

**Model Name** R190NE

**GENERAL PERFORMANCE DATA**

		7 (100)	7.5 (110)	8 (115)	8.5 (125)	9.5 (135)	10 (145)
Package Discharge Pressure	barg (psig)						
Capacity @ Max Speed FAD <sup>(1)</sup>	m <sup>3</sup> /min (cfm)	39.08 (1380)	37.58 (1327)	36.81 (1300)	33.13 (1170)	32.85 (1160)	32.31 (1141)
Capacity @ Min Speed FAD <sup>(1)</sup>	m <sup>3</sup> /min (cfm)	18.29 (646)	18.30 (646)	18.30 (646)	18.22 (644)	18.07 (638)	17.87 (631)
Turndown Percentage	%	53%	51%	50%	45%	45%	45%
Maximum Target Operating Pressure <sup>(2)</sup>	barg (psig)			10 (145)			
Maximum Ambient Operating Temperature	°C (°F)			46 (115)			
Minimum Ambient Operating Temperature	°C (°F)			2 (35)			
Maximum System Temperature Setting	°C (°F)			109 (228)			
Nominal Power - Main Motor	kW (HP)			187 (250)			
Main Drive Efficiency <sup>(3)</sup>	Percent			97.7%			
Main Motor Efficiency <sup>(3)</sup>	Percent			95.4%			
Package Input Power - Air Cooled <sup>(4)</sup>	kW	237.5	237.5	237.5	223.1	231.1	237.5
Package Input Power - Water Cooled <sup>(4)</sup>	kW	222.9	222.9	222.9	208.5	216.5	222.9
Specific Power - Air Cooled <sup>(4)(5)</sup>	kW/m <sup>3</sup> /min (kW/100cfm)	6.08 (17.21)	6.32 (17.89)	6.45 (18.27)	6.73 (19.06)	7.03 (19.92)	7.35 (20.81)
Specific Power - Water Cooled <sup>(4)(5)</sup>	kW/m <sup>3</sup> /min (kW/100cfm)	5.70 (16.15)	5.93 (16.8)	6.06 (17.15)	6.29 (17.82)	6.59 (18.66)	6.90 (19.54)

**SOUND LEVEL <sup>(6)</sup>**

Standard Package - Air Cooled	dB(A)	80
Standard Package - Water Cooled	dB(A)	80

**Cooling Data (115°F/46°C Maximum Ambient Temperature)**

Heat Removal Oil Cooler (@ 100°F / 38°C)	kW (1000 Btu/hr)	174 (595)	174 (595)	174 (595)	174 (595)	174 (595)	174 (595)
Heat Removal Oil and Aftercooler (@ 100oF)	kW (1000 Btu/hr)	219 (748)	219 (748)	219 (748)	219 (748)	219 (748)	219 (748)
Maximum Added Static Pressure	Pa (in H <sub>2</sub> O)	60 (0.25)					

**Air-cooled**

Fan Air Flow	m <sup>3</sup> /min (cfm)	Maximum: 680 (24,000)					
Cooling Air Temperature Rise	°C (°F)	17 (30)	17 (30)	17 (30)	17 (30)	17 (30)	17 (30)
Aftercooler CTD <sup>(7)</sup>	°C (°F)	8.3 (15.0)	8.3 (15.0)	8.3 (15.0)	8.3 (15.0)	8.3 (15.0)	8.3 (15.0)

**Water-cooled - Standard Duty**

Fan Air Flow	m <sup>3</sup> /min (cfm)	181 (6,400)					
Aftercooler CTD <sup>(7)</sup>	°C (°F)	8.3 (15.0)	8.3 (15.0)	8.3 (15.0)	8.3 (15.0)	8.3 (15.0)	8.3 (15.0)
Cooling Water Flow							
@ 10°C (50°F)	l/min (gal/min)	95 (21)	95 (21)	95 (21)	95 (21)	95 (21)	95 (21)
@ 21°C (70°F)	l/min (gal/min)	130 (29)	130 (29)	130 (29)	130 (29)	130 (29)	130 (29)
@ 32°C (90°F)	l/min (gal/min)	200 (44)	200 (44)	200 (44)	200 (44)	200 (44)	200 (44)
@ 46°C (115°F)	l/min (gal/min)	300 (66)	300 (66)	300 (66)	300 (66)	300 (66)	300 (66)
Cooling Water Temperature Rise	°C (°F)	13 (23)	13 (23)	13 (23)	13 (23)	13 (23)	13 (23)
Cooling Air Temperature Rise	°C (°F)	N/A	N/A	N/A	N/A	N/A	N/A

**Water-cooled - Harsh Duty**

Fan Air Flow	m <sup>3</sup> /min (cfm)	N/A					
Aftercooler CTD <sup>(7)</sup>	°C (°F)	N/A	N/A	N/A	N/A	N/A	N/A
Cooling Water Flow							
@ 10°C (50°F)	l/min (gal/min)	N/A	N/A	N/A	N/A	N/A	N/A
@ 21°C (70°F)	l/min (gal/min)	N/A	N/A	N/A	N/A	N/A	N/A
@ 32°C (90°F)	l/min (gal/min)	N/A	N/A	N/A	N/A	N/A	N/A
@ 46°C (115°F)	l/min (gal/min)	N/A	N/A	N/A	N/A	N/A	N/A
Cooling Water Temperature Rise @ 30°C	°C (°F)	N/A	N/A	N/A	N/A	N/A	N/A
Cooling Air Temperature Rise	°C (°F)	N/A	N/A	N/A	N/A	N/A	N/A

## R190ne

60Hz

CCN: 23570799  
 Rev.: F  
 ECN: 1156167  
 Sheet: 2 of 2  
 Date: 28-Nov-2016

### CONSTRUCTION, FOUNDATION, AND MOUNTING DATA

#### PIPING CONNECTIONS

Air Discharge	Inches BSPT/NPT <sup>(9)</sup>	3.00
Package Automatic Condensate Drain	Inches NPT	0.50
Coolant Drain (if drain tube removed)	Inches BSPT	0.50
Diameter of Power Inlet	Inches	3.0"
Water Inlet and Outlet Connections	Inches BSPT/NPT <sup>(9)</sup>	2.00

#### COOLANT LUBRICATION DATA

Total Coolant Capacity - Air Cooled	litres (US gal)	152 (40)
Total Coolant Capacity - Water Cooled - Std	litres (US gal)	152 (40)
Total Coolant Capacity - Water Cooled - Harsh	litres (US gal)	N/A

#### DIMENSIONS & WEIGHT

		Base Mounted
Length, Width, Height	mm (inches)	4000 / 1930 / 2146 (157.5 / 76 / 84.5)
Net Weight - Air Cooled	kg (lb.)	5933 (13080)
Net Weight - Water Cooled	kg (lb.)	5933 (13080)
GA Drawing Number - Air Cooled		23442502
GA Drawing Number - Water Cooled		23442510

#### ELECTRICAL DATA

		380V, 3Φ	460V, 3Φ	575V, 3Φ
Motor Protection			IP23 (ODP)	
Full Load Package Current - Air Cooled <sup>(10)</sup>	Amps	399	330	264
Full Load Package Current - Water Cooled <sup>(10)</sup>	Amps	357	295	236

#### Electrical Installation

		TBD	TBD	TBD
Recommended Supply Cable Size <sup>(11)</sup>	mm <sup>2</sup> /Cu (AWG)			
Recommended Fuse Rating <sup>(11)(12)</sup>	Amps	TBD	TBD	TBD

#### 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 ) At maximum speed and flow for the given package discharge pressure
- ( 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, with + 3 dB(A) tolerance.
- ( 7 ) 40% Relative Humidity Inlet Air and maximum speed ( For alternate conditions contact IR )
- ( 8 ) Ambient temperature equivalent to cooling water inlet temperature
- ( 9 ) BSPT or NPT, depending on regional standard
- (10) Maximum current could exceed this value by up to 10% assuming fouled filters and elements
- (11) Always apply local electrical codes for sizing cables and fusing.
- (12) Fast Acting Class-J, T or Semiconductor type fuse required. Apply local electrical codes for fuse sizing