

Marine Air-cooled Packaged Air Conditioner

Description

The air-cooled packaged air conditioner is specially designed for offshore application, and other locations such as engine control room, workshop, switchboard room, galley etc., which consists of indoor unit and outdoor unit.

Indoor unit mainly consists of air handling unit, and control unit including operation panel.

Outdoor unit is mainly condensing unit, including compressor, oil separator, air-cooled condenser, condensing pressure regulator, receiver, filter, sight glass, shut-off valve, liquid separator etc.

The PAC unit has been factory tested (including pressure test, vacuum test, running test.), and the client can use it after connecting refrigeration line, and power source.

Features

- Refrigerant: R404A, R407C, R134A, R22 etc.
- Compressor: Semi-hermetic piston type.
- Condenser: crossed copper-fin and copper-tube type, with high efficiency and good corrosion protection.
- System valves: Danfoss (Denmark), reliable and durable.
- V-belt driven fan-motor, ensuring low noise level and low vibration.
- Synthetic resin powder for steel casing for marine application.
- Cooling or heating temperature is auto setting and displaying on control panel, remote control is optional.
- Control type: classical control.
- 50/60 Hz, 3 phase.



Indoor unit



**Outdoor unit (side fan)
for type P/D3V & 5V**



**Outdoor unit (top fan)
for type P/D8V & 10V**

Air-cooled packaged air conditioner

MARINE AIR COOLED OUTDOOR UNIT



Technical data (for R404A or R22, R407C)

Type		Vertical deck mount type						
Model	Plenum supply	SCU-P3VRA /SCU-P3VFA	SCU-P5VRA /SCU-P5VFA	SCU-P8VRA /SCU-P8VFA	SCU-P10VRA /SCU-P10VFA			
	Duct supply	SCU-D3VRA /SCU-D3VFA	SCU-D5VRA /SCU-D5VFA	SCU-D8VRA /SCU-D8VFA	SCU-D10VRA /SCU-D10VFA			
Main power source (Control)		AC440V x 3P x 60Hz (AC220V x 1P x 60Hz) AC380V x 3P x 50Hz (AC220V x 1P x 50Hz)						
Safety protective device		High pressure, low pressure, over load, lack phase, over temperature, safety valve						
Normal ref. ton (cooling)		3.0 USRT	5.0 USRT	7.5 USRT	10.0 USRT			
Cooling capacity (air cooled)		10.4 Kw	17.4 Kw	26.1 Kw	34.8 Kw			
		9,000 Kcal/h	15,000 Kcal/h	22,500 Kcal/h	30,000 Kcal/h			
Heating capacity (electric heater)		9 Kw	12 Kw	15 Kw	20 Kw			
		7,759 Kcal/h	10,345 Kcal/h	12,931 Kcal/h	17,241 Kcal/h			
Refrigerant		R-404A (R22, R407C)						
Casing & coating		Steel & Synthetic resin powder coating						
Compressor	Type		Semi-hermetic reciprocating compressor					
	Motor power	50Hz	4.0 Kw	6.6 Kw	9.4 Kw	11.8 Kw		
		60Hz	4.1 Kw	6.4 Kw	9.5 Kw	11.6 Kw		
Condenser (air-cooled)	Type		Air-cooled crossed fin and tube type					
	Material	Tube	Copper					
		Fin	Aluminum (e-coating) or Copper					
	Fan motor power	50Hz	2x0.16 Kw	2x0.48 Kw	2x0.82 Kw	2x1.05 Kw		
		60Hz	2x0.18 Kw	2x0.48 Kw	2x0.82 Kw	2x1.05 Kw		
Evaporator	Type		Crossed fin and tube type					
	Material	Tube	Copper					
		Fin	Aluminum (without fresh air) / Copper (with fresh air)					
Blower	Type		Double inlet centrifugal blower					
	Air volume	P	R	30 CMM/1800 M3/H	45 CMM/2700 M3/H	65 CMM/3900 M3/H	90 CMM/5400 M3/H	
			F	11 CMM/660 M3/H	15 CMM/900 M3/H	22.5 CMM/1350 M3/H	30 CMM/1800 M3/H	
		D	R	30 CMM/1800 M3/H	45 CMM/2700 M3/H	65 CMM/3900 M3/H	90 CMM/5400 M3/H	
			F	11 CMM/660 M3/H	15 CMM/900 M3/H	22.5 CMM/1350 M3/H	30 CMM/1800 M3/H	
	Static pressure	P		150 Pa				
		D		500 Pa				
	Motor power	P 50Hz/60Hz	R	0.37/0.43 Kw	0.55/0.63 Kw	0.75/0.86 Kw	1.1/1.27 Kw	
			F	1.1/1.27 Kw	1.5/1.73 Kw	2.2/2.53 Kw	3.0/3.45 Kw	
		D 50Hz/60Hz	R	1.5/1.73 Kw	2.2/2.53 Kw	3.0/3.45 Kw	4.0/4.6 Kw	
F			1.1/1.27 Kw	1.5/1.73 Kw	2.2/2.53 Kw	3.0/3.45 Kw		
Piping Connection	Liquid line, (50Hz/60Hz)		1/2" / 1/2"	1/2" / 1/2"	5/8" / 5/8"	7/8" / 7/8"		
	Vapor linet, (50Hz/60Hz)		7/8" / 7/8"	1 1/8" / 7/8"	1 1/8" / 1 1/8"	1 3/8" / 1 1/8"		
	Drain		G3/4	G3/4	G3/4	G3/4		
Refrigerant control		Thermostatic expansion valve						
Air filter		Nonwoven cotton / synthetic blend media, G4						
Colour		As per maker's standard or client's requirement						
Spare part		V-belt						

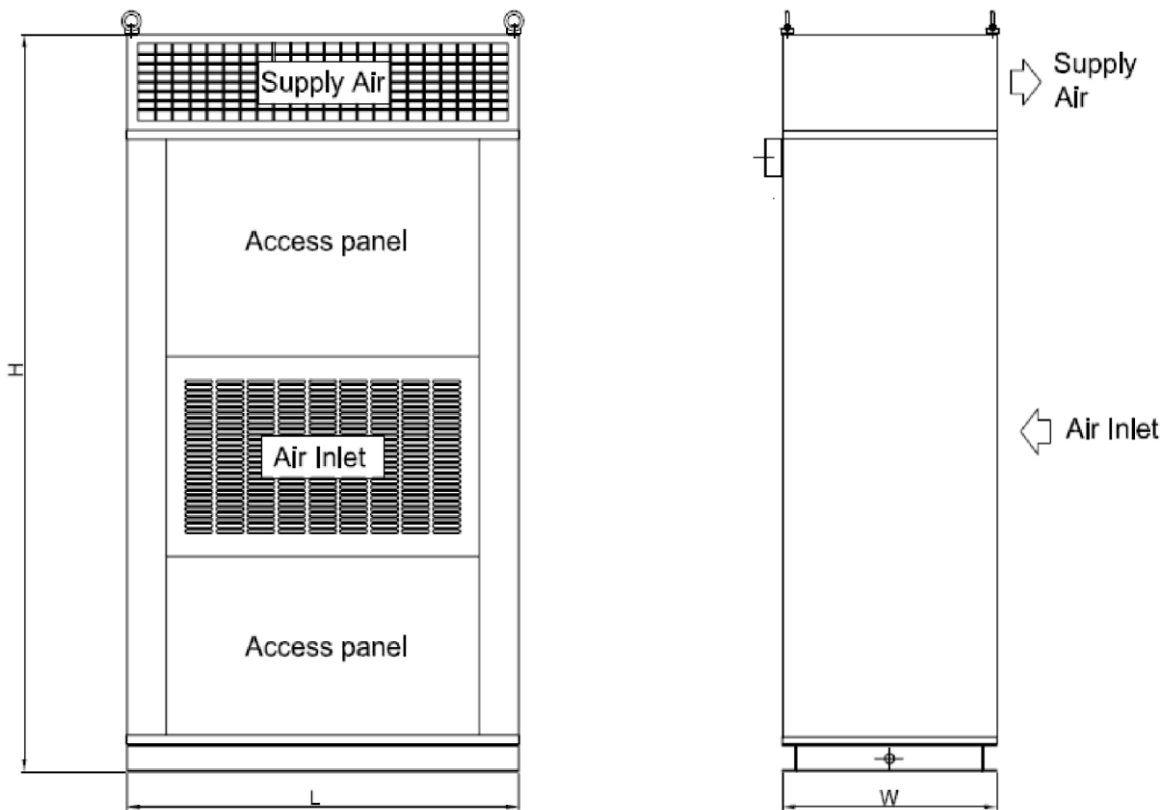
MARINE AIR COOLED OUTDOOR UNIT

Note:

- P: Plenum supply type, D: Duct supply type. R: Duct supply type with return air, F: Duct supply type with 100% fresh air.
- Cooling air inlet temperature 35°C.
- Normal design: evaporating temperature 5°C, condensing temperature 50°C.
- Other design is available on request (refrigerant, static pressure etc.).

Principal dimensions 1 (Indoor unit)

For Plenum type

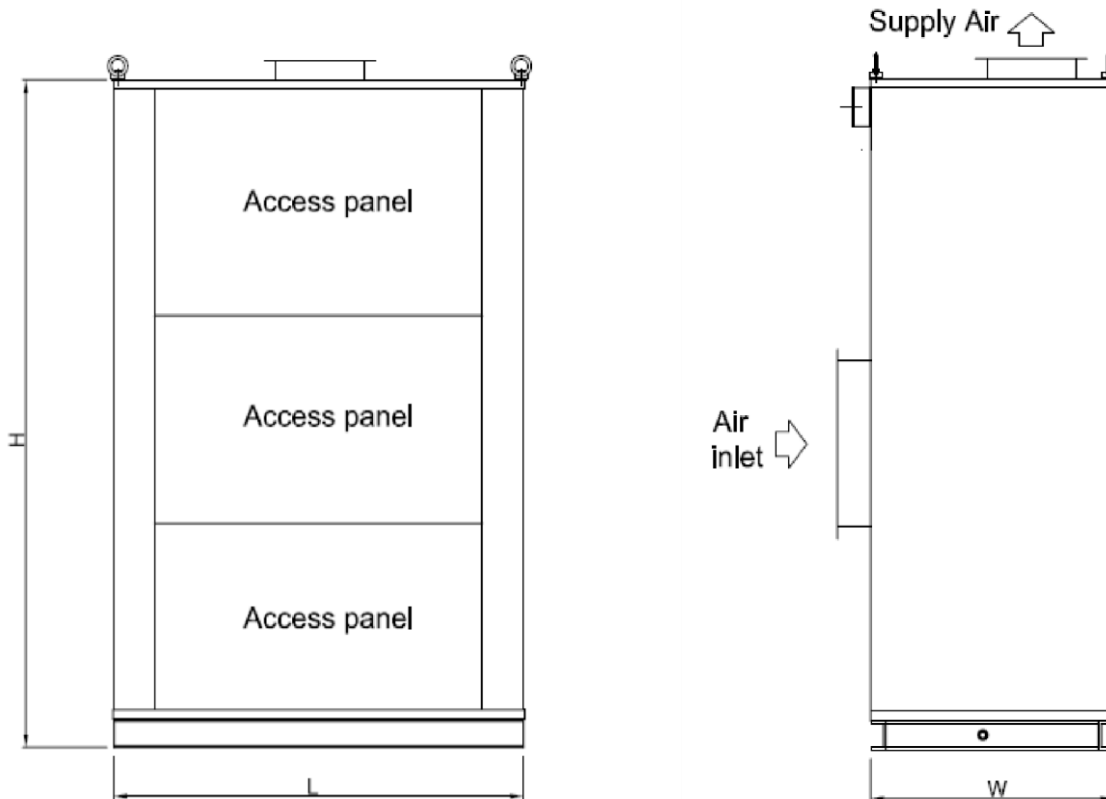


PAC type of Indoor for Plenum	L mm	W mm	H mm	Weight Approx kg
SCU-P3VRA(I) /SCU-P3VFA(I)	1000	600	1900	300
SCU-P5VRA(I) /SCU-P5VFA(I)	1100	650	2000	350
SCU-P8VRA(I) /SCU-P8VFA(I)	1200	700	2100	400
SCU-P10VRA(I) /SCU-P10VFA(I)	1400	750	2100	450

MARINE AIR COOLED OUTDOOR UNIT

Principal dimensions 2 (Indoor unit)

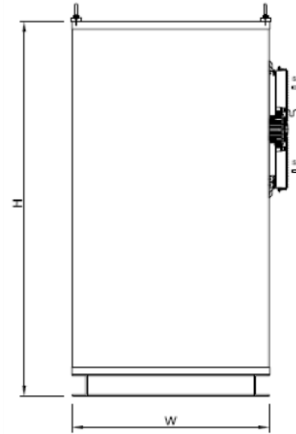
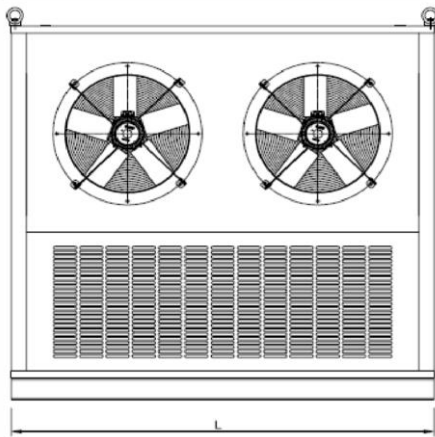
For Duct connection type



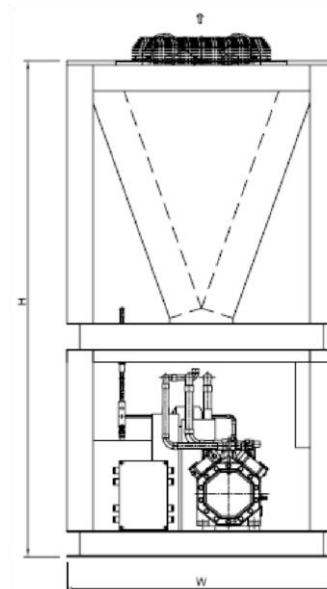
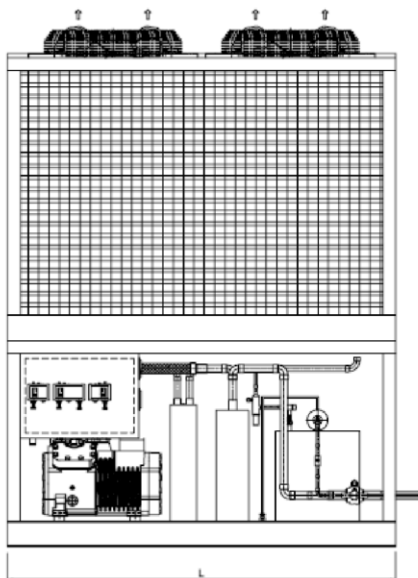
PAC type of Indoor for Duct connection	L mm	W mm	H mm	Weight Approx kg
SCU-D3VRA(I) /SCU-D3VFA(I)	1000	600	1640	280
SCU-D5VRA(I) /SCU-D5VFA(I)	1100	650	1740	320
SCU-D8VRA(I) /SCU-D8VFA(I)	1200	700	1840	360
SCU-D10VRA(I) /SCU-D10VFA(I)	1400	750	1890	400

MARINE AIR COOLED OUTDOOR UNIT

Principal dimensions 2 (Outdoor unit)



for type P/D3V & 5V



for type P/D8V & 10V

PAC type Of outdoor	L mm	W mm	H mm	Weight Approx kg
SCU-P3VRA(O)/SCU-P3VFA(O) /SCU-D3VRA(O)/SCU-D3VFA(O)	1200	600	1200	500
SCU-P5VRA(O)/SCU-P5VFA(O) /SCU-D5VRA(O)/SCU-D5VFA(O)	1400	650	1400	600
SCU-P8VRA(O)/SCU-P8VFA(O) /SCU-D8VRA(O)/SCU-D8VFA(O)	1400	1027	2100	900
SCU-P10VRA(O)/SCU-P10VFA(O) /SCU-D10VRA(O)/SCU-D10VFA(O)	1400	1027	2100	1000