

## Single Pack SC18CLX.2 115V 60Hz CSCR

Single pack code number: **195B4115**

| Position | Title                                      | Code     | Amount |
|----------|--|----------|--------|
| 1        | Compressor SC18CLX.2                       | 104L2198 | 1      |
| 2        | SC starting device (600mm)                 | 117-7045 | 1      |
| 3        | Bolt joint for one compressor   M6   ø16mm | 118-1917 | 1      |

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**Model**

|             |                  |              |             |                 |
|-------------|------------------|--------------|-------------|-----------------|
| Designation | <b>SC18CLX.2</b> | 115V/60Hz 1~ | Sales code: | <b>104L2198</b> |
|-------------|------------------|--------------|-------------|-----------------|

**Compressor design**

|                            |                                 |                       |                                  |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type                   | Polyolester                     | Refrigerant(s)        | <b>R404A, R452A, R507</b>        |
| Oil viscosity              | 32cST                           | Displacement          | 17,69cm <sup>3</sup> / 1,08cu.in |
| Oil quantity               | 550cm <sup>3</sup> / 18,6fl.oz  | Compressors on pallet | 80                               |
| Refr. charge - tech. limit | 1300g / 45,9oz                  |                       |                                  |
| Free gas volume comp.      | 1460cm <sup>3</sup> / 49,4fl.oz |                       |                                  |
| Weight                     | 14,2kg / 31,3lbs                |                       |                                  |
| Motor protection           | external                        |                       |                                  |
| Winding resistance main    | 0,6Ω (at 25°C)                  |                       |                                  |
| Winding resistance aux     | 3,2Ω (at 25°C)                  |                       |                                  |
| Max. winding temp.         | 125°C / 257°F                   |                       |                                  |
| Max. discharge temp.       | 130°C / 266°F                   |                       |                                  |



**General - Configurations with SC18CLX.2**

|                        | <b>Conf. 1</b>  | <b>Conf. 2</b> |
|------------------------|---|----------------|
| 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 SC18CLX.2**

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

**Electrical data - Configurations with SC18CLX.2**

|                              | <b>Conf. 1</b> | <b>Conf. 2</b> |
|------------------------------|----------------|----------------|
| Starting device type         | relay          | relay          |
| Run capacitor                | 23,5μF         | 23,5μF         |
| Start capacitor              | 410μF          | 410μF          |
| LRA (locked rotor amps / 4s) | 63A            | 63A            |
| RLA (rated load amps / 1s)   | 9,6A           | 9,6A           |
| Cut in current               | 63A            | 63A            |
| IP class                     | 21             | 21             |

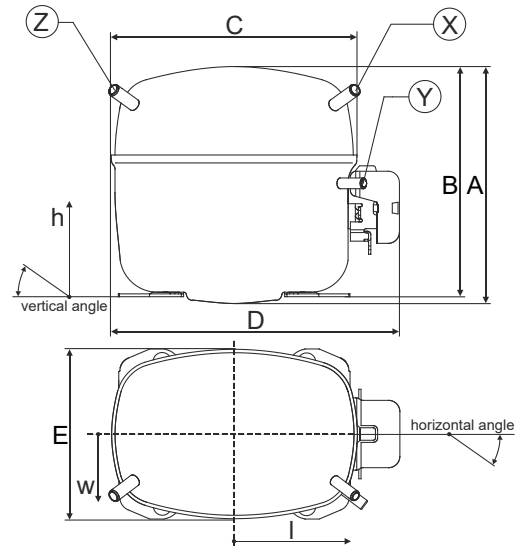
**Model**

|             |                  |              |             |                 |
|-------------|------------------|--------------|-------------|-----------------|
| Designation | <b>SC18CLX.2</b> | 115V/60Hz 1~ | Sales code: | <b>104L2198</b> |
|-------------|------------------|--------------|-------------|-----------------|

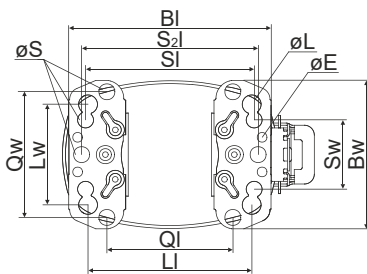
**Compressor dimensions**

|                |                   |                 |
|----------------|-------------------|-----------------|
| <b>Housing</b> | 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  |

| <b>Connectors</b>     |      | <b>Suction</b> | <b>Discharge</b> | <b>Process</b> |
|-----------------------|------|----------------|------------------|----------------|
|                       |      | <b>X</b>       | <b>Y</b>         | <b>Z</b>       |
| 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            |

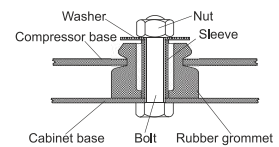


**Compressor fixation**

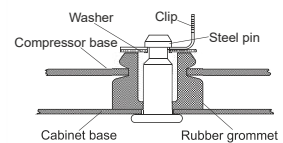


| Baseplate   | [mm]  | [inch] |
|-------------|-------|--------|
| BI          | 204   | 8.03   |
| BW          | 150   | 5.9    |
| øE          | ø 9.7 | ø 0.38 |
| Large holes | [mm]  | [inch] |
| LI          | 165   | 6.5    |
| LW          | 101.6 | 4      |
| øL          | ø 19  | ø 0.75 |
| Small 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**



| <b>Mounting accessories</b> | 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.

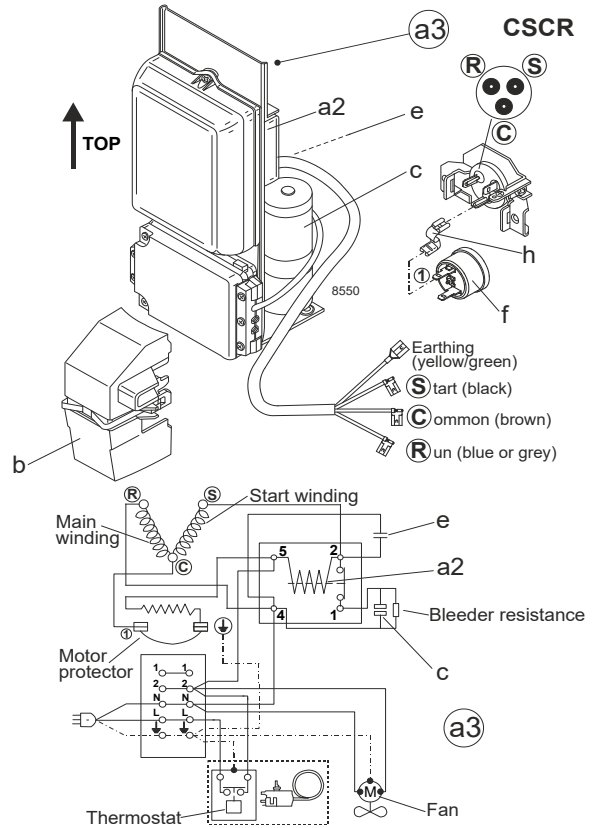
**Model**

Designation **SC18CLX.2 115V/60Hz** Conf. 1 Sales code: **104L2198**

**Configuration**

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

**Electrical accessories / wiring diagram**

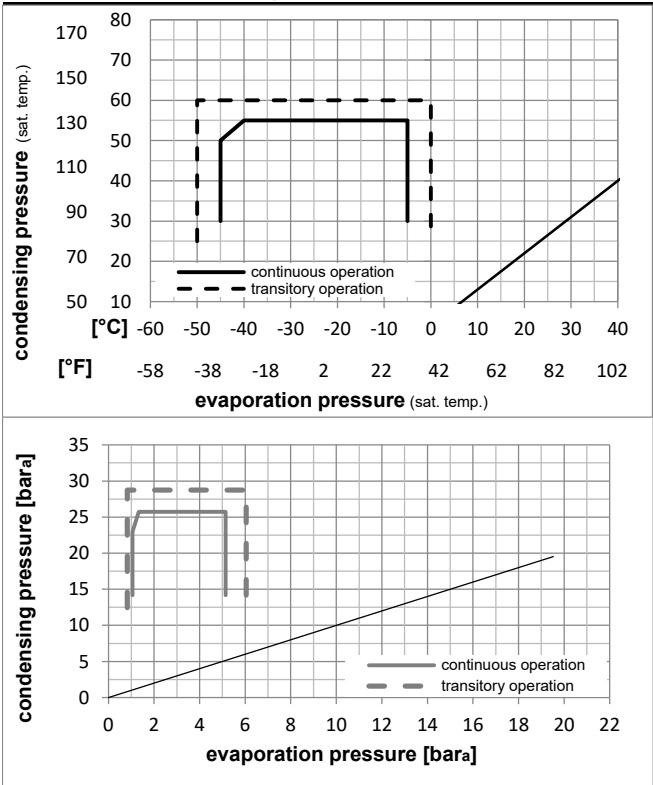


**Ambient temperatures / system cooling**

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                          | fan 3m/s | n/a | n/a |
| 38°C / 100°F                         | fan 3m/s | n/a | n/a |
| 43°C / 110°F                         | fan 3m/s | n/a | n/a |

**Operation pressure range**



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

- a3 SC starter kit 117-7045
- f ext. protector (T0761/46) 117U3212
- b plastic cover 117U1021

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

- a2 potential relay (RVA 7AA3R) 117-7441
- e run capacitor (23,5µF, 6.3mm) 117-7114
- c start capacitor (410µF, 6.3mm) 117U5043
- f ext. protector (T0761/46) 117U3212
- b plastic cover 117U1021

**Model**

Designation **SC18CLX.2 115V/60Hz** Conf. 1 Sales code: **104L2198**

**Optimization + standard conditions**

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

| Evaporating pressure (saturation temperature) |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
|---|-------|------|------|------|--------|---------|----------|-------|----------|-----------|-------|------|--------|-------------|
| Condensing pressure (saturation temperature)  |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
| Return gas temp.                              |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
| Liquid temp.                                  |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
| Cooling capacity                              |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
| COP   |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
| EER   |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
| Power consumption                             |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
| Current consumption                           |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
| Ref. mass flow                                |       |      |      |      |        |         |          |       |          |           |       |      |        |             |
|   | pe    | pc   | RGT  | Tliq | [W]    | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1    | I    | m      |             |
| [°C]  | [°C]  | [°C] | [°C] | [°C] |        |         |          |       |          |           | [W]   | [A]  | [kg/h] |             |
| [°F]  | -23,3 | 54,4 | 32,2 | 32,2 | 1072,9 | 3664    | 923,4    | 1,31  | 4,48     | 1,13      | 818,1 | 8,99 | 25,00  | ASHRAE LBP  |
| [°F]  | -10   | 130  | 90   | 90   |        |         |          |       |          |           |       |      |        |             |
| [°C]  | -25   | 55   | 32   | 55   | 737,7  | 2519    | 634,9    | 0,94  | 3,21     | 0,81      | 784,8 | 8,76 | 23,06  | cecomaf LBP |
| [°F]  | -13   | 131  | 89,6 | 131  |        |         |          |       |          |           |       |      |        |             |
| [°C]  | -35   | 40   | 20   | 40   | 569,0  | 1943    | 489,6    | 0,97  | 3,31     | 0,83      | 587,8 | 7,51 | 15,46  | EN12900 LBP |
| [°F]  | -31   | 104  | 68   | 104  |        |         |          |       |          |           |       |      |        |             |
| [°C]  | -23,3 | 48,9 | 4,44 | 48,9 | 779,8  | 2663    | 671,1    | 0,97  | 3,30     | 0,83      | 807,9 | 8,92 | 27,61  | ARI540 LBP  |
| [°F]  | -10   | 120  | 40   | 120  |        |         |          |       |          |           |       |      |        |             |
| [°C]  | -23,3 | 40,6 | 32,2 | 32,2 | 1156,3 | 3949    | 995,1    | 1,47  | 5,01     | 1,26      | 788,0 | 8,80 | 26,94  | AHAM LBP    |
| [°F]  | -10   | 105  | 90   | 90   |        |         |          |       |          |           |       |      |        |             |
| [°C]  | -35   | 45   | 32   | 45   | 523,1  | 1787    | 450,2    | 0,91  | 3,10     | 0,78      | 577,0 | 7,47 | 13,98  | opt         |
| [°F]  | -31   | 113  | 89,6 | 113  |        |         |          |       |          |           |       |      |        |             |

**Performance tables**

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

|                  | pe    | Cooling capacity |      |        | COP  | EER    | P1    | I     | m     |         |          |       |
|------------------|-------|------------------|------|--------|------|--------|-------|-------|-------|---------|----------|-------|
|                  |       | [°C]             | [°F] | [W]    |      |        |       |       |       | [Btu/h] | [kcal/h] | [W/W] |
| [°C / °F]        | -45   | -49              |      | 108,7  | 371  | 93,6   | 0,34  | 1,16  | 0,29  | 320,1   | 6,25     | 2,89  |
| cond. pressure   | -34,4 | -30              |      | 544,2  | 1859 | 468,4  | 0,92  | 3,15  | 0,80  | 589,1   | 7,54     | 14,55 |
| pc= 45/113       | -28,9 | -20              |      | 753,6  | 2574 | 648,6  | 1,08  | 3,67  | 0,93  | 700,8   | 8,21     | 20,25 |
| return gas temp. | -23,3 | -10              |      | 973,0  | 3323 | 837,4  | 1,22  | 4,16  | 1,05  | 799,3   | 8,87     | 26,29 |
| RGT= 32/90       | -20,6 | -5               |      | 1092,1 | 3730 | 939,9  | 1,29  | 4,41  | 1,11  | 845,3   | 9,20     | 29,61 |
| liquid temp      | -15   | 5                |      | 1360,3 | 4646 | 1170,7 | 1,46  | 4,97  | 1,25  | 934,3   | 9,85     | 37,16 |
| Tliq= 45/113     | -5    | 23               |      | 1994,5 | 6812 | 1716,5 | 1,81  | 6,19  | 1,56  | 1099,9  | 11,02    | 55,45 |
| [°C / °F]        | -45   | -49              |      | -101,7 | -347 | -87,5  | -0,43 | -1,47 | -0,37 | 236,6   | 5,93     | -3,12 |
| cond. pressure   | -34,4 | -30              |      | 391,4  | 1337 | 336,8  | 0,69  | 2,37  | 0,60  | 563,6   | 7,43     | 12,11 |
| pc= 55/131       | -28,9 | -20              |      | 599,8  | 2048 | 516,2  | 0,86  | 2,93  | 0,74  | 700,0   | 8,22     | 18,66 |
| return gas temp  | -23,3 | -10              |      | 796,6  | 2721 | 685,6  | 0,97  | 3,32  | 0,84  | 819,0   | 8,99     | 24,95 |
| RGT= 32/90       | -20,6 | -5               |      | 896,3  | 3061 | 771,4  | 1,03  | 3,50  | 0,88  | 873,7   | 9,38     | 28,18 |
| liquid temp      | -15   | 5                |      | 1109,6 | 3790 | 955,0  | 1,14  | 3,88  | 0,98  | 977,1   | 10,15    | 35,19 |
| Tliq= 55/131     | -5    | 23               |      | 1590,7 | 5432 | 1368,9 | 1,37  | 4,69  | 1,18  | 1158,5  | 11,51    | 51,49 |

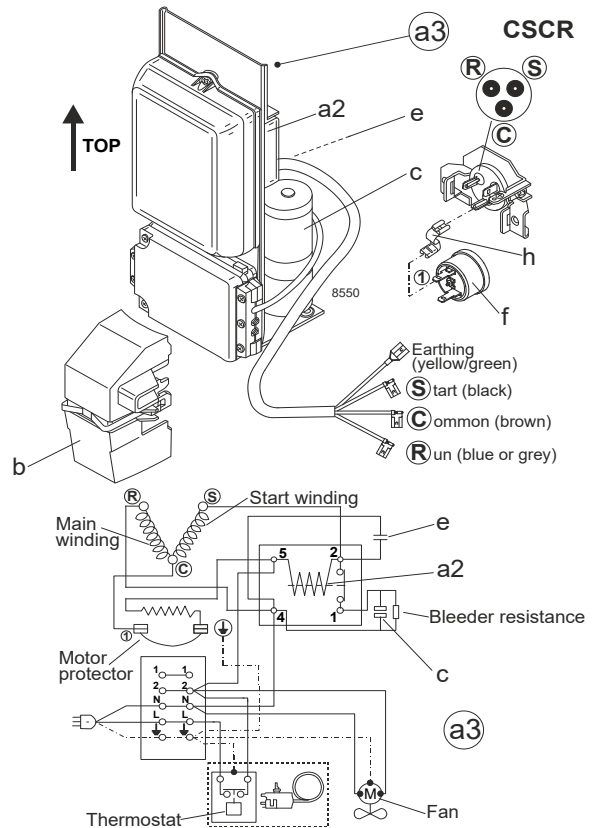
**Model**

|             |                  |                  |                |             |                 |
|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | <b>SC18CLX.2</b> | <b>115V/60Hz</b> | <b>Conf. 2</b> | Sales code: | <b>104L2198</b> |
|-------------|------------------|------------------|----------------|-------------|-----------------|

**Configuration**

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

**Electrical accessories / wiring diagram**

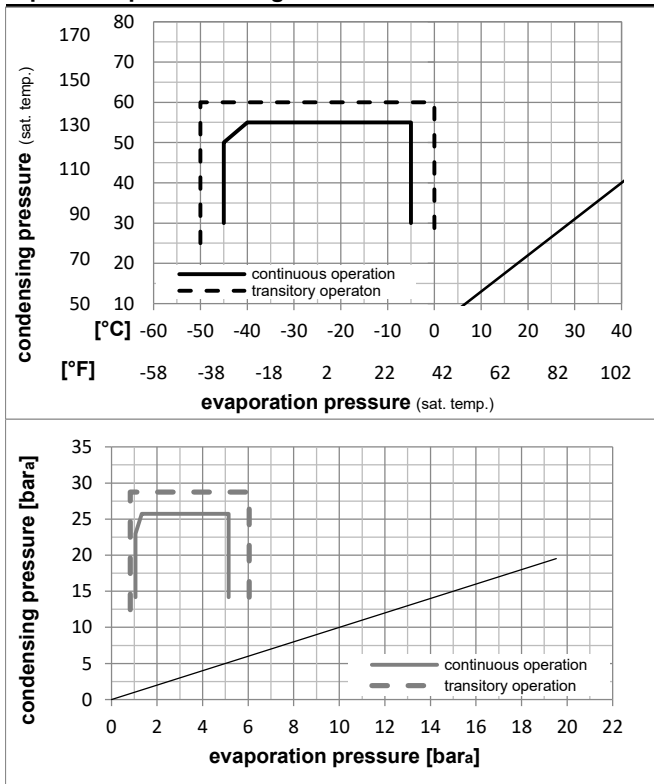


**Ambient temperatures / system cooling**

|                           |              |
|---------------------------|--------------|
| 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                          | fan 3m/s | n/a | n/a |
| 38°C / 100°F                         | fan 3m/s | n/a | n/a |
| 43°C / 110°F                         | fan 3m/s | n/a | n/a |

**Operation pressure range**



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

|    |                           |          |
|----|---------------------------|----------|
| a3 | SC starter kit            | 117-7045 |
| f  | ext. protector (T0761/46) | 117U3212 |
| b  | plastic cover             | 117U1021 |

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

|    |                                |          |
|----|--------------------------------|----------|
| a2 | potential relay (RVA 7AA3R)    | 117-7441 |
| e  | run capacitor (23,5µF, 6.3mm)  | 117-7114 |
| c  | start capacitor (410µF, 6.3mm) | 117U5043 |
| f  | ext. protector (T0761/46)      | 117U3212 |
| b  | plastic cover                  | 117U1021 |

**Model**

Designation **SC18CLX.2 115V/60Hz** Conf. **2** Sales code: **104L2198**

**Optimization + standard conditions**

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

| Evaporating pressure (saturation temperature) |       |      |      | Condensing pressure (saturation temperature) |         |          |       | Power consumption   |           |      |       | ASHRAE LBP |                |             |
|---|-------|------|------|--|---------|----------|-------|---------------------|-----------|------|-------|------------|----------------|-------------|
| 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]  | -23,3 | 54,4 | 32,2 | 32,2   | 979,6   | 3346     | 843,1 | 1,27                | 4,33      | 1,09 | 773,4 | 8,83       | 23,55          | ASHRAE LBP  |
| [°F]  | -10   | 130  | 90   | 90   |         |          |       |                     |           |      |       |            |                |             |
| [°C]  | -25   | 55   | 32   | 55   | 679,6   | 2321     | 584,9 | 0,92                | 3,14      | 0,79 | 740,0 | 8,62       | 21,63          | cecomaf LBP |
| [°F]  | -13   | 131  | 89,6 | 131  |         |          |       |                     |           |      |       |            |                |             |
| [°C]  | -35   | 40   | 20   | 40   | 513,3   | 1753     | 441,7 | 0,93                | 3,18      | 0,80 | 551,5 | 7,41       | 14,33          | EN12900 LBP |
| [°F]  | -31   | 104  | 68   | 104  |         |          |       |                     |           |      |       |            |                |             |
| [°C]  | -23,3 | 48,9 | 4,44 | 48,9   | 723,0   | 2469     | 622,2 | 0,94                | 3,22      | 0,81 | 765,6 | 8,78       | 25,99          | ARI540 LBP  |
| [°F]  | -10   | 120  | 40   | 120  |         |          |       |                     |           |      |       |            |                |             |
| [°C]  | -23,3 | 40,6 | 32,2 | 32,2   | 1061,2  | 3624     | 913,3 | 1,42                | 4,84      | 1,22 | 748,5 | 8,67       | 25,51          | AHAM LBP    |
| [°F]  | -10   | 105  | 90   | 90   |         |          |       |                     |           |      |       |            |                |             |
| [°C]  | -35   | 45   | 32   | 45   | 471,1   | 1609     | 405,5 | 0,87                | 2,98      | 0,75 | 540,2 | 7,34       | 12,93          | opt         |
| [°F]  | -31   | 113  | 89,6 | 113  |         |          |       |                     |           |      |       |            |                |             |

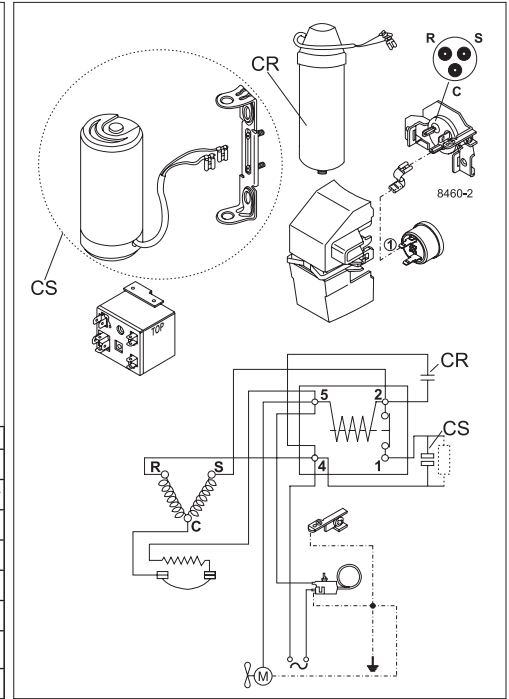
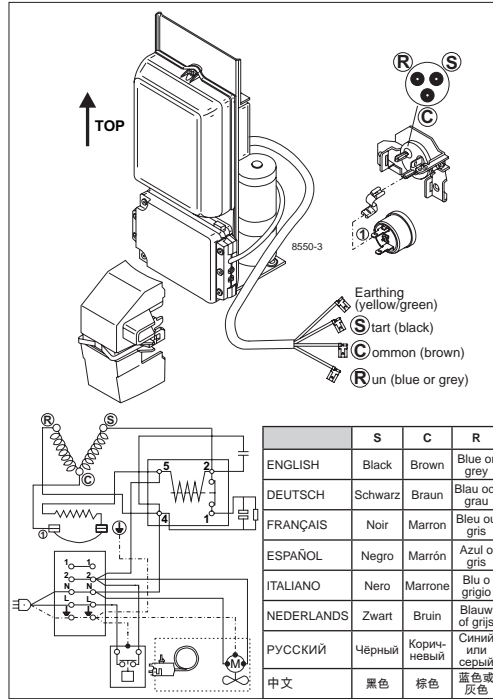
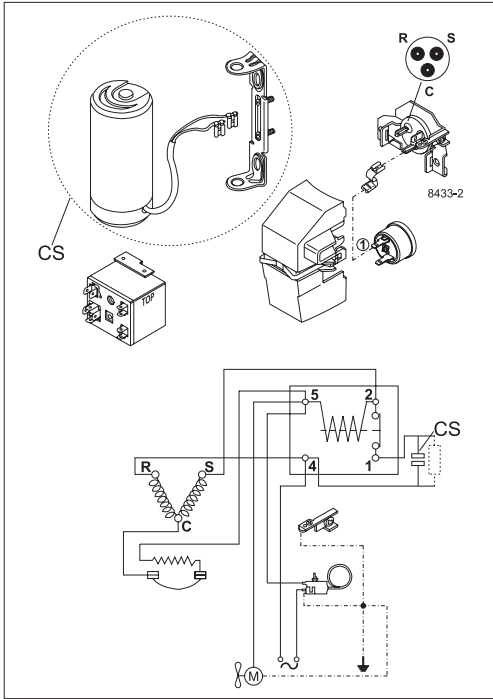
**Performance tables**

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]        | -45   | -49              | 87,0   | 297     | 74,9     | 0,29  | 1,00     | 0,25      | 296,1  | 5,78  | 2,37   |
| cond. pressure   | -34,4 | -30              | 490,8  | 1676    | 422,4    | 0,89  | 3,04     | 0,77      | 551,9  | 7,41  | 13,48  |
| pc= 45/113       | -28,9 | -20              | 687,9  | 2349    | 592,0    | 1,04  | 3,56     | 0,90      | 660,7  | 8,11  | 18,96  |
| return gas temp. | -23,3 | -10              | 896,8  | 3063    | 771,8    | 1,18  | 4,04     | 1,02      | 758,4  | 8,73  | 24,85  |
| RGT= 32/90       | -20,6 | -5               | 1011,2 | 3453    | 870,2    | 1,26  | 4,29     | 1,08      | 804,5  | 9,03  | 28,10  |
| liquid temp      | -15   | 5                | 1270,6 | 4339    | 1093,5   | 1,42  | 4,85     | 1,22      | 894,6  | 9,61  | 35,54  |
| Tliq= 45/113     | -5    | 23               | 1888,6 | 6450    | 1625,4   | 1,78  | 6,07     | 1,53      | 1063,4 | 10,69 | 53,67  |
| [°C / °F]        | -45   | -49              | -104,7 | -358    | -90,1    | -0,49 | -1,68    | -0,42     | 213,0  | 5,24  | -3,28  |
| cond. pressure   | -34,4 | -30              | 352,5  | 1204    | 303,3    | 0,67  | 2,30     | 0,58      | 523,9  | 7,23  | 11,12  |
| pc= 55/131       | -28,9 | -20              | 548,4  | 1873    | 472,0    | 0,84  | 2,85     | 0,72      | 656,4  | 8,08  | 17,38  |
| return gas temp  | -23,3 | -10              | 736,1  | 2514    | 633,5    | 0,95  | 3,25     | 0,82      | 774,0  | 8,83  | 23,47  |
| RGT= 32/90       | -20,6 | -5               | 832,3  | 2842    | 716,2    | 1,00  | 3,43     | 0,86      | 828,7  | 9,18  | 26,62  |
| liquid temp      | -15   | 5                | 1040,2 | 3552    | 895,2    | 1,11  | 3,81     | 0,96      | 933,2  | 9,85  | 33,53  |
| Tliq= 55/131     | -5    | 23               | 1514,9 | 5174    | 1303,8   | 1,35  | 4,63     | 1,17      | 1118,5 | 11,04 | 49,72  |



# SC Compressors (External Protector)



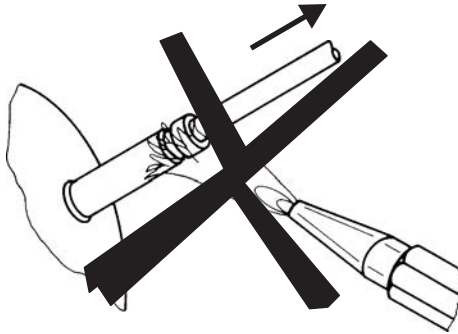




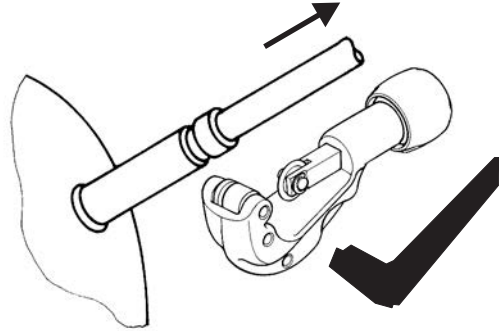
# SC Compressors (External Protector)



## Service/Repair – R290



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