

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM 2C66CLT |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513304506 |

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 | 1/5 | [hp] |
| 2 Displacement | 10.61 | [cm ³] (0.647 cu.in) |
| 2.1 Bore [mm] | 26.000 | |
| 2.2 Stroke [mm] | 20.000 | |
| 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) | 8.36 | [kg] (18.43 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 2021 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 5(310)/4(310) | [µF(VAC minimum)] |
| 5 Motor protection | AE64FS | |
| 6 Start winding resistance | 13.10 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 18.50 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 5.10 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.77 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | | |

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] |
| 457 | 115 | 134 | 93 | 0.45 | | 4.91 | 1.24 | 1.44 |

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) | 342 | 86 | 100 | 62 | 0.31 | 1.09 | 5.45 | 1.37 | 1.60 | |
| -30 (-22) | 462 | 117 | 136 | 74 | 0.36 | 1.49 | 6.26 | 1.58 | 1.83 | |
| -25 (-13) | 608 | 153 | 178 | 86 | 0.42 | 1.95 | 7.15 | 1.80 | 2.09 | |
| -20 (- 4) | 783 | 197 | 229 | 97 | 0.47 | 2.52 | 8.10 | 2.04 | 2.37 | |
| -15 (+ 5) | 991 | 250 | 290 | 109 | 0.52 | 3.19 | 9.11 | 2.30 | 2.67 | |
| -10 (+14) | 1235 | 311 | 362 | 121 | 0.57 | 3.98 | 10.18 | 2.57 | 2.98 | |

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|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|--|---------------------------|-----------|-------|--|
| 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) | 291 | 73 | 85 | 64 | 0.32 | 1.01 | 4.57 | 1.15 | 1.34 | |
| -30 (-22) | 401 | 101 | 118 | 77 | 0.38 | 1.39 | 5.24 | 1.32 | 1.54 | |
| -25 (-13) | 533 | 134 | 156 | 89 | 0.44 | 1.86 | 5.97 | 1.50 | 1.75 | |
| -20 (- 4) | 691 | 174 | 202 | 102 | 0.49 | 2.41 | 6.75 | 1.70 | 1.98 | |
| -15 (+ 5) | 878 | 221 | 257 | 116 | 0.55 | 3.07 | 7.57 | 1.91 | 2.22 | |
| -10 (+14) | 1099 | 277 | 322 | 130 | 0.62 | 3.85 | 8.42 | 2.12 | 2.47 | |

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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) | 241 | 61 | 71 | 65 | 0.32 | 0.92 | 3.75 | 0.94 | 1.10 | |
| -30 (-22) | 340 | 86 | 100 | 79 | 0.39 | 1.29 | 4.30 | 1.08 | 1.26 | |
| -25 (-13) | 457 | 115 | 134 | 93 | 0.45 | 1.74 | 4.90 | 1.24 | 1.44 | |
| -20 (- 4) | 596 | 150 | 175 | 108 | 0.51 | 2.28 | 5.53 | 1.39 | 1.62 | |
| -15 (+ 5) | 762 | 192 | 223 | 123 | 0.58 | 2.92 | 6.18 | 1.56 | 1.81 | |
| -10 (+14) | 958 | 241 | 281 | 140 | 0.65 | 3.68 | 6.85 | 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) | 193 | 49 | 57 | 65 | 0.32 | 0.81 | 2.97 | 0.75 | 0.87 |
| -30 | (-22) | 278 | 70 | 82 | 80 | 0.39 | 1.17 | 3.44 | 0.87 | 1.01 |
| -25 | (-13) | 379 | 95 | 111 | 96 | 0.46 | 1.60 | 3.93 | 0.99 | 1.15 |
| -20 | (- 4) | 499 | 126 | 146 | 113 | 0.53 | 2.11 | 4.43 | 1.12 | 1.30 |
| -15 | (+ 5) | 641 | 162 | 188 | 130 | 0.61 | 2.73 | 4.95 | 1.25 | 1.45 |
| -10 | (+14) | 811 | 204 | 238 | 149 | 0.70 | 3.46 | 5.45 | 1.37 | 1.60 |

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 | 4.94 +0.08/-0.08 | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted parallel BP+24°to Back | | |
| 3.3 PROCESS | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted 45° up + 45° to Back | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |