



ENGINEERING DATA SHEET

RS37i
60Hz

CCN: 49187081
Rev.: E
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Sheet: 1 of 1
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Model		RS37i-A110	RS37i-A125	RS37i-A145	RS37i-A200	
GENERAL PERFORMANCE DATA						
Maximum Target Operating Pressure	(2)	barg (psig)	7.6 (110)	8.6 (125)	10.0 (145)	13.8 (200)
Rated Discharge Pressure		barg (psig)	6.9 (100)	7.9 (115)	9.3 (135)	13.1 (190)
Minimum Operating Pressure		barg (psig)	4.5 (65)	4.5 (65)	4.5 (65)	4.5 (65)
Maximum Operating Ambient Temperature		°C (°F)	46 (115)	46 (115)	46 (115)	46 (115)
Minimum Operating Ambient Temperature		°C (°F)	2 (36)	2 (36)	2 (36)	2 (36)
Maximum System Temperature Setting		°C (°F)	109 (228)	109 (228)	109 (228)	109 (228)
Nominal Power - Main Motor		kW (HP)	37 (50)	37 (50)	37 (50)	37 (50)
Main Motor Efficiency	(3)	%	94.5%	94.5%	93.0%	93.0%
Capacity FAD	(1)	m ³ /min (CFM)	6.6 (231)	6.2 (220)	5.6 (197)	4.6 (162)
Package Input Power with Fan - Air Cooled	(4)	kW	41.8	41.9	42.0	43.2
Specific Power - Air Cooled	(4)(5)	kW/m ³ /min (kW/100CFM)	6.38 (18.1)	6.73 (19.1)	7.51 (21.3)	9.42 (26.7)
SOUND LEVEL						
Noise Level Standard Package - Air Cooled	(6)	Sound Pressure - dB(A)	69	69	69	69
Noise Level Standard Package - Air Cooled		Sound Power - dB(A)	85	85	85	85
COOLING DATA (@ Maximum Ambient Temperature & Maximum Discharge Pressure)						
Heat Removal (Oil Cooler)		kW (1000 Btu/hr)	33.8 (115)	34.2 (117)	33.4 (114)	35.2 (120)
Heat Removal (Oil and Aftercooler)		kW (1000 Btu/hr)	43.5 (148)	43.6 (149)	42.6 (145)	43.2 (147)
Permitted Additional Static Pressure		Pa (in H ₂ O)	63 (.25)	63 (.25)	63 (.25)	63 (.25)
Fan Air Flow		m ³ /min (CFM)	108 (3826)	108 (3826)	108 (3826)	108 (3826)
Fan Motor Nominal Power		kW	1.1	1.1	1.1	1.1
Cooling Air Temperature Rise		°C (°F)	22 (39)	22 (39)	21 (38)	22 (39)
Aftercooler CTD	(7)	°C (°F)	10.5 (19)	10.5 (19)	10.5 (19)	10.5 (19)
AIR END DATA						
Male Rotor Speed		RPM	3092	2978	2745	2296
Tip Speed Rotor		m/sec	22.18	21.36	19.69	16.47
Full Load Shaft Power		kW	38.3	38.5	37.8	39.0
COOLANT LUBRICATION DATA						
Total Coolant Capacity - Air Cooled	(12)	litres (US gal)	15 (4.1)	15 (4.1)	15 (4.1)	15 (4.1)
PIPING CONNECTIONS						
Air Discharge	(8)	Inches NPT	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)
Package Automatic Condensate Drain		Inches NPT	.25 INCH (FEMALE)	.25 INCH (FEMALE)	.25 INCH (FEMALE)	.25 INCH (FEMALE)
Coolant Drain - Hose Size		Inches	0.875	0.875	0.875	0.875
Diameter of Power Inlet		mm (Inches)	120 (4.7)	120 (4.7)	120 (4.7)	120 (4.7)
DIMENSIONS AND WEIGHT						
Length, Width, Height		mm (inches)	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		kg (lb.)	1095 (2414)	1095 (2414)	1081 (2383)	1081 (2383)
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	159	160	152	156
		Amps @ 230V	139	139	132	136
		Amps @ 380V	84	84	80	83
		Amps @ 460V	70	70	66	68
		Amps @ 575V	56	56	53	55
Main Motor Locked Rotor Current	(10)(14)(15)	Amps @ 200V	1211	1211	1651	1651
		Amps @ 230V	1053	1053	1436	1436
		Amps @ 380V	638	638	869	869
		Amps @ 460V	527	527	718	718
		Amps @ 575V	422	422	575	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)	70 (2/0)	70 (2/0)	70 (2/0)
		mm ² Cu (AWG) @ 230V	50 (1/0)	50 (1/0)	50 (1/0)	50 (1/0)
		mm ² Cu (AWG) @ 380V	25 (3 AWG)	25 (3 AWG)	25 (3 AWG)	25 (4 AWG)
		mm ² Cu (AWG) @ 460V	25 (4 AWG)	25 (4 AWG)	25 (4 AWG)	25 (4 AWG)
		mm ² Cu (AWG) @ 575V	16 (6 AWG)	16 (6 AWG)	16 (6 AWG)	16 (6 AWG)
Maximum Recommended Fuse Rating	(10)(11)	Amps @ 200V	300	300	300	300
		Amps @ 230V	250	250	250	250
		Amps @ 380V	150	150	150	150
		Amps @ 460V	125	125	125	125
		Amps @ 575V	100	100	100	100

- 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-Amperage (LRA) values

Product Improvement is a continuing goal at Ingersoll Rand. Design and specifications are subject to change without notice or obligation.