

Model

SC10CL

Sales code:

104L2523

Compressor Data

Refrigerant(s)	R404A / R452A / R507
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.10 kg / 28.88lbs
Displacement	10.29 cm3 / 0.63cu.in
Compressors on pallet	80



General – Configurations With SC10CL

-	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	6.900 Ohm
Oil viscosity	32cSt	Winding resistance aux	10.90 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.	130°C / 266°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

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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



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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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))	13 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	17 A

Ambient/ machine room temperatures minimum /maximum

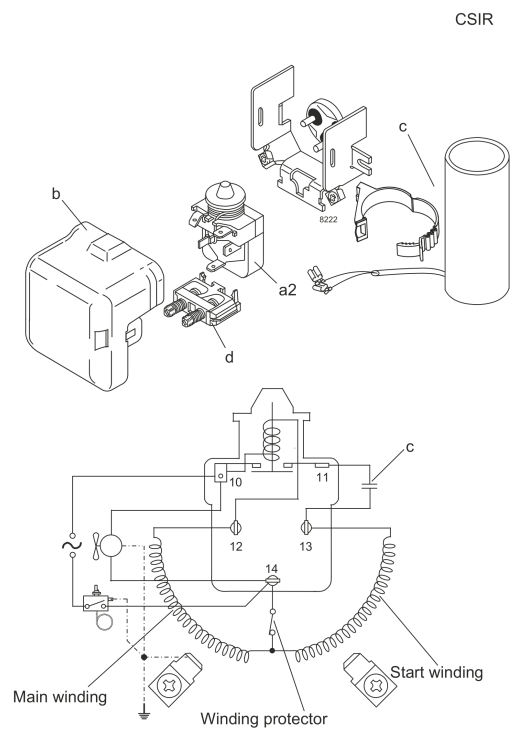
Ambient temperature range: 10 - 38°C / 50 - 100°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

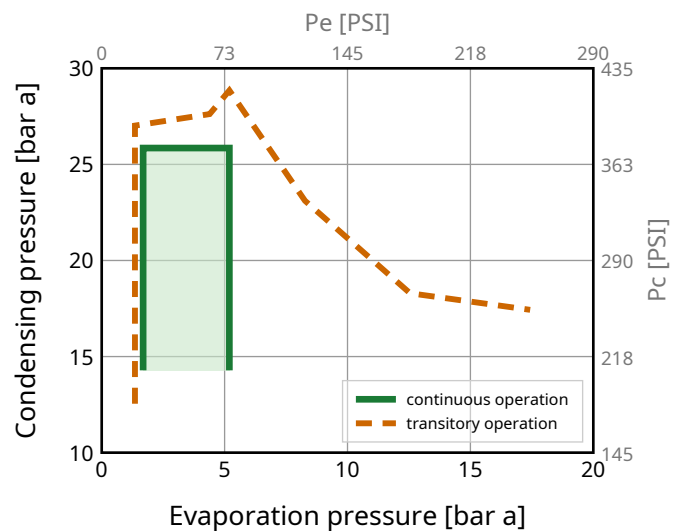
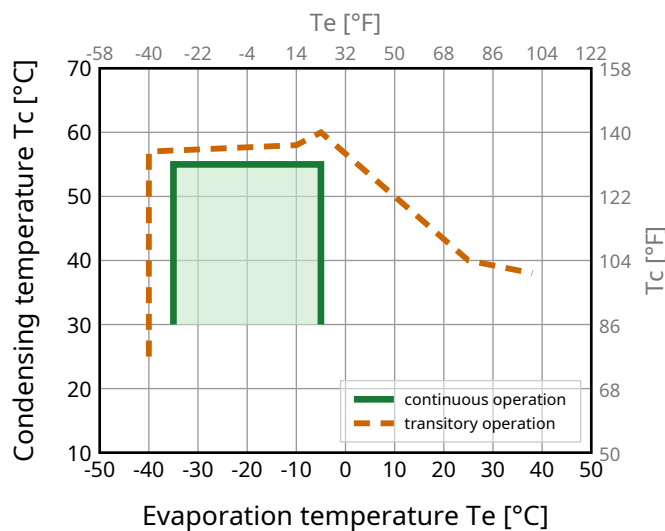
a2 assy. relay 117U6003

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	402	1370	345	1.13	3.85	356	2.28	9.33	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	261	892	225	0.79	2.68	332	2.21	8.15	CECOMAF LBP
-35 -31	40 104	20 68	40 104	197	671	169	0.79	2.69	250	1.93	5.33	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	314	1070	270	0.86	2.92	366	2.28	11.07	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	499	1703	429	1.34	4.58	371	2.26	11.60	AHAM LBP
-25 -13	45 113	32 89.6	45 113	365	1245	314	1.04	3.56	350	2.21	9.82	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]
-35	-31	168	574	145	0.69	2.36	243	1.91	4.48
-30	-22	258	882	222	0.88	3.00	294	2.06	6.92
-25	-13	365	1245	314	1.04	3.56	350	2.21	9.82
-20	-4	490	1670	421	1.19	4.07	410	2.39	13.25
-15	5	634	2163	545	1.35	4.59	471	2.59	17.29
-10	14	800	2731	688	1.51	5.16	530	2.81	22.00
-5	23	990	3380	852	1.70	5.79	584	3.04	27.50

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

-35	-31	95	325	82	0.42	1.45	225	1.84	2.94
-30	-22	172	586	148	0.63	2.14	274	2.01	5.32
-25	-13	261	892	225	0.79	2.68	332	2.21	8.15
-20	-4	366	1250	315	0.92	3.14	399	2.42	11.51
-15	5	489	1667	420	1.04	3.55	470	2.64	15.47
-10	14	630	2149	542	1.16	3.95	544	2.89	20.13
-5	23	792	2703	681	1.28	4.38	617	3.15	25.61

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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))	13 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	17 A

Ambient/ machine room temperatures minimum /maximum

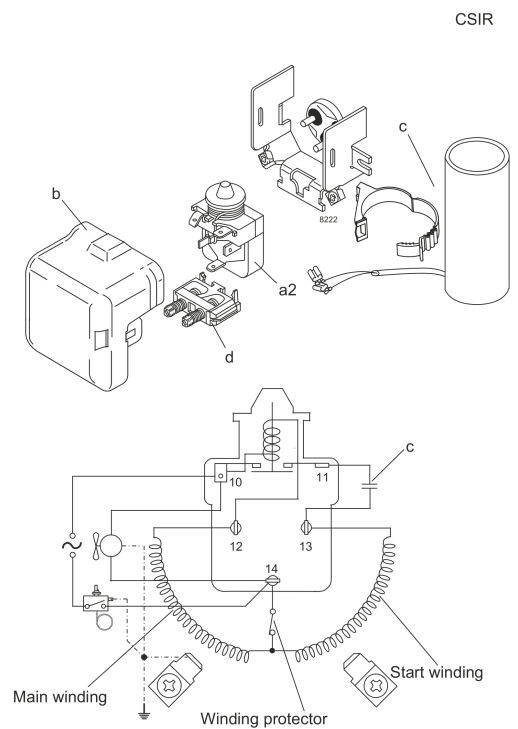
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System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

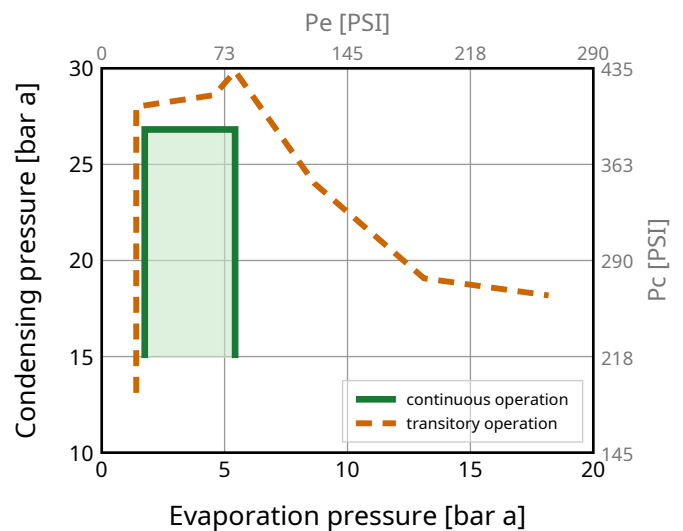
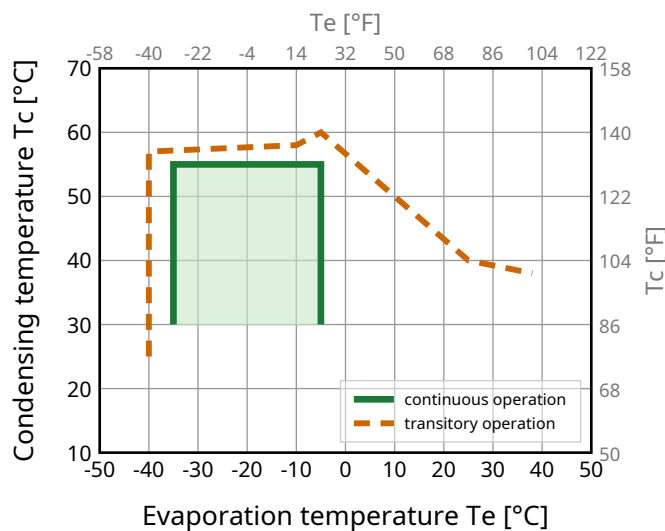
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c start capacitor (80µF) 117U5017

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	368	1257	317	1.10	3.76	334	2.20	8.92	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	240	821	207	0.77	2.63	312	2.12	7.76	CECOMAF LBP
-35 -31	40 104	20 68	40 104	177	604	152	0.76	2.59	233	1.85	4.98	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	290	991	250	0.84	2.87	345	2.24	10.60	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	460	1568	395	1.31	4.48	350	2.26	11.12	AHAM LBP
-25 -13	45 113	32 89.6	45 113	336	1145	289	1.02	3.48	330	2.19	9.38	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]
-35	-31	151	514	130	0.67	2.28	226	1.82	4.17
-30	-22	235	802	202	0.86	2.92	275	2.00	6.54
-25	-13	336	1145	289	1.02	3.48	330	2.19	9.38
-20	-4	454	1549	391	1.17	4.00	388	2.39	12.77
-15	5	593	2022	510	1.32	4.52	447	2.60	16.79
-10	14	753	2570	648	1.49	5.08	506	2.80	21.51
-5	23	938	3200	807	1.67	5.71	560	2.99	27.04

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

-35	-31	85	289	73	0.41	1.39	208	1.76	2.71
-30	-22	156	532	134	0.61	2.08	255	1.93	5.00
-25	-13	240	821	207	0.77	2.63	312	2.12	7.76
-20	-4	341	1162	293	0.91	3.09	376	2.35	11.06
-15	5	458	1564	394	1.03	3.51	446	2.59	15.01
-10	14	596	2032	512	1.15	3.92	519	2.85	19.68
-5	23	754	2573	649	1.27	4.35	592	3.11	25.21