

COMPRESSOR DEFINITION

| | |
|---------------------------|--------------------|
| Designation | EG 75HLR |
| Nominal Voltage/Frequency | 220-240 V 50-60 Hz |
| Engineering Number | 513700288 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 220-240 / 50-60 | [V / Hz] | |
| 4 Application type | Low-Medium Back Pressure | | |
| 4.1 Evaporating temperature range | -35°C to -5°C | (-31°F to 23°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) | - | 187 to 242 V | |
| 8.2 LBP (43°C Ambient temperature) | - | 187 to 242 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 / ISO10 | |
| 4 Weight (with oil charge) | 11.2 | [kg] (24.69 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 50-60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | 213516159 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 4TM319KFBYY-53 | |
| 6 Start winding resistance | 43.10 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 10.35 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50/60 Hz) | 12.80/11.90 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50/60 Hz) | 1.70/1.50 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50/60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | TUV | |

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] | |
| 684 | 172 | 200 | 141 | 1.08 | 3.89 | 4.87 | 1.23 | 1.43 | |

| | | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS: @220V50Hz | | | ASHRAELBP32 Fan | | 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] | |
| 684 | 172 | 200 | 141 | 1.08 | 3.89 | 4.87 | 1.23 | 1.43 | |

| | | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|--|
| 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 | 161 | 1.04 | 4.57 | 5.00 | 1.26 | 1.47 | |

| | | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|--|
| TEST CONDITIONS: @220V60Hz | | | ASHRAELBP32 Fan | | 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 | 161 | 1.04 | 4.57 | 5.00 | 1.26 | 1.47 | |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|----------------------------|-----------------|---------|--------------------------------|----------------------------------|----------------------------|--|--------|----------|-----------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 Fan | | | | | (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] |
| -35 | (-31) | 385 | 97 | 113 | 96 | 0.98 | 2.18 | 4.01 | 1.01 | 1.18 |
| -30 | (-22) | 502 | 127 | 147 | 112 | 1.01 | 2.84 | 4.52 | 1.14 | 1.32 |
| -25 | (-13) | 667 | 168 | 195 | 129 | 1.05 | 3.79 | 5.19 | 1.31 | 1.52 |
| -20 | (- 4) | 878 | 221 | 257 | 146 | 1.09 | 4.99 | 5.99 | 1.51 | 1.76 |
| -15 | (+ 5) | 1131 | 285 | 331 | 163 | 1.14 | 6.46 | 6.90 | 1.74 | 2.02 |
| -10 | (+14) | 1425 | 359 | 418 | 180 | 1.20 | 8.17 | 7.88 | 1.99 | 2.31 |
| -5 | (+23) | 1757 | 443 | 515 | 198 | 1.26 | 10.11 | 8.91 | 2.24 | 2.61 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | ASHRAE32 Fan | | | (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 | 96 | 0.98 | 1.91 | 3.52 | 0.89 | 1.03 | |
| -30 (-22) | 460 | 116 | 135 | 115 | 1.02 | 2.61 | 4.03 | 1.02 | 1.18 | |
| -25 (-13) | 619 | 156 | 181 | 134 | 1.06 | 3.51 | 4.63 | 1.17 | 1.36 | |
| -20 (- 4) | 812 | 205 | 238 | 154 | 1.11 | 4.62 | 5.28 | 1.33 | 1.55 | |
| -15 (+ 5) | 1036 | 261 | 304 | 174 | 1.18 | 5.91 | 5.97 | 1.50 | 1.75 | |
| -10 (+14) | 1290 | 325 | 378 | 194 | 1.25 | 7.39 | 6.65 | 1.68 | 1.95 | |
| -5 (+23) | 1570 | 396 | 460 | 215 | 1.32 | 9.03 | 7.31 | 1.84 | 2.14 | |

| TEST CONDITIONS: @220V50Hz | | ASHRAE32 Fan | | | (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) | 255 | 64 | 75 | 89 | 0.97 | 1.44 | 2.88 | 0.72 | 0.84 | |
| -30 (-22) | 397 | 100 | 116 | 113 | 1.01 | 2.25 | 3.46 | 0.87 | 1.01 | |
| -25 (-13) | 564 | 142 | 165 | 137 | 1.07 | 3.20 | 4.06 | 1.02 | 1.19 | |
| -20 (- 4) | 754 | 190 | 221 | 162 | 1.14 | 4.29 | 4.65 | 1.17 | 1.36 | |
| -15 (+ 5) | 965 | 243 | 283 | 187 | 1.22 | 5.51 | 5.18 | 1.31 | 1.52 | |
| -10 (+14) | 1193 | 301 | 350 | 213 | 1.31 | 6.83 | 5.65 | 1.42 | 1.65 | |
| -5 (+23) | 1437 | 362 | 421 | 239 | 1.41 | 8.27 | 6.00 | 1.51 | 1.76 | |

| TEST CONDITIONS: @220V60Hz | | ASHRAE32 Fan | | | (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) | 410 | 103 | 120 | 102 | 0.87 | 2.32 | 4.00 | 1.01 | 1.17 | |
| -30 (-22) | 572 | 144 | 168 | 124 | 0.92 | 3.24 | 4.63 | 1.17 | 1.36 | |
| -25 (-13) | 778 | 196 | 228 | 147 | 1.00 | 4.42 | 5.32 | 1.34 | 1.56 | |
| -20 (- 4) | 1030 | 260 | 302 | 170 | 1.09 | 5.86 | 6.05 | 1.53 | 1.77 | |
| -15 (+ 5) | 1332 | 336 | 390 | 195 | 1.19 | 7.60 | 6.84 | 1.72 | 2.01 | |
| -10 (+14) | 1685 | 425 | 494 | 219 | 1.29 | 9.66 | 7.69 | 1.94 | 2.25 | |
| -5 (+23) | 2093 | 527 | 613 | 244 | 1.39 | 12.04 | 8.58 | 2.16 | 2.52 | |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V60Hz | | ASHRAE32 Fan | | | (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) | 352 | 89 | 103 | 103 | 0.88 | 1.99 | 3.45 | 0.87 | 1.01 |
| -30 | (-22) | 508 | 128 | 149 | 125 | 0.93 | 2.88 | 4.05 | 1.02 | 1.19 |
| -25 | (-13) | 707 | 178 | 207 | 151 | 1.01 | 4.01 | 4.67 | 1.18 | 1.37 |
| -20 | (- 4) | 952 | 240 | 279 | 178 | 1.11 | 5.42 | 5.32 | 1.34 | 1.56 |
| -15 | (+ 5) | 1244 | 313 | 364 | 207 | 1.22 | 7.10 | 5.98 | 1.51 | 1.75 |
| -10 | (+14) | 1587 | 400 | 465 | 238 | 1.34 | 9.09 | 6.68 | 1.68 | 1.96 |
| -5 | (+23) | 1983 | 500 | 581 | 269 | 1.47 | 11.41 | 7.39 | 1.86 | 2.17 |

| TEST CONDITIONS: @220V60Hz | | ASHRAE32 Fan | | | (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 | 96 | 0.85 | 1.64 | 3.02 | 0.76 | 0.88 |
| -30 | (-22) | 433 | 109 | 127 | 122 | 0.91 | 2.45 | 3.55 | 0.89 | 1.04 |
| -25 | (-13) | 618 | 156 | 181 | 152 | 1.01 | 3.51 | 4.07 | 1.03 | 1.19 |
| -20 | (- 4) | 847 | 213 | 248 | 185 | 1.13 | 4.82 | 4.58 | 1.15 | 1.34 |
| -15 | (+ 5) | 1123 | 283 | 329 | 221 | 1.28 | 6.41 | 5.09 | 1.28 | 1.49 |
| -10 | (+14) | 1448 | 365 | 424 | 259 | 1.44 | 8.30 | 5.59 | 1.41 | 1.64 |
| -5 | (+23) | 1826 | 460 | 535 | 300 | 1.61 | 10.50 | 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 | 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 | | |