

Single Pack SC18MLX 115V 60Hz CSCR

Single pack code number: **195B4724**

| Position | Title | Code | Amount |
|----------|--|----------|--------|
| 1 | Compressor SC18MLX | 104L2105 | 1 |
| 2 | SC starting device | 117-7069 | 1 |
| 3 | Bolt joint for one compressor 1/4" ø19mm | 118-1949 | 1 |

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Model

| | | | | |
|-------------|----------------|---------------------|-------------|-----------------|
| Designation | SC18MLX | 115V/60Hz 1~ | Sales code: | 104L2105 |
|-------------|----------------|---------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R404A, R452A, R507 |
| Oil viscosity | 32cST | Displacement | 17,69cm ³ / 1,08cu.in |
| Oil quantity | 556cm ³ / 18,8fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 1300g / 45,9oz | | |
| Free gas volume comp. | 1460cm ³ / 49,4fl.oz | | |
| Weight | 14kg / 30,9lbs | | |
| Motor protection | external | | |
| Winding resistance main | 0,6Ω (at 25°C) | | |
| Winding resistance aux | 2,6Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with SC18MLX

| | Conf. 1 | Conf. 2 |
|------------------------|---|----------------|
| Motorconfiguration | CSCR | CSCR |
| Power supply (nominal) | 115V/60Hz | 115V/60Hz |
| Number of phases | 1 | 1 |
| Voltage range | 103-127V | 103-127V |
| Approvals | UL | UL |
| Starting torque | HST | HST |
| Note | Protector and cover are included and pre-assembled to compressor. | |

Applications with SC18MLX

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| Refrigerant | R404A | R452A |
| Application | MBP | MBP |
| System cooling | fan 3m/s | fan 3m/s |
| Hot gas defrost | OK | OK |
| Long interval pull down | OK | OK |

Electrical data - Configurations with SC18MLX

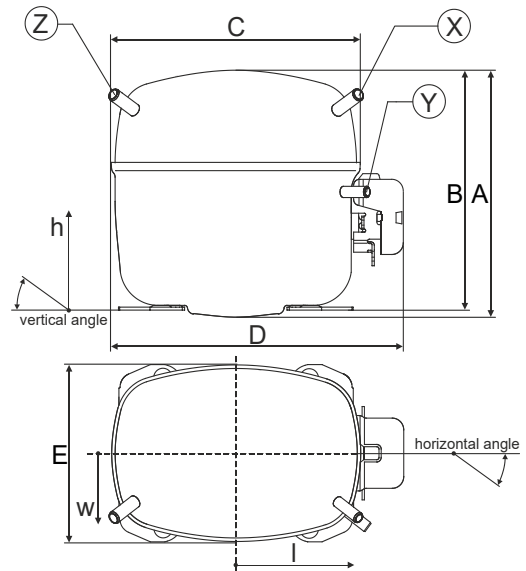
| | Conf. 1 | Conf. 2 |
|------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | 23,5μF | 23,5μF |
| Start capacitor | 410μF | 410μF |
| LRA (locked rotor amps / 4s) | 69A | 69A |
| RLA (rated load amps / 1s) | 13A | 13A |
| Cut in current | 69A | 69A |

Model

| | | | | |
|-------------|----------------|---------------------|-------------|-----------------|
| Designation | SC18MLX | 115V/60Hz 1~ | Sales code: | 104L2105 |
|-------------|----------------|---------------------|-------------|-----------------|

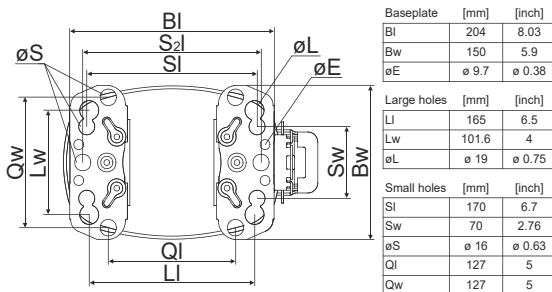
Compressor dimensions

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

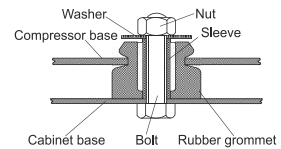


| Connectors | | Suction | Discharge | Process |
|-------------------|----------------------------|----------------|------------------|----------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 9,54-9,72 | øi 6,41-6,59 | øi 6,41-6,59 |
| | (i:inside, o:outside) [in] | øi 0,38-0,38 | øi 0,25-0,26 | øi 0,25-0,26 |
| 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 |

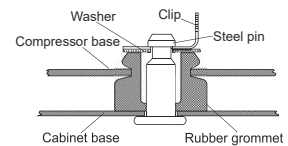
Compressor fixation



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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

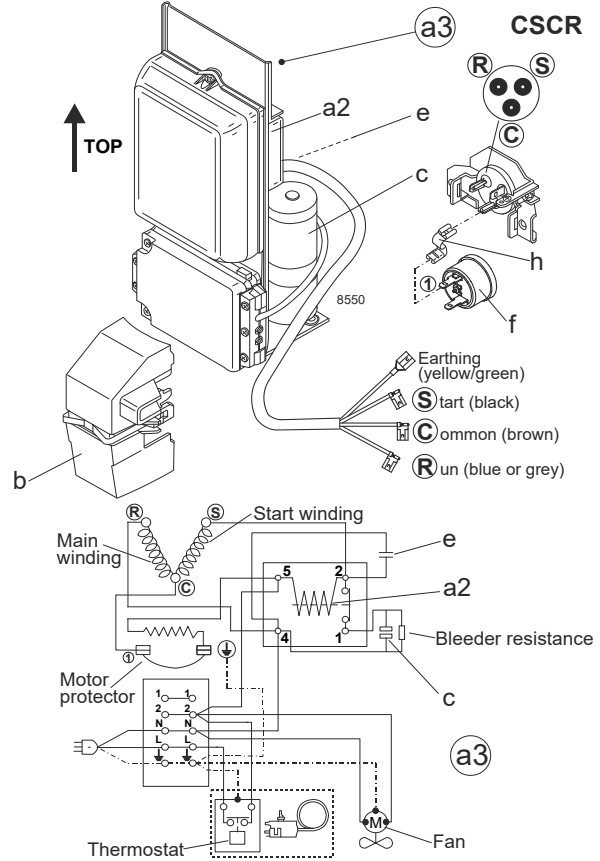
Model

| | | | | | |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | SC18MLX | 115V/60Hz | Conf. 1 | Sales code: | 104L2105 |
|-------------|----------------|------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|--------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 115V/60Hz 1~ |
| Refrigerant | R404A |
| Application | MBP |
| Voltage range | 103-127V |
| Starting torque | HST |
| Approvals | UL |

Electrical accessories / wiring diagram

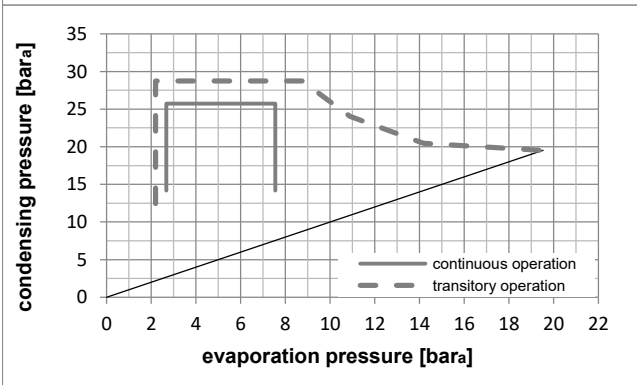
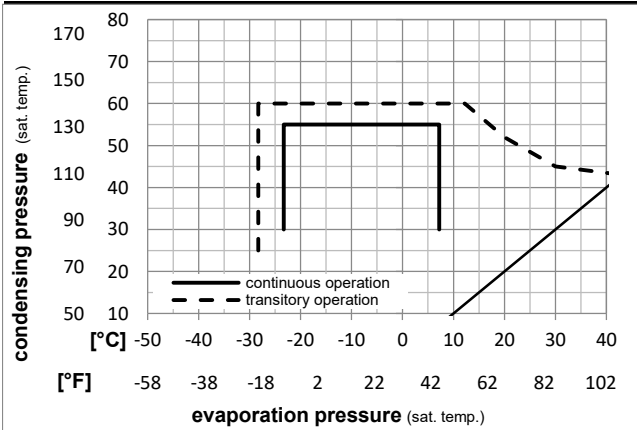


Ambient temperatures / system cooling

| | |
|---------------------------|--------------|
| Ambient temperature min.: | 10°C / 50°F |
| Ambient temperature max.: | 43°C / 110°F |

| System cooling (n/a: outside limits) | | | |
|--------------------------------------|-----|----------|-----|
| T ambient | LBP | MBP | HBP |
| 32°C / 90°F | n/a | fan 3m/s | n/a |
| 38°C / 100°F | n/a | fan 3m/s | n/a |
| 43°C / 110°F | n/a | fan 3m/s | n/a |

Operation pressure range



Components (protector + ~holder + cover: pre assembled)

| | | |
|----|---------------------------|----------|
| a3 | SC starter kit | 117-7045 |
| f | ext. protector (T0777/46) | 117U3188 |
| h | protector holder | 117U0439 |
| b | plastic cover | 117U1021 |

Alternative comp. (protector + ~holder + cover: pre assemb.)

| | | |
|----|--------------------------------|----------|
| a2 | potential relay (RVA 7AA3R) | 117-7441 |
| f | ext. protector (T0777/46) | 117U3188 |
| h | protector holder | 117U0439 |
| c | start capacitor (410µF, 6.3mm) | 117U5043 |
| e | run capacitor (23,5µF, 6.3mm) | 117-7114 |
| b | plastic cover | 117U1021 |

Model

| | | | | | |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | SC18MLX | 115V/60Hz | Conf. 1 | Sales code: | 104L2105 |
|-------------|----------------|------------------|----------------|-------------|-----------------|

Optimization + standard conditions

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

| | | 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] | -6,66 | 54,4 | 35 | 46,1 | 1868,1 | 6380 | 1607,7 | 1,47 | 5,03 | 1,27 | 1268,3 | 12,75 | 51,40 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 1392,8 | 4757 | 1198,7 | 1,17 | 3,98 | 1,00 | 1193,7 | 12,22 | 44,59 | cecomaf MBP | |
| [°F] | 14 | 131 | 89,6 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 1631,9 | 5573 | 1404,4 | 1,44 | 4,93 | 1,24 | 1131,2 | 11,79 | 49,15 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| [°C] | -6,66 | 48,9 | 18,3 | 48,9 | 1697,4 | 5797 | 1460,8 | 1,39 | 4,73 | 1,19 | 1224,2 | 12,45 | 55,46 | ARI540 MBP | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 1731,9 | 5915 | 1490,5 | 1,53 | 5,23 | 1,32 | 1131,2 | 11,79 | 47,69 | opt | |
| [°F] | 14 | 113 | 89,6 | 113 | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 913,7 | 3120 | 786,3 | 1,06 | 3,63 | 0,91 | 859,8 | 10,14 | 24,65 | opt | |
| [°F] | -13 | 113 | 89,6 | 113 | | | | | | | | | | | |

Performance tables

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

| | | 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] | -25 | -13 | 913,7 | 3120 | 786,3 | 1,06 | 3,63 | 0,91 | 859,8 | 10,14 | 24,65 | |
| cond. pressure | -23,3 | -10 | 984,6 | 3363 | 847,4 | 1,11 | 3,78 | 0,95 | 889,6 | 10,29 | 26,61 | |
| pc= 45/113 | -15 | 5 | 1411,6 | 4821 | 1214,8 | 1,36 | 4,64 | 1,17 | 1039,3 | 11,18 | 38,56 | |
| return gas temp. | -9,4 | 15 | 1770,7 | 6047 | 1523,9 | 1,55 | 5,30 | 1,33 | 1141,6 | 11,87 | 48,81 | |
| RGT= 32/90 | -3,9 | 25 | 2196,9 | 7503 | 1890,6 | 1,76 | 6,01 | 1,52 | 1247,6 | 12,63 | 61,22 | |
| liquid temp | 0 | 32 | 2538,5 | 8669 | 2184,6 | 1,92 | 6,54 | 1,65 | 1324,9 | 13,21 | 71,36 | |
| Tliq= 45/113 | 7,2 | 45 | 3275,7 | 11187 | 2819,1 | 2,22 | 7,57 | 1,91 | 1477,2 | 14,40 | 93,94 | |
| [°C / °F] | -25 | -13 | 701,6 | 2396 | 603,8 | 0,84 | 2,87 | 0,72 | 835,8 | 10,08 | 21,93 | |
| cond. pressure | -23,3 | -10 | 761,4 | 2600 | 655,3 | 0,87 | 2,97 | 0,75 | 876,4 | 10,29 | 23,85 | |
| pc= 55/131 | -15 | 5 | 1121,6 | 3831 | 965,3 | 1,04 | 3,56 | 0,90 | 1075,5 | 11,44 | 35,57 | |
| return gas temp | -9,4 | 15 | 1425,7 | 4869 | 1227,0 | 1,18 | 4,03 | 1,02 | 1206,8 | 12,31 | 45,69 | |
| RGT= 32/90 | -3,9 | 25 | 1788,4 | 6108 | 1539,1 | 1,34 | 4,56 | 1,15 | 1338,7 | 13,26 | 58,04 | |
| liquid temp | 0 | 32 | 2080,5 | 7105 | 1790,5 | 1,45 | 4,96 | 1,25 | 1432,2 | 13,97 | 68,23 | |
| Tliq= 55/131 | 7,2 | 45 | 2715,0 | 9272 | 2336,6 | 1,69 | 5,76 | 1,45 | 1610,4 | 15,39 | 91,12 | |

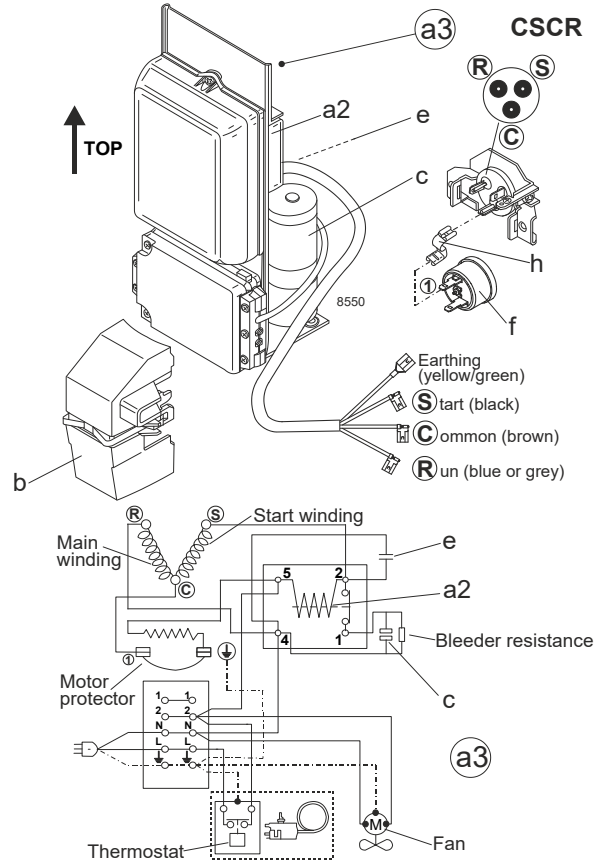
Model

| | | | | | |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | SC18MLX | 115V/60Hz | Conf. 2 | Sales code: | 104L2105 |
|-------------|----------------|------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|--------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 115V/60Hz 1~ |
| Refrigerant | R452A |
| Application | MBP |
| Voltage range | 103-127V |
| Starting torque | HST |
| Approvals | UL |

Electrical accessories / wiring diagram

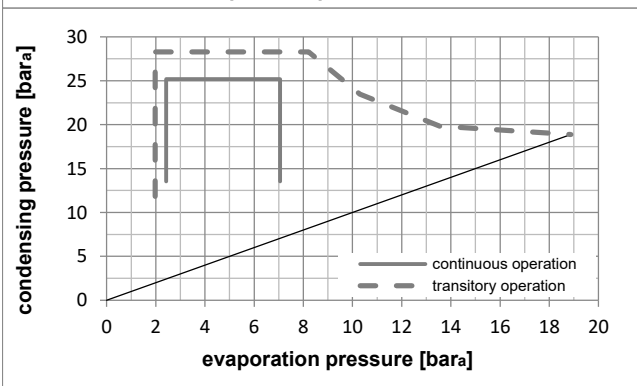
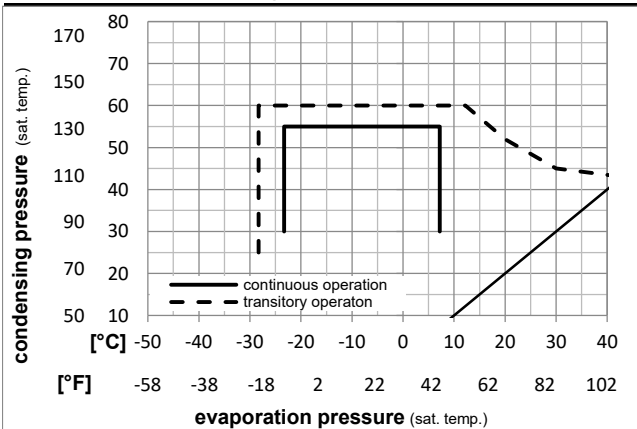


Ambient temperatures / system cooling

| | |
|---------------------------|--------------|
| Ambient temperature min.: | 10°C / 50°F |
| Ambient temperature max.: | 43°C / 110°F |

| System cooling (n/a: outside limits) | | | |
|--------------------------------------|-----|----------|-----|
| T ambient | LBP | MBP | HBP |
| 32°C / 90°F | n/a | fan 3m/s | n/a |
| 38°C / 100°F | n/a | fan 3m/s | n/a |
| 43°C / 110°F | n/a | fan 3m/s | n/a |

Operation pressure range



Components (protector + ~holder + cover: pre assembled)

| | | |
|----|---------------------------|----------|
| a3 | SC starter kit | 117-7045 |
| f | ext. protector (T0777/46) | 117U3188 |
| h | protector holder | 117U0439 |
| b | plastic cover | 117U1021 |

Alternative comp. (protector + ~holder + cover: pre assemb.)

| | | |
|----|--------------------------------|----------|
| a2 | potential relay (RVA 7AA3R) | 117-7441 |
| f | ext. protector (T0777/46) | 117U3188 |
| h | protector holder | 117U0439 |
| c | start capacitor (410µF, 6.3mm) | 117U5043 |
| e | run capacitor (23,5µF, 6.3mm) | 117-7114 |
| b | plastic cover | 117U1021 |

Model

| | | | | | |
|-------------|----------------|------------------|----------------|-------------|-----------------|
| Designation | SC18MLX | 115V/60Hz | Conf. 2 | Sales code: | 104L2105 |
|-------------|----------------|------------------|----------------|-------------|-----------------|

Optimization + standard conditions

R452A, 115V/60Hz, CSCR, fan 3m/s, UL

| Evaporating pressure (saturation temperature) | | | | | Condensing pressure (saturation temperature) | | | | | | Power consumption | | | ASHRAE MBP | |
|---|------|------|------|------|--|----------|--------|----------|-----------|------|---------------------|-------|--------|----------------|---------------------|
| Return gas temp. | | | | | Liquid temp. | | | | | | Current consumption | | | | Ref. mass flow ṁ |
| Cooling capacity | | | | | COP | | EER | | P1 | I | ṁ | | | | |
| pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | | [A] | [kg/h] | | |
| [°C] | -6,7 | 54,4 | 35 | 46,1 | 1767,3 | 6036 | 1521,0 | 1,47 | 5,02 | 1,27 | 1202,0 | 12,44 | 49,72 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 1319,9 | 4508 | 1135,9 | 1,17 | 4,00 | 1,01 | 1126,7 | 11,92 | 42,90 | cecomaf MBP | |
| [°F] | 14 | 131 | 89,6 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 1540,9 | 5262 | 1326,1 | 1,44 | 4,92 | 1,24 | 1069,0 | 11,53 | 47,35 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| [°C] | -6,7 | 48,9 | 18,3 | 48,9 | 1613,7 | 5511 | 1388,8 | 1,39 | 4,75 | 1,20 | 1161,0 | 12,16 | 53,54 | ARI540 MBP | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 1632,9 | 5576 | 1405,2 | 1,53 | 5,22 | 1,31 | 1069,0 | 11,53 | 46,01 | opt | |
| [°F] | 14 | 113 | 89,6 | 113 | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 841,6 | 2874 | 724,3 | 1,06 | 3,61 | 0,91 | 796,7 | 9,68 | 23,28 | opt | |
| [°F] | -13 | 113 | 89,6 | 113 | | | | | | | | | | | |

Performance tables

R452A, 115V/60Hz, CSCR, fan 3m/s, UL

| | 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] | -25 | -13 | 841,6 | 2874 | 724,3 | 1,06 | 3,61 | 0,91 | 796,7 | 9,68 | 23,28 | |
| cond. pressure | -23 | -10 | 909,7 | 3107 | 782,9 | 1,10 | 3,76 | 0,95 | 826,6 | 9,88 | 25,21 | |
| pc= 45/113 | -15 | 5 | 1321,9 | 4514 | 1137,6 | 1,35 | 4,62 | 1,16 | 976,6 | 10,90 | 36,98 | |
| return gas temp. | -9,4 | 15 | 1670,6 | 5706 | 1437,8 | 1,55 | 5,29 | 1,33 | 1079,5 | 11,60 | 47,11 | |
| RGT= 32/90 | -3,9 | 25 | 2086,5 | 7126 | 1795,7 | 1,76 | 6,00 | 1,51 | 1186,9 | 12,33 | 59,41 | |
| liquid temp | 0 | 32 | 2421,2 | 8269 | 2083,7 | 1,91 | 6,53 | 1,65 | 1265,8 | 12,87 | 69,49 | |
| Tliq= 45/113 | 7,2 | 45 | 3146,7 | 10747 | 2708,1 | 2,21 | 7,55 | 1,90 | 1422,7 | 13,94 | 91,93 | |
| [°C / °F] | -25 | -13 | 646,3 | 2207 | 556,2 | 0,84 | 2,86 | 0,72 | 771,7 | 9,51 | 20,57 | |
| cond. pressure | -23 | -10 | 704,2 | 2405 | 606,0 | 0,87 | 2,96 | 0,75 | 811,6 | 9,78 | 22,45 | |
| pc= 55/131 | -15 | 5 | 1054,4 | 3601 | 907,4 | 1,05 | 3,57 | 0,90 | 1008,8 | 11,12 | 33,99 | |
| return gas temp | -9,4 | 15 | 1352,2 | 4618 | 1163,7 | 1,19 | 4,05 | 1,02 | 1139,8 | 12,01 | 43,99 | |
| RGT= 32/90 | -3,9 | 25 | 1709,4 | 5838 | 1471,1 | 1,34 | 4,59 | 1,16 | 1272,8 | 12,92 | 56,24 | |
| liquid temp | 0 | 32 | 1998,3 | 6825 | 1719,8 | 1,46 | 4,99 | 1,26 | 1368,0 | 13,57 | 66,35 | |
| Tliq= 55/131 | 7,2 | 45 | 2628,9 | 8978 | 2262,4 | 1,69 | 5,79 | 1,46 | 1551,9 | 14,82 | 89,10 | |



SC Compressors (External Protector)



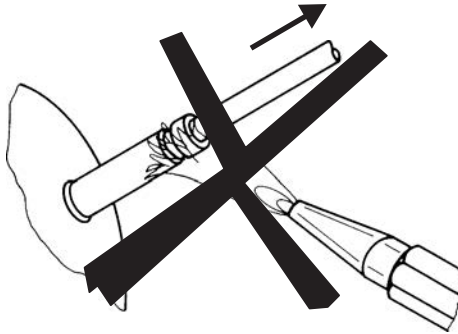
| | S | C | R |
|------------|---------|------------|-----------------|
| ENGLISH | Black | Brown | Blue or grey |
| DEUTSCH | Schwarz | Braun | Blau od. grau |
| FRANÇAIS | Noir | Marron | Bleu ou gris |
| ESPAÑOL | Negro | Marrón | Azul o gris |
| ITALIANO | Nero | Marrone | Blu o grigio |
| NEDERLANDS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



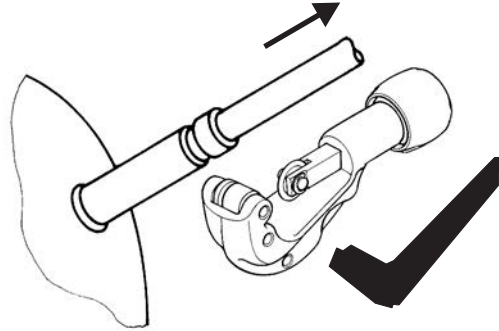
SC Compressors (External Protector)



Service/Repair – R290



8545



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