

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM T56CLP |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 892EA85 |

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 | RSIR-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 254 V | - |
| 8.2 LBP (43°C Ambient temperature) | Static | 198 to 254 V | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing pressures/temperature | | | |
| 9.1 Operating (gauge) | 7.7 | [kgf/cm ²] (109 psig) | / °C - °F |
| 9.2 Peak (gauge) | 9.8 | [kgf/cm ²] (139 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 9.34 | [cm ³] (0.570 cu.in) |
| 2.1 Bore [mm] | 26.000 | |
| 2.2 Stroke [mm] | 17.600 | |
| 3 Lubricant charge | 180 | [ml] (6.09 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | MINERAL / ISO7 | |
| 4 Weight (with oil charge) | 7.7 | [kg] (16.98 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 | 2019 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | AE19BU | |
| 6 Start winding resistance | 25.70 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 18.20 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | - | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | - | [A] |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] |
| 11 Approval boards certification | VDE | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAELBP32 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] |
| 525 | 132 | 154 | 115 | 0.84 | 1.65 | 4.56 | 1.15 | 1.34 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 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) | 303 | 76 | 89 | 84 | 0.77 | 0.95 | 3.61 | 0.91 | 1.06 |
| -30 | (-22) | 404 | 102 | 118 | 94 | 0.79 | 1.27 | 4.33 | 1.09 | 1.27 |
| -25 | (-13) | 526 | 133 | 154 | 103 | 0.81 | 1.65 | 5.11 | 1.29 | 1.50 |
| -20 | (- 4) | 675 | 170 | 198 | 113 | 0.83 | 2.12 | 5.97 | 1.50 | 1.75 |
| -15 | (+ 5) | 858 | 216 | 251 | 124 | 0.86 | 2.70 | 6.91 | 1.74 | 2.02 |
| -10 | (+14) | 1081 | 272 | 317 | 135 | 0.89 | 3.41 | 7.95 | 2.00 | 2.33 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 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) | 271 | 68 | 79 | 85 | 0.78 | 0.85 | 3.18 | 0.80 | 0.93 |
| -30 | (-22) | 377 | 95 | 111 | 97 | 0.80 | 1.18 | 3.92 | 0.99 | 1.15 |
| -25 | (-13) | 501 | 126 | 147 | 108 | 0.83 | 1.57 | 4.66 | 1.17 | 1.37 |
| -20 | (- 4) | 649 | 164 | 190 | 120 | 0.85 | 2.04 | 5.43 | 1.37 | 1.59 |
| -15 | (+ 5) | 826 | 208 | 242 | 132 | 0.89 | 2.60 | 6.23 | 1.57 | 1.83 |
| -10 | (+14) | 1040 | 262 | 305 | 146 | 0.93 | 3.28 | 7.09 | 1.79 | 2.08 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|----------|-----|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | ASHRAE32 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) | 233 | 59 | 68 | 84 | 0.77 | 0.73 | 2.77 | 0.70 | 0.81 |
| -30 | (-22) | 348 | 88 | 102 | 98 | 0.80 | 1.09 | 3.55 | 0.89 | 1.04 |
| -25 | (-13) | 476 | 120 | 140 | 111 | 0.83 | 1.49 | 4.29 | 1.08 | 1.26 |
| -20 | (- 4) | 624 | 157 | 183 | 125 | 0.87 | 1.96 | 5.01 | 1.26 | 1.47 |
| -15 | (+ 5) | 799 | 201 | 234 | 140 | 0.91 | 2.51 | 5.71 | 1.44 | 1.67 |
| -10 | (+14) | 1006 | 253 | 295 | 157 | 0.96 | 3.17 | 6.43 | 1.62 | 1.88 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | ASHRAE32 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) | 172 | 43 | 50 | 78 | 0.76 | 0.54 | 2.22 | 0.56 | 0.65 |
| -30 | (-22) | 297 | 75 | 87 | 94 | 0.80 | 0.93 | 3.08 | 0.78 | 0.90 |
| -25 | (-13) | 431 | 109 | 126 | 111 | 0.84 | 1.35 | 3.85 | 0.97 | 1.13 |
| -20 | (- 4) | 582 | 147 | 171 | 128 | 0.89 | 1.83 | 4.55 | 1.15 | 1.33 |
| -15 | (+ 5) | 756 | 191 | 222 | 146 | 0.94 | 2.38 | 5.20 | 1.31 | 1.52 |
| -10 | (+14) | 959 | 242 | 281 | 166 | 1.00 | 3.03 | 5.80 | 1.46 | 1.70 |

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° | | |
| 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 parallel to Base Plate | | |
| 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 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |