

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM Y32CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513306536 |

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 | 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) | 7.91 | [kg] (17.44 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 | T0224/07 | |
| 6 Start winding resistance | 27.00 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 34.70 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 2.80 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.41 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 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] |
| 249 | 63 | 73 | 61 | 0.41 | 0.95 | 4.06 | 1.02 | 1.19 |

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) | 165 | 42 | 48 | 44 | 0.36 | 0.57 | 3.73 | 0.94 | 1.09 |
| -30 (-22) | 224 | 57 | 66 | 51 | 0.37 | 0.78 | 4.37 | 1.10 | 1.28 |
| -25 (-13) | 299 | 75 | 88 | 59 | 0.40 | 1.04 | 5.08 | 1.28 | 1.49 |
| -20 (- 4) | 389 | 98 | 114 | 66 | 0.43 | 1.36 | 5.85 | 1.47 | 1.71 |
| -15 (+ 5) | 493 | 124 | 144 | 74 | 0.46 | 1.72 | 6.67 | 1.68 | 1.95 |
| -10 (+14) | 611 | 154 | 179 | 81 | 0.49 | 2.14 | 7.54 | 1.90 | 2.21 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 136 | 34 | 40 | 44 | 0.37 | 0.52 | 3.11 | 0.78 | 0.91 |
| -30 (-22) | 185 | 47 | 54 | 52 | 0.38 | 0.71 | 3.56 | 0.90 | 1.04 |
| -25 (-13) | 248 | 63 | 73 | 61 | 0.41 | 0.95 | 4.05 | 1.02 | 1.19 |
| -20 (- 4) | 325 | 82 | 95 | 71 | 0.45 | 1.24 | 4.56 | 1.15 | 1.34 |
| -15 (+ 5) | 415 | 105 | 122 | 81 | 0.49 | 1.59 | 5.11 | 1.29 | 1.50 |
| -10 (+14) | 518 | 130 | 152 | 91 | 0.53 | 1.99 | 5.68 | 1.43 | 1.66 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 104 | 26 | 30 | 43 | 0.37 | 0.44 | 2.39 | 0.60 | 0.70 |
| -30 (-22) | 147 | 37 | 43 | 52 | 0.39 | 0.62 | 2.81 | 0.71 | 0.82 |
| -25 (-13) | 202 | 51 | 59 | 63 | 0.42 | 0.86 | 3.22 | 0.81 | 0.94 |
| -20 (- 4) | 271 | 68 | 79 | 74 | 0.46 | 1.15 | 3.65 | 0.92 | 1.07 |
| -15 (+ 5) | 351 | 88 | 103 | 86 | 0.51 | 1.49 | 4.07 | 1.03 | 1.19 |
| -10 (+14) | 442 | 112 | 130 | 99 | 0.56 | 1.88 | 4.49 | 1.13 | 1.32 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|--------------------------------|------|--------------------------|
| 1 Base plate | European Standard EUEM | | |
| 2 Tray holder | Yes | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.1 +0.10/+0.00 | [mm] | (0.319" +0.004"/+0.000") |
| 3.1.1 Material | Copper(OD) | | |
| 3.1.2 Shape | Slanted 42° up + 45° to Back | | |
| 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 parallel BP+24°to Back | | |
| 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 43° up + 45° to Back | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |