

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NB T1114Y |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 850CA12 |

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 | 9.99 | [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) | 10.15 | [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 | - | [μF(VAC minimum)] |
| 5 Motor protection | AD23FQ10 | |
| 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) | 0.63 | [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] |
| 546 | 138 | 160 | 113 | 0.69 | 1.71 | 4.85 | 1.22 | 1.42 |

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) | 323 | 81 | 95 | 78 | 0.60 | 1.01 | 4.15 | 1.05 | 1.22 |
| -30 (-22) | 418 | 105 | 123 | 86 | 0.63 | 1.31 | 4.91 | 1.24 | 1.44 |
| -25 (-13) | 555 | 140 | 163 | 97 | 0.66 | 1.74 | 5.75 | 1.45 | 1.69 |
| -20 (- 4) | 728 | 184 | 213 | 110 | 0.70 | 2.29 | 6.65 | 1.68 | 1.95 |
| -15 (+ 5) | 932 | 235 | 273 | 122 | 0.74 | 2.93 | 7.60 | 1.92 | 2.23 |
| -10 (+14) | 1160 | 292 | 340 | 135 | 0.78 | 3.66 | 8.58 | 2.16 | 2.51 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| 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) | 298 | 75 | 87 | 77 | 0.60 | 0.93 | 3.80 | 0.96 | 1.11 |
| -30 (-22) | 401 | 101 | 118 | 89 | 0.64 | 1.26 | 4.52 | 1.14 | 1.32 |
| -25 (-13) | 540 | 136 | 158 | 102 | 0.68 | 1.69 | 5.26 | 1.33 | 1.54 |
| -20 (- 4) | 710 | 179 | 208 | 117 | 0.73 | 2.23 | 6.01 | 1.51 | 1.76 |
| -15 (+ 5) | 904 | 228 | 265 | 134 | 0.79 | 2.85 | 6.75 | 1.70 | 1.98 |
| -10 (+14) | 1118 | 282 | 327 | 150 | 0.84 | 3.53 | 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) | 245 | 62 | 72 | 83 | 0.60 | 0.77 | 3.03 | 0.76 | 0.89 |
| -30 (-22) | 352 | 89 | 103 | 94 | 0.64 | 1.10 | 3.80 | 0.96 | 1.11 |
| -25 (-13) | 489 | 123 | 143 | 108 | 0.69 | 1.54 | 4.55 | 1.15 | 1.33 |
| -20 (- 4) | 652 | 164 | 191 | 124 | 0.75 | 2.05 | 5.25 | 1.32 | 1.54 |
| -15 (+ 5) | 833 | 210 | 244 | 141 | 0.81 | 2.62 | 5.89 | 1.48 | 1.72 |
| -10 (+14) | 1028 | 259 | 301 | 159 | 0.88 | 3.24 | 6.45 | 1.62 | 1.89 |

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) | 225 | 57 | 66 | 85 | 0.60 | 0.70 | 2.61 | 0.66 | 0.77 |
| -30 | (-22) | 332 | 84 | 97 | 94 | 0.64 | 1.04 | 3.54 | 0.89 | 1.04 |
| -25 | (-13) | 464 | 117 | 136 | 105 | 0.70 | 1.46 | 4.39 | 1.11 | 1.29 |
| -20 | (- 4) | 616 | 155 | 180 | 120 | 0.76 | 1.94 | 5.14 | 1.29 | 1.50 |
| -15 | (+ 5) | 781 | 197 | 229 | 136 | 0.82 | 2.46 | 5.77 | 1.45 | 1.69 |
| -10 | (+14) | 954 | 240 | 280 | 153 | 0.89 | 3.01 | 6.27 | 1.58 | 1.84 |

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 | 6.1 +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 | | |