

Subtype Aqua thermal 90kW

Certificate Holder	GD Midea Heating & Ventilating Equipment Co., Ltd.
Address	Penglai Industry Road
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City	Beijiao, Shunde, Foshan
Country	CN
Certification Body	BRE Global Limited
Subtype title	Aqua thermal 90kW
Registration number	041-K007-12
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	16 kg
Certification Date	24.08.2021
Testing basis	HP Keymark Scheme Rules Rev 08

Model MC-SU90-RN8L-B

Model name	MC-SU90-RN8L-B
Application	Heating (low temp)
Units	n/a
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 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 14825 | Average Climate

	Low temperature	Medium temperature
η_s	155 %	
Prated	77.10 kW	
SCOP	3.97	
Tbiv	-7 °C	
TOL	-10 °C	
Pdh Tj = -7°C	68.21 kW	
COP Tj = -7°C	2.49	
Cdh Tj = -7 °C	0.90	
Pdh Tj = +2°C	43.18 kW	
COP Tj = +2°C	3.78	
Cdh Tj = +2 °C	0.90	
Pdh Tj = +7°C	27.65 kW	
COP Tj = +7°C	5.63	
Cdh Tj = +7 °C	0.90	
Pdh Tj = 12°C	28.53 kW	
COP Tj = 12°C	5.70	
Cdh Tj = +12 °C	0.90	
Pdh Tj = Tbiv	68.21 kW	
COP Tj = Tbiv	2.49	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	71.09 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.36	

WTOL	54 °C
Poff	90 W
PTO	700 W
PSB	90 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	6.01 kW
Annual energy consumption Qhe	40075 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	121 %	
Prated	61.42 kW	
SCOP	3.11	
Tbiv	-15 °C	
TOL	-20 °C	
Pdh Tj = -7°C	37.64 kW	
COP Tj = -7°C	2.92	
Cdh Tj = -7 °C	0.900	
Pdh Tj = +2°C	22.32 kW	
COP Tj = +2°C	3.46	
Cdh Tj = +2 °C	0.900	
Pdh Tj = +7°C	25.15 kW	
COP Tj = +7°C	4.68	
Cdh Tj = +7 °C	0.900	
Pdh Tj = 12°C	27.59 kW	
COP Tj = 12°C	5.41	
Cdh Tj = +12 °C	0.900	
Pdh Tj = Tbiv	50.11 kW	
COP Tj = Tbiv	2.09	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	38.35 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.73	
Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh		
WTOL	54 °C	
Poff	90 W	
PTO	700 W	
PSB	90 W	
PCK	0 W	
Supplementary Heater: Type of energy input	Electricity	
Supplementary Heater: PSUP	61.42 kW	
Annual energy consumption Qhe	48714 kWh	
Pdh Tj = -15°C (if TOL	50.11	

COP Tj = -15°C (if TOL	2.09
Cdh Tj = -15 °C	0.900

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	175 %	
Prated	63.87 kW	
SCOP	4.46	
Tbiv	7 °C	
TOL	2 °C	
Pdh Tj = +2°C	63.87 kW	
COP Tj = +2°C	2.64	
Cdh Tj = +2 °C	0.90	
Pdh Tj = +7°C	42.10 kW	
COP Tj = +7°C	4.36	
Cdh Tj = +7 °C	0.90	
Pdh Tj = 12°C	28.30 kW	
COP Tj = 12°C	5.47	
Cdh Tj = +12 °C	0.90	
Pdh Tj = Tbiv	42.10 kW	
COP Tj = Tbiv	4.36	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	63.87 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.64	
WTOL	54 °C	
Poff	90 W	
PTO	700 W	
PSB	90 W	
PCK	0 W	
Supplementary Heater: Type of energy input	Electricity	
Supplementary Heater: PSUP	0.00 kW	
Annual energy consumption Qhe	19137 kWh	

Model MC-SU90M-RN8L-B

Model name	MC-SU90M-RN8L-B
Application	Heating (low temp)
Units	n/a
Climate zone (for heating)	Warmer Climate, Colder Climate
Reversibility	Yes
Cooling mode application (optional)	n/a
Any additional heat sources	n/a

General data

Power supply	3x400V 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 14825 | Average Climate

	Low temperature	Medium temperature
η_s	147 %	
Prated	74.30 kW	
SCOP	3.77	
Tbiv	-7 °C	
TOL	-10 °C	
Pdh Tj = -7°C	65.41 kW	
COP Tj = -7°C	2.45	
Cdh Tj = -7 °C	0.90	
Pdh Tj = +2°C	43.01 kW	
COP Tj = +2°C	3.63	
Cdh Tj = +2 °C	0.90	
Pdh Tj = +7°C	26.42 kW	
COP Tj = +7°C	5.08	
Cdh Tj = +7 °C	0.90	
Pdh Tj = 12°C	28.54 kW	
COP Tj = 12°C	5.94	
Cdh Tj = +12 °C	0.90	
Pdh Tj = Tbiv	65.41 kW	
COP Tj = Tbiv	2.45	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	71.03 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.32	

WTOL	54 °C
Poff	90 W
PTO	700 W
PSB	90 W
PCK	0 W
Supplementary Heater: Type of energy input	Electricity
Supplementary Heater: PSUP	3.27 kW
Annual energy consumption Qhe	40747 kWh

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	99 %	
Prated	58.94 kW	
SCOP	2.56	
Tbiv	-15 °C	
TOL	-20 °C	
Pdh Tj = -7°C	36.13 kW	
COP Tj = -7°C	2.62	
Cdh Tj = -7 °C	0.90	
Pdh Tj = +2°C	22.38 kW	
COP Tj = +2°C	2.78	
Cdh Tj = +2 °C	0.90	
Pdh Tj = +7°C	24.41 kW	
COP Tj = +7°C	3.02	
Cdh Tj = +7 °C	0.90	
Pdh Tj = 12°C	27.98 kW	
COP Tj = 12°C	3.43	
Cdh Tj = +12 °C	0.90	
Pdh Tj = Tbiv	48.08 kW	
COP Tj = Tbiv	1.90	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	36.81 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.57	
WTOL	54 °C	
Poff	90 W	
PTO	700 W	
PSB	90 W	
PCK	0 W	
Supplementary Heater: Type of energy input	Electricity	
Supplementary Heater: PSUP	58.94 kW	
Annual energy consumption Qhe	56780 kWh	
Pdh Tj = -15°C (if TOL	48.08	
COP Tj = -15°C (if TOL	1.90	
Cdh Tj = -15 °C	0.90	

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η_s	114 %	
Prated	63.97 kW	
SCOP	2.93	
Tbiv	7 °C	
TOL	2 °C	
Pdh Tj = +2°C	63.97 kW	
COP Tj = +2°C	2.17	
Cdh Tj = +2 °C	0.90	
Pdh Tj = +7°C	40.84 kW	
COP Tj = +7°C	2.81	
Cdh Tj = +7 °C	0.90	
Pdh Tj = 12°C	28.70 kW	
COP Tj = 12°C	3.47	
Cdh Tj = +12 °C	0.90	
Pdh Tj = Tbiv	40.84 kW	
COP Tj = Tbiv	2.81	
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	63.97 kW	
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.17	
WTOL	54 °C	
Poff	90 W	
PTO	700 W	
PSB	90 W	
PCK	0 W	
Supplementary Heater: Type of energy input	Electricity	
Supplementary Heater: PSUP	0.00 kW	
Annual energy consumption Qhe	29169 kWh	