Single
Packs

Single Pack SC18G 115V 60Hz CSIR

Single pack code number: **195B4158**

Position	Title	Code	Amount
1	Compressor SC18G	104G7800	1
2	Starting relay (RVA 7AA3R435)	117-7441	1
3	Starting capacitor (410µF 125V, 6.3mm)	117U5042	1
4	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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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

Model
SC18G

Sales code:
104G7800

Compressor Design

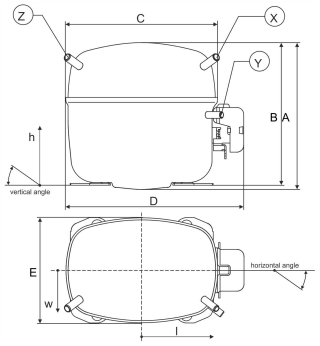
Oil type	**POE**	Winding resistance main	**0.66 Ohm**
Oil viscosity	**22cSt**	Winding resistance aux	**2.7 Ohm**
Oil quantity	**550 / 18.60fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,460 cm3 / 49.37fl.oz**	Max. discharge temp.	**135°C / 275°F**
Motor protection	**external**		

Compressor Dimensions

Housing

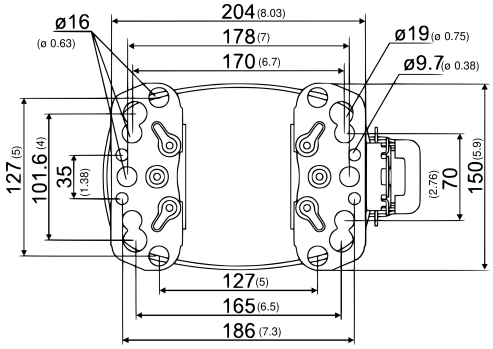
A Height	**219mm / 8.62in**
B Height	**213mm / 8.39in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



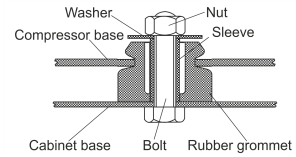
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 9.54–9.72 / 0.38–0.38in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

Mounting Accessories

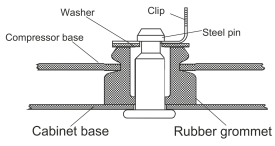


Dimensions in mm [in]

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

Model
SC18G Configuration 1

Sales code:
104G7800

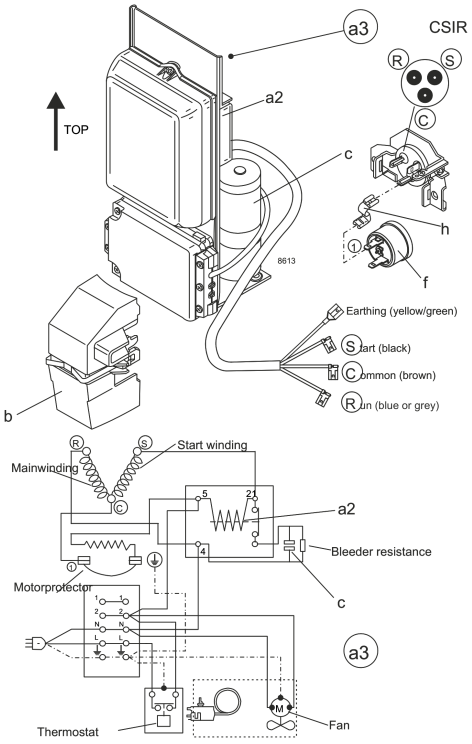
Configuration

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



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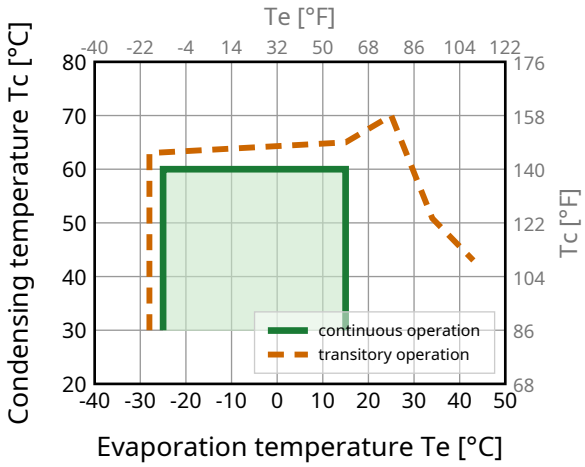
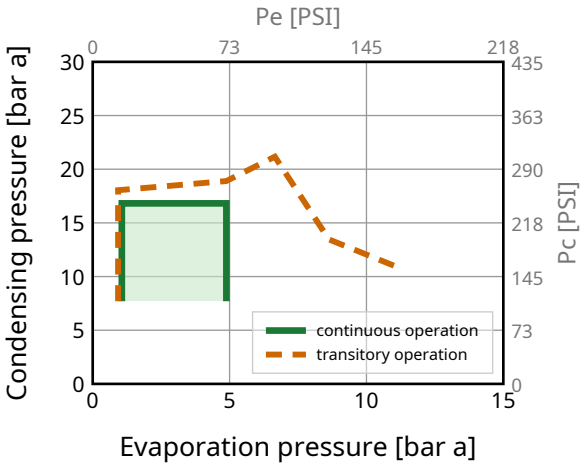
Components (protector + ~holder + cover: pre assembled)
a3 SC starter kit 117-7053
f ext. protector (T0761/46) 117U3212
h protector holder 117U0439
b plastic cover + clamp 117U1021

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





Model Sales code:

SC18G Configuration 1 **104G7800**

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	ṁ
[°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
SC18G Configuration 2

Sales code:
104G7800

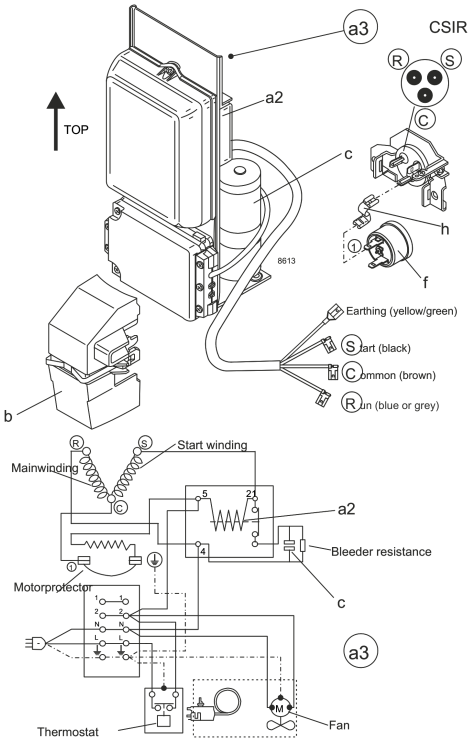
Configuration

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**
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



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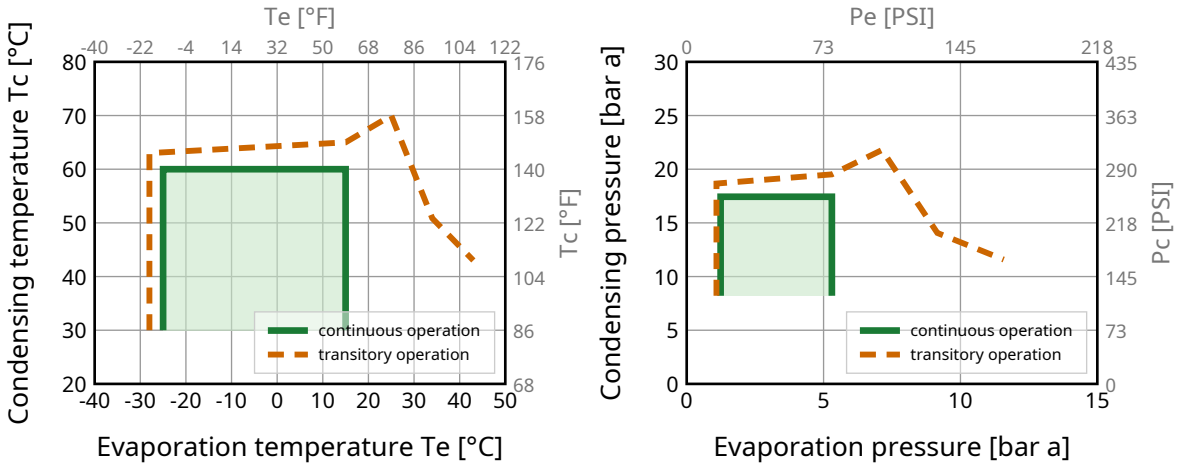
Components (protector + ~holder + cover: pre assembled)
a3 SC starter kit 117-7053
f ext. protector (T0761/46) 117U3212
h protector holder 117U0439
b plastic cover + clamp 117U1021

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



Model

SC18G Configuration 2

Sales code:

104G7800

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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

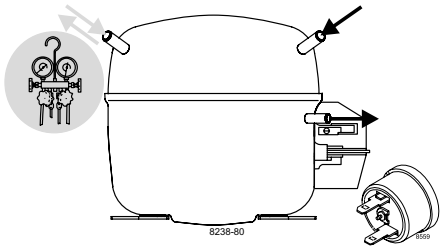
R513A, 115 V/60 Hz, CSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°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



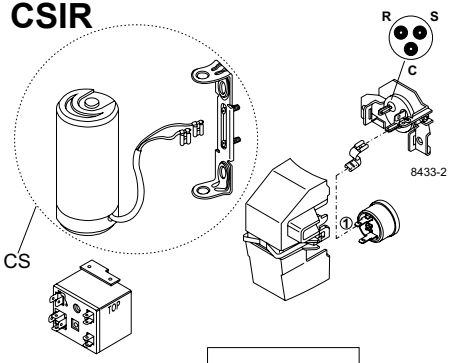
SC Compressors
(External Protector)

SECOP

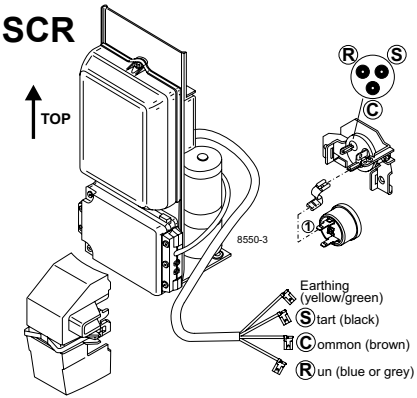
Keep electrical equipment clear from oil, chemicals, and water

When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

CSIR

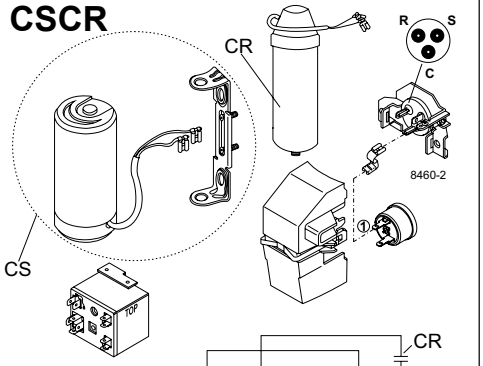


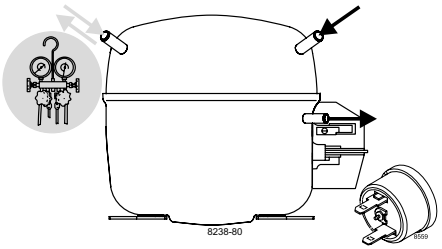
CSCR



	S	C	R
ENGLISH	Black	Brown	Blue or grey
DEUTSCH	Schwarz	Braun	Blau od. grau
FRANÇAIS	Noir	Marron	Bleu ou gris
ESPAÑOL	Negro	Marrón	Azul o gris
ITALIANO	Nero	Marrone	Blu o grigio
NEDERLANDS	Zwart	Bruin	Blauw of grijs
РУССКИЙ	Чёрный	Корич-невый	Синий или серый
中文	黑色	棕色	蓝色或灰色

CSCR





SC Compressors
(External Protector)

SECOP

Keep electrical equipment clear from oil, chemicals, and water

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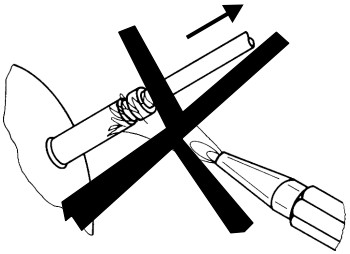
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



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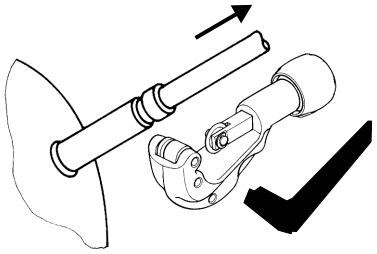
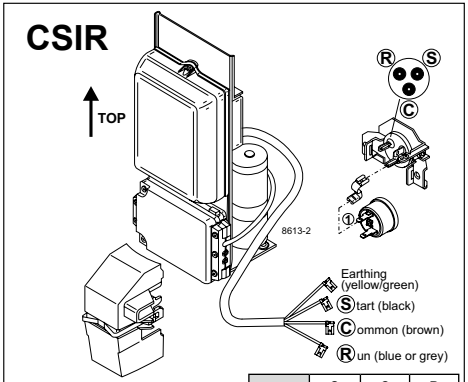
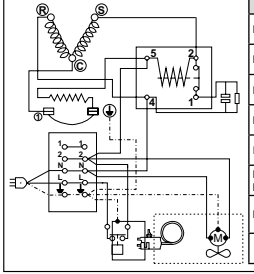


CSIR





	S	C	R
ENGLISH	Black	Brown	Blue or grey
DEUTSCH	Schwarz	Braun	Blau od. grau
FRANÇAIS	Noir	Marron	Bleu ou gris
ESPAÑOL	Negro	Marrón	Azul o gris
ITALIANO	Nero	Marrone	Blu o grigio
NEDER-LANDS	Zwart	Bruin	Blauw of grijs
РУССКИЙ	Чёрный	Корич-невый	Синий или серый
中文	黑色	棕色	蓝色或灰色

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**