

Single Pack SC18/18G 220-240V 50Hz CSIR

Single pack code number: **195B3083**

| Position | Title | Code | Amount |
|----------|---|----------|--------|
| 1 | Compressor SC18/18G | 104G8880 | 1 |
| 2 | Starting relay | 117U6019 | 2 |
| 3 | Starting capacitor (80 μ F 220V, 6.3mm) | 117U5017 | 2 |
| 4 | Cover | 103N2009 | 2 |
| 5 | Cord relief | 103N1004 | 2 |
| 6 | Bolt joint for one compressor M6 \varnothing 16mm | 118-1917 | 2 |

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Model

| | | | | |
|-------------|-----------------|------------------|-------------|-----------------|
| Designation | SC18/18G | 220-240V/50Hz 1~ | Sales code: | 104G8880 |
|-------------|-----------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R134a |
| Oil viscosity | 22cST | Displacement | 35,38cm ³ / 2,16cu.in |
| Oil quantity | 1238cm ³ / 41,9fl.oz | Compressors on pallet | 18 |
| Refr. charge - tech. limit | 2200g / 77,6oz | | |
| Free gas volume comp. | 2920cm ³ / 98,7fl.oz | | |
| Weight | 28kg / 61,7lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 3,7Ω (at 25°C) | | |
| Winding resistance aux | 14Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 135°C / 275°F | | |



General - Configurations with SC18/18G

| | |
|------------------------|----------------|
| | Conf. 1 |
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz |
| Number of phases | 1 |
| Voltage range | 187-254V |
| Approvals | CCC, VDE |
| Starting torque | HST |
| Note | - / - |

Applications with SC18/18G

| | |
|-------------------------|----------------|
| | Conf. 1 |
| Refrigerant | R134a |
| Application | LBP+MBP+HBP |
| System cooling | fan 3m/s |
| Hot gas defrost | OK |
| Long interval pull down | OK |

Electrical data - Configurations with SC18/18G

| | |
|------------------------------|----------------|
| | Conf. 1 |
| Starting device type | relay |
| Run capacitor | - / - |
| Start capacitor | 80μF |
| LRA (locked rotor amps / 4s) | 2x 20,43A |
| RLA (rated load amps / 1s) | 2x 3,9A |
| Cut in current | 2x 20,43A |

Model

Designation

SC18/18G

220-240V/50Hz 1~

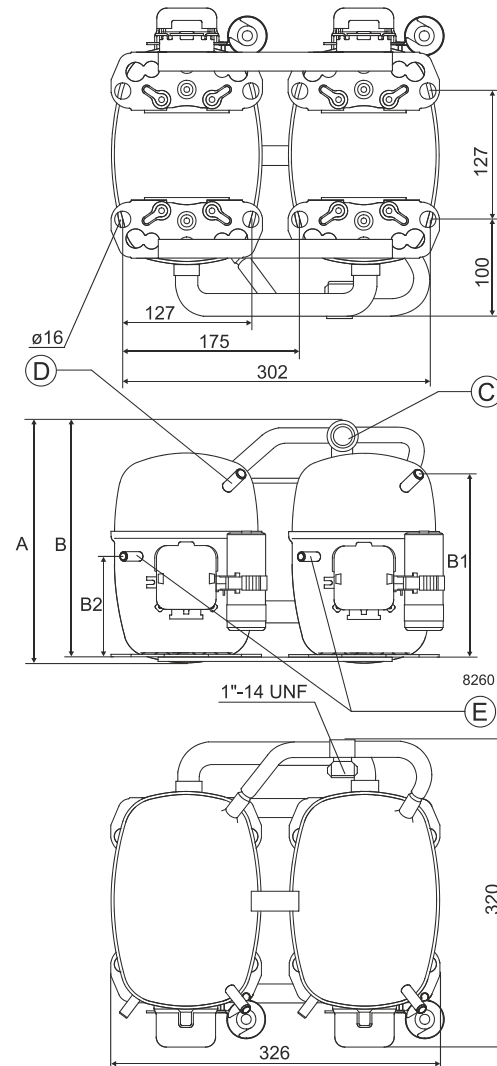
Sales code:

104G8880

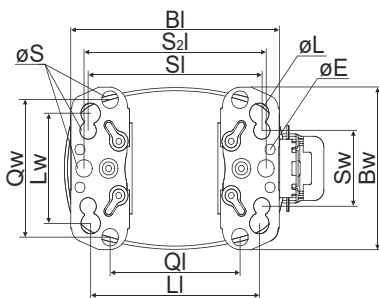
Compressor dimensions

| 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



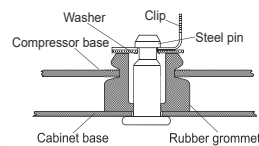
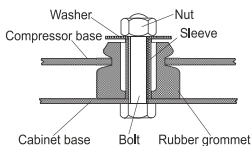
| Baseplate | [mm] | [inch] |
|-------------|-------|--------|
| BI | 204 | 8.03 |
| Bw | 150 | 5.9 |
| øE | ø 9.7 | ø 0.38 |
| Large holes | | |
| LI | 165 | 6.5 |
| Lw | 101.6 | 4 |
| øL | ø 19 | ø 0.75 |
| Small holes | | |
| SI | 170 | 6.7 |
| Sw | 70 | 2.76 |
| øS | ø 16 | ø 0.63 |
| QI | 127 |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

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

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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, VDE, |

Ambient/ machine room temperatures minimum /maximum

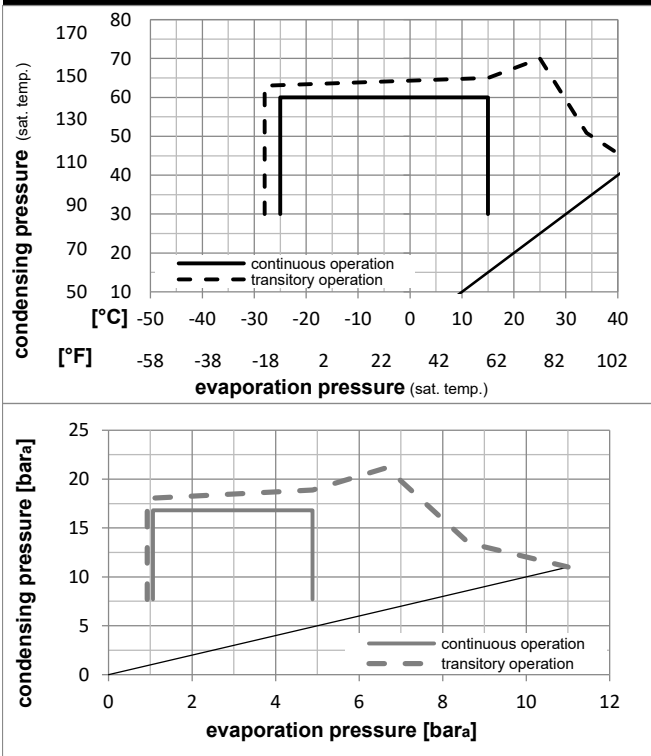
| | |
|---------------------------------|------------------------|
| Ambient temperature range: | 10 - 43°C / 50 - 110°F |
| Machine room temperature range: | 10 - 48°C / 50 - 119°F |
| Compressor cooling: | fan 3m/s |

Operation Limits

Electrical accessories / wiring diagram

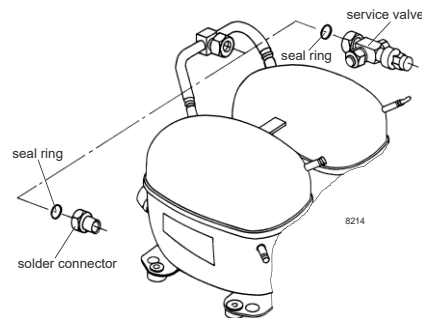


Operation pressure range



Components

| | | |
|----|--|----------|
| a2 | relay | 117U6019 |
| c | start capacitor (80µF) | 117U5017 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2009 |
| . | Check valve (to be used with time-delay relay) | 020-1014 |
| . | Service valve 12mm | 118-7350 |
| . | Solder connector (alternative) 12 mm | 104B0584 |
| . | Seal ring for service valve and solder conn. | 118-3638 |



Model

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

Optimization + standard conditions

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

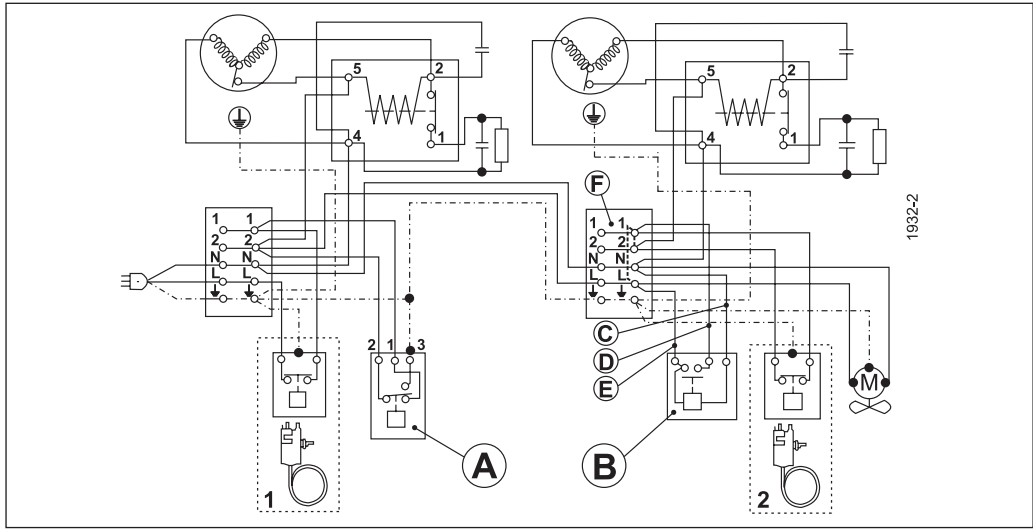
| | Evaporating pressure (saturation temperature) | | | | Cooling capacity | COP | EER | Power consumption | | | ASHRAE | | | | | | | |
|--|---|------|------|------|------------------|---------|----------|-------------------|----------|----------------|--------|------|--------|------|--------|------|-------|-------------|
| | pe | pc | RGT | Tliq | | | | 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 | -10 | 54 | 130 | 32 | 90 | 32 | 90 | 780,7 | 2666 | 671,9 | 1,12 | 3,83 | 0,96 | 696,8 | 5,22 | 15,16 | ASHRAE LBP |
| | -7 | 20 | 54 | 130 | 35 | 95 | 46 | 115 | 1777,0 | 6069 | 1529,3 | 1,63 | 5,58 | 1,41 | 1088,2 | 6,33 | 38,77 | ASHRAE MBP |
| | 7,2 | 45 | 54 | 130 | 35 | 95 | 46 | 115 | 3227,6 | 11023 | 2777,7 | 2,24 | 7,65 | 1,93 | 1441,3 | 7,64 | 71,60 | ASHRAE HBP |
| | -35 | -31 | 40 | 104 | 20 | 68 | 40 | 104 | 312,8 | 1068 | 269,2 | 0,74 | 2,53 | 0,64 | 423,0 | 4,51 | 6,86 | EN12900 LBP |
| | -10 | 14 | 45 | 113 | 20 | 68 | 45 | 113 | 1527,4 | 5216 | 1314,5 | 1,63 | 5,58 | 1,41 | 935,3 | 5,83 | 35,75 | EN12900 MBP |
| | 5 | 41 | 50 | 122 | 20 | 68 | 50 | 122 | 2697,4 | 9212 | 2321,4 | 2,04 | 6,96 | 1,75 | 1322,8 | 7,16 | 67,97 | EN12900 HBP |

Performance tables

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

| | pe | | Cooling capacity | | | COP | EER | P1 | I | m | |
|------------------|------|------|------------------|---------|----------|------|------|------|--------|------|-------|
| | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | | | | | | |
| [°C / °F] | -25 | -13 | 673,3 | 2299 | 579,4 | 1,08 | 3,69 | 0,93 | 623,3 | 5,03 | 14,59 |
| cond. pressure | -20 | -4 | 930,3 | 3177 | 800,7 | 1,28 | 4,37 | 1,10 | 726,8 | 5,28 | 20,21 |
| pc= 45/113 | -10 | 14 | 1584,6 | 5412 | 1363,7 | 1,69 | 5,79 | 1,46 | 935,3 | 5,83 | 34,68 |
| return gas temp. | -5 | 23 | 1993,2 | 6807 | 1715,4 | 1,91 | 6,53 | 1,65 | 1042,5 | 6,14 | 43,83 |
| RGT= 32/90 | 0 | 32 | 2463,8 | 8414 | 2120,3 | 2,14 | 7,30 | 1,84 | 1153,0 | 6,51 | 54,49 |
| liquid temp | 5 | 41 | 3001,9 | 10252 | 2583,4 | 2,37 | 8,09 | 2,04 | 1267,9 | 6,93 | 66,83 |
| Tliq= 45/113 | 15 | 59 | 4303,6 | 14698 | 3703,8 | 2,84 | 9,70 | 2,44 | 1515,0 | 8,01 | 97,48 |
| [°C / °F] | -25 | -13 | 566,1 | 1933 | 487,2 | 0,86 | 2,92 | 0,74 | 661,7 | 5,13 | 13,54 |
| cond. pressure | -20 | -4 | 787,2 | 2688 | 677,5 | 1,01 | 3,46 | 0,87 | 778,1 | 5,44 | 18,88 |
| pc= 55/131 | -10 | 14 | 1368,7 | 4674 | 1177,9 | 1,35 | 4,61 | 1,16 | 1013,8 | 6,10 | 33,10 |
| return gas temp | -5 | 23 | 1740,5 | 5944 | 1497,9 | 1,53 | 5,24 | 1,32 | 1135,2 | 6,49 | 42,31 |
| RGT= 32/90 | 0 | 32 | 2173,8 | 7424 | 1870,8 | 1,72 | 5,89 | 1,48 | 1260,4 | 6,92 | 53,17 |
| liquid temp | 5 | 41 | 2674,5 | 9134 | 2301,7 | 1,92 | 6,57 | 1,66 | 1390,4 | 7,43 | 65,90 |
| Tliq= 55/131 | 15 | 59 | 3900,3 | 13320 | 3356,6 | 2,34 | 7,98 | 2,01 | 1669,2 | 8,68 | 97,97 |

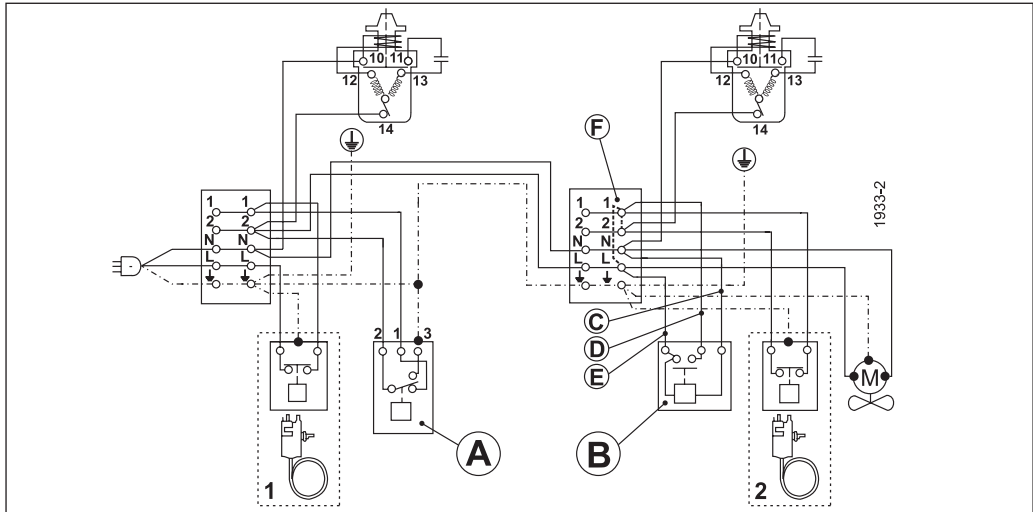
SC Twin Compressors



| | 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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