

Model
SC12CLX.2

Sales code:
104L1696

Compressor Data

Refrigerant(s)	R404A / R452A / R507
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.20 kg / 29.10lbs
Displacement	12.87 cm3 / 0.79cu.in
Compressors on pallet	80



General – Configurations With SC12CLX.2

-	Conf. 1	Conf. 2
Motor configuration	CSIR	CSIR
Power supply (nominal)	115 V/60 Hz	115 V/60 Hz
Number of phases	1	1
Voltage range	103-127 V	103-127 V
Approvals	UL	UL
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

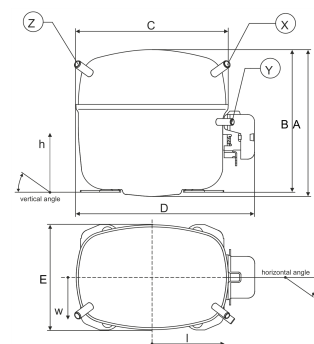
Oil type	POE	Winding resistance main	1 Ohm
Oil viscosity	32cSt	Winding resistance aux	4.2 Ohm
Oil quantity	500 / 16.91fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,510 cm ³ / 51.06fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

Compressor Dimensions

Housing

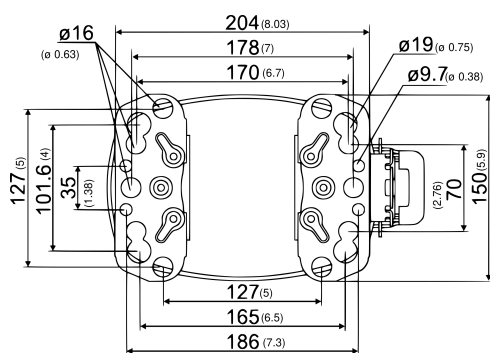
A Height	209mm / 8.23in
B Height	203mm / 7.99in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

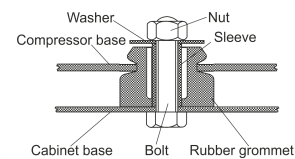


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in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

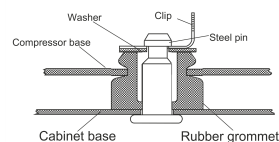
Mounting Accessories



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)	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))	39.7 A
RLA (rated load amps / 1s/ U(N))	7.6 A
Cut in current (U(N))	39.7 A

Ambient/ machine room temperatures minimum /maximum

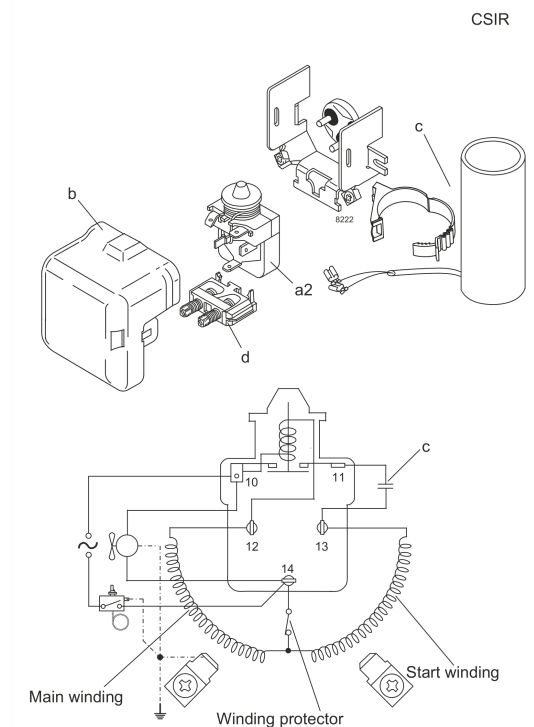
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

a2 relay 117U6020

c start capacitor (240µF) 117U5023

d cord relief 103N1004

b plastic cover 103N2008

Alternative components

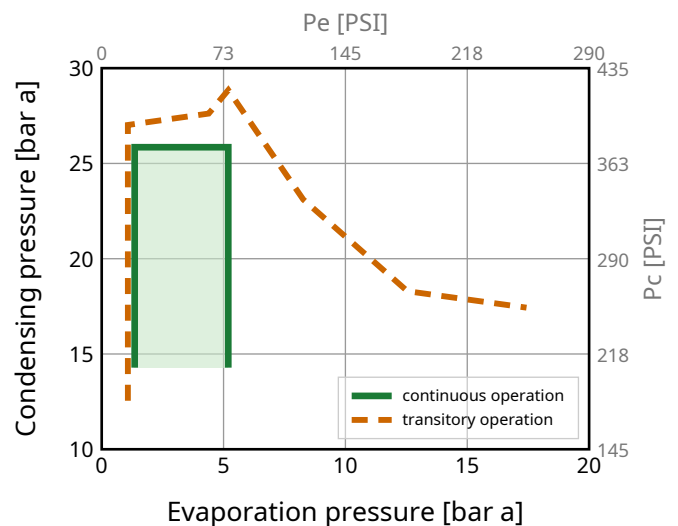
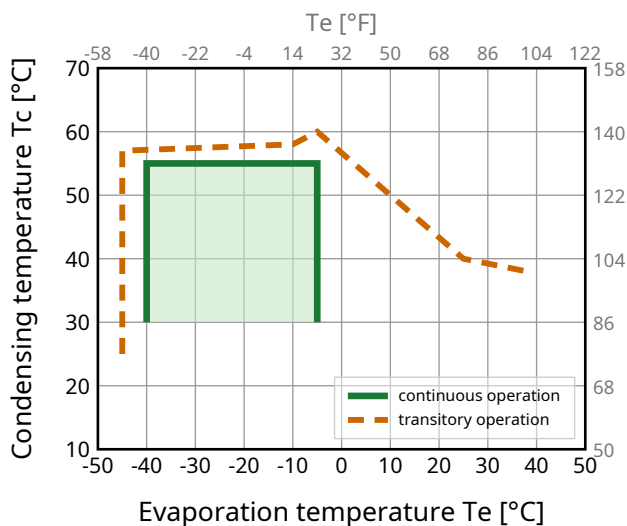
a2 relay 117U6020

c start capacitor (240µF, 15kOhm) 117U5034

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



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Configuration 1

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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	725	2474	624	1.14	3.90	635	7.21	16.86	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	486	1658	418	0.80	2.74	604	7.00	15.15	CECOMAF LBP
-35 -31	40 104	20 68	40 104	372	1269	320	0.84	2.86	444	6.10	10.08	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	540	1843	464	0.86	2.94	628	7.16	19.06	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	814	2777	700	1.33	4.52	614	7.09	18.92	AHAM LBP
-35 -31	45 113	32 89.6	45 113	334	1140	287	0.77	2.62	435	6.03	8.91	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	214	731	184	0.62	2.12	346	5.66	5.69
-35	-31	334	1140	287	0.77	2.62	435	6.03	8.91
-30	-22	469	1601	404	0.91	3.10	517	6.46	12.57
-25	-13	623	2125	536	1.05	3.57	595	6.95	16.76
-20	-4	798	2721	686	1.18	4.04	674	7.50	21.60
-15	5	997	3402	858	1.32	4.50	756	8.10	27.19
-10	14	1225	4178	1053	1.45	4.94	845	8.76	33.67
-5	23	1483	5060	1275	1.57	5.35	945	9.48	41.17

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

-40	-40	108	370	93	0.38	1.29	287	5.43	3.33
-35	-31	223	760	191	0.55	1.88	403	5.89	6.87
-30	-22	347	1185	299	0.68	2.33	508	6.42	10.77
-25	-13	486	1658	418	0.80	2.74	604	7.00	15.15
-20	-4	641	2188	552	0.92	3.14	696	7.64	20.14
-15	5	817	2787	703	1.04	3.54	788	8.34	25.86
-10	14	1016	3465	873	1.15	3.93	882	9.09	32.46
-5	23	1241	4234	1067	1.26	4.31	983	9.91	40.11

Model

SC12CLX.2

Configuration 2

Sales code:

104L1696

Configuration

Motor configuration	CSIR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R452A
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))	39.7 A
RLA (rated load amps / 1s/ U(N))	7.6 A
Cut in current (U(N))	39.7 A

Ambient/ machine room temperatures minimum /maximum

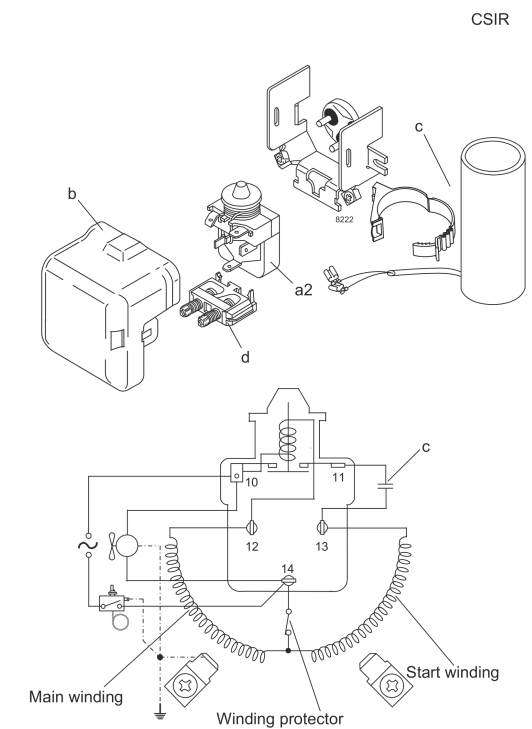
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

Alternative components

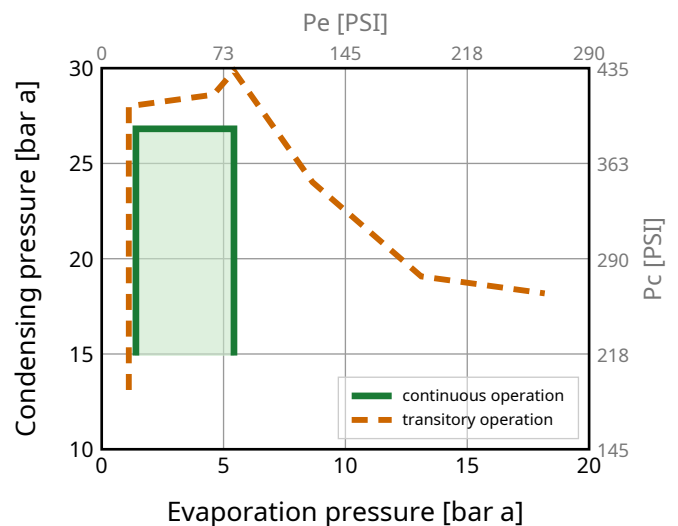
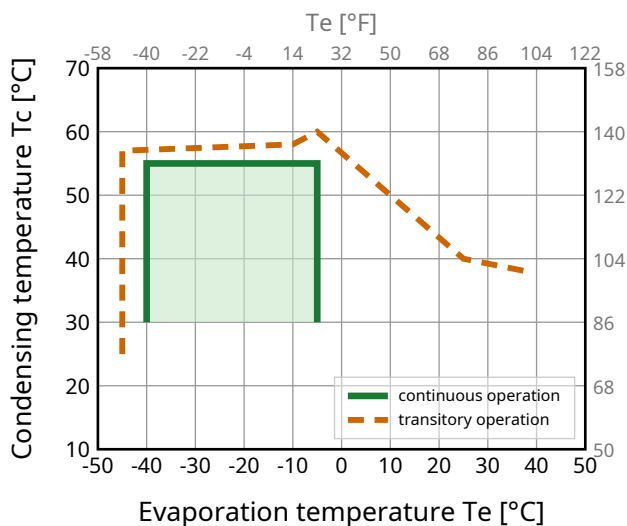
a2 relay 117U6020

c start capacitor (240µF, 15kOhm) 117U5034

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



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Configuration 2

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Standard Conditions

R452A, 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	667	2276	574	1.14	3.87	588	6.99	16.14	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	448	1528	385	0.80	2.74	557	6.79	14.45	CECOMAF LBP
-35 -31	40 104	20 68	40 104	335	1143	288	0.83	2.82	406	5.76	9.44	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	501	1709	431	0.86	2.93	582	6.96	18.29	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	751	2561	646	1.31	4.49	571	6.88	18.16	AHAM LBP
-35 -31	45 113	32 89.6	45 113	300	1024	258	0.76	2.59	396	5.69	8.32	opt LBP

Performance Tables

R452A, 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	188	641	162	0.60	2.06	311	5.11	5.19
-35	-31	300	1024	258	0.76	2.59	396	5.69	8.32
-30	-22	428	1459	368	0.90	3.07	475	6.23	11.90
-25	-13	574	1957	493	1.04	3.55	552	6.75	16.04
-20	-4	741	2529	638	1.18	4.02	629	7.27	20.85
-15	5	934	3187	803	1.32	4.49	709	7.82	26.45
-10	14	1155	3942	993	1.45	4.94	797	8.42	32.98
-5	23	1408	4805	1211	1.57	5.36	896	9.09	40.59

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

-40	-40	91	310	78	0.36	1.23	253	4.71	2.89
-35	-31	198	675	170	0.55	1.86	363	5.47	6.32
-30	-22	316	1078	272	0.68	2.32	464	6.15	10.13
-25	-13	448	1528	385	0.80	2.74	557	6.79	14.45
-20	-4	598	2039	514	0.92	3.15	648	7.40	19.41
-15	5	768	2621	661	1.04	3.55	738	8.01	25.15
-10	14	963	3285	828	1.16	3.95	831	8.65	31.82
-5	23	1185	4044	1019	1.27	4.34	931	9.33	39.61