

Model

SC21CL

Sales code:

104L2322

Compressor Data

Refrigerant(s)	R404A / R452A / R507
Refr. charge - tech. limit	1300g / 45.86oz
Weight	14.10 kg / 31.09lbs
Displacement	20.95 cm3 / 1.28cu.in
Compressors on pallet	80



General – Configurations With SC21CL

-	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	LBP
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

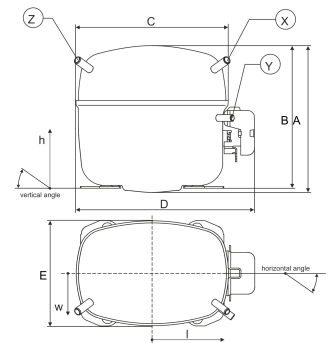
Oil type	POE	Winding resistance main	3.4 Ohm
Oil viscosity	32,5cSt	Winding resistance aux	14.4 Ohm
Oil quantity	544 / 18.39fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,410 cm ³ / 47.68fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

Compressor Dimensions

Housing

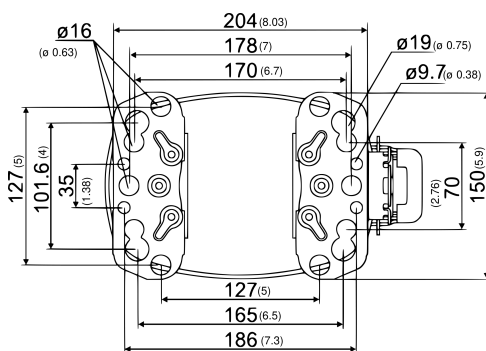
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	239mm / 9.41in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

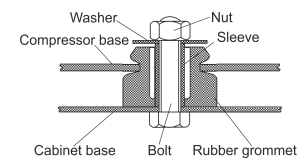


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

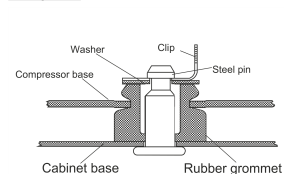
Mounting Accessories



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
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))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

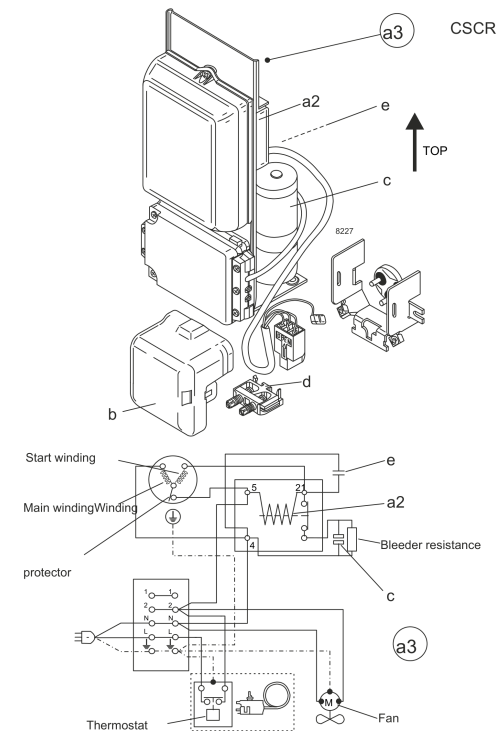
Ambient temperature range: 10 - 38°C / 50 - 100°F

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

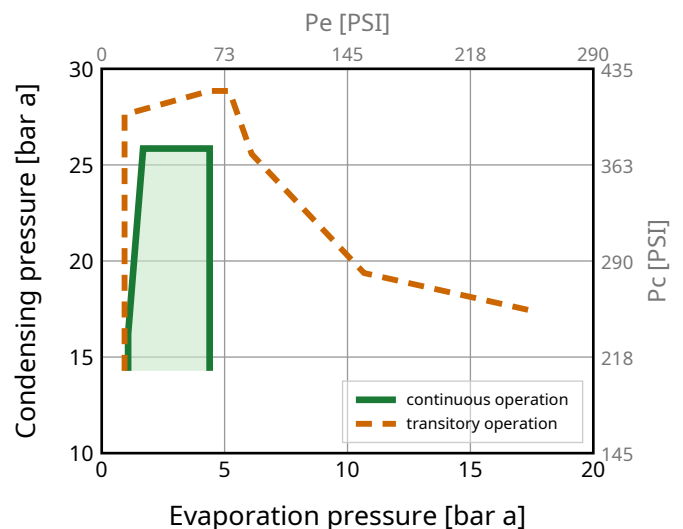
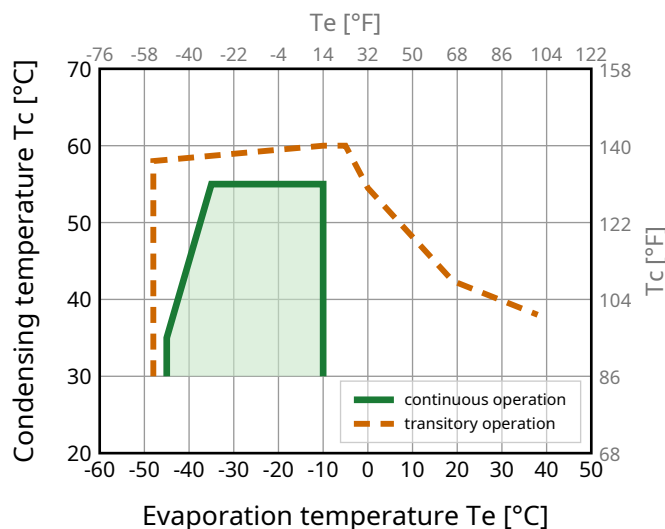
a3 SC starter kit (1000mm) 117-7040

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	905	3088	778	1.18	4.02	768	4.02	21.04	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	608	2076	523	0.83	2.82	736	3.86	18.97	CECOMAF LBP
-35 -31	40 104	20 68	40 104	509	1737	438	0.98	3.33	521	2.95	13.80	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	689	2351	592	0.92	3.14	750	3.92	24.31	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	1093	3729	940	1.53	5.23	712	3.80	25.41	AHAM LBP
-35 -31	45 113	32 89.6	45 113	455	1552	391	0.85	2.91	534	2.94	12.13	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	226	771	194	0.56	1.93	400	2.40	5.99
-40	-40	325	1108	279	0.70	2.40	462	2.63	8.63
-35	-31	455	1552	391	0.85	2.91	534	2.94	12.13
-30	-22	617	2107	531	1.00	3.43	615	3.31	16.53
-25	-13	813	2773	699	1.16	3.95	702	3.71	21.88
-20	-4	1042	3556	896	1.31	4.47	795	4.14	28.22
-15	5	1306	4457	1123	1.47	5.00	891	4.58	35.62
-10	14	1606	5481	1381	1.62	5.54	989	5.00	44.16

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

-45	-49	174	595	150	0.43	1.48	401	2.29	5.34
-40	-40	236	804	203	0.50	1.70	472	2.57	7.24
-35	-31	328	1118	282	0.59	2.02	553	2.94	10.11
-30	-22	452	1541	388	0.70	2.40	641	3.38	14.00
-25	-13	608	2076	523	0.83	2.82	736	3.86	18.97
-20	-4	799	2726	687	0.96	3.27	835	4.37	25.09
-15	5	1024	3494	881	1.09	3.73	937	4.89	32.41
-10	14	1284	4382	1105	1.24	4.21	1040	5.41	41.05

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Configuration 2

Sales code:
104L2322

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R452A
Application	LBP
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))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

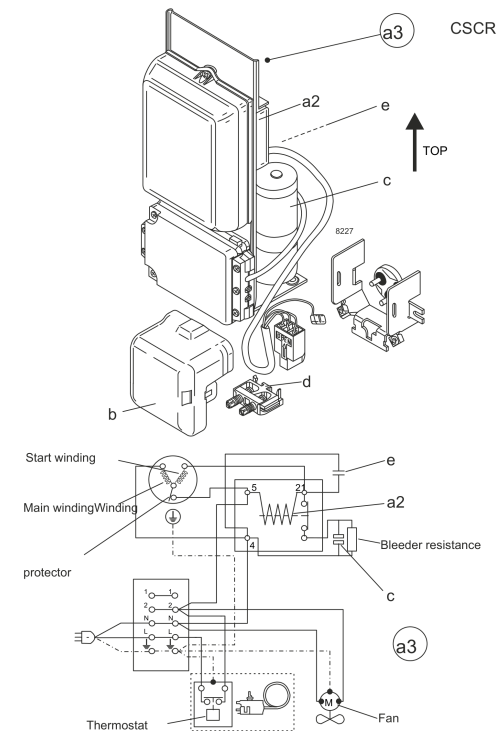
Ambient temperature range: 10 - 38°C / 50 - 100°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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a3 SC starter kit (550mm) 117-7027

b plastic cover 103N2009

d cord relief 103N1004

Alternative components

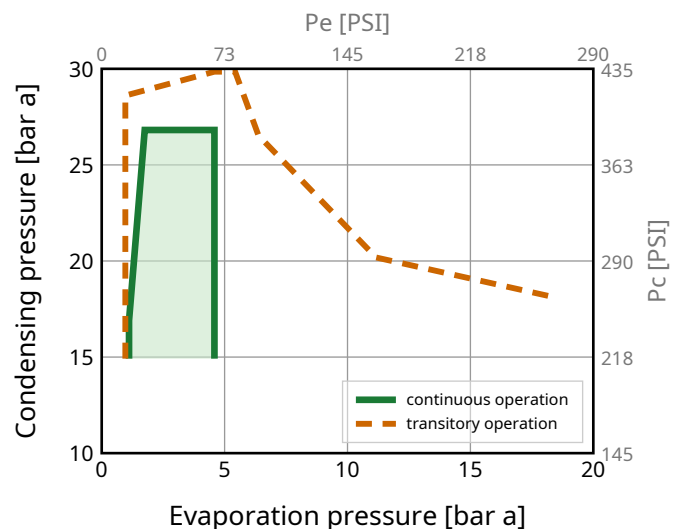
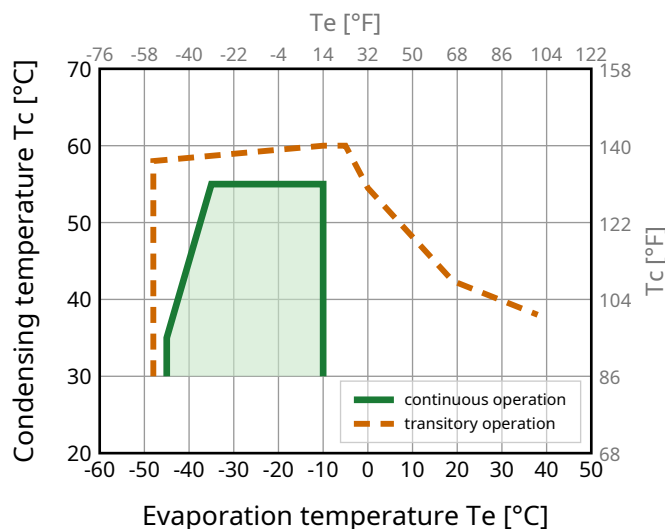
a3 SC starter kit (1000mm) 117-7040

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 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	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	832	2839	716	1.17	3.98	714	3.77	20.13	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	560	1912	482	0.82	2.80	682	3.62	18.08	CECOMAF LBP
-35 -31	40 104	20 68	40 104	459	1565	394	0.96	3.27	479	2.71	12.92	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	639	2179	549	0.91	3.12	699	3.70	23.32	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	1008	3440	867	1.51	5.17	666	3.56	24.40	AHAM LBP
-35 -31	45 113	32 89.6	45 113	408	1394	351	0.83	2.85	489	2.76	11.32	opt LBP

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	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-45	-49	194	661	167	0.54	1.86	357	2.16	5.34
-40	-40	286	976	246	0.68	2.33	418	2.44	7.90
-35	-31	408	1394	351	0.83	2.85	489	2.76	11.32
-30	-22	562	1919	484	0.99	3.38	568	3.12	15.64
-25	-13	748	2554	644	1.15	3.91	654	3.50	20.93
-20	-4	968	3305	833	1.30	4.44	745	3.91	27.24
-15	5	1224	4175	1052	1.46	4.97	840	4.34	34.65
-10	14	1515	5168	1303	1.62	5.51	937	4.78	43.24

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

-45	-49	148	505	127	0.42	1.45	348	2.12	4.69
-40	-40	205	699	176	0.49	1.67	420	2.45	6.52
-35	-31	292	996	251	0.58	1.99	500	2.81	9.32
-30	-22	410	1399	353	0.70	2.38	588	3.20	13.15
-25	-13	560	1912	482	0.82	2.80	682	3.62	18.08
-20	-4	744	2539	640	0.95	3.26	780	4.07	24.17
-15	5	963	3285	828	1.09	3.73	882	4.53	31.52
-10	14	1217	4153	1047	1.24	4.22	985	4.99	40.23