

Model

SC12CL

Sales code:

104L2623

Compressor Data

Refrigerant(s)	R404A / R452A / R507
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.10 kg / 28.88lbs
Displacement	12.87 cm3 / 0.79cu.in
Compressors on pallet	80



General – Configurations With SC12CL

-	Conf. 1	Conf. 2
Motor configuration	CSIR	CSIR
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

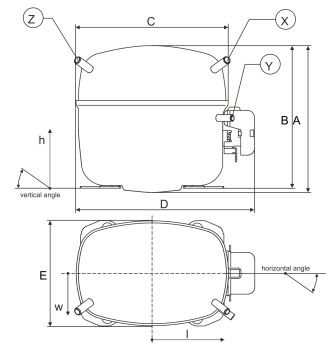
Oil type	POE	Winding resistance main	5.13 Ohm
Oil viscosity	32cSt	Winding resistance aux	13.51 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm ³ / 49.37fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

Compressor Dimensions

Housing

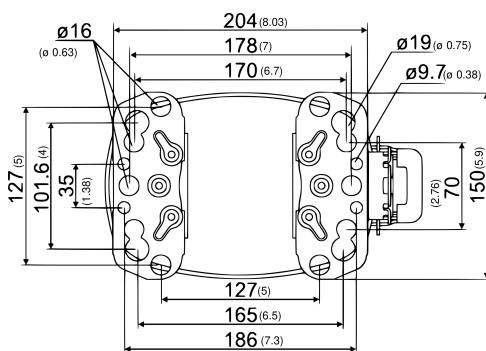
A Height	209mm / 8.23in
B Height	203mm / 7.99in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)



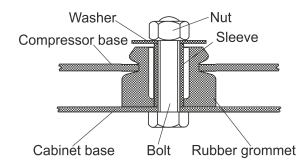
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in	-107/183/55 / -4.21/7.20/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

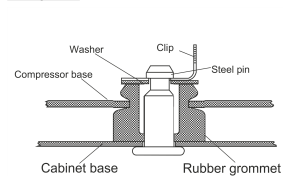


Dimensions in mm [in]

Bolt joint



Snap-on



	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	CSIR
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	-/-
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

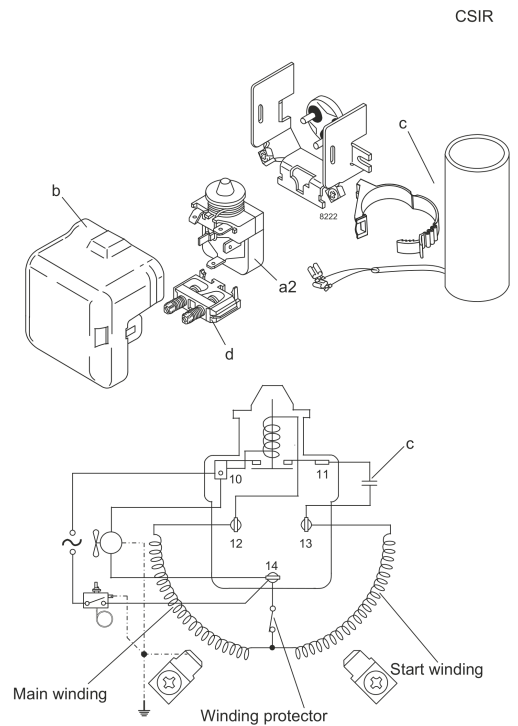
Ambient temperature range: 10 - 38°C / 50 - 100°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

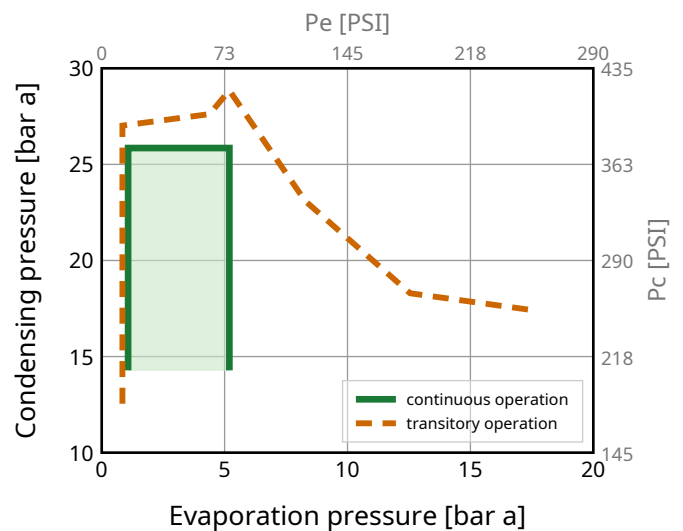
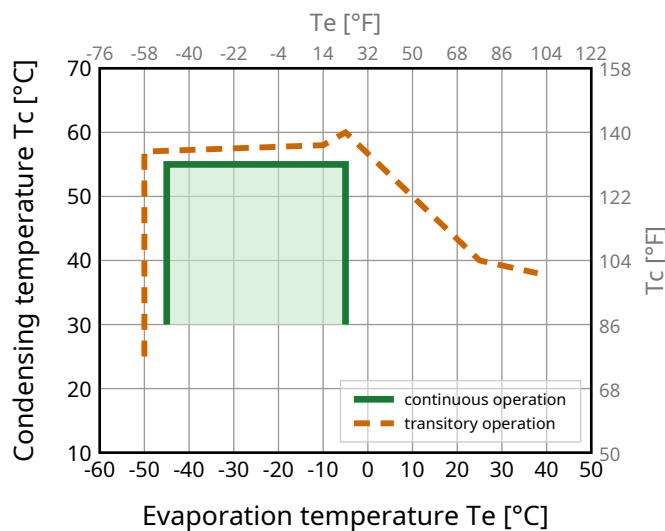
a2 relay 117U6005

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



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Configuration 1

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Standard Conditions

R404A, 220 V/50 Hz, CSIR, 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	516	1761	444	1.10	3.75	469	2.90	12.00	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	336	1146	289	0.76	2.59	443	2.80	10.47	CECOMAF LBP
-35 -31	40 104	20 68	40 104	279	953	240	0.87	2.97	322	2.43	7.57	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	412	1407	355	0.88	3.00	469	2.91	14.55	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	667	2275	573	1.44	4.92	462	2.87	15.50	AHAM LBP
-35 -31	45 113	32 89.6	45 113	239	815	205	0.76	2.58	315	2.43	6.37	opt LBP

Performance Tables

R404A, 220 V/50 Hz, CSIR, 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	78	268	67	0.41	1.40	192	2.15	2.08
-40	-40	149	507	128	0.59	2.00	253	2.27	3.95
-30	-22	351	1196	302	0.93	3.16	379	2.61	9.39
-20	-4	646	2203	555	1.26	4.31	511	3.06	17.48
-10	14	1047	3573	901	1.60	5.46	654	3.64	28.79
-5	23	1292	4408	1111	1.77	6.03	730	3.97	35.86

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

-45	-49	22	76	19	0.15	0.51	148	1.98	0.68
-40	-40	71	243	61	0.32	1.10	220	2.14	2.19
-30	-22	226	772	195	0.62	2.10	367	2.55	7.02
-20	-4	469	1600	403	0.90	3.07	521	3.08	14.72
-10	14	812	2771	698	1.19	4.05	685	3.73	25.96
-5	23	1026	3500	882	1.33	4.53	772	4.09	33.16

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Configuration 2

Sales code:
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Configuration

Motor configuration	CSIR
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	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	16.2 A
RLA (rated load amps / 1s/ U(N))	3.1 A
Cut in current (U(N))	16.2 A

Ambient/ machine room temperatures minimum /maximum

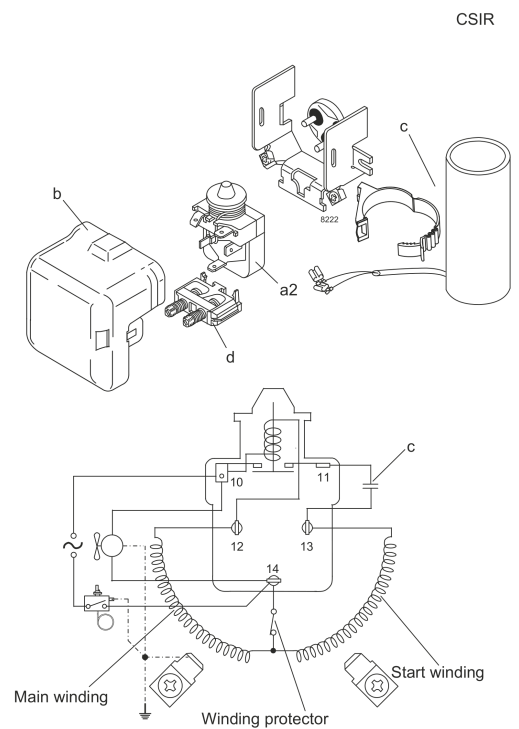
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System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



Components

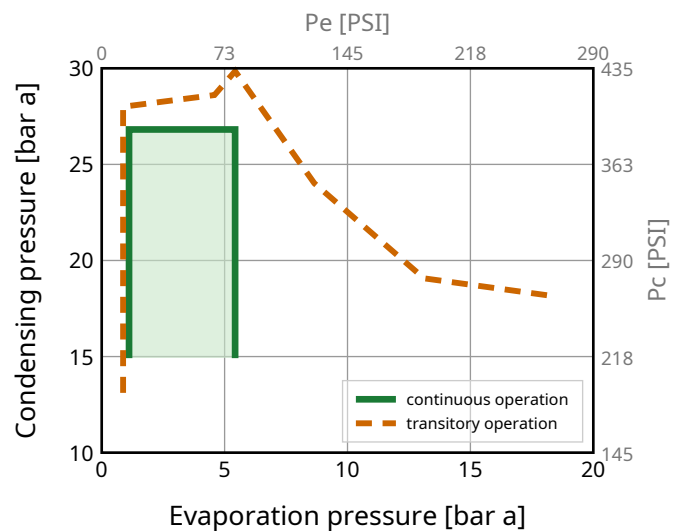
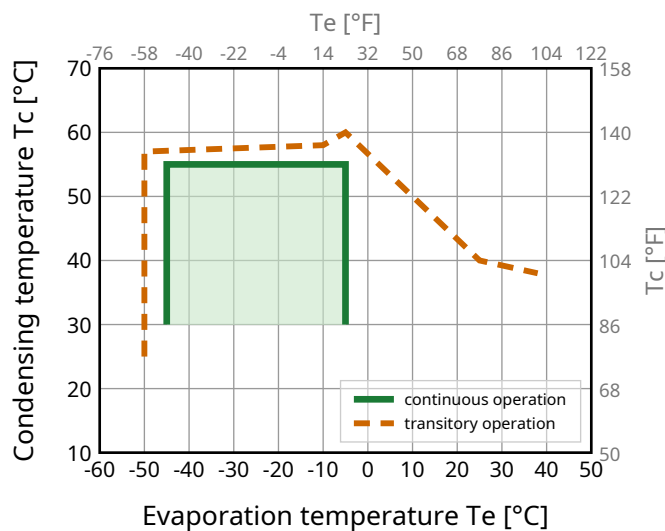
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c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



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Configuration 2

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Standard Conditions

R452A, 220 V/50 Hz, CSIR, 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	468	1597	403	1.08	3.69	433	2.88	11.33	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	305	1039	262	0.75	2.56	407	2.78	9.83	CECOMAF LBP
-35 -31	40 104	20 68	40 104	246	840	212	0.84	2.87	293	2.37	6.93	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	378	1289	325	0.87	2.97	434	2.88	13.79	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	610	2081	524	1.42	4.83	431	2.87	14.76	AHAM LBP
-35 -31	45 113	32 89.6	45 113	209	712	179	0.73	2.49	286	2.35	5.78	opt LBP

Performance Tables

R452A, 220 V/50 Hz, CSIR, 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	60	206	52	0.36	1.22	168	1.92	1.66
-40	-40	125	426	107	0.55	1.88	226	2.13	3.44
-30	-22	314	1071	270	0.90	3.08	347	2.57	8.73
-20	-4	595	2030	512	1.25	4.25	478	3.04	16.73
-10	14	983	3354	845	1.58	5.41	620	3.55	28.07
-5	23	1221	4167	1050	1.75	5.98	697	3.83	35.21

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

-45	-49	15	53	13	0.12	0.41	127	1.77	0.49
-40	-40	58	199	50	0.30	1.03	193	2.01	1.86
-30	-22	201	686	173	0.60	2.06	333	2.52	6.45
-20	-4	432	1473	371	0.89	3.05	483	3.06	14.03
-10	14	765	2609	658	1.18	4.03	647	3.65	25.27
-5	23	974	3323	837	1.32	4.52	735	3.96	32.55