

## Single Pack NF7CLX 115-127V 60Hz CSIR

Single pack code number: **195B4075**

| Position | Title   | Code     | Amount |
|----------|---|----------|--------|
| 1        | Compressor NF7CLX                                       | 105F1721 | 1      |
| 2        | Starting relay (overload protector MRT22AFZ-6)          | 117U4129 | 1      |
| 3        | Starting capacitor (320 $\mu$ F 125V, 6.3mm)            | 117U5022 | 1      |
| 4        | Cord relief   | 117U0349 | 2      |
| 5        | Cover   | 117U1021 | 1      |
| 6        | Bolt joint for one compressor   M6   $\varnothing$ 16mm | 118-1917 | 1      |

Secop GmbH • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • [www.secop.com](http://www.secop.com)

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved.

**Model**

|             |               |                         |             |                 |
|-------------|---------------|-------------------------|-------------|-----------------|
| Designation | <b>NF7CLX</b> | <b>115-127V/60Hz 1~</b> | Sales code: | <b>105F1721</b> |
|-------------|---------------|-------------------------|-------------|-----------------|

**Compressor design**

|                            |                                 |                       |                                 |
|----------------------------|---------------------------------|-----------------------|---------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R404A, R452A, R507</b>       |
| Oil viscosity              | 32cST                           | Displacement          | 7,27cm <sup>3</sup> / 0,44cu.in |
| Oil quantity               | 300cm <sup>3</sup> / 10,1fl.oz  | Compressors on pallet | 80                              |
| Refr. charge - tech. limit | 400g / 14,1oz                   |                       |                                 |
| Free gas volume comp.      | 2280cm <sup>3</sup> / 77,1fl.oz |                       |                                 |
| Weight                     | 10kg / 22lbs                    |                       |                                 |
| Motor protection           | external                        |                       |                                 |
| Winding resistance main    | 1,62Ω (at 25°C)                 |                       |                                 |
| Winding resistance aux     | 4,9Ω (at 25°C)                  |                       |                                 |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                 |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                 |



**General - Configurations with NF7CLX**

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

**Applications with NF7CLX**

|                         | <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         | - / -          | - / -          |
| Long interval pull down | OK             | OK             |

**Electrical data - Configurations with NF7CLX**

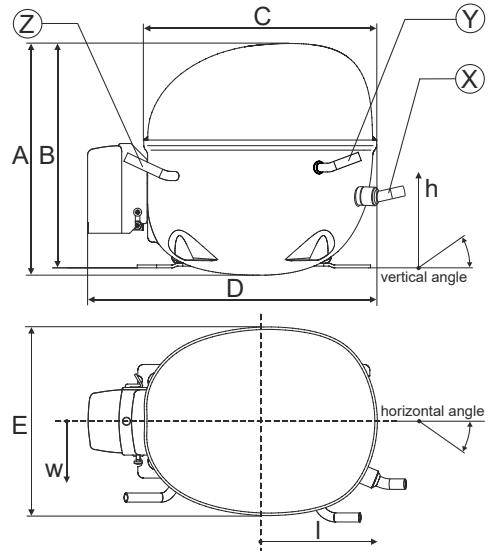
|                              | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------------|----------------|----------------|
| Starting device type         | relay          | relay          |
| Run capacitor                | - / -          | - / -          |
| Start capacitor              | 320μF          | 320μF          |
| LRA (locked rotor amps / 4s) | 30,8A          | 30,8A          |
| RLA (rated load amps / 1s)   | 4,9A           | 4,9A           |
| Cut in current               | 30,8A          | 30,8A          |
| IP class                     | 21             | 21             |

**Model**

|             |               |                         |             |                 |
|-------------|---------------|-------------------------|-------------|-----------------|
| Designation | <b>NF7CLX</b> | <b>115-127V/60Hz 1~</b> | Sales code: | <b>105F1721</b> |
|-------------|---------------|-------------------------|-------------|-----------------|

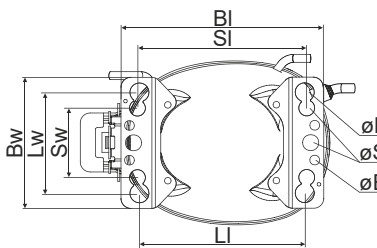
**Compressor dimensions**

|                |                   |                |
|----------------|-------------------|----------------|
| <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 |



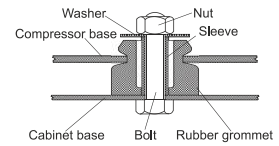
| <b>Connectors</b>     |      | <b>Suction</b> | <b>Discharge</b> | <b>Process</b> |
|-----------------------|------|----------------|------------------|----------------|
|                       |      | <b>X</b>       | <b>Y</b>         | <b>Z</b>       |
| Diameter              | [mm] | øi 8,11-8,29   | 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] | 4,9/3/3,1      | 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**

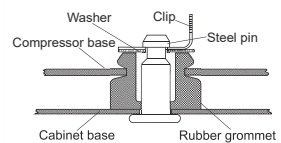


| Baseplate   | [mm]  | [inch] |
|-------------|-------|--------|
| BI          | 204   | 8.03   |
| BW          | 132   | 5.2    |
| øE          | ø 9.7 | ø 0.38 |
| Large holes | [mm]  | [inch] |
| LI          | 165   | 6.5    |
| LW          | 101.6 | 4      |
| øL          | ø 19  | ø 0.75 |
| Small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

**Bolt joint**



**Snap-on**



| <b>Mounting accessories</b> | 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.

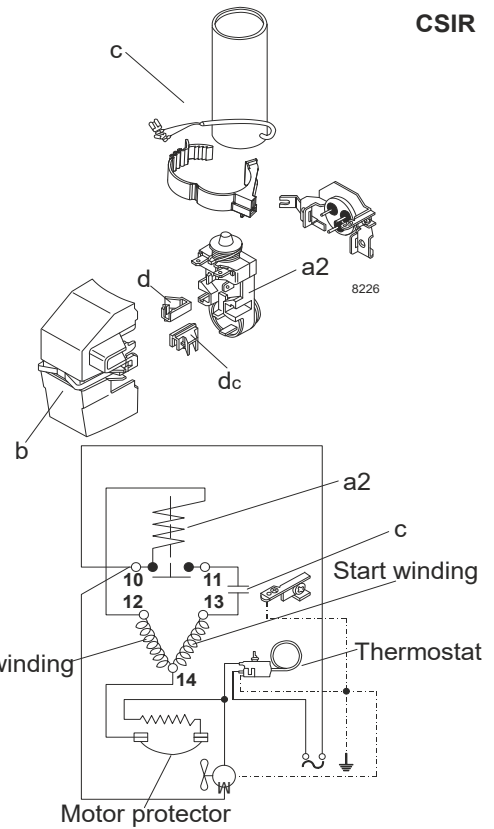
**Model**

|             |               |                  |                |             |                 |
|-------------|---------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NF7CLX</b> | <b>115V/60Hz</b> | <b>Conf. 1</b> | Sales code: | <b>105F1721</b> |
|-------------|---------------|------------------|----------------|-------------|-----------------|

**Configuration**

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 115V/60Hz 1~     |
| Refrigerant            | R404A            |
| Application            | LBP+MBP          |
| Voltage range          | 95-135V          |
| Starting torque        | HST              |
| Approvals              | UL<br>CCC<br>EAC |

**Electrical accessories / wiring diagram**

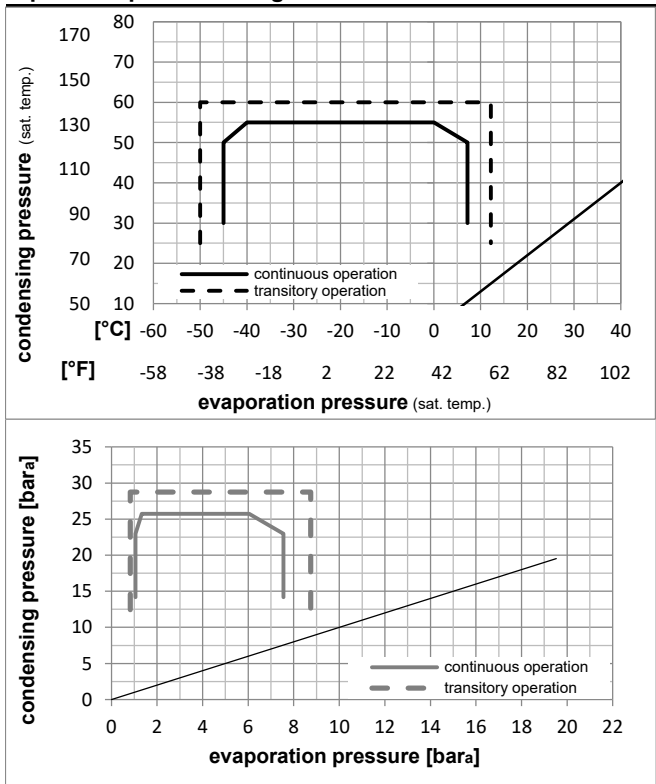


**Ambient temperatures / system cooling**

|                           |              |
|---------------------------|--------------|
| 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 | fan 3m/s | n/a |
| 38°C / 100°F                         | fan 3m/s | fan 3m/s | n/a |
| 43°C / 110°F                         | fan 3m/s | fan 3m/s | n/a |

**Operation pressure range**



**Components**

|      |                             |          |
|------|-----------------------------|----------|
| a2   | current relay ( MRT22AFZ-6) | 117U4129 |
| c    | start capacitor (320µF)     | 117U5022 |
| b    | plastic cover               | 117U1021 |
| d/dc | cord relief                 | 117U0349 |
| d/dc | cord relief                 | 117U0349 |

**Model**

Designation **NF7CLX 115V/60Hz** Conf. 1 Sales code: **105F1721**

**Optimization + standard conditions**

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

| Evaporating pressure (saturation temperature) |       |      |      | Condensing pressure (saturation temperature) |         |          |       | Power consumption   |           |      |       | ASHRAE<br>LBP |                     |                |
|---|-------|------|------|--|---------|----------|-------|---------------------|-----------|------|-------|---------------|---------------------|----------------|
| Return gas temp.                              |       |      |      | Liquid temp.                                 |         |          |       | Current consumption |           |      |       |               | Ref. mass flow<br>ṁ |                |
| Cooling capacity                              |       |      |      | COP  | EER     |          | P1    | I                   |           |      |       |               |                     |                |
| pe  | pc    | RGT  | Tliq | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh]            | [kcal/Wh] | [W]  | [A]   |               | [kg/h]              |                |
| [°C]  | -23,3 | 54,4 | 32,2 | 32,2   | 451,3   | 1541     | 388,4 | 1,23                | 4,19      | 1,06 | 367,7 | 4,53          | 10,52               | ASHRAE<br>LBP  |
| [°F]  | -10   | 130  | 90   | 90   |         |          |       |                     |           |      |       |               |                     |                |
| [°C]  | -25   | 55   | 32   | 55   | 305,5   | 1043     | 262,9 | 0,87                | 2,95      | 0,74 | 353,1 | 4,44          | 9,55                | cecomaf<br>LBP |
| [°F]  | -13   | 131  | 89,6 | 131  |         |          |       |                     |           |      |       |               |                     |                |
| [°C]  | -35   | 40   | 20   | 40   | 248,1   | 847      | 213,5 | 0,93                | 3,19      | 0,80 | 266,0 | 3,90          | 6,74                | EN12900<br>LBP |
| [°F]  | -31   | 104  | 68   | 104  |         |          |       |                     |           |      |       |               |                     |                |
| [°C]  | -23,3 | 48,9 | 4,44 | 48,9   | 340,3   | 1162     | 292,9 | 0,94                | 3,20      | 0,81 | 362,8 | 4,46          | 12,05               | ARI540 LBP     |
| [°F]  | -10   | 120  | 40   | 120  |         |          |       |                     |           |      |       |               |                     |                |
| [°C]  | -23,3 | 40,6 | 32,2 | 32,2   | 512,7   | 1751     | 441,2 | 1,46                | 4,98      | 1,26 | 351,5 | 4,37          | 11,95               | AHAM LBP       |
| [°F]  | -10   | 105  | 90   | 90   |         |          |       |                     |           |      |       |               |                     |                |
| [°C]  | -35   | 45   | 32   | 45   | 230,4   | 787      | 198,3 | 0,86                | 2,95      | 0,74 | 267,1 | 3,91          | 6,16                | opt            |
| [°F]  | -31   | 113  | 89,6 | 113  |         |          |       |                     |           |      |       |               |                     |                |

**Performance tables**

115V/60Hz, CSIR, fan 3m/s, UL, 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]        | -45   | -49  | 111,0            | 379     | 95,5     | 0,59  | 2,00     | 0,50      | 189,4 | 3,64 | 2,95   |
| cond. pressure   | -34,4 | -30  | 238,3            | 814     | 205,1    | 0,88  | 3,00     | 0,76      | 271,4 | 3,93 | 6,37   |
| pc= 45/113       | -23,3 | -10  | 429,9            | 1468    | 370,0    | 1,20  | 4,10     | 1,03      | 358,2 | 4,42 | 11,62  |
| return gas temp. | -15   | 5    | 623,2            | 2128    | 536,4    | 1,46  | 4,98     | 1,25      | 427,8 | 4,91 | 17,02  |
| RGT= 32/90       | -3,9  | 25   | 961,8            | 3285    | 827,7    | 1,81  | 6,17     | 1,56      | 532,2 | 5,74 | 26,80  |
| liquid temp      | 0     | 32   | 1105,1           | 3774    | 951,1    | 1,93  | 6,59     | 1,66      | 572,9 | 6,07 | 31,07  |
| Tliq= 45/113     | 7,2   | 45   | 1409,4           | 4813    | 1213,0   | 2,15  | 7,34     | 1,85      | 656,1 | 6,76 | 40,42  |
| [°C / °F]        | -45   | -49  | 70,3             | 240     | 60,5     | 0,40  | 1,37     | 0,34      | 175,3 | 3,60 | 2,16   |
| cond. pressure   | -34,4 | -30  | 174,3            | 595     | 150,0    | 0,65  | 2,21     | 0,56      | 269,5 | 3,96 | 5,39   |
| pc= 55/131       | -23,3 | -10  | 333,3            | 1138    | 286,8    | 0,91  | 3,09     | 0,78      | 368,2 | 4,53 | 10,44  |
| return gas temp  | -15   | 5    | 496,7            | 1696    | 427,5    | 1,11  | 3,80     | 0,96      | 446,0 | 5,09 | 15,75  |
| RGT= 32/90       | -3,9  | 25   | 788,1            | 2692    | 678,3    | 1,41  | 4,80     | 1,21      | 560,4 | 6,00 | 25,58  |
| liquid temp      | 0     | 32   | 913,0            | 3118    | 785,7    | 1,51  | 5,16     | 1,30      | 604,5 | 6,36 | 29,94  |
| Tliq= 55/131     | 7,2   | 45   | 1180,3           | 4031    | 1015,7   | 1,70  | 5,81     | 1,46      | 693,4 | 7,09 | 39,61  |

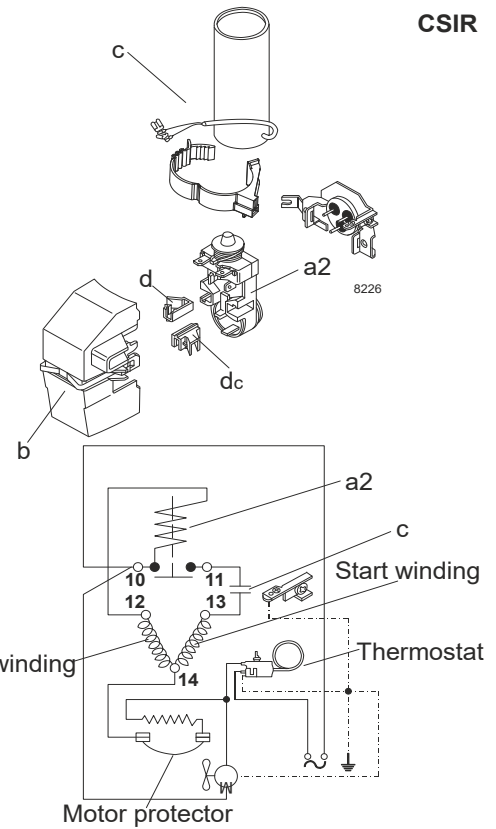
**Model**

|             |               |                  |                |             |                 |
|-------------|---------------|------------------|----------------|-------------|-----------------|
| Designation | <b>NF7CLX</b> | <b>115V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>105F1721</b> |
|-------------|---------------|------------------|----------------|-------------|-----------------|

**Configuration**

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 115V/60Hz 1~     |
| Refrigerant            | R452A            |
| Application            | LBP+MBP          |
| Voltage range          | 95-135V          |
| Starting torque        | HST              |
| Approvals              | UL<br>CCC<br>EAC |

**Electrical accessories / wiring diagram**

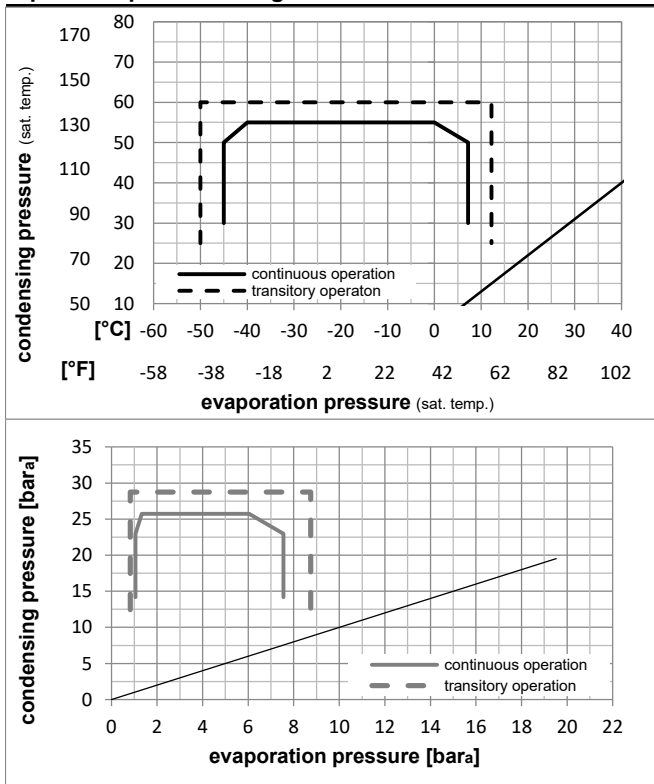


**Ambient temperatures / system cooling**

|                           |              |
|---------------------------|--------------|
| 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 | fan 3m/s | n/a |
| 38°C / 100°F                         | fan 3m/s | fan 3m/s | n/a |
| 43°C / 110°F                         | fan 3m/s | fan 3m/s | n/a |

**Operation pressure range**



**Components**

|      |                             |          |
|------|-----------------------------|----------|
| a2   | current relay ( MRT22AFZ-6) | 117U4129 |
| c    | start capacitor (320µF)     | 117U5022 |
| b    | plastic cover               | 117U1021 |
| d/dc | cord relief                 | 117U0349 |
| d/dc | cord relief                 | 117U0349 |

**Model**

Designation **NF7CLX 115V/60Hz** Conf. **2** Sales code: **105F1721**

**Optimization + standard conditions**

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

| Evaporating pressure (saturation temperature) |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
|---|-------|------|------|------|-------|---------|----------|-------|----------|-----------|-------|------|--------|-------------|
| Condensing pressure (saturation temperature)  |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
| Return gas temp.                              |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
| Liquid temp.                                  |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
| Cooling capacity                              |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
| COP   |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
| EER   |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
| Power consumption                             |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
| Current consumption                           |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
| Ref. mass flow                                |       |      |      |      |       |         |          |       |          |           |       |      |        |             |
|   | pe    | pc   | RGT  | Tliq | [W]   | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1    | I    | m      |             |
| [°C]  | [°C]  | [°C] | [°C] | [°C] |       |         |          |       |          |           | [W]   | [A]  | [kg/h] |             |
| [°F]  | -23,3 | 54,4 | 32,2 | 32,2 | 411,9 | 1407    | 354,5    | 1,20  | 4,10     | 1,03      | 342,8 | 4,44 | 9,90   | ASHRAE LBP  |
| [°F]  | -10   | 130  | 90   | 90   |       |         |          |       |          |           |       |      |        |             |
| [°C]  | -25   | 55   | 32   | 55   | 281,1 | 960     | 241,9    | 0,86  | 2,93     | 0,74      | 328,1 | 4,34 | 8,94   | cecomaf LBP |
| [°F]  | -13   | 131  | 89,6 | 131  |       |         |          |       |          |           |       |      |        |             |
| [°C]  | -35   | 40   | 20   | 40   | 223,5 | 763     | 192,4    | 0,91  | 3,11     | 0,78      | 245,5 | 3,77 | 6,24   | EN12900 LBP |
| [°F]  | -31   | 104  | 68   | 104  |       |         |          |       |          |           |       |      |        |             |
| [°C]  | -23,3 | 48,9 | 4,44 | 48,9 | 315,8 | 1078    | 271,8    | 0,93  | 3,18     | 0,80      | 339,0 | 4,42 | 11,35  | ARI540 LBP  |
| [°F]  | -10   | 120  | 40   | 120  |       |         |          |       |          |           |       |      |        |             |
| [°C]  | -23,3 | 40,6 | 32,2 | 32,2 | 471,4 | 1610    | 405,7    | 1,43  | 4,89     | 1,23      | 329,4 | 4,35 | 11,33  | AHAM LBP    |
| [°F]  | -10   | 105  | 90   | 90   |       |         |          |       |          |           |       |      |        |             |
| [°C]  | -35   | 45   | 32   | 45   | 206,8 | 706     | 178,0    | 0,84  | 2,88     | 0,73      | 245,5 | 3,77 | 5,68   | opt         |
| [°F]  | -31   | 113  | 89,6 | 113  |       |         |          |       |          |           |       |      |        |             |

**Performance tables**

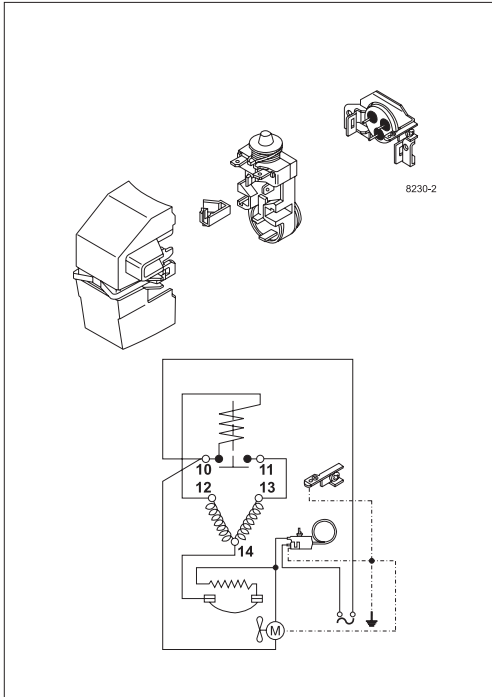
115V/60Hz, CSIR, fan 3m/s, UL, CCC, EAC

|                  | pe    | Cooling capacity |      |        | COP  | EER    | P1   | I    | m    |         |          |       |
|------------------|-------|------------------|------|--------|------|--------|------|------|------|---------|----------|-------|
|                  |       | [°C]             | [°F] | [W]    |      |        |      |      |      | [Btu/h] | [kcal/h] | [W/W] |
| [°C / °F]        | -45   | -49              |      | 94,3   | 322  | 81,2   | 0,56 | 1,90 | 0,48 | 169,1   | 3,24     | 2,57  |
| cond. pressure   | -34,4 | -30              |      | 214,2  | 732  | 184,4  | 0,86 | 2,93 | 0,74 | 249,7   | 3,80     | 5,88  |
| pc= 45/113       | -23,3 | -10              |      | 396,8  | 1355 | 341,5  | 1,18 | 4,04 | 1,02 | 335,2   | 4,39     | 10,99 |
| return gas temp. | -15   | 5                |      | 583,0  | 1991 | 501,7  | 1,44 | 4,93 | 1,24 | 404,2   | 4,87     | 16,31 |
| RGT= 32/90       | -3,9  | 25               |      | 912,3  | 3116 | 785,1  | 1,79 | 6,13 | 1,54 | 508,5   | 5,59     | 25,98 |
| liquid temp      | 0     | 32               |      | 1052,6 | 3595 | 905,9  | 1,92 | 6,54 | 1,65 | 549,6   | 5,87     | 30,21 |
| Tliq= 45/113     | 7,2   | 45               |      | 1351,9 | 4617 | 1163,5 | 2,13 | 7,28 | 1,84 | 633,8   | 6,45     | 39,50 |
| [°C / °F]        | -45   | -49              |      | 57,4   | 196  | 49,4   | 0,38 | 1,28 | 0,32 | 152,7   | 3,13     | 1,80  |
| cond. pressure   | -34,4 | -30              |      | 155,6  | 531  | 133,9  | 0,63 | 2,17 | 0,55 | 245,4   | 3,77     | 4,91  |
| pc= 55/131       | -23,3 | -10              |      | 307,9  | 1051 | 264,9  | 0,90 | 3,06 | 0,77 | 343,0   | 4,44     | 9,81  |
| return gas temp  | -15   | 5                |      | 466,3  | 1593 | 401,3  | 1,11 | 3,79 | 0,95 | 420,6   | 4,98     | 15,03 |
| RGT= 32/90       | -3,9  | 25               |      | 752,0  | 2568 | 647,2  | 1,40 | 4,79 | 1,21 | 535,7   | 5,77     | 24,74 |
| liquid temp      | 0     | 32               |      | 875,3  | 2989 | 753,3  | 1,51 | 5,15 | 1,30 | 580,3   | 6,08     | 29,06 |
| Tliq= 55/131     | 7,2   | 45               |      | 1140,4 | 3895 | 981,4  | 1,70 | 5,81 | 1,46 | 670,9   | 6,71     | 38,65 |

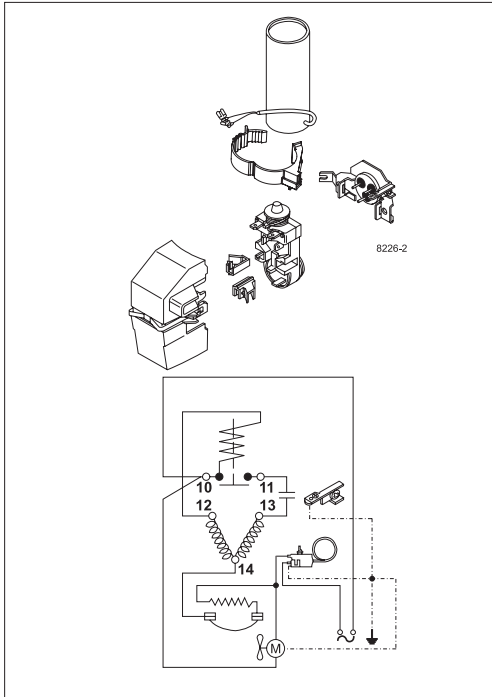


8238-23

# NF Compressors

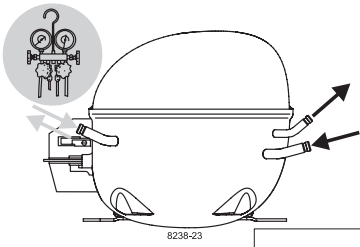


8230-2

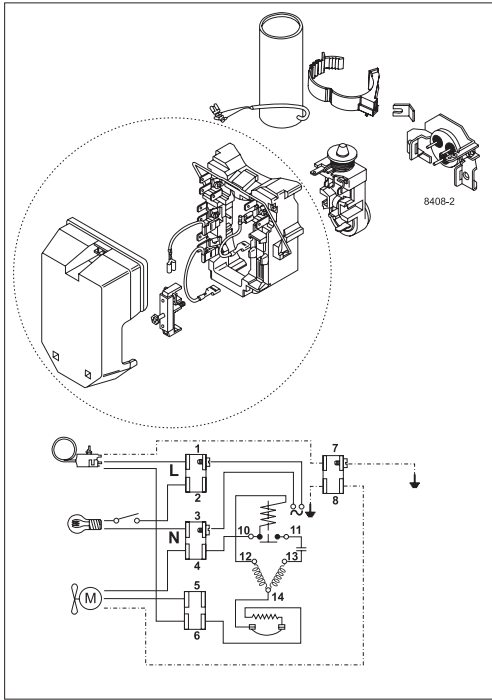
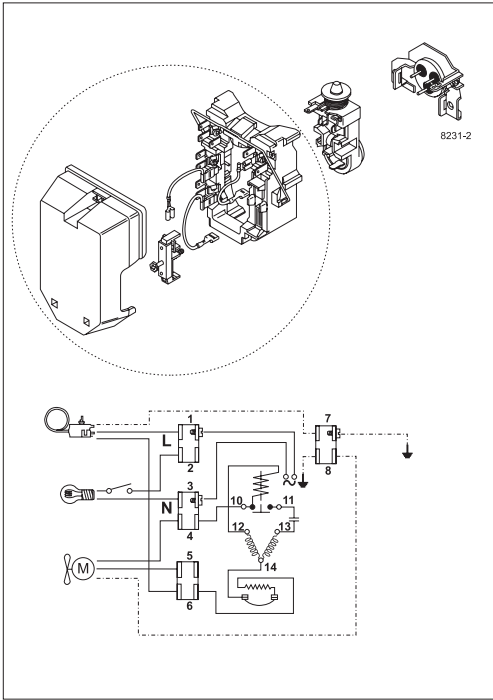


8226-2





8238-23



Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved. [www.secop.com](http://www.secop.com)