

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM C46CLT |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 700DA90 |

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 255 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 198 to 255 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 | 1/7 | [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 | 150 | [ml] (5.07 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 7.4 | [kg] (16.31 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 | TSD | |
| 2.1 Starting device | TSD2-220V/TSD2-220V1.2/TSD2-D-220V | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 3(350)/4(350) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM189KFBYY-73 | |
| 6 Start winding resistance | 21.45 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 26.20 | [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) | 0.69 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | 0.84 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | VDE | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------------|-------------------------------|----------------------------------------------------|-------------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | CECOMAFLBP-NOFAN 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] |
| 333 | 84 | 98 | 69 | 0.33 | 1.27 | 4.82 | 1.21 | 1.41 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|---------------------------------------|---------------------------|-----------|-------|--|
| TEST CONDITIONS: @220V50Hz | | CECOMAF-NOFAN Static | | | | (Condensing temperature 35°C (+95°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) | 239 | 60 | 70 | 47 | 0.23 | 0.76 | 5.09 | 1.28 | 1.49 | |
| -30 (-22) | 340 | 86 | 100 | 55 | 0.26 | 1.09 | 6.13 | 1.55 | 1.80 | |
| -25 (-13) | 460 | 116 | 135 | 64 | 0.30 | 1.48 | 7.22 | 1.82 | 2.11 | |
| -20 (- 4) | 599 | 151 | 175 | 72 | 0.34 | 1.93 | 8.35 | 2.10 | 2.45 | |
| -15 (+ 5) | 759 | 191 | 222 | 80 | 0.37 | 2.44 | 9.52 | 2.40 | 2.79 | |
| -10 (+14) | 942 | 237 | 276 | 88 | 0.41 | 3.04 | 10.74 | 2.71 | 3.15 | |

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|----------------------------------------|---------------------------|-----------|-------|--|
| TEST CONDITIONS: @220V50Hz | | CECOMAF-NOFAN 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) | 207 | 52 | 61 | 47 | 0.24 | 0.72 | 4.37 | 1.10 | 1.28 | |
| -30 (-22) | 293 | 74 | 86 | 57 | 0.28 | 1.02 | 5.13 | 1.29 | 1.50 | |
| -25 (-13) | 397 | 100 | 116 | 67 | 0.32 | 1.38 | 5.93 | 1.49 | 1.74 | |
| -20 (- 4) | 519 | 131 | 152 | 77 | 0.37 | 1.81 | 6.76 | 1.70 | 1.98 | |
| -15 (+ 5) | 661 | 167 | 194 | 87 | 0.41 | 2.31 | 7.63 | 1.92 | 2.24 | |
| -10 (+14) | 826 | 208 | 242 | 97 | 0.46 | 2.89 | 8.54 | 2.15 | 2.50 | |

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|----------------------------------------|---------------------------|-----------|-------|--|
| TEST CONDITIONS: @220V50Hz | | CECOMAF-NOFAN 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) | 175 | 44 | 51 | 48 | 0.24 | 0.67 | 3.65 | 0.92 | 1.07 | |
| -30 (-22) | 247 | 62 | 72 | 59 | 0.29 | 0.94 | 4.21 | 1.06 | 1.23 | |
| -25 (-13) | 336 | 85 | 98 | 70 | 0.33 | 1.28 | 4.80 | 1.21 | 1.41 | |
| -20 (- 4) | 442 | 111 | 130 | 81 | 0.39 | 1.69 | 5.42 | 1.37 | 1.59 | |
| -15 (+ 5) | 569 | 143 | 167 | 93 | 0.44 | 2.18 | 6.06 | 1.53 | 1.78 | |
| -10 (+14) | 716 | 181 | 210 | 106 | 0.50 | 2.75 | 6.73 | 1.70 | 1.97 | |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | CECOMAF-NOFAN 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) | 140 | 35 | 41 | 45 | 0.23 | 0.59 | 3.12 | 0.79 | 0.91 |
| -30 | (-22) | 200 | 50 | 59 | 56 | 0.28 | 0.84 | 3.55 | 0.89 | 1.04 |
| -25 | (-13) | 276 | 69 | 81 | 69 | 0.33 | 1.16 | 4.00 | 1.01 | 1.17 |
| -20 | (- 4) | 368 | 93 | 108 | 82 | 0.39 | 1.56 | 4.47 | 1.13 | 1.31 |
| -15 | (+ 5) | 480 | 121 | 141 | 96 | 0.46 | 2.04 | 4.97 | 1.25 | 1.46 |
| -10 | (+14) | 612 | 154 | 179 | 112 | 0.52 | 2.61 | 5.48 | 1.38 | 1.61 |

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° up + 45° to Back | | |
| 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 | Slanted 0° up + 45° 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 | | |