

## Model

Designation	<b>SC12CL</b>	<b>220-240V/50Hz 1~</b>	Sales code:	<b>104L2623</b>
-------------	---------------	-------------------------	-------------	-----------------

## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R404A, R452A, R507</b>
Oil viscosity	32cSt	Displacement	12,87cm <sup>3</sup> / 0,79cu.in
Oil quantity	544cm <sup>3</sup> / 18,4fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm <sup>3</sup> / 49,4fl.oz		
Weight	13,1kg / 28,9lbs		
Motor protection	1# internal		
Winding resistance main	5,13Ω (at 25°C)		
Winding resistance aux	13,51Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with SC12CL

	<b>Conf. 1</b>	<b>Conf. 2</b>
Motorconfiguration	CSIR	CSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1
Voltage range	198-254V	198-254V
Approvals	VDE, CCC, EAC	VDE, CCC
Starting torque	HST	HST
Note	- / -	

## Applications with SC12CL

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

## Electrical data - Configurations with SC12CL

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	relay
Run capacitor	-/-	-/-
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s)	23,4A	16,2A
RLA (rated load amps / 1s)	4,3A	3,1A
Cut in current	23,4A	16,2A
IP class	21	21

## Model

Designation

**SC12CL**

220-240V/50Hz 1~

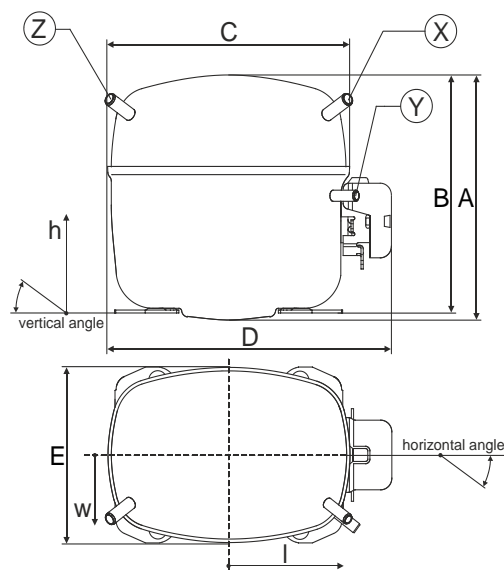
Sales code:

**104L2623**

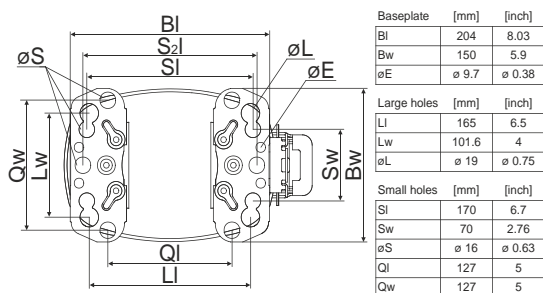
## Compressor dimensions

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

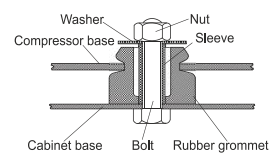
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	37°	37°	143°
Vertical angle	±2°	30°	0°	150°
Position l/h/w	[mm]	107/183/55	115/100/63	-107/183/55
	[in]	4,2/7,2/2,2	4,5/3,9/2,5	-4,2/7,2/2,2
Straight tube l.	[mm]	12	12	12
	[in]	0,5	0,5	0,5



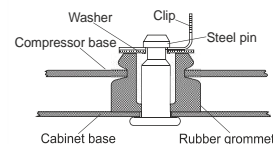
## Compressor fixation



### Bolt joint



### 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

## Model

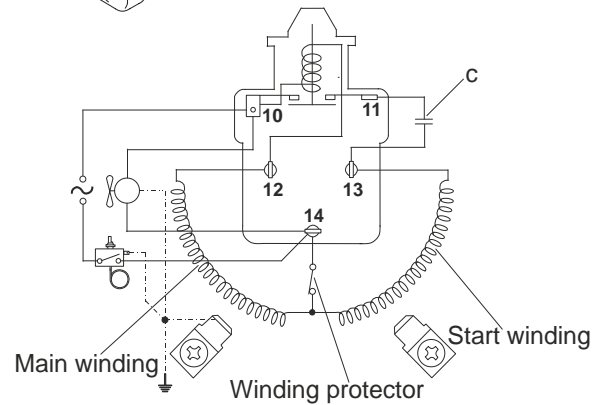
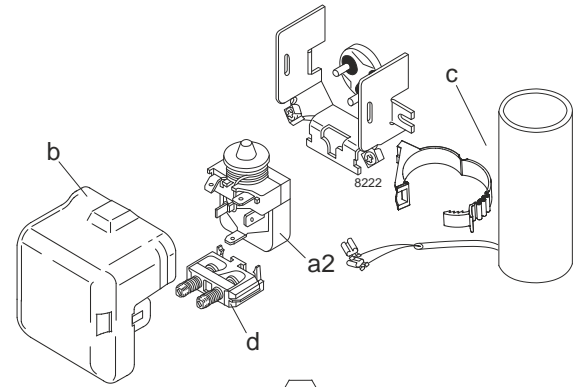
Designation	<b>SC12CL</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>104L2623</b>
-------------	---------------	----------------------	----------------	-------------	-----------------

## Configuration

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

## Electrical accessories / wiring diagram

CSIR

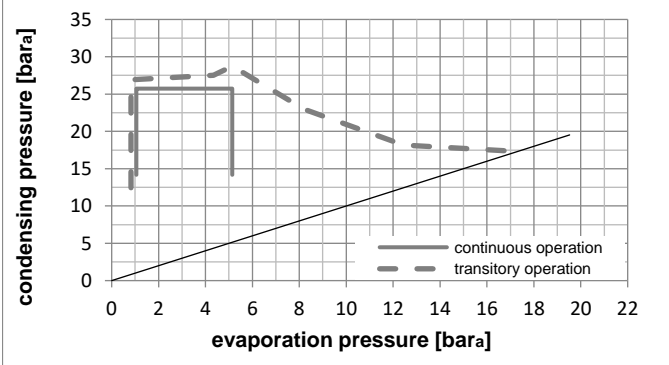
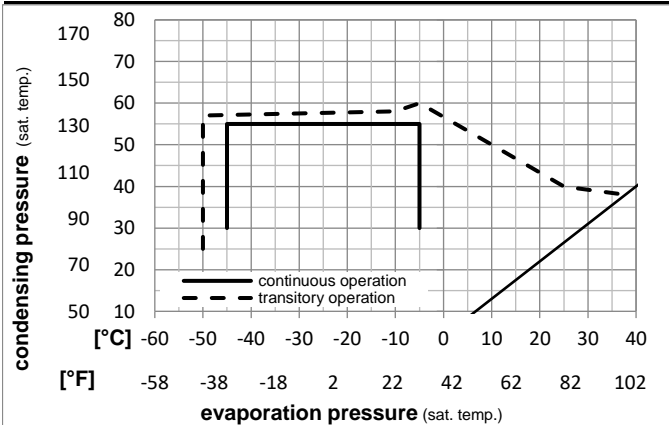


## Ambient temperatures / system cooling

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	fan 3m/s	n/a
38°C / 100°F	fan 3m/s	fan 3m/s	n/a
43°C / 110°F	n/a	n/a	n/a

## Operation pressure range



## Components

a2	relay	117U6005
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

## Model

Designation **SC12CL 220-240V/50Hz** Conf. 1 Sales code: **104L2623**

## Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE LBP				
	pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P1	I	Ref. mass flow						
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]					
	-23,3	-10	54,4	130	32,2	90	32,2	90	514,4	1757	442,7	1,09	3,74	0,94	469,8	2,89	11,99	ASHRAE LBP
	-25	-13	55	131	32	89,6	55	131	333,9	1140	287,3	0,75	2,57	0,65	443,7	2,80	10,43	cecomaf LBP
	-35	-31	40	104	20	68	40	104	282,4	965	243,1	0,87	2,99	0,75	322,9	2,43	7,68	EN12900 LBP
	-6,66	20	54,4	130	35	95	46,1	115	1113,4	3803	958,2	1,50	5,13	1,29	740,7	3,96	30,64	ASHRAE MBP
	-10	14	55	131	32	89,6	55	131	814,0	2780	700,5	1,19	4,06	1,02	685,4	3,73	26,06	cecomaf MBP
	-10	14	45	113	20	68	45	113	987,5	3372	849,8	1,51	5,16	1,30	653,9	3,64	29,74	EN12900 MBP

## Performance tables

220V/50Hz, CSIR, fan 3m/s, VDE, CCC, 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	57,7	197	49,7	0,30	1,04	0,26	189,6	2,15	1,53
cond. pressure	-35	-31	237,3	810	204,2	0,75	2,56	0,65	316,5	2,43	6,34
pc= 45/113	-30	-22	353,2	1206	304,0	0,93	3,17	0,80	380,3	2,61	9,48
return gas temp.	-25	-13	489,8	1673	421,5	1,10	3,76	0,95	445,3	2,82	13,21
RGT= 32/90	-20	-4	649,5	2218	559,0	1,27	4,33	1,09	512,1	3,06	17,62
liquid temp	-15	5	834,8	2851	718,4	1,44	4,90	1,24	581,4	3,34	22,80
Tliq= 45/113	-5	23	1291,7	4411	1111,6	1,77	6,04	1,52	730,1	3,97	35,91
[°C / °F]	-45	-49	-39,2	-134	-33,8	-0,29	-0,97	-0,25	137,6	1,98	-1,20
cond. pressure	-35	-31	117,3	401	101,0	0,40	1,38	0,35	290,5	2,33	3,63
pc= 55/131	-30	-22	216,9	741	186,6	0,59	2,02	0,51	366,7	2,55	6,74
return gas temp	-25	-13	333,9	1140	287,3	0,75	2,57	0,65	443,7	2,80	10,43
RGT= 32/90	-20	-4	470,8	1608	405,2	0,90	3,08	0,78	522,0	3,08	14,81
liquid temp	-15	5	630,0	2152	542,2	1,05	3,57	0,90	602,3	3,39	19,98
Tliq= 55/131	-5	23	1025,1	3501	882,2	1,33	4,54	1,14	771,8	4,09	33,18

## Model

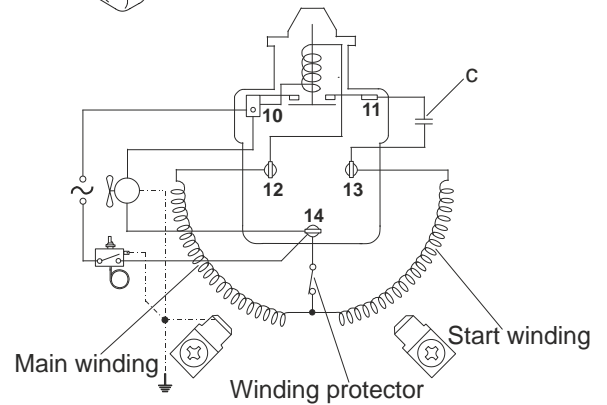
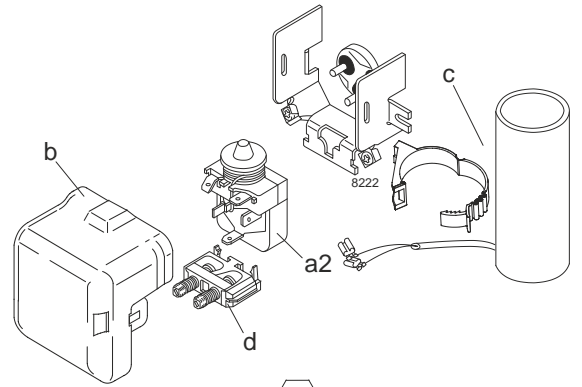
Designation	<b>SC12CL</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>104L2623</b>
-------------	---------------	----------------------	----------------	-------------	-----------------

## Configuration

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

## Electrical accessories / wiring diagram

CSIR

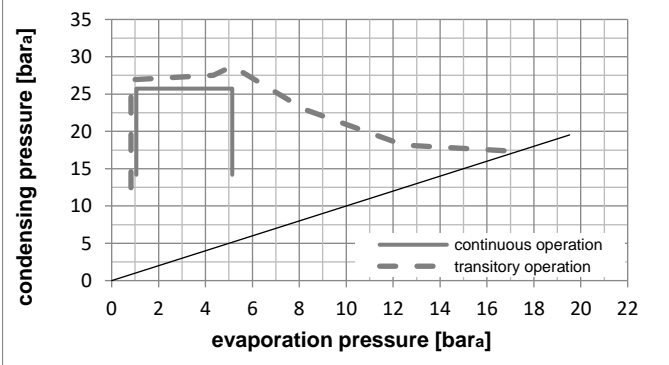
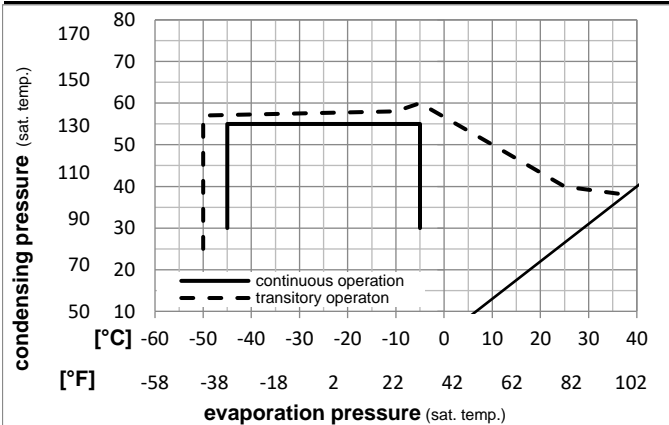


## Ambient temperatures / system cooling

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	fan 3m/s	n/a
38°C / 100°F	fan 3m/s	fan 3m/s	n/a
43°C / 110°F	n/a	n/a	n/a

## Operation pressure range



## Components

a2	relay	117U6005
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

## Model

Designation **SC12CL 220-240V/50Hz** Conf. 2 Sales code: **104L2623**

## Optimization + standard conditions

220V/50Hz, CSIR, fan 3m/s, VDE, CCC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	Cooling capacity			COP	EER		P1	I	Ref. mass flow	
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23,3	54,4	32,2	32,2	469,7	1604	404,2	1,07	3,65	0,92	439,2	2,79	11,29	ASHRAE LBP
	-10	130	90	90										
	-25	55	32	55	307,3	1050	264,5	0,74	2,54	0,64	413,6	2,69	9,78	cecomaf LBP
	-13	131	89,6	131										
	-35	40	20	40	254,3	868	218,8	0,85	2,90	0,73	299,0	2,26	7,10	EN12900 LBP
	-31	104	68	104										
	-6,66	54,4	35	46,1	1051,8	3592	905,2	1,49	5,08	1,28	707,0	3,81	29,59	ASHRAE MBP
	20	130	95	115										
	-10	55	32	55	770,3	2631	662,9	1,18	4,04	1,02	651,6	3,60	25,03	cecomaf MBP
	14	131	89,6	131										
	-10	45	20	45	931,4	3181	801,6	1,50	5,11	1,29	622,0	3,48	28,62	EN12900 MBP
	14	113	68	113										

## Performance tables

220V/50Hz, CSIR, fan 3m/s, VDE, CCC

	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	47,7	163	41,1	0,28	0,94	0,24	172,5	1,78	1,30
cond. pressure	-35	-31	212,9	727	183,2	0,73	2,49	0,63	292,4	2,23	5,84
pc= 45/113	-30	-22	321,4	1098	276,6	0,91	3,10	0,78	353,6	2,46	8,85
return gas temp.	-25	-13	450,6	1539	387,8	1,08	3,69	0,93	416,6	2,70	12,46
RGT= 32/90	-20	-4	602,9	2059	518,8	1,25	4,27	1,08	481,9	2,95	16,76
liquid temp	-15	5	780,9	2667	672,0	1,42	4,85	1,22	550,2	3,21	21,84
Tliq= 45/113	-5	23	1223,9	4180	1053,3	1,75	5,99	1,51	698,1	3,77	34,78
[°C / °F]	-45	-49	-37,9	-129	-32,6	-0,31	-1,06	-0,27	121,9	1,58	-1,19
cond. pressure	-35	-31	104,3	356	89,7	0,39	1,34	0,34	266,2	2,13	3,29
pc= 55/131	-30	-22	196,9	673	169,5	0,58	1,98	0,50	339,2	2,41	6,24
return gas temp	-25	-13	307,3	1050	264,5	0,74	2,54	0,64	413,6	2,69	9,78
RGT= 32/90	-20	-4	438,0	1496	376,9	0,89	3,05	0,77	490,1	2,98	14,02
liquid temp	-15	5	591,5	2020	509,0	1,04	3,55	0,89	569,2	3,28	19,07
Tliq= 55/131	-5	23	976,9	3336	840,7	1,32	4,52	1,14	738,0	3,93	32,06