

Model

SC18CL

Sales code:

104L2132

Compressor Data

|                            |                       |
|----------------------------|-----------------------|
| Refrigerant(s)             | R404A / R507          |
| Refr. charge - tech. limit | 1300g / 45.86oz       |
| Weight                     | 13.80 kg / 30.42lbs   |
| Displacement               | 17.69 cm3 / 1.08cu.in |
| Compressors on pallet      | 80                    |



General – Configurations With SC18CL

|                         |                 |
|-------------------------|-----------------|
| -                       | Conf. 1         |
| Motor configuration     | CSCR            |
| Power supply (nominal)  | 220-240 V/50 Hz |
| Number of phases        | 1               |
| Voltage range           | 198-254 V       |
| Approvals               | CCC, VDE        |
| Starting torque         | HST             |
| Refrigerant             | R404A           |
| Application             | LBP+MBP         |
| Hot gas defrost         | OK              |
| Long interval pull down | OK              |

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

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### Compressor Design

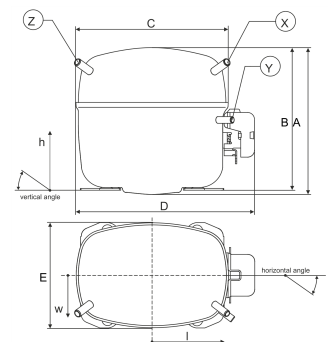
|                       |                                    |                         |               |
|-----------------------|------------------------------------|-------------------------|---------------|
| Oil type              | POE                                | Winding resistance main | 3.700 Ohm     |
| Oil viscosity         | 32cSt                              | Winding resistance aux  | 14.10 Ohm     |
| Oil quantity          | 550 / 18.60fl.oz                   | Max. winding temp.      | 125 °C        |
| Free gas volume comp. | 1,460 cm <sup>3</sup> / 49.37fl.oz | Max. discharge temp.    | 135°C / 275°F |
| Motor protection      | internal                           |                         |               |

### Compressor Dimensions

#### Housing

|                   |                 |
|-------------------|-----------------|
| A Height          | 219mm / 8.62in  |
| B Height          | 213mm / 8.39in  |
| C Length shell    | 239mm / 9.41in  |
| D Length w. cover | 255mm / 10.04in |
| E Width           | 151mm / 5.94in  |

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| Connectors            | Suction X                     | Discharge Y                   | Process Z                       |
|-----------------------|-------------------------------|-------------------------------|---------------------------------|
| Diameter [mm]         | øi 9.54–9.72 / 0.38–0.38in    | øi 6.41–6.59 / 0.25–0.26in    | øi 6.41–6.59 / 0.25–0.26in      |
| Material              | CU                            | CU                            | CU                              |
| Horizontal angle ±2°  | 37°                           | 37°                           | 143°                            |
| Vertical angle ±2°    | 30°                           | 0°                            | 150°                            |
| Position l/h/w [mm]   | 107/193/55 / 4.21/7.60/2.17in | 115/110/63 / 4.53/4.33/2.48in | -107/193/55 / -4.21/7.60/2.17in |
| Straight tube l. [mm] | 12 / 0.47in                   | 12 / 0.47in                   | 12 / 0.47in                     |

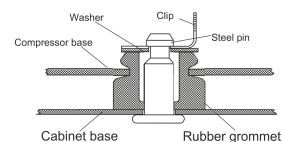
### Mounting Accessories



#### Bolt joint



#### Snap-on



Dimensions in mm [in]

|                            | 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   |

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Configuration 1

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### Configuration

|                                    |                             |
|------------------------------------|-----------------------------|
| Motor configuration                | <b>CSCR</b>                 |
| Power supply (nominal)             | <b>220-240 V/50 Hz 1~</b>   |
| Refrigerant                        | <b>R404A</b>                |
| Application                        | <b>LBP+MBP</b>              |
| Voltage range                      | <b>198-254 V</b>            |
| Starting torque                    | <b>HST</b>                  |
| Approvals                          | <b>CCC, VDE</b>             |
| Starting device type               | <b>relay</b>                |
| Run capacitor                      | <b>10 <math>\mu</math>F</b> |
| Start capacitor                    | <b>80 <math>\mu</math>F</b> |
| LRA (locked rotor amps / 4s/ U(N)) | <b>20.43 A</b>              |
| RLA (rated load amps / 1s/ U(N))   | <b>3.9 A</b>                |
| Cut in current (U(N))              | <b>20.43 A</b>              |

### Ambient/ machine room temperatures minimum /maximum

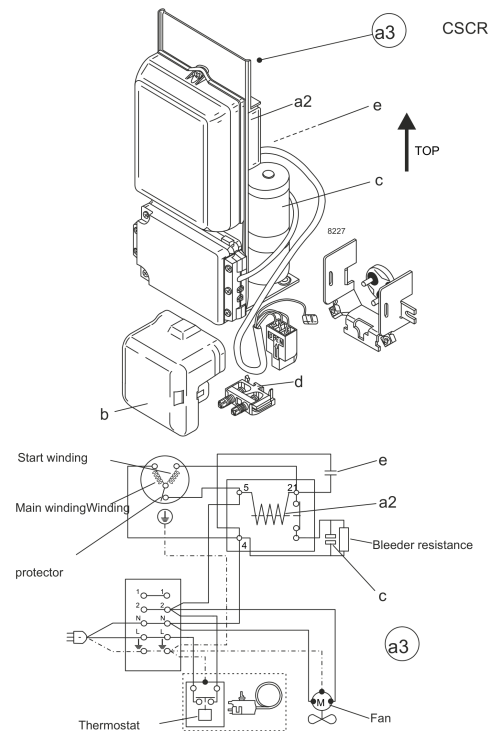
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

### System Cooling

fan 3m/s

### Electrical Accessories / Wiring Diagram



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### Components

**a3** SC starter kit (550mm) 117-7027

**b** plastic cover 103N2009

**d** cord relief 103N1004

### Alternative components

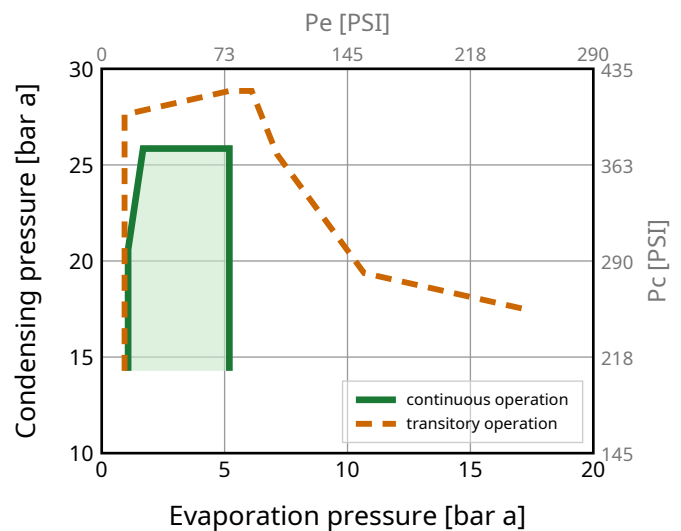
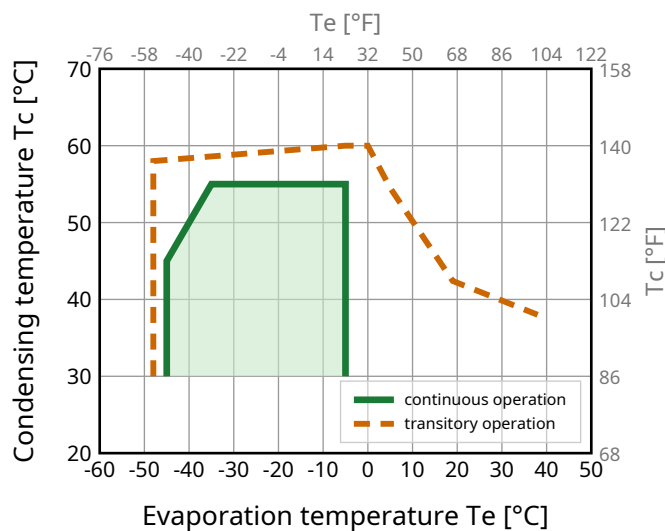
**a3** SC starter kit (1000mm) 117-7040

**a3** SC starter kit (650mm) 117-7046

**c** start capacitor (80 $\mu$ F) 117U5373

**e** run capacitor (10 $\mu$ F, 6.3mm) 117-7112

### Operation Pressure Range



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Standard Conditions

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

| pe           | pc            | RGT          | Tliq          | Cooling capacity |         |          | COP   | EER      | P   | I    | m      |             |
|--------------|---------------|--------------|---------------|------------------|---------|----------|-------|----------|-----|------|--------|-------------|
| [°C]<br>[°F] | [°C]<br>[°F]  | [°C]<br>[°F] | [°C]<br>[°F]  | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W] | [A]  | [kg/h] |             |
| -23.3<br>-10 | 54.4<br>129.9 | 32.2<br>90   | 32.2<br>90    | 803              | 2739    | 690      | 1.22  | 4.15     | 661 | 3.78 | 18.66  | ASHRAE LBP  |
| -25<br>-13   | 55<br>131     | 32<br>89.6   | 55<br>131     | 539              | 1838    | 463      | 0.86  | 2.92     | 629 | 3.65 | 16.80  | CECOMAF LBP |
| -35<br>-31   | 40<br>104     | 20<br>68     | 40<br>104     | 436              | 1489    | 375      | 0.97  | 3.30     | 451 | 3.01 | 11.82  | EN12900 LBP |
| -23.3<br>-10 | 48.8<br>119.8 | 4.4<br>39.9  | 48.8<br>119.8 | 612              | 2089    | 527      | 0.94  | 3.20     | 653 | 3.76 | 21.60  | ARI540 LBP  |
| -23.3<br>-10 | 40.6<br>105.1 | 32.2<br>90   | 32.2<br>90    | 951              | 3244    | 818      | 1.51  | 5.17     | 628 | 3.66 | 22.11  | AHAM LBP    |
| -25<br>-13   | 45<br>113     | 32<br>89.6   | 45<br>113     | 715              | 2441    | 615      | 1.16  | 3.97     | 615 | 3.60 | 19.25  | opt LBP     |

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

| pe   |      | Cooling capacity |         |          | COP   | EER      | P    | I    | m      |
|------|------|------------------|---------|----------|-------|----------|------|------|--------|
| [°C] | [°F] | [W]              | [Btu/h] | [kcal/h] | [W/W] | [Btu/Wh] | [W]  | [A]  | [kg/h] |
| -45  | -49  | 167              | 569     | 143      | 0.57  | 1.94     | 294  | 2.61 | 4.42   |
| -40  | -40  | 271              | 923     | 233      | 0.72  | 2.46     | 376  | 2.79 | 7.19   |
| -30  | -22  | 542              | 1849    | 466      | 1.01  | 3.46     | 534  | 3.29 | 14.51  |
| -20  | -4   | 918              | 3133    | 790      | 1.31  | 4.48     | 700  | 3.96 | 24.86  |
| -10  | 14   | 1425             | 4862    | 1226     | 1.59  | 5.44     | 894  | 4.80 | 39.18  |
| -5   | 23   | 1735             | 5919    | 1492     | 1.72  | 5.88     | 1008 | 5.29 | 48.16  |

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

|     |     |      |      |      |      |      |      |      |       |
|-----|-----|------|------|------|------|------|------|------|-------|
| -45 | -49 | 84   | 286  | 72   | 0.33 | 1.14 | 252  | 2.46 | 2.57  |
| -40 | -40 | 172  | 587  | 148  | 0.49 | 1.67 | 351  | 2.70 | 5.29  |
| -30 | -22 | 396  | 1352 | 341  | 0.74 | 2.52 | 537  | 3.29 | 12.29 |
| -20 | -4  | 705  | 2406 | 607  | 0.97 | 3.32 | 724  | 4.05 | 22.14 |
| -10 | 14  | 1124 | 3834 | 966  | 1.20 | 4.11 | 933  | 4.99 | 35.91 |
| -5  | 23  | 1382 | 4714 | 1188 | 1.31 | 4.48 | 1052 | 5.52 | 44.66 |