

Model

SC21G

Sales code:

104G8149

Compressor Data

Refrigerant(s)	R1234yf / R513A
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.60 kg / 29.98lbs
Displacement	20.95 cm3 / 1.28cu.in
Compressors on pallet	80



General – Configurations With SC21G

-	Conf. 1	Conf. 2
Motor configuration	CSCR	CSCR
Power supply (nominal)	220-240 V/50 Hz	208-230 V/60 Hz
Number of phases	1	1
Voltage range	198-254 V	198-253 V
Starting torque	HST	HST
Refrigerant	R1234yf	R1234yf
Application	LBP+MBP+HBP	LBP
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

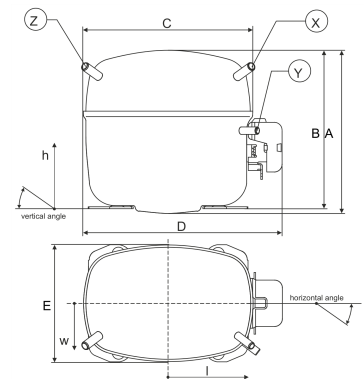
Oil type	POE	Winding resistance main	3.500 Ohm
Oil viscosity	22cSt	Winding resistance aux	12.90 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm ³ / 49.37fl.oz	Max. discharge temp.	140°C / 284°F

Compressor Dimensions

Housing

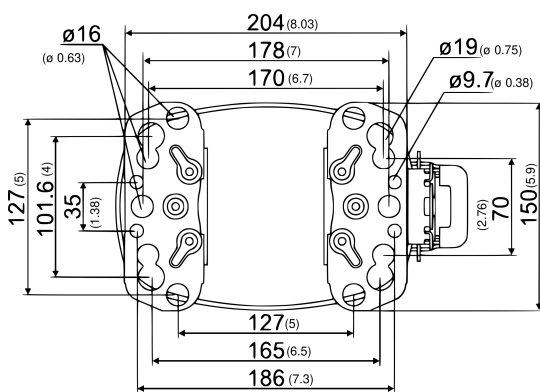
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

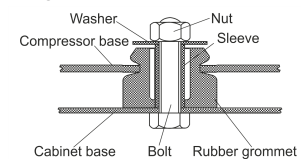


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

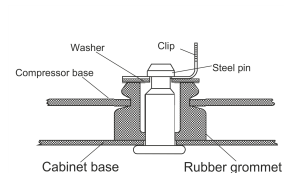
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	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	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R1234yf
Application	LBP+MBP+HBP
Voltage range	198-254 V
Starting torque	HST
Starting device type	relay
Run capacitor	10 μF
Start capacitor	80 μF
LRA (locked rotor amps / 4s/ U(N))	22 A
RLA (rated load amps / 1s/ U(N))	3.9 A
Cut in current (U(N))	22 A

Ambient/ machine room temperatures minimum /maximum

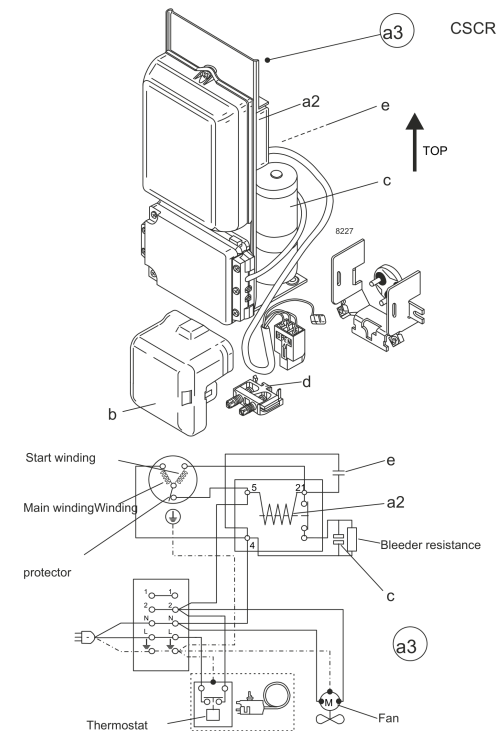
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

a3 SC starter kit (550mm) 117-7029

b plastic cover 103N2009

d cord relief 103N1004

Alternative components

a3 SC starter kit (650mm) 117-7032

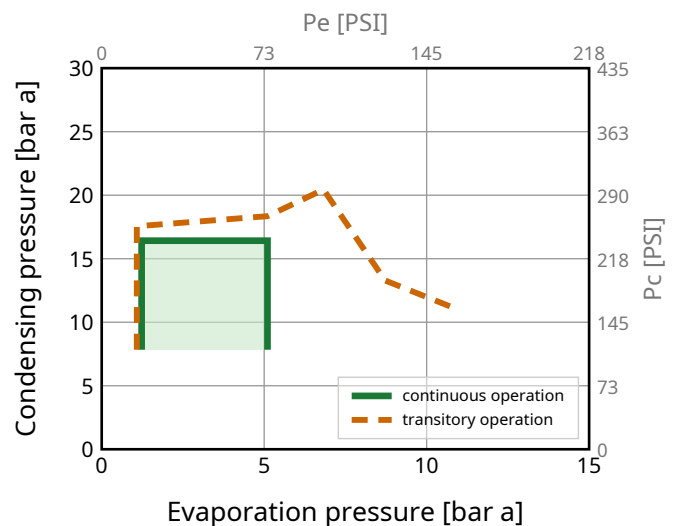
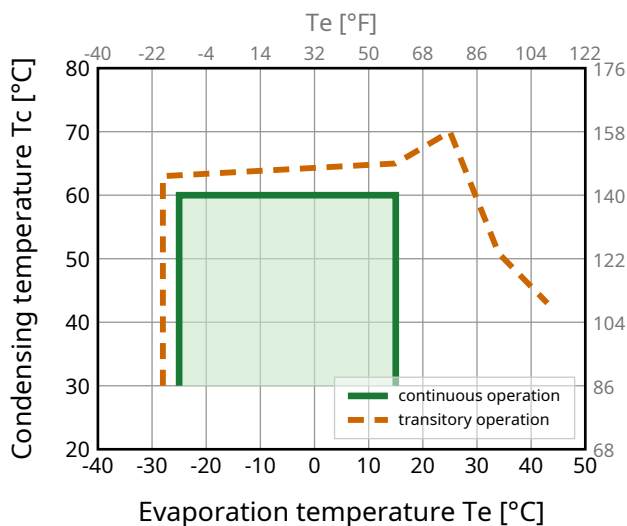
a3 SC starter kit (1000mm) 117-7041

a2 potential relay (RVA 4H3R341) 117-7427

c start capacitor (80 μ F) 117U5373

e run capacitor (10 μ F, 6.3mm) 117-7112

Operation Pressure Range



Model
SC21G

Configuration 1

Sales code:
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Standard Conditions

R1234yf, 220 V/50 Hz, CSCR, 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	508	1735	437	1.27	4.35	399	2.35	11.97	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1048	3576	901	1.68	5.73	625	3.19	28.31	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1838	6270	1580	2.38	8.12	772	3.82	50.60	ASHRAE HBP
-35 -31	40 104	20 68	40 104	250	855	215	0.91	3.12	274	1.99	6.86	EN12900 LBP
-10 14	45 113	20 68	45 113	925	3155	795	1.59	5.43	582	3.02	27.41	EN12900 MBP
5 41	50 122	20 68	50 122	1526	5206	1312	2.06	7.03	741	3.69	49.52	EN12900 HBP

Performance Tables

R1234yf, 220 V/50 Hz, CSCR, 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	453	1545	389	1.13	3.85	401	2.35	12.15
-20	-4	599	2045	515	1.29	4.41	464	2.57	16.13
-10	14	979	3341	842	1.68	5.74	582	3.02	26.59
0	32	1476	5035	1269	2.17	7.40	680	3.42	40.56
10	50	2089	7129	1797	2.80	9.54	747	3.71	58.39
15	59	2440	8326	2099	3.19	10.88	765	3.79	68.94

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

-25	-13	355	1211	305	0.95	3.26	372	2.26	10.75
-20	-4	470	1604	404	1.06	3.62	443	2.50	14.29
-10	14	788	2689	678	1.36	4.63	581	3.02	24.19
0	32	1224	4176	1053	1.74	5.94	702	3.52	38.09
10	50	1778	6067	1529	2.23	7.63	795	3.92	56.39
15	59	2100	7164	1806	2.54	8.66	827	4.05	67.40

Model

SC21G

Configuration 2

Sales code:

104G8149

Configuration

Motor configuration	CSCR
Power supply (nominal)	208-230 V/60 Hz 1~
Refrigerant	R1234yf
Application	LBP
Voltage range	198-253 V
Starting torque	HST
Starting device type	relay
Run capacitor	10 μ F
Start capacitor	80 μ F
LRA (locked rotor amps / 4s/ U(N))	22 A
RLA (rated load amps / 1s/ U(N))	3.9 A
Cut in current (U(N))	22 A

Ambient/ machine room temperatures minimum /maximum

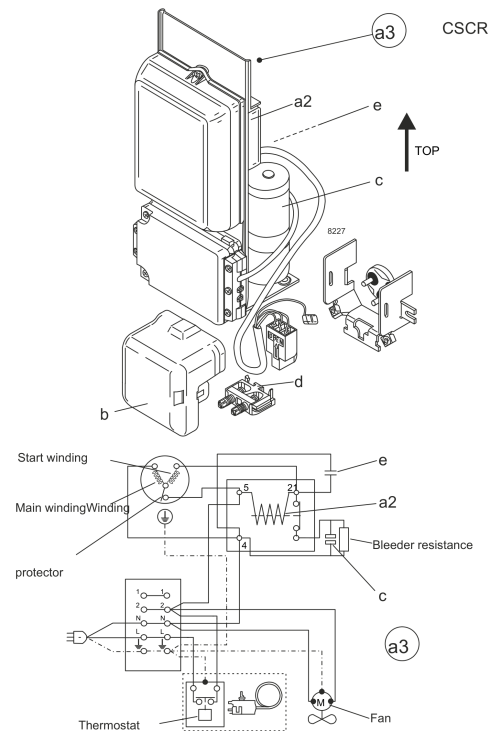
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System Cooling

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Electrical Accessories / Wiring Diagram



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Alternative components

a3 SC starter kit (650mm) 117-7032

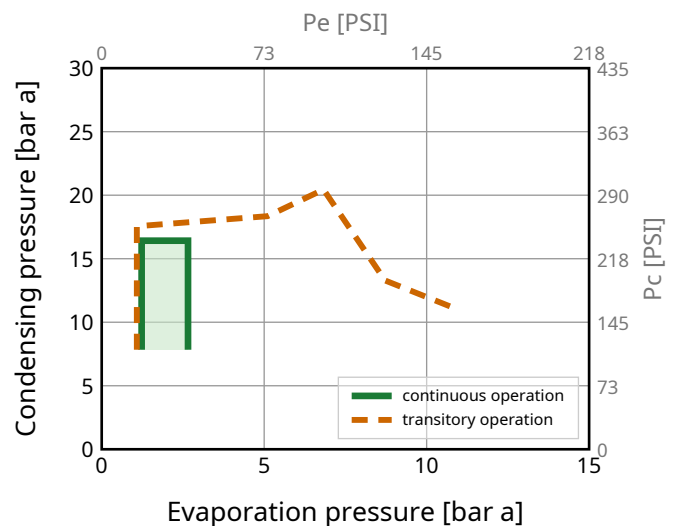
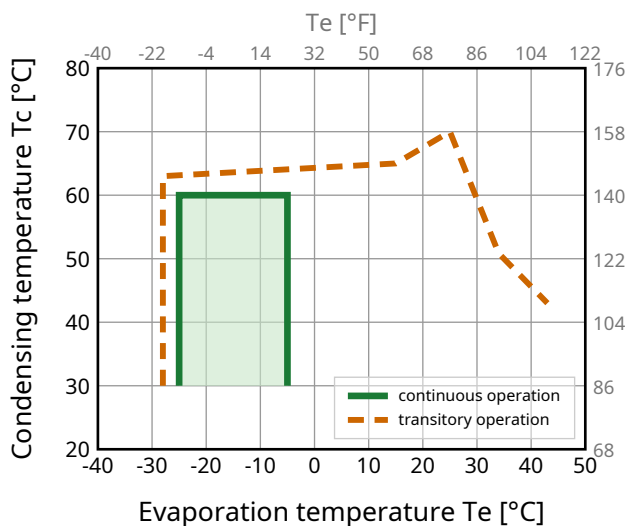
a3 SC starter kit (1000mm) 117-7041

a2 potential relay (RVA 4H3R341) 117-7427

c start capacitor (80 μ F) 117U5373

e run capacitor (10 μ F, 6.3mm) 117-7112

Operation Pressure Range



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Configuration 2

Sales code:
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Standard Conditions

R1234yf, 230 V/60 Hz, CSCR, 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	535	1824	460	1.11	3.80	480	2.43	12.59	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1176	4011	1011	1.66	5.67	708	3.35	31.75	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	2136	7289	1837	2.34	7.99	912	4.23	58.82	ASHRAE HBP
-35 -31	40 104	20 68	40 104	265	903	228	0.84	2.85	316	1.86	7.25	EN12900 LBP
-10 14	45 113	20 68	45 113	988	3369	849	1.57	5.36	629	3.02	29.27	EN12900 MBP
5 41	50 122	20 68	50 122	1722	5876	1481	1.99	6.80	864	4.01	55.89	EN12900 HBP

Performance Tables

R1234yf, 230 V/60 Hz, CSCR, 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	474	1616	407	1.08	3.68	439	2.28	12.70
-20	-4	633	2158	544	1.26	4.31	501	2.51	17.03
-15	5	822	2806	707	1.46	4.97	564	2.75	22.22
-10	14	1046	3568	899	1.66	5.67	629	3.02	28.39
-5	23	1306	4455	1123	1.88	6.40	696	3.30	35.65

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

-25	-13	368	1254	316	0.81	2.75	457	2.34	11.13
-20	-4	507	1729	436	0.97	3.30	525	2.60	15.40
-15	5	677	2309	582	1.14	3.89	593	2.87	20.66
-10	14	880	3003	757	1.33	4.53	663	3.15	27.01
-5	23	1120	3823	964	1.53	5.21	733	3.45	34.60