

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM X32CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513309508 |

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 pressures/temperature | | | |
| 9.1 Operating (gauge) | 7.7 | [kgf/cm ²] (109 psig) | / °C - °F |
| 9.2 Peak (gauge) | 9.8 | [kgf/cm ²] (139 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 5.96 | [cm ³] (0.364 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 15.000 | |
| 3 Lubricant charge | 180 | [ml] (6.09 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 7.88 | [kg] (17.37 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 | V230 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 2.5(380)/2(380) | [µF(VAC minimum)] |
| 5 Motor protection | T0223/07 | |
| 6 Start winding resistance | 34.75 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 37.70 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 2.60 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.40 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - IRAM - VDE | |

D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS: @220V50Hz | | | CECOMAFLBP Static | | Evaporating temperature (Condensing temperature | | -25°C (-13°F) 55°C (131°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] |
| 250 | 63 | 73 | 56 | 0.25 | 0.95 | 4.43 | 1.12 | 1.30 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | | CECOMAF 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) | 163 | 41 | 48 | 40 | 0.19 | 0.57 | 4.06 | 1.02 | 1.19 |
| -30 | (-22) | 221 | 56 | 65 | 47 | 0.21 | 0.77 | 4.74 | 1.19 | 1.39 |
| -25 | (-13) | 291 | 73 | 85 | 54 | 0.24 | 1.01 | 5.44 | 1.37 | 1.59 |
| -20 | (- 4) | 376 | 95 | 110 | 61 | 0.28 | 1.31 | 6.22 | 1.57 | 1.82 |
| -15 | (+ 5) | 479 | 121 | 140 | 67 | 0.31 | 1.67 | 7.11 | 1.79 | 2.08 |
| -10 | (+14) | 606 | 153 | 177 | 74 | 0.34 | 2.12 | 8.16 | 2.06 | 2.39 |

| TEST CONDITIONS: @220V50Hz | | | CECOMAF 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) | 125 | 32 | 37 | 39 | 0.18 | 0.48 | 3.23 | 0.81 | 0.95 |
| -30 | (-22) | 184 | 46 | 54 | 47 | 0.22 | 0.70 | 3.86 | 0.97 | 1.13 |
| -25 | (-13) | 249 | 63 | 73 | 56 | 0.25 | 0.95 | 4.46 | 1.12 | 1.31 |
| -20 | (- 4) | 326 | 82 | 96 | 64 | 0.29 | 1.25 | 5.06 | 1.27 | 1.48 |
| -15 | (+ 5) | 417 | 105 | 122 | 73 | 0.33 | 1.60 | 5.70 | 1.44 | 1.67 |
| -10 | (+14) | 527 | 133 | 155 | 82 | 0.37 | 2.02 | 6.43 | 1.62 | 1.88 |

| TEST CONDITIONS: @220V50Hz | | | CECOMAF 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) | 94 | 24 | 28 | 38 | 0.18 | 0.40 | 2.46 | 0.62 | 0.72 |
| -30 | (-22) | 152 | 38 | 44 | 48 | 0.22 | 0.64 | 3.13 | 0.79 | 0.92 |
| -25 | (-13) | 213 | 54 | 62 | 58 | 0.26 | 0.90 | 3.68 | 0.93 | 1.08 |
| -20 | (- 4) | 281 | 71 | 82 | 68 | 0.31 | 1.19 | 4.17 | 1.05 | 1.22 |
| -15 | (+ 5) | 360 | 91 | 105 | 78 | 0.36 | 1.53 | 4.64 | 1.17 | 1.36 |
| -10 | (+14) | 453 | 114 | 133 | 89 | 0.41 | 1.93 | 5.12 | 1.29 | 1.50 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|--------------------------------|------|--------------------------|
| 1 Base plate | European Standard EUEM | | |
| 2 Tray holder | Yes | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.2 +0.05/+0.05 | [mm] | (0.244" +0.002"/+0.002") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 42° up + 45° to Back | | |
| 3.2 DISCHARGE | 4.9 +0.10/-0.05 | [mm] | (0.193" +0.004"/-0.002") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted parallel BP+24°to Back | | |
| 3.3 PROCESS | 6.2 +0.05/+0.05 | [mm] | (0.244" +0.002"/+0.002") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted 45° up + 45° to Back | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |