



ENGINEERING DATA SHEET

R7.5i (IE3) 60Hz

CCN: 47523370001
Rev.: B
ECN: 991389
Sheet: 1 of 1
Date: 27-Jul-2015

Model Name		R7.5i-X110	R7.5i-X125	R7.5i-X145	R7.5i-X200			
GENERAL PERFORMANCE DATA								
Maximum Operating Pressure (2)	barg (psig)	7.5 (110)	8.5 (125)	10.0 (145)	14 (200)			
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)	1.13 (39.84)	1.04 (36.69)	0.94 (33.37)	0.72 (25.27)			
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)			7.5 (10)				
Main Motor Efficiency (3)	Percent			90.2%				
Package Input Power - Air Cooled (4)	kW	9.36	9.42	9.46	9.47			
Package Input Power - Air Cooled - No Loaded	kW	4.90	4.30	4.00	3.10			
Specific Power - Air Cooled (4)(5)	kW/m ³ /min (HP/1000cfm)	8.30 (23.50)	9.07 (25.67)	10.01 (28.35)	13.24 (37.48)			
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)	7.7 (26.3)	7.8 (26.6)	7.9 (27.0)	8.0 (27.3)			
Heat Removal Oil and Aftercooler	kW (1000 Btu/hr)	9.1 (31.1)	9.1 (31.1)	9.2 (31.4)	9.0 (30.7)			
Additional Static Pressure	Pa (in H ₂ O)			See Document 23883374				
Fan Air Flow	m ³ /min (CFM)			34.0 (1200)				
Fan Motor Nominal Power	kW			0.3				
Fan Motor Efficiency	Percent			71.0%				
Cooling Air Temperature Rise	°C (°F)	25 (45)	25 (45)	25 (45)	25 (45)			
Aftercooler CTD(7)	°C (°F)	7.5 (13.5)	7.5 (13.5)	7.5 (13.5)	7.5 (13.5)			
AIR END DATA								
Male Rotor Speed	rpm	4630	4356	4046	3291			
Tip Speed Rotor	m/sec	18.00	16.93	15.73	12.79			
Full Load Shaft Power	kW	8.36	8.42	8.45	8.46			
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)	Inches NPT			0.25				
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								
		Base Mounted						
Length / Width / Height	mm (inches)	960 (37.8) / 690 (27.2) / 1186.5 (46.7)						
Net Weight - Air Cooled	kg (lb.)	280 (618)						
GA Drawing Number - Air Cooled		24187775						
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	34.7	33.2	32	19	17	16	12.5
Package Locked Rotor Current	Amps	381.7	298.8	346.5	172.8	150.3	174.9	110.0
Package Power Factor		0.86	0.85	0.78	0.85	0.85	0.75	0.84
Electrical Installation								
Recommended Supply Cable Size (11)	mm ² /Cu (AWG or kcmil)	6 (AWG8)	6 (AWG8)	6 (AWG8)	6 (AWG8)	2.5 (AWG12)	2.5 (AWG12)	1.5 (AWG14)
Maximum Recommended Fuse Rating ⁽¹¹⁾⁽¹²⁾	Amps	63	63	63.0	40.0	32.0	32.0	25.0

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) NEMA Premium 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) Auto drain with receiver only
- (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: (380V) ±6% ; (440, 460, 575V) ±10%

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