

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NE U2140GK |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 958JA71 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 220-240 / 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 - Hight 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) | 10.6 | [kg] (23.37 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 | MTRPH-0025-65 | |
| 3 Start capacitor | 64-77(330) | [µF(VAC minimum)] |
| 4 Run capacitor | - | [µF(VAC minimum)] |
| 5 Motor protection | MST38AMK-3259 | |
| 6 Start winding resistance | 24.26 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 7.79 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | 13.50 | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | 2.63 | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - VDE | |

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] |
| 1660 | 418 | 486 | 357 | 2.06 | 11.25 | 4.65 | 1.17 | 1.36 |

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] |
| -40 | (-40) | 799 | 201 | 234 | 205 | 1.52 | 5.37 | 3.89 | 0.98 | 1.14 |
| -35 | (-31) | 1049 | 264 | 307 | 238 | 1.61 | 7.08 | 4.42 | 1.11 | 1.29 |
| -30 | (-22) | 1368 | 345 | 401 | 272 | 1.72 | 9.26 | 5.04 | 1.27 | 1.48 |
| -25 | (-13) | 1755 | 442 | 514 | 305 | 1.83 | 11.92 | 5.75 | 1.45 | 1.69 |
| -20 | (- 4) | 2210 | 557 | 648 | 339 | 1.95 | 15.09 | 6.53 | 1.65 | 1.91 |
| -15 | (+ 5) | 2733 | 689 | 801 | 371 | 2.07 | 18.78 | 7.36 | 1.86 | 2.16 |
| -10 | (+14) | 3323 | 837 | 974 | 403 | 2.20 | 22.99 | 8.23 | 2.07 | 2.41 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|-----|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| 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] |
| -40 | (-40) | 728 | 183 | 213 | 209 | 1.52 | 4.88 | 3.48 | 0.88 | 1.02 |
| -35 | (-31) | 971 | 245 | 285 | 246 | 1.63 | 6.54 | 3.96 | 1.00 | 1.16 |
| -30 | (-22) | 1281 | 323 | 375 | 284 | 1.76 | 8.65 | 4.50 | 1.13 | 1.32 |
| -25 | (-13) | 1655 | 417 | 485 | 325 | 1.90 | 11.22 | 5.09 | 1.28 | 1.49 |
| -20 | (- 4) | 2095 | 528 | 614 | 367 | 2.06 | 14.28 | 5.71 | 1.44 | 1.67 |
| -15 | (+ 5) | 2600 | 655 | 762 | 410 | 2.23 | 17.83 | 6.34 | 1.60 | 1.86 |
| -10 | (+14) | 3169 | 799 | 929 | 455 | 2.41 | 21.88 | 6.98 | 1.76 | 2.05 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|-----|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| 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] |
| -40 | (-40) | 637 | 160 | 187 | 209 | 1.52 | 4.26 | 3.04 | 0.77 | 0.89 |
| -35 | (-31) | 869 | 219 | 255 | 249 | 1.64 | 5.84 | 3.49 | 0.88 | 1.02 |
| -30 | (-22) | 1165 | 294 | 341 | 293 | 1.79 | 7.85 | 3.97 | 1.00 | 1.16 |
| -25 | (-13) | 1523 | 384 | 446 | 341 | 1.96 | 10.30 | 4.46 | 1.13 | 1.31 |
| -20 | (- 4) | 1943 | 490 | 569 | 393 | 2.16 | 13.21 | 4.95 | 1.25 | 1.45 |
| -15 | (+ 5) | 2425 | 611 | 711 | 448 | 2.38 | 16.59 | 5.42 | 1.37 | 1.59 |
| -10 | (+14) | 2970 | 748 | 870 | 506 | 2.63 | 20.46 | 5.86 | 1.48 | 1.72 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|------------------|------|--------------------------|
| 1 Base plate | Universal | | |
| 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 | 6.45 +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 | | |