Subtype Aqua thermal 90kW

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	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
Testing laboratory	TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN

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 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	90.00 kW	
El input	23.30 kW	
COP	3.87	

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	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
ηs	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
ηs	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 14511-2 | Heating		
	Low temperature	Medium temperature
Heat output	90.00 kW	
El input	29.52 kW	
COP	3.06	

EN 14825 | Average Climate		
	Low temperature	Medium temperature
ηs	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
ηs	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
ηs	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	