

Water Cooled Packaged Unit

2.5kW-45kW



Application areas

- Offices, Hotels, Hospitals
- Industry
- Administration
- Commercial buildings

Why this choice?

- Saving space
- Galvanised steel construction
- AMWCP are well insulated to minimise condensation and attenuate noise.



Characteristics

Structure

Galvanised steel construction, closed cell foam lined compressor and fan compartments, with an insulated and powder coated drain tray for complete moisture protection, the drain tray is easily removed for inspection and cleaning.

Refrigerant

Each unit is factory charged with refrigerant R410a, which is deemed to have zero ozone depletion potential.

Hermetic compressor

Single phase rotary compressor is used for this type unit, with built-in thermal overload cut-out, mounted on rubber vibration dampers.

Centrifugal fan

High efficiency, double inlet centrifugal fan Protection level IP44. Low noise, low speed, big air flow and high ESP.

Water side heat exchanger

High efficiency coaxial heat exchanger, factory insulated with flexible close cell material.

Air filter

An optional filter integrated return air spigot is available on all models. The filter is a washable polypropylene net media. Care should be taken, when locating each unit, that to enough space is provided to enable the one-piece filter to be withdrawn to its full length from either side of the unit.

Insulation

AMWCP are well insulated to minimise condensation and attenuate noise.

Electric heater(optional)

Electric heater is optional on cooling only versions. Electric elements have spirally wound stainless steel fins to give increased area and low surface temperature. They are totally enclosed within the unit and are supplied with safety cutouts. An optional fan run-on timer for rapid heat dissipation is available.

Electric panel

Consists of:

Compressor contactor

Compressor protection breaker

Microprocessor with function display

All models are equipped with wire controller with the following features

- 7 days programmable timer
- Auto random restart
- Error self diagnostic

Safety protection

High pressure switch

Low pressure switch

Discharge temperature protection

Anti freezing protection



Technical Data

Model	Unit	WCP2.5	WCP3.5	WCP5	WCP7	WCP10	WCP12	
Nominal cooling capacity	kW	2.5	3.5	5	7	10	12.2	
Cooling power input	kW	0.71	0.98	1.4	1.92	2.8	3.32	
Nominal heating capacity	kW	3	4.5	6.4	8.1	12.2	14.5	
Heating power input	kW	0.72	1.07	1.5	2	2.9	3.25	
Power		220V/1Ph/50Hz						
Minimum wiring specification		2×1.5mm ² +1×1mm ²		2×2.5mm ² +1×1.5mm ²		2×4mm ² +1×2.5mm ²		
Compressor type		Rotary						
Air flow amount	m ³ /h	490	680	950	1280	1900	2160	
External static pressure	Pa	60	60	120	120	160	200	
Refrigerant	Type	R410A						
	Charge	Kg	0.4	0.6	0.85	1.1	1.7	1.9
Condenser	Type	Tube in tube coaxial heat exchanger						
Fan	Type	High efficiency low noise centrifugal fan						
	Power	220V/1Ph/50Hz						
Evaporator	Type	High efficiency copper tubes aluminum fins heat exchanger						
Water flow amount	m ³ /h	0.4	0.6	0.9	1.2	1.7	2.1	
Water pressure drop	Kpa	8	8	10	14	16	20	
Diameter of water in/out pipe	mm	DN20						
Diameter of condensing pipe	mm	DN25						
Dimension	L	mm	910	1260	1310	1210	1320	1410
	W	mm	660	660	710	790	790	790
	H	mm	350	350	450	450	450	450
Weight	kg	70	75	90	100	130	135	
Noise level	dB(A)	54	54	57	57	60	60	

Note:

1. Nominal cooling capacity test condition: Water side water inlet/outlet 30°C/35°C, Ambient temperature DB 27 °C, WB 19 °C.
2. Nominal heating capacity test condition: Water side water inlet 20°C, Ambient temperature DB 20 °C, WB 15 °C.
3. Noise level measured in the noise lab with background noise of 25 dB(A), at a distance of 1 m.
4. As our continuous products improvement, Amrta reserves the right to change specifications and design without notice.

Technical Data

Model	Unit	WCP14	WCP18	WCP23	WCP30	WCP35	WCP45	
Nominal cooling capacity	kW	14.4	18	23	30	34	46	
Cooling power input	kW	4.06	5.1	6.18	7.8	8.26	11.6	
Nominal heating capacity	kW	17.3	22.6	25.9	30	35.4	49	
Heating power input	kW	4	5.6	6.86	8.6	9.1	12.84	
Power		220V/1Ph/50Hz			380V/3Ph/50Hz			
Minimum wiring specification		2×6mm ² +1×4mm ²		3×2.5mm ² +1×1.5mm ²		3×4mm ² +1×2.5mm ²		
Compressor type		Rotary			Scroll			
Air flow amount	m ³ /h	2500	3200	4000	5200	6200	8000	
External static pressure	Pa	200	200	250	250	250	250	
Refrigerant	Type	R410A						
	Charge	Kg	2.2	3	4	4.8	6	8
Condenser	Type	Tube in tube coaxial heat exchanger						
Fan	Type	High efficiency low noise centrifugal fan						
	Power	220V/1Ph/50Hz						
Evaporator	Type	High efficiency copper tubes aluminum fins heat exchanger						
Water flow amount	m ³ /h	2.4	3.1	4	5.2	5.8	7.9	
Water pressure drop	Kpa	20	23	26	30	33	33	
Diameter of water in/out pipe	mm	DN20			DN40			
Diameter of condensing pipe	mm	DN25						
Dimension	L	mm	1680	1680	2170	1975	2230	2430
	W	mm	930	930	1030	1030	1130	1130
	H	mm	450	600	500	650	650	900
Weight	kg	140	155	170	200	200	245	
Noise level	dB(A)	63	66	66	68	68	69	

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