

Single Pack NLE11CNL 220-240V 50Hz CSIR

Single pack code number: **195B4193**

| Position | Title | Code | Amount |
|----------|---|----------|--------|
| 1 | Compressor NLE11CNL | 105H6174 | 1 |
| 2 | Starting relay | 117U7003 | 1 |
| 3 | Starting capacitor (80 μ F 220V, 6.3mm) | 117U5015 | 1 |
| 4 | Cord relief | 103N1010 | 1 |
| 5 | Cover | 103N2010 | 1 |
| 6 | Bolt joint for one compressor M6 \varnothing 16mm | 118-1917 | 1 |

Secop GmbH • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • www.secop.com

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved.

Model

| | | | | |
|-------------|-----------------|------------------|-------------|-----------------|
| Designation | NLE11CNL | 220-240V/50Hz 1~ | Sales code: | 105H6174 |
|-------------|-----------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 32cST | Displacement | 11,15cm ³ / 0,68cu.in |
| Oil quantity | 303cm ³ / 10,2fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 400g / 14,1oz | | |
| Free gas volume comp. | 2360cm ³ / 79,8fl.oz | | |
| Weight | 12,1kg / 26,7lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 7,72Ω (at 25°C) | | |
| Winding resistance aux | 17,82Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with NLE11CNL

| | Conf. 1 | Conf. 2 |
|------------------------|----------------|----------------|
| Motorconfiguration | CSIR | RSIR |
| Power supply (nominal) | 220-240V/50Hz | 220-240V/50Hz |
| Number of phases | 1 | 1 |
| Voltage range | 198-254V | 198-254V |
| Approvals | VDE, CCC | VDE, CCC |
| Starting torque | HST | LST |
| Note | - / - | |

Applications with NLE11CNL

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| Refrigerant | R290 | R290 |
| Application | LBP | LBP |
| System cooling | fan 3m/s | fan 3m/s |
| Hot gas defrost | OK | OK |
| Long interval pull down | OK | OK |

Electrical data - Configurations with NLE11CNL

| | Conf. 1 | Conf. 2 |
|------------------------------|----------------|----------------|
| Starting device type | relay | PTC |
| Run capacitor | - / - | - / - |
| Start capacitor | 80μF | - / - |
| LRA (locked rotor amps / 4s) | 13,8A | 12,6A |
| RLA (rated load amps / 1s) | 2,59A | 2,59A |
| Cut in current | 13,8A | 17,1A |

Model

Designation

NLE11CNL

220-240V/50Hz 1~

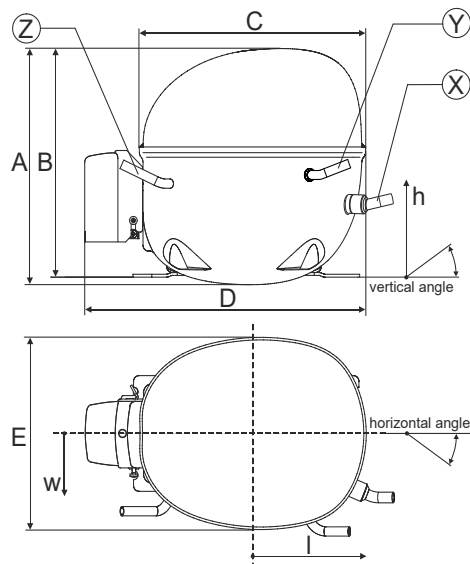
Sales code:

105H6174

Compressor dimensions

| Housing | A Height | 203mm / 7,99in |
|---------|-------------------|----------------|
| | B Height | 197mm / 7,76in |
| | C Length shell | 205mm / 8,07in |
| | D Length w. cover | 254mm / 10in |
| | E Width | 166mm / 6,54in |

| Connectors | | Suction | Discharge | Process |
|------------------|----------------------------|--------------|--------------|--------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 8,11-8,29 | øi 6,11-6,29 | øi 6,11-6,29 |
| | (i:inside, o:outside) [in] | øi 0,32-0,33 | øi 0,24-0,25 | øi 0,24-0,25 |
| Material | | copper | copper | copper |
| Horizontal angle | ±2° | 0° | 0° | 0° |
| Vertical angle | ±2° | 15° | 21° | 155° |
| Position l/h/w | [mm] | 132/69/57 | 94/102/81 | -109/94/72 |
| | [in] | 5,2/2,7/2,2 | 3,7/4/3,2 | -4,3/3,7/2,8 |
| Straight tube l. | [mm] | 12 | 12 | 12 |
| | [in] | 0,5 | 0,5 | 0,5 |



Compressor fixation



| Baseplate | [mm] | [inch] |
|-----------|------|--------|
| BI | 204 | 8.03 |
| BW | 100 | 3.94 |

| Small holes | [mm] | [inch] |
|-------------|------|--------|
| SI | 170 | 6.7 |
| SW | 70 | 2.76 |
| S2l | 178 | 7 |
| øS | ø 16 | ø 0.63 |

Bolt joint



Snap-on



Mounting accessories

| | 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 |

Application notes

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

Model

| | | | | | |
|-------------|-----------------|----------------------|---------|-------------|-----------------|
| Designation | NLE11CNL | 220-240V/50Hz | Conf. 1 | Sales code: | 105H6174 |
|-------------|-----------------|----------------------|---------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R290 |
| Application | LBP |
| Voltage range | 198-254V |
| Starting torque | HST |
| Approvals | VDE (2) |
| | CCC (1),(2) |
| (1): Made in China | |
| (2): Made in Slovakia | |

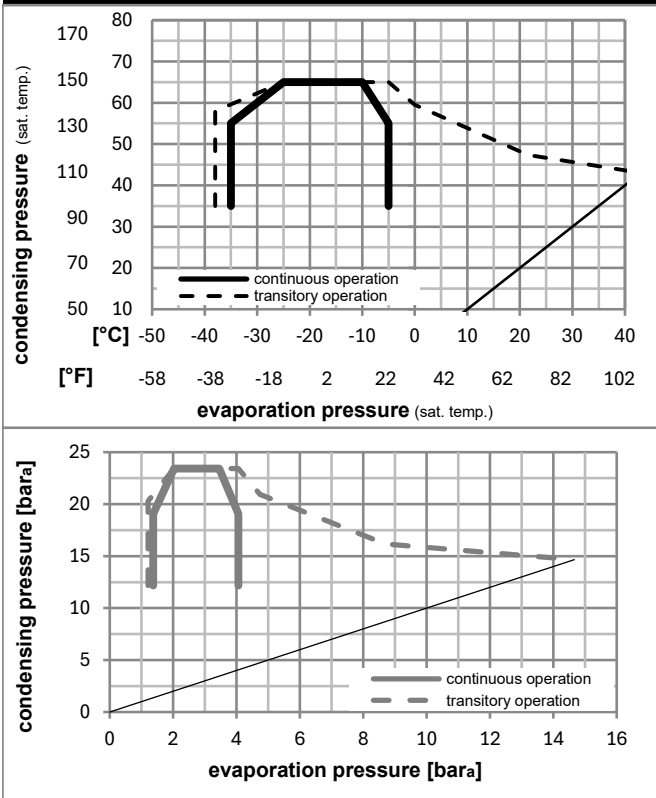
Electrical accessories / wiring diagram



Ambient/ machine room temperatures minimum /maximum

| | |
|---------------------------------|------------------------|
| Ambient temperature range: | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| Compressor cooling: | fan 3m/s |

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a2 | relay | 117U7003 |
| c | start capacitor (80µF) | 117U5015 |
| b | plastic cover | 103N2010 |
| d | cord relief | 103N1010 |

Alternative components

| | | |
|---|---------------|----------|
| b | plastic cover | 103N2011 |
|---|---------------|----------|

Model

Designation **NLE11CNL** **220-240V/50Hz** Conf. 1 Sales code: **105H6174**

Optimization + standard conditions

R290, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

| | Evaporating pressure (saturation temperature) | | | | Cooling capacity | | | COP | EER | P1 | Power consumption | | ASHRAE LBP |
|------|---|------|------|-------|------------------|----------|----------|----------|-----------|-------|-------------------|--------|-------------|
| | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | | | | I | m | |
| [°C] | [°C] | [°C] | [°C] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| -23 | 54 | 32 | 32 | 538,9 | 1840 | 463,8 | 1,52 | 5,18 | 1,31 | 355,3 | 2,22 | 5,46 | ASHRAE LBP |
| [°F] | -10 | 130 | 90 | | | | | | | | | | |
| -25 | 55 | 32 | 55 | 403,0 | 1376 | 346,8 | 1,18 | 4,02 | 1,01 | 342,5 | 2,18 | 5,02 | cecomaf LBP |
| [°F] | -13 | 131 | 90 | 131 | | | | | | | | | |
| -35 | 40 | 20 | 40 | 304,9 | 1041 | 262,4 | 1,18 | 4,03 | 1,02 | 258,2 | 1,95 | 3,48 | EN12900 LBP |
| [°F] | -31 | 104 | 68 | 104 | | | | | | | | | |
| -23 | 49 | 4,4 | 49 | 440,2 | 1503 | 378,9 | 1,27 | 4,34 | 1,09 | 346,6 | 2,19 | 6,10 | ARI540 LBP |
| [°F] | -10 | 120 | 40 | 120 | | | | | | | | | |
| -23 | 41 | 32 | 32 | 589,5 | 2013 | 507,3 | 1,77 | 6,06 | 1,53 | 332,4 | 2,15 | 5,97 | AHAM LBP |
| [°F] | -10 | 105 | 90 | 90 | | | | | | | | | |
| -35 | 45 | 32 | 45 | 291,4 | 995 | 250,8 | 1,11 | 3,80 | 0,96 | 262,0 | 1,96 | 3,27 | opt |
| [°F] | -31 | 113 | 90 | 113 | | | | | | | | | |

Performance tables

R290, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

| | pe | | Cooling capacity | | | COP | EER | | P1 | I | m |
|------------------|------|------|------------------|---------|----------|------|----------|-----------|-------|------|-------|
| | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | | [Btu/Wh] | [kcal/Wh] | | | |
| [°C / °F] | -35 | -31 | 291,4 | 995 | 250,8 | 1,11 | 3,80 | 0,96 | 262,0 | 1,96 | 3,27 |
| cond. pressure | -30 | -22 | 375,5 | 1282 | 323,1 | 1,28 | 4,36 | 1,10 | 294,4 | 2,04 | 4,22 |
| pc= 45/113 | -25 | -13 | 477,1 | 1629 | 410,6 | 1,45 | 4,96 | 1,25 | 328,6 | 2,14 | 5,38 |
| return gas temp. | -23 | -10 | 515,7 | 1761 | 443,8 | 1,51 | 5,17 | 1,30 | 340,5 | 2,18 | 5,82 |
| RGT= 32/90 | -20 | -4 | 596,6 | 2037 | 513,4 | 1,64 | 5,60 | 1,41 | 364,0 | 2,25 | 6,76 |
| liquid temp | -15 | 5 | 734,3 | 2508 | 632,0 | 1,84 | 6,27 | 1,58 | 400,1 | 2,38 | 8,35 |
| Tliq= 45/113 | -5 | 23 | 1066,2 | 3641 | 917,6 | 2,26 | 7,71 | 1,94 | 472,3 | 2,65 | 12,28 |
| [°C / °F] | -35 | -31 | 242,7 | 829 | 208,9 | 0,91 | 3,10 | 0,78 | 267,6 | 1,97 | 3,00 |
| cond. pressure | -30 | -22 | 314,8 | 1075 | 271,0 | 1,04 | 3,54 | 0,89 | 303,5 | 2,06 | 3,91 |
| pc= 55/131 | -25 | -13 | 403,0 | 1376 | 346,8 | 1,18 | 4,02 | 1,01 | 342,5 | 2,18 | 5,02 |
| return gas temp | -23 | -10 | 436,6 | 1491 | 375,8 | 1,22 | 4,18 | 1,05 | 356,5 | 2,23 | 5,44 |
| RGT= 32/90 | -20 | -4 | 507,4 | 1733 | 436,7 | 1,32 | 4,51 | 1,14 | 384,3 | 2,32 | 6,35 |
| liquid temp | -15 | 5 | 628,6 | 2147 | 540,9 | 1,47 | 5,01 | 1,26 | 428,3 | 2,49 | 7,90 |
| Tliq= 55/131 | -5 | 23 | 922,4 | 3150 | 793,9 | 1,77 | 6,05 | 1,52 | 521,0 | 2,85 | 11,75 |

Model

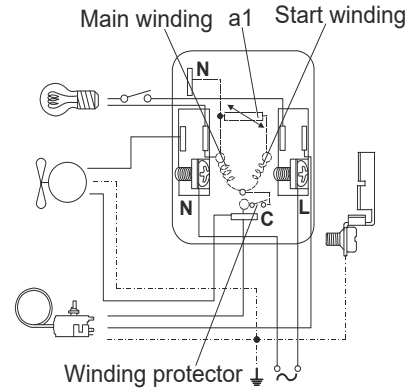
| | | | | | |
|-------------|-----------------|----------------------|----------------|-------------|-----------------|
| Designation | NLE11CNL | 220-240V/50Hz | Conf. 2 | Sales code: | 105H6174 |
|-------------|-----------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | RSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R290 |
| Application | LBP |
| Voltage range | 198-254V |
| Starting torque | LST |
| Approvals | VDE (2) |
| | CCC (1),(2) |
| (1): | Made in China |
| (2): | Made in Slovakia |

Electrical accessories / wiring diagram

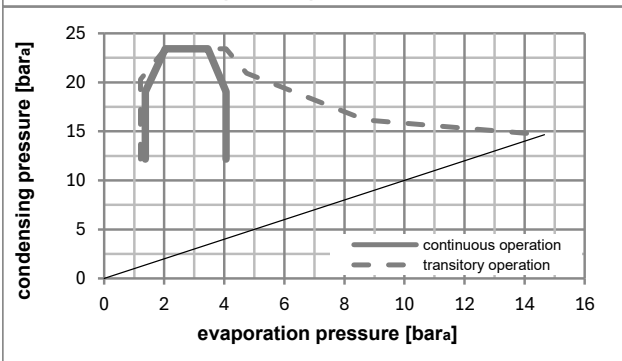
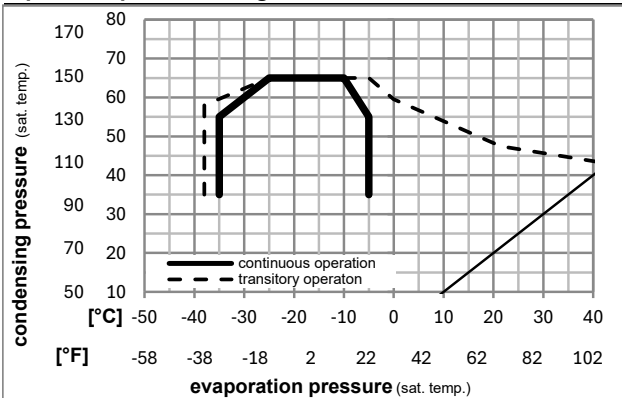
RSIR



Ambient/ machine room temperatures minimum /maximum

| | |
|---------------------------------|------------------------|
| Ambient temperature range: | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| Compressor cooling: | fan 3m/s |

Operation pressure range



Components

| | | |
|----|------------------------------------|----------|
| a1 | e-PTC starter (220V, 25Ohm, 4.8mm) | 103N0050 |
| b | plastic cover | 103N2010 |
| d | cord relief | 103N1010 |

Alternative components

| | | |
|---|---------------|----------|
| b | plastic cover | 103N2011 |
|---|---------------|----------|

Model

| | | | | | |
|-------------|-----------------|----------------------|---------|-------------|-----------------|
| Designation | NLE11CNL | 220-240V/50Hz | Conf. 2 | Sales code: | 105H6174 |
|-------------|-----------------|----------------------|---------|-------------|-----------------|

Optimization + standard conditions

R290, 220V/50Hz, RSIR, fan 3m/s, VDE, CCC

| | | Evaporating pressure (saturation temperature) | | | | Cooling capacity | | | COP | EER | Power consumption | | | | |
|------|------|---|------|------|------|------------------|---------|----------|-------|----------|---------------------|-------|------|--------|-------------|
| | | Condensing pressure (saturation temperature) | | | | Return gas temp. | | | | | Current consumption | | | | |
| | | Liquid temp. | | | | Cooling capacity | | | | | Ref. mass flow | | | | |
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | m | |
| [°C] | [°F] | [°C] | [°F] | [°C] | [°C] | | | | | | | [W] | [A] | [kg/h] | |
| -23 | -10 | 54 | 130 | 32 | 32 | 538,9 | 1840 | 463,8 | 1,52 | 5,18 | 1,31 | 355,3 | 2,22 | 5,46 | ASHRAE LBP |
| -25 | -13 | 55 | 131 | 32 | 55 | 403,0 | 1376 | 346,8 | 1,18 | 4,02 | 1,01 | 342,5 | 2,18 | 5,02 | cecomaf LBP |
| -35 | -31 | 40 | 104 | 20 | 40 | 304,9 | 1041 | 262,4 | 1,18 | 4,03 | 1,02 | 258,2 | 1,95 | 3,48 | EN12900 LBP |
| -23 | -10 | 49 | 120 | 4,4 | 49 | 440,2 | 1503 | 378,9 | 1,27 | 4,34 | 1,09 | 346,6 | 2,19 | 6,10 | ARI540 LBP |
| -23 | -10 | 41 | 105 | 32 | 32 | 589,5 | 2013 | 507,3 | 1,77 | 6,06 | 1,53 | 332,4 | 2,15 | 5,97 | AHAM LBP |
| -35 | -31 | 45 | 113 | 32 | 45 | 291,4 | 995 | 250,8 | 1,11 | 3,80 | 0,96 | 262,0 | 1,96 | 3,27 | opt |

Performance tables

R290, 220V/50Hz, RSIR, fan 3m/s, VDE, CCC

| | pe | | Cooling capacity | | | COP | EER | P1 | | | I | m |
|------------------|------|------|------------------|---------|----------|-------|----------|-----------|-------|------|--------|---|
| | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| [°C / °F] | -35 | -31 | 291,4 | 995 | 250,8 | 1,11 | 3,80 | 0,96 | 262,0 | 1,96 | 3,27 | |
| cond. pressure | -30 | -22 | 375,5 | 1282 | 323,1 | 1,28 | 4,36 | 1,10 | 294,4 | 2,04 | 4,22 | |
| pc= 45/113 | -25 | -13 | 477,1 | 1629 | 410,6 | 1,45 | 4,96 | 1,25 | 328,6 | 2,14 | 5,38 | |
| return gas temp. | -23 | -10 | 515,7 | 1761 | 443,8 | 1,51 | 5,17 | 1,30 | 340,5 | 2,18 | 5,82 | |
| RGT= 32/90 | -20 | -4 | 596,6 | 2037 | 513,4 | 1,64 | 5,60 | 1,41 | 364,0 | 2,25 | 6,76 | |
| liquid temp | -15 | 5 | 734,3 | 2508 | 632,0 | 1,84 | 6,27 | 1,58 | 400,1 | 2,38 | 8,35 | |
| Tliq= 45/113 | -5 | 23 | 1066,2 | 3641 | 917,6 | 2,26 | 7,71 | 1,94 | 472,3 | 2,65 | 12,28 | |
| [°C / °F] | -35 | -31 | 242,7 | 829 | 208,9 | 0,91 | 3,10 | 0,78 | 267,6 | 1,97 | 3,00 | |
| cond. pressure | -30 | -22 | 314,8 | 1075 | 271,0 | 1,04 | 3,54 | 0,89 | 303,5 | 2,06 | 3,91 | |
| pc= 55/131 | -25 | -13 | 403,0 | 1376 | 346,8 | 1,18 | 4,02 | 1,01 | 342,5 | 2,18 | 5,02 | |
| return gas temp | -23 | -10 | 436,6 | 1491 | 375,8 | 1,22 | 4,18 | 1,05 | 356,5 | 2,23 | 5,44 | |
| RGT= 32/90 | -20 | -4 | 507,4 | 1733 | 436,7 | 1,32 | 4,51 | 1,14 | 384,3 | 2,32 | 6,35 | |
| liquid temp | -15 | 5 | 628,6 | 2147 | 540,9 | 1,47 | 5,01 | 1,26 | 428,3 | 2,49 | 7,90 | |
| Tliq= 55/131 | -5 | 23 | 922,4 | 3150 | 793,9 | 1,77 | 6,05 | 1,52 | 521,0 | 2,85 | 11,75 | |



NL Compressors





Service/Repair – R600a, R290



8545

Brazing on Suction Connectors (Direct Intake)

representative image



**! max. 150°C/302°F !
at socket**
brazing solder: phosphor (LP7) or silver

Refer to Product Bulletin:
**Brazing on Suction Connectors
(Compressors with Direct Suction Intake)**

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved. www.secop.com