



ENGINEERING DATA SHEET

R37ne

Total Air System (TAS)

50Hz

CCN: 24192429

Rev.: B

ECN: 82093

Sheet: 1 of 2

Date: 20-Aug-2013

Model Name		R37NE-X7	R37NE-X7.5	R37NE-X8	R37NE-X8.5	R37NE-X9.5
GENERAL PERFORMANCE DATA						
Rated Discharge Pressure	barg (psig)	7 (100)	7.5 (110)	8 (115)	8.5 (125)	9.5 (135)
Minimum Operation Pressure	barg (psig)	4.5 (65)	4.5 (65)	4.5 (65)	4.5 (65)	4.5 (65)
Capacity FAD @ Max Speed (1)	m ³ /min (CFM)	6.43 (227)	6.34 (224)	6.12 (216)	5.97 (211)	5.83 (206)
Capacity FAD @ Min Speed (1)	m ³ /min (CFM)	1.64 (58)	1.67 (59)	1.67 (59)	1.70 (60)	1.76 (62)
Turndown Percentage	Percent	74%	74%	73%	72%	70%
Maximum Target Operating Pressure (2)	barg (psig)			9.5 (138)		
Maximum Operating Ambient Temperature	°C (°F)			46 (115)		
Minimum Operating Ambient Temperature	°C (°F)			2 (35)		
Maximum System Temperature Setting	°C (°F)			109 (228)		
Nominal Power - Main Motor	kW (HP)			37.00 (50)		
Main Drive Efficiency (3)	Percent			97.00%		
Main Motor Efficiency (3)	%			93.70%		
Pkg Input Power w/Fan and Dryer- Air Cooled (4)	kW	50.6	50.6	50.6	50.6	50.6
Specific Power - Air Cooled (4)(5)	kW/m ³ /min (kW/100cfm)	7.9 22.3	8.0 22.6	8.3 23.4	8.5 24.0	8.7 24.6
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)	36 (123)	36 (123)	37 (125)	37 (125)	37 (127)
Heat Removal Oil and Aftercooler	kW (1000 Btu/hr)	46 (157)	46 (157)	46 (158)	46 (158)	46 (158)
Additional Static Pressure (13)	Pa (in H ₂ O)			See document 23883374		
Fan Air Flow	m ³ /min (cfm)		Nom: 65	(2295)	Max: 108	(3825)
Fan Motor Nominal Power	kW			1.5		
Cooling Air Temperature Rise	°C (°F)	25 (45)	24 (43)	23 (42)	23 (42)	23 (42)
Aftercooler CTD(7)	°C (°F)	8 (15)	8 (15)	8 (15)	8 (15)	8 (15)
AIR END DATA						
Male Rotor Speed	rpm	4647	4575	4426	4297	4170
Tip Speed Rotor	m/sec	31.2	30.7	29.7	28.8	28.0
Full Load Shaft Power	kW	43.1	43.1	43.1	43.1	43.1
COOLANT LUBRICATION DATA						
Total Coolant Capacity - Air Cooled	litres (US gal)			26 (6.9)		
PIPING CONNECTIONS						
Air Discharge	Inches BSPT/NPT (9)			1.50		
Package Automatic Condensate Drain	Inches BSPT/NPT (9)			0.38		
Coolant Drain - Hose Size	Inches			0.88		
Diameter of Power Inlet	Inches			Up to 4.0" (removable plate)		
Water Inlet and Outlet Connections	Inches BSPT/NPT (9)			1.50		
DIMENSIONS & WEIGHT						
				Base Mounted		
Length, Width, Height	mm (inches)			1947(77)/1114(44)/1635(64)		
Net Weight - Air Cooled	kg (lb.)			926(2041)		
GA Drawing Number - Air Cooled				24068652		
ELECTRICAL DATA						
		380V. 3Φ	400V. 3Φ	415V. 3Φ	440V. 3Φ	
Motor Protection				IP23 (ODP)		
Full Load Package Current - Air Cooled (10)	Amps	98	93	90	85	
Package Power Factor		0.92	0.92	0.92	0.92	
Electrical Installation						
Recommended Supply Cable Size (11)	mm ² /Cu (AWG or kcmil)	50(1/0)	50(1/0)	50(1/0)	50(1/0)	
Maximum Recommended Fuse Rating (11)(12)	Amps	150	150	150	150	



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Refrigerated Dryer Data

Pressure Dew Point ISO Class (14)	°C (°F)	ISO Class
Refrigerant Weight of R-404a	Grams(oz)	1250(44)

Filter Data

Filter Detail - at 21°C (70°F)	Particulate		Liquid	
	ISO Class	Filtration	ISO Class	Filtration
	2	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) At maximum speed and flow for the given package discharge pressure
- (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, with + 3 dB(A) tolerance.
- (7) 40% Relative Humidity Inlet Air and maximum speed (For alternate conditions contact IR)
- (9) BSPT or NPT, depending on regional standard
- (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) Fast Acting Class-J, T or Semiconductor type fuse required. Apply local electrical codes for fuse sizing
- (14) TAS units deliver ISO Class 1-4-2 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.