

Single Pack SC18G 115V 60Hz CSIR

Single pack code number: **195B4152**

Position	Title	Code	Amount
1	Compressor SC18G	104G7800	1
2	SC starting device (600mm)	117-7053	1
3	Bolt joint for one compressor M6 ø16mm	118-1917	1

Secop GmbH • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • www.secop.com

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved.

Model

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

Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	22cST	Displacement	17,69cm ³ / 1,08cu.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	13,8kg / 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
Motorconfiguration	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)	56,8A	56,8A
RLA (rated load amps / 1s)	9,8A	9,8A
Cut in current	56,8A	56,8A
IP class	21	21

Model

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

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

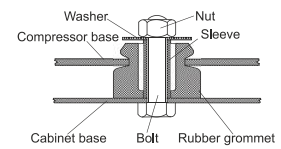


Compressor fixation

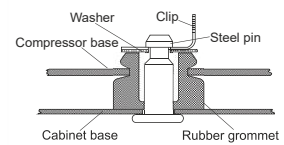


Baseplate	[mm]	[inch]
BI	204	8.03
BW	150	5.9
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
LW	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
SW	70	2.76
øS	ø 16	ø 0.63
QI	127	5
QW	127	5

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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

Model

Designation	SC18G	115V/60Hz	Conf. 1	Sales code:	104G7800
-------------	--------------	------------------	----------------	-------------	-----------------

Configuration

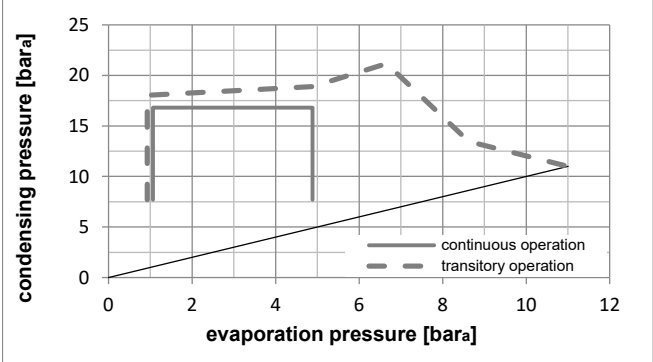
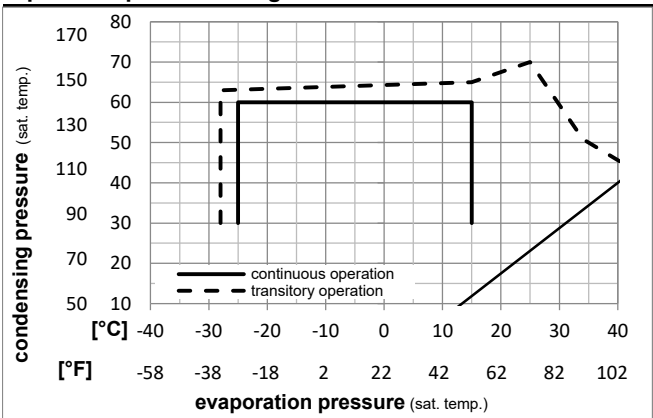
Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	95-135V
Starting torque	HST
Approvals	UL SA3693

Ambient temperatures / system cooling

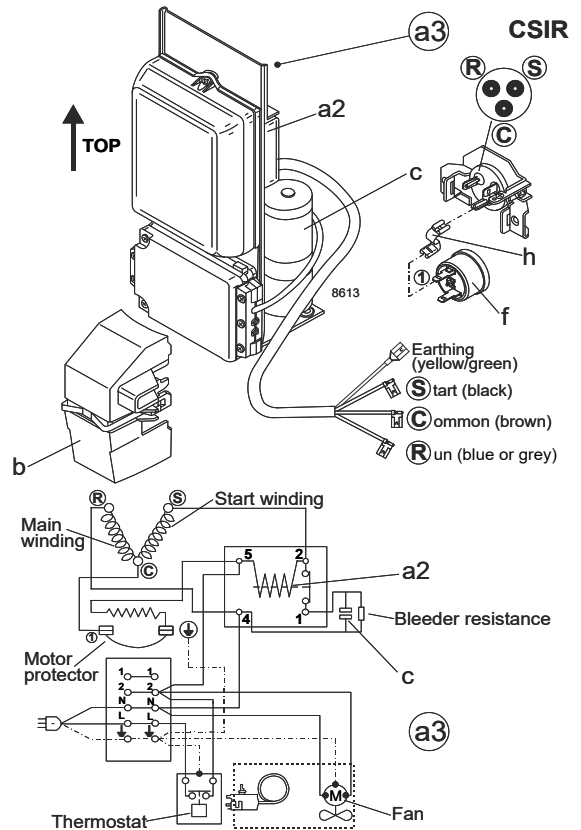
Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	fan 3m/s	fan 3m/s
38°C / 100°F	fan 3m/s	fan 3m/s	fan 3m/s
43°C / 110°F	fan 3m/s	fan 3m/s	fan 3m/s

Operation pressure range



Electrical accessories / wiring diagram



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	117U1021

Alternative comp. (protector + ~holder + cover: pre assemb.)

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

Model

Designation **SC18G 115V/60Hz** Conf. 1 Sales code: **104G7800**

Optimization + standard conditions

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

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)				Cooling capacity			COP	EER	Power consumption			ASHRAE
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	LBP	
[°C]	[°C]	[°C]	[°C]							[W]	[A]	[kg/h]		
-23,3	54,4	32,2	32,2	397,3	1357	341,9	0,98	3,36	0,85	404,1	6,71	7,71	ASHRAE LBP	
[°F]														
-10	130	90	90											
-6,66	54,4	35	46,1	1024,1	3497	881,3	1,48	5,06	1,28	690,6	8,41	22,34	ASHRAE MBP	
[°C]														
20	130	95	115											
-31	104	68	104											
7,22	54,4	35	46,1	1831,5	6255	1576,2	2,01	6,86	1,73	912,1	10,07	40,63	ASHRAE HBP	
[°C]														
45	130	95	115											
-35	40	20	40	183,9	628	158,2	0,64	2,19	0,55	287,1	6,26	4,03	EN12900 LBP	
[°C]														
-31	104	68	104											
-10	45	20	45	910,0	3108	783,1	1,44	4,93	1,24	629,8	7,93	21,30	EN12900 MBP	
[°C]														
14	113	68	113											
5	50	20	50	1574,7	5378	1355,2	1,84	6,28	1,58	856,7	9,62	39,68	EN12900 HBP	
[°C]														
41	122	68	122											

Performance tables

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]	-25	-13	404,1	1380	347,7	0,96	3,29	0,83	419,8	6,75	8,75
cond. pressure	-23,3	-10	454,9	1553	391,5	1,02	3,49	0,88	444,6	6,87	9,86
pc= 45/113	-9,4	15	968,4	3307	833,4	1,52	5,19	1,31	637,1	7,98	21,21
return gas temp.	-3,9	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]	-25	-13	263,8	901	227,1	0,71	2,44	0,62	369,2	6,54	6,31
cond. pressure	-23,3	-10	315,1	1076	271,2	0,79	2,69	0,68	400,3	6,69	7,54
pc= 55/131	-9,4	15	804,4	2747	692,3	1,25	4,27	1,08	643,9	8,10	19,46
return gas temp	-3,9	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

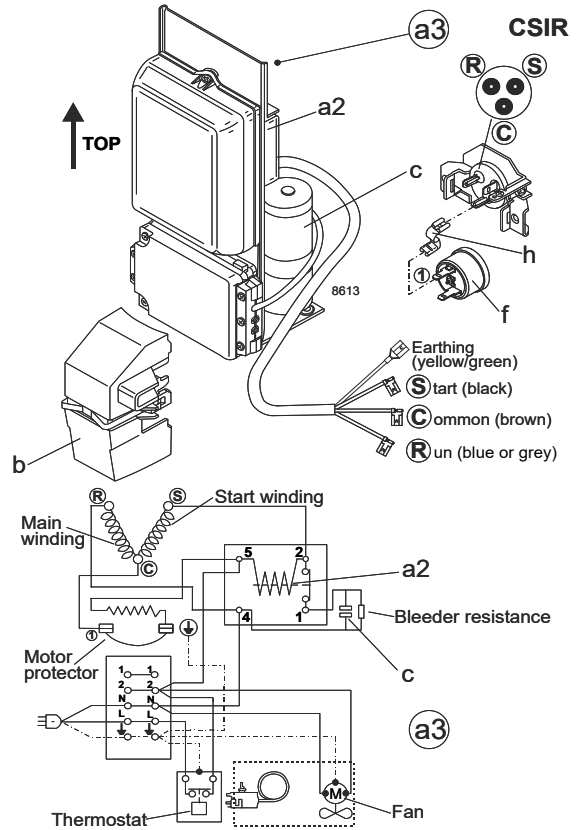
Model

Designation	SC18G	115V/60Hz	Conf. 2	Sales code:	104G7800
-------------	--------------	------------------	----------------	-------------	-----------------

Configuration

Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R513A
Application	LBP+MBP+HBP
Voltage range	95-135V
Starting torque	HST
Approvals	UL SA3693

Electrical accessories / wiring diagram

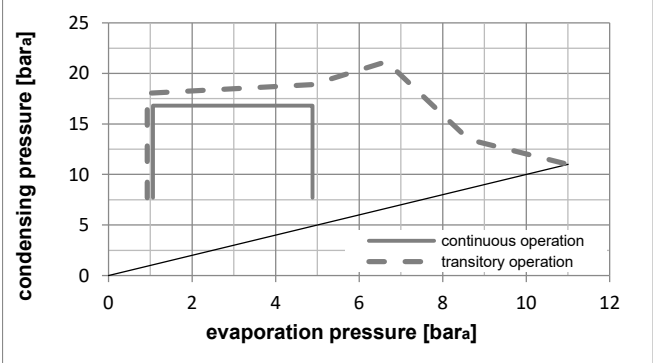
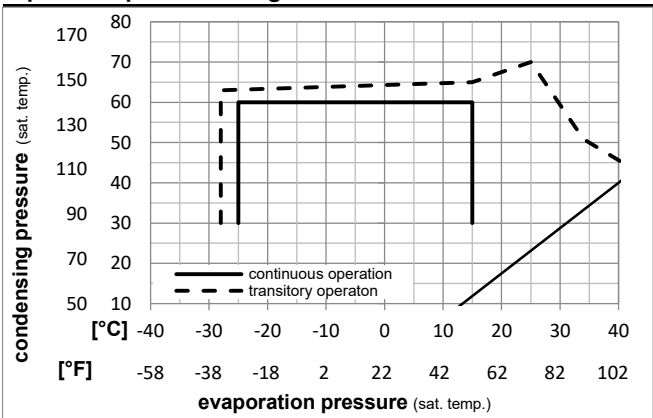


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	fan 3m/s	fan 3m/s
38°C / 100°F	fan 3m/s	fan 3m/s	fan 3m/s
43°C / 110°F	fan 3m/s	fan 3m/s	fan 3m/s

Operation pressure range



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	117U1021

Alternative comp. (protector + ~holder + cover: pre assemb.)

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

Model

Designation **SC18G 115V/60Hz** Conf. 2 Sales code: **104G7800**

Optimization + standard conditions

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														
	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]	
[°F]	-23,3	54,4	32,2	32,2	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]	-6,66	54,4	35	46,1	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]	7,22	54,4	35	46,1	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										

Performance tables

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

	pe	Cooling capacity			COP	EER	P1	I	m			
		[°C]	[°F]	[W]						[Btu/h]	[kcal/h]	[W/W]
[°C / °F]	-25	-13		442,4	1511	380,7	1,00	3,42	0,86	442,0	6,88	10,78
cond. pressure	-23,3	-10		495,2	1691	426,2	1,05	3,59	0,90	471,0	7,08	12,08
pc= 45/113	-9,4	15		1020,4	3485	878,2	1,50	5,14	1,29	678,3	8,44	25,10
return gas temp.	-3,9	25		1288,2	4399	1108,6	1,72	5,87	1,48	749,9	8,92	31,83
RGT= 32/90	0	32		1500,9	5126	1291,7	1,88	6,42	1,62	798,4	9,24	37,23
liquid temp	4,4	40		1773,0	6055	1525,9	2,08	7,09	1,79	853,5	9,60	44,19
Tliq= 45/113	15	59		2562,9	8753	2205,7	2,59	8,84	2,23	990,4	10,50	64,84
[°C / °F]	-25	-13		286,7	979	246,7	0,73	2,48	0,62	395,4	6,58	7,85
cond. pressure	-23,3	-10		339,8	1160	292,4	0,79	2,70	0,68	430,4	6,81	9,31
pc= 55/131	-9,4	15		835,3	2853	718,9	1,22	4,15	1,05	687,2	8,50	23,11
return gas temp	-3,9	25		1075,5	3673	925,6	1,38	4,72	1,19	778,4	9,11	29,91
RGT= 32/90	0	32		1263,7	4316	1087,5	1,50	5,13	1,29	840,4	9,51	35,29
liquid temp	4,4	40		1502,3	5131	1292,9	1,65	5,63	1,42	910,9	9,98	42,19
Tliq= 55/131	15	59		2189,7	7478	1884,5	2,02	6,90	1,74	1084,0	11,12	62,54



SC Compressors

(External Protector)





SC Compressors (External Protector)



Service/Repair – R290



8545



Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved. www.secop.com