

|                           |                        |
|---------------------------|------------------------|
| Designation               | <b>NEK6210GK</b>       |
| Nominal Voltage/Frequency | <b>220-240 V 50 Hz</b> |
| Engineering Number        | <b>958CA51</b>         |

**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                         | Medium Back Pressure (Commercial Compressors R404A) |                                   |           |
| 4.1 Evaporating temperature range          | -20°C to 0°C  | (-4°F to 32°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 pressures/temperature |   |                                   |           |
| 9.1 Operating (gauge)                      | 25.7  | [kgf/cm <sup>2</sup> ] (365 psig) | / °C - °F |
| 9.2 Peak (gauge)                           | 28.7  | [kgf/cm <sup>2</sup> ] (408 psig) | / °C - °F |
| 10 Maximum winding temperature             | 130   | [ °C ]                            |           |

**B - MECHANICAL DATA**

|                               |               |  |
|-------------------------------|---------------|--|
| 1 Commercial designation      | 1/2           | [hp]                                       |
| 2 Displacement                | 8.77          | [cm <sup>3</sup> ] (0.535 cu.in)           |
| 2.1 Bore                      | 26.497        |  |
| 2.2 Stroke                    | 7.960         |  |
| 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            | [kg] (24.25 lb.)                           |
| 5 Nitrogen charge             | 0.2 to 0.3    | [kgf/cm <sup>2</sup> ] (2.84 to 4.27 psig) |

**C - ELECTRICAL 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                          |                                    |                                    |
| 3 Start capacitor                            | 53-64(330)                         | [µf(VAC minimum)]                  |
| 4 Run capacitor                              | -                                  | [µf(VAC minimum)]                  |
| 5 Motor protection (external)                | T0660/G5                           |                                    |
| 6 Start winding resistance                   | 31.70                              | [Ω at 25°C (77°F)] +/- 8%          |
| 7 Run winding resistance                     | 5.18                               | [Ω at 25°C (77°F)] +/- 8%          |
| 8 LRA - Locked rotor amperage (50 Hz)        | 16.10                              | [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:<br>@220V50Hz |          |      | <b>ASHRAEHBP46</b><br>Fan   |                               | Evaporating temperature  | 7.2°C (44.96°F)           |           |       |
|                               |          |      |                             |                               | (Condensing temperature) | 54.4°C (129.92°F)         |           |       |
| Cooling capacity<br>+/- 5%    |          |      | Power consumption<br>+/- 5% | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5%  | EFFICIENCY RATE<br>+/- 7% |           |       |
| [Btu/h]                       | [kcal/h] | [W]  | [W]                         | [A]                           | [kg/h]                   | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| 4449                          | 1121     | 1304 | 628                         | 3.49                          | 36.63                    | 7.08                      | 1.78      | 2.07  |

**E - PERFORMANCE - CURVES**

|                               |       |                            |                        |      |                                       |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|------------------------|------|---------------------------------------|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | <b>ASHRAE46</b><br>Fan |      | (Condensing temperature 35°C (+95°F)) |                               |                         |                           |           |       |
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |                        |      | Power consumption<br>+/- 5%           | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h]               | [W]  | [W]                                   | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 2158                       | 544                    | 632  | 328                                   | 2.26                          | 13.70                   | 6.58                      | 1.66      | 1.93  |
| -15                           | (+ 5) | 2626                       | 662                    | 769  | 360                                   | 2.38                          | 16.76                   | 7.29                      | 1.84      | 2.14  |
| -10                           | (+14) | 3214                       | 810                    | 942  | 390                                   | 2.50                          | 20.64                   | 8.23                      | 2.07      | 2.41  |
| -5                            | (+23) | 3923                       | 989                    | 1150 | 419                                   | 2.61                          | 25.39                   | 9.37                      | 2.36      | 2.75  |
| 0                             | (+32) | 4755                       | 1198                   | 1393 | 445                                   | 2.72                          | 31.03                   | 10.68                     | 2.69      | 3.13  |

|                               |       |                            |                        |      |  |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|------------------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | <b>ASHRAE46</b><br>Fan |      | (Condensing temperature 45°C (+113°F)) |                               |                         |                           |           |       |
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |                        |      | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h]               | [W]  | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 1927                       | 486                    | 565  | 350                                    | 2.30                          | 13.50                   | 5.50                      | 1.39      | 1.61  |
| -15                           | (+ 5) | 2302                       | 580                    | 675  | 392                                    | 2.48                          | 16.23                   | 5.88                      | 1.48      | 1.72  |
| -10                           | (+14) | 2785                       | 702                    | 816  | 432                                    | 2.64                          | 19.76                   | 6.45                      | 1.63      | 1.89  |
| -5                            | (+23) | 3375                       | 850                    | 989  | 469                                    | 2.80                          | 24.15                   | 7.19                      | 1.81      | 2.11  |
| 0                             | (+32) | 4072                       | 1026                   | 1193 | 504                                    | 2.95                          | 29.42                   | 8.07                      | 2.03      | 2.37  |

|                               |       |                            |                        |      |  |                               |                         |                           |           |       |
|-------------------------------|-------|----------------------------|------------------------|------|--|-------------------------------|-------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS:<br>@220V50Hz |       |                            | <b>ASHRAE46</b><br>Fan |      | (Condensing temperature 55°C (+131°F)) |                               |                         |                           |           |       |
| Evaporating temperature       |       | Cooling capacity<br>+/- 5% |                        |      | Power consumption<br>+/- 5%            | Current consumption<br>+/- 5% | Gas flow rate<br>+/- 5% | EFFICIENCY RATE<br>+/- 7% |           |       |
| °C                            | (°F)  | [Btu/h]                    | [kcal/h]               | [W]  | [W]                                    | [A]                           | [kg/h]                  | [Btu/Wh]                  | [kcal/Wh] | [W/W] |
| -20                           | (- 4) | 1521                       | 383                    | 446  | 365                                    | 2.36                          | 11.96                   | 4.17                      | 1.05      | 1.22  |
| -15                           | (+ 5) | 1854                       | 467                    | 543  | 419                                    | 2.58                          | 14.68                   | 4.43                      | 1.12      | 1.30  |
| -10                           | (+14) | 2280                       | 574                    | 668  | 470                                    | 2.79                          | 18.19                   | 4.84                      | 1.22      | 1.42  |
| -5                            | (+23) | 2799                       | 705                    | 820  | 519                                    | 3.00                          | 22.54                   | 5.39                      | 1.36      | 1.58  |
| 0                             | (+32) | 3411                       | 860                    | 1000 | 565                                    | 3.20                          | 27.77                   | 6.04                      | 1.52      | 1.77  |

**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      |      |                          |