

Subtype Aqua Thermal Super 110 140

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 Super 110 140
Registration number	041-K007-31
Heat Pump Type	Outdoor Air/Water
Refrigerant	R32
Mass of Refrigerant	15.5 kg
Certification Date	10.10.2023
Testing basis	Heat Pump KEYMARK certification Scheme rules v12

Model MH-SU110-RN8L

Model name	MH-SU110-RN8L
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	80 dB(A)	80 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	127 %
Prated	95 kW	80 kW
SCOP	4.25	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	85.48 kW	69.31 kW
COP Tj = -7°C	3.03	2.01
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	50.02 kW	41.99 kW
COP Tj = +2°C	3.73	3.1
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	33.85 kW	28.27 kW
COP Tj = +7°C	6.23	4.52
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	39.27 kW	37.99 kW
COP Tj = 12°C	8.02	6.03
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	85.48 kW	69.31 kW
COP Tj = Tbiv	3.03	2.01

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	94.45 kW	79.71 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.38	1.76
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.29 kW
Annual energy consumption Qhe	46188 kWh	50858 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	80 dB(A)	80 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	146 %	108 %
Prated	80 kW	68 kW
SCOP	3.73	2.79
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	47.25 kW	43.15 kW
COP Tj = -7°C	3.07	2.49
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	29.39 kW	25.41 kW
COP Tj = +2°C	4.23	3.07
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	27.48 kW	24.58 kW
COP Tj = +7°C	6.32	4.66
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	32.27 kW	31.53 kW
COP Tj = 12°C	7.77	6.43
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	67.26 kW	56.15 kW
COP Tj = Tbiv	2.56	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.44 kW	61.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.98	1.8
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.56 kW	68 kW
Annual energy consumption Q _{he}	52894 kWh	60183 kWh
P _{dh} T _j = -15 °C (if TOL	67.26	56.15
COP T _j = -15 °C (if TOL	2.56	1.86
C _{dh} T _j = -15 °C	0.9	0.9

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	80 dB(A)	80 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	235 %	167 %
Prated	95 kW	80 kW
SCOP	5.95	4.26
T _{biv}	7 °C	7 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2 °C	93.78 kW	79.98 kW
COP T _j = +2 °C	2.89	2.04
C _{dh} T _j = +2 °C	0.9	0.9
P _{dh} T _j = +7 °C	61.13 kW	52.24 kW
COP T _j = +7 °C	5.29	3.84
C _{dh} T _j = +7 °C	0.9	0.9
P _{dh} T _j = 12 °C	32.17 kW	31.12 kW
COP T _j = 12 °C	8.03	5.66
C _{dh} T _j = +12 °C	0.9	0.9
P _{dh} T _j = T _{biv}	61.13 kW	52.24 kW
COP T _j = T _{biv}	5.29	3.84
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	93.78 kW	79.98 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.89	2.04
WTOL	65 °C	65 °C
P _{off}	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.22 kW	0.02 kW
Annual energy consumption Q _{he}	21332 kWh	25115 kWh

Model MH-SU110M-RN8L

Model name	MH-SU110M-RN8L
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	83 dB(A)	83 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	166 %	126 %
Prated	95 kW	80 kW
SCOP	4.23	3.23
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	85.48 kW	69.25 kW
COP Tj = -7°C	2.99	2.01
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	49.88 kW	41.9 kW
COP Tj = +2°C	3.72	3.1
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	33.76 kW	28.17 kW
COP Tj = +7°C	6.24	4.4
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	39.22 kW	37.89 kW
COP Tj = 12°C	7.94	6.07
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	85.48 kW	69.25 kW
COP Tj = Tbiv	2.99	2.01

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	94.65 kW	79.73 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.76
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.35 kW	0.27 kW
Annual energy consumption Qhe	46383 kWh	51163 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	83 dB(A)	83 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	144 %	107 %
Prated	80 kW	68 kW
SCOP	3.69	2.76
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	47.1 kW	43.6 kW
COP Tj = -7°C	3.06	2.5
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	29.3 kW	25.32 kW
COP Tj = +2°C	4.15	3.01
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	27.39 kW	24.48 kW
COP Tj = +7°C	6.3	4.5
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	32.18 kW	31.43 kW
COP Tj = 12°C	7.6	6.3
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	67.34 kW	56.06 kW
COP Tj = Tbiv	2.55	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.58 kW	60.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.8
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.42 kW	68 kW
Annual energy consumption Q _{he}	53450 kWh	60837 kWh
P _{dh} T _j = -15 °C (if TOL	67.34	56.06
COP T _j = -15 °C (if TOL	2.55	1.86
C _{dh} T _j = -15 °C	0.9	0.9

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	83 dB(A)	83 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	226 %	165 %
Prated	95 kW	80 kW
SCOP	5.73	4.22
T _{biv}	7 °C	7 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2 °C	93.9 kW	79.9 kW
COP T _j = +2 °C	2.87	2.04
C _{dh} T _j = +2 °C	0.9	0.9
P _{dh} T _j = +7 °C	61.08 kW	52.14 kW
COP T _j = +7 °C	5	3.84
C _{dh} T _j = +7 °C	0.9	0.9
P _{dh} T _j = 12 °C	32.07 kW	31.02 kW
COP T _j = 12 °C	7.8	5.55
C _{dh} T _j = +12 °C	0.9	0.9
P _{dh} T _j = T _{biv}	61.08 kW	52.14 kW
COP T _j = T _{biv}	5	3.84
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	93.9 kW	79.9 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.87	2.04
WTOL	65 °C	65 °C
P _{off}	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.1 kW	0.1 kW
Annual energy consumption Q _{he}	22151 kWh	25329 kWh

Model MH-SU140-RN8L

Model name	MH-SU140-RN8L
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	92 dB(A)	92 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	167 %	127 %
Prated	95 kW	80 kW
SCOP	4.25	3.25
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	85.48 kW	69.31 kW
COP Tj = -7°C	3.03	2.01
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	50.02 kW	41.99 kW
COP Tj = +2°C	3.73	3.1
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	33.85 kW	28.27 kW
COP Tj = +7°C	6.23	4.52
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	39.27 kW	37.99 kW
COP Tj = 12°C	8.02	6.03
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	85.48 kW	69.31 kW
COP Tj = Tbiv	3.03	2.01

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	94.45 kW	79.71 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.38	1.76
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.55 kW	0.29 kW
Annual energy consumption Qhe	46188 kWh	50858 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	92 dB(A)	92 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	146 %	108 %
Prated	80 kW	68 kW
SCOP	3.73	2.79
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	47.25 kW	43.15 kW
COP Tj = -7°C	3.07	2.49
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	29.39 kW	25.41 kW
COP Tj = +2°C	4.23	3.07
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	27.48 kW	24.58 kW
COP Tj = +7°C	6.32	4.66
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	32.27 kW	31.53 kW
COP Tj = 12°C	7.77	6.43
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	67.26 kW	56.15 kW
COP Tj = Tbiv	2.56	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.44 kW	61.03 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.98	1.8
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.56 kW	68 kW
Annual energy consumption Q _{he}	52894 kWh	60183 kWh
P _{dh} T _j = -15°C (if TOL	67.26	56.15
COP T _j = -15°C (if TOL	2.56	1.86
C _{dh} T _j = -15 °C	0.9	0.9

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	92 dB(A)	92 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	235 %	167 %
Prated	95 kW	80 kW
SCOP	5.95	4.26
T _{biv}	7 °C	7 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2°C	93.78 kW	79.98 kW
COP T _j = +2°C	2.89	2.04
C _{dh} T _j = +2 °C	0.9	0.9
P _{dh} T _j = +7°C	61.13 kW	52.24 kW
COP T _j = +7°C	5.29	3.84
C _{dh} T _j = +7 °C	0.9	0.9
P _{dh} T _j = 12°C	32.17 kW	31.12 kW
COP T _j = 12°C	8.03	5.66
C _{dh} T _j = +12 °C	0.9	0.9
P _{dh} T _j = T _{biv}	61.13 kW	52.24 kW
COP T _j = T _{biv}	5.29	3.84
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	93.78 kW	79.98 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.89	2.04
WTOL	65 °C	65 °C
P _{off}	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.22 kW	0.02 kW
Annual energy consumption Q _{he}	21332 kWh	25115 kWh

Model MH-SU140M-RN8L

Model name	MH-SU140M-RN8L
Application	Heating (medium temp)
Units	Outdoor
Climate zone (for heating)	Colder, Warmer
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 12102-1 | Average Climate

	Low temperature	Medium temperature
Sound power level outdoor	93 dB(A)	93 dB(A)

EN 14825 | Average Climate

	Low temperature	Medium temperature
η_s	166 %	126 %
Prated	95 kW	80 kW
SCOP	4.23	3.23
Tbiv	-7 °C	-7 °C
TOL	-10 °C	-10 °C
Pdh Tj = -7°C	85.48 kW	69.25 kW
COP Tj = -7°C	2.99	2.01
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	49.88 kW	41.9 kW
COP Tj = +2°C	3.72	3.1
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	33.76 kW	28.17 kW
COP Tj = +7°C	6.24	4.4
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	39.22 kW	37.89 kW
COP Tj = 12°C	7.94	6.07
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	85.48 kW	69.25 kW
COP Tj = Tbiv	2.99	2.01

Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	94.65 kW	79.73 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	2.37	1.76
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	0.35 kW	0.27 kW
Annual energy consumption Qhe	46383 kWh	51163 kWh

EN 12102-1 | Colder Climate

	Low temperature	Medium temperature
Sound power level outdoor	93 dB(A)	93 dB(A)

EN 14825 | Colder Climate

	Low temperature	Medium temperature
η_s	144 %	107 %
Prated	80 kW	68 kW
SCOP	3.69	2.76
Tbiv	-15 °C	-15 °C
TOL	-22 °C	-18 °C
Pdh Tj = -7°C	47.1 kW	43.6 kW
COP Tj = -7°C	3.06	2.5
Cdh Tj = -7 °C	0.9	0.9
Pdh Tj = +2°C	29.3 kW	25.32 kW
COP Tj = +2°C	4.15	3.01
Cdh Tj = +2 °C	0.9	0.9
Pdh Tj = +7°C	27.39 kW	24.48 kW
COP Tj = +7°C	6.3	4.5
Cdh Tj = +7 °C	0.9	0.9
Pdh Tj = 12°C	32.18 kW	31.43 kW
COP Tj = 12°C	7.6	6.3
Cdh Tj = +12 °C	0.9	0.9
Pdh Tj = Tbiv	67.34 kW	56.06 kW
COP Tj = Tbiv	2.55	1.86
Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh	75.58 kW	60.95 kW
COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh	1.96	1.8
WTOL	65 °C	65 °C
Poff	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W

PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	4.42 kW	68 kW
Annual energy consumption Q _{he}	53450 kWh	60837 kWh
P _{dh} T _j = -15 °C (if TOL	67.34	56.06
COP T _j = -15 °C (if TOL	2.55	1.86
C _{dh} T _j = -15 °C	0.9	0.9

EN 12102-1 | Warmer Climate

	Low temperature	Medium temperature
Sound power level outdoor	93 dB(A)	93 dB(A)

EN 14825 | Warmer Climate

	Low temperature	Medium temperature
η _s	226 %	165 %
Prated	95 kW	80 kW
SCOP	5.73	4.22
T _{biv}	7 °C	7 °C
TOL	2 °C	2 °C
P _{dh} T _j = +2 °C	93.9 kW	79.9 kW
COP T _j = +2 °C	2.87	2.04
C _{dh} T _j = +2 °C	0.9	0.9
P _{dh} T _j = +7 °C	61.08 kW	52.14 kW
COP T _j = +7 °C	5	3.84
C _{dh} T _j = +7 °C	0.9	0.9
P _{dh} T _j = 12 °C	32.07 kW	31.02 kW
COP T _j = 12 °C	7.8	5.55
C _{dh} T _j = +12 °C	0.9	0.9
P _{dh} T _j = T _{biv}	61.08 kW	52.14 kW
COP T _j = T _{biv}	5	3.84
P _{dh} T _j = TOL or P _{dh} T _j = T _{designh} if TOL < T _{designh}	93.9 kW	79.9 kW
COP T _j = TOL or COP T _j = T _{designh} if TOL < T _{designh}	2.87	2.04
WTOL	65 °C	65 °C
P _{off}	140 W	140 W
PTO	700 W	700 W
PSB	140 W	140 W
PCK	0 W	0 W
Supplementary Heater: Type of energy input	Electricity	Electricity
Supplementary Heater: PSUP	1.1 kW	0.1 kW
Annual energy consumption Q _{he}	22151 kWh	25329 kWh