

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM C40CLT |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 701NA95 |

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 | 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 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 | 150 | [ml] (5.07 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 7.7 | [kg] (16.98 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 | M.I.E-START ES1B | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 4(350) | [µF(VAC minimum)] |
| 5 Motor protection | AX37FN | |
| 6 Start winding resistance | 18.80 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 41.00 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 3.43 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.51 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | 0.59 | [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] |
| 297 | 75 | 87 | 62 | 0.30 | 1.13 | 4.77 | 1.20 | 1.40 |

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) | 237 | 60 | 70 | 45 | 0.20 | 0.76 | 5.30 | 1.34 | 1.55 | |
| -30 (-22) | 315 | 79 | 92 | 51 | 0.23 | 1.01 | 6.25 | 1.57 | 1.83 | |
| -25 (-13) | 413 | 104 | 121 | 57 | 0.27 | 1.32 | 7.24 | 1.82 | 2.12 | |
| -20 (- 4) | 535 | 135 | 157 | 65 | 0.31 | 1.72 | 8.29 | 2.09 | 2.43 | |
| -15 (+ 5) | 685 | 173 | 201 | 73 | 0.35 | 2.21 | 9.44 | 2.38 | 2.77 | |
| -10 (+14) | 865 | 218 | 254 | 81 | 0.39 | 2.79 | 10.72 | 2.70 | 3.14 | |

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|--|
| 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) | 204 | 51 | 60 | 43 | 0.21 | 0.71 | 4.66 | 1.17 | 1.36 | |
| -30 (-22) | 275 | 69 | 81 | 51 | 0.24 | 0.95 | 5.36 | 1.35 | 1.57 | |
| -25 (-13) | 364 | 92 | 107 | 60 | 0.28 | 1.27 | 6.09 | 1.53 | 1.78 | |
| -20 (- 4) | 474 | 119 | 139 | 69 | 0.32 | 1.65 | 6.86 | 1.73 | 2.01 | |
| -15 (+ 5) | 607 | 153 | 178 | 79 | 0.37 | 2.12 | 7.70 | 1.94 | 2.26 | |
| -10 (+14) | 768 | 193 | 225 | 89 | 0.42 | 2.69 | 8.64 | 2.18 | 2.53 | |

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|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|--|
| 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) | 157 | 40 | 46 | 43 | 0.21 | 0.60 | 3.70 | 0.93 | 1.08 | |
| -30 (-22) | 220 | 56 | 65 | 52 | 0.25 | 0.84 | 4.25 | 1.07 | 1.25 | |
| -25 (-13) | 298 | 75 | 87 | 62 | 0.29 | 1.14 | 4.79 | 1.21 | 1.40 | |
| -20 (- 4) | 394 | 99 | 115 | 73 | 0.34 | 1.50 | 5.35 | 1.35 | 1.57 | |
| -15 (+ 5) | 510 | 128 | 149 | 85 | 0.39 | 1.95 | 5.96 | 1.50 | 1.75 | |
| -10 (+14) | 649 | 164 | 190 | 97 | 0.44 | 2.49 | 6.64 | 1.67 | 1.95 | |

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) | 129 | 32 | 38 | 44 | 0.22 | 0.54 | 2.89 | 0.73 | 0.85 |
| -30 | (-22) | 183 | 46 | 54 | 54 | 0.26 | 0.77 | 3.36 | 0.85 | 0.98 |
| -25 | (-13) | 249 | 63 | 73 | 65 | 0.30 | 1.05 | 3.79 | 0.96 | 1.11 |
| -20 | (- 4) | 328 | 83 | 96 | 78 | 0.35 | 1.39 | 4.22 | 1.06 | 1.24 |
| -15 | (+ 5) | 425 | 107 | 125 | 91 | 0.41 | 1.81 | 4.67 | 1.18 | 1.37 |
| -10 | (+14) | 542 | 137 | 159 | 105 | 0.47 | 2.32 | 5.17 | 1.30 | 1.51 |

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 | 5.1 +0.10/+0.00 | [mm] | (0.201" +0.004"/+0.000") |
| 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 | | |