

## Single Pack SC12G 220-240V 50/60Hz CSIR

Single pack code number: **195B4457**

| Position | Title   | Code     | Amount |
|----------|---|----------|--------|
| 1        | Compressor SC12G  | 104G8250 | 1      |
| 2        | Starting relay  | 117U6003 | 1      |
| 3        | Starting capacitor (80 $\mu$ F 220V, 6.3mm)             | 117U5017 | 1      |
| 4        | Cord relief   | 103N1004 | 1      |
| 5        | Cover   | 103N2009 | 1      |
| 6        | Bolt joint for one compressor   M6   $\varnothing$ 16mm | 118-1917 | 1      |

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## Model

|             |              |                                   |             |                 |
|-------------|--------------|-----------------------------------|-------------|-----------------|
| Designation | <b>SC12G</b> | 220-240V/50Hz 1~ 220-240V/60Hz 1~ | Sales code: | <b>104G8250</b> |
|-------------|--------------|-----------------------------------|-------------|-----------------|

## Compressor design

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R134a</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 | 1300g / 45,9oz                  |                       |                                  |
| Free gas volume comp.      | 1510cm <sup>3</sup> / 51,1fl.oz |                       |                                  |
| Weight                     | 12,7kg / 28lbs                  |                       |                                  |
| 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.       | 135°C / 275°F                   |                       |                                  |



## General - Configurations with SC12G

|                        | <b>Conf. 1</b> | <b>Conf. 2</b> | <b>Conf. 3</b> | <b>Conf. 4</b> |
|------------------------|----------------|----------------|----------------|----------------|
| Motorconfiguration     | CSIR           | CSIR           | RSIR           | RSIR           |
| Power supply (nominal) | 220-240V/50Hz  | 208-230V/60Hz  | 220-240V/50Hz  | 208-230V/60Hz  |
| Number of phases       | 1              | 1              | 1              | 1              |
| Voltage range          | 187-254V       | 198-254V       | 187-254V       | 198-254V       |
| Approvals              | CCC, VDE, KC   | CCC, VDE, KC   | CCC, VDE, KC   | CCC, VDE, KC   |
| Starting torque        | HST            | HST            | LST            | LST            |
| Note                   | - / -          |                |                |                |

## Applications with SC12G

|                         | <b>Conf. 1</b> | <b>Conf. 2</b> | <b>Conf. 3</b> | <b>Conf. 4</b> |
|-------------------------|----------------|----------------|----------------|----------------|
| Refrigerant             | R134a          | R134a          | R134a          | R134a          |
| Application             | LBP+MBP+HBP    | LBP            | LBP+MBP+HBP    | LBP            |
| System cooling          | oil cooled     | oil cooled     | oil cooled     | oil cooled     |
| Hot gas defrost         | OK             | OK             | OK             | OK             |
| Long interval pull down | OK             | OK             | OK             | OK             |

## Electrical data - Configurations with SC12G

|                              | <b>Conf. 1</b> | <b>Conf. 2</b> | <b>Conf. 3</b> | <b>Conf. 4</b> |
|------------------------------|----------------|----------------|----------------|----------------|
| Starting device type         | relay          | relay          | PTC            | PTC            |
| Run capacitor                | - / -          | - / -          | - / -          | - / -          |
| Start capacitor              | 80μF           | 80μF           | - / -          | - / -          |
| LRA (locked rotor amps / 4s) | 13A            | 13A            | 12,6A          |                |
| RLA (rated load amps / 1s)   | 2,5A           | 2,5A           | 2,5A           | - / A          |
| Cut in current               | 17A            | 17A            | 12,6A          |                |

## Model

Designation

**SC12G**

220-240V/50Hz 1~ 220-240V/60Hz 1~

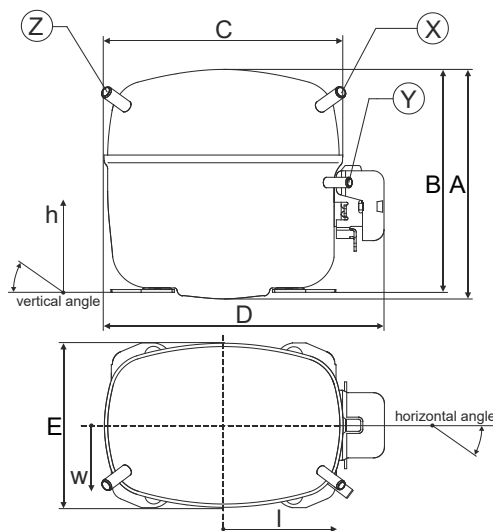
Sales code:

**104G8250**

## 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  |

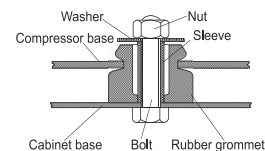
| Connectors                 | Suction<br>X | Discharge<br>Y | Process<br>Z |
|----------------------------|--------------|----------------|--------------|
| Diameter [mm]              | ø 8,11-8,29  | ø 6,11-6,29    | ø 6,11-6,29  |
| (i:inside, o:outside) [in] | ø 0,32-0,33  | ø 0,24-0,25    | ø 0,24-0,25  |
| 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          |



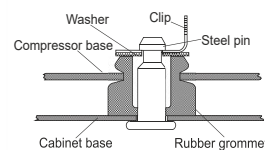
## Compressor fixation



## 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   |

## Application notes

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

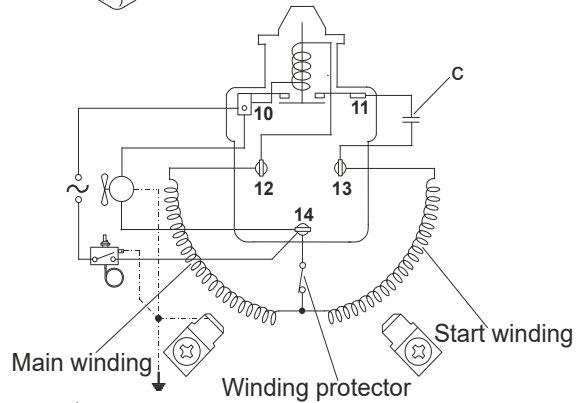
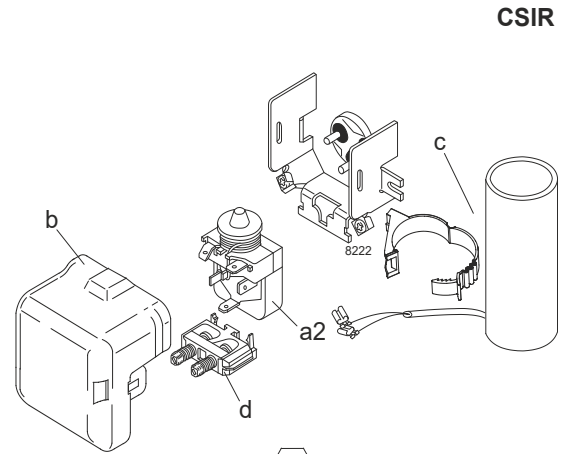
## Model

|             |              |                      |                |             |                 |
|-------------|--------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC12G</b> | <b>220-240V/50Hz</b> | <b>Conf. 1</b> | Sales code: | <b>104G8250</b> |
|-------------|--------------|----------------------|----------------|-------------|-----------------|

## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant            | R134a            |
| Application            | LBP+MBP+HBP      |
| Voltage range          | 187-254V         |
| Starting torque        | HST              |
| Approvals              | CCC<br>VDE<br>KC |

## Electrical accessories / wiring diagram

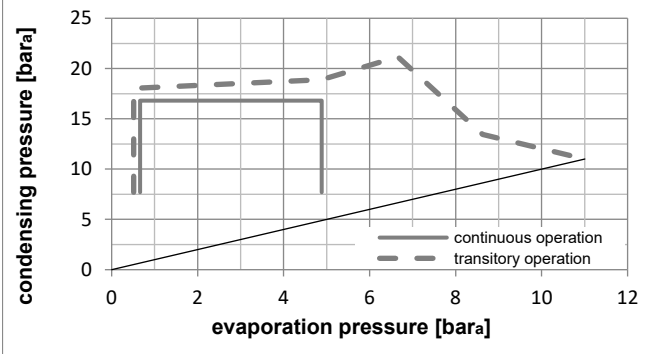
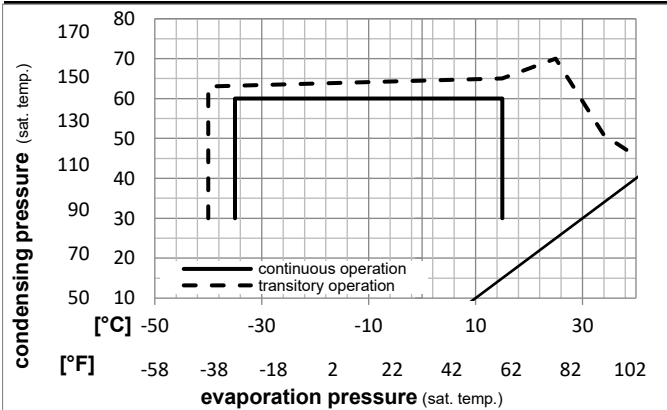


## Ambient/ machine room temperatures minimum /maximum

|                                 |                        |
|---------------------------------|------------------------|
| Ambient temperature range:      | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| Compressor cooling:             | fan 3m/s               |

## Operation Limits

## Operation pressure range



## Components

|    |                        |          |
|----|------------------------|----------|
| a2 | assy. relay            | 117U6003 |
| c  | start capacitor (80μF) | 117U5017 |
| d  | cord relief            | 103N1004 |
| b  | plastic cover          | 103N2008 |

### Model

|             |              |                      |                |             |                 |
|-------------|--------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC12G</b> | <b>220-240V/50Hz</b> | <b>Conf. 1</b> | Sales code: | <b>104G8250</b> |
|-------------|--------------|----------------------|----------------|-------------|-----------------|

### Optimization + standard conditions

R134a, 220V/50Hz, CSIR, fan 3m/s, CCC, VDE, KC

|  | Evaporating pressure (saturation temperature) |      |      |      | Condensing pressure (saturation temperature) |         |          | Return gas temp. | Liquid temp. | Cooling capacity | COP   | EER  | Power consumption |             |                | ASHRAE |
|--|---|------|------|------|--|---------|----------|------------------|--------------|------------------|-------|------|-------------------|-------------|----------------|--------|
|  | pe  | pc   | RGT  | Tliq | [W]  | [Btu/h] | [kcal/h] |                  |              |                  |       |      | 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   | 54   | 32   | 32   | 247,5  | 845     | 213,0    | 1,03             | 3,52         | 0,89             | 240,3 | 1,87 | 4,81              | ASHRAE LBP  |                |        |
|  | -10   | 130  | 90   | 90   |  |         |          |                  |              |                  |       |      |                   |             |                |        |
|  | -7  | 54   | 35   | 46   | 615,0  | 2100    | 529,3    | 1,60             | 5,47         | 1,38             | 383,9 | 2,34 | 13,42             | ASHRAE MBP  |                |        |
|  | 20  | 130  | 95   | 115  |  |         |          |                  |              |                  |       |      |                   |             |                |        |
|  | 7,2   | 54   | 35   | 46   | 1170,4                                       | 3997    | 1007,3   | 2,29             | 7,81         | 1,97             | 511,8 | 2,84 | 25,97             | ASHRAE HBP  |                |        |
|  | 45  | 130  | 95   | 115  |  |         |          |                  |              |                  |       |      |                   |             |                |        |
|  | -35   | 40   | 20   | 40   | 123,3  | 421     | 106,1    | 0,75             | 2,55         | 0,64             | 165,0 | 1,73 | 2,70              | EN12900 LBP |                |        |
|  | -31   | 104  | 68   | 104  |  |         |          |                  |              |                  |       |      |                   |             |                |        |
|  | -10   | 45   | 20   | 45   | 547,2  | 1869    | 470,9    | 1,61             | 5,51         | 1,39             | 339,2 | 2,15 | 12,81             | EN12900 MBP |                |        |
|  | 14  | 113  | 68   | 113  |  |         |          |                  |              |                  |       |      |                   |             |                |        |
|  | 5   | 50   | 20   | 50   | 994,8  | 3397    | 856,1    | 2,10             | 7,16         | 1,80             | 474,7 | 2,67 | 25,07             | EN12900 HBP |                |        |
|  | 41  | 122  | 68   | 122  |  |         |          |                  |              |                  |       |      |                   |             |                |        |

### Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, CCC, VDE, KC

|                  | 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  | 102,6            | 350     | 88,3     | 0,65  | 2,21     | 0,56      | 158,5 | 1,69 | 2,21   |
| cond. pressure   | -25  | -13  | 234,7            | 802     | 202,0    | 1,03  | 3,51     | 0,89      | 228,1 | 1,84 | 5,09   |
| pc= 45/113       | -15  | 5    | 435,5            | 1487    | 374,8    | 1,44  | 4,93     | 1,24      | 301,4 | 2,03 | 9,49   |
| return gas temp. | -10  | 14   | 567,7            | 1939    | 488,5    | 1,67  | 5,71     | 1,44      | 339,2 | 2,15 | 12,42  |
| RGT= 32/90       | 0    | 32   | 907,8            | 3100    | 781,2    | 2,18  | 7,44     | 1,88      | 416,6 | 2,42 | 20,07  |
| liquid temp      | 5    | 41   | 1120,5           | 3827    | 964,3    | 2,46  | 8,39     | 2,11      | 456,0 | 2,58 | 24,95  |
| Tliq= 45/113     | 15   | 59   | 1643,6           | 5613    | 1414,5   | 3,07  | 10,48    | 2,64      | 535,5 | 2,93 | 37,23  |
| [°C / °F]        | -35  | -31  | 64,6             | 221     | 55,6     | 0,44  | 1,49     | 0,38      | 147,9 | 1,63 | 1,54   |
| cond. pressure   | -25  | -13  | 175,0            | 598     | 150,6    | 0,77  | 2,63     | 0,66      | 226,8 | 1,83 | 4,18   |
| pc= 55/131       | -15  | 5    | 348,0            | 1188    | 299,5    | 1,12  | 3,82     | 0,96      | 311,1 | 2,09 | 8,38   |
| return gas temp  | -10  | 14   | 464,1            | 1585    | 399,4    | 1,31  | 4,46     | 1,12      | 355,1 | 2,24 | 11,22  |
| RGT= 32/90       | 0    | 32   | 767,6            | 2621    | 660,6    | 1,72  | 5,88     | 1,48      | 446,1 | 2,57 | 18,77  |
| liquid temp      | 5    | 41   | 959,8            | 3278    | 826,0    | 1,95  | 6,65     | 1,68      | 493,0 | 2,76 | 23,65  |
| Tliq= 55/131     | 15   | 59   | 1437,3           | 4909    | 1237,0   | 2,44  | 8,34     | 2,10      | 588,7 | 3,17 | 36,10  |

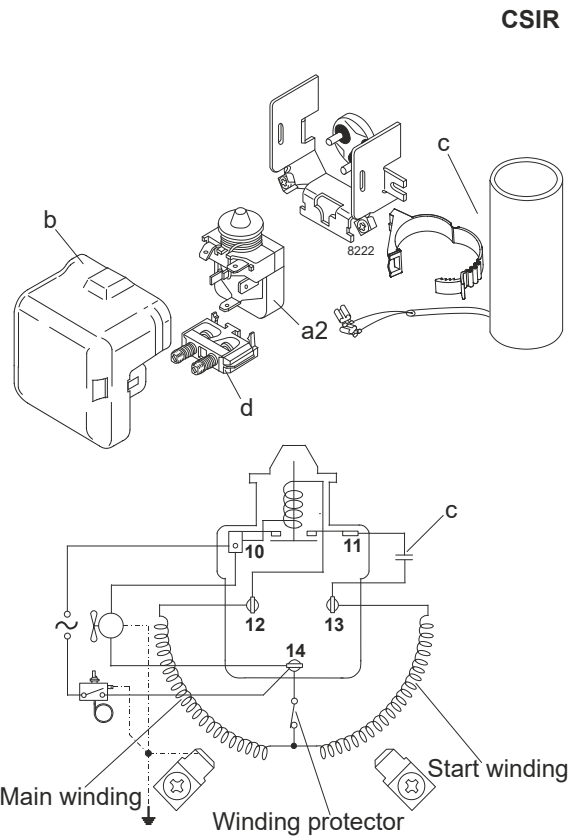
## Model

|             |              |                      |                |             |                 |
|-------------|--------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC12G</b> | <b>208-230V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>104G8250</b> |
|-------------|--------------|----------------------|----------------|-------------|-----------------|

## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | CSIR             |
| Power supply (nominal) | 208-230V/60Hz 1~ |
| Refrigerant            | R134a            |
| Application            | LBP              |
| Voltage range          | 198-254V         |
| Starting torque        | HST              |
| Approvals              | CCC<br>VDE<br>KC |

## Electrical accessories / wiring diagram

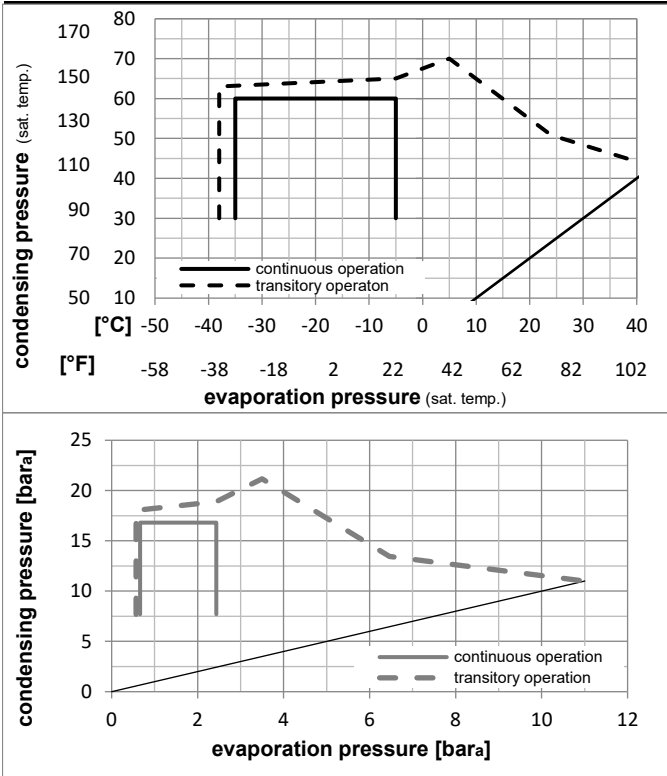


## Ambient/ machine room temperatures minimum /maximum

|                                 |                        |
|---------------------------------|------------------------|
| Ambient temperature range:      | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| Compressor cooling:             | fan 1,5m/s             |

## Operation Limits

## Operation pressure range



## Components

|    |                        |          |
|----|------------------------|----------|
| a2 | assy. relay            | 117U6003 |
| c  | start capacitor (80μF) | 117U5017 |
| d  | cord relief            | 103N1004 |
| b  | plastic cover          | 103N2008 |

### Model

Designation **SC12G** **208-230V/60Hz** Conf. 2 Sales code: **104G8250**

### Optimization + standard conditions

R134a, 230V/60Hz, CSIR, fan 1,5m/s, CCC, VDE, KC

|      |     | Evaporating pressure (saturation temperature) |    |              |        | Condensing pressure (saturation temperature) |         |          |       |          |           | Power consumption |                |             |  |
|------|-----|---|----|--------------|--------|--|---------|----------|-------|----------|-----------|-------------------|----------------|-------------|--|
|      |     | Return gas temp.                              |    | Liquid temp. |        | Cooling capacity                             |         | COP      | EER   |          | P1        | I                 | Ref. mass flow |             |  |
|      |     | pe  | pc | RGT          | Tliq   | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W]               | [A]            | [kg/h]      |  |
| [°C] | -23 | 54  | 32 | 32           | 288,0  | 983  | 247,8   | 1,03     | 3,51  | 0,88     | 280,6     | 2,06              | 5,59           | ASHRAE LBP  |  |
| [°F] | -10 | 130   | 90 | 90           |        |  |         |          |       |          |           |                   |                |             |  |
| [°C] | -7  | 54  | 35 | 46           | 718,1  | 2452   | 618,0   | 1,60     | 5,47  | 1,38     | 448,6     | 2,57              | 15,67          | ASHRAE MBP  |  |
| [°F] | 20  | 130   | 95 | 115          |        |  |         |          |       |          |           |                   |                |             |  |
| [°C] | 7,2 | 54  | 35 | 46           | 1367,9 | 4671   | 1177,2  | 2,29     | 7,81  | 1,97     | 598,1     | 3,12              | 30,35          | ASHRAE HBP  |  |
| [°F] | 45  | 130   | 95 | 115          |        |  |         |          |       |          |           |                   |                |             |  |
| [°C] | -35 | 40  | 20 | 40           | 142,9  | 488  | 123,0   | 0,74     | 2,54  | 0,64     | 192,4     | 1,90              | 3,14           | EN12900 LBP |  |
| [°F] | -31 | 104   | 68 | 104          |        |  |         |          |       |          |           |                   |                |             |  |
| [°C] | -10 | 45  | 20 | 45           | 638,9  | 2182   | 549,8   | 1,61     | 5,51  | 1,39     | 396,3     | 2,36              | 14,95          | EN12900 MBP |  |
| [°F] | 14  | 113   | 68 | 113          |        |  |         |          |       |          |           |                   |                |             |  |
| [°C] | 5   | 50  | 20 | 50           | 1162,6 | 3970   | 1000,5  | 2,10     | 7,16  | 1,80     | 554,8     | 2,94              | 29,30          | EN12900 HBP |  |
| [°F] | 41  | 122   | 68 | 122          |        |  |         |          |       |          |           |                   |                |             |  |

### Performance tables

R134a, 230V/60Hz, CSIR, fan 1,5m/s, CCC, VDE, KC

|                  | 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  | 118,7            | 405     | 102,2    | 0,64  | 2,19     | 0,55      | 184,8 | 1,86 | 2,56   |
| cond. pressure   | -30  | -22  | 187,4            | 640     | 161,2    | 0,83  | 2,84     | 0,72      | 224,9 | 1,93 | 4,05   |
| pc= 45/113       | -25  | -13  | 273,3            | 933     | 235,2    | 1,03  | 3,51     | 0,88      | 266,3 | 2,02 | 5,92   |
| return gas temp. | -23  | -10  | 306,9            | 1048    | 264,1    | 1,09  | 3,74     | 0,94      | 280,6 | 2,05 | 6,66   |
| RGT= 32/90       | -20  | -4   | 379,3            | 1295    | 326,4    | 1,23  | 4,20     | 1,06      | 308,7 | 2,12 | 8,24   |
| liquid temp      | -15  | 5    | 508,2            | 1735    | 437,3    | 1,44  | 4,93     | 1,24      | 352,1 | 2,23 | 11,08  |
| Tliq= 45/113     | -5   | 23   | 846,1            | 2889    | 728,1    | 1,92  | 6,55     | 1,65      | 441,2 | 2,51 | 18,60  |
| [°C / °F]        | -35  | -31  | 74,2             | 254     | 63,9     | 0,43  | 1,47     | 0,37      | 172,4 | 1,79 | 1,77   |
| cond. pressure   | -30  | -22  | 131,0            | 448     | 112,8    | 0,60  | 2,06     | 0,52      | 217,7 | 1,89 | 3,13   |
| pc= 55/131       | -25  | -13  | 203,3            | 694     | 175,0    | 0,77  | 2,62     | 0,66      | 264,7 | 2,01 | 4,86   |
| return gas temp  | -23  | -10  | 232,0            | 792     | 199,6    | 0,83  | 2,82     | 0,71      | 281,0 | 2,06 | 5,55   |
| RGT= 32/90       | -20  | -4   | 294,0            | 1004    | 253,0    | 0,94  | 3,20     | 0,81      | 313,3 | 2,15 | 7,05   |
| liquid temp      | -15  | 5    | 405,8            | 1386    | 349,2    | 1,12  | 3,81     | 0,96      | 363,4 | 2,30 | 9,77   |
| Tliq= 55/131     | -5   | 23   | 704,3            | 2405    | 606,1    | 1,51  | 5,14     | 1,30      | 467,5 | 2,64 | 17,12  |

## Model

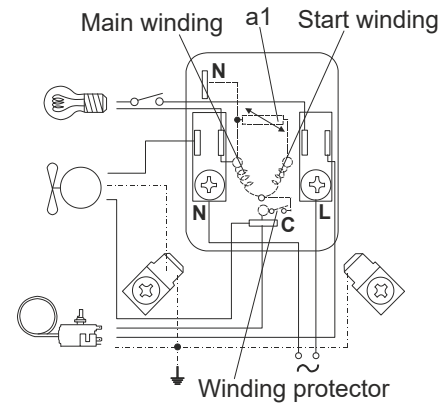
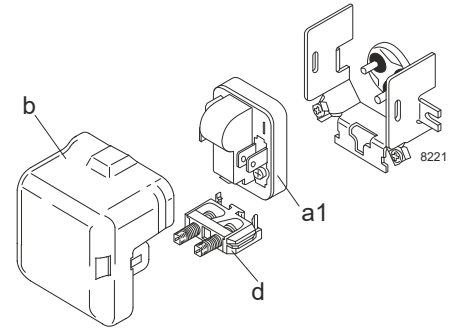
|             |              |                      |                |             |                 |
|-------------|--------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC12G</b> | <b>220-240V/50Hz</b> | <b>Conf. 3</b> | Sales code: | <b>104G8250</b> |
|-------------|--------------|----------------------|----------------|-------------|-----------------|

## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | RSIR             |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant            | R134a            |
| Application            | LBP+MBP+HBP      |
| Voltage range          | 187-254V         |
| Starting torque        | LST              |
| Approvals              | CCC<br>VDE<br>KC |

## Electrical accessories / wiring diagram

RSIR

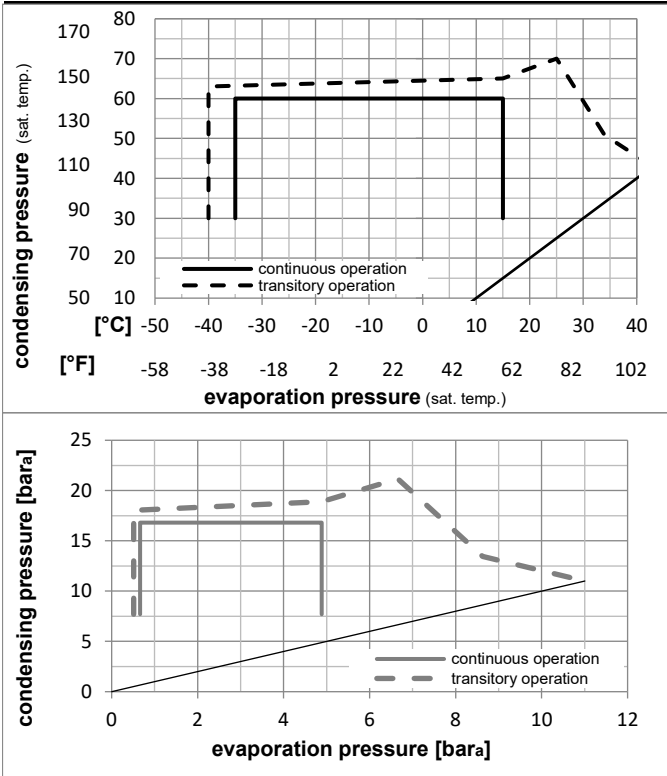


## Ambient/ machine room temperatures minimum /maximum

|                                 |                        |
|---------------------------------|------------------------|
| Ambient temperature range:      | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| Compressor cooling:             | fan 3m/s               |

## Operation Limits

### Operation pressure range



### Components

|    |                                  |          |
|----|----------------------------------|----------|
| a1 | PTC starter (220V, 250hm, 6.3mm) | 103N0011 |
| d  | cord relief                      | 103N1004 |
| b  | plastic cover                    | 103N2009 |



### Model

Designation **SC12G** **220-240V/50Hz** Conf. 3 Sales code: **104G8250**

### Optimization + standard conditions

R134a, 220V/50Hz, RSIR, fan 3m/s, CCC, VDE, KC

|      |      | Evaporating pressure (saturation temperature) |      |              |      | Condensing pressure (saturation temperature) |         |          |       |          |                     | Power consumption |                |        |             |
|------|------|---|------|--------------|------|--|---------|----------|-------|----------|---------------------|-------------------|----------------|--------|-------------|
|      |      | Return gas temp.                              |      | Liquid temp. |      | Cooling capacity                             |         | COP      | EER   |          | Current consumption |                   | Ref. mass flow |        |             |
|      |      | pe  | pc   | RGT          | Tliq | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh]           | P1                | I              | m      |             |
| [°C] | [°F] | [°C]  | [°F] | [°C]         | [°F] |  |         |          |       |          |                     | [W]               | [A]            | [kg/h] |             |
| -23  | -10  | 54  | 130  | 32           | 90   | 247,5  | 845     | 213,0    | 1,03  | 3,52     | 0,89                | 240,3             | 1,87           | 4,81   | ASHRAE LBP  |
| -7   | 20   | 54  | 130  | 35           | 95   | 615,0  | 2100    | 529,3    | 1,60  | 5,47     | 1,38                | 383,9             | 2,34           | 13,42  | ASHRAE MBP  |
| 7,2  | 45   | 54  | 130  | 35           | 95   | 1170,4                                       | 3997    | 1007,3   | 2,29  | 7,81     | 1,97                | 511,8             | 2,84           | 25,97  | ASHRAE HBP  |
| -35  | -31  | 40  | 104  | 20           | 68   | 123,3  | 421     | 106,1    | 0,75  | 2,55     | 0,64                | 165,0             | 1,73           | 2,70   | EN12900 LBP |
| -10  | 14   | 45  | 113  | 20           | 68   | 547,2  | 1869    | 470,9    | 1,61  | 5,51     | 1,39                | 339,2             | 2,15           | 12,81  | EN12900 MBP |
| 5    | 41   | 50  | 122  | 20           | 68   | 994,8  | 3397    | 856,1    | 2,10  | 7,16     | 1,80                | 474,7             | 2,67           | 25,07  | EN12900 HBP |

### Performance tables

R134a, 220V/50Hz, RSIR, fan 3m/s, CCC, VDE, KC

|                  | 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  | 102,6            | 350     | 88,3     | 0,65  | 2,21     | 0,56      | 158,5 | 1,69 | 2,21   |
| cond. pressure   | -25  | -13  | 234,7            | 802     | 202,0    | 1,03  | 3,51     | 0,89      | 228,1 | 1,84 | 5,09   |
| pc= 45/113       | -15  | 5    | 435,5            | 1487    | 374,8    | 1,44  | 4,93     | 1,24      | 301,4 | 2,03 | 9,49   |
| return gas temp. | -10  | 14   | 567,7            | 1939    | 488,5    | 1,67  | 5,71     | 1,44      | 339,2 | 2,15 | 12,42  |
| RGT= 32/90       | 0    | 32   | 907,8            | 3100    | 781,2    | 2,18  | 7,44     | 1,88      | 416,6 | 2,42 | 20,07  |
| liquid temp      | 5    | 41   | 1120,5           | 3827    | 964,3    | 2,46  | 8,39     | 2,11      | 456,0 | 2,58 | 24,95  |
| Tliq= 45/113     | 15   | 59   | 1643,6           | 5613    | 1414,5   | 3,07  | 10,48    | 2,64      | 535,5 | 2,93 | 37,23  |
| [°C / °F]        | -35  | -31  | 64,6             | 221     | 55,6     | 0,44  | 1,49     | 0,38      | 147,9 | 1,63 | 1,54   |
| cond. pressure   | -25  | -13  | 175,0            | 598     | 150,6    | 0,77  | 2,63     | 0,66      | 226,8 | 1,83 | 4,18   |
| pc= 55/131       | -15  | 5    | 348,0            | 1188    | 299,5    | 1,12  | 3,82     | 0,96      | 311,1 | 2,09 | 8,38   |
| return gas temp  | -10  | 14   | 464,1            | 1585    | 399,4    | 1,31  | 4,46     | 1,12      | 355,1 | 2,24 | 11,22  |
| RGT= 32/90       | 0    | 32   | 767,6            | 2621    | 660,6    | 1,72  | 5,88     | 1,48      | 446,1 | 2,57 | 18,77  |
| liquid temp      | 5    | 41   | 959,8            | 3278    | 826,0    | 1,95  | 6,65     | 1,68      | 493,0 | 2,76 | 23,65  |
| Tliq= 55/131     | 15   | 59   | 1437,3           | 4909    | 1237,0   | 2,44  | 8,34     | 2,10      | 588,7 | 3,17 | 36,10  |

## Model

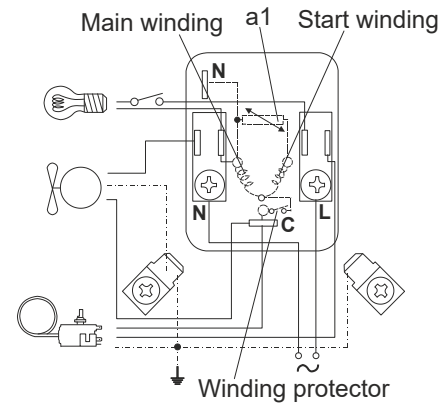
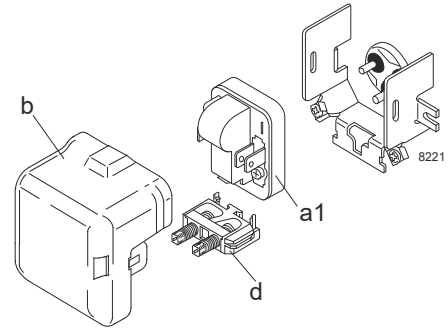
|             |              |                      |                |             |                 |
|-------------|--------------|----------------------|----------------|-------------|-----------------|
| Designation | <b>SC12G</b> | <b>208-230V/60Hz</b> | <b>Conf. 4</b> | Sales code: | <b>104G8250</b> |
|-------------|--------------|----------------------|----------------|-------------|-----------------|

## Configuration

|                        |                  |
|------------------------|------------------|
| Motorconfiguration     | RSIR             |
| Power supply (nominal) | 208-230V/60Hz 1~ |
| Refrigerant            | R134a            |
| Application            | LBP              |
| Voltage range          | 198-254V         |
| Starting torque        | LST              |
| Approvals              | CCC<br>VDE<br>KC |

## Electrical accessories / wiring diagram

RSIR

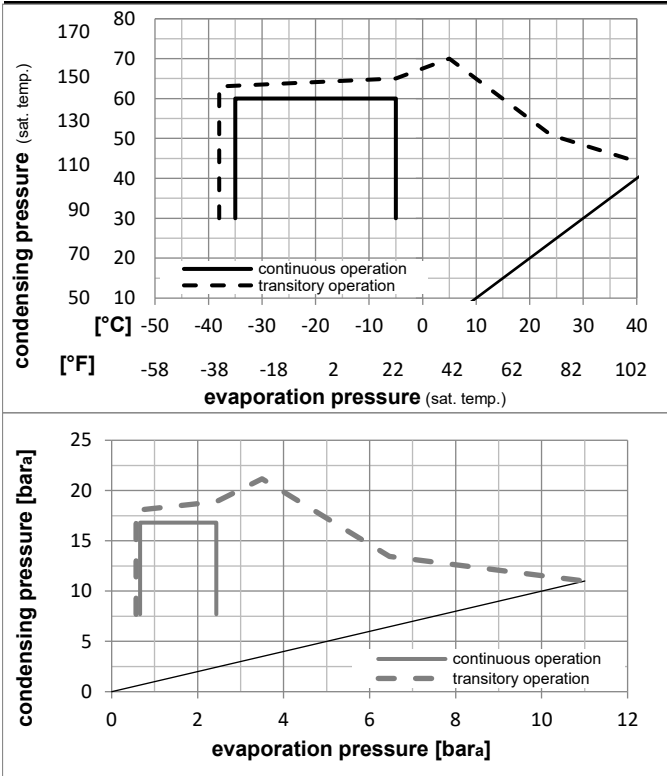


## Ambient/ machine room temperatures minimum /maximum

|                                 |                        |
|---------------------------------|------------------------|
| Ambient temperature range:      | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| Compressor cooling:             | fan 1,5m/s             |

## Operation Limits

## Operation pressure range



## Components

|    |                                  |          |
|----|----------------------------------|----------|
| a1 | PTC starter (220V, 250hm, 6.3mm) | 103N0011 |
| d  | cord relief                      | 103N1004 |
| b  | plastic cover                    | 103N2009 |

### Model

Designation **SC12G** **208-230V/60Hz** Conf. 4 Sales code: **104G8250**

### Optimization + standard conditions

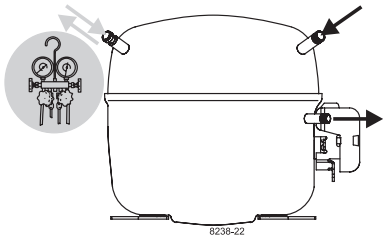
R134a, 230V/60Hz, RSIR, fan 1,5m/s, CCC, VDE, KC

|      |      | Evaporating pressure (saturation temperature) |      |              |      | Condensing pressure (saturation temperature) |         |          |       |          |                     | Power consumption |                |        |             |
|------|------|---|------|--------------|------|--|---------|----------|-------|----------|---------------------|-------------------|----------------|--------|-------------|
|      |      | Return gas temp.                              |      | Liquid temp. |      | Cooling capacity                             |         | COP      | EER   |          | Current consumption |                   | Ref. mass flow |        |             |
|      |      | pe  | pc   | RGT          | Tliq | [W]  | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh]           | P1                | I              | m      |             |
| [°C] | [°F] | [°C]  | [°F] | [°C]         | [°F] |  |         |          |       |          |                     | [W]               | [A]            | [kg/h] |             |
| -23  | -10  | 54  | 130  | 32           | 90   | 288,0  | 983     | 247,8    | 1,03  | 3,51     | 0,88                | 280,6             | 2,06           | 5,59   | ASHRAE LBP  |
| -7   | 20   | 54  | 130  | 35           | 95   | 718,1  | 2452    | 618,0    | 1,60  | 5,47     | 1,38                | 448,6             | 2,57           | 15,67  | ASHRAE MBP  |
| 7,2  | 45   | 54  | 130  | 35           | 95   | 1367,9                                       | 4671    | 1177,2   | 2,29  | 7,81     | 1,97                | 598,1             | 3,12           | 30,35  | ASHRAE HBP  |
| -35  | -31  | 40  | 104  | 20           | 68   | 142,9  | 488     | 123,0    | 0,74  | 2,54     | 0,64                | 192,4             | 1,90           | 3,14   | EN12900 LBP |
| -10  | 14   | 45  | 113  | 20           | 68   | 638,9  | 2182    | 549,8    | 1,61  | 5,51     | 1,39                | 396,3             | 2,36           | 14,95  | EN12900 MBP |
| 5    | 41   | 50  | 122  | 20           | 68   | 1162,6                                       | 3970    | 1000,5   | 2,10  | 7,16     | 1,80                | 554,8             | 2,94           | 29,30  | EN12900 HBP |

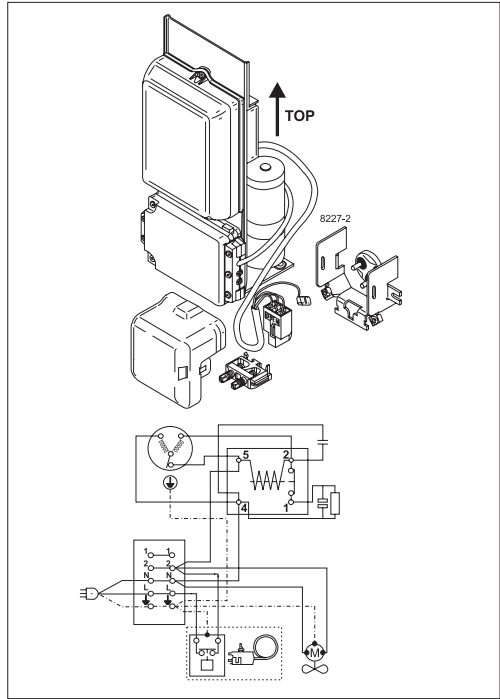
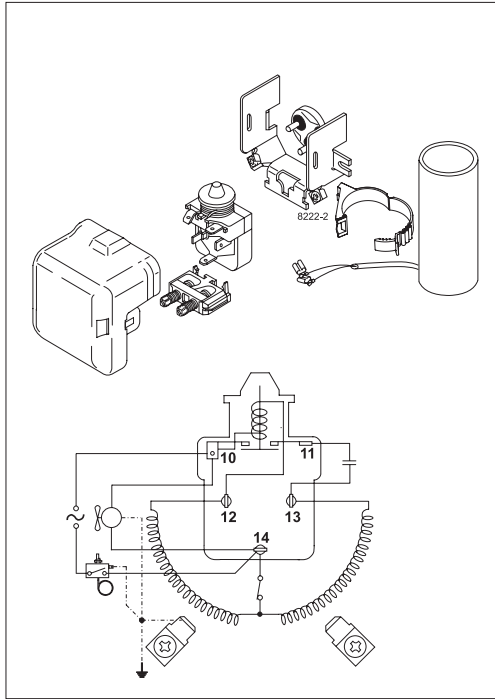
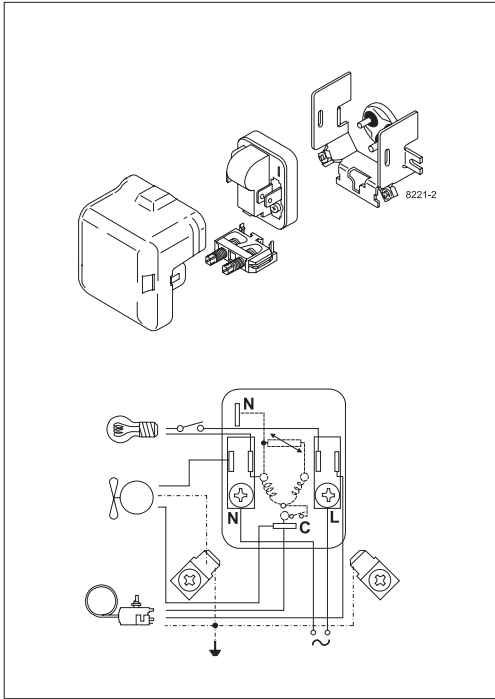
### Performance tables

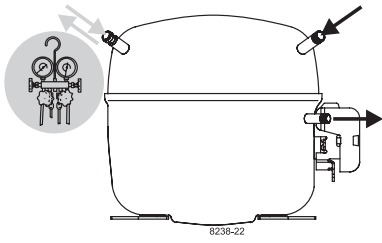
R134a, 230V/60Hz, RSIR, fan 1,5m/s, CCC, VDE, KC

|                  | 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  | 118,7            | 405     | 102,2    | 0,64  | 2,19     | 0,55      | 184,8 | 1,86 | 2,56   |
| cond. pressure   | -30  | -22  | 187,4            | 640     | 161,2    | 0,83  | 2,84     | 0,72      | 224,9 | 1,93 | 4,05   |
| pc= 45/113       | -25  | -13  | 273,3            | 933     | 235,2    | 1,03  | 3,51     | 0,88      | 266,3 | 2,02 | 5,92   |
| return gas temp. | -23  | -10  | 306,9            | 1048    | 264,1    | 1,09  | 3,74     | 0,94      | 280,6 | 2,05 | 6,66   |
| RGT= 32/90       | -20  | -4   | 379,3            | 1295    | 326,4    | 1,23  | 4,20     | 1,06      | 308,7 | 2,12 | 8,24   |
| liquid temp      | -15  | 5    | 508,2            | 1735    | 437,3    | 1,44  | 4,93     | 1,24      | 352,1 | 2,23 | 11,08  |
| Tliq= 45/113     | -5   | 23   | 846,1            | 2889    | 728,1    | 1,92  | 6,55     | 1,65      | 441,2 | 2,51 | 18,60  |
| [°C / °F]        | -35  | -31  | 74,2             | 254     | 63,9     | 0,43  | 1,47     | 0,37      | 172,4 | 1,79 | 1,77   |
| cond. pressure   | -30  | -22  | 131,0            | 448     | 112,8    | 0,60  | 2,06     | 0,52      | 217,7 | 1,89 | 3,13   |
| pc= 55/131       | -25  | -13  | 203,3            | 694     | 175,0    | 0,77  | 2,62     | 0,66      | 264,7 | 2,01 | 4,86   |
| return gas temp  | -23  | -10  | 232,0            | 792     | 199,6    | 0,83  | 2,82     | 0,71      | 281,0 | 2,06 | 5,55   |
| RGT= 32/90       | -20  | -4   | 294,0            | 1004    | 253,0    | 0,94  | 3,20     | 0,81      | 313,3 | 2,15 | 7,05   |
| liquid temp      | -15  | 5    | 405,8            | 1386    | 349,2    | 1,12  | 3,81     | 0,96      | 363,4 | 2,30 | 9,77   |
| Tliq= 55/131     | -5   | 23   | 704,3            | 2405    | 606,1    | 1,51  | 5,14     | 1,30      | 467,5 | 2,64 | 17,12  |



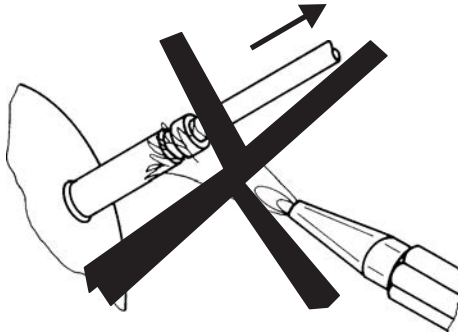
# SC Compressors





# SC Compressors

## Service/Repair – R290



8545



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