

Variable Speed Cycling Refrigerated Dryers

Pneumatech Pride

Pneumatech has been manufacturing energy-efficient refrigerated dryers for 50 years. Pneumatech cycling refrigerated dryers only operate according to the air flow, unlike non-cycling refrigerated dryers that operate continuously even if the air flow is changing.

When selecting compressed air system equipment it is important to size all components around a maximum flow rate. While planning for the maximum amount of air is necessary it is rarely ever achieved. To prevent needless energy usage, Pneumatech now offers variable speed dryers with industry leading energy efficiency to capitalize on varying air demands. By monitoring the flow and ambient conditions the dryers control system adjusts the compressors speed to maintain a stable dewpoint while reducing operating costs. In a research study the variable speed dryers reduced customer's energy consumption by 15 to 10% and a 30 to 35% reduction at partial loads compared to traditional energy saving dryers.



ACV-2600 to ACV-4200 (Air Cooled)

ACV-2600 to ACV-4200 (Water Cooled)

Design standards	ACV 2600-4200
Dew point	37 °F
Max Working Pressure	189 psi
Voltages	460 V
Technology	Refrigerant R404A
Usage	Continuous
Transportability	Forklift slots
Common applications	Textile, general industry, wood, pulp and paper, cement, mining

Important features & benefits
Integrated water separator
No loss of expensive compressed air during drain discharge
Steady cooling in a wide range of ambient temperatures
Heavy Duty No-loss electronic level drain, with manual back-up drain
Hot gas bypass valve (prevents freezing at lower loads)
Remote control possibilities
Individual fan cycling switches
Heavy duty fan motors with permanently lubricated ball bearings
Low environment impact - zero Ozone Depletion Potential (ODP) and enclosed in a sound suppression canopy to reduce noise levels
Service Plan Indicator
Automatic Restart after voltage failure



Model	39 °F PDP (scfm*)	Pressure Drop (psid)	Operating kW (AC/WC)	In/Out Conn. Size	Max. Working Pressure (psig)	Refrig. Type	Dimensions L x W x H (in)	Shipping Weight (lb)
ACV(W)-2600	2649	3.5	8.50/5.00	ANSI 8	189	R404A	65 x 53 x 74	1900
ACV(W)-3000	2966	3.5	8.60/5.10	ANSI 8	189	R404A	65 x 53 x 74	2080
ACV(W)-3400	3390	1.9	16.10/8.10	ANSI 8	189	R404A	105 x 53 x 74	2870
ACV(W)-4200	4238	3.2	24.90/12.90	ANSI 8	189	R404A	105 x 53 x 74	2930

* Scfm flow at 100 °F inlet temperature, 100 °F ambient temperature, and 100 psig pressure

(W) indicates water cooled units are available



Features	ACV 2600-4200
NEMA 2	<input checked="" type="checkbox"/>
Electronic Microprocessor Controller	<input checked="" type="checkbox"/>
Remote start/stop (sales kit)	<input checked="" type="checkbox"/>
Electronic hot gas bypass	<input checked="" type="checkbox"/>
Pressure dew point alarm	<input checked="" type="checkbox"/>

Standard

Correction Factor Example

Pressure	bar	6	7	8	10	13
	psig	85	100	116	145	188
	C1	0.97	1	1.03	1.07	1.12

Inlet temperature	C	24-35	38	40	46	50	55
	F	75-95	100	105	115	122	131
	C2	1.06	1	0.95	0.79	0.67	0.57

Ambient Temperature	C	35	38	40	46
	F	95	100	105	115
	C3	1.03	1	0.95	0.93

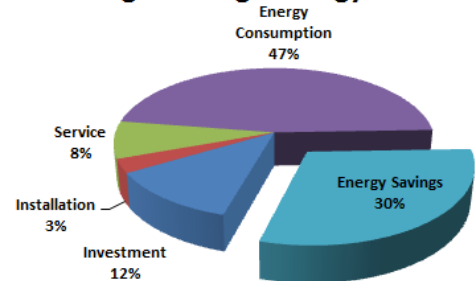
Which dryer will handle the following conditions for a PDP of +39 °F:

85 SCFM Actual Flow, 145 psig inlet pressure,

115 °F inlet temperature, 100 °F Ambient Temperature

- 1) Correction factors for the table: C1 = 1.07, C2 = 0.79, C3 = 1
- 2) Calculate: Nominal Flow = Actual Flow / (C1 x C2 x C3) = 100.5
- 3) Select an AC-100 for this application

Savings Through Energy Efficiency



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