

COMPRESSOR DEFINITION

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|---------------------------|-----------------|
| Designation | EG Y100HLP |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 513700172 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|-----------------------------------|-----------------------------------|-------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115-127 / 60 | [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 | - | 98 to 140 V |
| 8.2 LBP (43°C Ambient temperature) | Static | - | 98 to 140 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 | 1/3 | [hp] |
| 2 Displacement | 8.59 | [cm ³] (0.524 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 2.2 Stroke [mm] | 19.000 | |
| 3 Lubricant charge | 280 | [ml] (9.47 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 | |
| 4 Weight (with oil charge) | 11.27 | [kg] (24.85 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 | 115-127 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | TSD | |
| 2.1 Starting device | TSD- 115V | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 12(180) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM445NFBYY-53 | |
| 6 Start winding resistance | 5.90 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 2.75 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 17.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 2.70 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @115V60Hz | | | 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] |
| 1061 | 267 | 311 | 188 | 1.82 | 6.03 | 5.66 | 1.43 | 1.66 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | 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) | 571 | 144 | 167 | 125 | 1.32 | 3.23 | 4.56 | 1.15 | 1.34 |
| -30 (-22) | 803 | 202 | 235 | 147 | 1.51 | 4.55 | 5.44 | 1.37 | 1.59 |
| -25 (-13) | 1070 | 270 | 314 | 171 | 1.70 | 6.08 | 6.27 | 1.58 | 1.84 |
| -20 (- 4) | 1383 | 349 | 405 | 195 | 1.90 | 7.87 | 7.10 | 1.79 | 2.08 |
| -15 (+ 5) | 1752 | 442 | 513 | 221 | 2.11 | 10.00 | 7.94 | 2.00 | 2.33 |
| -10 (+14) | 2187 | 551 | 641 | 248 | 2.35 | 12.53 | 8.82 | 2.22 | 2.58 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | 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) | 475 | 120 | 139 | 119 | 1.27 | 2.69 | 4.00 | 1.01 | 1.17 |
| -30 (-22) | 703 | 177 | 206 | 147 | 1.50 | 3.98 | 4.79 | 1.21 | 1.40 |
| -25 (-13) | 967 | 244 | 283 | 175 | 1.73 | 5.49 | 5.52 | 1.39 | 1.62 |
| -20 (- 4) | 1278 | 322 | 375 | 205 | 1.97 | 7.27 | 6.23 | 1.57 | 1.83 |
| -15 (+ 5) | 1645 | 415 | 482 | 237 | 2.23 | 9.39 | 6.94 | 1.75 | 2.03 |
| -10 (+14) | 2079 | 524 | 609 | 270 | 2.52 | 11.91 | 7.67 | 1.93 | 2.25 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | 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) | 399 | 100 | 117 | 110 | 1.20 | 2.26 | 3.62 | 0.91 | 1.06 |
| -30 (-22) | 620 | 156 | 182 | 142 | 1.47 | 3.51 | 4.35 | 1.10 | 1.28 |
| -25 (-13) | 879 | 221 | 257 | 175 | 1.75 | 4.99 | 5.02 | 1.27 | 1.47 |
| -20 (- 4) | 1184 | 298 | 347 | 210 | 2.04 | 6.74 | 5.65 | 1.42 | 1.66 |
| -15 (+ 5) | 1548 | 390 | 453 | 247 | 2.35 | 8.83 | 6.27 | 1.58 | 1.84 |
| -10 (+14) | 1978 | 498 | 580 | 287 | 2.70 | 11.33 | 6.90 | 1.74 | 2.02 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------------------|------|--------------------------|
| 1 Base plate | Universal EG/F/AMEM version 2 | | |
| 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 | 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 | 6.5 +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 | | |