# **Specifications**

Mono

| Outdoor unit mod   | V4W/<br>D2N8-B   | V6W/<br>D2N8-B | V8W/<br>D2N8-B             | V10W/<br>D2N8-B           | V12W/<br>D2N8-B         | V14W/<br>D2N8-B | V16W/<br>D2N8-B | V12W/<br>D2RN8-B | V14W/<br>D2RN8-B | V16W/<br>D2RN8-B |       |       |  |
|--|------------------|----------------|----------------------------|---------------------------|-------------------------|-----------------|-----------------|------------------|------------------|------------------|-------|-------|--|
| Power supply V/Ph/Hz   |                  |                |                            | 220-240/1/50 380-415/3/50 |                         |                 |                 |                  |                  |                  |       |       |  |
| Heating <sup>1</sup>   | Capacity         | kW             | 4.20                       | 6.35                      | 8.40                    | 10.0            | 12.1            | 14.5             | 15.9             | 12.1             | 14.5  | 15.9  |  |
|  | Rated input      | kW             | 0.82                       | 1.28                      | 1.63                    | 2.02            | 2.44            | 3.15             | 3.53             | 2.44             | 3.15  | 3.53  |  |
|  | COP              |                | 5.10                       | 4.95                      | 5.15                    | 4.95            | 4.95            | 4.60             | 4.50             | 4.95             | 4.60  | 4.50  |  |
| Heating <sup>2</sup>   | Capacity         | kW             | 4.30                       | 6.30                      | 8.10                    | 10.0            | 12.3            | 14.1             | 16.0             | 12.3             | 14.1  | 16.0  |  |
|  | Rated input      | kW             | 1.13                       | 1.70                      | 2.10                    | 2.67            | 3.32            | 3.92             | 4.57             | 3.32             | 3.92  | 4.57  |  |
|  | COP              |                | 3.80                       | 3.70                      | 3.85                    | 3.75            | 3.70            | 3.60             | 3.50             | 3.70             | 3.60  | 3.50  |  |
|  | Capacity         | kW             | 4.40                       | 6.00                      | 7.50                    | 9.50            | 11.9            | 13.8             | 16.0             | 11.9             | 13.8  | 16.0  |  |
| Heating <sup>3</sup>   | Rated input      | kW             | 1.49                       | 2.03                      | 2.36                    | 3.06            | 3.90            | 4.68             | 5.61             | 3.90             | 4.68  | 5.61  |  |
|  | COP              |                | 2.95                       | 2.95                      | 3.18                    | 3.10            | 3.05            | 2.95             | 2.85             | 3.05             | 2.95  | 2.85  |  |
| Cooling⁴   | Capacity         | kW             | 4.50                       | 6.50                      | 8.30                    | 9.90            | 12.00           | 13.50            | 14.90            | 12.00            | 13.50 | 14.90 |  |
|  | Rated input      | kW             | 0.82                       | 1.35                      | 1.64                    | 2.18            | 3.04            | 3.75             | 4.38             | 3.04             | 3.75  | 4.38  |  |
|  | EER              |                | 5.50                       | 4.80                      | 5.05                    | 4.55            | 3.95            | 3.60             | 3.40             | 3.95             | 3.60  | 3.40  |  |
|  | Capacity         | kW             | 4.70                       | 7.00                      | 7.45                    | 8.20            | 11.5            | 12.4             | 14.0             | 11.5             | 12.4  | 14.0  |  |
| Cooling <sup>5</sup>   | Rated input      | kW             | 1.36                       | 2.33                      | 2.22                    | 2.52            | 4.18            | 4.96             | 5.60             | 4.18             | 4.96  | 5.60  |  |
|  | EER              |                | 3.45                       | 3.00                      | 3.35                    | 3.25            | 2.75            | 2.50             | 2.50             | 2.75             | 2.50  | 2.50  |  |
| Seasonal space<br>heating energy<br>efficiency class <sup>o</sup> Water outlet at 35°C class<br>Water outlet at 55°C class |                  |                | A+++                       |                           |                         |                 |                 |                  |                  |                  |       |       |  |
|  |                  |                | A++                        |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| D. (   | Type(GWP)        | R32(675)       |                            |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Refrigerant  | Charged volume   | kg             | 1.40 1.40 1.75             |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Sound power Level <sup>7</sup>   |                  | dB             | 55                         | 58                        | 59                      | 60              | 65              | 65               | 68               | 65               | 65    | 68    |  |
| Unit dimension (W×H×D)   |                  | mm             | 1295×792×429 1385x945x526  |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Packing dimension (W×H×D) mm   |                  | mm             | 1375x965x475 1465x1120x560 |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Net/Gross weight   |                  | kg             | 9                          | 8/121                     | 121/148 144/170 160/188 |                 |                 |                  |                  |                  |       |       |  |
| 0  | Cooling          | °C             | -5~43                      |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Outdoor air temperature range  | Heating          | °C             | -25~35                     |                           |                         |                 |                 |                  |                  |                  |       |       |  |
|  | DHW              | °C             | -25~43                     |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Water side heat exchanger  |                  |                | Plate type                 |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Nater pump Max. pump head m  |                  |                | 9                          |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Water side connection mm   |                  | R1" R5/4"      |                            |                           |                         |                 |                 |                  |                  |                  |       |       |  |
| Backup E-heater <sup>8</sup>   | Standard mounted | kW             |                            |                           |                         |                 |                 | /                |                  |                  |       |       |  |
|  | Optional         | kW             | 3                          | 3                         | 3/9                     | 3/9             | 3/9             | 3/9              | 3/9              | 3/9              | 3/9   | 3/9   |  |
|  | Capacity steps   |                | 1                          | 1                         | 1/3                     | 1/3             | 1/3             | 1/3              | 1/3              | 1/3              | 1/3   | 1/3   |  |
|  | 3kW              | \//D!- // :    | 220-240/1/50               |                           |                         |                 |                 |                  |                  |                  |       |       |  |
|  | Power supply 9kW | V/Ph/Hz        |                            | 380-415/3/50              |                         |                 |                 |                  |                  |                  |       |       |  |
| Water outlet<br>temperature range  | Cooling          | °C             |                            |                           | 5~25                    |                 |                 |                  |                  |                  |       |       |  |
|  | Heating          | °C             |                            | 25~65                     |                         |                 |                 |                  |                  |                  |       |       |  |
|  | DHW (tank)       | °C             |                            |                           | 30~60                   |                 |                 |                  |                  |                  |       |       |  |

- 1. Evaporator air in 7°C, 85% R.H., Condenser water in/out 30/35°C
- 2. Evaporator air in 7°C, 85% R.H., Condenser water in/out 40/45°C
- 3. Evaporator air in 7°C, 85% R.H., Condenser water in/out 47/55°C
- 4. Condenser air in 35°C. Evaporator water in/out 23/18°C
- 5. Condenser air in 35°C. Evaporator water in/out 12/7°C
- 6. Seasonal space heating energy efficiency class testes in average climate general conditions.
- 7. Testing standard: EN12102-1.
- 8. Backup electric heater is built into all models. For three phase type backup electric heater, 3/6kW can be achieved by changing DIP switch when heat pump is equipped with 9kW. 9. Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02:2014.

#### Split

| Outdoor unit model name MHA-   |                    |                           |                            | V4W/D2N8-B  | V6W/D2N8-B     | V8W/D2N8-B | v10W/D2N8-B | V12W/D2N8-B | V14W/D2N8-B | V16W/D2N8-B | V12W/D2RN8-B | V14W/D2RN8-B | V16W/D2RN8-E |
|--|--------------------|---------------------------|----------------------------|---|----------------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|
| Indoor unit model name   |                    |                           | HB-A60/CGN8-B              |   | HB-A100/CGN8-B |            |             |             | HB-A160     | D/CGN8-B    |              |              |              |
| Heating <sup>1</sup>   | Capacity           |                           | kW                         | 4.25  | 6.20           | 8.30       | 10.0        | 12.1        | 14.5        | 16.0        | 12.1         | 14.5         | 16.0         |
|  | Rated input        |                           | kW                         | 0.82  | 1.24           | 1.60       | 2.00        | 2.44        | 3.09        | 3.56        | 2.44         | 3.09         | 3.56         |
|  | COP                |                           |                            | 5.20  | 5.00           | 5.20       | 5.00        | 4.95        | 4.70        | 4.50        | 4.95         | 4.70         | 4.50         |
| Heating <sup>2</sup>   | Capacity           |                           | W                          | 4.35  | 6.35           | 8.20       | 10.0        | 12.3        | 14.2        | 16.0        | 12.3         | 14.2         | 16.0         |
|  | Rated input        |                           | W                          | 1.14  | 1.69           | 2.08       | 2.63        | 3.24        | 3.89        | 4.44        | 3.24         | 3.89         | 4.44         |
|  | COP                |                           |                            | 3.80  | 3.75           | 3.95       | 3.80        | 3.80        | 3.65        | 3.60        | 3.80         | 3.65         | 3.60         |
| Heating <sup>3</sup>   | Capacity           |                           | W                          | 4.40  | 6.00           | 7.50       | 9.50        | 12.0        | 13.8        | 16.0        | 12.0         | 13.8         | 16.0         |
|  | Rated input        |                           | W                          | 1.49  | 2.00           | 2.36       | 3.06        | 3.87        | 4.60        | 5.52        | 3.87         | 4.60         | 5.52         |
|  | COP                |                           | 2.95                       | 3.00  | 3.18           | 3.10       | 3.10        | 3.00        | 2.90        | 3.10        | 3.00         | 2.90         |              |
| Cooling <sup>4</sup>   | Capacity           |                           | W                          | 4.50  | 6.55           | 8.40       | 10.00       | 12.00       | 13.50       | 14.90       | 12.00        | 13.50        | 14.90        |
|  | Rated input        |                           | W                          | 0.81  | 1.34           | 1.66       | 2.08        | 3.00        | 3.75        | 4.38        | 3.00         | 3.75         | 4.38         |
|  | EER                |                           | 5.55                       | 4.90  | 5.05           | 4.80       | 4.00        | 3.60        | 3.40        | 4.00        | 3.60         | 3,40         |              |
|  | Capacity           |                           | W                          | 4.70  | 7.00           | 7.40       | 8.20        | 11.6        | 12.7        | 14.0        | 11.6         | 12.7         | 14.0         |
| Cooling <sup>5</sup>   | Rated input        |                           | W                          | 1.36  | 2.33           | 2.19       | 2.48        | 4.22        | 4.98        | 5.71        | 4.22         | 4.98         | 5.71         |
|  | EER                |                           |                            | 3.45  | 3.00           | 3.38       | 3.30        | 2.75        | 2.55        | 2.45        | 2.75         | 2.55         | 2.45         |
| Seasonal space   | Water outlet at 35 | 5°C                       | class                      | 3.45 3.00 3.38 3.30 2.75 2.55 2.45 2.75 2.55 2.45 |                |            |             |             |             |             |              |              |              |
| heating energy<br>efficiency class <sup>6</sup>                                  | Water outlet at 55 |                           | class                      | A++   |                |            |             |             |             |             |              |              |              |
| OUTDOOR UNIT   |                    |                           |                            |   |                |            |             |             |             |             |              |              |              |
| Power supply V/Ph/Hz   |                    | 220-240/1/50 380-415/3/50 |                            |   |                |            |             |             | )           |             |              |              |              |
| Dofrigorant  | Type(GWP)          |                           | R32(675)                   |   |                |            |             |             |             |             |              |              |              |
| Refrigerant  | Charged volume     |                           | kg                         | 1.50 1.65 1.84                                    |                |            |             |             |             |             |              |              |              |
| Sound power Level <sup>8</sup>   |                    | dB(A)                     | 56                         | 58  | 59             | 60         | 64          | 65          | 68          | 64          | 65           | 68           |              |
| Unit dimension (W×H×D) mm  |                    | mm                        | 1008×712×426 1118×865×523  |   |                |            |             |             |             |             |              |              |              |
| Packing dimension (W×H×D)  |                    | mm                        | 1065×800×485 1180×890×560  |   |                |            |             |             |             |             |              |              |              |
| Net/Gross weight   |                    | kg                        | 58/64 77/88 96/110 112/125 |   |                |            |             |             |             |             |              |              |              |
| Outdoor air<br>temperature range   | Cooling °C         |                           |                            | -5~43   |                |            |             |             |             |             |              |              |              |
|  | Heating °C         |                           | -25~35                     |   |                |            |             |             |             |             |              |              |              |
|  | DHW °C             |                           | -25~43                     |   |                |            |             |             |             |             |              |              |              |
| INDOOR UNIT  | (UVD)              |                           |                            |   |                |            |             | 42057       | 90×270      |             |              |              |              |
| Unit dimension (W×H×D)         mm           Packing dimension (W×H×D)         mm |                    | 525×1050×360              |                            |   |                |            |             |             |             |             |              |              |              |
|  |                    | kg                        | 37/43 39/45                |   |                |            |             |             |             |             |              |              |              |
| Water pump   | Max. pump head     |                           | m                          |   | 317            | 9          |             |             |             |             |              |              |              |
| Backup E-heater <sup>9</sup>   | Standard mounted   |                           | kW                         | /   |                |            |             |             |             |             |              |              |              |
|  | Optional           |                           | kW                         | 3/9   |                |            |             |             |             |             |              |              |              |
|  | Capacity steps     |                           | 1/3                        |   |                |            |             |             |             |             |              |              |              |
|  | Power supply 3kW   |                           | \//Db/L!=                  | 220-240/1/50                                      |                |            |             |             |             |             |              |              |              |
|  | Power supply       | 9kW                       | V/Ph/Hz                    | 380-415/3/50                                      |                |            |             |             |             |             |              |              |              |
| Water outlet   | Cooling            |                           | °C                         |   |                | 5~25       |             |             |             |             |              |              |              |
| Water outlet<br>temperature range  |                    |                           | °C                         | 25~65   |                |            |             |             |             |             |              |              |              |
|  | DHW (tank)         |                           | °C                         | 30~60   |                |            |             |             |             |             |              |              |              |
| Sound power level <sup>8</sup>   |                    | dB(A)                     | 38                         | 38  | 42             | 42         | 43          | 43          | 43          | 43          | 43           | 43           |              |

- 1. Evaporator air in 7°C, 85% R.H., Condenser water in/out 30/35°C 2. Evaporator air in 7°C, 85% R.H., Condenser water in/out 40/45°C
- 3. Evaporator air in 7°C, 85% R.H., Condenser water in/out 47/55°C
- 4. Condenser air in 35°C. Evaporator water in/out 23/18°C 5. Condenser air in 35°C. Evaporator water in/out 12/7°C
- 6. Seasonal space heating energy eciency class testes in average climate general conditions.
  7. Relevant EU standards and legislation: EN14511; EN14825; EN50564; EN12102; (EU) No 811/2013; (EU) No 813/2013; OJ 2014/C 207/02:2014
- 8. Testing standard: EN12102-1
  9. For three phase type backup electric heater, 3/6kW can be achieved by changing DIP switch when hydronic box is equipped with 9kW.

#### **Commercial Air Conditioner Division**

#### Midea Group

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Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document.

GD MIDEA Heating & Ventilating Equipment Co. Ltd participates in the ECP programme for LCP-HP. Check ongoing validity of certificate:www.eurovent-certification.com





# M-Thermal Mono/Split A Series















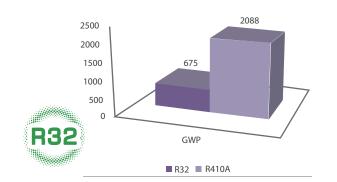






# R32 environmental refrigerant

- Higher heat transfer coefficient and better performance
- Less charged volume is needed in the system
- Less costs and easier to get R32
- Lower GWP and carbon emission (GWP: Global Warming Potential)



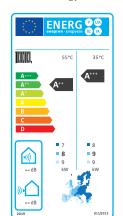
# Inverter system design

All the units are equipped with DC compressor, DC fan motor, DC pump, which allows precise control of motor speed, ensuring that only the power necessary to perfectly match the real load is used and energy saving.



# Powerful heating with high efficiency

- No capacity attenuation at -10°C ambient temperature
- Operation range down to -25°C
- ♠ Maximum LWT reach 65°C
- Single point maximum COP 5.20
- SCOP 5.21, Energy efficiency level: A+++







#### Structure innovation

- Single fan compact structure design for big capacity with
- ❖ 270mm thinnest size in industry for indoor unit, which is ideal transformation plan for gas burner and convenient for replacing



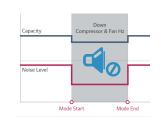
Single fan structure

Greatly reduces noise!



# Extremely silent

- Two level of silent mode provides more comfort
- ❖ Silent mode minimum sound power level 53dB





# Multi-function wired controller and APP control

- Multiple languages meet customer needs
- Modbus protocol and network flexibility
- \* Maximum 6 units controlled by one controller and automatic addressing; available on 31 May, 2020
- Holiday away & Holiday home makes life convenient
- ♣ Built-in wifi module supports APP control







Through APP, user can

- Check the running state of heat pump, zone switch, operation mode and temperature.
- Set switch, operation mode and temperature of each zone
- \* Know energy consumption and energy-saving suggestion





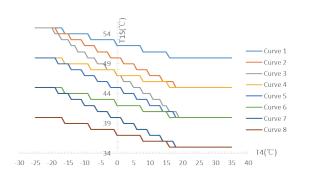
#### **Smart Grid function**

Heat pump adjusts the operation according to different electrical signals. 🖈 Realize setting transmission between wired controllers Power consumption of the system can be automatically adjusted according & Realize program upgrade with one key and save the time of to the peak and valley power to reduce the power consumption to the on-site installation



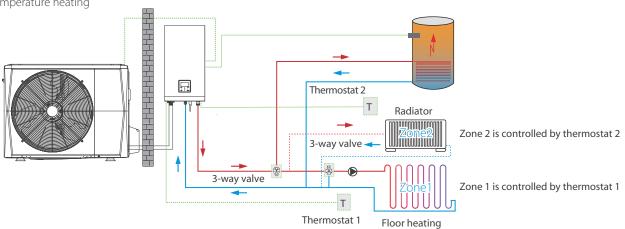
#### Climate curve function

Totally there are 32 climate correlation curves for choice and one custom curve is optional. Once the curve is selected, the unit set the outlet water temperature automatically according to the outdoor ambient temperature, which realizes intelligent control.



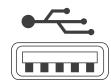
# Zones control more flexibility

- ♣ More accurate low temperature area temperature control
- DC water pump accurate control of water flow and electromagnetic three-way valve cycle regulation to achieve stable low temperature heating



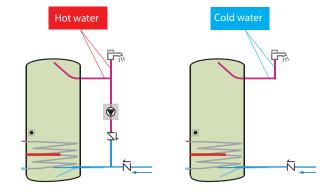
Hydronic adapter board is optional. With the help of hydronic box adapter board, maximum 8 thermostats for 8 rooms are available to control heat pump, which greatly improves the operation convenience.

#### **USB** function



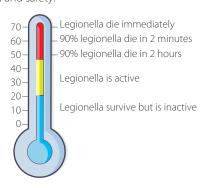
# DHW pump function

The DHW pump function is used to return water in the water pipe net to the hot water tank according to set timer. With the function, when hot water is needed, hot water will flow out from tap immediately without waiting time.



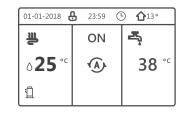
### Disinfect function

The disinfect function is used to kill legionella by 60-70 °C water to ensure the health and safety.

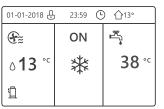


### Mode combination

There are 4 single operation mode (Cool, Heat, DHW, Auto) and 3 combined operation mode to meet different demands of using.



Auto & DHW mode



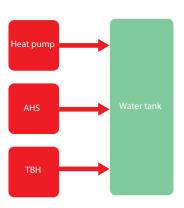
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| Д              |                   |               |
|                |                   |               |

Cool & DHW mode

Heat & DHW mode

# **Fast DHW function**

FAST DHW function is used to force the system to operate in DHW mode when hot water is needed urgently.

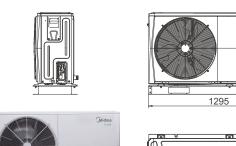


#### Additional control

- Remote control for ON/OFF, TBH, AHS
- \* Balance tank temperature sensor (field supplied) ensures accurate water temperature control

# Unit Dimensions (Unit: mm)

Mono 4~6kW

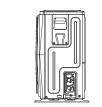


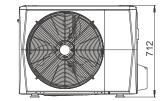


Mono 8~16kW



Split outdoor unit 4~6kW

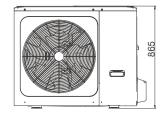




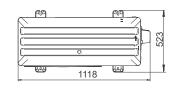


Split outdoor unit 8~16kW









Split indoor unit

