



# ENGINEERING DATA SHEET

## R11i (IE3) Total Air System (TAS) 60Hz

CCN: 47523362001  
Rev.: E  
ECN: 1082712  
Sheet: 1 of 2  
Date: 13-Mar-2017

Model Name		R11i-X100	R11i-X115	R11i-X135	R11i-X190			
<b>GENERAL PERFORMANCE DATA</b>								
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 <sup>3</sup> /min (CFM)	1.63 (57.5)	1.53 (56.1)	1.43 (50.4)	1.17 (41.46)			
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)		11 (15)					
Main Motor Efficiency (3)	Percent		91.0%					
Package Input Power - Air Cooled (4)	kW	14.93	15.00	15.07	15.08			
Package Input Power - Air Cooled - No Loaded	kW	8.70	8.20	7.65	6.30			
Specific Power - Air Cooled (4)(5)	kW/m <sup>3</sup> /min (kW/100cfm)	9.18 (26.0)	9.82 (26.7)	10.57 (29.9)	12.85 (36.4)			
<b>SOUND LEVEL (6)</b>								
Standard Package - Air Cooled	dB(A)			69				
<b>COOLING DATA (@ Maximum Ambient Temperature &amp; Maximum Discharge Pressure)</b>								
Heat Removal Oil Cooler	kW (1000 Btu/hr)	11.4 (38.9)	11.5 (39.3)	11.6 (39.6)	11.8 (40.3)			
Heat Removal Oil and Aftercooler	kW (1000 Btu/hr)	13.3 (45.4)	13.4 (45.8)	13.4 (45.8)	13.5 (46.1)			
Additional Static Pressure (15)	Pa (in H <sub>2</sub> O)		See Document 23883374					
Fan Air Flow - Compressor	m <sup>3</sup> /min (CFM)		34.0 (1200)					
- Dryer	m <sup>3</sup> /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)	35 (63)	35 (63)	35 (63)	35 (63)			
Aftercooler CTD(7)	°C (°F)	12 (21.5)	12 (21.5)	12 (21.5)	12 (21.5)			
<b>AIR END DATA</b>								
Male Rotor Speed	rpm	6660	6313	5927	5001			
Tip Speed Rotor	m/sec	25.89	24.54	23.04	19.44			
Full Load Shaft Power	kW	12.32	12.39	12.45	12.46			
<b>COOLANT LUBRICATION DATA</b>								
Total Coolant Capacity - Air Cooled	litres (US gal)			5 (1.32)				
<b>PIPING CONNECTIONS</b>								
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")					
<b>DIMENSIONS &amp; WEIGHT</b>								
		<b>Receiver 120gal / 80gal</b>						
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.)	517 (1140) / 485 (1070)						
GA Drawing Number - Air Cooled		47518742 / 47518743						
<b>ELECTRICAL DATA <sup>(14)</sup></b>								
		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	58.3	55.3	53	32	28	26	20.9
Package Locked Rotor Current	Amps	611.6	525.4	550.7	304.0	263.2	275.9	163.0
Package Power Factor		0.87	0.87	0.79	0.87	0.87	0.79	0.85
<b>Electrical Installation</b>								
Recommended Supply Cable Size (11)	mm <sup>2</sup> /Cu (AWG or kcmil)	10 (AWG6)	10 (AWG6)	10 (AWG6)	4 (AWG10)	4 (AWG10)	4 (AWG10)	2.5 (AWG12)
Maximum Recommended Fuse Rating <sup>(11)(12)</sup>	Amps	100	100	100.0	63.0	50.0	50.0	32.0



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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		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 <sup>3</sup> (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.**