

HEATING

AIR-WATER CHILLER

NEW

MONOBLOC UNIT



Single phase 5~7 kW
HCWNMS 501-701 X



Single phase 10~12 kW
HCWNMS 1001-1201 X
Three-phase 12~16 kW
HCWSMS 1201-1401-1601 X

MINI CHILLER monobloc with integrated hydronic module FULL DC Inverter

The Hokkaido Mini Chiller lets you cool and heat rooms by means of water terminals such as fan coils or radiant floors. High efficiency radiators can also be powered in heating.

The ultra compact design and the double control panel (on-board the unit or remote) make the Mini Chiller units systems that are easy to install and extremely functional. Full DC Inverter compressor control and individual component optimisation guarantee the highest efficiency and energy savings.

EFFICIENT

Low consumption and energy savings thanks to its integrated Full DC Inverter technology.

ULTRA COMPACT

The monobloc unit has a compact structure thanks to optimisation of the internal components, also containing the integrated hydronic group with the minimum dimensions.

ENVIRONMENTALLY FRIENDLY

The MINI CHILLER uses the environmentally friendly R410A refrigerant, which does not damage the ozone.

MAXIMUM COMFORT

The Inverter control allows units to rapidly reach the desired temperature, remaining constant and without annoying oscillations.

“PLUG & PLAY” SOLUTION

Installation is simple thanks to the integrated hydronic module, which includes electronic circulator, expansion tank, automatic vent valve and safety devices.



DC Inverter Twin Rotary compressor



Air side heat exchanger



EXV electronic expansion valve



Fan

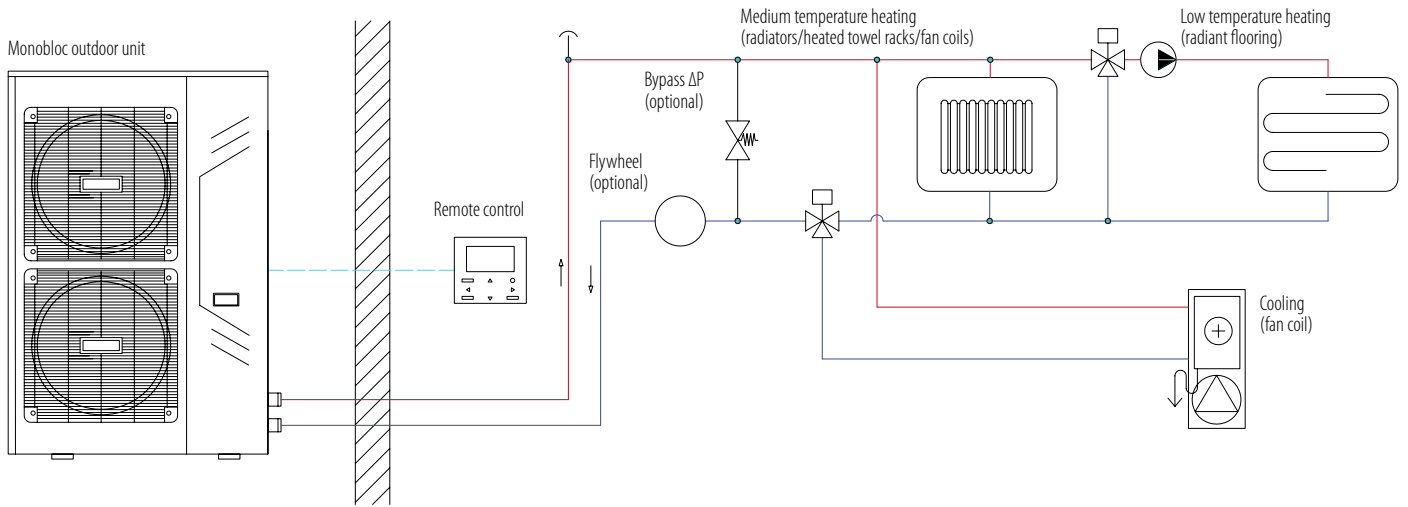


High efficiency water side heat exchanger

HEATING

AIR-WATER CHILLER

SYSTEM TYPE DIAGRAM



Model		HCWNMS 501 X	HCWNMS 701 X	HCWNMS 1001 X	HCWNMS 1201 X	HCWSMS 1201 X	HCWSMS 1401 X	HCWSMS 1601 X	
Cooling performance (Air temp. 35°C - Water temp. in/out 12°C/7°C)									
Refrigerant power	kW	5.00 (1.90~5.80)	7.00 (2.10~7.80)	10.00 (2.90~10.50)	11.20 (3.10~12.00)	11.20 (3.10~12.00)	12.50 (3.30~14.00)	14.50 (3.50~15.50)	
Power absorption	kW	1.55	2.25	2.95	3.50	3.38	3.90	4.68	
EER		3.23	3.11	3.39	3.20	3.31	3.20	3.10	
Cooling performance (Air temp. 35°C - Water temp. in/out 23°C/18°C)									
Refrigerant power	kW	5.60	8.00	10.60	12.20	12.20	14.20	15.60	
Power absorption	kW	1.15	1.85	2.50	2.65	2.60	3.10	3.60	
EER		4.87	4.32	4.24	4.60	4.70	4.58	4.33	
SEER		5.83	6.27	5.71	6.37	6.18	6.69	6.78	
Heating performance (Air temp. 7°C DB/6°C WB - Water temp. in/out 40°C/45°C)									
Heating capacity	kW	6.20 (2.10~7.00)	8.00 (2.30~9.00)	11.00 (3.20~12.00)	12.30 (3.30~13.20)	12.30 (3.30~13.20)	13.80 (3.50~15.40)	16.00 (3.70~17.00)	
Power absorption	kW	1.90	2.50	3.14	3.78	3.72	4.25	4.85	
COP		3.26	3.20	3.50	3.25	3.31	3.25	3.30	
Heating performance (T. temp. 7°C DB/6°C WB - Water temp. in/out 30°C/35°C)									
Heating capacity	kW	6.20	8.60	11.50	13.00	13.00	15.10	16.50	
Power absorption	kW	1.35	2.10	2.65	2.92	2.85	3.35	3.92	
COP		4.60	4.10	4.34	4.45	4.56	4.51	4.21	
SCOP		3.55	3.46	3.34	3.46	3.66	3.78	3.39	
Seasonal heating efficiency (ηs)	%	138.9	135.3	130.7	135.4	143.5	148.3	132.6	
Seasonal energy efficiency class		A+							
Operating limits	Outside air temperature	Cooling	°C		-5~46				
		Heating	°C		-15~27				
	Water temperature	Cooling	°C		4~20				
		Heating	°C		30~55				
Compressor	Type	Twin Rotary DC Inverter							
Refrigerant	Type	R410A							
	Load	kg	2.5	2.5	2.8	2.8	2.9	3.2	
Expansion valve	Type	Electronic							
Air side heat exchanger	Type	Finned coil with copper pipes and hydrophilic aluminium louvers							
Fan	Type	DC Brushless							
	Number	1	1	2	2	2	2	2	
	Air flow	m³/h	5,100	5,100	7,000	7,000	7,000	7,000	
Water side heat exchanger	Type	With brazed stainless steel plates							
	Volume	l	0.53	0.53	0.70	0.78	0.78	0.78	1.06
	Water flow	m³/h	0.86	1.20	1.72	1.92	1.92	2.15	2.49
	Load loss	kPa	15	15	18	18	18	18	19
Circulator	Type	Electronic							
	Water flow	l/h	240	240	240	240	240	240	240
	Pressure head	m	5.5	5.5	7.5	7.5	7.5	7.5	7.5
Expansion tank	Volume	l	2	2	3	3	3	3	
	Pre-load	bar	1						
Maximum/minimum water pressure		5/1.5							
Hydraulic connections	Water inlet/outlet	inches	1"	1"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	
	Power	V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	220-240/1/50	380-415/3/50	380-415/3/50	380-415/3/50
Electrical data	Maximum absorption	A	11.4	13.7	25.00	19.10	8.90	9.60	10.10
	Absorbed	n. x mm²	3x2.50	3x2.50	3x4.00	3x4.00	5x3.00	5x3.00	5x3.00
	Signal (shielded)	n. x mm²	3x0.75	3x0.75	3x0.75	3x0.75	3x0.75	3x0.75	3x0.75
	Sound pressure level (*)	dB(A)	58	58	59	59	62	62	62
Sound power level	dB(A)	63	66	68	68	68	70	72	
Dimensions	(LxDxH)	External	mm	990x354x966	990x354x966	970x400x1327	970x400x1327	970x400x1327	970x400x1327
		Packaging	mm	1120x435x1100	1120x435x1100	1082x435x1456	1082x435x1456	1082x435x1456	1082x435x1456
		Net	kg	81	81	110	110	111	111
Weight		Gross	kg	91	91	121	121	122	122

(*) Sound pressure at 1 m distance in an open field.

The data contained above refers to the following standards: EN14511:2013; EN14825:2013; EN50564:2011; EN12102:2011; (EU)No:811:2013; (EU)No:813:2013; OJ 2014/C 207/02:2014.