

Model

NLX13KK.3

Sales code:

105H6306

Compressor Data

|                            |                       |
|----------------------------|-----------------------|
| Refrigerant(s)             | R600a                 |
| Refr. charge - tech. limit | 150g / 5.29oz         |
| Weight                     | 10.80 kg / 23.81lbs   |
| Displacement               | 13.25 cm3 / 0.81cu.in |
| Compressors on pallet      | 80                    |



General – Configurations With NLX13KK.3

|                        |                 |
|------------------------|-----------------|
| -                      | Conf. 1         |
| Motor configuration    | RSCR            |
| Power supply (nominal) | 220-240 V/50 Hz |
| Number of phases       | 1               |
| Voltage range          | 198-254 V       |
| Approvals              | VDE, CB         |
| Starting torque        | LST             |
| Refrigerant            | R600a           |
| Application            | LBP             |

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

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### Compressor Design

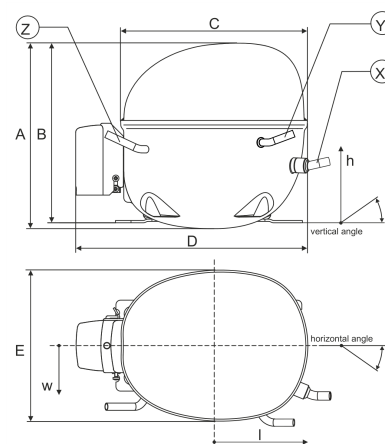
|                       |                                    |                         |               |
|-----------------------|------------------------------------|-------------------------|---------------|
| Oil type              | Mineral                            | Winding resistance main | 18 Ohm        |
| Oil viscosity         | 5cSt                               | Winding resistance aux  | 19 Ohm        |
| Oil quantity          | 265 / 8.96fl.oz                    | Max. winding temp.      | 120 °C        |
| Free gas volume comp. | 2,360 cm <sup>3</sup> / 79.80fl.oz | Max. discharge temp.    | 130°C / 266°F |
| Motor protection      | internal                           |                         |               |

### Compressor Dimensions

#### Housing

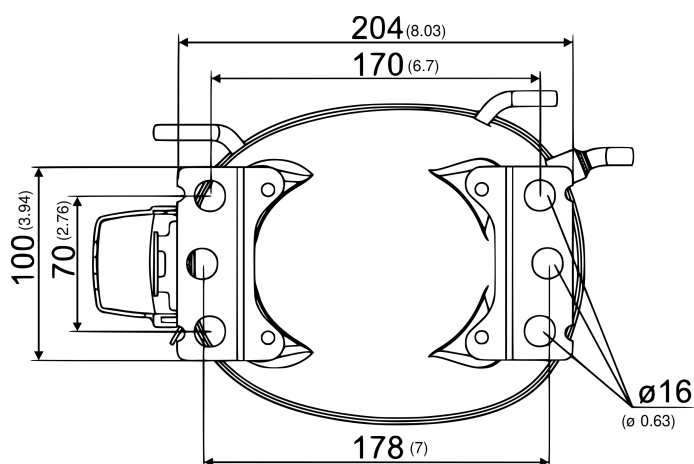
|                   |                 |
|-------------------|-----------------|
| A Height          | 203mm / 7.99in  |
| B Height          | 197mm / 7.76in  |
| C Length shell    | 205mm / 8.07in  |
| D Length w. cover | 254mm / 10.00in |
| E Width           | 166mm / 6.54in  |

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| Connectors            | Suction X                        | Discharge Y                     | Process Z                        |
|-----------------------|----------------------------------|---------------------------------|----------------------------------|
| Diameter [mm]         | øi 6.11–6.29 / 0.24–0.25in       | øi 5.12–5.22 / 0.20–0.21in      | øi 6.11–6.29 / 0.24–0.25in       |
| Material              | CU                               | CU                              | CU                               |
| Horizontal angle ±2°  | 0°                               | 0°                              | 0°                               |
| Vertical angle ±2°    | 15°                              | 35°                             | 155°                             |
| Position l/h/w [mm]   | 125.5/75.5/78 / 4.94/2.97/3.07in | 133/102.5/54 / 5.24/4.04/2.13in | -107/93.5/72 / -4.21/3.68/2.83in |
| Straight tube l. [mm] | 12 / 0.47in                      | 12 / 0.47in                     | 12 / 0.47in                      |

### Mounting Accessories



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Configuration 1

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## Configuration

|                                    |                            |
|------------------------------------|----------------------------|
| Motor configuration                | <b>RSCR</b>                |
| Power supply (nominal)             | <b>220-240 V/50 Hz 1~</b>  |
| Refrigerant                        | <b>R600a</b>               |
| Application                        | <b>LBP</b>                 |
| Voltage range                      | <b>198-254 V</b>           |
| Starting torque                    | <b>LST</b>                 |
| Approvals                          | <b>VDE, CB</b>             |
| Starting device type               | <b>PTC</b>                 |
| Run capacitor                      | <b>4 <math>\mu</math>F</b> |
| Start capacitor                    | <b>-/-</b>                 |
| LRA (locked rotor amps / 4s/ U(N)) | <b>5.3 A</b>               |
| RLA (rated load amps / 1s/ U(N))   | <b>0.9 A</b>               |
| Cut in current (U(N))              | <b>8.9 A</b>               |

## Ambient/ machine room temperatures minimum /maximum

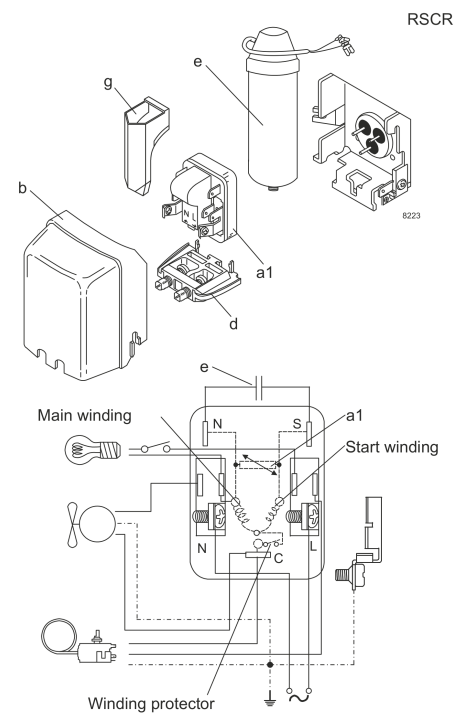
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

## System Cooling

static

## Electrical Accessories / Wiring Diagram


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## Components

**a1** PTC starter (220V, 250Ohm, 4.8mm) 103N0021

**e** run capacitor (4 $\mu$ F, 4.8mm) 117-7119

**b** plastic cover 103N2010

**d** cord relief 103N1010

**g** protection screen for PTC 103N0476

bracket for run capacitor 117-0300

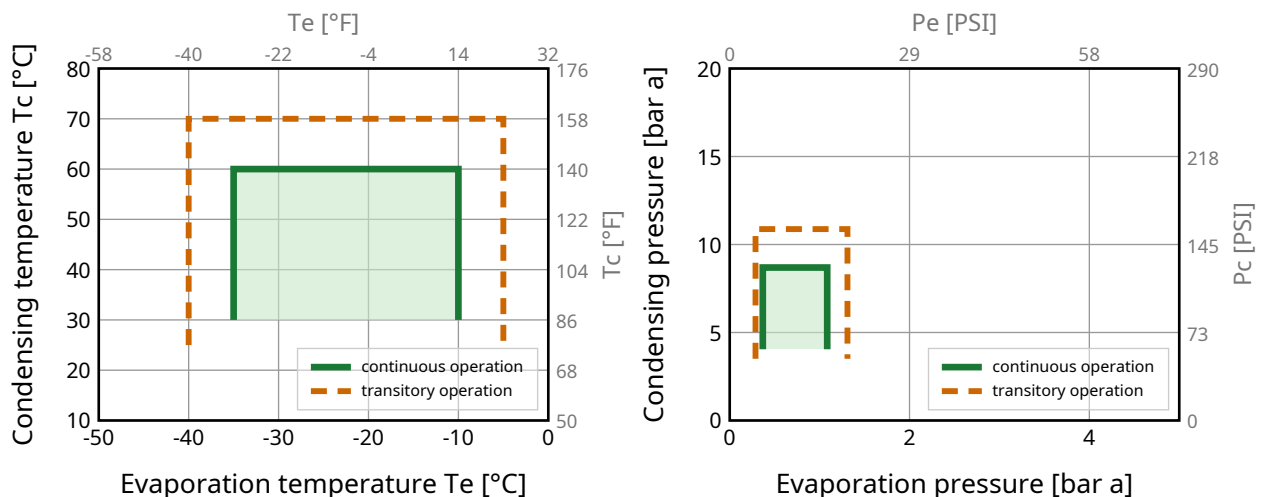
## Alternative components

**a1** e-PTC starter (220V, 250Ohm, 4.8mm) 103N0050

**b** plastic cover 103N2011

screw M4x8mm 117-0301

## Operation Pressure Range



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Configuration 1

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Standard Conditions

R600a, 220 V/50 Hz, RSCR, static

| pe           | pc            | RGT          | Tliq          | Cooling capacity |         |          | COP   | EER      | P   | I    | m      |             |
|--------------|---------------|--------------|---------------|------------------|---------|----------|-------|----------|-----|------|--------|-------------|
| [°C]<br>[°F] | [°C]<br>[°F]  | [°C]<br>[°F] | [°C]<br>[°F]  | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A]  | [kg/h] |             |
| -23.3<br>-10 | 54.4<br>129.9 | 32.2<br>90   | 32.2<br>90    | 225              | 767     | 193      | 1.84  | 6.28     | 122 | 0.57 | 2.42   | ASHRAE LBP  |
| -25<br>-13   | 55<br>131     | 32<br>89.6   | 55<br>131     | 168              | 573     | 144      | 1.45  | 4.95     | 116 | 0.55 | 2.19   | CECOMAF LBP |
| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104     | 121              | 411     | 104      | 1.45  | 4.94     | 83  | 0.33 | 1.47   | EN12900 LBP |
| -23.3<br>-10 | 48.8<br>119.8 | 4.4<br>39.9  | 48.8<br>119.8 | 187              | 638     | 161      | 1.54  | 5.26     | 121 | 0.53 | 2.73   | ARI540 LBP  |
| -23.3<br>-10 | 40.6<br>105.1 | 32.2<br>90   | 32.2<br>90    | 252              | 860     | 217      | 2.13  | 7.26     | 118 | 0.46 | 2.71   | AHAM LBP    |
| -35<br>-31   | 45<br>113     | 32<br>89.6   | 45<br>113     | 114              | 388     | 98       | 1.37  | 4.67     | 83  | 0.35 | 1.35   | opt LBP     |

Performance Tables

R600a, 220 V/50 Hz, RSCR, static

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

| pe   |      | Cooling capacity |         |          | COP   | EER      | P   | I    | m      |
|------|------|------------------|---------|----------|-------|----------|-----|------|--------|
| [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A]  | [kg/h] |
| -35  | -31  | 114              | 388     | 98       | 1.37  | 4.67     | 83  | 0.35 | 1.35   |
| -30  | -22  | 153              | 521     | 131      | 1.55  | 5.31     | 98  | 0.41 | 1.82   |
| -25  | -13  | 202              | 688     | 173      | 1.76  | 5.99     | 115 | 0.47 | 2.40   |
| -20  | -4   | 261              | 891     | 224      | 1.97  | 6.72     | 132 | 0.55 | 3.11   |
| -15  | 5    | 331              | 1130    | 285      | 2.19  | 7.48     | 151 | 0.64 | 3.96   |
| -10  | 14   | 413              | 1408    | 355      | 2.42  | 8.27     | 170 | 0.76 | 4.94   |

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

|     |     |     |      |     |      |      |     |      |      |
|-----|-----|-----|------|-----|------|------|-----|------|------|
| -35 | -31 | 93  | 316  | 80  | 1.12 | 3.82 | 83  | 0.39 | 1.21 |
| -30 | -22 | 126 | 429  | 108 | 1.28 | 4.36 | 98  | 0.47 | 1.64 |
| -25 | -13 | 168 | 573  | 144 | 1.45 | 4.95 | 116 | 0.55 | 2.19 |
| -20 | -4  | 220 | 751  | 189 | 1.63 | 5.55 | 135 | 0.63 | 2.87 |
| -15 | 5   | 283 | 964  | 243 | 1.81 | 6.17 | 156 | 0.72 | 3.70 |
| -10 | 14  | 356 | 1215 | 306 | 1.99 | 6.78 | 179 | 0.84 | 4.67 |