

COMPRESSOR DEFINITION

| | |
|---------------------------|--|
| Designation | NE U2140GK |
| Nominal Voltage/Frequency | 200-230 V 50 Hz / 208-230 V 60 Hz |
| Engineering Number | 958KB92 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 200-230 / 50 | [V / Hz] | |
| 4 Application type | Low Back Pressure R404A | | |
| 4.1 Evaporating temperature range | -40°C to -10°C | (-40°F to 14°F) | |
| 5 Motor type | CSIR | | |
| 6 Starting torque | HST - High starting torque | | |
| 7 Expansion device | Capillary tube or Expansion valve | | |
| 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 | 25.2 | [kgf/cm ²] (358 psig) | / °C - °F |
| 9.2 Peak | 28.3 | [kgf/cm ²] (402 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--|
| 1 Commercial designation | 1/2 | [hp] |
| 2 Displacement | 8.77 | [cm ³] (0.535 cu.in) |
| 2.1 Bore [mm] | 26.497 | |
| 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) | 11.17 | [kg] (24.63 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 | 200-230 V 50 Hz / 208-230 V 60 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRP-49 | |
| 3 Start capacitor | 64-77(330) | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | T0660/J5 | |
| 6 Start winding resistance | 27.95 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 5.11 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (60 Hz) | 18.00 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (60 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | KC - UL | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @208V60Hz | | | 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] |
| 1937 | 488 | 568 | 418 | 2.54 | 13.13 | 4.63 | 1.17 | 1.36 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @208V60Hz | | | 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] |
| -40 | (-40) | 924 | 233 | 271 | 235 | 1.86 | 6.21 | 3.91 | 0.99 | 1.15 |
| -35 | (-31) | 1221 | 308 | 358 | 277 | 2.00 | 8.23 | 4.42 | 1.11 | 1.29 |
| -30 | (-22) | 1603 | 404 | 470 | 319 | 2.15 | 10.84 | 5.03 | 1.27 | 1.47 |
| -25 | (-13) | 2069 | 521 | 606 | 360 | 2.31 | 14.06 | 5.74 | 1.45 | 1.68 |
| -20 | (- 4) | 2620 | 660 | 768 | 401 | 2.47 | 17.89 | 6.52 | 1.64 | 1.91 |
| -15 | (+ 5) | 3255 | 820 | 954 | 442 | 2.64 | 22.37 | 7.37 | 1.86 | 2.16 |
| -10 | (+14) | 3975 | 1002 | 1165 | 481 | 2.81 | 27.49 | 8.26 | 2.08 | 2.42 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @208V60Hz | | | 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] |
| -40 | (-40) | 829 | 209 | 243 | 238 | 1.88 | 5.56 | 3.48 | 0.88 | 1.02 |
| -35 | (-31) | 1117 | 281 | 327 | 284 | 2.02 | 7.52 | 3.94 | 0.99 | 1.15 |
| -30 | (-22) | 1484 | 374 | 435 | 333 | 2.19 | 10.02 | 4.46 | 1.12 | 1.31 |
| -25 | (-13) | 1930 | 486 | 565 | 383 | 2.38 | 13.08 | 5.04 | 1.27 | 1.48 |
| -20 | (- 4) | 2454 | 618 | 719 | 434 | 2.60 | 16.73 | 5.65 | 1.42 | 1.66 |
| -15 | (+ 5) | 3058 | 771 | 896 | 486 | 2.83 | 20.97 | 6.29 | 1.58 | 1.84 |
| -10 | (+14) | 3740 | 942 | 1096 | 540 | 3.08 | 25.82 | 6.93 | 1.75 | 2.03 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @208V60Hz | | | 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] |
| -40 | (-40) | 701 | 177 | 205 | 236 | 1.87 | 4.69 | 2.97 | 0.75 | 0.87 |
| -35 | (-31) | 988 | 249 | 289 | 287 | 2.02 | 6.63 | 3.44 | 0.87 | 1.01 |
| -30 | (-22) | 1348 | 340 | 395 | 342 | 2.21 | 9.08 | 3.93 | 0.99 | 1.15 |
| -25 | (-13) | 1781 | 449 | 522 | 401 | 2.44 | 12.05 | 4.44 | 1.12 | 1.30 |
| -20 | (- 4) | 2288 | 577 | 670 | 463 | 2.70 | 15.56 | 4.95 | 1.25 | 1.45 |
| -15 | (+ 5) | 2867 | 723 | 840 | 528 | 3.00 | 19.62 | 5.44 | 1.37 | 1.59 |
| -10 | (+14) | 3520 | 887 | 1031 | 596 | 3.33 | 24.25 | 5.90 | 1.49 | 1.73 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------|------|--------------------------|
| 1 Base plate | Universal | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.03 +0.07/+0.00 | [mm] | (0.316" +0.003"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 42° | | |
| 3.2 DISCHARGE | 6.45 +0.10/+0.00 | [mm] | (0.254" +0.004"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6.45 +0.10/+0.00 | [mm] | (0.254" +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 | | |