

Model

Designation	SC12CL	220-240V/50Hz 1~	Sales code:	104L2623
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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	550cm ³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm ³ / 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

	Conf. 1	Conf. 2
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

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

Electrical data - Configurations with SC12CL

	Conf. 1	Conf. 2
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

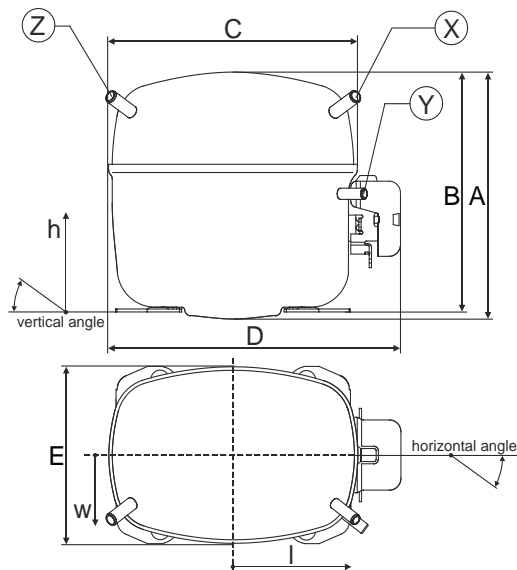
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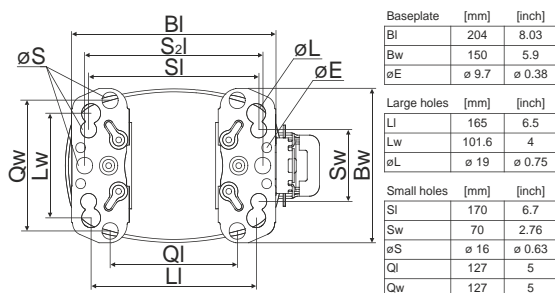
Compressor dimensions

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

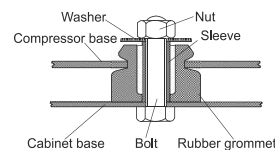
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
	(i:inside, o:outside) [in]	øi 0,32-0,33	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	37°	37°	143°
Vertical angle	±2°	30°	0°	150°
Position l/h/w	[mm]	107/183/55	115/100/63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



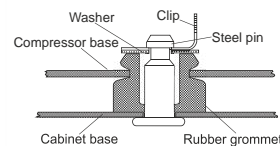
Compressor fixation



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

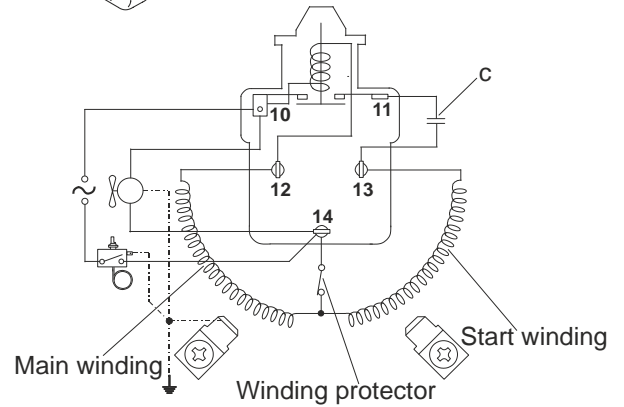
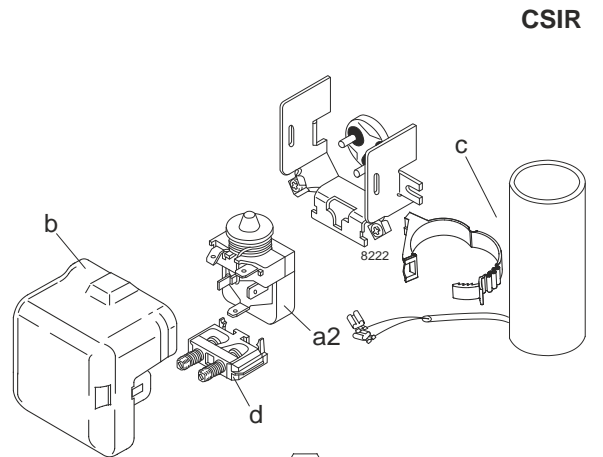
Model

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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	VDE CCC EAC

Electrical accessories / wiring diagram

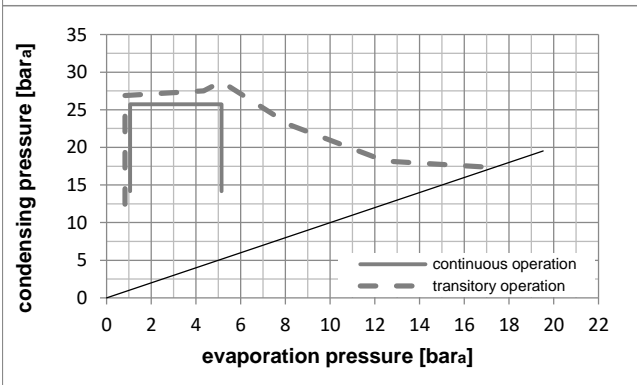
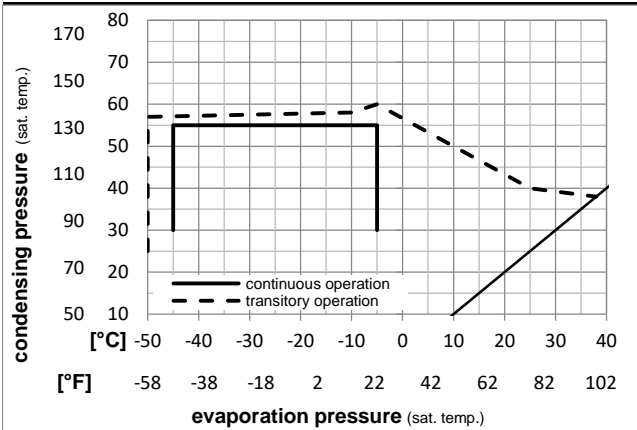


Ambient temperatures / system cooling

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	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

R404A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, 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]	[A]	[kg/h]										
-23,3	54,4	32,2	32,2		514,5	1757	442,8	1,10	3,75	0,94	468,9	2,89	11,99										ASHRAE LBP
-10	130	90	90																				
-25	55	32	55		335,9	1147	289,1	0,76	2,59	0,65	443,0	2,80	10,50										cecomaf LBP
-13	131	89,6	131																				
-35	40	20	40		279,2	953	240,2	0,87	2,97	0,75	321,5	2,43	7,59										EN12900 LBP
-31	104	68	104																				
-23,3	48,9	4,44	48,9		410,0	1400	352,9	0,88	2,99	0,75	468,3	2,91	14,52										ARI540 LBP
-10	120	40	120																				
-23,3	40,6	32,2	32,2		665,5	2273	572,7	1,44	4,92	1,24	461,8	2,87	15,51										AHAM LBP
-10	105	90	90																				
-35	45	32	45		238,8	816	205,5	0,76	2,59	0,65	315,3	2,43	6,38										opt
-31	113	89,6	113																				

Performance tables

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

[°C / °F]	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]	
-45	-49	78,4	268	67,5	0,41	1,40	0,35	191,6	2,15	2,08		
cond. pressure	-35	-31	238,8	816	205,5	0,76	2,59	0,65	315,3	2,43	6,38	
pc= 45/113	-30	-22	350,6	1197	301,7	0,93	3,16	0,80	378,7	2,61	9,41	
return gas temp.	-25	-13	485,6	1659	417,9	1,09	3,74	0,94	443,8	2,82	13,10	
RGT= 32/90	-20	-4	645,6	2205	555,6	1,26	4,31	1,09	511,1	3,06	17,52	
liquid temp	-15	5	832,2	2842	716,2	1,43	4,89	1,23	581,0	3,34	22,73	
Tliq= 45/113	-5	23	1291,8	4412	1111,8	1,77	6,04	1,52	730,5	3,97	35,91	
-45	-49	22,2	76	19,1	0,15	0,51	0,13	148,0	1,98	0,68		
cond. pressure	-35	-31	138,7	474	119,3	0,47	1,62	0,41	293,1	2,33	4,29	
pc= 55/131	-30	-22	226,3	773	194,8	0,62	2,11	0,53	367,2	2,55	7,03	
return gas temp	-25	-13	335,9	1147	289,1	0,76	2,59	0,65	443,0	2,80	10,50	
RGT= 32/90	-20	-4	468,9	1601	403,5	0,90	3,07	0,77	520,9	3,08	14,75	
liquid temp	-15	5	627,1	2142	539,7	1,04	3,56	0,90	601,3	3,39	19,89	
Tliq= 55/131	-5	23	1025,7	3503	882,7	1,33	4,54	1,14	771,9	4,09	33,20	

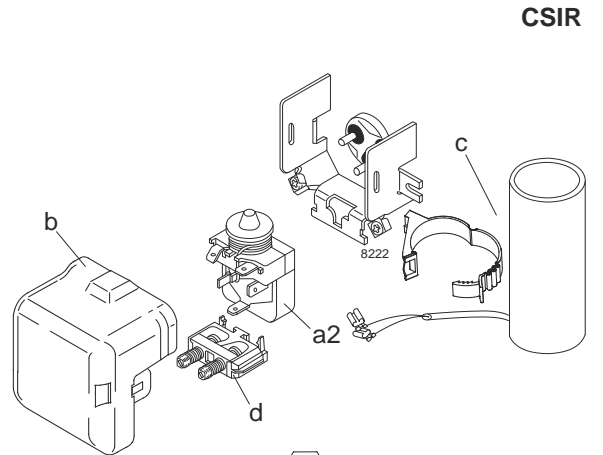
Model

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

Electrical accessories / wiring diagram

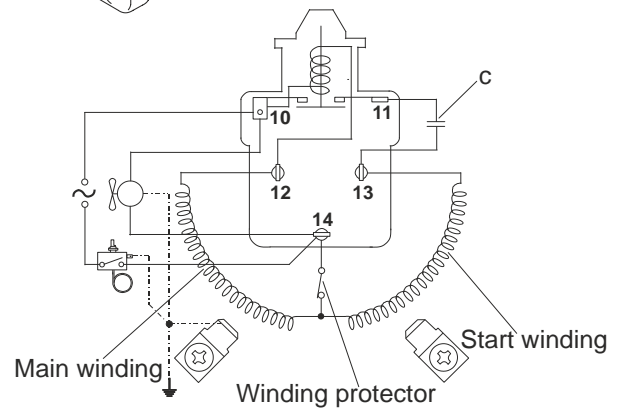


CSIR

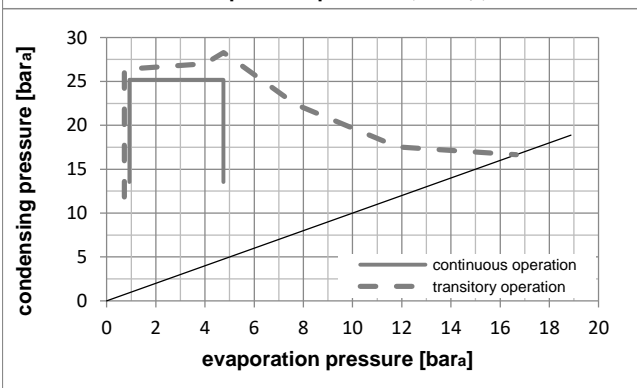
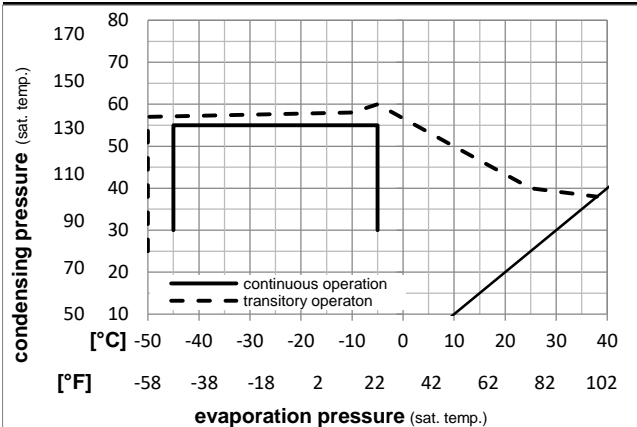
Ambient temperatures / system cooling

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

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Optimization + standard conditions

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

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)				Cooling capacity						Power consumption			Ref. mass flow ṁ	
		Return gas temp.						COP		EER		P1	I			
pe	pc	RGT	Tliq		[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]			
[°C]	-23	54,4	32,2	32,2	463,8	1584	399,1	1,07	3,66	0,92	432,3	2,87	11,15	ASHRAE	LBP	
[°F]	-10	130	90	90												
[°C]	-25	55	32	55	304,6	1040	262,2	0,75	2,56	0,64	406,7	2,78	9,69	cecomaf	LBP	
[°F]	-13	131	89,6	131												
[°C]	-35	40	20	40	246,2	841	211,9	0,84	2,87	0,72	293,1	2,37	6,88	EN12900	LBP	
[°F]	-31	104	68	104												
[°C]	-23	48,9	4,44	48,9	376,3	1285	323,9	0,87	2,96	0,75	433,7	2,88	13,53	ARI540	LBP	
[°F]	-10	120	40	120												
[°C]	-23	40,6	32,2	32,2	607,3	2074	522,7	1,41	4,82	1,21	430,4	2,87	14,60	AHAM	LBP	
[°F]	-10	105	90	90												
[°C]	-35	45	32	45	208,6	712	179,5	0,73	2,49	0,63	285,6	2,35	5,73	opt		
[°F]	-31	113	89,6	113												

Performance tables

R452A, 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	60,4	206	52,0	0,36	1,22	0,31	168,5	1,92	1,65
cond. pressure	-35	-31	208,6	712	179,5	0,73	2,49	0,63	285,6	2,35	5,73
pc= 45/113	-30	-22	313,8	1072	270,0	0,90	3,09	0,78	347,1	2,57	8,64
return gas temp.	-25	-13	442,0	1509	380,4	1,08	3,67	0,93	410,9	2,80	12,23
RGT= 32/90	-20	-4	595,0	2032	512,1	1,25	4,26	1,07	477,5	3,04	16,55
liquid temp	-15	5	774,8	2646	666,8	1,42	4,84	1,22	547,1	3,29	21,67
Tliq= 45/113	-5	23	1221,4	4171	1051,1	1,75	5,99	1,51	696,9	3,83	34,71
[°C / °F]	-45	-49	15,4	53	13,2	0,12	0,41	0,10	126,7	1,77	0,48
cond. pressure	-35	-31	119,7	409	103,0	0,46	1,56	0,39	262,0	2,26	3,77
pc= 55/131	-30	-22	201,2	687	173,1	0,60	2,06	0,52	333,0	2,52	6,37
return gas temp	-25	-13	304,6	1040	262,2	0,75	2,56	0,64	406,7	2,78	9,69
RGT= 32/90	-20	-4	431,8	1475	371,6	0,89	3,05	0,77	483,4	3,06	13,82
liquid temp	-15	5	584,6	1996	503,1	1,04	3,54	0,89	563,4	3,35	18,84
Tliq= 55/131	-5	23	973,8	3326	838,1	1,33	4,53	1,14	734,9	3,96	31,96