



Distributed by:
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EM Plus Cycling Refrigerated Air Dryers

Models EM100-EM3050

Cycling Refrigerated Dryers Save Energy

Van Air EM Plus Series cycling dryers combine the advantages of superior performance and energy savings. For a typical 1250 SCFM system you can save as much as \$2,200 per year if the dryer is operating at 50% of design capacity.



The EM Plus patented refrigeration system directly cools the compressed air. In contrast, thermal mass type dryers and other competitive models inefficiently use refrigerant to cool a mass, which in turn cools the compressed air. The time required to cool the media delays cooling of the compressed air, resulting in dew point spikes up to 60°F that last 30 minutes or longer, allowing extensive moisture carryover. When glycol or sand absorbs heat, there is no latent heat involved. Therefore, the temperature and dew point must rise.

The EM PLUS maintains a constant dew point temperature because of its unique flooded evaporator design, which uses latent heat to keep temperature constant. The EM Plus Series dryers display the precise dew point temperature on the control panel to allow easy monitoring of dryer performance.

Features

- Best in class dew point performance. Exclusive guarantee.
- Dual mode operation allows dryer to run cycling or non-cycling.
- Digital performance indicator displays lowest air temperature.
- Diagnostic codes indicate need for service.
- Multi-stage separation and filtration.

Benefits

- Lower operating costs without sacrificing performance.
- Dryer runs only as needed.
- Environmentally friendly refrigerant.
- Patented flood level control protects refrigeration circuit.

Weights and Dimensions

Model	Rated flow @ 100 psig (SCFM)	In/Out Connection (inches)	H (A) (inches)	D (B) (inches)	W (C) (inches)	KW	Weight (lbs.)	Voltages
EM100	100	1½ NPT-F	34 7/8	20	32	.97	265	115V/1ph/60Hz, 230V/1ph/60Hz
EM130	130	1½ NPT-F	34 7/8	20	32	1.13	270	115V/1ph/60Hz, 230V/1ph/60Hz
EM165	165	1½ NPT-F	34 7/8	20	32	1.27	270	115V/1ph/60Hz, 230V/1ph/60Hz
EM210	210	2 NPT-F	40 ¼	21 5/8	38	1.49	435	230V/1ph/60Hz, 230V/3ph/60Hz, 460V/3ph/60Hz
EM250	250	2 NPT-F	40 ¼	21 5/8	47 ½	1.89	445	230V/1ph/60Hz, 230V/3ph/60Hz, 460V/3ph/60Hz
EM315	315	2 NPT-F	53	28 ¼	57	2.5	825	230V/1ph/60Hz, 230V/3ph/60Hz, 460V/3ph/60Hz
EM400	400	2½ FLG	53 ½	60	57	3.4	925	230V/3ph/60Hz, 460V/3ph/60Hz
EM500	500	2½ FLG	53 ½	60	57	3.6	950	230V/3ph/60Hz, 460V/3ph/60Hz
EM625	625	3 FLG	53 ½	60	57	3.6	950	230V/3ph/60Hz, 460V/3ph/60 Hz
EM800	800	3 FLG	62 ½	74	69	4.3	1665	230V/3ph/60Hz, 460V/3ph/60 Hz
EM1050	1050	3 FLG	62 ½	74	69	5.95	1620	230V/3ph/60Hz, 460V/3ph/60 Hz
EM1250	1250	4 FLG	41	74	64	6.28	1820	230V/3ph/60Hz, 460V/3ph/60 Hz
EM1600	1600	4 FLG	71 1/8	78	65	10.5	2130	230V/3ph/60Hz, 460V/3ph/60 Hz
EM2050	2050	6 FLG	54	105	66	11.13	3000	230V/3ph/60Hz, 460V/3ph/60 Hz
EM2500	2500	6 FLG	54	105	66	18.22	3000	230V/3ph/60Hz, 460V/3ph/60 Hz
EM3050	3050	6 FLG	85	102	77	18.22	4100	230V/3ph/60Hz, 460V/3ph/60 Hz

Air Flow Correction Factors

Dryer rated flow is based on standard inlet conditions of 100 psig, 100°F inlet temperature and 100°F ambient temperature. The air flow correction factors are to be used for operating conditions other than standard. To obtain corrected flow at new operating conditions multiply system flow x C1xC2xC3 correction factors.

Example: 1050 SCFM @ 110°F ambient temperature, 120°F inlet temperature and 125 psig = 1050 x 1.1 x 1.3 x .98 = revised flow rating of 1,471 SCFM.

Use Model EM1600

Ambient Temperature (C1)

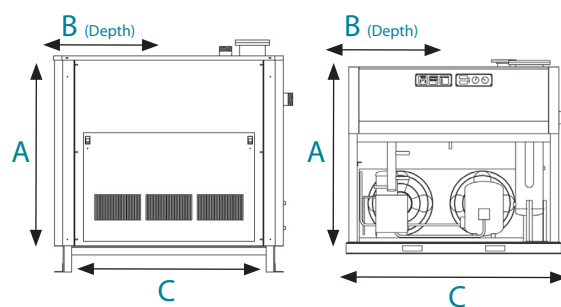
°F	90°F	100°F	110°F
Factor	.95	1	1.1

Inlet Temperature (C2)

°F	90°F	100°F	120°F	140°F	160°F
Factor	.85	1.00	1.3	1.7	1.9

Working Pressure (C3)

psig	50	75	90	100	110	125	150
Factor	1.25	1.1	1.05	1	.99	.98	.95



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