



ENGINEERING DATA SHEET

R5.5i (IE3) Total Air System (TAS) Single Phase 60Hz

CCN: 47523358001
Rev.: E
ECN: 1082712
Sheet: 1 of 2
Date: 13-Mar-2017

Model Name		R5.5i-X100	R5.5i-X115	R5.5i-X135	R5.5i-X190
GENERAL PERFORMANCE DATA					
Maximum Operating Pressure (2)	barg (psig)	7 (103)	8 (118)	9.5 (138)	13.5 (193)
Rated Discharge Pressure	barg (psig)	7 (100)	8 (115)	9.5 (135)	13.5 (190)
Minimum Operating Pressure	barg (psig)	4.5 (65)	4.5 (65)	4.5 (65)	4.5 (65)
Capacity FAD (1)	m ³ /min (CFM)	0.86 (30.5)	0.78 (27.5)	0.69 (24.3)	0.47 (16.76)
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 Motor Efficiency (3)	Percent		85.0%		
Package Input Power - Air Cooled (4)	kW	8.87	8.58	8.96	8.97
Package Input Power - Air Cooled - No Loaded	kW	4.90	4.40	4.00	3.30
Specific Power - Air Cooled (4)(5)	kW/m ³ /min (kW/100cfm)	10.28 (29.1)	11.02 (31.2)	13.02 (36.9)	18.90 (53.5)
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)	5.8 (19.8)	5.9 (20.1)	6.0 (20.5)
Heat Removal Oil and Aftercooler	kW (1000 Btu/hr)	6.9 (23.6)	6.9 (23.6)	6.9 (23.6)	6.8 (23.2)
Additional Static Pressure (15)	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 - Compressor	Percent	71.0%			
Cooling Air Temperature Rise	°C (°F)	20 (36)	20 (36)	20 (36)	20 (36)
Aftercooler CTD(7)	°C (°F)	6 (11)	6 (11)	6 (11)	6 (11)
AIR END DATA					
Male Rotor Speed	rpm	3557	3315	3039	2355
Tip Speed Rotor	m/sec	13.83	12.78	11.61	8.80
Full Load Shaft Power	kW	6.36	6.11	6.44	6.45
COOLANT LUBRICATION DATA					
Total Coolant Capacity - Air Cooled	litres (US gal)	5 (1.32)			
PIPING CONNECTIONS					
Air Discharge	Inches NPT	0.75			
Package Automatic Condensate Drain(8)	mm	10			
Coolant Drain - Hose Size	Inches	0.88			
Diameter of Power Inlet	mm / inch	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.)	497 (1096) / 465 (1025)			
GA Drawing Number - Air Cooled		47518742 / 47518743			
ELECTRICAL DATA ⁽¹⁴⁾					
		208V 1Φ		230V 1Φ	
Motor Enclosure Protection		IP55		IP55	
Full Load Package Current - Air Cooled (10)	Amps	51		50	
Package Locked Rotor Current	Amps	483		475	
Package Power Factor		0.97		0.97	
Electrical Installation					
Recommended Supply Cable Size (11)	mm ² /Cu (AWG or kcmil)	10 (AWG6)		10 (AWG6)	
Maximum Recommended Fuse Rating ⁽¹¹⁾⁽¹²⁾	Amps	80.0		80.0	



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Refrigerated Dryer Data		ISO Class			
Pressure Dew Point ISO Class(16)	°C (°F)	5			
Refrigerant Weight of R134a	Grams(oz)	320(11.29)			
Filter Data		Particulate		Liquid	
		ISO Class	Filtration	ISO Class	Filtration
Filter Detail - at 21°C (70°F)		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) IE3 efficiency motor
- (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; ducted inlet and outlet, with + 3 dB(A) tolerance.
- (7) 40% Relative Humidity Inlet Air and maximum speed (For alternate conditions contact Ingersoll Rand)
- (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) Time delay fuse recommended. Apply local electrical codes for fuse sizing
- (13) Coolant volumes listed are approximate. See operator manual for coolant fill procedure.
- (14) Voltage tolerance: (380) ±6% ; (440,460, 575) ±10%
- (16) 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.