

Single Pack SC21/21CL 220-240V 50Hz CSCR

Single pack code number: **195B3009**

| Position | Title | Code | Amount |
|----------|--|----------|--------|
| 1 | Compressor SC21/21CL | 104L4094 | 1 |
| 2 | SC starting device (550mm) | 117-7027 | 2 |
| 3 | Cover | 103N2009 | 2 |
| 4 | Cord relief | 103N1004 | 2 |
| 5 | Bolt joint for one compressor M6 ø16mm | 118-1917 | 2 |

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Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | SC21/21CL | 220-240V/50Hz 1~ | Sales code: | 104L4094 |
|-------------|------------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|---------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R404A, R452A, R507 |
| Oil viscosity | 32,5cST | Displacement | 41,9cm ³ / 2,56cu.in |
| Oil quantity | 1218cm ³ / 41,2fl.oz | Compressors on pallet | 18 |
| Refr. charge - tech. limit | 2200g / 77,6oz | | |
| Free gas volume comp. | 2920cm ³ / 98,7fl.oz | | |
| Weight | 29,1kg / 64,2lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 3,4Ω (at 25°C) | | |
| Winding resistance aux | 14,4Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 135°C / 275°F | | |



General - Configurations with SC21/21CL

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

Applications with SC21/21CL

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

Electrical data - Configurations with SC21/21CL

| | Conf. 1 |
|------------------------------|----------------|
| Starting device type | relay |
| Run capacitor | 10μF |
| Start capacitor | 80μF |
| LRA (locked rotor amps / 4s) | 2x 23,4A |
| RLA (rated load amps / 1s) | 2x 4,3A |
| Cut in current | 2x 23,4A |

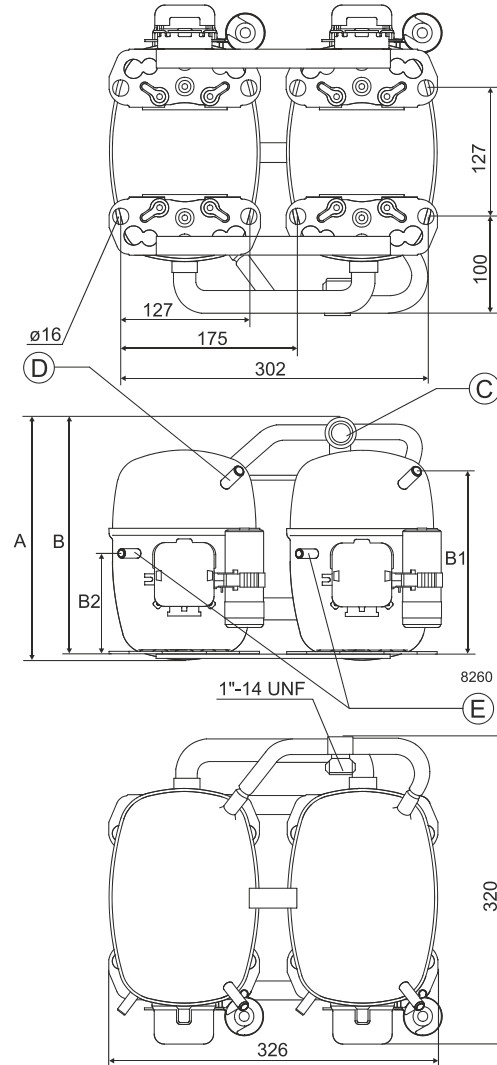
Model

| | | | | |
|-------------|------------------|------------------|-------------|-----------------|
| Designation | SC21/21CL | 220-240V/50Hz 1~ | Sales code: | 104L4094 |
|-------------|------------------|------------------|-------------|-----------------|

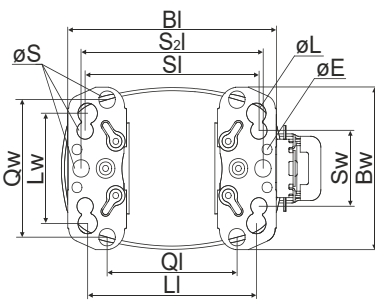
Compressor dimensions

| | | |
|----------------|----------|----------------|
| 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 |

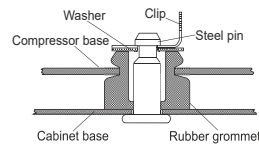
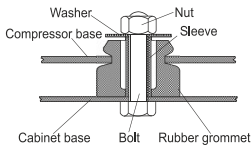


Compressor fixation



| Baseplate | [mm] | [inch] |
|-------------|-------|--------|
| BI | 204 | 8.03 |
| Bw | 150 | 5.9 |
| øE | ø 9.7 | ø 0.38 |
| Large holes | | |
| LI | 165 | 6.5 |
| Lw | 101.6 | 4 |
| øL | ø 19 | ø 0.75 |
| Small holes | | |
| SI | 170 | 6.7 |
| Sw | 70 | 2.76 |
| øS | ø 16 | ø 0.63 |
| QI | 127 | 5 |
| Qw | 127 | 5 |

| 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 |
| <u>Bolt joint</u> | <u>Snap-on</u> | |



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 | SC21/21CL | 220-240V/50Hz | Conf. 1 | Sales code: | 104L4094 |
|-------------|------------------|----------------------|----------------|-------------|-----------------|

Configuration

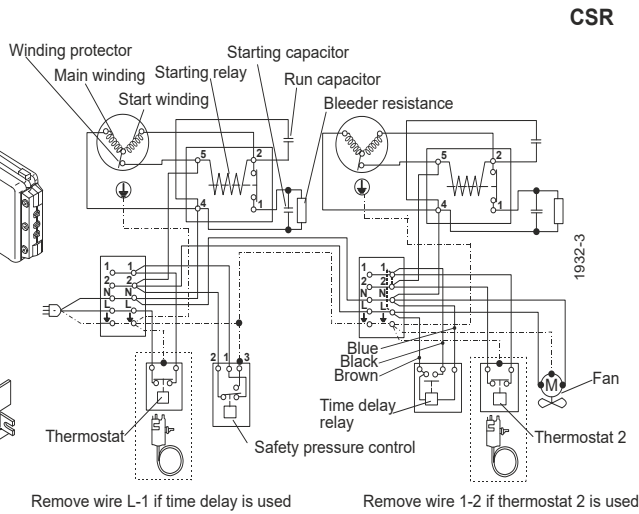
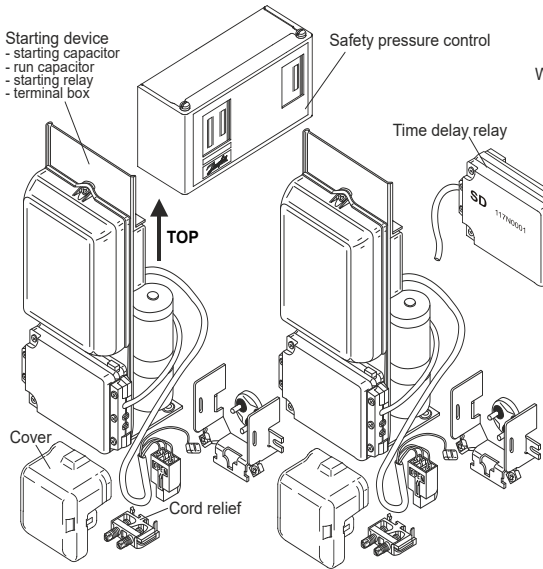
| | |
|------------------------|------------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R404A |
| Application | LBP |
| Voltage range | 198-254V |
| Starting torque | HST |
| Approvals | VDE, EAC, |

Ambient/ machine room temperatures minimum /maximum

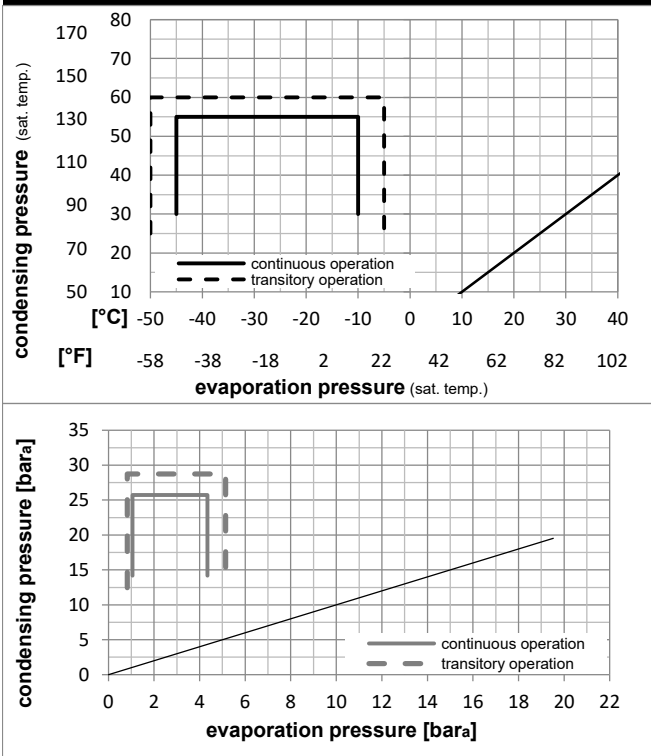
| | |
|---------------------------------|------------------------|
| Ambient temperature range: | 10 - 38°C / 50 - 101°F |
| Machine room temperature range: | 10 - 43°C / 50 - 110°F |
| Compressor cooling: | fan 3m/s |

Operation Limits

Electrical accessories / wiring diagram

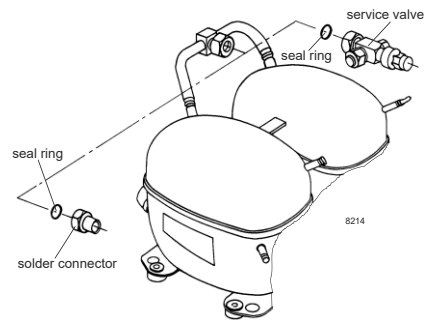


Operation pressure range



Components

| | | |
|----|--|----------|
| a3 | SC starter kit (550mm) | 117-7027 |
| b | plastic cover | 103N2009 |
| d | cord relief | 103N1004 |
| . | Half Twin compressor | 104L2326 |
| . | 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 **SC21/21CL** **220-240V/50Hz** Conf. 1 Sales code: **104L4094**

Optimization + standard conditions

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

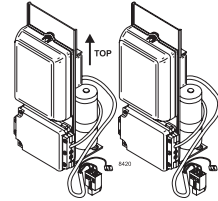
| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | | Liquid temp. | | Cooling capacity | | | COP | EER | Power consumption | | | ASHRAE LBP |
|------|------|---|------|------|------|--|---------|----------|------------------|----------|--------------|--------|------------------|---------------------|--|----------------|-------------|-------------------|--|--|------------|
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | Current consumption | | Ref. mass flow | cecomaf LBP | | | | |
| [°C] | [°F] | [°C] | [°F] | [°C] | [°C] | | | | | | | [W] | [A] | [kg/h] | | | | | | | |
| -23 | -10 | 54 | 130 | 32 | 32 | 1805,9 | 6167 | 1554,1 | 1,18 | 4,02 | 1,01 | 1534,7 | 8,03 | 42,08 | | | | | | | |
| -25 | -13 | 55 | 131 | 32 | 55 | 1216,9 | 4156 | 1047,3 | 0,83 | 2,82 | 0,71 | 1471,7 | 7,72 | 38,03 | | | | | | | |
| -35 | -31 | 40 | 104 | 20 | 40 | 1018,1 | 3477 | 876,2 | 0,98 | 3,34 | 0,84 | 1042,1 | 5,90 | 27,67 | | EN12900 LBP | | | | | |
| -23 | -10 | 49 | 120 | 4,4 | 49 | 1371,1 | 4683 | 1180,0 | 0,91 | 3,12 | 0,79 | 1499,3 | 7,83 | 48,54 | | ARI540 LBP | | | | | |
| -23 | -10 | 41 | 105 | 32 | 32 | 2182,0 | 7452 | 1877,9 | 1,53 | 5,23 | 1,32 | 1423,7 | 7,60 | 50,84 | | AHAM LBP | | | | | |
| -35 | -31 | 45 | 113 | 32 | 45 | 910,0 | 3108 | 783,2 | 0,85 | 2,91 | 0,73 | 1068,4 | 5,88 | 24,33 | | opt | | | | | |

Performance tables

R404A, 220V/50Hz, CSCR, fan 3m/s, 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 | 451,9 | 1543 | 388,9 | 0,57 | 1,93 | 0,49 | 799,3 | 4,80 | 12,00 | |
| cond. pressure | -35 | -31 | 910,0 | 3108 | 783,2 | 0,85 | 2,91 | 0,73 | 1068,4 | 5,88 | 24,33 | |
| pc= 45/113 | -30 | -22 | 1234,8 | 4217 | 1062,6 | 1,00 | 3,43 | 0,86 | 1229,6 | 6,61 | 33,14 | |
| return gas temp. | -25 | -13 | 1625,6 | 5552 | 1399,0 | 1,16 | 3,95 | 1,00 | 1404,3 | 7,42 | 43,85 | |
| RGT= 32/90 | -20 | -4 | 2084,3 | 7118 | 1793,8 | 1,31 | 4,48 | 1,13 | 1589,3 | 8,28 | 56,55 | |
| liquid temp | -15 | 5 | 2612,7 | 8923 | 2248,5 | 1,47 | 5,01 | 1,26 | 1781,6 | 9,15 | 71,37 | |
| Tliq= 45/113 | -10 | 14 | 3212,5 | 10971 | 2764,7 | 1,62 | 5,55 | 1,40 | 1978,0 | 9,99 | 88,47 | |
| [°C / °F] | -45 | -49 | 348,9 | 1192 | 300,3 | 0,44 | 1,49 | 0,37 | 802,0 | 4,57 | 10,72 | |
| cond. pressure | -35 | -31 | 655,3 | 2238 | 564,0 | 0,59 | 2,02 | 0,51 | 1106,2 | 5,89 | 20,27 | |
| pc= 55/131 | -30 | -22 | 903,3 | 3085 | 777,4 | 0,70 | 2,40 | 0,61 | 1282,8 | 6,76 | 28,07 | |
| return gas temp | -25 | -13 | 1216,9 | 4156 | 1047,3 | 0,83 | 2,82 | 0,71 | 1471,7 | 7,72 | 38,03 | |
| RGT= 32/90 | -20 | -4 | 1597,8 | 5457 | 1375,1 | 0,96 | 3,27 | 0,82 | 1669,6 | 8,74 | 50,27 | |
| liquid temp | -15 | 5 | 2047,9 | 6994 | 1762,4 | 1,09 | 3,73 | 0,94 | 1873,5 | 9,79 | 64,95 | |
| Tliq= 55/131 | -10 | 14 | 2568,8 | 8773 | 2210,7 | 1,23 | 4,22 | 1,06 | 2080,1 | 10,82 | 82,23 | |

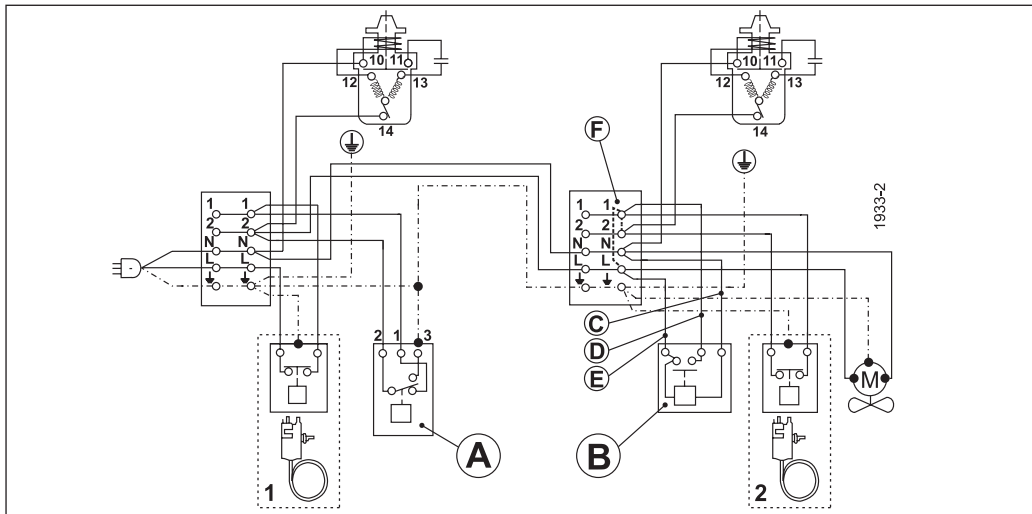
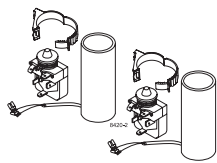
SC Twin Compressors



| | 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 | Tijdvertragingrelais | 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 tidfördröjningsrelä 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 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 | Tidsforsinkel-sesrelæ | 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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