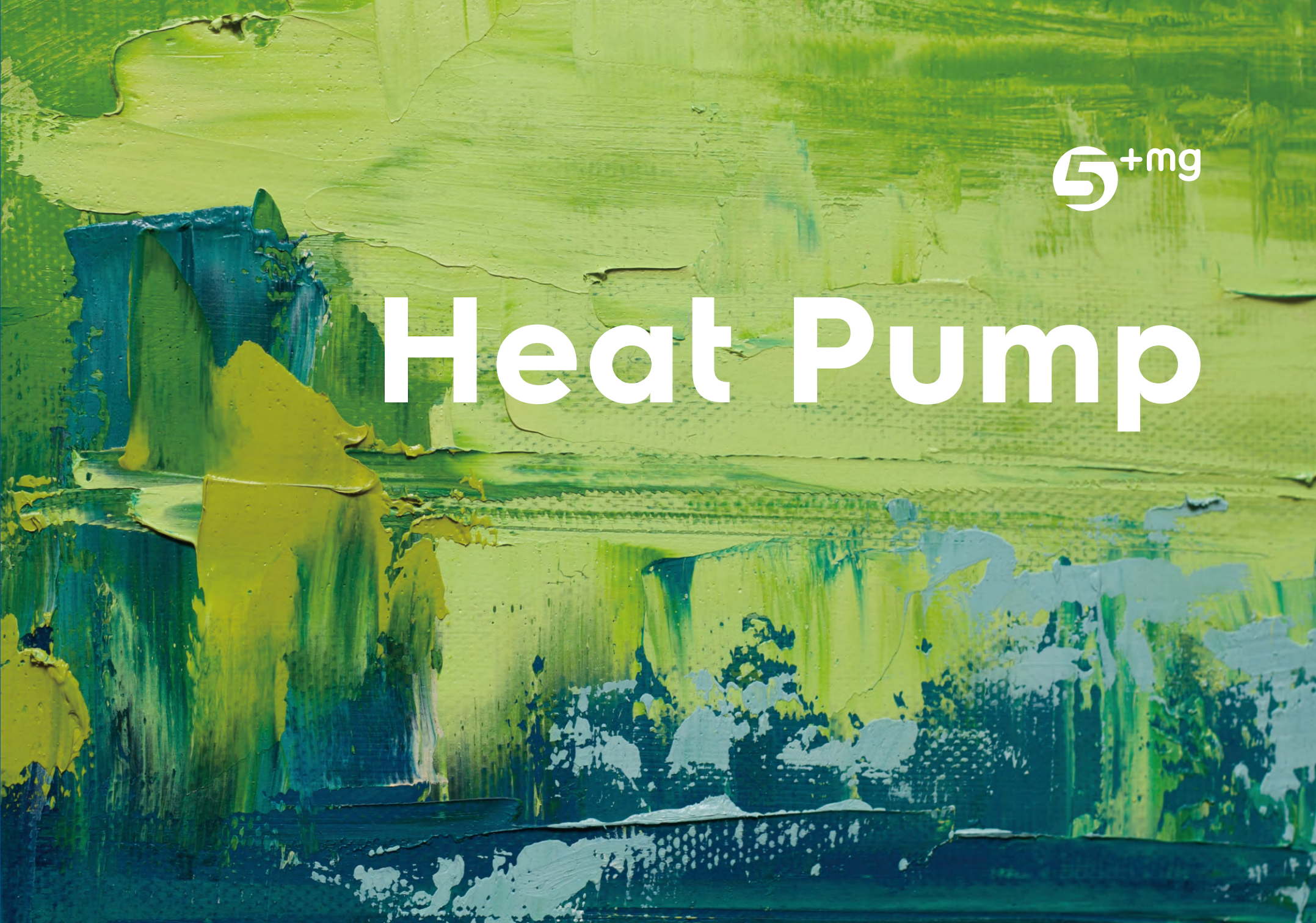
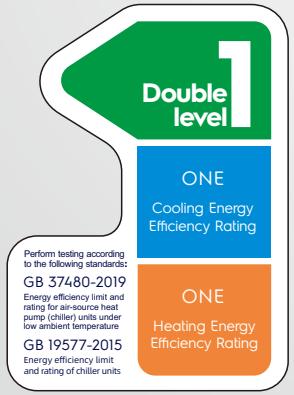

+mg
Heat Pump

Variable frequency heat pump all-in-one air conditioning

DC variable frequency | energy-saving and quiet | stable and efficient

EVI Gas Injection

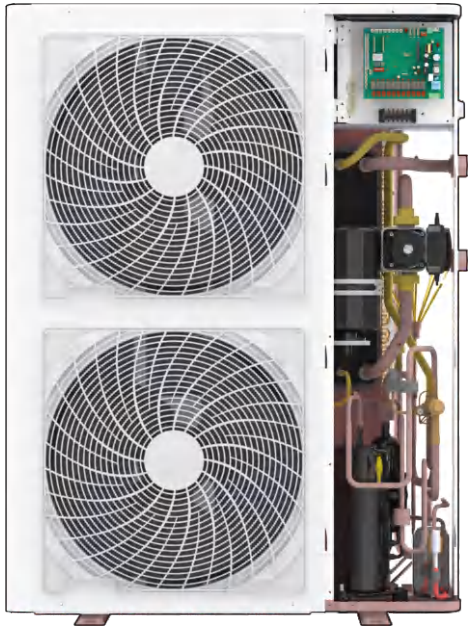
Performance leaps in severe cold,
safe and reliable



Variable frequency all-in-one heat pump

Full DC inverter Fan + Water pump + Compressor

Heat pump with GPRS communication, and cloud-based monitoring of power consumption and operation status



DC variable frequency motor

Compared with AC motors, DC variable frequency motors can be steplessly regulated according to the system's needs, ensuring the motor always operates at the highest efficiency, and can save over 15% of energy consumption compared to general AC motors.

Variable frequency water pump

Automatic overheat protection
Anti-condensation
Automatic anti-stall

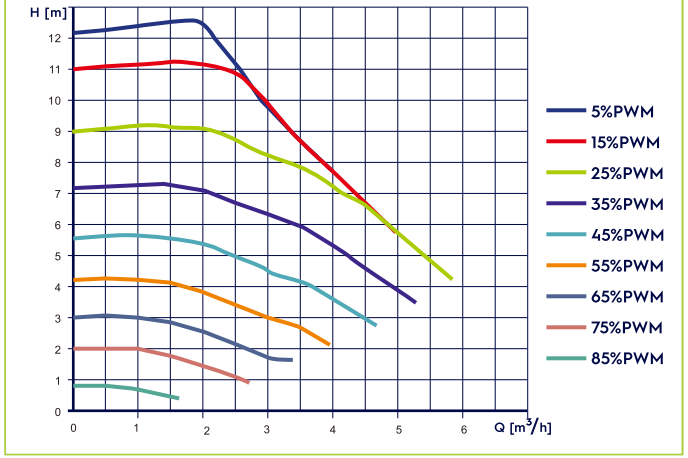
DC inverter compressor

It can be steplessly regulated with a capacity variation range of up to 15%~140%. The ultra-wide capacity variation range, combined with dynamic fuzzy loading technology.
It run more efficiently, and save costs.

Water pump parameters

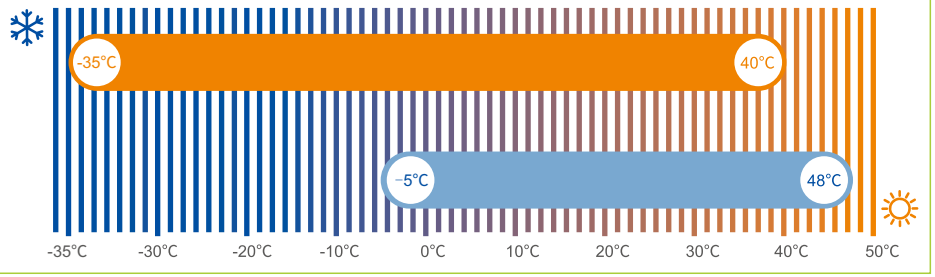
Specifications	Rated water flow (m^3/h)	Pump selection head (M)	Unit Water resistance (M)	Unit External head (M)	Water pump selection Input power (W)
MGC009EB4DLH2	1.5	8.7	1.7	7	95
MGC011EB4DLH2	1.9	7.9	1.9	6	95
MGC014EB4DLH2	2.2	7.2	2.2	5	95
MGC016EB4DLH2	2.8	10.4	2.4	8	180
MGC018EB4DLH2	3.1	9.7	2.7	7	180
MGC020EB4DLH3	3.4	9.1	3.1	6	180
MGC025EB4DLH3	4.3	12	3	9	320
MGC028EB4DLH3	4.8	11	3	8	320
MGC032EB4DLH3	5.2	10.3	3.3	7	320

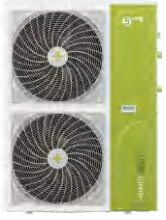
Pump head curve



Operating range

It can operate normally under the environmental temperature from -35℃ to 48℃



Product appearance											
Model		MGC009	MGC011	MGC014	MGC016	MGC018	MGC020	MGC025	MGC028	MGC032	MGC040
Rated heating capacity(kW)		10	12	14.5	18	20	22	27	30	34	44
Rated heating input power(kW)		2.77	3.34	4.19	5.26	6.02	6.42	7.82	8.81	10.72	13.70
Rated heating COP_h		3.61	3.59	3.46	3.42	3.32	3.43	3.45	3.40	3.17	3.21
Nominal heating capacity (kW)		6.6	7.8	10	12.4	13.0	14	18.3	20.2	22.5	29
Nominal heating input power(kW)		2.60	3.01	3.89	4.88	5.12	5.66	7.09	7.53	8.74	12.34
Nominal heating OP_h		2.53	2.59	2.57	2.54	2.54	2.47	2.58	2.68	2.58	2.35
Low temperature heat production(kW)		5.4	6.4	8.2	10.2	10.6	12.5	15.4	17.3	19.0	23.5
Low temperature heating input power(kW)		2.62	3.07	3.85	4.91	5.20	5.71	6.57	7.39	8.21	11.52
Low temperature heating COP_{dh}		2.06	2.09	2.13	2.08	2.04	2.19	2.35	2.34	2.31	2.04
Nominal cooling capacity(kW)		9	11	13	16	18	19.5	25	28	30	40
Nominal cooling input power(kW)		2.98	3.65	4.95	5.56	6.79	7.49	9.25	10.65	11.50	14.1
Nominal cooling COP_c		3.02	3.01	2.63	2.88	2.65	2.60	2.70	2.63	2.61	2.84
IPLV (C)		4.31	4.16	4	4.18	4.09	4	4.13	4.03	4.00	4.30
IPLV (H)		3.18	3.31	3.18	3.33	3.19	3.19	3.35	3.38	3.38	3.05
Nominal HSPF		3.44	3.15	3.22	3.28	3.14	3.11	3.55	3.51	3.24	2.90
Nominal APF		3.47	3.23	3.24	3.31	3.17	3.14	3.55	3.51	3.26	2.84
Max. input power(kW)		5.3	5.5	6.8	8.25	8.92	9.93	12.4	14.3	15.4	19.7
Maximum input current(A)		24.1	25	30.9	37.5	40.5	15	18.8	21.6	23.3	33.5
Power		220V~/50Hz					380V/3N ~/50Hz				
Cooling operation temperature range		-5~48									
Heating operation temperature range		-35~40									
Compressor	Type	DC inverter rotary compressor									DC inverter scroll compressor
	Amount(Unit)	1									
Fan	Type	DC frequency fan									
	Amount(Unit)	1	1	1	2	2	2	2	2	2	1
	Rated power (W / Unit)	100	100	170	100	100	100	170	170	170	920
Shield pump	Rated power (W)	0-95			0-180			0-320			-
	Unit external head(m)	7	6	5	8	7	6	9	8		-
	Unit connection size	DN25/Rc1" Internal thread			DN32/Rc1 1/4" Internal thread						
Centrifugal pump	Rated power (W)	370	370	370	370	370	550	550	550	550	-
	Unit external head(m)	18	17	15	13	11	24	21	19	16	-
	Unit connection size	7	6	5	8	7	6	9	8	7	-
Water-side heat exchanger	Type	Brazed plate heat exchanger									
	Water flow rate(m^3/h)	1.5	1.9	2.2	2.8	3.1	3.4	4.3	4.8	5.2	6.9
Unit water resistance(kPa)		17	19	22	24	27	31	30	30	33	44
Designed maximum inlet/outlet water temperature difference(°C)		7			7			7			-
Operating weight(kg)		102	107	110	124	124	133	178	187	187	250
Gross weight(kg)		100	105	108	122	122	131	175	184	184	246
External dimensions (length x width x height mm)		998x395x1024			998x395x1360			998x395x1570			1080x840x1670

Note:

a. Nominal cooling capacity conditions:
outlet water temperature 7℃,
water flow rate 0.172[m3/(h·kW)],
outdoor ambient temperature 35℃

b. Rated heating capacity conditions:
outlet water temperature 45℃,
water flow rate 0.172[m^3/(h·kW)],
outdoor ambient dry-bulb temperature 7℃
wet-bulb temperature 6℃

c. Nominal heating capacity conditions:
outlet water temperature 41℃,
water flow rate 0.172[m^3/(h·kW)],
outdoor ambient dry-bulb temperature -12℃
wet-bulb temperature -13.5℃

d. Low-temperature heating capacity conditions:
Low-temperature heating capacity conditions 41℃,
water flow rate 0.172[m^3/(h·kW)],
outdoor ambient dry-bulb temperature -20℃

e. The specifications in the table may be subject to change without notice due to changes in the manufacturer's product design.

f. Standards:
GB/T 25127.2-2020
GB/T 18430.2-2016
Current effective version
Energy efficiency level execution standard
Currently effective version of GB19577.

Air Cooled Heat Pump | Modular Unit

· Frequency conversion ultra-low temperature
· Non-stop Defrosting

Reliable Quality

Large Inclination Metal Axial Fan Blades
· The large inclination design effectively reduces the noise of the fan blades, making the unit operate more quietly.
· The metal material design ensures smoother operation under extreme conditions.

Embedded AI Control System
Independently developed core AI algorithms, Automatically adjust based on load changes, achieving energy-efficient operation and ensuring product reliability and optimal energy efficiency.

Ultra-Low Temperature Jet Enthalpy (EVI) Compressor
Enhanced Vapor Injection (EVI) technology ensures that the unit operates with powerful performance and reliable output even in extremely cold temperatures (-35℃).

High-Precision 480PPS Electronic Expansion Valve
Accurate control of refrigerant flow is achieved, combined with the main control dynamic fuzzy control algorithm, ensuring that the system always maintains the optimal safety and efficiency points.

Serrated High-Efficiency Internal Threaded Heat Exchange Tubes
The efficient internal threaded design increases the heat exchange area by nearly 20% compared to traditional threaded tubes, enhancing the evaporator's heat transfer performance.

Coaxial Helical Tube-in-Tube Heat Exchanger
Utilizing a spiral dual-threaded tube design, heat exchange is more efficient. It has a relatively lenient requirement for water quality and higher anti-freezing capability.

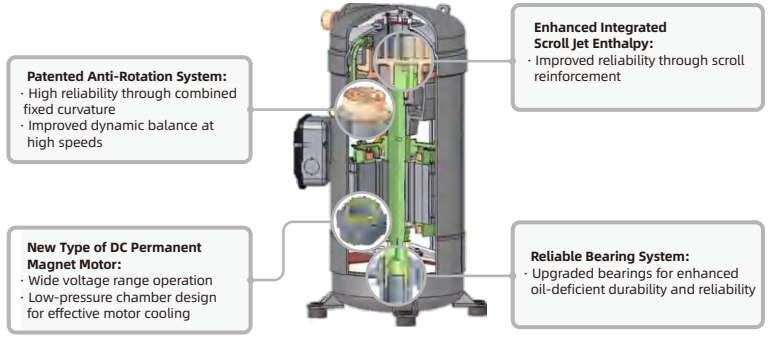
*The unit display is primarily based on model MGC150

Intelligent Rotational Defrosting Technology

The unit employs an independent dual-system design. During heating operation, one system enters the defrosting mode while the other system continues normal heating.
This ensures continuous heating, stable hot water output, and consistent indoor temperature.

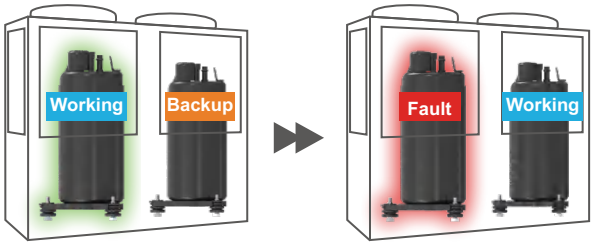
High-Efficiency Fully Enclosed Scroll Compressor

The unit employs internationally renowned brand scroll compressors, ensuring efficient and energy-saving operation. It provides stable cooling and heating output, offering durability over extended periods



Dual Redundancy Backup Technology

The unit can achieve mutual backup within various systems within the same module and between different modules. Each single module is designed with a dual-system setup, where one system continues normal operation in the event of a failure in the other system.
In a multi-module configuration, if a module experiences a failure or requires maintenance, the remaining modules continue to operate normally.
This ensures consistent and stable output from the unit, minimizing temperature fluctuations caused by maintenance and repairs.



Normal Operation:
When one of the modules fails or is maintained, activate the backup one to ensure normal operation.

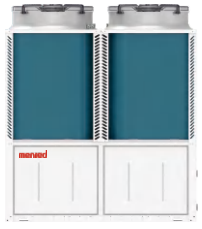
Shutdown due to a fault:
Activate the backup,if one module in the unit experiences a malfunction or is undergoing maintenance.
It will not affect the normal operation of the other modules.

Air-Side High-Efficiency Finned Heat Exchanger

Utilizing a spiral line air duct design optimized through CFD simulation, the heat exchanger features improved tube spacing and fin spacing. It introduces an innovative design with an efficient circular structure. This design enhances heat exchange by increasing the heat exchange area between the return air, copper pipes, and fins, leading to more intense flow disturbance and significantly improved heat transfer efficiency.

Uniform Air Inlet on All Four Sides of the Heat Exchanger: Concentrated and uniform heat exchange results in high heat transfer efficiency

Fixed Frequency

Product appearance							
Model		MGC065D A4D3	MGC130D A4D3	MGC150D A4DLH3	MGC160D A4DLH3	MGC260D B4D3	MGC320D B4DLH3	MGC320D B4DLH3
Rated heating capacity (kW)		68	134	155	160	268	310	320
Rated heating input power (kW)		20.7	42.1	45.4	48.4	84.4	91	98.7
Rated heating COP_h		3.29	3.18	3.41	3.31	3.18	3.41	3.24
Nominal heating capacity (kW)		42.2	83.1	96.1	98	164	190	210
Nominal heating input power (kW)		16.5	33.6	38.1	38.6	70.8	77.2	87.5
Nominal heating COP_h		2.55	2.47	2.52	2.54	2.32	2.46	2.40
Nominal cooling capacity (kW)		65	130	150	145	260	300	270
Nominal cooling input power (kW)		20.7	41.4	44.2	45.9	83	88.6	88.2
Nominal cooling COP_c		3.14	3.14	3.39	3.16	3.13	3.39	3.06
Max. input power (kW)		29.2	59	62.3	62.3	119	125	126
Max. input current (A)		60	102.5	110.6	110.6	206	219	221
Power supply		380V/3N~/50Hz						
Cooling operation temperature range (℃)		10~48						
Heating operation temperature range (℃)		-15~30	-15~30	-25~30	-30~30	-15~30	-25~30	-35~30
Compressor	Type	High efficient scroll compressor						
	Amount(Unit)	1	2	2	2	4	4	4
Fan	Type	Low noise rotating axial fan						Shell and tube heat exchanger
	Amount(Unit)	1	2	2	2	4	4	4
	Rated power (W / Unit)	1.5	1.5	1.8	1.8	1.8	1.8	1.8
Water-side heat exchanger	Type	Brazed plate heat exchanger						
	Water flow rate (m^3/h)	11.2	22.4	25.8	24.9	44.7	51.6	46.4
Unit water resistance(kPa)		31	34	38	38	49	53	68
Unit connection size	inlet pipe	R1 1/2 External thread	Rc2 1/2 Internal thread			D N80 Flange		DN100 Clamp
	outlet pipe		R2 1/2 External thread					
Designed maximum inlet/outlet water temperature difference(℃)		7	7	7	7	7	7	7
Operating weight (kg)		410	860	820	870	1980	2000	2080
Gross weight (kg)		404	850	810	860	1950	1980	2040
External dimensions (length x width x height mm)		1090x1050X2390	2100x1090x2390			2300x2200x2550		

Note:

a. Nominal cooling capacity conditions:
outlet water temperature 7℃,
water flow rate 0.172[m3/(h·kW)],
outdoor ambient temperature 35℃

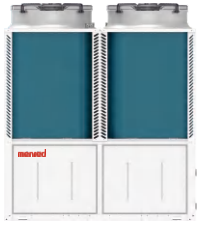
b. Rated heating capacity conditions:
outlet water temperature 45℃,
water flow rate 0.172[m^3/(h·kW)],
outdoor ambient dry-bulb temperature 7℃
wet-bulb temperature 6℃

c. Nominal heating capacity conditions:
outlet water temperature 41℃,
water flow rate 0.172[m^3/(h·kW)],
outdoor ambient dry-bulb temperature -12℃
wet-bulb temperature -13.5℃

d. Low-temperature heating capacity conditions:
Low-temperature heating capacity conditions 41℃,
water flow rate 0.172[m^3/(h·kW)],
outdoor ambient dry-bulb temperature -20℃

e. The specifications in the table may be subject to change without notice due to changes in the manufacturer's product design.

f. Standards:
GB/T 25127.2-2020
GB/T 18430.2-2016
Current effective version
Energy efficiency level execution standard
Currently effective version of GB19577.

Product appearance								
Model	MGC065E A4DLH3	MGC065E B4DLH3	MGC080E A4DLH3	MGC130E A4DLH3	MGC150E A4DLH3	MGC150E B4DLH3	MGC185E A4DLH3	MGC320E A4DLH3
Rated heating capacity (kW)	65	65	80	130	150	150	185	320
Rated heating input power (kW)	18	18	24.6	40.0	45.5	48.4	59.7	95.6
Rated heating COP_h	3.61	3.61	3.25	3.25	3.30	3.10	3.10	3.35
Nominal heating capacity (kW)	45	45	50	87	100	100	125	210
Nominal heating input power (kW)	17.6	17.6	20.7	35.5	40.8	42.9	53.2	84.7
Nominal heating COP_h	2.56	2.56	2.41	2.45	2.45	2.33	2.35	2.48
Nominal cooling capacity (kW)	62	39	70	120	130	73	90	260
Nominal cooling input power (kW)	19.1	14.9	22.6	38.7	41.9	28.5	34.6	88.2
Nominal cooling COP_c	3.25	2.62	3.1	3.1	3.1	2.56	2.6	2.95
IPLV (C)	4.55	2.91	4.42	4.32	4.4	2.85	2.85	3.99
IPLV (H)	3.32	3.32	3.24	3.15	3.10	3.05	3.04	3.21
Max. input power (kW)	27.8	27.8	39.9	59	59	62.9	88.7	124.2
Max. input current (A)	46.9	46.9	67.2	102.5	102.5	105.6	159	208.6
Power supply	380V/3N~/50Hz							
Cooling operation temperature range(°C)	10~48							
Heating operation temperature range(°C)	-35~40							
Compressor – Type	DC inverter rotary compressor		DC inverter scroll compressor					
Compressor – Amount(Unit)	2		2				4	
Fan – Type	DC inverter rotating axial fan		Low noise rotating axial fan					
Fan – Amount(Unit)	4		1	2				4
Fan – Rated power (W / Unit)	0.17		2.2	1.5			1.8	1.8
Water-side heat exchanger – Type	Brazed plate heat exchanger	Double-pipe heat exchanger	Brazed plate heat exchanger			Double-pipe heat exchanger		Shell and tube heat exchanger
Water-side heat exchanger – Water flow rate (m^3/h)	10.7	11.2	12.0	20.6	22.4	25.8	31.8	44.7
Unit water resistance(kPa)	31	47	31	34	38	77	80	68
Unit connection size – inlet pipe	Rc2 Internal thread		Rc1 1/2 Internal thread	Rc2 1/2 Internal thread		G2 1/2 Internal thread	DN80 Flange	DN 100 Clamp
Unit connection size – outlet pipe			R1 1/2 External thread	R2 1/2 External thread				
Designed maximum inlet/outlet water temperature difference(°C)	7							
Operating weight (kg)	415		495	780	810	820	975	2080
Gross weight (kg)	410		490	770	800	810	945	2040
External dimensions (length x width x height mm)	1700x780x2160		1050x1090x2480	2100x1090x2250	2100x1090x2390		2340x1200x2390	2300x2200x2550

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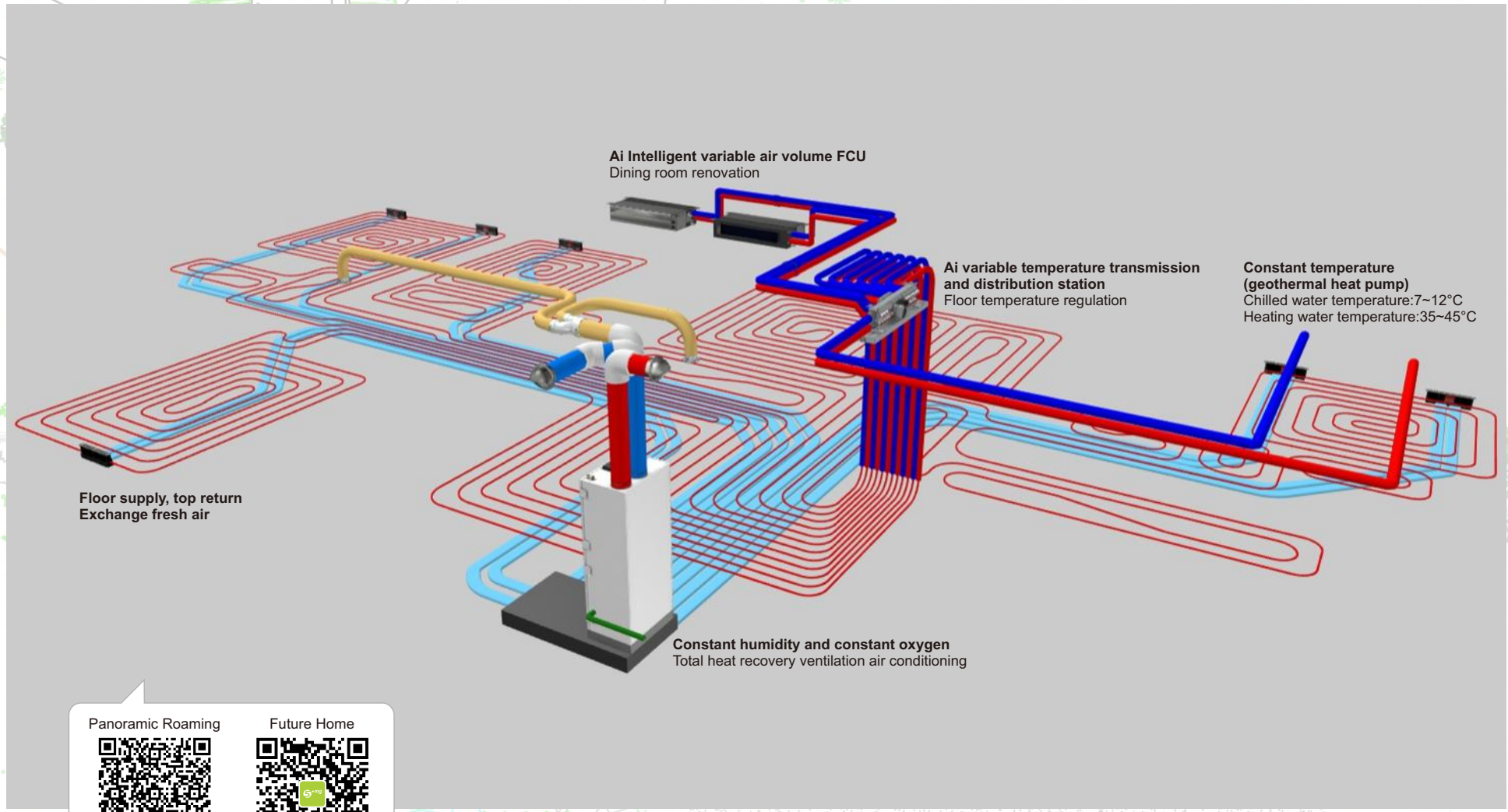

Panoramic Roaming

Future Home

Made in China