

## 7 GENERAL TECHNICAL DATA

## Data Book

MEHP-IS-G07 0051 - 0112\_202203\_EN R32

[ SI System ]

| MEHP-IS-G07                                 |        |         | 0051     | 0061     | 0071     | 0082     | 0092     | 0102     | 0112     |
|---------------------------------------------|--------|---------|----------|----------|----------|----------|----------|----------|----------|
| Power supply                                |        | V/ph/Hz | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| PERFORMANCE                                 |        |         |          |          |          |          |          |          |          |
| COOLING ONLY (GROSS VALUE)                  |        |         |          |          |          |          |          |          |          |
| Cooling capacity                            | (1)    | kW      | 48,10    | 53,11    | 60,09    | 68,39    | 74,18    | 85,99    | 93,98    |
| Total power input                           | (1)    | kW      | 17,00    | 19,95    | 25,48    | 24,91    | 30,10    | 31,86    | 37,61    |
| EER                                         | (1)    | kW/kW   | 2,829    | 2,668    | 2,357    | 2,747    | 2,465    | 2,696    | 2,500    |
| COOLING ONLY (EN14511 VALUE)                |        |         |          |          |          |          |          |          |          |
| Cooling capacity                            | (1)(2) | kW      | 48,00    | 53,00    | 60,00    | 68,30    | 74,10    | 85,90    | 93,80    |
| EER                                         | (1)(2) | kW/kW   | 2,810    | 2,640    | 2,340    | 2,730    | 2,450    | 2,680    | 2,480    |
| HEATING ONLY (GROSS VALUE)                  |        |         |          |          |          |          |          |          |          |
| Total heating capacity                      | (3)    | kW      | 49,92    | 59,86    | 69,87    | 79,89    | 89,85    | 100,1    | 110,0    |
| Total power input                           | (3)    | kW      | 14,39    | 17,65    | 21,98    | 23,95    | 28,53    | 29,65    | 34,19    |
| COP                                         | (3)    | kW/kW   | 3,465    | 3,403    | 3,177    | 3,343    | 3,151    | 3,382    | 3,216    |
| HEATING ONLY (EN14511 VALUE)                |        |         |          |          |          |          |          |          |          |
| Total heating capacity                      | (3)(2) | kW      | 50,00    | 60,00    | 70,00    | 80,00    | 90,00    | 100,3    | 110,3    |
| COP                                         | (3)(2) | kW/kW   | 3,440    | 3,380    | 3,150    | 3,320    | 3,120    | 3,350    | 3,180    |
| COOLING WITH PARTIAL RECOVERY               |        |         |          |          |          |          |          |          |          |
| Cooling capacity                            | (4)    | kW      | 49,90    | 55,10    | 62,34    | 70,95    | 76,96    | 89,22    | 97,50    |
| Total power input                           | (4)    | kW      | 16,44    | 19,28    | 24,62    | 24,09    | 29,10    | 30,81    | 36,36    |
| Desuperheater heating capacity              | (4)    | kW      | 14,39    | 17,02    | 21,96    | 20,98    | 25,61    | 26,76    | 31,89    |
| EXCHANGERS                                  |        |         |          |          |          |          |          |          |          |
| HEAT EXCHANGER USER SIDE IN COOLING         |        |         |          |          |          |          |          |          |          |
| Water flow                                  | (1)    | l/s     | 2,300    | 2,540    | 2,874    | 3,270    | 3,547    | 4,112    | 4,494    |
| Pressure drop at the heat exchanger         | (1)    | kPa     | 14,4     | 17,6     | 22,5     | 17,2     | 20,2     | 20,8     | 24,9     |
| HEAT EXCHANGER USER SIDE IN HEATING         |        |         |          |          |          |          |          |          |          |
| Water flow                                  | (3)    | l/s     | 2,410    | 2,889    | 3,373    | 3,856    | 4,337    | 4,832    | 5,311    |
| Pressure drop at the heat exchanger         | (3)    | kPa     | 15,8     | 22,7     | 31,0     | 23,9     | 30,2     | 28,7     | 34,7     |
| PARTIAL RECOVERY USER SIDE IN REFRIGERATION |        |         |          |          |          |          |          |          |          |
| Water flow                                  | (4)    | l/s     | 0,695    | 0,822    | 1,060    | 1,012    | 1,236    | 1,292    | 1,539    |
| Pressure drop at the heat exchanger         | (4)    | kPa     | 11,1     | 15,5     | 25,7     | 11,6     | 17,3     | 13,3     | 18,8     |
| REFRIGERANT CIRCUIT                         |        |         |          |          |          |          |          |          |          |
| Compressors nr.                             |        | N°      | 1        | 1        | 1        | 2        | 2        | 2        | 2        |
| Number of capacity steps                    |        | N°      | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| No. Circuits                                |        | N°      | 1        | 1        | 1        | 1        | 1        | 1        | 1        |
| Regulation                                  |        |         | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless | Stepless |
| Min. capacity step                          |        | %       | 27       | 27       | 27       | 22       | 22       | 20       | 20       |
| Refrigerant                                 |        |         | R32      | R32      | R32      | R32      | R32      | R32      | R32      |
| Theoretical refrigerant charge              |        | kg      | 12,0     | 12,0     | 12,0     | 18,0     | 18,0     | 25,0     | 25,0     |
| Oil charge                                  |        | kg      | 3,50     | 3,50     | 3,50     | 7,00     | 7,00     | 7,00     | 7,00     |
| Rc (ASHRAE)                                 | (5)    | kg/kW   | 0,25     | 0,23     | 0,20     | 0,27     | 0,24     | 0,29     | 0,27     |
| FANS                                        |        |         |          |          |          |          |          |          |          |
| Quantity                                    |        | N°      | 2        | 2        | 2        | 3        | 3        | 4        | 4        |
| Air flow                                    |        | m³/s    | 5,89     | 5,89     | 5,89     | 8,89     | 8,89     | 11,77    | 11,77    |
| Total fans power input                      |        | kW      | 0,88     | 0,88     | 0,88     | 1,41     | 1,41     | 1,88     | 1,88     |
| NOISE LEVEL                                 |        |         |          |          |          |          |          |          |          |
| Total sound Pressure                        | (6)    | dB(A)   | 59       | 60       | 62       | 62       | 63       | 63       | 63       |
| Total sound power level in cooling          | (7)(8) | dB(A)   | 77       | 78       | 80       | 80       | 81       | 82       | 82       |
| Total sound power level in heating          | (7)(9) | dB(A)   | 77       | 78       | 80       | 80       | 81       | 82       | 82       |
| SIZE AND WEIGHT                             |        |         |          |          |          |          |          |          |          |
| A                                           | (10)   | mm      | 2085     | 2085     | 2085     | 2600     | 2600     | 3225     | 3225     |
| B                                           | (10)   | mm      | 1100     | 1100     | 1100     | 1100     | 1100     | 1100     | 1100     |
| H                                           | (10)   | mm      | 2400     | 2400     | 2400     | 2400     | 2400     | 2400     | 2400     |
| Operating weight                            | (10)   | kg      | 710      | 710      | 710      | 960      | 960      | 1085     | 1085     |

## Notes:

1 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C.

2 Values in compliance with EN14511

3 Plant (side) heat exchanger water (in/out) 40,00°C/45,00°C; Source (side) heat exchanger air (in) 7,0°C - 87% R.H.

4 Plant (side) cooling exchanger water (in/out) 12,00°C/7,00°C; Source (side) heat exchanger air (in) 35,0°C; Plant (side) heat exchanger recovery water (in/out) 40,00°C/45,00°C.

5 Rated in accordance with AHRI Standard 550/590

6 Average sound pressure level at 1m distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level.

7 Sound power on the basis of measurements taken in compliance with ISO 9614.

8 Sound power level in cooling, outdoors.

9 Sound power level in heating, outdoors.

10 Unit in standard configuration, without optional accessories.

- Not available

Data certified in EUROVENT

# 8 TECHNICAL DATA SEASONAL EFFICIENCY IN HEATING (EN14825 VALUE)

Data Book  
MEHP-iS-G07 0051 - 0112\_202203\_EN R32

[ SI System ]

| MEHP-iS-G07 - LOW TEMPERATURE application      |           |    | 0051     | 0061     | 0071     | 0082     | 0092     | 0102     |
|------------------------------------------------|-----------|----|----------|----------|----------|----------|----------|----------|
| Power supply                                   | (V/ph/Hz) |    | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| <b>WEATHER CONDITIONS - AVERAGE</b>            |           |    |          |          |          |          |          |          |
| Rated heat output at Tdesignh                  | (1)(2)    | kW | 40       | 48       | 55       | 64       | 72       | 80       |
| Bivalent temperature                           | (1)(2)    | °C | -7       | -7       | -7       | -7       | -7       | -7       |
| SCOP                                           | (1)(2)    |    | 4,39     | 4,33     | 4,34     | 4,35     | 4,12     | 4,30     |
| Seasonal space heating energy efficiency       | (1)(2)    | %  | 172      | 170      | 171      | 171      | 162      | 169      |
| Seasonal space heating energy efficiency class | (1)(2)    |    | A++      | A++      | A++      | A++      | A++      | -        |

1 Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013]

2 Type of calculation with variable flow and variable temperature.

| MEHP-iS-G07 - MEDIUM TEMPERATURE application   |           |    | 0051     | 0061     | 0071     | 0082     | 0092     | 0102     |
|------------------------------------------------|-----------|----|----------|----------|----------|----------|----------|----------|
| Power supply                                   | (V/ph/Hz) |    | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 | 400/3/50 |
| <b>WEATHER CONDITIONS - AVERAGE</b>            |           |    |          |          |          |          |          |          |
| Rated heat output at Tdesignh                  | (1)(2)    | kW | 40       | 48       | 48       | 64       | 64       | 82       |
| Bivalent temperature                           | (1)(2)    | °C | -7       | -7       | -7       | -7       | -7       | -7       |
| SCOP                                           | (1)(2)    |    | 3,43     | 3,37     | 3,37     | 3,37     | 3,23     | 3,39     |
| Seasonal space heating energy efficiency       | (1)(2)    | %  | 134      | 132      | 132      | 132      | 126      | 133      |
| Seasonal space heating energy efficiency class | (1)(2)    |    | A++      | A++      | A++      | A++      | A++      | -        |

1 Seasonal space heating energy efficiency class MEDIUM TEMPERATURE [REGULATION (EU) N. 813/2013]

2 Type of calculation with variable flow and variable temperature.

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| MEHP-iS-G07 - LOW TEMPERATURE application      |           |    | 0112     |
|------------------------------------------------|-----------|----|----------|
| Power supply                                   | (V/ph/Hz) |    | 400/3/50 |
| <b>WEATHER CONDITIONS - AVERAGE</b>            |           |    |          |
| Rated heat output at Tdesignh                  | (1)(2)    | kW | 89       |
| Bivalent temperature                           | (1)(2)    | °C | -7       |
| SCOP                                           | (1)(2)    |    | 4,32     |
| Seasonal space heating energy efficiency       | (1)(2)    | %  | 170      |
| Seasonal space heating energy efficiency class | (1)(2)    |    | -        |

1 Seasonal space heating energy efficiency class LOW TEMPERATURE [REGULATION (EU) N. 813/2013]

2 Type of calculation with variable flow and variable temperature.

| MEHP-iS-G07 - MEDIUM TEMPERATURE application   |           |    | 0112     |
|------------------------------------------------|-----------|----|----------|
| Power supply                                   | (V/ph/Hz) |    | 400/3/50 |
| <b>WEATHER CONDITIONS - AVERAGE</b>            |           |    |          |
| Rated heat output at Tdesignh                  | (1)(2)    | kW | 82       |
| Bivalent temperature                           | (1)(2)    | °C | -7       |
| SCOP                                           | (1)(2)    |    | 3,43     |
| Seasonal space heating energy efficiency       | (1)(2)    | %  | 134      |
| Seasonal space heating energy efficiency class | (1)(2)    |    | -        |

1 Seasonal space heating energy efficiency class MEDIUM TEMPERATURE [REGULATION (EU) N. 813/2013]

2 Type of calculation with variable flow and variable temperature.

## 9 TECHNICAL DATA SEASONAL EFFICIENCY IN COOLING (EN14825 VALUE)

Data Book  
MEHP-IS-G07 0051 - 0112\_202203\_EN R32

[ SI System ]

### ENERGY EFFICIENCY

#### SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)

##### Ambient refrigeration

| MEHP-IS-G07          |         |    | 0051  | 0061  | 0071  | 0082  | 0092  | 0102  | 0112  |  |  |  |
|----------------------|---------|----|-------|-------|-------|-------|-------|-------|-------|--|--|--|
| Prated,c             | (1)     | kW | 48,0  | 53,0  | 60,0  | 68,3  | 74,1  | 85,9  | 93,8  |  |  |  |
| SEER                 | (1) (2) | -  | 4,63  | 4,58  | 4,46  | 4,49  | 4,46  | 4,81  | 4,75  |  |  |  |
| Performance $\eta_s$ | (1) (3) | %  | 182,0 | 180,0 | 175,0 | 177,0 | 175,0 | 189,0 | 187,0 |  |  |  |

Notes:

(1) Parameter calculated according to [REGULATION (EU) N. 2016/2281]

(2) Seasonal energy efficiency ratio

(3) Seasonal space cooling energy efficiency

The units highlighted in this publication contain R32 [GWP<sub>100</sub> 677] fluorinated greenhouse gases.