

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM T22HLP |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 191CA65 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|--|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 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 pressures/temperature | | | |
| 9.1 Operating (gauge) | 16.2 | [kgf/cm ²] (230 psig) | / °C - °F |
| 9.2 Peak (gauge) | 20.6 | [kgf/cm ²] (293 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 3.00 | [cm ³] (0.183 cu.in) |
| 2.1 Bore [mm] | 19.000 | |
| 2.2 Stroke [mm] | 10.600 | |
| 3 Lubricant charge | 180 | [ml] (6.09 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 7.1 | [kg] (15.65 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 | V230 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | T0221-26 | |
| 6 Start winding resistance | 34.60 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 36.00 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 2.80 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.44 | [A] |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] |
| 11 Approval boards certification | IMQ | |

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] |
| 257 | 65 | 75 | 63 | 0.44 | 1.46 | 4.07 | 1.03 | 1.19 |

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) | 154 | 39 | 45 | 45 | 0.39 | 0.87 | 3.41 | 0.86 | 1.00 |
| -30 | (-22) | 215 | 54 | 63 | 51 | 0.40 | 1.22 | 4.23 | 1.07 | 1.24 |
| -25 | (-13) | 288 | 73 | 85 | 57 | 0.42 | 1.64 | 5.07 | 1.28 | 1.49 |
| -20 | (- 4) | 377 | 95 | 111 | 63 | 0.44 | 2.15 | 5.97 | 1.50 | 1.75 |
| -15 | (+ 5) | 486 | 122 | 142 | 70 | 0.46 | 2.77 | 6.97 | 1.76 | 2.04 |
| -10 | (+14) | 619 | 156 | 181 | 76 | 0.48 | 3.55 | 8.10 | 2.04 | 2.37 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|--------------------|-----|---|----------------------------------|----------------------------|---------------------------|-----------|-------|
| 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) | 127 | 32 | 37 | 45 | 0.39 | 0.72 | 2.86 | 0.72 | 0.84 |
| -30 | (-22) | 190 | 48 | 56 | 52 | 0.41 | 1.08 | 3.67 | 0.93 | 1.08 |
| -25 | (-13) | 263 | 66 | 77 | 59 | 0.43 | 1.49 | 4.44 | 1.12 | 1.30 |
| -20 | (- 4) | 349 | 88 | 102 | 67 | 0.45 | 1.98 | 5.21 | 1.31 | 1.53 |
| -15 | (+ 5) | 453 | 114 | 133 | 75 | 0.48 | 2.58 | 6.02 | 1.52 | 1.76 |
| -10 | (+14) | 578 | 146 | 169 | 84 | 0.51 | 3.31 | 6.90 | 1.74 | 2.02 |

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|-------------------------------|-------|----------------------------|--------------------|-----|---|----------------------------------|----------------------------|---------------------------|-----------|-------|
| 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) | 94 | 24 | 28 | 42 | 0.38 | 0.53 | 2.22 | 0.56 | 0.65 |
| -30 | (-22) | 158 | 40 | 46 | 51 | 0.40 | 0.90 | 3.07 | 0.77 | 0.90 |
| -25 | (-13) | 230 | 58 | 67 | 60 | 0.43 | 1.31 | 3.82 | 0.96 | 1.12 |
| -20 | (- 4) | 313 | 79 | 92 | 70 | 0.46 | 1.78 | 4.52 | 1.14 | 1.32 |
| -15 | (+ 5) | 412 | 104 | 121 | 80 | 0.49 | 2.35 | 5.19 | 1.31 | 1.52 |
| -10 | (+14) | 530 | 133 | 155 | 90 | 0.53 | 3.03 | 5.88 | 1.48 | 1.72 |

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 | 5.02 +0.02/-0.02 | [mm] | (0.198" +0.001"/-0.001") |
| 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 | | |