

## Single Pack SC12CNX.2 115V 60Hz CSIR

Single pack code number: **195B4337**

| Position | Title   | Code     | Amount |
|----------|---|----------|--------|
| 1        | Compressor SC12CNX.2                                    | 104H7270 | 1      |
| 2        | Starting relay  | 117U7020 | 1      |
| 3        | Starting capacitor (240 $\mu$ F 125V, 6.3mm)            | 117U5023 | 1      |
| 4        | Cord relief   | 103N1004 | 1      |
| 5        | Cover   | 103N2008 | 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>SC12CNX.2</b> | 115V/60Hz 1~ | Sales code: | <b>104H7270</b> |
|-------------|------------------|--------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R290</b>                      |
| Oil viscosity              | 22cST                           | Displacement          | 12,87cm <sup>3</sup> / 0,79cu.in |
| Oil quantity               | 500cm <sup>3</sup> / 16,9fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 500g / 17,6oz                   |                       |                                  |
| Free gas volume comp.      | 1510cm <sup>3</sup> / 51,1fl.oz |                       |                                  |
| Weight                     | 13,2kg / 29,1lbs                |                       |                                  |
| Motor protection           | 1# internal                     |                       |                                  |
| Winding resistance main    | 0,98Ω (at 25°C)                 |                       |                                  |
| Winding resistance aux     | 4,18Ω (at 25°C)                 |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                  |



## General - Configurations with SC12CNX.2

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

## Applications with SC12CNX.2

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

## Electrical data - Configurations with SC12CNX.2

|                              |                |
|------------------------------|----------------|
|                              | <b>Conf. 1</b> |
| Starting device type         | relay          |
| Run capacitor                | - / -          |
| Start capacitor              | 240μF          |
| LRA (locked rotor amps / 4s) | 23,4A          |
| RLA (rated load amps / 1s)   | 4,3A           |
| Cut in current               | 23,4A          |

## Model

Designation

**SC12CNX.2**

115V/60Hz 1~

Sales code:

**104H7270**

## Compressor dimensions

| Housing | 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<br>X | Discharge<br>Y | Process<br>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]        | 107/183/55   | 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

| 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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

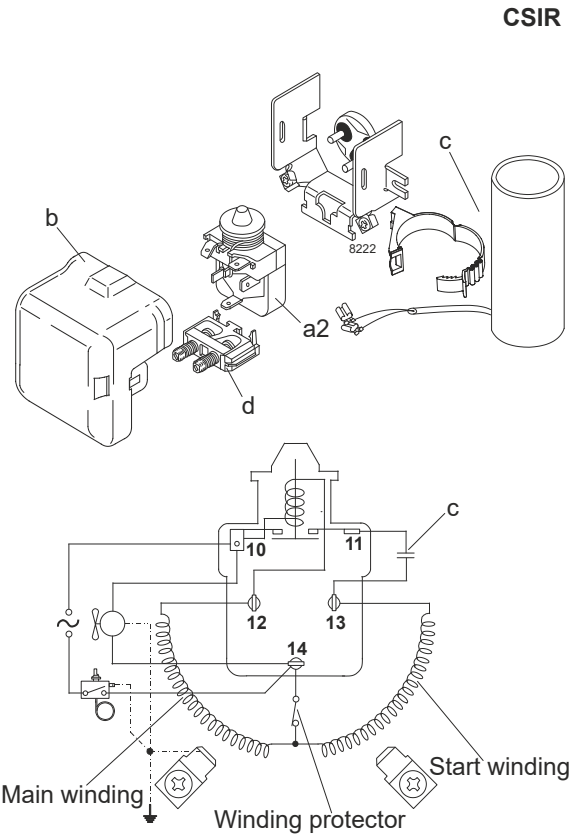
## Model

|             |                  |                  |                |             |                 |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | <b>SC12CNX.2</b> | <b>115V/60Hz</b> | <b>Conf. 1</b> | Sales code: | <b>104H7270</b> |
|-------------|------------------|------------------|----------------|-------------|-----------------|

## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 115V/60Hz 1~     |
| Refrigerant            | R290             |
| Application            | LBP+MBP          |
| Voltage range          | 95-135V          |
| Starting torque        | HST              |
| Approvals              | UL<br>VDE<br>EAC |

## Electrical accessories / wiring diagram

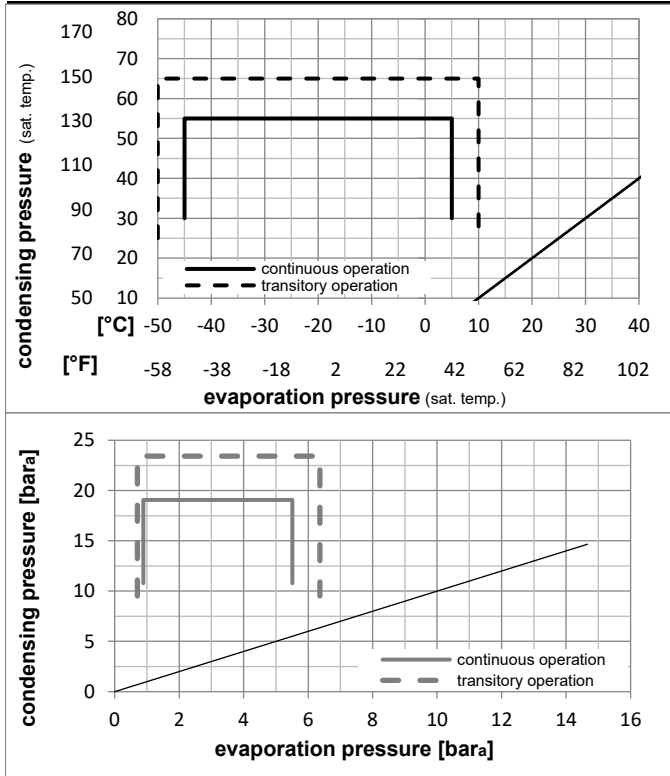


## Ambient temperatures / system cooling

|                           |              |
|---------------------------|--------------|
| 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 | relay                   | 117U7020 |
| c  | start capacitor (240µF) | 117U5023 |
| d  | cord relief             | 103N1004 |
| b  | plastic cover           | 103N2008 |

## Model

|             |                  |                  |                |             |                 |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | <b>SC12CNX.2</b> | <b>115V/60Hz</b> | <b>Conf. 1</b> | Sales code: | <b>104H7270</b> |
|-------------|------------------|------------------|----------------|-------------|-----------------|

## Optimization + standard conditions

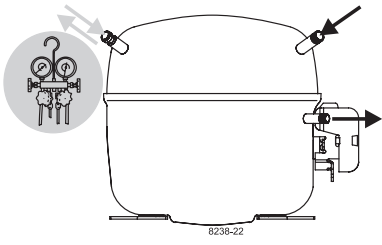
R290, 115V/60Hz, CSIR, fan 3m/s, UL, VDE, EAC

|      | Evaporating pressure (saturation temperature) |     |     |      | Condensing pressure (saturation temperature) |         |          | Return gas temp. | Liquid temp. | Cooling capacity |          |           | COP   | EER         | Power consumption |   |   | Ref. mass flow |  |
|------|---|-----|-----|------|--|---------|----------|------------------|--------------|------------------|----------|-----------|-------|-------------|-------------------|---|---|----------------|--|
|      | pe  | pc  | RGT | Tliq | [W]  | [Btu/h] | [kcal/h] |                  |              | [W/W]            | [Btu/Wh] | [kcal/Wh] |       |             | P1                | I | m |                |  |
| [°C] | -23   | 54  | 32  | 32   | 611,5  | 2088    | 526,3    | 1,29             | 4,40         | 1,11             | 475,1    | 6,11      | 6,19  | ASHRAE LBP  |                   |   |   |                |  |
| [°F] | -10   | 130 | 90  | 90   |  |         |          |                  |              |                  |          |           |       |             |                   |   |   |                |  |
| [°C] | -25   | 55  | 32  | 55   | 449,4  | 1535    | 386,8    | 0,98             | 3,35         | 0,85             | 457,5    | 6,00      | 5,60  | cecomaf LBP |                   |   |   |                |  |
| [°F] | -13   | 131 | 90  | 131  |  |         |          |                  |              |                  |          |           |       |             |                   |   |   |                |  |
| [°C] | -35   | 40  | 20  | 40   | 334,9  | 1144    | 288,3    | 0,97             | 3,30         | 0,83             | 346,5    | 5,42      | 3,83  | EN12900 LBP |                   |   |   |                |  |
| [°F] | -31   | 104 | 68  | 104  |  |         |          |                  |              |                  |          |           |       |             |                   |   |   |                |  |
| [°C] | -7  | 54  | 35  | 46   | 1190,6                                       | 4066    | 1024,6   | 1,87             | 6,40         | 1,61             | 635,8    | 7,31      | 13,58 | ASHRAE MBP  |                   |   |   |                |  |
| [°F] | 20  | 130 | 95  | 115  |  |         |          |                  |              |                  |          |           |       |             |                   |   |   |                |  |
| [°C] | -10   | 55  | 32  | 55   | 935,7  | 3196    | 805,3    | 1,53             | 5,24         | 1,32             | 610,2    | 7,07      | 11,84 | cecomaf MBP |                   |   |   |                |  |
| [°F] | 14  | 131 | 90  | 131  |  |         |          |                  |              |                  |          |           |       |             |                   |   |   |                |  |
| [°C] | -10   | 45  | 20  | 45   | 1041,0                                       | 3555    | 895,9    | 1,88             | 6,43         | 1,62             | 553,0    | 6,74      | 12,78 | EN12900 MBP |                   |   |   |                |  |
| [°F] | 14  | 113 | 68  | 113  |  |         |          |                  |              |                  |          |           |       |             |                   |   |   |                |  |

## Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, UL, VDE, 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  | 130,8            | 447     | 112,5    | 0,58  | 1,98     | 0,50      | 226,0 | 4,99 | 1,46   |
| cond. pressure   | -34  | -30  | 319,6            | 1091    | 275,0    | 0,91  | 3,12     | 0,79      | 349,3 | 5,45 | 3,58   |
| pc= 45/113       | -29  | -20  | 447,8            | 1529    | 385,4    | 1,11  | 3,79     | 0,95      | 403,8 | 5,72 | 5,04   |
| return gas temp. | -23  | -10  | 600,1            | 2050    | 516,5    | 1,33  | 4,53     | 1,14      | 452,6 | 6,00 | 6,78   |
| RGT= 32/90       | -15  | 5    | 881,0            | 3009    | 758,2    | 1,70  | 5,81     | 1,47      | 517,5 | 6,45 | 10,02  |
| liquid temp      | -4   | 25   | 1370,4           | 4680    | 1179,4   | 2,31  | 7,88     | 1,98      | 594,2 | 7,11 | 15,80  |
| Tliq= 45/113     | 5    | 41   | 1872,2           | 6394    | 1611,3   | 2,87  | 9,79     | 2,47      | 653,0 | 7,68 | 21,90  |
| [°C / °F]        | -45  | -49  | 60,2             | 206     | 51,8     | 0,34  | 1,17     | 0,30      | 175,1 | 4,75 | 0,74   |
| cond. pressure   | -34  | -30  | 236,4            | 807     | 203,5    | 0,70  | 2,39     | 0,60      | 338,0 | 5,38 | 2,92   |
| pc= 55/131       | -29  | -20  | 354,3            | 1210    | 304,9    | 0,86  | 2,94     | 0,74      | 410,9 | 5,74 | 4,40   |
| return gas temp  | -23  | -10  | 493,7            | 1686    | 424,9    | 1,04  | 3,54     | 0,89      | 476,5 | 6,11 | 6,16   |
| RGT= 32/90       | -15  | 5    | 750,4            | 2563    | 645,8    | 1,33  | 4,55     | 1,15      | 563,3 | 6,70 | 9,43   |
| liquid temp      | -4   | 25   | 1198,3           | 4093    | 1031,3   | 1,81  | 6,17     | 1,55      | 663,6 | 7,54 | 15,29  |
| Tliq= 55/131     | 5    | 41   | 1659,6           | 5668    | 1428,3   | 2,25  | 7,70     | 1,94      | 736,3 | 8,26 | 21,52  |



# SC Compressors





# SC Compressors

## Service/Repair – R290



8545



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. [www.secop.com](http://www.secop.com)