

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | EM U40CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 895MA77 |

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 | 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 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 | 7.23 | [cm ³] (0.441 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 2.2 Stroke [mm] | 16.000 | |
| 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) | 7.2 | [kg] (15.87 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 | - | [μF(VAC minimum)] |
| 5 Motor protection | T0881/07 | |
| 6 Start winding resistance | 26.50 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 26.40 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 4.15 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.59 | [A] |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] |
| 11 Approval boards certification | VDE | |

D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS: @220V50Hz | | | CECOMAF 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] |
| 311 | 78 | 91 | 83 | 0.59 | 1.19 | 3.76 | 0.95 | 1.10 |

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) | 196 | 49 | 57 | 60 | 0.54 | 0.68 | 3.27 | 0.82 | 0.96 |
| -30 | (-22) | 272 | 68 | 80 | 70 | 0.56 | 0.95 | 3.89 | 0.98 | 1.14 |
| -25 | (-13) | 361 | 91 | 106 | 80 | 0.58 | 1.26 | 4.51 | 1.14 | 1.32 |
| -20 | (- 4) | 466 | 118 | 137 | 90 | 0.60 | 1.63 | 5.16 | 1.30 | 1.51 |
| -15 | (+ 5) | 591 | 149 | 173 | 101 | 0.62 | 2.06 | 5.85 | 1.47 | 1.71 |
| -10 | (+14) | 738 | 186 | 216 | 112 | 0.64 | 2.58 | 6.61 | 1.67 | 1.94 |

| 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) | 159 | 40 | 47 | 61 | 0.54 | 0.60 | 2.61 | 0.66 | 0.77 |
| -30 | (-22) | 229 | 58 | 67 | 72 | 0.56 | 0.87 | 3.19 | 0.80 | 0.93 |
| -25 | (-13) | 310 | 78 | 91 | 83 | 0.59 | 1.18 | 3.75 | 0.94 | 1.10 |
| -20 | (- 4) | 405 | 102 | 119 | 94 | 0.61 | 1.55 | 4.31 | 1.09 | 1.26 |
| -15 | (+ 5) | 518 | 131 | 152 | 106 | 0.64 | 1.98 | 4.90 | 1.23 | 1.44 |
| -10 | (+14) | 651 | 164 | 191 | 117 | 0.67 | 2.50 | 5.54 | 1.40 | 1.62 |

| 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) | 130 | 33 | 38 | 60 | 0.54 | 0.55 | 2.16 | 0.54 | 0.63 |
| -30 | (-22) | 191 | 48 | 56 | 72 | 0.57 | 0.81 | 2.65 | 0.67 | 0.78 |
| -25 | (-13) | 262 | 66 | 77 | 85 | 0.60 | 1.11 | 3.10 | 0.78 | 0.91 |
| -20 | (- 4) | 345 | 87 | 101 | 98 | 0.63 | 1.46 | 3.54 | 0.89 | 1.04 |
| -15 | (+ 5) | 444 | 112 | 130 | 111 | 0.67 | 1.89 | 3.99 | 1.00 | 1.17 |
| -10 | (+14) | 560 | 141 | 164 | 125 | 0.71 | 2.39 | 4.47 | 1.13 | 1.31 |

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 | 4.94 +0.08/-0.08 | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 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 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |