

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM Y65HLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513300226 |

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 | 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) | Static | 187 to 255 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 | 1/4 | [hp] |
| 2 Displacement | 5.96 | [cm ³] (0.364 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 15.000 | |
| 3 Lubricant charge | 150 | [ml] (5.07 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO7 | |
| 4 Weight (with oil charge) | 8 | [kg] (17.64 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 | 7M220MD3/8EA17B3/8EA17C3/8EA17E61/8EA17E62/8EA17E63 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 4(300) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM232NFBYY-53 | |
| 6 Start winding resistance | 22.00 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 17.20 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 5.80 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.86 | [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 - VDE | |

D - PERFORMANCE - CHECK POINT DATA

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|-------------------------------|----------|-----|-----------------------------|-------------------------------|--|---------------------------|--|-------|
| 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] |
| 631 | 159 | 185 | 116 | 0.53 | 3.59 | 5.46 | 1.38 | 1.60 |

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] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -35 (-31) | 335 | 84 | 98 | 77 | 0.40 | 1.89 | 4.36 | 1.10 | 1.28 |
| -30 (-22) | 467 | 118 | 137 | 90 | 0.45 | 2.65 | 5.20 | 1.31 | 1.52 |
| -25 (-13) | 628 | 158 | 184 | 103 | 0.51 | 3.56 | 6.08 | 1.53 | 1.78 |
| -20 (- 4) | 822 | 207 | 241 | 117 | 0.57 | 4.68 | 7.02 | 1.77 | 2.06 |
| -15 (+ 5) | 1055 | 266 | 309 | 132 | 0.64 | 6.02 | 8.02 | 2.02 | 2.35 |
| -10 (+14) | 1334 | 336 | 391 | 147 | 0.71 | 7.64 | 9.07 | 2.29 | 2.66 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 283 | 71 | 83 | 76 | 0.40 | 1.60 | 3.72 | 0.94 | 1.09 |
| -30 (-22) | 402 | 101 | 118 | 90 | 0.46 | 2.28 | 4.46 | 1.12 | 1.31 |
| -25 (-13) | 551 | 139 | 161 | 106 | 0.53 | 3.13 | 5.23 | 1.32 | 1.53 |
| -20 (- 4) | 737 | 186 | 216 | 122 | 0.60 | 4.19 | 6.05 | 1.52 | 1.77 |
| -15 (+ 5) | 966 | 243 | 283 | 140 | 0.68 | 5.51 | 6.91 | 1.74 | 2.03 |
| -10 (+14) | 1243 | 313 | 364 | 159 | 0.77 | 7.12 | 7.82 | 1.97 | 2.29 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 214 | 54 | 63 | 71 | 0.38 | 1.21 | 3.01 | 0.76 | 0.88 |
| -30 (-22) | 331 | 84 | 97 | 89 | 0.45 | 1.88 | 3.74 | 0.94 | 1.09 |
| -25 (-13) | 482 | 122 | 141 | 107 | 0.53 | 2.74 | 4.49 | 1.13 | 1.32 |
| -20 (- 4) | 673 | 170 | 197 | 127 | 0.62 | 3.83 | 5.27 | 1.33 | 1.54 |
| -15 (+ 5) | 909 | 229 | 266 | 149 | 0.71 | 5.19 | 6.09 | 1.53 | 1.78 |
| -10 (+14) | 1197 | 302 | 351 | 172 | 0.82 | 6.86 | 6.94 | 1.75 | 2.03 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------------------|------|--------------------------|
| 1 Base plate | European Standard EUEM | | |
| 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 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 | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 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 | | |