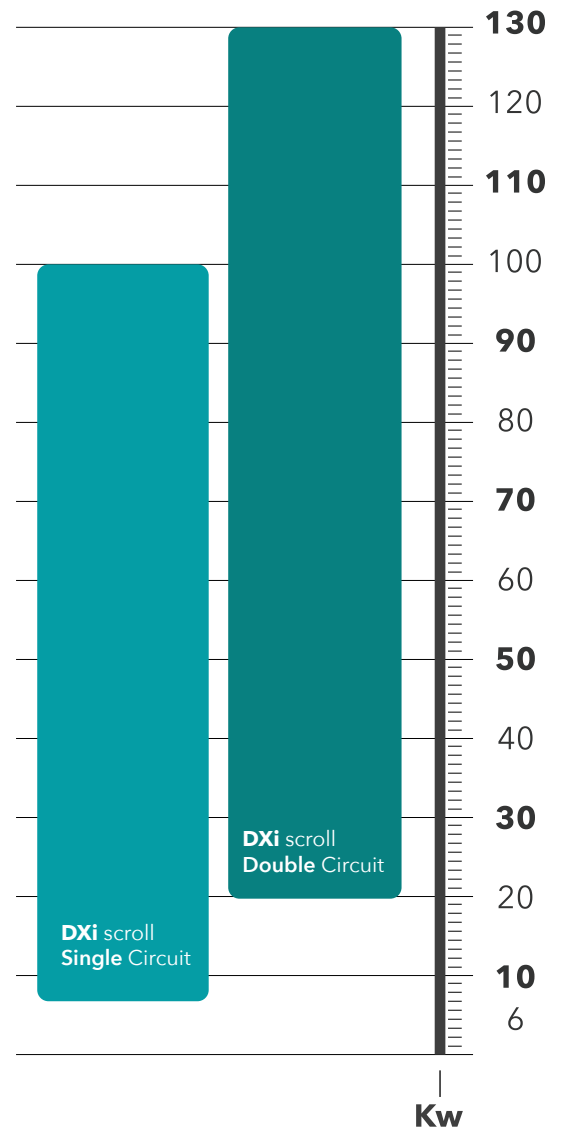
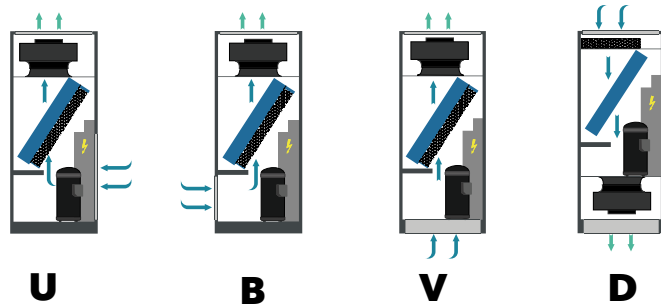
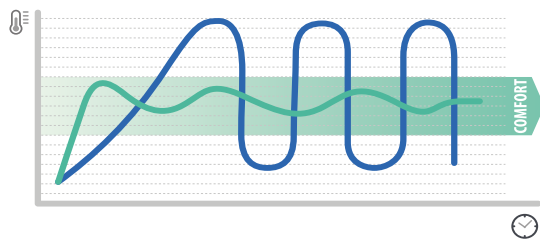
- U** Front suction and upside discharge
- V** Downside suction and upside discharge
- B** Backside suction and upside discharge
- D** Upside suction and downside discharge



Emibyte DXi

DIRECT EXPANSION PRECISION CONDITIONING UNIT AIR CONDENSED
EQUIPPED WITH INVERTER COMPRESSOR AND E.C. FAN
 6,1 - 130 kW

INVERTER TECHNOLOGY



VERSIONI

- **DXi.A**
 AIR CONDENSED DIRECT EXPANSION EQUIPPED WITH INVERTER COMPRESSOR
- **DXi.H**
 WATER CONDENSED DIRECT EXPANSION EQUIPPED WITH INVERTER COMPRESSOR
- **DXi.AF**
 AIR CONDENSED DIRECT EXPANSION EQUIPPED WITH INVERTER COMPRESSOR AND WATER ADDITIONAL COIL (DUAL FLUID)
- **DXi.HF**
 WATER CONDENSED DIRECT EXPANSION EQUIPPED WITH INVERTER COMPRESSOR AND ADDITIONAL FREE-COOLING COIL (DUAL FLUID) INDIRECT FREE-COOLING





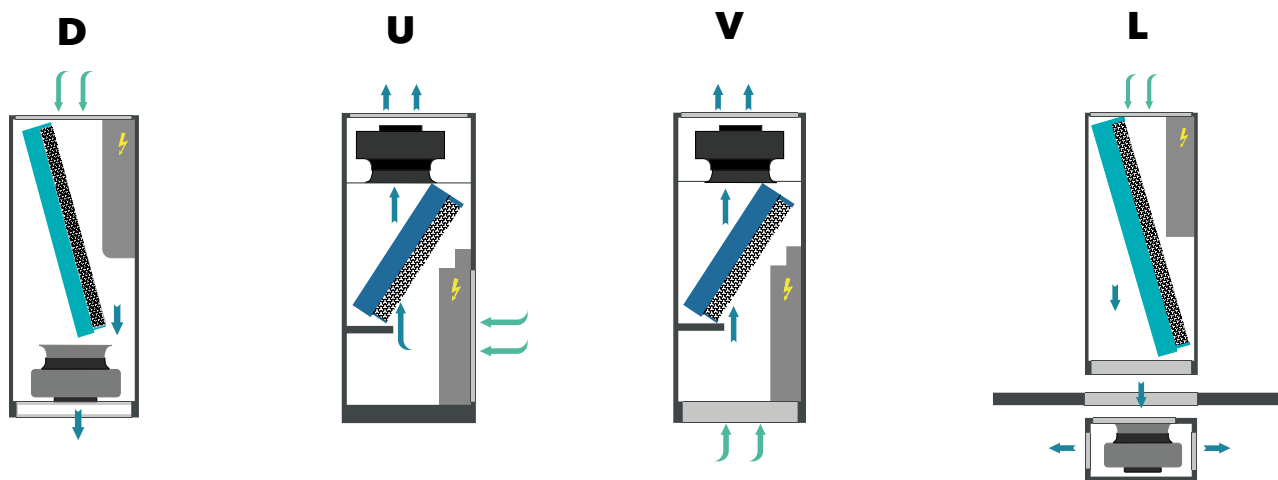
Emibyte WU

WATER PRECISION COOLING

6 - 216,5 Kw

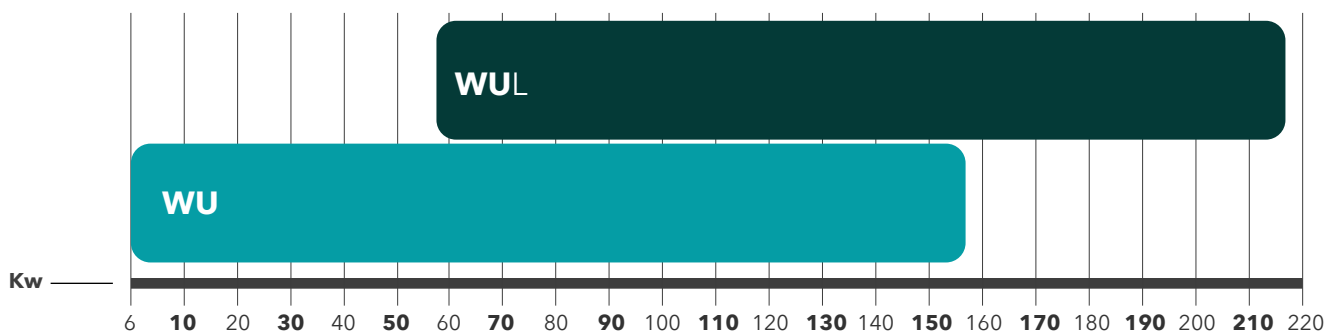
Precision units for vertical installation (with duct). Cool only units with electrical post heating and humidifier available as accessories. Incorporating all of these options results in a product that can provide accurate control of both temperature and humidity. Designed for the control of technical environments, server and CED rooms or anywhere that accurate control is required.

The units are equipped with radial EC inverter fan and are available in downflow, upflow or front discharge (plenum as option) versions. The units are fitted with a 3-way modulating valve (2-way on request) complete with actuator.



HP High performance: Maximum ventilation function, to maximise the power supplied and SHR (L configuration)

ES Energy saving: Ventilation attenuation function, to maximise the system efficiency (L configuration)



EMIBYTE

30.62



Emibyte

IRWU

UNIT SPECIFIED DESIGNED FOR IT INFRASTRUCTURES. REALIZED TO MANAGE CONCENTRATED THERMAL LOADS TO ELIMINATE THE HOT-SPOT

Emibyte InRow from 11 to 60kW

These units are designed for IT applications to control concentrated thermal loads and eliminate hot spots.

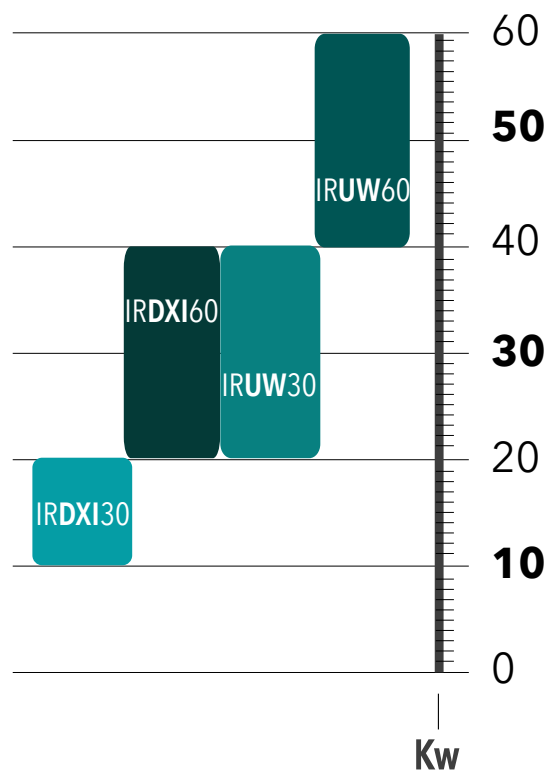
Emibyte InRow from 11 to 60kW water cooled, direct expansion or Free-cooling type, available in 300mm or 600mm width. Designed for small size Data Centers, but flexible to increase the system to a higher cooling capacity as the IT infrastructure grows. InRow units have reduced sound levels and higher efficiency than a traditional perimeter solution.

Emibyte InRow units provide:

- Accurate humidity and temperature control
- Reduced power input due to the use of EC fans and Inverter Scroll compressor
- Maximum level of energy saving with optimised cooling due to on-site regulation of the diffusers.



IRDXi



VERSIONS

• IRDXi

DIRECT EXPANSION AIR CONDENSED

• IRDXi.HF

WATER CONDENSED EXPANSION DIRECT
WITH FREE-COOLING COIL

• IRUW

WATER COOLED UNIT



PHILOSOPHY

PASSION to THE EFFICIENCY

In the last decade, the air conditioning world has experienced a continuous, remarkable and still alive evolution process, which has led to a different approach to the market and to the products by the manufacturers. The main worldwide companies, which operate in the comfort field (mainly in residential applications), have found in the Italian technology the answer to a lack of know-how in chillers and air conditioning field.

In fact the companies, following a common globalization process, have started an intensive campaign of international acquisitions, but this has led some negative consequences, such as the loss of some pluses in terms of organization and production, which moreover had made the Italian companies well known all over the world in the past.

Residential air conditioning field is based on highly industrialized, standardized and large-scale productions, with distribution through mass channels; the professional chiller and precision air conditioning world follows, instead, much more complex dynamics: the technical solutions, the production organization, as well as the choice of the distribution channel, must take care of the "specificity of the application"; the manufacturer must be able to grant a flexible production system, associated with an adequate development of technology, applied in a dynamic way, able to meet the peculiarity of the different installation needs. Unifying the two worlds would mean a pauperization of the entire European and specifically of the Mediterranean "solutions" market, the Italian industry was leader in.

EMICON, as a "surviving" representative of the Italian industry, has never stopped its commitment in the research and development of its products for professional conditioning, keeping the same quality level of its worldwide competitors, also thanks to the use of national excellence with specific skills, as well as a strong partnership and acquisitions policy, maintaining in this way an open and flexible approach to the market, with a wide range of tailor made solutions.

The improvement of this complex industrial model implies a very careful selection of human resources, paying the greatest attention to the competence and experience of all the technical, sales and production staff.

EMICON recognizes in the talent and professionalism of its workers, both internal and external ones, a heritage to be preserved, through the creation of a comfortable and familiar work ambient, despite the large structural dimensions

RAE Kc/Kr

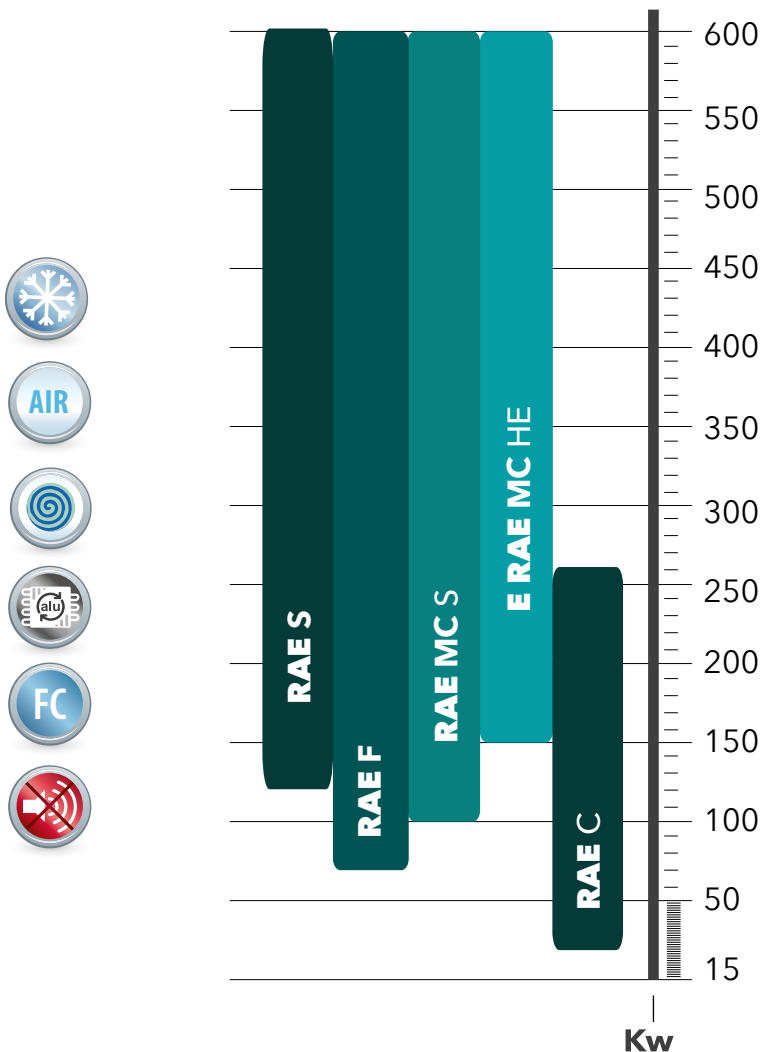
AIR CONDENSED LIQUID CHILLERS SCROLL COMPRESSORS AND AXIAL FANS

REFRIGERANTS

R410a
R454B

Monoblock air condensed water chillers equipped with hermetic scroll compressors and axial fans suitable for external installation, these units are specifically designed for cooling in medium to large commercial projects. They can also be used for both high or low temperature industrial process cooling. MULTI-SCROOL technology (also available as an option with INVERTER control), provides multiple steps of capacity, with a resultant improvement in part load efficiency. This also improves performance when used with highly variable load applications. The standard refrigerant is R410a, however, it is also available with the low GWP refrigerant R454B.

For plant room applications (indoor mounting), the RAE C version is available that incorporates EC Brushless plug type fans.



VERSIONS

● **RAE.S**
LOW SOUND EMISSIONS

● **RAE.F**
FREE-COOLING (OPTIONAL GLYCOL FREE)

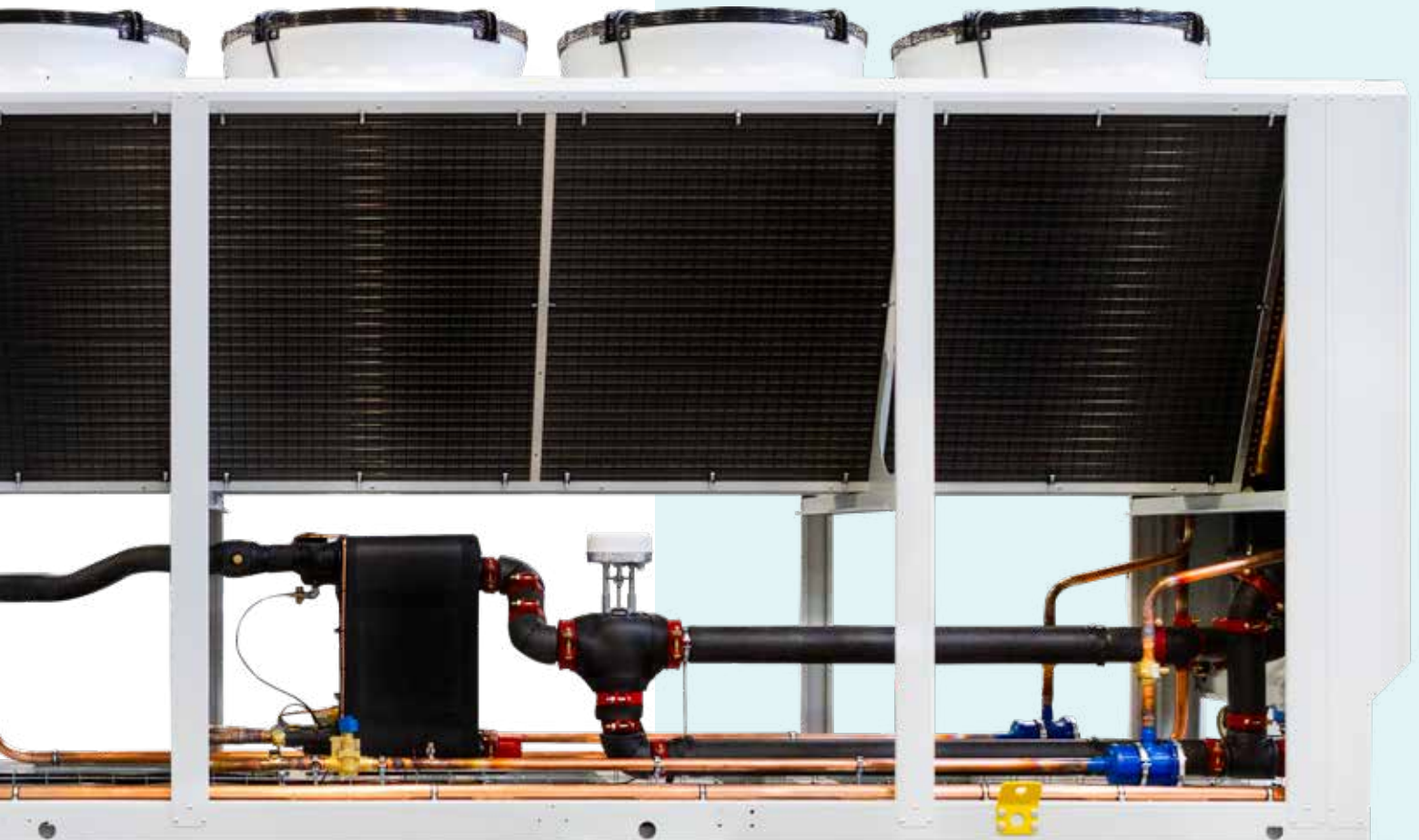
● **RAE.C**
DUCTABLE INTERNAL INSTALLATION

● **RAE.MC S**
LOW SOUND EMISSIONS WITH MICROCHANNEL COIL

● **ERAE.MC HE***
HI EFFICIENCY WITH MICROCHANNEL COIL

*CE certified unit in conformity with European regulation
2016/2281 to working conditions 12/7°C user side*

***Powered by Emicon Innovation and Comfort**



RAH Ka/Kh/Ke

AIR CONDENSED CHILLER

SCREW COMPRESSORS AND AXIAL FANS

REFRIGERANTS

R134a
R1234ze
R513A

Monoblock air condensed liquid chillers

Equipped with semi-hermetic screw compressors and axial fans suitable for external installation, these units are specifically designed for cooling in medium to large commercial projects. They can also be used for both high or low temperature industrial process cooling. RAH and ERAH units are highly recommended for applications where the unit will operate almost continuously due to the reliability of screw compressors. Screw compressors also provide either linear adjustment or multiple steps of capacity, with a resultant improvement in part load efficiency. This also improves performance when used with highly variable load applications. The ERAH MC VS HE units are fitted with INVERTER controlled compressors which further enhance efficiency.



Standard units utilize R134a refrigerant. Optional versions that use low GWP refrigerants R513a or HFO R1234ze, are also available.



VERSIONS

● RAH

STANDARD

● RAH.S

LOW SOUND EMISSION

● RAH.F

FREE COOLING

● ERAH.MC U^{*}

MICROCHANNEL COIL ALU/ALU

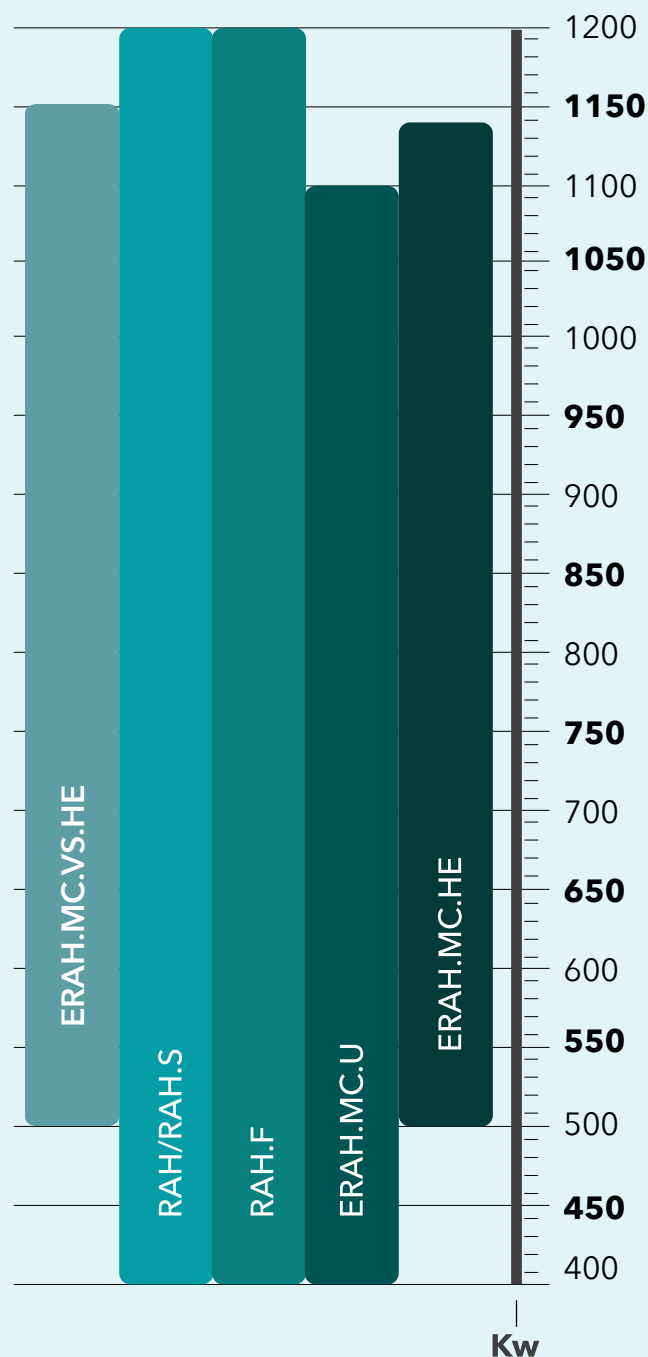
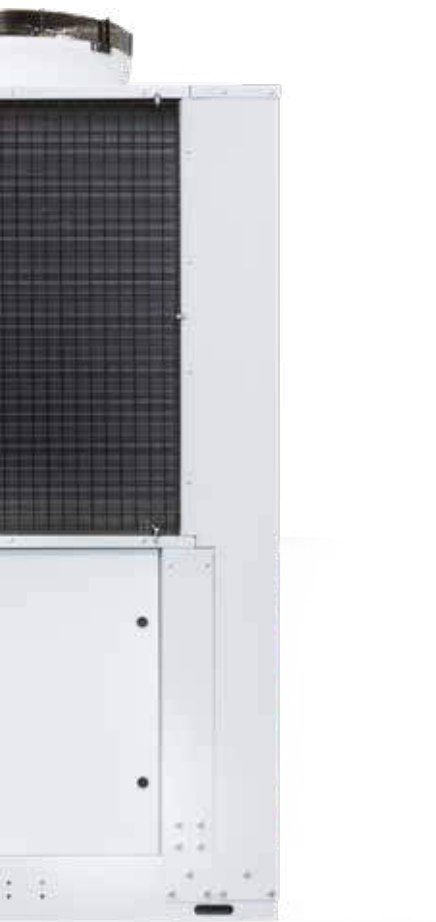
● ERAH.MC HE^{*}

HI EFFICIENCY WITH MICROCHANNEL COIL ALU/ALU

● ERAH.MC VS HE^{*}

HI EFFICIENCY WITH SCREW **INVERTER** COMPRESSOR AND MICROCHANNEL COIL ALU/ALU

*Powered by Emicon *Innovation and Comfort*



RAC Ka/Kh

R134a
R1234ze

AIR CONDENSED CHILLERS

MAGNETIC LEVITATION BRUSHLESS COMPRESSORS AND AXIAL FANS



Monoblock liquid chillers, utilizing highly efficient, oil free, Turbocor compressors and flooded shell & tube evaporators, available in both air (RAC) and water (RWC) cooled versions. Infinitely variable cooling capacity control results in very high part load efficiency. These units are extremely suitable for projects where continual use of the chiller is expected. The absence of friction within the compressor due to the specialist magnetic levitation type bearings, results in total OIL FREE cooling circuits.

Standard units utilize R134a refrigerant. Low GWP version available using R1234ze.

VERSIONS

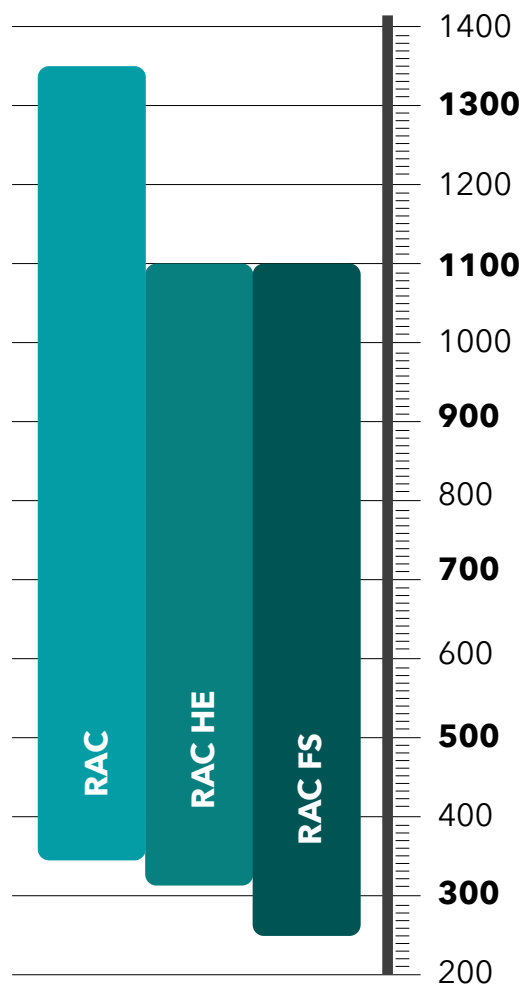
● **RAC**
STANDARD

● **RAC.U**
ULTRA LOW SOUND EMISSIONS

● **RAC.HE**
HI EFFICIENCY

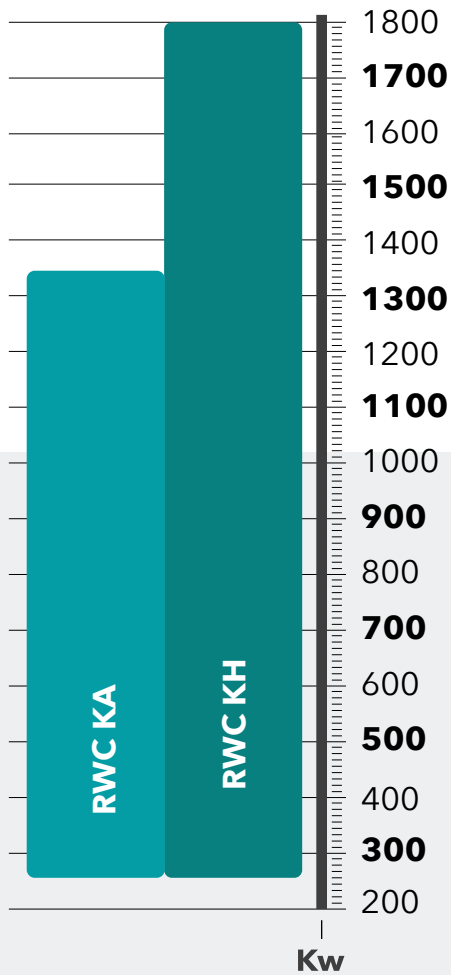
● **RAC.FS**
LOW SOUND AND FREE COOLING

● **RWC**
WATER CONDENSED UNIT



RWC Ka/Kh

WATER CONDENSED CHILLERS
MAGNETIC LEVITATION
BRUSHLESS COMPRESSORS



RAS Kp

AIR CONDENSED LIQUID CHILLERS SEMIHERMETIC RECIPROCATING COMPRESSORS AND AXIAL FANS WITH PROPANE R290 REFRIGERANT

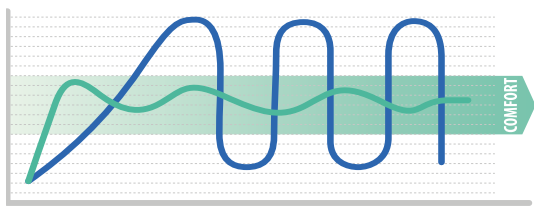
Monoblock air cooled liquid chillers equipped with semi-hermetic compressors and axial fans, suitable for external installation and operating with R290 natural refrigerant (Propane). Available as chillers (RAS) or reversible heat pump chiller (PAS) versions. 4th generation unit using R290 natural refrigerant, this new range has reduced sound levels and improved efficiency which is the result of a long experience in this sector. EMICON are recognized leaders in Europe for such products.



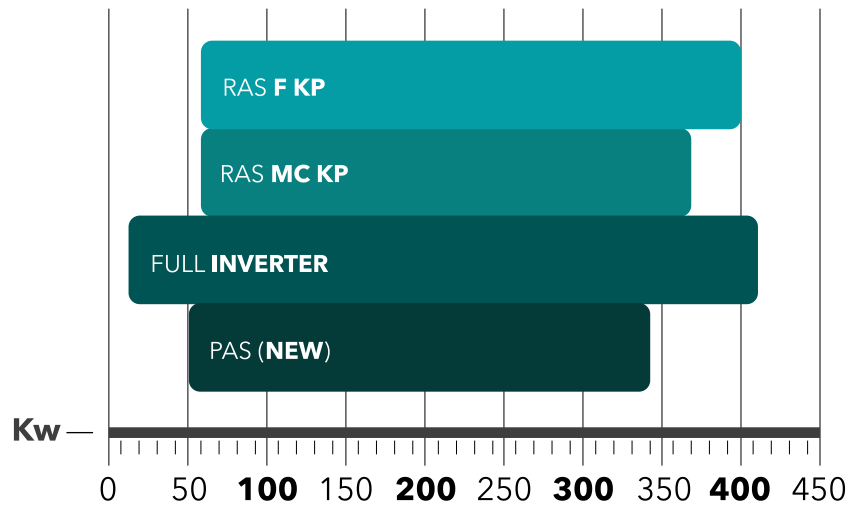
VERSIONS

- **RAS.MC**
STANDARD WITH MICROCHANNEL COIL
- **RAS.MC VB**
BRINE VERSION WITH MICROCHANNEL COIL
- **RAS.F**
INTEGRATED FREE-COOLING
- **PAS**
HEAT PUMP (REVERSIBLE UNIT)





INVERTER TECHNOLOGY







SEMPPLICITY'S
THE LAST
SOFISTICATION.

-LEONARDO DA VINCI

PAE Kc/Kr

AIR CONDENSED HEAT PUMP
SCROLL COMPRESSOR AND AXIAL FANS

REFRIGERANTS

R454B

R410a

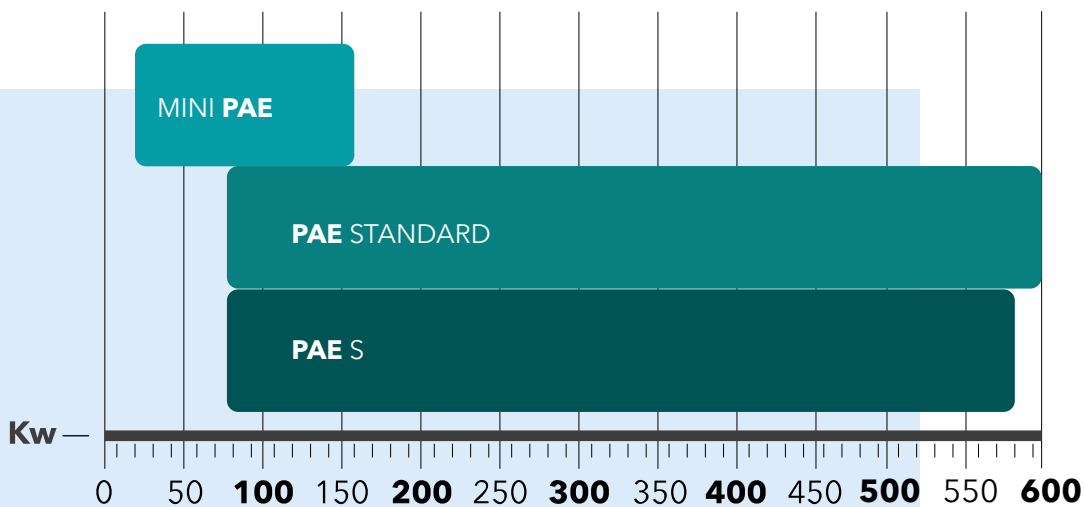


Monoblock air source reversible heat pump chillers fitted with hermetic scroll compressors and helicoidal (Axial?) fans capable of generating either hot or chilled water. Designed for external installation, these units are specifically designed for heating or cooling in medium to large commercial projects. MULTISCROOL technology (also available as an option with INVERTER control), provides multiple steps of capacity, with a resultant improvement in part load efficiency. This also improves performance when used with highly variable load applications. The standard refrigerant is R410a, however, it is also available with the low GWP refrigerant R454B.

For plant room applications (indoor mounting), the PAE C version is available that incorporates EC Brushless plug type fans.

VERSIONS

- **PAE**
STANDARD
- **PAE.MINI**
RESIDENTIAL APPLICATIONS
- **PAE.S**
LOW SOUND EMISSIONS
- **PAE.C**
DUCTABLE INTERNAL INSTALLATION



PAH Ka/Ke

HEAT PUMPS AIR CONDENSED
SCREW COMPRESSORS AND AXIAL FANS

REFRIGERANTS

R513A

R134a



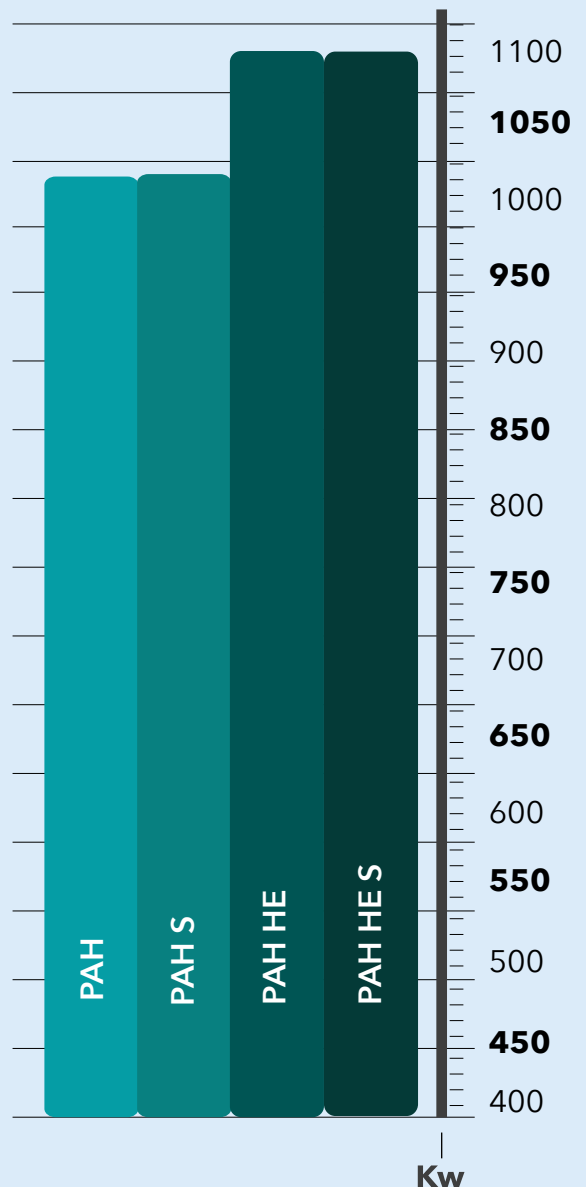
Monoblock air cooled heat pumps fitted with semi-hermetic screw compressors and helicoidal?? (Axial?) fans, suitable for external installation, these units are specifically designed for heating or cooling in medium to large commercial projects. They can also be used for industrial process heating or cooling. PAH units are highly recommended for applications where the unit with operate almost continuously due to the reliability of screw compressors. Screw compressors also provide either linear adjustment or multiple steps of capacity, with a resultant improvement in part load efficiency. This also improves performance when used with highly variable load applications. INVERTER controlled compressors are available as an option which further enhances efficiency.

Standard units utilize R134a refrigerant. They are also available with low GWP refrigerant R513A.



VERSIONS

- **PAH**
STANDARD
- **PAH.S**
EMISIONES SONORAS BAJAS
- **PAH.HE**
ALTA EFICIENCIA
- **PAH.HE S**
ALTA EFICIENCIA Y BAJAS EMISIONES SONO-



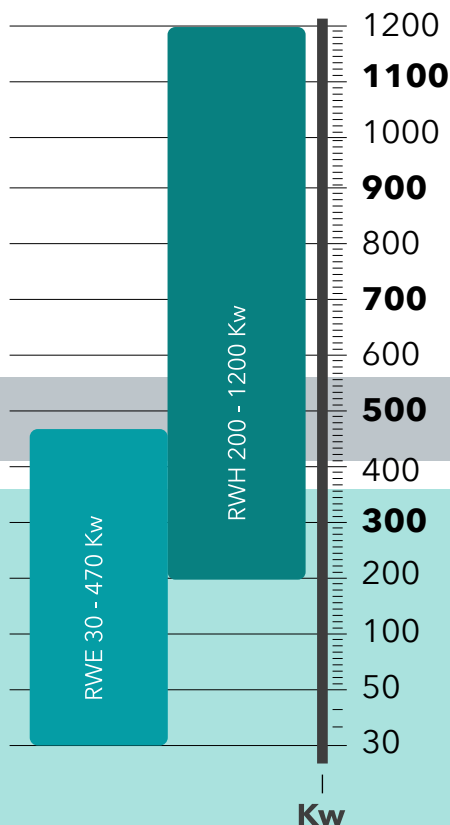
RWE/RWH

WATER CONDENSED WATER CHILLED CHILLERS AND **HEAT PUMPS**

AVAILABLE WITH 1 OR 2 COOLING CIRCUIT

RWE/PWE :Water cooled monoblock chillers (RWE) and heat pumps (PWE) using ground or evaporative (chiller only) tower water, designed for internal installation. RWE & PWE units are equipped with hermetic MULTISCROLL compressors and plate heat exchangers, and utilise either R410a or low GWP R454b (option) refrigerant. The PWE heat pumps are reversible to operate on cooling.

RWH & PWH units are identical to the RWE & PWE units but utilize semi-hermetic screw compressors and shell in tube evaporators. The standard refrigerant is R134a but they are also available as options with the low GWP refrigerants, either R513a or HFO R1234ze. Reversible heat pump versions change over on the hydraulic circuit.



REFRIGERANTS *RWE-PWE*

R410a
R454B

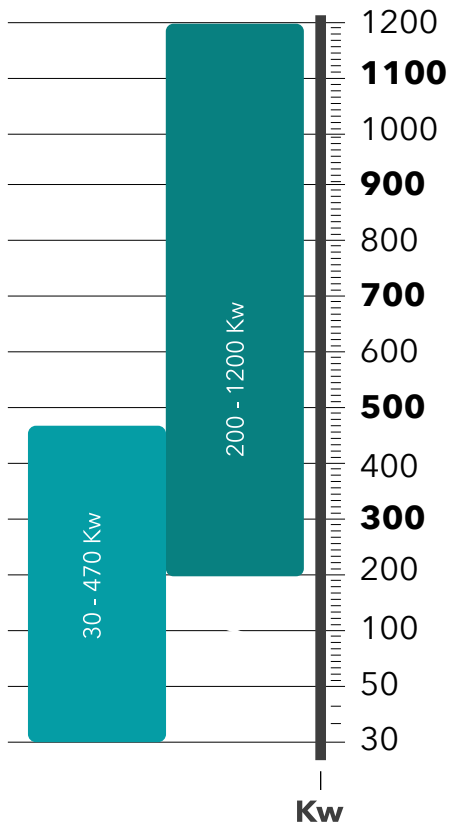
REFRIGERANTS *RWH-PWH*

R513A
R134a
R1234ze



MEE / MEH

REMOTE AIR CONDENSED WATER CHILLERS



Remote air condensed, split system liquid chillers, designed for internal installation. MEE units incorporate hermetic MULTISCROLL compressors and plate evaporators. Standard refrigerant is R410a. They are also available in reverse cycle heat pump version, on request. MEH units are fitted with semi-hermetic screw compressors and shell in tube evaporators, with R134a as the standard refrigerant. They are also available as an option with low GWP R513a refrigerant.



VERSIONS

MEE

SCROLL COMPRESSORS, REFRIGERANT R410a

MEH

SCREW COMPRESSORS, REFRIGERANTS R134a/R513A

REFRIGERANTS

R134a

R513A

R410a



MCE

AIR MOTOCONDENSER

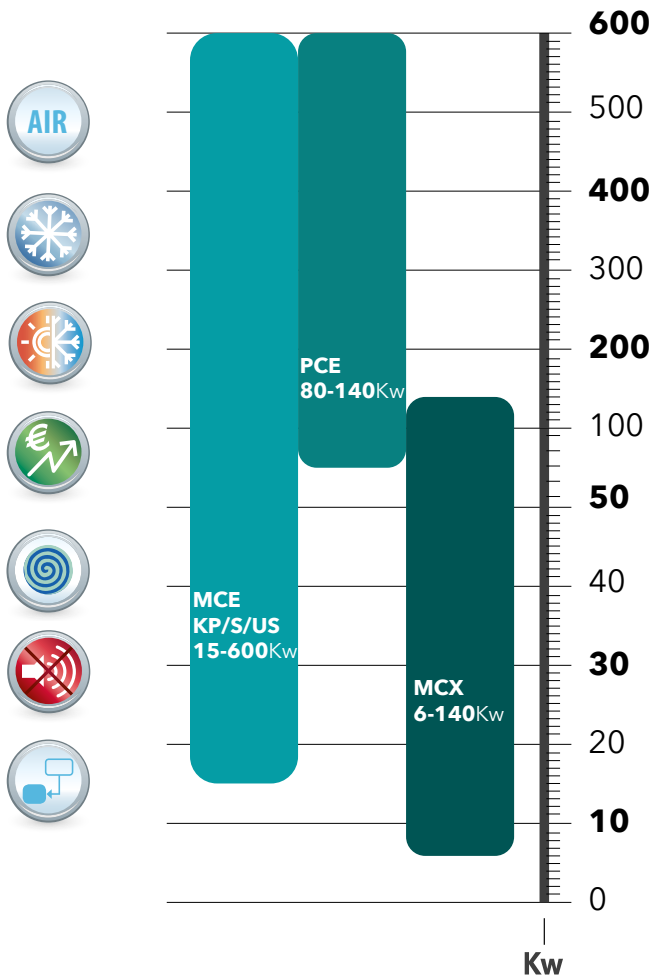
AXIAL FANS

SCROLL / MULTISCROLL COMPRESSORS

Monoblock air motocondensers units
Suitable for external installation, they are fitted with hermetic scroll compressors and axial fans, designed to be matched with a remote direct expansion evaporator.

MULTISCROLL technology (with INVERTER regulation as an option) provides multiple steps of capacity, with a resultant improvement in part load efficiency. This also improves performance when used with highly variable load applications.

R410a refrigerant is standard.
They are also available in reversible heat pump configuration (PCE).



VERSIONS

- **MCE**

STANDARD

- **MCE.S**

LOW SOUND EMISSIONS

- **PCE**

REVERSABLE HEAT PUMP UNIT

- **MCX**

ELECTRIC CABINET FREE

REFRIGERANT

R410a



RTC/H

ROOFTOP MONOBLOCK UNITS CHILLER OR REVERSIBLE HEAT PUMPS EXECUTIONS



3rd generation of EMICON Roof Top units Highly flexible construction concept that enables the product configurations to be tailored specifically to match each project. They are particularly designed for applications where temperature control with a high SHR is required in buildings with a large population density. The units incorporate heat recovery and free cooling and these features, coupled with high quality components and controls, results in high efficiency in operation.

Special configurations for IT COOLING and WELLNESS with domestic hot water generated by heat recovery are available, as is a 100% fresh air unit as options.

All the available configurations satisfy the project requirements and the seasonal efficiency defined in (UE) 2016/2281 Regulation.

CONFIGURATIONS AVAILABLE :

- TR - Total Recirculation**
- 2S - Mixing chamber with 2 dampers**
- HR - Heat Recovery**
- HRD - Active Heat Recovery**

5 FRAMES

31 DIMENSIONS

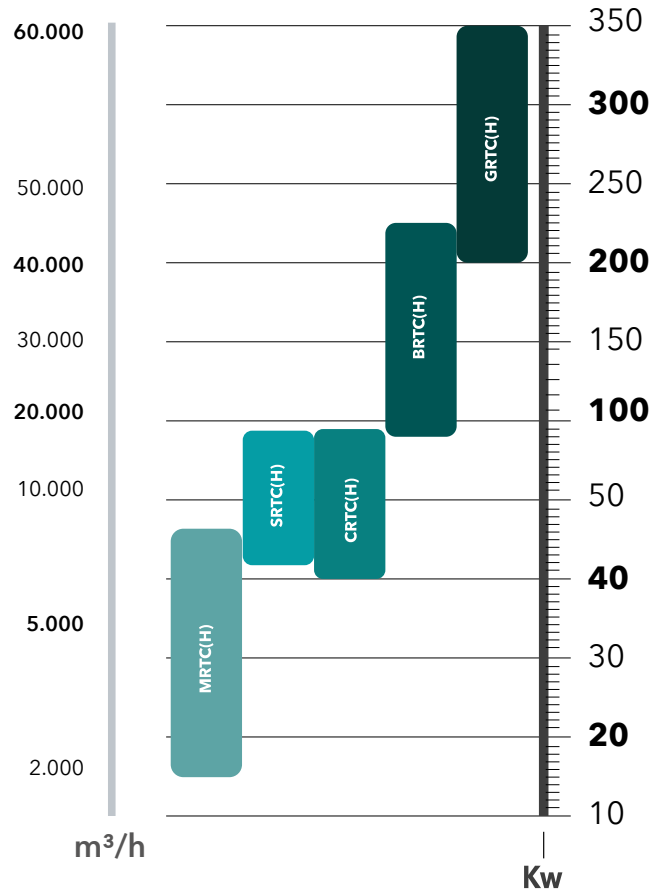
217 CONFIGURATIONS

+ SPECIAL CUSTOMIZATIONS
TO WELLNESS AND IT COOLING



VERSIONS

- **Mini** MRTC(H)
- **Small** SRTC(H)
- **Central** CRTC(H)
- **Big** BRTC(H)
- **Giant** GRTC(H)



40

EXPORT COUNTRIES

AUSTRIA, BELGIUM, BULGARIA, CHILE, CROATIA, CZECH REPUBLIC, DENMARK, EGYPT, FRANCE, GERMANY, GREAT BRITAIN, GREECE, NETHERLAND, HONG KONG, HUNGARY, INDONESIA, IRAN, IRELAND, KAZAKHSTAN, KUWAIT, LATVIA, LITHUANIA, MAROCCO, NORWAY, OMAN, PAKISTAN, POLAND, PORTUGAL, QATAR, ROMANIA, SAUDI ARABIA, SINGAPORE, SLOVAKIA, SLOVENIA, SPAIN, SWEDEN, SWITZERLAND, TUNISIA, TURKEY, TURKMENISTAN, UKRAINE, UNITED ARAB EMIRATES, URUGUAY, UZBEKISTAN.



EMICON OFFICES



DISTRIBUTORS

EMICON

WORLDWIDE

8

EMICON SALE OFFICES

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GREAT BRITAIN
UNITED ARAB EMIRATES
NETHERLAND
RUSSIA
SPAIN
FRANCE
TURKEY

SPAIN

DZA

UK

UNITED KINGDOM

F

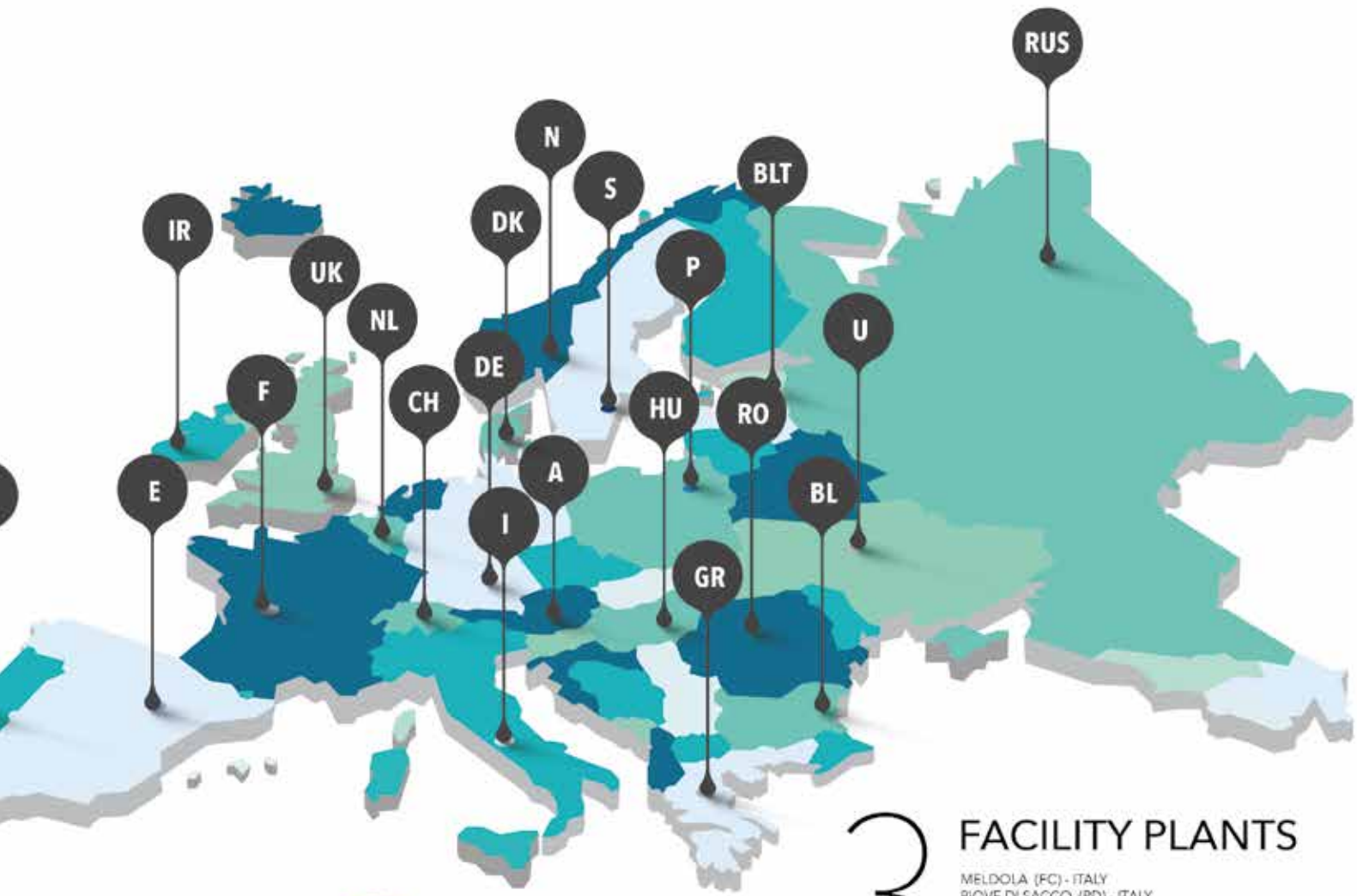
FRANCE

NL

NETHERLAND

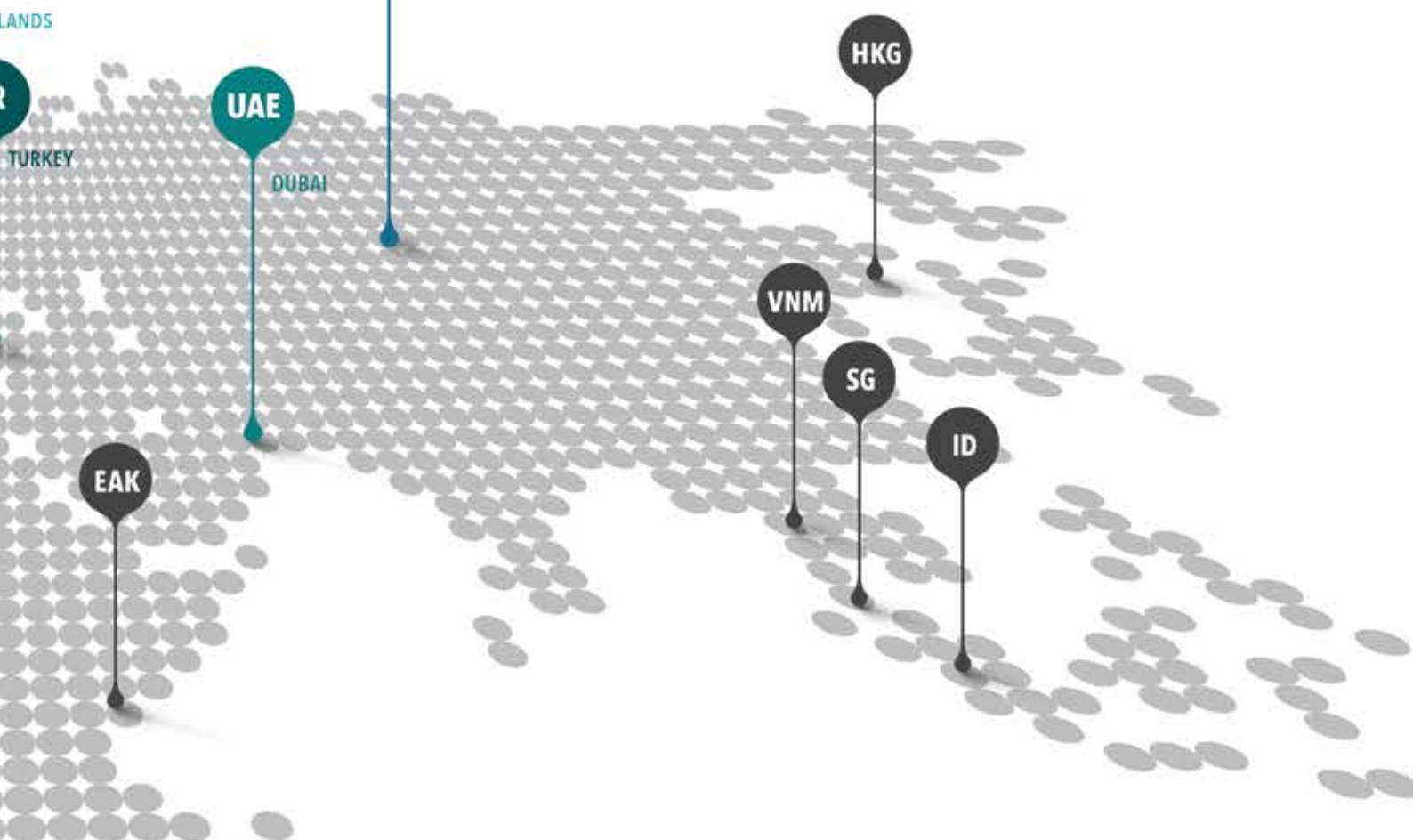
TR





3 FACILITY PLANTS

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 PIOVE DI SACCO (PD) - ITALY
 MASSA MARTANA (PG) - ITALY





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