

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM 2C32CLT |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513304502 |

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 | 5.96 | [cm ³] (0.364 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 15.000 | |
| 3 Lubricant charge | 150 | [ml] (5.07 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | MINERAL / ISO5 | |
| 4 Weight (with oil charge) | 7.68 | [kg] (16.93 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 | 8EA17C3/QPS2-A22MD3 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 2(350)/3(350)/2.5(350) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM110NFBYY-53 | |
| 6 Start winding resistance | 31.70 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 34.50 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 2.60 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.40 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CE - IRAM - UKCA - 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] |
| 246 | 62 | 72 | 53 | 0.26 | 0.94 | 4.64 | 1.17 | 1.36 |

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) | 195 | 49 | 57 | 38 | 0.17 | 0.62 | 5.05 | 1.27 | 1.48 |
| -30 (-22) | 258 | 65 | 76 | 44 | 0.20 | 0.83 | 5.87 | 1.48 | 1.72 |
| -25 (-13) | 338 | 85 | 99 | 50 | 0.22 | 1.09 | 6.85 | 1.73 | 2.01 |
| -20 (- 4) | 437 | 110 | 128 | 55 | 0.25 | 1.40 | 8.00 | 2.02 | 2.34 |
| -15 (+ 5) | 556 | 140 | 163 | 60 | 0.27 | 1.79 | 9.30 | 2.34 | 2.72 |
| -10 (+14) | 698 | 176 | 204 | 65 | 0.29 | 2.25 | 10.75 | 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) | 159 | 40 | 47 | 38 | 0.18 | 0.55 | 4.15 | 1.05 | 1.22 |
| -30 (-22) | 218 | 55 | 64 | 45 | 0.21 | 0.76 | 4.84 | 1.22 | 1.42 |
| -25 (-13) | 291 | 73 | 85 | 51 | 0.24 | 1.01 | 5.63 | 1.42 | 1.65 |
| -20 (- 4) | 381 | 96 | 112 | 58 | 0.26 | 1.33 | 6.52 | 1.64 | 1.91 |
| -15 (+ 5) | 490 | 123 | 144 | 65 | 0.29 | 1.71 | 7.51 | 1.89 | 2.20 |
| -10 (+14) | 619 | 156 | 181 | 72 | 0.32 | 2.17 | 8.60 | 2.17 | 2.52 |

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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) | 127 | 32 | 37 | 39 | 0.19 | 0.48 | 3.31 | 0.83 | 0.97 |
| -30 (-22) | 180 | 45 | 53 | 46 | 0.22 | 0.69 | 3.94 | 0.99 | 1.15 |
| -25 (-13) | 246 | 62 | 72 | 53 | 0.25 | 0.94 | 4.61 | 1.16 | 1.35 |
| -20 (- 4) | 327 | 82 | 96 | 61 | 0.28 | 1.25 | 5.33 | 1.34 | 1.56 |
| -15 (+ 5) | 424 | 107 | 124 | 69 | 0.31 | 1.62 | 6.08 | 1.53 | 1.78 |
| -10 (+14) | 539 | 136 | 158 | 78 | 0.35 | 2.07 | 6.87 | 1.73 | 2.01 |

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) | 96 | 24 | 28 | 39 | 0.18 | 0.41 | 2.48 | 0.62 | 0.73 |
| -30 | (-22) | 143 | 36 | 42 | 46 | 0.21 | 0.60 | 3.11 | 0.78 | 0.91 |
| -25 | (-13) | 201 | 51 | 59 | 54 | 0.25 | 0.85 | 3.74 | 0.94 | 1.10 |
| -20 | (- 4) | 271 | 68 | 80 | 63 | 0.29 | 1.15 | 4.35 | 1.10 | 1.27 |
| -15 | (+ 5) | 356 | 90 | 104 | 73 | 0.33 | 1.51 | 4.94 | 1.24 | 1.45 |
| -10 | (+14) | 457 | 115 | 134 | 83 | 0.38 | 1.95 | 5.50 | 1.39 | 1.61 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate | European Standard EUEM | | |
| 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 90° up + 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 | | |