

Model

Designation	SC12CLX.2	220-240V/50Hz 1~	220-240V/60Hz 1~	Sales code:	104L2697
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R404A, R452A, R507
Oil viscosity	32cST	Displacement	12,87cm ³ / 0,79cu.in
Oil quantity	494cm ³ / 16,7fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1510cm ³ / 51,1fl.oz		
Weight	13,7kg / 30,2lbs		
Motor protection	1# internal		
Winding resistance main	3,7Ω (at 25°C)		
Winding resistance aux	14Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with SC12CLX.2

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motorconfiguration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	198-254V	198-254V	198-254V	198-254V
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
Note	- / -			

Applications with SC12CLX.2

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R404A	R404A	R452A	R452A
Application	LBP	LBP	LBP	LBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Electrical data - Configurations with SC12CLX.2

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	relay	relay	relay
Run capacitor	- / -	- / -	- / -	- / -
Start capacitor	80μF	80μF	80μF	80μF
LRA (locked rotor amps / 4s)	23,4A	23,4A	23,4A	23,4A
RLA (rated load amps / 1s)	4,3A	4,3A	4,3A	4,3A
Cut in current	23,4A	23,4A	23,4A	23,4A
IP class	21	21	21	21

Model

Designation

SC12CLX.2

220-240V/50Hz 1~ 220-240V/60Hz 1~

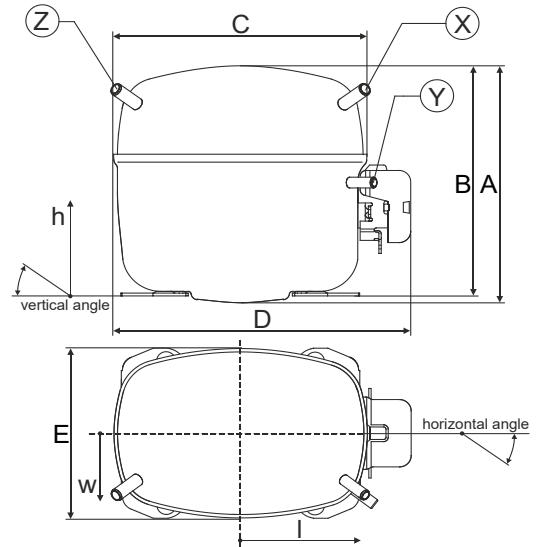
Sales code:

104L2697

Compressor dimensions

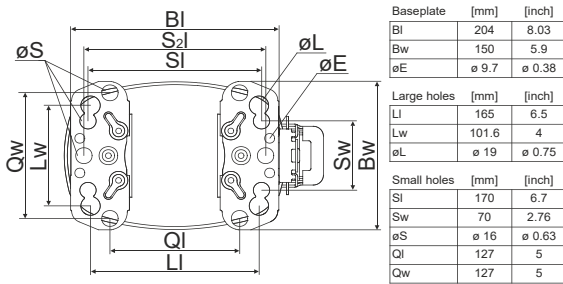
Housing	A Height	219mm / 8,62in
	B Height	213mm / 8,39in
	C Length shell	218mm / 8,58in
	D Length w. cover	255mm / 10,04in
	E Width	151mm / 5,94in

Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	37°	37°	143°
Vertical angle	±2°	30°	0°	150°
Position l/h/w	[mm]	107/193/55	115/110/63	-107/193/55
	[in]	4,2/7,6/2,2	4,5/4,3/2,5	-4,2/7,6/2,2
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5

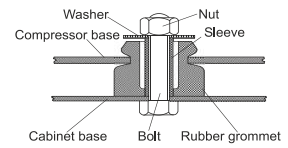


Compressor fixation

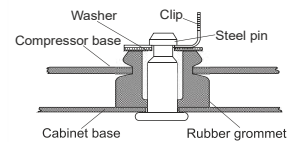
Bolt joint



Baseplate	[mm]	[inch]
BI	204	8.03
BW	150	5.9
øE	ø 9.7	ø 0.38
Large holes		
LI	165	6.5
LW	101.6	4
øL	ø 19	ø 0.75
Small holes		
SI	170	6.7
SW	70	2.76
øS	ø 16	ø 0.63
QI	127	5
Qw	127	5



Snap-on



Mounting accessories

	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

Application notes

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

Model

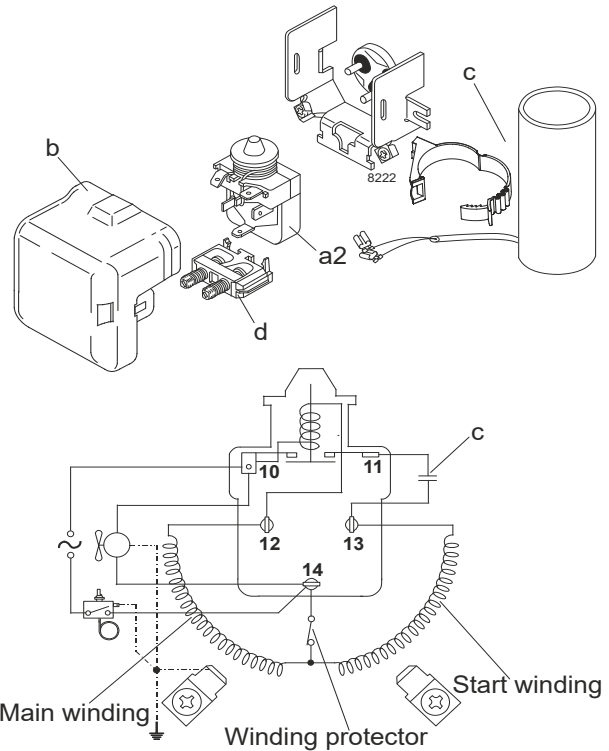
Designation	SC12CLX.2	220-240V/50Hz	Conf. 1	Sales code:	104L2697
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R404A
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	UL VDE CCC KC EAC

Electrical accessories / wiring diagram

CSIR

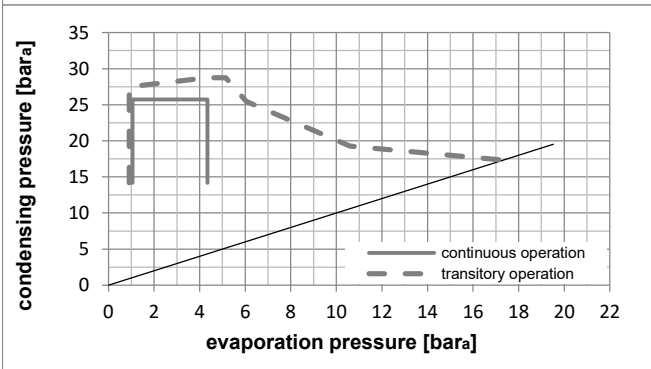
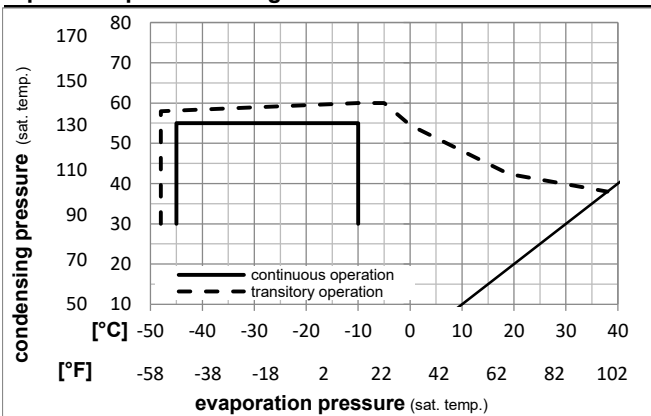


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

Operation pressure range



Components

a2	relay	117U6019
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

Alternative components

a2	relay	117U6019
c	start capacitor i-pack 40# (80µF)	117U5067
d	cord relief	103N1004
b	plastic cover	103N2008

Model

Designation **SC12CLX.2 220-240V/50Hz** Conf. 1 Sales code: **104L2697**

Optimization + standard conditions

R404A, 220V/50Hz, CSIR, fan 3m/s, UL, VDE, CCC, KC, EAC

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)														
Return gas temp.														
Liquid temp.														
Cooling capacity														
COP														
EER														
Power consumption														
Current consumption														
Ref. mass flow														
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°F]	-23,3	54,4	32,2	32,2	591,9	2022	509,4	1,15	3,92	0,99	515,6	3,35	13,79	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	398,5	1361	342,9	0,80	2,75	0,69	495,0	3,28	12,45	cecomaf LBP
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	321,6	1098	276,7	0,89	3,03	0,76	362,6	3,02	8,74	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-23,3	48,9	4,44	48,9	447,2	1527	384,9	0,89	3,04	0,77	503,0	3,35	15,83	ARI540 LBP
[°F]	-10	120	40	120										
[°C]	-23,3	40,6	32,2	32,2	684,3	2337	588,9	1,41	4,81	1,21	485,6	3,33	15,95	AHAM LBP
[°F]	-10	105	90	90										
[°C]	-35	45	32	45	293,7	1003	252,8	0,81	2,75	0,69	364,5	3,00	7,85	opt
[°F]	-31	113	89,6	113										

Performance tables

R404A, 220V/50Hz, CSIR, fan 3m/s, UL, VDE, CCC, KC, EAC

	pe	Cooling capacity			COP	EER	P1	I	m			
		[°C]	[°F]	[W]						[Btu/h]	[kcal/h]	[W/W]
[°C / °F]	-45	-49		130,2	445	112,1	0,51	1,76	0,44	253,2	2,77	3,46
cond. pressure	-35	-31		293,7	1003	252,8	0,81	2,75	0,69	364,5	3,00	7,85
pc= 45/113	-30	-22		398,7	1362	343,1	0,95	3,25	0,82	419,5	3,13	10,70
return gas temp.	-25	-13		522,2	1783	449,4	1,10	3,75	0,95	475,5	3,29	14,09
RGT= 32/90	-20	-4		666,4	2276	573,5	1,25	4,27	1,08	533,4	3,46	18,08
liquid temp	-15	5		833,5	2847	717,3	1,40	4,79	1,21	594,4	3,65	22,77
Tliq= 45/113	-10	14		1025,9	3503	882,9	1,56	5,31	1,34	659,4	3,86	28,25
[°C / °F]	-45	-49		62,4	213	53,7	0,27	0,93	0,23	230,3	2,64	1,92
cond. pressure	-35	-31		204,1	697	175,6	0,56	1,91	0,48	364,9	2,93	6,31
pc= 55/131	-30	-22		293,5	1003	252,6	0,68	2,33	0,59	430,0	3,10	9,12
return gas temp	-25	-13		398,5	1361	342,9	0,80	2,75	0,69	495,0	3,28	12,45
RGT= 32/90	-20	-4		521,0	1779	448,4	0,93	3,17	0,80	561,0	3,49	16,39
liquid temp	-15	5		663,4	2266	571,0	1,05	3,60	0,91	629,1	3,71	21,04
Tliq= 55/131	-10	14		828,0	2828	712,6	1,18	4,04	1,02	700,2	3,95	26,51

Model

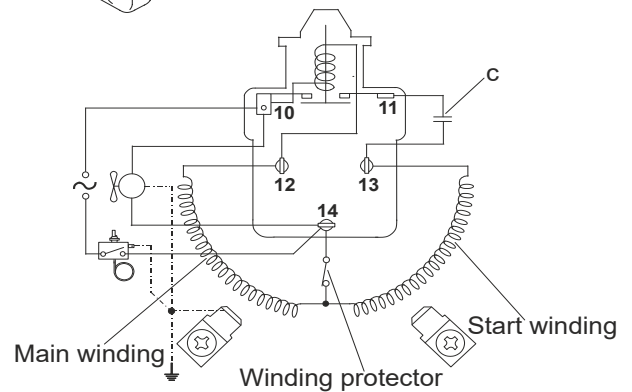
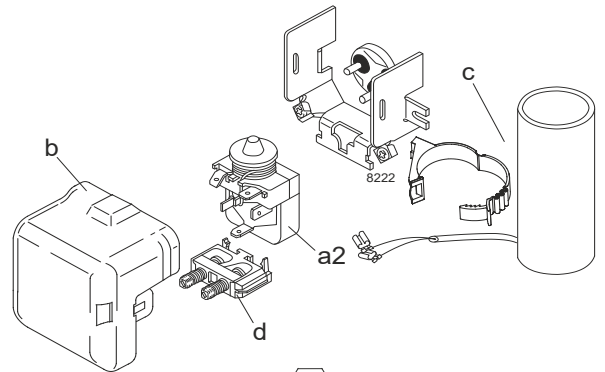
Designation **SC12CLX.2** 208-230V/60Hz Conf. 2 Sales code: **104L2697**

Configuration

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

Electrical accessories / wiring diagram

CSIR

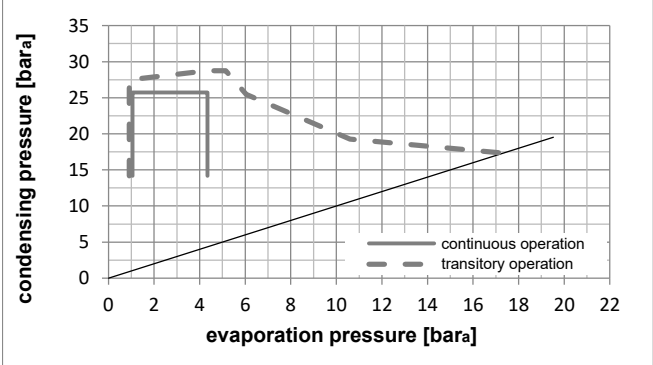
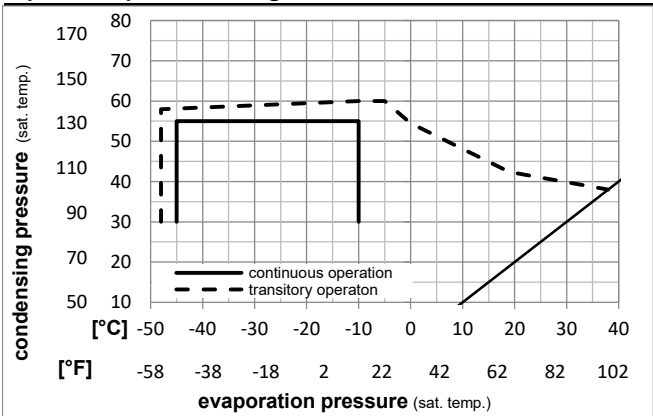


Ambient temperatures / system cooling

Ambient temperature min.: 10°C / 50°F
 Ambient temperature max.: 38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

Operation pressure range



Components

- a2 relay 117U6019
- c start capacitor (80µF) 117U5017
- d cord relief 103N1004
- b plastic cover 103N2008

Alternative components

- a2 relay 117U6019
- c start capacitor i-pack 40# (80µF) 117U5067
- d cord relief 103N1004
- b plastic cover 103N2008

Model

Designation **SC12CLX.2 208-230V/60Hz** Conf. **2** Sales code: **104L2697**

Optimization + standard conditions

R404A, 220V/60Hz, CSIR, fan 3m/s, UL, VDE, CCC, KC, EAC

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption								
					Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	P1	I	Ref. mass flow	
pe	pc	RGT	Tliq		[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]						
[°C]	[°C]	[°C]	[°C]																
-23	54,4	32,2	32,2		705,2	2408	606,9	1,19	4,07	1,03	592,0	3,09	16,43	ASHRAE LBP					
-10	130	90	90																
-25	55	32	55		472,6	1614	406,7	0,84	2,85	0,72	565,6	3,00	14,77	cecomaf LBP					
-13	131	89,6	131																
-35	40	20	40		378,5	1293	325,7	0,96	3,27	0,82	395,7	2,62	10,28	EN12900 LBP					
-31	104	68	104																
-23	48,9	4,44	48,9		535,6	1829	461,0	0,93	3,18	0,80	575,8	3,09	18,96	ARI540 LBP					
-10	120	40	120																
-23	40,6	32,2	32,2		824,1	2814	709,2	1,49	5,08	1,28	553,5	3,07	19,20	AHAM LBP					
-10	105	90	90																
-35	45	32	45		343,1	1172	295,3	0,86	2,94	0,74	398,1	2,60	9,17	opt					
-31	113	89,6	113																

Performance tables

R404A, 220V/60Hz, CSIR, fan 3m/s, UL, VDE, CCC, KC, EAC

	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-45	-49	141,0	482	121,3	0,55	1,89	0,48	255,2	2,28	3,75
cond. pressure	-35	-31	343,1	1172	295,3	0,86	2,94	0,74	398,1	2,60	9,17
pc= 45/113	-30	-22	472,9	1615	407,0	1,01	3,45	0,87	468,7	2,79	12,70
return gas temp.	-25	-13	625,6	2137	538,4	1,16	3,95	1,00	540,6	3,01	16,88
RGT= 32/90	-20	-4	803,9	2745	691,8	1,31	4,46	1,12	615,0	3,25	21,81
liquid temp	-15	5	1010,5	3451	869,7	1,46	4,98	1,25	693,2	3,52	27,60
Tliq= 45/113	-10	14	1248,3	4263	1074,3	1,61	5,49	1,38	776,8	3,81	34,38
[°C / °F]	-45	-49	57,1	195	49,2	0,25	0,86	0,22	225,7	2,10	1,75
cond. pressure	-35	-31	232,3	793	199,9	0,58	1,99	0,50	398,5	2,50	7,18
pc= 55/131	-30	-22	342,9	1171	295,1	0,71	2,43	0,61	482,1	2,74	10,66
return gas temp	-25	-13	472,6	1614	406,7	0,84	2,85	0,72	565,6	3,00	14,77
RGT= 32/90	-20	-4	624,1	2132	537,1	0,96	3,28	0,83	650,4	3,28	19,64
liquid temp	-15	5	800,2	2733	688,7	1,08	3,70	0,93	737,8	3,59	25,38
Tliq= 55/131	-10	14	1003,7	3428	863,8	1,21	4,13	1,04	829,1	3,92	32,13

Model

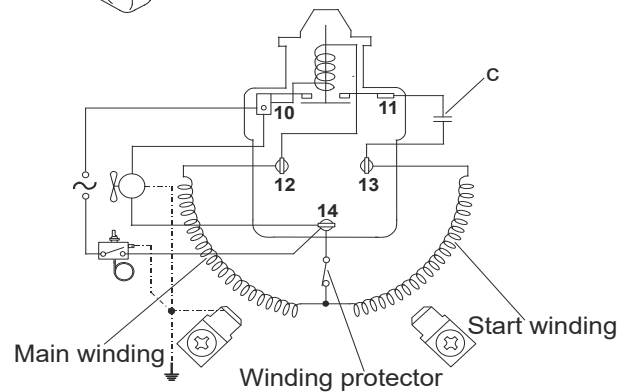
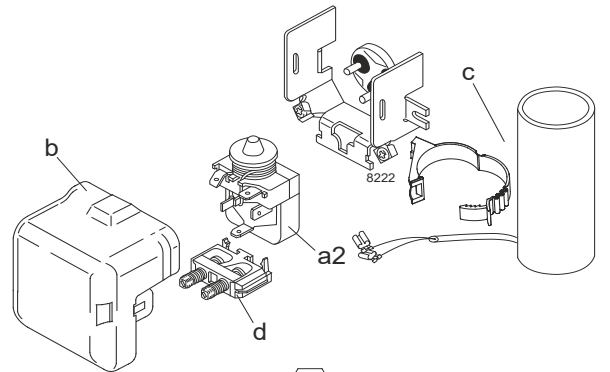
Designation	SC12CLX.2	220-240V/50Hz	Conf. 3	Sales code:	104L2697
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R452A
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	UL VDE CCC KC EAC

Electrical accessories / wiring diagram

CSIR

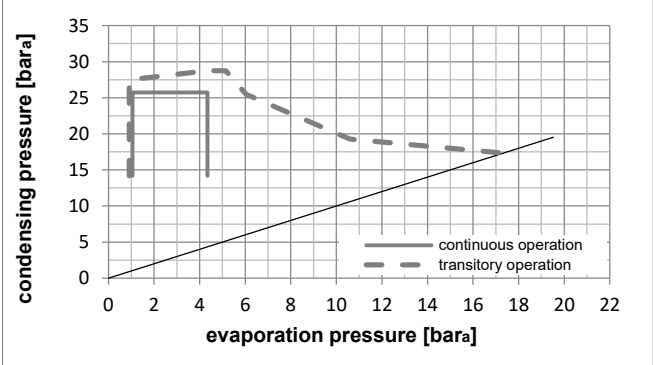
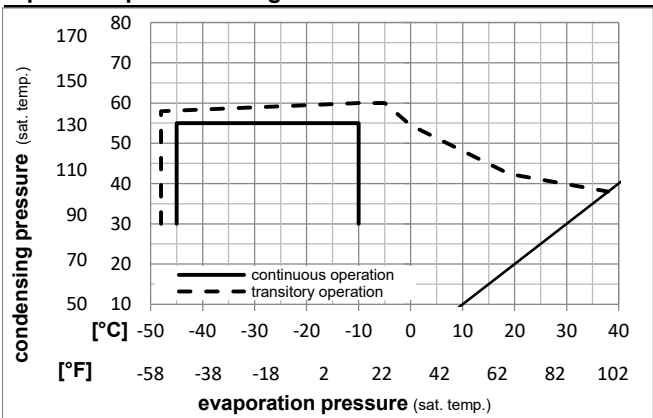


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

Operation pressure range



Components

a2	relay	117U6019
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

Alternative components

a2	relay	117U6019
c	start capacitor i-pack 40# (80µF)	117U5067
d	cord relief	103N1004
b	plastic cover	103N2008

Model

Designation **SC12CLX.2 220-240V/50Hz** Conf. **3** Sales code: **104L2697**

Optimization + standard conditions

R452A, 220V/50Hz, CSIR, fan 3m/s, UL, VDE, CCC, KC, EAC

Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)				Power consumption				ASHRAE LBP		
Return gas temp.				Liquid temp.				Current consumption					Ref. mass flow ṁ	
Cooling capacity				COP		EER		P1	I	ṁ				
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]			[kg/h]
[°C]	-23,3	54,4	32,2	32,2	541,3	1849	465,8	1,13	3,87	0,97	477,9	3,31		13,01
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	367,3	1254	316,1	0,80	2,74	0,69	457,2	3,25	11,69	cecomaf LBP
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	290,0	990	249,6	0,88	2,99	0,75	331,3	2,87	8,10	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-23,3	48,9	4,44	48,9	415,5	1419	357,6	0,89	3,04	0,76	467,5	3,28	14,93	ARI540 LBP
[°F]	-10	120	40	120										
[°C]	-23,3	40,6	32,2	32,2	629,7	2151	542,0	1,39	4,75	1,20	452,6	3,24	15,14	AHAM LBP
[°F]	-10	105	90	90										
[°C]	-35	45	32	45	264,1	902	227,3	0,80	2,72	0,69	331,7	2,88	7,25	opt
[°F]	-31	113	89,6	113										

Performance tables

R452A, 220V/50Hz, CSIR, fan 3m/s, UL, VDE, CCC, KC, EAC

	pe	Cooling capacity			COP	EER	P1	I	m		
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-45	-49	110,7	378	95,3	0,50	1,71	0,43	221,3	2,55	3,02
cond. pressure	-35	-31	264,1	902	227,3	0,80	2,72	0,69	331,7	2,88	7,25
pc= 45/113	-30	-22	363,4	1241	312,7	0,94	3,21	0,81	386,1	3,04	10,01
return gas temp.	-25	-13	480,9	1643	413,9	1,09	3,72	0,94	441,5	3,21	13,30
RGT= 32/90	-20	-4	619,2	2115	532,9	1,24	4,24	1,07	498,9	3,38	17,22
liquid temp	-15	5	780,5	2666	671,7	1,40	4,77	1,20	559,4	3,56	21,83
Tliq= 45/113	-10	14	967,3	3304	832,5	1,55	5,29	1,33	624,1	3,75	27,25
[°C / °F]	-45	-49	49,2	168	42,3	0,25	0,86	0,22	195,0	2,47	1,54
cond. pressure	-35	-31	182,2	622	156,8	0,56	1,90	0,48	328,2	2,87	5,75
pc= 55/131	-30	-22	267,0	912	229,8	0,68	2,32	0,59	392,7	3,06	8,46
return gas temp	-25	-13	367,3	1254	316,1	0,80	2,74	0,69	457,2	3,25	11,69
RGT= 32/90	-20	-4	485,4	1658	417,8	0,93	3,17	0,80	522,8	3,45	15,54
liquid temp	-15	5	623,8	2130	536,9	1,06	3,61	0,91	590,7	3,65	20,11
Tliq= 55/131	-10	14	784,8	2680	675,4	1,19	4,05	1,02	661,8	3,87	25,51

Model

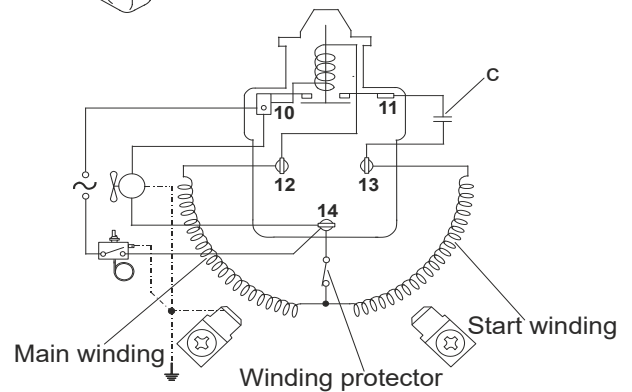
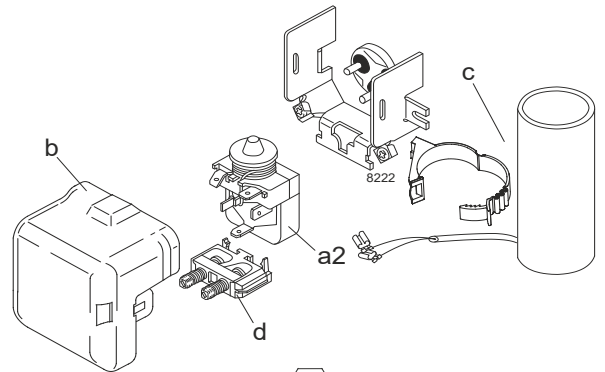
Designation **SC12CLX.2 208-230V/60Hz** Conf. 4 Sales code: **104L2697**

Configuration

Motorconfiguration CSIR
 Power supply (nominal) 208-230V/60Hz 1~
 Refrigerant R452A
 Application LBP
 Voltage range 198-254V
 Starting torque HST
 Approvals UL
 VDE
 CCC
 KC
 EAC

Electrical accessories / wiring diagram

CSIR

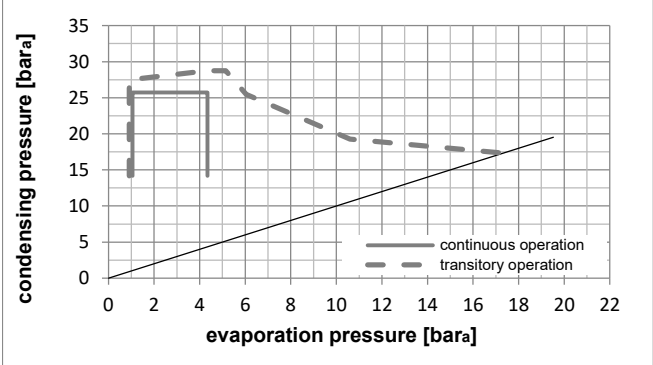
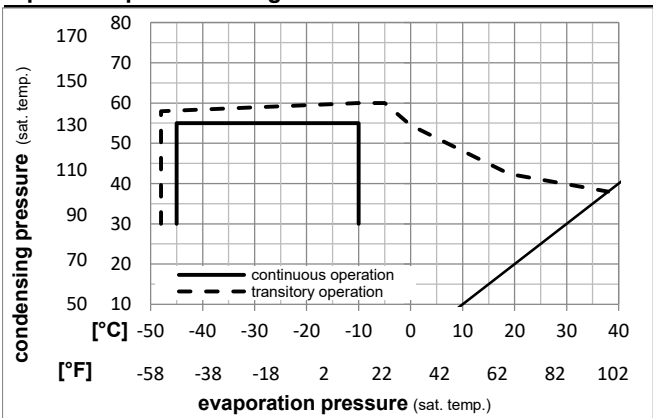


Ambient temperatures / system cooling

Ambient temperature min.: 10°C / 50°F
 Ambient temperature max.: 38°C / 101°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	n/a	n/a	n/a

Operation pressure range



Components

- a2 relay 117U6019
- c start capacitor (80µF) 117U5017
- d cord relief 103N1004
- b plastic cover 103N2008

Alternative components

- a2 relay 117U6019
- c start capacitor i-pack 40# (80µF) 117U5067
- d cord relief 103N1004
- b plastic cover 103N2008

Model

Designation **SC12CLX.2 208-230V/60Hz** Conf. 4 Sales code: **104L2697**

Optimization + standard conditions

R452A, 220V/60Hz, CSIR, fan 3m/s, UL, VDE, CCC, KC, EAC

Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)				Power consumption				ASHRAE LBP	
Return gas temp.				Liquid temp.				Current consumption					Ref. mass flow
Cooling capacity				COP	EER		P1	I	m				
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]		
[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
-23,3	54,4	32,2	32,2	643,9	2199	554,2	1,17	3,99	1,00	551,6	3,08	15,48	ASHRAE LBP
[-10]	130	90	90										
-25	55	32	55	435,1	1486	374,4	0,83	2,83	0,71	525,3	3,00	13,85	cecomaf LBP
[-13]	131	89,6	131										
-35	40	20	40	340,8	1164	293,3	0,94	3,19	0,80	364,5	2,47	9,52	EN12900 LBP
[-31]	104	68	104										
-23,3	48,9	4,44	48,9	497,0	1697	427,7	0,92	3,16	0,80	537,9	3,04	17,86	ARI540 LBP
[-10]	120	40	120										
-23,3	40,6	32,2	32,2	757,5	2587	651,9	1,46	4,99	1,26	518,3	2,98	18,21	AHAM LBP
[-10]	105	90	90										
-35	45	32	45	308,1	1052	265,1	0,84	2,88	0,73	365,4	2,47	8,45	opt
[-31]	113	89,6	113										

Performance tables

R452A, 220V/60Hz, CSIR, fan 3m/s, UL, VDE, CCC, KC, EAC

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-45	-49	119,5	408	102,8	0,53	1,80	0,45	227,2	2,01	3,26
cond. pressure	-35	-31	308,1	1052	265,1	0,84	2,88	0,73	365,4	2,47	8,45
pc= 45/113	-30	-22	430,5	1470	370,4	0,99	3,39	0,85	434,2	2,70	11,86
return gas temp.	-25	-13	575,5	1965	495,2	1,14	3,90	0,98	504,4	2,93	15,92
RGT= 32/90	-20	-4	746,0	2548	642,0	1,29	4,41	1,11	577,6	3,17	20,74
liquid temp	-15	5	945,0	3227	813,2	1,44	4,93	1,24	655,0	3,43	26,43
Tliq= 45/113	-10	14	1175,3	4014	1011,5	1,59	5,44	1,37	738,1	3,70	33,11
[°C / °F]	-45	-49	44,2	151	38,0	0,23	0,77	0,20	195,0	1,91	1,38
cond. pressure	-35	-31	207,2	708	178,3	0,57	1,95	0,49	362,0	2,46	6,53
pc= 55/131	-30	-22	311,6	1064	268,1	0,70	2,40	0,60	443,4	2,73	9,87
return gas temp	-25	-13	435,1	1486	374,4	0,83	2,83	0,71	525,3	3,00	13,85
RGT= 32/90	-20	-4	580,7	1983	499,7	0,95	3,26	0,82	608,9	3,27	18,59
liquid temp	-15	5	751,2	2565	646,5	1,08	3,69	0,93	695,7	3,56	24,21
Tliq= 55/131	-10	14	949,6	3243	817,3	1,21	4,12	1,04	787,0	3,86	30,86