

Model
SC15CL

Sales code:
104L2853

Compressor Data

Refrigerant(s)	R404A / R452A / R507
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.80 kg / 30.42lbs
Displacement	15.28 cm3 / 0.93cu.in
Compressors on pallet	80



General – Configurations With SC15CL

-	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+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	3.700 Ohm
Oil viscosity	32cSt	Winding resistance aux	13.70 Ohm
Oil quantity	506 / 17.11fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,510 cm ³ / 51.06fl.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

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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

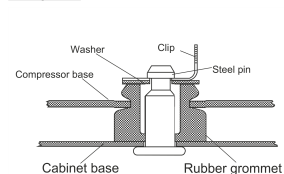
Mounting Accessories



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	CSIR
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	-/-
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

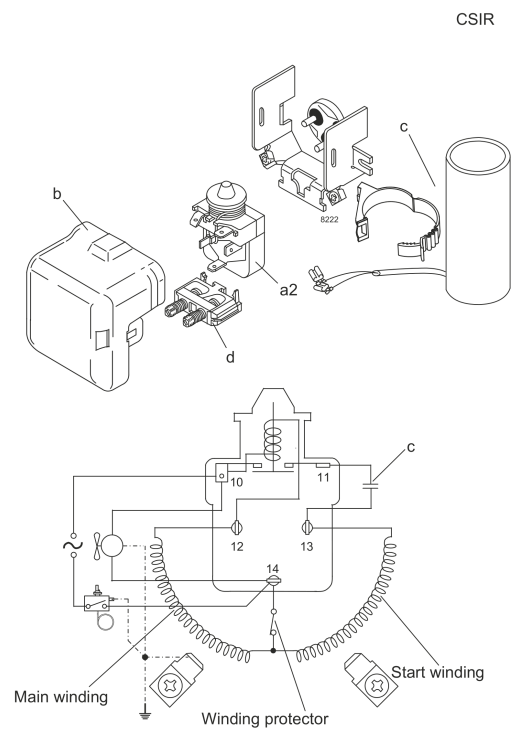
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

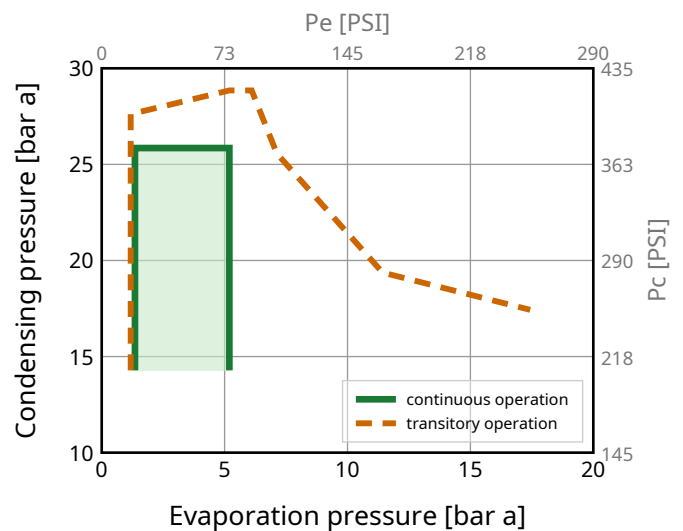
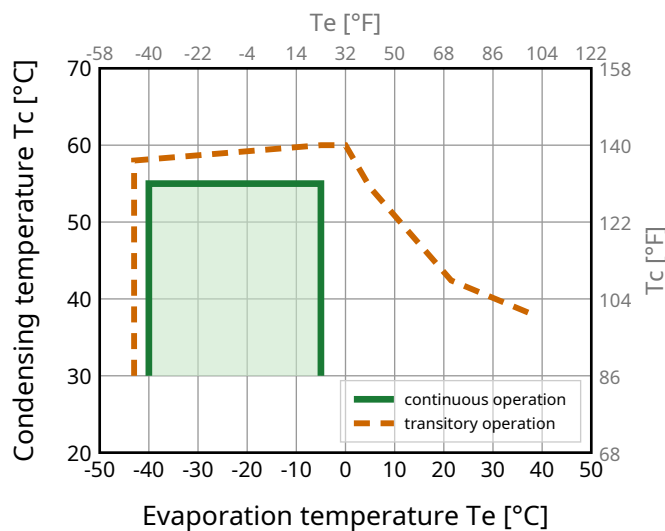
a2 relay 117U6019

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	708	2414	609	1.19	4.07	593	3.60	16.45	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	472	1611	406	0.83	2.84	567	3.50	14.72	CECOMAF LBP
-35 -31	40 104	20 68	40 104	361	1232	311	0.85	2.90	425	3.03	9.79	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1340	4571	1152	1.50	5.13	891	4.78	36.80	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	1004	3426	864	1.22	4.17	822	4.49	32.10	CECOMAF MBP
-10 14	45 113	20 68	45 113	1134	3871	976	1.45	4.94	784	4.33	34.11	EN12900 MBP

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]
-40	-40	217	739	186	0.56	1.92	385	2.92	5.76
-35	-31	329	1122	283	0.75	2.55	441	3.08	8.77
-30	-22	459	1565	394	0.93	3.16	496	3.25	12.28
-25	-13	609	2077	523	1.10	3.75	554	3.44	16.38
-20	-4	781	2665	672	1.26	4.31	619	3.67	21.15
-15	5	978	3339	842	1.41	4.81	694	3.96	26.68
-10	14	1204	4106	1035	1.53	5.24	784	4.33	33.09
-5	23	1458	4976	1254	1.64	5.58	892	4.79	40.49

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

-40	-40	106	363	92	0.31	1.06	341	2.76	3.27
-35	-31	214	730	184	0.51	1.74	419	3.01	6.60
-30	-22	335	1143	288	0.68	2.32	493	3.25	10.39
-25	-13	472	1611	406	0.83	2.84	567	3.50	14.72
-20	-4	628	2142	540	0.98	3.33	643	3.78	19.71
-15	5	804	2744	692	1.11	3.77	727	4.10	25.46
-10	14	1004	3426	864	1.22	4.17	822	4.49	32.10
-5	23	1230	4197	1058	1.32	4.51	930	4.96	39.76

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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+MBP
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))	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

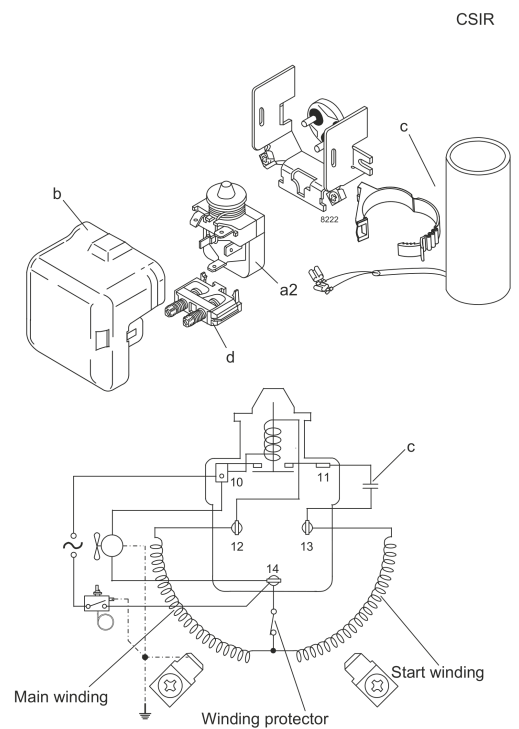
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Electrical Accessories / Wiring Diagram



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Components

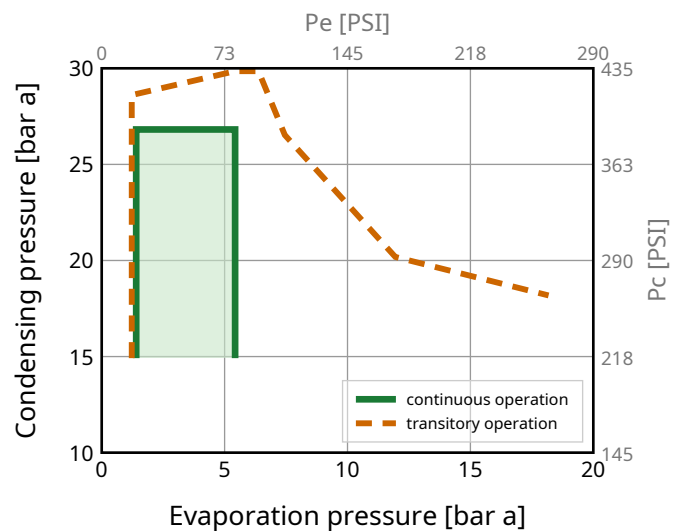
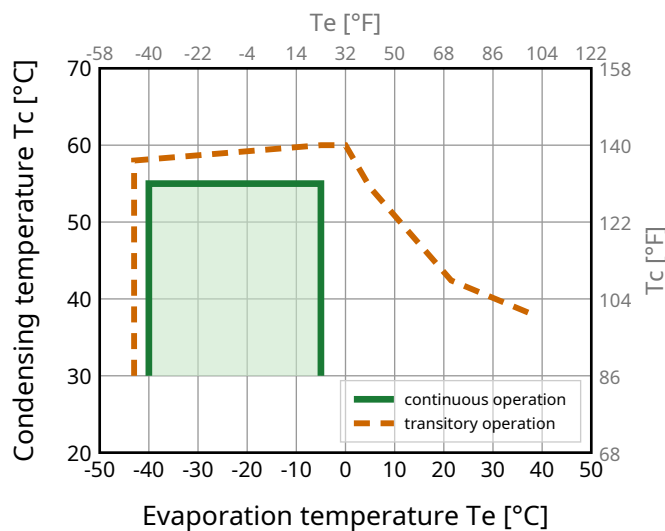
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c start capacitor (80µF) 117U5017

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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	651	2222	560	1.18	4.02	553	3.45	15.76	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	436	1486	375	0.83	2.82	526	3.36	14.05	CECOMAF LBP
-35 -31	40 104	20 68	40 104	326	1112	280	0.83	2.85	391	2.93	9.18	EN12900 LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1270	4334	1092	1.50	5.12	847	4.59	36.24	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	952	3247	818	1.22	4.17	778	4.31	31.45	CECOMAF MBP
-10 14	45 113	20 68	45 113	1071	3653	921	1.44	4.91	743	4.16	33.40	EN12900 MBP

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]
-40	-40	193	659	166	0.55	1.87	352	2.84	5.33
-35	-31	297	1013	255	0.73	2.50	405	2.98	8.22
-30	-22	418	1428	360	0.91	3.11	459	3.13	11.64
-25	-13	560	1912	482	1.09	3.71	516	3.31	15.67
-20	-4	726	2475	624	1.25	4.27	580	3.53	20.41
-15	5	916	3125	788	1.40	4.77	655	3.80	25.94
-10	14	1135	3871	976	1.53	5.21	743	4.16	32.39
-5	23	1384	4721	1190	1.63	5.56	849	4.60	39.89

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

-40	-40	94	321	81	0.30	1.04	310	2.69	3.00
-35	-31	193	658	166	0.50	1.72	384	2.91	6.16
-30	-22	306	1043	263	0.67	2.29	455	3.13	9.81
-25	-13	436	1486	375	0.83	2.82	526	3.36	14.05
-20	-4	585	1996	503	0.97	3.31	602	3.62	19.00
-15	5	756	2579	650	1.10	3.77	685	3.93	24.75
-10	14	952	3247	818	1.22	4.17	778	4.31	31.45
-5	23	1174	4006	1010	1.32	4.52	886	4.76	39.24