

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | F G65HAK |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513200371 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--------------------------------------------|------------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 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 | RSIR | | |
| 6 Starting torque | LST/HST - Low/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) | 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) | 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 | 1/5 | [hp] |
| 2 Displacement | 6.76 | [cm ³] (0.413 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 17.000 | |
| 3 Lubricant charge | 280 | [ml] (9.47 fl.oz) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 10.8 | [kg] (23.81 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 | PTC | |
| 2.1 Starting device | 7M220MC1/8EA17C1/8EA5B1 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 4TM276RFBYY-53 | |
| 6 Start winding resistance | 37.10 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 12.90 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 6.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 1.35 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - IRAM - VDE | |

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] | |
| 560 | 141 | 164 | 140 | 0.88 | 3.18 | 4.00 | 1.01 | 1.17 | |

| | | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|----------------------------------------------------|---------------------------|----------------------------------------|-------|--|
| 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] | |
| 560 | 141 | 164 | 140 | 0.88 | 3.18 | 4.00 | 1.01 | 1.17 | |

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) | 299 | 75 | 88 | 100 | 0.78 | 1.69 | 3.00 | 0.76 | 0.88 | |
| -30 (-22) | 418 | 105 | 123 | 115 | 0.81 | 2.37 | 3.64 | 0.92 | 1.07 | |
| -25 (-13) | 558 | 141 | 164 | 132 | 0.86 | 3.17 | 4.24 | 1.07 | 1.24 | |
| -20 (- 4) | 725 | 183 | 213 | 150 | 0.91 | 4.13 | 4.85 | 1.22 | 1.42 | |
| -15 (+ 5) | 927 | 234 | 272 | 168 | 0.98 | 5.29 | 5.50 | 1.39 | 1.61 | |
| -10 (+14) | 1170 | 295 | 343 | 187 | 1.06 | 6.70 | 6.22 | 1.57 | 1.82 | |

| | | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|----------------------------------------|----------------------------|---------------------------|-----------|-------|--|
| 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) | 250 | 63 | 73 | 96 | 0.76 | 1.41 | 2.61 | 0.66 | 0.76 | |
| -30 (-22) | 368 | 93 | 108 | 114 | 0.80 | 2.09 | 3.23 | 0.81 | 0.95 | |
| -25 (-13) | 505 | 127 | 148 | 133 | 0.86 | 2.87 | 3.79 | 0.96 | 1.11 | |
| -20 (- 4) | 667 | 168 | 195 | 154 | 0.92 | 3.79 | 4.32 | 1.09 | 1.27 | |
| -15 (+ 5) | 860 | 217 | 252 | 177 | 1.00 | 4.91 | 4.86 | 1.23 | 1.42 | |
| -10 (+14) | 1092 | 275 | 320 | 200 | 1.09 | 6.26 | 5.44 | 1.37 | 1.59 | |

E - PERFORMANCE - CURVES

| 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) | 201 | 51 | 59 | 89 | 0.72 | 1.14 | 2.25 | 0.57 | 0.66 |
| -30 | (-22) | 319 | 80 | 93 | 110 | 0.78 | 1.81 | 2.88 | 0.73 | 0.84 |
| -25 | (-13) | 452 | 114 | 132 | 132 | 0.85 | 2.57 | 3.41 | 0.86 | 1.00 |
| -20 | (- 4) | 608 | 153 | 178 | 157 | 0.94 | 3.46 | 3.88 | 0.98 | 1.14 |
| -15 | (+ 5) | 793 | 200 | 232 | 184 | 1.04 | 4.53 | 4.33 | 1.09 | 1.27 |
| -10 | (+14) | 1014 | 256 | 297 | 212 | 1.15 | 5.81 | 4.78 | 1.21 | 1.40 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------------|------|--------------------------|
| 1 Base plate | European Standard EG/F | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.2 +0.12/-0.08 | [mm] | (0.323" +0.005"/-0.003") |
| 3.1.1 Material | Copper plated steel | | |
| 3.1.2 Shape | Slanted | | |
| 3.2 DISCHARGE | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.2.1 Material | Copper plated steel | | |
| 3.2.2 Shape | Slanted | | |
| 3.3 PROCESS | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 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 | | |