

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | EM Y40CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 875LA90 |

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) | 7.64 | [kg] (16.84 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 | AX37FN | |
| 6 Start winding resistance | 21.47 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 31.70 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | - | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | - | [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] |
| 306 | 77 | 90 | 70 | 0.36 | 1.17 | 4.40 | 1.11 | 1.29 |

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) | 190 | 48 | 56 | 52 | 0.29 | 0.66 | 3.62 | 0.91 | 1.06 |
| -30 | (-22) | 270 | 68 | 79 | 59 | 0.32 | 0.94 | 4.61 | 1.16 | 1.35 |
| -25 | (-13) | 360 | 91 | 105 | 66 | 0.35 | 1.25 | 5.46 | 1.37 | 1.60 |
| -20 | (- 4) | 465 | 117 | 136 | 75 | 0.38 | 1.62 | 6.19 | 1.56 | 1.81 |
| -15 | (+ 5) | 590 | 149 | 173 | 86 | 0.43 | 2.06 | 6.85 | 1.73 | 2.01 |
| -10 | (+14) | 738 | 186 | 216 | 99 | 0.49 | 2.58 | 7.47 | 1.88 | 2.19 |

| 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) | 151 | 38 | 44 | 53 | 0.30 | 0.57 | 2.82 | 0.71 | 0.83 |
| -30 | (-22) | 223 | 56 | 65 | 60 | 0.33 | 0.85 | 3.67 | 0.92 | 1.07 |
| -25 | (-13) | 303 | 76 | 89 | 70 | 0.36 | 1.16 | 4.36 | 1.10 | 1.28 |
| -20 | (- 4) | 398 | 100 | 117 | 81 | 0.41 | 1.52 | 4.93 | 1.24 | 1.44 |
| -15 | (+ 5) | 509 | 128 | 149 | 94 | 0.46 | 1.95 | 5.41 | 1.36 | 1.59 |
| -10 | (+14) | 643 | 162 | 188 | 110 | 0.53 | 2.47 | 5.85 | 1.47 | 1.71 |

| 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) | 103 | 26 | 30 | 52 | 0.29 | 0.43 | 1.99 | 0.50 | 0.58 |
| -30 | (-22) | 168 | 42 | 49 | 59 | 0.33 | 0.71 | 2.81 | 0.71 | 0.82 |
| -25 | (-13) | 241 | 61 | 71 | 69 | 0.37 | 1.02 | 3.46 | 0.87 | 1.01 |
| -20 | (- 4) | 325 | 82 | 95 | 82 | 0.42 | 1.38 | 3.98 | 1.00 | 1.17 |
| -15 | (+ 5) | 425 | 107 | 125 | 97 | 0.48 | 1.81 | 4.40 | 1.11 | 1.29 |
| -10 | (+14) | 545 | 137 | 160 | 114 | 0.55 | 2.33 | 4.76 | 1.20 | 1.40 |

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 +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 | | |