

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM T40CLP |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 895DA95 |

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 | | |
| 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 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 | 7.23 | [cm ³] (0.441 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 2.2 Stroke [mm] | 16.000 | |
| 3 Lubricant charge | 180 | [ml] (6.09 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 7.35 | [kg] (16.20 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 | AE64FS | |
| 6 Start winding resistance | 26.70 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 27.20 | [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) | 0.53 | [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] |
| 406 | 102 | 119 | 93 | 0.68 | 1.27 | 4.38 | 1.10 | 1.28 |

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) | 226 | 57 | 66 | 59 | 0.62 | 0.71 | 3.79 | 0.96 | 1.11 |
| -30 | (-22) | 314 | 79 | 92 | 70 | 0.63 | 0.98 | 4.49 | 1.13 | 1.32 |
| -25 | (-13) | 416 | 105 | 122 | 79 | 0.65 | 1.30 | 5.26 | 1.33 | 1.54 |
| -20 | (- 4) | 535 | 135 | 157 | 88 | 0.67 | 1.68 | 6.12 | 1.54 | 1.79 |
| -15 | (+ 5) | 676 | 170 | 198 | 96 | 0.70 | 2.13 | 7.04 | 1.77 | 2.06 |
| -10 | (+14) | 841 | 212 | 246 | 104 | 0.73 | 2.65 | 8.04 | 2.03 | 2.36 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|--------------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 204 | 51 | 60 | 59 | 0.62 | 0.64 | 3.44 | 0.87 | 1.01 |
| -30 | (-22) | 290 | 73 | 85 | 72 | 0.64 | 0.91 | 4.05 | 1.02 | 1.19 |
| -25 | (-13) | 391 | 98 | 115 | 83 | 0.66 | 1.23 | 4.72 | 1.19 | 1.38 |
| -20 | (- 4) | 509 | 128 | 149 | 93 | 0.69 | 1.60 | 5.45 | 1.37 | 1.60 |
| -15 | (+ 5) | 647 | 163 | 190 | 104 | 0.72 | 2.04 | 6.25 | 1.57 | 1.83 |
| -10 | (+14) | 810 | 204 | 237 | 114 | 0.75 | 2.56 | 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) | 185 | 47 | 54 | 61 | 0.62 | 0.58 | 3.01 | 0.76 | 0.88 |
| -30 | (-22) | 269 | 68 | 79 | 76 | 0.64 | 0.84 | 3.55 | 0.89 | 1.04 |
| -25 | (-13) | 368 | 93 | 108 | 89 | 0.67 | 1.15 | 4.14 | 1.04 | 1.21 |
| -20 | (- 4) | 483 | 122 | 142 | 101 | 0.70 | 1.52 | 4.79 | 1.21 | 1.40 |
| -15 | (+ 5) | 620 | 156 | 182 | 113 | 0.74 | 1.95 | 5.48 | 1.38 | 1.60 |
| -10 | (+14) | 780 | 197 | 229 | 125 | 0.78 | 2.46 | 6.21 | 1.56 | 1.82 |

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) | 163 | 41 | 48 | 63 | 0.62 | 0.51 | 2.59 | 0.65 | 0.76 |
| -30 | (-22) | 246 | 62 | 72 | 79 | 0.65 | 0.77 | 3.10 | 0.78 | 0.91 |
| -25 | (-13) | 342 | 86 | 100 | 94 | 0.68 | 1.07 | 3.65 | 0.92 | 1.07 |
| -20 | (- 4) | 455 | 115 | 133 | 108 | 0.72 | 1.43 | 4.23 | 1.07 | 1.24 |
| -15 | (+ 5) | 588 | 148 | 172 | 122 | 0.77 | 1.85 | 4.85 | 1.22 | 1.42 |
| -10 | (+14) | 745 | 188 | 218 | 136 | 0.81 | 2.35 | 5.49 | 1.38 | 1.61 |

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° | | |
| 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 | Straight | | |
| 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 | | |