

Single Pack SC15/15DL 220-240V 50Hz CSCR

Single pack code number: **195B3087**

| Position | Title | Code | Amount |
|----------|--|----------|--------|
| 1 | Compressor SC15/15DL | 104L4093 | 1 |
| 2 | SC starting device (550mm) | 117-7029 | 2 |
| 3 | Cover | 103N2009 | 2 |
| 4 | Cord relief | 103N1004 | 2 |
| 5 | Bolt joint for one compressor M6 ø16mm | 118-1917 | 2 |

Secop GmbH • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • www.secop.com

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Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | SC15/15DL | 220-240V/50Hz 1~ | Sales code: | 104L4093 |
|-------------|------------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R404A, R507, R407C |
| Oil viscosity | 32cST | Displacement | 30,56cm ³ / 1,86cu.in |
| Oil quantity | 1233cm ³ / 41,7fl.oz | Compressors on pallet | 18 |
| Refr. charge - tech. limit | 2200g / 77,6oz | | |
| Free gas volume comp. | 2920cm ³ / 98,7fl.oz | | |
| Weight | 27,8kg / 61,3lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 3,5Ω (at 25°C) | | |
| Winding resistance aux | 13Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 135°C / 275°F | | |



General - Configurations with SC15/15DL

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

Applications with SC15/15DL

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| Refrigerant | R404A | R407C |
| Application | HBP | HBP |
| System cooling | fan 3m/s | fan 3m/s |
| Hot gas defrost | OK | OK |
| Long interval pull down | OK | OK |

Electrical data - Configurations with SC15/15DL

| | Conf. 1 | Conf. 2 |
|------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | 10μF | 10μF |
| Start capacitor | 80μF | 80μF |
| LRA (locked rotor amps / 4s) | 2x 22A | 2x 22A |
| RLA (rated load amps / 1s) | 2x 3,9A | 2x 3,9A |
| Cut in current | 2x 22A | 2x 22A |

Model

Designation

SC15/15DL

220-240V/50Hz 1~

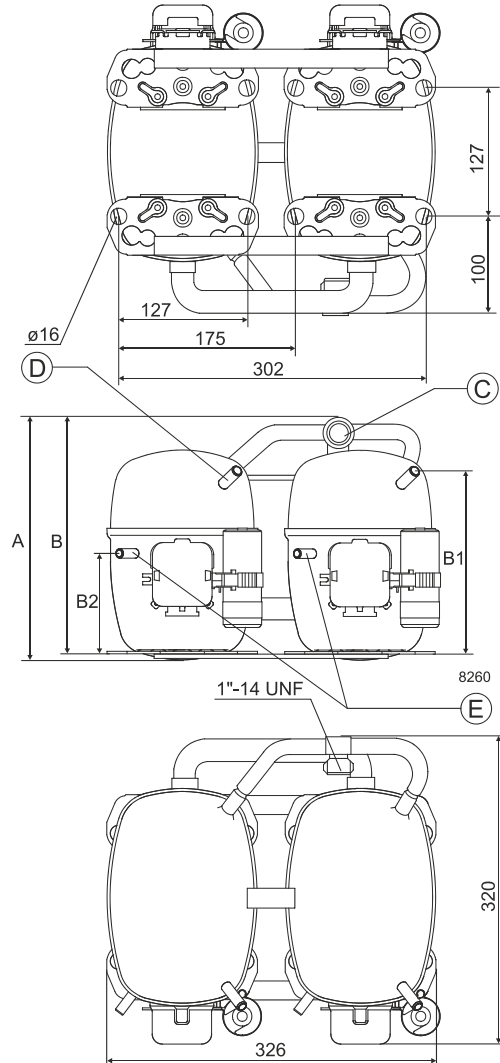
Sales code:

104L4093

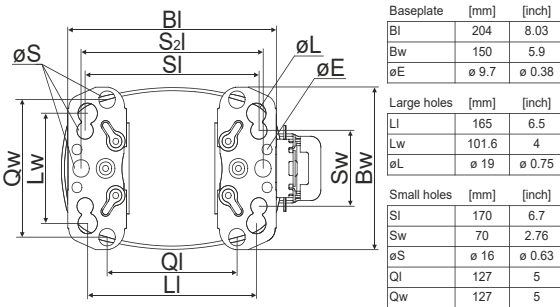
Compressor dimensions

| | | |
|----------------|----------|----------------|
| Housing | A Height | 259mm / 10,2in |
| | B Height | 254mm / 10in |
| | B1 | 193mm / 7,6in |
| | B2 | 110mm / 4,33in |

| Connectors | | Suction | Discharge | Process |
|-----------------------|------|----------------|--------------|--------------|
| | | C | E | D |
| Diameter | [mm] | øi 15,21-15,37 | øi 6,11-6,29 | øi 6,11-6,29 |
| (i:inside, o:outside) | [in] | øi 0,6-0,61 | øi 0,24-0,25 | øi 0,24-0,25 |
| Material | | steel | copper | copper |
| Horizontal angle | ±2° | 0° | 37° | 37° |
| Vertical angle | ±2° | 0° | 0° | 0° |
| Position l/h/w | [mm] | 0/0/0 | 0/0/0 | 0/0/0 |
| | [in] | 0/0/0 | 0/0/0 | 0/0/0 |
| Straight tube l. | [mm] | 10 | 12 | 12 |
| | [in] | 0,4 | 0,5 | 0,5 |



Compressor fixation

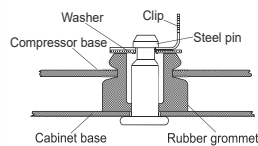


Mounting accessories

| | 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 |

Bolt joint

Snap-on



Application notes

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

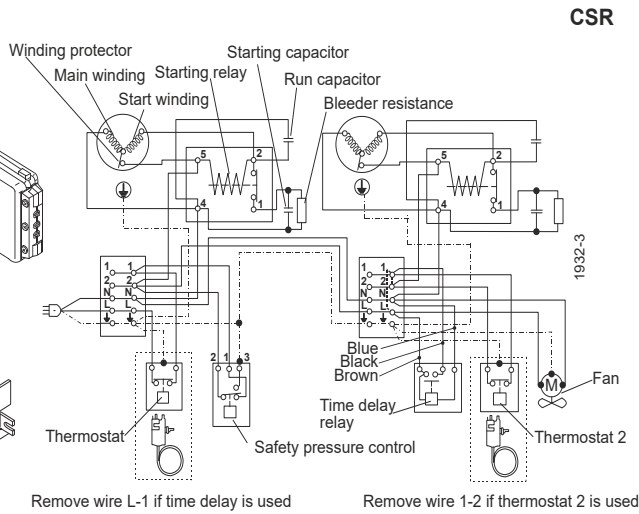
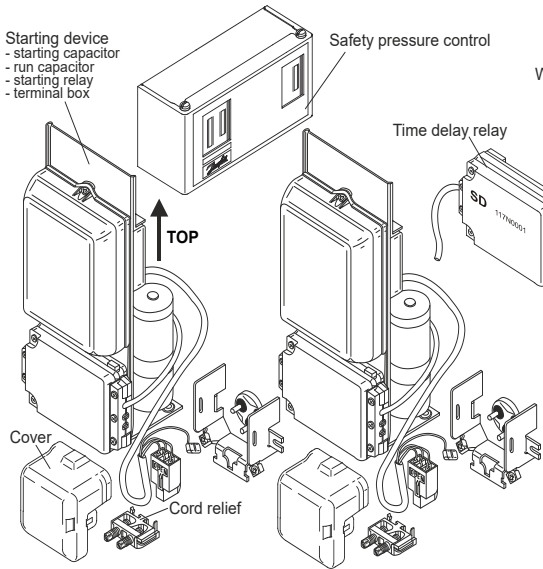
Twin should be used with a time-delay relay

| | | | | |
|--------------|------------------|----------------------|----------------|-----------------------------|
| Model | | | | |
| Designation | SC15/15DL | 220-240V/50Hz | Conf. 1 | Sales code: 104L4093 |

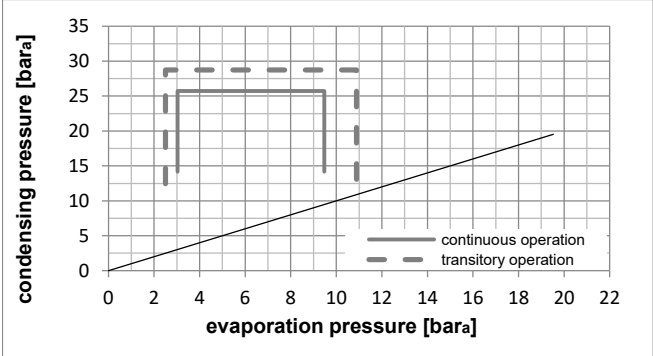
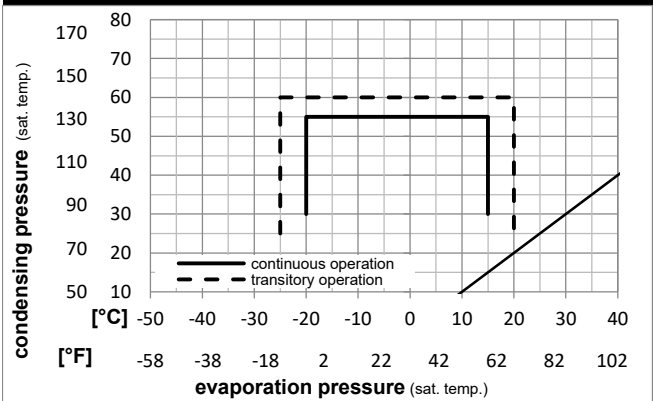
| | | |
|------------------------|------------------|--|
| Configuration | | Ambient/ machine room temperatures minimum /maximum |
| Motorconfiguration | CSCR | Ambient temperature range: 10 - 38°C / 50 - 101°F |
| Power supply (nominal) | 220-240V/50Hz 1~ | Machine room temperature range: 10 - 43°C / 50 - 110°F |
| Refrigerant | R404A | Compressor cooling: fan 3m/s |
| Application | HBP | |
| Voltage range | 198-254V | |
| Starting torque | HST | |
| Approvals | CCC, VDE, | |

Operation Limits

Electrical accessories / wiring diagram

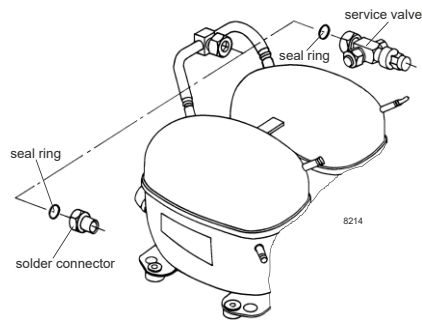


Operation pressure range



Components

- a3 SC starter kit (550mm) 117-7029
- b plastic cover 103N2009
- d cord relief 103N1004
- . Half Twin compressor 104L2862
- . Check valve (to be used with time-delay relay) 020-1014
- . Service valve 16mm 118-7351
- . Solder connector (alternative) 16 mm 118-7405
- . Seal ring for service valve and solder conn. 118-3638



Model

Designation **SC15/15DL** **220-240V/50Hz** Conf. 1 Sales code: **104L4093**

Optimization + standard conditions

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

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | | | Liquid temp. | | | Cooling capacity | | | COP | EER | Power consumption | | | ASHRAE HBP |
|------|------|---|-----|-----|------|--|---------|----------|------------------|----------|-----------|--------------|------|----------------|------------------|--------|--|-----|-----|-------------------|--|--|------------|
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | Ref. mass flow | | | | | | | | | |
| [°C] | [°F] | | | | | | | | | | | [W] | [A] | [kg/h] | | | | | | | | | |
| 7,2 | 45 | 54 | 130 | 35 | 95 | 46 | 115 | 4530,7 | 15473 | 3899,2 | 2,25 | 7,67 | 1,93 | 2017,0 | 10,33 | 128,83 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 41 | 55 | 131 | 32 | 90 | 55 | 131 | 3554,3 | 12139 | 3058,9 | 1,79 | 6,10 | 1,54 | 1989,6 | 10,19 | 118,37 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 41 | 50 | 122 | 20 | 68 | 50 | 122 | 3695,3 | 12620 | 3180,2 | 2,00 | 6,82 | 1,72 | 1850,1 | 9,55 | 126,02 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| -7 | 20 | 54 | 130 | 35 | 95 | 46 | 115 | 2625,7 | 8967 | 2259,7 | 1,56 | 5,33 | 1,34 | 1682,3 | 8,69 | 72,24 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| -10 | 14 | 55 | 131 | 32 | 90 | 55 | 131 | 1939,8 | 6625 | 1669,4 | 1,22 | 4,16 | 1,05 | 1590,6 | 8,24 | 62,10 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| -10 | 14 | 45 | 113 | 20 | 68 | 45 | 113 | 2274,9 | 7769 | 1957,8 | 1,57 | 5,38 | 1,35 | 1444,9 | 7,58 | 68,52 | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

Performance tables

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

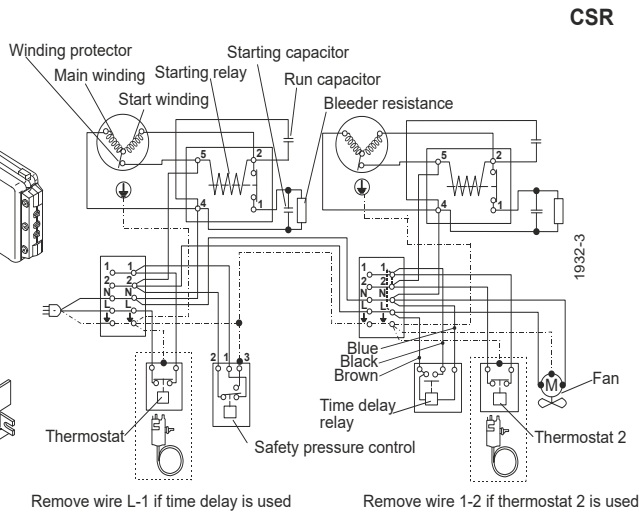
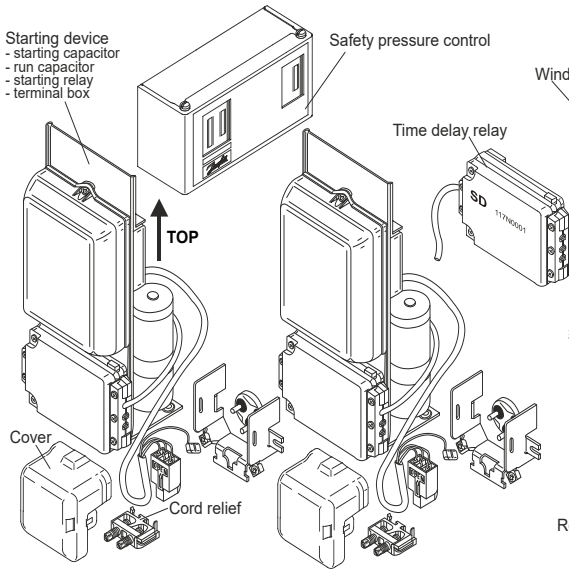
| | pe | | Cooling capacity | | | COP | EER | P1 | | | I | m |
|------------------|------|------|------------------|---------|----------|-------|----------|-----------|--------|-------|--------|---|
| | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| [°C / °F] | -20 | -4 | 1517,5 | 5183 | 1306,0 | 1,29 | 4,40 | 1,11 | 1178,1 | 6,19 | 41,17 | |
| cond. pressure | -15 | 5 | 1928,4 | 6586 | 1659,6 | 1,46 | 4,99 | 1,26 | 1318,8 | 6,93 | 52,68 | |
| pc= 45/113 | -10 | 14 | 2414,4 | 8246 | 2077,8 | 1,67 | 5,71 | 1,44 | 1444,9 | 7,58 | 66,49 | |
| return gas temp. | -5 | 23 | 2985,2 | 10195 | 2569,1 | 1,92 | 6,55 | 1,65 | 1555,9 | 8,14 | 82,99 | |
| RGT= 32/90 | 0 | 32 | 3650,6 | 12468 | 3141,8 | 2,21 | 7,55 | 1,90 | 1651,2 | 8,61 | 102,63 | |
| liquid temp | 5 | 41 | 4420,3 | 15096 | 3804,2 | 2,55 | 8,72 | 2,20 | 1730,3 | 9,00 | 125,92 | |
| Tliq= 45/113 | 15 | 59 | 6311,3 | 21554 | 5431,5 | 3,43 | 11,73 | 2,96 | 1837,4 | 9,50 | 186,11 | |
| [°C / °F] | -20 | -4 | 1152,9 | 3938 | 992,2 | 0,93 | 3,18 | 0,80 | 1237,7 | 6,50 | 36,28 | |
| cond. pressure | -15 | 5 | 1523,9 | 5204 | 1311,5 | 1,07 | 3,66 | 0,92 | 1422,5 | 7,42 | 48,33 | |
| pc= 55/131 | -10 | 14 | 1939,8 | 6625 | 1669,4 | 1,22 | 4,16 | 1,05 | 1590,6 | 8,24 | 62,10 | |
| return gas temp | -5 | 23 | 2410,3 | 8232 | 2074,4 | 1,38 | 4,73 | 1,19 | 1741,6 | 8,98 | 78,02 | |
| RGT= 32/90 | 0 | 32 | 2945,3 | 10059 | 2534,7 | 1,57 | 5,37 | 1,35 | 1874,8 | 9,63 | 96,58 | |
| liquid temp | 5 | 41 | 3554,3 | 12139 | 3058,9 | 1,79 | 6,10 | 1,54 | 1989,6 | 10,19 | 118,37 | |
| Tliq= 55/131 | 15 | 59 | 5033,4 | 17190 | 4331,8 | 2,33 | 7,95 | 2,00 | 2162,2 | 11,04 | 174,55 | |

| | | | | |
|--------------|------------------|----------------------|----------------|-----------------------------|
| Model | | | | |
| Designation | SC15/15DL | 220-240V/50Hz | Conf. 2 | Sales code: 104L4093 |

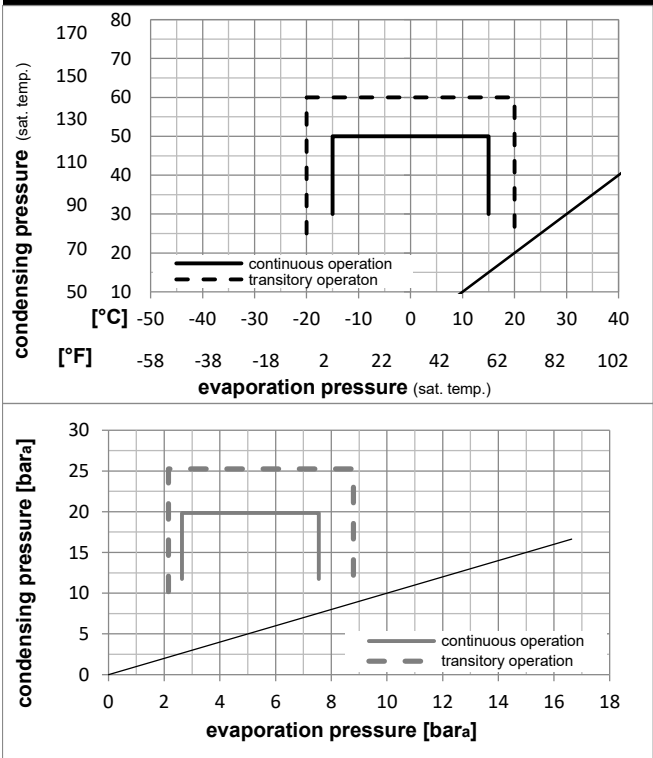
| | | |
|------------------------|------------------|--|
| Configuration | | Ambient/ machine room temperatures minimum /maximum |
| Motorconfiguration | CSCR | Ambient temperature range: 10 - 38°C / 50 - 101°F |
| Power supply (nominal) | 220-240V/50Hz 1~ | Machine room temperature range: 10 - 43°C / 50 - 110°F |
| Refrigerant | R407C | Compressor cooling: fan 3m/s |
| Application | HBP | |
| Voltage range | 198-254V | |
| Starting torque | HST | |
| Approvals | CCC, VDE, | |

Operation Limits

Electrical accessories / wiring diagram

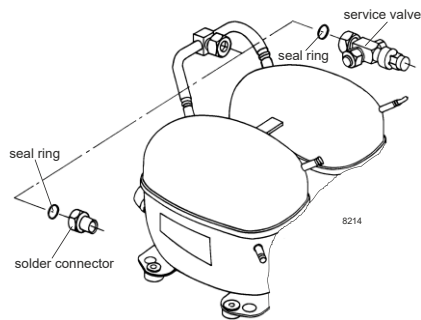


Operation pressure range



Components

- a3 SC starter kit (550mm) 117-7029
- b plastic cover 103N2009
- d cord relief 103N1004
- . Half Twin compressor 104L2862
- . Check valve (to be used with time-delay relay) 020-1014
- . Service valve 16mm 118-7351
- . Solder connector (alternative) 16 mm 118-7405
- . Seal ring for service valve and solder conn. 118-3638



Model

| | | | | | |
|-------------|------------------|----------------------|----------------|-------------|-----------------|
| Designation | SC15/15DL | 220-240V/50Hz | Conf. 2 | Sales code: | 104L4093 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Optimization + standard conditions

R407C, 220V/50Hz, CSCR, fan 3m/s, CCC, VDE

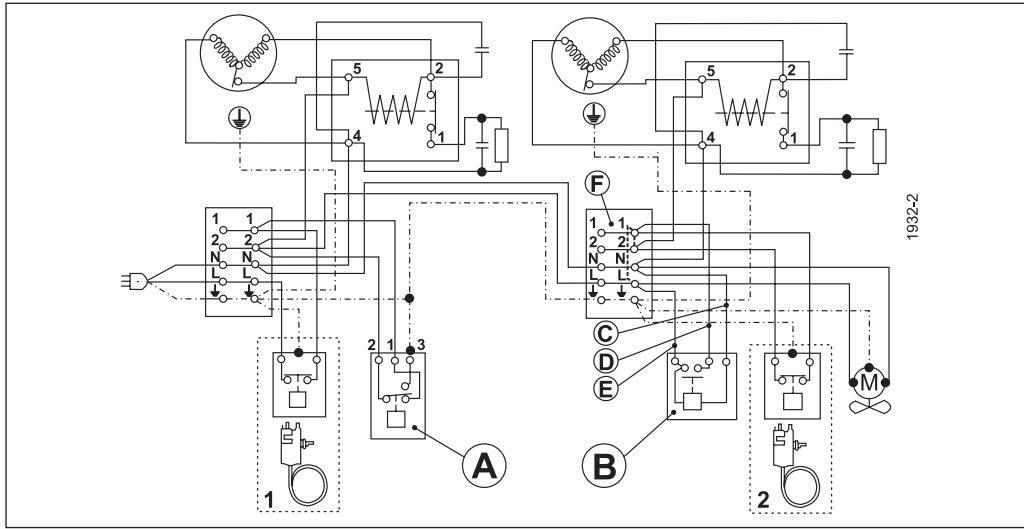
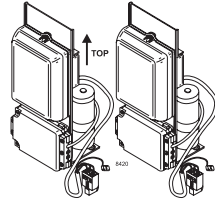
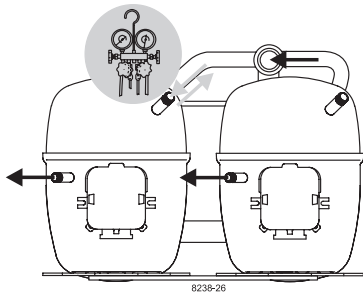
| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | | | | Power consumption | | | |
|------|-----|---|----|--------------|--------|--|---------|----------|-------|----------|-----------|---------------------|-------|--------------------|--|
| | | Return gas temp. | | Liquid temp. | | Cooling capacity | | COP | EER | | P1 | Current consumption | | Ref. mass flow | |
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| [°C] | 7,2 | 54 | 35 | 46 | 4139,0 | 14135 | 3562,0 | 2,59 | 8,85 | 2,23 | 1596,7 | 7,97 | 88,46 | ASHRAE HBP | |
| [°F] | 45 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | 5 | 55 | 32 | 55 | 3373,3 | 11521 | 2903,1 | 2,16 | 7,38 | 1,86 | 1561,0 | 7,81 | 80,42 | cecomaf HBP | |
| [°F] | 41 | 131 | 90 | 131 | | | | | | | | | | | |
| [°C] | 5 | 50 | 20 | 50 | 3531,4 | 12061 | 3039,2 | 2,34 | 7,99 | 2,01 | 1509,2 | 7,59 | 85,59 | EN12900 HBP | |
| [°F] | 41 | 122 | 68 | 122 | | | | | | | | | | | |
| [°C] | -7 | 54 | 35 | 46 | 2211,6 | 7553 | 1903,3 | 1,70 | 5,80 | 1,46 | 1301,9 | 6,66 | 46,18 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 1665,3 | 5687 | 1433,2 | 1,37 | 4,66 | 1,17 | 1219,8 | 6,30 | 38,66 | cecomaf MBP | |
| [°F] | 14 | 131 | 90 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 1952,9 | 6669 | 1680,7 | 1,66 | 5,65 | 1,42 | 1179,8 | 6,17 | 43,47 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |

Performance tables

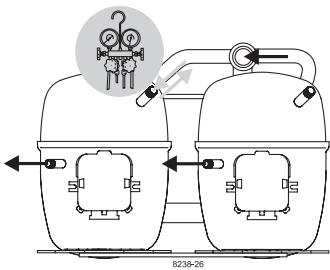
R407C, 220V/50Hz, CSCR, fan 3m/s, CCC, VDE

| | 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] | -15 | 5 | 1553,6 | 5306 | 1337,1 | 1,45 | 4,96 | 1,25 | 1068,7 | 5,68 | 32,27 |
| cond. pressure | -10 | 14 | 2022,4 | 6907 | 1740,5 | 1,71 | 5,85 | 1,48 | 1179,8 | 6,17 | 42,25 |
| pc= 45/113 | -5 | 23 | 2586,4 | 8833 | 2225,9 | 2,02 | 6,90 | 1,74 | 1280,9 | 6,60 | 54,39 |
| return gas temp. | 0 | 32 | 3257,2 | 11124 | 2803,2 | 2,37 | 8,11 | 2,04 | 1371,7 | 6,99 | 69,04 |
| RGT= 32/90 | 5 | 41 | 4046,5 | 13820 | 3482,5 | 2,79 | 9,52 | 2,40 | 1451,9 | 7,34 | 86,58 |
| liquid temp | 10 | 50 | 4966,0 | 16960 | 4273,8 | 3,26 | 11,15 | 2,81 | 1521,3 | 7,63 | 107,43 |
| Tliq= 45/113 | 15 | 59 | 6027,1 | 20584 | 5187,0 | 3,82 | 13,03 | 3,28 | 1579,5 | 7,88 | 132,11 |
| [°C / °F] | -15 | 5 | 1244,6 | 4251 | 1071,1 | 1,15 | 3,92 | 0,99 | 1084,0 | 5,70 | 28,71 |
| cond. pressure | -10 | 14 | 1665,3 | 5687 | 1433,2 | 1,37 | 4,66 | 1,17 | 1219,8 | 6,30 | 38,66 |
| pc= 55/131 | -5 | 23 | 2152,5 | 7351 | 1852,5 | 1,60 | 5,47 | 1,38 | 1344,7 | 6,85 | 50,34 |
| return gas temp | 0 | 32 | 2718,0 | 9283 | 2339,2 | 1,86 | 6,36 | 1,60 | 1458,5 | 7,35 | 64,13 |
| RGT= 32/90 | 5 | 41 | 3373,3 | 11521 | 2903,1 | 2,16 | 7,38 | 1,86 | 1561,0 | 7,81 | 80,42 |
| liquid temp | 10 | 50 | 4130,1 | 14105 | 3554,4 | 2,50 | 8,54 | 2,15 | 1651,7 | 8,22 | 99,69 |
| Tliq= 55/131 | 15 | 59 | 4999,9 | 17076 | 4303,0 | 2,89 | 9,87 | 2,49 | 1730,4 | 8,58 | 122,47 |

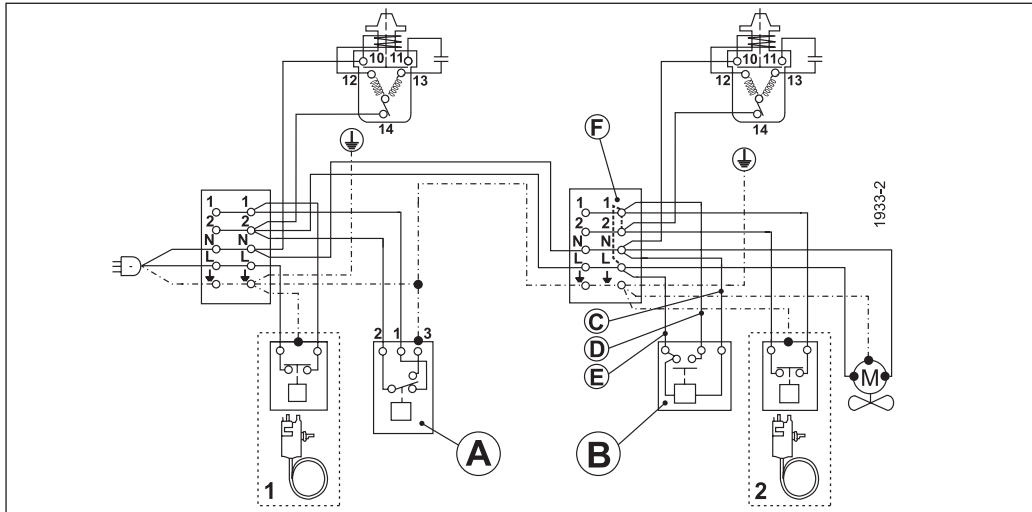
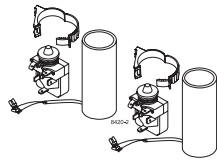
SC Twin Compressors



| | A | B | C | D | E | F | |
|------------|---------------------------------|-------------------------|-------|---------|------------|---|---|
| ENGLISH | Safety pressure control | Time delay relay | Blue | Black | Brown | Remove wire L-1 if time delay is used | Remove wire 1-2 if thermostat 2 is used |
| 中文 | 安全压力控制 | 延时继电器 | 蓝 | 黑 | 棕 | 若延时继电器使用，线L-1不使用 | 若温控器2使用，线1-2不使用 |
| Русский | Предохранительное реле давления | Реле задержки времени | Синий | Чёрный | Коричневый | Отсоедините провод L-1, если используется реле задержки времени | Отсоедините провод 1-2, если используется термостат 2 |
| DEUTSCH | Sicherheitsdruckschalter | Zeitrelais (verzögernd) | Blau | Schwarz | Braun | Bei Benutzung der Anlaßverzögerung Brücke L-1 entfernen | Bei Benutzung von Thermostat 2 Brücke 1-2 entfernen |
| FRANÇAIS | Pressostat | Relais de temporisation | Bleu | Noir | Marron | Supprimer la connection L-1 si le relais de temporisation est utilisé | Supprimer la connection 1-2 si thermostat 2 est utilisé |
| ESPAÑOL | Presostato de seguridad | Relé de retardo | Azul | Negro | Marrón | Quitar cable L-1, si se utiliza un relé de retardo | Quitar cable 1-2, si se utiliza el termostato 2 |
| ITALIANO | Pressostato | Relè di ritardo avviam. | Blu | Nero | Marrone | Eliminare il cavo L-1 se è utilizzato il ritardatore | Eliminare il cavo 1-2 se è utilizzato il termostato 2 |
| NEDERLANDS | Pressostaat | Tijdvertraging-relais | Blauw | Zwart | Bruin | Verwijder draad L-1 indien tijdvertraging wordt toegepast | Verwijder draad 1-2 indien thermostaat wordt toegepast |
| DANSK | Sikkerhedspressostat | Tidsforsinkelsesrelæ | Blå | Sort | Brun | Ved tidsforsinkelse fjernes ledning L-1 | Ved termostat 2 fjernes ledning 1-2 |
| SVENSKA | Säkerhetspressostat | Tidsfördröjningsrelä | Blå | Svart | Brun | Vid anslutning av tidsfördröjningsrelä avlägsnas bygling L-1 | Vid anslutning av termostat 2 avlägsnas bygling 1-2 |



SC Twin Compressors



| | A | B | C | D | E | F | |
|------------|---------------------------------|-------------------------|-------|---------|------------|---|---|
| ENGLISH | Safety pressure control | Time delay relay | Blue | Black | Brown | Remove wire L-1 if time delay is used | Remove wire 1-2 if thermostat 2 is used |
| 中文 | 安全压力控制 | 延时继电器 | 蓝 | 黑 | 棕 | 若延时继电器使用, 线L-1不使用 | 若温控器2使用, 线1-2不使用 |
| Русский | Предохранительное реле давления | Реле задержки времени | Синий | Чёрный | Коричневый | Отсоедините провод L-1, если используется реле задержки времени | Отсоедините провод 1-2, если используется термостат 2 |
| DEUTSCH | Sicherheitsdruckschalter | Zeitrelais (verzögernd) | Blau | Schwarz | Braun | Bei Benutzung der Anlaufverzögerung Brücke L-1 entfernen | Bei Benutzung von Thermostat 2 Brücke 1-2 entfernen |
| FRANÇAIS | Pressostat | Relais de temporisation | Bleu | Noir | Marron | Supprimer la connection L-1 si le relais de temporisation est utilisé | Supprimer la connection 1-2 si thermostat 2 est utilisé |
| ESPAÑOL | Presostato de seguridad | Relé de retardo | Azul | Negro | Marrón | Quitar cable L-1, si se utiliza un relé de retardo | Quitar cable 1-2, si se utiliza el termostato 2 |
| ITALIANO | Pressostato | Relè di ritardo avvia. | Blu | Nero | Marrone | Eliminare il cavo L-1 se è utilizzato il ritardatore | Eliminare il cavo 1-2 se è utilizzato il termostato 2 |
| NEDERLANDS | Pressostaat | Tijdvertraging-relais | Blauw | Zwart | Bruin | Verwijder draad L-1 indien tijdvertraging wordt toegepast | Verwijder draad 1-2 indien thermostaat wordt toegepast |
| DANSK | Sikkerhedspressostat | Tidsforsinkelsesrelæ | Blå | Sort | Brun | Ved tidsforsinkelse fjernes ledning L-1 | Ved termostat 2 fjernes ledning 1-2 |
| SVENSKA | Säkerhetspressostat | Tidsfördröjningsrelä | Blå | Svart | Brun | Vid anslutning av tidsfördröjningsrelä avlägsnas bygling L-1 | Vid anslutning av termostat 2 avlägsnas bygling 1-2 |

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