

Model

NL6.1FT

Sales code:

105G6621

Compressor Data

|                            |                      |
|----------------------------|----------------------|
| Refrigerant(s)             | R134a                |
| Refr. charge - tech. limit | 400g / 14.11oz       |
| Weight                     | 9.30 kg / 20.50lbs   |
| Displacement               | 6.13 cm3 / 0.37cu.in |
| Compressors on pallet      | 80                   |



General – Configurations With NL6.1FT

| -                      | 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            | LBP             | LBP             |

Application Notes

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

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### Compressor Design

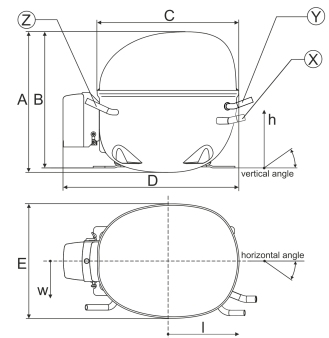
|                       |                                    |                         |               |
|-----------------------|------------------------------------|-------------------------|---------------|
| Oil type              | POE                                | Winding resistance main | 15.390 Ohm    |
| Oil viscosity         | 22cSt                              | Winding resistance aux  | 15.15 Ohm     |
| Oil quantity          | 276 / 9.33fl.oz                    | Max. winding temp.      | 125 °C        |
| Free gas volume comp. | 2,270 cm <sup>3</sup> / 76.76fl.oz | Max. discharge temp.    | 130°C / 266°F |
| Motor protection      | internal                           |                         |               |

### Compressor Dimensions

#### Housing

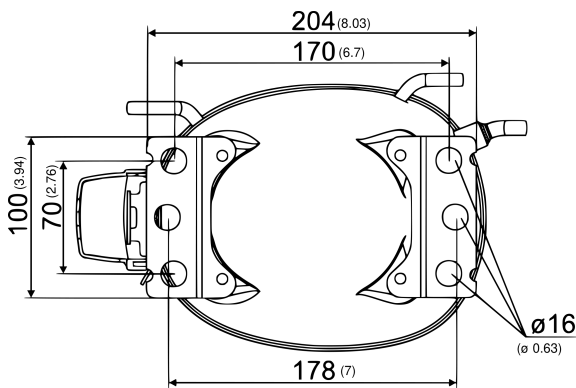
|                   |                  |
|-------------------|------------------|
| A Height          | 187.5mm / 7.38in |
| B Height          | 181.5mm / 7.15in |
| C Length shell    | 205mm / 8.07in   |
| D Length w. cover | 254mm / 10.00in  |
| E Width           | 166mm / 6.54in   |

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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                      |

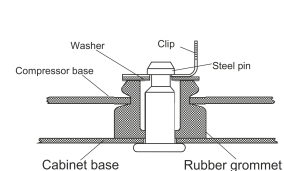
### Mounting Accessories



#### 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>LBP</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>7.7 A</b>              |
| RLA (rated load amps / 1s/ U(N))   | <b>1.1 A</b>              |
| Cut in current (U(N))              | <b>10.1 A</b>             |

### Ambient/ machine room temperatures minimum /maximum

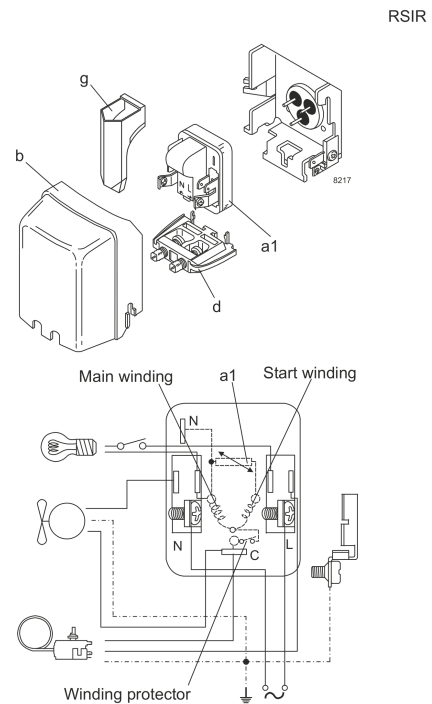
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

### System Cooling

static

### Electrical Accessories / Wiring Diagram



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### Components

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

**b** plastic cover 103N2010

**d** cord relief 103N1010

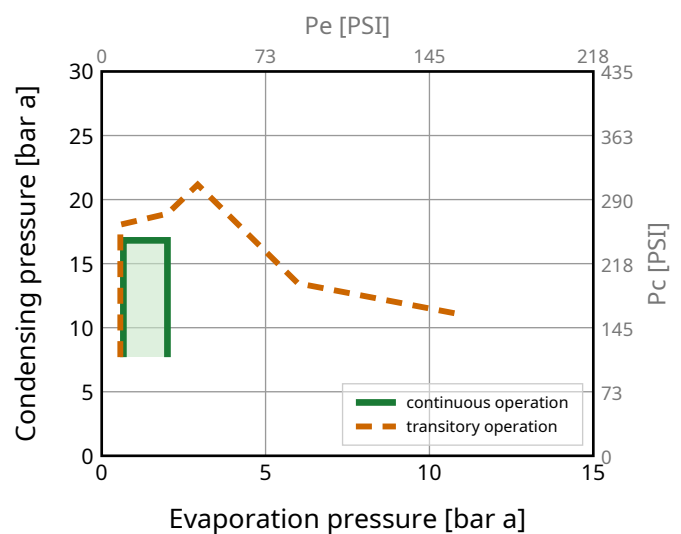
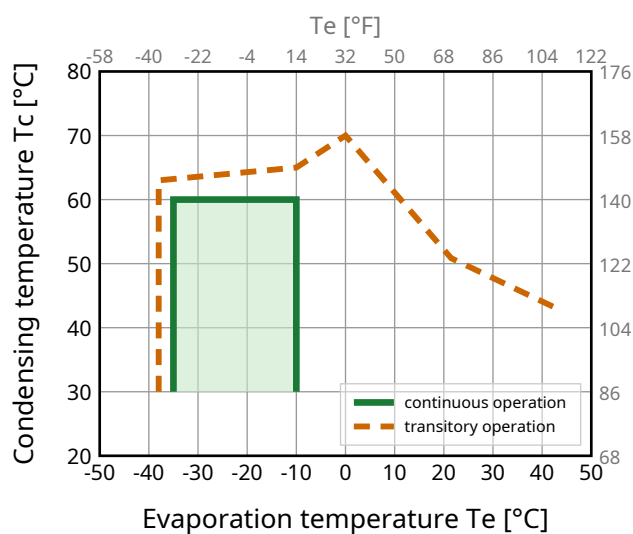
**g** protection screen for PTC 103N0476

### Alternative components

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

**b** plastic cover 103N2011

### Operation Pressure Range



Model  
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Configuration 1

Sales code:  
105G6621

Standard Conditions

R134a, 220 V/50 Hz, RSIR, 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    | 156              | 533     | 134      | 1.21  | 4.11     | 130 | 0.86 | 3.03   | ASHRAE LBP  |
| -25<br>-13   | 55<br>131     | 32<br>89.6   | 55<br>131     | 115              | 392     | 99       | 0.93  | 3.18     | 123 | 0.84 | 2.74   | CECOMAF LBP |
| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104     | 80               | 273     | 69       | 0.87  | 2.98     | 92  | 0.77 | 1.75   | EN12900 LBP |
| -23.3<br>-10 | 48.8<br>119.8 | 4.4<br>39.9  | 48.8<br>119.8 | 130              | 443     | 112      | 1.01  | 3.44     | 129 | 0.87 | 3.40   | ARI540 LBP  |
| -23.3<br>-10 | 40.6<br>105.1 | 32.2<br>90   | 32.2<br>90    | 176              | 601     | 151      | 1.41  | 4.82     | 125 | 0.86 | 3.42   | AHAM LBP    |
| -25<br>-13   | 45<br>113     | 32<br>89.6   | 45<br>113     | 138              | 472     | 119      | 1.14  | 3.89     | 121 | 0.85 | 2.99   | opt LBP     |

Performance Tables

R134a, 220 V/50 Hz, RSIR, 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  | 75               | 255     | 64       | 0.81  | 2.75     | 93  | 0.78 | 1.61   |
| -30  | -22  | 103              | 352     | 89       | 0.97  | 3.32     | 106 | 0.81 | 2.22   |
| -25  | -13  | 138              | 472     | 119      | 1.14  | 3.89     | 121 | 0.85 | 2.99   |
| -20  | -4   | 182              | 620     | 156      | 1.31  | 4.47     | 138 | 0.91 | 3.94   |
| -15  | 5    | 234              | 798     | 201      | 1.49  | 5.10     | 156 | 0.96 | 5.09   |
| -10  | 14   | 296              | 1010    | 255      | 1.69  | 5.77     | 175 | 1.03 | 6.46   |

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

|     |     |     |     |     |      |      |     |      |      |
|-----|-----|-----|-----|-----|------|------|-----|------|------|
| -35 | -31 | 60  | 205 | 52  | 0.65 | 2.21 | 93  | 0.77 | 1.43 |
| -30 | -22 | 84  | 288 | 73  | 0.79 | 2.70 | 107 | 0.80 | 2.01 |
| -25 | -13 | 115 | 392 | 99  | 0.93 | 3.18 | 123 | 0.84 | 2.74 |
| -20 | -4  | 152 | 520 | 131 | 1.07 | 3.66 | 142 | 0.89 | 3.65 |
| -15 | 5   | 198 | 676 | 170 | 1.22 | 4.15 | 163 | 0.96 | 4.75 |
| -10 | 14  | 252 | 862 | 217 | 1.37 | 4.68 | 184 | 1.04 | 6.09 |

Model  
**NL6.1FT**

Configuration 2

Sales code:  
**105G6621**

### Configuration

|                                    |                           |
|------------------------------------|---------------------------|
| Motor configuration                | <b>CSIR</b>               |
| Power supply (nominal)             | <b>220-240 V/50 Hz 1~</b> |
| Refrigerant                        | <b>R134a</b>              |
| Application                        | <b>LBP</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>80 µF</b>              |
| LRA (locked rotor amps / 4s/ U(N)) | <b>7.7 A</b>              |
| RLA (rated load amps / 1s/ U(N))   | <b>1.1 A</b>              |
| Cut in current (U(N))              | <b>10.1 A</b>             |

### Ambient/ machine room temperatures minimum /maximum

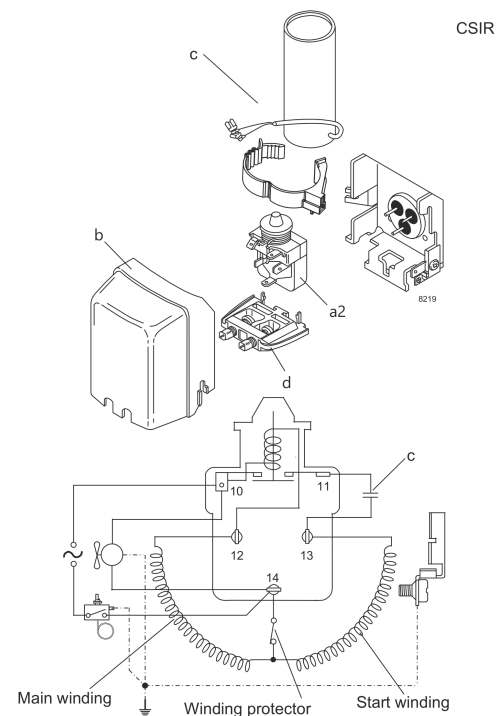
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

### System Cooling

static

### Electrical Accessories / Wiring Diagram



[View full size](#)

### Components

**a2** relay 117U6000

**c** start capacitor (80µF) 117U5015

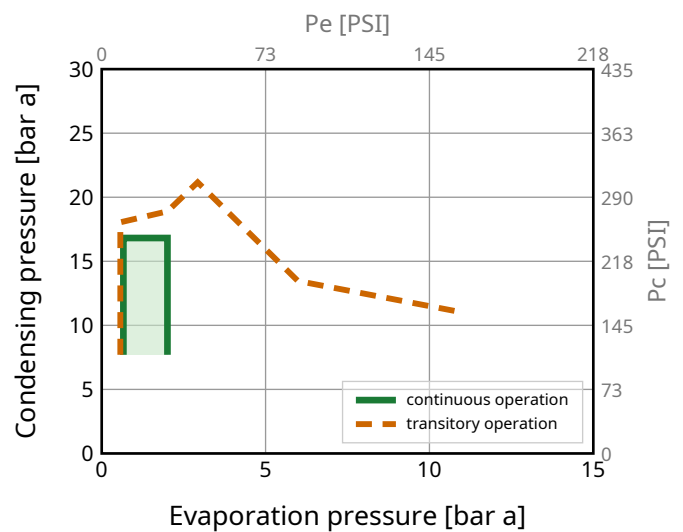
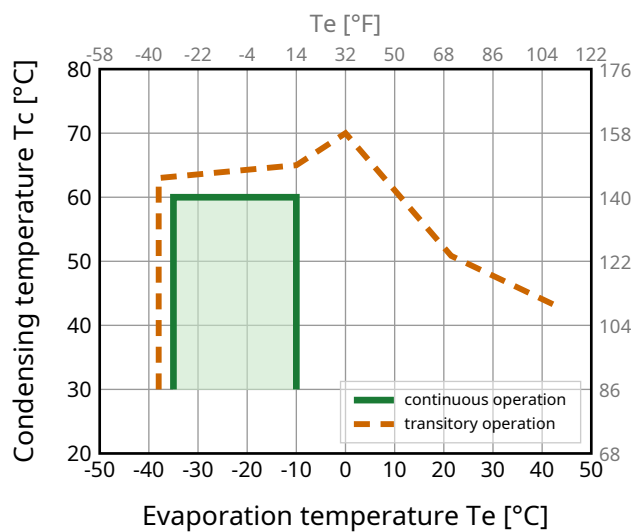
**b** plastic cover 103N2010

**d** cord relief 103N1010

### Alternative components

**b** plastic cover 103N2011

### Operation Pressure Range



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Configuration 2

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105G6621

Standard Conditions

R134a, 220 V/50 Hz, CSIR, 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] |             |
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| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104     | 80               | 273     | 69       | 0.87  | 2.98     | 92  | 0.77 | 1.75   | EN12900 LBP |
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Performance Tables

R134a, 220 V/50 Hz, CSIR, 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] |
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| -20  | -4   | 182              | 620     | 156      | 1.31  | 4.47     | 138 | 0.91 | 3.94   |
| -15  | 5    | 234              | 798     | 201      | 1.49  | 5.10     | 156 | 0.96 | 5.09   |
| -10  | 14   | 296              | 1010    | 255      | 1.69  | 5.77     | 175 | 1.03 | 6.46   |

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

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| -35 | -31 | 60  | 205 | 52  | 0.65 | 2.21 | 93  | 0.77 | 1.43 |
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| -25 | -13 | 115 | 392 | 99  | 0.93 | 3.18 | 123 | 0.84 | 2.74 |
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