

Mammoth Swimming Pool Heat Pump



2025

ABOUT MAMMOTH

Since 1935, Mammoth has been producing and installing air conditioning units with the most innovative technologies. Our solutions are found in some of the world's most important buildings for its unparalleled flexibility and efficiency. When performance and energy efficiency are important factors to a project, our products are often chosen as the final solution.

Established in Minneapolis, USA - 1935

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Energy Saving & Innovation

Mammoth produces air conditioning equipment that leverages energy saving and innovative technologies. Our products include, but not limited to, geothermal & water source heat pumps, air & water cooled commercial air conditioning units, fan coils, AHU, VAV box, screw chillers, and energy recovery units.

Customization & Energy Saving is Our Standard

Mammoth has been recognized as a leader in providing custom designed Total Energy Solution HVAC Systems. Our solutions can fit any design applications from WSHP systems to geothermal systems, from hybrid systems to various energy saving systems. Based on the needs of our customers, our recommendations help our customers assess the economic benefits of Mammoth solutions over alternative systems.

Outstanding Achievement

Mammoth has also brought its innovative design concepts to the industry. We have printed numerous technical design manuals and books to facilitate engineers in the design of Renewable Energy HVAC Systems. Together with industry associations and the commercial section of the US Embassy and Consulate General Offices, we have frequently conducted technical seminars in major cities in China and abroad. We have supplied our solutions to projects that amount to almost 10 million sq. m., and have been continuously recognized as the leader in Renewable Energy products in China.

Mammoth Swimming Pool Heat Pump



COP
Upto 16



Modbus
Compatible



Pressure
Gauge



Energy Efficiency
Class A



Anti-UV
Cover



Titanium
Heat Exchanger



WiFi
Enabled



ABS
Body

Prolonged Operating Life

- Titanium tube with PVC casing ensures superior corrosion resistance.
- Spiral tube design enlarges the contact surface between the titanium tube and water achieving efficient heat transfer.

Convenient Installation

- Only inlet/outlet water pipes and electricity cables require connection.
- Large-screen LCD controller as standard, with 15m shielded cable available as an option.
- Inlet/outlet connectors, drainage pipes for condensing water and rubber gaskets included as accessories

Operating Reliability

- Multiple protections including pressure, water flow, and temperature safeguards.
- Automatic malfunction diagnosis with results displayed on the controller screen.
- Built-in automatic 4-way valve for defrosting.

Optional Plastic ABS Cabinet

- High-quality ABS panels with excellent weather resistance, passing a 72-hour weathering test.

Optional Galvanized Steel Cabinet

- Powder-coated galvanized steel panels, tested to withstand 1,000 hours of salt spray exposure.

Optional Anti-UV Cover

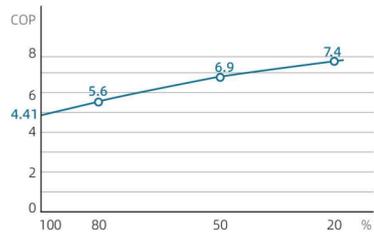
- Silver-plaster anti-UV cover provides reliable protection during idle periods.

Mammoth Swimming Pool Heat Pump

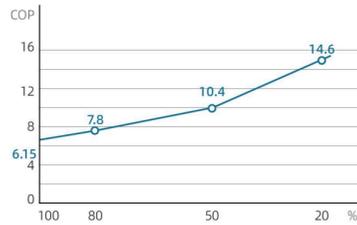
Energy Efficient

- DC inverter compressor (GMCC) Quiet brush less DC motor. Precise electronic expansion valve High COP/EER = less energy, more savings

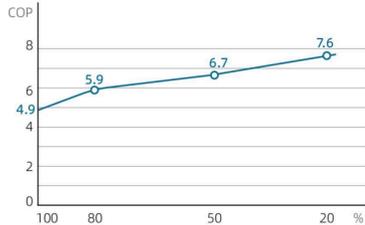
Based on a 45m³ pool @ 26°C



Cooling Capacity
Ambient 35°C/inlet water 28°C



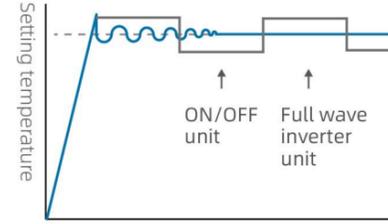
Heating Capacity
Ambient 26°C RH 80%/inlet water 26°C



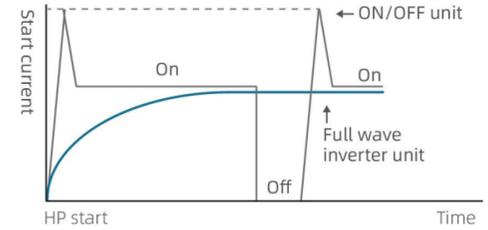
Heating Capacity
Ambient 15°C RH 70%/inlet water 26°C

Stable & Reliable

Full DC Inverter for Precise Temp Control and Steady Operation



Soft Start Present Home power system and gradual current rise



Three Mode Design



Boost Mode

20 - 100% Output Fast Heating



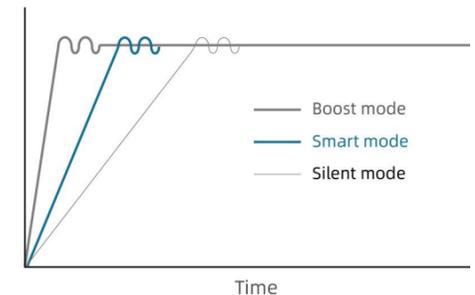
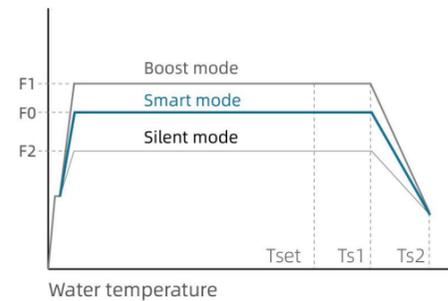
Smart Mode

20 - 80% Output Standard Heating



Silent Mode

20 - 50% Output Night Use



Mammoth Swimming Pool Heat Pump



DC Inverter Compressor

- 12-120Hz wide range inverter covers different capacity loads.
- Twin rotary reduces vibration and Noise
- High Seasonal Efficiency
- Soft start algorithm to extend the Longevity of the system



EXV (Electronics Expansion Valve)

- Delivers precise & optimized control of refrigerant flow. Enhance the efficiency in different weather conditions..



DC Fan Motor

- Stepless control
- Silent operation to reduce noises
- High efficiency

High Efficiency Titanium Condenser

- Double circuit Refrigerant pipe, heat exchanging surface increased by 30%



Wrapped by insulation sponge



Thread Design to Enhance Efficiency of Heat Exchange



Titanium, well

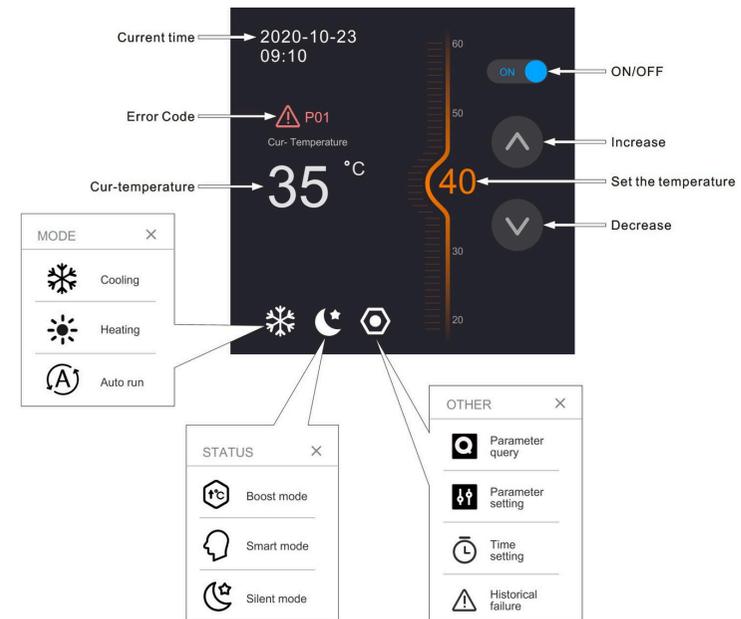


Conventional material, eroded

Excellent Anti-Rust Treatment

Intuitive Touch Screen Interface

- Weather Protection
- Simple and Intuitive UI
- RS-485 Protocol for Long Distance Communication



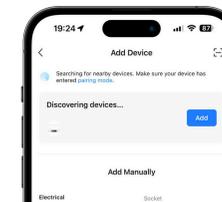
Smart Home Features – Plug & Play

Powered By Smart Life

Supports 60+ Languages!



One Button Connection



Thanks to Integrated Bluetooth chip, nearby devices can be automatically discovered, and with just one click, the WLAN setup is completed.

Control Panel



Simple and Intuitive: Target and current Tank Temp. at a glance

Weekly Schedule

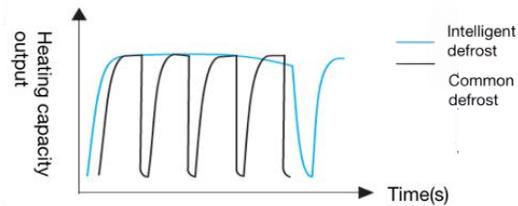


Customization to Lifestyle, Lower carbon emissions

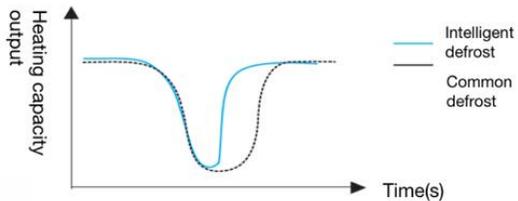
Mammoth Swimming Pool Heat Pump

Intelligent De-frost Logic

Intelligent defrosting logic greatly reduces the frequency of defrosting and shortens the defrosting time, thereby ensuring the heating ability in low temperatures.



Minimum 40 mins interval



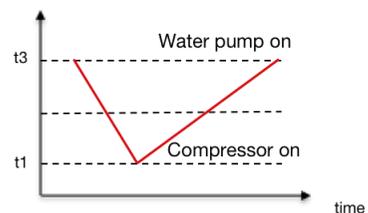
Average defrosting duration 3 mins

Advanced Anti-Freeze Logic

2 -stage Protection Program

Stage 1: When ambient temperature is lower than T3 (5 °C), water pump on,

Stage 2: when water temperature is lower than T1 (2 °C), Compressor starts at a minimum power,



Mammoth Swimming Pool Product Range

Green Series - Inverter

- Green Series is available in Both R32 & R410a options.
- Comes with Abs Body & UV Cover.
- Adopts to Full DC Inverter technology (Inverter Compressor + Inverter Fan Motor)
- Comes with Wi-Fi Functionality



Premium Series - Classic



Green Series - Inverter

Model	External model	MSPH031N8	MSPH032N8	MSPH033N8	MSPH034N8	MSPH035N8	MSPH036N8	
Air15°C/Water26°C Humidity 70%	Capacity (kW)	1.1~3.8	1.3~5.1	1.6~6.7	2.18~8.13	2.86~10.65	3.49~13	
	Power Input (kW)	0.14~0.75	0.17~1.06	0.21~1.34	0.28~1.59	0.38~2.17	0.47~2.64	
	COP	5.1~7.9	4.8~7.8	5~7.7	4.9~7.8	4.9~7.6	4.85~7.44	
	Capacity (kW) Boost	3.8	5.1	6.70	8.13	10.65	13.00	
	COP Boost	5.1	4.8	5.00	4.90	4.90	4.85	
	Capacity (kW) Smart	3.04	4.08	5.35	6.50	8.52	10.40	
	COP Smart	5.91	5.9	5.88	5.76	5.76	5.71	
	Capacity (kW) Silent	2.01	2.55	3.30	4.00	5.30	6.50	
	COP Silent	6.82	6.75	6.67	6.53	6.53	6.47	
	Capacity (kW)	1.3~4.4	1.4~6.0	1.7~7.5	2.4~8.95	3.1~11.7	3.9~15.1	
Air20°C/Water26°C Humidity 80%	Power Input (kW)	0.12~0.84	0.13~1.14	0.16~1.43	0.22~1.7	0.29~2.19	0.37~2.89	
	COP	5.23~10.83	5.25~10.76	5.24~10.71	5.25~10.7	5.35~10.72	5.22~10.6	
	Capacity (kW) Boost	4.40	6.00	7.50	8.95	11.70	15.10	
	COP Boost	6.31	6.26	5.24	5.25	5.35	5.22	
	Capacity (kW) Smart	4.4	5.92	6.00	7.16	9.36	12.08	
	COP Smart	7.7	7.65	6.45	6.42	6.48	6.39	
	Capacity (kW) Silent	2.8	3.7	3.75	4.48	5.85	7.55	
	COP Silent	10.5	10.42	8.82	8.88	8.76	8.77	
	Capacity (kW)	1.6~5.3	1.6~7.2	1.9~9.2	2.7~10.9	3.4~14.3	4.3~17.4	
	Air26°C/Water26°C Humidity 80%	Power Input (kW)	0.13~0.88	0.13~1.19	0.13~1.28	0.18~1.74	0.23~2.32	0.29~2.85
COP		6.25~14.5	6.22~14.55	6.24~14.71	6.27~14.8	6.15~14.62	6.0~14.5	
Capacity (kW) Boost		5.3	7.2	9.20	10.90	14.30	17.40	
COP Boost		6.31	6.26	6.24	6.27	6.15	6.00	
Capacity (kW) Smart		4.4	5.92	7.45	8.94	11.44	14.01	
COP Smart		7.7	7.65	7.80	7.84	7.69	7.50	
Capacity (kW) Silent		2.8	3.7	4.60	5.45	7.15	8.70	
COP Silent		10.5	10.42	10.40	10.45	10.25	10.00	
Capacity (kW)		1.5~2.8	1.7~3.6	1.8~4.6	2.4~6.0	3.2~7.87	3.9~9.6	
Air35°C/Water28°C Humidity 80%		Power Input (kW)	0.2~0.62	0.22~0.8	0.28~1.2	0.33~1.39	0.43~1.78	0.51~2.3
	EER	4.51~7.55	4.48~7.53	4.47~7.46	4.32~7.34	4.41~7.42	4.24~7.4	
	Capacity (kW) Boost	2.8	3.6	4.60	6.00	7.87	9.60	
	EER Boost	4.51	4.48	4.47	4.32	4.41	4.24	
	Capacity (kW) Smart	2.24	2.88	3.68	4.80	6.30	7.68	
	EER Smart	5.62	5.6	5.59	5.40	5.51	5.30	
	Capacity (kW) Silent	1.7	2.16	2.30	3.00	3.94	4.80	
	EER Silent	6.95	6.92	6.88	6.65	6.78	6.52	
	Advised Pool Volume	m ³	10~20	15~30	20~40	25~50	30~60	35~70
	Power Supply	V / Ph / Hz	220-240~/1ph / 50/ 60					
Fan Speed	RPM	400~850						
Max Power Input	kW	1.23	1.5	1.66	1.93	2.67	3.17	
Max Current	A	5.35	6.53	7.24	8.4	11.6	13.77	
Water Pipe In-Out	inch	G1-1/2	G1-1/2	G1-1/2	G1-1/2	G1-1/2	G1-1/2	
Water Pressure	kpa	16	16	17	18	18	19	
Water Flow	m ³ /h	2~3	3~4	3~5	4~6	5~7	6~8	
Refrigerant Volume		R32/0.7kg		R32/1.2kg		R32/1.8kg		
Min Pressure/Max Pressure	Mpa	1.5/4.15						
Package Dimensions	LxWxH(mm)	860*330*668			986*356*668			
Unit Dimensions	LxWxH(mm)	950*410*800			1080*435*800			
Net Weight	kg	35	38	40	44	46	56	
Gross Weight	kg	42	45	48	54	56	66	
Noise at 1m	dB(A)	35.3~43.1	37.7~46.1	38.1~47.2	38.3~48.1	38.5~48.6	41.5~52.5	
Noise at 4m	dB(A)	27.4~35.8	29.5~36.6	29.4~37.3	30.4~37.9	30.6~38.2	32.8~40.5	
Noise at 10m	dB(A)	19.1~27.2	19.5~27.4	20.5~27.9	20.6~28.2	20.8~28.6	23.0~31.8	
Operating Air Temperature	°C	-15~43						
Compressor Brand		GMCC						
Compressor Type		Rotary						
Water Proof Level		IPX4						

Model	External model	MSPH037N8	MSPH038N8	MSPH039N8	MSPH040N8	MSPH041N8	MSPH040N8S	MSPH041N8S	
Air15°C/Water26°C Humidity 70%	Capacity (kW)	3.76~15.7	4.64~17.34	5.15~18.52	5.43~21.28	6.34~23.68	5.43~21.28	6.34~23.68	
	Power Input (kW)	0.48~2.75	0.61~3.6	0.68~3.77	0.73~4.3	0.87~4.8	0.73~4.3	0.87~4.8	
	COP	5.1~7.52	4.8~7.5	4.91~7.53	4.95~7.51	4.9~7.6	4.95~7.51	4.9~7.6	
	Capacity (kW) Boost	15.70	17.34	18.52	21.28	23.68	21.28	23.68	
	COP Boost	5.10	4.80	4.91	4.95	4.9	4.95	4.9	
	Capacity (kW) Smart	12.56	13.87	14.82	17.02	18.94	17.02	18.94	
	COP Smart	6.00	5.65	5.74	5.82	5.76	5.82	5.76	
	Capacity (kW) Silent	7.85	8.67	9.26	10.54	11.84	10.54	11.84	
	COP Silent	6.80	6.40	6.51	6.60	6.53	6.60	6.53	
	Capacity (kW)	4.3~17.55	5.2~19.86	5.4~21.2	6.1~24.53	7.0~26.8	6.1~24.53	7.0~26.8	
Air20°C/Water26°C Humidity 80%	Power Input (kW)	0.41~3.3	0.49~3.82	0.51~4.07	0.57~4.66	0.66~5.17	0.57~4.66	0.66~5.17	
	COP	5.31~10.38	5.2~10.6	5.21~10.55	5.26~10.64	5.18~10.61	5.26~10.64	5.18~10.61	
	Capacity (kW) Boost	17.55	19.86	21.20	24.53	26.8	24.53	26.8	
	COP Boost	5.31	5.20	5.21	5.26	5.18	5.26	5.18	
	Capacity (kW) Smart	14.04	15.89	16.96	19.62	21.44	19.62	21.44	
	COP Smart	6.41	6.42	6.37	6.51	6.35	6.51	6.35	
	Capacity (kW) Silent	8.78	9.93	10.60	12.27	13.40	12.27	13.40	
	COP Silent	8.85	8.71	8.84	8.92	8.77	8.92	8.77	
	Capacity (kW)	4.8~21.2	5.7~23.2	6.2~25.1	6.6~29.0	7.7~31.7	6.6~29.0	7.7~31.7	
	Air26°C/Water26°C Humidity 80%	Power Input (kW)	0.33~3.38	0.4~3.8	0.43~4.05	0.46~4.75	0.54~5.21	0.46~4.75	0.54~5.21
COP		6.36~14.55	6.1~14.5	6.2~14.52	6.1~14.54	6.11~14.6	6.1~14.54	6.11~14.6	
Capacity (kW) Boost		21.20	23.20	25.10	29.00	31.7	29.00	31.7	
COP Boost		6.36	6.10	6.20	6.10	6.11	6.10	6.11	
Capacity (kW) Smart		17.17	18.79	20.10	23.20	25.68	23.20	25.68	
COP Smart		7.95	7.63	7.60	7.63	7.64	7.63	7.64	
Capacity (kW) Silent		10.60	11.60	12.52	14.55	15.85	14.55	15.85	
COP Silent		10.60	10.17	10.15	10.17	10.18	10.17	10.18	
Capacity (kW)		4.3~11.5	5.3~12.8	5.8~13.9	6.2~16.0	7.2~17.5	6.2~16.0	7.2~17.5	
Air35°C/Water28°C Humidity 80%		Power Input (kW)	0.57~2.62	0.73~3.1	0.8~3.35	0.82~3.73	0.97~4.17	0.82~3.73	0.97~4.17
	EER	4.38~7.48	4.17~7.25	4.15~7.22	4.29~7.54	4.21~7.44	4.29~7.54	4.21~7.44	
	Capacity (kW) Boost	11.5	12.80	13.90	16.00	17.50	16.00	17.50	
	EER Boost	4.38	4.17	4.15	4.29	4.21	4.29	4.21	
	Capacity (kW) Smart	9.20	10.24	11.10	12.80	14.00	12.80	14.00	
	EER Smart	5.48	5.21	5.18	5.36	5.26	5.36	5.26	
	Capacity (kW) Silent	5.75	6.40	6.95	8.00	8.75	8.00	8.75	
	EER Silent	6.74	6.42	6.40	6.60	6.48	6.60	6.48	
	Advised Pool Volume	m ³	40~80	60~100	65~110	70~130	80~150	70~130	80~150
	Power Supply	V / Ph / Hz	220-240~/1ph / 50/ 60					380-415~/3ph / 50 / 60	
Fan Speed	RPM	400~850							
Max Power Input	kW	3.29	4.22	4.49	6.8	7.2	6.8	7.2	
Max Current	A	14.3	18.36	19.52	29.6	31.3	29.6	31.3	
Water Pipe In-Out	inch	G1-1/2	G1-1/2	G1-1/2	G1-1/2	G1-1/2	G1-1/2	G1-1/2	
Water Pressure	kpa	20	22	23	25	28	25	28	
Water Flow	m ³ /h	7~9	8~10	8~11	9~12	12~15	9~12	12~15	
Refrigerant Volume		R32/1.8kg		R32/2.6kg		R32/3.3kg			
Min Pressure/Max Pressure	Mpa	1.5/4.15							
Package Dimensions	LxWxH(mm)	1076*426*720				1176*451*822			
Unit Dimensions	LxWxH(mm)	1161*490*855				1261*515*957			
Net Weight	kg	67	70	72	90	98	90	98	
Gross Weight	kg	80	83	85	108	116	108	116	
Noise at 1m	dB(A)	42.3~53.1	44.2~54.5	44.7~54.9	45.6~57.1	47.2~59.7	45.6~57.1	47.2~59.7	
Noise at 4m	dB(A)	33.2~40.9	35.3~41.1	35.6~41.8	36.4~44.7	37.9~46.9	36.4~44.7	37.9~46.9	
Noise at 10m	dB(A)	23.6~32.2	24.3~33.4	24.6~33.7	26.6~36.5	27.3~38.2	26.6~36.5	27.3~38.2	
Operating Air Temperature	°C	-15~43							
Compressor Brand		GMCC							
Compressor Type		Rotary							
Water Proof Level		IPX4							

Premium Series

Model	External model	MSPHE30AW	MSPHE70AW	MSPHE100AW	MSPHE130AW	MSPHE180AW	MSPHE220AW TRI	
Ambient 15°C Water 13°C in, 15°C out	Capacity(kW)	3.04	5.20	7.81	10.04	13.97	16.02	
	Power input(kW)	0.45	0.78	1.15	1.51	2.31	2.68	
	COP(W/W)	6.76	6.67	6.79	6.65	6.05	5.98	
Ambient 15°C Water 26°C in, 28°C out	Capacity(kW)	2.75	4.85	6.90	8.56	12.8	14.68	
	Power input(kW)	0.59	1.04	1.46	1.82	2.7	3.14	
	COP(W/W)	4.66	4.65	4.71	4.70	4.74	4.68	
Ambient 20°C Water 26°C in, 28°C out	Capacity(kW)	3.06	5.55	7.87	10.12	14.05	16.11	
	Power input(kW)	0.58	1.07	1.56	2.01	2.50	2.90	
	COP(W/W)	5.28	5.19	5.04	5.03	5.62	5.56	
Ambient 24°C Water 26°C in, 28°C out	Capacity(kW)	3.19	5.86	8.55	10.99	15.77	18.87	
	Power input(kW)	0.57	1.10	1.57	2.01	2.78	3.28	
	COP(W/W)	5.60	5.33	5.45	5.47	5.67	5.75	
Ambient 27°C Water 27°C in, 29°C out	Capacity(kW)	3.30	7.01	10.00	12.50	18.00	22.00	
	Power input(kW)	0.55	1.17	1.65	2.06	2.94	3.64	
	COP(W/W)	6.01	6.00	6.08	6.07	6.12	6.04	
Ambient 35°C Water 29°C in, 27°C out	Capacity(kW)	2.71	3.78	5.38	6.68	9.98	11.45	
	Power input(kW)	0.85	1.26	1.68	2.15	3.22	3.8	
	EER(W/W)	3.19	3.01	3.20	3.11	3.10	3.01	
power supply	V/Ph/Hz	220-240~/1ph/50					380-420~/3ph/50	
max power input	KW	1.01	1.69	2.29	2.69	3.8	5.29	
max current	A	4.65	7.73	10.49	12.23	17.5	8.17	
water flow	m ³ /h	1.65	3.5	4.8	6.2	7	8	
Water Pressure	kpa	15	16	18	20	23	25	
Swimming pool volume	m ³	15-20	20-30	30-40	40-50	80-100	80-100	
Running temperature range	°C	-7~43						
Water pipe in-out		G1-1/2						
Refrigerant volume	kg	R32/0.35	R32/0.4	R32/0.55	R32/0.8	R32/1.5	R32/1.8	
Min pressure/max pressure	Mpa	1.5/4.15	1.5/4.15	1.5/4.15	1.5/4.15	1.5/4.15	1.5/4.15	
Unit dimensions	mm	816x307x553	816x307x553	913x367x718	913x367x718	942x398x817	942x398x817	
Package dimensions	mm	885x360x670	885x360x670	1010x450x851	1010x450x851	1022x458x952	1022x458x952	
Net weight	kg	37	40	47	54	63	75	
Gross weight	kg	41	46	53	60	73	85	
Noise	dB(A)	35	36	37	38	40	41	
Noise at 1m	dB(A)	<45	<46	<47	<48	<51	<52	
Noise at 10m	dB(A)	<26	<27	<28	<29	<30	<31	
Compressor brand		GMCC						
Compressor type		Rotary						



Commercial Series



- Available in R410a.
- Full DC Inverter technology (Inverter Compressor + Inverter Fan Motor)
- With Wi-Fi Functionality

Model	External model	MSPH45C	MSPH55C	MSPH110C
Air26°C/Water26°C Humidity 80%	capacity (kW)	11.2~45.0	13.7~55.0	27.5~110.0
	power input(kW)	0.8~7.44	0.99~9.17	1.96~18.03
	COP	6.05~14.1	6.0~13.8	6.1~14.0
Air7°C/Water26°C Humidity 70%	capacity (kW)	6.3~23.4	8.4~28.8	12.2~55.8
	power input(kW)	1.21~6.47	1.64~8.22	2.3~15.9
	COP	3.6~5.22	3.5~5.11	3.5~5.3
Air15°C/Water26°C Humidity 70%	capacity (kW)	7.5~31.2	10.3~38.4	15.8~77.5
	power input(kW)	1.05~6.78	1.45~8.53	2.16~17.0
	COP	4.6~7.2	4.5~7.1	4.56~7.3
	capacity (kW)Boost	31.20	38.40	77.5
	COP Boost	4.60	4.50	4.56
	capacity (kW)Smart	24.96	30.72	62.00
	COP Smart	6.02	5.84	5.86
	capacity (kW)Silent	15.60	19.20	38.75
	COP Silent	6.62	6.52	6.61
Air35°C/Water28°C Humidity 80%	capacity (kW)	6.8~27.2	8.3~33.1	17.2~68.8
	power input(kW)	0.86~7.88	1.11~9.32	2.27~18.6
	EER	3.45~7.5	3.55~7.48	3.7~7.57
Advised Pool Volume	m ³	140~200	200~250	300~480
Power supply	V / Ph / Hz	380-420/3N~/50		
Fan speed	RPM	400~800		
Max power input	kW	9.85	11.65	23.25
Max current	A	17	20.1	40.1
Water pipe in-out	inch	G1-1/2	G2	G2
Water Pressure	kpa	35	38	45
Water flow	m ³ /h	12~18	16~24	30~45
Refrigerant volume		R410A		
Operating air temperature	°C	-15~43		
Min pressure/max pressure	Mpa	1.5/4.15		
Package dimensions	LxWxH(mm)	910*962*1080	1362*829**1730	2030*950*2100
Unit dimensions	LxWxH(mm)	901*920*1056	1290x757x1590	2014*919*1953
Net weight	kg	165	215	510
Gross weight	kg	188	245	550
Noise at 1 m	dB(A)	47.6~61.7	48.1~63.4	48.1~65.2
Noise at 10m	dB(A)	28.3~38.4	28.8~38.7	30.2~40.5
Compressor brand		Rotary	Scroll	
Compressor type		GMCC		
Water proof level		IPX4		