

**Model**

|             |               |                         |             |                 |
|-------------|---------------|-------------------------|-------------|-----------------|
| Designation | <b>SC10CL</b> | <b>220-240V/50Hz 1~</b> | Sales code: | <b>104L2523</b> |
|-------------|---------------|-------------------------|-------------|-----------------|

**Compressor design**

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R404A, R452A, R507</b>        |
| Oil viscosity              | 32cSt                           | Displacement          | 10,29cm <sup>3</sup> / 0,63cu.in |
| Oil quantity               | 544cm <sup>3</sup> / 18,4fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 1300g / 45,9oz                  |                       |                                  |
| Free gas volume comp.      | 1460cm <sup>3</sup> / 49,4fl.oz |                       |                                  |
| Weight                     | 13,1kg / 28,9lbs                |                       |                                  |
| Motor protection           | 1# internal                     |                       |                                  |
| Winding resistance main    | 6,9Ω (at 25°C)                  |                       |                                  |
| Winding resistance aux     | 11Ω (at 25°C)                   |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                  |



**General - Configurations with SC10CL**

|                        | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------|----------------|----------------|
| Motorconfiguration     | CSIR           | CSIR           |
| Power supply (nominal) | 220-240V/50Hz  | 220-240V/50Hz  |
| Number of phases       | 1              | 1              |
| Voltage range          | 198-254V       | 198-254V       |
| Approvals              | VDE, CCC, EAC  | VDE, CCC       |
| Starting torque        | HST            | HST            |
| Note                   | - / -          |                |

**Applications with SC10CL**

|                         | <b>Conf. 1</b> | <b>Conf. 2</b> |
|-------------------------|----------------|----------------|
| Refrigerant             | R404A          | R452A          |
| Application             | LBP+MBP        | LBP+MBP        |
| System cooling          | fan 3m/s       | fan 3m/s       |
| Hot gas defrost         | OK             | OK             |
| Long interval pull down | OK             | OK             |

**Electrical data - Configurations with SC10CL**

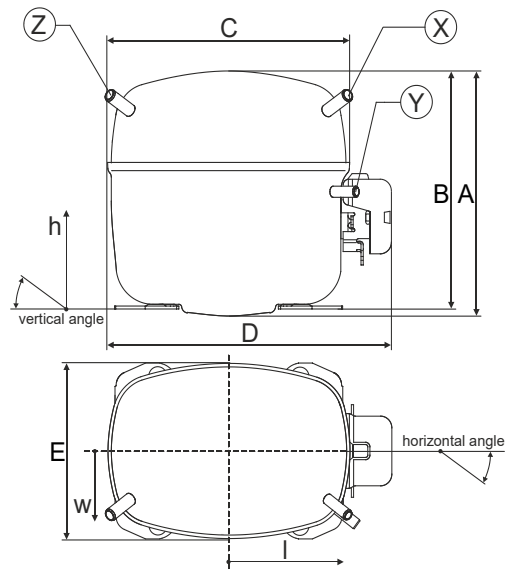
|                              | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------------|----------------|----------------|
| Starting device type         | relay          | relay          |
| Run capacitor                | -/-            | -/-            |
| Start capacitor              | 80μF           | 80μF           |
| LRA (locked rotor amps / 4s) | 13A            | 13A            |
| RLA (rated load amps / 1s)   | 2,5A           | 2,5A           |
| Cut in current               | 17A            | 17A            |
| IP class                     | 21             | 21             |

**Model**

|             |               |                         |             |                 |
|-------------|---------------|-------------------------|-------------|-----------------|
| Designation | <b>SC10CL</b> | <b>220-240V/50Hz 1~</b> | Sales code: | <b>104L2523</b> |
|-------------|---------------|-------------------------|-------------|-----------------|

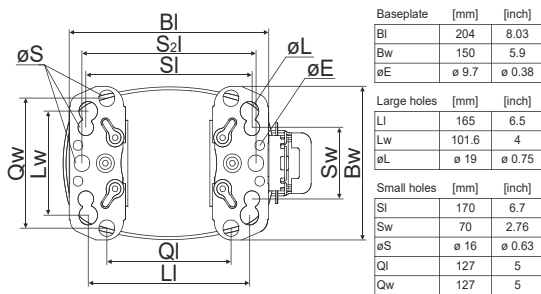
**Compressor dimensions**

|                |                   |                 |
|----------------|-------------------|-----------------|
| <b>Housing</b> | A Height          | 209mm / 8,23in  |
|                | B Height          | 203mm / 7,99in  |
|                | C Length shell    | 218mm / 8,58in  |
|                | D Length w. cover | 255mm / 10,04in |
|                | E Width           | 151mm / 5,94in  |

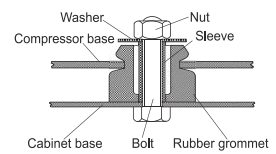


| Connectors       |                            | Suction      | Discharge    | Process      |
|------------------|----------------------------|--------------|--------------|--------------|
|                  |                            | X            | Y            | Z            |
| Diameter         | [mm]                       | øi 8,11-8,29 | øi 6,11-6,29 | øi 6,11-6,29 |
|                  | (i:inside, o:outside) [in] | øi 0,32-0,33 | øi 0,24-0,25 | øi 0,24-0,25 |
| Material         |                            | copper       | copper       | copper       |
| Horizontal angle | ±2°                        | 37°          | 37°          | 143°         |
| Vertical angle   | ±2°                        | 30°          | 0°           | 150°         |
| Position l/h/w   | [mm]                       | 107/183/55   | 115/100/63   | -107/183/55  |
|                  | [in]                       | 4,2/7,2/2,2  | 4,5/3,9/2,5  | -4,2/7,2/2,2 |
| Straight tube l. | [mm]                       | 12           | 12           | 12           |
|                  | [in]                       | 0,5          | 0,5          | 0,5          |

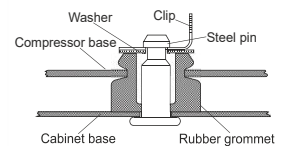
**Compressor fixation**



**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   |

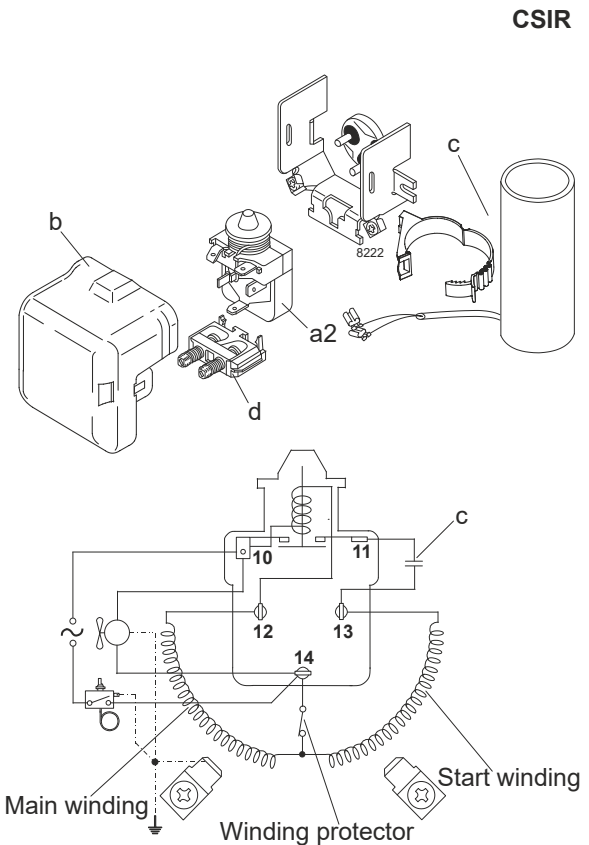
**Model**

|             |               |                      |                |             |                 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC10CL</b> | <b>220-240V/50Hz</b> | <b>Conf. 1</b> | Sales code: | <b>104L2523</b> |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

**Configuration**

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant            | R404A            |
| Application            | LBP+MBP          |
| Voltage range          | 198-254V         |
| Starting torque        | HST              |
| Approvals              | VDE              |
|                        | CCC              |
|                        | EAC              |

**Electrical accessories / wiring diagram**

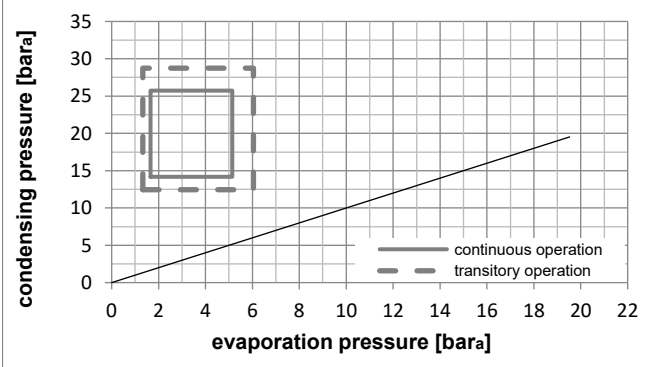
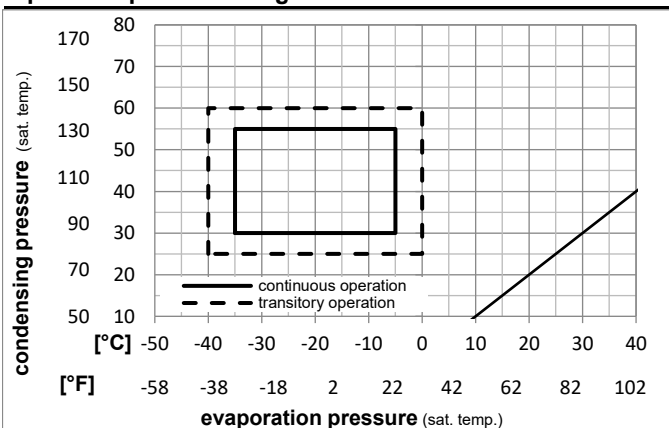


**Ambient temperatures / system cooling**

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

| System cooling (n/a: outside limits) |          |          |     |
|--------------------------------------|----------|----------|-----|
| 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 | assy. relay            | 117U6003 |
| c  | start capacitor (80µF) | 117U5017 |
| d  | cord relief            | 103N1004 |
| b  | plastic cover          | 103N2009 |

**Model**

|             |               |                      |                |             |                 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC10CL</b> | <b>220-240V/50Hz</b> | <b>Conf. 1</b> | Sales code: | <b>104L2523</b> |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

**Optimization + standard conditions**

220V/50Hz, CSIR, fan 3m/s, 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]  | [°C] | [°C] | [°C] | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]               | [A]            | [kg/h] |             |
|  | -23,3   | 54,4 | 32,2 | 32,2 | 400,3  | 1367    | 344,5    | 1,13  | 3,85     | 0,97      | 355,2             | 2,28           | 9,33   | ASHRAE LBP  |
|  | [°F]  |      |      |      |  |         |          |       |          |           |                   |                |        |             |
|  | -10   | 130  | 90   | 90   |  |         |          |       |          |           |                   |                |        |             |
|  | -25   | 55   | 32   | 55   | 261,4  | 893     | 225,0    | 0,79  | 2,69     | 0,68      | 332,5             | 2,21           | 8,17   | cecomaf LBP |
|  | [°F]  |      |      |      |  |         |          |       |          |           |                   |                |        |             |
|  | -13   | 131  | 89,6 | 131  |  |         |          |       |          |           |                   |                |        |             |
|  | -35   | 40   | 20   | 40   | 196,7  | 672     | 169,3    | 0,79  | 2,69     | 0,68      | 249,7             | 1,93           | 5,34   | EN12900 LBP |
|  | [°F]  |      |      |      |  |         |          |       |          |           |                   |                |        |             |
|  | -31   | 104  | 68   | 104  |  |         |          |       |          |           |                   |                |        |             |
|  | -6,66   | 54,4 | 35   | 46,1 | 859,9  | 2937    | 740,0    | 1,45  | 4,96     | 1,25      | 592,5             | 3,06           | 23,66  | ASHRAE MBP  |
|  | [°F]  |      |      |      |  |         |          |       |          |           |                   |                |        |             |
|  | 20  | 130  | 95   | 115  |  |         |          |       |          |           |                   |                |        |             |
|  | -10   | 55   | 32   | 55   | 629,8  | 2151    | 542,0    | 1,16  | 3,96     | 1,00      | 543,8             | 2,89           | 20,16  | cecomaf MBP |
|  | [°F]  |      |      |      |  |         |          |       |          |           |                   |                |        |             |
|  | 14  | 131  | 89,6 | 131  |  |         |          |       |          |           |                   |                |        |             |
|  | -10   | 45   | 20   | 45   | 754,1  | 2576    | 649,0    | 1,42  | 4,86     | 1,23      | 529,8             | 2,81           | 22,72  | EN12900 MBP |
|  | [°F]  |      |      |      |  |         |          |       |          |           |                   |                |        |             |
|  | 14  | 113  | 68   | 113  |  |         |          |       |          |           |                   |                |        |             |

**Performance tables**

220V/50Hz, CSIR, fan 3m/s, 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              | 168,1 | 574     | 144,6    | 0,69  | 2,36     | 0,60      | 242,8 | 1,91 | 4,49   |
| cond. pressure   | -30   | -22              | 258,5 | 883     | 222,4    | 0,88  | 3,01     | 0,76      | 293,6 | 2,05 | 6,94   |
| pc= 45/113       | -25   | -13              | 365,0 | 1246    | 314,1    | 1,04  | 3,56     | 0,90      | 350,3 | 2,22 | 9,84   |
| return gas temp. | -23,3 | -10              | 405,2 | 1384    | 348,7    | 1,09  | 3,74     | 0,94      | 370,4 | 2,27 | 10,95  |
| RGT= 32/90       | -20   | -4               | 489,5 | 1672    | 421,3    | 1,19  | 4,07     | 1,03      | 410,3 | 2,39 | 13,28  |
| liquid temp      | -15   | 5                | 634,0 | 2165    | 545,6    | 1,35  | 4,60     | 1,16      | 470,9 | 2,59 | 17,32  |
| Tliq= 45/113     | -5    | 23               | 990,5 | 3383    | 852,5    | 1,70  | 5,79     | 1,46      | 584,2 | 3,04 | 27,54  |
| [°C / °F]        | -35   | -31              | 95,3  | 326     | 82,0     | 0,42  | 1,45     | 0,36      | 225,0 | 1,84 | 2,95   |
| cond. pressure   | -30   | -22              | 171,7 | 586     | 147,8    | 0,63  | 2,14     | 0,54      | 273,7 | 2,01 | 5,34   |
| pc= 55/131       | -25   | -13              | 261,4 | 893     | 225,0    | 0,79  | 2,69     | 0,68      | 332,5 | 2,21 | 8,17   |
| return gas temp  | -23,3 | -10              | 295,3 | 1009    | 254,2    | 0,83  | 2,85     | 0,72      | 354,3 | 2,28 | 9,25   |
| RGT= 32/90       | -20   | -4               | 366,4 | 1251    | 315,4    | 0,92  | 3,14     | 0,79      | 398,8 | 2,42 | 11,53  |
| liquid temp      | -15   | 5                | 488,6 | 1669    | 420,5    | 1,04  | 3,55     | 0,89      | 470,1 | 2,64 | 15,49  |
| Tliq= 55/131     | -5    | 23               | 792,1 | 2705    | 681,7    | 1,28  | 4,38     | 1,10      | 617,3 | 3,15 | 25,64  |

**Model**

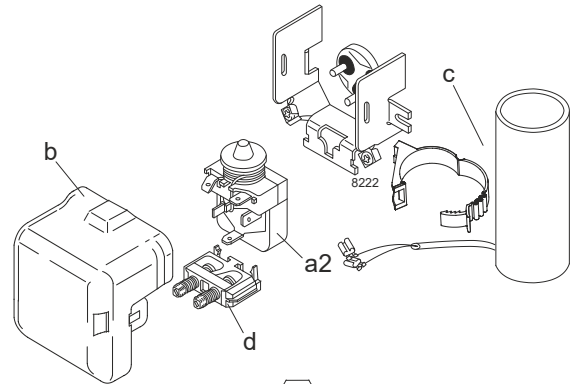
|             |               |                      |                |             |                 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC10CL</b> | <b>220-240V/50Hz</b> | <b>Conf. 2</b> | Sales code: | <b>104L2523</b> |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

**Configuration**

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant            | R452A            |
| Application            | LBP+MBP          |
| Voltage range          | 198-254V         |
| Starting torque        | HST              |
| Approvals              | VDE              |
|                        | CCC              |

**Electrical accessories / wiring diagram**

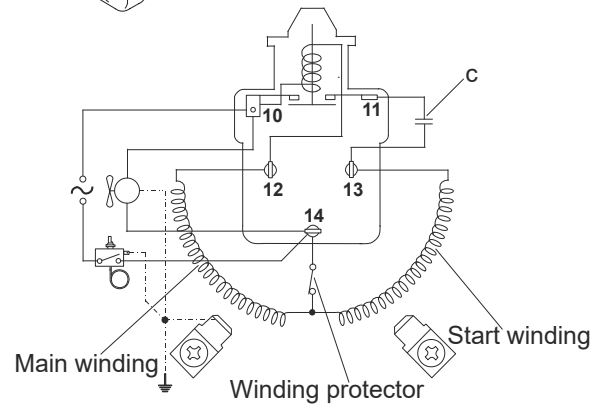
CSIR



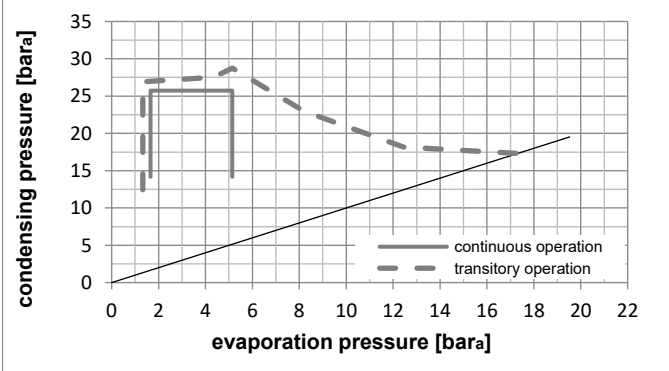
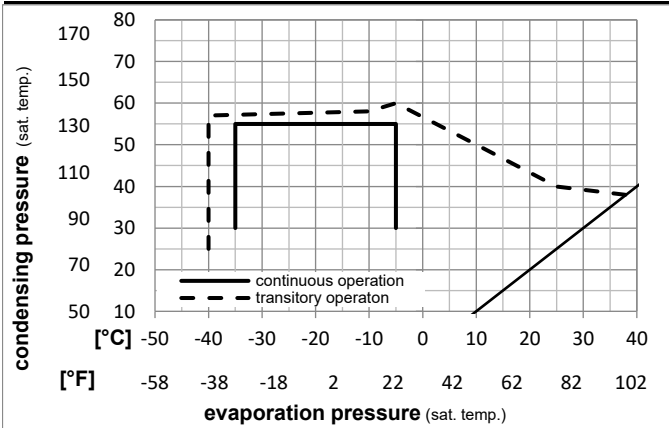
**Ambient temperatures / system cooling**

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

| System cooling (n/a: outside limits) |          |          |     |
|--------------------------------------|----------|----------|-----|
| 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 | assy. relay            | 117U6003 |
| c  | start capacitor (80µF) | 117U5017 |
| d  | cord relief            | 103N1004 |
| b  | plastic cover          | 103N2009 |

**Model**

Designation **SC10CL 220-240V/50Hz** Conf. **2** Sales code: **104L2523**

**Optimization + standard conditions**

220V/50Hz, CSIR, fan 3m/s, VDE, CCC

|  | 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]  | [°C] | [°C] | [°C] | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]               | [A]            | [kg/h] |             |
|  | -23,3   | 54,4 | 32,2 | 32,2 | 365,2  | 1247    | 314,3    | 1,09  | 3,74     | 0,94      | 333,8             | 2,20           | 8,78   | ASHRAE LBP  |
|  | [-10]   | 130  | 90   | 90   |  |         |          |       |          |           |                   |                |        |             |
|  | -25   | 55   | 32   | 55   | 240,5  | 821     | 206,9    | 0,77  | 2,63     | 0,66      | 311,8             | 2,12           | 7,65   | cecomaf LBP |
|  | [-13]   | 131  | 89,6 | 131  |  |         |          |       |          |           |                   |                |        |             |
|  | -35   | 40   | 20   | 40   | 177,0  | 604     | 152,3    | 0,76  | 2,60     | 0,65      | 232,9             | 1,85           | 4,94   | EN12900 LBP |
|  | [-31]   | 104  | 68   | 104  |  |         |          |       |          |           |                   |                |        |             |
|  | -6,66   | 54,4 | 35   | 46,1 | 811,6  | 2772    | 698,5    | 1,43  | 4,89     | 1,23      | 567,3             | 3,02           | 22,83  | ASHRAE MBP  |
|  | [20]  | 130  | 95   | 115  |  |         |          |       |          |           |                   |                |        |             |
|  | -10   | 55   | 32   | 55   | 595,6  | 2034    | 512,6    | 1,15  | 3,92     | 0,99      | 518,7             | 2,85           | 19,36  | cecomaf MBP |
|  | [14]  | 131  | 89,6 | 131  |  |         |          |       |          |           |                   |                |        |             |
|  | -10   | 45   | 20   | 45   | 710,9  | 2428    | 611,8    | 1,41  | 4,80     | 1,21      | 505,5             | 2,80           | 21,84  | EN12900 MBP |
|  | [14]  | 113  | 68   | 113  |  |         |          |       |          |           |                   |                |        |             |

**Performance tables**

220V/50Hz, CSIR, fan 3m/s, VDE, CCC

|                  | pe    | Cooling capacity |       |         | COP      | EER   | P1       | I         | m     |      |        |
|------------------|-------|------------------|-------|---------|----------|-------|----------|-----------|-------|------|--------|
|                  | [°C]  | [°F]             | [W]   | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]   | [A]  | [kg/h] |
| [°C / °F]        | -35   | -31              | 150,7 | 515     | 129,7    | 0,67  | 2,28     | 0,57      | 226,0 | 1,82 | 4,14   |
| cond. pressure   | -30   | -22              | 235,1 | 803     | 202,3    | 0,86  | 2,92     | 0,74      | 274,8 | 2,00 | 6,48   |
| pc= 45/113       | -25   | -13              | 335,6 | 1146    | 288,8    | 1,02  | 3,48     | 0,88      | 329,5 | 2,19 | 9,28   |
| return gas temp. | -23,3 | -10              | 373,8 | 1276    | 321,7    | 1,07  | 3,66     | 0,92      | 349,0 | 2,26 | 10,36  |
| RGT= 32/90       | -20   | -4               | 454,1 | 1551    | 390,8    | 1,17  | 4,00     | 1,01      | 387,7 | 2,39 | 12,63  |
| liquid temp      | -15   | 5                | 592,7 | 2024    | 510,1    | 1,33  | 4,53     | 1,14      | 447,2 | 2,60 | 16,58  |
| Tliq= 45/113     | -5    | 23               | 937,9 | 3203    | 807,1    | 1,67  | 5,72     | 1,44      | 560,2 | 2,99 | 26,65  |
| [°C / °F]        | -35   | -31              | 84,7  | 289     | 72,9     | 0,41  | 1,39     | 0,35      | 208,4 | 1,76 | 2,67   |
| cond. pressure   | -30   | -22              | 155,8 | 532     | 134,1    | 0,61  | 2,09     | 0,53      | 255,0 | 1,93 | 4,93   |
| pc= 55/131       | -25   | -13              | 240,5 | 821     | 206,9    | 0,77  | 2,63     | 0,66      | 311,8 | 2,12 | 7,65   |
| return gas temp  | -23,3 | -10              | 272,7 | 931     | 234,7    | 0,82  | 2,80     | 0,70      | 332,9 | 2,20 | 8,69   |
| RGT= 32/90       | -20   | -4               | 340,7 | 1163    | 293,2    | 0,91  | 3,09     | 0,78      | 376,2 | 2,35 | 10,90  |
| liquid temp      | -15   | 5                | 458,4 | 1565    | 394,5    | 1,03  | 3,51     | 0,88      | 446,0 | 2,59 | 14,78  |
| Tliq= 55/131     | -5    | 23               | 754,2 | 2576    | 649,1    | 1,27  | 4,35     | 1,10      | 592,0 | 3,11 | 24,75  |