Model
SC18G

Sales code:
104G7804

Compressor Data

Refrigerant(s)	**R1234yf / 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	R1234yf	R513A
Application	LBP+MBP+HBP	LBP+MBP+HBP
Hot gas defrost	OK	OK
Long interval pull down	OK	OK

Application Notes

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

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Compressor Design

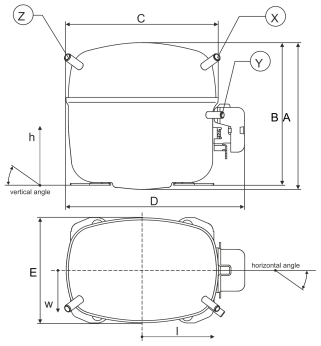
Oil type	**POE**	Winding resistance main	**0.66 Ohm**
Oil viscosity	**22cSt**	Winding resistance aux	**2.7 Ohm**
Oil quantity	**550 cm3 / 18.60fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,460 cm3 / 49.37fl.oz**	Max. discharge temp.	**140°C / 284°F**
Motor protection	**external**		

Compressor Dimensions

Housing

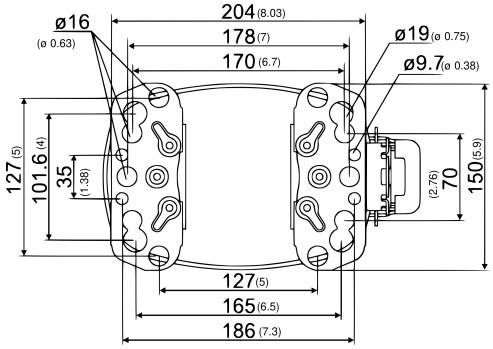
A Height	**219mm / 8.62in**
B Height	**213mm / 8.39in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



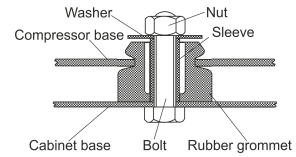
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 9.54–9.72 / 0.38–0.38in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

Mounting Accessories

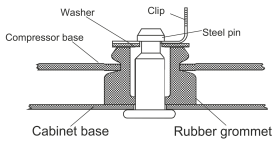


Dimensions in mm [in]

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:
104G7804

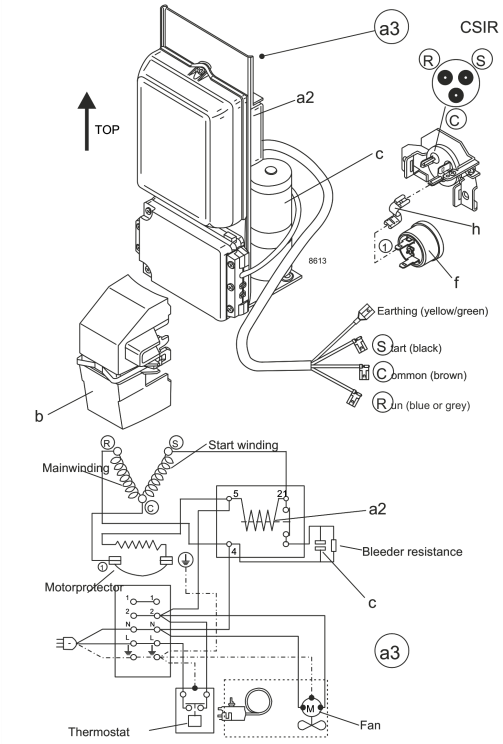
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**115 V/60 Hz 1~**
Refrigerant	**R1234yf**
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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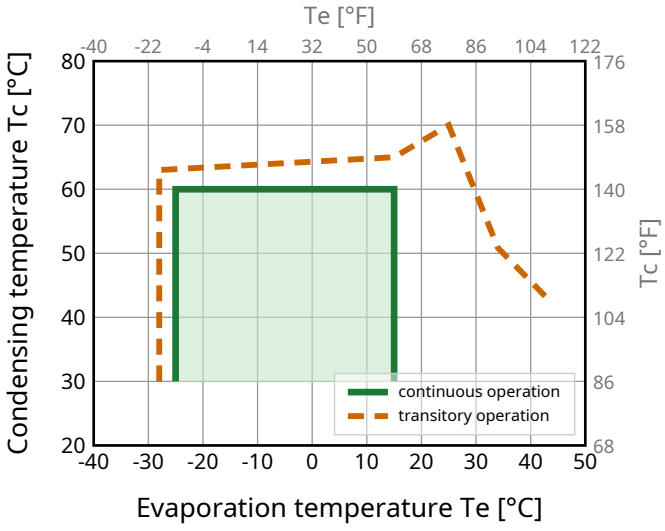
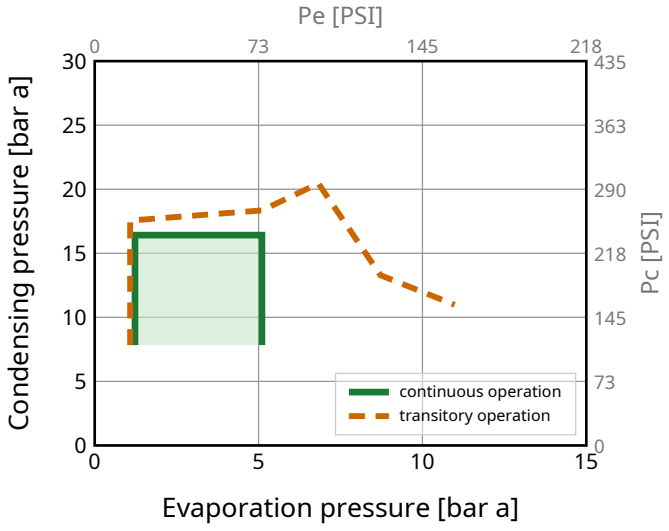
Components
a3 SC starter kit 117-7053
f ext. protector (T0761/46) 117U3212
b plastic cover + clamp 117U1021

Alternative components
a2 potential relay (RVA 7AA3R) 117-7441
c start capacitor (410µF, 6.3mm) 117U5042

Operation Pressure Range





Model
SC18G Configuration 1

Sales code:
104G7804

Standard Conditions

R1234yf, 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	**437**	1491	376	**1.00**	3.41	437	6.19	10.29	**ASHRAE LBP**
-6.7 20	54.4 129.9	35 95	46.1 115	**1033**	3523	888	**1.48**	5.05	697	8.25	27.89	**ASHRAE MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**1780**	6074	1531	**1.99**	6.80	893	9.61	49.02	**ASHRAE HBP**
-35 -31	40 104	20 68	40 104	**208**	710	179	**0.67**	2.27	313	4.59	5.70	**EN12900 LBP**
-10 14	45 113	20 68	45 113	**904**	3083	777	**1.41**	4.80	642	7.89	26.78	**EN12900 MBP**
5 41	50 122	20 68	50 122	**1481**	5054	1274	**1.75**	5.98	845	9.21	48.07	**EN12900 HBP**

Performance Tables

R1234yf, 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	**434**	1481	373	**0.97**	3.33	445	6.34	11.64
-20	-4	**591**	2015	508	**1.15**	3.92	515	7.00	15.90
-10	14	**957**	3264	823	**1.49**	5.09	642	7.89	25.98
0	32	**1424**	4860	1225	**1.88**	6.42	757	8.55	39.15
10	50	**2031**	6930	1747	**2.35**	8.01	865	9.42	56.77
15	59	**2398**	8184	2063	**2.61**	8.91	918	10.07	67.76

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

-25	-13	**279**	953	240	**0.69**	2.36	404	5.84	8.45
-20	-4	**435**	1485	374	**0.89**	3.03	489	6.69	13.22
-10	14	**778**	2655	669	**1.20**	4.10	648	7.92	23.88
0	32	**1194**	4075	1027	**1.50**	5.13	794	8.87	37.16
10	50	**1721**	5871	1480	**1.84**	6.29	934	9.98	54.57
15	59	**2037**	6951	1752	**2.03**	6.93	1002	10.72	65.39

Model
SC18G Configuration 2

Sales code:
104G7804

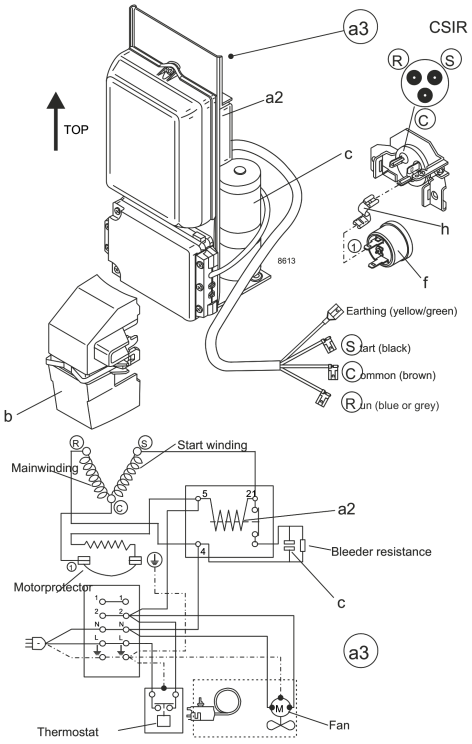
Configuration

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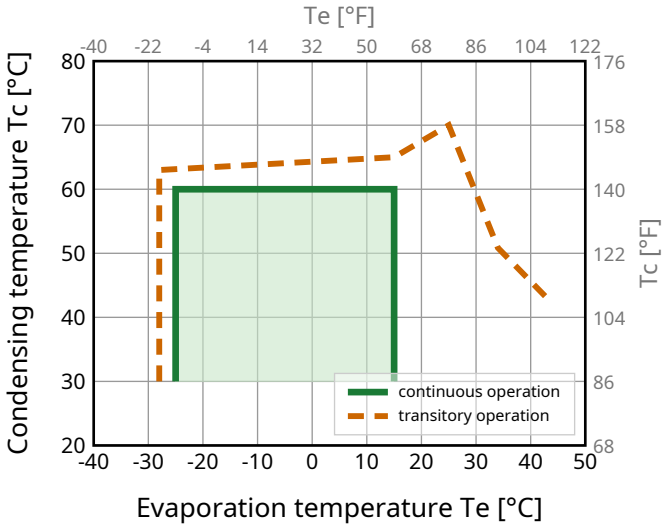
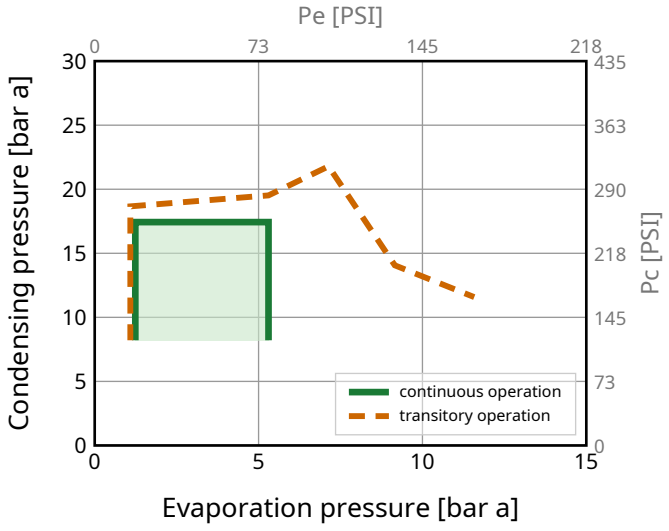
Components
a3 SC starter kit 117-7053
f ext. protector (T0761/46) 117U3212
b plastic cover + clamp 117U1021

Alternative components
a2 potential relay (RVA 7AA3R) 117-7441
c start capacitor (410µF, 6.3mm) 117U5042

Operation Pressure Range





Model
SC18G Configuration 2

Sales code:
104G7804

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