

## Model

|             |                 |                         |             |                 |
|-------------|-----------------|-------------------------|-------------|-----------------|
| Designation | <b>NLE11CNL</b> | <b>115-127V/60Hz 1~</b> | Sales code: | <b>105H5981</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               | 300cm <sup>3</sup> / 10,1fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 150g / 5,3oz                    |                       |                                  |
| Free gas volume comp.      | 2360cm <sup>3</sup> / 79,8fl.oz |                       |                                  |
| Weight                     | 12,13kg / 26,7lbs               |                       |                                  |
| Motor protection           | 1# internal                     |                       |                                  |
| Winding resistance main    | 1,1Ω (at 25°C)                  |                       |                                  |
| Winding resistance aux     | 3,61Ω (at 25°C)                 |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                  |



## General - Configurations with NLE11CNL

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

## Applications with NLE11CNL

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

## Electrical data - Configurations with NLE11CNL

|                              | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------------|----------------|----------------|
| Starting device type         | relay          | PTC            |
| Run capacitor                | -/-            | 23,5μF         |
| Start capacitor              | 180μF          | -/-            |
| LRA (locked rotor amps / 4s) | 28,67A         | 29,91A         |
| RLA (rated load amps / 1s)   | 5,74A          | 5,74A          |
| Cut in current               | 28,67A         | 39,82A         |
| IP class                     | 21             | 21             |

## Model

Designation

**NLE11CNL**

**115-127V/60Hz 1~**

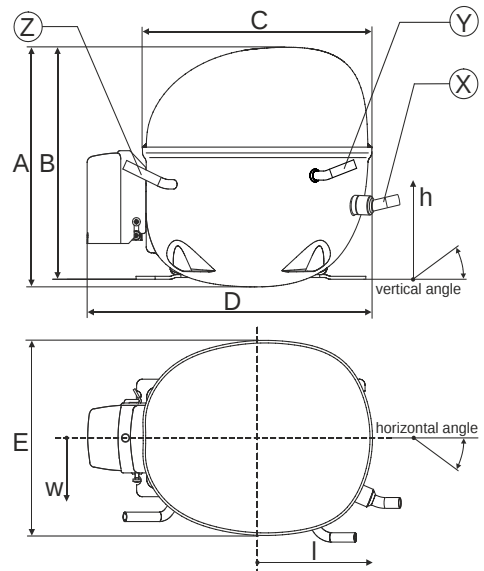
Sales code:

**105H5981**

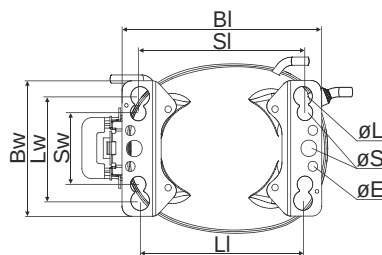
## Compressor dimensions

|                |                   |                |
|----------------|-------------------|----------------|
| <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<br>X | Discharge<br>Y | Process<br>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°       | 22°          | 0°             | 0°           |
| Vertical angle ±2°         | 45°          | 35°            | 155°         |
| Position l/h/w [mm]        | 128/79/61    | 88/95/85       | -112/97/68   |
| [in]                       | 5/3,1/2,4    | 3,5/3,7/3,3    | -4,4/3,8/2,7 |
| Straight tube l. [mm]      | 12           | 12             | 12           |
| [in]                       | 0,5          | 0,5            | 0,5          |

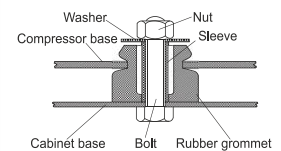


## Compressor fixation

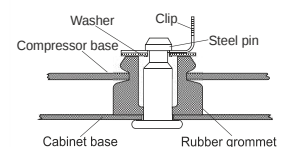


| Baseplate   | [mm]  | [inch] |
|-------------|-------|--------|
| BI          | 204   | 8.03   |
| BW          | 132   | 5.2    |
| øE          | ø 9.7 | ø 0.38 |
| Large holes | [mm]  | [inch] |
| LI          | 165   | 6.5    |
| LW          | 101.6 | 4      |
| øL          | ø 19  | ø 0.75 |
| Small holes | [mm]  | [inch] |
| SI          | 170   | 6.7    |
| SW          | 70    | 2.76   |
| øS          | ø 16  | ø 0.63 |

## Bolt joint



## Snap-on



## Mounting accessories

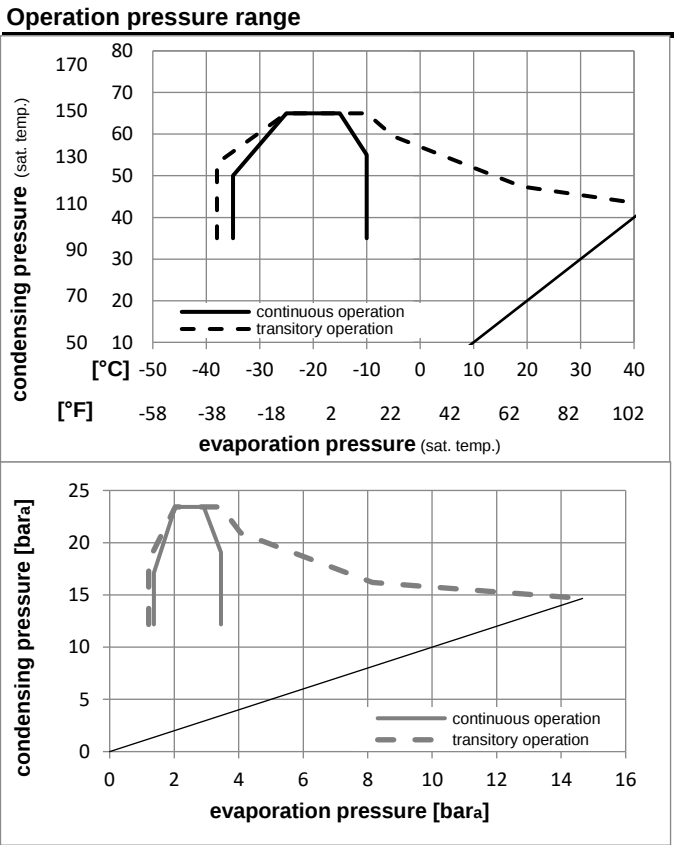
|                            | one comp. | multi pack |
|----------------------------|-----------|------------|
| Bolt joint   M6   ø16mm    | 118-1917  | 118-1918   |
| Bolt joint   ø1/4"   ø16mm | 118-1946  |            |
| Bolt joint   ø1/4"   ø19mm | 118-1949  |            |
| Snap-on   ø7,3   ø16mm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

|             |          |           |         |                      |
|-------------|----------|-----------|---------|----------------------|
| Model       |          |           |         |                      |
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| Configuration          |              |        | Electrical accessories / wiring diagram                                            |  |
|------------------------|--------------|--------|------------------------------------------------------------------------------------|--|
| Motorconfiguration     | CSIR         |        |  |  |
| Power supply (nominal) | 115V/60Hz 1~ |        |                                                                                    |  |
| Refrigerant            | R290         |        |                                                                                    |  |
| Application            | LBP          |        |                                                                                    |  |
| Voltage range          | 95-135V      |        |                                                                                    |  |
| Starting torque        | HST          |        |                                                                                    |  |
| Approvals              | UL           | SA3693 |                                                                                    |  |
|                        | CCC          |        |                                                                                    |  |

| Ambient temperatures / system cooling |              |
|---------------------------------------|--------------|
| Ambient temperature min.:             | 10°C / 50°F  |
| Ambient temperature max.:             | 43°C / 110°F |

| System cooling (n/a: outside limits) |          |     |     |
|--------------------------------------|----------|-----|-----|
| T ambient                            | LBP      | MBP | HBP |
| 32°C / 90°F                          | fan 3m/s | n/a | n/a |
| 38°C / 100°F                         | fan 3m/s | n/a | n/a |
| 43°C / 110°F                         | fan 3m/s | n/a | n/a |



| Components |                         |          |
|------------|-------------------------|----------|
| a2         | relay                   | 117U7020 |
| c          | start capacitor (180μF) | 117U5039 |
| b          | plastic cover           | 103N2011 |
| d          | cord relief             | 103N1010 |

## Model

|             |          |           |         |             |          |
|-------------|----------|-----------|---------|-------------|----------|
| Designation | NLE11CNL | 115V/60Hz | Conf. 1 | Sales code: | 105H5981 |
|-------------|----------|-----------|---------|-------------|----------|

## Optimization + standard conditions

115V/60Hz 1~, CSIR, fan 3m/s, UL, CCC

| <div> <div>Evaporating pressure (saturation temperature)</div> <div>Condensing pressure (saturation temperature)</div> <div>Return gas temp.</div> <div>Liquid temp.</div> <div>Cooling capacity</div> <div>COP</div> <div>EER</div> <div>Power consumption</div> <div>Current consumption</div> <div>Ref. mass flow</div> </div> |      |      |      |       |         |          |       |          |           |       |      |        |        |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|-------|---------|----------|-------|----------|-----------|-------|------|--------|--------|-----|
| pe                                                                                                                                                                                                                                                                                                                                | pc   | RGT  | Tliq | [W]   | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1    | I    | m      |        |     |
| [°C]                                                                                                                                                                                                                                                                                                                              | [°C] |      |      |       |         |          |       |          |           | [W]   | [A]  | [kg/h] |        |     |
| [°F]                                                                                                                                                                                                                                                                                                                              | [°F] |      |      |       |         |          |       |          |           |       |      |        | ASHRAE | LBP |
| -23,3                                                                                                                                                                                                                                                                                                                             | 54,4 | 32,2 | 32,2 | 670,7 | 2291    | 577,2    | 1,62  | 5,54     | 1,40      | 413,7 | 4,80 | 6,79   |        |     |
| -10                                                                                                                                                                                                                                                                                                                               | 130  | 90   | 90   |       |         |          |       |          |           |       |      |        |        |     |
| -25                                                                                                                                                                                                                                                                                                                               | 55   | 32   | 55   | 502,3 | 1715    | 432,3    | 1,26  | 4,31     | 1,09      | 398,2 | 4,68 | 6,25   |        |     |
| -13                                                                                                                                                                                                                                                                                                                               | 131  | 89,6 | 131  |       |         |          |       |          |           |       |      |        |        |     |
| -35                                                                                                                                                                                                                                                                                                                               | 40   | 20   | 40   | 384,3 | 1312    | 330,7    | 1,29  | 4,41     | 1,11      | 297,9 | 4,04 | 4,39   |        |     |
| -31                                                                                                                                                                                                                                                                                                                               | 104  | 68   | 104  |       |         |          |       |          |           |       |      |        |        |     |
| -23,3                                                                                                                                                                                                                                                                                                                             | 48,9 | 4,44 | 48,9 | 544,2 | 1859    | 468,3    | 1,35  | 4,60     | 1,16      | 403,8 | 4,73 | 7,54   |        |     |
| -10                                                                                                                                                                                                                                                                                                                               | 120  | 40   | 120  |       |         |          |       |          |           |       |      |        |        |     |
| -23,3                                                                                                                                                                                                                                                                                                                             | 40,6 | 32,2 | 32,2 | 723,3 | 2470    | 622,5    | 1,89  | 6,44     | 1,62      | 383,6 | 4,61 | 7,32   |        |     |
| -10                                                                                                                                                                                                                                                                                                                               | 105  | 90   | 90   |       |         |          |       |          |           |       |      |        |        |     |
| -35                                                                                                                                                                                                                                                                                                                               | 45   | 32   | 45   | 366,5 | 1252    | 315,4    | 1,22  | 4,18     | 1,05      | 299,5 | 4,05 | 4,11   |        |     |
| -31                                                                                                                                                                                                                                                                                                                               | 113  | 89,6 | 113  |       |         |          |       |          |           |       |      |        |        |     |

## Performance tables

115V/60Hz 1~, CSIR, fan 3m/s, UL, CCC

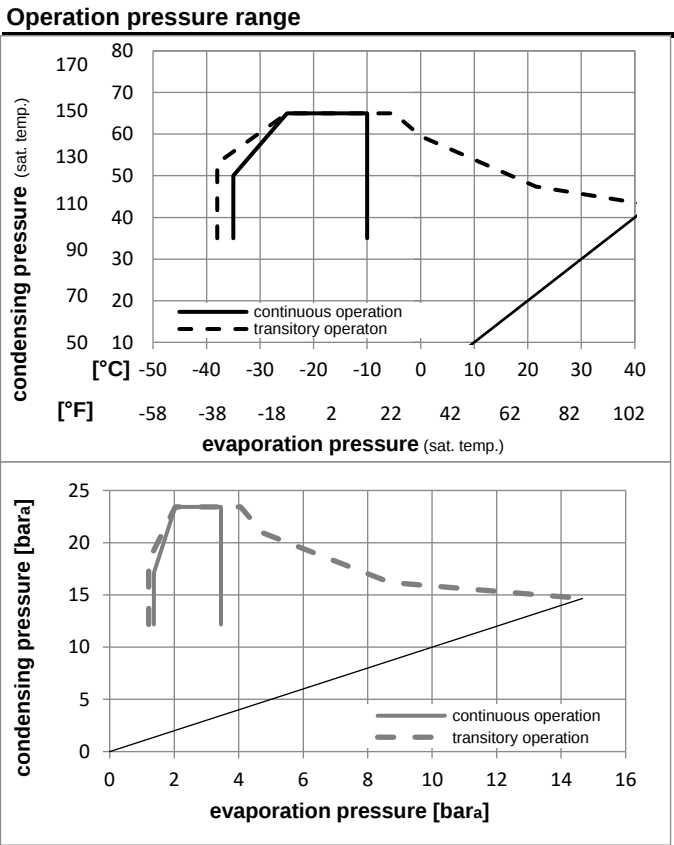
|                  | pe    | Cooling capacity |        |         | COP      |       | EER      |           |       | P1   | I     | m      |
|------------------|-------|------------------|--------|---------|----------|-------|----------|-----------|-------|------|-------|--------|
|                  | [°C]  | [°F]             | [W]    | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] |       | [W]  | [A]   | [kg/h] |
| [°C / °F]        | -35   | -31              | 366,5  | 1252    | 315,4    | 1,22  | 4,18     | 1,05      | 299,5 | 4,05 | 4,11  |        |
| cond. pressure   | -28,9 | -20              | 490,1  | 1674    | 421,8    | 1,40  | 4,77     | 1,20      | 350,9 | 4,35 | 5,51  |        |
| pc= 45/113       | -26,1 | -15              | 558,6  | 1908    | 480,8    | 1,50  | 5,11     | 1,29      | 373,2 | 4,51 | 6,29  |        |
| return gas temp. | -23,3 | -10              | 634,4  | 2167    | 546,0    | 1,61  | 5,48     | 1,38      | 395,1 | 4,67 | 7,16  |        |
| RGT= 32/90       | -20,6 | -5               | 717,2  | 2449    | 617,2    | 1,72  | 5,88     | 1,48      | 416,9 | 4,85 | 8,12  |        |
| liquid temp      | -15   | 5                | 902,2  | 3081    | 776,4    | 1,96  | 6,68     | 1,68      | 461,0 | 5,21 | 10,26 |        |
| Tliq= 45/113     | -10   | 14               | 1089,3 | 3720    | 937,4    | 2,17  | 7,40     | 1,87      | 502,6 | 5,52 | 12,46 |        |
| [°C / °F]        | -35   | -31              | 309,9  | 1058    | 266,7    | 1,05  | 3,59     | 0,91      | 294,5 | 4,07 | 3,83  |        |
| cond. pressure   | -28,9 | -20              | 416,3  | 1422    | 358,3    | 1,16  | 3,96     | 1,00      | 359,2 | 4,42 | 5,17  |        |
| pc= 55/131       | -26,1 | -15              | 476,3  | 1627    | 409,9    | 1,23  | 4,20     | 1,06      | 387,2 | 4,60 | 5,93  |        |
| return gas temp  | -23,3 | -10              | 543,1  | 1855    | 467,4    | 1,31  | 4,47     | 1,13      | 414,6 | 4,80 | 6,77  |        |
| RGT= 32/90       | -20,6 | -5               | 616,4  | 2105    | 530,5    | 1,40  | 4,77     | 1,20      | 441,6 | 5,01 | 7,71  |        |
| liquid temp      | -15   | 5                | 781,1  | 2668    | 672,3    | 1,58  | 5,38     | 1,36      | 495,6 | 5,46 | 9,82  |        |
| Tliq= 55/131     | -10   | 14               | 948,3  | 3239    | 816,1    | 1,74  | 5,94     | 1,50      | 545,5 | 5,87 | 12,00 |        |

|             |          |           |         |                      |
|-------------|----------|-----------|---------|----------------------|
| Model       |          |           |         |                      |
| Designation | NLE11CNL | 115V/60Hz | Conf. 2 | Sales code: 105H5981 |

| Configuration          |                | Electrical accessories / wiring diagram |  |  |
|------------------------|----------------|-----------------------------------------|--|--|
| Motorconfiguration     | RSCR           | <div> <div>RSCR</div> </div>            |  |  |
| Power supply (nominal) | 115V/60Hz 1~   |                                         |  |  |
| Refrigerant            | R290           |                                         |  |  |
| Application            | LBP            |                                         |  |  |
| Voltage range          | 95-135V        |                                         |  |  |
| Starting torque        | LST            |                                         |  |  |
| Approvals              | UL      SA3693 | <div> </div>                            |  |  |
|                        | CCC            |                                         |  |  |

| Ambient temperatures / system cooling |              |
|---------------------------------------|--------------|
| Ambient temperature min.:             | 10°C / 50°F  |
| Ambient temperature max.:             | 43°C / 110°F |

| System cooling (n/a: outside limits) |          |     |     |
|--------------------------------------|----------|-----|-----|
| T ambient                            | LBP      | MBP | HBP |
| 32°C / 90°F                          | fan 3m/s | n/a | n/a |
| 38°C / 100°F                         | fan 3m/s | n/a | n/a |
| 43°C / 110°F                         | fan 3m/s | n/a | n/a |



| 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 |

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

## Optimization + standard conditions

115V/60Hz 1~, RSCR, fan 3m/s, UL, CCC

| <div> <div>Evaporating pressure (saturation temperature)</div> <div>Condensing pressure (saturation temperature)</div> <div>Return gas temp.</div> <div>Liquid temp.</div> <div>Cooling capacity</div> <div>COP</div> <div>EER</div> <div>Power consumption</div> <div>Current consumption</div> <div>Ref. mass flow</div> </div> |      |      |      |       |         |          |       |          |           |       |      |        |        |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|-------|---------|----------|-------|----------|-----------|-------|------|--------|--------|-----|
| pe                                                                                                                                                                                                                                                                                                                                | pc   | RGT  | Tliq | [W]   | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1    | I    | m      |        |     |
| [°C]                                                                                                                                                                                                                                                                                                                              | [°C] |      |      |       |         |          |       |          |           | [W]   | [A]  | [kg/h] |        |     |
| [°F]                                                                                                                                                                                                                                                                                                                              | [°F] |      |      |       |         |          |       |          |           |       |      |        | ASHRAE | LBP |
| -23,3                                                                                                                                                                                                                                                                                                                             | 54,4 | 32,2 | 32,2 | 685,2 | 2340    | 589,7    | 1,77  | 6,04     | 1,52      | 387,2 | 4,49 | 6,94   |        |     |
| -10                                                                                                                                                                                                                                                                                                                               | 130  | 90   | 90   |       |         |          |       |          |           |       |      |        |        |     |
| -25                                                                                                                                                                                                                                                                                                                               | 55   | 32   | 55   | 513,2 | 1753    | 441,6    | 1,38  | 4,70     | 1,19      | 372,6 | 4,38 | 6,39   |        |     |
| -13                                                                                                                                                                                                                                                                                                                               | 131  | 89,6 | 131  |       |         |          |       |          |           |       |      |        |        |     |
| -35                                                                                                                                                                                                                                                                                                                               | 40   | 20   | 40   | 383,9 | 1311    | 330,4    | 1,38  | 4,70     | 1,19      | 278,8 | 3,78 | 4,39   |        |     |
| -31                                                                                                                                                                                                                                                                                                                               | 104  | 68   | 104  |       |         |          |       |          |           |       |      |        |        |     |
| -23,3                                                                                                                                                                                                                                                                                                                             | 48,9 | 4,44 | 48,9 | 553,2 | 1889    | 476,0    | 1,46  | 5,00     | 1,26      | 377,8 | 4,42 | 7,66   |        |     |
| -10                                                                                                                                                                                                                                                                                                                               | 120  | 40   | 120  |       |         |          |       |          |           |       |      |        |        |     |
| -23,3                                                                                                                                                                                                                                                                                                                             | 40,6 | 32,2 | 32,2 | 727,3 | 2484    | 625,9    | 2,03  | 6,92     | 1,74      | 359,0 | 4,31 | 7,36   |        |     |
| -10                                                                                                                                                                                                                                                                                                                               | 105  | 90   | 90   |       |         |          |       |          |           |       |      |        |        |     |
| -35                                                                                                                                                                                                                                                                                                                               | 45   | 32   | 45   | 368,5 | 1258    | 317,1    | 1,31  | 4,49     | 1,13      | 280,2 | 3,79 | 4,13   |        |     |
| -31                                                                                                                                                                                                                                                                                                                               | 113  | 89,6 | 113  |       |         |          |       |          |           |       |      |        |        |     |

## Performance tables

115V/60Hz 1~, 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]        | -35   | -31              | 368,5  | 1258    | 317,1    | 1,31  | 4,49     | 1,13      | 280,2 | 3,79 | 4,13   |
| cond. pressure   | -28,9 | -20              | 494,3  | 1688    | 425,4    | 1,51  | 5,14     | 1,30      | 328,4 | 4,07 | 5,56   |
| pc= 45/113       | -26,1 | -15              | 563,8  | 1926    | 485,3    | 1,61  | 5,51     | 1,39      | 349,2 | 4,22 | 6,35   |
| return gas temp. | -23,3 | -10              | 640,7  | 2188    | 551,4    | 1,73  | 5,92     | 1,49      | 369,7 | 4,37 | 7,23   |
| RGT= 32/90       | -20,6 | -5               | 724,4  | 2474    | 623,5    | 1,86  | 6,34     | 1,60      | 390,1 | 4,54 | 8,20   |
| liquid temp      | -15   | 5                | 911,6  | 3113    | 784,6    | 2,11  | 7,22     | 1,82      | 431,4 | 4,87 | 10,37  |
| Tliq= 45/113     | -10   | 14               | 1100,8 | 3759    | 947,3    | 2,34  | 7,99     | 2,01      | 470,3 | 5,17 | 12,59  |
| [°C / °F]        | -35   | -31              | 316,9  | 1082    | 272,7    | 1,15  | 3,93     | 0,99      | 275,6 | 3,81 | 3,92   |
| cond. pressure   | -28,9 | -20              | 425,7  | 1454    | 366,4    | 1,27  | 4,33     | 1,09      | 336,1 | 4,13 | 5,28   |
| pc= 55/131       | -26,1 | -15              | 486,8  | 1663    | 419,0    | 1,34  | 4,59     | 1,16      | 362,3 | 4,31 | 6,06   |
| return gas temp  | -23,3 | -10              | 554,7  | 1894    | 477,4    | 1,43  | 4,88     | 1,23      | 387,9 | 4,49 | 6,92   |
| RGT= 32/90       | -20,6 | -5               | 629,1  | 2148    | 541,4    | 1,52  | 5,20     | 1,31      | 413,2 | 4,69 | 7,86   |
| liquid temp      | -15   | 5                | 796,0  | 2719    | 685,1    | 1,72  | 5,86     | 1,48      | 463,8 | 5,11 | 10,01  |
| Tliq= 55/131     | -10   | 14               | 965,4  | 3297    | 830,8    | 1,89  | 6,46     | 1,63      | 510,4 | 5,50 | 12,21  |