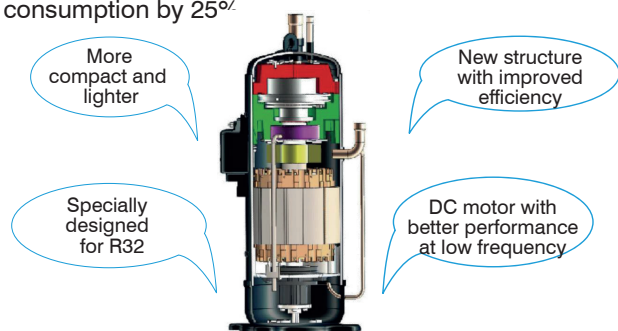


MODULAR HEAT PUMP FOR HIGH-POWER CHILLER, INVERTER MUENR-H12 Series

The new Super DC Inverter modular chillers are available in two versions with and without hydraulic module.

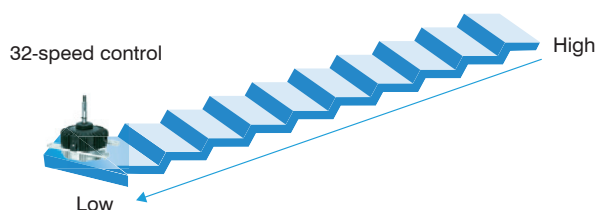
DC INVERTER SCROLL COMPRESSOR WITH EVI TECHNOLOGY

Thanks to the DC Inverter Scroll compressor with vapor injection (EVI), it manages to reduce electricity consumption by 25%.



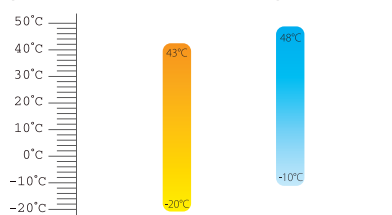
DC FAN MOTORS

The fan speed is adjusted according to the pressure of the refrigerant and the required load, thus reducing the electric consumption by 30%.



OPERATION UNDER LOW TEMPERATURES

Thanks to the EVI compressor, the equipment can work in heating up to -20 °C ambient temperature.



MODULAR SYSTEM

The modular design allows the connection of up to 16 units together, forming a system up to 2080 kW (in cooling mode), except for model 180 that can only connect up to 8 units.



130 kW

+



130 kW

(Max. 16 modules)

+ ... =



2080 kW

MUNDCLIMA®
SUPER DC INVERTER

SCOP
++⁽¹⁾
A



Models 75, 90 and 140



Model 180

⁽¹⁾For more information consult the specifications table.



KJRM-120H2/BMWKO-E (CL 09 205)
Included



OPTIONALS

Accessories



KIT VICTAULIC-RM 2"
Mod. 75 and 90
(CL97296)



KIT VICTAULIC to PLATE KIT
Mod. 140 Plate 2-1/2" (CL09432)
Mod. 180 Plate 3" (CL09434)

EASY CONNECTION

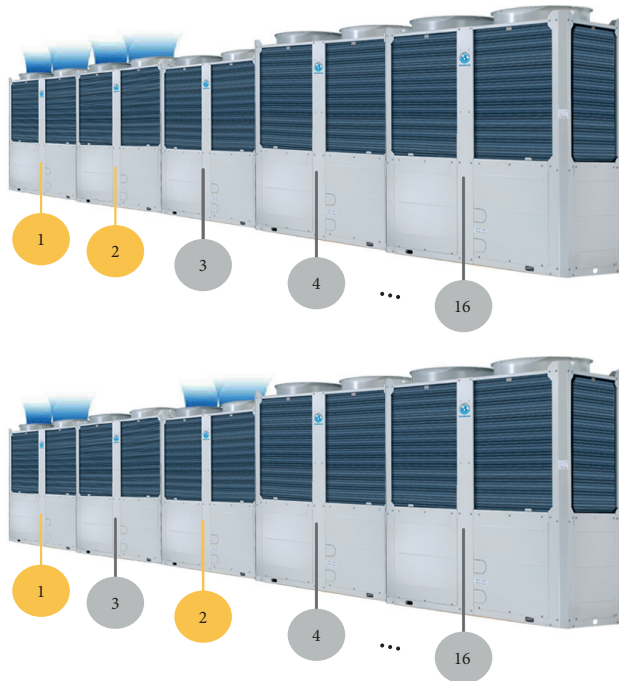
Easy connection between the master and slave units. All units can be connected via a wired remote control (included with each unit) using a three-pole shielded cable.

MUENR-H12 Series INVERTER WATER CHILLERS



ROTATING FUNCTION

In a modular system, the rotation function allows all slave units to operate for the same amount of hours.



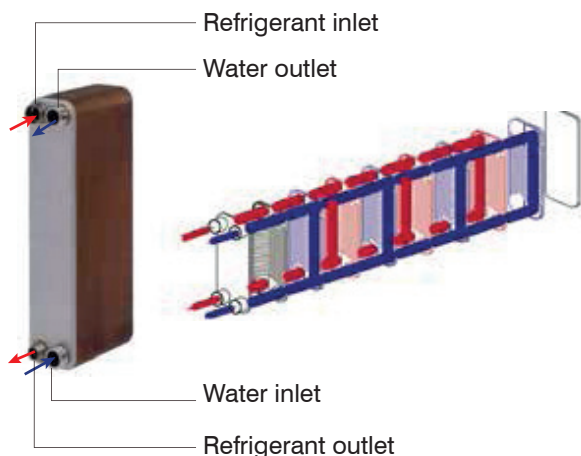
BACKUP FUNCTION

In a modular system, if any of the slave modules fails, the other modules continue to operate normally.



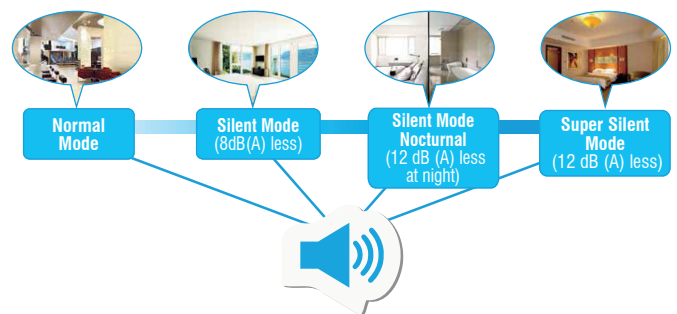
HIGH EFFICIENCY PLATE EXCHANGER

The plate exchanger uses multiple metal plates to achieve high efficiency in the transfer of heat between refrigerant and water.



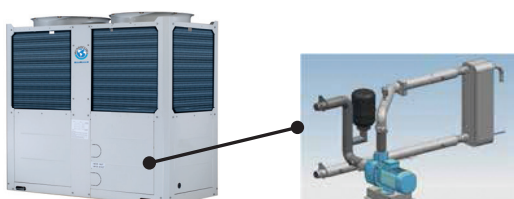
MULTIPLE SILENT MODES

Several silent modes allow the reduction of the sound level during the day and / or night.



HYDRAULIC GROUP INCLUDED (K VERSION)

The modules of the MUENR-H12T(K) version incorporate a recirculation pump and an expansion tank.



FLOW SWITCH INCLUDED

All modules (with or without hydraulic group) add a flow switch.



REMOTE SIGNALS

ON/OFF signals, mode selection and potential-free alarm signals available on each unit's PCB.

MUENR-H12 Series INVERTER WATER CHILLERS



TECHNICAL SPECIFICATIONS

| Model | | | MUENR-75-H12T | MUENR-75-H12T(K) | MUENR-90-H12T | MUENR-90-H12T(K) | MUENR-140-H12T | MUENR-140-H12T(K) | MUENR-180-H12T | MUENR-180-H12T(K) |
|-------------------------------|---|------------------------|---------------------|------------------|-----------------------|------------------|-----------------------|-------------------|-----------------------|-------------------|
| Code | | | CL25652 | CL25653 | CL25654 | CL25655 | CL25656 | CL25657 | CL25658 | CL25659 |
| Cooling ⁽¹⁾ | Capacity | kW | 70 | 69.7 | 82 | 82 | 130 | 129.5 | 164 | 163 |
| | Power consumption | kW | 26.8 | 27.3 | 27.8 | 28.3 | 50.5 | 51.4 | 56 | 57.7 |
| | Current | A | 41.2 | 42 | 42.9 | 47 | 77.6 | 80.4 | 86.4 | 89 |
| | EER | W/W | 2.61 | 2.55 | 2.95 | 2.90 | 2.57 | 2.52 | 2.93 | 2.82 |
| | SEER | W/W | 4.3 | 4.23 | 4.5 | 4.44 | 4.4 | 4.33 | 4.41 | 4.35 |
| Heating ⁽²⁾ | Capacity | kW | 75 | 75.4 | 90 | 90 | 138 | 138.6 | 180 | 181.2 |
| | Power consumption | kW | 23.7 | 24.3 | 28.1 | 29 | 44.5 | 45.6 | 57 | 59.1 |
| | Current | A | 36.4 | 37.3 | 43.3 | 48 | 68.3 | 71.4 | 87.8 | 91 |
| | COP | W/W | 3.16 | 3.1 | 3.2 | 3.10 | 3.1 | 3.04 | 3.16 | 3.07 |
| | SCOP | W/W | 4.05 | 3.95 | 3.97 | 3.77 | 3.9 | 3.83 | 3.8 | 3.65 |
| | Energy labeling | | A++ | A++ | A++ | A+ | A++ | A++ | A+ | A+ |
| Max. current | | A | 46 | 49.2 | 60 | 63.5 | 90 | 95 | 120 | 127 |
| Sound pressure ⁽³⁾ | | dB (A) | 69 | 69 | 65 | 65 | 73 | 74 | 72 | 72 |
| Sound power ⁽³⁾ | | dB (A) | 86 | 86 | 83 | 83 | 92 | 93 | 92 | 92 |
| Power supply | | Ph, V, Hz | 3+N, 380~415, 50 | | | | | | | |
| Compressor | Brand | | Hitachi | | | | | | | |
| | Model | | DD110PHDG-D1Y6 | | DA80PHDG-D1Y6 x 2EA | | DD110PHDG-D1Y6 x 2EA | | DA80PHDG-D1Y6 x 4EA | |
| | Type | | Scroll EVI | | | | | | | |
| | Quantity | | 1 | | 2 | | 2 | | 4 | |
| Fan | Type | | DC | | | | | | | |
| | Quantity | | 2 | | 2 | | 2 | | 4 | |
| | Air flow rate | m³/h | 28,500 | | 35,000 | | 50,000 | | 70,000 | |
| Water exchanger | Type | | Plates | | | | | | | |
| | Water pressure drop | kPa | 65 | — | 75 | — | 65 | — | 96 | — |
| | Total pressure drop (includes hydraulic elements) | kPa | — | 156 | — | 220 | — | 94 | — | 205 |
| | Volume | L | 5.17 | | 7.05 | | 11.1 | | 6.96 × 2 | |
| | Nominal flow rate (min-max) | m³/h | 12.04 (8.0 ~ 15.5) | | 15 (10.2 ~ 18) | | 22.36 (15.6 ~ 28.5) | | 28.2 (20 ~ 36.1) | |
| | Max. design pressure | Mpa | 1 | | | | | | | |
| Water pump | Model | | — | CM10-2 | — | CM10-3 | — | CM25-1 | — | CM10-3 |
| | Nominal flow | m³/h | — | 10 | — | 10 | — | 22 | — | 10 |
| | Nominal pressure | kPa (mca) | — | 0.6 | — | 0.6 | — | 0.6 | — | 0.6 |
| | Nominal height | m | — | 27.1 | — | 27.1 | — | 16 | — | 27.1 |
| Expansion tank | | L | — | 12 | — | 12 | — | 24 | — | 12 x 2 |
| Dimensions (W x H x D) | | mm | 2,000 × 1,770 × 960 | | 2,220 × 2,315 × 1,135 | | 2,220 × 2,300 × 1,135 | | 2,752 × 2,413 × 2,220 | |
| Weight | | kg | 440 | 475 | 635 | 686 | 670 | 746 | 1,400 | 1,500 |
| Refrigerant | Type / GWP | | R32 / 675 | | | | | | | |
| | Quantity | kg/TCO ₂ eq | 9 / 6.075 | | 16 / 10.80 | | 15.5 / 10.463 | | 32 / 21.6 | |
| Hydraulic connections | | mm (inches) | DN50 (2") | | DN50 (2") | | DN65 (2 1/2") | | DN80 (3") | |
| Electrical connections | Power wiring ⁽⁴⁾ / ICP | mm² / A | 4 x 16 + T / 63 | | 4 x 25 + T / 100 | | 4 x 50 + T / 150 | 4 x 50 + T / 160 | 4 x 70 + T / 200 | |
| | Communication wiring ⁽⁵⁾ | mm² | 3 x 0.75 (shielded) | | | | | | | |
| Operating ambient temp. | Cooling | °C | -10 ~ 48 | | | | | | | |
| | Heating | °C | -20 ~ 43 | | | | | | | |
| Outlet water temperature | Cooling ⁽⁶⁾ | °C | 0 ~ 20 | | | | | | | |
| | Heating | °C | 25 ~ 54 | | | | | | | |

Notes: ⁽¹⁾ Nominal cooling conditions: Inlet/outlet water temperature 7 °C / 12 °C; Outside room temperature 35 °C DB.

⁽²⁾ Nominal heating conditions: Inlet/outlet water temperature 40 °C / 45 °C; Outdoor room temperature 7 °C DB / 6 °C WB.

⁽³⁾ Noise level measured in a semi-anechoic chamber at 1 m frontal distance and 1.1m height.

⁽⁴⁾ Power wiring recommended for L < 20 m, for longer distances it should be recalculated.

⁽⁵⁾ Interconnection wiring between modules.

⁽⁶⁾ Below 5 °C antifreeze must be added to the hydraulic circuit and the parameter "MIN TEMP. FOR COLD" from the service menu must be set.

*The capacity and efficiency data have been calculated in accordance with EN 14511, EN 14825.

Caution:

- Do not use groundwater or well water directly.
- The hydraulic circuit must be closed.
- Data and specifications can be changed without previous notice.