

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM RS46CLP |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513300654 |

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) | - | - | - |
| 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 | 1/5 | [hp] |
| 2 Displacement | 7.96 | [cm ³] (0.486 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 2.2 Stroke [mm] | 17.600 | |
| 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) | 7.4 | [kg] (16.31 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 | 8EA17B3 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 4(298) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM189KFBYY-53 | |
| 6 Start winding resistance | | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | | [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] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC | |

D - PERFORMANCE - CHECK POINT DATA

E - PERFORMANCE - CURVES

| 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] |
| -35 (-31) | 258 | 65 | 76 | | 0.00 | 0.81 | 0.00 | 0.00 | 0.00 | |
| -30 (-22) | 355 | 90 | 104 | | 0.00 | 1.11 | 0.00 | 0.00 | 0.00 | |
| -25 (-13) | 469 | 118 | 137 | | 0.00 | 1.47 | 0.00 | 0.00 | 0.00 | |
| -20 (- 4) | 602 | 152 | 176 | | 0.00 | 1.89 | 0.00 | 0.00 | 0.00 | |
| -15 (+ 5) | 759 | 191 | 223 | | 0.00 | 2.39 | 0.00 | 0.00 | 0.00 | |
| -10 (+14) | 944 | 238 | 277 | | 0.00 | 2.98 | 0.00 | 0.00 | 0.00 | |

| 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] |
| -35 (-31) | 219 | 55 | 64 | | 0.00 | 0.69 | 0.00 | 0.00 | 0.00 | |
| -30 (-22) | 318 | 80 | 93 | | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | |
| -25 (-13) | 432 | 109 | 127 | | 0.00 | 1.36 | 0.00 | 0.00 | 0.00 | |
| -20 (- 4) | 566 | 143 | 166 | | 0.00 | 1.78 | 0.00 | 0.00 | 0.00 | |
| -15 (+ 5) | 723 | 182 | 212 | | 0.00 | 2.28 | 0.00 | 0.00 | 0.00 | |
| -10 (+14) | 907 | 229 | 266 | | 0.00 | 2.86 | 0.00 | 0.00 | 0.00 | |

| 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] |
| -35 (-31) | 190 | 48 | 56 | | 0.00 | 0.59 | 0.00 | 0.00 | 0.00 | |
| -30 (-22) | 287 | 72 | 84 | | 0.00 | 0.90 | 0.00 | 0.00 | 0.00 | |
| -25 (-13) | 399 | 101 | 117 | | 0.00 | 1.25 | 0.00 | 0.00 | 0.00 | |
| -20 (- 4) | 530 | 134 | 155 | | 0.00 | 1.67 | 0.00 | 0.00 | 0.00 | |
| -15 (+ 5) | 684 | 172 | 200 | | 0.00 | 2.15 | 0.00 | 0.00 | 0.00 | |
| -10 (+14) | 864 | 218 | 253 | | 0.00 | 2.73 | 0.00 | 0.00 | 0.00 | |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate | European Standard EUEM | | |
| 2 Tray holder | Yes | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.2 +0.05/+0.05 | [mm] | (0.244" +0.002"/+0.002") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 40° up + 45° to Back | | |
| 3.2 DISCHARGE | 4.9 +0.10/-0.05 | [mm] | (0.193" +0.004"/-0.002") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted 0° up + 24° to Back | | |
| 3.3 PROCESS | 6.2 +0.05/+0.05 | [mm] | (0.244" +0.002"/+0.002") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted 40° up + 45° to Back | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |