

COMPRESSOR DEFINITION

| | |
|---------------------------|--------------------|
| Designation | NJ 6220Z |
| Nominal Voltage/Frequency | 115 V 60 Hz |
| Engineering Number | 144HG11 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115 / 60 | [V / Hz] | |
| 4 Application type | High Back Pressure (Commercial Compressors) | | |
| 4.1 Evaporating temperature range | -15°C to 10°C | (5°F to 50°F) | |
| 5 Motor type | CSIR | | |
| 6 Starting torque | HST - Hight starting torque | | |
| 7 Expansion device | Capillary tube or Expansion valve | | |
| 8 Compressor cooling | Operating voltage range | | |
| | | 50 Hz | 60 Hz |
| 8.1 LBP (32°C Ambient temperature) | - | - | - |
| 8.2 LBP (43°C Ambient temperature) | - | - | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing pressures/temperature | | | |
| 9.1 Operating (gauge) | 16.2 | [kgf/cm ²] (230 psig) | / °C - °F |
| 9.2 Peak (gauge) | 20.6 | [kgf/cm ²] (293 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--|
| 1 Commercial designation | 1 | [hp] |
| 2 Displacement | 26.11 | [cm ³] (1.593 cu.in) |
| 2.1 Bore [mm] | 41.770 | |
| 2.2 Stroke [mm] | 19.066 | |
| 3 Lubricant charge | 750 | [ml] (25.36 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 19.8 | [kg] (43.65 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (2.84 to 4.27 psig) |

C - ELETRICAL DATA

| | | |
|--|-------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 115 V 60 Hz 1~ (Single phase) | |
| 2 Starting device type | Voltage Relay | |
| 2.1 Starting device | RVA7AC3C-115 | |
| 3 Start capacitor | 340-408(165) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | CRA39009-3031 | |
| 6 Start winding resistance | 3.06 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 0.46 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 72.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|---------------------------|--------------------------------------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAEHBP46 Fan | | Evaporating temperature (Condensing temperature | | 7.2°C (44.96°F) 54.4°C (129.92°F) | |
| Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 10169 | 2563 | 2980 | 1250 | 13.35 | 65.93 | 8.14 | 2.05 | 2.39 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE46 Fan | | (Condensing temperature 35°C (+95°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -15 | (+5) | 4584 | 1155 | 1343 | 724 | 10.35 | 24.82 | 6.31 | 1.59 | 1.85 |
| -10 | (+14) | 5676 | 1430 | 1663 | 796 | 10.65 | 30.79 | 7.15 | 1.80 | 2.10 |
| -5 | (+23) | 7195 | 1813 | 2108 | 863 | 10.97 | 39.16 | 8.35 | 2.10 | 2.45 |
| 0 | (+32) | 9142 | 2304 | 2679 | 925 | 11.30 | 50.00 | 9.88 | 2.49 | 2.90 |
| +5 | (+41) | 11517 | 2902 | 3375 | 981 | 11.64 | 63.36 | 11.73 | 2.96 | 3.44 |
| +10 | (+50) | 14321 | 3609 | 4196 | 1033 | 12.01 | 79.31 | 13.86 | 3.49 | 4.06 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE46 Fan | | (Condensing temperature 45°C (+113°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -15 | (+5) | 3846 | 969 | 1127 | 729 | 10.30 | 22.41 | 5.30 | 1.33 | 1.55 |
| -10 | (+14) | 5055 | 1274 | 1481 | 824 | 10.76 | 29.66 | 6.14 | 1.55 | 1.80 |
| -5 | (+23) | 6558 | 1653 | 1922 | 915 | 11.25 | 38.66 | 7.15 | 1.80 | 2.09 |
| 0 | (+32) | 8355 | 2106 | 2448 | 1003 | 11.76 | 49.48 | 8.31 | 2.09 | 2.43 |
| +5 | (+41) | 10446 | 2632 | 3061 | 1088 | 12.31 | 62.18 | 9.59 | 2.42 | 2.81 |
| +10 | (+50) | 12830 | 3233 | 3759 | 1170 | 12.89 | 76.83 | 10.99 | 2.77 | 3.22 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | ASHRAE46 Fan | | (Condensing temperature 55°C (+131°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -15 | (+5) | 3087 | 778 | 904 | 734 | 10.25 | 19.69 | 4.21 | 1.06 | 1.23 |
| -10 | (+14) | 4407 | 1111 | 1291 | 852 | 10.87 | 28.19 | 5.15 | 1.30 | 1.51 |
| -5 | (+23) | 5888 | 1484 | 1725 | 969 | 11.54 | 37.81 | 6.08 | 1.53 | 1.78 |
| 0 | (+32) | 7528 | 1897 | 2206 | 1084 | 12.25 | 48.60 | 6.97 | 1.76 | 2.04 |
| +5 | (+41) | 9327 | 2351 | 2733 | 1199 | 13.00 | 60.62 | 7.80 | 1.97 | 2.29 |
| +10 | (+50) | 11287 | 2844 | 3307 | 1313 | 13.80 | 73.95 | 8.57 | 2.16 | 2.51 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | American Standard | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 9.6 +0.07/+0.00 | [mm] | (0.378" +0.003"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Vertical | | |
| 3.2 DISCHARGE | 8 +0.07/+0.00 | [mm] | (0.315" +0.003"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted J | | |
| 3.3 PROCESS | 6.42 +0.08/+0.00 | [mm] | (0.253" +0.003"/+0.000") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Vertical | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |