

**AIRSYS Medicoool Chiller 10KW P4    Airsys Refrigeration Engineering Technology Co. Ltd.**

# Specifications:

ITEMS	UNITS	SPECIFICATIONS
		60Hz
Cooling Capacity (1)	kW	10
Refrigerant		R407c
Refrigerant Charge	kg	5.5
Power Supply Voltage	Rated	3φ-460/480V
	Scale	3φ-414~506V
Total Input Power (peak)	kVA	7.4
Total Input Power (continuous)	kVA	6.2
Total Current	A	11.3
Air Heat load when cooling gradient coil	kW(BTU/hr)	16.8(61440)
Air Heat load when cooling coldhead compressor	kW(BTU/hr)	15.4(56320)
<b>Compressor</b>	<b>set</b>	<b>1</b>
Power Input (1)	kW(HP)	5.1(6.8)
Current (1)	A	7.3
Maximum Current	A	8.7
Starting Current	A	46
<b>Axial Fan.</b>	<b>set</b>	<b>1</b>
Horse Power	HP	1.34
Current	A	1.35
Nominal Air Flow	M <sup>3</sup> /h	7000
<b>Refrigerant-water Heat Exchanger</b>	<b>set</b>	<b>1</b>
Water Flow (1)	L/min(GPM)	23.2(6.1)
Water Resistance (1)	kPa	22.5
<b>Refrigerant Circuits</b>	<b>set</b>	<b>1</b>
Capacity Control Stages	n.	2
Capacity Control Methods		hot gas bypass/diluent cooling
<b>Water Pump</b>	<b>set</b>	<b>1</b>
Head	m	64

Horse Power	HP	1.1
Current	A	2.66
Coolant		50/50 mixture of propylene glycol and de-ionized water solution, with additive of rust inhibitor and yellow dye
Water Tank Content	Liter(gal)	40.3(8.9)
Set Point Range	°C (°F)	15°C ~ 25°C (59°F to 77°F)
Control Accuracy	°C (°F)	±1.0°C (1.8°F)
Noise	dB(A)	73.5
<b>Dimension</b>		
Length	mm(inch)	1410(55.34)
Width	mm(inch)	684.2(26.94)
Height	mm(inch)	1600(62.99)
Net Weight	kg(pound)	270(585)
Weight of Unit when Filled	kg(pound)	310(683)
(1)-rated conditions: ambient temperature: 43°C (109.4°F); supply coolant temperature: 20°C (68°F);return coolant temperature:25°C (77°F)		

# Installation requirements:

## Height of the Location

The chiller must not be installed more than 30 meters (98 ft) above the gradient coil or cryogen compressor and must not be installed more than 3 meters (9.8 ft) below the gradient coil / cryogen compressor. The power distribution panel should be placed as close to the chiller as possible.

## Air Considerations and clearance

The air inlet and outlet are on the front and rear sides respectively. Airflow blows in and out of the unit will affect performance. The minimum clearance of machine installation is required, as Fig. 8, to ensure adequate airflow.

When two or more units are closely installed, the minimum clearance for each machine must be met, as Fig.8 9, 10, 11, 12.

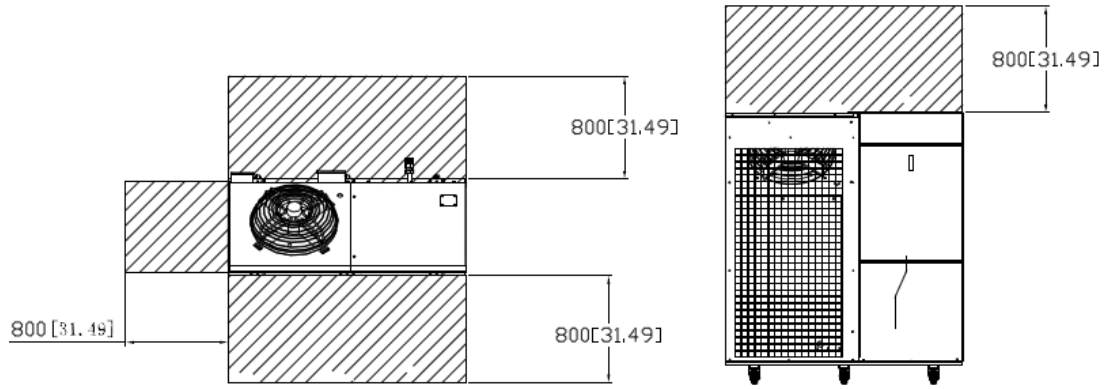


Fig.- 1 Service clearance for single unit

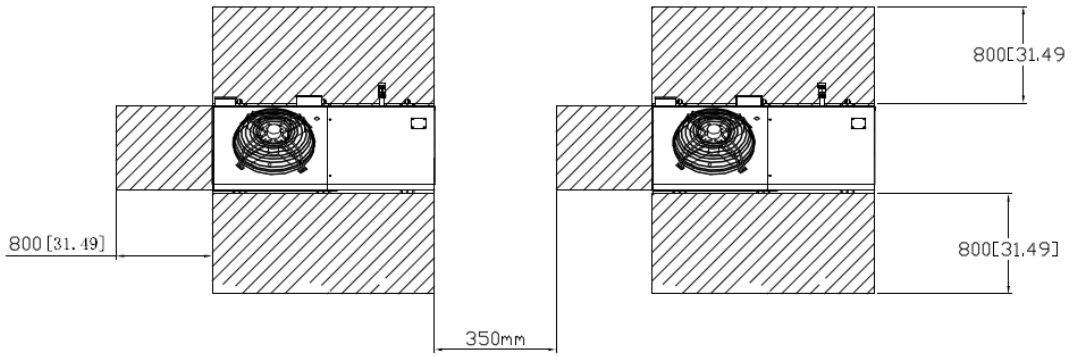


Fig.- 2 (a) Service clearances for two or more units (recommended)

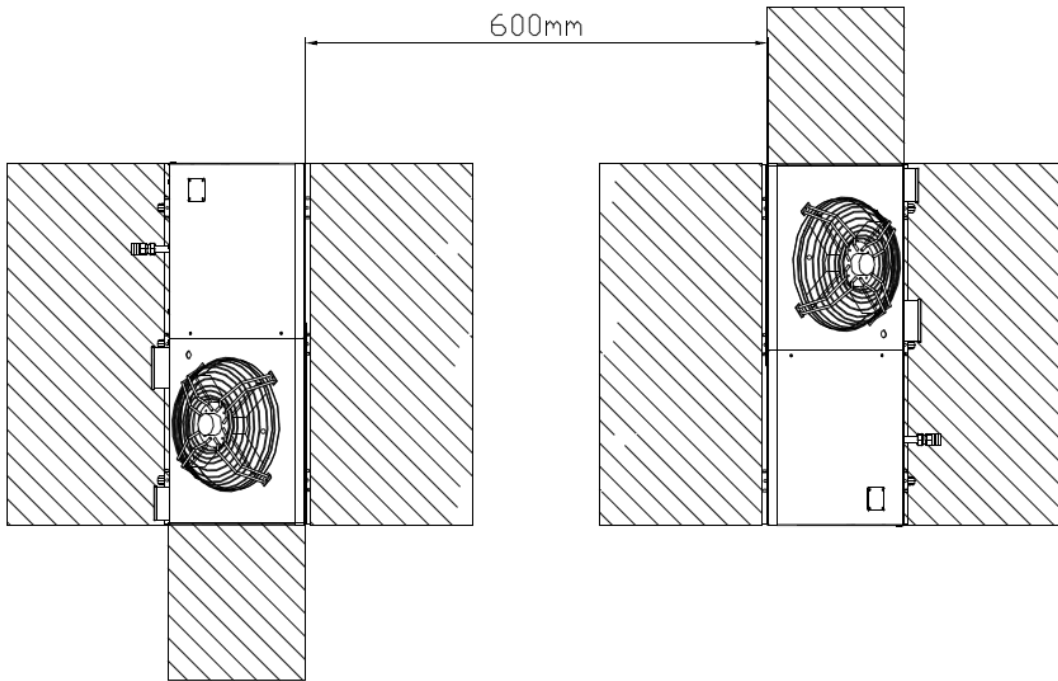
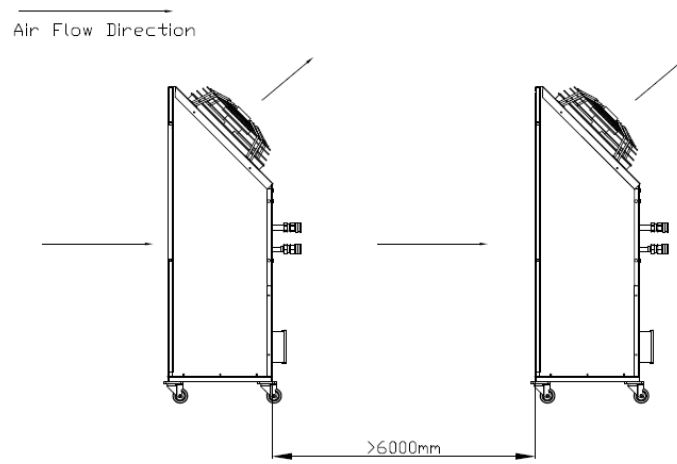
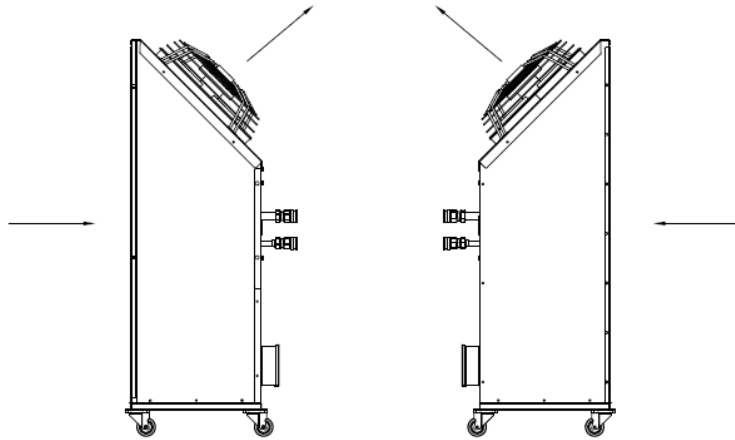


Fig.- 3 (b) Service clearances for two or more units(recommended)



Ensure the distance between chillers MUST be greater than 6 meters for this layout

Fig.- 4 (c) Service clearance for two or more units



**DO NOT let two fans blow directly to each other, which will cause chiller stop for high condenser temperature/pressure alarm.**

Avoid the axial fan directly face to monsoon, it can cause high pressure alarm. Insufficient ventilation could gradually increase the condensing temperature and cause the intervention of pressure switch. The unit installed outdoors in extremely ventilated area may be affected by the seasonal wind. In such case, it is wise to install anti-wind shields by customer.

### Outdoor Use on Concrete Ground

Remove the casters and using the six middle holes to firmly fix the chiller on a concrete ground. (See Fig.- 5, 13)

Concrete ground requirements:

Concrete ground used for mounting the unit should be a level surface, which is 1/300 cm max allowed and be properly supported to prevent sedimentation. A concrete made area of 50.0cm (59 in) x66.0cm (26 in) at strength of 17.23MPa (2500 psi) min (4 inches thickness recommended) is needed to place the chiller. The concrete footing should meet or exceed the local code requirements.

### Outdoor Use on Rooftop

Remove the casters and using the six fixing holes to firmly fix the chiller on a level surface on rooftop, which is 1/300 cm max allowed.