

High Pressure Cycling Refrigerated Air Dryers

Industrial Technologies
Davidson, NC 28036

Date: 1 November 2008
Cancels: New

ENGINEERING DATA – 60HZ

Model Name	D890NC-HP	D1090NC-HP	D1340NC-HP
Inlet Psig	580	580	580
Ambient Air Temp (°F)	100	100	100
Inlet Air Temp (°F)	100	100	100
Rated Flow (cfm)	525	640	790
Pressure Drop (Psig)	2.30	1.80	2.30
Condensate Produced (Gal/Hr)	0.32	0.39	0.48
Refrigerant Compressor Type	Fully-Hermetic Reciprocating	Fully-Hermetic Reciprocating	Fully-Hermetic Reciprocating
Compressor HP	1.5	2	2.5
Electrical Supply (V/ph/Hz)	460/3/60	460/3/60	460/3/60
Total installed power (kW)	1.89	2.43	3.23
Total full load power (kW)	1.39	1.65	2.19
Package Running Load Amps	3.60	3.40	5.40
Minimum Circuit Ampacity	4.80	5.70	8.50
Max Fuse Size	8.00	10.00	12.00
Package Dimensions(in) W	28	28	28
Package Dimensions(in) D	32.5	32.5	32.5
Package Dimensions(in) H	58	58	58
Weight (lbs) Water Cooled	615	735	750
Air Inlet/Outlet Connections (in)	1 1/2" MPT	2" MPT	2" MPT
Heat Rejection (Btu/hr)	17,069	22,433	28,403
Sound Level (dBA)	< 85 dBA	< 85 dBA	< 85 dBA
Condensate Drain Connection (in)-NPT F	1/2	1/2	1/2
Refrigerant Type	R404A	R404A	R404A
Refrigerant Charge (lb-oz)	2 - 8	3 - 0	2 - 13
Electrical Protection Class	NEMA 1	NEMA 1	NEMA 1
Water Flow (GPM)	4	5	6
Water Pressure Drop** (psig)	5.6	9.3	15.9
Design Inlet Cooling Water Temperature (°F)	85	85	85
Max/Min Inlet Cooling Water Temperature (°F)	95/60	95/60	95/60
Condensing Temperature (°F)	105	105	105
Inlet / Outlet Water Connection (NPT)	1/2	1/2	1/2
Maximum Operating Ambient Temperature (°F)	120	120	120
Maximum Operating Inlet Air Temperature (°F)	120	120	120
Minimum Operating Ambient Temperature (°F)	50	50	50
Maximum Operating Pressure (psig)	680	680	680

Notes: Dryer performance is basis inlet conditions of 580 psig, 100°F and 85°F water.

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Model Name	D2040NC-HP	D2770NC-HP	D4290NC-HP
Inlet Psig	580	580	580
Ambient Air Temp (°F)	100	100	100
Inlet Air Temp (°F)	100	100	100
Rated Flow (cfm)	1200	1630	2525
Pressure Drop (Psig)	2.90	2.40	1.60
Condensate Produced (Gal/Hr)	0.73	1.00	1.55
Refrigerant Compressor Type	Fully-Hermetic Reciprocating	Fully-Hermetic Reciprocating	Fully-Hermetic Reciprocating
Compressor HP	3.5	5	9
Electrical Supply (V/ph/Hz)	460/3/60	460/3/60	460/3/60
Total installed power (kW)	4.65	6.90	11.02
Total full load power (kW)	2.80	4.16	7.34
Package Running Load Amps	7.1	8.60	15.7
Minimum Circuit Ampacity	9.2	11.00	20.2
Max Fuse Size	15	15.00	35
Package Dimensions(in) W	40.6	40.6	32.5
Package Dimensions(in) D	40	40	76
Package Dimensions(in) H	61.5	61.5	69
Weight (lbs) Water Cooled	1100	1415	2765
Air Inlet/Outlet Connections (in)	3" MPT	3" MPT	4" FLANGE
Heat Rejection (Btu/hr)	39,395	87,878	97,234
Sound Level (dBA)	< 85 dBA	< 85 dBA	< 85 dBA
Condensate Drain Connection (in)-NPT F	1/2	1/2	1/2
Refrigerant Type	R404A	R404A	R404A
Refrigerant Charge (lb-oz)	5 - 8	7 - 0	11 - 0
Electrical Protection Class	NEMA 1	NEMA 1	NEMA 1
Water Flow (GPM)	9	13	22
Water Pressure Drop** (psig)	19	12.7	14.2
Design Inlet Cooling Water Temperature (°F)	85	85	85
Max/Min Inlet Cooling Water Temperature (°F)	95/60	95/60	95/60
Condensing Temperature (°F)	105	105	105
Inlet / Outlet Water Connection (NPT)	1/2	3/4	1
Maximum Operating Ambient Temperature (°F)	120	120	120
Maximum Operating Inlet Air Temperature (°F)	120	120	120
Minimum Operating Ambient Temperature (°F)	50	50	50
Maximum Operating Pressure (psig)	680	680	680

Notes: Dryer performance is basis inlet conditions of 580 psig, 100°F and 85°F water.

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Model Name	D5635NC-HP	D7055NC-HP	D8585NC-HP	D11280NC-HP
Inlet Psig	580	580	580	580
Ambient Air Temp (°F)	100	100	100	100
Inlet Air Temp (°F)	100	100	100	100
Rated Flow (cfm)	3315	4150	5050	6635
Pressure Drop (Psig)	1.50	1.90	1.60	1.50
Condensate Produced (Gal/Hr)	2.02	2.29	3.09	4.05
Refrigerant Compressor Type	Fully-Hermetic Reciprocating	Fully-Hermetic Reciprocating	Fully-Hermetic Reciprocating	Fully-Hermetic Reciprocating
Compressor HP	10 1/2	10 1/2	(2) 9	(2) 10.5
Electrical Supply (V/ph/Hz)	460/3/60	460/3/60	460/3/60	460/3/60
Total installed power (kW)	13.14	14.95	18.03	21.77
Total full load power (kW)	9.09	9.59	14.60	18.10
Package Running Load Amps	19.30	19.3	31.40	38.6
Minimum Circuit Ampacity	27.40	27.4	36.50	44.6
Max Fuse Size	45.00	45	50.00	60
Package Dimensions(in) W	32	32	76	76
Package Dimensions(in) D	91	91	96	96
Package Dimensions(in) H	75	75	100	100
Weight (lbs) Water Cooled	3925	4165	5425	7125
Air Inlet/Outlet Connections (in)	6" FLANGE	6" FLANGE	8" FLANGE	8" FLANGE
Heat Rejection (Btu/hr)	123,713	123,713	194,468	247,426
Sound Level (dBA)	< 85 dBA	< 85 dBA	< 85 dBA	< 85 dBA
Condensate Drain Connection (in)-NPT F	1/2	1/2	1/2	1/2
Refrigerant Type	R404A	R404A	R404A	R404A
Refrigerant Charge (lb-oz)	11 - 0	11 - 0	22 - 0	22 - 0
Electrical Protection Class	NEMA 1	NEMA 1	NEMA 1	NEMA 1
Water Flow (GPM)	28	28	40	57
Water Pressure Drop** (psig)	12	12	16	14
Design Inlet Cooling Water Temperature (°F)	85	85	85	85
Max/Min Inlet Cooling Water Temperature (°F)	95/60	95/60	95/60	95/60
Condensing Temperature (°F)	105	105	105	105
Inlet / Outlet Water Connection (NPT)	1 1/2	1 1/2	1 1/2	1 1/2
Maximum Operating Ambient Temperature (°F)	120	120	120	120
Maximum Operating Inlet Air Temperature (°F)	120	120	120	120
Minimum Operating Ambient Temperature (°F)	50	50	50	50
Maximum Operating Pressure (psig)	680	680	680	680

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