

# MDT HVJ

## AIR-WATER HEAT PUMPS FOR INDOOR INSTALLATION



### Options

#### Operating mode

- R - Heating and cooling  
(reversible on refrigerant side)

#### Heat recovery

- Base version
- Desuperheater version

#### Acoustic setting up

- B - Base setting up
- S - Low noise setting up

#### Plant side flow rate management

- None
- Standard pump
- Modulating pump
- High head pump

#### Coil protection grilles

#### Flow meter

### Accessories

- Vibration dampers
- Remote interface

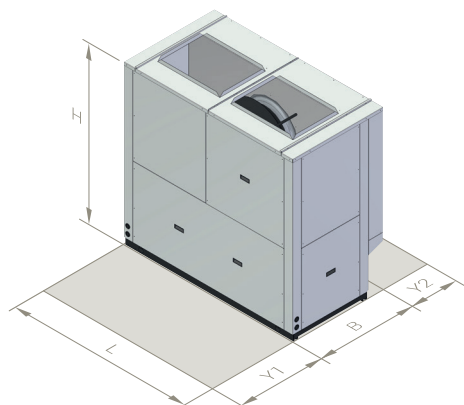


| TECHNICAL DATA                                                                                | 50                                                                         |      |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------|
| Efficiency class - EU reg 811/2013<br><i>average climate - medium temperature application</i> | A++                                                                        | -    |
| Power supply                                                                                  | 400V - 3N - 50Hz                                                           | -    |
| Refrigerant                                                                                   | R410A                                                                      | -    |
| Type of compressors                                                                           | high temperature scroll inverter brushless DC (BLDC) with vapour injection | -    |
| N° of compressors / N° of refrigerant circuits                                                | 1 / 1                                                                      | -    |
| Type of plant side heat exchangers                                                            | stainless steel brazed plates                                              | -    |
| Type of source side heat exchangers                                                           | finned coil copper - hydrophilic aluminum                                  | -    |
| Type of fans                                                                                  | plug fan EC                                                                | -    |
| N° of fans                                                                                    | 2                                                                          | -    |
| Hydraulic fittings                                                                            | 1"1/2 M                                                                    | -    |
| Weight *                                                                                      | 468                                                                        | kg   |
| Maximum power input *                                                                         | 27,9                                                                       | kW   |
| Air flow rate                                                                                 | 13300                                                                      | m³/h |
| Available static head                                                                         | 120                                                                        | Pa   |

\* base unit without options and accessories

| OPERATING RANGE               | HEATING |      | COOLING |     |    |
|-------------------------------|---------|------|---------|-----|----|
|                               | min     | max  | min     | max |    |
| Water outlet temperature      | 15      | 62 * | 6       | 25  | °C |
| Outside air inlet temperature | -22     | 42   | 5       | 50  | °C |

\* The maximum water outlet temperature can be increased up to 67°C keeping a  $\Delta T$  of 10°C between inlet and outlet



|    | 50   |    |
|----|------|----|
| L  | 1730 | mm |
| B  | 930  | mm |
| H  | 1630 | mm |
| Y1 | 1000 | mm |
| Y2 | 500  | mm |

|       | HEATING                    | A | W  | 50   |     |
|-------|----------------------------|---|----|------|-----|
| A7W35 | Heating capacity           | 7 | 35 | 48,7 | kW  |
|       | Power input                |   |    | 11,0 | kW  |
|       | COP                        |   |    | 4,43 | -   |
|       | Plant side water flow rate |   |    | 8390 | l/h |
|       | Plant side pressure drops  |   |    | 29   | kPa |
| A7W45 | Heating capacity           | 7 | 45 | 49,3 | kW  |
|       | Power input                |   |    | 13,7 | kW  |
|       | COP                        |   |    | 3,60 | -   |
|       | Plant side water flow rate |   |    | 8520 | l/h |
|       | Plant side pressure drops  |   |    | 29   | kPa |
| A7W55 | Heating capacity           | 7 | 55 | 50,0 | kW  |
|       | Power input                |   |    | 16,4 | kW  |
|       | COP                        |   |    | 3,05 | -   |
|       | Plant side water flow rate |   |    | 5440 | l/h |
|       | Plant side pressure drops  |   |    | 13   | kPa |
| A7W65 | Heating capacity           | 7 | 65 | 51,2 | kW  |
|       | Power input                |   |    | 20,2 | kW  |
|       | COP                        |   |    | 2,53 | -   |
|       | Plant side water flow rate |   |    | 4471 | l/h |
|       | Plant side pressure drops  |   |    | 9    | kPa |
| A2W35 | Heating capacity           | 2 | 35 | 41,0 | kW  |
|       | Power input                |   |    | 11,0 | kW  |
|       | COP                        |   |    | 3,73 | -   |
|       | Plant side water flow rate |   |    | 7079 | l/h |
|       | Plant side pressure drops  |   |    | 21   | kPa |
| A2W45 | Heating capacity           | 2 | 45 | 41,7 | kW  |
|       | Power input                |   |    | 13,7 | kW  |
|       | COP                        |   |    | 3,04 | -   |
|       | Plant side water flow rate |   |    | 7217 | l/h |
|       | Plant side pressure drops  |   |    | 22   | kPa |
| A2W55 | Heating capacity           | 2 | 55 | 42,6 | kW  |
|       | Power input                |   |    | 16,4 | kW  |
|       | COP                        |   |    | 2,60 | -   |
|       | Plant side water flow rate |   |    | 4630 | l/h |
|       | Plant side pressure drops  |   |    | 9    | kPa |
| A2W65 | Heating capacity           | 2 | 65 | 43,8 | kW  |
|       | Power input                |   |    | 20,3 | kW  |
|       | COP                        |   |    | 2,16 | -   |
|       | Plant side water flow rate |   |    | 3826 | l/h |
|       | Plant side pressure drops  |   |    | 6    | kPa |

|        | COOLING                    | A  | W  | 50   |     |
|--------|----------------------------|----|----|------|-----|
| A35W7  | Cooling capacity           | 35 | 7  | 38,1 | kW  |
|        | Power input                |    |    | 12,2 | kW  |
|        | EER                        |    |    | 3,12 | -   |
|        | Plant side water flow rate |    |    | 6573 | l/h |
|        | Plant side pressure drops  |    |    | 18   | kPa |
| A35W18 | Cooling capacity           | 35 | 18 | 50,4 | kW  |
|        | Power input                |    |    | 13,2 | kW  |
|        | EER                        |    |    | 3,82 | -   |
|        | Plant side water flow rate |    |    | 8731 | l/h |
|        | Plant side pressure drops  |    |    | 31   | kPa |

|           | ACOUSTIC PERFORMANCES       | A | W  | 50 |       |
|-----------|-----------------------------|---|----|----|-------|
| Base      | Sound power level           | 7 | 35 | 80 | dB(A) |
|           | Sound pressure level - 1 m  |   |    | 63 | dB(A) |
|           | Sound pressure level - 5 m  |   |    | 53 | dB(A) |
|           | Sound pressure level - 10 m |   |    | 48 | dB(A) |
| Low noise | Sound power level           | 7 | 35 | 78 | dB(A) |
|           | Sound pressure level - 1 m  |   |    | 62 | dB(A) |
|           | Sound pressure level - 5 m  |   |    | 52 | dB(A) |
|           | Sound pressure level - 10 m |   |    | 47 | dB(A) |

Data declared according to EN 14511. Acoustic performances declared according to EN 12102. The data are related to units working at the **nominal frequency**, without options or accessories.

A7W35 = source : air in 7°C db 6°C wb  
A7W45 = source : air in 7°C db 6°C wb  
A7W55 = source : air in 7°C db 6°C wb  
A7W65 = source : air in 7°C db 6°C wb  
A35W7 = source : air in 35°C db  
A35W18 = source : air in 35°C db

plant : water in 30°C out 35°C  
plant : water in 40°C out 45°C  
plant : water in 47°C out 55°C  
plant : water in 55°C out 65°C  
plant : water in 12°C out 7°C  
plant : water in 23°C out 18°C

A2W35 = source : air in 2°C db 1°C wb  
A2W45 = source : air in 2°C db 1°C wb  
A2W55 = source : air in 2°C db 1°C wb  
A2W65 = source : air in 2°C db 1°C wb

plant : water in 30°C out 35°C  
plant : water in 40°C out 45°C  
plant : water in 47°C out 55°C  
plant : water in 55°C out 65°C