

COMPRESSOR DEFINITION

| | |
|---------------------------|--------------------|
| Designation | NJ 9238GK |
| Nominal Voltage/Frequency | 230 V 50 Hz |
| Engineering Number | 943RV01 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|---|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 230 / 50 | [V / Hz] | |
| 4 Application type | Medium Back Pressure (Commercial Compressors R404A) | | |
| 4.1 Evaporating temperature range | -20°C to 0°C | (-4°F to 32°F) | |
| 5 Motor type | CSCR | | |
| 6 Starting torque | HST - Hight starting torque | | |
| 7 Expantion 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) | 25.7 | [kgf/cm ²] (365 psig) | / °C - °F |
| 9.2 Peak (gauge) | 28.7 | [kgf/cm ²] (408 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|---|
| 1 Commercial designation | 1 1/2 | [hp] |
| 2 Displacement | 32.67 | [cm ³] (1.994 cu.in) |
| 2.1 Bore | 41.770 | |
| 2.2 Stroke | 11.925 | |
| 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) | 22.1 | [kg] (48.72 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 | 230 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Voltage Relay | |
| 2.1 Starting device | 3ARR3B10AT3 | |
| 3 Start capacitor | 130-156(330) | [µF(VAC minimum)] |
| 4 Run capacitor | 25(440) | [µF(VAC minimum)] |
| 5 Motor protection (external) | T0878/C9 OR MRA3764- | |
| 6 Start winding resistance | 5.40 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.75 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | - | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | IMQ | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|------|-----------------------------|-------------------------------|--|--------------------------------------|-----------|-------|
| TEST CONDITIONS: @230V50Hz | | | 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] |
| 15768 | 3974 | 4620 | 2216 | 10.10 | 129.81 | 7.12 | 1.79 | 2.09 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|------------------------|-----------------------------|---------------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @230V50Hz | | | 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] |
| -20 (- 4) | 7254 | 1828 | 2126 | 1190 | 5.76 | 46.04 | 6.09 | 1.54 | 1.79 |
| -15 (+ 5) | 9297 | 2343 | 2724 | 1320 | 6.30 | 59.35 | 7.04 | 1.78 | 2.06 |
| -10 (+14) | 11635 | 2932 | 3409 | 1438 | 6.79 | 74.74 | 8.09 | 2.04 | 2.37 |
| -5 (+23) | 14266 | 3595 | 4180 | 1547 | 7.24 | 92.31 | 9.22 | 2.32 | 2.70 |
| 0 (+32) | 17190 | 4332 | 5037 | 1646 | 7.64 | 112.19 | 10.44 | 2.63 | 3.06 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @230V50Hz | | | 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] |
| -20 (- 4) | 6060 | 1527 | 1776 | 1214 | 5.86 | 42.47 | 5.00 | 1.26 | 1.47 |
| -15 (+ 5) | 7798 | 1965 | 2285 | 1360 | 6.46 | 54.96 | 5.73 | 1.44 | 1.68 |
| -10 (+14) | 9821 | 2475 | 2878 | 1503 | 7.05 | 69.68 | 6.53 | 1.65 | 1.91 |
| -5 (+23) | 12128 | 3056 | 3554 | 1642 | 7.63 | 86.77 | 7.38 | 1.86 | 2.16 |
| 0 (+32) | 14718 | 3709 | 4313 | 1778 | 8.20 | 106.34 | 8.29 | 2.09 | 2.43 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @230V50Hz | | | 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] |
| -20 (- 4) | 4815 | 1213 | 1411 | 1237 | 5.97 | 37.86 | 3.89 | 0.98 | 1.14 |
| -15 (+ 5) | 6235 | 1571 | 1827 | 1402 | 6.62 | 49.37 | 4.45 | 1.12 | 1.30 |
| -10 (+14) | 7931 | 1999 | 2324 | 1570 | 7.31 | 63.29 | 5.06 | 1.27 | 1.48 |
| -5 (+23) | 9900 | 2495 | 2901 | 1740 | 8.04 | 79.74 | 5.69 | 1.43 | 1.67 |
| 0 (+32) | 12144 | 3060 | 3558 | 1914 | 8.80 | 98.84 | 6.34 | 1.60 | 1.86 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | American Standard | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 12.77 +0.08/+0.00 | [mm] | (0.503" +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 | 9.6 +0.07/+0.00 | [mm] | (0.378" +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 | | |