

Single Pack SC10CL 220-240V 50Hz CSIR

Codice Imballo Singolo: **195B4070**

| Posizione | Titolo | Codice | Quantità |
|-----------|---|----------|----------|
| 1 | Compressor SC10CL | 104L2523 | 1 |
| 2 | Starting relay | 117U6003 | 1 |
| 3 | Starting capacitor (80 μ F 220V, 6.3mm) | 117U5017 | 1 |
| 4 | Cord relief | 103N1004 | 1 |
| 5 | Cover | 103N2009 | 1 |
| 6 | Bolt joint for one compressor M6 \varnothing 16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|---------------|------------------|-------------|-----------------|
| Designation | SC10CL | 220-240V/50Hz 1~ | Sales code: | 104L2523 |
|-------------|---------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R404A, R452A, R507 |
| Oil viscosity | 32cST | Displacement | 10,29cm ³ / 0,63cu.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 | 13,1kg / 28,9lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 6,9Ω (at 25°C) | | |
| Winding resistance aux | 11Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with SC10CL

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

Applications with SC10CL

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

Electrical data - Configurations with SC10CL

| | Conf. 1 | Conf. 2 |
|------------------------------|----------------|----------------|
| Starting device type | relay | relay |
| Run capacitor | - / - | - / - |
| Start capacitor | 80μF | 80μF |
| LRA (locked rotor amps / 4s) | 13A | 13A |
| RLA (rated load amps / 1s) | 2,5A | 2,5A |
| Cut in current | 17A | 17A |

Model

Designation

SC10CL

220-240V/50Hz 1~

Sales code:

104L2523

Compressor dimensions

| Housing | A Height | 209mm / 8,23in |
|---------|-------------------|-----------------|
| | B Height | 203mm / 7,99in |
| | 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 8,11-8,29 | øi 6,11-6,29 | øi 6,11-6,29 |
| (i:inside, o:outside) [in] | øi 0,32-0,33 | 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] | 107/183/55 | 115/100/63 | -107/183/55 |
| [in] | 4,2/7,2/2,2 | 4,5/3,9/2,5 | -4,2/7,2/2,2 |
| 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

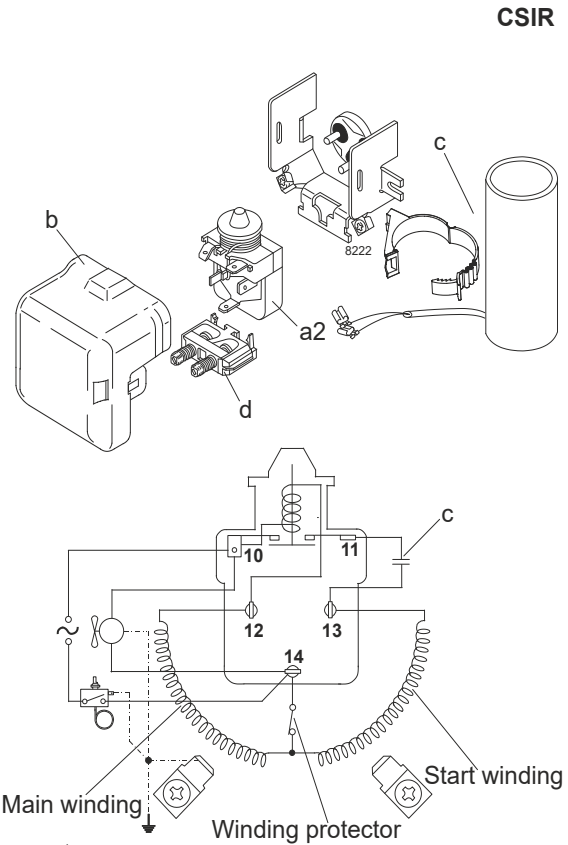
Model

| | | | | | |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | SC10CL | 220-240V/50Hz | Conf. 1 | Sales code: | 104L2523 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

Configuration

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

Electrical accessories / wiring diagram

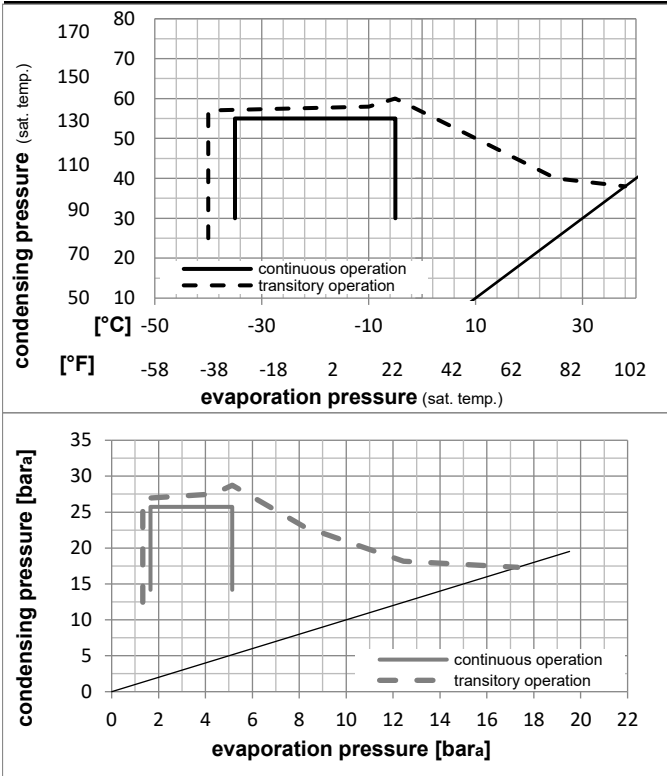


Ambient/ machine room temperatures minimum /maximum

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

| | | |
|----|------------------------|----------|
| a2 | assy. relay | 117U6003 |
| c | start capacitor (80μF) | 117U5017 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2009 |

Model

Designation **SC10CL** **220-240V/50Hz** Conf. 1 Sales code: **104L2523**

Optimization + standard conditions

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

| | | 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] | [°C] | [°F] | [°C] | [°F] | | | | | | | | | | | | | | | | | | |
| -23 | 54 | 32 | 32 | 400,3 | 1367 | 344,5 | 1,13 | 3,85 | 0,97 | 355,2 | 2,28 | 9,33 | ASHRAE LBP | | | | | | | | | | |
| -10 | 130 | 90 | 90 | | | | | | | | | | | | | | | | | | | | |
| -25 | 55 | 32 | 55 | 261,4 | 893 | 225,0 | 0,79 | 2,69 | 0,68 | 332,5 | 2,21 | 8,17 | cecomaf LBP | | | | | | | | | | |
| -13 | 131 | 90 | 131 | | | | | | | | | | | | | | | | | | | | |
| -35 | 40 | 20 | 40 | 196,7 | 672 | 169,3 | 0,79 | 2,69 | 0,68 | 249,7 | 1,93 | 5,34 | EN12900 LBP | | | | | | | | | | |
| -31 | 104 | 68 | 104 | | | | | | | | | | | | | | | | | | | | |
| -23 | 49 | 4,4 | 49 | 312,1 | 1066 | 268,6 | 0,85 | 2,91 | 0,73 | 365,9 | 2,28 | 11,05 | ARI540 LBP | | | | | | | | | | |
| -10 | 120 | 40 | 120 | | | | | | | | | | | | | | | | | | | | |
| -23 | 41 | 32 | 32 | 498,0 | 1701 | 428,5 | 1,34 | 4,58 | 1,15 | 371,1 | 2,26 | 11,60 | AHAM LBP | | | | | | | | | | |
| -10 | 105 | 90 | 90 | | | | | | | | | | | | | | | | | | | | |
| -35 | 45 | 32 | 45 | 168,1 | 574 | 144,6 | 0,69 | 2,36 | 0,60 | 242,8 | 1,91 | 4,49 | opt | | | | | | | | | | |
| -31 | 113 | 90 | 113 | | | | | | | | | | | | | | | | | | | | |

Performance tables

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

| | 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] | -35 | -31 | 168,1 | 574 | 144,6 | 0,69 | 2,36 | 0,60 | 242,8 | 1,91 | 4,49 |
| cond. pressure | -30 | -22 | 258,5 | 883 | 222,4 | 0,88 | 3,01 | 0,76 | 293,6 | 2,05 | 6,94 |
| pc= 45/113 | -25 | -13 | 365,0 | 1246 | 314,1 | 1,04 | 3,56 | 0,90 | 350,3 | 2,22 | 9,84 |
| return gas temp. | -23 | -10 | 405,2 | 1384 | 348,7 | 1,09 | 3,74 | 0,94 | 370,4 | 2,27 | 10,95 |
| RGT= 32/90 | -20 | -4 | 489,5 | 1672 | 421,3 | 1,19 | 4,07 | 1,03 | 410,3 | 2,39 | 13,28 |
| liquid temp | -15 | 5 | 634,0 | 2165 | 545,6 | 1,35 | 4,60 | 1,16 | 470,9 | 2,59 | 17,32 |
| Tliq= 45/113 | -5 | 23 | 990,5 | 3383 | 852,5 | 1,70 | 5,79 | 1,46 | 584,2 | 3,04 | 27,54 |
| [°C / °F] | -35 | -31 | 95,3 | 326 | 82,0 | 0,42 | 1,45 | 0,36 | 225,0 | 1,84 | 2,95 |
| cond. pressure | -30 | -22 | 171,7 | 586 | 147,8 | 0,63 | 2,14 | 0,54 | 273,7 | 2,01 | 5,34 |
| pc= 55/131 | -25 | -13 | 261,4 | 893 | 225,0 | 0,79 | 2,69 | 0,68 | 332,5 | 2,21 | 8,17 |
| return gas temp | -23 | -10 | 295,3 | 1009 | 254,2 | 0,83 | 2,85 | 0,72 | 354,3 | 2,28 | 9,25 |
| RGT= 32/90 | -20 | -4 | 366,4 | 1251 | 315,4 | 0,92 | 3,14 | 0,79 | 398,8 | 2,42 | 11,53 |
| liquid temp | -15 | 5 | 488,6 | 1669 | 420,5 | 1,04 | 3,55 | 0,89 | 470,1 | 2,64 | 15,49 |
| Tliq= 55/131 | -5 | 23 | 792,1 | 2705 | 681,7 | 1,28 | 4,38 | 1,10 | 617,3 | 3,15 | 25,64 |

Model

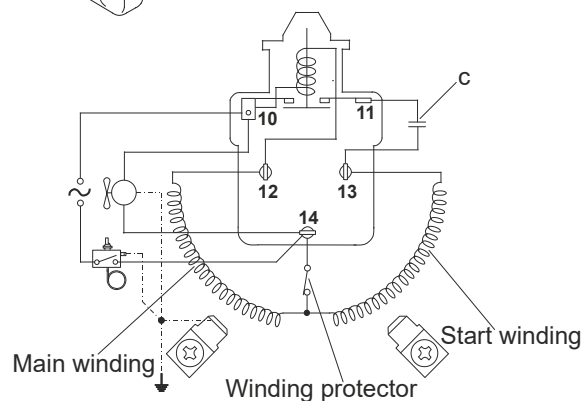
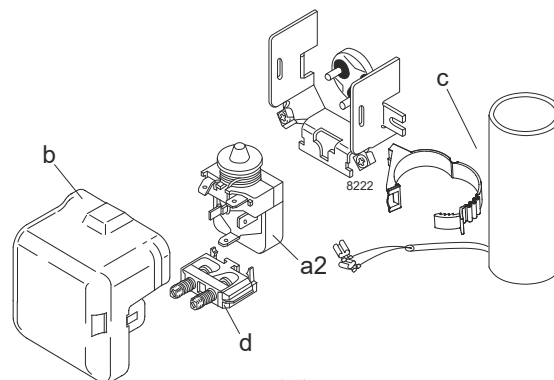
| | | | | | |
|-------------|---------------|----------------------|----------------|-------------|-----------------|
| Designation | SC10CL | 220-240V/50Hz | Conf. 2 | Sales code: | 104L2523 |
|-------------|---------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R452A |
| Application | LBP |
| Voltage range | 198-254V |
| Starting torque | HST |
| Approvals | VDE CCC |

Electrical accessories / wiring diagram

CSIR



Ambient/ machine room temperatures minimum /maximum

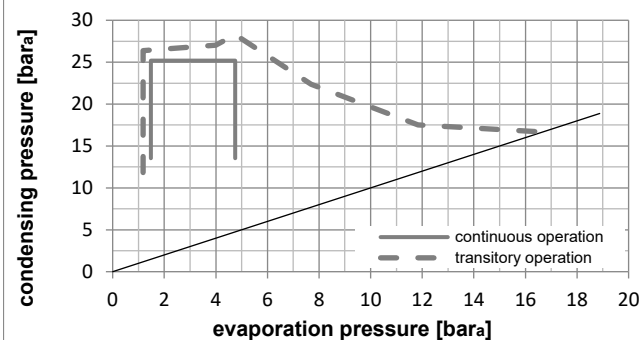
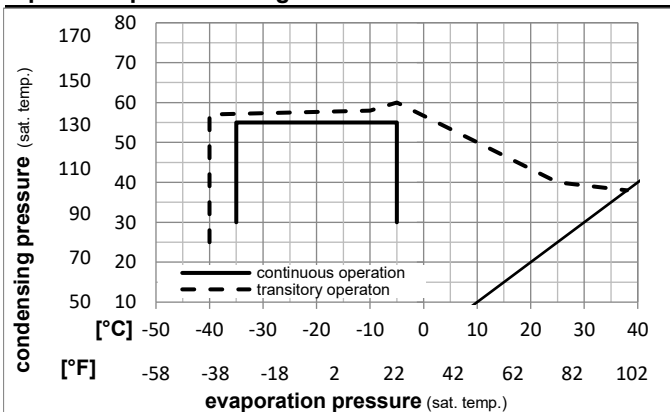
Ambient temperature range: 10 - 38°C / 50 - 101°F

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

Compressor cooling: fan 3m/s

Operation Limits

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a2 | assy. relay | 117U6003 |
| c | start capacitor (80μF) | 117U5017 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2009 |

Model

Designation **SC10CL** **220-240V/50Hz** Conf. 2 Sales code: **104L2523**

Optimization + standard conditions

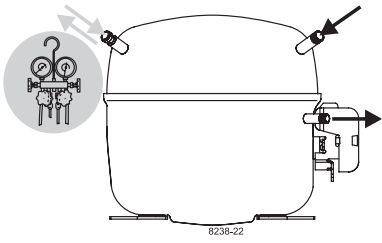
R452A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC

| | | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | | | Power consumption | | | | |
|------|------|---|------|------|--------------|--|------------------|----------|-------|----------|-------------------|---------------------|-------|----------------|--|
| | | Return gas temp. | | | Liquid temp. | | Cooling capacity | | | COP | EER | Current consumption | | Ref. mass flow | |
| | | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | P1 | I | m | |
| [°C] | [°F] | [°C] | [°F] | [°C] | [°C] | | | | | | | [W] | [A] | [kg/h] | |
| [°C] | -23 | 54 | 32 | 32 | 365,2 | 1247 | 314,3 | 1,09 | 3,74 | 0,94 | 333,8 | 2,20 | 8,78 | ASHRAE LBP | |
| [°F] | -10 | 130 | 90 | 90 | | | | | | | | | | | |
| [°C] | -25 | 55 | 32 | 55 | 240,5 | 821 | 206,9 | 0,77 | 2,63 | 0,66 | 311,8 | 2,12 | 7,65 | cecomaf LBP | |
| [°F] | -13 | 131 | 90 | 131 | | | | | | | | | | | |
| [°C] | -35 | 40 | 20 | 40 | 177,0 | 604 | 152,3 | 0,76 | 2,60 | 0,65 | 232,9 | 1,85 | 4,94 | EN12900 LBP | |
| [°F] | -31 | 104 | 68 | 104 | | | | | | | | | | | |
| [°C] | -23 | 49 | 4,4 | 49 | 289,4 | 988 | 249,0 | 0,84 | 2,87 | 0,72 | 344,4 | 2,24 | 10,40 | ARI540 LBP | |
| [°F] | -10 | 120 | 40 | 120 | | | | | | | | | | | |
| [°C] | -23 | 41 | 32 | 32 | 457,6 | 1563 | 393,8 | 1,31 | 4,47 | 1,13 | 349,9 | 2,26 | 11,00 | AHAM LBP | |
| [°F] | -10 | 105 | 90 | 90 | | | | | | | | | | | |
| [°C] | -35 | 45 | 32 | 45 | 150,7 | 515 | 129,7 | 0,67 | 2,28 | 0,57 | 226,0 | 1,82 | 4,14 | opt | |
| [°F] | -31 | 113 | 90 | 113 | | | | | | | | | | | |

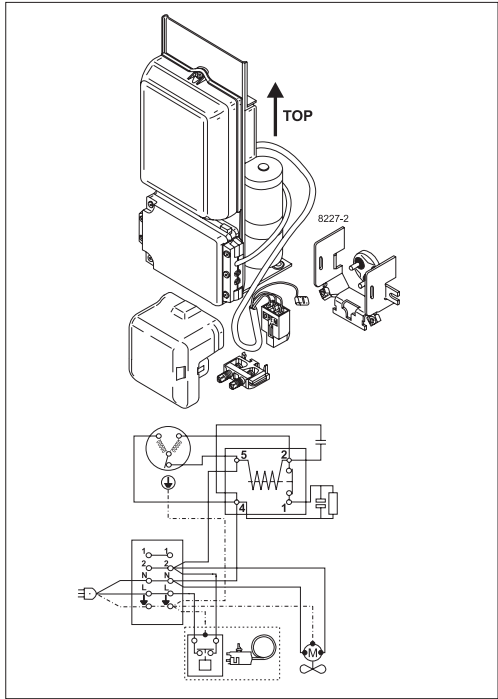
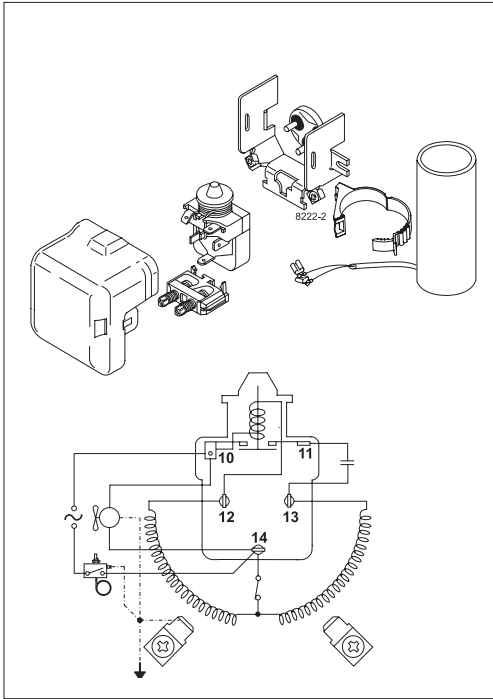
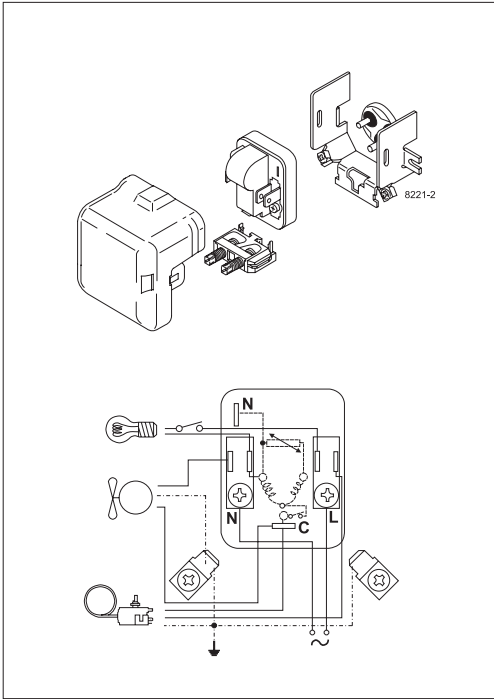
Performance tables

R452A, 220V/50Hz, CSIR, 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] |
| [°C / °F] | -35 | -31 | 150,7 | 515 | 129,7 | 0,67 | 2,28 | 0,57 | 226,0 | 1,82 | 4,14 |
| cond. pressure | -30 | -22 | 235,1 | 803 | 202,3 | 0,86 | 2,92 | 0,74 | 274,8 | 2,00 | 6,48 |
| pc= 45/113 | -25 | -13 | 335,6 | 1146 | 288,8 | 1,02 | 3,48 | 0,88 | 329,5 | 2,19 | 9,28 |
| return gas temp. | -23 | -10 | 373,8 | 1276 | 321,7 | 1,07 | 3,66 | 0,92 | 349,0 | 2,26 | 10,36 |
| RGT= 32/90 | -20 | -4 | 454,1 | 1551 | 390,8 | 1,17 | 4,00 | 1,01 | 387,7 | 2,39 | 12,63 |
| liquid temp | -15 | 5 | 592,7 | 2024 | 510,1 | 1,33 | 4,53 | 1,14 | 447,2 | 2,60 | 16,58 |
| Tliq= 45/113 | -5 | 23 | 937,9 | 3203 | 807,1 | 1,67 | 5,72 | 1,44 | 560,2 | 2,99 | 26,65 |
| [°C / °F] | -35 | -31 | 84,7 | 289 | 72,9 | 0,41 | 1,39 | 0,35 | 208,4 | 1,76 | 2,67 |
| cond. pressure | -30 | -22 | 155,8 | 532 | 134,1 | 0,61 | 2,09 | 0,53 | 255,0 | 1,93 | 4,93 |
| pc= 55/131 | -25 | -13 | 240,5 | 821 | 206,9 | 0,77 | 2,63 | 0,66 | 311,8 | 2,12 | 7,65 |
| return gas temp | -23 | -10 | 272,7 | 931 | 234,7 | 0,82 | 2,80 | 0,70 | 332,9 | 2,20 | 8,69 |
| RGT= 32/90 | -20 | -4 | 340,7 | 1163 | 293,2 | 0,91 | 3,09 | 0,78 | 376,2 | 2,35 | 10,90 |
| liquid temp | -15 | 5 | 458,4 | 1565 | 394,5 | 1,03 | 3,51 | 0,88 | 446,0 | 2,59 | 14,78 |
| Tliq= 55/131 | -5 | 23 | 754,2 | 2576 | 649,1 | 1,27 | 4,35 | 1,10 | 592,0 | 3,11 | 24,75 |



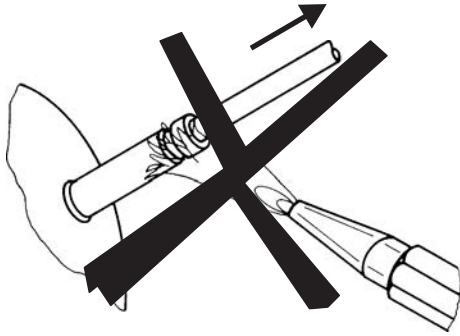
SC Compressors





SC Compressors

Service/Repair – R290



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