

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EG ZS60HLP |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 513701003 |

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 | 1/5 | [hp] |
| 2 Displacement | 5.09 | [cm ³] (0.311 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 12.800 | |
| 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) | 10.75 | [kg] (23.70 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 | PTC | |
| 2.1 Starting device | 7M4R7MD3/8EA14C3/8EA21C3/8M4R7MD3 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 12(180)/15(200)/20(200) | [µF(VAC minimum)] |
| 5 Motor protection | BT149-105 | |
| 6 Start winding resistance | 6.00 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 5.15 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 10.40 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 1.56 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | 1.90 | [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] |
| 610 | 154 | 179 | 104 | 0.91 | 3.47 | 5.87 | 1.48 | 1.72 |

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) | 314 | 79 | 92 | 69 | 0.61 | 1.78 | 4.59 | 1.16 | 1.34 |
| -30 (-22) | 423 | 107 | 124 | 82 | 0.72 | 2.40 | 5.25 | 1.32 | 1.54 |
| -25 (-13) | 600 | 151 | 176 | 98 | 0.86 | 3.41 | 6.12 | 1.54 | 1.79 |
| -20 (- 4) | 833 | 210 | 244 | 116 | 1.01 | 4.74 | 7.16 | 1.80 | 2.10 |
| -15 (+ 5) | 1109 | 280 | 325 | 133 | 1.16 | 6.33 | 8.33 | 2.10 | 2.44 |
| -10 (+14) | 1417 | 357 | 415 | 148 | 1.28 | 8.12 | 9.60 | 2.42 | 2.81 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 249 | 63 | 73 | 61 | 0.55 | 1.41 | 4.01 | 1.01 | 1.17 |
| -30 (-22) | 358 | 90 | 105 | 77 | 0.68 | 2.03 | 4.70 | 1.19 | 1.38 |
| -25 (-13) | 533 | 134 | 156 | 96 | 0.84 | 3.02 | 5.51 | 1.39 | 1.62 |
| -20 (- 4) | 762 | 192 | 223 | 119 | 1.03 | 4.33 | 6.40 | 1.61 | 1.88 |
| -15 (+ 5) | 1032 | 260 | 303 | 141 | 1.22 | 5.89 | 7.33 | 1.85 | 2.15 |
| -10 (+14) | 1332 | 336 | 390 | 162 | 1.40 | 7.63 | 8.27 | 2.08 | 2.42 |

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|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 155 | 39 | 45 | 55 | 0.50 | 0.88 | 2.88 | 0.73 | 0.84 |
| -30 (-22) | 267 | 67 | 78 | 72 | 0.64 | 1.51 | 3.78 | 0.95 | 1.11 |
| -25 (-13) | 444 | 112 | 130 | 94 | 0.82 | 2.52 | 4.70 | 1.18 | 1.38 |
| -20 (- 4) | 673 | 170 | 197 | 119 | 1.04 | 3.83 | 5.61 | 1.41 | 1.64 |
| -15 (+ 5) | 942 | 237 | 276 | 146 | 1.26 | 5.38 | 6.47 | 1.63 | 1.90 |
| -10 (+14) | 1239 | 312 | 363 | 172 | 1.50 | 7.10 | 7.26 | 1.83 | 2.13 |

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 | | |
| 3.1.2 Shape | Straight | | |
| 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 | Straight | | |
| 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 | Straight | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |