

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM C32CLT |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 701LA72 |

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 | 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 | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 8 | [kg] (17.64 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 | 2.5(350) | [µF(VAC minimum)] |
| 5 Motor protection | AE23AHNX | |
| 6 Start winding resistance | 36.40 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 40.00 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 2.68 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.36 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | 0.51 | [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] |
| 320 | 81 | 94 | 53 | 0.23 | 1.00 | 6.10 | 1.54 | 1.79 |

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] | [W/W] |
| -35 | (-31) | 171 | 43 | 50 | 31 | 0.15 | 0.54 | 5.51 | 1.39 | 1.61 |
| -30 | (-22) | 249 | 63 | 73 | 39 | 0.17 | 0.78 | 6.42 | 1.62 | 1.88 |
| -25 | (-13) | 336 | 85 | 99 | 45 | 0.20 | 1.05 | 7.48 | 1.89 | 2.19 |
| -20 | (- 4) | 438 | 110 | 128 | 51 | 0.23 | 1.38 | 8.67 | 2.19 | 2.54 |
| -15 | (+ 5) | 558 | 141 | 164 | 56 | 0.26 | 1.76 | 9.96 | 2.51 | 2.92 |
| -10 | (+14) | 701 | 177 | 205 | 62 | 0.29 | 2.21 | 11.33 | 2.86 | 3.32 |

| 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] | [W/W] |
| -35 | (-31) | 157 | 40 | 46 | 32 | 0.15 | 0.49 | 4.94 | 1.24 | 1.45 |
| -30 | (-22) | 231 | 58 | 68 | 40 | 0.18 | 0.72 | 5.74 | 1.45 | 1.68 |
| -25 | (-13) | 314 | 79 | 92 | 47 | 0.21 | 0.99 | 6.64 | 1.67 | 1.95 |
| -20 | (- 4) | 413 | 104 | 121 | 54 | 0.24 | 1.30 | 7.64 | 1.92 | 2.24 |
| -15 | (+ 5) | 529 | 133 | 155 | 61 | 0.28 | 1.67 | 8.70 | 2.19 | 2.55 |
| -10 | (+14) | 668 | 168 | 196 | 68 | 0.31 | 2.11 | 9.79 | 2.47 | 2.87 |

| 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] | [W/W] |
| -35 | (-31) | 134 | 34 | 39 | 31 | 0.15 | 0.42 | 4.30 | 1.08 | 1.26 |
| -30 | (-22) | 204 | 52 | 60 | 40 | 0.18 | 0.64 | 5.04 | 1.27 | 1.48 |
| -25 | (-13) | 285 | 72 | 83 | 49 | 0.22 | 0.89 | 5.86 | 1.48 | 1.72 |
| -20 | (- 4) | 380 | 96 | 111 | 57 | 0.26 | 1.19 | 6.72 | 1.69 | 1.97 |
| -15 | (+ 5) | 494 | 124 | 145 | 65 | 0.30 | 1.56 | 7.60 | 1.92 | 2.23 |
| -10 | (+14) | 630 | 159 | 185 | 74 | 0.34 | 1.99 | 8.48 | 2.14 | 2.49 |

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) | 98 | 25 | 29 | 27 | 0.14 | 0.31 | 3.59 | 0.90 | 1.05 |
| -30 | (-22) | 165 | 42 | 48 | 38 | 0.17 | 0.52 | 4.34 | 1.09 | 1.27 |
| -25 | (-13) | 243 | 61 | 71 | 47 | 0.21 | 0.76 | 5.13 | 1.29 | 1.50 |
| -20 | (- 4) | 336 | 85 | 98 | 57 | 0.26 | 1.06 | 5.92 | 1.49 | 1.73 |
| -15 | (+ 5) | 448 | 113 | 131 | 67 | 0.31 | 1.41 | 6.69 | 1.69 | 1.96 |
| -10 | (+14) | 582 | 147 | 171 | 79 | 0.37 | 1.84 | 7.41 | 1.87 | 2.17 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 2 Tray holder | No | | |
| 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 0° up + 45° 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 | | |