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ORION[®]

ISO Quality Policy

Orion strives to offer products that delight its customers.

オリオンクリーンエアシステム
冷凍式圧縮空気除湿装置

Clean Air System

(Heavy Duty Models)

Low Pressure Loss & Energy Saving

Eco-Friendly Refrigerant Applied

Powerful performance in Asia
with heavy duty specification



Best Match for Inverter Compressor & Oil-Free Compressor

Specifications Refrigerated Air Dryer

ARX Series

Model

《Water Cooled》 ARX2900A-W
 ARX4100A-WE
 ARX5300A-WE
 ARX7400A-WE

《Air Cooled》 ARX2300A
 ARX3100A-E
 ARX3500A-E



ARX3500A-E



ARX7400A-WE

Model			Water Cooled Models			
Item			ARX2900A-W	ARX4100A-WE	ARX5300A-WE	ARX7400A-WE
Air processing conditions	Air processing capacity	m ³ /min	29	41	53	74
	Inlet air pressure	MPa	0.69			
	Inlet air temperature	℃	45			
	Outlet pressure dew point	℃	10			
	Cooling water temperature	℃	32			
	Cooling water flow rate	m ³ /h	4.8	5.2	5.4	9
Operating ranges	Inlet air temperature	℃	10~60			
	Ambient temperature	℃	2~45			
	Compressed air pressure	MPa	0.29~0.98			
	Cooling water temperature	℃	2~34			
	Cooling water operating pressure (gauge pressure)	MPa	0.3~0.7			
Outside dimensions	H × D × W	mm	1500×1000×802	1500×1000×802	1500×1199×850	1620×1654×877
Mass		kg	278	350	395	495
Air connection	Flange(JIS 10K FF)		2 · 1/2B (65A)	3B (80A)	4B (100A)	4B (100A)
Dual-Drive Eco system (Capacity control function)			-	o	o	o
(Power savings during capacity control operation)			-	46%		
Refrigerant			R407C	R407C	R407C	R410A
Electrical specifications	Power	V	Three phase 380V 50Hz			
	Power consumption	kW	4.2	6.8	9.5	12.5
	Electric current	A	8	12.5	17.5	21
Recommended pre-filter	Installed before the ARX	(Option)	DSF2900A	DSF4100A	DSF5300A-SUS	DSF6100A-SUS_DS F8000A-SUS

※ Special-order models available with an air pressure specification of 1.0 MPa
 ※ Air processing capacity figures are based on ANR and adjusted to atmospheric pressure, 32℃, 75% RH.
 ※ Refer to the specifications sheet for further details. ※ Always install a Super Drain Filter (DSF) along the piping before the ARX unit.
 ※ No comparison flanges.

Model			Air Cooled Models		
Item			ARX2300A	ARX3100A-E	ARX3500A-E
Air processing conditions	Air processing capacity	m ³ /min	23	31	35
	Inlet air pressure	MPa	0.69		
	Inlet air temperature	℃	50		
	Outlet pressure dew point	℃	10		
	Ambient temperature	℃	35		
Operating ranges	Inlet air temperature	℃	10~60		
	Ambient temperature	℃	2~45		
	Compressed air pressure	MPa	0.29~0.98		
Outside dimensions	H × D × W	mm	1500×1500×802	1500×1500×802	1500×1500×802
Mass		kg	323	385	380
Air connection	Flange(JIS 10K FF)		2 · 1/2B (65A)	3B (80A)	3B (80A)
Dual-Drive Eco system (Capacity control function)			-	o	o
(Power savings during capacity control operation)			-	46%	
Refrigerant			R407C	R407C	R407C
Electrical specifications	Power	V	Three phase 380V 50Hz		
	Power consumption	kW	5.6	10	10
	Electric current	A	10.5	18	18
Recommended pre-filter	Installed before the ARX	(Option)	DSF2900A	DSF3500A	

※ Special-order models available with an air pressure specification of 1.0 MPa.
 ※ Air processing capacity figures are based on ANR and adjusted to atmospheric pressure, 32℃, 75% RH.
 ※ Refer to the specifications sheet for further details. ※ Always install a Super Drain Filter (DSF) along the piping before the ARX unit.
 ※ No comparison flanges.

Technical Information and Operating Constraints

Heavy Duty ARX Model Choice

Air dryer processing capacity differs based on operating conditions. Confirm the installation location and operating requirements and choose the model that adequately meets your needs.

Dryer processing air flow (m³/min) = standard air flow ① (m³/min) × the temperature coefficient ② × the pressure correction coefficient ③

① Standard Air Flow

Water Cooled Models

Model	ARX	2900A-W	4100A-WE	5300A-WE	7400A-WE
Air processing capacity(m ³ /min)		29	41	53	74

Air Cooled Models

Model	ARX	2300A	3100A-E	3500A-E
Air processing capacity(m ³ /min)		23	31	35

② Temperature Correction Coefficient

Water Cooled Models

Inlet air °C	40			45			50			55			60		
Pressure dew point °C	5	10	15	5	10	15	5	10	15	5	10	15	5	10	15
Temperature correction coefficient	0.88	1.14	1.14	0.77	1.00	1.14	0.66	0.91	1.10	0.59	0.83	0.98	0.54	0.75	0.89

※ In water cooled models, use the coefficients above regardless of the temperature of the cooling water. Note however that the cooling water should be 2-34 °C.

Air Cooled Models

Inlet air °C	40			45			50			55			60				
Pressure dew point °C	5	10	15	5	10	15	5	10	15	5	10	15	5	10	15		
Temperature correction coefficient	Ambient temperature (°C)	30	0.85	1.15	1.37	0.83	1.12	1.35	0.78	1.06	1.27	0.67	0.88	1.04	0.62	0.80	0.92
		32	0.82	1.12	1.34	0.80	1.09	1.31	0.76	1.03	1.24	0.64	0.85	1.01	0.60	0.75	0.89
		35	0.79	1.09	1.30	0.77	1.06	1.28	0.73	1.00	1.21	0.62	0.81	0.98	0.57	0.70	0.86
		40	0.60	0.81	0.98	0.58	0.80	0.96	0.55	0.75	0.91	0.47	0.62	0.75	0.44	0.56	0.66

③ Pressure Correction Coefficient

Air pressure MPa	0.29	0.39	0.49	0.59	0.69	0.79	0.89	0.98
Pressure correction coefficient	0.73	0.80	0.87	0.93	1.00	1.07	1.13	1.2

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