



ENGINEERING DATA SHEET

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

CCN: 47523360001
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			89.5%				
Package Input Power - Air Cooled (4)	kW	8.53	8.26	8.61	8.62			
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)	9.89 (28.0)	10.61 (30.0)	12.51 (35.4)	18.16 (51.4)			
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	6.39	6.15	6.46	6.47			
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 3Φ	220V 3Φ	230V 3Φ	380V 3Φ	440V 3Φ	460V 3Φ	575V 3Φ
Motor Enclosure Protection		IP55	IP55	IP55	IP55	IP55	IP55	IP55
Full Load Package Current - Air Cooled (10)	Amps	33.8	32.4	31	19	16	15	12.2
Package Locked Rotor Current	Amps	348.1	265.7	316.2	153.3	132.8	158.6	91.5
Package Power Factor		0.87	0.85	0.79	0.85	0.85	0.79	0.85
Electrical Installation								
Recommended Supply Cable Size (11)	mm ² /Cu (AWG or kcmil)	4 (AWG10)	4 (AWG10)	4 (AWG10)	2,5 (AWG12)	1,5 (AWG14)	1,5 (AWG14)	1,5 (AWG14)
Maximum Recommended Fuse Rating ⁽¹¹⁾⁽¹²⁾	Amps	40	40	40.0	32.0	25.0	25.0	20



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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		ISO Class	ISO Class
		Particulate	Liquid
		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.