

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM Y40CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 897DA83 |

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-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 | 7.23 | [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) | 7.65 | [kg] (16.87 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 | MI2021 | |
| 3 Start capacitor | - | [μF(VAC minimum)] |
| 4 Run capacitor | 2.5(440) | [μF(VAC minimum)] |
| 5 Motor protection | AE37FN10 | |
| 6 Start winding resistance | 25.40 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 24.60 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 3.90 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.40 | [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] |
| 310 | 78 | 91 | 72 | 0.38 | 1.18 | 4.29 | 1.08 | 1.26 |

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 | 49 | 0.32 | 0.68 | 4.00 | 1.01 | 1.17 |
| -30 | (-22) | 272 | 68 | 80 | 59 | 0.34 | 0.95 | 4.60 | 1.16 | 1.35 |
| -25 | (-13) | 361 | 91 | 106 | 69 | 0.37 | 1.26 | 5.23 | 1.32 | 1.53 |
| -20 | (- 4) | 466 | 118 | 137 | 79 | 0.40 | 1.63 | 5.90 | 1.49 | 1.73 |
| -15 | (+ 5) | 591 | 149 | 173 | 89 | 0.43 | 2.06 | 6.63 | 1.67 | 1.94 |
| -10 | (+14) | 738 | 186 | 216 | 99 | 0.46 | 2.58 | 7.44 | 1.87 | 2.18 |

| 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 | 49 | 0.32 | 0.60 | 3.23 | 0.81 | 0.95 |
| -30 | (-22) | 229 | 58 | 67 | 61 | 0.35 | 0.87 | 3.76 | 0.95 | 1.10 |
| -25 | (-13) | 310 | 78 | 91 | 72 | 0.38 | 1.18 | 4.28 | 1.08 | 1.26 |
| -20 | (- 4) | 405 | 102 | 119 | 84 | 0.41 | 1.55 | 4.83 | 1.22 | 1.41 |
| -15 | (+ 5) | 518 | 131 | 152 | 96 | 0.45 | 1.98 | 5.41 | 1.36 | 1.58 |
| -10 | (+14) | 651 | 164 | 191 | 108 | 0.49 | 2.50 | 6.03 | 1.52 | 1.77 |

| 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 | 49 | 0.32 | 0.55 | 2.64 | 0.66 | 0.77 |
| -30 | (-22) | 191 | 48 | 56 | 62 | 0.35 | 0.81 | 3.09 | 0.78 | 0.90 |
| -25 | (-13) | 262 | 66 | 77 | 75 | 0.39 | 1.11 | 3.51 | 0.88 | 1.03 |
| -20 | (- 4) | 345 | 87 | 101 | 88 | 0.43 | 1.46 | 3.92 | 0.99 | 1.15 |
| -15 | (+ 5) | 444 | 112 | 130 | 102 | 0.48 | 1.89 | 4.35 | 1.10 | 1.27 |
| -10 | (+14) | 560 | 141 | 164 | 117 | 0.52 | 2.39 | 4.80 | 1.21 | 1.41 |

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 | 4.95 +0.05/+0.05 | [mm] | (0.195" +0.002"/+0.002") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Vertical | | |
| 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 | | |