

Single Pack SC18MFX 220-240V 50Hz / 208-230V 60Hz CSCR

Single pack code number: **195B4352**

| Position | Title | Code | Amount |
|----------|--|----------|--------|
| 1 | Compressor SC18MFX | 104G8804 | 1 |
| 2 | SC starting device (1000mm) | 117-7040 | 1 |
| 3 | Cord relief | 103N1004 | 1 |
| 4 | Cover | 103N2008 | 1 |
| 5 | Bolt joint for one compressor M6 ø16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|----------------|--|-------------|-----------------|
| Designation | SC18MFX | 220-240V/50Hz 1~ 208-230V/60Hz 1~ | Sales code: | 104G8804 |
|-------------|----------------|--|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R134a, R513A |
| Oil viscosity | 22cST | Displacement | 17,69cm ³ / 1,08cu.in |
| Oil quantity | 550cm ³ / 18,6fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 1300g / 45,9oz | | |
| Free gas volume comp. | 1460cm ³ / 49,4fl.oz | | |
| Weight | 13,8kg / 30,4lbs | | |
| 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. | 130°C / 266°F | | |



General - Configurations with SC18MFX

| | Conf. 1 | Conf. 2 | Conf. 3 | Conf. 4 | Conf. 5 |
|------------------------|----------------|----------------|----------------|----------------|----------------|
| Motorconfiguration | CSIR | CSCR | CSCR | CSIR | CSCR |
| Power supply (nominal) | 220-240V/50Hz | 220-240V/50Hz | 208-230V/60Hz | 220-240V/50Hz | 208-230V/60Hz |
| Number of phases | 1 | 1 | 1 | 1 | 1 |
| Voltage range | 187-254V | 187-254V | 187-254V | 187-254V | 187-254V |
| Approvals | CCC, EAC, VDE | CCC, EAC, VDE | CCC, EAC, VDE | CCC, EAC, VDE | CCC, EAC, VDE |
| Starting torque | HST | HST | HST | HST | HST |
| Note | - / - | | | | |

Applications with SC18MFX

| | Conf. 1 | Conf. 2 | Conf. 3 | Conf. 4 | Conf. 5 |
|-------------------------|----------------|----------------|----------------|----------------|----------------|
| Refrigerant | R134a | R134a | R134a | R513A | R513A |
| Application | MBP | MBP | MBP | MBP | MBP |
| System cooling | fan 3m/s | fan 3m/s | fan 3m/s | fan 3m/s | fan 3m/s |
| Hot gas defrost | OK | OK | OK | OK | OK |
| Long interval pull down | OK | OK | OK | OK | OK |

Electrical data - Configurations with SC18MFX

| | Conf. 1 | Conf. 2 | Conf. 3 | Conf. 4 | Conf. 5 |
|------------------------------|----------------|----------------|----------------|----------------|----------------|
| Starting device type | relay | relay | relay | relay | relay |
| Run capacitor | -/- | 10μF | 10μF | -/- | 10μF |
| Start capacitor | 80μF | 80μF | 80μF | 80μF | 80μF |
| LRA (locked rotor amps / 4s) | 20,43A | 20,43A | 19A | 20,43A | 19A |
| RLA (rated load amps / 1s) | 3,9A | 4,2A | 3,5A | 3,9A | 3,5A |
| Cut in current | 20,43A | 20,43A | 19A | 20,43A | 19A |

Model

Designation **SC18MFX** 220-240V/50Hz 1~ 208-230V/60Hz 1~ Sales code: **104G8804**

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 |



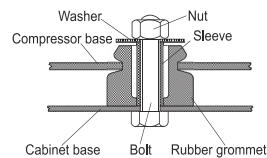
| Connectors | Suction | | Discharge | | Process | |
|----------------------------|----------------|--|--------------|--|--------------|--|
| | X | | Y | | Z | |
| Diameter [mm] | øi 10,11-10,29 | | øi 6,11-6,29 | | øi 6,11-6,29 | |
| (i:inside, o:outside) [in] | øi 0,4-0,41 | | øi 0,24-0,25 | | øi 0,24-0,25 | |
| Material | copper | | copper | | copper | |
| Horizontal angle ±2° | 37° | | 37° | | 143° | |
| Vertical angle ±2° | 30° | | 0° | | 150° | |
| Position l/h/w [mm] | 107/193/55 | | 115/110/63 | | -107/193/55 | |
| [in] | 4,2/7,6/2,2 | | 4,5/4,3/2,5 | | -4,2/7,6/2,2 | |
| Straight tube l. [mm] | 12 | | 12 | | 12 | |
| [in] | 0,5 | | 0,5 | | 0,5 | |

Compressor fixation

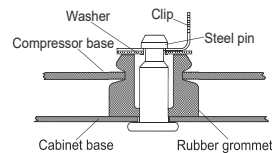


| Baseplate | [mm] | [inch] |
|-------------|-------|--------|
| BI | 204 | 8.03 |
| Bw | 150 | 5.9 |
| øE | ø 9.7 | ø 0.38 |
| Large holes | [mm] | [inch] |
| LI | 165 | 6.5 |
| Lw | 101.6 | 4 |
| øL | ø 19 | ø 0.75 |
| Small holes | [mm] | [inch] |
| SI | 170 | 6.7 |
| Sw | 70 | 2.76 |
| øS | ø 16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

Bolt joint



Snap-on



| 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 |

Application notes

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

Model

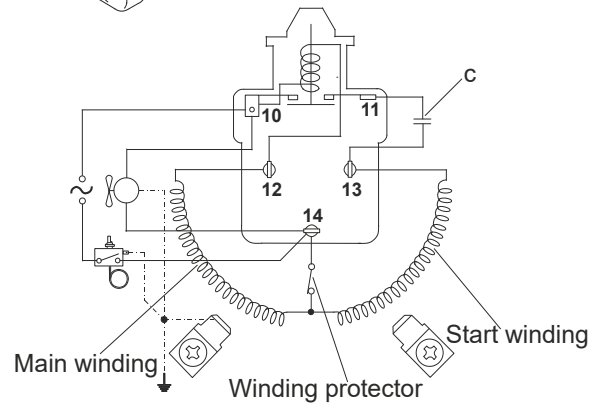
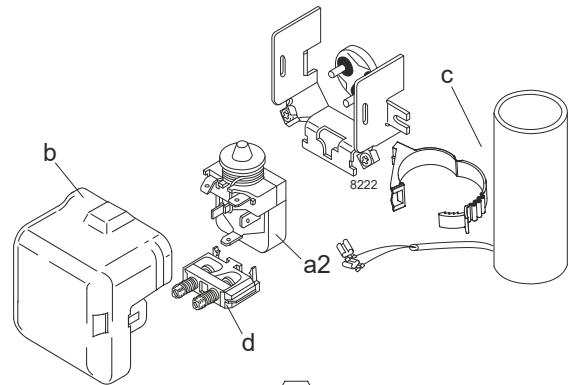
| | | | | | |
|-------------|----------------|----------------------|---------|-------------|-----------------|
| Designation | SC18MFX | 220-240V/50Hz | Conf. 1 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|---------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R134a |
| Application | MBP |
| Voltage range | 187-254V |
| Starting torque | HST |
| Approvals | CCC |
| | EAC |
| | VDE |

Electrical accessories / wiring diagram

CSIR



Ambient/ machine room temperatures minimum /maximum

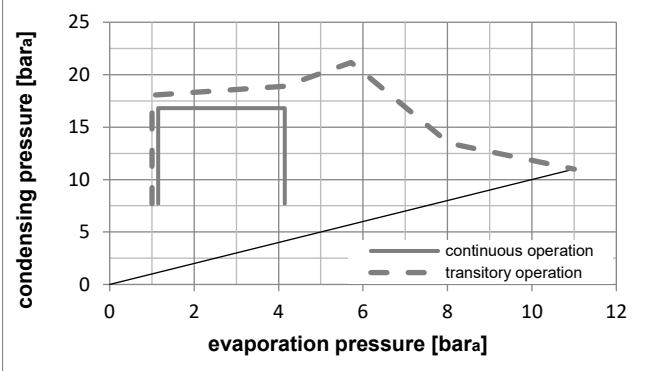
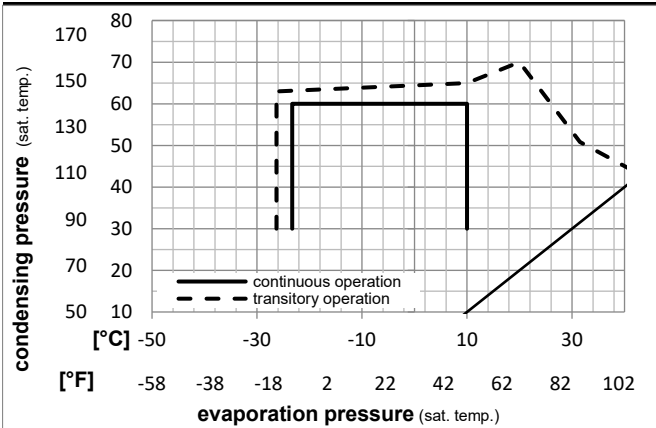
Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

Operation Limits

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a2 | relay | 117U6019 |
| c | start capacitor (80µF) | 117U5017 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2008 |

Alternative components

| | | |
|----|-----------------------------------|----------|
| a2 | relay | 117U6019 |
| c | start capacitor i-pack 40# (80µF) | 117U5067 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2008 |

Model

| | | | | | |
|-------------|----------------|----------------------|---------|-------------|-----------------|
| Designation | SC18MFX | 220-240V/50Hz | Conf. 1 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|---------|-------------|-----------------|

Optimization + standard conditions

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

| Evaporating pressure (saturation temperature) | | | | | Condensing pressure (saturation temperature) | | | | | Power consumption | | | | |
|---|------|------|------|------------------|--|----------|-------|----------|-----------|---------------------|------|----------------|-------------|--|
| | | | | Return gas temp. | | | | | | Current consumption | | Ref. mass flow | | |
| | | | | Liquid temp. | Cooling capacity | COP | EER | | | | P1 | I | m | |
| pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | | |
| [°C] | [°F] | [°C] | [°F] | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | | |
| -7 | 54 | 35 | 46 | 917,1 | 3132 | 789,3 | 1,63 | 5,56 | 1,40 | 563,3 | 3,56 | 20,01 | ASHRAE MBP | |
| 20 | 130 | 95 | 115 | | | | | | | | | | | |
| -10 | 55 | 32 | 55 | 708,6 | 2420 | 609,8 | 1,34 | 4,59 | 1,16 | 527,1 | 3,43 | 17,13 | cecomaf MBP | |
| 14 | 131 | 90 | 131 | | | | | | | | | | | |
| -10 | 45 | 20 | 45 | 793,2 | 2709 | 682,6 | 1,59 | 5,43 | 1,37 | 498,5 | 3,31 | 18,57 | EN12900 MBP | |
| 14 | 113 | 68 | 113 | | | | | | | | | | | |
| -7 | 49 | 18 | 49 | 867,6 | 2963 | 746,7 | 1,60 | 5,46 | 1,38 | 542,7 | 3,48 | 21,43 | ARI540 MBP | |
| 20 | 120 | 65 | 120 | | | | | | | | | | | |
| -10 | 45 | 32 | 45 | 822,9 | 2810 | 708,2 | 1,65 | 5,64 | 1,42 | 498,5 | 3,31 | 18,01 | opt | |
| 14 | 113 | 90 | 113 | | | | | | | | | | | |
| -25 | 45 | 32 | 45 | 376,3 | 1285 | 323,9 | 1,04 | 3,55 | 0,89 | 362,3 | 2,84 | 8,15 | opt | |
| -13 | 113 | 90 | 113 | | | | | | | | | | | |

Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, 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] | -23 | -10 | 415,2 | 1418 | 357,3 | 1,10 | 3,75 | 0,95 | 377,7 | 2,89 | 9,00 |
| cond. pressure | -20 | -4 | 498,3 | 1702 | 428,9 | 1,22 | 4,18 | 1,05 | 407,6 | 2,99 | 10,83 |
| pc= 45/113 | -15 | 5 | 645,8 | 2206 | 555,8 | 1,43 | 4,87 | 1,23 | 452,8 | 3,15 | 14,08 |
| return gas temp. | -10 | 14 | 822,9 | 2810 | 708,2 | 1,65 | 5,64 | 1,42 | 498,5 | 3,31 | 18,01 |
| RGT= 32/90 | 0 | 32 | 1282,4 | 4380 | 1103,6 | 2,16 | 7,39 | 1,86 | 592,8 | 3,67 | 28,36 |
| liquid temp | 5 | 41 | 1572,9 | 5372 | 1353,7 | 2,45 | 8,36 | 2,11 | 642,3 | 3,86 | 35,02 |
| Tliq= 45/113 | 10 | 50 | 1909,5 | 6521 | 1643,4 | 2,75 | 9,40 | 2,37 | 694,0 | 4,06 | 42,85 |
| [°C / °F] | -23 | -10 | 350,7 | 1198 | 301,8 | 0,93 | 3,18 | 0,80 | 376,7 | 2,91 | 8,39 |
| cond. pressure | -20 | -4 | 424,0 | 1448 | 364,9 | 1,02 | 3,50 | 0,88 | 413,8 | 3,04 | 10,17 |
| pc= 55/131 | -15 | 5 | 553,4 | 1890 | 476,2 | 1,18 | 4,02 | 1,01 | 470,2 | 3,23 | 13,32 |
| return gas temp | -10 | 14 | 708,6 | 2420 | 609,8 | 1,34 | 4,59 | 1,16 | 527,1 | 3,43 | 17,13 |
| RGT= 32/90 | 0 | 32 | 1112,8 | 3801 | 957,7 | 1,73 | 5,90 | 1,49 | 644,0 | 3,86 | 27,22 |
| liquid temp | 5 | 41 | 1370,1 | 4679 | 1179,1 | 1,94 | 6,64 | 1,67 | 705,0 | 4,09 | 33,76 |
| Tliq= 55/131 | 10 | 50 | 1669,6 | 5702 | 1436,9 | 2,17 | 7,42 | 1,87 | 768,3 | 4,32 | 41,50 |

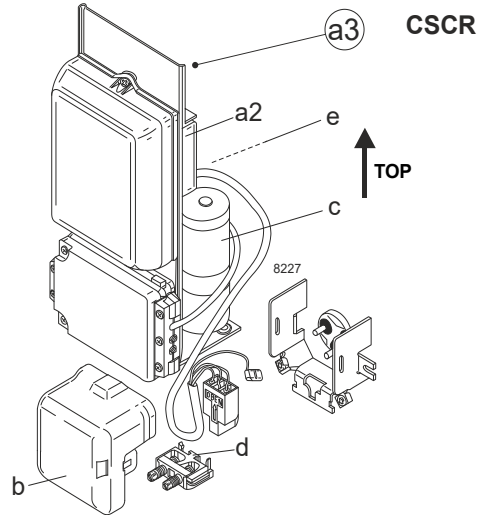
Model

| | | | | | |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | SC18MFX | 220-240V/50Hz | Conf. 2 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R134a |
| Application | MBP |
| Voltage range | 187-254V |
| Starting torque | HST |
| Approvals | CCC |
| | EAC |
| | VDE |

Electrical accessories / wiring diagram

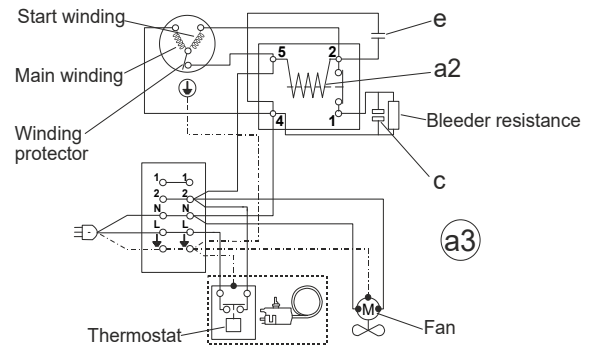


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

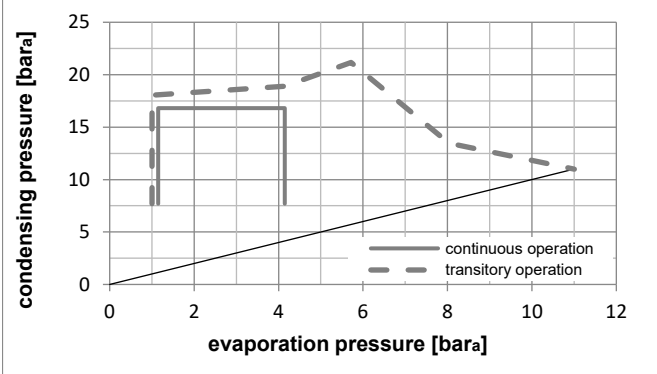
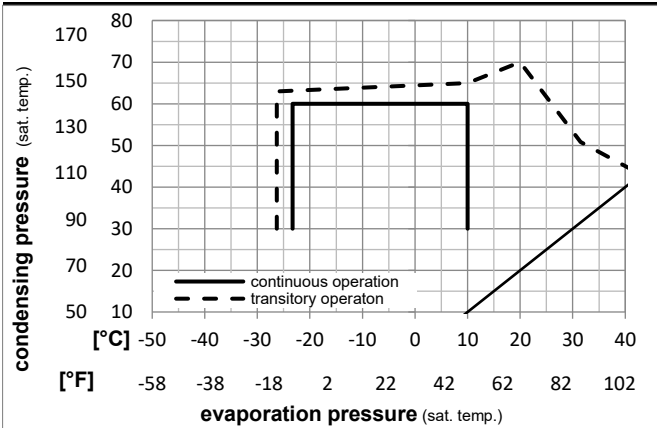
Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s



Operation Limits

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a3 | SC starter kit (550mm) | 117-7027 |
| b | plastic cover | 103N2008 |
| d | cord relief | 103N1004 |

Alternative components

| | | |
|----|-------------------------|----------|
| a3 | SC starter kit (1000mm) | 117-7040 |
| b | plastic cover | 103N2008 |
| d | cord relief | 103N1004 |

Model

| | | | | | |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | SC18MFX | 220-240V/50Hz | Conf. 2 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

Optimization + standard conditions

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

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | | | | Power consumption | | | |
|------|-----|---|----|--------------|-------|--|---------|----------|-------|----------|-----------|-------------------|----------------|--------------------|--|
| | | Return gas temp. | | Liquid temp. | | Cooling capacity | | COP | EER | | P1 | I | Ref. mass flow | | |
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| [°C] | -7 | 54 | 35 | 46 | 935,9 | 3196 | 805,5 | 1,74 | 5,93 | 1,49 | 539,3 | 2,81 | 20,42 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 722,2 | 2467 | 621,5 | 1,42 | 4,86 | 1,23 | 507,3 | 2,67 | 17,46 | cecomaf MBP | |
| [°F] | 14 | 131 | 90 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 811,0 | 2770 | 698,0 | 1,69 | 5,77 | 1,45 | 480,1 | 2,56 | 18,98 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| [°C] | -7 | 49 | 18 | 49 | 887,1 | 3029 | 763,4 | 1,70 | 5,82 | 1,47 | 520,7 | 2,73 | 21,91 | ARI540 MBP | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 841,4 | 2874 | 724,1 | 1,75 | 5,99 | 1,51 | 480,1 | 2,56 | 18,41 | opt | |
| [°F] | 14 | 113 | 90 | 113 | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 384,1 | 1312 | 330,5 | 1,10 | 3,76 | 0,95 | 349,1 | 2,08 | 8,32 | opt | |
| [°F] | -13 | 113 | 90 | 113 | | | | | | | | | | | |

Performance tables

R134a, 220V/50Hz, CSCR, fan 3m/s, CCC, EAC, 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] | -23 | -10 | 424,0 | 1448 | 364,9 | 1,16 | 3,97 | 1,00 | 365,1 | 2,13 | 9,19 |
| cond. pressure | -20 | -4 | 509,2 | 1739 | 438,2 | 1,29 | 4,40 | 1,11 | 395,1 | 2,23 | 11,06 |
| pc= 45/113 | -15 | 5 | 660,3 | 2255 | 568,3 | 1,51 | 5,14 | 1,30 | 438,5 | 2,39 | 14,39 |
| return gas temp. | -10 | 14 | 841,4 | 2874 | 724,1 | 1,75 | 5,99 | 1,51 | 480,1 | 2,56 | 18,41 |
| RGT= 32/90 | 0 | 32 | 1310,2 | 4475 | 1127,6 | 2,33 | 7,97 | 2,01 | 561,5 | 2,92 | 28,97 |
| liquid temp | 5 | 41 | 1606,1 | 5485 | 1382,2 | 2,66 | 9,10 | 2,29 | 602,9 | 3,11 | 35,76 |
| Tliq= 45/113 | 10 | 50 | 1948,4 | 6654 | 1676,8 | 3,02 | 10,30 | 2,60 | 645,8 | 3,31 | 43,72 |
| [°C / °F] | -23 | -10 | 355,4 | 1214 | 305,9 | 0,98 | 3,35 | 0,84 | 362,4 | 2,13 | 8,51 |
| cond. pressure | -20 | -4 | 430,4 | 1470 | 370,4 | 1,08 | 3,67 | 0,93 | 400,3 | 2,26 | 10,32 |
| pc= 55/131 | -15 | 5 | 563,1 | 1923 | 484,6 | 1,24 | 4,23 | 1,06 | 455,0 | 2,46 | 13,55 |
| return gas temp | -10 | 14 | 722,2 | 2467 | 621,5 | 1,42 | 4,86 | 1,23 | 507,3 | 2,67 | 17,46 |
| RGT= 32/90 | 0 | 32 | 1136,5 | 3881 | 978,1 | 1,87 | 6,39 | 1,61 | 607,4 | 3,11 | 27,80 |
| liquid temp | 5 | 41 | 1399,9 | 4781 | 1204,7 | 2,13 | 7,28 | 1,83 | 657,1 | 3,34 | 34,50 |
| Tliq= 55/131 | 10 | 50 | 1706,2 | 5827 | 1468,4 | 2,41 | 8,24 | 2,08 | 707,5 | 3,58 | 42,41 |

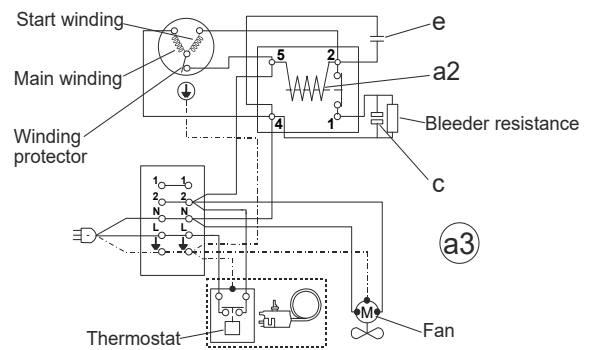
Model

| | | | | | |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | SC18MFX | 208-230V/60Hz | Conf. 3 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 208-230V/60Hz 1~ |
| Refrigerant | R134a |
| Application | MBP |
| Voltage range | 187-254V |
| Starting torque | HST |
| Approvals | CCC |
| | EAC |
| | VDE |

Electrical accessories / wiring diagram



Ambient/ machine room temperatures minimum /maximum

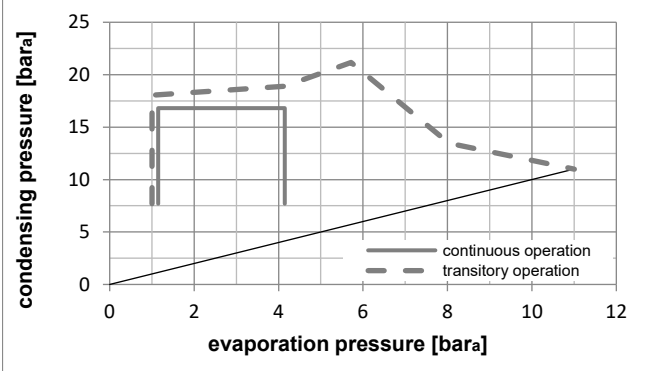
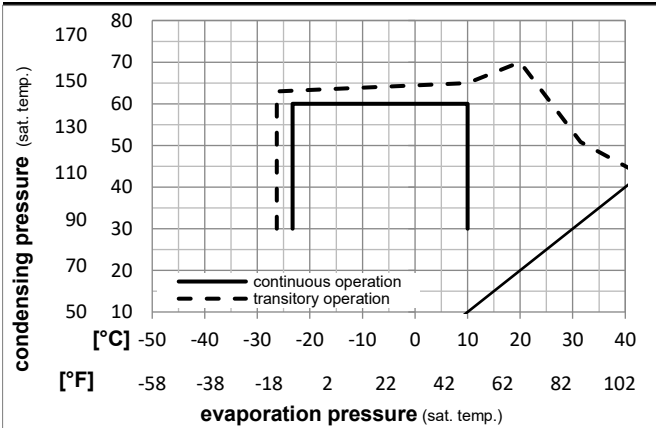
Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

Operation Limits

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a3 | SC starter kit (550mm) | 117-7027 |
| b | plastic cover | 103N2008 |
| d | cord relief | 103N1004 |

Alternative components

| | | |
|----|-------------------------|----------|
| a3 | SC starter kit (1000mm) | 117-7040 |
| b | plastic cover | 103N2008 |
| d | cord relief | 103N1004 |

Model

| | | | | | |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | SC18MFX | 208-230V/60Hz | Conf. 3 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

Optimization + standard conditions

R134a, 220V/60Hz, CSCR, fan 3m/s, CCC, EAC, VDE

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | | | | Power consumption | | | |
|------|-----|---|----|-----|--------|--|---------|----------|-------|----------|-----------|---------------------|-------|--------------------|----------------|
| | | Return gas temp. | | | | Liquid temp. | | | | | | Current consumption | | | Ref. mass flow |
| | | Cooling capacity | | | | COP | | EER | | P1 | I | m | | | |
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| [°C] | -7 | 54 | 35 | 46 | 1096,6 | 3745 | 943,8 | 1,75 | 5,96 | 1,50 | 628,2 | 2,82 | 23,93 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 850,5 | 2905 | 732,0 | 1,45 | 4,97 | 1,25 | 585,0 | 2,63 | 20,57 | cecomaf MBP | |
| [°F] | 14 | 131 | 90 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 947,7 | 3237 | 815,6 | 1,71 | 5,83 | 1,47 | 555,3 | 2,48 | 22,18 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| [°C] | -7 | 49 | 18 | 49 | 1035,2 | 3536 | 890,9 | 1,70 | 5,81 | 1,46 | 608,7 | 2,73 | 25,57 | ARI540 MBP | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 983,3 | 3358 | 846,2 | 1,77 | 6,05 | 1,52 | 555,3 | 2,48 | 21,52 | opt | |
| [°F] | 14 | 113 | 90 | 113 | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 456,4 | 1559 | 392,8 | 1,16 | 3,97 | 1,00 | 392,3 | 1,75 | 9,89 | opt | |
| [°F] | -13 | 113 | 90 | 113 | | | | | | | | | | | |

Performance tables

R134a, 220V/60Hz, CSCR, fan 3m/s, CCC, EAC, 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] | -23 | -10 | 502,8 | 1717 | 432,7 | 1,23 | 4,19 | 1,06 | 409,6 | 1,83 | 10,90 | |
| cond. pressure | -20 | -4 | 601,5 | 2054 | 517,7 | 1,35 | 4,63 | 1,17 | 444,1 | 1,98 | 13,07 | |
| pc= 45/113 | -15 | 5 | 775,5 | 2649 | 667,4 | 1,56 | 5,31 | 1,34 | 498,5 | 2,23 | 16,91 | |
| return gas temp. | -10 | 14 | 983,3 | 3358 | 846,2 | 1,77 | 6,05 | 1,52 | 555,3 | 2,48 | 21,52 | |
| RGT= 32/90 | 0 | 32 | 1519,2 | 5188 | 1307,4 | 2,25 | 7,69 | 1,94 | 675,0 | 3,04 | 33,60 | |
| liquid temp | 5 | 41 | 1857,0 | 6342 | 1598,2 | 2,52 | 8,60 | 2,17 | 737,3 | 3,34 | 41,34 | |
| Tliq= 45/113 | 10 | 50 | 2248,0 | 7677 | 1934,6 | 2,81 | 9,59 | 2,42 | 800,9 | 3,65 | 50,44 | |
| [°C / °F] | -23 | -10 | 426,8 | 1457 | 367,3 | 1,01 | 3,46 | 0,87 | 421,5 | 1,88 | 10,21 | |
| cond. pressure | -20 | -4 | 514,5 | 1757 | 442,8 | 1,12 | 3,82 | 0,96 | 459,6 | 2,06 | 12,34 | |
| pc= 55/131 | -15 | 5 | 668,0 | 2281 | 574,9 | 1,28 | 4,38 | 1,10 | 520,5 | 2,34 | 16,08 | |
| return gas temp | -10 | 14 | 850,5 | 2905 | 732,0 | 1,45 | 4,97 | 1,25 | 585,0 | 2,63 | 20,57 | |
| RGT= 32/90 | 0 | 32 | 1322,1 | 4515 | 1137,8 | 1,83 | 6,24 | 1,57 | 724,0 | 3,25 | 32,34 | |
| liquid temp | 5 | 41 | 1620,8 | 5535 | 1394,9 | 2,03 | 6,94 | 1,75 | 797,8 | 3,58 | 39,94 | |
| Tliq= 55/131 | 10 | 50 | 1967,9 | 6721 | 1693,6 | 2,25 | 7,69 | 1,94 | 874,3 | 3,93 | 48,92 | |

Model

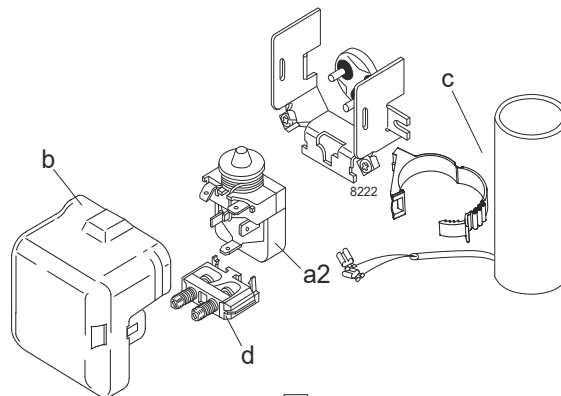
| | | | | | |
|-------------|----------------|----------------------|---------|-------------|-----------------|
| Designation | SC18MFX | 220-240V/50Hz | Conf. 4 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|---------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R513A |
| Application | MBP |
| Voltage range | 187-254V |
| Starting torque | HST |
| Approvals | CCC |
| | EAC |
| | VDE |

Electrical accessories / wiring diagram

CSIR

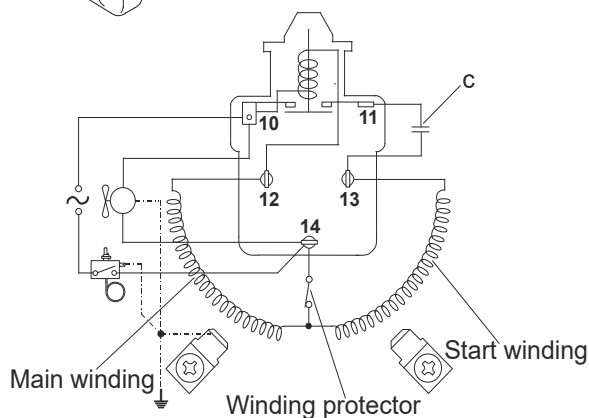


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

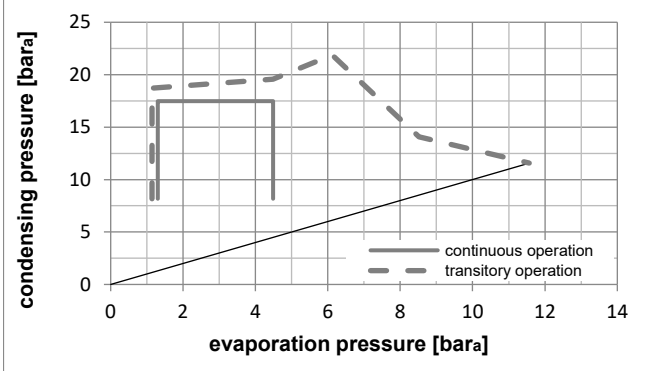
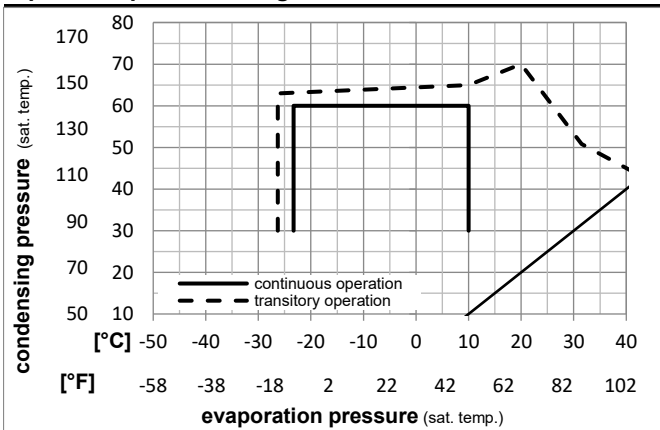
Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s



Operation Limits

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a2 | relay | 117U6019 |
| c | start capacitor (80µF) | 117U5017 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2008 |

Alternative components

| | | |
|----|-----------------------------------|----------|
| a2 | relay | 117U6019 |
| c | start capacitor i-pack 40# (80µF) | 117U5067 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2008 |

Model

Designation **SC18MFX** **220-240V/50Hz** Conf. 4 Sales code: **104G8804**

Optimization + standard conditions

R513A, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, VDE

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | | | | Power consumption | | | |
|------|-----|---|----|--------------|-------|--|---------|----------|-------|----------|-----------|-------------------|----------------|-------------|--|
| | | Return gas temp. | | Liquid temp. | | Cooling capacity | | COP | EER | | P1 | I | Ref. mass flow | | |
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | |
| [°C] | -7 | 54 | 35 | 46 | 963,3 | 3290 | 829,1 | 1,61 | 5,48 | 1,38 | 600,0 | 3,71 | 23,60 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 736,0 | 2514 | 633,4 | 1,30 | 4,45 | 1,12 | 564,8 | 3,59 | 20,35 | cecomaf MBP | |
| [°F] | 14 | 131 | 90 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 829,5 | 2833 | 713,9 | 1,56 | 5,31 | 1,34 | 533,3 | 3,47 | 21,99 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| [°C] | -7 | 49 | 18 | 49 | 895,7 | 3059 | 770,8 | 1,55 | 5,30 | 1,33 | 577,5 | 3,63 | 25,24 | ARI540 MBP | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 867,4 | 2962 | 746,5 | 1,63 | 5,56 | 1,40 | 533,3 | 3,47 | 21,33 | opt | |
| [°F] | 14 | 113 | 90 | 113 | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 411,2 | 1404 | 353,9 | 1,03 | 3,52 | 0,89 | 398,7 | 2,99 | 10,02 | opt | |
| [°F] | -13 | 113 | 90 | 113 | | | | | | | | | | | |

Performance tables

R513A, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, 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] | -23 | -10 | 451,3 | 1541 | 388,4 | 1,09 | 3,72 | 0,94 | 414,4 | 3,04 | 11,01 |
| cond. pressure | -20 | -4 | 536,7 | 1833 | 461,9 | 1,21 | 4,13 | 1,04 | 444,4 | 3,15 | 13,11 |
| pc= 45/113 | -15 | 5 | 687,6 | 2348 | 591,7 | 1,41 | 4,80 | 1,21 | 489,0 | 3,31 | 16,85 |
| return gas temp. | -10 | 14 | 867,4 | 2962 | 746,5 | 1,63 | 5,56 | 1,40 | 533,3 | 3,47 | 21,33 |
| RGT= 32/90 | 0 | 32 | 1329,8 | 4541 | 1144,4 | 2,13 | 7,27 | 1,83 | 624,3 | 3,80 | 32,98 |
| liquid temp | 5 | 41 | 1619,9 | 5532 | 1394,1 | 2,41 | 8,23 | 2,07 | 672,5 | 3,97 | 40,40 |
| Tliq= 45/113 | 10 | 50 | 1954,3 | 6674 | 1681,9 | 2,70 | 9,22 | 2,32 | 723,6 | 4,16 | 49,07 |
| [°C / °F] | -23 | -10 | 377,9 | 1290 | 325,2 | 0,91 | 3,11 | 0,78 | 415,6 | 3,05 | 10,36 |
| cond. pressure | -20 | -4 | 451,7 | 1543 | 388,7 | 1,00 | 3,41 | 0,86 | 452,9 | 3,18 | 12,40 |
| pc= 55/131 | -15 | 5 | 581,4 | 1986 | 500,4 | 1,14 | 3,90 | 0,98 | 508,9 | 3,38 | 16,02 |
| return gas temp | -10 | 14 | 736,0 | 2514 | 633,4 | 1,30 | 4,45 | 1,12 | 564,8 | 3,59 | 20,35 |
| RGT= 32/90 | 0 | 32 | 1135,0 | 3876 | 976,8 | 1,67 | 5,70 | 1,44 | 679,5 | 4,00 | 31,70 |
| liquid temp | 5 | 41 | 1387,1 | 4737 | 1193,8 | 1,87 | 6,40 | 1,61 | 739,9 | 4,22 | 38,98 |
| Tliq= 55/131 | 10 | 50 | 1679,4 | 5736 | 1445,3 | 2,09 | 7,14 | 1,80 | 803,3 | 4,44 | 47,55 |

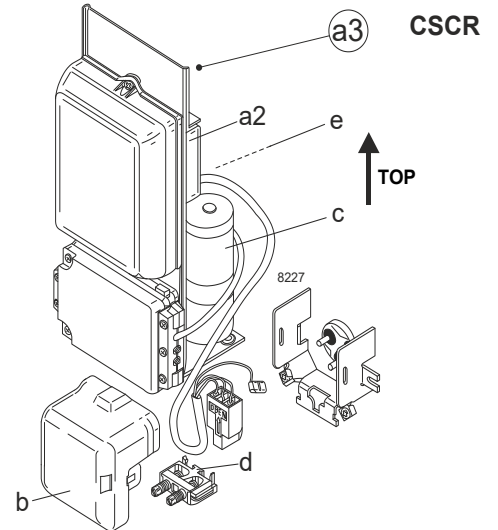
Model

| | | | | | |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | SC18MFX | 208-230V/60Hz | Conf. 5 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 208-230V/60Hz 1~ |
| Refrigerant | R513A |
| Application | MBP |
| Voltage range | 187-254V |
| Starting torque | HST |
| Approvals | CCC |
| | EAC |
| | VDE |

Electrical accessories / wiring diagram

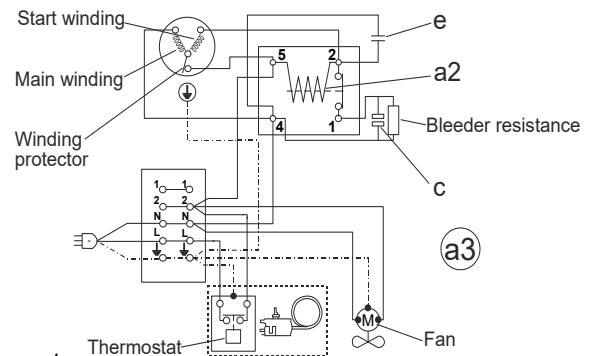


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range: 10 - 43°C / 50 - 110°F

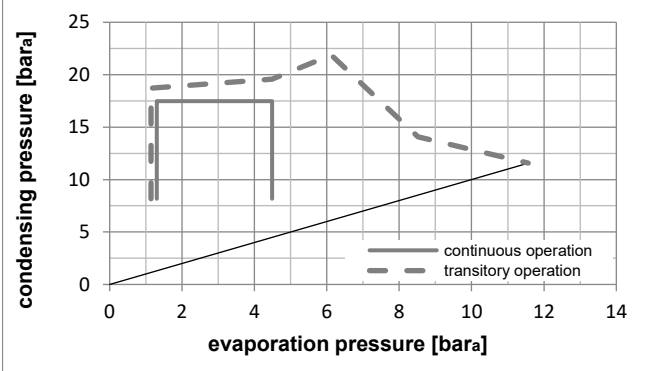
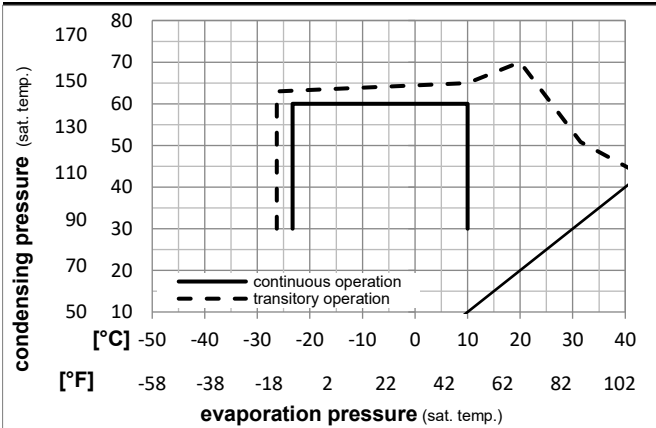
Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s



Operation Limits

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a3 | SC starter kit (550mm) | 117-7027 |
| b | plastic cover | 103N2008 |
| d | cord relief | 103N1004 |

Alternative components

| | | |
|----|-------------------------|----------|
| a3 | SC starter kit (1000mm) | 117-7040 |
| b | plastic cover | 103N2008 |
| d | cord relief | 103N1004 |

Model

| | | | | | |
|-------------|----------------|----------------------|----------------|-------------|-----------------|
| Designation | SC18MFX | 208-230V/60Hz | Conf. 5 | Sales code: | 104G8804 |
|-------------|----------------|----------------------|----------------|-------------|-----------------|

Optimization + standard conditions

R513A, 220V/60Hz, CSCR, fan 3m/s, CCC, EAC, VDE

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | | | Power consumption | | | | | | |
|------|------|---|-----|-----|------|--|---------|----------|-------|----------|---------------------|------|------|----------------|------|-------|--------------------|
| | | Return gas temp. | | | | Liquid temp. | | | | | Current consumption | | | Ref. mass flow | | | |
| | | Cooling capacity | | | | COP | | | | | EER | | | P1 | I | m | |
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | | | |
| [°C] | [°F] | | | | | | | | | | | | | | | | |
| -7 | 20 | 54 | 130 | 35 | 95 | 46 | 115 | 1153,1 | 3938 | 992,4 | 1,73 | 5,92 | 1,49 | 665,7 | 3,10 | 28,24 | ASHRAE MBP |
| -10 | 14 | 55 | 131 | 32 | 90 | 55 | 131 | 884,3 | 3020 | 761,1 | 1,42 | 4,85 | 1,22 | 622,9 | 2,90 | 24,45 | cecomaf MBP |
| -10 | 14 | 45 | 113 | 20 | 68 | 45 | 113 | 992,1 | 3388 | 853,8 | 1,68 | 5,75 | 1,45 | 589,5 | 2,75 | 26,29 | EN12900 MBP |
| -7 | 20 | 49 | 120 | 18 | 65 | 49 | 120 | 1069,7 | 3653 | 920,6 | 1,66 | 5,67 | 1,43 | 644,3 | 3,00 | 30,14 | ARI540 MBP |
| -10 | 14 | 45 | 113 | 32 | 90 | 45 | 113 | 1037,4 | 3543 | 892,8 | 1,76 | 6,01 | 1,51 | 589,5 | 2,75 | 25,51 | opt |
| -25 | -13 | 45 | 113 | 32 | 90 | 45 | 113 | 499,2 | 1705 | 429,6 | 1,17 | 4,01 | 1,01 | 425,4 | 1,99 | 12,17 | opt |

Performance tables

R513A, 220V/60Hz, CSCR, fan 3m/s, CCC, EAC, 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] | -23 | -10 | 547,1 | 1868 | 470,8 | 1,24 | 4,22 | 1,06 | 442,9 | 2,07 | 13,34 | | | |
| cond. pressure | -20 | -4 | 648,6 | 2215 | 558,2 | 1,36 | 4,64 | 1,17 | 477,6 | 2,23 | 15,85 | | | |
| pc= 45/113 | -15 | 5 | 826,5 | 2823 | 711,3 | 1,55 | 5,30 | 1,34 | 532,4 | 2,49 | 20,25 | | | |
| return gas temp. | -10 | 14 | 1037,4 | 3543 | 892,8 | 1,76 | 6,01 | 1,51 | 589,5 | 2,75 | 25,51 | | | |
| RGT= 32/90 | 0 | 32 | 1576,7 | 5385 | 1356,9 | 2,22 | 7,59 | 1,91 | 709,1 | 3,30 | 39,11 | | | |
| liquid temp | 5 | 41 | 1914,1 | 6537 | 1647,3 | 2,48 | 8,48 | 2,14 | 771,1 | 3,58 | 47,74 | | | |
| Tliq= 45/113 | 10 | 50 | 2302,9 | 7865 | 1981,9 | 2,76 | 9,43 | 2,38 | 834,0 | 3,87 | 57,82 | | | |
| [°C / °F] | -23 | -10 | 460,2 | 1572 | 396,1 | 1,00 | 3,42 | 0,86 | 459,6 | 2,15 | 12,61 | | | |
| cond. pressure | -20 | -4 | 548,7 | 1874 | 472,2 | 1,10 | 3,77 | 0,95 | 497,6 | 2,33 | 15,07 | | | |
| pc= 55/131 | -15 | 5 | 702,5 | 2399 | 604,6 | 1,26 | 4,30 | 1,08 | 558,4 | 2,61 | 19,35 | | | |
| return gas temp | -10 | 14 | 884,3 | 3020 | 761,1 | 1,42 | 4,85 | 1,22 | 622,9 | 2,90 | 24,45 | | | |
| RGT= 32/90 | 0 | 32 | 1350,0 | 4611 | 1161,9 | 1,77 | 6,06 | 1,53 | 761,4 | 3,54 | 37,70 | | | |
| liquid temp | 5 | 41 | 1643,1 | 5611 | 1414,0 | 1,97 | 6,72 | 1,69 | 834,9 | 3,88 | 46,17 | | | |
| Tliq= 55/131 | 10 | 50 | 1982,3 | 6770 | 1706,0 | 2,18 | 7,43 | 1,87 | 910,8 | 4,23 | 56,12 | | | |



SC Compressors





SC Compressors

Service/Repair – R290



8545



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