

Single Pack SCE15MNX 115-127V 60Hz CSCR

Single pack code number: **195B4434**

| Position | Title | Code | Amount |
|----------|--|----------|--------|
| 1 | Compressor SCE15MNX | 104H7579 | 1 |
| 2 | SC starting device (600mm) | 117-7801 | 1 |
| 3 | Bolt joint for one compressor M6 ø16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|-----------------|------------------|-------------|-----------------|
| Designation | SCE15MNX | 115-127V/60Hz 1~ | Sales code: | 104H7579 |
|-------------|-----------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 32cSt | Displacement | 15,28cm ³ / 0,93cu.in |
| Oil quantity | 541cm ³ / 18,3fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 450g / 15,9oz | | |
| Free gas volume comp. | 1460cm ³ / 49,4fl.oz | | |
| Weight | 14,2kg / 31,3lbs | | |
| Motor protection | external | | |
| Winding resistance main | 0,82Ω (at 25°C) | | |
| Winding resistance aux | 2,9Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 135°C / 275°F | | |



General - Configurations with SCE15MNX

| | Conf. 1 | Conf. 2 |
|------------------------|---|----------------|
| Motorconfiguration | CSCR | CSIR |
| 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 SCE15MNX

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| Refrigerant | R290 | R290 |
| 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 SCE15MNX

| | Conf. 1 | Conf. 2 |
|------------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | 23,5μF | -/- |
| Start capacitor | 280μF | 280μF |
| LRA (locked rotor amps / 4s/ U(N)) | 44,12A | 43,13A |
| RLA (rated load amps / 1s/ U(N)) | 7,48A | 8,3A |
| Cut in current (U(N)) | 44,12A | 43,13A |

Model

Designation

SCE15MNX

115-127V/60Hz 1~

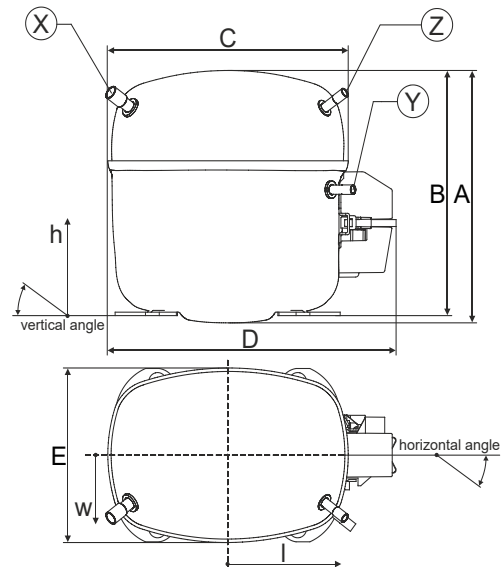
Sales code:

104H7579

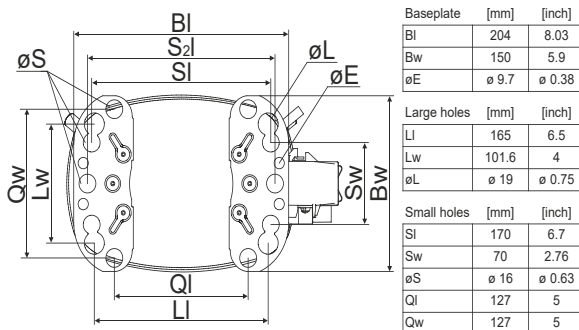
Compressor dimensions

| 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 |

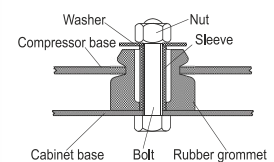
| Connectors | | Suction | Discharge | Process |
|-----------------------|------|--------------|--------------|--------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 9,54-9,72 | øi 6,41-6,59 | øi 6,41-6,59 |
| (i:inside, o:outside) | [in] | øi 0,38-0,38 | øi 0,25-0,26 | øi 0,25-0,26 |
| Material |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



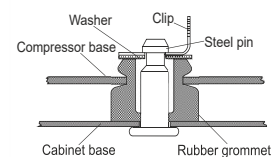
Compressor fixation



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

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

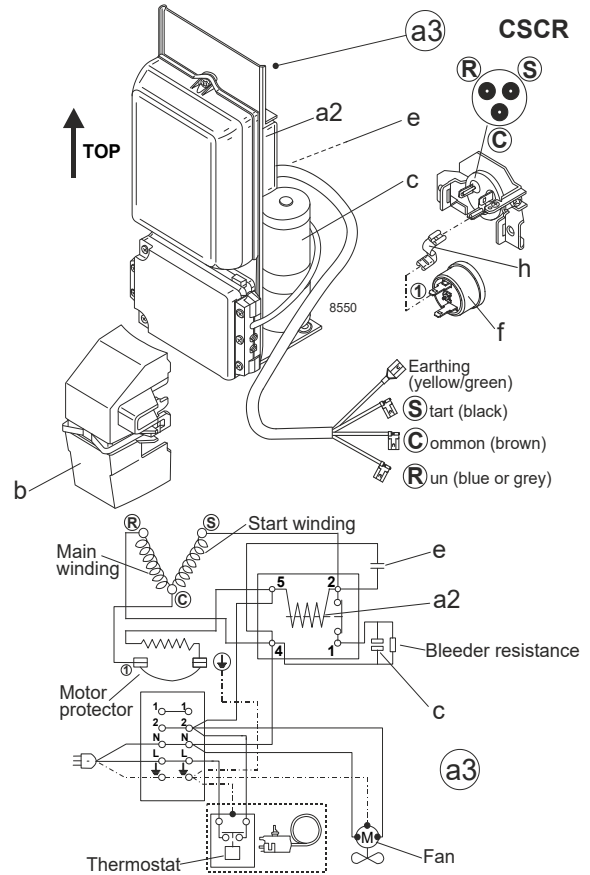
Model

| | | | | | |
|-------------|-----------------|------------------|----------------|-------------|-----------------|
| Designation | SCE15MNX | 115V/60Hz | Conf. 1 | Sales code: | 104H7579 |
|-------------|-----------------|------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|--------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 115V/60Hz 1~ |
| Refrigerant | R290 |
| Application | MBP |
| Voltage range | 103-127V |
| Starting torque | HST |
| Approvals | UL |

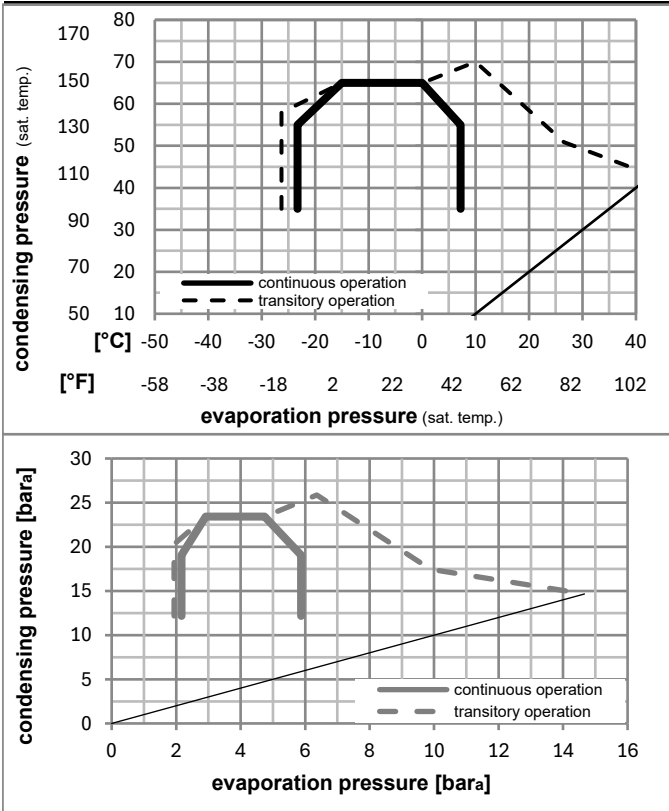
Electrical accessories / wiring diagram



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 pressure range



Components (protector (f)+ holder (h)+ cover (b): pre assembled)

| | | |
|----|---------------------------|----------|
| a3 | SC starter kit (550mm) | 117-7801 |
| h | protector holder | 117U0439 |
| f | ext. protector (T1069/46) | 117U3216 |
| b | plastic cover + clamp | 117U1021 |

Alternative comp.

| | | |
|----|--------------------------------|----------|
| a2 | potential relay (RVA 7AA3R) | 117-7441 |
| e | run capacitor (23,5μF, 6.3mm) | 117-7133 |
| c | start capacitor (280μF, 6.3mm) | 117U5350 |

Model

Designation **SCE15MNX** **115V/60Hz** Conf. 1 Sales code: **104H7579**

Optimization + standard conditions

R290, 115V/60Hz, CSCR, fan 3m/s, UL

| | | Evaporating pressure (saturation temperature) | | | | Cooling capacity | | | COP | EER | Power consumption | | | | |
|------|------|---|------|------|------|------------------|---------|----------|-------|----------|---------------------|-------|----------------|--------|-------------|
| | | Condensing pressure (saturation temperature) | | | | | | | | | Current consumption | | Ref. mass flow | | |
| | | Return gas temp. | | | | | | | | | I | | m | | |
| | | Liquid temp. | | | | | | | | | | | | | |
| | | Cooling capacity | | | | | | | | | | | | | |
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | m | |
| [°C] | [°F] | [°C] | [°F] | [°C] | [°F] | | | | | | | [W] | [A] | [kg/h] | |
| -7 | 20 | 54 | 130 | 35 | 95 | 1552,7 | 5303 | 1336,2 | 2,16 | 7,39 | 1,86 | 717,9 | 7,11 | 17,71 | ASHRAE MBP |
| -10 | 14 | 55 | 131 | 32 | 90 | 1219,0 | 4163 | 1049,1 | 1,79 | 6,10 | 1,54 | 682,8 | 6,82 | 15,42 | cecomaf MBP |
| -10 | 14 | 45 | 113 | 20 | 68 | 1376,7 | 4702 | 1184,8 | 2,19 | 7,46 | 1,88 | 630,0 | 6,43 | 16,90 | EN12900 MBP |
| -7 | 20 | 49 | 120 | 18 | 65 | 1469,8 | 5020 | 1264,9 | 2,15 | 7,33 | 1,85 | 685,1 | 6,86 | 19,08 | ARI540 MBP |
| -10 | 14 | 45 | 113 | 32 | 90 | 1433,2 | 4895 | 1233,5 | 2,27 | 7,77 | 1,96 | 630,0 | 6,43 | 16,40 | opt |
| -25 | -13 | 45 | 113 | 32 | 90 | 719,0 | 2455 | 618,8 | 1,46 | 4,99 | 1,26 | 492,4 | 5,44 | 8,11 | opt |

Performance tables

R290, 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 | 719,0 | 2455 | 618,8 | 1,46 | 4,99 | 1,26 | 492,4 | 5,44 | 8,11 |
| cond. pressure | -23 | -10 | 783,2 | 2675 | 674,0 | 1,54 | 5,27 | 1,33 | 507,3 | 5,53 | 8,84 |
| pc= 45/113 | -15 | 5 | 1161,6 | 3967 | 999,7 | 1,99 | 6,79 | 1,71 | 584,0 | 6,07 | 13,22 |
| return gas temp. | -9 | 15 | 1465,4 | 5005 | 1261,2 | 2,31 | 7,88 | 1,99 | 635,1 | 6,47 | 16,78 |
| RGT= 32/90 | -4 | 25 | 1809,3 | 6179 | 1557,1 | 2,64 | 9,03 | 2,28 | 684,2 | 6,87 | 20,86 |
| liquid temp | 0 | 32 | 2073,1 | 7080 | 1784,1 | 2,89 | 9,88 | 2,49 | 716,5 | 7,14 | 24,05 |
| Tliq= 45/113 | 7,2 | 45 | 2612,2 | 8921 | 2248,1 | 3,39 | 11,59 | 2,92 | 769,9 | 7,57 | 30,69 |
| [°C / °F] | -25 | -13 | 577,9 | 1974 | 497,4 | 1,21 | 4,15 | 1,05 | 475,9 | 5,25 | 7,20 |
| cond. pressure | -23 | -10 | 635,1 | 2169 | 546,6 | 1,27 | 4,33 | 1,09 | 501,0 | 5,43 | 7,92 |
| pc= 55/131 | -15 | 5 | 974,2 | 3327 | 838,4 | 1,57 | 5,37 | 1,35 | 619,4 | 6,31 | 12,25 |
| return gas temp | -9 | 15 | 1248,1 | 4262 | 1074,1 | 1,81 | 6,18 | 1,56 | 689,4 | 6,87 | 15,80 |
| RGT= 32/90 | -4 | 25 | 1558,9 | 5324 | 1341,6 | 2,08 | 7,09 | 1,79 | 750,4 | 7,38 | 19,89 |
| liquid temp | 0 | 32 | 1797,9 | 6140 | 1547,3 | 2,28 | 7,80 | 1,97 | 786,9 | 7,68 | 23,09 |
| Tliq= 55/131 | 7,2 | 45 | 2287,0 | 7811 | 1968,2 | 2,73 | 9,31 | 2,35 | 838,6 | 8,12 | 29,80 |

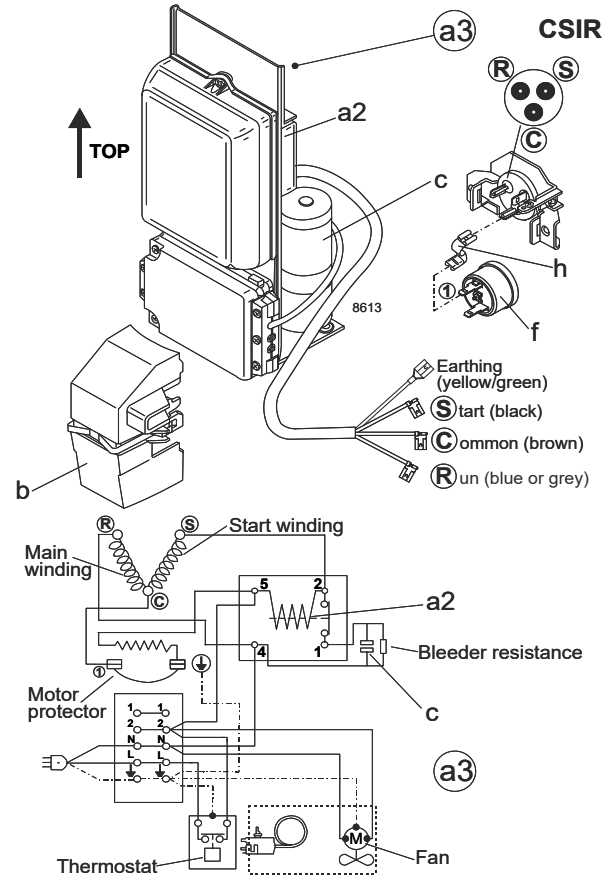
Model

| | | | | | |
|-------------|-----------------|------------------|----------------|-------------|-----------------|
| Designation | SCE15MNX | 115V/60Hz | Conf. 2 | Sales code: | 104H7579 |
|-------------|-----------------|------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|--------------|
| Motor configuration | CSIR |
| Power supply (nominal) | 115V/60Hz 1~ |
| Refrigerant | R290 |
| Application | MBP |
| Voltage range | 103-127V |
| Starting torque | HST |
| Approvals | UL |

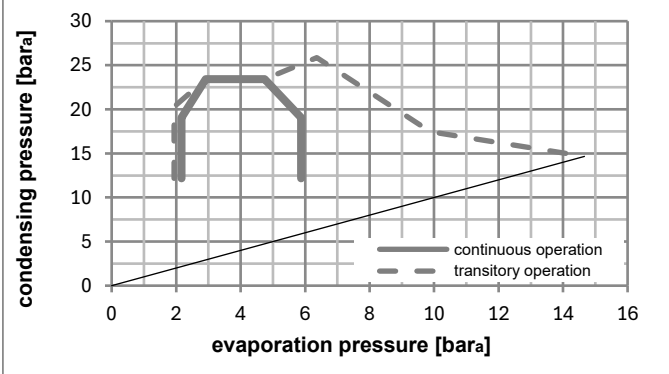
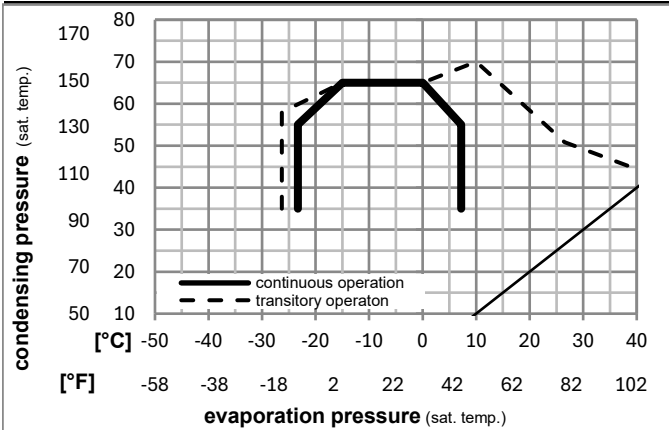
Electrical accessories / wiring diagram



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 pressure range



Components (protector (f)+ holder (h)+ cover (b): pre assembled)

| | | |
|----|---------------------------|----------|
| a3 | SC starter kit (550mm) | 117-7802 |
| h | protector holder | 117U0439 |
| f | ext. protector (T1069/46) | 117U3216 |
| b | plastic cover + clamp | 117U1021 |

Alternative comp.

| | | |
|----|--------------------------------|----------|
| a2 | potential relay (RVA 7AA3R) | 117-7441 |
| c | start capacitor (280μF, 6.3mm) | 117U5350 |

Model

Designation **SCE15MNX** **115V/60Hz** Conf. 2 Sales code: **104H7579**

Optimization + standard conditions

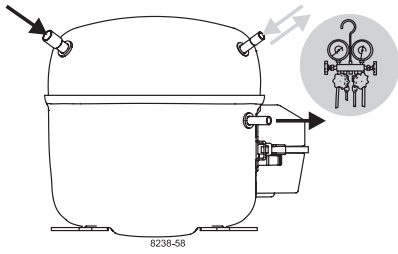
R290, 115V/60Hz, CSIR, fan 3m/s, UL

| | | Evaporating pressure (saturation temperature) | | | | Cooling capacity | | | COP | EER | Power consumption | | | |
|------|-----|---|----|------------------|--------------|------------------|---------|----------|-------|----------|-------------------|------|-------|----------------|
| | | Condensing pressure (saturation temperature) | | Return gas temp. | Liquid temp. | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | Ref. mass flow |
| | | pe | pc | RGT | Tliq | | | | | | | [W] | [A] | [kg/h] |
| [°C] | -7 | 54 | 35 | 46 | 1535,1 | 5243 | 1321,1 | 2,05 | 6,99 | 1,76 | 749,7 | 7,42 | 17,51 | ASHRAE MBP |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 1205,2 | 4116 | 1037,2 | 1,69 | 5,77 | 1,45 | 713,0 | 7,12 | 15,25 | cecomaf MBP |
| [°F] | 14 | 131 | 90 | 131 | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 1361,1 | 4648 | 1171,4 | 2,07 | 7,07 | 1,78 | 657,9 | 6,72 | 16,71 | EN12900 MBP |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | |
| [°C] | -7 | 49 | 18 | 49 | 1453,2 | 4963 | 1250,6 | 2,03 | 6,94 | 1,75 | 715,4 | 7,16 | 18,87 | ARI540 MBP |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 1417,0 | 4839 | 1219,5 | 2,15 | 7,36 | 1,85 | 657,9 | 6,72 | 16,21 | opt |
| [°F] | 14 | 113 | 90 | 113 | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 710,8 | 2428 | 611,7 | 1,38 | 4,72 | 1,19 | 514,2 | 5,68 | 8,02 | opt |
| [°F] | -13 | 113 | 90 | 113 | | | | | | | | | | |

Performance tables

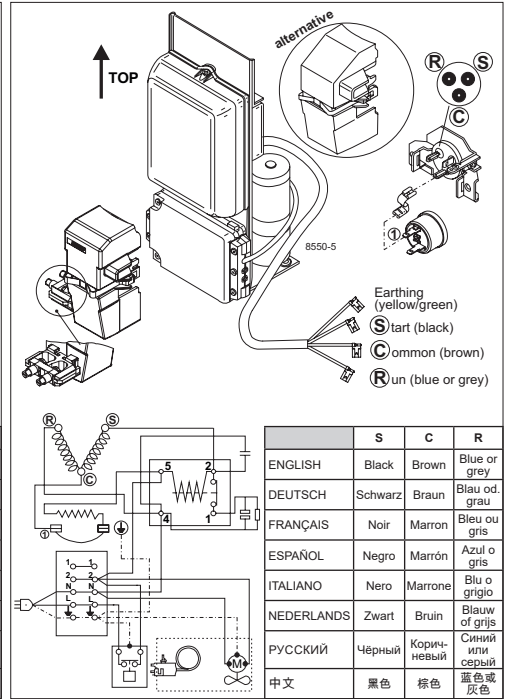
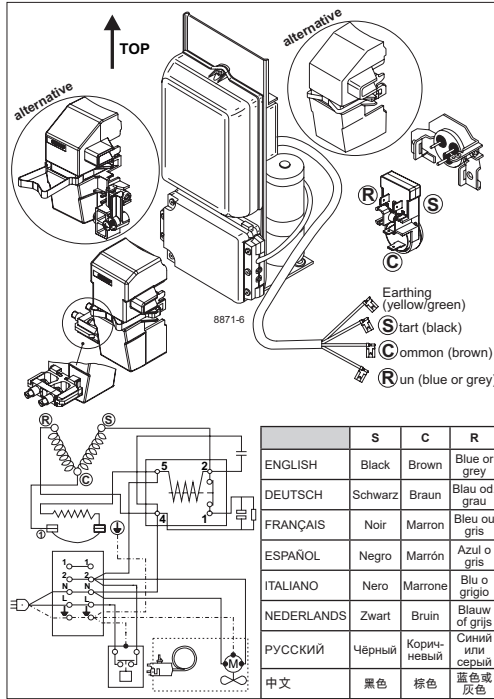
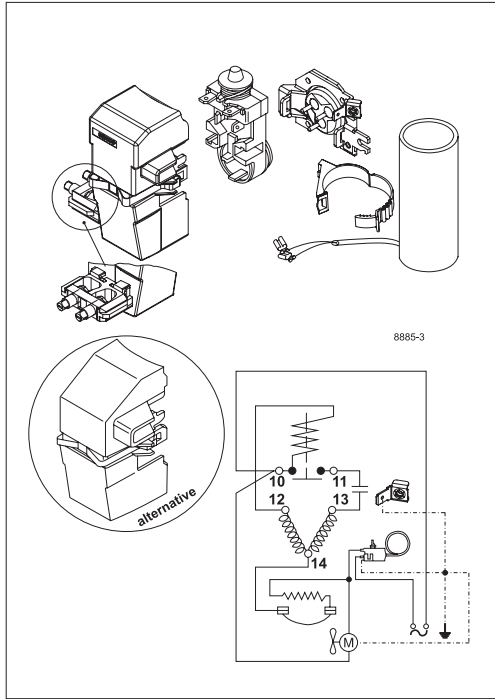
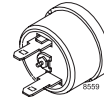
R290, 115V/60Hz, CSIR, fan 3m/s, UL

| | 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 | 710,8 | 2428 | 611,7 | 1,38 | 4,72 | 1,19 | 514,2 | 5,68 | 8,02 | |
| cond. pressure | -23 | -10 | 774,3 | 2645 | 666,4 | 1,46 | 4,99 | 1,26 | 529,8 | 5,78 | 8,74 | |
| pc= 45/113 | -15 | 5 | 1148,4 | 3922 | 988,3 | 1,88 | 6,43 | 1,62 | 609,8 | 6,34 | 13,07 | |
| return gas temp. | -9 | 15 | 1448,8 | 4948 | 1246,9 | 2,18 | 7,46 | 1,88 | 663,2 | 6,76 | 16,59 | |
| RGT= 32/90 | -4 | 25 | 1788,8 | 6109 | 1539,4 | 2,50 | 8,55 | 2,15 | 714,5 | 7,18 | 20,63 | |
| liquid temp | 0 | 32 | 2049,6 | 7000 | 1763,9 | 2,74 | 9,36 | 2,36 | 748,2 | 7,46 | 23,77 | |
| Tliq= 45/113 | 7,2 | 45 | 2582,6 | 8820 | 2222,6 | 3,21 | 10,97 | 2,76 | 803,9 | 7,91 | 30,34 | |
| [°C / °F] | -25 | -13 | 571,4 | 1951 | 491,7 | 1,15 | 3,93 | 0,99 | 496,9 | 5,48 | 7,11 | |
| cond. pressure | -23 | -10 | 627,9 | 2144 | 540,4 | 1,20 | 4,10 | 1,03 | 523,2 | 5,67 | 7,83 | |
| pc= 55/131 | -15 | 5 | 963,1 | 3289 | 828,9 | 1,49 | 5,09 | 1,28 | 646,8 | 6,59 | 12,11 | |
| return gas temp | -9 | 15 | 1233,9 | 4214 | 1061,9 | 1,71 | 5,85 | 1,48 | 719,9 | 7,18 | 15,62 | |
| RGT= 32/90 | -4 | 25 | 1541,3 | 5264 | 1326,4 | 1,97 | 6,72 | 1,69 | 783,6 | 7,70 | 19,67 | |
| liquid temp | 0 | 32 | 1777,5 | 6071 | 1529,8 | 2,16 | 7,39 | 1,86 | 821,7 | 8,02 | 22,83 | |
| Tliq= 55/131 | 7,2 | 45 | 2261,1 | 7722 | 1945,9 | 2,58 | 8,82 | 2,22 | 875,7 | 8,47 | 29,46 | |



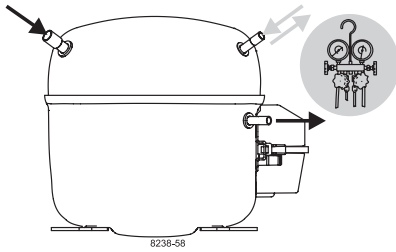
SCE Compressors

(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 | Blauw of grijs |
| РУССКИЙ | Чёрный | Коричневый | Синий или серый |
| 中文 | 黑色 | 棕色 | 蓝色或灰色 |

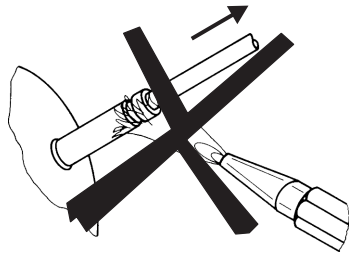
| | S | C | R |
|------------|---------|------------|-----------------|
| ENGLISH | Black | Brown | Blue or grey |
| DEUTSCH | Schwarz | Braun | Blau od. grau |
| FRANÇAIS | Noir | Marron | Bleu ou gris |
| ESPAÑOL | Negro | Marrón | Azul o gris |
| ITALIANO | Nero | Marrone | Blu o grigio |
| NEDERLANDS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



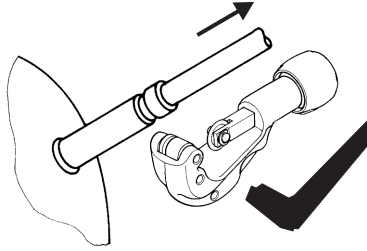
SCE Compressors (External Protector)



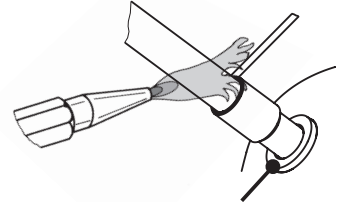
Service/Repair – R290



8545



Brazing on Suction Connectors (Direct Intake)



**! max. 350°C/662°F !
at socket**
brazing solder: phosphor (LP7) or silver

8882

Refer to Product Bulletin:
Brazing on Suction Connectors
(SCE Compressors with Direct Suction Intake)

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