

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM 2C55CLT |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513304534 |

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 | | [hp] |
| 2 Displacement | 9.04 | [cm ³] (0.552 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 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 | PTC | |
| 2.1 Starting device | 8EA17C3/QPS2-A22MD3 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 5(310)/4(300) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM189NFBYY-53 | |
| 6 Start winding resistance | 18.00 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 20.80 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 4.30 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.65 | [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] |
| 386 | 97 | 113 | 81 | 0.37 | 1.47 | 4.79 | 1.21 | 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) | 295 | 74 | 86 | 57 | 0.27 | 0.94 | 5.13 | 1.29 | 1.50 | |
| -30 (-22) | 403 | 101 | 118 | 66 | 0.31 | 1.30 | 6.09 | 1.53 | 1.78 | |
| -25 (-13) | 525 | 132 | 154 | 75 | 0.35 | 1.69 | 7.01 | 1.77 | 2.05 | |
| -20 (- 4) | 669 | 169 | 196 | 84 | 0.39 | 2.15 | 7.95 | 2.00 | 2.33 | |
| -15 (+ 5) | 842 | 212 | 247 | 94 | 0.43 | 2.71 | 8.97 | 2.26 | 2.63 | |
| -10 (+14) | 1051 | 265 | 308 | 104 | 0.47 | 3.39 | 10.10 | 2.54 | 2.96 | |

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------------------|-----|-----------------------------|-------------------------------|----------------------------------------|---------------------------|-----------|-------|--|
| 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) | 248 | 63 | 73 | 57 | 0.27 | 0.86 | 4.32 | 1.09 | 1.27 | |
| -30 (-22) | 345 | 87 | 101 | 67 | 0.31 | 1.20 | 5.09 | 1.28 | 1.49 | |
| -25 (-13) | 454 | 114 | 133 | 78 | 0.36 | 1.58 | 5.81 | 1.46 | 1.70 | |
| -20 (- 4) | 582 | 147 | 170 | 89 | 0.41 | 2.03 | 6.53 | 1.64 | 1.91 | |
| -15 (+ 5) | 736 | 185 | 216 | 101 | 0.46 | 2.57 | 7.29 | 1.84 | 2.14 | |
| -10 (+14) | 924 | 233 | 271 | 113 | 0.52 | 3.23 | 8.16 | 2.06 | 2.39 | |

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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) | 204 | 51 | 60 | 57 | 0.27 | 0.78 | 3.58 | 0.90 | 1.05 | |
| -30 (-22) | 290 | 73 | 85 | 69 | 0.32 | 1.10 | 4.22 | 1.06 | 1.24 | |
| -25 (-13) | 386 | 97 | 113 | 81 | 0.37 | 1.47 | 4.78 | 1.21 | 1.40 | |
| -20 (- 4) | 498 | 126 | 146 | 94 | 0.43 | 1.90 | 5.33 | 1.34 | 1.56 | |
| -15 (+ 5) | 634 | 160 | 186 | 107 | 0.49 | 2.43 | 5.92 | 1.49 | 1.73 | |
| -10 (+14) | 801 | 202 | 235 | 121 | 0.56 | 3.08 | 6.58 | 1.66 | 1.93 | |

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) | 161 | 41 | 47 | 55 | 0.27 | 0.68 | 2.90 | 0.73 | 0.85 |
| -30 | (-22) | 238 | 60 | 70 | 68 | 0.32 | 1.00 | 3.46 | 0.87 | 1.01 |
| -25 | (-13) | 321 | 81 | 94 | 82 | 0.37 | 1.35 | 3.94 | 0.99 | 1.15 |
| -20 | (- 4) | 418 | 105 | 123 | 96 | 0.44 | 1.77 | 4.38 | 1.10 | 1.28 |
| -15 | (+ 5) | 537 | 135 | 157 | 111 | 0.51 | 2.29 | 4.83 | 1.22 | 1.42 |
| -10 | (+14) | 683 | 172 | 200 | 127 | 0.59 | 2.92 | 5.35 | 1.35 | 1.57 |

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 | | |