

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NB T1114Z |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 254CA02 |

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 | RSIR-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) | 16.2 | [kgf/cm ²] (230 psig) | / °C - °F |
| 9.2 Peak (gauge) | 20.6 | [kgf/cm ²] (293 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|----------------------------------|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 6.20 | [cm ³] (0.378 cu.in) |
| 2.1 Bore [mm] | 20.873 | |
| 2.2 Stroke [mm] | 18.120 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO10 | |
| 4 Weight (with oil charge) | 10.15 | [kg] (22.38 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 | 4(450) | [µF(VAC minimum)] |
| 5 Motor protection | AD47BU10 | |
| 6 Start winding resistance | 23.40 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 15.40 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 5.10 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.73 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | IMQ | |

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] |
| 552 | 139 | 162 | 117 | 0.55 | 3.14 | 4.73 | 1.19 | 1.39 |

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) | 311 | 78 | 91 | 78 | 0.37 | 1.76 | 3.99 | 1.00 | 1.17 |
| -30 (-22) | 429 | 108 | 126 | 89 | 0.42 | 2.43 | 4.81 | 1.21 | 1.41 |
| -25 (-13) | 575 | 145 | 168 | 102 | 0.48 | 3.26 | 5.66 | 1.43 | 1.66 |
| -20 (- 4) | 753 | 190 | 221 | 115 | 0.54 | 4.29 | 6.57 | 1.66 | 1.93 |
| -15 (+ 5) | 970 | 244 | 284 | 128 | 0.60 | 5.54 | 7.56 | 1.90 | 2.21 |
| -10 (+14) | 1229 | 310 | 360 | 142 | 0.66 | 7.04 | 8.63 | 2.17 | 2.53 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| 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) | 279 | 70 | 82 | 78 | 0.37 | 1.58 | 3.58 | 0.90 | 1.05 |
| -30 (-22) | 394 | 99 | 115 | 92 | 0.43 | 2.23 | 4.29 | 1.08 | 1.26 |
| -25 (-13) | 536 | 135 | 157 | 107 | 0.50 | 3.04 | 5.02 | 1.26 | 1.47 |
| -20 (- 4) | 708 | 178 | 208 | 122 | 0.57 | 4.03 | 5.78 | 1.46 | 1.69 |
| -15 (+ 5) | 917 | 231 | 269 | 139 | 0.65 | 5.23 | 6.59 | 1.66 | 1.93 |
| -10 (+14) | 1167 | 294 | 342 | 156 | 0.73 | 6.69 | 7.47 | 1.88 | 2.19 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|---|----------------------------|---------------------------|-----------|-------|
| 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) | 246 | 62 | 72 | 76 | 0.37 | 1.39 | 3.23 | 0.81 | 0.95 |
| -30 (-22) | 359 | 90 | 105 | 93 | 0.43 | 2.03 | 3.86 | 0.97 | 1.13 |
| -25 (-13) | 495 | 125 | 145 | 110 | 0.51 | 2.81 | 4.48 | 1.13 | 1.31 |
| -20 (- 4) | 662 | 167 | 194 | 129 | 0.59 | 3.76 | 5.12 | 1.29 | 1.50 |
| -15 (+ 5) | 862 | 217 | 253 | 149 | 0.68 | 4.92 | 5.79 | 1.46 | 1.70 |
| -10 (+14) | 1102 | 278 | 323 | 169 | 0.78 | 6.32 | 6.51 | 1.64 | 1.91 |

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) | 209 | 53 | 61 | 75 | 0.36 | 1.18 | 2.79 | 0.70 | 0.82 |
| -30 | (-22) | 318 | 80 | 93 | 94 | 0.43 | 1.80 | 3.37 | 0.85 | 0.99 |
| -25 | (-13) | 450 | 113 | 132 | 114 | 0.52 | 2.55 | 3.93 | 0.99 | 1.15 |
| -20 | (- 4) | 609 | 154 | 179 | 136 | 0.62 | 3.47 | 4.48 | 1.13 | 1.31 |
| -15 | (+ 5) | 802 | 202 | 235 | 159 | 0.73 | 4.58 | 5.05 | 1.27 | 1.48 |
| -10 | (+14) | 1032 | 260 | 302 | 183 | 0.84 | 5.91 | 5.64 | 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 | 4.94 +0.08/-0.08 | [mm] | (0.194" +0.003"/-0.003") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Slanted parallel to Base Plate | | |
| 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 | | |