

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NB U1114Y |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 813BA62 |

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 | 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 pressures/temperature | | | |
| 9.1 Operating (gauge) | 7.7 | [kgf/cm ²] (109 psig) | / °C - °F |
| 9.2 Peak (gauge) | 9.8 | [kgf/cm ²] (139 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|----------------|----------------------------------|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 9.99 | [cm ³] (0.610 cu.in) |
| 2.1 Bore [mm] | 26.497 | |
| 2.2 Stroke [mm] | 18.120 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ALQUILB / ISO5 | |
| 4 Weight (with oil charge) | 10.2 | [kg] (22.49 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 | V230 | |
| 3 Start capacitor | - | [µF(VAC minimum)] |
| 4 Run capacitor | 4(450) | [µF(VAC minimum)] |
| 5 Motor protection | T0133/07 | |
| 6 Start winding resistance | 19.70 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 19.60 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 4.40 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.45 | [A] |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] |
| 11 Approval boards certification | CCIB - VDE | |

D - PERFORMANCE - CHECK POINT DATA

| TEST CONDITIONS: @220V50Hz | | | CECOMAFLBP Static | | Evaporating temperature (Condensing temperature | | -25°C (-13°F) 55°C (131°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] |
| 433 | 109 | 127 | 99 | 0.45 | 1.65 | 4.36 | 1.10 | 1.28 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | CECOMAF 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) | 329 | 83 | 96 | 71 | 0.33 | 1.05 | 4.61 | 1.16 | 1.35 |
| -30 | (-22) | 436 | 110 | 128 | 81 | 0.37 | 1.40 | 5.39 | 1.36 | 1.58 |
| -25 | (-13) | 566 | 143 | 166 | 91 | 0.41 | 1.82 | 6.25 | 1.57 | 1.83 |
| -20 | (- 4) | 722 | 182 | 211 | 100 | 0.45 | 2.32 | 7.20 | 1.81 | 2.11 |
| -15 | (+ 5) | 908 | 229 | 266 | 110 | 0.50 | 2.92 | 8.24 | 2.08 | 2.42 |
| -10 | (+14) | 1129 | 285 | 331 | 120 | 0.54 | 3.64 | 9.37 | 2.36 | 2.75 |

| TEST CONDITIONS: @220V50Hz | | CECOMAF 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) | 283 | 71 | 83 | 72 | 0.34 | 0.98 | 3.91 | 0.98 | 1.14 |
| -30 | (-22) | 382 | 96 | 112 | 85 | 0.39 | 1.33 | 4.51 | 1.14 | 1.32 |
| -25 | (-13) | 499 | 126 | 146 | 97 | 0.44 | 1.74 | 5.17 | 1.30 | 1.51 |
| -20 | (- 4) | 638 | 161 | 187 | 108 | 0.49 | 2.22 | 5.89 | 1.48 | 1.72 |
| -15 | (+ 5) | 802 | 202 | 235 | 120 | 0.54 | 2.80 | 6.66 | 1.68 | 1.95 |
| -10 | (+14) | 997 | 251 | 292 | 133 | 0.60 | 3.49 | 7.48 | 1.89 | 2.19 |

| TEST CONDITIONS: @220V50Hz | | CECOMAF 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) | 235 | 59 | 69 | 71 | 0.33 | 0.89 | 3.32 | 0.84 | 0.97 |
| -30 | (-22) | 328 | 83 | 96 | 85 | 0.39 | 1.25 | 3.82 | 0.96 | 1.12 |
| -25 | (-13) | 435 | 110 | 127 | 100 | 0.45 | 1.66 | 4.36 | 1.10 | 1.28 |
| -20 | (- 4) | 559 | 141 | 164 | 114 | 0.51 | 2.14 | 4.91 | 1.24 | 1.44 |
| -15 | (+ 5) | 705 | 178 | 207 | 129 | 0.58 | 2.70 | 5.49 | 1.38 | 1.61 |
| -10 | (+14) | 877 | 221 | 257 | 144 | 0.65 | 3.37 | 6.09 | 1.53 | 1.78 |

E - PERFORMANCE - CURVES

| TEST CONDITIONS: @220V50Hz | | CECOMAF 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) | 167 | 42 | 49 | 69 | 0.33 | 0.71 | 2.44 | 0.61 | 0.71 |
| -30 | (-22) | 258 | 65 | 76 | 87 | 0.39 | 1.08 | 2.93 | 0.74 | 0.86 |
| -25 | (-13) | 357 | 90 | 105 | 104 | 0.46 | 1.51 | 3.41 | 0.86 | 1.00 |
| -20 | (- 4) | 470 | 118 | 138 | 121 | 0.54 | 1.99 | 3.88 | 0.98 | 1.14 |
| -15 | (+ 5) | 600 | 151 | 176 | 139 | 0.62 | 2.55 | 4.34 | 1.09 | 1.27 |
| -10 | (+14) | 752 | 189 | 220 | 157 | 0.70 | 3.21 | 4.79 | 1.21 | 1.40 |

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 | Slanted parallel to Base Plate | | |
| 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 | | |