



ENGINEERING DATA SHEET

RS37i
Total Air System (TAS)
60Hz

CCN: 49187123
 Rev.: F
 ECN: 1145842
 Sheet: 1 of 2
 Date: October 21, 2016

Model		RS37i-A103-TAS	RS37i-A118-TAS	RS37i-A138-TAS	RS37i-A193-TAS
GENERAL PERFORMANCE DATA					
Maximum Target Operating Pressure	(2)	7.1 (103)	8.1 (118)	9.5 (138)	13.3 (193)
Rated Discharge Pressure		6.9 (100)	7.9 (115)	9.3 (135)	13.1 (190)
Minimum Operating Pressure		4.5 (65)	4.5 (65)	4.5 (65)	4.5 (65)
Maximum Operating Ambient Temperature		46 (115)	46 (115)	46 (115)	46 (115)
Minimum Operating Ambient Temperature		2 (36)	2 (36)	2 (36)	2 (36)
Maximum System Temperature Setting		109 (228)	109 (228)	109 (228)	109 (228)
Nominal Power - Main Motor		37 (50)	37 (50)	37 (50)	37 (50)
Main Motor Efficiency	(3)	94.5%	94.5%	93.0%	93.0%
Capacity FAD	(1)	6.6 (231)	6.2 (220)	5.6 (197)	4.6 (162)
Package Input Power with Fan - Air Cooled	(4)	43.8	44.0	44.0	45.2
Specific Power - Air Cooled	(4)(5)	6.69 (19.0)	7.06 (20.0)	7.88 (22.3)	9.87 (27.9)
SOUND LEVEL					
Noise Level Standard Package - Air Cooled	(6)	69	69	69	69
Noise Level Standard Package - Air Cooled		85	85	85	85
COOLING DATA (@ Maximum Ambient Temperature & Maximum Discharge Pressure)					
Heat Removal (Oil Cooler)		33.8 (115)	34.2 (117)	33.4 (114)	35.2 (120)
Heat Removal (Oil and Aftercooler)		43.5 (148)	43.6 (149)	42.6 (145)	43.2 (147)
Heat Removal (Dryer)		5.8 (20)	5.8 (20)	5.8 (20)	5.8 (20)
Permitted Additional Static Pressure		63 (.25)	63 (.25)	63 (.25)	63 (.25)
Fan Air Flow		108 (3826)	108 (3826)	108 (3826)	108 (3826)
Fan Motor Nominal Power		1.1	1.1	1.1	1.1
Cooling Air Temperature Rise		22 (39)	22 (39)	21 (38)	22 (39)
Aftercooler CTD	(7)	10.5 (19)	10.5 (19)	10.5 (19)	10.5 (19)
AIR END DATA					
Main Rotor Speed		3092	2978	2745	2296
Tip Speed Rotor		22.18	21.36	19.69	16.47
Full Load Shaft Power		38.3	38.5	37.8	39.0
COOLANT LUBRICATION DATA					
Total Coolant Capacity - Air Cooled	(12)	15.4 (4.1)	15.4 (4.1)	15.4 (4.1)	15.4 (4.1)
PIPING CONNECTIONS					
Air Discharge	(8)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)
Package Automatic Condensate Drain		.25 INCH (FEMALE)	.25 INCH (FEMALE)	.25 INCH (FEMALE)	.25 INCH (FEMALE)
Coolant Drain - Hose Size		0.875	0.875	0.875	0.875
Diameter of Power Inlet		120 (4.7)	120 (4.7)	120 (4.7)	120 (4.7)
DIMENSIONS AND WEIGHT					
Length, Width, Height		1937, 1056, 1534 (76, 42, 60)	1937, 1056, 1534 (76, 42, 60)	1937, 1056, 1534 (76, 42, 60)	1937, 1056, 1534 (76, 42, 60)
Net Weight - Air Cooled		1200 (2646)	1200 (2646)	1186 (2615)	1186 (2615)
GA Drawing Number - Air Cooled		49182587	49182587	49182587	49182587
ELECTRICAL DATA					
Motor Protection	(13)	TEFC, IP55	TEFC, IP55	TEFC, IP55	TEFC, IP55
Full Load Package Current - Air Cooled	(9)	Amps @ 200V 167 Amps @ 230V 145 Amps @ 380V 88 Amps @ 460V 73 Amps @ 575V 58	168 146 89 73 59	159 139 84 70 56	164 142 86 71 57
Main Motor Locked Rotor Current	(10)(14)(15)	Amps @ 200V 1211 Amps @ 230V 1053 Amps @ 380V 638 Amps @ 460V 527 Amps @ 575V 422	1211 1053 638 527 422	1651 1436 869 718 575	1651 1436 869 718 575
Package Power Factor		0.84	0.84	0.88	0.88
Electrical Installation					
Recommended Supply Cable Size	(10)	mm ² /Cu (AWG) @ 200V 70 (2/0) mm ² /Cu (AWG) @ 230V 50 (1/0) mm ² /Cu (AWG) @ 380V 25 (3 AWG) mm ² /Cu (AWG) @ 460V 25 (4 AWG) mm ² /Cu (AWG) @ 575V 16 (6 AWG)	70 (2/0) 50 (1/0) 25 (3 AWG) 25 (4 AWG) 16 (6 AWG)	70 (2/0) 50 (1/0) 25 (3 AWG) 25 (4 AWG) 16 (6 AWG)	70 (2/0) 50 (1/0) 25 (4 AWG) 25 (4 AWG) 16 (6 AWG)
Maximum Recommended Fuse Rating	(10)(11)	Amps @ 200V 300 Amps @ 230V 250 Amps @ 380V 150 Amps @ 460V 125 Amps @ 575V 100	300 250 150 125 100	300 250 150 125 100	300 250 150 125 100



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Refrigerated Dryer Data

		R404a	R404a	R404a	R404a
Refrigerant Type					
Refrigerant Quantity	Grams (Ounces)	1,600 (56)	1,600 (56)	1,600 (56)	1,600 (56)
Fan Air Flow	m ³ /min (CFM)	61 (2137)	61 (2137)	61 (2137)	61 (2137)

Filter Data	ISO Class (Particles, Humidity and Liquid Water, Oil)	Particles			Humidity and Liquid Water	Total Oil
		[0.1 - 0.5µm]	[0.5 - 1µm]	[1 - 5µm]		
ISO Class Data	1.5.1	≤100	≤1	≤0	≤+7°C	≤0.01 mg/m ³

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) CTD based on 100°F/38°C inlet air at 40% Relative Humidity (For alternate conditions contact Ingersoll Rand)
- (8) BSPT or NPT, depending on regional standard
- (9) Maximum current includes 10% additional current due to fouled filters and elements
- (10) 90°C copper cables. Always apply local electrical codes for sizing cables and system protection.
- (11) Time delay fuse recommended. Apply local electrical codes for fuse sizing
- (12) Coolant volumes listed are approximate. See operator manual for coolant fill procedure.
- (13) 60Hz (±0.5%) motor voltage tolerance: (208)±10%; (220)±10%; (230)±10%; (380)-6/+10%; (440) ±10%; (460) ±10%; (575) -6/+10%
- (14) Star-Delta starting current inrush is about 33% of direct starting current
- (15) During the Star-Delta open-starting transition, the in-rush current value could instantaneously peak from 1.8 to 2.8 times the noted Locked-Rotor-Ampereage (LRA) values
- (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.