



ENGINEERING DATA SHEET

RS200 60Hz

CCN: 47590688001
 Rev.: D
 ECN: 1299681
 Sheet: 1 of 2
 Date: May-2018

Model RS200ne-W145

GENERAL PERFORMANCE DATA

Maximum Target Operating Pressure	⁽²⁾ barg (psig)									
Rated Discharge Pressure	barg (psig)									
Minimum Operating Pressure	barg (psig)									
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)	1447	37.0 (1306)	33.4 (1178)	29.7 (1047)	26.0 (918)	22.3 (786)	18.7 (660)	755	
@ 9.3 barg (135 psig)	m ³ /min (CFM)	1496	38.5 (1361)	34.3 (1210)	30.4 (1072)	26.5 (935)	22.6 (798)	18.7 (661)	755	
@ 8.6 barg (125 psig)	m ³ /min (CFM)	1547	39.8 (1407)	35.8 (1263)	31.5 (1112)	27.2 (961)	22.9 (810)	18.7 (659)	755	
@ 7.9 barg (115 psig)	m ³ /min (CFM)	1600	41.5 (1464)	36.8 (1300)	32.3 (1141)	27.8 (982)	23.3 (822)	18.8 (664)	755	
@ 7.6 barg (110 psig)	m ³ /min (CFM)	1628	42.1 (1487)	37.6 (1328)	32.8 (1160)	28.2 (996)	23.4 (827)	18.8 (663)	755	
@ 6.9 barg (100 psig)	m ³ /min (CFM)	1685	43.9 (1551)	38.7 (1365)	33.7 (1191)	28.8 (1016)	23.8 (842)	18.8 (664)	755	
Maximum Operating Ambient Temperature	°C (°F)									
Minimum Operating Ambient Temperature	°C (°F)									
Maximum System Temperature Setting	°C (°F)									
Nominal Power - Main Motor	kW (HP)									
Main Motor Efficiency	⁽³⁾ %									
Main Inverter Drive Efficiency	%									
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)	1447	245.0 (329)	221.9 (298)	198.8 (267)	176.3 (236)	153.5 (206)	131.3 (176)	755	
@ 9.3 barg (135 psig)	kW (HP)	1496	244.5 (328)	218.2 (293)	195.6 (262)	171.9 (231)	149.1 (200)	125.5 (168)	755	
@ 8.6 barg (125 psig)	kW (HP)	1547	244.0 (327)	219.3 (294)	195.6 (262)	169.7 (228)	144.6 (194)	119.5 (160)	755	
@ 7.9 barg (115 psig)	kW (HP)	1600	241.5 (324)	214.4 (288)	190.2 (255)	165.2 (222)	140.1 (188)	114.6 (154)	755	
@ 7.6 barg (110 psig)	kW (HP)	1628	246.1 (330)	219.3 (294)	192.3 (258)	164.1 (220)	137.9 (185)	110.5 (148)	755	
@ 6.9 barg (100 psig)	kW (HP)	1685	241.8 (324)	212.8 (285)	185.8 (249)	160.3 (215)	134.5 (180)	108.2 (145)	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)	1447	6.6 (18.8)	6.7 (18.8)	6.7 (19.0)	6.8 (19.2)	6.9 (19.5)	7.0 (19.9)	755	
@ 9.3 barg (135 psig)	kW/m ³ /min (kW/100CFM)	1496	6.3 (18.0)	6.4 (18.0)	6.4 (18.2)	6.5 (18.4)	6.6 (18.7)	6.7 (19.0)	755	
@ 8.6 barg (125 psig)	kW/m ³ /min (kW/100CFM)	1547	6.1 (17.3)	6.1 (17.4)	6.2 (17.6)	6.2 (17.7)	6.3 (17.8)	6.4 (18.1)	755	
@ 7.9 barg (115 psig)	kW/m ³ /min (kW/100CFM)	1600	5.8 (16.5)	5.8 (16.5)	5.9 (16.7)	5.9 (16.8)	6.0 (17.0)	6.1 (17.3)	755	
@ 7.6 barg (110 psig)	kW/m ³ /min (kW/100CFM)	1628	5.8 (16.6)	5.8 (16.5)	5.9 (16.6)	5.8 (16.5)	5.9 (16.7)	5.9 (16.7)	755	
@ 6.9 barg (100 psig)	kW/m ³ /min (kW/100CFM)	1685	5.5 (15.6)	5.5 (15.6)	5.5 (15.6)	5.6 (15.8)	5.6 (16.0)	5.8 (16.3)	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)	1447	199.5 (681)	180.7 (617)	161.0 (549)	138.7 (473)	119.4 (408)	98.6 (336)	755
Heat Removal (Oil and Aftercooler)									
@ 10 barg (145 psig)	kW (1000 Btu/hr)	1447	256.6 (875)	232.2 (792)	206.7 (705)	178.8 (610)	153.8 (525)	127.5 (435)	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)				113 (30)				
@ 20 °C (68 °F)	l/min (US gal/min)				151 (40)				
@ 30 °C (86 °F)	l/min (US gal/min)				203 (54)				
@ 40 °C (104 °F)	l/min (US gal/min)				225 (59)				
@ 46 °C (115 °F)	l/min (US gal/min)				249 (66)				
Cooling Water Max Pressure	bar (psi)				9 (135)				
Cooling Water Min Pressure	bar (psi)				1 (15)				
Cooling Water Pressure Drop	bar (psi)				0 (3)				
Aftercooler CTD	⁽⁷⁾ °C (°F)				8.33 (15)				

AIR END DATA

STG1 Male Rotor Speed	RPM	1048
STG1 Rotor Tip Speed	m/sec	19.14
STG2 Male Rotor Speed	RPM	1205
STG2 Rotor Tip Speed	m/sec	16.22
Full Load Shaft Power	kW	227.0



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Model		RS200ne-W145
COOLANT LUBRICATION DATA		
Total Coolant Capacity - Water Cooled	litres (US gal)	129.0 (34.1)
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)	4320, 2150, 2504 (170.1, 84.6, 98.6)
Net Weight - Water Cooled	kg (lb.)	7921 (17463)
GA Drawing Number - Water Cooled		47589259
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	456
	Amps @ 460V	377
	Amps @ 575V	301
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.