

## Single Pack NLE10CN 115V 60Hz CSIR

Single pack code number: **195B4308**

| Position | Title                                      | Code     | Amount |
|----------|--|----------|--------|
| 1        | Compressor NLE10CN                         | 105H6195 | 1      |
| 2        | Bolt joint for one compressor   M6   ø16mm | 118-1917 | 1      |

## Model

|             |                |              |             |                 |
|-------------|----------------|--------------|-------------|-----------------|
| Designation | <b>NLE10CN</b> | 115V/60Hz 1~ | Sales code: | <b>105H6195</b> |
|-------------|----------------|--------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R290</b>                      |
| Oil viscosity              | 32cSt                           | Displacement          | 10,09cm <sup>3</sup> / 0,62cu.in |
| Oil quantity               | 268cm <sup>3</sup> / 9,1fl.oz   | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 400g / 14,1oz                   |                       |                                  |
| Free gas volume comp.      | 2360cm <sup>3</sup> / 79,8fl.oz |                       |                                  |
| Weight                     | 10,9kg / 24lbs                  |                       |                                  |
| Motor protection           | 1# internal                     |                       |                                  |
| Winding resistance main    | 1,56Ω (at 25°C)                 |                       |                                  |
| Winding resistance aux     | 4,4Ω (at 25°C)                  |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 120°C / 248°F                   |                       |                                  |



## General - Configurations with NLE10CN

|                        |   |
|------------------------|---|
|                        | <b>Conf. 1</b>  |
| Motorconfiguration     | CSIR  |
| Power supply (nominal) | 115V/60Hz   |
| Number of phases       | 1   |
| Voltage range          | 103-127V  |
| Approvals              | UL  |
| Starting torque        | HST   |
| Note                   | Electrical equipment is included and pre-assembled to compressor. |

## Applications with NLE10CN

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

## Electrical data - Configurations with NLE10CN

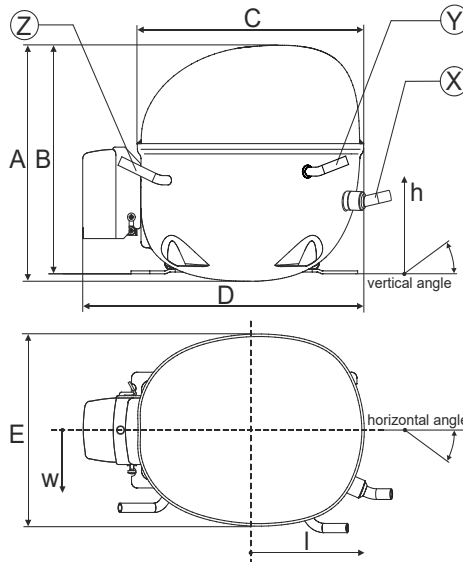
|                                    |                |
|------------------------------------|----------------|
|                                    | <b>Conf. 1</b> |
| Starting device type               | relay          |
| Run capacitor                      | -/-            |
| Start capacitor                    | 280μF          |
| LRA (locked rotor amps / 4s/ U(N)) | 34,53A         |
| RLA (rated load amps / 1s/ U(N))   | 5,6A           |
| Cut in current (U(N))              | 34,53A         |

## Model

|             |                |                     |             |                 |
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|-------------|----------------|---------------------|-------------|-----------------|

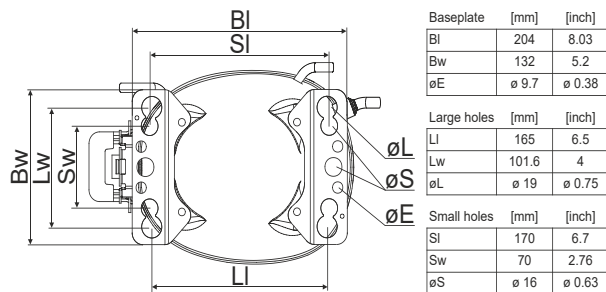
## Compressor dimensions

|                |                   |                |
|----------------|-------------------|----------------|
| <b>Housing</b> | 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 6,41-6,59 | øi 6,41-6,59 |
| (i:inside, o:outside) | [in] | øi 0,32-0,33 | øi 0,25-0,26 | øi 0,25-0,26 |
| 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          |

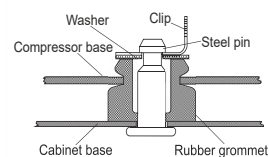
## Compressor fixation



### 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  |            |
| Bolt joint   ø1/4"   ø19mm | 118-1949  |            |
| Snap-on   ø7,3   ø16mm     | 118-1947  | 118-1919   |

## #NV

## #NV

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

## Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE10CN</b> | <b>115V/60Hz</b> | <b>Conf. 1</b> | Sales code: | <b>105H6195</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

## Configuration

|                        |              |        |
|------------------------|--------------|--------|
| Motorconfiguration     | CSIR         |        |
| Power supply (nominal) | 115V/60Hz 1~ |        |
| Refrigerant            | R290         |        |
| Application            | LBP+MBP      |        |
| Voltage range          | 103-127V     |        |
| Starting torque        | HST          |        |
| Approvals              | UL           | SA3693 |

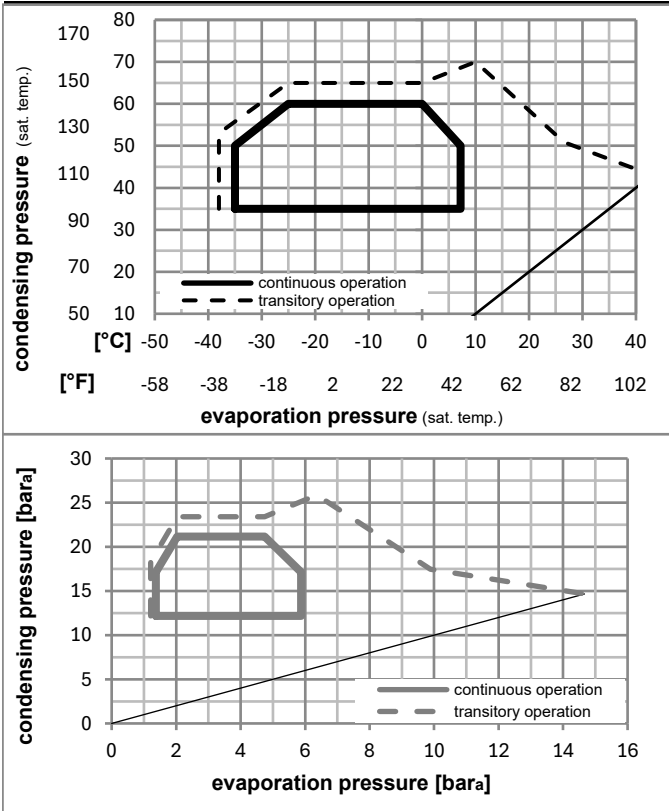
## Electrical accessories / wiring diagram



## 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 (incl. and pre. assembl.)

|    |                         |          |
|----|-------------------------|----------|
| a2 | current relay           | 117U7018 |
| c  | start capacitor (280µF) | 117U5025 |
| b  | plastic cover           | 103N2011 |
| d  | cord relief             | 103N1010 |

## Model

Designation **NLE10CN** **115V/60Hz** Conf. 1 Sales code: **105H6195**

## Optimization + standard conditions

R290, 115V/60Hz, CSIR, fan 3m/s, UL

|      |      | Evaporating pressure (saturation temperature) |    |     |        | Condensing pressure (saturation temperature) |         |          | Return gas temp. |          | Liquid temp. |      | Cooling capacity |                     |  | COP                | EER | Power consumption |  |  |
|------|------|---|----|-----|--------|--|---------|----------|------------------|----------|--------------|------|------------------|---------------------|--|--------------------|-----|-------------------|--|--|
|      |      | pe  | pc | RGT | Tliq   | [W]  | [Btu/h] | [kcal/h] | [W/W]            | [Btu/Wh] | [kcal/Wh]    | P1   | I                | Current consumption |  | Ref. mass flow     |     |                   |  |  |
| [°C] | [°F] |   |    |     |        |  |         |          |                  |          |              | [W]  | [A]              | [kg/h]              |  |                    |     |                   |  |  |
| [°C] | -23  | 54  | 32 | 32  | 607,0  | 2073   | 522,4   | 1,52     | 5,20             | 1,31     | 399,0        | 5,18 | 6,15             |                     |  | <b>ASHRAE LBP</b>  |     |                   |  |  |
| [°F] | -10  | 130   | 90 | 90  |        |  |         |          |                  |          |              |      |                  |                     |  |                    |     |                   |  |  |
| [°C] | -25  | 55  | 32 | 55  | 456,4  | 1559   | 392,8   | 1,17     | 4,00             | 1,01     | 389,8        | 5,13 | 5,68             |                     |  | <b>cecomaf LBP</b> |     |                   |  |  |
| [°F] | -13  | 131   | 90 | 131 |        |  |         |          |                  |          |              |      |                  |                     |  |                    |     |                   |  |  |
| [°C] | -35  | 40  | 20 | 40  | 361,5  | 1235   | 311,1   | 1,26     | 4,31             | 1,09     | 286,2        | 4,52 | 4,13             |                     |  | <b>EN12900 LBP</b> |     |                   |  |  |
| [°F] | -31  | 104   | 68 | 104 |        |  |         |          |                  |          |              |      |                  |                     |  |                    |     |                   |  |  |
| [°C] | -7   | 54  | 35 | 46  | 1069,4 | 3652   | 920,3   | 2,05     | 6,99             | 1,76     | 522,8        | 5,95 | 12,20            |                     |  | <b>ASHRAE MBP</b>  |     |                   |  |  |
| [°F] | 20   | 130   | 95 | 115 |        |  |         |          |                  |          |              |      |                  |                     |  |                    |     |                   |  |  |
| [°C] | -10  | 55  | 32 | 55  | 854,1  | 2917   | 735,1   | 1,70     | 5,80             | 1,46     | 502,8        | 5,84 | 10,80            |                     |  | <b>cecomaf MBP</b> |     |                   |  |  |
| [°F] | 14   | 131   | 90 | 131 |        |  |         |          |                  |          |              |      |                  |                     |  |                    |     |                   |  |  |
| [°C] | -10  | 45  | 20 | 45  | 934,1  | 3190   | 803,9   | 2,04     | 6,95             | 1,75     | 458,8        | 5,48 | 11,47            |                     |  | <b>EN12900 MBP</b> |     |                   |  |  |
| [°F] | 14   | 113   | 68 | 113 |        |  |         |          |                  |          |              |      |                  |                     |  |                    |     |                   |  |  |

## Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, UL

|                  | 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  | 339,2            | 1159    | 292,0    | 1,18  | 4,02     | 1,01      | 288,4 | 4,52 | 3,80   |
| cond. pressure   | -23  | -10  | 575,9            | 1967    | 495,6    | 1,55  | 5,29     | 1,33      | 371,9 | 5,00 | 6,50   |
| pc= 45/113       | -15  | 5    | 807,4            | 2757    | 694,8    | 1,89  | 6,47     | 1,63      | 426,2 | 5,30 | 9,19   |
| return gas temp. | -9   | 15   | 992,1            | 3388    | 853,8    | 2,15  | 7,33     | 1,85      | 462,5 | 5,50 | 11,36  |
| RGT= 32/90       | -4   | 25   | 1202,1           | 4105    | 1034,5   | 2,40  | 8,20     | 2,07      | 500,4 | 5,71 | 13,86  |
| liquid temp      | 0    | 32   | 1364,5           | 4660    | 1174,3   | 2,58  | 8,82     | 2,22      | 528,6 | 5,87 | 15,83  |
| Tliq= 45/113     | 7,2  | 45   | 1701,0           | 5809    | 1463,9   | 2,90  | 9,91     | 2,50      | 586,3 | 6,20 | 19,99  |
| [°C / °F]        | -35  | -31  | 281,6            | 962     | 242,4    | 0,93  | 3,16     | 0,80      | 304,4 | 4,62 | 3,48   |
| cond. pressure   | -23  | -10  | 492,3            | 1681    | 423,7    | 1,22  | 4,17     | 1,05      | 402,9 | 5,21 | 6,14   |
| pc= 55/131       | -15  | 5    | 702,7            | 2400    | 604,7    | 1,51  | 5,15     | 1,30      | 465,9 | 5,60 | 8,83   |
| return gas temp  | -9   | 15   | 872,1            | 2978    | 750,6    | 1,72  | 5,88     | 1,48      | 507,0 | 5,86 | 11,04  |
| RGT= 32/90       | -4   | 25   | 1065,9           | 3640    | 917,3    | 1,94  | 6,63     | 1,67      | 548,9 | 6,15 | 13,60  |
| liquid temp      | 0    | 32   | 1216,5           | 4155    | 1046,9   | 2,10  | 7,17     | 1,81      | 579,5 | 6,36 | 15,62  |
| Tliq= 55/131     | 7,2  | 45   | 1529,7           | 5224    | 1316,5   | 2,39  | 8,15     | 2,05      | 640,6 | 6,80 | 19,93  |



# 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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