



ENGINEERING DATA SHEET

R4i (IE3) Total Air System (TAS) Single Phase 60Hz

CCN: 47523357001
Rev.: E
ECN: 1082712
Sheet: 1 of 2
Date: 13-Mar-2017

Model Name		R4i-X100	R4i-X115	R4i-X135
GENERAL PERFORMANCE DATA				
Maximum Operating Pressure (2)	barg (psig)	7 (103)	8 (118)	9.5 (138)
Rated Discharge Pressure	barg (psig)	7 (100)	8 (115)	9.5 (135)
Minimum Operating Pressure	barg (psig)	4.5 (65)	4.5 (65)	4.5 (65)
Capacity FAD (1)	m ³ /min (CFM)	0.55 (19.44)	0.48 (16.93)	0.40 (14.27)
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)		3.7 (5.0)	
Main Motor Efficiency (3)	Percent		85.0%	
Package Input Power - Air Cooled (4)	kW	6.56	6.59	6.62
Package Input Power - Air Cooled - No Loaded	kW	3.30	3.10	2.90
Specific Power - Air Cooled (4)(5)	kW/m ³ /min (kW/100cfm)	11.92 (33.7)	13.75 (38.9)	16.38 (46.4)
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)	3.8 (13.0)	3.9 (13.3)	3.9 (13.3)
Heat Removal Oil and Aftercooler	kW (1000 Btu/hr)	4.6 (15.7)	4.6 (15.7)	4.5 (15.4)
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)	14 (25)	14 (25)	14 (25)
Aftercooler CTD(7)	°C (°F)	5 (9)	5 (9)	5 (9)
AIR END DATA				
Male Rotor Speed	rpm	2348	2154	1931
Tip Speed Rotor	m/sec	9.13	8.37	7.51
Full Load Shaft Power	kW	4.40	4.42	4.45
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	40	39	
Package Locked Rotor Current	Amps	475	466	
Package Power Factor		0.94	0.94	
Electrical Installation				
Recommended Supply Cable Size (11)	mm ² /Cu (AWG or kcmil)	6 (AWG8)	6 (AWG8)	
Maximum Recommended Fuse Rating ⁽¹¹⁾⁽¹²⁾	Amps	63.0	63.0	



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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
Filter Detail - at 21°C (70°F)	ISO Class	Filtration	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) 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.