

COMPRESSOR DEFINITION

| | |
|---------------------------|-------------|
| Designation | EG AS80HLP |
| Nominal Voltage/Frequency | 220 V 60 Hz |
| Engineering Number | 513701307 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|--------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 220 / 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 | 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 242 V |
| 8.2 LBP (43°C Ambient temperature) | Static | - | 198 to 242 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 | 1/4 | [hp] |
| 2 Displacement | 6.44 | [cm ³] (0.393 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 16.200 | |
| 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) | 9.7 | [kg] (21.38 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 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | PTC | |
| 2.1 Starting device | 8EA17E61/8EA17E63 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 4TM319LFBYY-53 | |
| 6 Start winding resistance | 18.63 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 14.00 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 8.05 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 1.66 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | 2.00 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | TUV | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @220V60Hz | | | 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] |
| 805 | 203 | 236 | 160 | 1.10 | 4.57 | 5.05 | 1.27 | 1.48 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|--------------------|-----|--------------------------------|----------------------------------|---------------------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V60Hz | | 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) | 476 | 120 | 139 | 102 | 0.97 | 2.69 | 4.64 | 1.17 | 1.36 |
| -30 (-22) | 635 | 160 | 186 | 119 | 0.98 | 3.60 | 5.35 | 1.35 | 1.57 |
| -25 (-13) | 828 | 209 | 243 | 135 | 1.01 | 4.70 | 6.16 | 1.55 | 1.80 |
| -20 (- 4) | 1064 | 268 | 312 | 150 | 1.06 | 6.06 | 7.09 | 1.79 | 2.08 |
| -15 (+ 5) | 1352 | 341 | 396 | 165 | 1.11 | 7.72 | 8.19 | 2.07 | 2.40 |
| -10 (+14) | 1699 | 428 | 498 | 178 | 1.17 | 9.73 | 9.51 | 2.40 | 2.79 |

| | | | | | | | | | |
|-------------------------------|----------------------------|--------------------|-----|--------------------------------|----------------------------------|--|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V60Hz | | 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) | 418 | 105 | 122 | 104 | 0.94 | 2.36 | 4.02 | 1.01 | 1.18 |
| -30 (-22) | 585 | 148 | 172 | 125 | 0.98 | 3.32 | 4.69 | 1.18 | 1.38 |
| -25 (-13) | 784 | 198 | 230 | 145 | 1.05 | 4.45 | 5.40 | 1.36 | 1.58 |
| -20 (- 4) | 1022 | 257 | 299 | 165 | 1.13 | 5.81 | 6.18 | 1.56 | 1.81 |
| -15 (+ 5) | 1307 | 329 | 383 | 184 | 1.21 | 7.46 | 7.07 | 1.78 | 2.07 |
| -10 (+14) | 1648 | 415 | 483 | 203 | 1.28 | 9.44 | 8.11 | 2.04 | 2.38 |

| | | | | | | | | | |
|-------------------------------|----------------------------|--------------------|-----|--------------------------------|----------------------------------|--|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V60Hz | | 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) | 338 | 85 | 99 | 98 | 0.92 | 1.91 | 3.46 | 0.87 | 1.01 |
| -30 (-22) | 514 | 130 | 151 | 124 | 0.99 | 2.92 | 4.15 | 1.05 | 1.22 |
| -25 (-13) | 718 | 181 | 210 | 149 | 1.07 | 4.08 | 4.81 | 1.21 | 1.41 |
| -20 (- 4) | 957 | 241 | 280 | 174 | 1.16 | 5.45 | 5.49 | 1.38 | 1.61 |
| -15 (+ 5) | 1240 | 312 | 363 | 199 | 1.25 | 7.08 | 6.22 | 1.57 | 1.82 |
| -10 (+14) | 1575 | 397 | 462 | 223 | 1.32 | 9.02 | 7.04 | 1.77 | 2.06 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V60Hz | | 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) | 238 | 60 | 70 | 83 | 0.92 | 1.35 | 2.86 | 0.72 | 0.84 |
| -30 | (-22) | 422 | 106 | 124 | 115 | 0.99 | 2.39 | 3.61 | 0.91 | 1.06 |
| -25 | (-13) | 630 | 159 | 185 | 147 | 1.07 | 3.58 | 4.28 | 1.08 | 1.25 |
| -20 | (- 4) | 870 | 219 | 255 | 178 | 1.15 | 4.95 | 4.90 | 1.23 | 1.44 |
| -15 | (+ 5) | 1150 | 290 | 337 | 210 | 1.22 | 6.56 | 5.51 | 1.39 | 1.62 |
| -10 | (+14) | 1479 | 373 | 433 | 240 | 1.27 | 8.47 | 6.16 | 1.55 | 1.81 |

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 | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-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 | | |