

COMPRESSOR DEFINITION

| | |
|---------------------------|--------------------|
| Designation | J 9238GK |
| Nominal Voltage/Frequency | 230 V 50 Hz |
| Engineering Number | 963RV01 |

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) | | |
| 4.1 Evaporating temperature range | -20°C to 0°C | (-4°F to 32°F) | |
| 5 Motor type | CSCR | | |
| 6 Starting torque | HST - High 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) | 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 [mm] | 41.770 | |
| 2.2 Stroke [mm] | 23.850 | |
| 3 Lubricant charge | 890 | [ml] (30.10 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 | 88-108(330) | [µF(VAC minimum)] |
| 4 Run capacitor | 25(450) | [µF(VAC minimum)] |
| 5 Motor protection | CRA39006-3031 | |
| 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) | 43.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 9.78 | [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] |
| 16513 | 4161 | 4839 | 2109 | 9.57 | 135.95 | 7.83 | 1.97 | 2.29 |

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) | 7555 | 1904 | 2214 | 1157 | 5.54 | 47.95 | 6.53 | 1.64 | 1.91 |
| -15 | (+ 5) | 9685 | 2441 | 2838 | 1283 | 6.06 | 61.83 | 7.55 | 1.90 | 2.21 |
| -10 | (+14) | 12120 | 3054 | 3552 | 1398 | 6.53 | 77.85 | 8.67 | 2.19 | 2.54 |
| -5 | (+23) | 14861 | 3745 | 4355 | 1504 | 6.96 | 96.16 | 9.89 | 2.49 | 2.90 |
| 0 | (+32) | 17906 | 4512 | 5247 | 1599 | 7.35 | 116.87 | 11.19 | 2.82 | 3.28 |
| +5 | (+41) | 21256 | 5357 | 6229 | 1684 | 7.69 | 140.11 | 12.58 | 3.17 | 3.69 |
| +10 | (+50) | 24911 | 6277 | 7299 | 1758 | 7.99 | 166.01 | 14.04 | 3.54 | 4.11 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| 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) | 6310 | 1590 | 1849 | 1179 | 5.64 | 44.22 | 5.36 | 1.35 | 1.57 |
| -15 | (+ 5) | 8123 | 2047 | 2380 | 1321 | 6.21 | 57.24 | 6.14 | 1.55 | 1.80 |
| -10 | (+14) | 10230 | 2578 | 2998 | 1460 | 6.78 | 72.58 | 7.00 | 1.76 | 2.05 |
| -5 | (+23) | 12633 | 3183 | 3702 | 1596 | 7.34 | 90.38 | 7.91 | 1.99 | 2.32 |
| 0 | (+32) | 15330 | 3863 | 4492 | 1727 | 7.89 | 110.77 | 8.88 | 2.24 | 2.60 |
| +5 | (+41) | 18322 | 4617 | 5369 | 1855 | 8.44 | 133.86 | 9.91 | 2.50 | 2.90 |
| +10 | (+50) | 21609 | 5445 | 6332 | 1978 | 8.99 | 159.79 | 10.97 | 2.77 | 3.22 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| 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) | 5014 | 1264 | 1469 | 1201 | 5.74 | 39.43 | 4.17 | 1.05 | 1.22 |
| -15 | (+ 5) | 6495 | 1637 | 1903 | 1362 | 6.37 | 51.42 | 4.78 | 1.20 | 1.40 |
| -10 | (+14) | 8261 | 2082 | 2421 | 1525 | 7.03 | 65.92 | 5.42 | 1.37 | 1.59 |
| -5 | (+23) | 10312 | 2599 | 3022 | 1691 | 7.73 | 83.06 | 6.10 | 1.54 | 1.79 |
| 0 | (+32) | 12648 | 3187 | 3706 | 1860 | 8.46 | 102.95 | 6.80 | 1.71 | 1.99 |
| +5 | (+41) | 15268 | 3848 | 4474 | 2031 | 9.22 | 125.73 | 7.52 | 1.89 | 2.20 |
| +10 | (+50) | 18173 | 4580 | 5325 | 2205 | 10.02 | 151.53 | 8.25 | 2.08 | 2.42 |

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 | | |