Singolo
Imballi

# Single Pack SC15MFX 220-240V 50Hz CSIR

Codice Imballo Singolo: **195B4370**

| Posizione | Titolo | Codice | Quantità |
|---|---|---|---|
| 1 | Compressor SC15MFX | 104G8501 | 1 |
| 2 | Starting relay | 117U6005 | 1 |
| 3 | Starting capacitor (80µF 220V, 6.3mm) | 117U5017 | 1 |
| 4 | Cord relief | 103N1004 | 1 |
| 5 | Cover | 103N2008 | 1 |
| 6 | Bolt joint for one compressor \| M6 \| ø16mm | 118-1917 | 1 |

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**Model**
**SC15MFX**

Sales code:
**104G8501**

## Compressor Data

| | |
|---|---|
| Refrigerant(s) | **R134a / R513A** |
| Refr. charge - tech. limit | **1300g / 45.86oz** |
| Weight | **13.20 kg / 29.10lbs** |
| Displacement | **15.28 cm3 / 0.93cu.in** |
| Compressors on pallet | **80** |

## General – Configurations With SC15MFX

| – | Conf. 1 | Conf. 2 | Conf. 3 |
|---|---|---|---|
| Motor configuration | CSIR | CSIR | CSIR |
| Power supply (nominal) | 220-240 V/50 Hz | 220-240 V/50 Hz | 220-240 V/50 Hz |
| Number of phases | 1 | 1 | 1 |
| Voltage range | 198-254 V | 198-254 V | 198-254 V |
| Approvals | VDE, CCC, EAC | VDE, CCC, EAC | – |
| Starting torque | HST | HST | HST |
| Refrigerant | R134a | R513A | R1234yf |
| Application | MBP | MBP | MBP |
| Hot gas defrost | OK | OK | OK |
| Long interval pull down | OK | OK | OK |

## Application Notes

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

**Model**
**SC15MFX**

Sales code:
**104G8501**

## Compressor Design

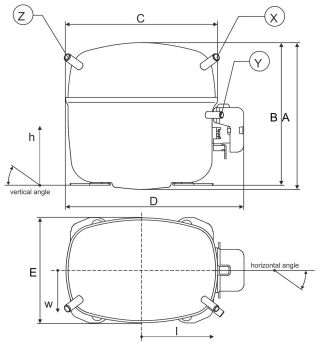
| | | | |
|---|---|---|---|
| Oil type | **POE** | Winding resistance main | **5.13 Ohm** |
| Oil viscosity | **22cSt** | Winding resistance aux | **13.51 Ohm** |
| Oil quantity | **449 / 15.18fl.oz** | Max. winding temp. | **125 °C** |
| Free gas volume comp. | **1,410 cm3 / 47.68fl.oz** | Max. discharge temp. | **130°C / 266°F** |
| Motor protection | **internal** | | |

## Compressor Dimensions

**Housing**

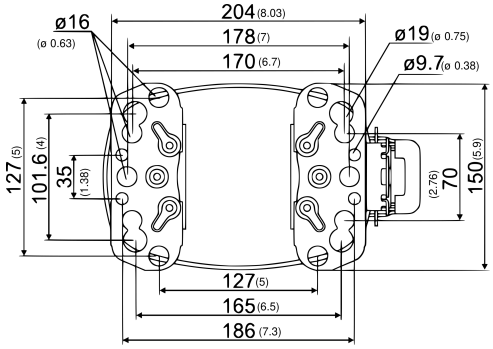
| | |
|---|---|
| A Height | **209mm / 8.23in** |
| B Height | **203mm / 7.99in** |
| C Length shell | **218mm / 8.58in** |
| D Length w. cover | **255mm / 10.04in** |
| E Width | **151mm / 5.94in** |

Find 3D Model here



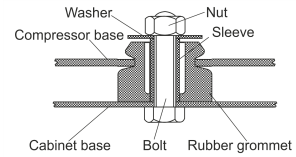

| Connectors | Suction X | Discharge Y | Process Z |
|---|---|---|---|
| Diameter [mm] | øi 10.11–10.29 / 0.40–0.41in | øi 6.11–6.29 / 0.24–0.25in | øi 6.11–6.29 / 0.24–0.25in |
| Material | CU | CU | CU |
| Horizontal angle ±2° | 37° | 37° | 143° |
| Vertical angle ±2° | 30° | 0° | 150° |
| Position l/h/w [mm] | 107/183/55 / 4.21/7.20/2.17in | 115/100/63 / 4.53/3.94/2.48in | -107/183/55 / -4.21/7.20/2.17in |
| Straight tube l. [mm] | 12 / 0.47in | 12 / 0.47in | 12 / 0.47in |

## Mounting Accessories

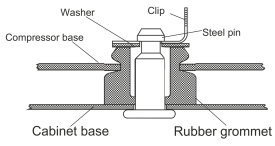



Dimensions in mm [in]

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**
**SC15MFX** Configuration 1

Sales code:
**104G8501**

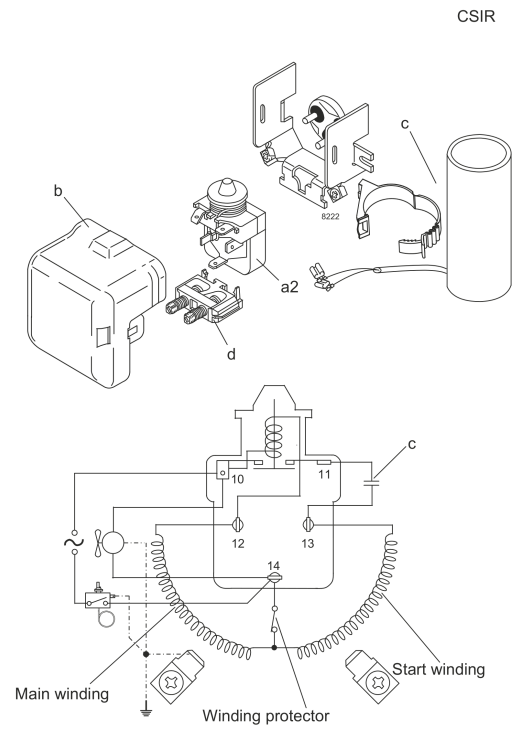
## Configuration

| | |
|---|---|
| Motor configuration | **CSIR** |
| Power supply (nominal) | **220-240 V/50 Hz 1~** |
| Refrigerant | **R134a** |
| Application | **MBP** |
| Voltage range | **198-254 V** |
| Starting torque | **HST** |
| Approvals | **VDE, CCC, EAC** |
| Starting device type | **relay** |
| Run capacitor | **-/-** |
| Start capacitor | **80 µF** |
| LRA (locked rotor amps / 4s/ U(N)) | **16.2 A** |
| RLA (rated load amps / 1s/ U(N)) | **3.1 A** |
| Cut in current (U(N)) | **16.2 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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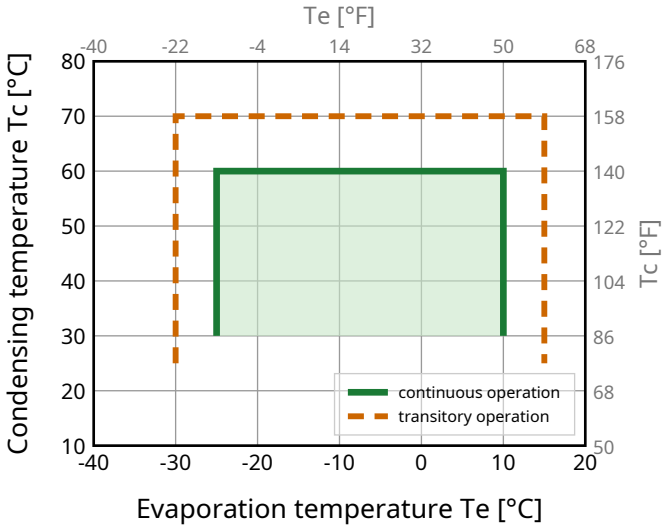
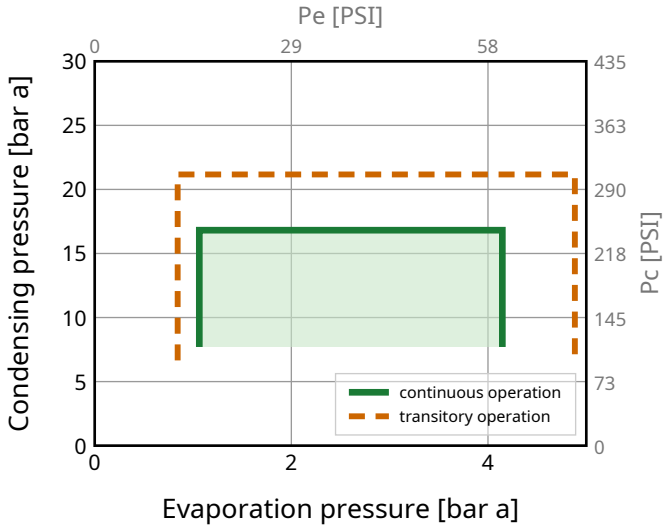
**Components**
**a2** relay 117U6005
**c** start capacitor (80µF) 117U5017
**d** cord relief 103N1004
**b** plastic cover 103N2008

## Operation Pressure Range



**Model** Sales code:

**SC15MFX** Configuration 1 **104G8501**

## Standard Conditions

**R134a**, 220 V/50 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 | **784** | 2676 | 674 | **1.66** | 5.67 | 472 | 2.90 | 17.08 | **ASHRAE MBP** |
| -10 14 | 55 131 | 32 89.6 | 55 131 | **602** | 2053 | 517 | **1.38** | 4.69 | 437 | 2.78 | 14.50 | **CECOMAF MBP** |
| -10 14 | 45 113 | 20 68 | 45 113 | **677** | 2311 | 583 | **1.64** | 5.58 | 414 | 2.70 | 15.80 | **EN12900 MBP** |
| -6.7 20 | 48.8 119.8 | 18.3 64.9 | 48.8 119.8 | **748** | 2550 | 643 | **1.63** | 5.58 | 458 | 2.85 | 18.37 | **ARI540 MBP** |
| -10 14 | 45 113 | 32 89.6 | 45 113 | **702** | 2394 | 603 | **1.69** | 5.78 | 414 | 2.70 | 15.32 | **opt MBP 1** |
| -25 -13 | 45 113 | 32 89.6 | 45 113 | **290** | 989 | 249 | **1.07** | 3.66 | 270 | 2.25 | 6.27 | **opt MBP 2** |

## Performance Tables

**R134a**, 220 V/50 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] |
| -25 | -13 | **290** | 989 | 249 | **1.07** | 3.66 | 270 | 2.25 | 6.27 |
| -20 | -4 | **404** | 1378 | 347 | **1.27** | 4.32 | 319 | 2.40 | 8.76 |
| -15 | 5 | **541** | 1845 | 465 | **1.47** | 5.02 | 367 | 2.55 | 11.76 |
| -10 | 14 | **702** | 2394 | 603 | **1.69** | 5.78 | 414 | 2.70 | 15.32 |
| -5 | 23 | **889** | 3032 | 764 | **1.94** | 6.61 | 459 | 2.85 | 19.50 |
| 0 | 32 | **1104** | 3766 | 949 | **2.21** | 7.54 | 500 | 2.99 | 24.35 |
| 5 | 41 | **1348** | 4600 | 1160 | **2.52** | 8.60 | 535 | 3.13 | 29.95 |
| 10 | 50 | **1624** | 5542 | 1397 | **2.88** | 9.83 | 564 | 3.25 | 36.36 |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| -25 | -13 | **226** | 770 | 194 | **0.81** | 2.77 | 278 | 2.29 | 5.38 |
| -20 | -4 | **333** | 1136 | 286 | **1.01** | 3.45 | 330 | 2.44 | 7.96 |
| -15 | 5 | **458** | 1561 | 394 | **1.20** | 4.08 | 383 | 2.61 | 10.99 |
| -10 | 14 | **602** | 2053 | 517 | **1.38** | 4.69 | 437 | 2.78 | 14.50 |
| -5 | 23 | **766** | 2615 | 659 | **1.56** | 5.32 | 491 | 2.97 | 18.58 |
| 0 | 32 | **954** | 3256 | 821 | **1.75** | 5.99 | 544 | 3.16 | 23.27 |
| 5 | 41 | **1166** | 3979 | 1003 | **1.97** | 6.71 | 593 | 3.35 | 28.65 |
| 10 | 50 | **1405** | 4793 | 1208 | **2.20** | 7.51 | 638 | 3.55 | 34.80 |

**Model**
**SC15MFX** Configuration 2

Sales code:
**104G8501**

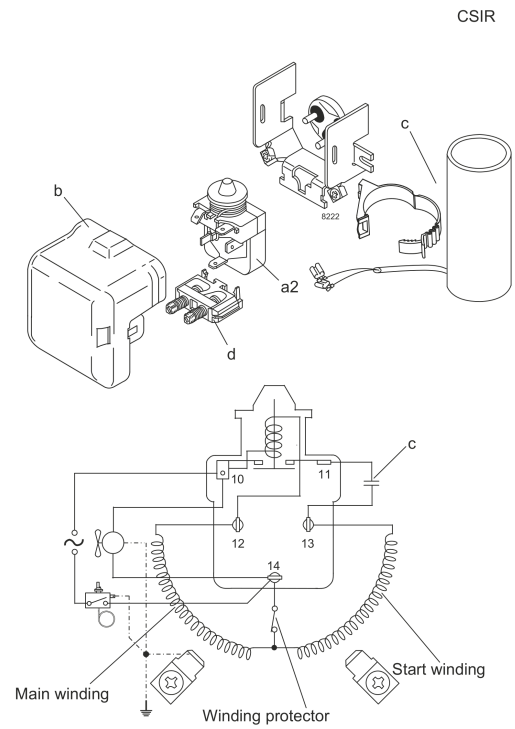
## Configuration

| | |
|---|---|
| Motor configuration | **CSIR** |
| Power supply (nominal) | **220-240 V/50 Hz 1~** |
| Refrigerant | **R513A** |
| Application | **MBP** |
| Voltage range | **198-254 V** |
| Starting torque | **HST** |
| Approvals | **VDE, CCC, EAC** |
| Starting device type | **relay** |
| Run capacitor | **-/-** |
| Start capacitor | **80 µF** |
| LRA (locked rotor amps / 4s/ U(N)) | **16.2 A** |
| RLA (rated load amps / 1s/ U(N)) | **3.1 A** |
| Cut in current (U(N)) | **16.2 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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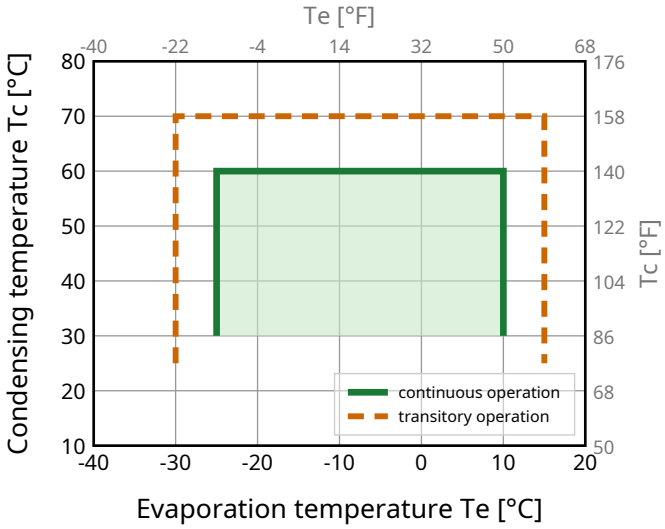
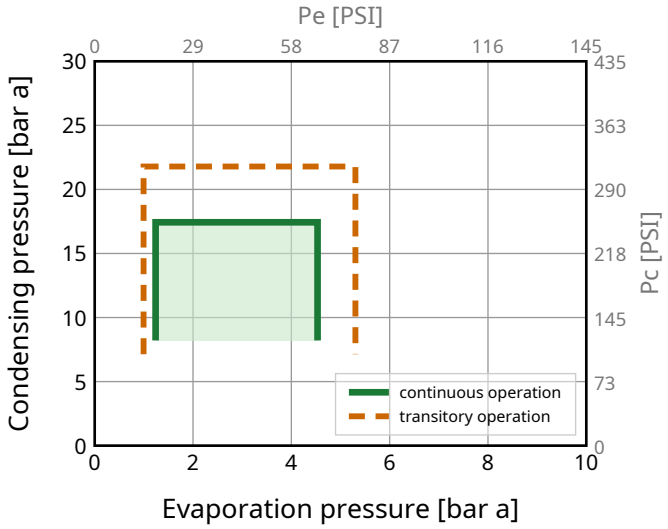
**Components**
**a2** relay 117U6005
**c** start capacitor (80µF) 117U5017
**d** cord relief 103N1004
**b** plastic cover 103N2008

## Operation Pressure Range



**Model** Sales code:

**SC15MFX** Configuration 2 **104G8501**

## Standard Conditions

**R513A**, 220 V/50 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 | **824** | 2811 | 709 | **1.65** | 5.62 | 501 | 3.01 | 20.54 | **ASHRAE MBP** |
| -10 14 | 55 131 | 32 89.6 | 55 131 | **625** | 2134 | 538 | **1.34** | 4.59 | 465 | 2.89 | 17.55 | **CECOMAF MBP** |
| -10 14 | 45 113 | 20 68 | 45 113 | **706** | 2408 | 607 | **1.61** | 5.49 | 439 | 2.80 | 19.11 | **EN12900 MBP** |
| -6.7 20 | 48.8 119.8 | 18.3 64.9 | 48.8 119.8 | **768** | 2619 | 660 | **1.58** | 5.41 | 484 | 2.95 | 22.10 | **ARI540 MBP** |
| -10 14 | 45 113 | 32 89.6 | 45 113 | **740** | 2526 | 637 | **1.69** | 5.76 | 439 | 2.80 | 18.53 | **opt MBP 1** |
| -25 -13 | 45 113 | 32 89.6 | 45 113 | **318** | 1083 | 273 | **1.11** | 3.79 | 286 | 2.30 | 7.85 | **opt MBP 2** |

## Performance Tables

**R513A**, 220 V/50 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] |
| -25 | -13 | **318** | 1083 | 273 | **1.11** | 3.79 | 286 | 2.30 | 7.85 |
| -20 | -4 | **436** | 1487 | 375 | **1.29** | 4.40 | 338 | 2.47 | 10.82 |
| -15 | 5 | **576** | 1966 | 496 | **1.48** | 5.05 | 390 | 2.64 | 14.36 |
| -10 | 14 | **740** | 2526 | 637 | **1.69** | 5.76 | 439 | 2.80 | 18.53 |
| -5 | 23 | **930** | 3171 | 799 | **1.92** | 6.55 | 484 | 2.95 | 23.39 |
| 0 | 32 | **1145** | 3908 | 985 | **2.18** | 7.44 | 525 | 3.09 | 29.02 |
| 5 | 41 | **1390** | 4742 | 1195 | **2.48** | 8.48 | 560 | 3.20 | 35.47 |
| 10 | 50 | **1664** | 5678 | 1431 | **2.84** | 9.68 | 587 | 3.29 | 42.86 |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| -25 | -13 | **245** | 836 | 211 | **0.82** | 2.81 | 297 | 2.34 | 6.78 |
| -20 | -4 | **355** | 1211 | 305 | **1.01** | 3.44 | 352 | 2.52 | 9.86 |
| -15 | 5 | **481** | 1642 | 414 | **1.18** | 4.01 | 409 | 2.71 | 13.43 |
| -10 | 14 | **625** | 2134 | 538 | **1.34** | 4.59 | 465 | 2.89 | 17.55 |
| -5 | 23 | **789** | 2693 | 679 | **1.52** | 5.18 | 520 | 3.07 | 22.28 |
| 0 | 32 | **974** | 3325 | 838 | **1.70** | 5.81 | 572 | 3.25 | 27.71 |
| 5 | 41 | **1183** | 4035 | 1017 | **1.91** | 6.50 | 620 | 3.40 | 33.91 |
| 10 | 50 | **1415** | 4828 | 1217 | **2.13** | 7.28 | 663 | 3.54 | 41.00 |

**Model**
**SC15MFX** Configuration 3

Sales code:
**104G8501**

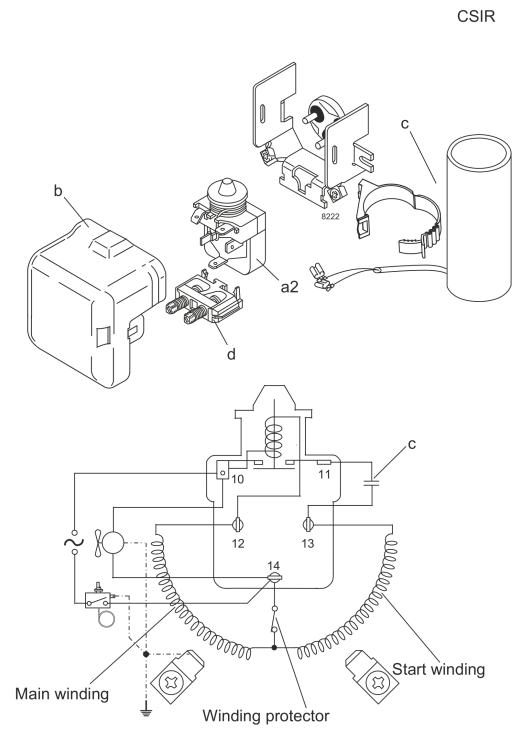
## Configuration

| | |
|---|---|
| Motor configuration | **CSIR** |
| Power supply (nominal) | **220-240 V/50 Hz 1~** |
| Refrigerant | **R1234yf** |
| Application | **MBP** |
| Voltage range | **198-254 V** |
| Starting torque | **HST** |
| Starting device type | **relay** |
| Run capacitor | **-/-** |
| Start capacitor | **80 µF** |
| LRA (locked rotor amps / 4s/ U(N)) | **16.2 A** |
| RLA (rated load amps / 1s/ U(N)) | **3.1 A** |
| Cut in current (U(N)) | **16.2 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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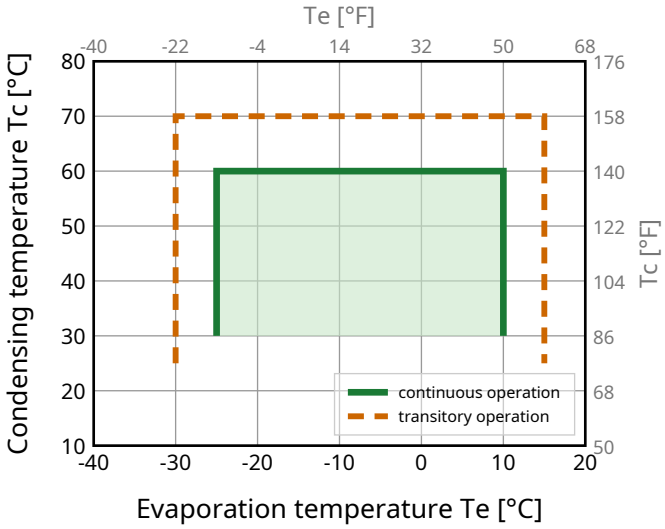
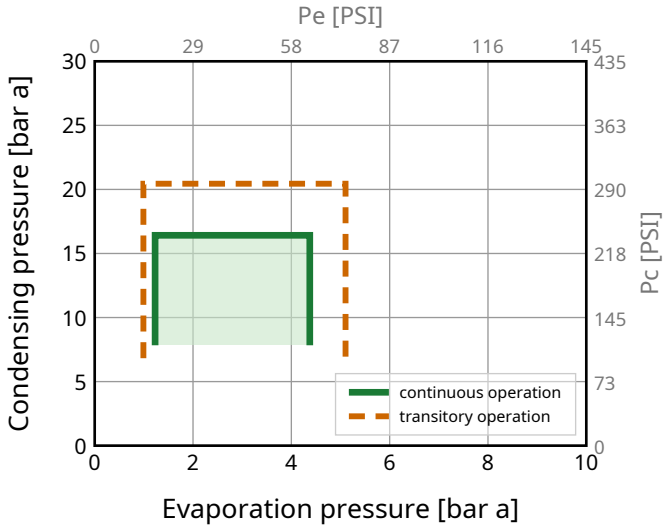
**Components**
**a2** relay 117U7005
**c** start capacitor (80µF) 117U5017
**d** cord relief 103N1004
**b** plastic cover 103N2008

## Operation Pressure Range



**Model**
**SC15MFX** Configuration 3

Sales code:
**104G8501**

## Standard Conditions

**R1234yf**, 220 V/50 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 | **792** | 2704 | 681 | **1.66** | 5.66 | 477 | 3.43 | 21.40 | **ASHRAE MBP** |
| -10 14 | 55 131 | 32 89.6 | 55 131 | **598** | 2042 | 515 | **1.34** | 4.58 | 446 | 3.35 | 18.37 | **CECOMAF MBP** |
| -10 14 | 45 113 | 20 68 | 45 113 | **672** | 2291 | 577 | **1.59** | 5.43 | 422 | 3.29 | 19.90 | **EN12900 MBP** |
| -6.7 20 | 48.8 119.8 | 18.3 64.9 | 48.8 119.8 | **725** | 2472 | 623 | **1.57** | 5.35 | 462 | 3.39 | 22.96 | **ARI540 MBP** |
| -10 14 | 45 113 | 32 89.6 | 45 113 | **711** | 2426 | 612 | **1.69** | 5.75 | 422 | 3.29 | 19.31 | **opt MBP 1** |
| -25 -13 | 45 113 | 32 89.6 | 45 113 | **312** | 1064 | 268 | **1.10** | 3.74 | 285 | 3.01 | 8.37 | **opt MBP 2** |

## Performance Tables

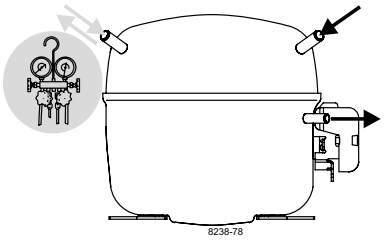
**R1234yf**, 220 V/50 Hz, CSIR, fan 3m/s

**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] |
| -25 | -13 | **312** | 1064 | 268 | **1.10** | 3.74 | 285 | 3.01 | 8.37 |
| -20 | -4 | **425** | 1449 | 365 | **1.28** | 4.37 | 332 | 3.09 | 11.43 |
| -15 | 5 | **557** | 1902 | 479 | **1.47** | 5.03 | 378 | 3.18 | 15.06 |
| -10 | 14 | **711** | 2426 | 612 | **1.69** | 5.75 | 422 | 3.29 | 19.31 |
| -5 | 23 | **887** | 3027 | 763 | **1.92** | 6.55 | 462 | 3.39 | 24.22 |
| 0 | 32 | **1087** | 3708 | 935 | **2.18** | 7.44 | 498 | 3.49 | 29.87 |
| 5 | 41 | **1311** | 4474 | 1128 | **2.48** | 8.47 | 528 | 3.58 | 36.32 |
| 10 | 50 | **1562** | 5330 | 1343 | **2.83** | 9.66 | 552 | 3.66 | 43.66 |

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

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| -25 | -13 | **240** | 819 | 206 | **0.81** | 2.77 | 295 | 3.02 | 7.26 |
| -20 | -4 | **344** | 1175 | 296 | **1.00** | 3.41 | 345 | 3.11 | 10.47 |
| -15 | 5 | **464** | 1581 | 399 | **1.17** | 4.00 | 396 | 3.22 | 14.15 |
| -10 | 14 | **598** | 2042 | 515 | **1.34** | 4.58 | 446 | 3.35 | 18.37 |
| -5 | 23 | **750** | 2560 | 645 | **1.52** | 5.18 | 495 | 3.48 | 23.18 |
| 0 | 32 | **921** | 3141 | 792 | **1.70** | 5.80 | 541 | 3.62 | 28.65 |
| 5 | 41 | **1111** | 3790 | 955 | **1.90** | 6.49 | 584 | 3.76 | 34.86 |
| 10 | 50 | **1322** | 4509 | 1136 | **2.12** | 7.25 | 622 | 3.89 | 41.91 |



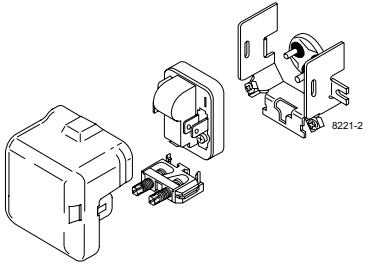

# SC Compressors

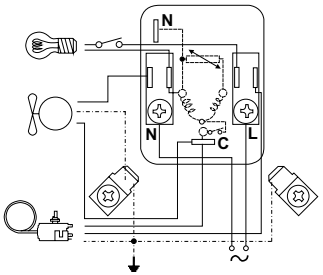
SECOP

Keep electrical equipment clear from oil, chemicals, and water

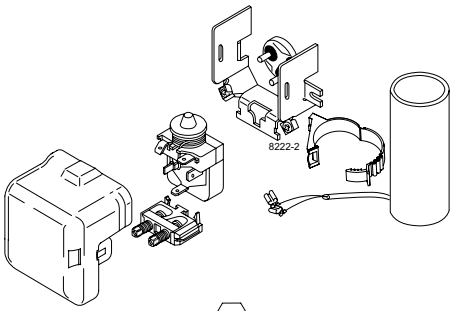
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

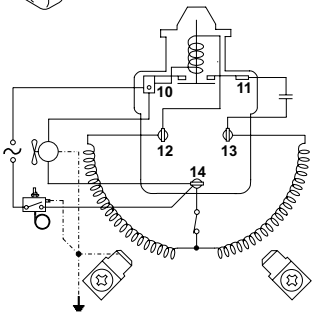
## RSIR



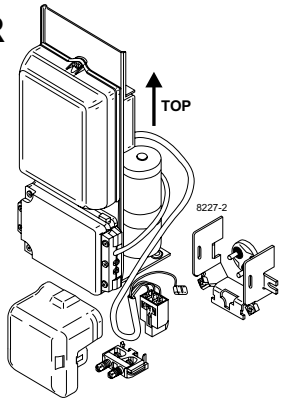



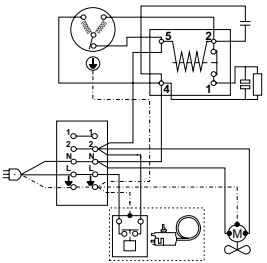

## CSIR

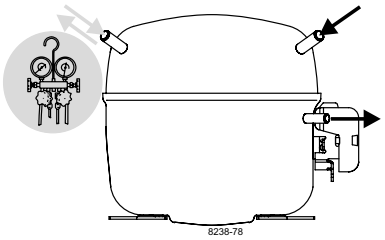



## CSCR






# SC Compressors

SECOP

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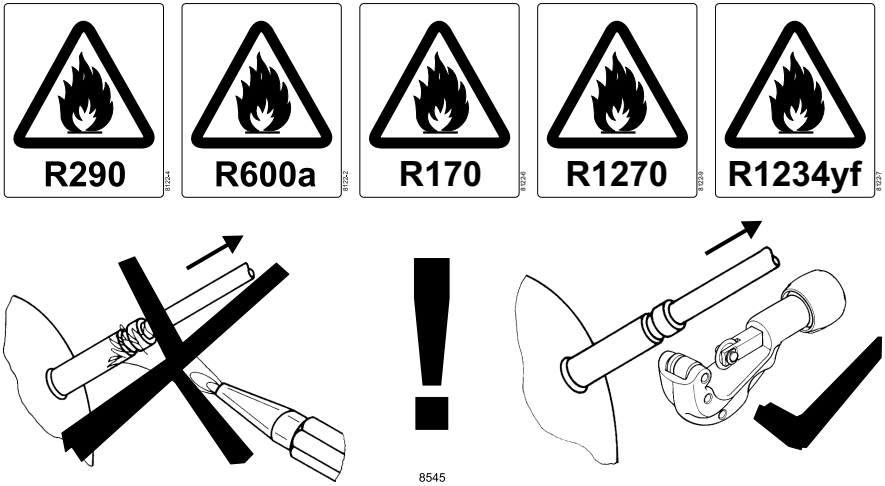
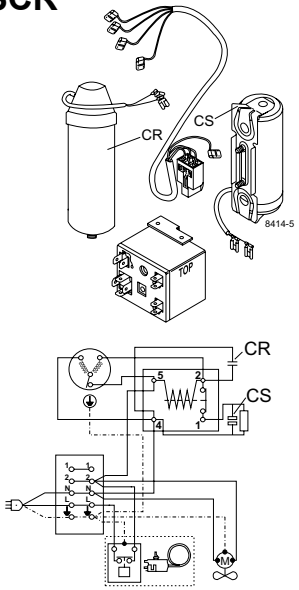
## Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)




## CSCR




**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**