



ENGINEERING DATA SHEET

R5.5n (IE3) Total Air System (TAS) 60Hz

CCN: 47523375001
Rev.: J
ECN: 1082712
Sheet: 1 of 2
Date: 13-Mar-2017

Model Name		R5.5n-X100	R5.5n-X110	R5.5n-X115	R5.5n-X125	R5.5n-X135
GENERAL PERFORMANCE DATA						
Rated Discharge Pressure	barg (psig)	7 (100)	7.5 (110)	8 (115)	8.5 (125)	9.5 (135)
Minimum Operation Pressure	barg (psig)	4.5 (65)	4.5 (65)	4.5 (65)	4.5 (65)	4.5 (65)
Capacity FAD @ Max Speed (1)(13)	m ³ /min (CFM)	0.847 (29.9)	0.818 (28.9)	0.767 (27.1)	0.722 (25.5)	0.688 (24.3)
Capacity FAD @ Min Speed (1)(13)	m ³ /min (CFM)	0.384 (13.6)	0.380 (13.43)	0.378 (13.3)	0.372 (13.1)	0.366 (12.9)
Turndown Percentage	Percent	54.7%	53.5%	50.8%	48.4%	46.8%
Maximum Target Operating Pressure (2)	barg (psig)			9.5 (138)		
Maximum Operating Ambient Temperature	°C (°F)			40 (104)		
Minimum Operating Ambient Temperature	°C (°F)			2 (35)		
Maximum System Temperature Setting	°C (°F)			109 (228)		
Nominal Power - Main Motor	kW (HP)			5.5 (7.5)		
Main Drive Efficiency (3)	Percent			96.40%		
Main Motor Efficiency (3)	%			89.50%		
Pkg Input Power w/Fan and Dryer- Air Cooled (4)	kW	9.13	9.15	9.14	9.15	9.38
Specific Power - Air Cooled (4)(5)	kW/m ³ /min (kW/100cfm)	10.78 (30.54)	11.18 (31.66)	11.91 (33.73)	12.67 (35.88)	13.63 (38.58)
SOUND LEVEL (6)						
Standard Package - Air Cooled	dB(A)			69		
COOLING DATA (@ Maximum Ambient Temperature & Maximum Discharge Pressure)						
Heat Removal Oil Cooler	kW (1000 Btu/hr)	5.7 (19.5)	5.7 (19.5)	5.8 (19.8)	5.8 (19.8)	5.9 (20.1)
Heat Removal Oil and Aftercooler	kW (1000 Btu/hr)	6.9 (23.6)	6.9 (23.6)	6.9 (23.6)	6.9 (23.6)	6.9 (23.6)
Additional Static Pressure (13)	Pa (in H ₂ O)			See document 23883374		
Fan Air Flow - Compressor	m ³ /min (cfm)			34.0 (1200)		
- Dryer	m ³ /min (cfm)			15.3 (541)		
Fan Motor Nominal Power - Compressor	kW			0.3		
Fan Motor Efficiency	Percent			71.0%		
Cooling Air Temperature Rise	°C (°F)	20 (36)	20 (36)	20 (36)	20 (36)	20 (36)
Aftercooler CTD(7)	°C (°F)	6 (11)	6 (11)	6 (11)	6 (11)	6 (11)
AIR END DATA						
Male Rotor Speed	rpm	3741	3557	3472	3315	3171
Tip Speed Rotor	m/sec	14.5	13.8	13.5	12.9	12.33
Full Load Shaft Power	kW	6.68	6.70	6.69	6.70	6.90
COOLANT LUBRICATION DATA						
Total Coolant Capacity - Air Cooled	litres (US gal)			5 (1.32)		
PIPING CONNECTIONS						
Air Discharge	Inches BSPT			0.75		
Package Automatic Condensate Drain(8)	mm			10		
Coolant Drain - Hose Size	Inches			0.88		
Diameter of Power Inlet	Inches			M32 gland cable (cable diameters 12-21mm / 0.47-82)		
DIMENSIONS & WEIGHT						
		Receiver 120gal / 80gal				
Length, Width, Height	mm (inches)	1843(72.55)x764(30)x1808.5(71.2) / 1740.5(68.5)x764(30)x1706.5(67.2)				
Net Weight - Air Cooled	kg (lb.)	502 (1107) / 470 (1036)				
GA Drawing Number - Air Cooled		47518742 / 47518743				
ELECTRICAL DATA						
		208/230V 3Φ	220V 3Φ	380V 3Φ	440V 3Φ	460V 3Φ
Motor Protection		IP55	IP55	IP55	IP55	IP55
Full Load Package Current - Air Cooled (10)	Amps	33,3/30,2	31.9	18.4	16.4	15.2
Package Power Factor						
Electrical Installation						
Recommended Supply Cable Size (11)	mm ² /Cu (AWG or kcmil)	4 (AWG10)	4 (AWG10)	2,5 (AWG12)	2,5 (AWG12)	1,5 (AWG14)
Maximum Recommended Fuse Rating (11)(12)	Amps	50	50	30	30	25



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Refrigerated Dryer Data

Pressure Dew Point ISO Class (14)	°C (°F)	ISO Class	5
Refrigerant Weight of R134a	Grams(oz)		320(11.29)

Filter Data

Filter Detail - at 21°C (70°F)	Particulate		Liquid	
	ISO Class	Filtration	ISO Class	Filtration
	1	0.01 micron	1	0.01 mg/m ³ (0.1 ppm)

Notes :

- (1) FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217 : 2009 Annex C
- (2) Maximum pressure at package discharge, value at which compressor will stop when unit operating at maximum target pressure
- (3) At maximum speed and flow for the given package discharge pressure
- (4) Measured at rated capacity and rated pressure
- (5) Specific power guaranteed in accordance with ISO 1217 : 2009 Annex C
- (6) Measured in free field conditions per ISO 2151 using Hemispherical Method, with + 3 dB(A) tolerance.
- (7) 40% Relative Humidity Inlet Air and maximum speed (For alternate conditions contact IR)
- (8) Draining port Include push-in connector for nylon tubing
- (10) Maximum current includes 10% additional current due to fouled filters and elements
- (11) 90°C copper cables. Always apply local electrical codes for sizing cables and fusing.
- (12) Fast Acting Class-J, T or Semiconductor type fuse required. Apply local electrical codes for fuse sizing
- (13) Performance predicted for variable pressure settings using 10barg configuration pulleys
- (14) TAS units deliver ISO Class 1-5-1 quality air measured at steady state conditions in accordance with ISO 8573-1:2010, with inlet air to package of 25°C (77°F) and RH of 60%.

Product Improvement is a continuing goal at Ingersoll Rand. Design and specifications are subject to change without notice or obligation.