

## Model

|             |                  |                         |             |                 |
|-------------|------------------|-------------------------|-------------|-----------------|
| Designation | <b>SC18CLX.2</b> | <b>220-240V/50Hz 1~</b> | Sales code: | <b>104L2186</b> |
|-------------|------------------|-------------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R404A, R507</b>               |
| Oil viscosity              | 32cST                           | Displacement          | 17,69cm <sup>3</sup> / 1,08cu.in |
| Oil quantity               | 550cm <sup>3</sup> / 18,6fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 1300g / 45,9oz                  |                       |                                  |
| Free gas volume comp.      | 1460cm <sup>3</sup> / 49,4fl.oz |                       |                                  |
| Weight                     | 13,8kg / 30,4lbs                |                       |                                  |
| Motor protection           | 1# internal                     |                       |                                  |
| Winding resistance main    | 3,3Ω (at 25°C)                  |                       |                                  |
| Winding resistance aux     | 16,5Ω (at 25°C)                 |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                  |



## General - Configurations with SC18CLX.2

### Conf. 1

|                        |   |
|------------------------|---|
| Motorconfiguration     | CSIR                                    |
| Power supply (nominal) | 208-240V/50Hz                           |
| Number of phases       | 1                                       |
| Voltage range          | 198-254V                                |
| Approvals              | VDE, CCC, EAC                           |
| Starting torque        | HST                                     |
| Note                   | Compressor with noise optimization kit. |

## Applications with SC18CLX.2

### Conf. 1

|                         |          |
|-------------------------|----------|
| Refrigerant             | R404A    |
| Application             | LBP      |
| System cooling          | fan 3m/s |
| Hot gas defrost         | OK       |
| Long interval pull down | OK       |

## Electrical data - Configurations with SC18CLX.2

### Conf. 1

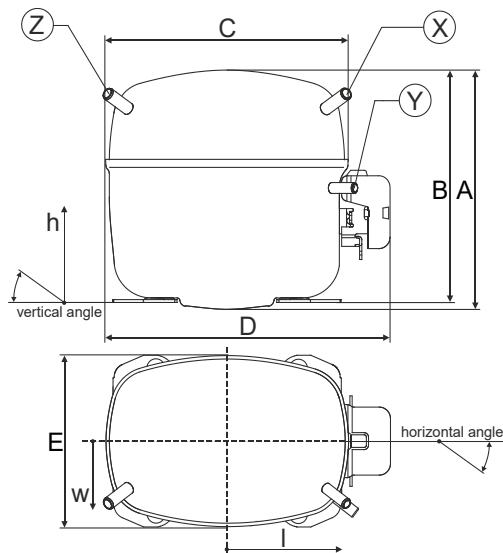
|                              |       |
|------------------------------|-------|
| Starting device type         | relay |
| Run capacitor                | -/-   |
| Start capacitor              | 125μF |
| LRA (locked rotor amps / 4s) | 23,5A |
| RLA (rated load amps / 1s)   | 4,5A  |
| Cut in current               | 23,5A |

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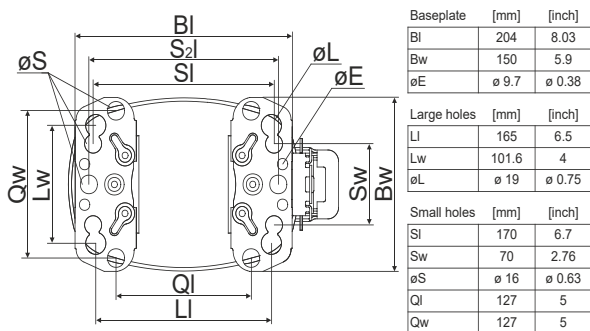
## Compressor dimensions

|                |                   |                 |
|----------------|-------------------|-----------------|
| <b>Housing</b> | A Height          | 219mm / 8,62in  |
|                | B Height          | 213mm / 8,39in  |
|                | C Length shell    | 239mm / 9,41in  |
|                | D Length w. cover | 255mm / 10,04in |
|                | E Width           | 151mm / 5,94in  |

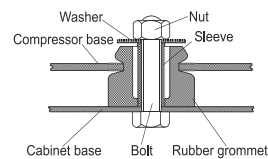


| Connectors            |      | Suction      | Discharge    | Process      |
|-----------------------|------|--------------|--------------|--------------|
|                       |      | X            | Y            | Z            |
| Diameter              | [mm] | øi 9,54-9,72 | øi 6,41-6,59 | øi 6,41-6,59 |
| (i:inside, o:outside) | [in] | øi 0,38-0,38 | øi 0,25-0,26 | øi 0,25-0,26 |
| Material              |      | copper       | copper       | copper       |
| Horizontal angle      | ±2°  | 37°          | 37°          | 143°         |
| Vertical angle        | ±2°  | 30°          | 0°           | 150°         |
| Position l/h/w        | [mm] | 107/193/55   | 115/110/63   | -107/193/55  |
|                       | [in] | 4,2/7,6/2,2  | 4,5/4,3/2,5  | -4,2/7,6/2,2 |
| Straight tube l.      | [mm] | 12           | 12           | 12           |
|                       | [in] | 0,5          | 0,5          | 0,5          |

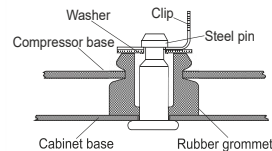
## Compressor fixation



## 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   |

## Application notes

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

## Model

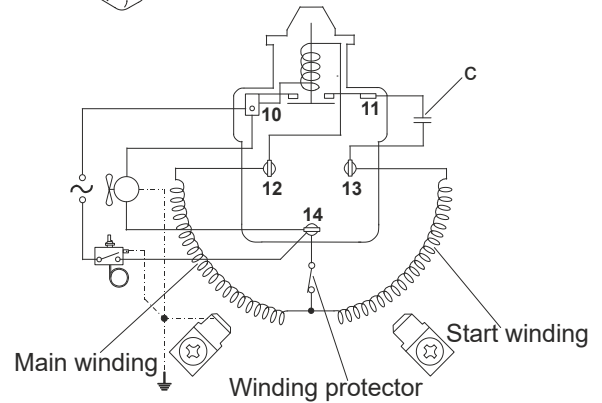
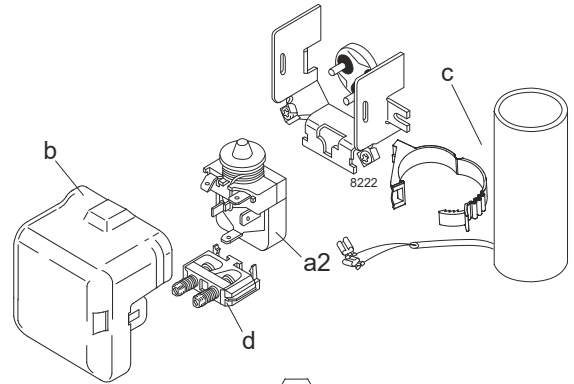
|             |                  |                      |         |             |                 |
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## Configuration

|                        |                  |
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| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 208-240V/50Hz 1~ |
| Refrigerant            | R404A            |
| Application            | LBP              |
| Voltage range          | 198-254V         |
| Starting torque        | HST              |
| Approvals              | VDE              |
|                        | CCC              |
|                        | EAC              |

## Electrical accessories / wiring diagram

CSIR



## Ambient/ machine room temperatures minimum /maximum

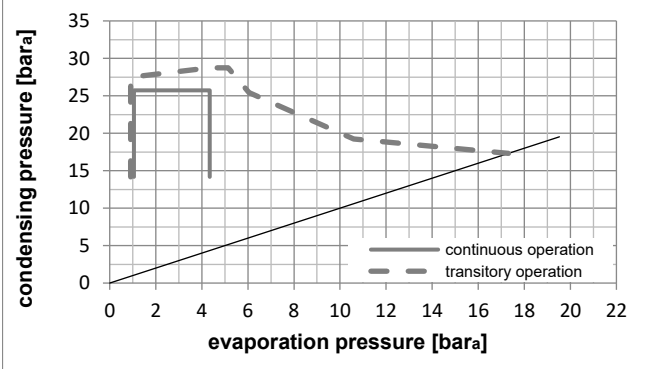
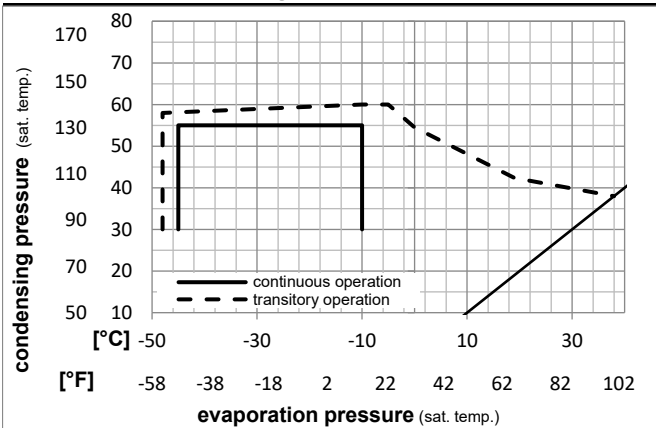
Ambient temperature range: 10 - 38°C / 50 - 101°F

Machine room temperature range: 10 - 43°C / 50 - 110°F

Compressor cooling: fan 3m/s

## Operation Limits

## Operation pressure range



## Components

|    |                         |          |
|----|-------------------------|----------|
| a2 | relay                   | 117U6013 |
| c  | start capacitor (125µF) | 117U5012 |
| d  | cord relief             | 103N1004 |
| b  | plastic cover           | 103N2009 |

## Model

Designation **SC18CLX.2** **208-240V/50Hz** Conf. 1 Sales code: **104L2186**

## Optimization + standard conditions

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

| Evaporating pressure (saturation temperature) |     |     |      | Condensing pressure (saturation temperature) |         |          | Return gas temp. |          |           | Liquid temp. |       |      | Cooling capacity |     |        | COP | EER | Power consumption |  |  | ASHRAE LBP |
|---|-----|-----|------|--|---------|----------|------------------|----------|-----------|--------------|-------|------|------------------|-----|--------|-----|-----|-------------------|--|--|------------|
| pe  | pc  | RGT | Tliq | [W]  | [Btu/h] | [kcal/h] | [W/W]            | [Btu/Wh] | [kcal/Wh] | P1           | I     | m    | [W]              | [A] | [kg/h] |     |     |                   |  |  |            |
| [°C]  | -23 | 54  | 32   | 32   | 854,8   | 2919     | 735,7            | 1,24     | 4,23      | 1,07         | 690,0 | 4,29 | 19,92            |     |        |     |     |                   |  |  |            |
| [°F]  | -10 | 130 | 90   | 90   |         |          |                  |          |           |              |       |      |                  |     |        |     |     |                   |  |  |            |
| [°C]  | -25 | 55  | 32   | 55   | 576,8   | 1970     | 496,4            | 0,88     | 3,00      | 0,76         | 656,4 | 4,18 | 18,03            |     |        |     |     |                   |  |  |            |
| [°F]  | -13 | 131 | 90   | 131  |         |          |                  |          |           |              |       |      |                  |     |        |     |     |                   |  |  |            |
| [°C]  | -35 | 40  | 20   | 40   | 438,0   | 1496     | 376,9            | 0,89     | 3,03      | 0,76         | 493,9 | 3,54 | 11,90            |     |        |     |     |                   |  |  |            |
| [°F]  | -31 | 104 | 68   | 104  |         |          |                  |          |           |              |       |      |                  |     |        |     |     |                   |  |  |            |
| [°C]  | -23 | 49  | 4,4  | 49   | 638,2   | 2179     | 549,2            | 0,94     | 3,20      | 0,81         | 680,7 | 4,25 | 22,59            |     |        |     |     |                   |  |  |            |
| [°F]  | -10 | 120 | 40   | 120  |         |          |                  |          |           |              |       |      |                  |     |        |     |     |                   |  |  |            |
| [°C]  | -23 | 41  | 32   | 32   | 960,4   | 3280     | 826,5            | 1,47     | 5,03      | 1,27         | 651,6 | 4,17 | 22,38            |     |        |     |     |                   |  |  |            |
| [°F]  | -10 | 105 | 90   | 90   |         |          |                  |          |           |              |       |      |                  |     |        |     |     |                   |  |  |            |
| [°C]  | -35 | 45  | 32   | 45   | 397,5   | 1358     | 342,1            | 0,81     | 2,76      | 0,70         | 491,4 | 3,54 | 10,63            |     |        |     |     |                   |  |  |            |
| [°F]  | -31 | 113 | 90   | 113  |         |          |                  |          |           |              |       |      |                  |     |        |     |     |                   |  |  |            |

## Performance tables

R404A, 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]        | -45  | -49  | 108,1            | 369     | 93,1     | 0,27  | 0,93     | 0,23      | 397,2 | 3,01 | 2,87   |
| cond. pressure   | -35  | -31  | 397,5            | 1358    | 342,1    | 0,81  | 2,76     | 0,70      | 491,4 | 3,54 | 10,63  |
| pc= 45/113       | -30  | -22  | 558,6            | 1908    | 480,7    | 1,00  | 3,41     | 0,86      | 559,6 | 3,83 | 14,99  |
| return gas temp. | -25  | -13  | 738,1            | 2521    | 635,2    | 1,16  | 3,94     | 0,99      | 639,0 | 4,12 | 19,91  |
| RGT= 32/90       | -20  | -4   | 941,7            | 3216    | 810,4    | 1,29  | 4,42     | 1,11      | 727,5 | 4,42 | 25,55  |
| liquid temp      | -15  | 5    | 1174,9           | 4012    | 1011,1   | 1,43  | 4,88     | 1,23      | 823,0 | 4,73 | 32,09  |
| Tliq= 45/113     | -10  | 14   | 1443,4           | 4929    | 1242,2   | 1,56  | 5,34     | 1,35      | 923,4 | 5,06 | 39,75  |
| [°C / °F]        | -45  | -49  | 11,6             | 40      | 10,0     | 0,04  | 0,12     | 0,03      | 325,0 | 2,89 | 0,36   |
| cond. pressure   | -35  | -31  | 280,6            | 958     | 241,5    | 0,60  | 2,03     | 0,51      | 471,1 | 3,51 | 8,68   |
| pc= 55/131       | -30  | -22  | 422,5            | 1443    | 363,6    | 0,75  | 2,58     | 0,65      | 559,9 | 3,84 | 13,13  |
| return gas temp  | -25  | -13  | 576,8            | 1970    | 496,4    | 0,88  | 3,00     | 0,76      | 656,4 | 4,18 | 18,03  |
| RGT= 32/90       | -20  | -4   | 749,1            | 2558    | 644,7    | 0,99  | 3,37     | 0,85      | 758,4 | 4,52 | 23,57  |
| liquid temp      | -15  | 5    | 945,2            | 3228    | 813,4    | 1,09  | 3,74     | 0,94      | 864,0 | 4,88 | 29,97  |
| Tliq= 55/131     | -10  | 14   | 1170,4           | 3997    | 1007,3   | 1,21  | 4,12     | 1,04      | 970,8 | 5,24 | 37,47  |