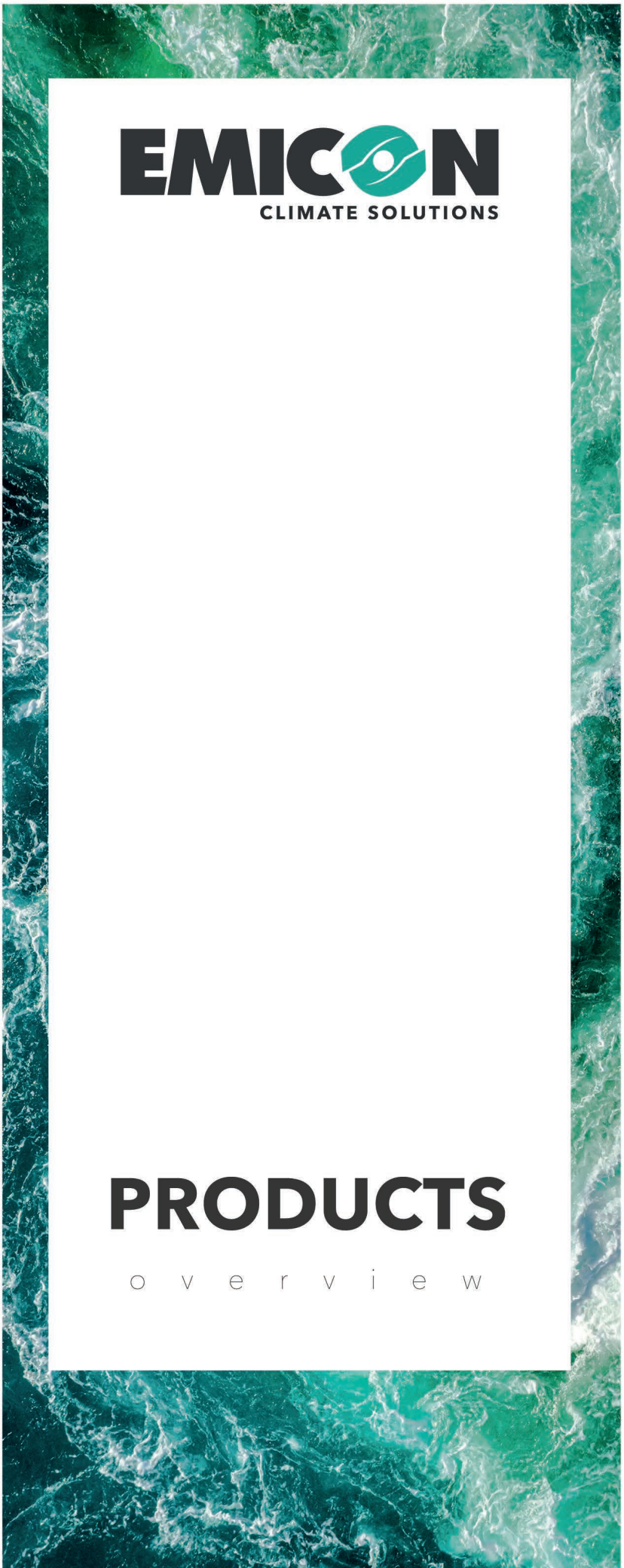
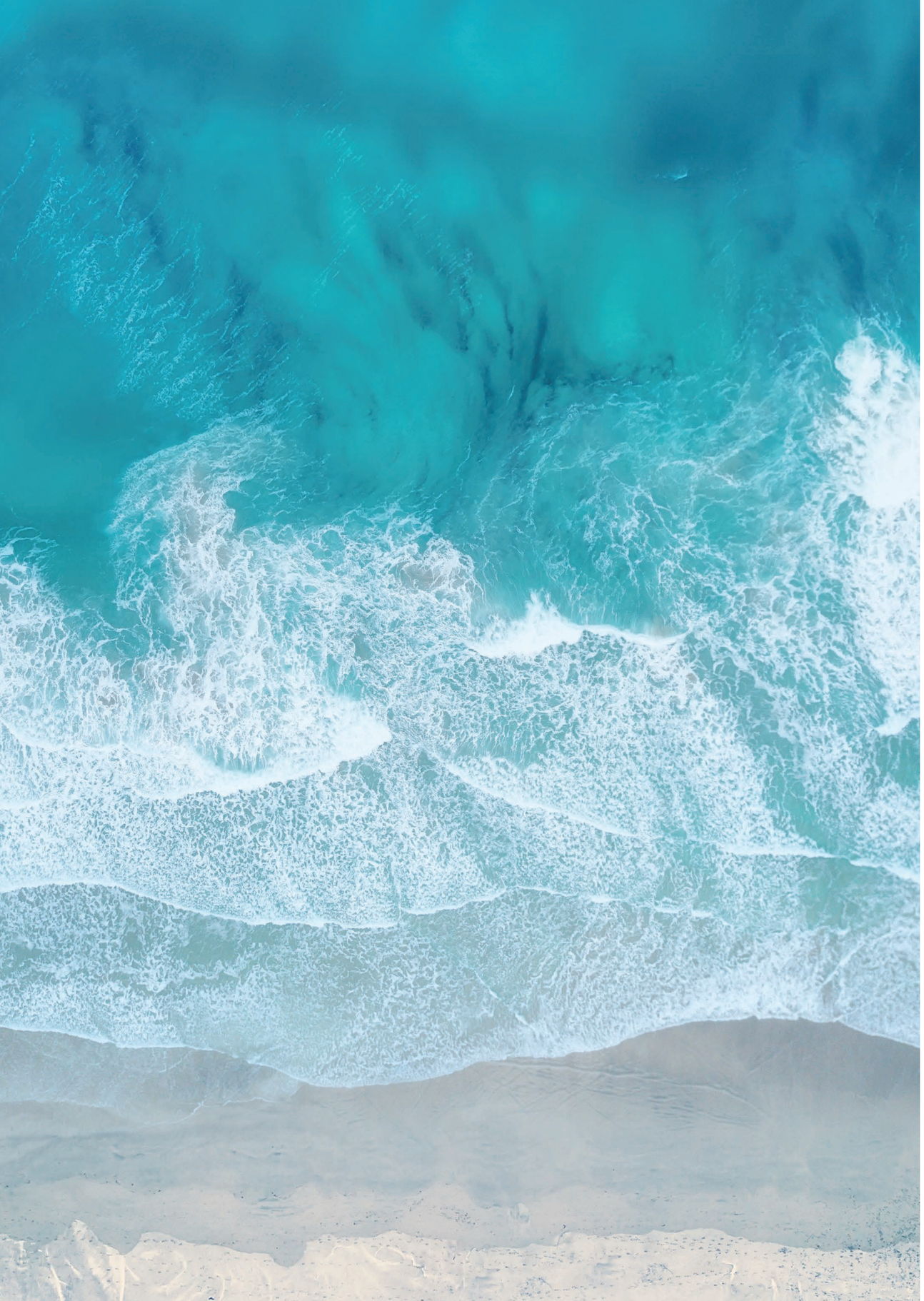


EMICON
CLIMATE SOLUTIONS

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

EFFICENCY 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.

EMICON
CLIMATE SOLUTIONS

THE EMICON **LABS**

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.

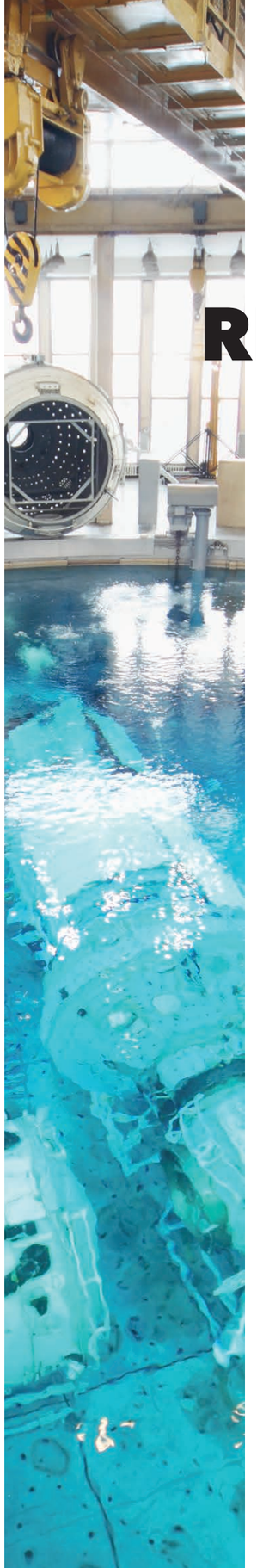
EMICON INNOVATION and COMFORT

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.

EMICON
INNOVATION AND COMFORT

TÜVRheinland®
CERTIFIED

EUROVENT
CERTIFIED
PERFORMANCE
www.eurovent-certification.com



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ENGIE
BnF Bibliothèque nationale de France
ERICSSON

ERP2021 unit conformity

Air condensing units

Water condensing units

Chiller

Heat Pump reversable

High efficency 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 heat recovery

Active thermodynamic heat recovery

Plug fan EC brushless fans

EC brushless axial fans

IT PRECISION COOLING

CHILLERS

PROPANE

HEAT PUMPS

WATER COOLED UNITS

CONDENSING AND EVAPORATING UNITS

ROOFTOPS

Emibyte DX

COOL
INNOVATION

EMIBYTE

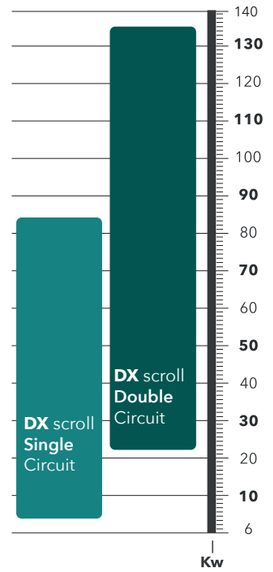
DIRECT EXPANSION CLOSE CONTROL UNITS WITH REMOTE CONDENSER EQUIPPED WITH ON/OFF COMPRESSOR AND E.C. FANS

6,1 - 135 kW

Emibyte is the EMICON answer for ITcooling and the precision conditioning market. The EMICON technical department undertook the complete re-design of the range which exeed in performance compared to the previous range. 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- 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 with high sensible load. The units are equipped with an EC fan with down/up or front discharge (with optional plenum). All Emibyte units are tested in the Emicon certified laboratories.



VERSIONS

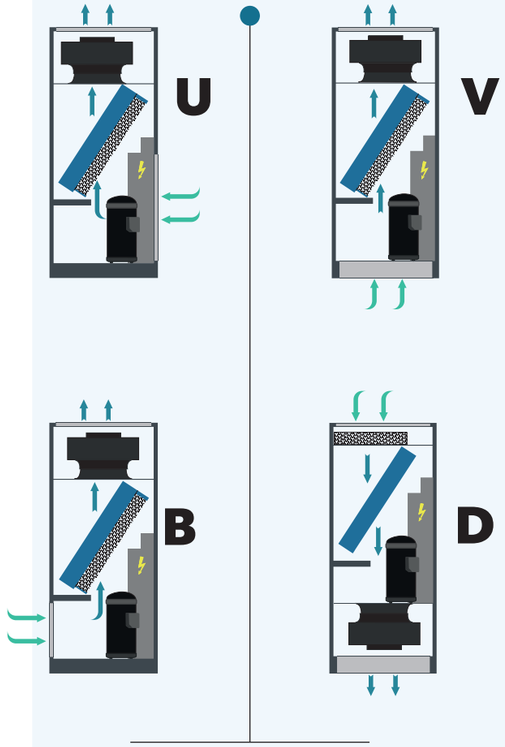
DX.A
AIR COOLED AIR EXPANSION, EQUIPPED WITH ON / OFF COMPRESSORS

DX.H
WATER COOLED DIRECT EXPANSION, EQUIPPED WITH ON / OFF COMPRESSORS

DX.AF
AIR COOLED DIRECT EXPANSION WITH ON-OFF COMPRESSORS AND WATER COOLED ADDITIONAL COIL (***DUAL FLUID***)

DX.HF
WATER COOLED DIRECT EXPANSION WITH ON-OFF COMPRESSORS AND FREE-COOLING ADDITIONAL COIL (***DUAL FLUID***) INDIRECT FREECOOLING

DX.E
EVAPORATING WITH EXTERNAL CONDENSING UNIT



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

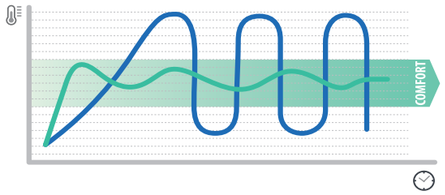
H_2O AIR

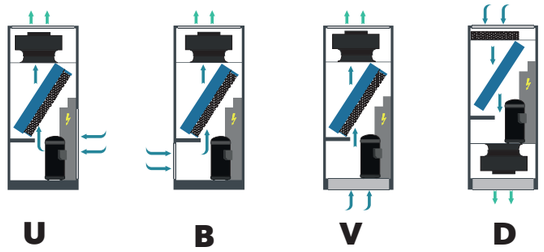
EMICON CLIMATE SOLUTIONS

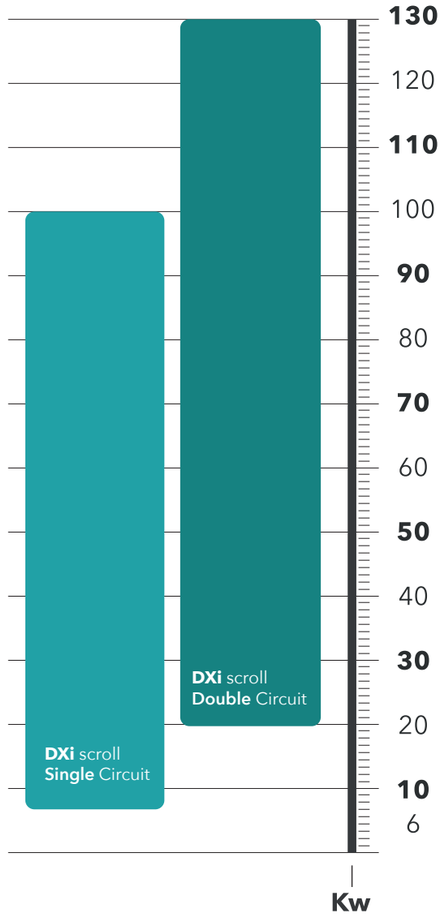
Emibyte DXi

DIRECT EXPANSION CLOSE CONTROL UNITS WITH REMOTE CONDENSER
INVERTER COMPRESSOR AND E.C. FAN
6,1 - 130 kW

INVERTER TECHNOLOGY







VERSIONI

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

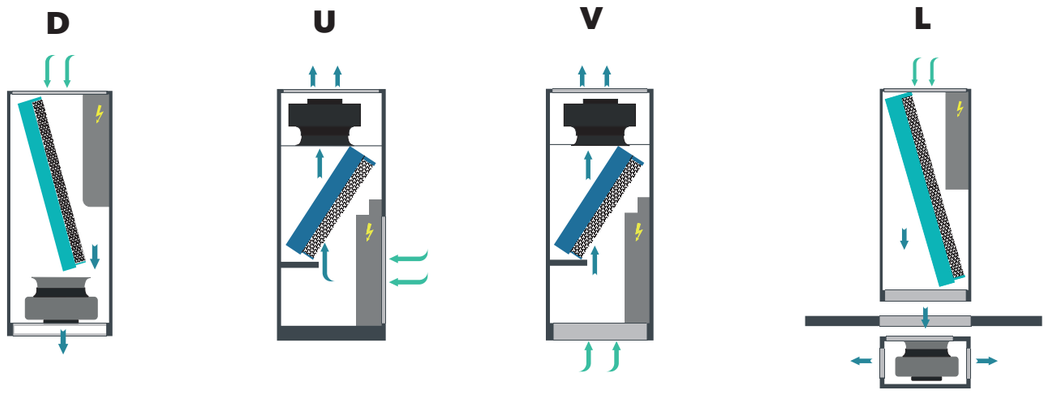
EMICON
CLIMATE SOLUTIONS

Emibyte WU

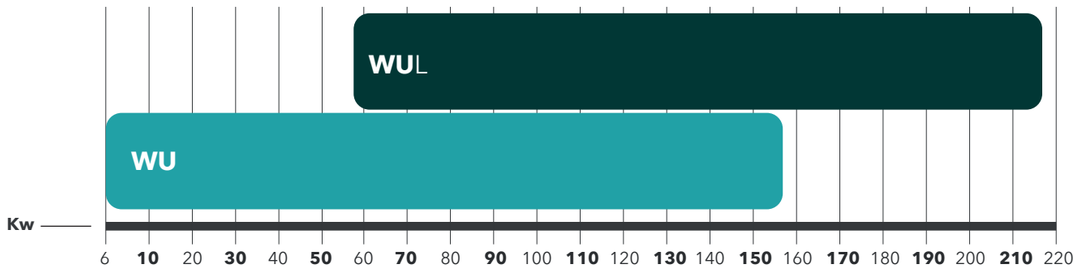
CHILLED WATER CLOSE CONTROL
6 - 216,5 Kw

these precision chilled water units are designed for technological centers and data processing rooms. Due to the available options, these units can be fit into any application. 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 EC fans 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.



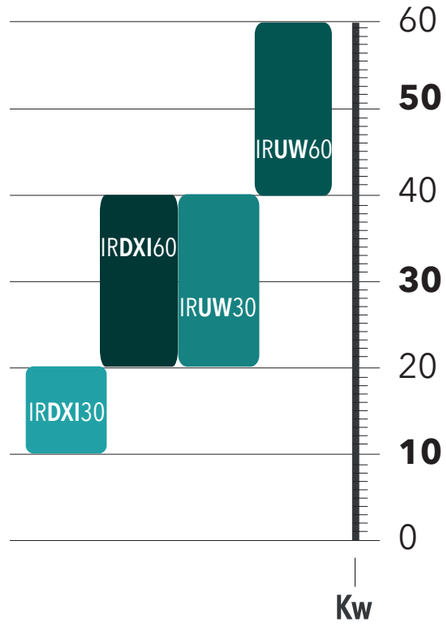
HP **High performance:** Maximum ventilation function, to maximise the power supplied and SHR (L configuration)
ES **Energy saving:** Ventilation attenuation function, to maximise the system efficency (L configuration)



EMICON
CLIMATE SOLUTIONS

Emibyte IRUW IRDXi

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



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.

VERSIONS

- **IRDXi**
  DIRECT EXPANSION AIR COOLED
- **IRDXi.HF**
  WATER COOLED EXPANSION DIRECT WITH FREE-COOLING COIL
- **IRUW**
  CHILLED WATER UNIT

EMICON
CLIMATE SOLUTIONS

PHILOSO**PHY**

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 know 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 achieved.
The industrial philosophy of EMICON is aimed at the acquisition of some excellences in the air conditioning field, the creation of new business realities-still in progress- and the continuous investments in the already existing production facilities, thereby consolidating the Group’s growing leadership role in the professional air conditioning market.

RAE Kc/Kr

AIR COOLED LIQUID CHILLERS

SCROLL COMPRESSORS AND AXIAL FANS

REFRIGERANTS

R410a

R454B

MONOBLOCK AIR COOLED 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-SCROLL 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.

AIR

FC

VERSIONS

RAE.S
LOW SOUND EMISSIONS

RAE.F
FREE-COOLING (OPTIONAL GLYCOL FREE)

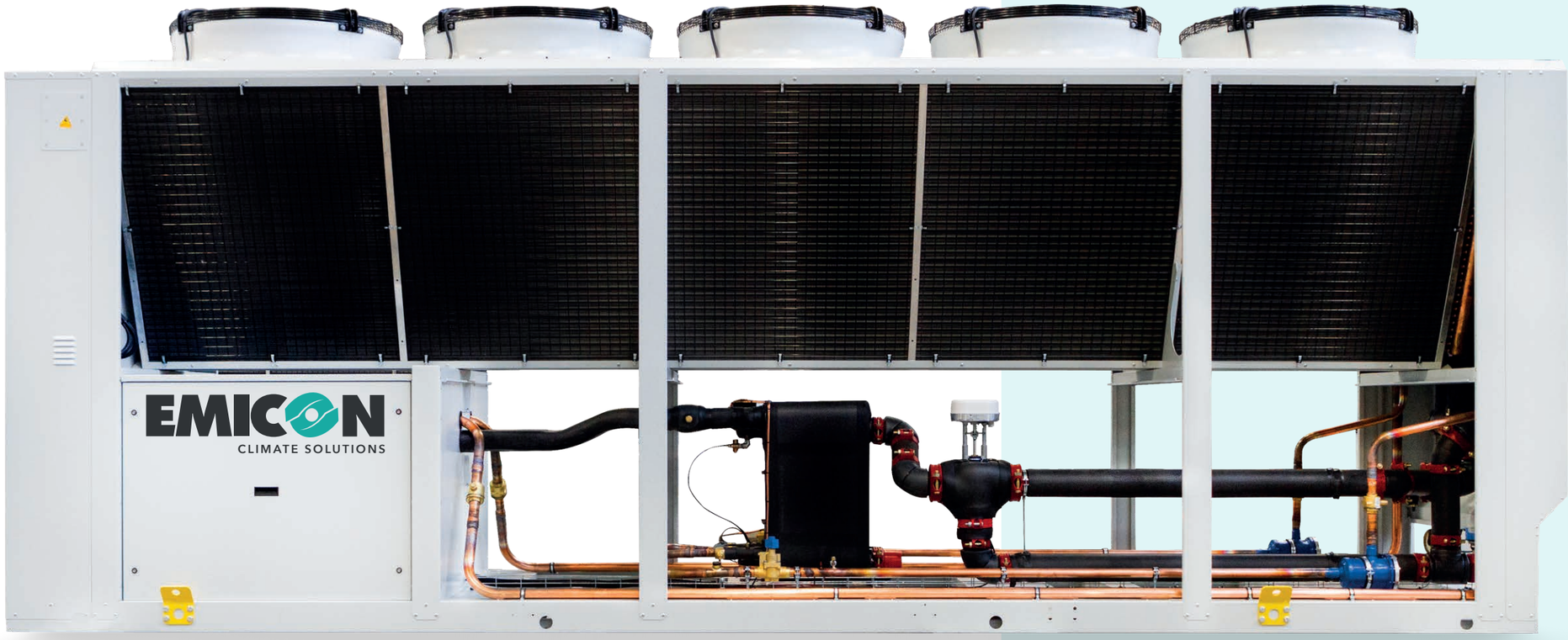
RAE.C
DUCTABLE INTERNAL INSTALLATION

RAE.MC S
LOW SOUND EMISSIONS WITH MICROCHANNEL COIL

ERAE*.MC HE
HIGH 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*



EMICON
CLIMATE SOLUTIONS

RAH Ka/Kh/Ke

AIR COOLED CHILLER

SCREW COMPRESSORS AND AXIAL FANS

REFRIGERANTS

R134a
R1234ze
R513A

MONOBLOCK AIR COOLED LIQUID CHILLERS

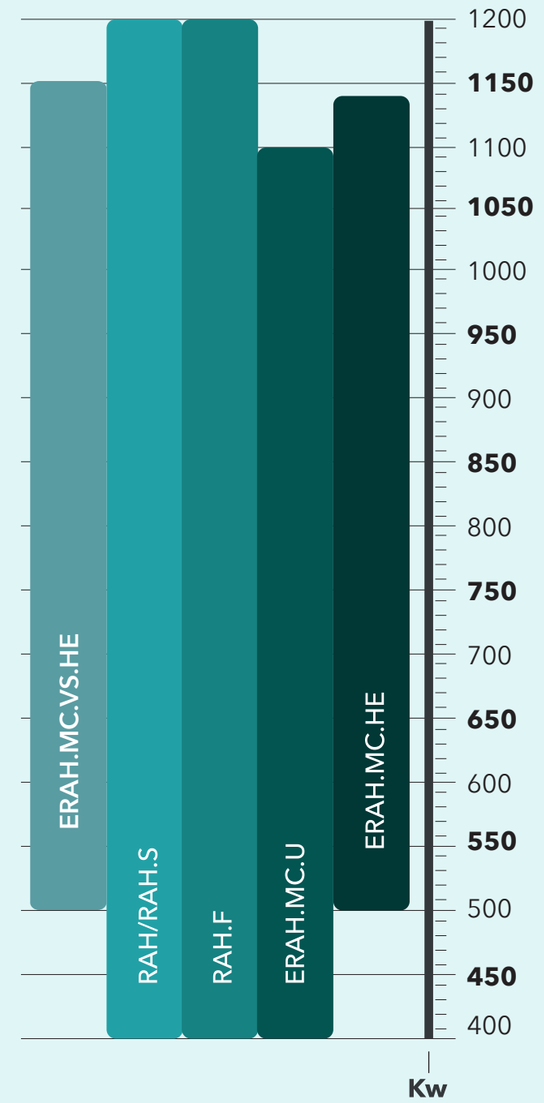
Equipped with semi-hermetic screw compressors and axial fans suitable for external installation, these units are specifically designed for cooling in medium to large commercial projects. They can also be used for both high or low temperature industrial process cooling. RAH and ERAH units are highly recommended 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 using 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** *
  ALU/ALU MICROCHANNEL COIL
- ***ERAH*.MC HE** *
  HIGH EFFICIENCY WITH ALU/ALU MICROCHANNEL COIL
- ***ERAH*.MC VS HE** *
  HIGH EFFICIENCY WITH SCREW ***INVERTER*** COMPRESSORS AND ALU/ALU MICROCHANNEL COIL

***Powered by** Emicon *Innovation and Comfort*



EMICON
CLIMATE SOLUTIONS

RAC Ka/Kh

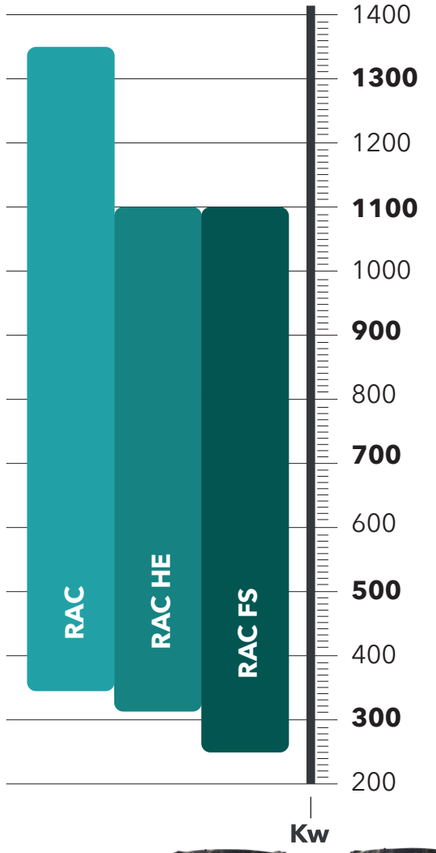
AIR COOLED CHILLERS

MAGNETIC LEVITATION BRUSHLESS COMPRESSORS AND AXIAL FANS

R134a
R1234ze

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.



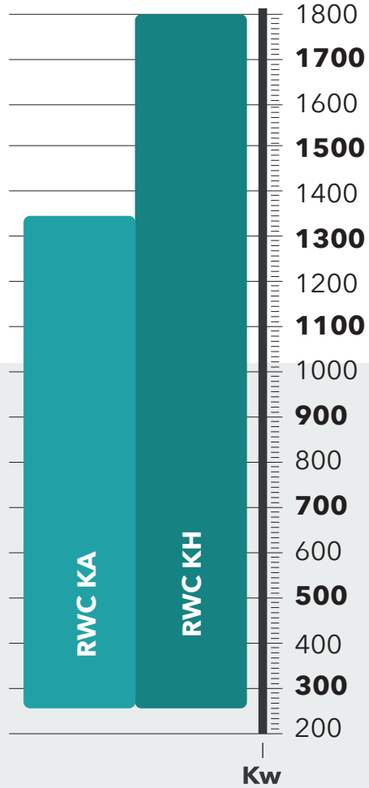
VERSIONS

- **RAC**
  STANDARD
- **RAC.U**
  ULTRA LOW SOUND EMISSIONS
- **RAC.HE**
  HIGH EFFICIENCY
- **RAC.FS**
  LOW SOUND AND FREE COOLING
- **RWC**
  WATER COOLED UNITS

RWC Ka/Kh

WATER COOLED CHILLERS

MAGNETIC LEVITATION BRUSHLESS COMPRESSORS



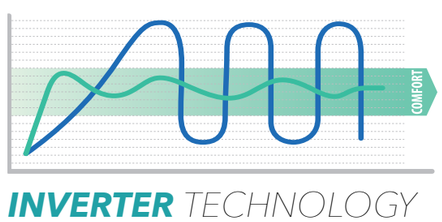
RAS Kp

AIR COOLED LIQUID CHILLERS

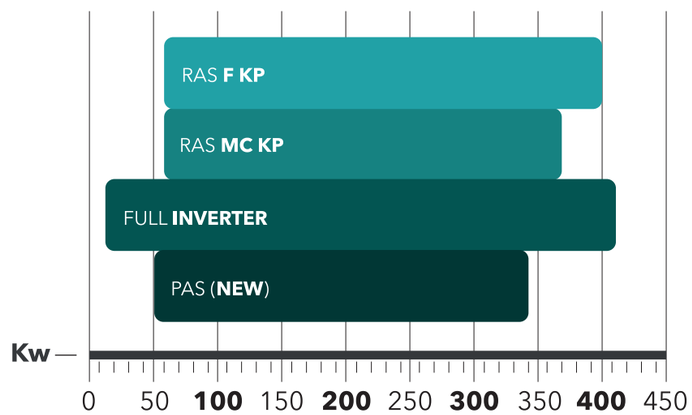
SEMIHERMETIC RECIPROCATING COMPRESSORS AND AXIAL FANS WITH PROPANE R290 REFRIGERANT

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 units 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 is recognized as leader in Europe for such products.

HIGHLY SUSTAINABLE
R290
NATURAL REFRIGERANT



INVERTER *TECHNOLOGY*



VERSIONS

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

ERP 2021
AIR
FC

EMICON
CLIMATE SOLUTIONS

SEMPLICITY'S
THE LAST
SOFISTICATION.

-LEONARDO DA VINCI

PAE Kc/Kr

AIR COOLED HEAT PUMPS

SCROLL COMPRESSOR AND AXIAL FANS

REFRIGERANTS

R454B

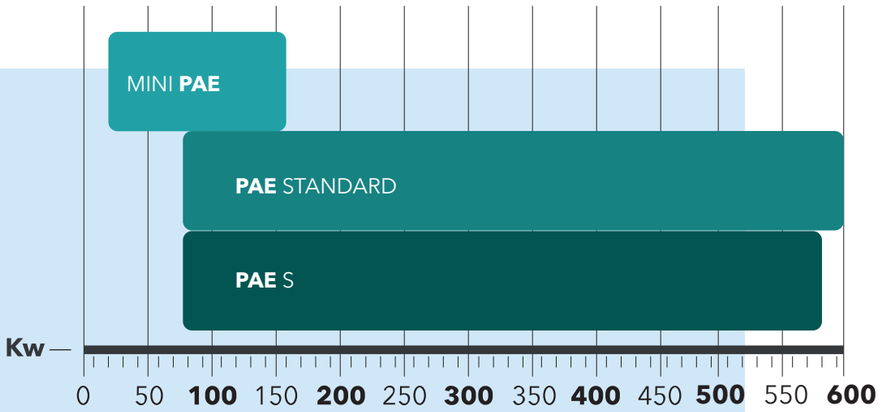
R410a

Monoblock air source reversible heat pump chillers fitted with hermetic scroll compressors and 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. MULTISCROLL 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 intallations), the PAE C version is available equipped with EC Brushless plug type fans.

VERSIONS

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



EMICON
CLIMATE SOLUTIONS

PAH Ka/Ke

AIR COOLED HEAT PUMPS

SCREW COMPRESSORS AND AXIAL FANS

REFRIGERANTS

R513A

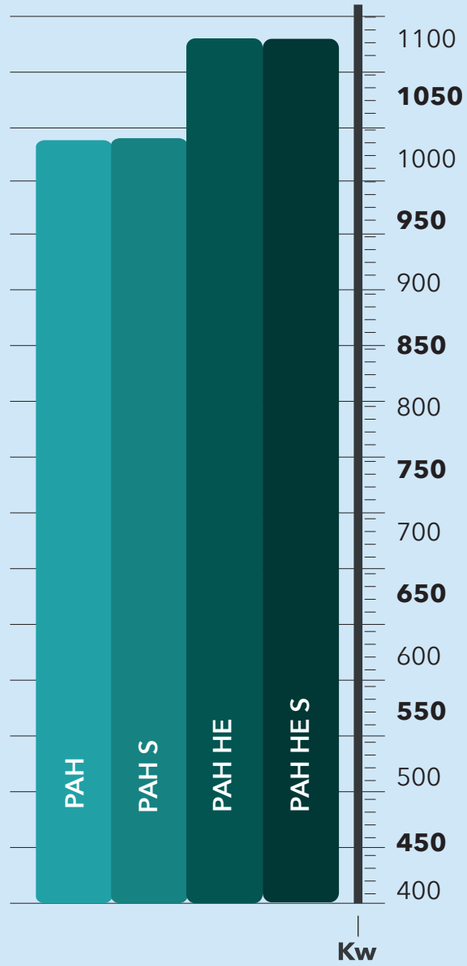
R134a

Monoblock air cooled heat pumps fitted with semi-hermetic screw compressors and 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 suggested for applications where the unit 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**
  LOW SOUND EMISSIONS
- **PAH.HE**
  HGH EFFICIENCY
- **PAH.HE S**
  HIGH EFFICIENCY AND LOW SOUND EMISSIONS



EMICON
CLIMATE SOLUTIONS

RWE/RWH

WATER COOLED 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.

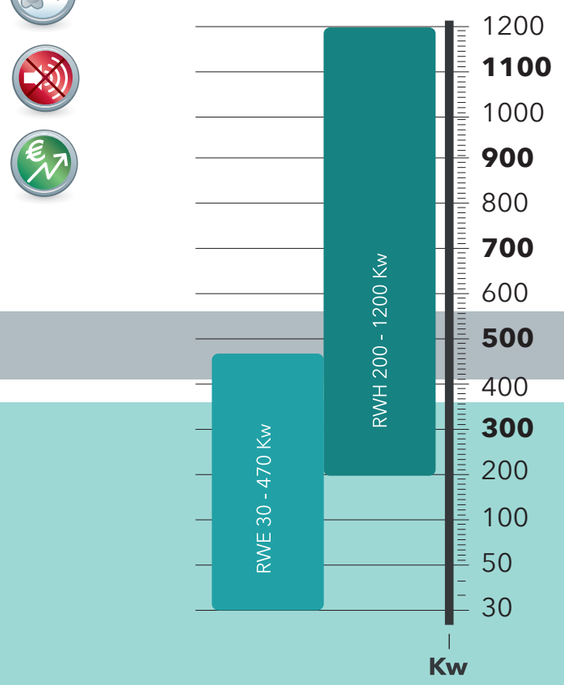
RWH & PWH units are identical to the RWE & PWE units but utilize semi-hermetic screw compressors shell and tube direct expasion heat exchangers. The standard refrigerant is R134a but they are also available as options with the low GWP refrigerants, either R513a or HFO R1234ze. Reversible heat pump versions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

REFRIGERANTS ***RWE-PWE***

R410a
R454B

REFRIGERANTS ***RWH-PWH***

R513A
R134a
R1234ze



EMICON
CLIMATE SOLUTIONS

MEE /MEH

EVAPORATING UNITS WITH REMOTE CONDENSER

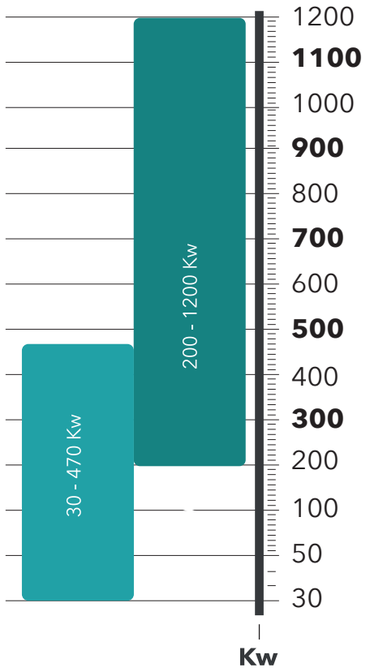
VERSIONS

MEE
SCROLL COMPRESSORS, REFRIGERANT R410a

MEH
SCREW COMPRESSORS , REFRIGERANTS R134a/R513A

REFRIGERANTS

R134a
R513A
R410a



Remote air cooled, 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, shell and tube direct expasion heat exchangers, with R134a as the standard refrigerant. They are also available as an option with low GWP R513a refrigerant.

EMICON
CLIMATE SOLUTIONS

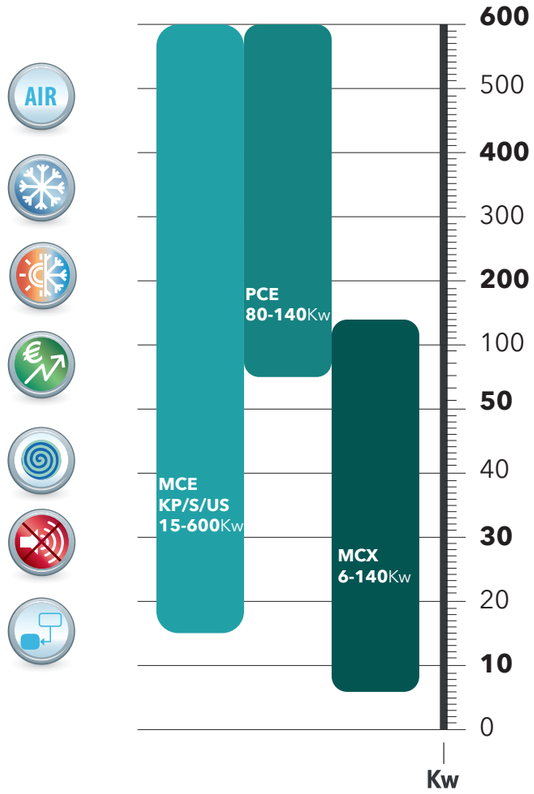
MCE

AIR COOLED CONDENSING UNITS

AXIAL FANS
SCROLL / MULTISCROLL COMPRESSORS

Condensing 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 UNITS
- **MCX** ELECTRIC CABINET FREE

REFRIGERANT

R410a

EMICON
CLIMATE SOLUTIONS

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.

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

5 FRAMES

31 DIMENSIONS

217 CONFIGURATIONS

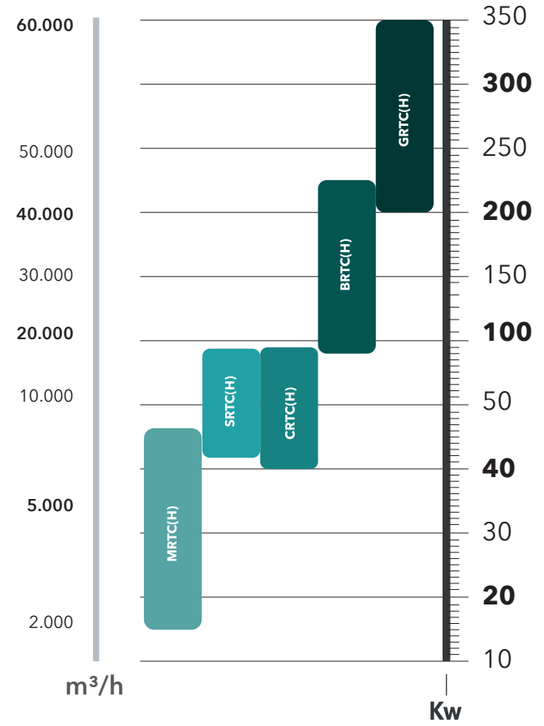
\+ SPECIAL CUSTOMIZATIONS TO WELLNESS AND IT COOLING

CONFIGURATIONS AVAILABLE :

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

VERSIONS

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



EMICON CLIMATE SOLUTIONS

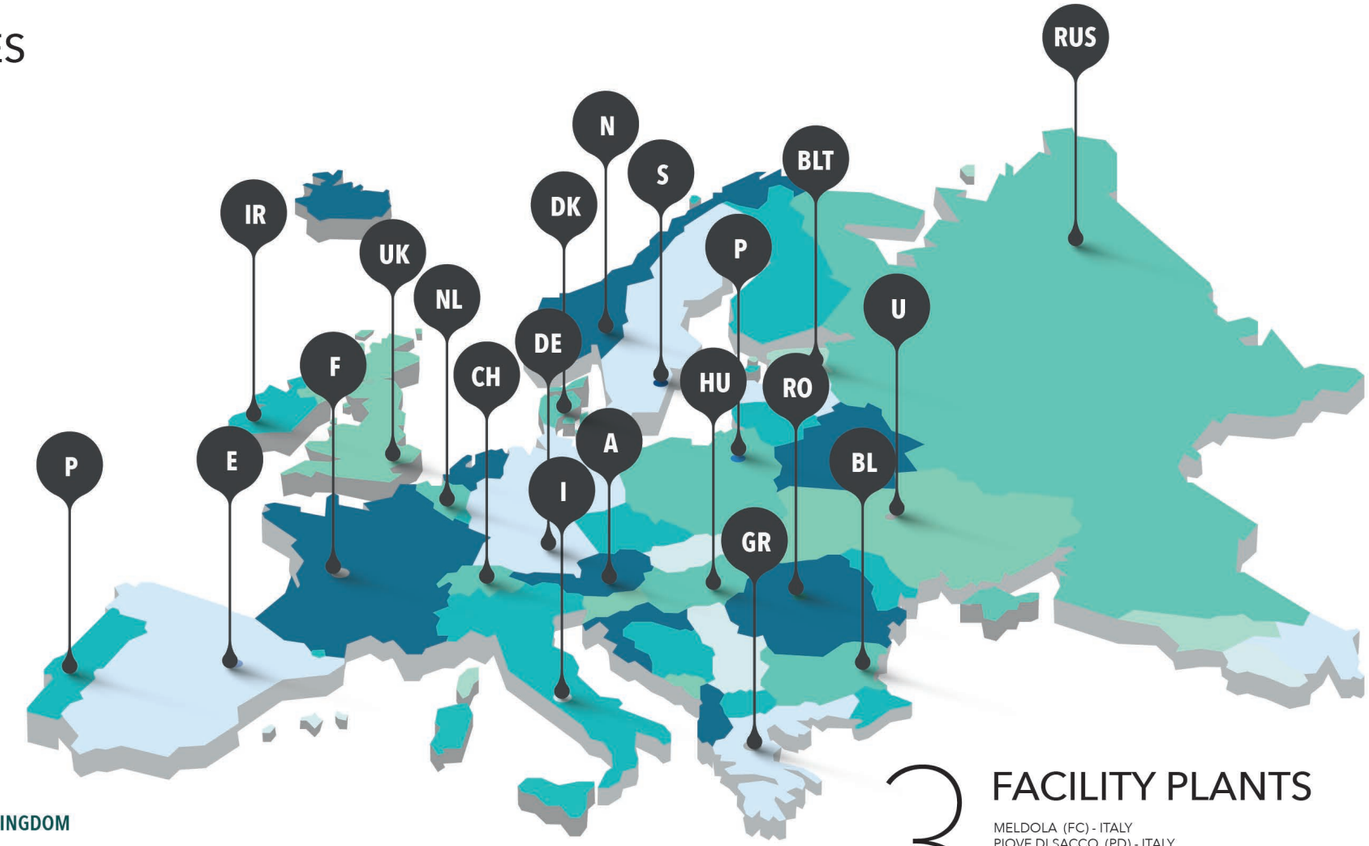
EMICON OFFICES

DISTRIBUTORS

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
WORLDWIDE

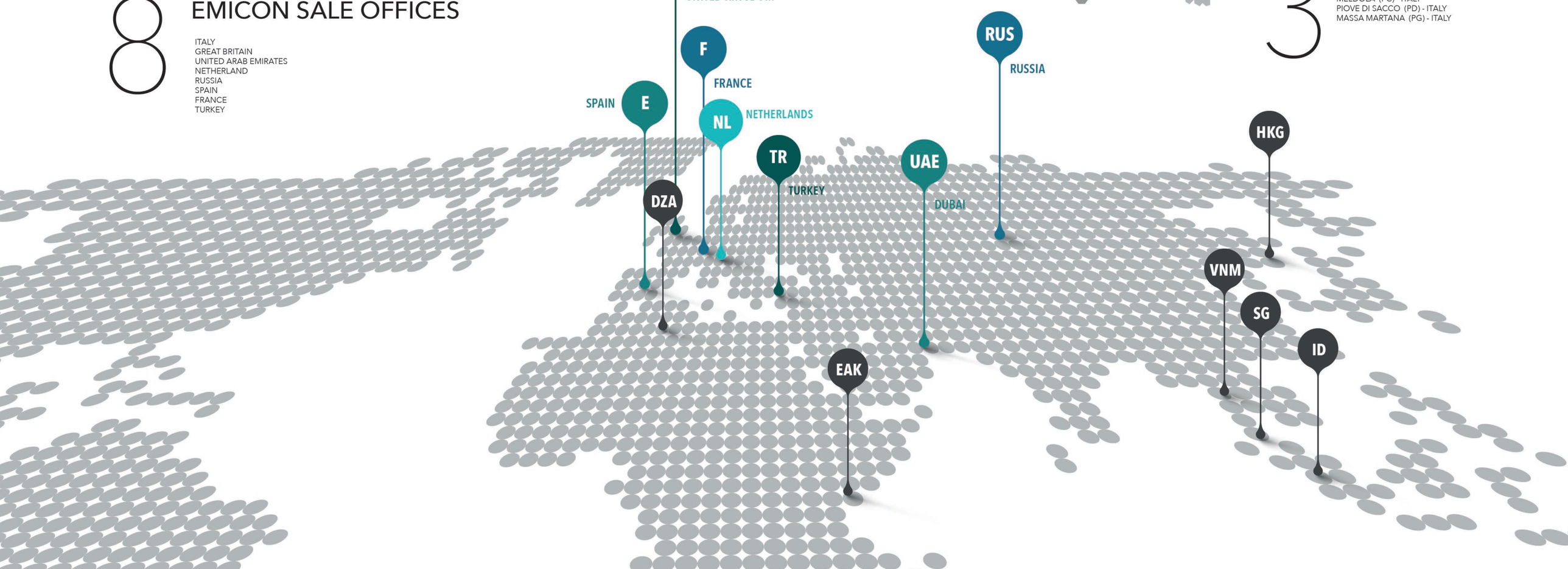


8 EMICON SALE OFFICES

ITALY
GREAT BRITAIN
UNITED ARAB EMIRATES
NETHERLAND
RUSSIA
SPAIN
FRANCE
TURKEY

3 FACILITY PLANTS

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



NOTES

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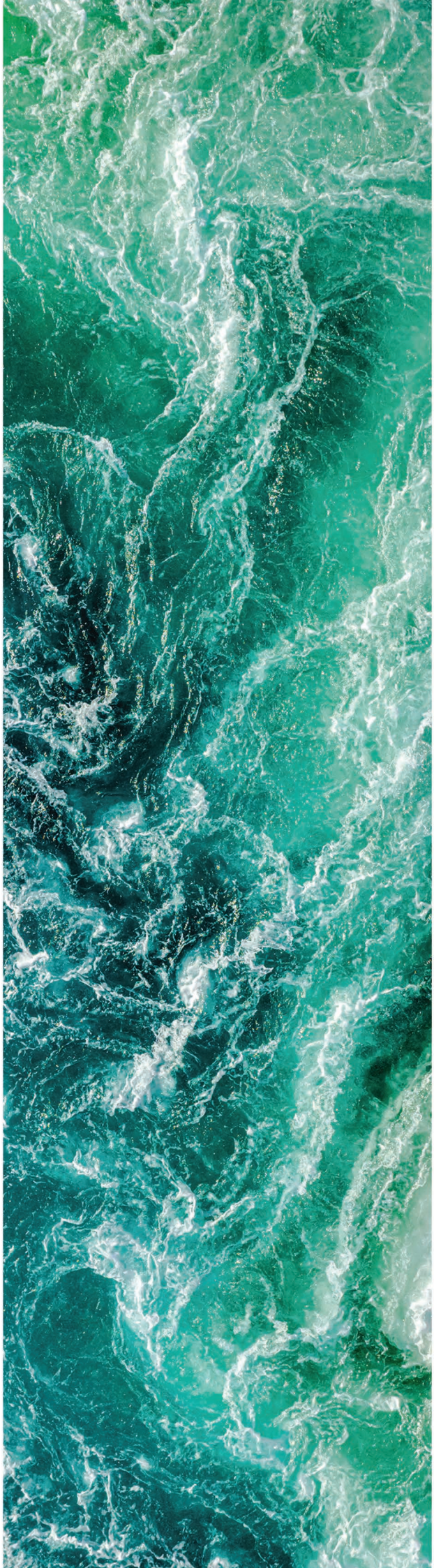

EMICON
CLIMATE SOLUTIONS

Emicon Climate Solutions

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