

## Single Pack NLE11MN 115-127V 60Hz CSIR

Single pack code number: **195B4359**

| Position | Title   | Code     | Amount |
|----------|---|----------|--------|
| 1        | Compressor NLE11MN                                      | 105H5980 | 1      |
| 2        | Starting relay  | 117U7020 | 1      |
| 3        | Starting capacitor (240 $\mu$ F 125V, 6.3mm)            | 117U5073 | 1      |
| 4        | Cord relief   | 103N1010 | 1      |
| 5        | Cover   | 103N2011 | 1      |
| 6        | Bolt joint for one compressor   M6   $\varnothing$ 16mm | 118-1917 | 1      |

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## Model

|             |                |                  |             |                 |
|-------------|----------------|------------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | 115-127V/60Hz 1~ | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R290</b>                      |
| Oil viscosity              | 32cST                           | Displacement          | 11,15cm <sup>3</sup> / 0,68cu.in |
| Oil quantity               | 298cm <sup>3</sup> / 10,1fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 400g / 14,1oz                   |                       |                                  |
| Free gas volume comp.      | 2360cm <sup>3</sup> / 79,8fl.oz |                       |                                  |
| Weight                     | 12,14kg / 26,8lbs               |                       |                                  |
| Motor protection           | 1# internal                     |                       |                                  |
| Winding resistance main    | 0,85Ω (at 25°C)                 |                       |                                  |
| Winding resistance aux     | 4,17Ω (at 25°C)                 |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                  |



## General - Configurations with NLE11MN

|                        | <b>Conf. 1</b> | <b>Conf. 2</b> | <b>Conf. 3</b> | <b>Conf. 4</b> |
|------------------------|----------------|----------------|----------------|----------------|
| Motorconfiguration     | CSIR           | CSIR           | RSCR           | RSCR           |
| Power supply (nominal) | 115V/60Hz      | 115V/60Hz      | 115V/60Hz      | 115V/60Hz      |
| Number of phases       | 1              | 1              | 1              | 1              |
| Voltage range          | 95-127V        | 95-135V        | 95-127V        | 95-135V        |
| Approvals              | UL, CCC        | UL, CCC        | UL, CCC        | UL, CCC        |
| Starting torque        | HST            | HST            | LST            | LST            |
| Note                   | - / -          |                |                |                |

## Applications with NLE11MN

|                         | <b>Conf. 1</b> | <b>Conf. 2</b> | <b>Conf. 3</b> | <b>Conf. 4</b> |
|-------------------------|----------------|----------------|----------------|----------------|
| Refrigerant             | R290           | R290           | R290           | R290           |
| Application             | MBP            | MBP            | MBP            | MBP            |
| System cooling          | fan 3m/s       | fan 3m/s       | fan 3m/s       | fan 3m/s       |
| Hot gas defrost         | OK             | OK             | OK             | OK             |
| Long interval pull down | OK             | OK             | OK             | OK             |

## Electrical data - Configurations with NLE11MN

|                              | <b>Conf. 1</b> | <b>Conf. 2</b> | <b>Conf. 3</b> | <b>Conf. 4</b> |
|------------------------------|----------------|----------------|----------------|----------------|
| Starting device type         | relay          | relay          | PTC            | PTC            |
| Run capacitor                | -/-            | -/-            | 23,5μF         | 23,5μF         |
| Start capacitor              | 240μF          | 240μF          | -/-            | -/-            |
| LRA (locked rotor amps / 4s) | 40,23A         | 40,23A         | 41,7A          | 41,7A          |
| RLA (rated load amps / 1s)   | 8,37A          | 8,37A          | 8,37A          | 8,37A          |
| Cut in current               | 40,23A         | 40,23A         | 51,83A         | 51,83A         |

## Model

Designation

**NLE11MN**

115-127V/60Hz 1~

Sales code:

**105H5980**

## 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 6,41-6,59 | 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   |

## Application notes

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

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

### Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | <b>115V/60Hz</b> | <b>Conf. 1</b> | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

### Configuration

|                        |              |        |
|------------------------|--------------|--------|
| Motorconfiguration     | CSIR         |        |
| Power supply (nominal) | 115V/60Hz 1~ |        |
| Refrigerant            | R290         |        |
| Application            | MBP          |        |
| Voltage range          | 95-127V      |        |
| Starting torque        | HST          |        |
| Approvals              | UL           | SA3693 |
|                        | CCC          |        |

### Electrical accessories / wiring diagram



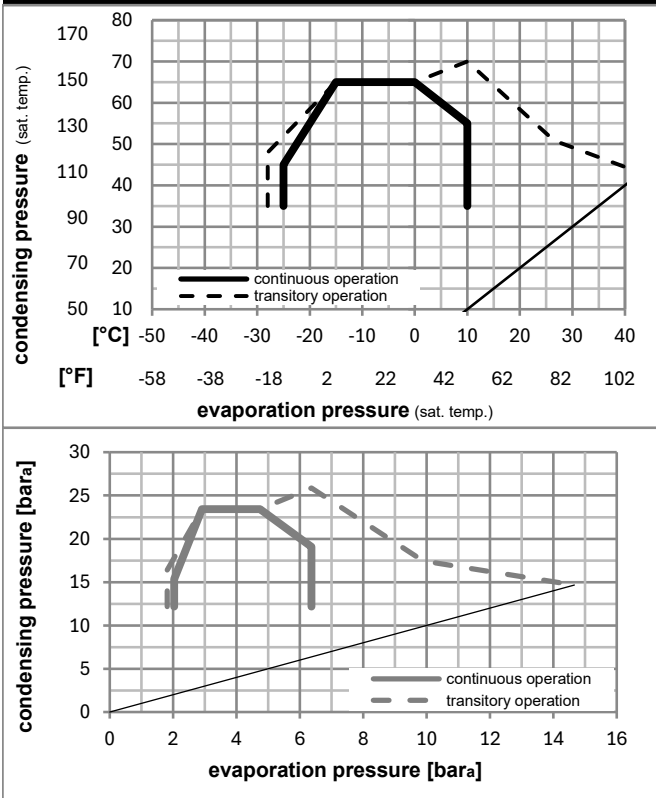
### Ambient/ machine room temperatures minimum /maximum

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                          | 117U7020 |
| c  | start capacitor (240µF, 6,3mm) | 117U5073 |
| b  | plastic cover                  | 103N2011 |
| d  | cord relief                    | 103N1010 |

### Alternative components

|    |                                 |          |
|----|---------------------------------|----------|
| a2 | relay                           | 117U7020 |
| c  | start capacitor (240µF, 15kOhm) | 117U5034 |
| b  | plastic cover                   | 103N2011 |
| d  | cord relief                     | 103N1010 |

### Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | <b>115V/60Hz</b> | <b>Conf. 1</b> | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

### Optimization + standard conditions

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

|      |      | Evaporating pressure (saturation temperature) |     |     |      | Condensing pressure (saturation temperature) |         |          | Return gas temp. |          | Liquid temp. |      | Cooling capacity |       |      | COP   | EER    | Power consumption |  |             | ASHRAE MBP |
|------|------|---|-----|-----|------|--|---------|----------|------------------|----------|--------------|------|------------------|-------|------|-------|--------|-------------------|--|-------------|------------|
|      |      | pe  | pc  | RGT | Tliq | [W]  | [Btu/h] | [kcal/h] | [W/W]            | [Btu/Wh] | [kcal/Wh]    | P1   | I                | m     | [W]  | [A]   | [kg/h] | cecomaf MBP       |  |             |            |
| [°C] | [°F] |   |     |     |      |  |         |          |                  |          |              |      |                  |       |      |       |        |                   |  |             |            |
| -7   | 20   | 54  | 130 | 35  | 95   | 46   | 115     | 1202,7   | 4107             | 1035,1   | 2,04         | 6,97 | 1,76             | 589,1 | 7,15 | 13,72 |        |                   |  |             |            |
| -10  | 14   | 55  | 131 | 32  | 90   | 55   | 131     | 959,7    | 3278             | 825,9    | 1,71         | 5,83 | 1,47             | 561,8 | 6,96 | 12,14 |        |                   |  |             |            |
| -10  | 14   | 45  | 113 | 20  | 68   | 45   | 113     | 1058,4   | 3615             | 910,9    | 2,04         | 6,96 | 1,75             | 519,1 | 6,77 | 12,99 |        |                   |  | EN12900 MBP |            |
| -7   | 20   | 49  | 120 | 18  | 65   | 49   | 120     | 1124,6   | 3841             | 967,8    | 2,00         | 6,83 | 1,72             | 562,1 | 7,01 | 14,60 |        |                   |  | ARI540 MBP  |            |
| -10  | 14   | 45  | 113 | 32  | 90   | 45   | 113     | 1101,8   | 3763             | 948,2    | 2,12         | 7,25 | 1,83             | 519,1 | 6,77 | 12,61 |        |                   |  | opt         |            |
| -25  | -13  | 45  | 113 | 32  | 90   | 45   | 113     | 594,0    | 2029             | 511,2    | 1,45         | 4,94 | 1,24             | 410,8 | 6,09 | 6,70  |        |                   |  | opt         |            |

### Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, UL, 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]        | -25  | -13  | 594,0            | 2029    | 511,2    | 1,45  | 4,94     | 1,24      | 410,8 | 6,09 | 6,70   |
| cond. pressure   | -23  | -10  | 642,1            | 2193    | 552,6    | 1,52  | 5,18     | 1,31      | 422,9 | 6,17 | 7,25   |
| pc= 45/113       | -15  | 5    | 912,1            | 3115    | 784,9    | 1,89  | 6,44     | 1,62      | 483,7 | 6,54 | 10,38  |
| return gas temp. | -9   | 15   | 1124,4           | 3840    | 967,7    | 2,15  | 7,34     | 1,85      | 523,0 | 6,79 | 12,87  |
| RGT= 32/90       | 0    | 32   | 1558,6           | 5323    | 1341,3   | 2,67  | 9,11     | 2,29      | 584,5 | 7,21 | 18,08  |
| liquid temp      | 4,4  | 40   | 1799,8           | 6147    | 1548,9   | 2,95  | 10,08    | 2,54      | 609,9 | 7,38 | 21,03  |
| Tliq= 45/113     | 10   | 50   | 2139,1           | 7305    | 1840,9   | 3,36  | 11,46    | 2,89      | 637,3 | 7,58 | 25,28  |
| [°C / °F]        | -25  | -13  | 498,1            | 1701    | 428,7    | 1,18  | 4,03     | 1,01      | 422,5 | 6,09 | 6,20   |
| cond. pressure   | -23  | -10  | 542,7            | 1853    | 467,1    | 1,24  | 4,23     | 1,07      | 438,1 | 6,18 | 6,77   |
| pc= 55/131       | -15  | 5    | 789,0            | 2695    | 679,0    | 1,53  | 5,22     | 1,32      | 515,9 | 6,66 | 9,92   |
| return gas temp  | -9   | 15   | 979,9            | 3347    | 843,3    | 1,73  | 5,90     | 1,49      | 566,8 | 7,00 | 12,40  |
| RGT= 32/90       | 0    | 32   | 1367,3           | 4670    | 1176,7   | 2,11  | 7,20     | 1,82      | 648,2 | 7,57 | 17,56  |
| liquid temp      | 4,4  | 40   | 1582,1           | 5403    | 1361,5   | 2,32  | 7,91     | 1,99      | 683,0 | 7,83 | 20,49  |
| Tliq= 55/131     | 10   | 50   | 1884,1           | 6435    | 1621,5   | 2,61  | 8,91     | 2,24      | 722,4 | 8,13 | 24,70  |

## Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | <b>115V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

## Configuration

|                        |              |        |
|------------------------|--------------|--------|
| Motorconfiguration     | CSIR         |        |
| Power supply (nominal) | 115V/60Hz 1~ |        |
| Refrigerant            | R290         |        |
| Application            | MBP          |        |
| Voltage range          | 95-135V      |        |
| Starting torque        | HST          |        |
| Approvals              | UL           | SA3693 |
|                        | CCC          |        |

## Electrical accessories / wiring diagram



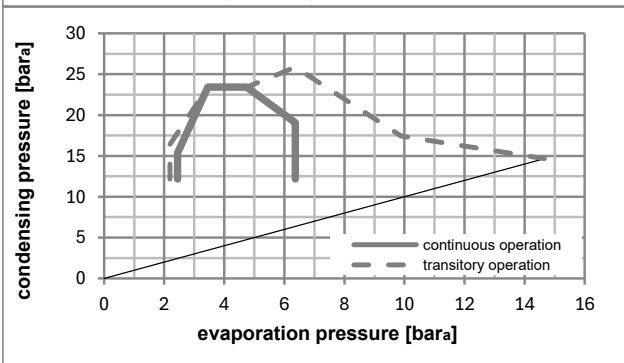
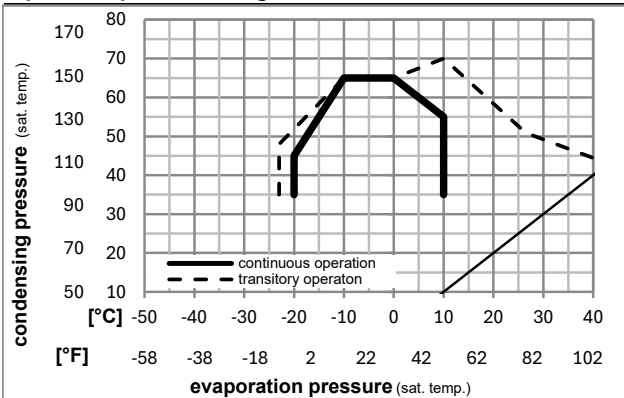
## Ambient/ machine room temperatures minimum /maximum

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                          | 117U7020 |
| c  | start capacitor (240μF, 6,3mm) | 117U5073 |
| b  | plastic cover                  | 103N2011 |
| d  | cord relief                    | 103N1010 |

## Alternative components

|    |                                 |          |
|----|---------------------------------|----------|
| a2 | relay                           | 117U7020 |
| c  | start capacitor (240μF, 15kOhm) | 117U5034 |
| b  | plastic cover                   | 103N2011 |
| d  | cord relief                     | 103N1010 |

### Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | <b>115V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

### Optimization + standard conditions

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

|      |      | Evaporating pressure (saturation temperature) |      |      |      | Cooling capacity |         |          | COP   | EER      | Power consumption   |       |                |        |             |
|------|------|---|------|------|------|------------------|---------|----------|-------|----------|---------------------|-------|----------------|--------|-------------|
|      |      | Condensing pressure (saturation temperature)  |      |      |      |                  |         |          |       |          | Current consumption |       | Ref. mass flow |        |             |
|      |      | Return gas temp.                              |      |      |      |                  |         |          |       |          |                     |       |                |        |             |
|      |      | 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] | [°F] |                  |         |          |       |          |                     | [W]   | [A]            | [kg/h] |             |
| -7   | 20   | 54  | 130  | 35   | 95   | 1202,7           | 4107    | 1035,1   | 2,04  | 6,97     | 1,76                | 589,1 | 7,15           | 13,72  | ASHRAE MBP  |
| -10  | 14   | 55  | 131  | 32   | 90   | 959,7            | 3278    | 825,9    | 1,71  | 5,83     | 1,47                | 561,8 | 6,96           | 12,14  | cecomaf MBP |
| -10  | 14   | 45  | 113  | 20   | 68   | 1058,4           | 3615    | 910,9    | 2,04  | 6,96     | 1,75                | 519,1 | 6,77           | 12,99  | EN12900 MBP |
| -7   | 20   | 49  | 120  | 18   | 65   | 1124,6           | 3841    | 967,8    | 2,00  | 6,83     | 1,72                | 562,1 | 7,01           | 14,60  | ARI540 MBP  |
| -10  | 14   | 45  | 113  | 32   | 90   | 1101,8           | 3763    | 948,2    | 2,12  | 7,25     | 1,83                | 519,1 | 6,77           | 12,61  | opt         |
| -25  | -13  | 45  | 113  | 32   | 90   | 594,0            | 2029    | 511,2    | 1,45  | 4,94     | 1,24                | 410,8 | 6,09           | 6,70   | opt         |

### Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, UL, 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]        | -20  | -4   | 743,8            | 2540    | 640,1    | 1,66  | 5,68     | 1,43      | 447,3 | 6,31 | 8,42   |   |
| cond. pressure   | -15  | 5    | 912,1            | 3115    | 784,9    | 1,89  | 6,44     | 1,62      | 483,7 | 6,54 | 10,38  |   |
| pc= 45/113       | -9   | 15   | 1124,4           | 3840    | 967,7    | 2,15  | 7,34     | 1,85      | 523,0 | 6,79 | 12,87  |   |
| return gas temp. | -7   | 20   | 1241,9           | 4241    | 1068,8   | 2,29  | 7,83     | 1,97      | 541,9 | 6,92 | 14,27  |   |
| RGT= 32/90       | 0    | 32   | 1558,6           | 5323    | 1341,3   | 2,67  | 9,11     | 2,29      | 584,5 | 7,21 | 18,08  |   |
| liquid temp      | 4,4  | 40   | 1799,8           | 6147    | 1548,9   | 2,95  | 10,08    | 2,54      | 609,9 | 7,38 | 21,03  |   |
| Tliq= 45/113     | 10   | 50   | 2139,1           | 7305    | 1840,9   | 3,36  | 11,46    | 2,89      | 637,3 | 7,58 | 25,28  |   |
| [°C / °F]        | -20  | -4   | 636,2            | 2173    | 547,5    | 1,36  | 4,63     | 1,17      | 469,2 | 6,37 | 7,96   |   |
| cond. pressure   | -15  | 5    | 789,0            | 2695    | 679,0    | 1,53  | 5,22     | 1,32      | 515,9 | 6,66 | 9,92   |   |
| pc= 55/131       | -9   | 15   | 979,9            | 3347    | 843,3    | 1,73  | 5,90     | 1,49      | 566,8 | 7,00 | 12,40  |   |
| return gas temp  | -7   | 20   | 1085,0           | 3705    | 933,8    | 1,83  | 6,26     | 1,58      | 591,6 | 7,17 | 13,79  |   |
| RGT= 32/90       | 0    | 32   | 1367,3           | 4670    | 1176,7   | 2,11  | 7,20     | 1,82      | 648,2 | 7,57 | 17,56  |   |
| liquid temp      | 4,4  | 40   | 1582,1           | 5403    | 1361,5   | 2,32  | 7,91     | 1,99      | 683,0 | 7,83 | 20,49  |   |
| Tliq= 55/131     | 10   | 50   | 1884,1           | 6435    | 1621,5   | 2,61  | 8,91     | 2,24      | 722,4 | 8,13 | 24,70  |   |

## Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | <b>115V/60Hz</b> | <b>Conf. 3</b> | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

## Configuration

|                        |              |        |
|------------------------|--------------|--------|
| Motorconfiguration     | RSCR         |        |
| Power supply (nominal) | 115V/60Hz 1~ |        |
| Refrigerant            | R290         |        |
| Application            | MBP          |        |
| Voltage range          | 95-127V      |        |
| Starting torque        | LST          |        |
| Approvals              | UL           | SA3693 |
|                        | CCC          |        |

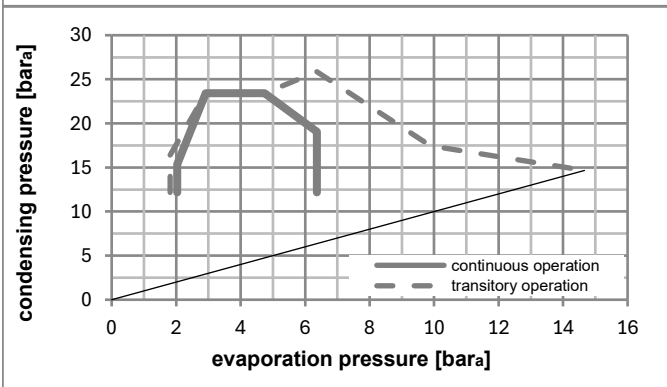
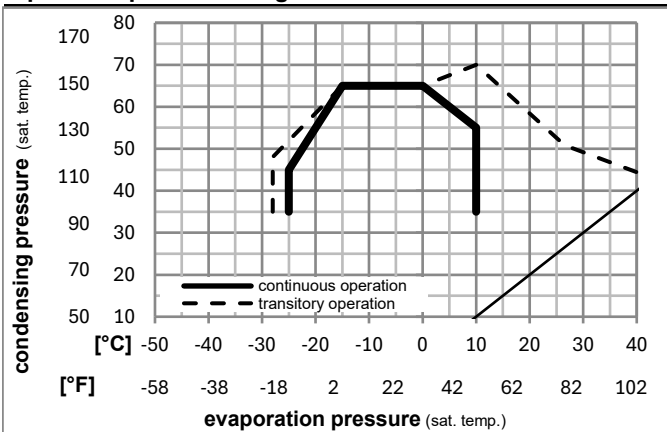
## Electrical accessories / wiring diagram



## 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

|    |                               |          |
|----|-------------------------------|----------|
| a1 | e-PTC starter                 | 103N0058 |
| e  | run capacitor (23,5μF, 6.3mm) | 117-7114 |
| b  | plastic cover                 | 103N2011 |
| d  | cord relief                   | 103N1010 |
|    | bracket for run capacitor     | 117-0300 |
|    | screw M4x8mm                  | 117-0301 |



## Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | <b>115V/60Hz</b> | <b>Conf. 3</b> | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

## Optimization + standard conditions

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

|      |     | Evaporating pressure (saturation temperature) |    |     |        | Condensing pressure (saturation temperature) |         |          |       |          |           | Power consumption   |       |                    |                |
|------|-----|---|----|-----|--------|--|---------|----------|-------|----------|-----------|---------------------|-------|--------------------|----------------|
|      |     | Return gas temp.                              |    |     |        | Liquid temp.                                 |         |          |       |          |           | Current consumption |       |                    | Ref. mass flow |
|      |     | Cooling capacity                              |    |     |        | COP  |         | EER      |       | P1       | I         | m                   |       |                    |                |
|      |     | pe  | pc | RGT | Tliq   | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]                 | [A]   | [kg/h]             |                |
| [°C] | -7  | 54  | 35 | 46  | 1221,4 | 4171   | 1051,2  | 2,20     | 7,51  | 1,89     | 555,5     | 6,74                | 13,93 | <b>ASHRAE MBP</b>  |                |
| [°F] | 20  | 130   | 95 | 115 |        |  |         |          |       |          |           |                     |       |                    |                |
| [°C] | -10 | 55  | 32 | 55  | 975,1  | 3330   | 839,2   | 1,84     | 6,29  | 1,58     | 529,7     | 6,56                | 12,33 | <b>cecomaf MBP</b> |                |
| [°F] | 14  | 131   | 90 | 131 |        |  |         |          |       |          |           |                     |       |                    |                |
| [°C] | -10 | 45  | 20 | 45  | 1067,3 | 3645   | 918,5   | 2,18     | 7,45  | 1,88     | 489,5     | 6,38                | 13,10 | <b>EN12900 MBP</b> |                |
| [°F] | 14  | 113   | 68 | 113 |        |  |         |          |       |          |           |                     |       |                    |                |
| [°C] | -7  | 49  | 18 | 49  | 1138,5 | 3888   | 979,8   | 2,15     | 7,34  | 1,85     | 530,0     | 6,61                | 14,78 | <b>ARI540 MBP</b>  |                |
| [°F] | 20  | 120   | 65 | 120 |        |  |         |          |       |          |           |                     |       |                    |                |
| [°C] | -10 | 45  | 32 | 45  | 1111,1 | 3795   | 956,3   | 2,27     | 7,75  | 1,95     | 489,5     | 6,38                | 12,71 | <b>opt</b>         |                |
| [°F] | 14  | 113   | 90 | 113 |        |  |         |          |       |          |           |                     |       |                    |                |
| [°C] | -25 | 45  | 32 | 45  | 598,4  | 2044   | 515,0   | 1,54     | 5,28  | 1,33     | 387,4     | 5,75                | 6,75  | <b>opt</b>         |                |
| [°F] | -13 | 113   | 90 | 113 |        |  |         |          |       |          |           |                     |       |                    |                |

## Performance tables

R290, 115V/60Hz, RSCR, fan 3m/s, UL, 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]        | -25  | -13  | 598,4            | 2044    | 515,0    | 1,54  | 5,28     | 1,33      | 387,4 | 5,75 | 6,75   |   |
| cond. pressure   | -23  | -10  | 647,1            | 2210    | 556,9    | 1,62  | 5,54     | 1,40      | 398,8 | 5,81 | 7,31   |   |
| pc= 45/113       | -15  | 5    | 919,7            | 3141    | 791,5    | 2,02  | 6,89     | 1,74      | 456,0 | 6,17 | 10,46  |   |
| return gas temp. | -9   | 15   | 1133,9           | 3872    | 975,8    | 2,30  | 7,85     | 1,98      | 493,1 | 6,40 | 12,98  |   |
| RGT= 32/90       | 0    | 32   | 1572,1           | 5369    | 1353,0   | 2,85  | 9,74     | 2,45      | 551,1 | 6,79 | 18,23  |   |
| liquid temp      | 4,4  | 40   | 1815,8           | 6201    | 1562,7   | 3,16  | 10,78    | 2,72      | 575,1 | 6,96 | 21,22  |   |
| Tliq= 45/113     | 10   | 50   | 2158,8           | 7373    | 1857,9   | 3,59  | 12,27    | 3,09      | 601,0 | 7,14 | 25,51  |   |
| [°C / °F]        | -25  | -13  | 508,1            | 1735    | 437,3    | 1,28  | 4,36     | 1,10      | 398,4 | 5,75 | 6,33   |   |
| cond. pressure   | -23  | -10  | 553,3            | 1889    | 476,1    | 1,34  | 4,57     | 1,15      | 413,0 | 5,83 | 6,90   |   |
| pc= 55/131       | -15  | 5    | 802,5            | 2741    | 690,7    | 1,65  | 5,63     | 1,42      | 486,5 | 6,28 | 10,09  |   |
| return gas temp  | -9   | 15   | 995,5            | 3400    | 856,8    | 1,86  | 6,36     | 1,60      | 534,5 | 6,60 | 12,60  |   |
| RGT= 32/90       | 0    | 32   | 1387,3           | 4738    | 1193,9   | 2,27  | 7,75     | 1,95      | 611,2 | 7,13 | 17,82  |   |
| liquid temp      | 4,4  | 40   | 1604,7           | 5480    | 1381,0   | 2,49  | 8,51     | 2,14      | 644,0 | 7,38 | 20,78  |   |
| Tliq= 55/131     | 10   | 50   | 1910,7           | 6525    | 1644,3   | 2,81  | 9,58     | 2,41      | 681,1 | 7,67 | 25,05  |   |

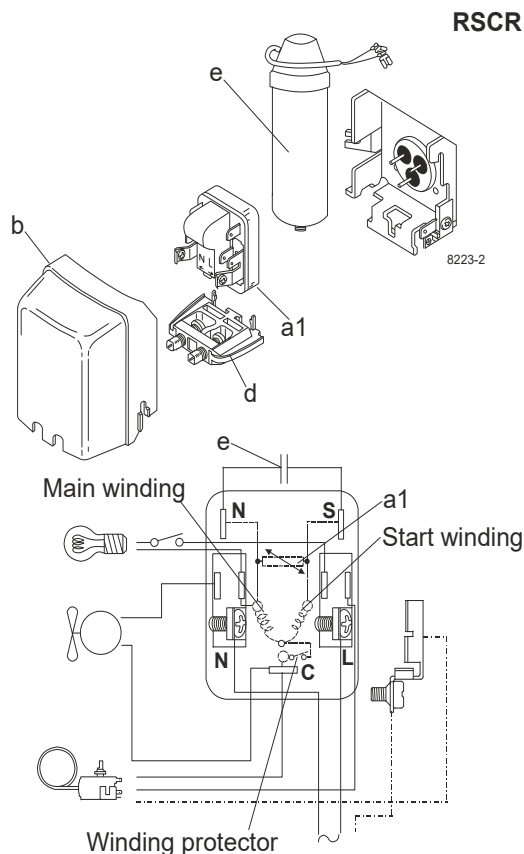
## Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | <b>115V/60Hz</b> | <b>Conf. 4</b> | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

## Configuration

|                        |              |        |
|------------------------|--------------|--------|
| Motorconfiguration     | RSCR         |        |
| Power supply (nominal) | 115V/60Hz 1~ |        |
| Refrigerant            | R290         |        |
| Application            | MBP          |        |
| Voltage range          | 95-135V      |        |
| Starting torque        | LST          |        |
| Approvals              | UL           | SA3693 |
|                        | CCC          |        |

## Electrical accessories / wiring diagram



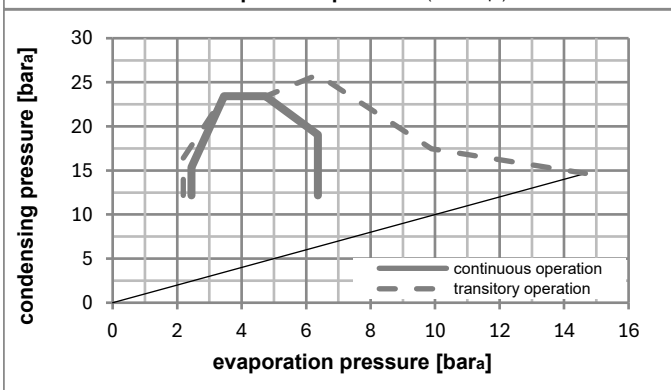
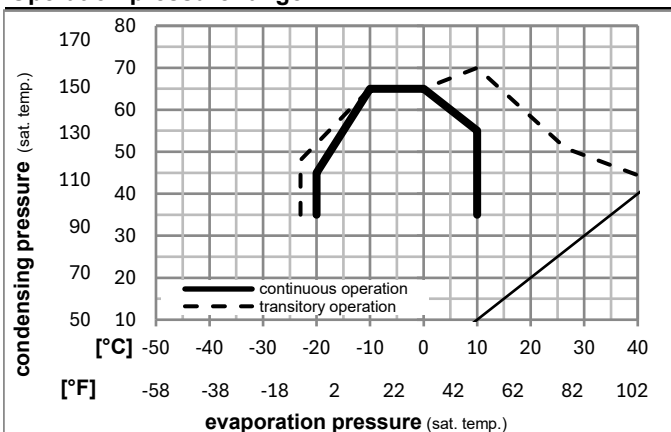
## Ambient/ machine room temperatures minimum /maximum

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

|    |                               |          |
|----|-------------------------------|----------|
| a1 | e-PTC starter                 | 103N0058 |
| e  | run capacitor (23,5μF, 6.3mm) | 117-7114 |
| b  | plastic cover                 | 103N2011 |
| d  | cord relief                   | 103N1010 |
|    | bracket for run capacitor     | 117-0300 |
|    | screw M4x8mm                  | 117-0301 |

### Model

|             |                |                  |                |             |                 |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NLE11MN</b> | <b>115V/60Hz</b> | <b>Conf. 4</b> | Sales code: | <b>105H5980</b> |
|-------------|----------------|------------------|----------------|-------------|-----------------|

### Optimization + standard conditions

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

|      |      | 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]              |  |                    |     |                   |  |  |
| -7   | 20   | 54  | 35 | 46  | 1221,4 | 4171   | 1051,2  | 2,20     | 7,51             | 1,89     | 555,5        | 6,74 | 13,93            |                     |  | <b>ASHRAE MBP</b>  |     |                   |  |  |
| -10  | 14   | 55  | 32 | 55  | 975,1  | 3330   | 839,2   | 1,84     | 6,29             | 1,58     | 529,7        | 6,56 | 12,33            |                     |  | <b>cecomaf MBP</b> |     |                   |  |  |
| -10  | 14   | 45  | 20 | 45  | 1067,3 | 3645   | 918,5   | 2,18     | 7,45             | 1,88     | 489,5        | 6,38 | 13,10            |                     |  | <b>EN12900 MBP</b> |     |                   |  |  |
| -7   | 20   | 49  | 18 | 49  | 1138,5 | 3888   | 979,8   | 2,15     | 7,34             | 1,85     | 530,0        | 6,61 | 14,78            |                     |  | <b>ARI540 MBP</b>  |     |                   |  |  |
| -10  | 14   | 45  | 32 | 45  | 1111,1 | 3795   | 956,3   | 2,27     | 7,75             | 1,95     | 489,5        | 6,38 | 12,71            |                     |  | <b>opt</b>         |     |                   |  |  |
| -25  | -13  | 45  | 32 | 45  | 598,4  | 2044   | 515,0   | 1,54     | 5,28             | 1,33     | 387,4        | 5,75 | 6,75             |                     |  | <b>opt</b>         |     |                   |  |  |

### Performance tables

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

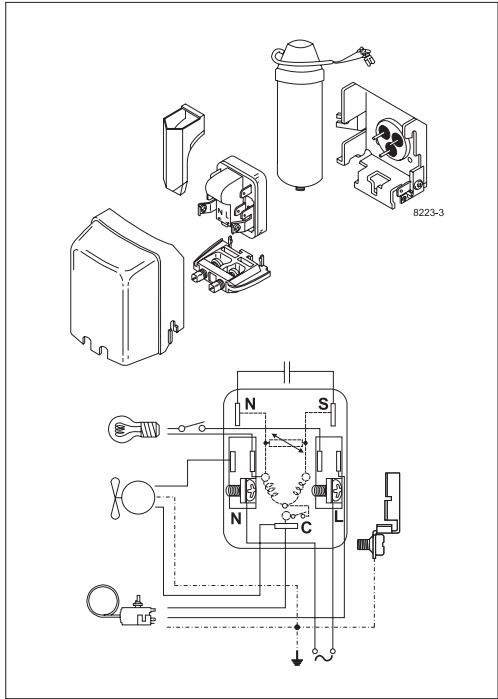
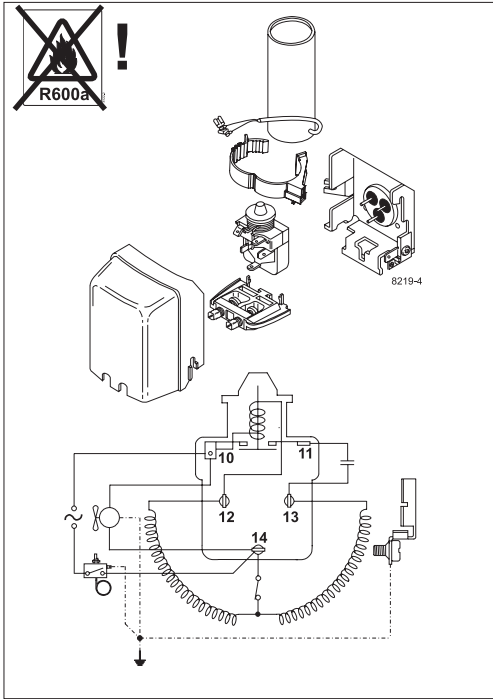
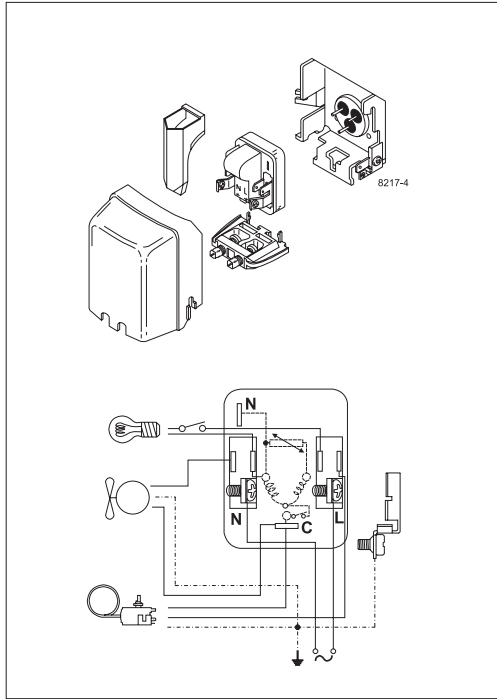
|                  | pe   |      | Cooling capacity |         |          | COP   | EER      | P1        |       |      | I      | m |
|------------------|------|------|------------------|---------|----------|-------|----------|-----------|-------|------|--------|---|
|                  | [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]   | [A]  | [kg/h] |   |
| [°C / °F]        | -20  | -4   | 749,9            | 2561    | 645,3    | 1,78  | 6,07     | 1,53      | 421,8 | 5,95 | 8,49   |   |
| cond. pressure   | -15  | 5    | 919,7            | 3141    | 791,5    | 2,02  | 6,89     | 1,74      | 456,0 | 6,17 | 10,46  |   |
| pc= 45/113       | -9   | 15   | 1133,9           | 3872    | 975,8    | 2,30  | 7,85     | 1,98      | 493,1 | 6,40 | 12,98  |   |
| return gas temp. | -7   | 20   | 1252,4           | 4277    | 1077,8   | 2,45  | 8,37     | 2,11      | 511,0 | 6,52 | 14,39  |   |
| RGT= 32/90       | 0    | 32   | 1572,1           | 5369    | 1353,0   | 2,85  | 9,74     | 2,45      | 551,1 | 6,79 | 18,23  |   |
| liquid temp      | 4,4  | 40   | 1815,8           | 6201    | 1562,7   | 3,16  | 10,78    | 2,72      | 575,1 | 6,96 | 21,22  |   |
| Tliq= 45/113     | 10   | 50   | 2158,8           | 7373    | 1857,9   | 3,59  | 12,27    | 3,09      | 601,0 | 7,14 | 25,51  |   |
| [°C / °F]        | -20  | -4   | 647,9            | 2213    | 557,6    | 1,46  | 5,00     | 1,26      | 442,5 | 6,01 | 8,10   |   |
| cond. pressure   | -15  | 5    | 802,5            | 2741    | 690,7    | 1,65  | 5,63     | 1,42      | 486,5 | 6,28 | 10,09  |   |
| pc= 55/131       | -9   | 15   | 995,5            | 3400    | 856,8    | 1,86  | 6,36     | 1,60      | 534,5 | 6,60 | 12,60  |   |
| return gas temp  | -7   | 20   | 1101,8           | 3763    | 948,2    | 1,98  | 6,75     | 1,70      | 557,8 | 6,76 | 14,00  |   |
| RGT= 32/90       | 0    | 32   | 1387,3           | 4738    | 1193,9   | 2,27  | 7,75     | 1,95      | 611,2 | 7,13 | 17,82  |   |
| liquid temp      | 4,4  | 40   | 1604,7           | 5480    | 1381,0   | 2,49  | 8,51     | 2,14      | 644,0 | 7,38 | 20,78  |   |
| Tliq= 55/131     | 10   | 50   | 1910,7           | 6525    | 1644,3   | 2,81  | 9,58     | 2,41      | 681,1 | 7,67 | 25,05  |   |



8238-20

# NL Compressors

**SECOP**





## 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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