

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EG 70HLR |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513700284 |

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-CSIR | | |
| 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 | 170 to 255 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 170 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 | 1/4 | [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) | 10.58 | [kg] (23.32 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 | Current Relay | |
| 2.1 Starting device | 213516159/213516353 | |
| 3 Start capacitor | 72-88(220) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 4TM302KFBYY-53 | |
| 6 Start winding resistance | 33.90 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 10.45 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 13.30 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 1.70 | [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 - 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] |
| 655 | 165 | 192 | 138 | 1.11 | 3.72 | 4.75 | 1.20 | 1.39 |

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) | 344 | 87 | 101 | 95 | 1.02 | 1.94 | 3.60 | 0.91 | 1.06 |
| -30 (-22) | 481 | 121 | 141 | 111 | 1.07 | 2.72 | 4.35 | 1.10 | 1.27 |
| -25 (-13) | 658 | 166 | 193 | 127 | 1.10 | 3.73 | 5.17 | 1.30 | 1.52 |
| -20 (- 4) | 873 | 220 | 256 | 144 | 1.11 | 4.97 | 6.06 | 1.53 | 1.78 |
| -15 (+ 5) | 1125 | 283 | 330 | 161 | 1.13 | 6.42 | 6.99 | 1.76 | 2.05 |
| -10 (+14) | 1411 | 356 | 413 | 178 | 1.16 | 8.08 | 7.93 | 2.00 | 2.32 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 288 | 73 | 84 | 92 | 1.00 | 1.63 | 3.12 | 0.79 | 0.91 |
| -30 (-22) | 417 | 105 | 122 | 110 | 1.04 | 2.37 | 3.79 | 0.96 | 1.11 |
| -25 (-13) | 588 | 148 | 172 | 129 | 1.06 | 3.34 | 4.53 | 1.14 | 1.33 |
| -20 (- 4) | 798 | 201 | 234 | 150 | 1.07 | 4.54 | 5.32 | 1.34 | 1.56 |
| -15 (+ 5) | 1046 | 264 | 306 | 171 | 1.08 | 5.97 | 6.13 | 1.54 | 1.80 |
| -10 (+14) | 1329 | 335 | 389 | 192 | 1.11 | 7.61 | 6.94 | 1.75 | 2.03 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 227 | 57 | 67 | 85 | 1.00 | 1.29 | 2.70 | 0.68 | 0.79 |
| -30 (-22) | 348 | 88 | 102 | 105 | 1.06 | 1.97 | 3.32 | 0.84 | 0.97 |
| -25 (-13) | 510 | 129 | 149 | 128 | 1.09 | 2.90 | 3.99 | 1.00 | 1.17 |
| -20 (- 4) | 713 | 180 | 209 | 152 | 1.12 | 4.06 | 4.68 | 1.18 | 1.37 |
| -15 (+ 5) | 955 | 241 | 280 | 177 | 1.16 | 5.45 | 5.39 | 1.36 | 1.58 |
| -10 (+14) | 1234 | 311 | 362 | 203 | 1.21 | 7.07 | 6.08 | 1.53 | 1.78 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|---------------------------------------|------|--------------------------|
| 1 Base plate | European Standard EG/F/AMEM Version 2 | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted | | |
| 3.2 DISCHARGE | 4.94 +0.08/-0.08 | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material | Copper | | |
| 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 | | |
| 3.3.2 Shape | Slanted | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |