

## Model

|             |               |                                 |             |                 |
|-------------|---------------|---------------------------------|-------------|-----------------|
| Designation | <b>NF10FX</b> | <b>220V/60Hz 1~220V/50Hz 1~</b> | Sales code: | <b>105G6846</b> |
|-------------|---------------|---------------------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R134a</b>                     |
| Oil viscosity              | 32cSt                           | Displacement          | 10,09cm <sup>3</sup> / 0,62cu.in |
| Oil quantity               | 300cm <sup>3</sup> / 10,1fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 460g / 16,2oz                   |                       |                                  |
| Free gas volume comp.      | 2360cm <sup>3</sup> / 79,8fl.oz |                       |                                  |
| Weight                     | 10,5kg / 23,1lbs                |                       |                                  |
| Motor protection           | external                        |                       |                                  |
| Winding resistance main    | 4,5Ω (at 25°C)                  |                       |                                  |
| Winding resistance aux     | 12,8Ω (at 25°C)                 |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 110°C / 230°F                   |                       |                                  |



## General - Configurations with NF10FX

|                        | <b>Conf. 1</b>    | <b>Conf. 2</b>    |
|------------------------|-------------------|-------------------|
| Motorconfiguration     | CSIR              | CSIR              |
| Power supply (nominal) | 220-230V/50Hz     | 208-230V/60Hz     |
| Number of phases       | 1                 | 1                 |
| Voltage range          | 198-242V          | 198-242V          |
| Approvals              | UL, VDE, CCC, EAC | UL, VDE, CCC, EAC |
| Starting torque        | HST               | HST               |
| Note                   | - / -             |                   |

## Applications with NF10FX

|                         | <b>Conf. 1</b> | <b>Conf. 2</b> |
|-------------------------|----------------|----------------|
| Refrigerant             | R134a          | R134a          |
| Application             | LBP+MBP        | LBP+MBP        |
| System cooling          | fan 1,5m/s     | fan 3m/s       |
| Hot gas defrost         | OK             | OK             |
| Long interval pull down | OK             | OK             |

## Electrical data - Configurations with NF10FX

|                              | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------------|----------------|----------------|
| Starting device type         | relay          | relay          |
| Run capacitor                | -/-            | -/-            |
| Start capacitor              | 125μF          | 125μF          |
| LRA (locked rotor amps / 4s) | 20A            | 19,4A          |
| RLA (rated load amps / 1s)   | 3,7A           | 3,24A          |
| Cut in current               | 20A            | 19,4A          |
| IP class                     | 21             | 21             |

## Model

Designation

**NF10FX**

220V/60Hz 1~220V/50Hz 1~

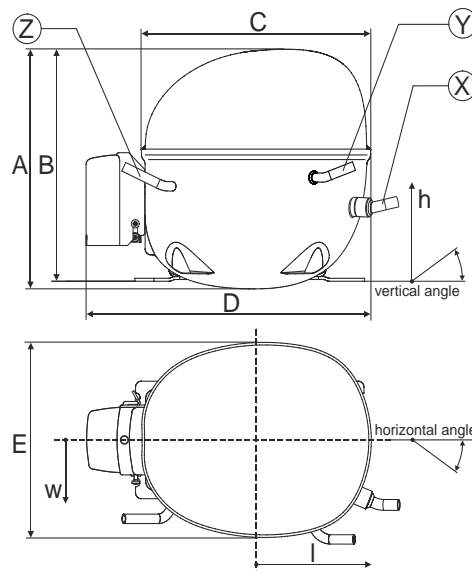
Sales code:

**105G6846**

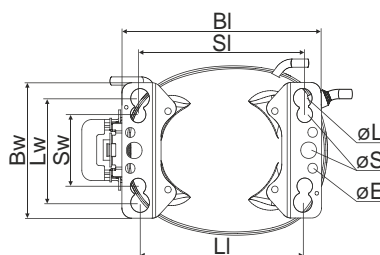
## Compressor dimensions

| 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°          | 35°          | 155°         |
| Position l/h/w   | [mm]                       | 126/76/78    | 133/103/54   | -107/94/72   |
|                  | [in]                       | 5/3/3,1      | 5,2/4/2,1    | -4,2/3,7/2,8 |
| Straight tube l. | [mm]                       | 12           | 12           | 12           |
|                  | [in]                       | 0,5          | 0,5          | 0,5          |

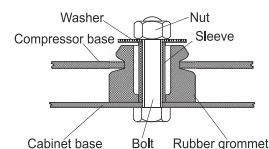


## Compressor fixation

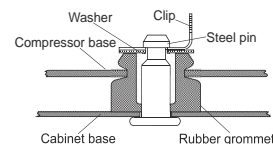


| Baseplate   | [mm]  | [inch] |
|-------------|-------|--------|
| BI          | 204   | 8.03   |
| BW          | 132   | 5.2    |
| øE          | ø 9.7 | ø 0.38 |
| Large holes | [mm]  | [inch] |
| LJ          | 165   | 6.5    |
| Lw          | 101.6 | 4      |
| øL          | ø 19  | ø 0.75 |
| Small 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   |

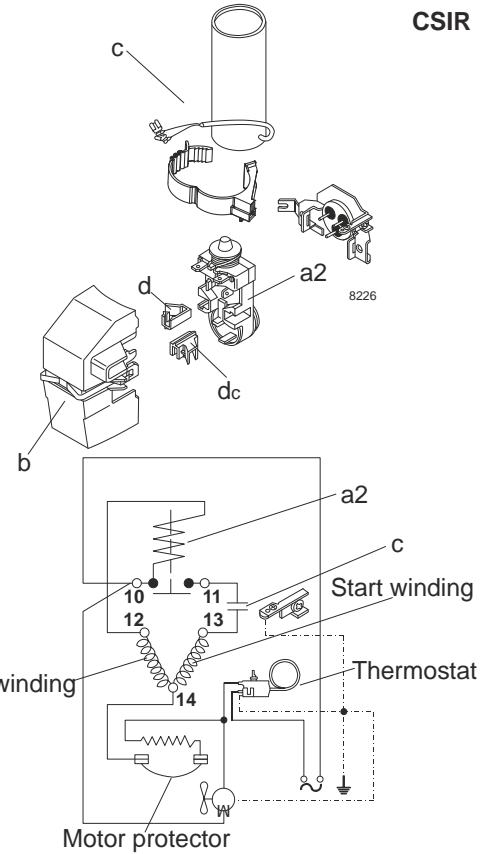
## Model

|             |        |               |         |             |          |
|-------------|--------|---------------|---------|-------------|----------|
| Designation | NF10FX | 220-230V/50Hz | Conf. 1 | Sales code: | 105G6846 |
|-------------|--------|---------------|---------|-------------|----------|

## Configuration

|                        |                  |        |
|------------------------|------------------|--------|
| Motorconfiguration     | CSIR             |        |
| Power supply (nominal) | 220-230V/50Hz 1~ |        |
| Refrigerant            | R134a            |        |
| Application            | LBP+MBP          |        |
| Voltage range          | 198-242V         |        |
| Starting torque        | HST              |        |
| Approvals              | UL               | SA3693 |
|                        | VDE              |        |
|                        | CCC              |        |
|                        | EAC              |        |

## Electrical accessories / wiring diagram

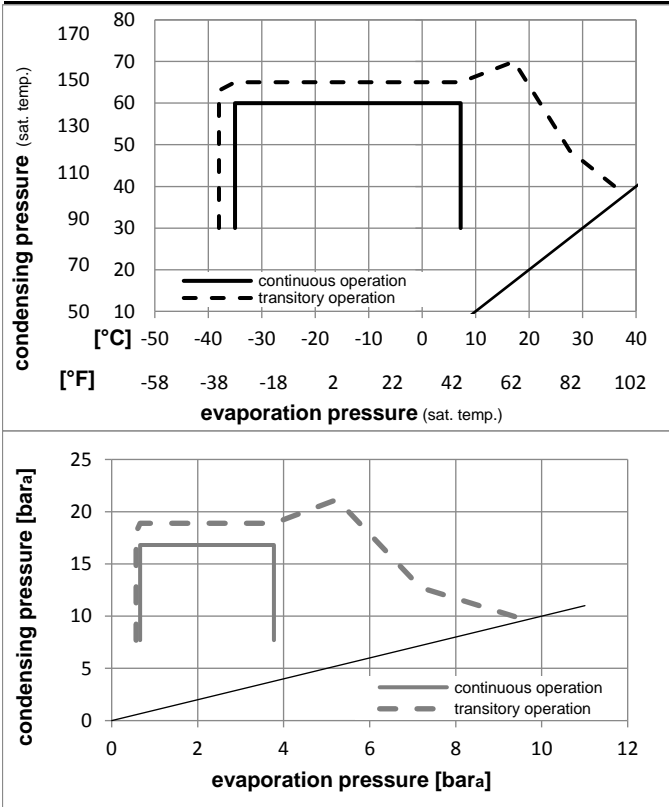


## Ambient temperatures / system cooling

|                           |              |
|---------------------------|--------------|
| Ambient temperature min.: | 10°C / 50°F  |
| Ambient temperature max.: | 38°C / 101°F |

| System cooling |            |            |     |
|----------------|------------|------------|-----|
| T ambient      | LBP        | MBP        | HBP |
| 32°C / 90°F    | fan 1,5m/s | fan 1,5m/s | n/a |
| 38°C / 100°F   | fan 3m/s   | fan 3m/s   | n/a |
| 43°C / 110°F   | n/a        | n/a        | n/a |

## Operation pressure range



## Components

|    |                                 |          |
|----|---------------------------------|----------|
| a2 | relay (protector: TI MRP56EN-6) | 117U4139 |
| c  | start capacitor                 | 117U5018 |
| b  | plastic cover                   | 117U1021 |
| d  | cord relief                     | 117U0349 |
| d  | cord relief                     | 117U0349 |

## Alternative components:

|    |                                 |          |
|----|---------------------------------|----------|
| a2 | relay (protector: TI MRP56EN-6) | 117U4139 |
| c  | start capacitor                 | 117U5018 |
| b  | plastic cover                   | 117U1021 |
| d  | cord relief                     | 117U0349 |
| d  | cord relief                     | 117U0317 |

### Model

|             |               |                      |                |             |                 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>NF10FX</b> | <b>220-230V/50Hz</b> | <b>Conf. 1</b> | Sales code: | <b>105G6846</b> |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

### Optimization + standard conditions

220-230V/50Hz 1~, CSIR, fan 1,5m/s, UL, VDE, CCC, EAC

|  | Evaporating pressure (saturation temperature) |      |      |      | Condensing pressure (saturation temperature) |         |          |       |          |           | Power consumption |                |        | ASHRAE LBP  |
|--|---|------|------|------|--|---------|----------|-------|----------|-----------|-------------------|----------------|--------|-------------|
|  | pe  | pc   | RGT  | Tliq | Cooling capacity                             |         |          | COP   | EER      | P1        | I                 | Ref. mass flow |        |             |
|  | [°C]  | [°F] | [°C] | [°F] | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]               | [A]            | [kg/h] |             |
|  | -23,3   | 54,4 | 32,2 | 32,2 | 266,5  | 910     | 229,4    | 0,94  | 3,22     | 0,81      | 282,7             | 2,75           | 5,18   | ASHRAE LBP  |
|  | -10   | 130  | 90   | 90   |  |         |          |       |          |           |                   |                |        |             |
|  | -25   | 55   | 32   | 55   | 196,4  | 671     | 169,0    | 0,72  | 2,47     | 0,62      | 271,1             | 2,73           | 4,70   | cecomaf LBP |
|  | -13   | 131  | 89,6 | 131  |  |         |          |       |          |           |                   |                |        |             |
|  | -35   | 40   | 20   | 40   | 137,8  | 471     | 118,6    | 0,65  | 2,24     | 0,56      | 210,6             | 2,67           | 3,02   | EN12900 LBP |
|  | -31   | 104  | 68   | 104  |  |         |          |       |          |           |                   |                |        |             |
|  | -23,3   | 48,9 | 4,44 | 48,9 | 216,9  | 741     | 186,6    | 0,76  | 2,60     | 0,66      | 284,5             | 2,76           | 5,73   | ARI540 LBP  |
|  | -10   | 120  | 40   | 120  |  |         |          |       |          |           |                   |                |        |             |
|  | -23,3   | 40,6 | 32,2 | 32,2 | 294,6  | 1006    | 253,6    | 1,08  | 3,70     | 0,93      | 272,2             | 2,72           | 5,72   | AHAM LBP    |
|  | -10   | 105  | 90   | 90   |  |         |          |       |          |           |                   |                |        |             |
|  | -35   | 45   | 32   | 45   | 128,4  | 439     | 110,5    | 0,60  | 2,05     | 0,52      | 213,8             | 2,67           | 2,77   | opt         |
|  | -31   | 113  | 89,6 | 113  |  |         |          |       |          |           |                   |                |        |             |

### Performance tables

220-230V/50Hz 1~, CSIR, fan 1,5m/s, UL, VDE, CCC, EAC

|                  | 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              | 128,4  | 439     | 110,5    | 0,60  | 2,05     | 0,52      | 213,8 | 2,67 | 2,77   |   |   |
| cond. pressure   | -23,3 | -10              | 254,9  | 870     | 219,3    | 0,91  | 3,11     | 0,78      | 279,6 | 2,74 | 5,53   |   |   |
| pc= 45/113       | -15   | 5                | 392,2  | 1340    | 337,6    | 1,20  | 4,08     | 1,03      | 328,2 | 2,81 | 8,55   |   |   |
| return gas temp. | -9,4  | 15               | 509,8  | 1741    | 438,7    | 1,41  | 4,83     | 1,22      | 360,5 | 2,86 | 11,16  |   |   |
| RGT= 32/90       | -3,9  | 25               | 650,6  | 2222    | 559,9    | 1,66  | 5,67     | 1,43      | 392,2 | 2,92 | 14,32  |   |   |
| liquid temp      | 0     | 32               | 764,2  | 2610    | 657,7    | 1,85  | 6,31     | 1,59      | 413,8 | 2,96 | 16,90  |   |   |
| Tliq= 45/113     | 7,2   | 45               | 1010,7 | 3452    | 869,9    | 2,24  | 7,63     | 1,92      | 452,2 | 3,05 | 22,58  |   |   |
| [°C / °F]        | -35   | -31              | 103,5  | 353     | 89,0     | 0,49  | 1,67     | 0,42      | 211,0 | 2,65 | 2,46   |   |   |
| cond. pressure   | -23,3 | -10              | 216,4  | 739     | 186,2    | 0,77  | 2,62     | 0,66      | 281,6 | 2,74 | 5,18   |   |   |
| pc= 55/131       | -15   | 5                | 338,8  | 1157    | 291,6    | 1,01  | 3,45     | 0,87      | 335,4 | 2,84 | 8,16   |   |   |
| return gas temp  | -9,4  | 15               | 443,9  | 1516    | 382,1    | 1,19  | 4,08     | 1,03      | 372,1 | 2,92 | 10,74  |   |   |
| RGT= 32/90       | -3,9  | 25               | 570,4  | 1948    | 490,9    | 1,40  | 4,77     | 1,20      | 408,8 | 3,01 | 13,88  |   |   |
| liquid temp      | 0     | 32               | 672,8  | 2298    | 579,0    | 1,55  | 5,29     | 1,33      | 434,3 | 3,07 | 16,46  |   |   |
| Tliq= 55/131     | 7,2   | 45               | 896,1  | 3060    | 771,2    | 1,86  | 6,36     | 1,60      | 480,8 | 3,21 | 22,16  |   |   |

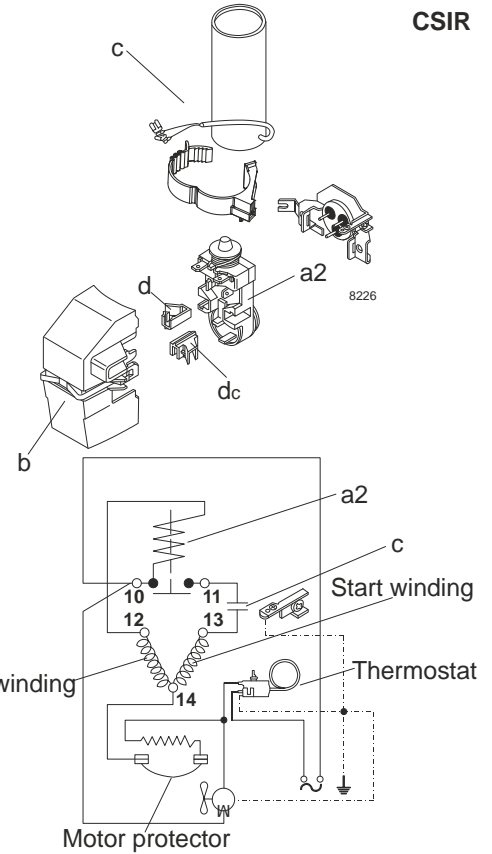
### Model

|             |        |               |         |             |          |
|-------------|--------|---------------|---------|-------------|----------|
| Designation | NF10FX | 208-230V/60Hz | Conf. 2 | Sales code: | 105G6846 |
|-------------|--------|---------------|---------|-------------|----------|

### Configuration

|                        |                  |        |
|------------------------|------------------|--------|
| Motorconfiguration     | CSIR             |        |
| Power supply (nominal) | 208-230V/60Hz 1~ |        |
| Refrigerant            | R134a            |        |
| Application            | LBP+MBP          |        |
| Voltage range          | 198-242V         |        |
| Starting torque        | HST              |        |
| Approvals              | UL               | SA3693 |
|                        | VDE              |        |
|                        | CCC              |        |
|                        | EAC              |        |

### Electrical accessories / wiring diagram

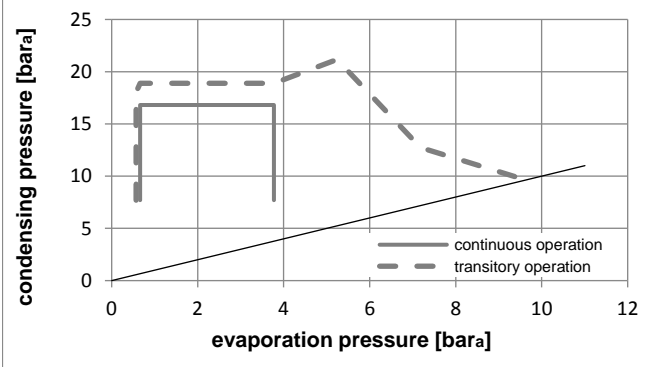
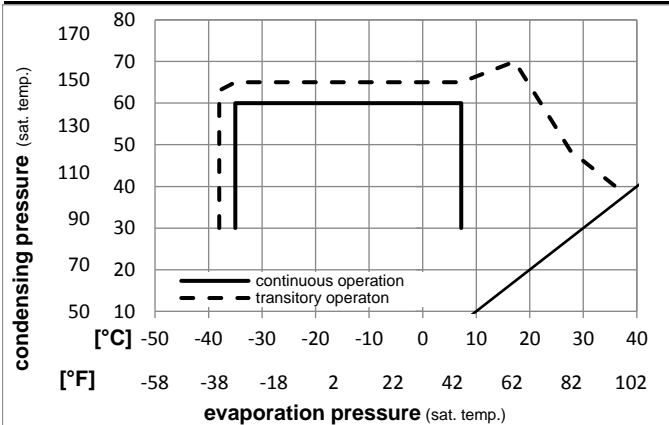


### Ambient temperatures / system cooling

|                           |              |
|---------------------------|--------------|
| Ambient temperature min.: | 10°C / 50°F  |
| Ambient temperature max.: | 38°C / 101°F |

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

### Operation pressure range



### Components

|    |                                 |          |
|----|---------------------------------|----------|
| a2 | relay (protector: TI MRP56EN-6) | 117U4139 |
| c  | start capacitor                 | 117U5018 |
| b  | plastic cover                   | 117U1021 |
| d  | cord relief                     | 117U0349 |
| d  | cord relief                     | 117U0349 |

### Alternative components:

|    |                                 |          |
|----|---------------------------------|----------|
| a2 | relay (protector: TI MRP56EN-6) | 117U4139 |
| c  | start capacitor                 | 117U5018 |
| b  | plastic cover                   | 117U1021 |
| d  | cord relief                     | 117U0349 |
| d  | cord relief                     | 117U0317 |

### Model

|             |               |                      |                |             |                 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>NF10FX</b> | <b>208-230V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>105G6846</b> |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

### Optimization + standard conditions

208-230V/60Hz 1~, CSIR, fan 3m/s, UL, VDE, CCC, EAC

|  | Evaporating pressure (saturation temperature) |      |      |      | Condensing pressure (saturation temperature) |         |          |       |          |           | Power consumption |                |        | ASHRAE LBP |       |      |      |             |
|--|---|------|------|------|--|---------|----------|-------|----------|-----------|-------------------|----------------|--------|------------|-------|------|------|-------------|
|  | pe  | pc   | RGT  | Tliq | Cooling capacity                             |         |          | COP   | EER      | P1        | I                 | Ref. mass flow |        |            |       |      |      |             |
|  | [°C]  | [°F] | [°C] | [°F] | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]               | [A]            | [kg/h] |            |       |      |      |             |
|  | -23,3   | -10  | 54,4 | 130  | 32,2   | 90      | 32,2     | 90    | 299,0    | 1021      | 257,4             | 1,14           | 3,90   | 0,98       | 262,0 | 1,86 | 5,81 |             |
|  | -25   | -13  | 55   | 131  | 32   | 89,6    | 55       | 131   | 223,1    | 762       | 192,0             | 0,89           | 3,03   | 0,76       | 251,1 | 1,82 | 5,33 | cecomaf LBP |
|  | -35   | -31  | 40   | 104  | 20   | 68      | 40       | 104   | 157,5    | 538       | 135,5             | 0,92           | 3,14   | 0,79       | 171,0 | 1,67 | 3,46 | EN12900 LBP |
|  | -23,3   | -10  | 48,9 | 120  | 4,44   | 40      | 48,9     | 120   | 238,9    | 816       | 205,6             | 0,92           | 3,16   | 0,80       | 258,3 | 1,85 | 6,31 | ARI540 LBP  |
|  | -23,3   | -10  | 40,6 | 105  | 32,2   | 90      | 32,2     | 90    | 317,0    | 1083      | 272,8             | 1,26           | 4,29   | 1,08       | 252,3 | 1,83 | 6,16 | AHAM LBP    |
|  | -35   | -31  | 45   | 113  | 32   | 89,6    | 45       | 113   | 144,8    | 495       | 124,6             | 0,83           | 2,83   | 0,71       | 174,7 | 1,66 | 3,12 | opt         |

### Performance tables

208-230V/60Hz 1~, CSIR, fan 3m/s, UL, VDE, CCC, EAC

|                  | 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              | 144,8  | 495     | 124,6    | 0,83  | 2,83     | 0,71      | 174,7 | 1,66 | 3,12   |
| cond. pressure   | -23,3 | -10              | 276,5  | 944     | 238,0    | 1,08  | 3,70     | 0,93      | 255,5 | 1,84 | 6,00   |
| pc= 45/113       | -15   | 5                | 415,1  | 1418    | 357,3    | 1,35  | 4,60     | 1,16      | 308,5 | 2,01 | 9,05   |
| return gas temp. | -9,4  | 15               | 537,4  | 1835    | 462,5    | 1,56  | 5,34     | 1,34      | 343,9 | 2,13 | 11,77  |
| RGT= 32/90       | -3,9  | 25               | 689,2  | 2354    | 593,2    | 1,81  | 6,18     | 1,56      | 381,0 | 2,26 | 15,17  |
| liquid temp      | 0     | 32               | 815,7  | 2786    | 702,0    | 2,00  | 6,82     | 1,72      | 408,5 | 2,36 | 18,04  |
| Tliq= 45/113     | 7,2   | 45               | 1100,9 | 3760    | 947,4    | 2,37  | 8,09     | 2,04      | 465,0 | 2,56 | 24,59  |
| [°C / °F]        | -35   | -31              | 121,9  | 416     | 104,9    | 0,67  | 2,28     | 0,57      | 182,6 | 1,62 | 2,90   |
| cond. pressure   | -23,3 | -10              | 242,9  | 830     | 209,1    | 0,93  | 3,16     | 0,80      | 262,3 | 1,86 | 5,81   |
| pc= 55/131       | -15   | 5                | 362,7  | 1239    | 312,1    | 1,13  | 3,87     | 0,98      | 319,8 | 2,05 | 8,73   |
| return gas temp  | -9,4  | 15               | 467,3  | 1596    | 402,1    | 1,30  | 4,42     | 1,11      | 360,8 | 2,20 | 11,30  |
| RGT= 32/90       | -3,9  | 25               | 597,2  | 2040    | 514,0    | 1,47  | 5,03     | 1,27      | 405,3 | 2,35 | 14,54  |
| liquid temp      | 0     | 32               | 705,9  | 2411    | 607,5    | 1,61  | 5,49     | 1,38      | 439,3 | 2,47 | 17,27  |
| Tliq= 55/131     | 7,2   | 45               | 952,7  | 3254    | 819,9    | 1,87  | 6,38     | 1,61      | 510,2 | 2,70 | 23,56  |