

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM C55CLT |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 700CA95 |

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 | PSC | | |
| 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 | 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 | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 7.45 | [kg] (16.42 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 | MI2021XV230 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 4(350) | [µF(VAC minimum)] |
| 5 Motor protection | AE64FS | |
| 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) | 4.07 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.54 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | 0.79 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | VDE | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|-----------------------------|-------------------------------|----------------------------------------------------|---------------------------|----------------------------------------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE LBP-NOFAN Static | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 54.4°C (129.92°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] |
| 528 | 133 | 155 | 87 | 0.39 | 1.66 | 6.06 | 1.53 | 1.78 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------------|---------|-----------------------------|-------------------------------|---------------------------------------|---------------------------|--------|----------|-----------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32-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] |
| -35 | (-31) | 308 | 78 | 90 | 58 | 0.26 | 0.96 | 5.30 | 1.34 | 1.55 |
| -30 | (-22) | 421 | 106 | 123 | 68 | 0.30 | 1.32 | 6.23 | 1.57 | 1.83 |
| -25 | (-13) | 555 | 140 | 163 | 77 | 0.34 | 1.74 | 7.21 | 1.82 | 2.11 |
| -20 | (- 4) | 711 | 179 | 208 | 87 | 0.38 | 2.23 | 8.23 | 2.08 | 2.41 |
| -15 | (+ 5) | 891 | 224 | 261 | 96 | 0.42 | 2.80 | 9.32 | 2.35 | 2.73 |
| -10 | (+14) | 1097 | 277 | 322 | 105 | 0.46 | 3.46 | 10.45 | 2.63 | 3.06 |

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|-------------------------------|----------------------------|--------------------------|---------|-----------------------------|-------------------------------|----------------------------------------|---------------------------|--------|----------|-----------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32-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] |
| -35 | (-31) | 277 | 70 | 81 | 58 | 0.26 | 0.87 | 4.77 | 1.20 | 1.40 |
| -30 | (-22) | 386 | 97 | 113 | 69 | 0.31 | 1.21 | 5.58 | 1.41 | 1.64 |
| -25 | (-13) | 517 | 130 | 151 | 80 | 0.36 | 1.62 | 6.42 | 1.62 | 1.88 |
| -20 | (- 4) | 671 | 169 | 197 | 92 | 0.41 | 2.11 | 7.29 | 1.84 | 2.14 |
| -15 | (+ 5) | 850 | 214 | 249 | 104 | 0.46 | 2.68 | 8.18 | 2.06 | 2.40 |
| -10 | (+14) | 1057 | 266 | 310 | 116 | 0.52 | 3.33 | 9.10 | 2.29 | 2.67 |

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------------|---------|-----------------------------|-------------------------------|----------------------------------------|---------------------------|--------|----------|-----------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32-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] |
| -35 | (-31) | 249 | 63 | 73 | 58 | 0.26 | 0.78 | 4.28 | 1.08 | 1.25 |
| -30 | (-22) | 352 | 89 | 103 | 70 | 0.31 | 1.10 | 5.02 | 1.26 | 1.47 |
| -25 | (-13) | 477 | 120 | 140 | 83 | 0.37 | 1.50 | 5.75 | 1.45 | 1.69 |
| -20 | (- 4) | 627 | 158 | 184 | 96 | 0.43 | 1.97 | 6.49 | 1.64 | 1.90 |
| -15 | (+ 5) | 803 | 202 | 235 | 111 | 0.50 | 2.53 | 7.23 | 1.82 | 2.12 |
| -10 | (+14) | 1007 | 254 | 295 | 126 | 0.57 | 3.18 | 7.97 | 2.01 | 2.34 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | ASHRAE32-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) | 221 | 56 | 65 | 58 | 0.26 | 0.69 | 3.79 | 0.96 | 1.11 |
| -30 | (-22) | 315 | 79 | 92 | 70 | 0.31 | 0.99 | 4.49 | 1.13 | 1.32 |
| -25 | (-13) | 433 | 109 | 127 | 84 | 0.37 | 1.36 | 5.16 | 1.30 | 1.51 |
| -20 | (- 4) | 576 | 145 | 169 | 100 | 0.44 | 1.81 | 5.80 | 1.46 | 1.70 |
| -15 | (+ 5) | 746 | 188 | 219 | 116 | 0.52 | 2.35 | 6.42 | 1.62 | 1.88 |
| -10 | (+14) | 946 | 238 | 277 | 135 | 0.61 | 2.99 | 7.02 | 1.77 | 2.06 |

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 | | |