

Model

SC18CL

Sales code:

104L2123

Compressor Data

Refrigerant(s)	R404A / R452A / 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	Conf. 2
Motor configuration	CSCR	CSCR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1
Voltage range	198-254 V	198-254 V
Approvals	VDE, CCC, EAC	VDE, CCC
Starting torque	HST	HST
Refrigerant	R404A	R452A
Application	LBP+MBP	LBP+MBP
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

Application Notes

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

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Compressor Design

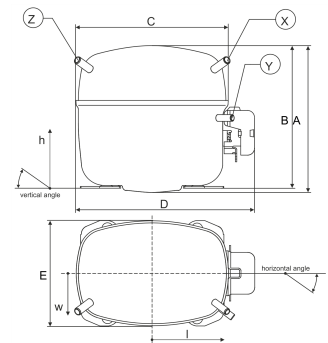
Oil type	POE	Winding resistance main	3.7 Ohm
Oil viscosity	32cSt	Winding resistance aux	14 Ohm
Oil quantity	601 / 20.32fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm ³ / 49.37fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	internal		

Compressor Dimensions

Housing

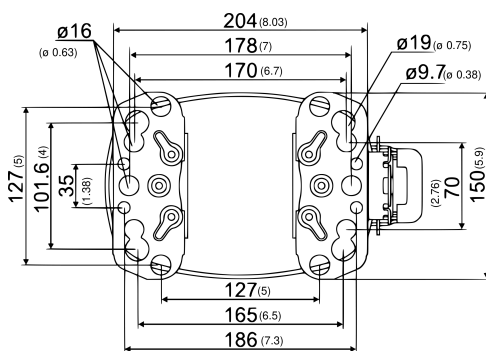
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

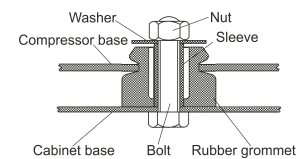


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

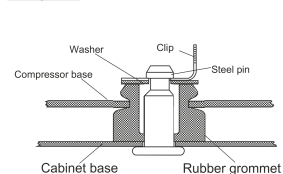
Mounting Accessories



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

Ambient/ machine room temperatures minimum /maximum

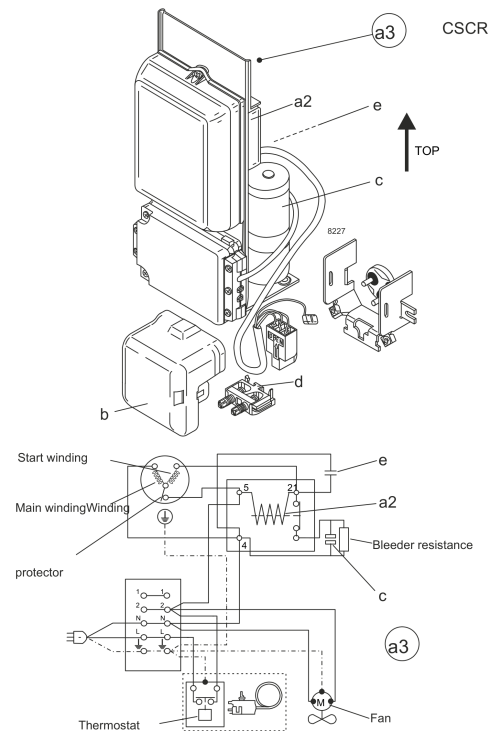
Ambient temperature range: 10 - 38°C / 50 - 100°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

a3 SC starter kit (550mm) 117-7027

b plastic cover 103N2009

d cord relief 103N1004

Alternative components

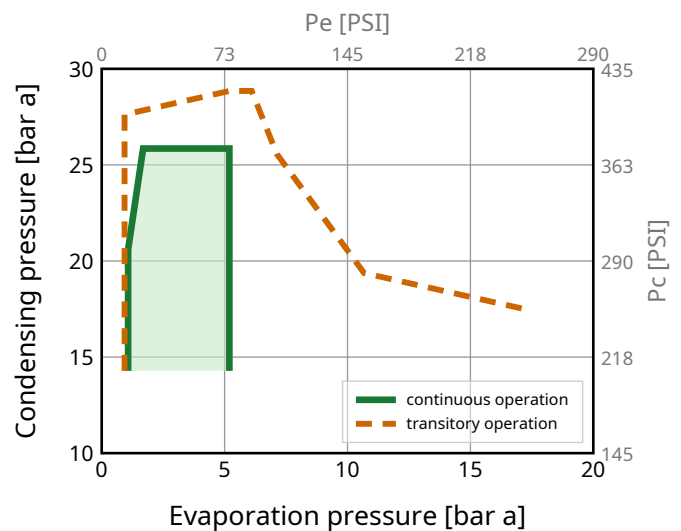
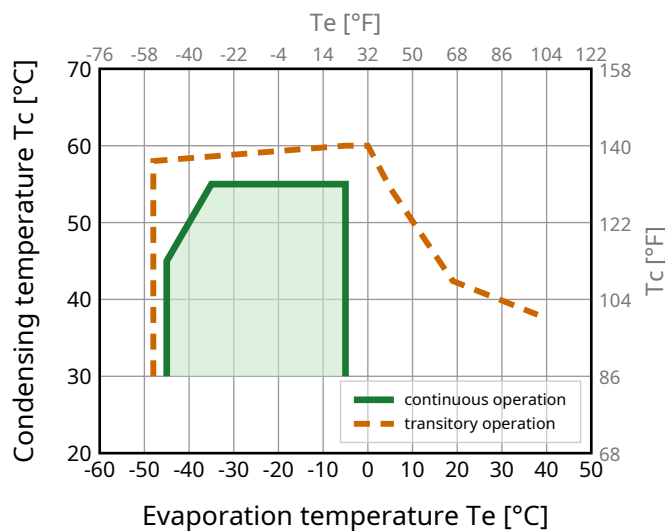
a3 SC starter kit (1000mm) 117-7040

a3 SC starter kit (650mm) 117-7046

c start capacitor (80 μ F) 117U5373

e run capacitor (10 μ F, 6.3mm) 117-7112

Operation Pressure Range



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Configuration 1

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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] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	803	2739	690	1.22	4.15	661	3.78	18.66	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	539	1838	463	0.86	2.92	629	3.65	16.80	CECOMAF LBP
-35 -31	40 104	20 68	40 104	436	1489	375	0.97	3.30	451	3.01	11.82	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1508	5145	1297	1.50	5.10	1008	5.33	41.42	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1124	3834	966	1.20	4.11	933	4.99	35.91	CECOMAF MBP
-10 14	45 113	20 68	45 113	1343	4583	1155	1.50	5.13	894	4.80	40.39	EN12900 MBP

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

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Configuration 2

Sales code:
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Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R452A
Application	LBP+MBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC
Starting device type	relay
Run capacitor	10 µF
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	20.43 A
RLA (rated load amps / 1s/ U(N))	3.9 A
Cut in current (U(N))	20.43 A

Ambient/ machine room temperatures minimum /maximum

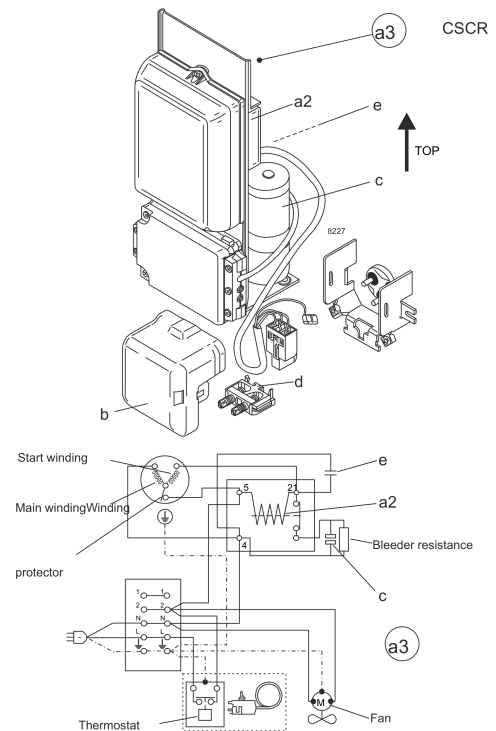
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Alternative components

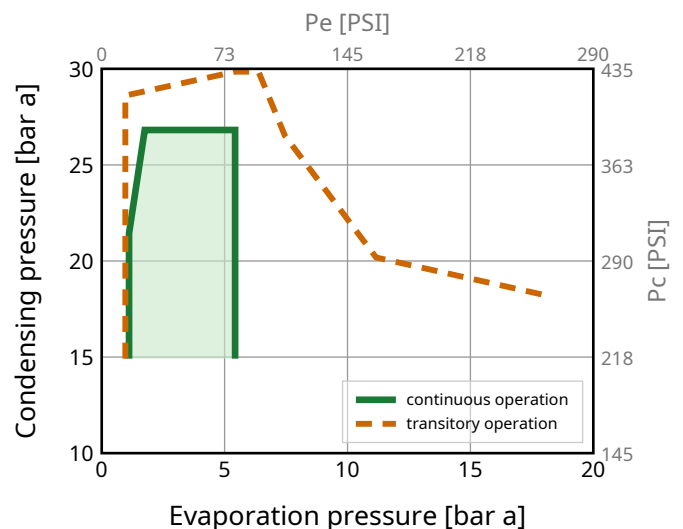
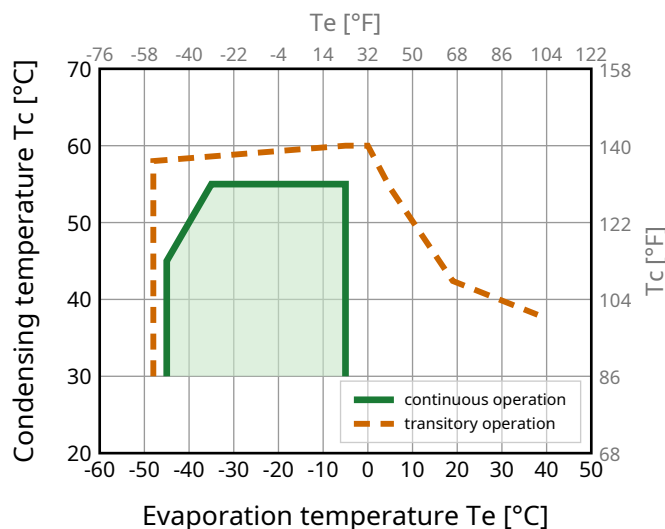
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a3 SC starter kit (650mm) 117-7046

c start capacitor (80µF) 117U5373

e run capacitor (10µF, 6.3mm) 117-7112

Operation Pressure Range



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Configuration 2

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Standard Conditions

R452A, 220 V/50 Hz, CSCR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	$\dot{m}$	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	738	2519	635	1.20	4.10	614	2.96	17.86	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	496	1693	427	0.85	2.90	583	2.83	16.01	CECOMAF LBP
-35 -31	40 104	20 68	40 104	393	1341	338	0.95	3.23	414	2.13	11.07	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1430	4881	1230	1.50	5.10	957	4.47	40.80	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1065	3634	916	1.21	4.12	882	4.11	35.20	CECOMAF MBP
-10 14	45 113	20 68	45 113	1268	4328	1091	1.50	5.12	846	3.96	39.57	EN12900 MBP

Performance Tables

R452A, 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	$\dot{m}$
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	140	478	120	0.54	1.85	258	1.38	3.86
-40	-40	238	810	204	0.70	2.39	339	1.80	6.56
-30	-22	494	1684	424	1.00	3.41	494	2.49	13.73
-20	-4	854	2912	734	1.30	4.44	656	3.14	24.00
-10	14	1344	4586	1156	1.59	5.42	846	3.96	38.38
-5	23	1647	5620	1416	1.72	5.87	958	4.48	47.48

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

-45	-49	65	221	56	0.30	1.03	214	1.26	2.05
-40	-40	148	504	127	0.47	1.62	311	1.72	4.70
-30	-22	360	1229	310	0.73	2.49	493	2.47	11.55
-20	-4	657	2241	565	0.97	3.31	676	3.20	21.34
-10	14	1065	3634	916	1.21	4.12	882	4.11	35.20
-5	23	1319	4501	1135	1.32	4.50	1000	4.69	44.09