



ENGINEERING DATA SHEET

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

CCN: 47523359001
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		89.5%		
Package Input Power - Air Cooled (4)	kW	6.34	6.36	6.39	
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)	11.52 (32.6)	13.27 (37.6)	15.81 (44.8)	
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	4.43	4.45	4.48	
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	230V 3Φ	460V 3Φ	575V 3Φ
Motor Enclosure Protection		IP55	IP55	IP55	IP55
Full Load Package Current - Air Cooled (10)	Amps	25.8	24	12	10.1
Package Locked Rotor Current	Amps	265.7	242.1	122.6	75.8
Package Power Factor		0.87	0.79	0.79	0.85
Electrical Installation					
Recommended Supply Cable Size (11)	mm ² /Cu (AWG or kcmil)	4 (AWG10)	4 (AWG10)	1.5 (AWG14)	1.5 (AWG14)
Maximum Recommended Fuse Rating ⁽¹¹⁾⁽¹²⁾	Amps	40	40.0	20.0	16



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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.