

Model  
NLY10CN

Sales code:  
105H6165

Compressor Data

|                            |                       |
|----------------------------|-----------------------|
| Refrigerant(s)             | R290                  |
| Refr. charge - tech. limit | 150g / 5.29oz         |
| Weight                     | 10.90 kg / 24.03lbs   |
| Displacement               | 10.09 cm3 / 0.62cu.in |
| Compressors on pallet      | 80                    |



General - Configurations With NLY10CN

|                         |             |
|-------------------------|-------------|
| -                       | Conf. 1     |
| Motor configuration     | CSIR        |
| Power supply (nominal)  | 115 V/60 Hz |
| Number of phases        | 1           |
| Voltage range           | 95-135 V    |
| Approvals               | UL          |
| Starting torque         | HST         |
| Refrigerant             | R290        |
| Application             | LBP+MBP     |
| Hot gas defrost         | OK          |
| Long interval pull down | OK          |

Application Notes

- Electrical equipment is included and pre-assembled to compressor.
- Provision for PE Grounding is located at the PE Stamp on the compressor

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## Compressor Design

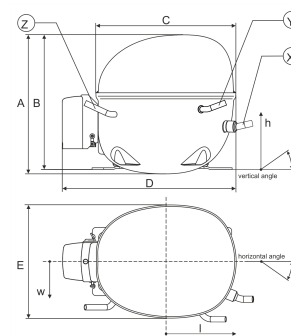
|                       |                               |                         |                      |
|-----------------------|-------------------------------|-------------------------|----------------------|
| Oil type              | <b>POE</b>                    | Winding resistance main | <b>1.000 Ohm</b>     |
| Oil viscosity         | <b>32cSt</b>                  | Winding resistance aux  | <b>5.40 Ohm</b>      |
| Oil quantity          | <b>268 / 9.06fl.oz</b>        | Max. winding temp.      | <b>125 °C</b>        |
| Free gas volume comp. | <b>2,360 cm3 / 79.80fl.oz</b> | Max. discharge temp.    | <b>120°C / 248°F</b> |
| Motor protection      | <b>internal</b>               |                         |                      |

## Compressor Dimensions

## Housing

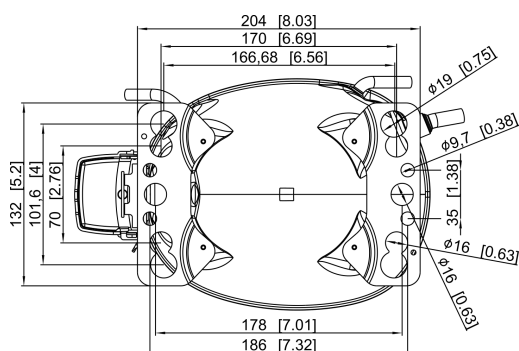
|                   |                 |
|-------------------|-----------------|
| A Height          | 203mm / 7.99in  |
| B Height          | 197mm / 7.76in  |
| C Length shell    | 205mm / 8.07in  |
| D Length w. cover | 254mm / 10.00in |
| E Width           | 166mm / 6.54in  |

[Find 3D Model here](#)



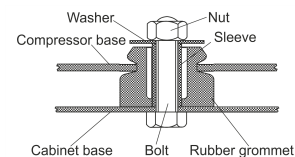
| Connectors            | Suction X                        | Discharge Y                    | Process Z                          |
|-----------------------|----------------------------------|--------------------------------|------------------------------------|
| Diameter [mm]         | øi 8.11–8.29 / 0.32–0.33in       | øi 6.41–6.59 / 0.25–0.26in     | øi 6.41–6.59 / 0.25–0.26in         |
| 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

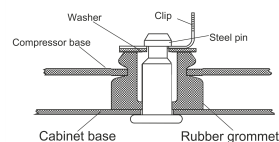


Dimensions in mm [in]

Bolt joint



### Snap-on



|                            | one comp. | multi pack |
|----------------------------|-----------|------------|
| Bolt joint   M6   ø16mm    | 118-1917  | 118-1918   |
| Bolt joint   ø1/4"   ø16mm | 118-1946  | –          |
| Bolt joint   ø1/4"   ø19mm | 118-1949  | –          |
| Snap-on   ø7,3   ø16mm     | 118-1947  | 118-1919   |

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### Configuration

|                                    |                       |
|------------------------------------|-----------------------|
| Motor configuration                | <b>CSIR</b>           |
| Power supply (nominal)             | <b>115 V/60 Hz 1~</b> |
| Refrigerant                        | <b>R290</b>           |
| Application                        | <b>LBP+MBP</b>        |
| Voltage range                      | <b>95-135 V</b>       |
| Starting torque                    | <b>HST</b>            |
| Approvals                          | <b>UL</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>31.5 A</b>         |
| RLA (rated load amps / 1s/ U(N))   | <b>6.2 A</b>          |
| Cut in current (U(N))              | <b>31.5 A</b>         |

### Ambient/ machine room temperatures minimum /maximum

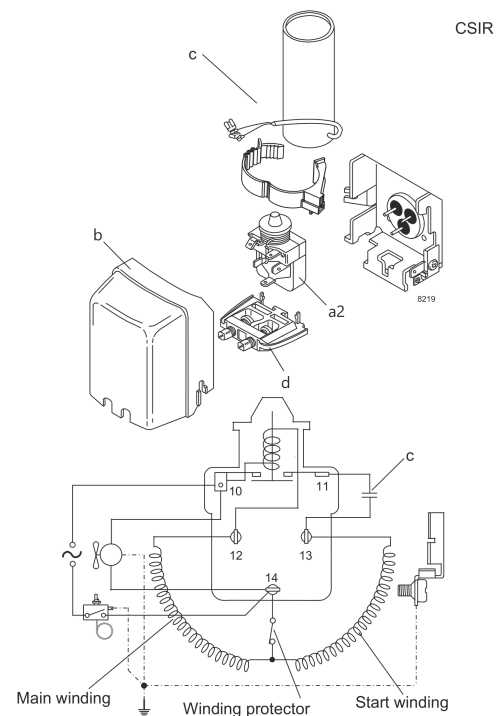
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

### System Cooling

fan 3m/s

### Electrical Accessories / Wiring Diagram



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### Components (already pre-assembled)

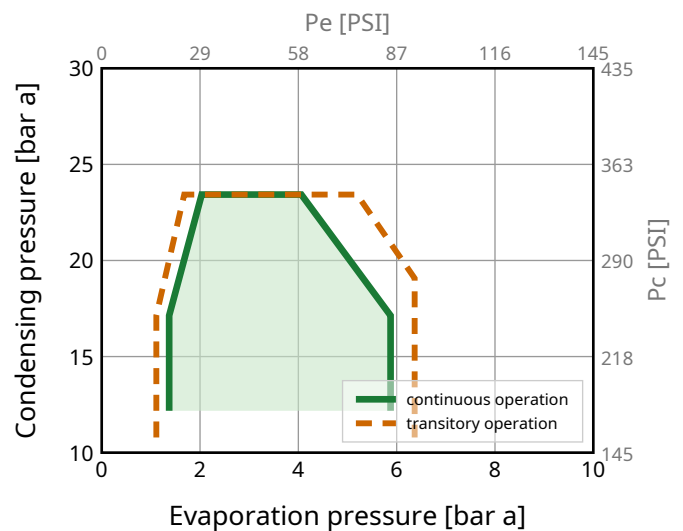
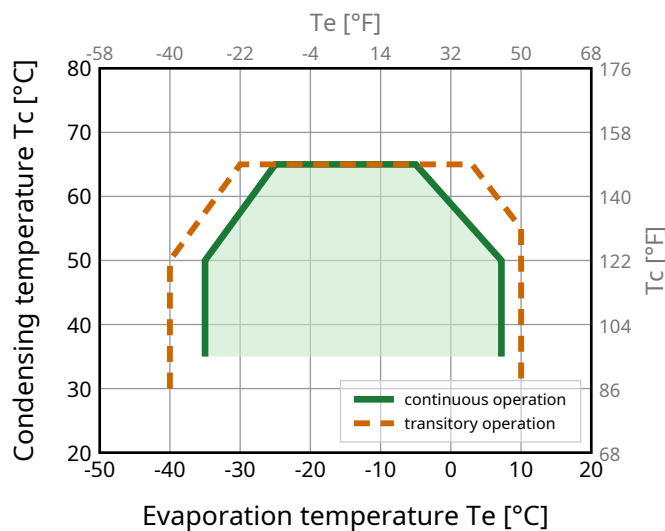
**a2** relay 117U7020

**c** start capacitor (125µF, 6,3mm) 117U5035

**b** plastic cover 103N2011

**d** cord relief 103N1010

### Operation Pressure Range



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Standard Conditions

R290, 115 V/60 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   | 596              | 2032    | 512      | 1.60  | 5.48     | 371 | 4.73 | 6.05   | ASHRAE LBP  |
| -25<br>-13   | 55<br>131     | 32<br>89.6   | 55<br>131    | 445              | 1517    | 382      | 1.24  | 4.24     | 358 | 4.64 | 5.57   | CECOMAF LBP |
| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104    | 340              | 1160    | 292      | 1.23  | 4.20     | 276 | 4.26 | 3.90   | EN12900 LBP |
| -6.7<br>20   | 54.4<br>129.9 | 35<br>95     | 46.1<br>115  | 1068             | 3646    | 919      | 2.15  | 7.33     | 497 | 5.63 | 12.23  | ASHRAE MBP  |
| -10<br>14    | 55<br>131     | 32<br>89.6   | 55<br>131    | 848              | 2895    | 730      | 1.78  | 6.09     | 475 | 5.48 | 10.79  | CECOMAF MBP |
| -10<br>14    | 45<br>113     | 20<br>68     | 45<br>113    | 937              | 3196    | 805      | 2.15  | 7.32     | 437 | 5.24 | 11.53  | EN12900 MBP |

Performance Tables

R290, 115 V/60 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  | 325              | 1109    | 280      | 1.17  | 3.99     | 278 | 4.23 | 3.66   |
| -30  | -22  | 414              | 1412    | 356      | 1.32  | 4.49     | 314 | 4.43 | 4.67   |
| -20  | -4   | 655              | 2235    | 563      | 1.73  | 5.89     | 379 | 4.83 | 7.45   |
| -10  | 14   | 974              | 3322    | 837      | 2.23  | 7.61     | 437 | 5.24 | 11.18  |
| 0    | 32   | 1360             | 4641    | 1170     | 2.78  | 9.47     | 490 | 5.65 | 15.82  |
| 7.2  | 45   | 1675             | 5715    | 1440     | 3.18  | 10.84    | 527 | 5.95 | 19.70  |

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

|     |     |      |      |      |      |      |     |      |       |
|-----|-----|------|------|------|------|------|-----|------|-------|
| -35 | -31 | 293  | 999  | 252  | 1.09 | 3.71 | 270 | 4.07 | 3.65  |
| -30 | -22 | 356  | 1216 | 306  | 1.13 | 3.86 | 315 | 4.36 | 4.45  |
| -20 | -4  | 557  | 1900 | 479  | 1.40 | 4.77 | 398 | 4.92 | 7.01  |
| -10 | 14  | 848  | 2895 | 730  | 1.78 | 6.09 | 475 | 5.48 | 10.79 |
| 0   | 32  | 1221 | 4167 | 1050 | 2.22 | 7.58 | 549 | 6.01 | 15.75 |
| 7.2 | 45  | 1535 | 5236 | 1320 | 2.55 | 8.69 | 602 | 6.38 | 20.05 |