



ENGINEERING DATA SHEET

RS200 60Hz

CCN: 47590687001
 Rev.: D
 ECN: 1299681
 Sheet: 1 of 2
 Date: May-2018

Model		RS200n-W145							
GENERAL PERFORMANCE DATA									
Maximum Target Operating Pressure	(2) barg (psig)	10.0 (145)							
Rated Discharge Pressure	barg (psig)	10.0 (145)							
Minimum Operating Pressure	barg (psig)	4.5 (65)							
Capacity FAD	(1)	<i>Max RPM</i>	Max	A	B	C	D	Min	<i>Min RPM</i>
@ 10 barg (145 psig)	m ³ /min (CFM)	1394	33.2 (1172)	31.4 (1109)	28.0 (989)	24.1 (851)	20.5 (724)	16.8 (593)	755
@ 9.3 barg (135 psig)	m ³ /min (CFM)	1470	35.1 (1240)	32.6 (1151)	28.7 (1014)	24.7 (872)	20.8 (735)	16.9 (597)	755
@ 8.6 barg (125 psig)	m ³ /min (CFM)	1544	37.0 (1307)	34.7 (1225)	30.2 (1067)	25.6 (904)	21.1 (745)	16.9 (597)	755
@ 7.9 barg (115 psig)	m ³ /min (CFM)	1617	39.1 (1381)	36.3 (1282)	31.5 (1112)	26.6 (939)	21.8 (770)	16.9 (597)	755
@ 7.6 barg (110 psig)	m ³ /min (CFM)	1652	39.8 (1406)	37.2 (1314)	32.1 (1134)	27.0 (953)	21.9 (773)	16.9 (597)	755
@ 6.9 barg (100 psig)	m ³ /min (CFM)	1722	41.6 (1469)	38.5 (1360)	33.1 (1169)	27.7 (978)	22.4 (791)	16.9 (597)	755
Maximum Operating Ambient Temperature	°C (°F)	46 (115)							
Minimum Operating Ambient Temperature	°C (°F)	2 (36)							
Maximum System Temperature Setting	°C (°F)	109 (228)							
Nominal Power - Main Motor	kW (HP)	200 (268)							
Main Motor Efficiency	(3) %	96.0%							
Main Inverter Drive Efficiency	%	97.0%							
Package Input Power with Fan - Water Cooled	(4)	<i>Max RPM</i>	Max	A	B	C	D	Min	<i>Min RPM</i>
@ 10 barg (145 psig)	kW (HP)	1394	225.8 (303)	213.6 (286)	192.0 (257)	171.1 (229)	148.8 (200)	129.1 (173)	755
@ 9.3 barg (135 psig)	kW (HP)	1470	230.0 (308)	213.2 (286)	189.0 (253)	168.2 (226)	144.7 (194)	123.7 (166)	755
@ 8.6 barg (125 psig)	kW (HP)	1544	233.0 (312)	218.5 (293)	190.8 (256)	166.7 (224)	140.2 (188)	118.4 (159)	755
@ 7.9 barg (115 psig)	kW (HP)	1617	236.8 (318)	219.4 (294)	190.5 (256)	165.5 (222)	138.0 (185)	112.8 (151)	755
@ 7.6 barg (110 psig)	kW (HP)	1652	236.5 (317)	220.6 (296)	190.4 (255)	164.1 (220)	135.5 (182)	110.2 (148)	755
@ 6.9 barg (100 psig)	kW (HP)	1722	237.5 (319)	219.0 (294)	188.0 (252)	160.8 (216)	131.8 (177)	105.0 (141)	755
Specific Power - Water Cooled	(4)(5)	<i>Max RPM</i>	Max	A	B	C	D	Min	<i>Min RPM</i>
@ 10 barg (145 psig)	kW/m ³ /min (kW/100CFM)	1394	6.8 (19.3)	6.8 (19.3)	6.9 (19.4)	7.1 (20.1)	7.3 (20.6)	7.7 (21.8)	755
@ 9.3 barg (135 psig)	kW/m ³ /min (kW/100CFM)	1470	6.6 (18.6)	6.5 (18.5)	6.6 (18.6)	6.8 (19.3)	7.0 (19.7)	7.3 (20.7)	755
@ 8.6 barg (125 psig)	kW/m ³ /min (kW/100CFM)	1544	6.3 (17.8)	6.3 (17.8)	6.3 (17.9)	6.5 (18.4)	6.6 (18.8)	7.0 (19.8)	755
@ 7.9 barg (115 psig)	kW/m ³ /min (kW/100CFM)	1617	6.1 (17.2)	6.0 (17.1)	6.0 (17.1)	6.2 (17.6)	6.3 (17.9)	6.7 (18.9)	755
@ 7.6 barg (110 psig)	kW/m ³ /min (kW/100CFM)	1652	5.9 (16.8)	5.9 (16.8)	5.9 (16.8)	6.1 (17.2)	6.2 (17.5)	6.5 (18.5)	755
@ 6.9 barg (100 psig)	kW/m ³ /min (kW/100CFM)	1722	5.7 (16.2)	5.7 (16.1)	5.7 (16.1)	5.8 (16.4)	5.9 (16.7)	6.2 (17.6)	755
SOUND LEVEL									
Noise Level Standard Package - Air Cooled	(6) Sound Pressure - dB(A)	75							
Noise Level Standard Package - Air Cooled	Sound Power - dB(A)	95							
COOLING DATA (@ Maximum Ambient Temperature & Maximum Discharge Pressure)									
Heat Removal (Oil Cooler)		<i>Max RPM</i>	Max	A	B	C	D	Min	<i>Min RPM</i>
@ 10 barg (145 psig)	kW (1000 Btu/hr)	1394	184.4 (629)	174.4 (595)	155.9 (532)	135.3 (462)	116.5 (398)	98.1 (335)	755
Heat Removal (Oil and Aftercooler)									
@ 10 barg (145 psig)	kW (1000 Btu/hr)	1394	235.6 (804)	222.9 (760)	199.1 (679)	172.5 (589)	148.1 (505)	124.0 (423)	755
Permitted Additional Static Pressure	Pa (in H ₂ O)	0 (0.0)							
Fan / Blower Airflow	m ³ /min (CFM)	142 (4997)							
Fan / Blower Motor Nominal Power	kW	1.1							
Cooling Air Temperature Rise @ 30°C	°C (°F)	10 (18)							
Cooling Water Temperature Rise @ 30°C	°C (°F)	20 (36)							
Cooling Water Flow	(14)								
@ 10 °C (50 °F)	l/min (US gal/min)	102 (27)							
@ 20 °C (68 °F)	l/min (US gal/min)	136 (36)							
@ 30 °C (86 °F)	l/min (US gal/min)	173 (46)							
@ 40 °C (104 °F)	l/min (US gal/min)	187 (49)							
@ 46 °C (115 °F)	l/min (US gal/min)	204 (54)							
Cooling Water Max Pressure	bar (psi)	9 (135)							
Cooling Water Min Pressure	bar (psi)	1 (15)							
Cooling Water Pressure Drop	bar (psi)	0 (2)							
Aftercooler CTD	(7) °C (°F)	8.33 (15)							
AIR END DATA									
Male Rotor Speed	RPM	1062							
Tip Speed Rotor	m/sec	18.47							
Full Load Shaft Power	kW	209.1							



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Model	RS200n-W145	
COOLANT LUBRICATION DATA		
Total Coolant Capacity - Water Cooled	litres (US gal)	102.0 (26.9)
PIPING CONNECTIONS		
Air Discharge	Inches Flange	4.00 (8xM16; 7.5 IN B.C)
Package Automatic Condensate Drain	Inches NPT	.38 (FEMALE)
Coolant Drain - Hose Size	Inches	0.875
Diameter of Power Inlet	mm / (inches)	110 (4.3)
Water Inlet and Outlet Connections	Inches NPT	2.00 (FEMALE)
DIMENSIONS AND WEIGHT		
Length, Width, Height	mm (inches)	3752, 2150, 2504 (147.7, 84.6, 98.6)
Net Weight - Water Cooled	kg (lb.)	6731 (14839)
GA Drawing Number - Water Cooled		47589258
ELECTRICAL DATA ⁽¹³⁾		
Motor Protection		TEFC, IP55
Motor, Number of Poles		4
Motor Insulation Class / Temperature Rise		Class F, 155 °C
Full Load Package Current - Water Cooled	⁽⁹⁾	
	Amps @ 380V	420
	Amps @ 460V	347
	Amps @ 575V	278
Package Power Factor		0.90
Electrical Installation		
Recommended Supply Cable Size	⁽¹⁰⁾	
	mm ² /Cu (Kcmil) @ 380V	800 (1500)
	mm ² /Cu (Kcmil) @ 460V	500 (900)
	mm ² /Cu (Kcmil) @ 575V	400 (600)
Maximum Recommended Fuse Rating	⁽¹⁰⁾⁽¹¹⁾	
	Amps @ 380V	1000
	Amps @ 460V	1000
	Amps @ 575V	700

Notes :

- FAD (Free Air Delivery) is full package performance including all losses. Tested per ISO 1217 : 2009 Annex E
- Maximum pressure at package discharge, value at which compressor will stop when unit operating at maximum target pressure
- Equivalent to IE3 efficiency motor
- Measured at rated capacity and rated pressure
- Specific power guaranteed in accordance with ISO 1217 : 2009 Annex E
- 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
- Fast acting Class-J, T or semiconductor type, current limiting, and Interrupt rating-200,000 Amps RMS. 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%

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