

Model  
NLE10CN

Sales code:  
105H6175

Compressor Data

|                            |                       |
|----------------------------|-----------------------|
| Refrigerant(s)             | R290                  |
| Refr. charge - tech. limit | 400g / 14.11oz        |
| Weight                     | 10.90 kg / 24.03lbs   |
| Displacement               | 10.09 cm3 / 0.62cu.in |
| Compressors on pallet      | 80                    |



General – Configurations With NLE10CN

| -                       | Conf. 1         | Conf. 2         | Conf. 3         |
|-------------------------|-----------------|-----------------|-----------------|
| Motor configuration     | CSIR            | eRSIR           | eRSCR           |
| Power supply (nominal)  | 220-240 V/50 Hz | 220-240 V/50 Hz | 220-240 V/50 Hz |
| Number of phases        | 1               | 1               | 1               |
| Voltage range           | 198-254 V       | 198-254 V       | 198-254 V       |
| Approvals               | CCC, EAC        | CCC, EAC        | CCC, EAC        |
| Starting torque         | HST             | LST             | LST             |
| Refrigerant             | R290            | R290            | R290            |
| Application             | LBP+MBP         | LBP+MBP         | LBP+MBP         |
| Hot gas defrost         | OK              | OK              | OK              |
| Long interval pull down | OK              | OK              | OK              |

Application Notes

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

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### Compressor Design

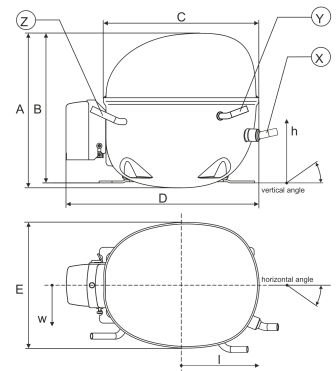
|                       |                                    |                         |               |
|-----------------------|------------------------------------|-------------------------|---------------|
| Oil type              | POE                                | Winding resistance main | 8.000 Ohm     |
| Oil viscosity         | 32cSt                              | Winding resistance aux  | 18.00 Ohm     |
| Oil quantity          | 268 / 9.06fl.oz                    | Max. winding temp.      | 125 °C        |
| Free gas volume comp. | 2,360 cm <sup>3</sup> / 79.80fl.oz | Max. discharge temp.    | 120°C / 248°F |
| Motor protection      | internal                           |                         |               |

### Compressor Dimensions

#### Housing

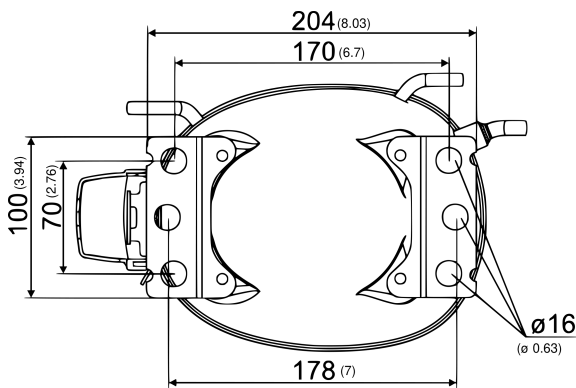
|                   |                 |
|-------------------|-----------------|
| A Height          | 203mm / 7.99in  |
| B Height          | 197mm / 7.76in  |
| C Length shell    | 205mm / 8.07in  |
| D Length w. cover | 254mm / 10.00in |
| E Width           | 166mm / 6.54in  |

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| Connectors            | Suction X                        | Discharge Y                    | Process Z                          |
|-----------------------|----------------------------------|--------------------------------|------------------------------------|
| Diameter [mm]         | øi 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°                              | 21°                            | 155°                               |
| Position l/h/w [mm]   | 132/68.5/56.7 / 5.20/2.70/2.23in | 94/101.7/81 / 3.70/4.00/3.19in | -109.3/94.3/72 / -4.30/3.71/2.83in |
| Straight tube l. [mm] | 12 / 0.47in                      | 12 / 0.47in                    | 12 / 0.47in                        |

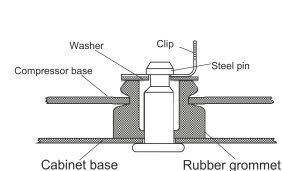
### Mounting Accessories



#### 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   |

Model  
**NLE10CN**

Configuration 1

Sales code:  
**105H6175**

### Configuration

|                                    |                           |
|------------------------------------|---------------------------|
| Motor configuration                | <b>CSIR</b>               |
| Power supply (nominal)             | <b>220-240 V/50 Hz 1~</b> |
| Refrigerant                        | <b>R290</b>               |
| Application                        | <b>LBP+MBP</b>            |
| Voltage range                      | <b>198-254 V</b>          |
| Starting torque                    | <b>HST</b>                |
| Approvals                          | <b>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>12.25 A</b>            |
| RLA (rated load amps / 1s/ U(N))   | <b>2.58 A</b>             |
| Cut in current (U(N))              | <b>12.25 A</b>            |

### Ambient/ machine room temperatures minimum /maximum

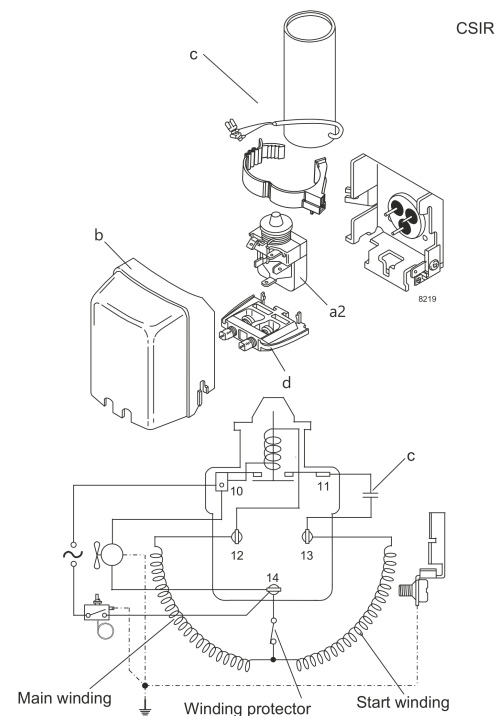
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

### System Cooling

fan 3m/s

### Electrical Accessories / Wiring Diagram



[View full size](#)

### Components

**a2** relay 117U7002

**c** start capacitor (80µF) 117U5015

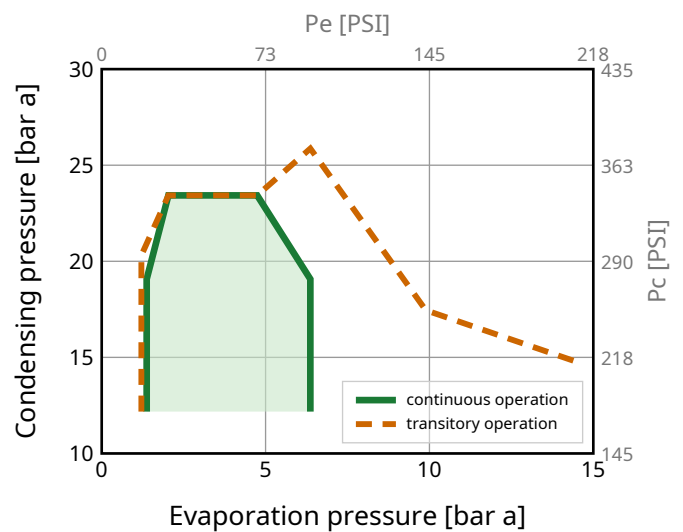
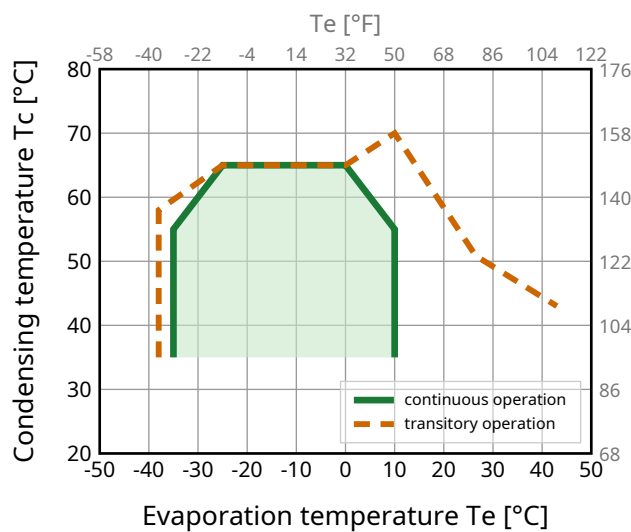
**b** plastic cover 103N2010

**d** cord relief 103N1010

### Alternative components

**b** plastic cover 103N2011

### Operation Pressure Range



Model  
NLE10CN

Configuration 1

Sales code:  
105H6175

Standard Conditions

R290, 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] |             |
| -23.3<br>-10 | 54.4<br>129.9 | 32.2<br>90   | 32.2<br>90   | 488              | 1665    | 420      | 1.47  | 5.02     | 332 | 2.15 | 4.96   | ASHRAE LBP  |
| -25<br>-13   | 55<br>131     | 32<br>89.6   | 55<br>131    | 362              | 1237    | 312      | 1.14  | 3.88     | 319 | 2.11 | 4.54   | CECOMAF LBP |
| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104    | 286              | 974     | 246      | 1.23  | 4.21     | 232 | 1.87 | 3.28   | EN12900 LBP |
| -6.7<br>20   | 54.4<br>129.9 | 35<br>95     | 46.1<br>115  | 873              | 2979    | 751      | 1.89  | 6.45     | 462 | 2.62 | 10.00  | ASHRAE MBP  |
| -10<br>14    | 55<br>131     | 32<br>89.6   | 55<br>131    | 693              | 2365    | 596      | 1.58  | 5.38     | 439 | 2.53 | 8.81   | CECOMAF MBP |
| -10<br>14    | 45<br>113     | 20<br>68     | 45<br>113    | 782              | 2669    | 673      | 1.97  | 6.70     | 398 | 2.39 | 9.63   | EN12900 MBP |

Performance Tables

R290, 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] |
| -35  | -31  | 274              | 935     | 236      | 1.16  | 3.96     | 236 | 1.89 | 3.09   |
| -30  | -22  | 347              | 1185    | 299      | 1.29  | 4.41     | 269 | 1.97 | 3.92   |
| -20  | -4   | 544              | 1855    | 468      | 1.62  | 5.53     | 335 | 2.17 | 6.18   |
| -10  | 14   | 813              | 2774    | 699      | 2.04  | 6.97     | 398 | 2.39 | 9.34   |
| 0    | 32   | 1164             | 3971    | 1001     | 2.59  | 8.84     | 449 | 2.58 | 13.53  |
| 10   | 50   | 1603             | 5470    | 1379     | 3.33  | 11.36    | 482 | 2.70 | 18.96  |

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

|     |     |      |      |      |      |      |     |      |       |
|-----|-----|------|------|------|------|------|-----|------|-------|
| -35 | -31 | 216  | 735  | 185  | 0.88 | 3.01 | 245 | 1.91 | 2.68  |
| -30 | -22 | 282  | 963  | 243  | 1.01 | 3.44 | 280 | 2.00 | 3.53  |
| -20 | -4  | 457  | 1560 | 393  | 1.27 | 4.35 | 359 | 2.24 | 5.75  |
| -10 | 14  | 693  | 2365 | 596  | 1.58 | 5.38 | 439 | 2.53 | 8.81  |
| 0   | 32  | 998  | 3406 | 859  | 1.94 | 6.62 | 514 | 2.82 | 12.87 |
| 10  | 50  | 1381 | 4712 | 1188 | 2.39 | 8.16 | 577 | 3.09 | 18.14 |

Model  
**NLE10CN**

Configuration 2

Sales code:  
**105H6175**

### Configuration

|                                    |                           |
|------------------------------------|---------------------------|
| Motor configuration                | <b>eRSIR</b>              |
| Power supply (nominal)             | <b>220-240 V/50 Hz 1~</b> |
| Refrigerant                        | <b>R290</b>               |
| Application                        | <b>LBP+MBP</b>            |
| Voltage range                      | <b>198-254 V</b>          |
| Starting torque                    | <b>LST</b>                |
| Approvals                          | <b>CCC, EAC</b>           |
| Starting device type               | <b>e-PTC</b>              |
| Run capacitor                      | <b>-/-</b>                |
| Start capacitor                    | <b>-/-</b>                |
| LRA (locked rotor amps / 4s/ U(N)) | <b>12.25 A</b>            |
| RLA (rated load amps / 1s/ U(N))   | <b>2.58 A</b>             |
| Cut in current (U(N))              | <b>12.25 A</b>            |

### Ambient/ machine room temperatures minimum /maximum

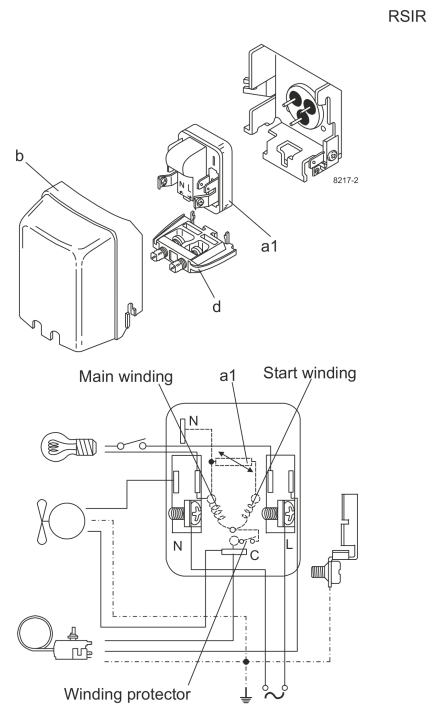
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

### System Cooling

fan 3m/s

### Electrical Accessories / Wiring Diagram



### Components

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

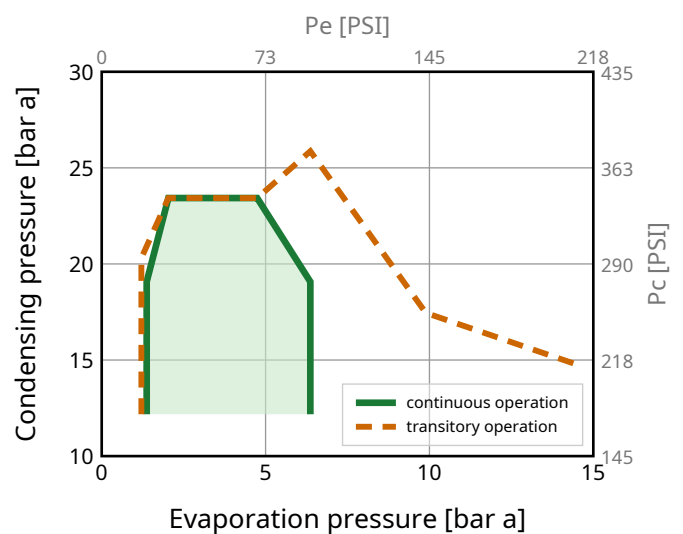
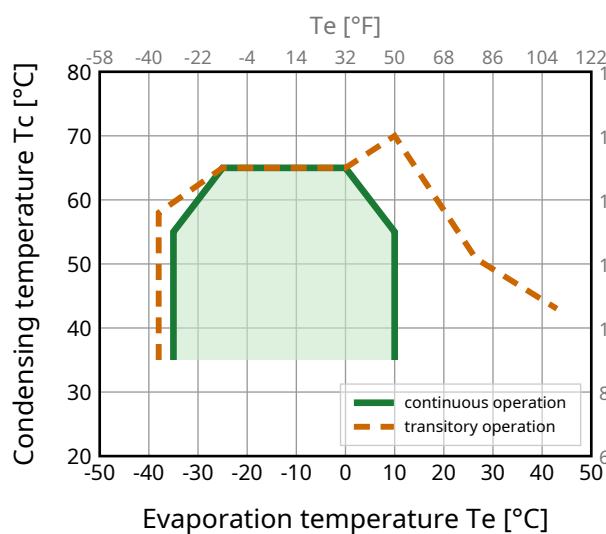
**b** plastic cover 103N2010

**d** cord relief 103N1010

### Alternative components

**b** plastic cover 103N2011

### Operation Pressure Range



Model  
NLE10CN

Configuration 2

Sales code:  
105H6175

Standard Conditions

R290, 220 V/50 Hz, eRSIR, 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] |             |
| -23.3<br>-10 | 54.4<br>129.9 | 32.2<br>90   | 32.2<br>90   | 488              | 1665    | 420      | 1.47  | 5.02     | 332 | 2.15 | 4.96   | ASHRAE LBP  |
| -25<br>-13   | 55<br>131     | 32<br>89.6   | 55<br>131    | 362              | 1237    | 312      | 1.14  | 3.88     | 319 | 2.11 | 4.54   | CECOMAF LBP |
| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104    | 286              | 974     | 246      | 1.23  | 4.21     | 232 | 1.87 | 3.28   | EN12900 LBP |
| -6.7<br>20   | 54.4<br>129.9 | 35<br>95     | 46.1<br>115  | 873              | 2979    | 751      | 1.89  | 6.45     | 462 | 2.62 | 10.00  | ASHRAE MBP  |
| -10<br>14    | 55<br>131     | 32<br>89.6   | 55<br>131    | 693              | 2365    | 596      | 1.58  | 5.38     | 439 | 2.53 | 8.81   | CECOMAF MBP |
| -10<br>14    | 45<br>113     | 20<br>68     | 45<br>113    | 782              | 2669    | 673      | 1.97  | 6.70     | 398 | 2.39 | 9.63   | EN12900 MBP |

Performance Tables

R290, 220 V/50 Hz, eRSIR, 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] |
| -35  | -31  | 274              | 935     | 236      | 1.16  | 3.96     | 236 | 1.89 | 3.09   |
| -30  | -22  | 347              | 1185    | 299      | 1.29  | 4.41     | 269 | 1.97 | 3.92   |
| -20  | -4   | 544              | 1855    | 468      | 1.62  | 5.53     | 335 | 2.17 | 6.18   |
| -10  | 14   | 813              | 2774    | 699      | 2.04  | 6.97     | 398 | 2.39 | 9.34   |
| 0    | 32   | 1164             | 3971    | 1001     | 2.59  | 8.84     | 449 | 2.58 | 13.53  |
| 10   | 50   | 1603             | 5470    | 1379     | 3.33  | 11.36    | 482 | 2.70 | 18.96  |

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

|     |     |      |      |      |      |      |     |      |       |
|-----|-----|------|------|------|------|------|-----|------|-------|
| -35 | -31 | 216  | 735  | 185  | 0.88 | 3.01 | 245 | 1.91 | 2.68  |
| -30 | -22 | 282  | 963  | 243  | 1.01 | 3.44 | 280 | 2.00 | 3.53  |
| -20 | -4  | 457  | 1560 | 393  | 1.27 | 4.35 | 359 | 2.24 | 5.75  |
| -10 | 14  | 693  | 2365 | 596  | 1.58 | 5.38 | 439 | 2.53 | 8.81  |
| 0   | 32  | 998  | 3406 | 859  | 1.94 | 6.62 | 514 | 2.82 | 12.87 |
| 10  | 50  | 1381 | 4712 | 1188 | 2.39 | 8.16 | 577 | 3.09 | 18.14 |

Model  
**NLE10CN**

Configuration 3

Sales code:  
**105H6175**

### Configuration

|                                    |                            |
|------------------------------------|----------------------------|
| Motor configuration                | <b>eRSCR</b>               |
| Power supply (nominal)             | <b>220-240 V/50 Hz 1~</b>  |
| Refrigerant                        | <b>R290</b>                |
| Application                        | <b>LBP+MBP</b>             |
| Voltage range                      | <b>198-254 V</b>           |
| Starting torque                    | <b>LST</b>                 |
| Approvals                          | <b>CCC, EAC</b>            |
| Starting device type               | <b>e-PTC</b>               |
| Run capacitor                      | <b>4 <math>\mu</math>F</b> |
| Start capacitor                    | <b>-/-</b>                 |
| LRA (locked rotor amps / 4s/ U(N)) | <b>12.25 A</b>             |
| RLA (rated load amps / 1s/ U(N))   | <b>2.58 A</b>              |
| Cut in current (U(N))              | <b>12.25 A</b>             |

### Ambient/ machine room temperatures minimum /maximum

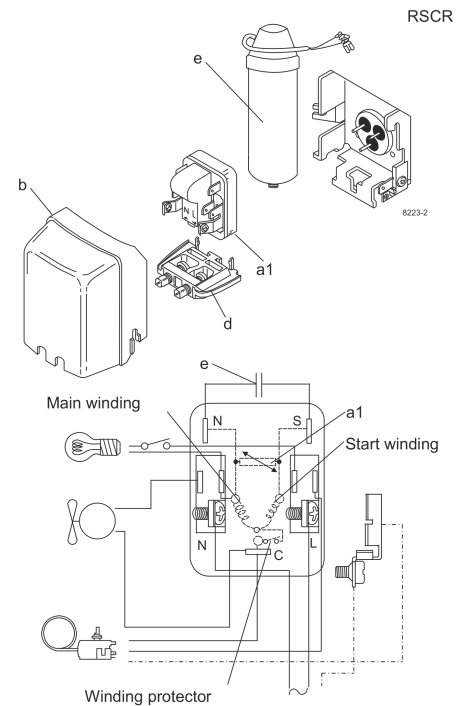
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

### System Cooling

fan 3m/s

### Electrical Accessories / Wiring Diagram



### Components

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

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

**b** plastic cover 103N2010

**d** cord relief 103N1010

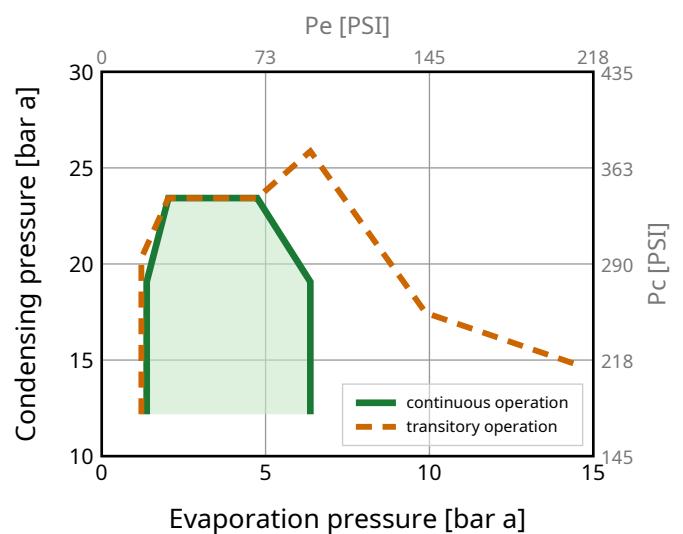
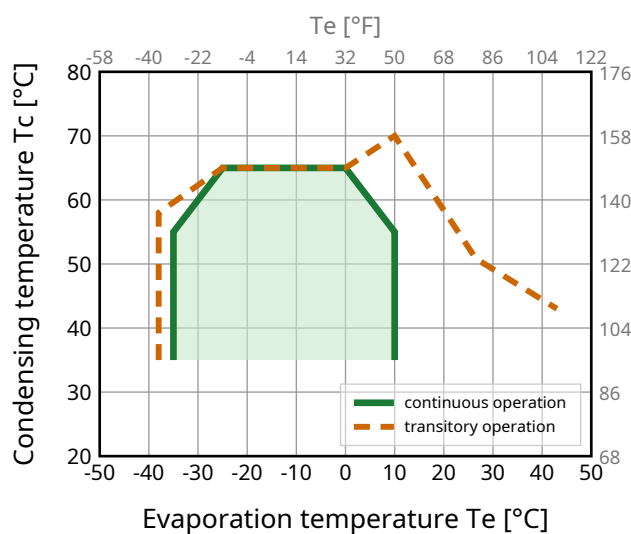
bracket for run capacitor 117-0300

screw M4x8mm 117-0301

### Alternative components

**b** plastic cover 103N2011

### Operation Pressure Range



Model  
NLE10CN

Configuration 3

Sales code:  
105H6175

Standard Conditions

R290, 220 V/50 Hz, eRSCR, 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] |             |
| -23.3<br>-10 | 54.4<br>129.9 | 32.2<br>90   | 32.2<br>90   | 493              | 1682    | 424      | 1.54  | 5.26     | 320 | 1.88 | 5.01   | ASHRAE LBP  |
| -25<br>-13   | 55<br>131     | 32<br>89.6   | 55<br>131    | 366              | 1249    | 315      | 1.19  | 4.07     | 307 | 1.84 | 4.59   | CECOMAF LBP |
| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104    | 288              | 984     | 248      | 1.27  | 4.33     | 227 | 1.43 | 3.31   | EN12900 LBP |
| -6.7<br>20   | 54.4<br>129.9 | 35<br>95     | 46.1<br>115  | 882              | 3009    | 758      | 1.99  | 6.79     | 443 | 2.29 | 10.10  | ASHRAE MBP  |
| -10<br>14    | 55<br>131     | 32<br>89.6   | 55<br>131    | 700              | 2388    | 602      | 1.66  | 5.67     | 421 | 2.22 | 8.90   | CECOMAF MBP |
| -10<br>14    | 45<br>113     | 20<br>68     | 45<br>113    | 790              | 2695    | 679      | 2.06  | 7.03     | 384 | 2.03 | 9.72   | EN12900 MBP |

Performance Tables

R290, 220 V/50 Hz, eRSCR, 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] |
| -35  | -31  | 277              | 944     | 238      | 1.20  | 4.08     | 232 | 1.46 | 3.12   |
| -30  | -22  | 351              | 1197    | 302      | 1.34  | 4.57     | 262 | 1.60 | 3.96   |
| -20  | -4   | 549              | 1874    | 472      | 1.69  | 5.78     | 324 | 1.83 | 6.25   |
| -10  | 14   | 821              | 2802    | 706      | 2.14  | 7.31     | 384 | 2.03 | 9.43   |
| 0    | 32   | 1175             | 4010    | 1011     | 2.72  | 9.28     | 432 | 2.19 | 13.67  |
| 10   | 50   | 1619             | 5525    | 1393     | 3.50  | 11.92    | 463 | 2.29 | 19.15  |

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

|     |     |      |      |      |      |      |     |      |       |
|-----|-----|------|------|------|------|------|-----|------|-------|
| -35 | -31 | 218  | 742  | 187  | 0.92 | 3.15 | 236 | 1.59 | 2.71  |
| -30 | -22 | 285  | 973  | 245  | 1.05 | 3.60 | 271 | 1.72 | 3.56  |
| -20 | -4  | 462  | 1575 | 397  | 1.34 | 4.56 | 345 | 1.97 | 5.81  |
| -10 | 14  | 700  | 2388 | 602  | 1.66 | 5.67 | 421 | 2.22 | 8.90  |
| 0   | 32  | 1008 | 3440 | 867  | 2.05 | 6.99 | 492 | 2.47 | 13.00 |
| 10  | 50  | 1395 | 4759 | 1199 | 2.54 | 8.66 | 549 | 2.71 | 18.33 |