

Model

NL11MF

Sales code:

105G6151

Compressor Data

|                            |                       |
|----------------------------|-----------------------|
| Refrigerant(s)             | R134a                 |
| Refr. charge - tech. limit | 600g / 21.16oz        |
| Weight                     | 10.50 kg / 23.15lbs   |
| Displacement               | 11.15 cm3 / 0.68cu.in |
| Compressors on pallet      | 80                    |



General – Configurations With NL11MF

| -                       | Conf. 1         | Conf. 2         |
|-------------------------|-----------------|-----------------|
| Motor configuration     | RSIR            | CSIR            |
| Power supply (nominal)  | 220-240 V/50 Hz | 220-240 V/50 Hz |
| Number of phases        | 1               | 1               |
| Voltage range           | 187-254 V       | 187-254 V       |
| Approvals               | VDE, CCC, EAC   | VDE, CCC, EAC   |
| Starting torque         | LST             | HST             |
| Refrigerant             | R134a           | R134a           |
| Application             | MBP+HBP         | MBP+HBP         |
| Hot gas defrost         | OK              | OK              |
| Long interval pull down | OK              | OK              |

Application Notes

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

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### Compressor Design

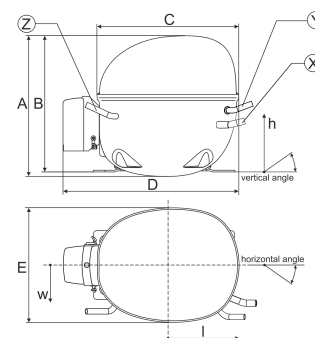
|                       |                                    |                         |               |
|-----------------------|------------------------------------|-------------------------|---------------|
| Oil type              | POE                                | Winding resistance main | 6.1 Ohm       |
| Oil viscosity         | 32cSt                              | Winding resistance aux  | 18.35 Ohm     |
| Oil quantity          | 298 / 10.08fl.oz                   | Max. winding temp.      | 125 °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

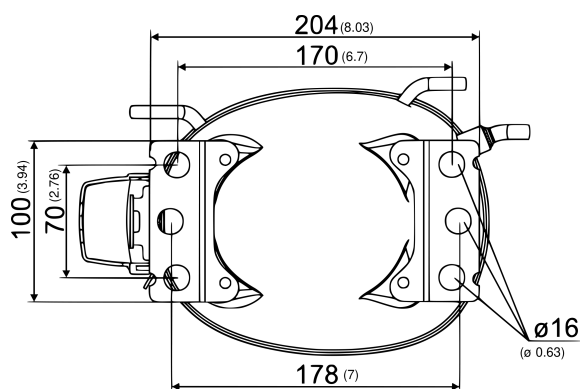
|                   |                 |
|-------------------|-----------------|
| A Height          | 203mm / 7.99in  |
| B Height          | 197mm / 7.76in  |
| C Length shell    | 205mm / 8.07in  |
| D Length w. cover | 254mm / 10.00in |
| E Width           | 166mm / 6.54in  |

[Find 3D Model here](#)

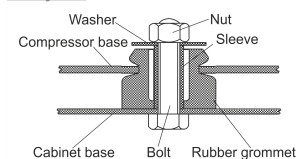


| Connectors            | Suction X                        | Discharge Y                     | Process Z                        |
|-----------------------|----------------------------------|---------------------------------|----------------------------------|
| Diameter [mm]         | øi 8.11–8.29 / 0.32–0.33in       | øi 6.11–6.29 / 0.24–0.25in      | 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                      |

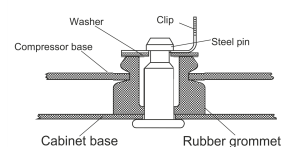
### Mounting Accessories



#### Bolt joint



#### Snap-on



Dimensions in mm [in]

|                            | one comp. | multi pack |
|----------------------------|-----------|------------|
| Bolt joint   M6   ø16mm    | 118-1917  | 118-1918   |
| Bolt joint   ø1/4"   ø16mm | 118-1946  | –          |
| Snap-on   ø7,3   ø16mm     | 118-1947  | 118-1919   |

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Configuration 1

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### Configuration

|                                    |                           |
|------------------------------------|---------------------------|
| Motor configuration                | <b>RSIR</b>               |
| Power supply (nominal)             | <b>220-240 V/50 Hz 1~</b> |
| Refrigerant                        | <b>R134a</b>              |
| Application                        | <b>MBP+HBP</b>            |
| Voltage range                      | <b>187-254 V</b>          |
| Starting torque                    | <b>LST</b>                |
| Approvals                          | <b>VDE, CCC, EAC</b>      |
| Starting device type               | <b>PTC</b>                |
| Run capacitor                      | <b>-/-</b>                |
| Start capacitor                    | <b>-/-</b>                |
| LRA (locked rotor amps / 4s/ U(N)) | <b>16.6 A</b>             |
| RLA (rated load amps / 1s/ U(N))   | <b>2.8 A</b>              |
| Cut in current (U(N))              | <b>17 A</b>               |

### Ambient/ machine room temperatures minimum /maximum

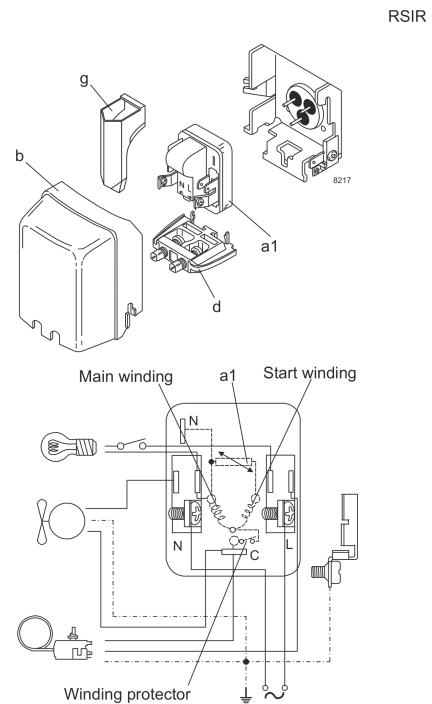
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

### System Cooling

fan 3m/s

### Electrical Accessories / Wiring Diagram



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### Components

**a1** PTC starter (220V, 250Ohm, 4.8mm) 103N0018

**b** plastic cover 103N2011

**d** cord relief 103N1010

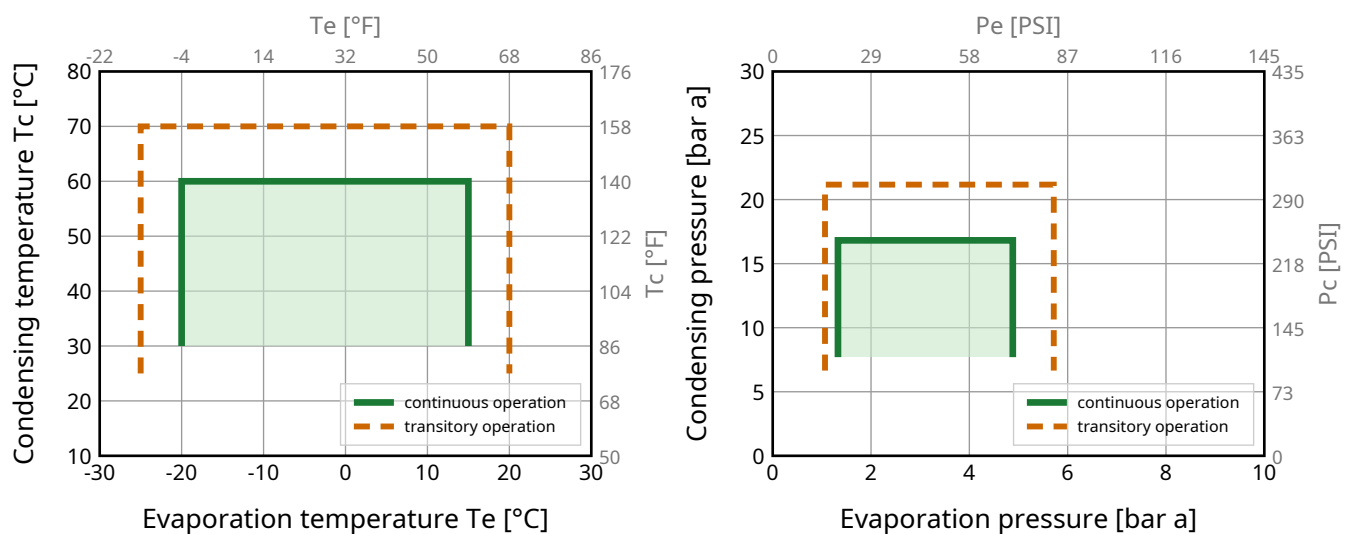
**g** protection screen for PTC 103N0476

### Alternative components

**a1** PTC starter (220V, 250Ohm, 6.3mm) 103N0011

**b** plastic cover 103N2010

### Operation Pressure Range



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Configuration 1

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Standard Conditions

R134a, 220 V/50 Hz, RSIR, fan 3m/s

| 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] |             |
| -6.7<br>20   | 54.4<br>129.9 | 35<br>95     | 46.1<br>115  | 625              | 2132    | 537      | 1.61  | 5.50     | 388 | 2.46 | 13.61  | ASHRAE MBP  |
| -10<br>14    | 55<br>131     | 32<br>89.6   | 55<br>131    | 485              | 1655    | 417      | 1.35  | 4.60     | 360 | 2.37 | 11.69  | CECOMAF MBP |
| -10<br>14    | 45<br>113     | 20<br>68     | 45<br>113    | 547              | 1866    | 470      | 1.60  | 5.45     | 343 | 2.31 | 12.76  | EN12900 MBP |
| 7.2<br>45    | 54.4<br>129.9 | 35<br>95     | 46.1<br>115  | 1120             | 3821    | 963      | 2.19  | 7.47     | 512 | 2.91 | 24.79  | ASHRAE HBP  |
| 5<br>41      | 55<br>131     | 32<br>89.6   | 55<br>131    | 927              | 3162    | 797      | 1.87  | 6.39     | 495 | 2.84 | 22.77  | CECOMAF HBP |
| 5<br>41      | 50<br>122     | 20<br>68     | 50<br>122    | 956              | 3260    | 822      | 2.01  | 6.86     | 476 | 2.77 | 23.97  | EN12900 HBP |

Performance Tables

R134a, 220 V/50 Hz, RSIR, fan 3m/s

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] |
| -20  | -4   | 348              | 1186    | 299      | 1.30  | 4.44     | 268 | 2.13 | 7.54   |
| -15  | 5    | 448              | 1527    | 385      | 1.47  | 5.01     | 305 | 2.21 | 9.73   |
| -10  | 14   | 567              | 1933    | 487      | 1.65  | 5.64     | 343 | 2.31 | 12.37  |
| -5   | 23   | 708              | 2414    | 609      | 1.86  | 6.34     | 381 | 2.42 | 15.53  |
| 0    | 32   | 873              | 2980    | 751      | 2.08  | 7.10     | 420 | 2.55 | 19.27  |
| 5    | 41   | 1066             | 3638    | 917      | 2.33  | 7.96     | 457 | 2.70 | 23.68  |
| 10   | 50   | 1289             | 4398    | 1108     | 2.61  | 8.90     | 494 | 2.86 | 28.85  |
| 15   | 59   | 1544             | 5269    | 1328     | 2.92  | 9.95     | 530 | 3.03 | 34.89  |

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

|     |    |      |      |      |      |      |     |      |       |
|-----|----|------|------|------|------|------|-----|------|-------|
| -20 | -4 | 292  | 996  | 251  | 1.06 | 3.63 | 274 | 2.14 | 6.99  |
| -15 | 5  | 380  | 1297 | 327  | 1.20 | 4.10 | 316 | 2.25 | 9.12  |
| -10 | 14 | 485  | 1655 | 417  | 1.35 | 4.60 | 360 | 2.37 | 11.69 |
| -5  | 23 | 609  | 2079 | 524  | 1.51 | 5.14 | 404 | 2.51 | 14.77 |
| 0   | 32 | 756  | 2578 | 650  | 1.68 | 5.74 | 450 | 2.67 | 18.43 |
| 5   | 41 | 927  | 3162 | 797  | 1.87 | 6.39 | 495 | 2.84 | 22.77 |
| 10  | 50 | 1125 | 3840 | 968  | 2.09 | 7.12 | 540 | 3.03 | 27.88 |
| 15  | 59 | 1354 | 4619 | 1164 | 2.32 | 7.91 | 584 | 3.23 | 33.88 |

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Configuration 2

Sales code:  
**105G6151**

### Configuration

|                                    |                           |
|------------------------------------|---------------------------|
| Motor configuration                | <b>CSIR</b>               |
| Power supply (nominal)             | <b>220-240 V/50 Hz 1~</b> |
| Refrigerant                        | <b>R134a</b>              |
| Application                        | <b>MBP+HBP</b>            |
| Voltage range                      | <b>187-254 V</b>          |
| Starting torque                    | <b>HST</b>                |
| Approvals                          | <b>VDE, CCC, EAC</b>      |
| Starting device type               | <b>relay</b>              |
| Run capacitor                      | <b>-/-</b>                |
| Start capacitor                    | <b>125 µF</b>             |
| LRA (locked rotor amps / 4s/ U(N)) | <b>16.6 A</b>             |
| RLA (rated load amps / 1s/ U(N))   | <b>2.8 A</b>              |
| Cut in current (U(N))              | <b>17 A</b>               |

### Ambient/ machine room temperatures minimum /maximum

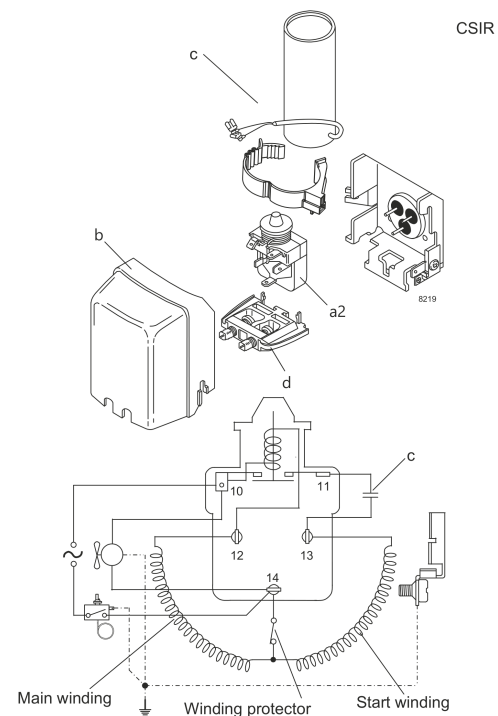
Ambient temperature range: 10 - 43°C / 50 - 109°F

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### System Cooling

fan 3m/s

### Electrical Accessories / Wiring Diagram



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### Components

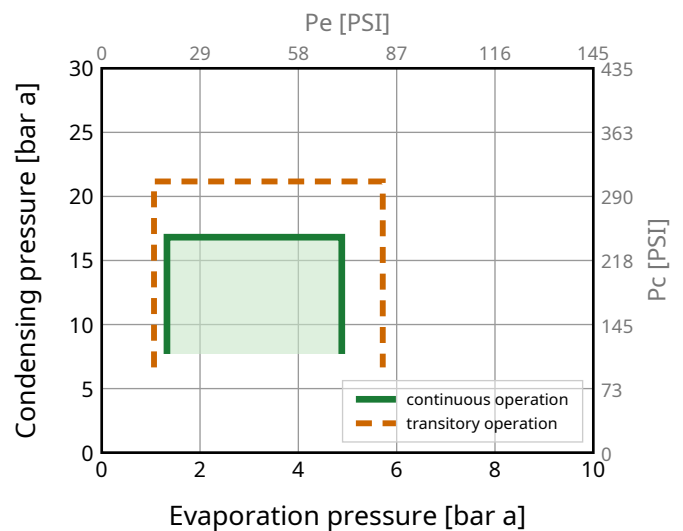
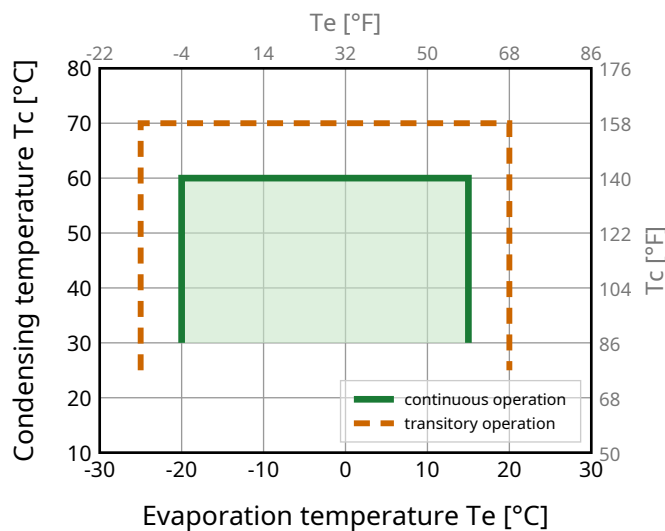
**a2** relay 117U6022

**c** start capacitor 117U5018

**b** plastic cover 103N2011

**d** cord relief 103N1010

### Operation Pressure Range



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Configuration 2

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Standard Conditions

R134a, 220 V/50 Hz, CSIR, fan 3m/s

| 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] |             |
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Performance Tables

R134a, 220 V/50 Hz, CSIR, fan 3m/s

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] |
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