Single
Packs

# Single Pack SC12MLX 115-127V 60Hz CSIR

Single pack code number: **195B4496**

| Position | Title | Code | Amount |
|---|---|---|---|
| 1 | Compressor SC12MLX | 104L1606 | 1 |
| 2 | Starting relay (RVA 7AA3R435) | 117-7441 | 1 |
| 3 | Starting capacitor (410µF 125V, 6.3mm) | 117U5042 | 1 |
| 4 | Bolt joint for one compressor \| M6 \| ø16mm | 118-1917 | 1 |

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**Model**
**SC12MLX**

Sales code:
**104L1606**

## Compressor Data

| | |
|---|---|
| Refrigerant(s) | **R404A / R507** |
| Refr. charge - tech. limit | **1300g / 45.86oz** |
| Weight | **13.80 kg / 30.42lbs** |
| Displacement | **12.87 cm3 / 0.79cu.in** |
| Compressors on pallet | **80** |

## General – Configurations With SC12MLX

| – | **Conf. 1** | **Conf. 2** |
|---|---|---|
| Motor configuration | CSIR | CSCR |
| Power supply (nominal) | 115-127 V/60 Hz | 115-127 V/60 Hz |
| Number of phases | 1 | 1 |
| Voltage range | 95-135 V | 95-135 V |
| Approvals | UL | UL |
| Starting torque | HST | HST |
| Refrigerant | R404A | R404A |
| Application | MBP | MBP |
| Hot gas defrost | OK | OK |
| Long interval pull down | OK | OK |

## Application Notes

- Protector and cover are included and pre-assembled to compressor.
- Provision for PE Grounding is located at the PE Stamp on the compressor

**Model**
**SC12MLX**

Sales code:
**104L1606**

## Compressor Design

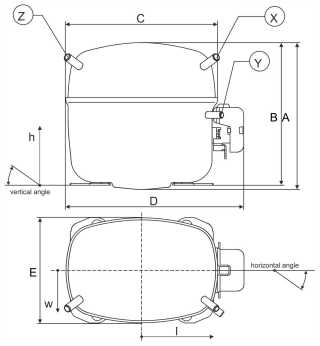
| | | | |
|---|---|---|---|
| Oil type | **POE** | Winding resistance main | **0.66 Ohm** |
| Oil viscosity | **32cSt** | Winding resistance aux | **2.7 Ohm** |
| Oil quantity | **556 / 18.80fl.oz** | Max. winding temp. | **125 °C** |
| Free gas volume comp. | **1,460 cm3 / 49.37fl.oz** | Max. discharge temp. | **130°C / 266°F** |
| Motor protection | **external** | | |

## Compressor Dimensions

**Housing**

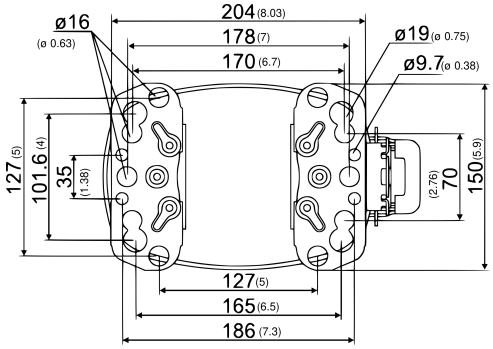
| | |
|---|---|
| A Height | **219mm / 8.62in** |
| B Height | **213mm / 8.39in** |
| C Length shell | **218mm / 8.58in** |
| D Length w. cover | **255mm / 10.04in** |
| E Width | **151mm / 5.94in** |

Find 3D Model here



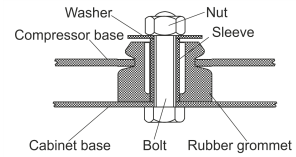

| Connectors | Suction X | Discharge Y | Process Z |
|---|---|---|---|
| Diameter [mm] | øi 8.11–8.29 / 0.32–0.33in | øi 6.41–6.59 / 0.25–0.26in | øi 6.41–6.59 / 0.25–0.26in |
| Material | CU | CU | CU |
| Horizontal angle ±2° | 37° | 37° | 143° |
| Vertical angle ±2° | 30° | 0° | 150° |
| Position l/h/w [mm] | 107/193/55 / 4.21/7.60/2.17in | 115/110/63 / 4.53/4.33/2.48in | -107/193/55 / -4.21/7.60/2.17in |
| Straight tube l. [mm] | 12 / 0.47in | 12 / 0.47in | 12 / 0.47in |

## Mounting Accessories

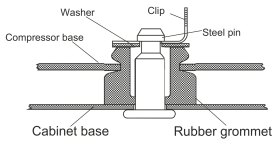



Dimensions in mm [in]

Bolt joint




Snap-on




| | 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 |

**Model**
**SC12MLX** Configuration 1

Sales code:
**104L1606**

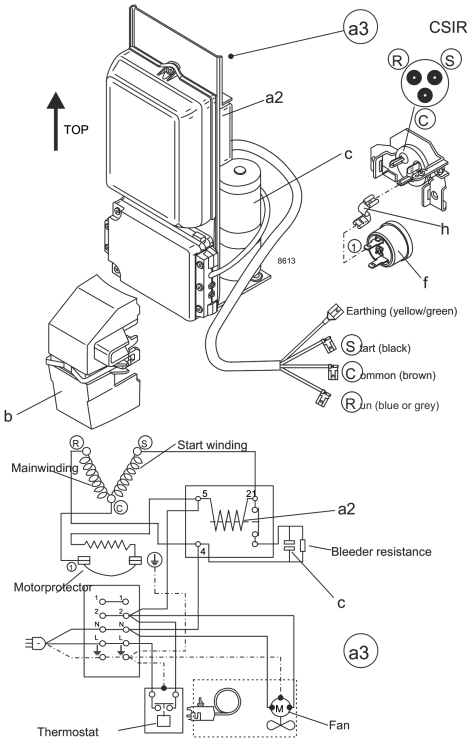
## Configuration

| | |
|---|---|
| Motor configuration | **CSIR** |
| Power supply (nominal) | **115-127 V/60 Hz 1~** |
| Refrigerant | **R404A** |
| Application | **MBP** |
| Voltage range | **95-135 V** |
| Starting torque | **HST** |
| Approvals | **UL** |
| Starting device type | **relay** |
| Run capacitor | **-/-** |
| Start capacitor | **410 µF** |
| LRA (locked rotor amps / 4s/ U(N)) | **56.8 A** |
| RLA (rated load amps / 1s/ U(N)) | **9.8 A** |
| Cut in current (U(N)) | **56.8 A** |

**Ambient/ machine room temperatures minimum /maximum**
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

**System Cooling**
fan 3m/s

## Electrical Accessories / Wiring Diagram

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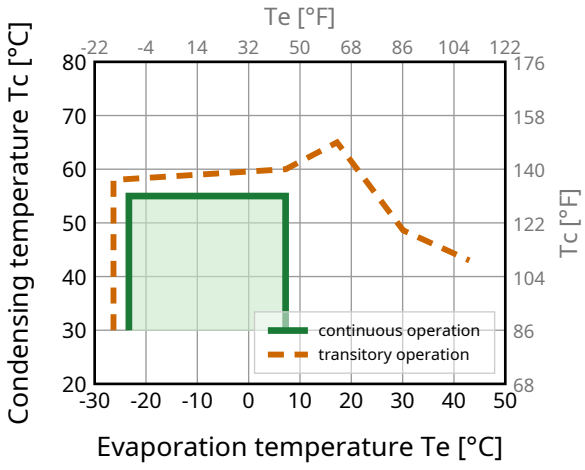
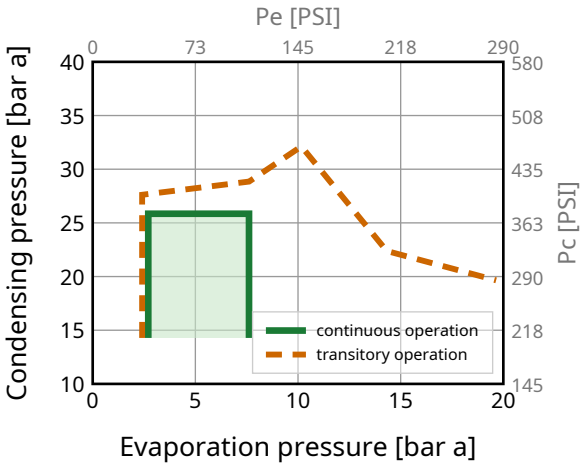
**Components (protector + ~holder + cover: pre assembled)**
**a3** SC starter kit 117-7053
**f** ext. protector (T0761/46) 117U3212
**h** protector holder 117U0439
**b** plastic cover + clamp 117U1021

**Alternative components**
**a2** potential relay (RVA 7AA3R) 117-7441
**c** start capacitor (410µF, 6.3mm) 117U5042
**f** ext. protector (T0761/46) 117U3212
**h** protector holder 117U0439
**b** plastic cover + clamp 117U1021

## Operation Pressure Range



**Model**
**SC12MLX** Configuration 1

Sales code:
**104L1606**

## Standard Conditions

**R404A**, 115 V/60 Hz, CSIR, fan 3m/s

| pe | pc | RGT | Tliq | Cooling capacity | | | COP | EER | P | I | ṁ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [°C] [°F] | [°C] [°F] | [°C] [°F] | [°C] [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A] | [kg/h] | |
| -6.7 20 | 54.4 129.9 | 35 95 | 46.1 115 | **1283** | 4377 | 1103 | **1.52** | 5.19 | 843 | 9.09 | 35.24 | **ASHRAE MBP** |
| -10 14 | 55 131 | 32 89.6 | 55 131 | **951** | 3243 | 818 | **1.20** | 4.10 | 791 | 8.92 | 30.38 | **CECOMAF MBP** |
| -10 14 | 45 113 | 20 68 | 45 113 | **1126** | 3841 | 968 | **1.51** | 5.14 | 747 | 8.30 | 33.84 | **EN12900 MBP** |
| -6.7 20 | 48.8 119.8 | 18.3 64.9 | 48.8 119.8 | **1174** | 4005 | 1009 | **1.45** | 4.93 | 812 | 8.87 | 38.25 | **ARI540 MBP** |
| -10 14 | 45 113 | 32 89.6 | 45 113 | **1194** | 4074 | 1027 | **1.60** | 5.45 | 747 | 8.30 | 32.83 | **opt MBP 1** |
| -25 -13 | 45 113 | 32 89.6 | 45 113 | **606** | 2068 | 521 | **1.09** | 3.72 | 556 | 6.50 | 16.31 | **opt MBP 2** |

## Performance Tables

**R404A**, 115 V/60 Hz, CSIR, fan 3m/s

**pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F**

| pe | | Cooling capacity | | | COP | EER | P | I | ṁ |
|---|---|---|---|---|---|---|---|---|---|
| [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A] | [kg/h] |
| -23.3 | -10 | **658** | 2245 | 566 | **1.14** | 3.89 | 577 | 6.86 | 17.75 |
| -20 | -4 | **769** | 2624 | 661 | **1.24** | 4.24 | 619 | 7.38 | 20.82 |
| -15 | 5 | **964** | 3289 | 829 | **1.41** | 4.82 | 682 | 7.90 | 26.28 |
| -10 | 14 | **1194** | 4074 | 1027 | **1.60** | 5.45 | 747 | 8.30 | 32.83 |
| -5 | 23 | **1463** | 4992 | 1258 | **1.80** | 6.13 | 814 | 8.82 | 40.62 |
| 0 | 32 | **1774** | 6054 | 1526 | **2.01** | 6.85 | 884 | 9.69 | 49.82 |
| 5 | 41 | **2131** | 7270 | 1832 | **2.23** | 7.60 | 956 | 11.17 | 60.65 |
| 7.2 | 45 | **2303** | 7857 | 1980 | **2.33** | 7.94 | 989 | 12.07 | 65.99 |

**pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| -23.3 | -10 | **498** | 1698 | 428 | **0.88** | 2.99 | 568 | 7.12 | 15.55 |
| -20 | -4 | **591** | 2017 | 508 | **0.95** | 3.23 | 624 | 7.87 | 18.56 |
| -15 | 5 | **756** | 2578 | 650 | **1.07** | 3.64 | 708 | 8.55 | 23.92 |
| -10 | 14 | **951** | 3243 | 818 | **1.20** | 4.10 | 791 | 8.92 | 30.38 |
| -5 | 23 | **1179** | 4024 | 1014 | **1.35** | 4.60 | 875 | 9.20 | 38.12 |
| 0 | 32 | **1445** | 4931 | 1243 | **1.51** | 5.14 | 960 | 9.63 | 47.35 |
| 5 | 41 | **1752** | 5977 | 1507 | **1.68** | 5.72 | 1046 | 10.47 | 58.30 |
| 7.2 | 45 | **1900** | 6484 | 1634 | **1.75** | 5.98 | 1085 | 11.02 | 63.75 |

**Model**
**SC12MLX** Configuration 2

Sales code:
**104L1606**

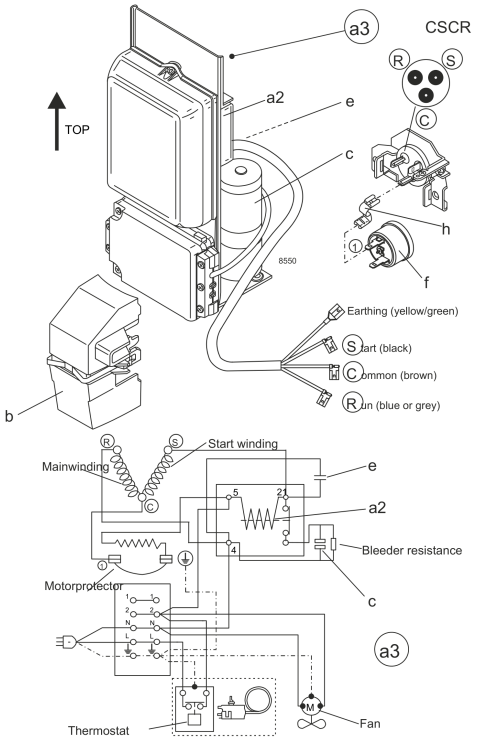
## Configuration

| | |
|---|---|
| Motor configuration | **CSCR** |
| Power supply (nominal) | **115-127 V/60 Hz 1~** |
| Refrigerant | **R404A** |
| Application | **MBP** |
| Voltage range | **95-135 V** |
| Starting torque | **HST** |
| Approvals | **UL** |
| Starting device type | **relay** |
| Run capacitor | **23.5 µF** |
| Start capacitor | **410 µF** |
| LRA (locked rotor amps / 4s/ U(N)) | **56.8 A** |
| RLA (rated load amps / 1s/ U(N)) | **9.8 A** |
| Cut in current (U(N)) | **56.8 A** |

**Ambient/ machine room temperatures minimum /maximum**
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

**System Cooling**
fan 3m/s

## Electrical Accessories / Wiring Diagram

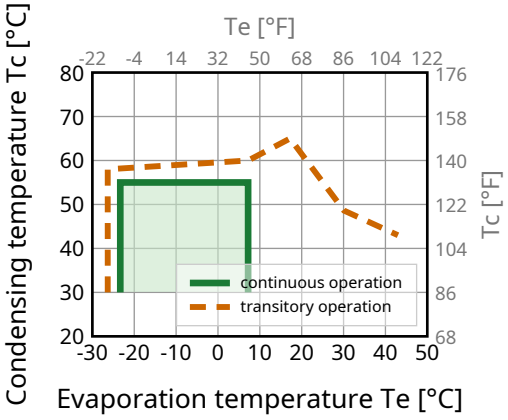


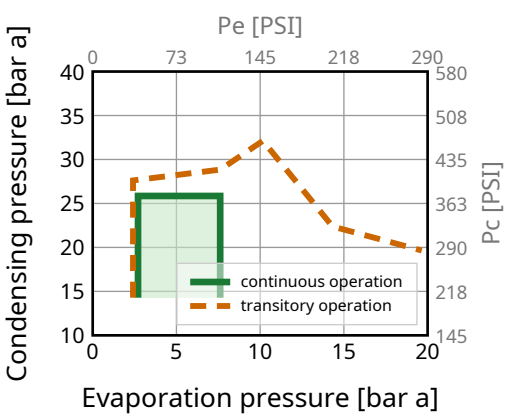

View full size

**Components (protector + ~holder + cover: pre assembled)**
**a3** SC starter kit 117-7045
**f** ext. protector (T0761/46) 117U3212
**h** protector holder 117U0439
**b** plastic cover + clamp 117U1021

**Alternative components**
**a2** potential relay (RVA 7AA3R) 117-7441
**f** ext. protector (T0761/46) 117U3212
**h** protector holder 117U0439
**c** start capacitor (410µF, 6.3mm) 117U5042
**c** start capacitor (410µF, 6.3mm) 117U5379
**e** run capacitor (23,5µF, 6.3mm) 117-7133
**b** plastic cover + clamp 117U1021

## Operation Pressure Range



**Model**
**SC12MLX** Configuration 2

Sales code:
**104L1606**

## Standard Conditions

**R404A**, 115 V/60 Hz, CSCR, fan 3m/s

| pe | pc | RGT | Tliq | Cooling capacity | | | COP | EER | P | I | ṁ | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [°C] [°F] | [°C] [°F] | [°C] [°F] | [°C] [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A] | [kg/h] | |
| -6.7 20 | 54.4 129.9 | 35 95 | 46.1 115 | **1298** | 4430 | 1117 | **1.60** | 5.48 | 809 | 8.05 | 35.67 | **ASHRAE MBP** |
| -10 14 | 55 131 | 32 89.6 | 55 131 | **962** | 3282 | 827 | **1.27** | 4.32 | 760 | 7.70 | 30.75 | **CECOMAF MBP** |
| -10 14 | 45 113 | 20 68 | 45 113 | **1139** | 3886 | 979 | **1.59** | 5.41 | 718 | 7.42 | 34.24 | **EN12900 MBP** |
| -6.7 20 | 48.8 119.8 | 18.3 64.9 | 48.8 119.8 | **1188** | 4053 | 1022 | **1.52** | 5.20 | 779 | 7.84 | 38.71 | **ARI540 MBP** |
| -10 14 | 45 113 | 32 89.6 | 45 113 | **1208** | 4122 | 1039 | **1.68** | 5.75 | 718 | 7.42 | 33.22 | **opt MBP 1** |
| -25 -13 | 45 113 | 32 89.6 | 45 113 | **613** | 2092 | 527 | **1.15** | 3.91 | 535 | 6.16 | 16.50 | **opt MBP 2** |

## Performance Tables

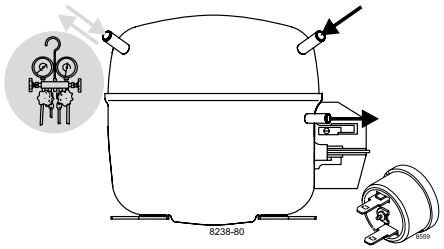
**R404A**, 115 V/60 Hz, CSCR, fan 3m/s

**pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F**

| pe | | Cooling capacity | | | COP | EER | P | I | ṁ |
|---|---|---|---|---|---|---|---|---|---|
| [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A] | [kg/h] |
| -23.3 | -10 | **666** | 2271 | 572 | **1.20** | 4.09 | 556 | 6.29 | 17.95 |
| -20 | -4 | **778** | 2654 | 669 | **1.31** | 4.46 | 596 | 6.56 | 21.06 |
| -15 | 5 | **975** | 3327 | 839 | **1.49** | 5.07 | 656 | 6.98 | 26.59 |
| -10 | 14 | **1208** | 4122 | 1039 | **1.68** | 5.75 | 718 | 7.42 | 33.22 |
| -5 | 23 | **1481** | 5052 | 1273 | **1.90** | 6.47 | 781 | 7.89 | 41.11 |
| 0 | 32 | **1796** | 6128 | 1545 | **2.12** | 7.22 | 848 | 8.41 | 50.43 |
| 5 | 41 | **2158** | 7362 | 1856 | **2.34** | 7.99 | 921 | 8.98 | 61.41 |
| 7.2 | 45 | **2332** | 7957 | 2006 | **2.44** | 8.34 | 954 | 9.26 | 66.83 |

**pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| -23.3 | -10 | **503** | 1717 | 433 | **0.92** | 3.14 | 548 | 6.15 | 15.73 |
| -20 | -4 | **598** | 2040 | 514 | **0.99** | 3.39 | 602 | 6.55 | 18.77 |
| -15 | 5 | **764** | 2608 | 657 | **1.12** | 3.83 | 681 | 7.13 | 24.20 |
| -10 | 14 | **962** | 3282 | 827 | **1.27** | 4.32 | 760 | 7.70 | 30.75 |
| -5 | 23 | **1194** | 4074 | 1027 | **1.42** | 4.86 | 839 | 8.27 | 38.59 |
| 0 | 32 | **1464** | 4994 | 1259 | **1.59** | 5.43 | 919 | 8.86 | 47.95 |
| 5 | 41 | **1775** | 6056 | 1526 | **1.77** | 6.04 | 1003 | 9.46 | 59.07 |
| 7.2 | 45 | **1926** | 6571 | 1656 | **1.85** | 6.32 | 1041 | 9.74 | 64.60 |



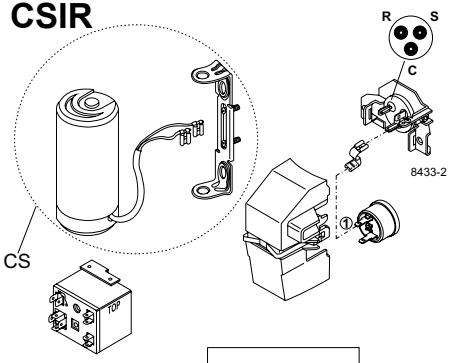

# SC Compressors
## (External Protector)

SECOP

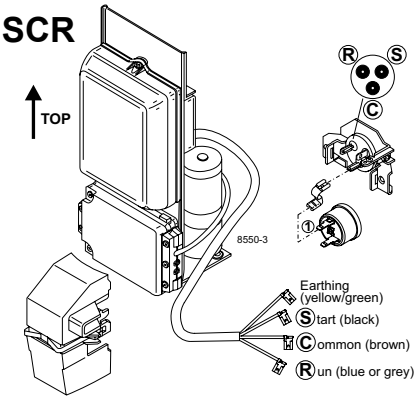
Keep electrical equipment clear from oil, chemicals, and water

When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

## CSIR

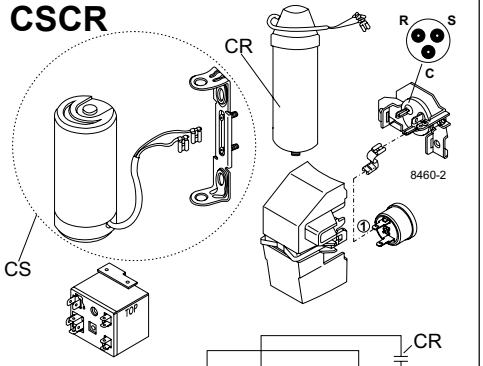


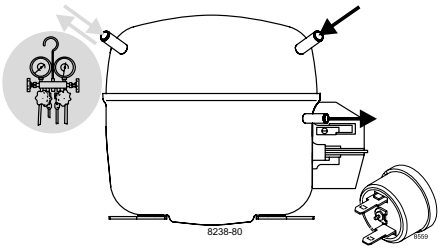

## CSCR




| | S | C | R |
|---|---|---|---|
| ENGLISH | Black | Brown | Blue or grey |
| DEUTSCH | Schwarz | Braun | Blau od. grau |
| FRANÇAIS | Noir | Marron | Bleu ou gris |
| ESPAÑOL | Negro | Marrón | Azul o gris |
| ITALIANO | Nero | Marrone | Blu o grigio |
| NEDERLANDS | Zwart | Bruin | Blauw of grijs |
| РУССКИЙ | Чёрный | Корич-невый | Синий или серый |
| 中文 | 黑色 | 棕色 | 蓝色或灰色 |

## CSCR






# SC Compressors
## (External Protector)

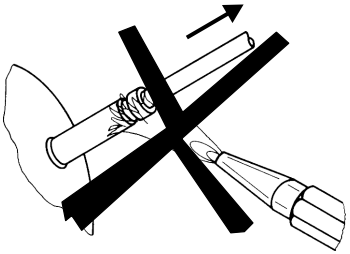
SECOP

Keep electrical equipment clear from oil, chemicals, and water

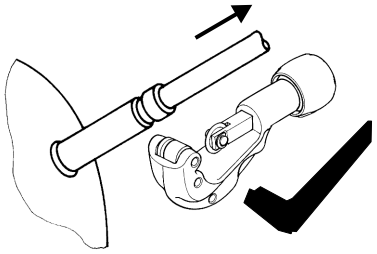
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

## Service/Repair – R290, R600a, R170, R1270, R1234yf

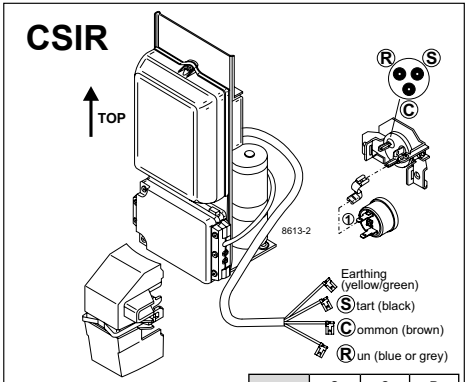
(applies to all flammable refrigerants)

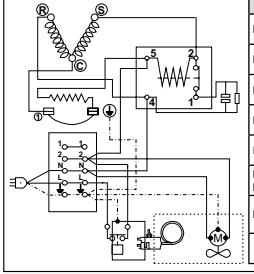


8545



## CSIR




| | S | C | R |
|---|---|---|---|
| ENGLISH | Black | Brown | Blue or grey |
| DEUTSCH | Schwarz | Braun | Blau od. grau |
| FRANÇAIS | Noir | Marron | Bleu ou gris |
| ESPAÑOL | Negro | Marrón | Azul o gris |
| ITALIANO | Nero | Marrone | Blu o grigio |
| NEDER-LANDS | Zwart | Bruin | Blauw of grijs |
| РУССКИЙ | Чёрный | Корич-невый | Синий или серый |
| 中文 | 黑色 | 棕色 | 蓝色或灰色 |

**Dismantling, recycling, disposal:** At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**