

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EG AS100HLP |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513701387 |

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 with Restrictions (Evapor.Temp.) | | |
| 4.1 Evaporating temperature range | -35°C to -15°C | (-31°F to 5°F) | |
| 5 Motor type | RSIR | | |
| 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 temperature | | | |
| 9.1 Operating | 14.2 | [kgf/cm ²] (202 psig) | / °C - °F |
| 9.2 Peak | 15.9 | [kgf/cm ²] (226 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--------------------------------------------|
| 1 Commercial designation | 1/3 | [hp] |
| 2 Displacement | 7.95 | [cm ³] (0.485 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 20.000 | |
| 3 Lubricant charge | 230 | [ml] (7.78 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 | |
| 4 Weight (with oil charge) | 10.99 | [kg] (24.23 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 | 7M220MC1/8EA17C1/8M220MC1/QPS2-A22MG1/QPS2-A22MG | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 4TM232RFBYY-53 | |
| 6 Start winding resistance | 29.83 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 15.65 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 8.70 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 1.73 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | 2.00 | [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] |
| 830 | 209 | 243 | 159 | 1.14 | 4.72 | 5.21 | 1.31 | 1.53 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|--------------------|-----|---------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Static | | (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] |
| -35 | (-31) | 486 | 122 | 142 | 109 | 1.05 | 2.75 | 4.45 | 1.12 | 1.31 |
| -30 | (-22) | 633 | 160 | 186 | 121 | 1.07 | 3.59 | 5.25 | 1.32 | 1.54 |
| -25 | (-13) | 816 | 206 | 239 | 135 | 1.10 | 4.63 | 6.07 | 1.53 | 1.78 |
| -20 | (- 4) | 1045 | 263 | 306 | 150 | 1.14 | 5.95 | 6.95 | 1.75 | 2.04 |
| -15 | (+ 5) | 1329 | 335 | 389 | 167 | 1.18 | 7.59 | 7.93 | 2.00 | 2.32 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|--------------------|-----|----------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| 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) | 453 | 114 | 133 | 112 | 1.05 | 2.56 | 4.06 | 1.02 | 1.19 |
| -30 | (-22) | 610 | 154 | 179 | 128 | 1.07 | 3.46 | 4.79 | 1.21 | 1.40 |
| -25 | (-13) | 798 | 201 | 234 | 145 | 1.11 | 4.53 | 5.52 | 1.39 | 1.62 |
| -20 | (- 4) | 1025 | 258 | 300 | 164 | 1.16 | 5.83 | 6.27 | 1.58 | 1.84 |
| -15 | (+ 5) | 1300 | 328 | 381 | 184 | 1.22 | 7.42 | 7.06 | 1.78 | 2.07 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|--------------------|-----|----------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| 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) | 388 | 98 | 114 | 110 | 1.04 | 2.19 | 3.52 | 0.89 | 1.03 |
| -30 | (-22) | 557 | 140 | 163 | 131 | 1.08 | 3.16 | 4.24 | 1.07 | 1.24 |
| -25 | (-13) | 751 | 189 | 220 | 153 | 1.13 | 4.26 | 4.91 | 1.24 | 1.44 |
| -20 | (- 4) | 978 | 246 | 287 | 176 | 1.20 | 5.56 | 5.56 | 1.40 | 1.63 |
| -15 | (+ 5) | 1247 | 314 | 366 | 201 | 1.28 | 7.12 | 6.21 | 1.57 | 1.82 |

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) | 290 | 73 | 85 | 103 | 1.04 | 1.64 | 2.83 | 0.71 | 0.83 |
| -30 | (-22) | 474 | 119 | 139 | 130 | 1.09 | 2.69 | 3.57 | 0.90 | 1.05 |
| -25 | (-13) | 676 | 170 | 198 | 159 | 1.15 | 3.84 | 4.23 | 1.06 | 1.24 |
| -20 | (- 4) | 905 | 228 | 265 | 188 | 1.24 | 5.15 | 4.81 | 1.21 | 1.41 |
| -15 | (+ 5) | 1171 | 295 | 343 | 219 | 1.34 | 6.68 | 5.37 | 1.35 | 1.57 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate | Universal 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 | | |