

Single Pack SC12CNX.2 115V 60Hz CSIR

Single pack code number: **195B4337**

| Position | Title | Code | Amount |
|----------|---|----------|--------|
| 1 | Compressor SC12CNX.2 | 104H7270 | 1 |
| 2 | Starting relay | 117U7020 | 1 |
| 3 | Starting capacitor (240 μ F 125V, 6.3mm) | 117U5023 | 1 |
| 4 | Cord relief | 103N1004 | 1 |
| 5 | Cover | 103N2008 | 1 |
| 6 | Bolt joint for one compressor M6 \varnothing 16mm | 118-1917 | 1 |

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Model

| | | | | |
|-------------|------------------|--------------|-------------|-----------------|
| Designation | SC12CNX.2 | 115V/60Hz 1~ | Sales code: | 104H7270 |
|-------------|------------------|--------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 22cST | Displacement | 12,87cm ³ / 0,79cu.in |
| Oil quantity | 500cm ³ / 16,9fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 500g / 17,6oz | | |
| Free gas volume comp. | 1510cm ³ / 51,1fl.oz | | |
| Weight | 13,2kg / 29,1lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 0,98Ω (at 25°C) | | |
| Winding resistance aux | 4,18Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with SC12CNX.2

| | |
|------------------------|----------------|
| | Conf. 1 |
| Motorconfiguration | CSIR |
| Power supply (nominal) | 115V/60Hz |
| Number of phases | 1 |
| Voltage range | 95-135V |
| Approvals | UL, VDE, EAC |
| Starting torque | HST |
| Note | - / - |

Applications with SC12CNX.2

| | |
|-------------------------|----------------|
| | Conf. 1 |
| Refrigerant | R290 |
| Application | LBP+MBP |
| System cooling | fan 3m/s |
| Hot gas defrost | OK |
| Long interval pull down | OK |

Electrical data - Configurations with SC12CNX.2

| | |
|------------------------------|----------------|
| | Conf. 1 |
| Starting device type | relay |
| Run capacitor | - / - |
| Start capacitor | 240μF |
| LRA (locked rotor amps / 4s) | 23,4A |
| RLA (rated load amps / 1s) | 4,3A |
| Cut in current | 23,4A |

Model

Designation

SC12CNX.2

115V/60Hz 1~

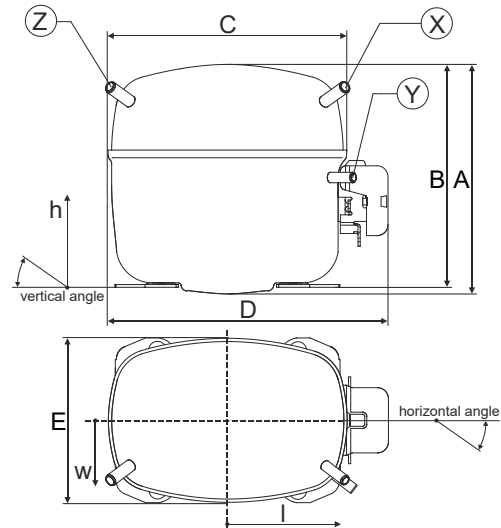
Sales code:

104H7270

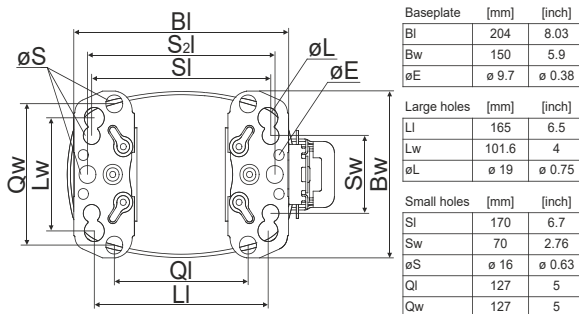
Compressor dimensions

| 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 |

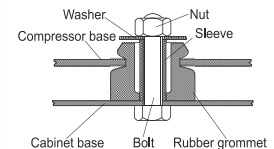
| Connectors | Suction X | Discharge Y | Process Z |
|----------------------------|--------------|----------------|--------------|
| Diameter [mm] | øi 9,54-9,72 | øi 6,41-6,59 | øi 6,41-6,59 |
| (i:inside, o:outside) [in] | øi 0,38-0,38 | øi 0,25-0,26 | øi 0,25-0,26 |
| Material | copper | copper | copper |
| Horizontal angle ±2° | 37° | 37° | 143° |
| Vertical angle ±2° | 30° | 0° | 150° |
| Position l/h/w [mm] | 107/183/55 | 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 |



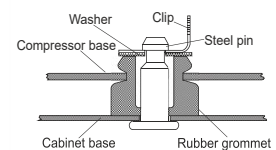
Compressor fixation



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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

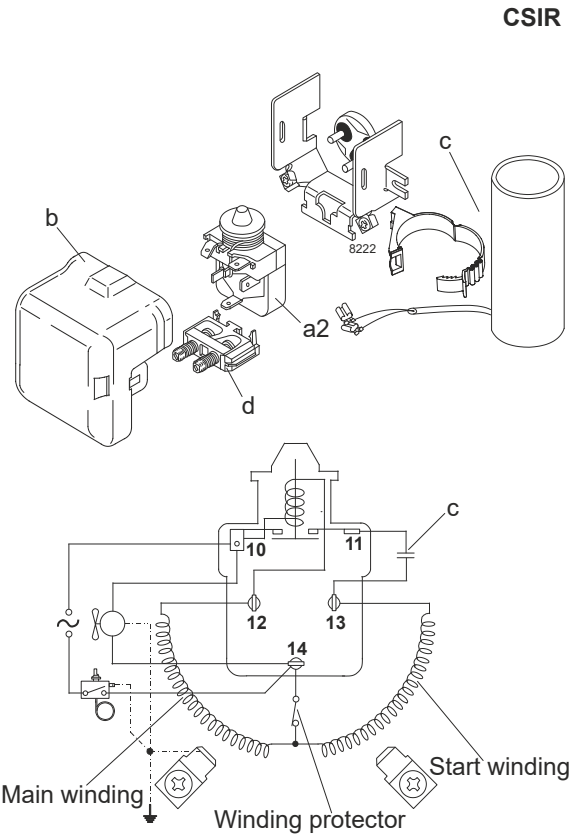
Model

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|-------------|------------------|------------------|----------------|-------------|-----------------|
| Designation | SC12CNX.2 | 115V/60Hz | Conf. 1 | Sales code: | 104H7270 |
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Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 115V/60Hz 1~ |
| Refrigerant | R290 |
| Application | LBP+MBP |
| Voltage range | 95-135V |
| Starting torque | HST |
| Approvals | UL VDE EAC |

Electrical accessories / wiring diagram

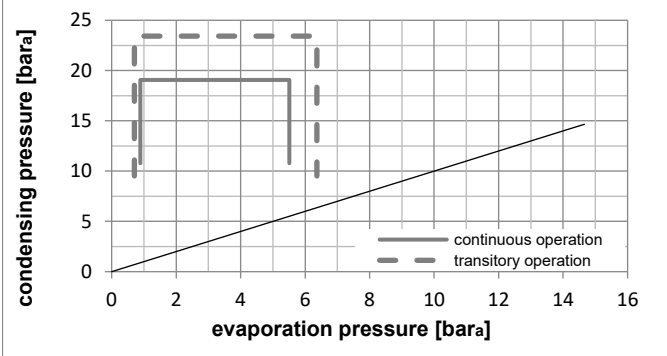
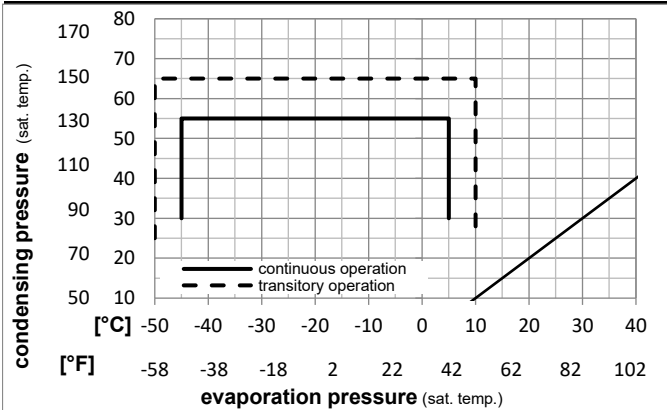


Ambient temperatures / system cooling

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

Operation pressure range



Components

| | | |
|----|-------------------------|----------|
| a2 | relay | 117U7020 |
| c | start capacitor (240μF) | 117U5023 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2008 |

Model

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

Optimization + standard conditions

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

| | Evaporating pressure (saturation temperature) | | | | Condensing pressure (saturation temperature) | | | Return gas temp. | Liquid temp. | Cooling capacity | | | COP | EER | Power consumption | | | Ref. mass flow | |
|------|---|-----|-----|------|--|---------|----------|------------------|--------------|------------------|----------|-----------|-------|-------------|-------------------|---|---|----------------|--|
| | pe | pc | RGT | Tliq | [W] | [Btu/h] | [kcal/h] | | | [W/W] | [Btu/Wh] | [kcal/Wh] | | | P1 | I | m | | |
| [°C] | -23 | 54 | 32 | 32 | 611,5 | 2088 | 526,3 | 1,29 | 4,40 | 1,11 | 475,1 | 6,11 | 6,19 | ASHRAE LBP | | | | | |
| [°F] | -10 | 130 | 90 | 90 | | | | | | | | | | | | | | | |
| [°C] | -25 | 55 | 32 | 55 | 449,4 | 1535 | 386,8 | 0,98 | 3,35 | 0,85 | 457,5 | 6,00 | 5,60 | cecomaf LBP | | | | | |
| [°F] | -13 | 131 | 90 | 131 | | | | | | | | | | | | | | | |
| [°C] | -35 | 40 | 20 | 40 | 334,9 | 1144 | 288,3 | 0,97 | 3,30 | 0,83 | 346,5 | 5,42 | 3,83 | EN12900 LBP | | | | | |
| [°F] | -31 | 104 | 68 | 104 | | | | | | | | | | | | | | | |
| [°C] | -7 | 54 | 35 | 46 | 1190,6 | 4066 | 1024,6 | 1,87 | 6,40 | 1,61 | 635,8 | 7,31 | 13,58 | ASHRAE MBP | | | | | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 935,7 | 3196 | 805,3 | 1,53 | 5,24 | 1,32 | 610,2 | 7,07 | 11,84 | cecomaf MBP | | | | | |
| [°F] | 14 | 131 | 90 | 131 | | | | | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 1041,0 | 3555 | 895,9 | 1,88 | 6,43 | 1,62 | 553,0 | 6,74 | 12,78 | EN12900 MBP | | | | | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | | | | | |

Performance tables

R290, 115V/60Hz, CSIR, fan 3m/s, UL, VDE, 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] | -45 | -49 | 130,8 | 447 | 112,5 | 0,58 | 1,98 | 0,50 | 226,0 | 4,99 | 1,46 |
| cond. pressure | -34 | -30 | 319,6 | 1091 | 275,0 | 0,91 | 3,12 | 0,79 | 349,3 | 5,45 | 3,58 |
| pc= 45/113 | -29 | -20 | 447,8 | 1529 | 385,4 | 1,11 | 3,79 | 0,95 | 403,8 | 5,72 | 5,04 |
| return gas temp. | -23 | -10 | 600,1 | 2050 | 516,5 | 1,33 | 4,53 | 1,14 | 452,6 | 6,00 | 6,78 |
| RGT= 32/90 | -15 | 5 | 881,0 | 3009 | 758,2 | 1,70 | 5,81 | 1,47 | 517,5 | 6,45 | 10,02 |
| liquid temp | -4 | 25 | 1370,4 | 4680 | 1179,4 | 2,31 | 7,88 | 1,98 | 594,2 | 7,11 | 15,80 |
| Tliq= 45/113 | 5 | 41 | 1872,2 | 6394 | 1611,3 | 2,87 | 9,79 | 2,47 | 653,0 | 7,68 | 21,90 |
| [°C / °F] | -45 | -49 | 60,2 | 206 | 51,8 | 0,34 | 1,17 | 0,30 | 175,1 | 4,75 | 0,74 |
| cond. pressure | -34 | -30 | 236,4 | 807 | 203,5 | 0,70 | 2,39 | 0,60 | 338,0 | 5,38 | 2,92 |
| pc= 55/131 | -29 | -20 | 354,3 | 1210 | 304,9 | 0,86 | 2,94 | 0,74 | 410,9 | 5,74 | 4,40 |
| return gas temp | -23 | -10 | 493,7 | 1686 | 424,9 | 1,04 | 3,54 | 0,89 | 476,5 | 6,11 | 6,16 |
| RGT= 32/90 | -15 | 5 | 750,4 | 2563 | 645,8 | 1,33 | 4,55 | 1,15 | 563,3 | 6,70 | 9,43 |
| liquid temp | -4 | 25 | 1198,3 | 4093 | 1031,3 | 1,81 | 6,17 | 1,55 | 663,6 | 7,54 | 15,29 |
| Tliq= 55/131 | 5 | 41 | 1659,6 | 5668 | 1428,3 | 2,25 | 7,70 | 1,94 | 736,3 | 8,26 | 21,52 |



SC Compressors





SC Compressors

Service/Repair – R290



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