



ENGINEERING DATA SHEET

RS30ie Total Air System (TAS) 60Hz

CCN: 47542838001
Rev.: M
ECN: 1146166
Sheet: 1 of 2
Date: October 21, 2016

Model		RS30ie-A103-TAS	RS30ie-A118-TAS	RS30ie-A138-TAS	RS30ie-A193-TAS
GENERAL PERFORMANCE DATA					
Maximum Target Operating Pressure	⁽²⁾ barg (psig)	7.1 (103)	8.1 (118)	9.5 (138)	13.3 (193)
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)	30 (40)	30 (40)	30 (40)	30 (40)
Main Motor Efficiency	⁽³⁾ %	94.1%	94.1%	92.4%	92.4%
Capacity FAD	⁽¹⁾ m ³ /min (CFM)	5.7 (202)	5.4 (190)	4.9 (173)	3.8 (134)
Package Input Power with Fan and Dryer- Air Cooled	⁽⁴⁾ kW	38.9	39.0	39.6	38.9
Specific Power - Air Cooled	⁽⁴⁾⁽⁵⁾ kW/m ³ /min (kW/100CFM)	6.8 (19.3)	7.2 (20.5)	8.1 (22.9)	10.2 (29.0)
SOUND LEVEL					
Noise Level Standard Package - Air Cooled	⁽⁶⁾ Sound Pressure - dB(A)	69	69	72	72
Noise Level Standard Package - Air Cooled	Sound Power - dB(A)	86	86	89	89
COOLING DATA (@ Maximum Ambient Temperature & Maximum Discharge Pressure)					
Heat Removal (Oil Cooler)	kW (1000 Btu/hr)	27.5 (94)	27.9 (95)	28.3 (97)	29.2 (100)
Heat Removal (Oil and Aftercooler)	kW (1000 Btu/hr)	37.5 (128)	37.5 (128)	37.3 (127)	35.8 (122)
Heat Removal (Dryer)	kW (1000 Btu/hr)	5.8 (20)	5.8 (20)	5.8 (20)	5.8 (20)
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)	19 (34)	19 (34)	19 (34)	18 (32)
Aftercooler CTD	⁽⁷⁾ °C (°F)	11 (19)	11 (19)	11 (19)	11 (19)
AIR END DATA					
Male Rotor Speed	RPM	2669	2483	2289	1897
Tip Speed Rotor	m/sec	19.15	17.81	16.42	13.61
Full Load Shaft Power	kW	33.0	33.0	33.1	32.4
COOLANT LUBRICATION DATA					
Total Coolant Capacity - Air Cooled	litres (US gal)	24 (6.3)	24 (6.3)	24 (6.3)	24 (6.3)
PIPING CONNECTIONS					
Air Discharge	Inches NPT	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)	1.5 INCH (FEMALE)
Package Automatic Condensate Drain	Inches NPT	.375 INCH (FEMALE)	.375 INCH (FEMALE)	.375 INCH (FEMALE)	.375 INCH (FEMALE)
Coolant Drain - Hose Size	Inches	0.88	0.88	0.88	0.88
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)	1947, 1152, 1660 (76.7, 45.4, 65.4)	1947, 1152, 1660 (76.7, 45.4, 65.4)	1947, 1152, 1660 (76.7, 45.4, 65.4)	1947, 1152, 1660 (76.7, 45.4, 65.4)
Net Weight - Air Cooled	kg (lb.)	1265 (2789)	1265 (2789)	1244 (2743)	1244 (2743)
GA Drawing Number - Air Cooled		47528659	47528659	47528659	47528659
ELECTRICAL DATA					
Motor Protection	⁽¹³⁾	TEFC, IP55	TEFC, IP55	TEFC, IP55	TEFC, IP55
Full Load Package Current - Air Cooled	⁽⁹⁾ Amps @ 200V	148	149	140	138
	Amps @ 230V	129	129	122	120
	Amps @ 380V	78	78	74	73
	Amps @ 460V	65	65	61	60
	Amps @ 575V	52	52	49	48
Main Motor Locked Rotor Current	⁽¹⁰⁾⁽¹⁴⁾⁽¹⁵⁾ Amps @ 200V	1008	1008	1269	1269
	Amps @ 230V	877	877	1103	1103
	Amps @ 380V	531	531	668	668
	Amps @ 460V	439	439	552	552
	Amps @ 575V	351	351	442	442
Package Power Factor		0.84	0.84	0.90	0.90
Electrical Installation					
Recommended Supply Cable Size	⁽¹⁰⁾ mm ² /Cu (AWG) @ 200V	120 (1/0)	120 (1/0)	120 (1/0)	120 (1/0)
	mm ² /Cu (AWG) @ 230V	95 (1 AWG)	95 (1 AWG)	95 (1 AWG)	95 (2 AWG)
	mm ² /Cu (AWG) @ 380V	50 (4 AWG)	50 (4 AWG)	50 (4 AWG)	50 (4 AWG)
	mm ² /Cu (AWG) @ 460V	50 (6 AWG)	50 (6 AWG)	50 (6 AWG)	50 (6 AWG)
	mm ² /Cu (AWG) @ 575V	25 (8 AWG)	25 (8 AWG)	25 (8 AWG)	25 (8 AWG)
Maximum Recommended Fuse Rating	⁽¹⁰⁾⁽¹¹⁾ Amps @ 200V	250	250	250	225
	Amps @ 230V	200	200	200	200
	Amps @ 380V	125	125	125	125
	Amps @ 460V	100	100	100	100
	Amps @ 575V	80	80	80	80



ENGINEERING DATA SHEET

RS30ie Total Air System (TAS) 60Hz

CCN: 47542838001
Rev.: M
ECN: 1146166
Sheet: 2 of 2
Date: October 21, 2016

Refrigerated Dryer Data

Refrigerant Type	Grams (Ounces)	R134a	R134a	R134a	R134a
Refrigerant Quantity		1,300 (46)	1,300 (46)	1,300 (46)	1,300 (46)
Fan Air Flow	m ³ /min (CFM)	52 (1825)	52 (1825)	52 (1825)	52 (1825)

Filter Data	ISO Class	Particles			Humidity and Liquid Water	Total Oil
	(Particles, Humidity and Liquid Water, Oil)	[0.1 - 0.5 μm]	[0.5 - 1 μm]	[1 - 5 μm]		
ISO Class Data	1.4.1	≤20,000	≤400	≤10	≤+3°C	≤0.01 mg/m ³

Notes:

- FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217 : 2009 Annex C
- Maximum pressure at package discharge, value at which compressor will stop when unit operating at maximum target pressure
- IE3 efficiency motor
- Measured at rated capacity and rated pressure
- Specific power guaranteed in accordance with ISO 1217 : 2009 Annex C
- Measured in free field conditions per ISO 2151 using Hemispherical Method; ducted inlet and outlet, with + 3 dB(A) tolerance
- CTD based on 100°F/38°C inlet air at 40% Relative Humidity (For alternate conditions contact Ingersoll Rand)
- BSPT or NPT, depending on regional standard
- Maximum current includes 10% additional current due to fouled filters and elements
- 90°C copper cables. Always apply local electrical codes for sizing cables and system protection
- Time delay fuse recommended. Apply local electrical codes for fuse sizing
- Coolant volumes listed are approximate. See operator manual for coolant fill procedure
- 60Hz (±0.5%) motor voltage tolerance: (208)±10% ; (220)±10% ; (230)±10% ; (380)-6/+10% ; (440) ±10% ; (460) ±10% ; (575) -6/+10%
- Star-Delta starting current inrush is about 33% of direct starting current
- 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
- 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.