

Single Pack SC15DL 220-240V 50Hz CSCR

Single pack code number: **195B4515**

| Position | Title | Code | Amount |
|----------|--|----------|--------|
| 1 | Compressor SC15DL | 104L2866 | 1 |
| 2 | SC starting device (550mm) | 117-7029 | 1 |
| 3 | Cord relief | 103N1004 | 1 |
| 4 | Cover | 103N2009 | 1 |
| 5 | Bolt joint for one compressor M6 ø16mm | 118-1917 | 1 |

Model

| | | | | |
|-------------|---------------|------------------|-------------|-----------------|
| Designation | SC15DL | 220-240V/50Hz 1~ | Sales code: | 104L2866 |
|-------------|---------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R404A, R507, R407C |
| Oil viscosity | 32cST | Displacement | 15,28cm ³ / 0,93cu.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 | 13,5kg / 29,8lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 3,5Ω (at 25°C) | | |
| Winding resistance aux | 13Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with SC15DL

| | Conf. 1 | Conf. 2 |
|------------------------|----------------|----------------|
| Motorconfiguration | CSCR | CSCR |
| Power supply (nominal) | 220-240V/50Hz | 220-240V/50Hz |
| Number of phases | 1 | 1 |
| Voltage range | 198-254V | 198-254V |
| Approvals | VDE, CCC | VDE, CCC |
| Starting torque | HST | HST |
| Note | - / - | |

Applications with SC15DL

| | Conf. 1 | Conf. 2 |
|-------------------------|----------------|----------------|
| Refrigerant | R404A | R407C |
| Application | HBP | HBP |
| System cooling | fan 3m/s | fan 3m/s |
| Hot gas defrost | OK | OK |
| Long interval pull down | OK | OK |

Electrical data - Configurations with SC15DL

| | Conf. 1 | Conf. 2 |
|------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | 10μF | 10μF |
| Start capacitor | 80μF | 80μF |
| LRA (locked rotor amps / 4s) | 22A | 22A |
| RLA (rated load amps / 1s) | 3,9A | 3,9A |
| Cut in current | 22A | 22A |

Model

Designation

SC15DL

220-240V/50Hz 1~

Sales code:

104L2866

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 X | Discharge Y | Process 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



Bolt joint



Snap-on



Mounting accessories

| 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

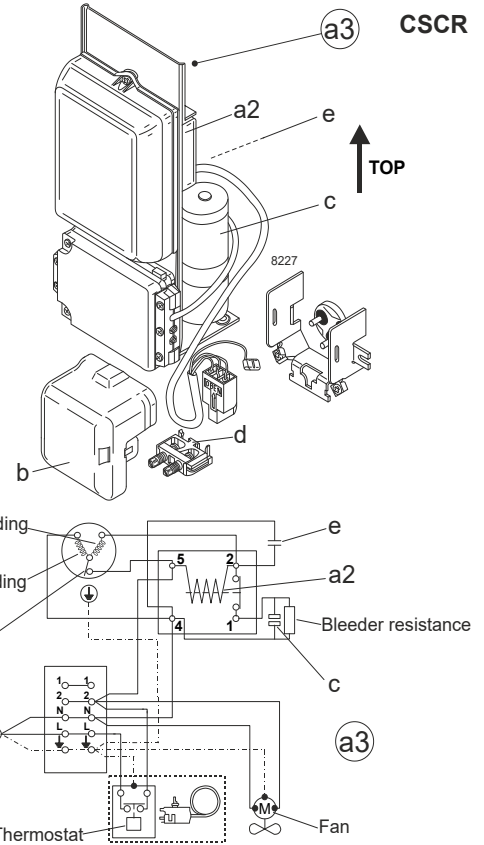
Model

| | | | | | |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | SC15DL | 220-240V/50Hz | Conf. 1 | Sales code: | 104L2866 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R404A |
| Application | HBP |
| Voltage range | 198-254V |
| Starting torque | HST |
| Approvals | VDE CCC |

Electrical accessories / wiring diagram

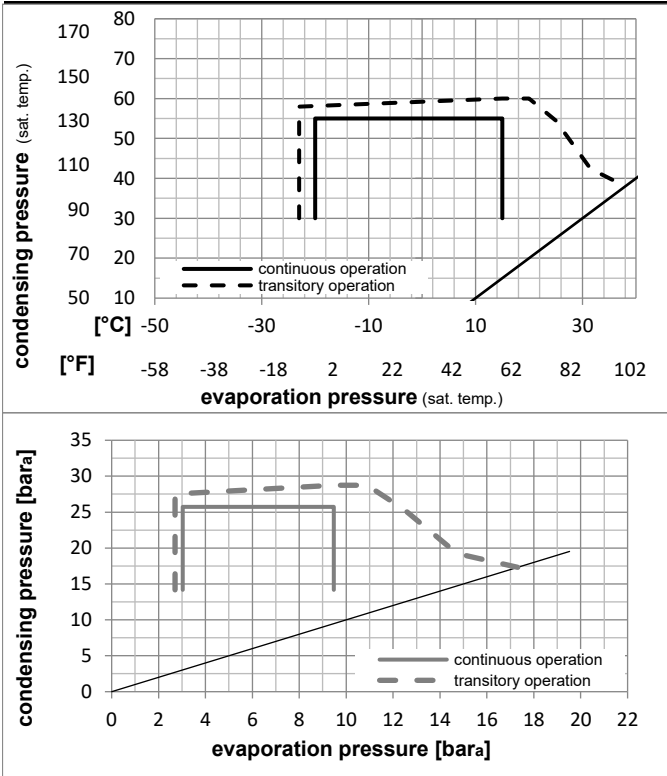


Ambient/ machine room temperatures minimum /maximum

| | |
|---------------------------------|------------------------|
| Ambient temperature range: | 10 - 38°C / 50 - 101°F |
| Machine room temperature range: | 10 - 43°C / 50 - 110°F |
| Compressor cooling: | fan 3m/s |

Operation Limits

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a3 | SC starter kit (550mm) | 117-7029 |
| b | plastic cover | 103N2009 |
| d | cord relief | 103N1004 |

Alternative components

| | | |
|----|-------------------------------|----------|
| a3 | SC starter kit (650mm) | 117-7032 |
| a3 | SC starter kit (1000mm) | 117-7041 |
| a2 | potential relay (RVA 4H3R341) | 117-7427 |
| c | start capacitor (80µF) | 117U5373 |
| e | run capacitor (10µF, 6.3mm) | 117-7112 |

Model

Designation **SC15DL** **220-240V/50Hz** Conf. 1 Sales code: **104L2866**

Optimization + standard conditions

R404A, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | | | Liquid temp. | | | Cooling capacity | | | COP | EER | Power consumption | | | |
|------|------|---|-----|-----|------|--|---------|----------|------------------|----------|-----------|--------------|------|----------------|------------------|-----|---|--------|-----|-------------------|--|-------------|--|
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | Ref. mass flow | [W] | [A] | m | [kg/h] | | | | | |
| [°C] | [°F] | | | | | | | | | | | | | | | | | | | | | | |
| | | 7,2 | 54 | 35 | 46 | 2265,3 | 7737 | 1949,6 | 2,25 | 7,67 | 1,93 | 1008,0 | 5,16 | 64,41 | | | | | | | | ASHRAE HBP | |
| | | 45 | 130 | 95 | 115 | | | | | | | | | | | | | | | | | | |
| | | 5 | 55 | 32 | 55 | 1777,2 | 6069 | 1529,4 | 1,79 | 6,10 | 1,54 | 994,3 | 5,09 | 59,18 | | | | | | | | cecomaf HBP | |
| | | 41 | 131 | 90 | 131 | | | | | | | | | | | | | | | | | | |
| | | 5 | 50 | 20 | 50 | 1847,7 | 6310 | 1590,1 | 2,00 | 6,82 | 1,72 | 924,6 | 4,77 | 63,01 | | | | | | | | EN12900 HBP | |
| | | 41 | 122 | 68 | 122 | | | | | | | | | | | | | | | | | | |
| | | -7 | 54 | 35 | 46 | 1312,8 | 4484 | 1129,8 | 1,56 | 5,33 | 1,34 | 840,7 | 4,34 | 36,12 | | | | | | | | ASHRAE MBP | |
| | | 20 | 130 | 95 | 115 | | | | | | | | | | | | | | | | | | |
| | | -10 | 55 | 32 | 55 | 969,9 | 3312 | 834,7 | 1,22 | 4,17 | 1,05 | 794,9 | 4,12 | 31,05 | | | | | | | | cecomaf MBP | |
| | | 14 | 131 | 90 | 131 | | | | | | | | | | | | | | | | | | |
| | | -10 | 45 | 20 | 45 | 1137,5 | 3885 | 978,9 | 1,58 | 5,38 | 1,36 | 722,1 | 3,79 | 34,26 | | | | | | | | EN12900 MBP | |
| | | 14 | 113 | 68 | 113 | | | | | | | | | | | | | | | | | | |

Performance tables

R404A, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC

| | 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] | -20 | -4 | 758,8 | 2591 | 653,0 | 1,29 | 4,40 | 1,11 | 588,8 | 3,09 | 20,59 |
| cond. pressure | -15 | 5 | 964,2 | 3293 | 829,8 | 1,46 | 5,00 | 1,26 | 659,1 | 3,46 | 26,34 |
| pc= 45/113 | -10 | 14 | 1207,2 | 4123 | 1038,9 | 1,67 | 5,71 | 1,44 | 722,1 | 3,79 | 33,24 |
| return gas temp. | -5 | 23 | 1492,6 | 5098 | 1284,6 | 1,92 | 6,56 | 1,65 | 777,6 | 4,07 | 41,50 |
| RGT= 32/90 | 0 | 32 | 1825,3 | 6234 | 1570,9 | 2,21 | 7,55 | 1,90 | 825,2 | 4,31 | 51,32 |
| liquid temp | 5 | 41 | 2210,2 | 7548 | 1902,1 | 2,56 | 8,73 | 2,20 | 864,7 | 4,50 | 62,96 |
| Tliq= 45/113 | 15 | 59 | 3155,6 | 10777 | 2715,8 | 3,44 | 11,74 | 2,96 | 918,3 | 4,75 | 93,05 |
| [°C / °F] | -20 | -4 | 576,5 | 1969 | 496,1 | 0,93 | 3,18 | 0,80 | 618,6 | 3,25 | 18,14 |
| cond. pressure | -15 | 5 | 761,9 | 2602 | 655,7 | 1,07 | 3,66 | 0,92 | 710,9 | 3,71 | 24,16 |
| pc= 55/131 | -10 | 14 | 969,9 | 3312 | 834,7 | 1,22 | 4,17 | 1,05 | 794,9 | 4,12 | 31,05 |
| return gas temp | -5 | 23 | 1205,2 | 4116 | 1037,2 | 1,38 | 4,73 | 1,19 | 870,4 | 4,49 | 39,01 |
| RGT= 32/90 | 0 | 32 | 1472,6 | 5029 | 1267,4 | 1,57 | 5,37 | 1,35 | 936,9 | 4,81 | 48,29 |
| liquid temp | 5 | 41 | 1777,2 | 6069 | 1529,4 | 1,79 | 6,10 | 1,54 | 994,3 | 5,09 | 59,18 |
| Tliq= 55/131 | 15 | 59 | 2516,7 | 8595 | 2165,9 | 2,33 | 7,95 | 2,00 | 1080,6 | 5,52 | 87,28 |

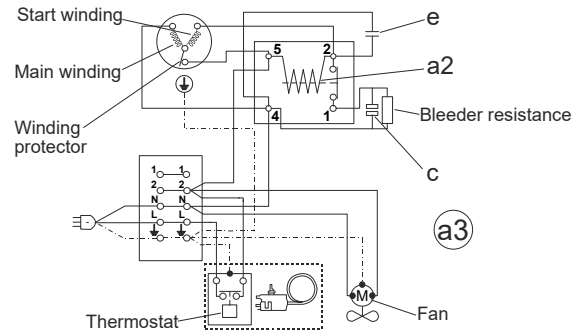
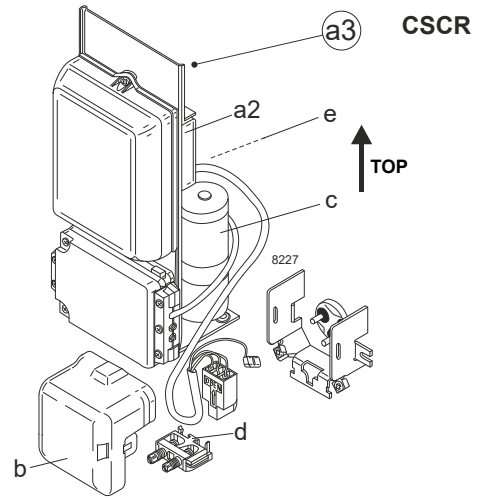
Model

| | | | | | |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | SC15DL | 220-240V/50Hz | Conf. 2 | Sales code: | 104L2866 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSCR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R407C |
| Application | HBP |
| Voltage range | 198-254V |
| Starting torque | HST |
| Approvals | VDE CCC |

Electrical accessories / wiring diagram

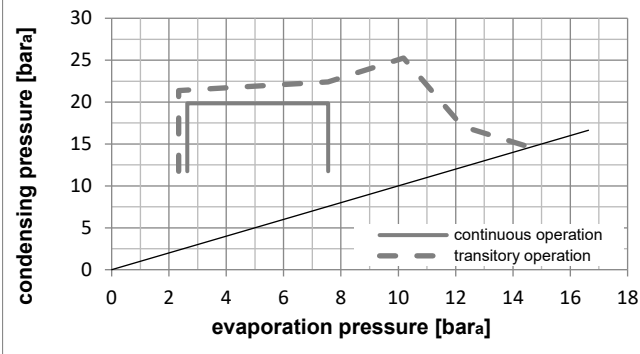
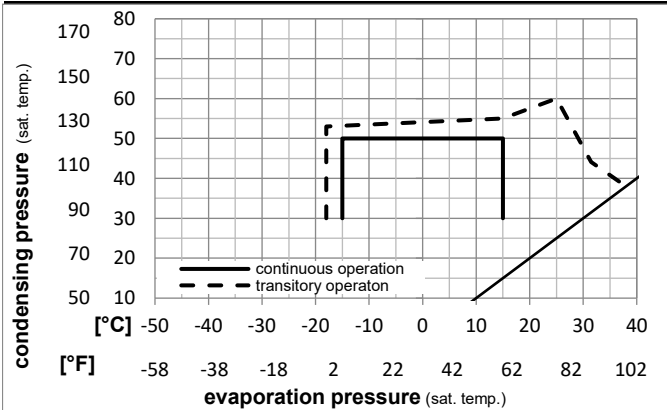


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Model

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R407C, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | | | Liquid temp. | | | Cooling capacity | | | COP | EER | Power consumption | | | |
|------|------|---|----|-----|--------|--|---------|----------|------------------|----------|-----------|--------------|-------|---|------------------|-----|--------|-----|-----|-------------------|-------------|--|--|
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | m | [W] | [A] | [kg/h] | | | | | | |
| [°C] | [°F] | | | | | | | | | | | | | | | | | | | | | | |
| 7,2 | 45 | 54 | 35 | 46 | 2069,5 | 7068 | 1781,0 | 2,59 | 8,85 | 2,23 | 798,3 | 3,98 | 44,23 | | | | | | | | ASHRAE HBP | | |
| 5 | 41 | 55 | 32 | 55 | 1686,7 | 5760 | 1451,6 | 2,16 | 7,38 | 1,86 | 780,5 | 3,90 | 40,21 | | | | | | | | cecomaf HBP | | |
| 5 | 41 | 50 | 20 | 50 | 1765,7 | 6030 | 1519,6 | 2,34 | 7,99 | 2,01 | 754,6 | 3,79 | 42,80 | | | | | | | | EN12900 HBP | | |
| -7 | 20 | 54 | 35 | 46 | 1105,8 | 3777 | 951,7 | 1,70 | 5,80 | 1,46 | 650,9 | 3,33 | 23,09 | | | | | | | | ASHRAE MBP | | |
| -10 | 14 | 55 | 32 | 55 | 832,6 | 2844 | 716,6 | 1,37 | 4,66 | 1,17 | 609,9 | 3,15 | 19,33 | | | | | | | | cecomaf MBP | | |
| -10 | 14 | 45 | 20 | 45 | 976,4 | 3335 | 840,3 | 1,66 | 5,65 | 1,42 | 589,9 | 3,08 | 21,73 | | | | | | | | EN12900 MBP | | |

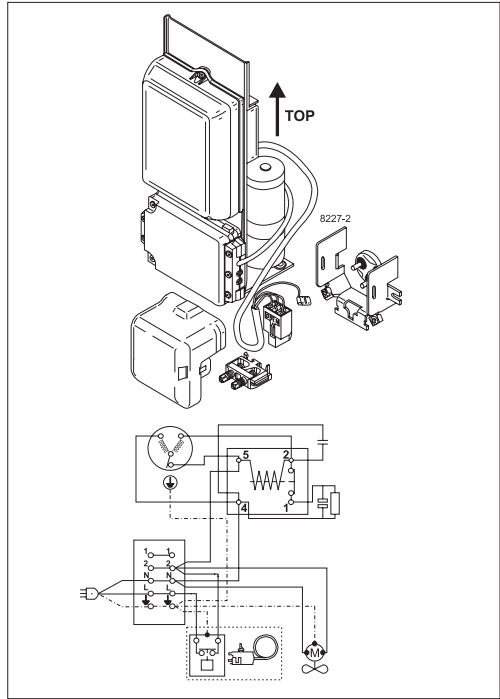
Performance tables

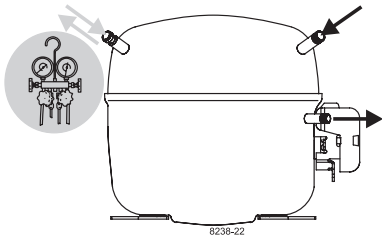
R407C, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC

| | 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] | -15 | 5 | 776,8 | 2653 | 668,5 | 1,45 | 4,96 | 1,25 | 534,3 | 2,84 | 16,14 | |
| cond. pressure | -10 | 14 | 1011,2 | 3453 | 870,2 | 1,71 | 5,85 | 1,48 | 589,9 | 3,08 | 21,12 | |
| pc= 45/113 | -5 | 23 | 1293,2 | 4416 | 1112,9 | 2,02 | 6,90 | 1,74 | 640,4 | 3,30 | 27,20 | |
| return gas temp. | 0 | 32 | 1628,6 | 5562 | 1401,6 | 2,37 | 8,11 | 2,04 | 685,8 | 3,50 | 34,52 | |
| RGT= 32/90 | 5 | 41 | 2023,3 | 6910 | 1741,2 | 2,79 | 9,52 | 2,40 | 726,0 | 3,67 | 43,29 | |
| liquid temp | 10 | 50 | 2483,0 | 8480 | 2136,9 | 3,26 | 11,15 | 2,81 | 760,6 | 3,82 | 53,72 | |
| Tliq= 45/113 | 15 | 59 | 3013,5 | 10292 | 2593,5 | 3,82 | 13,03 | 3,28 | 789,7 | 3,94 | 66,06 | |
| [°C / °F] | -15 | 5 | 622,3 | 2125 | 535,6 | 1,15 | 3,92 | 0,99 | 542,0 | 2,85 | 14,36 | |
| cond. pressure | -10 | 14 | 832,6 | 2844 | 716,6 | 1,37 | 4,66 | 1,17 | 609,9 | 3,15 | 19,33 | |
| pc= 55/131 | -5 | 23 | 1076,3 | 3676 | 926,2 | 1,60 | 5,47 | 1,38 | 672,4 | 3,42 | 25,17 | |
| return gas temp | 0 | 32 | 1359,0 | 4641 | 1169,6 | 1,86 | 6,36 | 1,60 | 729,3 | 3,68 | 32,06 | |
| RGT= 32/90 | 5 | 41 | 1686,7 | 5760 | 1451,6 | 2,16 | 7,38 | 1,86 | 780,5 | 3,90 | 40,21 | |
| liquid temp | 10 | 50 | 2065,0 | 7052 | 1777,2 | 2,50 | 8,54 | 2,15 | 825,8 | 4,11 | 49,84 | |
| Tliq= 55/131 | 15 | 59 | 2500,0 | 8538 | 2151,5 | 2,89 | 9,87 | 2,49 | 865,2 | 4,29 | 61,23 | |



SC Compressors





SC Compressors

Service/Repair – R290



8545



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