

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 |

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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 |



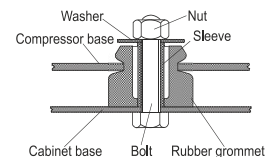
Compressor fixation



| 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

| Mounting accessory | 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 |

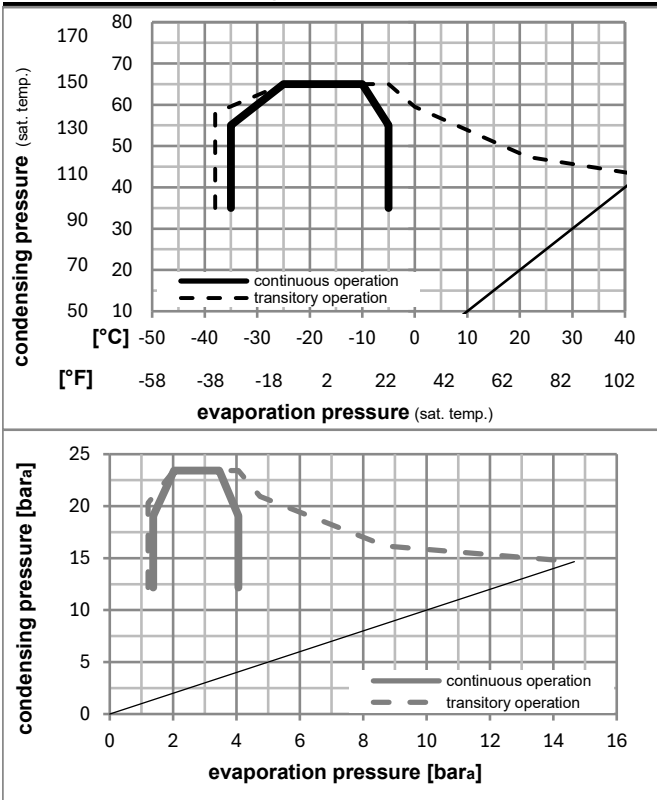
Electrical accessories / wiring diagram



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] | [°F] | [°C] | [°F] | [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 |
| | -10 | 130 | 90 | 90 | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 403,0 | 1376 | 346,8 | 1,18 | 4,02 | 1,01 | 342,5 | 2,18 | 5,02 | cecomaf LBP |
| | -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 |
| | -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 |
| | -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 |
| | -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 |
| | -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

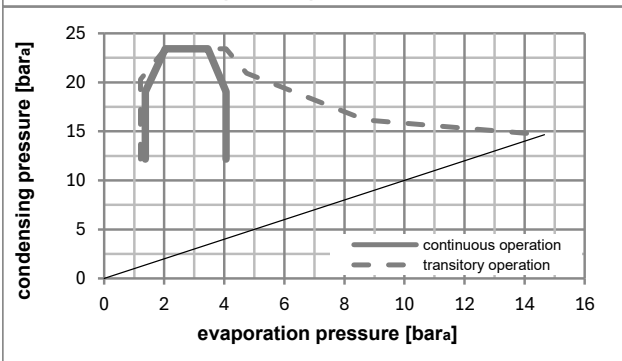
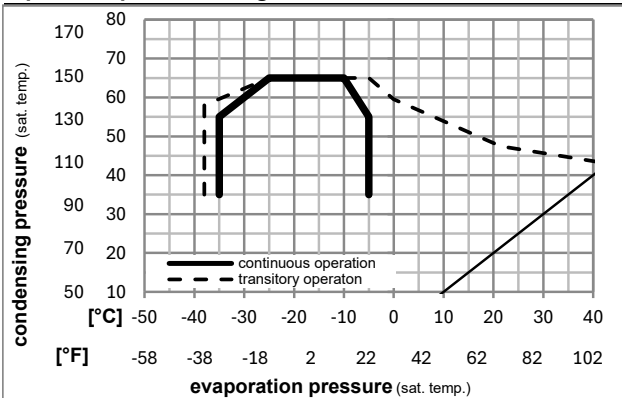
RSIR



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) | | | | | | | | | Current consumption | | Ref. mass flow | | |
| | | Return gas temp. | | | | | | | | | I | | m | | |
| | | Liquid temp. | | | | | | | | | | | | | |
| | | Cooling capacity | | | | | | | | | | | | | |
| | | 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)**

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