



ENGINEERING DATA SHEET

R11n (IE3) Total Air System (TAS) 60Hz

CCN: 47523377001
Rev.: J
ECN: 1082712
Sheet: 1 of 2
Date: 13-Mar-2017

| Model Name | | R11n-X100 | R11n-X110 | R11n-X115 | R11n-X125 | R11n-X135 | |
|--|------------------------------------|--|----------------|---|----------------|----------------|----------------|
| GENERAL PERFORMANCE DATA | | | | | | | |
| Rated Discharge Pressure | barg (psig) | 7 (100) | 7.5 (110) | 8 (115) | 8.5 (125) | 9.5 (135) | |
| Minimum Operation Pressure | barg (psig) | 4.5 (65) | 4.5 (65) | 4.5 (65) | 4.5 (65) | 4.5 (65) | |
| Capacity FAD @ Max Speed (1)(13) | m ³ /min (CFM) | 1.62 (57.1) | 1.58 (55.9) | 1.52 (53.8) | 1.47 (52.0) | 1.43 (50.4) | |
| Capacity FAD @ Min Speed (1)(13) | m ³ /min (CFM) | 0.395 (13.9) | 0.394 (13.9) | 0.392 (13.8) | 0.384 (13.6) | 0.374 (13.2) | |
| Turndown Percentage | Percent | 75.6% | 75.1% | 74.3% | 73.9% | 73.8% | |
| Maximum Target Operating Pressure (2) | barg (psig) | | | 9.5 (138) | | | |
| Maximum Operating Ambient Temperature | °C (°F) | | | 40 (104) | | | |
| Minimum Operating Ambient Temperature | °C (°F) | | | 2 (35) | | | |
| Maximum System Temperature Setting | °C (°F) | | | 109 (228) | | | |
| Nominal Power - Main Motor | kW (HP) | | | 11.0 (15.0) | | | |
| Main Drive Efficiency (3) | Percent | | | 96.4% | | | |
| Main Motor Efficiency (3) | % | | | 91.0% | | | |
| Pkg Input Power w/Fan and Dryer- Air Cooled (4) | kW | 15.99 | 16.0 | 16.0 | 16.0 | 16.05 | |
| Specific Power - Air Cooled (4)(5) | kW/m ³ /min (kW/100cfm) | 9.89 (28.00) | 10.13 (28.69) | 10.51 (29.76) | 10.89 (30.85) | 11.26 (31.87) | |
| SOUND LEVEL (6) | | | | | | | |
| Standard Package - Air Cooled | dB(A) | | | 69 | | | |
| COOLING DATA (@ Maximum Ambient Temperature & Maximum Discharge Pressure) | | | | | | | |
| Heat Removal Oil Cooler | kW (1000 Btu/hr) | 11.4 (38.9) | 11.4 (38.9) | 11.5 (39.3) | 11.5 (39.3) | 11.6 (39.6) | |
| Heat Removal Oil and Aftercooler | kW (1000 Btu/hr) | 13.3 (45.4) | 13.3 (45.4) | 13.4 (45.8) | 13.4 (45.8) | 13.4 (45.8) | |
| Additional Static Pressure (13) | Pa (in H ₂ O) | | | See document 23883374 | | | |
| Fan Air Flow - Compressor | m ³ /min (cfm) | | | 34.0 (1200) | | | |
| - Dryer | m ³ /min (cfm) | | | 15.3 (541) | | | |
| Fan Motor Nominal Power - Compressor | kW | | | 0.3 | | | |
| Fan Motor Efficiency | Percent | | | 71.0% | | | |
| Cooling Air Temperature Rise | °C (°F) | 35 (63) | 35 (63) | 35 (63) | 35 (63) | 35 (63) | |
| Aftercooler CTD(7) | °C (°F) | 12 (21.5) | 12 (21.5) | 12 (21.5) | 12 (21.5) | 11 (21.5) | |
| AIR END DATA | | | | | | | |
| Male Rotor Speed | rpm | 6928 | 6660 | 6537 | 6313 | 6111 | |
| Tip Speed Rotor | m/sec | 26.9 | 25.9 | 25.4 | 24.5 | 23.76 | |
| Full Load Shaft Power | kW | 12.81 | 12.85 | 12.83 | 12.85 | 12.86 | |
| COOLANT LUBRICATION DATA | | | | | | | |
| Total Coolant Capacity - Air Cooled | litres (US gal) | | | 5 (1.32) | | | |
| PIPING CONNECTIONS | | | | | | | |
| Air Discharge | Inches BSPT | | | 0.75 | | | |
| Package Automatic Condensate Drain(8) | mm | | | 10 | | | |
| Coolant Drain - Hose Size | Inches | | | 0.88 | | | |
| Diameter of Power Inlet | Inches | | | M32 gland cable (cable diameters 12-21mm / 0.47-82) | | | |
| DIMENSIONS & WEIGHT | | | | | | | |
| | | Receiver 120gal / 80gal | | | | | |
| Length, Width, Height | mm (inches) | 1843(72.55)x764(30)x1808.5(71.2) / 1740.5(68.5)x764(30)x1706.5(67.2) | | | | | |
| Net Weight - Air Cooled | kg (lb.) | 527 (1162) / 495 (1102) | | | | | |
| GA Drawing Number - Air Cooled | | 47518742 / 47518743 | | | | | |
| ELECTRICAL DATA | | | | | | | |
| | | 208/230V 3Φ | 220V 3Φ | 380V 3Φ | 440V 3Φ | 460V 3Φ | 575V 3Φ |
| Motor Protection | | IP55 | IP55 | IP55 | IP55 | IP55 | IP55 |
| Full Load Package Current - Air Cooled (10) | Amps | 57.6/51.9 | 54.9 | 31.2 | 27.5 | 25.7 | 20.4 |
| Package Power Factor | | | | | | | |
| Electrical Installation | | | | | | | |
| Recommended Supply Cable Size (11) | mm ² /Cu (AWG or kcmil) | 10 (AWG6) | 10 (AWG6) | 4 (AWG10) | 2.5 (AWG12) | 2.5 (AWG12) | 2.5 (AWG12) |
| Maximum Recommended Fuse Rating (11)(12) | Amps | 80 | 63 | 40 | 40 | 40 | 35 |



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Refrigerated Dryer Data

| | | |
|-----------------------------------|-----------|-----------------|
| Pressure Dew Point ISO Class (14) | °C (°F) | ISO Class |
| Refrigerant Weight of R134a | Grams(oz) | 5 320(11.29) |

Filter Data

| Filter Detail - at 21°C (70°F) | Particulate | | Liquid | |
|--------------------------------|-------------|-------------|-----------|----------------------------------|
| | ISO Class | Filtration | ISO Class | Filtration |
| | 1 | 0.01 micron | 1 | 0.01 mg/m ³ (0.1 ppm) |

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) Draining port Include push-in connector for nylon tubing
- (10) Maximum current includes 10% additional current due to fouled filters and elements
- (11) 90°C copper cables. 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
- (13) Performance predicted for variable pressure settings using 10barg configuration pulleys
- (14) 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.