

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | NE K1116Z |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 268EA47 |

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/cm²] (230 psig) | / °C - °F |
| 9.2 Peak (gauge) | 20.6 | [kgf/cm²] (293 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|-------------------------------|
| 1 Commercial designation | | [hp] |
| 2 Displacement | 7.37 | [cm³] (0.450 cu.in) |
| 2.1 Bore [mm] | 24.282 | |
| 2.2 Stroke [mm] | 15.920 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 10.8 | [kg] (23.81 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm²] (2.84 to 4.27 psig) |

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(400) | [μF(VAC minimum)] |
| 5 Motor protection | T0503/07 | |
| 6 Start winding resistance | 17.60 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 13.20 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 5.30 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 0.82 | [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] |
| 663 | 167 | 194 | 135 | 0.60 | 3.77 | 4.92 | 1.24 | 1.44 |

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) | 382 | 96 | 112 | 85 | 0.41 | 2.16 | 4.51 | 1.14 | 1.32 |
| -30 | (-22) | 524 | 132 | 154 | 99 | 0.48 | 2.97 | 5.32 | 1.34 | 1.56 |
| -25 | (-13) | 698 | 176 | 204 | 114 | 0.54 | 3.96 | 6.11 | 1.54 | 1.79 |
| -20 | (- 4) | 910 | 229 | 267 | 131 | 0.61 | 5.18 | 6.93 | 1.75 | 2.03 |
| -15 | (+ 5) | 1168 | 294 | 342 | 149 | 0.68 | 6.67 | 7.84 | 1.97 | 2.30 |
| -10 | (+14) | 1480 | 373 | 434 | 167 | 0.76 | 8.48 | 8.87 | 2.24 | 2.60 |

| 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) | 339 | 85 | 99 | 86 | 0.40 | 1.92 | 3.96 | 1.00 | 1.16 |
| -30 | (-22) | 482 | 122 | 141 | 102 | 0.48 | 2.73 | 4.70 | 1.18 | 1.38 |
| -25 | (-13) | 653 | 165 | 191 | 121 | 0.56 | 3.71 | 5.39 | 1.36 | 1.58 |
| -20 | (- 4) | 859 | 216 | 252 | 141 | 0.64 | 4.89 | 6.07 | 1.53 | 1.78 |
| -15 | (+ 5) | 1107 | 279 | 324 | 162 | 0.73 | 6.32 | 6.81 | 1.72 | 2.00 |
| -10 | (+14) | 1404 | 354 | 411 | 184 | 0.83 | 8.04 | 7.64 | 1.93 | 2.24 |

| 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) | 281 | 71 | 82 | 83 | 0.39 | 1.59 | 3.40 | 0.86 | 0.99 |
| -30 | (-22) | 426 | 107 | 125 | 104 | 0.48 | 2.41 | 4.09 | 1.03 | 1.20 |
| -25 | (-13) | 594 | 150 | 174 | 126 | 0.58 | 3.37 | 4.70 | 1.18 | 1.38 |
| -20 | (- 4) | 793 | 200 | 232 | 151 | 0.68 | 4.51 | 5.27 | 1.33 | 1.54 |
| -15 | (+ 5) | 1030 | 260 | 302 | 176 | 0.79 | 5.88 | 5.86 | 1.48 | 1.72 |
| -10 | (+14) | 1312 | 331 | 385 | 202 | 0.91 | 7.52 | 6.50 | 1.64 | 1.91 |

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 | | |