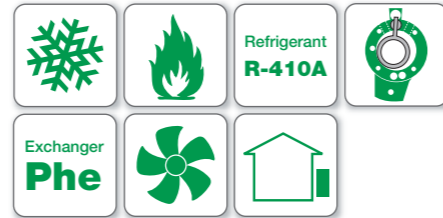


Minichiller R-410A - Heat Pump

AIR TO WATER HEAT PUMP WITH ROTARY COMPRESSORS



Cooling capacity: 4,61 kW ÷ 13,2 kW
Heating capacity: 6,30 kW ÷ 16,1 kW



GENERAL CHARACTERISTICS

Compressors

- M5AC models are using R410A rotary compressors in tandem configuration
- Tandem compressors are highly efficient and cost saving. It reduces mechanical losses; minimize gas flow losses and turbulence
- There are 3 steps capacity loading (0-40-60-100%) for M5AC040/050CR and 2 steps capacity loading (0-50-100%) for M5AC030/055CR

Evaporator

The heat exchanger is made of stainless steel plates closely arranged and brazed together (BPHE) to ensure high heat exchange efficiency

Refrigerant

- R410A
- Finned coils with copper tubes mechanically expanded in aluminium fins
- Axial fans
- Panels and frame made of electro-galvanized steel polyester powder painted

OPTIONS ON REQUEST

- LAK-M5AC fan speed controller
- Smart Manager
- Additional LCD display

STANDARD OPTIONS

Safety Protection

The safety protections provided for the chiller are:

- High and low pressure switches
- Differential water flow switch
- Compressor, water pump and fan motor overload protectors
- Anti-freeze protection sensor

During abnormal condition, chiller panel controller will turn off the unit and then display the faults of operation

Antifreeze Protection

The chiller unit has several anti-freeze protection features:

- Brazed plate heat exchanger anti-freeze
- The BPHE has a strip heater around it to prevent water freezing inside
- Auto mode

The chiller controller will force on the unit to the heat mode if the outdoor ambient air temperature becomes too cold

- LCD display for local or remote installation

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TECHNICAL DATA Minichiller R-410A - heat pump

M5AC		020CR	025CR	030CR	040CR	050CR	055CR
Cooling Capacity ¹	kW	4,61	5,69	7,27	10,0	12,2	13,2
Unit Power Input ¹	kW	2,62	2,83	3,83	5,00	5,31	5,49
EER	--	1,76	2,01	1,90	2,00	2,30	2,40
Heating Capacity ²	kW	6,30	7,33	9,53	12,6	14,1	16,1
Unit Power Input ²	kW	2,59	2,79	3,63	4,65	5,15	5,44
COP	--	2,43	2,63	2,62	2,71	2,74	2,02
Sound Pressure Level ³	dB(A)	58	59	57	59	59	61
Compressor	Type	Rotary		Tandem Rotary			
Quantity	Nr	1	1	2	2	2	2
Minimum Capacity	%	-	-	50	40	40	50
Refrigerant	Type	R-410A					
Circuits Number	Nr	1	1	1	1	1	1
Condenser Coil	Type	Lanced Fins - Internally Spiral Wound Tubes					
Fan		Axial					
Quantity	Nr	1	1	1	2	2	2
Power Input	kW	0,14	0,14	0,14	0,14	0,14	0,14
Diameter	mm	457	457	457	457	457	457
Evaporator	Type	Plate					
Hydraulic section							
Pump type		High Head Circulator			Horizontal Multistage End-Suction		
Water Connections Size	--	1"	1"	1"	1"	1"	1"
Standard Voltage	V/ph/Hz	220-240V / 1Ph / 50Hz			380-415V / 3Ph / 50Hz		

NOTES:

- (1) 12/7°C entering/leaving evaporator water temperature; 35°C ambient temperature
- (2) 40/45°C entering/leaving condenser water temperature; 7°C ambient temperature, 90% R.H.
- (3) At 1m, according to ISO 3744, at free field semispherical conditions

Weight and dimensions		020CR	025CR	030CR	040CR	050CR	055CR
Shipping weight	kg	128	128	128	195	195	195
(A) Length	mm	1160	1160	1059	1059	1059	1059
(B) Width	mm	460	460	460	460	460	460
(C) Height	mm	791	791	791	1409	1409	1409

