

Model
SC12CLX.2

Sales code:
104L2697

Compressor Data

Refrigerant(s)	R404A / R452A / R507
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.70 kg / 30.20lbs
Displacement	12.87 cm3 / 0.79cu.in
Compressors on pallet	80



General – Configurations With SC12CLX.2

-	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	208-230 V/60 Hz	220-240 V/50 Hz	208-230 V/50 Hz
Number of phases	1	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V	198-254 V
Approvals	UL, VDE, CCC, KC, EAC	UL, VDE, CCC, KC, EAC	UL, VDE, CCC, KC, EAC	UL, VDE, CCC, KC, EAC
Starting torque	HST	HST	HST	HST
Refrigerant	R404A	R404A	R452A	R452A
Application	LBP	LBP	LBP	LBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

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Compressor Design

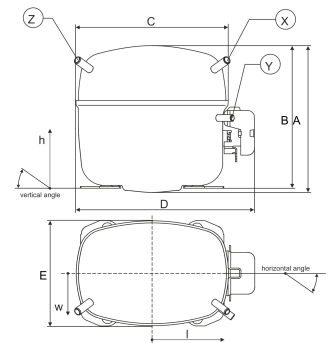
Oil type	POE	Winding resistance main	3.7 Ohm
Oil viscosity	32cSt	Winding resistance aux	14 Ohm
Oil quantity	500 / 16.91fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,510 cm ³ / 51.06fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

Compressor Dimensions

Housing

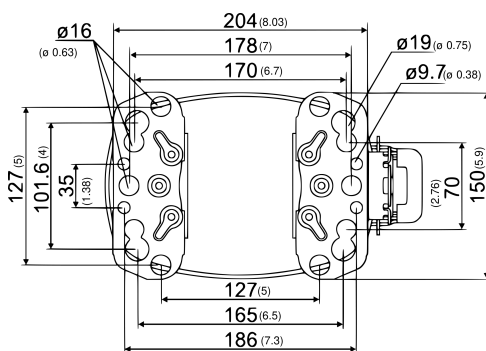
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

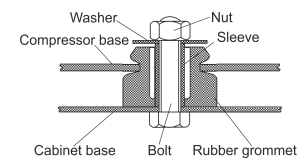


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

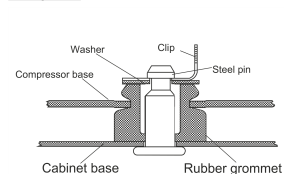
Mounting Accessories



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

Model

SC12CLX.2

Configuration 1

Sales code:

104L2697

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	UL, VDE, CCC, KC, 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

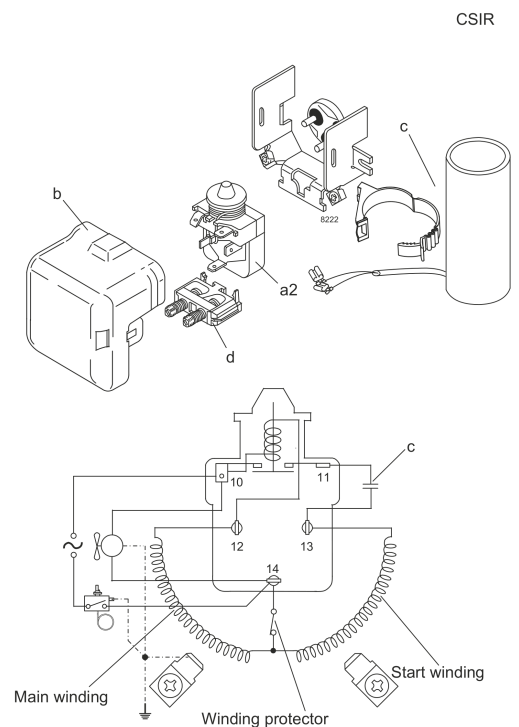
Ambient temperature range: 10 - 38°C / 50 - 100°F

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 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Alternative components

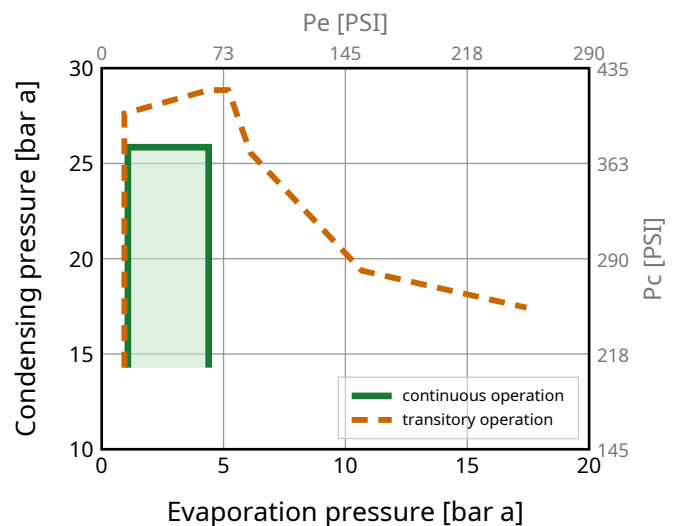
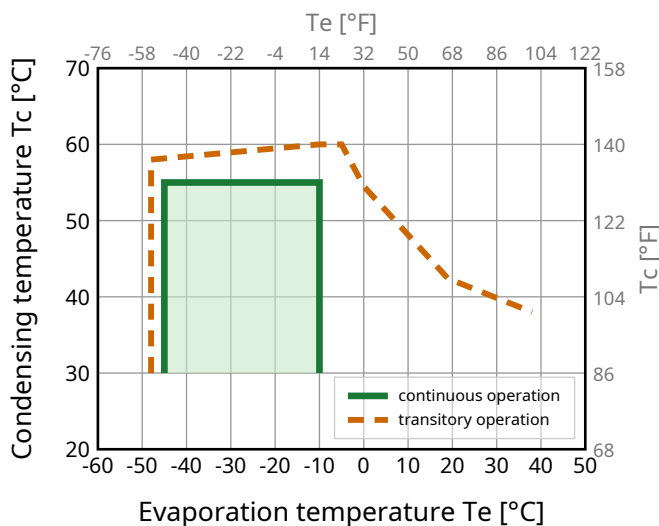
a2 relay 117U6019

c start capacitor i-pack 40# (80µF) 117U5067

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



Model
SC12CLX.2

Configuration 1

Sales code:
104L2697

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	593	2025	510	1.15	3.92	516	3.35	13.79	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	398	1360	343	0.81	2.75	495	3.28	12.43	CECOMAF LBP
-35 -31	40 104	20 68	40 104	322	1097	277	0.89	3.03	363	3.02	8.72	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	449	1533	386	0.89	3.05	503	3.35	15.85	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	686	2339	590	1.41	4.81	486	3.33	15.94	AHAM LBP
-35 -31	45 113	32 89.6	45 113	294	1002	253	0.81	2.75	364	3.00	7.83	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	130	444	112	0.51	1.75	253	2.77	3.45
-40	-40	205	699	176	0.66	2.26	310	2.88	5.45
-35	-31	294	1002	253	0.81	2.75	364	3.00	7.83
-30	-22	399	1360	343	0.95	3.24	420	3.13	10.68
-25	-13	522	1782	449	1.10	3.75	476	3.29	14.05
-20	-4	666	2274	573	1.25	4.26	533	3.46	18.04
-15	5	834	2844	717	1.40	4.78	594	3.65	22.73
-10	14	1026	3500	882	1.56	5.31	659	3.86	28.20

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

-45	-49	62	213	54	0.27	0.92	230	2.64	1.91
-40	-40	128	436	110	0.43	1.46	299	2.78	3.92
-35	-31	204	696	176	0.56	1.91	365	2.93	6.29
-30	-22	294	1001	252	0.68	2.33	430	3.10	9.10
-25	-13	398	1360	343	0.81	2.75	495	3.28	12.43
-20	-4	521	1778	448	0.93	3.17	561	3.48	16.36
-15	5	663	2264	571	1.05	3.60	629	3.71	21.00
-10	14	828	2825	712	1.18	4.04	700	3.94	26.46

Model

SC12CLX.2

Configuration 2

Sales code:

104L2697

Configuration

Motor configuration	CSIR
Power supply (nominal)	208-230 V/60 Hz 1~
Refrigerant	R404A
Application	LBP
Voltage range	198-254 V
Starting torque	HST
Approvals	UL, VDE, CCC, KC, 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

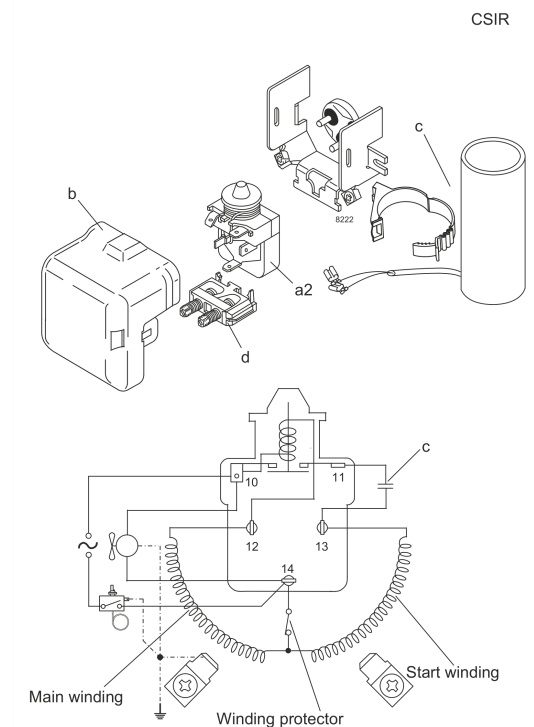
Ambient temperature range: 10 - 38°C / 50 - 100°F

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 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Alternative components

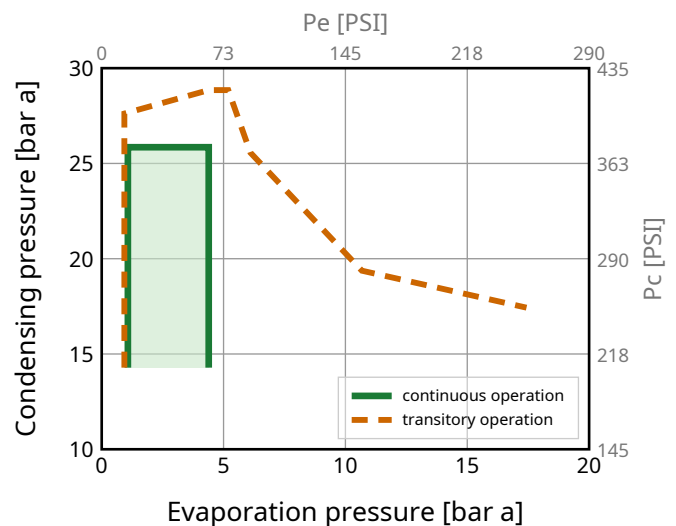
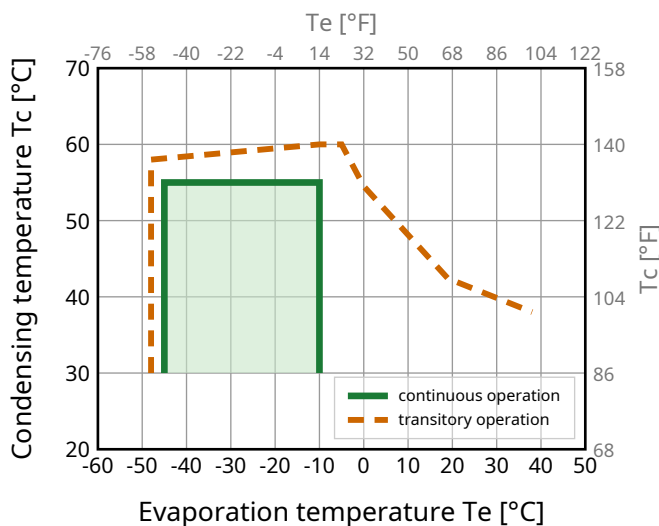
a2 relay 117U6019

c start capacitor i-pack 40# (80µF) 117U5067

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



Model
SC12CLX.2

Configuration 2

Sales code:
104L2697

Standard Conditions

R404A, 220 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	707	2412	608	1.19	4.07	592	3.09	16.43	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	473	1613	406	0.84	2.85	566	3.00	14.74	CECOMAF LBP
-35 -31	40 104	20 68	40 104	379	1292	326	0.96	3.27	396	2.62	10.26	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	538	1836	463	0.93	3.19	576	3.10	18.99	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	826	2817	710	1.49	5.08	554	3.07	19.19	AHAM LBP
-35 -31	45 113	32 89.6	45 113	343	1171	295	0.86	2.94	398	2.60	9.15	opt LBP

Performance Tables

R404A, 220 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]
-45	-49	141	481	121	0.55	1.89	255	2.28	3.74
-40	-40	233	796	201	0.71	2.43	327	2.43	6.20
-35	-31	343	1171	295	0.86	2.94	398	2.60	9.15
-30	-22	473	1614	407	1.01	3.44	469	2.79	12.66
-25	-13	626	2135	538	1.16	3.95	541	3.01	16.84
-20	-4	804	2743	691	1.31	4.46	615	3.25	21.77
-15	5	1010	3448	869	1.46	4.97	693	3.52	27.55
-10	14	1248	4259	1074	1.61	5.48	777	3.81	34.32

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

-45	-49	57	195	49	0.25	0.86	226	2.10	1.75
-40	-40	138	471	119	0.44	1.50	314	2.29	4.24
-35	-31	232	793	200	0.58	1.99	398	2.50	7.17
-30	-22	343	1170	295	0.71	2.43	482	2.74	10.63
-25	-13	473	1613	406	0.84	2.85	566	3.00	14.74
-20	-4	624	2129	537	0.96	3.28	650	3.28	19.60
-15	5	800	2730	688	1.08	3.70	738	3.59	25.33
-10	14	1004	3425	863	1.21	4.13	829	3.92	32.08

Model

SC12CLX.2

Configuration 3

Sales code:

104L2697

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	UL, VDE, CCC, KC, 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

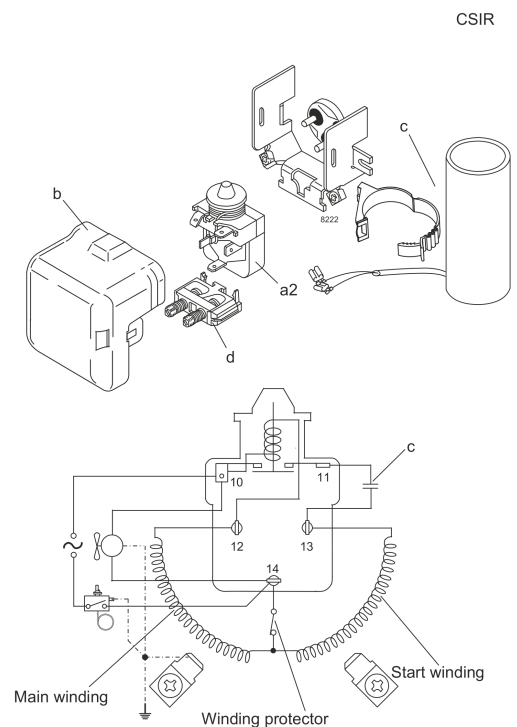
Ambient temperature range: 10 - 38°C / 50 - 100°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

a2 relay 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Alternative components

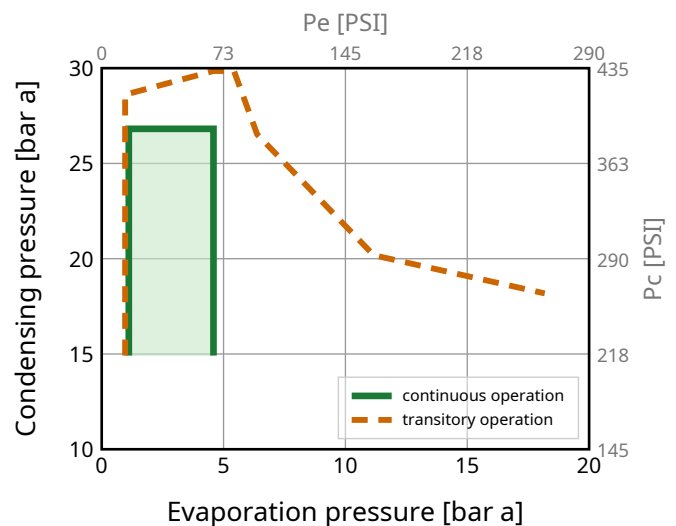
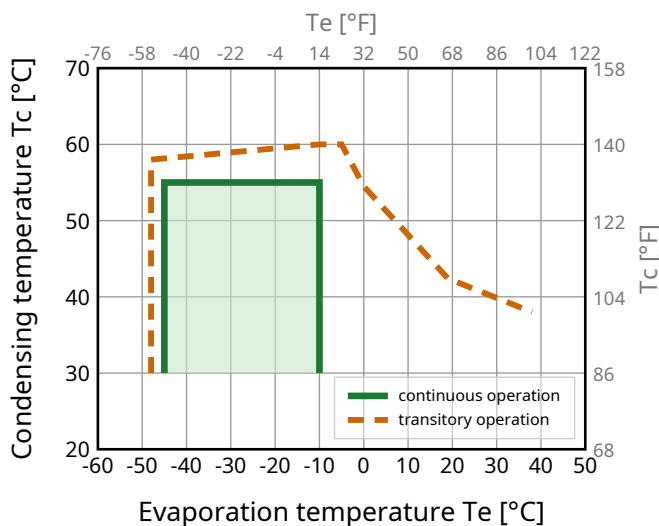
a2 relay 117U6019

c start capacitor i-pack 40# (80µF) 117U5067

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



Model
SC12CLX.2

Configuration 3

Sales code:
104L2697

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	546	1863	469	1.14	3.89	478	3.32	13.21	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	367	1253	316	0.80	2.74	457	3.25	11.85	CECOMAF LBP
-35 -31	40 104	20 68	40 104	290	989	249	0.88	2.99	331	2.88	8.17	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	417	1422	358	0.89	3.04	468	3.28	15.21	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	632	2157	544	1.40	4.76	453	3.24	15.30	AHAM LBP
-35 -31	45 113	32 89.6	45 113	264	901	227	0.80	2.72	332	2.88	7.32	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	111	378	95	0.50	1.71	221	2.54	3.05
-40	-40	181	617	155	0.65	2.22	277	2.71	4.99
-35	-31	264	901	227	0.80	2.72	332	2.88	7.32
-30	-22	363	1240	313	0.94	3.21	386	3.04	10.11
-25	-13	481	1641	414	1.09	3.72	442	3.21	13.45
-20	-4	619	2113	533	1.24	4.23	499	3.38	17.41
-15	5	780	2663	671	1.40	4.76	559	3.56	22.10
-10	14	967	3300	832	1.55	5.29	624	3.75	27.62

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

-45	-49	49	168	42	0.25	0.86	195	2.47	1.56
-40	-40	110	377	95	0.42	1.43	263	2.67	3.51
-35	-31	182	622	157	0.56	1.89	328	2.87	5.82
-30	-22	267	911	230	0.68	2.32	393	3.06	8.57
-25	-13	367	1253	316	0.80	2.74	457	3.25	11.85
-20	-4	485	1656	417	0.93	3.17	523	3.45	15.77
-15	5	624	2128	536	1.06	3.60	591	3.65	20.42
-10	14	785	2678	675	1.19	4.05	662	3.87	25.94

Model

SC12CLX.2

Configuration 4

Sales code:

104L2697

Configuration

Motor configuration	CSIR
Power supply (nominal)	208-230 V/50 Hz 1~
Refrigerant	R452A
Application	LBP
Voltage range	198-254 V
Starting torque	HST
Approvals	UL, VDE, CCC, KC, 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

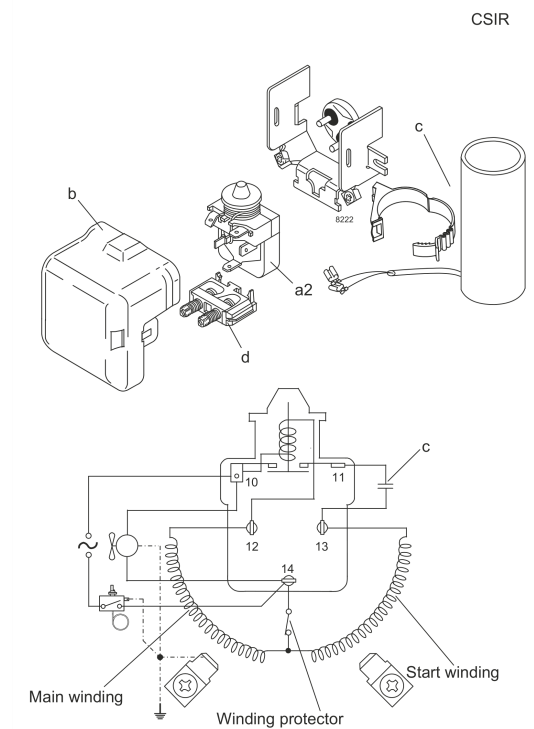
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Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

a2 relay 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Alternative components

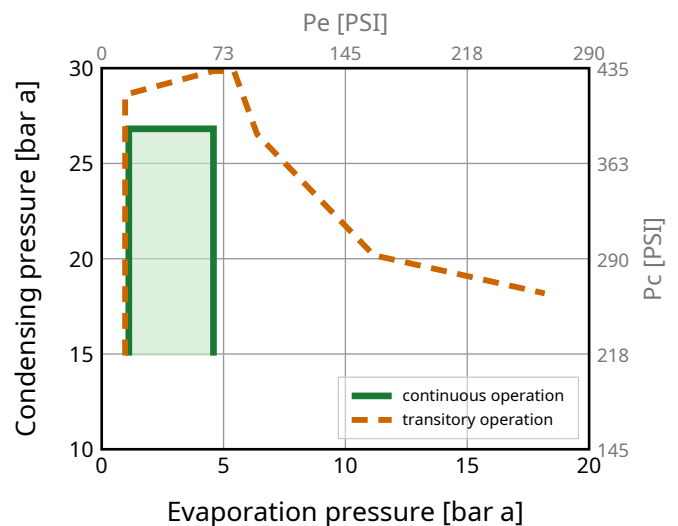
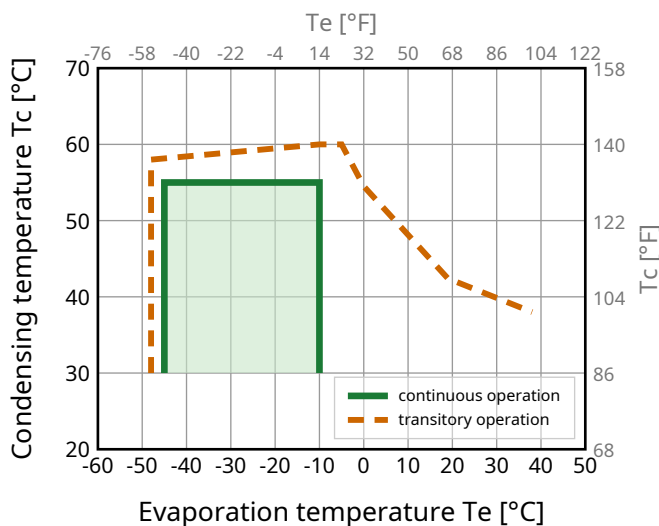
a2 relay 117U6019

c start capacitor i-pack 40# (80µF) 117U5067

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



Model
SC12CLX.2

Configuration 4

Sales code:
104L2697

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	650	2216	559	1.18	4.02	552	3.09	15.72	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	435	1485	374	0.83	2.83	525	3.00	14.04	CECOMAF LBP
-35 -31	40 104	20 68	40 104	341	1163	293	0.94	3.19	364	2.47	9.60	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	498	1701	429	0.93	3.16	538	3.04	18.19	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	760	2594	654	1.47	5.00	519	2.98	18.40	AHAM LBP
-35 -31	45 113	32 89.6	45 113	308	1051	265	0.84	2.88	365	2.47	8.54	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	120	408	103	0.53	1.79	227	2.01	3.29
-40	-40	205	701	177	0.69	2.36	297	2.24	5.67
-35	-31	308	1051	265	0.84	2.88	365	2.47	8.54
-30	-22	430	1469	370	0.99	3.38	434	2.70	11.98
-25	-13	576	1964	495	1.14	3.89	504	2.93	16.09
-20	-4	746	2545	642	1.29	4.41	578	3.17	20.98
-15	5	945	3224	813	1.44	4.92	655	3.43	26.76
-10	14	1175	4010	1011	1.59	5.43	738	3.70	33.56

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

-45	-49	44	151	38	0.23	0.77	195	1.91	1.40
-40	-40	119	406	102	0.43	1.45	280	2.19	3.79
-35	-31	207	707	178	0.57	1.95	362	2.46	6.61
-30	-22	312	1063	268	0.70	2.40	443	2.73	9.99
-25	-13	435	1485	374	0.83	2.83	525	3.00	14.04
-20	-4	581	1981	499	0.95	3.26	609	3.27	18.86
-15	5	751	2563	646	1.08	3.68	696	3.56	24.59
-10	14	950	3240	817	1.21	4.12	787	3.86	31.39