

COMPRESSOR DEFINITION

| | |
|---------------------------|-----------------|
| Designation | NE K1140Z |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 269IA51 |

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 R134a | | |
| 4.1 Evaporating temperature range | -30°C to -5°C | (-22°F to 23°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) | - | - | - |
| 8.2 LBP (43°C Ambient temperature) | - | - | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing temperature | | | |
| 9.1 Operating | 14.2 | [kgf/cm ²] (202 psig) | / °C - °F |
| 9.2 Peak | 15.9 | [kgf/cm ²] (226 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--|
| 1 Commercial designation | 1/2 | [hp] |
| 2 Displacement | 16.80 | [cm ³] (1.025 cu.in) |
| 2.1 Bore [mm] | 31.190 | |
| 2.2 Stroke [mm] | 22.000 | |
| 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) | 11.6 | [kg] (25.57 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (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 | Current Relay | |
| 2.1 Starting device | 9660D-476-149 | |
| 3 Start capacitor | - | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | T0887/G6 | |
| 6 Start winding resistance | 19.01 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 4.24 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | - | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | - | [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 Fan | | 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] |
| 1492 | 376 | 437 | 348 | 2.36 | 8.48 | 4.29 | 1.08 | 1.26 |

E - PERFORMANCE - CURVES

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|-----------------|-----------------------------|---------------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (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) | 858 | 216 | 251 | 222 | 2.03 | 4.85 | 3.79 | 0.95 | 1.11 |
| -30 (-22) | 1167 | 294 | 342 | 261 | 2.10 | 6.61 | 4.46 | 1.12 | 1.31 |
| -25 (-13) | 1567 | 395 | 459 | 304 | 2.20 | 8.90 | 5.17 | 1.30 | 1.51 |
| -20 (- 4) | 2057 | 518 | 603 | 349 | 2.34 | 11.71 | 5.90 | 1.49 | 1.73 |
| -15 (+ 5) | 2638 | 665 | 773 | 397 | 2.51 | 15.06 | 6.64 | 1.67 | 1.95 |
| -10 (+14) | 3310 | 834 | 970 | 449 | 2.71 | 18.97 | 7.37 | 1.86 | 2.16 |

| | | | | | | | | | |
|-------------------------------|----------------------------|----------|-----------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (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) | 771 | 194 | 226 | 224 | 2.03 | 4.35 | 3.42 | 0.86 | 1.00 |
| -30 (-22) | 1070 | 270 | 314 | 267 | 2.11 | 6.06 | 4.01 | 1.01 | 1.18 |
| -25 (-13) | 1455 | 367 | 426 | 315 | 2.24 | 8.26 | 4.62 | 1.16 | 1.35 |
| -20 (- 4) | 1927 | 486 | 565 | 368 | 2.41 | 10.97 | 5.23 | 1.32 | 1.53 |
| -15 (+ 5) | 2485 | 626 | 728 | 426 | 2.62 | 14.19 | 5.83 | 1.47 | 1.71 |
| -10 (+14) | 3130 | 789 | 917 | 489 | 2.86 | 17.93 | 6.40 | 1.61 | 1.88 |

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|-------------------------------|----------------------------|----------|-----------------|-----------------------------|--|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (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) | 684 | 172 | 200 | 226 | 2.03 | 3.86 | 3.02 | 0.76 | 0.88 |
| -30 (-22) | 973 | 245 | 285 | 273 | 2.12 | 5.51 | 3.57 | 0.90 | 1.05 |
| -25 (-13) | 1343 | 339 | 394 | 326 | 2.28 | 7.63 | 4.11 | 1.04 | 1.20 |
| -20 (- 4) | 1796 | 453 | 526 | 387 | 2.48 | 10.22 | 4.64 | 1.17 | 1.36 |
| -15 (+ 5) | 2332 | 588 | 683 | 455 | 2.72 | 13.31 | 5.13 | 1.29 | 1.50 |
| -10 (+14) | 2950 | 743 | 864 | 529 | 3.01 | 16.90 | 5.58 | 1.41 | 1.64 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.1 +0.10/+0.00 | [mm] | (0.319" +0.004"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 42° | | |
| 3.2 DISCHARGE | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 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 | | |