

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NB U1114Y |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 853BA07 |

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 | | | 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] |
| 577 | 145 | 169 | 104 | 0.47 | 1.81 | 5.56 | 1.40 | 1.63 |

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) | 334 | 84 | 98 | 71 | 0.33 | 1.05 | 4.68 | 1.18 | 1.37 |
| -30 (-22) | 444 | 112 | 130 | 78 | 0.37 | 1.39 | 5.33 | 1.34 | 1.56 |
| -25 (-13) | 576 | 145 | 169 | 91 | 0.41 | 1.81 | 5.97 | 1.50 | 1.75 |
| -20 (- 4) | 735 | 185 | 215 | 103 | 0.45 | 2.31 | 7.15 | 1.80 | 2.10 |
| -15 (+ 5) | 925 | 233 | 271 | 108 | 0.50 | 2.91 | 9.46 | 2.38 | 2.77 |
| -10 (+14) | 1151 | 290 | 337 | 99 | 0.54 | 3.63 | 13.44 | 3.39 | 3.94 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|-----------------------------------------|----------------------------|---------------------------|-----------|-------|
| 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) | 312 | 79 | 91 | 73 | 0.34 | 0.98 | 4.51 | 1.14 | 1.32 |
| -30 (-22) | 421 | 106 | 124 | 80 | 0.39 | 1.32 | 5.20 | 1.31 | 1.52 |
| -25 (-13) | 551 | 139 | 161 | 95 | 0.44 | 1.73 | 5.48 | 1.38 | 1.61 |
| -20 (- 4) | 705 | 178 | 207 | 110 | 0.49 | 2.21 | 5.92 | 1.49 | 1.73 |
| -15 (+ 5) | 887 | 224 | 260 | 121 | 0.54 | 2.79 | 7.07 | 1.78 | 2.07 |
| -10 (+14) | 1104 | 278 | 323 | 120 | 0.60 | 3.48 | 9.51 | 2.40 | 2.79 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|--------------------|--------------------------------|-----------------------------------------|----------------------------|---------------------------|-----------|-------|
| 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) | 282 | 71 | 83 | 70 | 0.33 | 0.88 | 4.18 | 1.05 | 1.23 |
| -30 (-22) | 395 | 99 | 116 | 79 | 0.39 | 1.24 | 5.26 | 1.33 | 1.54 |
| -25 (-13) | 525 | 132 | 154 | 96 | 0.45 | 1.65 | 5.53 | 1.39 | 1.62 |
| -20 (- 4) | 677 | 171 | 198 | 117 | 0.51 | 2.13 | 5.56 | 1.40 | 1.63 |
| -15 (+ 5) | 855 | 216 | 251 | 134 | 0.58 | 2.69 | 5.90 | 1.49 | 1.73 |
| -10 (+14) | 1064 | 268 | 312 | 142 | 0.65 | 3.36 | 7.14 | 1.80 | 2.09 |

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) | 222 | 56 | 65 | 70 | 0.33 | 0.70 | 2.81 | 0.71 | 0.82 |
| -30 | (-22) | 341 | 86 | 100 | 81 | 0.39 | 1.07 | 4.62 | 1.16 | 1.35 |
| -25 | (-13) | 476 | 120 | 139 | 103 | 0.46 | 1.49 | 5.22 | 1.31 | 1.53 |
| -20 | (- 4) | 629 | 159 | 184 | 130 | 0.54 | 1.98 | 5.18 | 1.30 | 1.52 |
| -15 | (+ 5) | 806 | 203 | 236 | 156 | 0.62 | 2.54 | 5.06 | 1.28 | 1.48 |
| -10 | (+14) | 1012 | 255 | 296 | 174 | 0.70 | 3.19 | 5.44 | 1.37 | 1.59 |

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 | Straight | | |
| 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 | | |