



ENGINEERING DATA SHEET

RS22i
Total Air System (TAS)
60Hz

CCN: 47648972001
Rev.: B
ECN: 1344947
Sheet: 1 of 2
Date: Mar-2019

Model		RS22i-A103-TAS	RS22i-A118-TAS	RS22i-A138-TAS	RS22i-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)	40 (104)	40 (104)	40 (104)	40 (104)
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)	22 (30)	22 (30)	22 (30)	22 (30)
Main Motor Efficiency	⁽³⁾ %	93.6%	93.6%	93.6%	93.6%
Capacity FAD	⁽¹⁾ m ³ /min (CFM)	3.69 (130)	3.50 (124)	3.27 (115)	2.63 (93)
Package Input Power with Fan - Air Cooled	⁽⁴⁾⁽¹⁷⁾ kW	27.39	27.40	27.42	27.16
Dryer Input Power with Fan - Air Cooled	⁽⁴⁾ kW	1.03	1.03	1.03	1.03
Specific Power - Air Cooled	⁽⁴⁾⁽⁵⁾⁽¹⁷⁾ kW/m ³ /min (kW/100CFM)	7.42 (21.00)	7.83 (22.17)	8.39 (23.75)	10.31 (29.20)
SOUND LEVEL					
Noise Level Standard Package - Air Cooled	⁽⁶⁾ Sound Pressure - dB(A)	74	74	74	74
Noise Level Standard Package - Air Cooled	Sound Power - dB(A)	90	90	90	90
COOLING DATA (@ Maximum Ambient Temperature & Maximum Discharge Pressure)					
Heat Removal (Oil Cooler)	kW (1000 Btu/hr)	23.3 (79)	23.4 (80)	23.7 (81)	24.0 (82)
Heat Removal (Oil and Aftercooler)	kW (1000 Btu/hr)	27.4 (94)	27.5 (94)	27.5 (94)	27.5 (94)
Heat Removal (Dryer)	kW (1000 Btu/hr)	4.2 (14)	4.2 (14)	4.2 (14)	4.2 (14)
Permitted Additional Static Pressure	Pa (in H ₂ O)	63 (.25)	63 (.25)	63 (.25)	63 (.25)
Fan Air Flow	m ³ /min (CFM)	65 (2295)	65 (2295)	65 (2295)	65 (2295)
Fan Motor Nominal Power	kW	0.5	0.5	0.5	0.5
Cooling Air Temperature Rise @ 30°C	°C (°F)	20 (36)	20 (36)	20 (36)	20 (36)
Aftercooler CTD	⁽⁷⁾ °C (°F)	12 (22)	12 (22)	13 (24)	11 (20)
AIR END DATA					
Male Rotor Speed	RPM	4790	4556	4281	3623
Tip Speed Rotor	m/sec	26.80	25.49	23.95	20.27
Full Load Shaft Power	kW	24.7	24.7	24.7	24.4
COOLANT LUBRICATION DATA					
Total Coolant Capacity - Air Cooled	⁽¹²⁾ litres (US gal)	11 (2.9)	11 (2.9)	11 (2.9)	11 (2.9)
PIPING CONNECTIONS					
Air Discharge	⁽⁸⁾ Inches NPT	1.0" INCH (FEMALE)	1.0" INCH (FEMALE)	1.0" INCH (FEMALE)	1.0" 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 NPT	.375 INCH (FEMALE)	.375 INCH (FEMALE)	.375 INCH (FEMALE)	.375 INCH (FEMALE)
Diameter of Power Inlet	mm (Inches)	64 (2.5)	64 (2.5)	64 (2.5)	64 (2.5)
DIMENSIONS AND WEIGHT					
Length, Width, Height	mm (inches)	1520, 800, 1300 (59.8, 31.5, 51.2)	1520, 800, 1300 (59.8, 31.5, 51.2)	1520, 800, 1300 (59.8, 31.5, 51.2)	1520, 800, 1300 (59.8, 31.5, 51.2)
Net Weight - Air Cooled	kg (lb.) - (Base Mounted)	698 (1539)	698 (1539)	699 (1541)	700 (1543)
GA Drawing Number - Air Cooled	Base Mounted	47637548001	47637548001	47637548001	47637548001
	Receiver Mounted	47637549001	47637549001	47637549001	47637549001
ELECTRICAL DATA					
Motor Protection	⁽¹³⁾	TEFC, IP55	TEFC, IP55	TEFC, IP55	TEFC, IP55
Full Load Package Current - Air Cooled	⁽⁹⁾ Amps @ 200V	112	112	112	112
	Amps @ 230V	97	97	97	97
	Amps @ 460V	51	51	51	51
	Amps @ 575V	41	41	41	41
Main Motor Locked Rotor Current	⁽¹⁴⁾ Amps @ 200V	762	762	762	762
	Amps @ 230V	662	662	662	662
	Amps @ 460V	334	334	334	334
	Amps @ 575V	281	281	281	281
Package Power Factor		0.77	0.77	0.77	0.77
Full Load Dryer Current - Air Cooled	Amps @ 115V	18.00	18.00	18.00	18.00
Electrical Installation					
Recommended Supply Cable Size	⁽¹⁰⁾ mm ² /Cu (Kcmil) @ 200V	35 (66)	35 (66)	35 (66)	35 (66)
	mm ² /Cu (Kcmil) @ 230V	35 (53)	35 (53)	35 (53)	35 (53)
	mm ² /Cu (Kcmil) @ 460V	10 (17)	10 (17)	10 (17)	10 (17)
	mm ² /Cu (Kcmil) @ 575V	10 (17)	10 (17)	10 (17)	10 (17)
Recommended Supply Cable Size Dryer	mm ² /Cu (Kcmil) @ 115V	3 (10)	3 (10)	3 (10)	3 (10)
Maximum Recommended Fuse Rating	⁽¹⁰⁾⁽¹¹⁾ Amps @ 200V	200	200	200	200
	Amps @ 230V	175	175	175	175
	Amps @ 460V	90	90	90	90
	Amps @ 575V	70	70	70	70
Maximum recommended Fuse rating dryer	Amps @ 115V	30	30	30	30



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Refrigerated Dryer Data				
Refrigerant Type		R134a	R134a	R134a
Refrigerant Quantity	Grams (Ounces)	REFER LABEL	REFER LABEL	REFER LABEL
Fan Air Flow	m ³ /min (CFM)	27 (942)	27 (942)	27 (942)
Filter Data	ISO Class (Particles, Humidity and Liquid Water, Oil)	Particles		
ISO Class Data	(16) 1.5.2	[0.1 - 0.5 μm]	[0.5 - 1 μm]	[1 - 5 μm]
		≤20000	≤400	≤10
				Humidity and Liquid Water
				Total Oil
				≤7 °C
				≤0.1

- 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)
 - BSP 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 1-5-2 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%
 - Dryer power is excluded in calculation.

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