

Model

Designation	SC18G	115V/60Hz 1~	Sales code:	104G7800
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	22cSt	Displacement	17,69cm³ / 1,08cu.in
Oil quantity	550cm³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm³ / 49,4fl.oz		
Weight	13,8kg / 30,4lbs		
Motor protection	external		
Winding resistance main	0,66Ω (at 25°C)		
Winding resistance aux	2,7Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with SC18G

	Conf. 1	Conf. 2
Motor configuration	CSIR	CSIR
Power supply (nominal)	115V/60Hz	115V/60Hz
Number of phases	1	1
Voltage range	95-135V	95-135V
Approvals	UL	UL
Starting torque	HST	HST
Note	Protector and cover are included and pre-assembled to compressor.	

Applications with SC18G

	Conf. 1	Conf. 2
Refrigerant	R134a	R513A
Application	LBP+MBP+HBP	LBP+MBP+HBP
System cooling	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

Electrical data - Configurations with SC18G

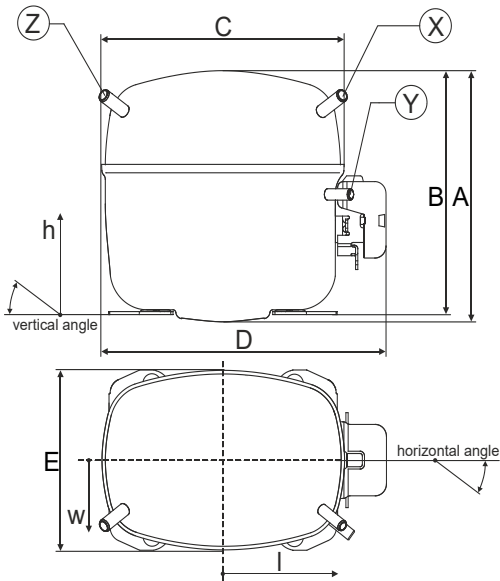
	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	-/-	-/-
Start capacitor	410μF	410μF
LRA (locked rotor amps / 4s/ U(N))	53A	53A
RLA (rated load amps / 1s/ U(N))	9,8A	9,8A
Cut in current (U(N))	56,8A	56,8A

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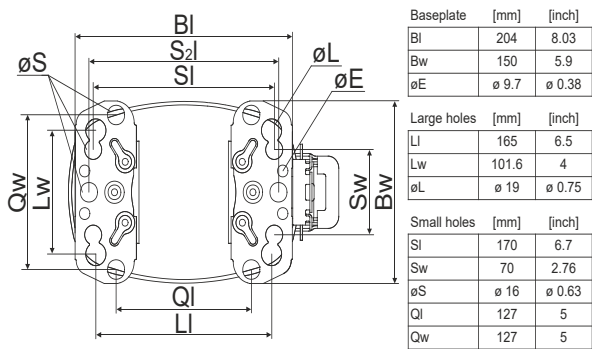
Compressor dimensions

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

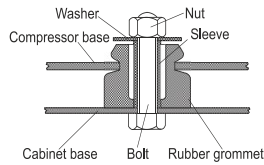
Connectors	Suction	Discharge	Process
	X	Y	Z
Diameter [mm]	øi 9,54-9,72	øi 6,41-6,59	øi 6,41-6,59
(i:inside, o:outside) [in]	øi 0,38-0,38	øi 0,25-0,26	øi 0,25-0,26
Material	copper	copper	copper
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55	115/110/63	-107/193/55
[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



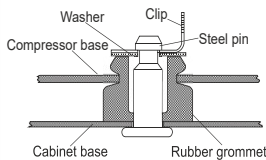
Compressor fixation



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

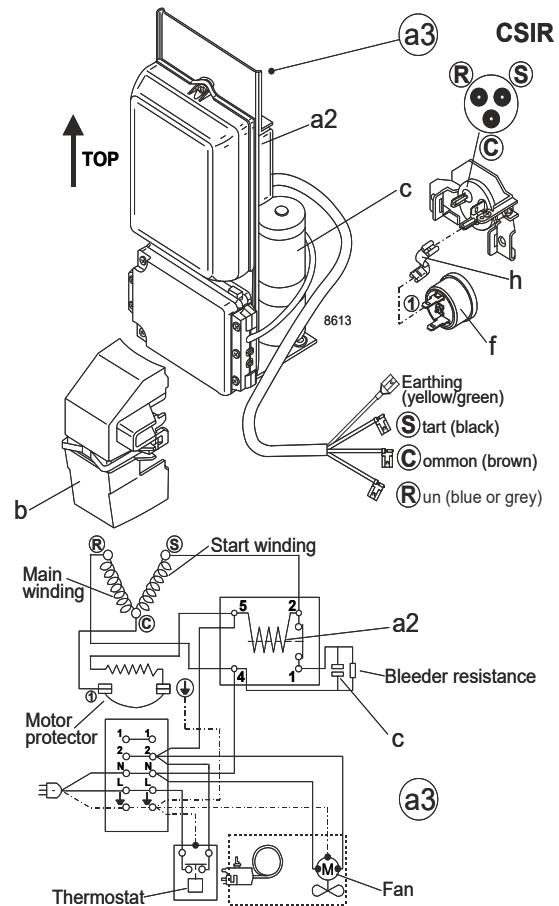
Model

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Configuration

Motor configuration	CSIR	
Power supply (nominal)	115V/60Hz 1~	
Refrigerant	R134a	
Application	LBP+MBP+HBP	
Voltage range	95-135V	
Starting torque	HST	
Approvals	UL	SA3693

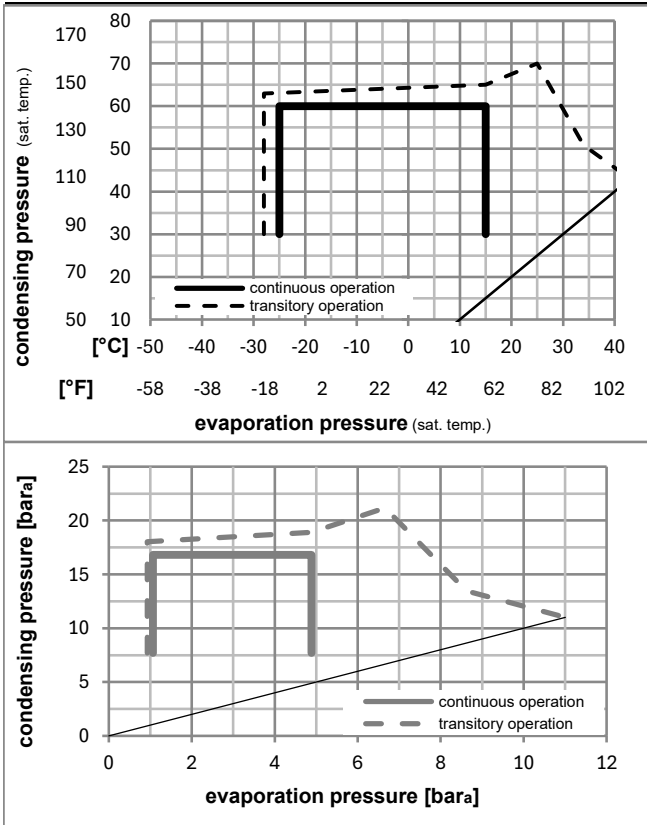
Electrical accessories / wiring diagram



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 (protector (f) + holder (h) + cover (b): incl. and pre assembl.)

a3	SC starter kit	117-7053
f	ext. protector (T0761/46)	117U3212
h	protector holder	117U0439
b	plastic cover + clamp	117U1021

Alternative comp.

a2	potential relay (RVA 7AA3R)	117-7441
c	start capacitor (410μF, 6.3mm)	117U5042
f	ext. protector (T0761/46)	117U3212
h	protector holder	117U0439
b	plastic cover + clamp	117U1021

Model					
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Optimization + standard conditions			R134a, 115V/60Hz, CSIR, fan 3m/s, UL		

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption			
Return gas temp.					Liquid temp.						Current consumption			
Cooling capacity					COP		EER		P1		I		Ref. mass flow	
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	m		
[°C]	-23	54	32	32	397,3	1357	341,9	0,98	3,36	0,85	404,1	6,71	7,71	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-7	54	35	46	1024,1	3497	881,3	1,48	5,06	1,28	690,6	8,41	22,34	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	7,2	54	35	46	1831,5	6255	1576,2	2,01	6,86	1,73	912,1	10,07	40,63	ASHRAE HBP
[°F]	45	130	95	115										
[°C]	-35	40	20	40	183,9	628	158,2	0,64	2,19	0,55	287,1	6,26	4,03	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-10	45	20	45	910,0	3108	783,1	1,44	4,93	1,24	629,8	7,93	21,30	EN12900 MBP
[°F]	14	113	68	113										
[°C]	5	50	20	50	1574,7	5378	1355,2	1,84	6,28	1,58	856,7	9,62	39,68	EN12900 HBP
[°F]	41	122	68	122										

Performance tables						R134a, 115V/60Hz, CSIR, fan 3m/s, UL					
	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]	-23	-10	454,9	1553	391,5	1,02	3,49	0,88	444,6	6,87	9,86
cond. pressure	-23	-10	454,9	1553	391,5	1,02	3,49	0,88	444,6	6,87	9,86
pc= 45/113	-9	15	968,4	3307	833,4	1,52	5,19	1,31	637,1	7,98	21,21
return gas temp.	-4	25	1234,3	4215	1062,2	1,74	5,95	1,50	709,0	8,49	27,17
RGT= 32/90	0	32	1446,7	4941	1245,1	1,91	6,51	1,64	758,4	8,87	31,99
liquid temp	4,4	40	1719,5	5873	1479,8	2,11	7,21	1,82	814,4	9,32	38,25
Tliq= 45/113	15	59	2516,1	8593	2165,4	2,65	9,06	2,28	947,9	10,49	56,99
[°C / °F]	-23	-10	315,1	1076	271,2	0,79	2,69	0,68	400,3	6,69	7,54
cond. pressure	-23	-10	315,1	1076	271,2	0,79	2,69	0,68	400,3	6,69	7,54
pc= 55/131	-9	15	804,4	2747	692,3	1,25	4,27	1,08	643,9	8,10	19,46
return gas temp	-4	25	1046,5	3574	900,7	1,42	4,86	1,22	735,6	8,73	25,47
RGT= 32/90	0	32	1237,6	4226	1065,1	1,55	5,29	1,33	798,6	9,19	30,27
liquid temp	4,4	40	1481,1	5058	1274,6	1,70	5,81	1,47	869,9	9,74	36,46
Tliq= 55/131	15	59	2187,5	7471	1882,5	2,11	7,19	1,81	1038,9	11,14	54,94

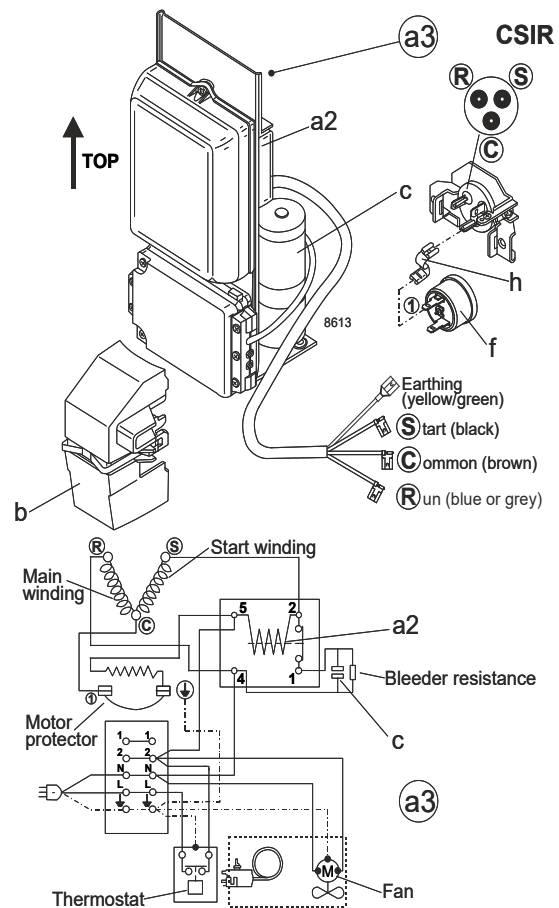
Model

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Application	LBP+MBP+HBP	
Voltage range	95-135V	
Starting torque	HST	
Approvals	UL	SA3693

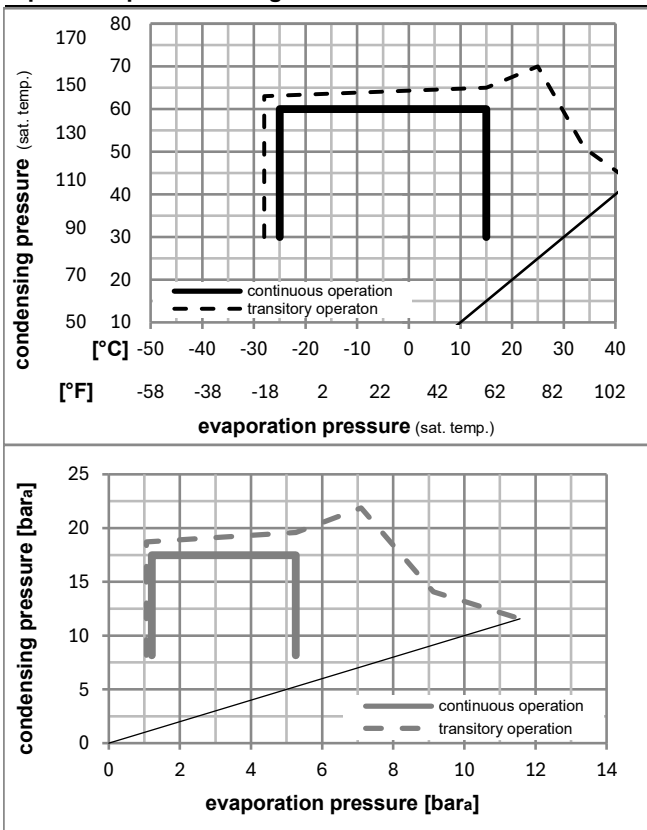
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Optimization + standard conditions

R513A, 115V/60Hz, CSIR, fan 3m/s, UL

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)														
Return gas temp.														
Liquid temp.														
Cooling capacity														
COP														
EER														
Power consumption														
Current consumption														
Ref. mass flow														
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	442,2	1510	380,6	1,02	3,48	0,88	433,9	6,83	9,52	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-7	54	35	46	1076,7	3677	926,6	1,47	5,01	1,26	733,8	8,81	26,37	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	7,2	54	35	46	1883,6	6433	1621,0	1,98	6,75	1,70	953,1	10,26	46,79	ASHRAE HBP
[°F]	45	130	95	115										
[°C]	-35	40	20	40	211,3	722	181,8	0,79	2,70	0,68	267,3	5,73	5,23	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-10	45	20	45	952,3	3252	819,5	1,42	4,85	1,22	670,8	8,40	25,24	EN12900 MBP
[°F]	14	113	68	113										
[°C]	5	50	20	50	1598,4	5459	1375,6	1,78	6,08	1,53	897,3	9,89	45,83	EN12900 HBP
[°F]	41	122	68	122										