

Model

SC12CL

Sales code:

104L1603

Compressor Data

Refrigerant(s)	R404A / 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
Motor configuration	CSIR
Power supply (nominal)	115 V/60 Hz
Number of phases	1
Voltage range	103-127 V
Approvals	UL
Starting torque	HST
Refrigerant	R404A
Application	LBP
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	1.000 Ohm
Oil viscosity	32cSt	Winding resistance aux	4.20 Ohm
Oil quantity	499 / 16.87fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,510 cm ³ / 51.06fl.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](#)



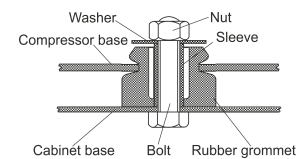
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in	-107/183/55 / -4.21/7.20/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

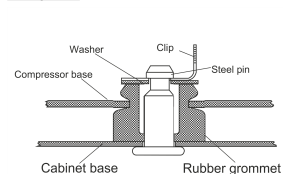


Dimensions in mm [in]

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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Motor configuration	CSIR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R404A
Application	LBP
Voltage range	103-127 V
Starting torque	HST
Approvals	UL
Starting device type	relay
Run capacitor	-/-
Start capacitor	240 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

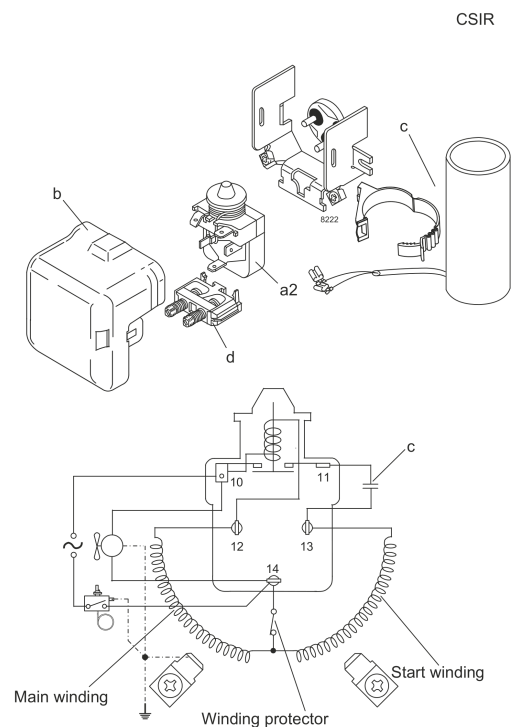
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

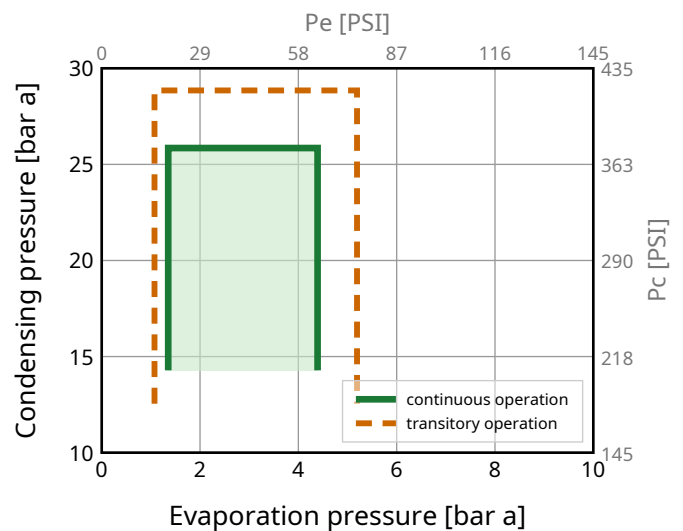
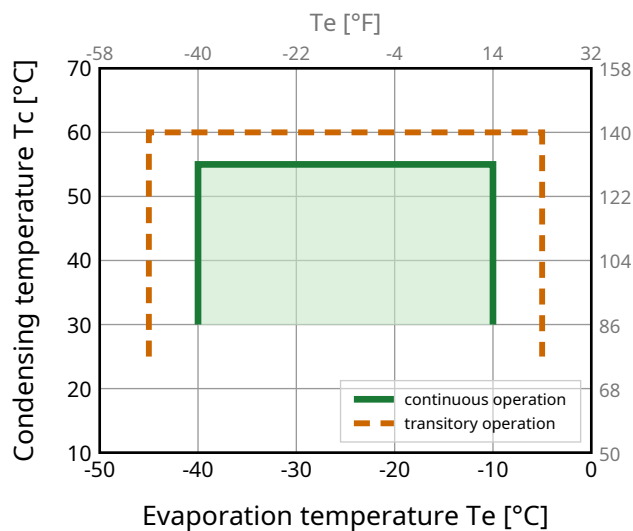
a2 relay 117U6020

c start capacitor (240µF) 117U5023

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



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Standard Conditions

R404A, 115 V/60 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	698	2382	600	1.11	3.78	630	6.84	16.23	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	462	1578	398	0.78	2.65	594	6.60	14.42	CECOMAF LBP
-35 -31	40 104	20 68	40 104	326	1113	281	0.75	2.55	437	5.74	8.84	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	516	1762	444	0.82	2.79	630	6.81	18.22	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	776	2647	667	1.24	4.24	624	6.79	18.04	AHAM LBP
-25 -13	45 113	32 89.6	45 113	590	2013	507	0.98	3.35	600	6.58	15.88	opt LBP

Performance Tables

R404A, 115 V/60 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]
-40	-40	146	499	126	0.47	1.62	308	5.26	3.89
-35	-31	282	962	242	0.68	2.30	417	5.60	7.51
-30	-22	428	1462	369	0.84	2.85	513	6.04	11.47
-25	-13	590	2013	507	0.98	3.35	600	6.58	15.88
-20	-4	770	2627	662	1.12	3.84	685	7.23	20.85
-15	5	972	3317	836	1.26	4.29	773	7.97	26.51
-10	14	1200	4095	1032	1.38	4.70	871	8.81	33.00

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

-40	-40	25	86	22	0.12	0.42	205	4.90	0.78
-35	-31	164	560	141	0.46	1.58	354	5.37	5.07
-30	-22	309	1053	265	0.64	2.18	482	5.93	9.57
-25	-13	462	1578	398	0.78	2.65	594	6.60	14.42
-20	-4	629	2147	541	0.90	3.08	696	7.37	19.76
-15	5	812	2772	699	1.02	3.49	795	8.23	25.72
-10	14	1016	3467	874	1.14	3.87	895	9.20	32.48