

Model
SC18G

Sales code:
104G7800

Compressor Data

Refrigerant(s)	R134a / R513A
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.80 kg / 30.42lbs
Displacement	17.69 cm3 / 1.08cu.in
Compressors on pallet	80



General – Configurations With SC18G

-	Conf. 1	Conf. 2
Motor configuration	CSIR	CSIR
Power supply (nominal)	115 V/60 Hz	115 V/60 Hz
Number of phases	1	1
Voltage range	95-135 V	95-135 V
Approvals	UL	UL
Starting torque	HST	HST
Refrigerant	R134a	R513A
Application	LBP+MBP+HBP	LBP+MBP+HBP
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

Application Notes

- Protector and cover are included and pre-assembled to compressor.
- Provision for PE Grounding is located at the PE Stamp on the compressor

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Compressor Design

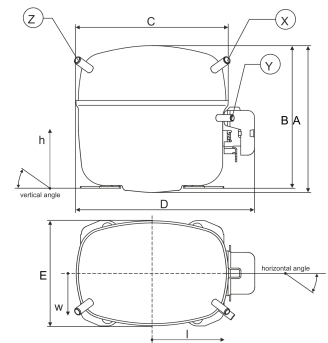
Oil type	POE	Winding resistance main	0.66 Ohm
Oil viscosity	22cSt	Winding resistance aux	2.7 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm³ / 49.37fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	external		

Compressor Dimensions

Housing

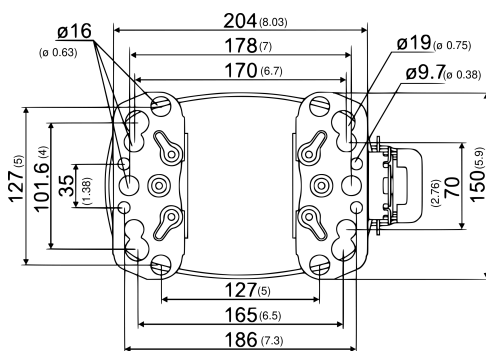
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)



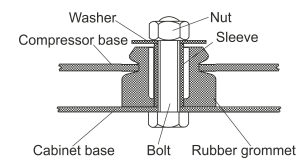
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 9.54–9.72 / 0.38–0.38in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

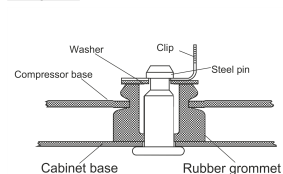


Dimensions in mm [in]

Bolt joint



Snap-on



	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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Configuration 1

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Configuration

Motor configuration	CSIR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	95-135 V
Starting torque	HST
Approvals	UL
Starting device type	relay
Run capacitor	-/-
Start capacitor	410 µF
LRA (locked rotor amps / 4s/ U(N))	56.8 A
RLA (rated load amps / 1s/ U(N))	9.8 A
Cut in current (U(N))	56.8 A

Ambient/ machine room temperatures minimum /maximum

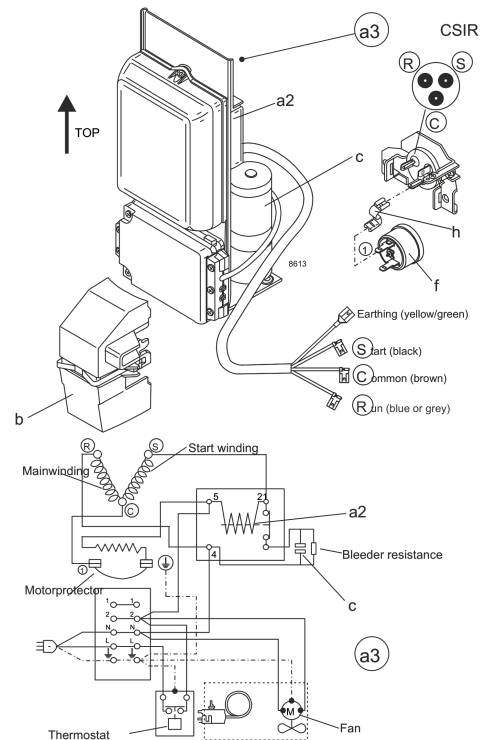
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components (protector + ~holder + cover: pre assembled)

a3 SC starter kit 117-7053

f ext. protector (T0761/46) 117U3212

h protector holder 117U0439

b plastic cover + clamp 117U1021

Alternative components

a2 potential relay (RVA 7AA3R) 117-7441

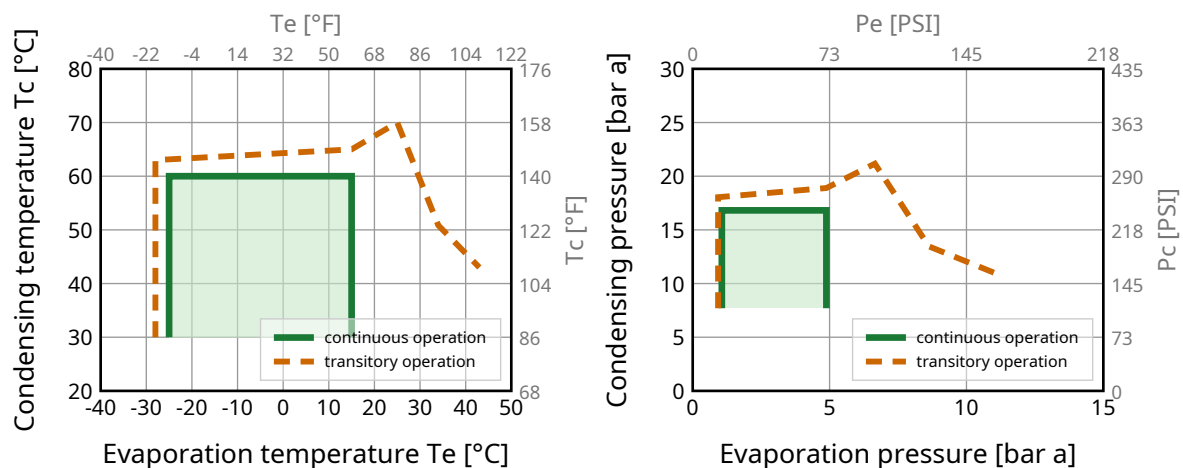
c start capacitor (410µF, 6.3mm) 117U5042

f ext. protector (T0761/46) 117U3212

h protector holder 117U0439

b plastic cover + clamp 117U1021

Operation Pressure Range



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Configuration 1

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Standard Conditions

R134a, 115 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	398	1359	343	0.98	3.36	405	6.71	7.73	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1022	3486	879	1.48	5.05	690	8.40	22.25	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1829	6240	1573	2.01	6.84	912	10.07	40.48	ASHRAE HBP
-35 -31	40 104	20 68	40 104	184	628	158	0.64	2.19	287	6.26	4.03	EN12900 LBP
-10 14	45 113	20 68	45 113	912	3110	784	1.45	4.94	630	7.93	21.25	EN12900 MBP
5 41	50 122	20 68	50 122	1578	5382	1357	1.84	6.28	857	9.62	39.57	EN12900 HBP

Performance Tables

R134a, 115 V/60 Hz, CSIR, fan 3m/s

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-25	-13	404	1379	348	0.96	3.28	420	6.75	8.74
-20	-4	562	1919	484	1.14	3.89	493	7.11	12.19
-10	14	944	3221	812	1.50	5.11	630	7.93	20.62
0	32	1447	4936	1244	1.91	6.51	758	8.87	31.92
10	50	2111	7202	1815	2.39	8.14	884	9.92	47.25
15	59	2516	8585	2164	2.65	9.06	948	10.49	56.84

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-25	-13	264	900	227	0.71	2.44	369	6.54	6.29
-20	-4	421	1437	362	0.91	3.12	461	7.01	10.08
-10	14	782	2668	673	1.23	4.20	635	8.04	18.85
0	32	1238	4223	1064	1.55	5.29	799	9.19	30.18
10	50	1828	6239	1573	1.91	6.51	959	10.46	45.30
15	59	2188	7464	1881	2.11	7.19	1039	11.14	54.75

Model

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Configuration 2

Sales code:

104G7800

Configuration

Motor configuration	CSIR
Power supply (nominal)	115 V/60 Hz 1~
Refrigerant	R513A
Application	LBP+MBP+HBP
Voltage range	95-135 V
Starting torque	HST
Approvals	UL
Starting device type	relay
Run capacitor	-/-
Start capacitor	410 µF
LRA (locked rotor amps / 4s/ U(N))	56.8 A
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Cut in current (U(N))	56.8 A

Ambient/ machine room temperatures minimum /maximum

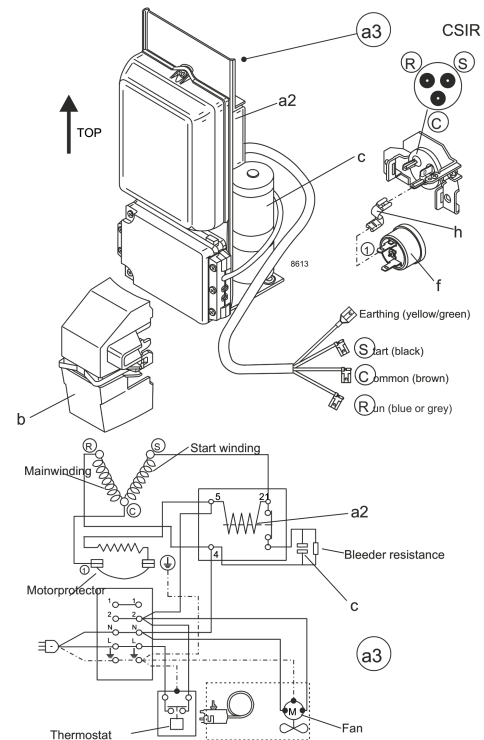
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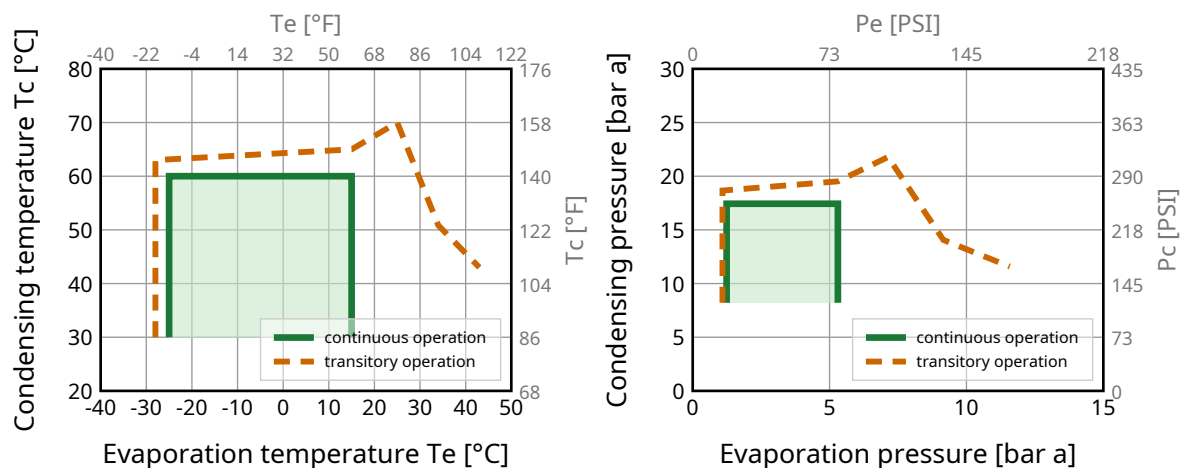
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h protector holder 117U0439

b plastic cover + clamp 117U1021

Operation Pressure Range



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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	442	1508	380	1.02	3.47	435	6.84	9.68	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1073	3662	923	1.46	5.00	733	8.81	26.76	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1881	6418	1618	1.98	6.74	953	10.26	47.80	ASHRAE HBP
-35 -31	40 104	20 68	40 104	211	720	181	0.79	2.69	267	5.73	5.30	EN12900 LBP
-10 14	45 113	20 68	45 113	949	3238	816	1.42	4.83	671	8.39	25.70	EN12900 MBP
5 41	50 122	20 68	50 122	1589	5421	1366	1.77	6.04	897	9.89	46.85	EN12900 HBP

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-25	-13	442	1509	380	1.00	3.42	442	6.88	10.95
-20	-4	606	2069	521	1.15	3.93	526	7.44	15.05
-10	14	996	3398	856	1.48	5.06	671	8.39	24.93
0	32	1501	5121	1291	1.88	6.41	798	9.24	38.02
10	50	2162	7376	1859	2.34	7.98	924	10.06	55.67
15	59	2563	8745	2204	2.59	8.83	990	10.51	66.72

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-25	-13	287	978	247	0.72	2.47	395	6.58	7.94
-20	-4	449	1531	386	0.90	3.08	497	7.25	12.47
-10	14	813	2774	699	1.20	4.09	678	8.44	22.81
0	32	1264	4312	1087	1.50	5.13	840	9.52	35.93
10	50	1841	6282	1583	1.84	6.28	1000	10.57	53.34
15	59	2190	7471	1883	2.02	6.89	1084	11.12	64.20