

Single Pack SC12CL 220-240V 50Hz CSIR

Single pack code number: **195B4084**

Position	Title	Code	Amount
1	Compressor SC12CL	104L2623	1
2	Starting relay	117U6005	1
3	Starting capacitor (80 μ F 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2009	1
6	Bolt joint for one compressor M6 \varnothing 16mm	118-1917	1

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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

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 X	Discharge Y	Process Z
Diameter [mm]	ø 8,11-8,29	ø 6,11-6,29	ø 6,11-6,29
(i:inside, o:outside) [in]	ø 0,32-0,33	ø 0,24-0,25	ø 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

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

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

Model

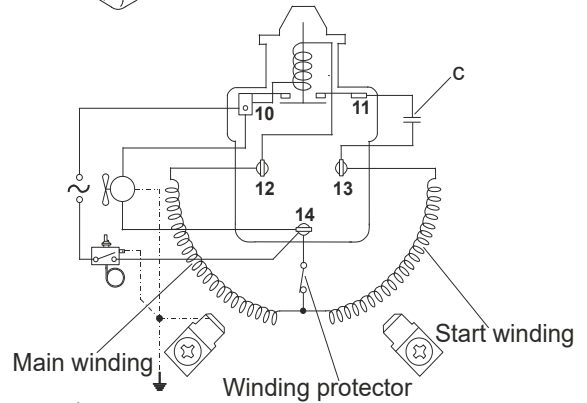
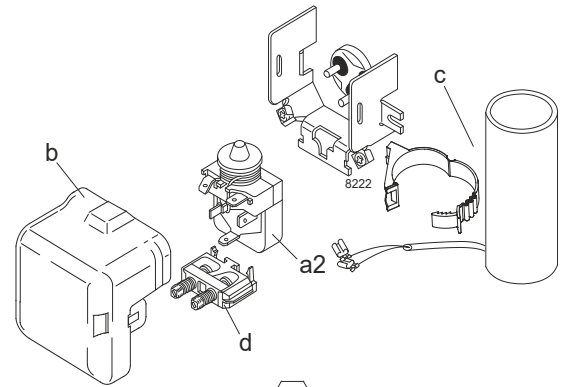
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Configuration

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

CSIR



Components

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

Ambient/ machine room temperatures minimum /maximum

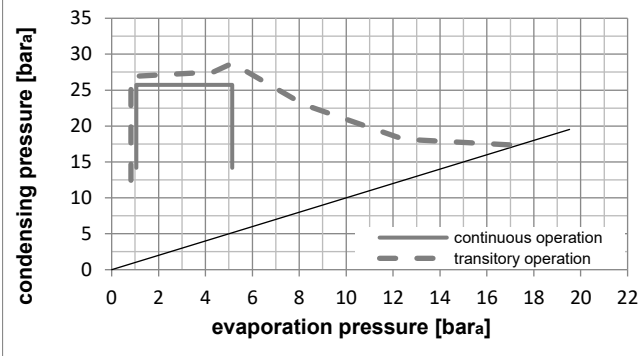
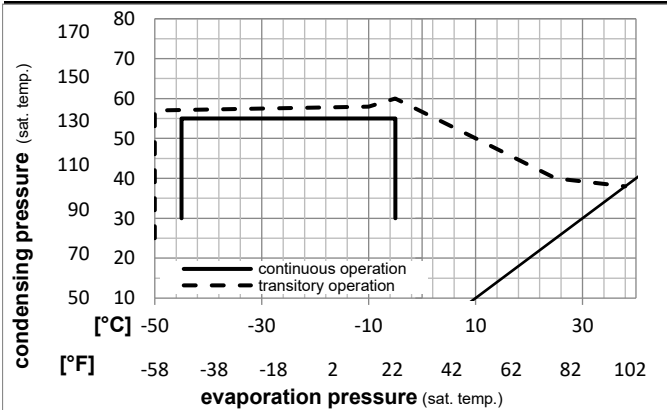
Ambient temperature range: 10 - 38°C / 50 - 101°F

Machine room temperature range: 10 - 43°C / 50 - 110°F

Compressor cooling: fan 3m/s

Operation Limits

Operation pressure range



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			Ref. mass flow
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]						P1	I	m	
[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]				
[°F]	[°F]	[°F]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	ASHRAE LBP			
-23	54	32	32	514,5	1757	442,8	1,10	3,75	0,94	468,9	2,89	11,99				
-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	90	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	49	4,4	49	410,0	1400	352,9	0,88	2,99	0,75	468,3	2,91	14,52	ARI540 LBP			
-10	120	40	120													
-23	41	32	32	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	90	113													

Performance tables

R404A, 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	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
[°C / °F]	-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

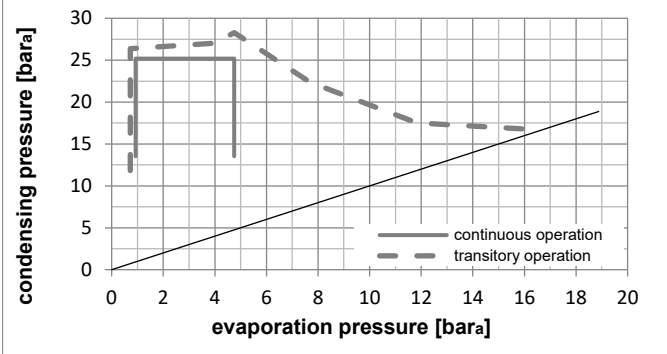
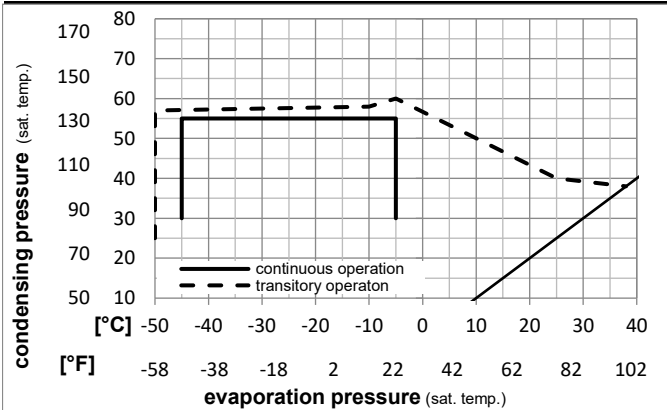


Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 38°C / 50 - 101°F
Machine room temperature range:	10 - 43°C / 50 - 110°F
Compressor cooling:	fan 3m/s

Operation Limits

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

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

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

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	



SC Compressors





SC Compressors

Service/Repair – R290



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