

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | J 2212GK |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 963BA01 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [V / Hz] | |
| 4 Application type | Low Back Pressure R404A | | |
| 4.1 Evaporating temperature range | -40°C to -10°C | (-40°F to 14°F) | |
| 5 Motor type | CSCR | | |
| 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) | 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 | 34.38 | [cm ³] (2.098 cu.in) |
| 2.1 Bore [mm] | 42.850 | |
| 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) | 21.45 | [kg] (47.29 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 | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Voltage Relay | |
| 2.1 Starting device | 3ARR3B3AV3 | |
| 3 Start capacitor | 88-108(330) | [µF(VAC minimum)] |
| 4 Run capacitor | 20(450) | [µF(VAC minimum)] |
| 5 Motor protection | 3HM190-105 | |
| 6 Start winding resistance | 7.25 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 1.95 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 36.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 5.30 | [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: @220V50Hz | | | ASHRAELBP32 Fan | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°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] |
| 5150 | 1298 | 1509 | 1150 | 5.62 | 34.91 | 4.48 | 1.13 | 1.31 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 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] |
| -40 | (-40) | 2143 | 540 | 628 | 657 | 3.55 | 14.39 | 3.29 | 0.83 | 0.96 |
| -35 | (-31) | 3273 | 825 | 959 | 778 | 4.02 | 22.08 | 4.19 | 1.06 | 1.23 |
| -30 | (-22) | 4582 | 1155 | 1343 | 904 | 4.54 | 31.01 | 5.05 | 1.27 | 1.48 |
| -25 | (-13) | 6070 | 1530 | 1779 | 1036 | 5.10 | 41.24 | 5.86 | 1.48 | 1.72 |
| -20 | (- 4) | 7736 | 1949 | 2267 | 1174 | 5.71 | 52.83 | 6.60 | 1.66 | 1.94 |
| -15 | (+ 5) | 9580 | 2414 | 2807 | 1318 | 6.36 | 65.82 | 7.28 | 1.84 | 2.13 |
| -10 | (+14) | 11603 | 2924 | 3400 | 1468 | 7.06 | 80.27 | 7.89 | 1.99 | 2.31 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 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] |
| -40 | (-40) | 1815 | 457 | 532 | 597 | 3.23 | 12.18 | 3.02 | 0.76 | 0.89 |
| -35 | (-31) | 2739 | 690 | 803 | 746 | 3.83 | 18.44 | 3.67 | 0.93 | 1.08 |
| -30 | (-22) | 3892 | 981 | 1140 | 903 | 4.49 | 26.28 | 4.31 | 1.09 | 1.26 |
| -25 | (-13) | 5273 | 1329 | 1545 | 1068 | 5.22 | 35.75 | 4.94 | 1.25 | 1.45 |
| -20 | (- 4) | 6883 | 1734 | 2017 | 1242 | 6.02 | 46.90 | 5.55 | 1.40 | 1.63 |
| -15 | (+ 5) | 8720 | 2197 | 2555 | 1425 | 6.88 | 59.79 | 6.12 | 1.54 | 1.79 |
| -10 | (+14) | 10786 | 2718 | 3161 | 1617 | 7.81 | 74.47 | 6.66 | 1.68 | 1.95 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 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] |
| -40 | (-40) | 1584 | 399 | 464 | 565 | 3.19 | 10.61 | 2.79 | 0.70 | 0.82 |
| -35 | (-31) | 2380 | 600 | 697 | 722 | 3.78 | 15.99 | 3.33 | 0.84 | 0.97 |
| -30 | (-22) | 3454 | 870 | 1012 | 890 | 4.46 | 23.28 | 3.89 | 0.98 | 1.14 |
| -25 | (-13) | 4807 | 1211 | 1408 | 1070 | 5.23 | 32.52 | 4.48 | 1.13 | 1.31 |
| -20 | (- 4) | 6437 | 1622 | 1886 | 1260 | 6.07 | 43.79 | 5.08 | 1.28 | 1.49 |
| -15 | (+ 5) | 8345 | 2103 | 2445 | 1463 | 7.01 | 57.11 | 5.69 | 1.43 | 1.67 |
| -10 | (+14) | 10531 | 2654 | 3086 | 1677 | 8.03 | 72.56 | 6.30 | 1.59 | 1.85 |

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 | | |