

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM I60HER |
| Nominal Voltage/Frequency | 115-127 V 60 Hz |
| Engineering Number | 513307047 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-------------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-134a | | |
| 3 Nominal voltage and frequency | 115-127 / 60 | [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/CSIR | | |
| 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 | - | 98 to 140 V |
| 8.2 LBP (43°C Ambient temperature) | Static | - | 98 to 140 V |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing temperature | | | |
| 9.1 Operating | 14.2 | [kgf/cm ²] (202 psig) | / °C - °F |
| 9.2 Peak | 15.9 | [kgf/cm ²] (226 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--|
| 1 Commercial designation | 1/6 | [hp] |
| 2 Displacement | 4.99 | [cm ³] (0.305 cu.in) |
| 2.1 Bore [mm] | 21.000 | |
| 2.2 Stroke [mm] | 14.400 | |
| 3 Lubricant charge | 200 | [ml] (6.76 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 | |
| 4 Weight (with oil charge) | 7.6 | [kg] (16.75 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (2.84 to 4.27 psig) |

C - ELETRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 115-127 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | 213514083/213515007 | |
| 3 Start capacitor | 161-193(120) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | 4TM762MDBYY-53 | |
| 6 Start winding resistance | 9.40 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 3.40 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 20.90 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | 2.45 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CE - IRAM - TUV - UKCA - UL | |

D - PERFORMANCE - CHECK POINT DATA

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|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @115V60Hz | | | 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] |
| 570 | 144 | 167 | 134 | 1.92 | 3.24 | 4.25 | 1.07 | 1.25 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | 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) | 303 | 76 | 89 | 92 | 1.67 | 1.71 | 3.28 | 0.83 | 0.96 |
| -30 (-22) | 423 | 106 | 124 | 106 | 1.73 | 2.39 | 4.00 | 1.01 | 1.17 |
| -25 (-13) | 576 | 145 | 169 | 122 | 1.81 | 3.27 | 4.74 | 1.19 | 1.39 |
| -20 (- 4) | 762 | 192 | 223 | 139 | 1.90 | 4.34 | 5.50 | 1.39 | 1.61 |
| -15 (+ 5) | 979 | 247 | 287 | 156 | 2.00 | 5.59 | 6.28 | 1.58 | 1.84 |
| -10 (+14) | 1227 | 309 | 359 | 173 | 2.11 | 7.03 | 7.09 | 1.79 | 2.08 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | 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) | 238 | 60 | 70 | 89 | 1.65 | 1.35 | 2.69 | 0.68 | 0.79 |
| -30 (-22) | 356 | 90 | 104 | 104 | 1.72 | 2.02 | 3.42 | 0.86 | 1.00 |
| -25 (-13) | 507 | 128 | 149 | 122 | 1.81 | 2.88 | 4.13 | 1.04 | 1.21 |
| -20 (- 4) | 689 | 174 | 202 | 142 | 1.92 | 3.92 | 4.83 | 1.22 | 1.41 |
| -15 (+ 5) | 902 | 227 | 264 | 163 | 2.05 | 5.15 | 5.51 | 1.39 | 1.62 |
| -10 (+14) | 1144 | 288 | 335 | 185 | 2.19 | 6.55 | 6.19 | 1.56 | 1.82 |

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|-------------------------------|----------------------------|----------|--------------------|--------------------------------|--|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @115V60Hz | | | 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) | 199 | 50 | 58 | 87 | 1.65 | 1.12 | 2.30 | 0.58 | 0.67 |
| -30 (-22) | 310 | 78 | 91 | 103 | 1.71 | 1.76 | 3.03 | 0.76 | 0.89 |
| -25 (-13) | 453 | 114 | 133 | 122 | 1.81 | 2.57 | 3.70 | 0.93 | 1.08 |
| -20 (- 4) | 627 | 158 | 184 | 145 | 1.93 | 3.57 | 4.33 | 1.09 | 1.27 |
| -15 (+ 5) | 830 | 209 | 243 | 169 | 2.09 | 4.73 | 4.91 | 1.24 | 1.44 |
| -10 (+14) | 1061 | 267 | 311 | 195 | 2.26 | 6.08 | 5.45 | 1.37 | 1.60 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|--------------------------------|------|--------------------------|
| 1 Base plate | Universal AMEM | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted parallel to Base Plate | | |
| 3.2 DISCHARGE | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted | | |
| 3.3 PROCESS | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted parallel to Base Plate | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |