

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NB U1115Y |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 814AA68 |

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 | 11.02 | [cm ³] (0.672 cu.in) |
| 2.1 Bore [mm] | 26.497 | |
| 2.2 Stroke [mm] | 20.000 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | MINERAL / ISO7 | |
| 4 Weight (with oil charge) | 10.75 | [kg] (23.70 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 | T0521/07 | |
| 6 Start winding resistance | 14.30 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 15.80 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 5.50 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.51 | [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] |
| 655 | 165 | 192 | 115 | 0.52 | 2.06 | 5.70 | 1.44 | 1.67 |

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) | 395 | 99 | 116 | 78 | 0.37 | 1.24 | 5.08 | 1.28 | 1.49 |
| -30 (-22) | 521 | 131 | 153 | 89 | 0.42 | 1.63 | 5.90 | 1.49 | 1.73 |
| -25 (-13) | 669 | 169 | 196 | 99 | 0.46 | 2.10 | 6.78 | 1.71 | 1.99 |
| -20 (- 4) | 845 | 213 | 248 | 110 | 0.50 | 2.66 | 7.71 | 1.94 | 2.26 |
| -15 (+ 5) | 1055 | 266 | 309 | 121 | 0.55 | 3.32 | 8.70 | 2.19 | 2.55 |
| -10 (+14) | 1303 | 328 | 382 | 133 | 0.60 | 4.11 | 9.76 | 2.46 | 2.86 |

| | | | | | | | | | |
|-------------------------------|----------------------------|--------------------|-----|--------------------------------|----------------------------------|--|---------------------------|-----------|-------|
| 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) | 354 | 89 | 104 | 78 | 0.38 | 1.11 | 4.55 | 1.15 | 1.33 |
| -30 (-22) | 483 | 122 | 142 | 92 | 0.43 | 1.52 | 5.29 | 1.33 | 1.55 |
| -25 (-13) | 632 | 159 | 185 | 105 | 0.48 | 1.98 | 6.05 | 1.52 | 1.77 |
| -20 (- 4) | 807 | 203 | 236 | 118 | 0.54 | 2.53 | 6.85 | 1.73 | 2.01 |
| -15 (+ 5) | 1012 | 255 | 297 | 131 | 0.60 | 3.19 | 7.68 | 1.94 | 2.25 |
| -10 (+14) | 1255 | 316 | 368 | 146 | 0.66 | 3.96 | 8.56 | 2.16 | 2.51 |

| | | | | | | | | | |
|-------------------------------|----------------------------|--------------------|-----|--------------------------------|----------------------------------|--|---------------------------|-----------|-------|
| 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) | 314 | 79 | 92 | 77 | 0.37 | 0.98 | 4.08 | 1.03 | 1.20 |
| -30 (-22) | 447 | 113 | 131 | 94 | 0.44 | 1.40 | 4.76 | 1.20 | 1.39 |
| -25 (-13) | 597 | 150 | 175 | 110 | 0.50 | 1.87 | 5.44 | 1.37 | 1.59 |
| -20 (- 4) | 771 | 194 | 226 | 126 | 0.57 | 2.42 | 6.14 | 1.55 | 1.80 |
| -15 (+ 5) | 974 | 245 | 285 | 142 | 0.64 | 3.07 | 6.85 | 1.73 | 2.01 |
| -10 (+14) | 1211 | 305 | 355 | 159 | 0.72 | 3.82 | 7.59 | 1.91 | 2.22 |

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) | 263 | 66 | 77 | 74 | 0.36 | 0.82 | 3.56 | 0.90 | 1.04 |
| -30 | (-22) | 400 | 101 | 117 | 94 | 0.44 | 1.26 | 4.22 | 1.06 | 1.24 |
| -25 | (-13) | 553 | 139 | 162 | 113 | 0.52 | 1.74 | 4.86 | 1.22 | 1.42 |
| -20 | (- 4) | 727 | 183 | 213 | 133 | 0.60 | 2.28 | 5.49 | 1.38 | 1.61 |
| -15 | (+ 5) | 928 | 234 | 272 | 152 | 0.68 | 2.92 | 6.12 | 1.54 | 1.79 |
| -10 | (+14) | 1161 | 293 | 340 | 172 | 0.78 | 3.66 | 6.74 | 1.70 | 1.97 |

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 B.Plate 30° | | |
| 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 | | |