

AIR-COOLED DEHUMIDIFIERS

VRCOOLERTECH



Industrial Air-cooled Dehumidifier is a specialized piece of equipment designed to remove excess moisture from the air in industrial or commercial settings. It is particularly important when maintaining low humidity levels is critical for preventing corrosion, ensuring product quality, or creating a comfortable working environment.

The Air-cooled Dehumidifier is widely used in shipyards, pharmaceutical factories, and other related industries.

The Air Cooled Dehumidifier comes complete with fans, filters, condenser, evaporator, compressor, rotary, and controls. The dehumidifier is ready for installation on the job site and connecting to standard-size ducting.

Each dehumidifier will be custom-designed to meet the needs of the customer and the local conditions.

Features - Integral Design:

- Multiple Protection measures and anti-corrosion process of its case make it to run safely and reliably.
- Automatic refrigerating, air-cooling condensing and supply air dehumidifying make it easy to use.
- The integral design enables it to work immediately once power is on.

Application:

- Surface treatment during internal blasting and painting of tanks
- Shipping industry, both for permanent and temporary applications
- Controlling humidity levels in production processes
- Protection of equipment sensitive to corrosion
- Climatic improvements in damp areas

AIR-COOLED DEHUMIDIFIERS

Model	VRD-3	VRD-6	VRD-9	VRD-12	VRD-15
Air Volume(m ³ /h)	3000	6000	9000	12000	15000
Power supply	380V/50HZ/3Phase				
Process Air Fan power(kw)	4	11	11	15	15
Compressor power(kw)	18	30	45	60	75
Condensing fan power(kw)	1.1*2	2.2*2	2.2*4	5.5*2	7.5*2
Heater power(kw)	25	50	75	100	125
Reheating Power (KW)	18	36	54	72	90
Regenerative fan power(kw)	0.55	1.5	1.5	2.2	3
Runner fan power(kw)	0.1	0.1	0.1	0.1	0.1
Installed power power(kw)	68	133	195	260	323
Air Discharge Pressure(Pa)	≥1000	≥1500	≥1500	≥1500	≥1500
Cooling capacity (kw)	71	131	183.8	246.4	302.8
Cold unloading	50-100%	25-50-75-100%			
Refrigerant	R22,Other refrigerant for optional				
Dehumidification wheel	φ440*200	φ550*200	φ770*200	φ965*200	φ 1220*200
Air Intake Condition	-10-40℃/60-95RH				
Air Discharge Condition	Temperature<25±3℃,RH<45%				
Evaporator	Copper tube hydrophilic aluminum fins				
Condenser	Copper tube aluminum fins				
Heater	Electric heating tube				
weight(KG)	≤2000	≤4500	≤5200	≤6000	≤8000
Equipment Size (MM)	≤ 3500x1800 x 2000	≤ 4100x2000 x 2150	≤ 4500x2200 x 2500	≤ 4850x2200 x 2700	≤ 5800x2300x 2800
Outlet connection (MM)	φ300	φ300*2	φ300*3	φ300*4	φ300*6
Temperature control and display	PLC control + LCD touch screen display				
Electric control box L	eakage + phase error + phase loss + high and low voltage + overload protection, with self-diagnostic system				
Fault display	Phase sequence protection, high and low pressure protection, ultra-high temperature alarm, compressor alarm, overload alarm, etc.				

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AIR-COOLED DEHUMIDIFIERS

Model	VRD-18	VRD-21	VRD-24	VRD-27	VRD-30
Air Volume(m ³ /h)	18000	21000	24000	27000	30000
Power supply	380V/50HZ/3Phase				
Process Air Fan power(kw)	22	30	30	30	37
Compressor power(kw)	90	105	125	135	150
Condensing fan power(kw)	5.5*4	5.5*4	7.5*4	7.5*4	7.5*4
Heater power(kw)	150	175	200	225	250
Reheating Power (KW)	108	126	144	162	180
Regenerative fan power(kw)	3	3	3	5.5	5.5
Runner fan power(kw)	0.1	0.2	0.2	0.2	0.2
Installed power power(kw)	395	461	527	588	653
Air Discharge Pressure(Pa)	≥1500	≥1500	≥1500	≥1500	≥1500
Cooling capacity (kw)	364.8	426.2	492.6	549.1	605.6
Cold unloading	25-50-75-100%	2*(25-50-75-100%)			
Refrigerant	R22,Other refrigerant for optional				
Dehumidification wheel	Φ 1220*200	Φ 1525*200		Φ 1730*200	
Air Intake Condition	-10-40℃/60-95RH				
Air Discharge Condition	Temperature<25±3℃,RH<45%				
Evaporator	Copper tube hydrophilic aluminum fins				
Condenser	Copper tube aluminum fins				
Heater	Electric heating tube				
weight(KG)	≤8000	≤8500	≤9500	≤10000	≤10500
Equipment Size (MM)	≤ 5800x2300 x 2800	≤ 5800x2300 x 3000	≤ 6000x2400 x 3000	≤ 6000x2400 x 3200	≤ 6000x2400x 3300
Outlet connection (MM)	Φ300*6	Φ600	Φ700	Φ800	Φ800
Temperature control and display	PLC control + LCD touch screen display				
Electric control box L	eakage + phase error + phase loss + high and low voltage + overload protection, with self-diagnostic system				
Fault display	Phase sequence protection, high and low pressure protection, ultra-high temperature alarm, compressor alarm, overload alarm, etc.				

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