

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM Y55CLP |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 897GA93 |

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 | 9.04 | [cm ³] (0.552 cu.in) |
| 2.1 Bore [mm] | 24.000 | |
| 2.2 Stroke [mm] | 20.000 | |
| 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) | 7.7 | [kg] (16.98 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 | T0520/07 | |
| 6 Start winding resistance | 27.35 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 20.40 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 4.75 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.60 | [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] |
| 533 | 134 | 156 | 100 | 0.66 | 1.67 | 5.31 | 1.34 | 1.56 |

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) | 288 | 73 | 84 | 69 | 0.51 | 0.90 | 4.16 | 1.05 | 1.22 |
| -30 | (-22) | 382 | 96 | 112 | 80 | 0.56 | 1.20 | 4.79 | 1.21 | 1.40 |
| -25 | (-13) | 506 | 128 | 148 | 92 | 0.61 | 1.59 | 5.51 | 1.39 | 1.62 |
| -20 | (- 4) | 661 | 167 | 194 | 105 | 0.66 | 2.08 | 6.32 | 1.59 | 1.85 |
| -15 | (+ 5) | 846 | 213 | 248 | 118 | 0.72 | 2.66 | 7.18 | 1.81 | 2.10 |
| -10 | (+14) | 1060 | 267 | 311 | 131 | 0.77 | 3.34 | 8.09 | 2.04 | 2.37 |

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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) | 262 | 66 | 77 | 70 | 0.51 | 0.82 | 3.73 | 0.94 | 1.09 |
| -30 | (-22) | 360 | 91 | 105 | 82 | 0.57 | 1.13 | 4.38 | 1.10 | 1.28 |
| -25 | (-13) | 486 | 122 | 142 | 95 | 0.63 | 1.52 | 5.09 | 1.28 | 1.49 |
| -20 | (- 4) | 639 | 161 | 187 | 109 | 0.69 | 2.01 | 5.82 | 1.47 | 1.71 |
| -15 | (+ 5) | 819 | 206 | 240 | 125 | 0.76 | 2.58 | 6.56 | 1.65 | 1.92 |
| -10 | (+14) | 1025 | 258 | 300 | 140 | 0.83 | 3.24 | 7.30 | 1.84 | 2.14 |

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|-------------------------------|-------|----------------------------|--------------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 235 | 59 | 69 | 70 | 0.51 | 0.74 | 3.34 | 0.84 | 0.98 |
| -30 | (-22) | 335 | 84 | 98 | 83 | 0.58 | 1.05 | 4.03 | 1.02 | 1.18 |
| -25 | (-13) | 460 | 116 | 135 | 97 | 0.65 | 1.44 | 4.72 | 1.19 | 1.38 |
| -20 | (- 4) | 609 | 154 | 179 | 113 | 0.72 | 1.92 | 5.39 | 1.36 | 1.58 |
| -15 | (+ 5) | 782 | 197 | 229 | 130 | 0.79 | 2.46 | 6.03 | 1.52 | 1.77 |
| -10 | (+14) | 979 | 247 | 287 | 149 | 0.87 | 3.09 | 6.60 | 1.66 | 1.94 |

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 | 4.94 +0.08/-0.08 | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |