Subtype M thermal A series semi mono 8 10 kW

Certificate Holder	GD Midea Heating & Ventilating Equipment Co., Ltd.
Address	Penglai Industry Road
ZIP	528311
City	Beijiao, Shunde, Foshan
Country	CN
Certification Body	BRE Global Limited
Subtype title	M thermal A series semi mono 8 10 kW
Registration number	041-K007-19
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	1.4 kg
Certification Date	22.08.2023
Testing basis	Heat Pump KEYMARK certification Scheme rules v12
Testing laboratory	Intertek Testing Services Shenzhen LTD. Guangzhou Branch, CN

Model MHP-V10WD2N8+HB-P100CG,HB-P100CD30G,HB-P100CDS60G,HB-P100CDS90G

Model name	MHP-V10WD2N8+HB-P100CG,HB-P100CD30G,HB-P100CDS60G,HB-P100CDS90G
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water

EN 14511-4 | Heating

Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating

	Low temperature	Medium temperature
Heat output	9.90 kW	9.30 kW
El input	2.02 kW	3.06 kW
COP	4.90	3.00

EN 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
ηs	201 %	132 %
Prated	9.00 kW	7.50 kW
SCOP	5.10	3.37
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.97 kW	6.59 kW
COP Tj = -7°C	3.18	2.18
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	5.09 kW	4.10 kW
COP Tj = +2°C	4.92	3.28

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	3.26 kW	2.68 kW
COP Tj = +7°C	6.94	4.37
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.61 kW	1.52 kW
COP Tj = 12°C	8.38	5.47
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.97 kW	6.65 kW
COP Tj = Tbiv	3.18	2.20
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.25 kW	5.17 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.90	1.78
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.75 kW	2.34 kW
Annual energy consumption Qhe	3649 kWh	4578 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	165 %	112 %
Prated	7.60 kW	6.50 kW
SCOP	4.20	2.85
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.71 kW	4.11 kW
COP Tj = -7°C	3.51	2.46
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.86 kW	2.46 kW
COP Tj = +2°C	5.12	3.33
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.86 kW	1.57 kW
COP Tj = +7°C	6.87	4.02
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.61 kW	1.42 kW

COP Tj = 12°C	7.77	5.42
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	6.17 kW	5.26 kW
COP Tj = Tbiv	2.58	1.92
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	4.44 kW	2.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.89	1.16
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	3.15 kW	3.90 kW
Annual energy consumption Qhe	4431 kWh	5555 kWh
Pdh Tj = -15°C (if TOL	6.17	5.26
COP Tj = -15°C (if TOL	2.58	1.92
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	60 dB(A)	60 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	275 %	176 %
Prated	8.50 kW	8.40 kW
SCOP	6.84	4.33
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	8.33 kW	7.89 kW
COP Tj = +2°C	3.79	2.53
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.44 kW	5.41 kW
COP Tj = +7°C	6.09	4.01
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.57 kW	2.46 kW
COP Tj = 12°C	8.88	5.66
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.44 kW	5.41 kW
COP Tj = Tbiv	6.09	4.01

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	8.33 kW	7.89 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.79	2.53
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.16 kW	0.53 kW
Annual energy consumption Qhe	1630 kWh	2515 kWh

Model MHP-V8WD2N8+HB-P100CG,HB-P100CD30G,HB-P100CDS60G,HB-P100CDS90G	
Model name	MHP-V8WD2N8+HB-P100CG,HB-P100CD30G,HB-P100CDS60G,HB-P100CDS90G
Application	Heating (medium temp)
Units	Indoor, Outdoor
Climate zone (for heating)	Colder, Warmer, Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data	
Power supply	1x230V 50Hz
Off-peak product	n/a

Outdoor Air/Water	
EN 14511-4 | Heating	
Shutting off the heat transfer medium flow	passed
Complete power supply failure	passed
Defrost test	passed
Starting and operating test	passed

EN 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	8.30 kW	7.30 kW
El input	1.63 kW	2.36 kW
COP	5.10	3.05

EN 12102-1 | Average Climate		
	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	201 %	127 %
Prated	8.00 kW	6.50 kW
SCOP	5.10	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	7.05 kW	5.65 kW
COP Tj = -7°C	3.29	2.09
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	4.56 kW	3.62 kW
COP Tj = +2°C	4.99	3.19

Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	2.84 kW	2.33 kW
COP Tj = +7°C	6.67	4.17
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.59 kW	1.33 kW
COP Tj = 12°C	8.15	5.11
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	7.05 kW	5.71 kW
COP Tj = Tbiv	3.29	2.11
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	6.29 kW	4.69 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.97	1.79
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.67 kW	1.76 kW
Annual energy consumption Qhe	3225 kWh	4067 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
ηs	165 %	107 %
Prated	6.80 kW	5.50 kW
SCOP	4.20	2.72
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-22 °C
Pdh Tj = -7°C	4.34 kW	3.70 kW
COP Tj = -7°C	3.56	2.39
Cdh Tj = -7 °C	0.900	0.900
Pdh Tj = +2°C	2.61 kW	2.10 kW
COP Tj = +2°C	5.04	3.15
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	1.59 kW	1.36 kW
COP Tj = +7°C	6.30	3.73
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	1.61 kW	1.41 kW

COP Tj = 12°C	7.77	5.38
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.54 kW	4.50 kW
COP Tj = Tbiv	2.75	1.82
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	3.88 kW	2.55 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.86	1.16
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	2.94 kW	2.97 kW
Annual energy consumption Qhe	3985 kWh	4964 kWh
Pdh Tj = -15°C (if TOL	5.54	4.50
COP Tj = -15°C (if TOL	2.75	1.82
Cdh Tj = -15 °C	0.900	0.900

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level indoor	42 dB(A)	42 dB(A)
Sound power level outdoor	59 dB(A)	59 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
ηs	271 %	170 %
Prated	8.00 kW	8.20 kW
SCOP	6.84	4.33
Tbiv	7 °C	7 °C
TOL	2 °C	2 °C
Pdh Tj = +2°C	7.45 kW	7.38 kW
COP Tj = +2°C	3.92	2.53
Cdh Tj = +2 °C	0.900	0.900
Pdh Tj = +7°C	5.14 kW	5.38 kW
COP Tj = +7°C	6.17	4.01
Cdh Tj = +7 °C	0.900	0.900
Pdh Tj = 12°C	2.57 kW	2.24 kW
COP Tj = 12°C	9.07	5.38
Cdh Tj = +12 °C	0.900	0.900
Pdh Tj = Tbiv	5.14 kW	5.38 kW
COP Tj = Tbiv	6.17	4.01

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	7.45 kW	7.38 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	3.92	2.53
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	0.900	0.900
WTOL	65 °C	65 °C
Poff	14 W	14 W
PTO	24 W	24 W
PSB	14 W	14 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.79 kW
Annual energy consumption Qhe	1563 kWh	2594 kWh