

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | F GS60CA |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513200071 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-600a | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [V / Hz] | |
| 4 Application type | Low Back Pressure | | |
| 4.1 Evaporating temperature range | -35°C to -10°C | (-31°F to 14°F) | |
| 5 Motor type | RSCR | | |
| 6 Starting torque | LST - Low Starting Torque | | |
| 7 Expansion device | Capillary tube | | |
| 8 Compressor cooling | Operating voltage range | | |
| | | 50 Hz | 60 Hz |
| 8.1 LBP (32°C Ambient temperature) | Static | 198 to 255 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 198 to 255 V | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing pressures/temperature | | | |
| 9.1 Operating (gauge) | 7.7 | [kgf/cm ²] (109 psig) | / °C - °F |
| 9.2 Peak (gauge) | 9.8 | [kgf/cm ²] (139 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|-----------------|----------------------------------|
| 1 Commercial designation | 1/5 | [hp] |
| 2 Displacement | 9.04 | [cm ³] (0.552 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 2.2 Stroke [mm] | 20.000 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | MINERAL / ISO10 | |
| 4 Weight (with oil charge) | 10.5 | [kg] (23.15 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

C - ELETRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | PTC | |
| 2.1 Starting device | 8EA17C3/8EA5B3 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 5(330) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM134RFBYY-53 | |
| 6 Start winding resistance | 20.78 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 27.94 | [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 | IRAM | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAELBP32 Static | | 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] |
| 480 | 121 | 141 | 94 | 0.44 | 1.51 | 5.11 | 1.29 | 1.50 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Static | | (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] |
| -35 (-31) | 262 | 66 | 77 | 72 | 0.30 | 0.82 | 3.63 | 0.91 | 1.06 |
| -30 (-22) | 356 | 90 | 104 | 80 | 0.34 | 1.12 | 4.48 | 1.13 | 1.31 |
| -25 (-13) | 466 | 117 | 137 | 88 | 0.39 | 1.46 | 5.30 | 1.34 | 1.55 |
| -20 (- 4) | 601 | 151 | 176 | 98 | 0.45 | 1.89 | 6.15 | 1.55 | 1.80 |
| -15 (+ 5) | 769 | 194 | 225 | 109 | 0.51 | 2.42 | 7.06 | 1.78 | 2.07 |
| -10 (+14) | 980 | 247 | 287 | 121 | 0.57 | 3.09 | 8.09 | 2.04 | 2.37 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Static | | (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] |
| -35 (-31) | 223 | 56 | 65 | 69 | 0.31 | 0.70 | 3.23 | 0.81 | 0.95 |
| -30 (-22) | 323 | 81 | 95 | 79 | 0.35 | 1.01 | 4.08 | 1.03 | 1.19 |
| -25 (-13) | 435 | 110 | 128 | 90 | 0.40 | 1.37 | 4.86 | 1.23 | 1.43 |
| -20 (- 4) | 569 | 143 | 167 | 101 | 0.47 | 1.79 | 5.64 | 1.42 | 1.65 |
| -15 (+ 5) | 732 | 184 | 214 | 114 | 0.53 | 2.30 | 6.44 | 1.62 | 1.89 |
| -10 (+14) | 934 | 235 | 274 | 127 | 0.60 | 2.95 | 7.33 | 1.85 | 2.15 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Static | | (Condensing temperature 65°C (+149°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] |
| -35 (-31) | 170 | 43 | 50 | 65 | 0.28 | 0.53 | 2.62 | 0.66 | 0.77 |
| -30 (-22) | 272 | 69 | 80 | 77 | 0.34 | 0.85 | 3.48 | 0.88 | 1.02 |
| -25 (-13) | 383 | 97 | 112 | 90 | 0.40 | 1.20 | 4.23 | 1.07 | 1.24 |
| -20 (- 4) | 512 | 129 | 150 | 104 | 0.48 | 1.61 | 4.94 | 1.24 | 1.45 |
| -15 (+ 5) | 667 | 168 | 195 | 119 | 0.55 | 2.10 | 5.64 | 1.42 | 1.65 |
| -10 (+14) | 857 | 216 | 251 | 134 | 0.63 | 2.70 | 6.38 | 1.61 | 1.87 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------------|------|--------------------------|
| 1 Base plate | European Standard EG/F | | |
| 2 Tray holder | Yes | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.1.1 Material | Copper plated steel | | |
| 3.1.2 Shape | Slanted | | |
| 3.2 DISCHARGE | 5 +0.18/-0.06 | [mm] | (0.197" +0.007"/-0.002") |
| 3.2.1 Material | Copper plated steel | | |
| 3.2.2 Shape | Slanted | | |
| 3.3 PROCESS | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.3.1 Material | Copper plated steel | | |
| 3.3.2 Shape | Slanted | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |