

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EG YS110CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 513701371 |

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) | 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 | 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 | 1/3 | [hp] |
| 2 Displacement | 14.77 | [cm ³] (0.901 cu.in) |
| 2.1 Bore [mm] | 28.000 | |
| 2.2 Stroke [mm] | 24.000 | |
| 3 Lubricant charge | 280 | [ml] (9.47 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 10.98 | [kg] (24.21 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 | TSD | |
| 2.1 Starting device | TSD-220V0.6 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 5(330) | [µF(VAC minimum)] |
| 5 Motor protection | 4TM283NFBYY-73 | |
| 6 Start winding resistance | 18.60 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 13.27 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 8.40 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 1.15 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | 1.55 | [A] - Measured according to UL 984 |
| 11 Approval boards certification | | |

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] |
| 896 | 226 | 263 | 144 | 0.69 | 2.81 | 6.23 | 1.57 | 1.83 |

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) | 534 | 135 | 157 | 93 | 0.46 | 1.67 | 5.72 | 1.44 | 1.68 | |
| -30 (-22) | 695 | 175 | 204 | 107 | 0.55 | 2.18 | 6.51 | 1.64 | 1.91 | |
| -25 (-13) | 888 | 224 | 260 | 120 | 0.60 | 2.78 | 7.42 | 1.87 | 2.18 | |
| -20 (- 4) | 1125 | 283 | 330 | 133 | 0.65 | 3.53 | 8.44 | 2.13 | 2.47 | |
| -15 (+ 5) | 1417 | 357 | 415 | 148 | 0.70 | 4.46 | 9.54 | 2.40 | 2.80 | |
| -10 (+14) | 1776 | 448 | 521 | 166 | 0.77 | 5.60 | 10.68 | 2.69 | 3.13 | |

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------|-----|--------------------------------|----------------------------------|---|---------------------------|-----------|-------|--|
| 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) | 499 | 126 | 146 | 98 | 0.50 | 1.56 | 5.13 | 1.29 | 1.50 | |
| -30 (-22) | 659 | 166 | 193 | 115 | 0.60 | 2.07 | 5.77 | 1.45 | 1.69 | |
| -25 (-13) | 850 | 214 | 249 | 130 | 0.67 | 2.67 | 6.54 | 1.65 | 1.92 | |
| -20 (- 4) | 1082 | 273 | 317 | 146 | 0.72 | 3.40 | 7.42 | 1.87 | 2.17 | |
| -15 (+ 5) | 1368 | 345 | 401 | 163 | 0.78 | 4.31 | 8.36 | 2.11 | 2.45 | |
| -10 (+14) | 1718 | 433 | 503 | 183 | 0.86 | 5.42 | 9.35 | 2.36 | 2.74 | |

| | | | | | | | | | | |
|-------------------------------|----------------------------|--------------------|-----|--------------------------------|----------------------------------|---|---------------------------|-----------|-------|--|
| 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) | 481 | 121 | 141 | 102 | 0.51 | 1.51 | 4.73 | 1.19 | 1.39 | |
| -30 (-22) | 638 | 161 | 187 | 122 | 0.63 | 2.00 | 5.24 | 1.32 | 1.53 | |
| -25 (-13) | 823 | 207 | 241 | 140 | 0.72 | 2.58 | 5.87 | 1.48 | 1.72 | |
| -20 (- 4) | 1047 | 264 | 307 | 158 | 0.79 | 3.29 | 6.61 | 1.66 | 1.94 | |
| -15 (+ 5) | 1321 | 333 | 387 | 178 | 0.86 | 4.16 | 7.41 | 1.87 | 2.17 | |
| -10 (+14) | 1657 | 418 | 486 | 200 | 0.95 | 5.23 | 8.26 | 2.08 | 2.42 | |

E - PERFORMANCE - CURVES

| 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) | 458 | 115 | 134 | 104 | 0.52 | 1.43 | 4.37 | 1.10 | 1.28 |
| -30 | (-22) | 607 | 153 | 178 | 127 | 0.66 | 1.90 | 4.75 | 1.20 | 1.39 |
| -25 | (-13) | 781 | 197 | 229 | 149 | 0.76 | 2.45 | 5.26 | 1.32 | 1.54 |
| -20 | (- 4) | 993 | 250 | 291 | 170 | 0.85 | 3.12 | 5.86 | 1.48 | 1.72 |
| -15 | (+ 5) | 1252 | 316 | 367 | 192 | 0.93 | 3.94 | 6.54 | 1.65 | 1.92 |
| -10 | (+14) | 1571 | 396 | 460 | 217 | 1.03 | 4.96 | 7.25 | 1.83 | 2.13 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 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 | Straight | | |
| 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 | 6.5 +0.12/-0.08 | [mm] | (0.256" +0.005"/-0.003") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Straight | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |