

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | EM U32CLC |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 895LA96 |

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 | 5.96 | [cm ³] (0.364 cu.in) |
| 2.1 Bore [mm] | 22.500 | |
| 2.2 Stroke [mm] | 15.000 | |
| 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) | 6.8 | [kg] (14.99 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 | MI2021 | |
| 3 Start capacitor | - | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | AE24AHN10 | |
| 6 Start winding resistance | 25.60 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 36.20 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 2.90 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.50 | [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] |
| 330 | 83 | 97 | 71 | 0.52 | 1.04 | 4.67 | 1.18 | 1.37 |

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) | 176 | 44 | 52 | 50 | 0.47 | 0.55 | 3.52 | 0.89 | 1.03 |
| -30 | (-22) | 245 | 62 | 72 | 57 | 0.48 | 0.77 | 4.28 | 1.08 | 1.25 |
| -25 | (-13) | 329 | 83 | 96 | 65 | 0.49 | 1.03 | 5.02 | 1.27 | 1.47 |
| -20 | (- 4) | 427 | 108 | 125 | 74 | 0.50 | 1.34 | 5.78 | 1.46 | 1.69 |
| -15 | (+ 5) | 541 | 136 | 158 | 82 | 0.52 | 1.70 | 6.60 | 1.66 | 1.93 |
| -10 | (+14) | 670 | 169 | 196 | 89 | 0.54 | 2.11 | 7.51 | 1.89 | 2.20 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|--------------------|-----|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| 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) | 157 | 40 | 46 | 50 | 0.47 | 0.49 | 3.11 | 0.78 | 0.91 |
| -30 | (-22) | 220 | 55 | 64 | 58 | 0.48 | 0.69 | 3.78 | 0.95 | 1.11 |
| -25 | (-13) | 298 | 75 | 87 | 68 | 0.50 | 0.94 | 4.42 | 1.11 | 1.29 |
| -20 | (- 4) | 391 | 99 | 115 | 77 | 0.52 | 1.23 | 5.05 | 1.27 | 1.48 |
| -15 | (+ 5) | 500 | 126 | 146 | 87 | 0.54 | 1.57 | 5.73 | 1.44 | 1.68 |
| -10 | (+14) | 624 | 157 | 183 | 96 | 0.56 | 1.97 | 6.48 | 1.63 | 1.90 |

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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) | 130 | 33 | 38 | 50 | 0.47 | 0.41 | 2.61 | 0.66 | 0.76 |
| -30 | (-22) | 191 | 48 | 56 | 59 | 0.49 | 0.60 | 3.25 | 0.82 | 0.95 |
| -25 | (-13) | 266 | 67 | 78 | 70 | 0.51 | 0.84 | 3.84 | 0.97 | 1.12 |
| -20 | (- 4) | 357 | 90 | 105 | 81 | 0.53 | 1.12 | 4.40 | 1.11 | 1.29 |
| -15 | (+ 5) | 464 | 117 | 136 | 93 | 0.55 | 1.46 | 4.99 | 1.26 | 1.46 |
| -10 | (+14) | 587 | 148 | 172 | 104 | 0.58 | 1.85 | 5.62 | 1.42 | 1.65 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 2 Tray holder | No | | |
| 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 | 5.1 +0.10/+0.00 | [mm] | (0.201" +0.004"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6 +0.08/-0.08 | [mm] | (0.236" +0.003"/-0.003") |
| 3.3.1 Material | Copper(OD) | | |
| 3.3.2 Shape | Slanted 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |