

Single Pack SC10MNX 220-240V 50Hz CSIR

Single pack code number: **195B4376**

| Position | Title | Code | Amount |
|----------|---------------------------------------------------------|----------|--------|
| 1 | Compressor SC10MNX | 104H8075 | 1 |
| 2 | Starting relay | 117U7005 | 1 |
| 3 | Starting capacitor (80 μ F 220V, 6.3mm) | 117U5017 | 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 | SC10MNX | 220-240V/50Hz 1~ | Sales code: | 104H8075 |
|-------------|----------------|------------------|-------------|-----------------|

Compressor design

| | | | |
|----------------------------|---------------------------------|-----------------------|----------------------------------|
| Oil type | Polyolester | Refrigerant(s) | R290 |
| Oil viscosity | 22cST | Displacement | 10,29cm ³ / 0,63cu.in |
| Oil quantity | 500cm ³ / 16,9fl.oz | Compressors on pallet | 80 |
| Refr. charge - tech. limit | 150g / 5,3oz | | |
| Free gas volume comp. | 1410cm ³ / 47,7fl.oz | | |
| Weight | 13,1kg / 28,9lbs | | |
| Motor protection | 1# internal | | |
| Winding resistance main | 5,13Ω (at 25°C) | | |
| Winding resistance aux | 13,51Ω (at 25°C) | | |
| Max. winding temp. | 125°C / 257°F | | |
| Max. discharge temp. | 130°C / 266°F | | |



General - Configurations with SC10MNX

Conf. 1

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

Applications with SC10MNX

Conf. 1

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

Electrical data - Configurations with SC10MNX

Conf. 1

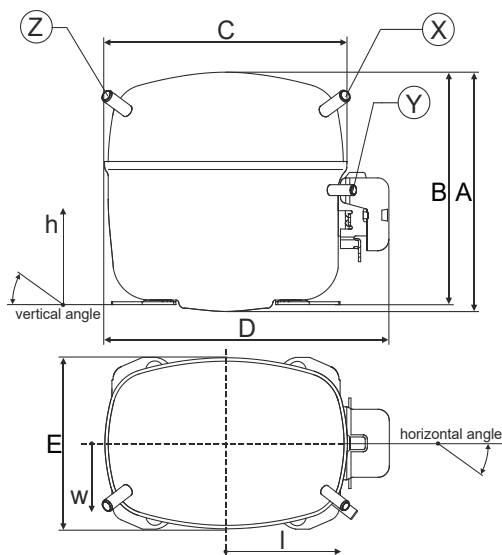
| | |
|------------------------------|-------|
| Starting device type | relay |
| Run capacitor | -/- |
| Start capacitor | 80μF |
| LRA (locked rotor amps / 4s) | 16,2A |
| RLA (rated load amps / 1s) | 3,1A |
| Cut in current | 16,2A |

Model

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

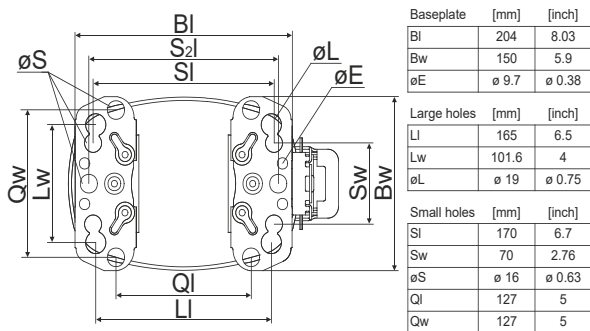
Compressor dimensions

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

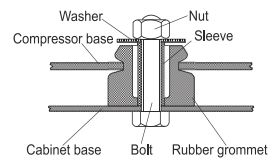


| Connectors | | Suction | Discharge | Process |
|-----------------------|------|--------------|--------------|--------------|
| | | X | Y | Z |
| Diameter | [mm] | øi 8,11-8,29 | øi 6,11-6,29 | øi 6,11-6,29 |
| (i:inside, o:outside) | [in] | øi 0,32-0,33 | øi 0,24-0,25 | øi 0,24-0,25 |
| Material | | 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 |

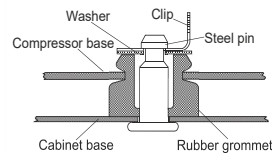
Compressor fixation



Bolt joint



Snap-on



| Mounting accessories | 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

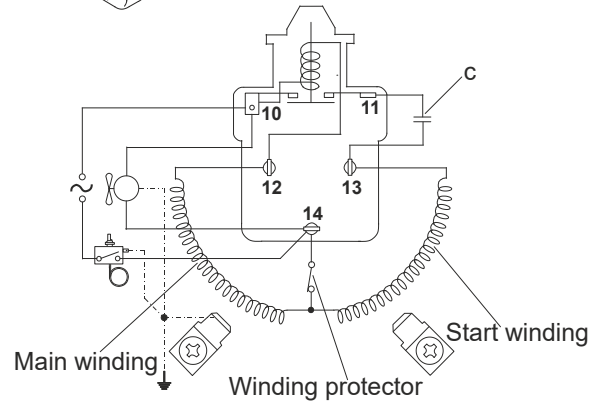
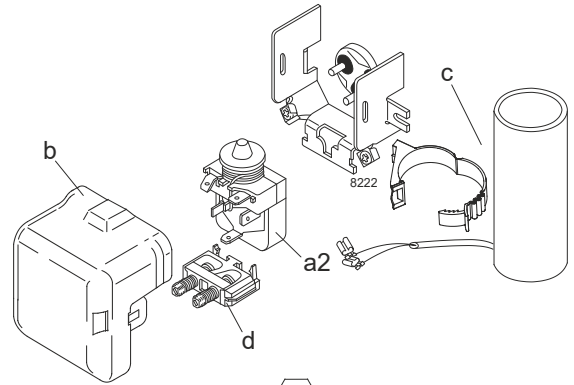
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Configuration

| | |
|------------------------|------------------|
| Motorconfiguration | CSIR |
| Power supply (nominal) | 220-240V/50Hz 1~ |
| Refrigerant | R290 |
| Application | MBP |
| Voltage range | 198-254V |
| Starting torque | HST |
| Approvals | CCC |
| | EAC |
| | VDE |

Electrical accessories / wiring diagram

CSIR



Ambient/ machine room temperatures minimum /maximum

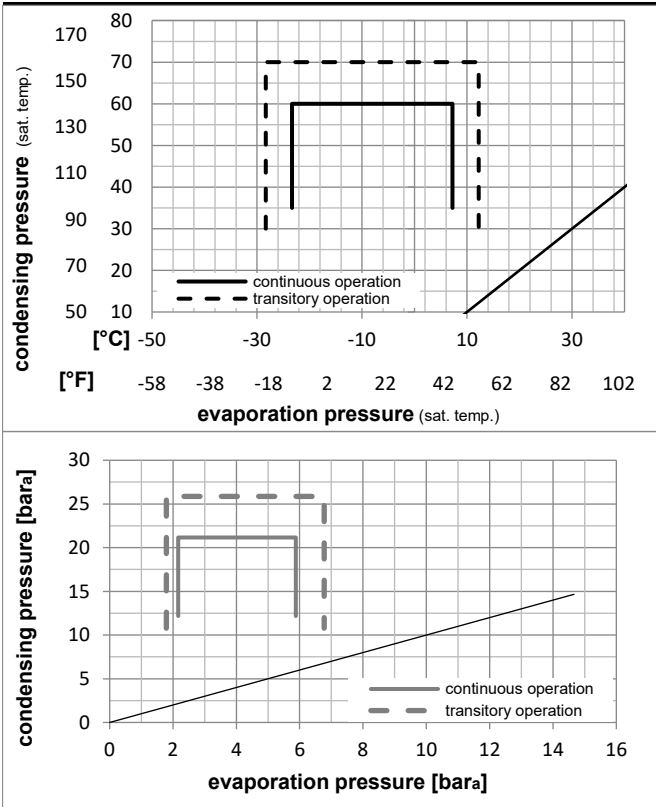
Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

Operation Limits

Operation pressure range



Components

| | | |
|----|------------------------|----------|
| a2 | relay | 117U7005 |
| c | start capacitor (80µF) | 117U5017 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2009 |

Alternative components

| | | |
|----|------------------------|----------|
| a2 | relay | 117U7005 |
| c | start capacitor (80µF) | 117U5017 |
| d | cord relief | 103N1004 |
| b | plastic cover | 103N2008 |

Model

| | | | | | |
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Optimization + standard conditions

R290, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, VDE

| Evaporating pressure (saturation temperature) | | | | | Condensing pressure (saturation temperature) | | | | | Power consumption | | | | | |
|-----------------------------------------------|-----|-----|------|------------------|----------------------------------------------|---------|----------|-------|----------|-------------------|-------|------|--------|---------------------|----------------|
| | | | | Return gas temp. | Cooling capacity | | | | | COP | EER | P1 | | Current consumption | Ref. mass flow |
| pe | pc | RGT | Tliq | | [W] | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [kcal/Wh] | [W] | [A] | [kg/h] | | |
| [°C] | -7 | 54 | 35 | 46 | 766,7 | 2618 | 659,8 | 1,70 | 5,80 | 1,46 | 451,4 | 2,83 | 8,75 | ASHRAE MBP | |
| [°F] | 20 | 130 | 95 | 115 | | | | | | | | | | | |
| [°C] | -10 | 55 | 32 | 55 | 593,3 | 2026 | 510,6 | 1,38 | 4,71 | 1,19 | 429,8 | 2,76 | 7,50 | cecomaf MBP | |
| [°F] | 14 | 131 | 90 | 131 | | | | | | | | | | | |
| [°C] | -10 | 45 | 20 | 45 | 686,5 | 2344 | 590,8 | 1,71 | 5,85 | 1,48 | 400,4 | 2,67 | 8,43 | EN12900 MBP | |
| [°F] | 14 | 113 | 68 | 113 | | | | | | | | | | | |
| [°C] | -7 | 49 | 18 | 49 | 734,0 | 2507 | 631,7 | 1,70 | 5,82 | 1,47 | 430,8 | 2,77 | 9,53 | ARI540 MBP | |
| [°F] | 20 | 120 | 65 | 120 | | | | | | | | | | | |
| [°C] | -10 | 45 | 32 | 45 | 714,6 | 2441 | 615,0 | 1,78 | 6,09 | 1,54 | 400,4 | 2,67 | 8,18 | opt | |
| [°F] | 14 | 113 | 90 | 113 | | | | | | | | | | | |
| [°C] | -25 | 45 | 32 | 45 | 327,7 | 1119 | 282,0 | 1,12 | 3,84 | 0,97 | 291,8 | 2,39 | 3,70 | opt | |
| [°F] | -13 | 113 | 90 | 113 | | | | | | | | | | | |

Performance tables

R290, 220V/50Hz, CSIR, fan 3m/s, CCC, EAC, 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] | -23 | -10 | 363,8 | 1242 | 313,1 | 1,18 | 4,03 | 1,02 | 308,4 | 2,42 | 4,11 |
| cond. pressure | -20 | -4 | 439,2 | 1500 | 377,9 | 1,30 | 4,45 | 1,12 | 337,1 | 2,49 | 4,97 |
| pc= 45/113 | -15 | 5 | 567,4 | 1938 | 488,4 | 1,52 | 5,20 | 1,31 | 372,8 | 2,58 | 6,46 |
| return gas temp. | -10 | 14 | 714,6 | 2441 | 615,0 | 1,78 | 6,09 | 1,54 | 400,4 | 2,67 | 8,18 |
| RGT= 32/90 | -5 | 23 | 882,8 | 3015 | 759,8 | 2,09 | 7,15 | 1,80 | 421,7 | 2,74 | 10,16 |
| liquid temp | 0 | 32 | 1074,1 | 3668 | 924,4 | 2,45 | 8,37 | 2,11 | 438,4 | 2,82 | 12,46 |
| Tliq= 45/113 | 7,2 | 45 | 1394,5 | 4762 | 1200,1 | 3,05 | 10,40 | 2,62 | 457,7 | 2,91 | 16,38 |
| [°C / °F] | -23 | -10 | 282,6 | 965 | 243,2 | 0,96 | 3,29 | 0,83 | 293,1 | 2,43 | 3,52 |
| cond. pressure | -20 | -4 | 349,7 | 1194 | 300,9 | 1,05 | 3,57 | 0,90 | 334,4 | 2,51 | 4,37 |
| pc= 55/131 | -15 | 5 | 463,3 | 1582 | 398,7 | 1,20 | 4,09 | 1,03 | 387,2 | 2,64 | 5,83 |
| return gas temp | -10 | 14 | 593,3 | 2026 | 510,6 | 1,38 | 4,71 | 1,19 | 429,8 | 2,76 | 7,50 |
| RGT= 32/90 | -5 | 23 | 741,7 | 2533 | 638,3 | 1,60 | 5,46 | 1,38 | 463,9 | 2,87 | 9,45 |
| liquid temp | 0 | 32 | 910,6 | 3110 | 783,6 | 1,85 | 6,33 | 1,60 | 491,0 | 2,98 | 11,70 |
| Tliq= 55/131 | 7,2 | 45 | 1194,1 | 4078 | 1027,7 | 2,29 | 7,82 | 1,97 | 521,6 | 3,12 | 15,56 |



SC Compressors





SC Compressors

Service/Repair – R290



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