# 1-1. Specifications

When using water as evaporation side fluid (SW6-10: OFF Water setting)

| Mandal                                  |  | 1                        | ==  | 4000)/4                                  |          |              |     |         |
|---|--|--------------------------|---|--|----------|--------------|-----|---------|
| Model                                   |  |                          | ERCV-N  |  |          |              |     |         |
| Capacity change mode                    |  | Capacity priority        | Efficiency priority   |  |          |              |     |         |
| Power source                            |  |                          |   | -400-415V 50/60Hz                        |          |              |     |         |
| Cooling capacity *1                     |  | kW                       | 90.00   | 45.00                                    |          |              |     |         |
|   |  | kcal/h                   | 77,400  | 38,700                                   |          |              |     |         |
|   |  | BTU/h                    | 307,080   | 153,540                                  |          |              |     |         |
|   | Power input                                  | kW                       | 17.47   | 8.22                                     |          |              |     |         |
|   | EER  |                          | 5.15  | 5.47                                     |          |              |     |         |
|   | IPLV *5                                      |                          | 8.18  | -  |          |              |     |         |
|   | Evaporation side water flow rate             | m <sup>3</sup> /h        | 15.5  | 7.7                                      |          |              |     |         |
|   |  |                          |   |  |          |              |     |         |
| - " " " " " " " " " " " " " " " " " " " | Condensation side water flow rate            | m <sup>3</sup> /h        | 17.9  | 8.9                                      |          |              |     |         |
| Cooling capacity (EN14511) *2           |  | kW                       | 89.83   | 44.95                                    |          |              |     |         |
|   |  | kcal/h                   | 77,254  | 38,657                                   |          |              |     |         |
|   |  | BTU/h                    | 306,500   | 153,369                                  |          |              |     |         |
|   | Power input                                  | kW                       | 17.80   | 8.31                                     |          |              |     |         |
|   | EER  |                          | 5.05  | 5.41                                     |          |              |     |         |
|   | SEER   |                          | 7.66  | -  |          |              |     |         |
|   | nsc  | %                        | 303.4   | -  |          |              |     |         |
|   | -  |                          |   |  |          |              |     |         |
|   | Evaporation side water flow rate             | m <sup>3</sup> /h        | 15.5  | 7.7                                      |          |              |     |         |
|   | Condensation side water flow rate            | m <sup>3</sup> /h        | 17.9  | 8.9                                      |          |              |     |         |
| Heating capacity *3                     |  | kW                       | 90.00   | 45.00                                    |          |              |     |         |
|   |  | kcal/h                   | 77,400  | 38,700                                   |          |              |     |         |
|   |  | BTU/h                    | 307,080   | 153,540                                  |          |              |     |         |
|   | Power input                                  | kW                       | 19.07   | 9.40                                     |          |              |     |         |
|   | COP  | 17.4.4                   | 4.72  | 4.79                                     |          |              |     |         |
|   |  | 3/I-                     |   |  |          |              |     |         |
|   | Condensation side water flow rate            | m <sup>3</sup> /h        | 15.5  | 7.7                                      |          |              |     |         |
|   | Evaporation side water flow rate             | m <sup>3</sup> /h        | 21.5  | 10.7                                     |          |              |     |         |
| Heating capacity (EN14511) *4           |  | kW                       | 90.12   | 45.03                                    |          |              |     |         |
|   |  | kcal/h                   | 77,503  | 38,726                                   |          |              |     |         |
|   |  | BTU/h                    | 307,489   | 153,642                                  |          |              |     |         |
|   | Power input                                  | kW                       | 19.53   | 9.52                                     |          |              |     |         |
|   | COP  | KVV                      | 4.61  | 4.73                                     |          |              |     |         |
|   |  |                          |   |  |          |              |     |         |
|   | SCOP Low/Medium *11                          |                          | 7.10/4.86   | -  |          |              |     |         |
|   | ηsh Low/Medium                               | %                        | 281.0/191.0   | -  |          |              |     |         |
|   | Condensation side water flow rate            | m <sup>3</sup> /h        | 15.5  | 7.7                                      |          |              |     |         |
|   | Evaporation side water flow rate             | m <sup>3</sup> /h        | 21.5  | 10.7                                     |          |              |     |         |
| Current input                           | Cooling current 380-400-415V *1              | Α                        | 29 - 27 - 26  | 13 - 13 - 12                             |          |              |     |         |
|   | Heating current 380-400-415V *3              | A                        | 31 - 30 - 29  | 15 - 15 - 14                             |          |              |     |         |
|   | Maximum current                              | A                        | 31 - 30 - 29  |  |          |              |     |         |
|   |  |                          |   |  |          |              |     |         |
| Water pressure drop *1                  | Evaporation side                             | kPa                      | 10  | 3  |          |              |     |         |
|   | Condensation side                            | kPa                      | 7   | 2  |          |              |     |         |
| Temperature range (Cooling) *7          | Evaporation side water outlet                | °C                       | 4~30  |  |          |              |     |         |
|   |  | °F                       | 39~86   |  |          |              |     |         |
|   | Condensation side water inlet                | °C                       | 9~  | 50                                       |          |              |     |         |
|   |  | °F                       | 48~   |  |          |              |     |         |
| Tomporature range (Heating)             | Condensation side water cutlet               | °C                       | 20~60 *6  | 20~55                                    |          |              |     |         |
| Temperature range (Heating)             | Condensation side water outlet               | °F                       |   |  |          |              |     |         |
| *8*9                                    |  |                          | 68~140  | 68~131                                   |          |              |     |         |
|   | Evaporation side water inlet                 | °C                       |   | 35                                       |          |              |     |         |
|   |  | °F                       | 48-   | -95                                      |          |              |     |         |
| Circulating water volume range          | Evaporation side                             | m <sup>3</sup> /h        | 7.7~  | 25.8                                     |          |              |     |         |
| 5 · · · · · · · · · · · · · · · · · · · | Condensation side                            | m <sup>3</sup> /h        | 4.5~30  | 0.0 *10                                  |          |              |     |         |
| Sound pressure level (measured          |  | dB (A)                   | 53  | 48                                       |          |              |     |         |
| Sound power level (measured in          |  | dB (A)                   | 72  | 66                                       |          |              |     |         |
| Diameter of water pipe                  | Inlet  | mm (in)                  | 65A (2 1/2B) ho   |  |          |              |     |         |
|   |  |                          |   |  |          |              |     |         |
| (Evaporation side)                      | Outlet                                       | mm (in)                  |   | pusing type joint                        |          |              |     |         |
| Diameter of water pipe                  | Inlet  | mm (in)                  |   | ousing type joint                        |          |              |     |         |
| (Condensation side)                     | Outlet                                       | mm (in)                  | 65A (2 1/2B) ho   | ousing type joint                        |          |              |     |         |
| External finish                         |  |                          | Polyester powder coating steel plate  |  |          |              |     |         |
| External dimension H × W × D mm         |  |                          | 918 × 780 × 1350  |  |          |              |     |         |
| Net weight                              |  | kg (lbs)                 | 430 (948)   |  |          |              |     |         |
|   | R32  | MPa                      | 4.15  |  |          |              |     |         |
| Design pressure                         |  |                          |   |  |          |              |     |         |
|   | Water  | MPa                      | 1.0   |  |          |              |     |         |
| Heat exchanger                          | Evaporation side                             |                          |   | and copper brazing                       |          |              |     |         |
| Compressor                              | Condensation side Type Maker Starting method |                          | Stainless steel plate and copper brazing Inverter scroll hermetic compressor MITSUBISHI ELECTRIC CORPORATION Inverter |  |          |              |     |         |
|   |  |                          |   |  | Quantity |              | 2   |         |
|   |  |                          |   |  |          |              |     |         |
|   |  |                          |   |  |          | Motor output | KVV | 8.3 × 2 |
|   |  | Lubricant                |   | MEL46EH                                  |          |              |     |         |
|   | Protection                                   | High pressure protection |   | High pressure Switch at 4.15MPa (601psi) |          |              |     |         |
|   | Inverter circuit                             |                          | Over-heat protection, Over current protection   |  |          |              |     |         |
|   | Compressor                                   |                          | Over-heat protection  |  |          |              |     |         |
| Refrigerant                             | Type × charge                                |                          | R32 × 5.2(kg) × 2   |  |          |              |     |         |
|   | Control                                      |                          |   | EV                                       |          |              |     |         |
|   | CONTROL                                      |                          | LE  | _ V                                      |          |              |     |         |

### Notes:

- Notes:

  \*1 Under normal cooling conditions at evaporation side water inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is not included in cooling capacity and power input.

  \*2 Under normal cooling conditions at evaporation side water inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is included in cooling capacity and power input based on EN14511.

  \*3 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C (50°F) outlet temp 7°C (44.6°F). Pump input is not included in cooling capacity and power input.

  \*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C (50°F) outlet temp 7°C (44.6°F). Pump input is included in cooling capacity and power input.

  \*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C (50°F) outlet temp 7°C (44.6°F). Pump input is included in cooling capacity and power input.

  \*5 IPLV is calculated in accordance with AHRI 551-591.

  \*6 When using in condensation side water outlet is more than 55°C (131°F), please adjust the condensation inlet water temperature to 50°C (122°F) or less.

  \*7 Please refer to 2-1-6 Operation temperature range.

  \*8 Please refer to 2-1-6 Operation temperature range.

  \*9 Please densation side water indirect.

  \*\*Please densation side water indirect.

  \*\*The water circuit must be closed circuit.

  \*\*Due to continuous improvement, the above specifications may be subject to change without notice.

- Thus to continuous improvement, the above specifications may be subject to change without notice.

  This model doesn't equip with a pump

  10 Set the minimum water flow rate on the condensation side water to 8.0m<sup>3</sup>/h when the evaporation side water inlet temperature during operation is 15°C (59°F) or higher.

  11 This value is not certified by Eurovent.

When using brine as evaporation side fluid (SW6-10: ON Brine setting)

|                                 | '  |                   | 37  |  |
|---------------------------------|--|-------------------|---|--|
| Model                           |  |                   | ERCV-M900YA                                   |  |
| Power source                    |  |                   | 3-phase 4-wire 380-400-415V 50/60Hz           |  |
| Cooling capacity *1*5 kW        |  | kW                | 90.00   |  |
| Cooling capacity 1 5            |  | kcal/h            | 77,400  |  |
|                                 |  |                   | ·   |  |
|                                 |  | BTU/h             | 307,080                                       |  |
|                                 | Power input  | kW                | 17.47   |  |
|                                 | EER  |                   | 5.15  |  |
|                                 | Evaporation side brine flow rate                             | m <sup>3</sup> /h | 17.2  |  |
|                                 | Condensation side water flow rate                            | m <sup>3</sup> /h | 17.9  |  |
| Cooling capacity (EN14511) *2*5 | ;<br>;   | kW                | 89.73   |  |
| , , , ,                         |  | kcal/h            | 77,168  |  |
|                                 |  | BTU/h             | 306,159                                       |  |
|                                 | Power input  | kW                | 17.91   |  |
|                                 | EER  | KVV               | 5.01  |  |
|                                 |  | +                 |   |  |
|                                 | SEER   |                   | 7.65  |  |
|                                 | nsc  | %                 | 303.0   |  |
|                                 | Evaporation side brine flow rate                             | m <sup>3</sup> /h | 17.2  |  |
|                                 | Condensation side water flow rate                            | m <sup>3</sup> /h | 17.9  |  |
| Heating capacity *3*5           |  | kW                | 80.00   |  |
|                                 |  | kcal/h            | 68,800  |  |
|                                 |  | BTU/h             | 272,960                                       |  |
|                                 | Power input  | kW                | 22.13   |  |
|                                 | COP  | KVV               | 3.62  |  |
|                                 |  | m <sup>3</sup> /h |   |  |
|                                 | Condensation side water flow rate                            |                   | 13.8  |  |
|                                 | Evaporation side brine flow rate                             | m <sup>3</sup> /h | 19.1  |  |
| Heating capacity (EN14511) *4*5 |  | kW                | 80.10   |  |
|                                 |  | kcal/h            | 68,886  |  |
|                                 |  | BTU/h             | 273,301                                       |  |
|                                 | Power input  | kW                | 22.59   |  |
|                                 | COP  |                   | 3.55  |  |
|                                 | SCOP Low/Medium *10  |                   | 4.87/3.52                                     |  |
|                                 | nsh Low/Medium   | %                 | 192.0/138.0                                   |  |
|                                 | Condensation side water flow rate                            | m <sup>3</sup> /h | 13.8  |  |
|                                 |  |                   |   |  |
|                                 | Evaporation side brine flow rate                             | m <sup>3</sup> /h | 19.1  |  |
| Current input *5                | Cooling current 380-400-415V *1                              | A                 | 29 - 27 - 26                                  |  |
|                                 | Heating current 380-400-415V *3                              | Α                 | 36 - 34 - 33                                  |  |
|                                 | Maximum current  | Α                 | 60  |  |
| Brine/Water pressure drop *1*5  | Evaporation side brine                                       | kPa               | 17  |  |
|                                 | Condensation side water                                      | kPa               | 7   |  |
| Temperature range (Cooling)     | Evaporation side brine outlet                                | °C                | -10~30  |  |
| *5*7                            | Zraporation side sinie editor                                | °F                | 14~86   |  |
| 37                              | Condensation side water inlet                                | °C                | 9~50  |  |
|                                 | Condensation side water inlet                                | °F                |   |  |
|                                 |  |                   | 48~122  |  |
| Temperature range (Heating)     | Condensation side water outlet  Evaporation side brine inlet | °C                | 20~60 *6                                      |  |
| *5*8                            |  | °F                | 68~140  |  |
|                                 |  | °C                | -7~35   |  |
|                                 |  | °F                | 19~95   |  |
| Circulating brine/water         | Evaporation side brine                                       | m <sup>3</sup> /h | 7.7~28.7                                      |  |
| volume range                    | Condensation side water                                      | m <sup>3</sup> /h | 4.5~30.0 *9                                   |  |
| Sound pressure level (measured  | in anechoic room) at 1m *1                                   | dB (A)            | 53  |  |
| Sound power level (measured in  |  | dB (A)            | 72  |  |
| Diameter of water pipe          | Inlet  | mm (in)           | 65A (2 1/2B) housing type joint               |  |
|                                 | Outlet   |                   |   |  |
| (Evaporation side)              |  | mm (in)           | 65A (2 1/2B) housing type joint               |  |
| Diameter of water pipe          | Inlet  | mm (in)           | 65A (2 1/2B) housing type joint               |  |
| (Condensation side)             | Outlet   | mm (in)           | 65A (2 1/2B) housing type joint               |  |
| External finish                 |  |                   | Polyester powder coating steel plate          |  |
| External dimension H × W × D    |  | mm                | 918 × 780 × 1350                              |  |
| Net weight                      |  | kg (lbs)          | 430 (948)                                     |  |
| Design pressure                 | R32  | MPa               | 4.15  |  |
| · g. · p. 0000.0                | Water  | MPa               | 1.0   |  |
| Heat exchanger                  | Evaporation side   |                   | Stainless steel plate and copper brazing      |  |
| Heat exchanger                  |  |                   |   |  |
| 0                               | Condensation side Type                                       |                   | Stainless steel plate and copper brazing      |  |
| Compressor                      |  |                   | Inverter scroll hermetic compressor           |  |
|                                 | Maker  |                   | MITSUBISHI ELECTRIC CORPORATION               |  |
|                                 | Starting method  |                   | Inverter                                      |  |
|                                 | Quantity   |                   | 2   |  |
|                                 | Motor output kW  |                   | 8.3 × 2                                       |  |
|                                 | Lubricant  |                   | MEL46EH                                       |  |
| Protection                      | High pressure protection                                     |                   | High pressure Switch at 4.15MPa (601psi)      |  |
|                                 |  |                   | Over-heat protection, Over current protection |  |
|                                 | Inverter circuit   |                   |   |  |
| Defriessent                     | Compressor   |                   | Over-heat protection                          |  |
| Refrigerant                     | Type × charge  |                   | R32 × 5.2(kg) × 2                             |  |
|                                 | Control  |                   | LEV   |  |
|                                 |  |                   |   |  |

- Notes:

  \*\*1 Under normal cooling conditions at evaporation side brine inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is not included in cooling capacity and power input.

  \*\*2 Under normal cooling conditions at evaporation side brine inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is included in cooling capacity and power input based on EN14511.

  \*\*3 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is not included in cooling capacity and power input.

  \*\*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is included in cooling capacity and power input.

  \*\*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is included in cooling capacity and power input.

  \*\*5 When using brine (ethylene glycol 35wt%) as evaporation side fluid.

  \*6 When using in condensation side water outlet is more than 55°C (131°F), please adjust the condensation inlet water temperature to 50°C (122°F) or less.

  \*7 Please refer to 2-1-6 Operation temperature range.

  \*8 Please refer to 2-1-6 Operation temperature range.

  \*Please don't use the steel material for the water piping.

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  \*Please don't use the steel m

When using water as evaporation side fluid (SW6-10: OFF Water setting)

| Model                          |                                    |                   | ERCV-M9   | 00YA × 2         |  |
|--------------------------------|------------------------------------|-------------------|---|------------------|--|
| Capacity change mode           |                                    |                   | Capacity priority Efficiency priority   |                  |  |
| Power source                   |                                    |                   | 3-phase 4-wire 380-   | 400-415V 50/60Hz |  |
| Cooling capacity *1            | kW                                 |                   | 180.00  | 90.00            |  |
|                                |                                    | kcal/h            | 154,800   | 77,400           |  |
|                                |                                    | BTU/h             | 614,160   | 307,080          |  |
| Power input                    |                                    | kW                | 33.07   | 15.24            |  |
|                                | EER                                |                   | 5.44  | 5.91             |  |
|                                | IPLV *5                            | 3.,               | 8.61  | <del>-</del>     |  |
|                                | Evaporation side water flow rate   | m <sup>3</sup> /h | 31.0  | 15.5             |  |
| 0 " " (51144544) *0            | Condensation side water flow rate  | m <sup>3</sup> /h | 35.9  | 17.5             |  |
| Cooling capacity (EN14511) *2  |                                    | kW<br>kcal/h      | 178.71  | 89.66<br>77,108  |  |
|                                |                                    | BTU/h             | 153,691<br>609.759  | 305,920          |  |
|                                | Power input                        | kW                | 35.54   | 15.87            |  |
|                                | EER                                | KVV               | 5.03  | 5.65             |  |
|                                | Evaporation side water flow rate   | m <sup>3</sup> /h | 31.0  | 15.5             |  |
|                                | Condensation side water flow rate  | m <sup>3</sup> /h | 35.9  | 17.5             |  |
| Heating capacity *3            | Condensation side water now rate   | kW                | 180.00  | 90.00            |  |
| Treating capacity 5            |                                    | kcal/h            | 154,800   | 77,400           |  |
|                                |                                    | BTU/h             | 614,160   | 307,080          |  |
|                                | Power input                        | kW                | 37.22   | 18.39            |  |
|                                | COP                                | 1                 | 4.84  | 4.89             |  |
|                                | Condensation side water flow rate  | m <sup>3</sup> /h | 31.0  | 15.5             |  |
|                                | Evaporation side water flow rate   | m <sup>3</sup> /h | 42.7  | 21.7             |  |
| Heating capacity (EN14511) *4  | ·                                  | kW                | 180.87  | 90.23            |  |
| 3 1 7( - 7                     |                                    | kcal/h            | 155,548   | 77,598           |  |
|                                |                                    | BTU/h             | 617,128   | 307,865          |  |
|                                | Power input                        | kW                | 40.90   | 19.26            |  |
|                                | COP                                |                   | 4.42  | 4.68             |  |
|                                | Condensation side water flow rate  | m <sup>3</sup> /h | 31.0  | 15.5             |  |
|                                | Evaporation side water flow rate   | m <sup>3</sup> /h | 42.7  | 21.7             |  |
| Current input                  | Cooling current 380-400-415V *1    | A                 | 54 - 51 - 49  | 25 - 24 - 23     |  |
|                                | Heating current 380-400-415V *3    | A                 | 61 - 58 - 56  | 30 - 29 - 28     |  |
|                                | Maximum current                    | A                 | 12  | 0                |  |
| Water pressure drop *1         | Evaporation side                   | kPa               | 85  | 25               |  |
|                                | Condensation side                  | kPa               | 66  | 18               |  |
| Temperature range (Cooling) *6 | Evaporation side water outlet      | °C                | 4~30  |                  |  |
|                                |                                    | °F                | 39~86   |                  |  |
|                                | Condensation side water inlet      | °C                | 9~50  |                  |  |
|                                |                                    | °F                | 48~122  |                  |  |
| Temperature range (Heating) *7 | Condensation side water outlet     | °C                | 20~55   |                  |  |
|                                |                                    | °F                | 68~131  |                  |  |
|                                | Evaporation side water inlet       | °C                | 9~35<br>48~95   |                  |  |
|                                |                                    | °F.               |   |                  |  |
| Circulating water volume range | Evaporation side                   | m <sup>3</sup> /h | 15.4~50.0   |                  |  |
|                                | Condensation side                  | m <sup>3</sup> /h | 9.0~50  |                  |  |
| Sound pressure level (measured |                                    | dB (A)            | 56  | 51               |  |
| Sound power level (measured in | •                                  | dB (A)            | 75  | 69               |  |
| Diameter of water pipe         | Inlet                              | mm (in)           | 65A (2 1/2B) ho   |                  |  |
| (Evaporation side)             | Outlet                             | mm (in)           | 65A (2 1/2B) ho   |                  |  |
| Diameter of water pipe         | Inlet                              | mm (in)           | 65A (2 1/2B) ho   |                  |  |
| (Condensation side)            | Outlet                             | mm (in)           | 65A (2 1/2B) ho   |                  |  |
| External finish                |                                    |                   | Polyester powder coating steel plate  |                  |  |
| External dimension H × W × D   |                                    | mm<br>kg (lbs)    | 1836 × 780 × 1350<br>863 (1903)   |                  |  |
| Net weight                     | D22                                | MPa               |   |                  |  |
| Design pressure                | R32<br>Water                       | MPa<br>MPa        | 4.15<br>1.0   |                  |  |
| Heat eychanger                 | Evaporation side                   | IVIFa             | Stainless steel plate and copper brazing  |                  |  |
| Heat exchanger                 | Evaporation side Condensation side |                   | Stainless steel plate and copper brazing Stainless steel plate and copper brazing |                  |  |
| Compressor                     | Type                               |                   | Inverter scroll hermetic compressor   |                  |  |
|                                | Naker                              |                   | MITSUBISHI ELECTRIC CORPORATION   |                  |  |
|                                | Starting method                    |                   | Inverter  |                  |  |
|                                | Quantity                           |                   | iliverter<br>4  |                  |  |
|                                | Motor output kW                    |                   | 8.3 × 4   |                  |  |
|                                | Lubricant KVV                      |                   | 6.3 ^ 4<br>MEL46EH  |                  |  |
| Protection                     | High pressure protection           |                   | High pressure Switch  |                  |  |
|                                | Inverter circuit                   |                   | Over-heat protection, C   |                  |  |
|                                | Compressor                         |                   | Over-heat protection  Over-heat protection  |                  |  |
|                                |                                    |                   | R32 × 5.2(kg) × 4   |                  |  |
| Refrigerant                    | Type × charge                      | 1                 | R32 × 5.2   | 2(ka) × 4        |  |

### Notes:

Notes:

\*1 Under normal cooling conditions at evaporation side water inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) codensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is not included in cooling capacity and power input.

\*2 Under normal cooling conditions at evaporation side water inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is included in cooling capacity and power input based on EN14511.

\*3 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C (50°F) outlet temp 7°C (44.6°F). Pump input is included in cooling capacity and power input.

\*4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side water inlet temp 10°C (50°F) outlet temp 7°C (44.6°F). Pump input is included in cooling capacity and power input based on EN14511.

\*5 IPLV is calculated in accordance with AHRI 551-591.

\*6 Please refer to 2-1-6 Operation temperature range.

\*7 Please refer to 2-1-6 Operation temperature range.

\*Please don't use the steel material for the water piping.

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\*Due to continuous improvement, the above specifications may be subject to change without notice.

\*This model doesn't equip with a pump

\*8 Set the minimum water flow rate on the condensation side water to 16.0m3/h when the evaporation side water inlet temp 30°C (50°F) or higher.

When using brine as evaporation side fluid (SW6-10: ON Brine setting)

|  | Power input<br>EER<br>Evaporation side brine flow rate                               | kW<br>kcal/h<br>BTU/h<br>kW | 3-phase 4-wire 380-400-415V 50/60Hz<br>180.00<br>154,800<br>614,160<br>33.07  |  |
|--|--|-----------------------------|---|--|
|  | EER Evaporation side brine flow rate   | kcal/h<br>BTU/h             | 154,800<br>614,160<br>33.07   |  |
|  | EER Evaporation side brine flow rate   | BTU/h                       | 614,160<br>33.07  |  |
|  | EER Evaporation side brine flow rate   |                             | 33.07   |  |
|  | EER Evaporation side brine flow rate   | kW                          |   |  |
|  | Evaporation side brine flow rate   |                             |   |  |
|  |  | 3 //-                       | 5.44  |  |
|  | O  | m <sup>3</sup> /h           | 34.5  |  |
| Cooling capacity (EN14511) "2"5  | Condensation side water flow rate  | m <sup>3</sup> /h<br>kW     | 35.9  |  |
|  |  | kcal/h                      | <u>177.72</u><br>152,839  |  |
|  |  | BTU/h                       | 606,381   |  |
| Г  | Power input  | kW                          | 36.53   |  |
|  | EER  | NVV                         | 4.87  |  |
| The state of the s | Evaporation side brine flow rate   | m <sup>3</sup> /h           | 34.5  |  |
| F  | Condensation side water flow rate  | m <sup>3</sup> /h           | 35.9  |  |
| Heating capacity *3*5  |  | kW                          | 160.00  |  |
|  |  | kcal/h                      | 137,600   |  |
|  |  | BTU/h                       | 545,920   |  |
|  |  |                             | 43.39   |  |
|  | COP  |                             | 3.69  |  |
| The state of the s | Condensation side water flow rate  | m <sup>3</sup> /h           | 27.5  |  |
|  | Evaporation side brine flow rate   | m <sup>3</sup> /h           | 38.4  |  |
| Heating capacity (EN14511) *4*5  |  | kW                          | 160.69  |  |
| J . J( ,   |  | kcal/h                      | 138,193   |  |
|  |  | BTU/h                       | 548,274   |  |
| Γ  | Power input  | kW                          | 47.29   |  |
|  | COP  |                             | 3.40  |  |
|  | Condensation side water flow rate  | m <sup>3</sup> /h           | 27.5  |  |
|  | Evaporation side brine flow rate   | m <sup>3</sup> /h           | 38.4  |  |
| Current input *5   | Cooling current 380-400-415V *1  | Α                           | 54 - 51 - 49  |  |
| ·  | Heating current 380-400-415V *3  | Α                           | 71 - 67 - 65  |  |
|  | Maximum current  | Α                           | 120   |  |
| Brine/Water pressure drop *1*5   | Evaporation side brine   | kPa                         | 149   |  |
|  | Condensation side water  | kPa                         | 66  |  |
| Temperature range (Cooling)  | Evaporation side brine outlet  | °C                          | -10~30  |  |
| *5*6   |  | °F                          | 14~86   |  |
|  | Condensation side water inlet  | °C                          | 9~50  |  |
|  |  | °F                          | 48~122  |  |
| . 0 ( 0,   | Condensation side water outlet  Evaporation side brine inlet                         | °C                          | 20~55   |  |
| *5*7   |  | °F                          | 68~131  |  |
|  |  | °C                          | -7~35   |  |
|  |  | °F_                         | 19~95   |  |
|  | Evaporation side brine   | m <sup>3</sup> /h           | 15.4~50.0   |  |
|  | Condensation side water  | m <sup>3</sup> /h           | 9.0~50.0 *8   |  |
| Sound pressure level (measured in  |  | dB (A)                      | <u>56</u>   |  |
| Sound power level (measured in a   |  | dB (A)                      | 75  |  |
| ' '  | Inlet  | mm (in)                     | 65A (2 1/2B) housing type joint   |  |
|  | Outlet   | mm (in)                     | 65A (2 1/2B) housing type joint   |  |
| •  | Inlet Outlet   | mm (in)<br>mm (in)          | 65A (2 1/2B) housing type joint   |  |
| External finish  | Outlet   | mm (m)                      | 65A (2 1/2B) housing type joint Polyester powder coating steel plate  |  |
| External dimension H × W × D   |  | mm                          | 1836 × 780 × 1350   |  |
|  |  |                             |   |  |
| Net weight   | R32  | kg (lbs)<br>MPa             | 863 (1903)<br>4.15  |  |
| Design pressure  | Water  | MPa                         | 4.15<br>1.0   |  |
| Heat exchanger   | Evaporation side   |                             | Stainless steel plate and copper brazing  |  |
|  | Condensation side  |                             | Stainless steel plate and copper brazing  Stainless steel plate and copper brazing                                  |  |
| Compressor   | Type Maker   |                             | Inverter scroll hermetic compressor   |  |
|  |  |                             | MITSUBISHI ELECTRIC CORPORATION   |  |
|  | Starting method  |                             | Inverter  |  |
| ·  |  |                             | 4   |  |
|  |  |                             |   |  |
|  | Quantity   | kW                          | 8.3 × 4   |  |
|  | Quantity<br>Motor output   | kW                          | 8.3 × 4<br>MEL 46EH   |  |
|  | Quantity<br>Motor output<br>Lubricant  | kW                          | MEL46EH   |  |
| Protection   | Quantify Motor output Lubricant High pressure protection                             | kW                          | MEL46EH<br>High pressure Switch at 4.15MPa (601psi)   |  |
| Protection   | Quantity Motor output Lubricant High pressure protection Inverter circuit            | kW                          | MEL46EH High pressure Switch at 4.15MPa (601psi) Over-heat protection, Over current protection                      |  |
| Protection   | Quantity Motor output Lubricant High pressure protection Inverter circuit Compressor | kW                          | MEL46EH High pressure Switch at 4.15MPa (601psi) Over-heat protection, Over current protection Over-heat protection |  |
| Protection Refrigerant   | Quantity Motor output Lubricant High pressure protection Inverter circuit            | kW                          | MEL46EH High pressure Switch at 4.15MPa (601psi) Over-heat protection, Over current protection                      |  |

### Notes:

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  "1 Under normal cooling conditions at evaporation side brine inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is not included in cooling capacity and power input.

  "2 Under normal cooling conditions at evaporation side brine inlet temp 12°C (53.6°F) outlet temp 7°C (44.6°F) condensation side water inlet temp 30°C (86°F) outlet temp 35°C (95°F). Pump input is included in cooling capacity and power input based on EN14511.

  "3 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is not included in cooling capacity and power input.

  "4 Under normal heating conditions at condensation side water inlet temp 40°C (104°F) outlet temp 45°C (113°F) evaporation side brine inlet temp 0°C (32°F) outlet temp -3°C (26.6°F). Pump input is included in cooling capacity and power input based on EN14511.

  "5 When using brine (ethylene glycol 35wt%) as evaporation side fluid.

  "6 Please refer to 2-1-6 Operation temperature range.

  "7 Please refer to 2-1-6 Operation temperature range.

  "Please don't use the steel material for the water piping.

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This intoer operative quarter and parties. Parties are the condensation side water to 16.0m<sup>3</sup>/h when the evaporation side brine inlet temperature during operation is 15°C (59°F) or higher.