

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | EM Z46CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 898NA88 |

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 | 198 to 254 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 198 to 254 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 | 7.96 | [cm ³] (0.486 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 2.2 Stroke [mm] | 17.600 | |
| 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) | 7.9 | [kg] (17.42 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 | 4(440) | [μF(VAC minimum)] |
| 5 Motor protection | T0224/07 | |
| 6 Start winding resistance | 17.80 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 25.00 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 3.80 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.22 | [A] |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] |
| 11 Approval boards certification | 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] |
| 349 | 88 | 102 | 78 | 0.36 | 1.33 | 4.48 | 1.13 | 1.31 |

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) | 213 | 54 | 62 | 56 | 0.26 | 0.74 | 3.80 | 0.96 | 1.11 |
| -30 | (-22) | 300 | 76 | 88 | 65 | 0.30 | 1.04 | 4.61 | 1.16 | 1.35 |
| -25 | (-13) | 403 | 102 | 118 | 74 | 0.35 | 1.40 | 5.45 | 1.37 | 1.60 |
| -20 | (- 4) | 526 | 132 | 154 | 83 | 0.39 | 1.83 | 6.32 | 1.59 | 1.85 |
| -15 | (+ 5) | 670 | 169 | 196 | 93 | 0.44 | 2.34 | 7.22 | 1.82 | 2.12 |
| -10 | (+14) | 837 | 211 | 245 | 103 | 0.49 | 2.93 | 8.14 | 2.05 | 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) | 181 | 46 | 53 | 57 | 0.26 | 0.69 | 3.20 | 0.81 | 0.94 |
| -30 | (-22) | 258 | 65 | 76 | 67 | 0.31 | 0.98 | 3.84 | 0.97 | 1.12 |
| -25 | (-13) | 349 | 88 | 102 | 78 | 0.36 | 1.33 | 4.49 | 1.13 | 1.31 |
| -20 | (- 4) | 457 | 115 | 134 | 89 | 0.41 | 1.75 | 5.15 | 1.30 | 1.51 |
| -15 | (+ 5) | 584 | 147 | 171 | 100 | 0.47 | 2.24 | 5.83 | 1.47 | 1.71 |
| -10 | (+14) | 732 | 184 | 214 | 112 | 0.53 | 2.81 | 6.51 | 1.64 | 1.91 |

| 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) | 145 | 37 | 43 | 55 | 0.26 | 0.61 | 2.64 | 0.66 | 0.77 |
| -30 | (-22) | 215 | 54 | 63 | 68 | 0.31 | 0.91 | 3.17 | 0.80 | 0.93 |
| -25 | (-13) | 298 | 75 | 87 | 80 | 0.37 | 1.26 | 3.70 | 0.93 | 1.08 |
| -20 | (- 4) | 394 | 99 | 115 | 93 | 0.43 | 1.67 | 4.23 | 1.07 | 1.24 |
| -15 | (+ 5) | 506 | 128 | 148 | 106 | 0.50 | 2.15 | 4.76 | 1.20 | 1.39 |
| -10 | (+14) | 637 | 161 | 187 | 121 | 0.57 | 2.72 | 5.28 | 1.33 | 1.55 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 2 Tray holder | Yes | | |
| 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 42° | | |
| 3.2 DISCHARGE | 5.1 +0.10/+0.00 | [mm] | (0.201" +0.004"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted 42° | | |
| 3.3 PROCESS | 6 +0.08/-0.08 | [mm] | (0.236" +0.003"/-0.003") |
| 3.3.1 Material | Copper(OD) | | |
| 3.3.2 Shape | Slanted 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |