

Single Pack SC21F 220-240V 50Hz CSIR

Codice Imballo Singolo: **195B4248**

| Posizione | Titolo | Codice | Quantità |
|-----------|---|----------|----------|
| 1 | Compressor SC21F | 104G8110 | 1 |
| 2 | Starting relay | 117U6019 | 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 | SC21F | 220-240V/50Hz 1~ | Sales code: | 104G8110 |
|-------------|--------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R134a |
| Oil viscosity | 22cST | Displacement | 20,95cm ³ / 1,28cu.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 | 3,7Ω (at 25°C) | | |
| Winding resistance aux | 14Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 135°C / 275°F | | |



General - Configurations with SC21F

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

Applications with SC21F

| | |
|-------------------------|----------------|
| | Conf. 1 |
| Refrigerant | R134a |
| Application | LBP+MBP |
| System cooling | fan 1,5m/s |
| Hot gas defrost | OK |
| Long interval pull down | OK |

Electrical data - Configurations with SC21F

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

Model

Designation

SC21F

220-240V/50Hz 1~

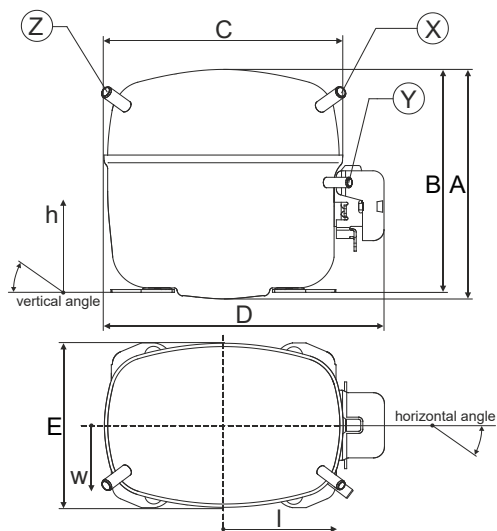
Sales code:

104G8110

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 |



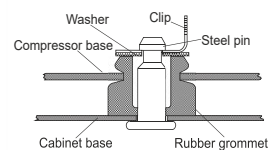
Compressor fixation



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

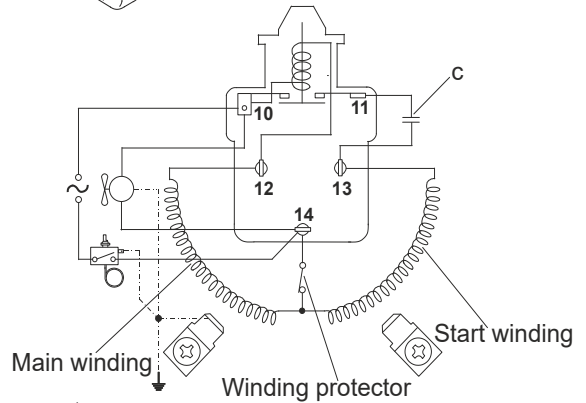
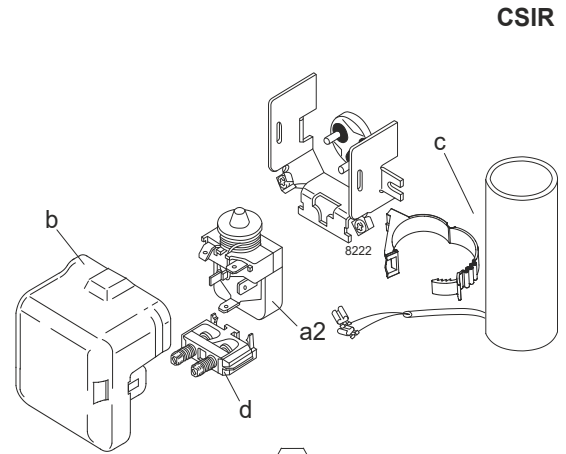
Model

| | | | | | |
|-------------|--------------|----------------------|----------------|-------------|-----------------|
| Designation | SC21F | 220-240V/50Hz | Conf. 1 | Sales code: | 104G8110 |
|-------------|--------------|----------------------|----------------|-------------|-----------------|

Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R134a |
| Application | LBP+MBP |
| Voltage range | 198-254V |
| Starting torque | HST |
| Approvals | VDE |

Electrical accessories / wiring diagram



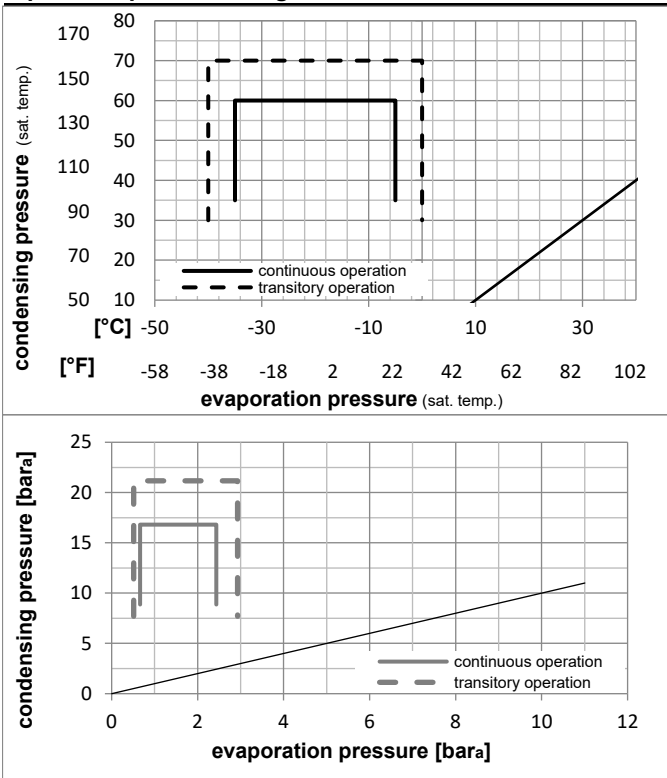
Ambient/ machine room temperatures minimum /maximum

| | |
|---------------------------------|------------------------|
| Ambient temperature range: | 10 - 38°C / 50 - 101°F |
| Machine room temperature range: | 10 - 43°C / 50 - 110°F |
| Compressor cooling: | fan 1,5m/s |

Operation Limits

Can be used as a HBP compressor with 240V 50Hz mains (216-254V).

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a2 | relay | 117U6019 |
| c | start capacitor (80μF) | 117U5017 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2009 |

Model

Designation **SC21F** **220-240V/50Hz** Conf. 1 Sales code: **104G8110**

Optimization + standard conditions

R134a, 220V/50Hz, CSIR, fan 1,5m/s, VDE

| | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | Liquid temp. | Cooling capacity | COP | EER | Power consumption | | | ASHRAE LBP |
|------|---|-----|-----|------|--|---------|----------|------------------|--------------|------------------|-------|------|-------------------|-------------|----------------|------------|
| | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | | | | | | P1 | I | Ref. mass flow | |
| [°C] | | | | | | | | | | | | | | | | |
| [°F] | | | | | | | | | | | | | | | | |
| | -23 | 54 | 32 | 32 | 456,9 | 1560 | 393,2 | 1,14 | 3,88 | 0,98 | 402,5 | 2,80 | 8,87 | ASHRAE LBP | | |
| | -10 | 130 | 90 | 90 | | | | | | | | | | | | |
| | -25 | 55 | 32 | 55 | 335,0 | 1144 | 288,3 | 0,88 | 2,99 | 0,75 | 382,1 | 2,77 | 8,01 | cecomaf LBP | | |
| | -13 | 131 | 90 | 131 | | | | | | | | | | | | |
| | -35 | 40 | 20 | 40 | 244,5 | 835 | 210,4 | 0,82 | 2,79 | 0,70 | 298,9 | 2,57 | 5,36 | EN12900 LBP | | |
| | -31 | 104 | 68 | 104 | | | | | | | | | | | | |
| | -23 | 49 | 4,4 | 49 | 367,2 | 1254 | 316,0 | 0,93 | 3,16 | 0,80 | 396,7 | 2,76 | 9,70 | ARI540 LBP | | |
| | -10 | 120 | 40 | 120 | | | | | | | | | | | | |
| | -23 | 41 | 32 | 32 | 506,1 | 1728 | 435,5 | 1,29 | 4,42 | 1,11 | 391,4 | 2,74 | 9,83 | AHAM LBP | | |
| | -10 | 105 | 90 | 90 | | | | | | | | | | | | |
| | -35 | 45 | 32 | 45 | 219,1 | 748 | 188,5 | 0,76 | 2,60 | 0,65 | 288,1 | 2,52 | 4,73 | opt | | |
| | -31 | 113 | 90 | 113 | | | | | | | | | | | | |

Performance tables

R134a, 220V/50Hz, CSIR, fan 1,5m/s, VDE

| | 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 | 219,1 | 748 | 188,5 | 0,76 | 2,60 | 0,65 | 288,1 | 2,52 | 4,73 |
| cond. pressure | -30 | -22 | 290,3 | 991 | 249,8 | 0,88 | 3,02 | 0,76 | 328,5 | 2,63 | 6,27 |
| pc= 45/113 | -25 | -13 | 391,0 | 1335 | 336,5 | 1,04 | 3,55 | 0,90 | 375,9 | 2,71 | 8,47 |
| return gas temp. | -23 | -10 | 431,9 | 1475 | 371,7 | 1,10 | 3,75 | 0,94 | 393,6 | 2,75 | 9,37 |
| RGT= 32/90 | -20 | -4 | 521,1 | 1780 | 448,5 | 1,21 | 4,14 | 1,04 | 430,3 | 2,83 | 11,32 |
| liquid temp | -15 | 5 | 680,9 | 2325 | 585,9 | 1,38 | 4,73 | 1,19 | 492,0 | 3,03 | 14,84 |
| Tliq= 45/113 | -5 | 23 | 1089,0 | 3719 | 937,2 | 1,71 | 5,83 | 1,47 | 637,7 | 3,89 | 23,95 |
| [°C / °F] | -35 | -31 | 186,0 | 635 | 160,0 | 0,68 | 2,33 | 0,59 | 272,9 | 2,50 | 4,43 |
| cond. pressure | -30 | -22 | 245,8 | 839 | 211,5 | 0,76 | 2,59 | 0,65 | 324,0 | 2,64 | 5,86 |
| pc= 55/131 | -25 | -13 | 335,0 | 1144 | 288,3 | 0,88 | 2,99 | 0,75 | 382,1 | 2,77 | 8,01 |
| return gas temp | -23 | -10 | 372,1 | 1271 | 320,2 | 0,92 | 3,15 | 0,79 | 403,5 | 2,81 | 8,91 |
| RGT= 32/90 | -20 | -4 | 453,8 | 1550 | 390,5 | 1,01 | 3,46 | 0,87 | 447,4 | 2,92 | 10,88 |
| liquid temp | -15 | 5 | 602,1 | 2056 | 518,2 | 1,16 | 3,95 | 1,00 | 519,9 | 3,16 | 14,49 |
| Tliq= 55/131 | -5 | 23 | 987,4 | 3372 | 849,8 | 1,44 | 4,90 | 1,24 | 687,7 | 4,09 | 24,00 |



SC Compressors





SC Compressors

Service/Repair – R290



8545



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