

Model

Designation	SC12DL	220-240V/50Hz 1~	Sales code:	104L2627
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R404A, R507, R407C
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	13,6kg / 30lbs		
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 SC12DL

	Conf. 1
Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz
Number of phases	1
Voltage range	198-254V
Approvals	CCC, VDE,
Starting torque	HST
Note	Compressor with noise optimization kit.

Applications with SC12DL

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

Electrical data - Configurations with SC12DL

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

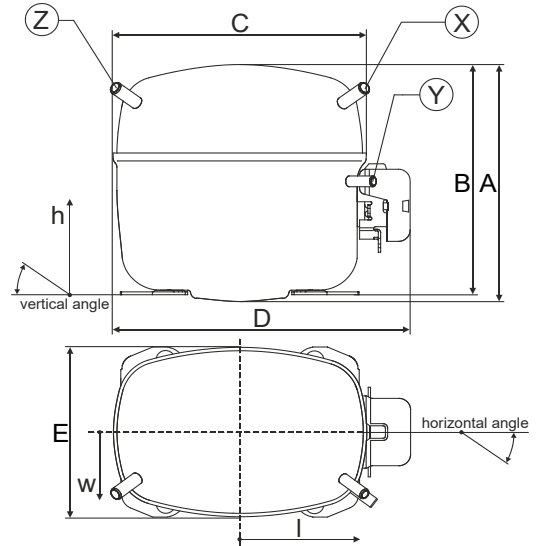
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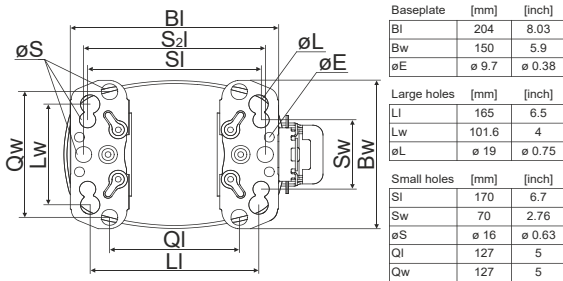
Compressor dimensions

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

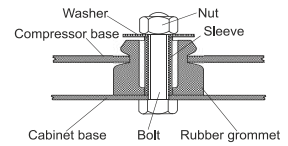
Connectors		Suction	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 10,11-10,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside)	[in]	øi 0,4-0,41	øi 0,24-0,25	øi 0,24-0,25
Material		copper	copper	copper
Horizontal angle	±2°	37°	37°	143°
Vertical angle	±2°	30°	0°	150°
Position l/h/w	[mm]	107/193/55	115/110/63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



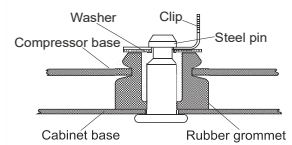
Compressor fixation



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

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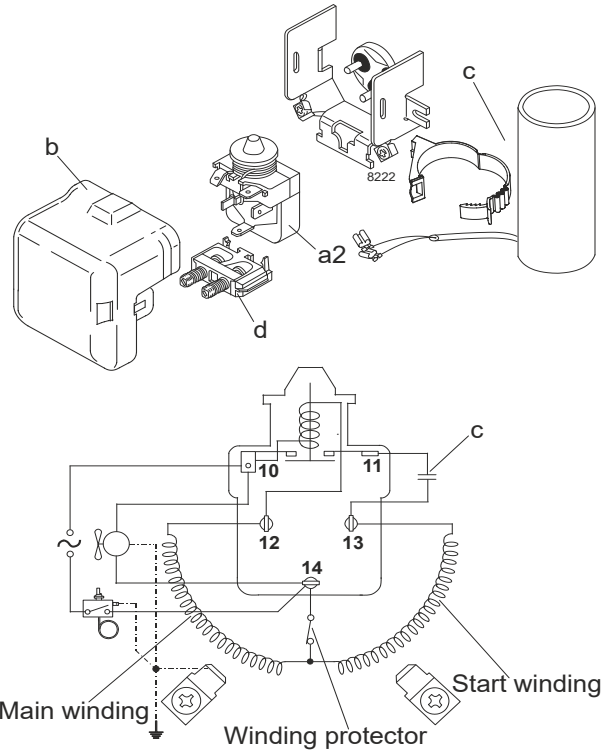
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Configuration

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Refrigerant	R404A
Application	HBP
Voltage range	198-254V
Starting torque	HST
Approvals	CCC VDE 0

Electrical accessories / wiring diagram

CSIR

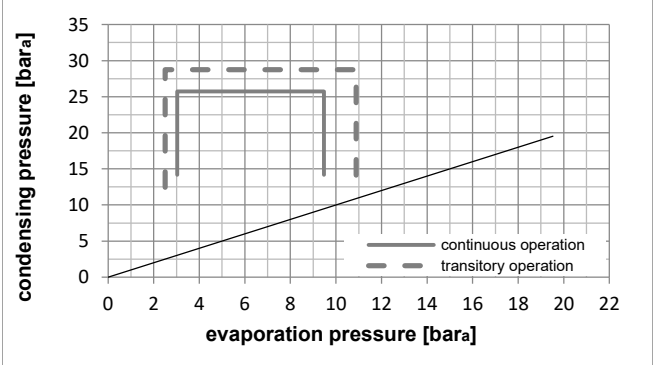
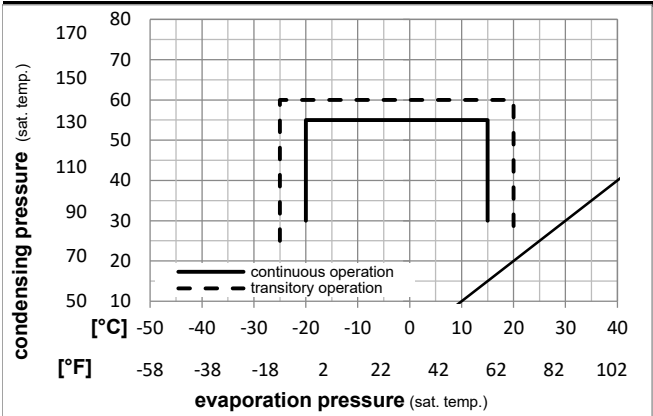


Ambient temperatures / system cooling

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	n/a	n/a	fan 3m/s
38°C / 100°F	n/a	n/a	fan 3m/s
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	103N2009

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Optimization + standard conditions

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)					Power consumption				
					Return gas temp.					Current consumption				
					Liquid temp.					Ref. mass flow				
					Cooling capacity					COP EER				
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]	ASHRAE HBP
[°F]	[°F]	[°F]	[°F]	[°F]										cecomaf HBP
7,22	54,4	35	46,1		1942,9	6635	1672,1	2,26	7,71	1,94	860,4	4,92	55,24	ASHRAE HBP
45	130	95	115											
5	55	32	55		1525,8	5211	1313,1	1,80	6,15	1,55	847,7	4,85	50,81	cecomaf HBP
41	131	89,6	131											
5	50	20	50		1583,4	5408	1362,7	1,99	6,78	1,71	797,5	4,64	54,00	EN12900 HBP
41	122	68	122											
-6,66	54,4	35	46,1		1123,7	3838	967,1	1,57	5,37	1,35	714,7	4,26	30,92	ASHRAE MBP
20	130	95	115											
-10	55	32	55		826,6	2823	711,4	1,23	4,21	1,06	670,5	4,08	26,46	cecomaf MBP
14	131	89,6	131											
-10	45	20	45		968,4	3307	833,4	1,55	5,30	1,34	623,9	3,89	29,17	EN12900 MBP
14	113	68	113											

Performance tables

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

	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]	-20	-4	608,7	2079	523,9	1,24	4,25	1,07	489,3	3,37	16,52
cond. pressure	-15	5	805,8	2752	693,4	1,43	4,89	1,23	562,5	3,65	22,01
pc= 45/113	-10	14	1027,7	3510	884,5	1,65	5,63	1,42	623,9	3,89	28,30
return gas temp.	-5	23	1279,4	4369	1101,0	1,90	6,47	1,63	674,8	4,11	35,57
RGT= 32/90	0	32	1565,2	5345	1347,0	2,18	7,46	1,88	716,5	4,29	44,00
liquid temp	5	41	1889,8	6454	1626,4	2,52	8,60	2,17	750,4	4,44	53,84
Tliq= 45/113	15	59	2674,2	9133	2301,4	3,34	11,41	2,88	800,2	4,66	78,86
[°C / °F]	-20	-4	465,8	1591	400,9	0,95	3,23	0,81	492,6	3,41	14,66
cond. pressure	-15	5	638,7	2181	549,7	1,09	3,71	0,93	588,4	3,76	20,26
pc= 55/131	-10	14	826,6	2823	711,4	1,23	4,21	1,06	670,5	4,08	26,46
return gas temp	-5	23	1034,0	3531	889,8	1,40	4,77	1,20	740,2	4,37	33,47
RGT= 32/90	0	32	1265,5	4322	1089,1	1,58	5,41	1,36	798,8	4,62	41,50
liquid temp	5	41	1525,8	5211	1313,1	1,80	6,15	1,55	847,7	4,85	50,81
Tliq= 55/131	15	59	2151,3	7347	1851,4	2,33	7,97	2,01	921,8	5,22	74,60