

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EG X90CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513703039 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-600a | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [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 | 187 to 255 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 187 to 255 V | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing temperature | | | |
| 9.1 Operating | 6.9 | [kgf/cm ²] (98 psig) | / °C - °F |
| 9.2 Peak | 7.8 | [kgf/cm ²] (111 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 12.21 | [cm ³] (0.745 cu.in) |
| 2.1 Bore [mm] | 26.000 | |
| 2.2 Stroke [mm] | 23.000 | |
| 3 Lubricant charge | 280 | [ml] (9.47 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 11.05 | [kg] (24.36 lb.) |
| 5 Nitrogen charge | - | [kgf/cm ²] |

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 | 8EA17C3/8EA5B3/QPS2-A22MD3/QPS2-A22MD3 091 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 5(310) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM189NFBYY-53 | |
| 6 Start winding resistance | 22.45 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 18.35 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 5.10 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.85 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CE - UKCA - VDE | |

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] |
| 737 | 186 | 216 | 118 | 0.53 | 2.31 | 6.27 | 1.58 | 1.84 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|----------------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 428 | 108 | 125 | 82 | 0.39 | 1.34 | 5.22 | 1.32 | 1.53 |
| -30 (-22) | 558 | 141 | 163 | 94 | 0.44 | 1.75 | 5.95 | 1.50 | 1.74 |
| -25 (-13) | 712 | 179 | 208 | 106 | 0.49 | 2.23 | 6.75 | 1.70 | 1.98 |
| -20 (- 4) | 900 | 227 | 264 | 118 | 0.54 | 2.83 | 7.64 | 1.92 | 2.24 |
| -15 (+ 5) | 1133 | 285 | 332 | 131 | 0.59 | 3.57 | 8.62 | 2.17 | 2.52 |
| -10 (+14) | 1420 | 358 | 416 | 146 | 0.66 | 4.48 | 9.70 | 2.45 | 2.84 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|----------------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 395 | 100 | 116 | 86 | 0.40 | 1.24 | 4.63 | 1.17 | 1.36 |
| -30 (-22) | 526 | 132 | 154 | 99 | 0.46 | 1.65 | 5.29 | 1.33 | 1.55 |
| -25 (-13) | 677 | 171 | 198 | 113 | 0.52 | 2.12 | 5.99 | 1.51 | 1.76 |
| -20 (- 4) | 859 | 216 | 252 | 128 | 0.58 | 2.70 | 6.74 | 1.70 | 1.97 |
| -15 (+ 5) | 1082 | 273 | 317 | 143 | 0.64 | 3.41 | 7.54 | 1.90 | 2.21 |
| -10 (+14) | 1356 | 342 | 397 | 161 | 0.72 | 4.28 | 8.41 | 2.12 | 2.47 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|----------------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 367 | 93 | 108 | 86 | 0.40 | 1.15 | 4.25 | 1.07 | 1.25 |
| -30 (-22) | 499 | 126 | 146 | 102 | 0.47 | 1.56 | 4.89 | 1.23 | 1.43 |
| -25 (-13) | 647 | 163 | 190 | 117 | 0.54 | 2.03 | 5.51 | 1.39 | 1.62 |
| -20 (- 4) | 823 | 207 | 241 | 134 | 0.61 | 2.59 | 6.15 | 1.55 | 1.80 |
| -15 (+ 5) | 1037 | 261 | 304 | 152 | 0.69 | 3.26 | 6.81 | 1.72 | 1.99 |
| -10 (+14) | 1297 | 327 | 380 | 173 | 0.78 | 4.09 | 7.50 | 1.89 | 2.20 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|---------------------------------------|------|--------------------------|
| 1 Base plate | European Standard EG/F/AMEM Version 2 | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 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 | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |