Aqua thermal Super Series



PRODUCT LINEUP



50/65/75kW



110/140kW

Hot water 65°C

MAIN FEATURES

High reliability

- Multiple operation protection
- Alternative cycle duty/defrosting operation
- Back-up function
- Anti-corrosion protection

All DC Inverter

- High efficiency for energy saving
- Quick start-up and less frequent start/stop
- Precise consumption on real load

EVI(Enhanced vapor injection) technology

- Improve performance and expand operation range
- Maximum water temperature up to **65°C** at -10°C ambient temperature
- Minimum operation ambient temperature down to -25°C

Comfort

- Multiple silence modes

Convenient usage

- Intelligent climate curves adjust water temperature automatically

Environment friendly

- R32 refrigerant with low GWP
- Zero impact on ozone layer
- Less carbon emission

APPLICATION



Hot water



Spacing heating



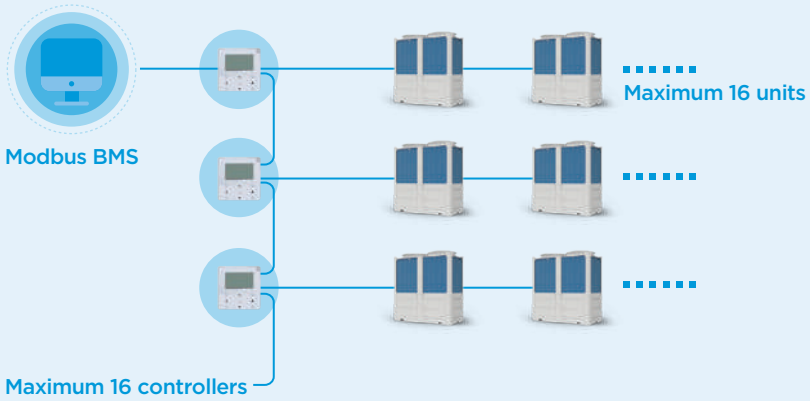
Spacing cooling

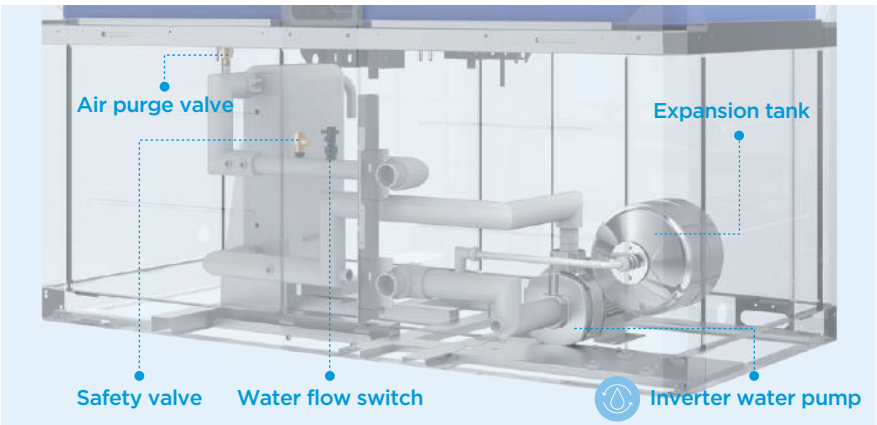
FUNCTION

Smart control

Group control for up to maximum 16 units with one controller

Maximum 16 controllers, 256 units can be connected to BMS system





Easy installation

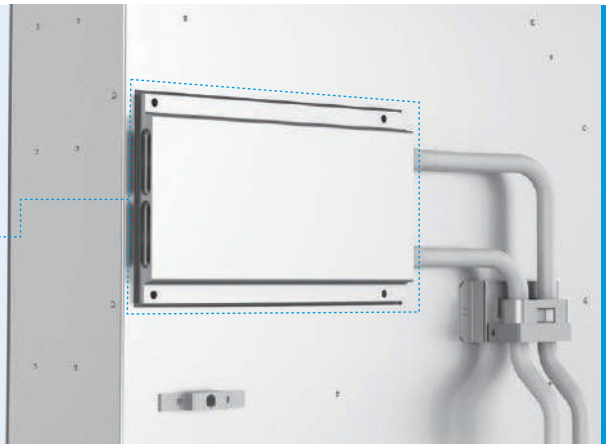
Integrated hydro module(Optional), simplify onsite installation

Maintenance friendly

USB function for program upgrade



Microchannel heat sink, reduce the heating dramatically



Refrigerant cooling technology

Reduces heating of electric control system under severe working conditions

SPECIFICATIONS

Model name			MH-SU50-RN8L	MH-SU65-RN8L	MH-SU75-RN8L	MH-SU110-RN8L	MH-SU140-RN8L
Power supply		V/Ph/Hz	380-415/3/50				
Heating (A7W65)	Capacity	kW	49.90	60	61	100	110
	Rated input	kW	19.88	26.10	26.75	42.90	50.00
	COP	/	2.51	2.30	2.28	2.33	2.20
Heating (A7W55)	Capacity	kW	49.80	64	66	106	126
	Rated input	kW	15.57	21.33	22.15	35.30	49.22
	COP	/	3.20	3.00	2.98	3.00	2.56
Heating (A7W45)	Capacity	kW	49.60	65	75	110	140
	Rated input	kW	12.26	18.30	22.06	29.90	44.73
	COP	/	4.05	3.55	3.40	3.68	3.13
Heating (A7W35)	Capacity	kW	49.50	64	77	112	142
	Rated input	kW	10.46	15.24	19.74	27.00	38.17
	COP	/	4.73	4.20	3.90	4.15	3.72
SCOP (55) average		/	3.40	3.40	3.40	3.25	3.25
SCOP (35) average		/	4.50	4.50	4.5	4.25	4.25
Cooling (A35W7)	Capacity	kW	50.25	57	70	100	130
	Rated input	kW	14.45	19.00	26.80	32.78	50.00
	EER	/	3.48	3.00	2.61	3.05	2.60
Cooling (A35W18)	Capacity	kW	50.40	76	86	128	138
	Rated input	kW	9.55	20.27	23.12	33.70	36.32
	EER	/	5.28	3.75	3.72	3.80	3.80
SEER		/	5.00			4.80	
Air side heat exchanger	Type	/	Fin coil mode				
Fan	Type	/	DC motor				
	Air flow rate	m^3/h	22000	22000	28500	32500	50000
Water side heat exchanger	Type	/	Plate heat exchanger				
	Water pressure drop	kPa	34	44	65	39	65
Refrigerant system	Refrigerant type	/	R32				
	Refrigerant charge	kg	9			15.5	
	Throttle type	/	Electronic expansion valve				
Sound power level (A7W45)		dB(A)	80	80	86	80	92
Sound pressure level (1m) (A7W45)		dB(A)	64	64	69	64	73
Net dimensions (W×H×D)		mm	2000×1770×960			2220×2300×1135	
Packed dimensions (W×H×D)		mm	2085×1890×1030			2250×2445×1180	
Net weight		kg	440			670	
Gross weight		kg	455			690	
Water pipe connections		mm	DN50			DN65	
Operating temperature	Cooling	°C	-15 to 48				
	Heating	°C	-25 to 43				
	DHW	°C	-20 to 43				
Water outlet temperature	Cooling[1]	°C	0 to 20				
	Heating	°C	25 to 65				
	DHW(Heat pump)	°C	30 to 62				
	DHW(Heat pump +Electric heater[2])	°C	30 to 70				

Notes:

1. Antifreeze liquid is needed when water outlet temperature reaches 5°C.
2. Electric heater installed in the tank is field supplied.

SPECIFICATIONS

Model name			MH-SU50M-RN8L	MH-SU65M-RN8L	MH-SU110M-RN8L	MH-SU110M-RN8L	MH-SU140M-RN8L
Power supply		V/Ph/Hz	380-415/3/50				
Heating (A7W65)	Capacity	kW	50	60.10	61.10	100.12	110.12
	Rated input	kW	20	26.24	26.89	43.27	50.37
	COP	/	2.50	2.29	2.27	2.31	2.19
Heating (A7W55)	Capacity	kW	50	64.15	66.15	106.32	126.37
	Rated input	kW	15.87	21.68	22.50	35.85	50.28
	COP	/	3.15	2.96	2.94	2.97	2.51
Heating (A7W45)	Capacity	kW	50	65.65	75.71	110.67	140.94
	Rated input	kW	13.16	19.43	23.51	31.21	47.10
	COP	/	3.8	3.38	3.22	3.55	2.99
Heating (A7W35)	Capacity	kW	50	64.65	77.70	113.14	142.94
	Rated input	kW	11.36	16.37	21.61	28.52	40.54
	COP	/	4.40	3.95	3.59	3.97	3.53
SCOP (55) average		/	3.36	3.36	3.36	3.23	3.23
SCOP (35) average		/	4.47	4.47	4.47	4.23	4.23
Cooling (A35W7)	Capacity	kW	50	56.68	69.29	99.33	129.29
	Rated input	kW	15.15	19.79	28.26	34.09	52.01
	EER	/	3.30	2.86	2.45	2.91	2.49
Cooling (A35W18)	Capacity	kW	50	75.30	85.07	127.26	137.06
	Rated input	kW	10.20	22.14	25.06	35.50	38.69
	EER	/	4.90	3.40	3.39	3.58	3.54
SEER		/	4.92	4.92	4.85	4.78	4.77
Air side heat exchanger	Type	/	Fin coil mode				
Fan	Type	/	DC motor				
	Air flow rate	m^3/h	22000	22000	28500	32500	50000
Water side heat exchanger	Type	/	Plate heat exchanger				
	Water pressure drop	kPa	34	44	65	39	65
Max. running current		/	46	46	46	90	90
Refrigerant system	Refrigerant type	/	R32				
	Refrigerant charge	kg	9			15.5	
	Throttle type	/	Electronic expansion valve				
Sound power level (A7W45)		dB(A)	83	83	89	83	93
Sound pressure level (1m) (A7W45)		dB(A)	64	64	69	64	73
Net dimensions (W×H×D)		mm	2000×1770×960			2220×2300×1135	
Packed dimensions (W×H×D)		mm	2085×1890×1030			2250×2445×1180	
Net weight		kg	475			746	
Gross weight		kg	490			767	
Water pipe connections		mm	DN50			DN65	
Operating temperature	Cooling	°C	-15 to 48				
	Heating	°C	-25 to 43				
	DHW	°C	-20 to 43				
Water outlet temperature	Cooling[1]	°C	0 to 20				
	Heating	°C	25 to 65				
	DHW(Heat pump)	°C	30 to 62				
	DHW(Heat pump +Electric heater[2])	°C	30 to 70				

Notes:

1. Antifreeze liquid is needed when water outlet temperature reaches 5°C.
2. Electric heater installed in the tank is field supplied.

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