

Model

Designation	SC15CL	220-240V/50Hz 1~	Sales code:	104L2853
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R404A, R452A, R507
Oil viscosity	32cSt	Displacement	15,28cm³ / 0,93cu.in
Oil quantity	506cm³ / 17,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1510cm³ / 51,1fl.oz		
Weight	13,8kg / 30,4lbs		
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 SC15CL

	Conf. 1	Conf. 2
Motor configuration	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 SC15CL

	Conf. 1	Conf. 2
Refrigerant	R404A	R404A
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 SC15CL

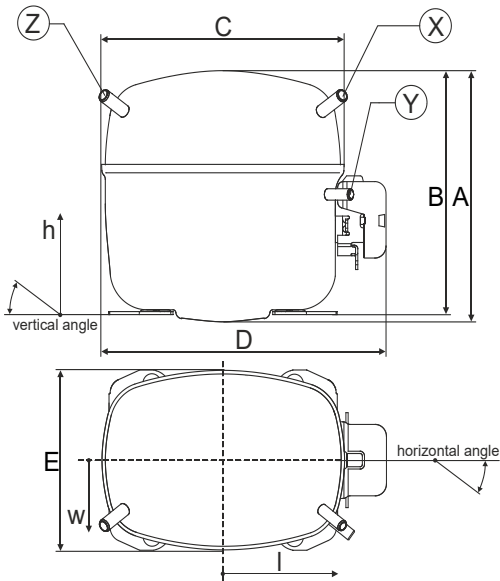
	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	-/-	-/-
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s/ U(N))	20,43A	20,43A
RLA (rated load amps / 1s/ U(N))	3,9A	3,9A
Cut in current (U(N))	20,43A	20,43A

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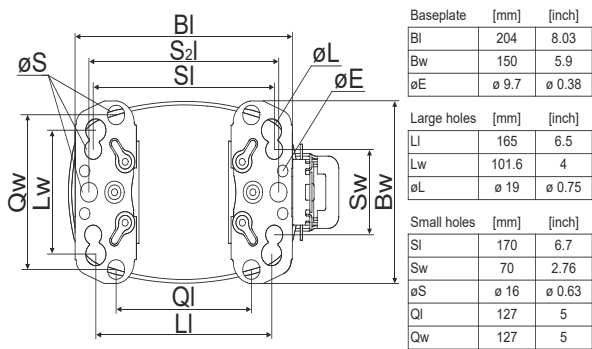
Compressor dimensions

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

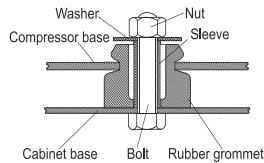
Connectors	Suction	Discharge	Process
	X	Y	Z
Diameter [mm]	øi 10,11-10,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55	115/110/63	-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



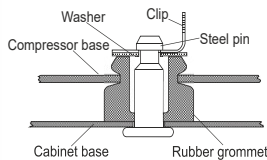
Compressor fixation



Bolt joint



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

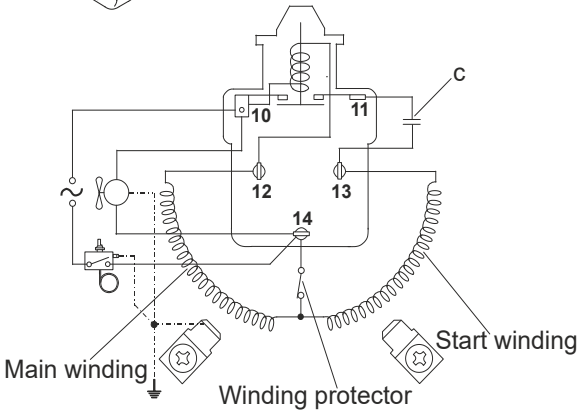
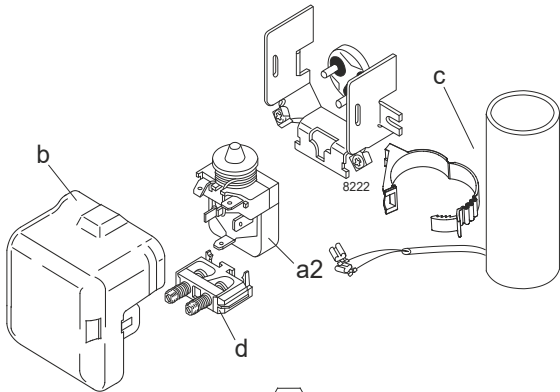
Provision for PE Grounding is located at the PE Stamp on the compressor

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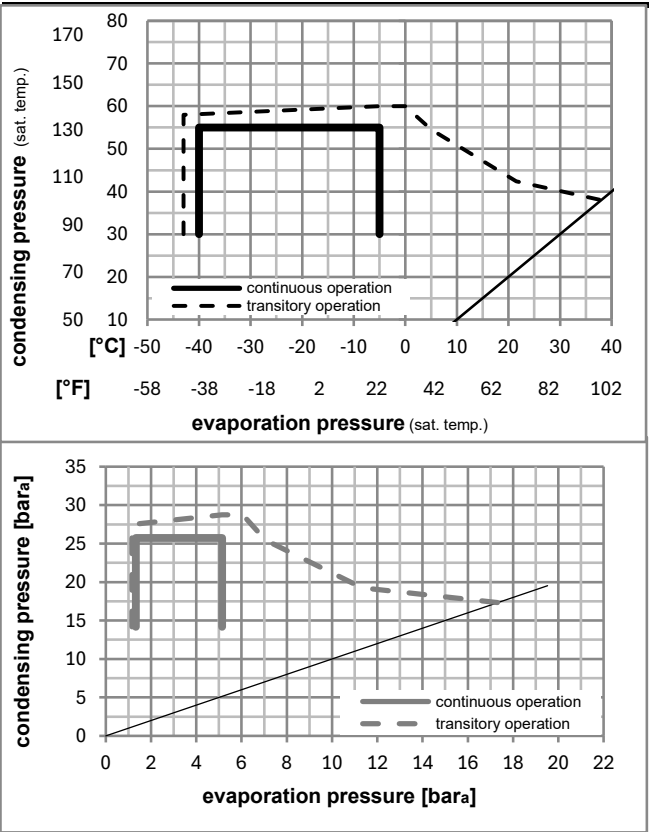
Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSIR	CSIR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R404A			
Application	LBP+MBP			
Voltage range	198-254V			
Starting torque	HST			
Approvals	VDE			
	CCC			
	EAC			

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s



Operation pressure range



Components		
a2	relay	117U6019
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation	SC15CL	220-240V/50Hz	Conf. 1	Sales code:	104L2853
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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	
											[W]	[A]	[kg/h]	
°C	-23	54	32	32	705,9	2411	607,5	1,19	4,07	1,02	592,8	3,60	16,45	ASHRAE LBP
°F	-10	130	90	90										

°C	-25	55	32	55	472,1	1612	406,3	0,83	2,85	0,72	566,7	3,50	14,76	cecomaf LBP
°F	-13	131	90	131										

°C	-35	40	20	40	361,0	1233	310,7	0,85	2,90	0,73	424,7	3,03	9,81	EN12900 LBP
°F	-31	104	68	104										

°C	-7	54	35	46	1341,7	4582	1154,7	1,50	5,14	1,29	891,8	4,79	36,92	ASHRAE MBP
°F	20	130	95	115										

°C	-10	55	32	55	1004,2	3429	864,2	1,22	4,17	1,05	821,6	4,49	32,15	cecomaf MBP
°F	14	131	90	131										

°C	-10	45	20	45	1134,0	3873	975,9	1,45	4,94	1,24	784,1	4,33	34,16	EN12900 MBP
°F	14	113	68	113										

Performance tables

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

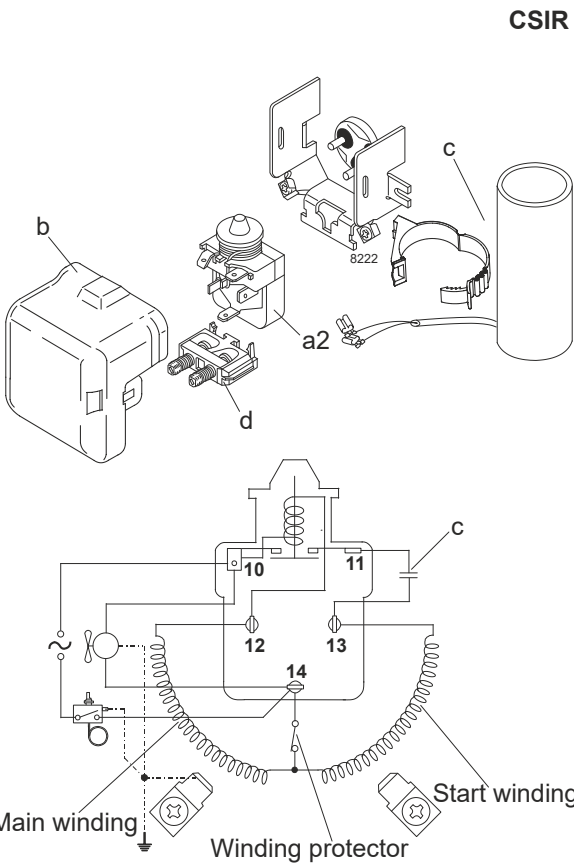
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-40	-40	216,6	740	186,4	0,56	1,92	0,48	384,8	2,92	5,77
cond. pressure	-35	-31	328,8	1123	283,0	0,75	2,55	0,64	440,6	3,08	8,79
pc= 45/113	-30	-22	458,7	1566	394,7	0,93	3,16	0,80	495,7	3,25	12,31
return gas temp.	-25	-13	608,6	2078	523,7	1,10	3,75	0,95	553,9	3,44	16,42
RGT= 32/90	-20	-4	781,0	2667	672,2	1,26	4,31	1,09	618,9	3,67	21,19
liquid temp	-15	5	978,5	3342	842,1	1,41	4,81	1,21	694,4	3,96	26,73
Tliq= 45/113	-5	23	1458,5	4981	1255,2	1,64	5,59	1,41	891,8	4,79	40,55
[°C / °F]	-40	-40	106,4	364	91,6	0,31	1,07	0,27	341,2	2,76	3,28
cond. pressure	-35	-31	214,0	731	184,1	0,51	1,74	0,44	419,3	3,01	6,62
pc= 55/131	-30	-22	335,0	1144	288,3	0,68	2,32	0,58	493,2	3,25	10,41
return gas temp	-25	-13	472,1	1612	406,3	0,83	2,85	0,72	566,7	3,50	14,76
RGT= 32/90	-20	-4	627,7	2144	540,2	0,98	3,33	0,84	643,4	3,78	19,75
liquid temp	-15	5	804,2	2747	692,1	1,11	3,78	0,95	727,2	4,10	25,50
Tliq= 55/131	-5	23	1230,0	4201	1058,6	1,32	4,51	1,14	930,5	4,96	39,81

Model				
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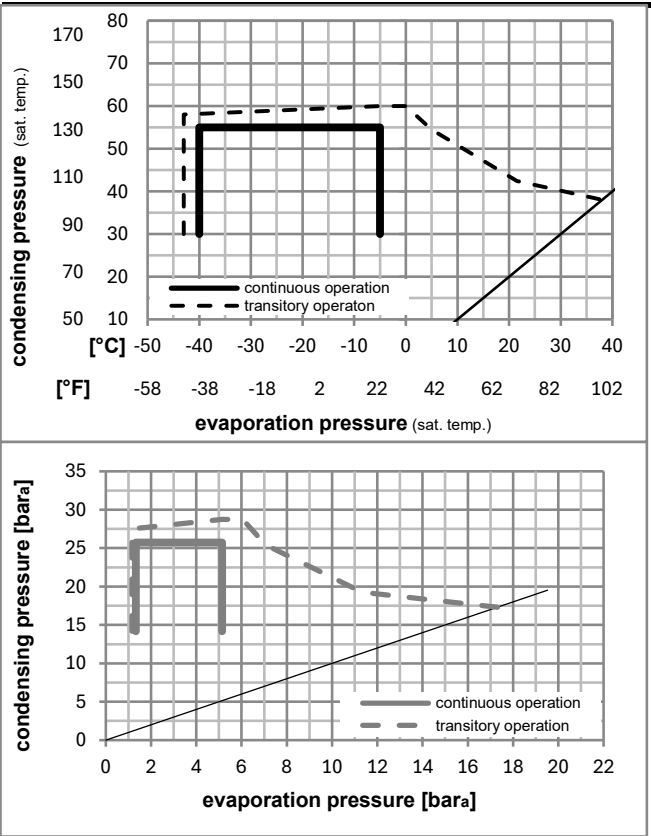
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Motor configuration	CSIR	CSIR		
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R404A			
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Starting torque	HST			
Approvals	VDE			
	CCC			

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Operation pressure range



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

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Designation **SC15CL** **220-240V/50Hz** Conf. 2 Sales code: **104L2853**

Optimization + standard conditions

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption									
Return gas temp.					Current consumption						Ref. mass flow									
Liquid temp.					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	54	32	32	653,5	2232	562,4	1,18	4,04	1,02	552,2	3,45	15,23							
[°F]	-10	130	90	90																
																				ASHRAE LBP
[°C]	-25	55	32	55	435,6	1488	374,9	0,83	2,83	0,71	526,5	3,36	13,62							
[°F]	-13	131	90	131																
																				cecomaf LBP
[°C]	-35	40	20	40	325,5	1112	280,1	0,83	2,84	0,72	390,9	2,93	8,84							
[°F]	-31	104	68	104																
																				EN12900 LBP
[°C]	-7	54	35	46	1277,4	4362	1099,3	1,51	5,14	1,30	848,1	4,60	35,15							
[°F]	20	130	95	115																
																				ASHRAE MBP
[°C]	-10	55	32	55	951,6	3250	818,9	1,22	4,17	1,05	778,5	4,31	30,46							
[°F]	14	131	90	131																
																				cecomaf MBP
[°C]	-10	45	20	45	1069,0	3651	920,0	1,44	4,91	1,24	743,4	4,16	32,20							
[°F]	14	113	68	113																
																				EN12900 MBP

Performance tables

R404A, 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]	-40	-40	193,1	659	166,1	0,55	1,88	0,47	351,5	2,84	5,14
cond. pressure	-35	-31	296,8	1014	255,4	0,73	2,50	0,63	404,9	2,98	7,93
pc= 45/113	-30	-22	418,4	1429	360,1	0,91	3,12	0,79	458,6	3,13	11,23
return gas temp.	-25	-13	560,5	1914	482,4	1,09	3,71	0,94	515,8	3,31	15,12
RGT= 32/90	-20	-4	725,5	2478	624,4	1,25	4,27	1,08	580,1	3,53	19,68
liquid temp	-15	5	916,0	3128	788,4	1,40	4,78	1,20	654,9	3,80	25,02
Tliq= 45/113	-5	23	1383,6	4725	1190,7	1,63	5,56	1,40	849,2	4,60	38,46
[°C / °F]	-40	-40	94,2	322	81,1	0,30	1,04	0,26	309,7	2,69	2,90
cond. pressure	-35	-31	192,8	659	166,0	0,50	1,72	0,43	383,7	2,91	5,96
pc= 55/131	-30	-22	305,8	1044	263,2	0,67	2,30	0,58	454,8	3,13	9,50
return gas temp	-25	-13	435,6	1488	374,9	0,83	2,83	0,71	526,5	3,36	13,62
RGT= 32/90	-20	-4	584,9	1997	503,3	0,97	3,32	0,84	602,1	3,62	18,40
liquid temp	-15	5	756,0	2582	650,6	1,10	3,77	0,95	684,9	3,93	23,98
Tliq= 55/131	-5	23	1174,1	4010	1010,5	1,32	4,52	1,14	886,2	4,76	38,00