

Model

SC21G

Sales code:

104G8143

Compressor Data

Refrigerant(s)	R134a / 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	Conf. 3	Conf. 4
Motor configuration	CSCR	CSCR	CSCR	CSCR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/60 Hz	220-240 V/50 Hz	220-240 V/60 Hz
Number of phases	1	1	1	1
Voltage range	187-254 V	198-254 V	187-254 V	198-253 V
Approvals	VDE, CCC	CCC, UL, KC	VDE, CCC	CCC, UL, KC
Starting torque	HST	HST	HST	HST
Refrigerant	R134a	R134a	R513A	R513A
Application	LBP+MBP+HBP	LBP	LBP+MBP+HBP	LBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

Application Notes

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

Model
SC21G

Sales code:
104G8143

Compressor Design

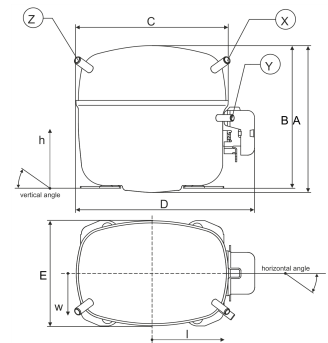
Oil type	POE	Winding resistance main	3.5 Ohm
Oil viscosity	22cSt	Winding resistance aux	13 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm ³ / 49.37fl.oz	Max. discharge temp.	130°C / 266°F
Motor protection	internal		

Compressor Dimensions

Housing

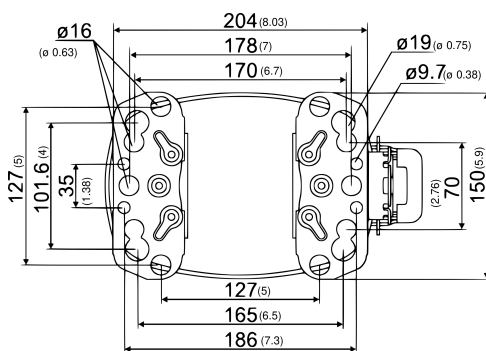
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

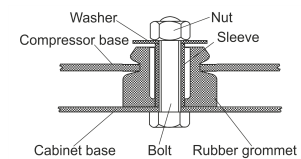


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

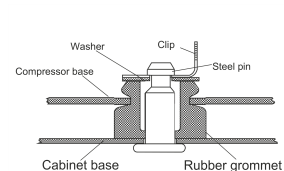
Mounting Accessories



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

Model

SC21G

Configuration 1

Sales code:

104G8143

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	187-254 V
Starting torque	HST
Approvals	VDE, CCC
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

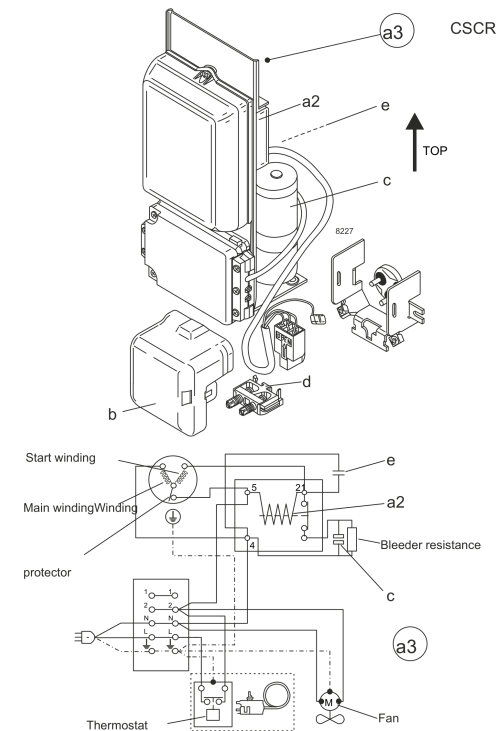
Ambient temperature range: 10 - 43°C / 50 - 109°F

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) 117-7039

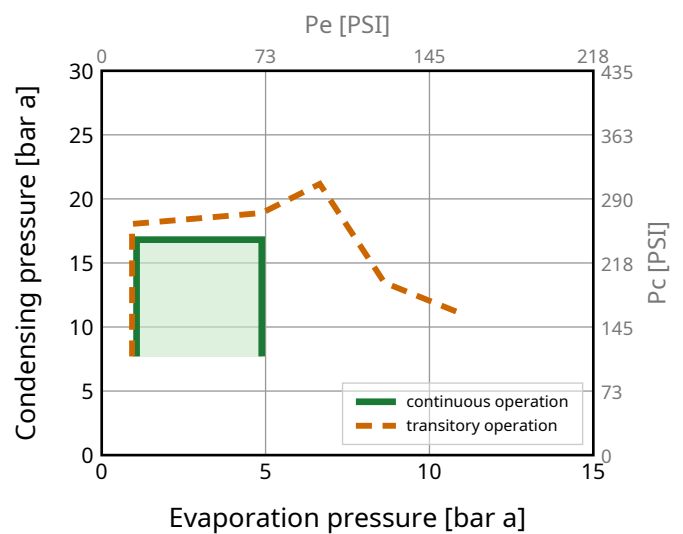
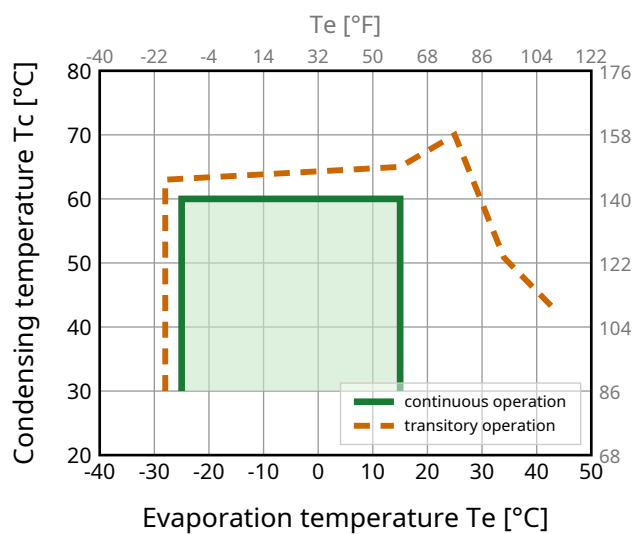
b plastic cover 103N2008

d cord relief 103N1004

Alternative components

a3 SC starter kit (1000mm) 117-7043

Operation Pressure Range



Model
SC21G

Configuration 1

Sales code:
104G8143

Standard Conditions

R134a, 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	461	1572	396	1.22	4.18	376	2.35	8.94	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1038	3542	893	1.68	5.74	617	3.14	22.60	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1887	6438	1623	2.40	8.17	788	4.01	41.77	ASHRAE HBP
-35 -31	40 104	20 68	40 104	222	759	191	0.88	2.99	254	1.96	4.87	EN12900 LBP
-10 14	45 113	20 68	45 113	933	3185	803	1.64	5.59	570	2.87	21.77	EN12900 MBP
5 41	50 122	20 68	50 122	1625	5544	1397	2.16	7.37	752	3.79	40.76	EN12900 HBP

Performance Tables

R134a, 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	421	1436	362	1.11	3.80	378	2.26	9.10
-20	-4	570	1946	491	1.29	4.39	443	2.44	12.37
-10	14	967	3299	831	1.70	5.78	570	2.87	21.11
0	32	1498	5113	1289	2.20	7.50	682	3.39	33.06
10	50	2172	7409	1868	2.84	9.69	764	4.00	48.61
15	59	2563	8745	2204	3.25	11.07	790	4.34	57.91

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

-25	-13	333	1135	286	0.96	3.26	348	2.28	7.93
-20	-4	453	1546	390	1.07	3.66	422	2.48	10.84
-10	14	793	2704	682	1.39	4.75	569	2.96	19.11
0	32	1269	4330	1091	1.80	6.13	706	3.54	30.94
10	50	1889	6444	1624	2.31	7.89	817	4.22	46.79
15	59	2254	7691	1938	2.63	8.96	858	4.60	56.42

Model

SC21G

Configuration 2

Sales code:

104G8143

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/60 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254 V
Starting torque	HST
Approvals	CCC, UL, KC
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

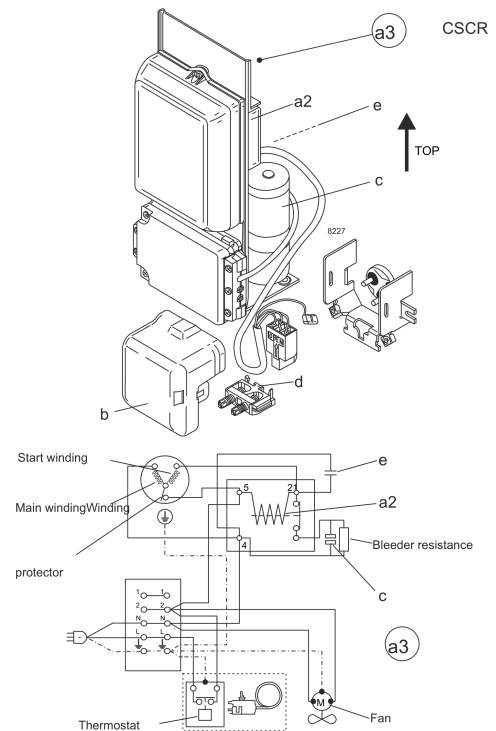
Ambient temperature range: 10 - 43°C / 50 - 109°F

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) 117-7039

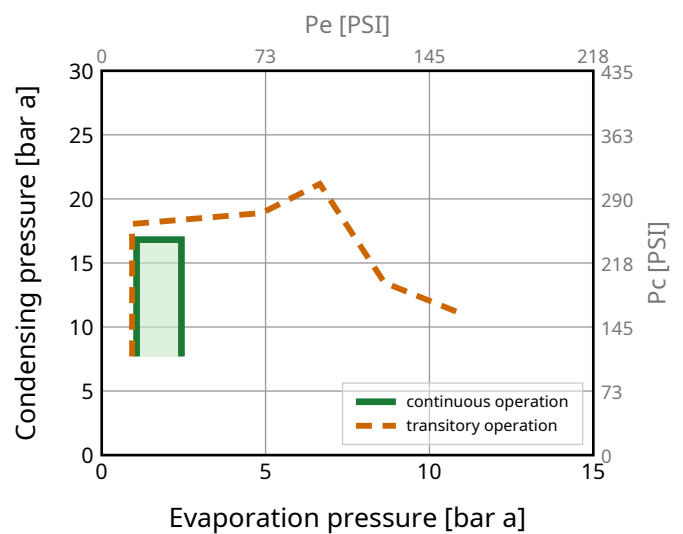
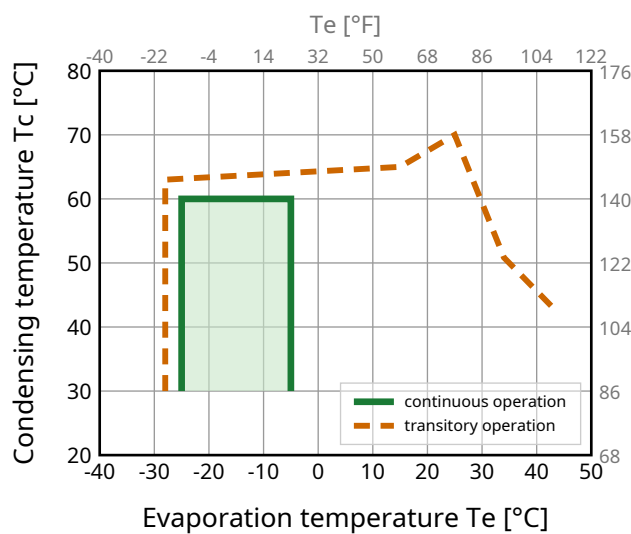
b plastic cover 103N2008

d cord relief 103N1004

Alternative components

a3 SC starter kit (1000mm) 117-7043

Operation Pressure Range



Model
SC21G

Configuration 2

Sales code:
104G8143

Standard Conditions

R134a, 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	445	1518	383	1.07	3.66	414	1.90	8.63	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1162	3966	1000	1.66	5.67	699	3.08	25.31	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	2192	7480	1885	2.36	8.05	930	4.00	48.53	ASHRAE HBP
-35 -31	40 104	20 68	40 104	232	791	199	0.82	2.79	283	1.29	5.07	EN12900 LBP
-10 14	45 113	20 68	45 113	1002	3418	861	1.61	5.49	623	2.73	23.36	EN12900 MBP
5 41	50 122	20 68	50 122	1831	6249	1575	2.10	7.16	873	3.71	45.94	EN12900 HBP

Performance Tables

R134a, 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	440	1501	378	1.06	3.63	413	1.84	9.51
-20	-4	606	2068	521	1.25	4.28	484	2.15	13.14
-15	5	804	2743	691	1.45	4.96	553	2.44	17.48
-10	14	1038	3540	892	1.67	5.68	623	2.73	22.66
-5	23	1312	4476	1128	1.89	6.45	694	3.01	28.78

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

-25	-13	303	1035	261	0.80	2.73	379	1.77	7.24
-20	-4	464	1583	399	0.98	3.36	472	2.14	11.10
-15	5	655	2234	563	1.17	3.99	560	2.51	15.72
-10	14	880	3003	757	1.36	4.65	645	2.86	21.22
-5	23	1145	3905	984	1.57	5.36	728	3.21	27.74

Model
SC21G

Configuration 3

Sales code:
104G8143

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R513A
Application	LBP+MBP+HBP
Voltage range	187-254 V
Starting torque	HST
Approvals	VDE, CCC
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

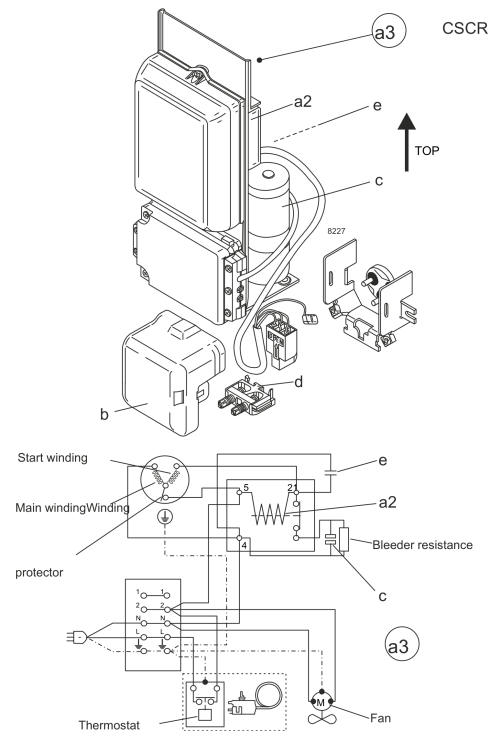
Ambient temperature range: 10 - 43°C / 50 - 109°F

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) 117-7039

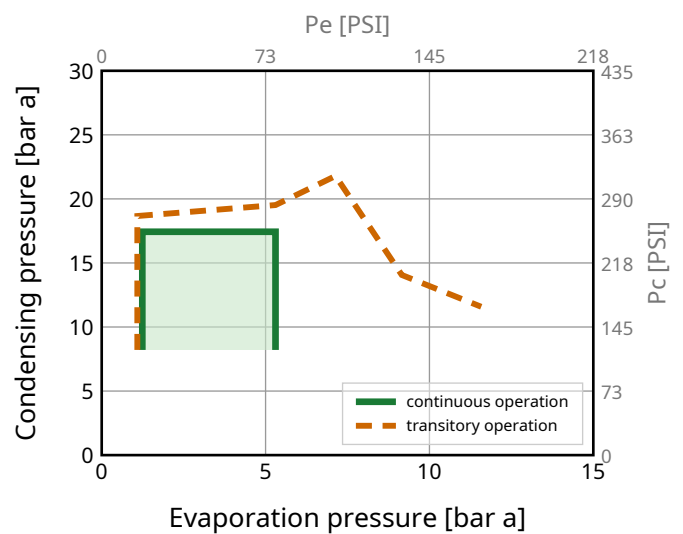
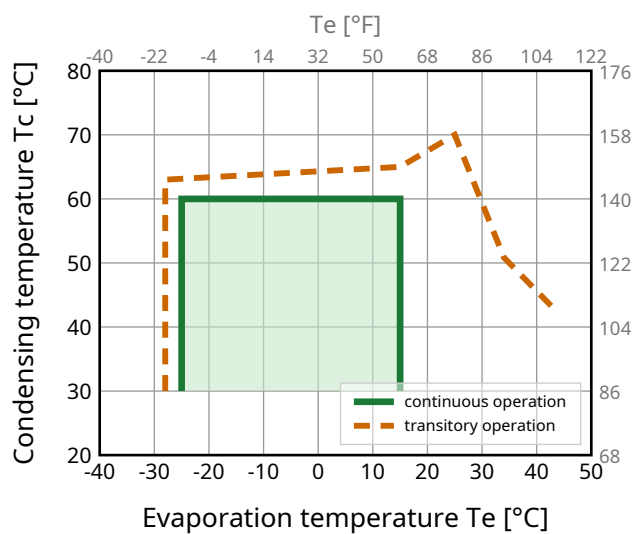
b plastic cover 103N2008

d cord relief 103N1004

Alternative components

a3 SC starter kit (1000mm) 117-7043

Operation Pressure Range



Model
SC21G

Configuration 3

Sales code:
104G8143

Standard Conditions

R513A, 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	511	1743	439	1.24	4.24	411	2.40	11.18	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1089	3716	937	1.66	5.65	658	3.38	27.15	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1939	6617	1668	2.35	8.00	826	4.06	49.27	ASHRAE HBP
-35 -31	40 104	20 68	40 104	249	850	214	0.89	3.05	279	1.87	6.26	EN12900 LBP
-10 14	45 113	20 68	45 113	971	3313	835	1.59	5.44	609	3.19	26.29	EN12900 MBP
5 41	50 122	20 68	50 122	1635	5579	1406	2.07	7.06	790	3.92	48.21	EN12900 HBP

Performance Tables

R513A, 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	460	1570	396	1.12	3.81	412	2.40	11.38
-20	-4	615	2097	529	1.28	4.37	479	2.67	15.26
-10	14	1019	3476	876	1.67	5.71	609	3.19	25.50
0	32	1553	5299	1336	2.16	7.36	720	3.63	39.34
10	50	2222	7581	1911	2.78	9.49	799	3.95	57.22
15	59	2608	8898	2243	3.17	10.83	822	4.04	67.89

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

-25	-13	361	1231	310	0.94	3.22	382	2.28	9.99
-20	-4	483	1648	415	1.05	3.60	458	2.59	13.43
-10	14	823	2809	708	1.35	4.61	609	3.19	23.10
0	32	1294	4416	1113	1.73	5.92	746	3.74	36.80
10	50	1900	6483	1634	2.22	7.58	855	4.17	55.05
15	59	2255	7694	1939	2.52	8.61	894	4.33	66.12

Model

SC21G

Configuration 4

Sales code:

104G8143

Configuration

Motor configuration	CSCR
Power supply (nominal)	220-240 V/60 Hz 1~
Refrigerant	R513A
Application	LBP
Voltage range	198-253 V
Starting torque	HST
Approvals	CCC, UL, KC
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

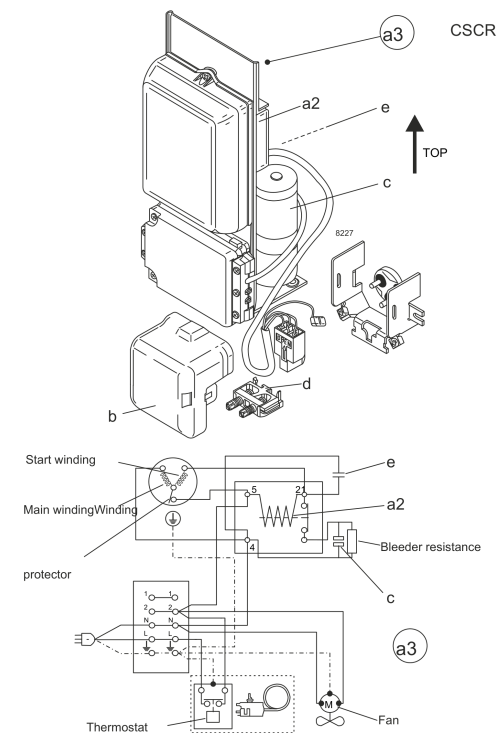
Ambient temperature range: 10 - 43°C / 50 - 109°F

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) 117-7039

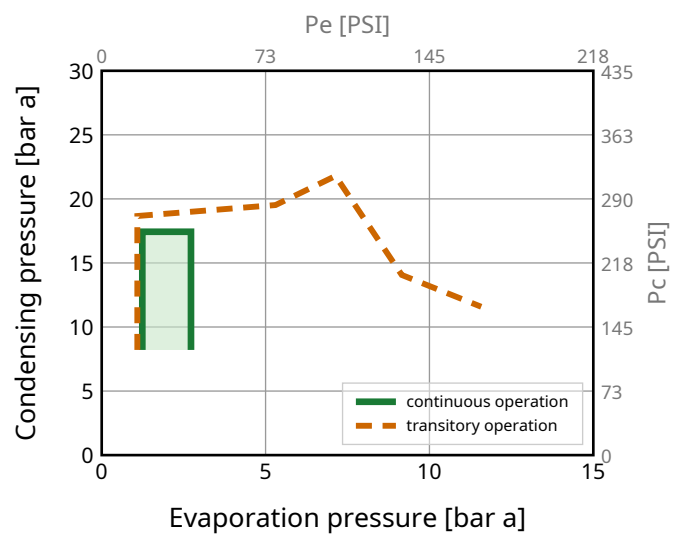
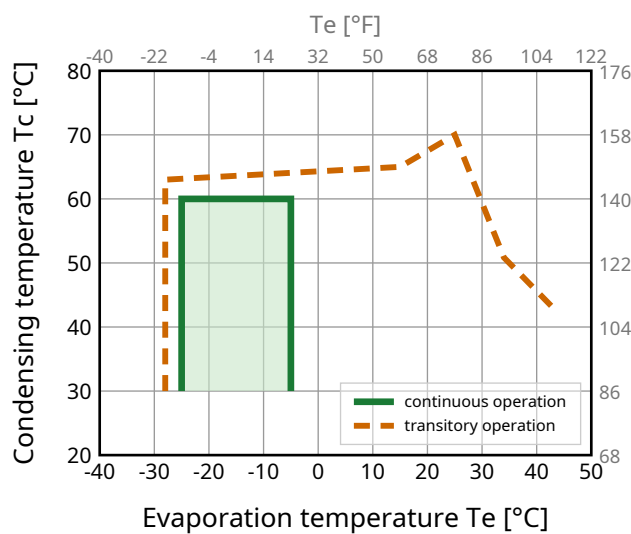
b plastic cover 103N2008

d cord relief 103N1004

Alternative components

a3 SC starter kit (1000mm) 117-7043

Operation Pressure Range



Model
SC21G

Configuration 4

Sales code:
104G8143

Standard Conditions

R513A, 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	494	1684	424	1.10	3.74	450	2.09	10.80	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1221	4167	1050	1.65	5.61	742	3.17	30.44	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	2255	7694	1939	2.32	7.91	972	4.02	57.30	ASHRAE HBP
-35 -31	40 104	20 68	40 104	262	893	225	0.84	2.87	311	1.57	6.58	EN12900 LBP
-10 14	45 113	20 68	45 113	1043	3559	897	1.57	5.37	663	2.88	28.25	EN12900 MBP
5 41	50 122	20 68	50 122	1844	6293	1586	2.02	6.88	914	3.81	54.38	EN12900 HBP

Performance Tables

R513A, 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	481	1640	413	1.07	3.66	449	2.08	11.89
-20	-4	653	2229	562	1.25	4.28	522	2.35	16.22
-15	5	857	2923	737	1.45	4.93	592	2.62	21.34
-10	14	1094	3734	941	1.65	5.64	663	2.88	27.40
-5	23	1372	4680	1180	1.87	6.38	734	3.14	34.52

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

-25	-13	329	1124	283	0.80	2.72	413	1.95	9.12
-20	-4	495	1688	425	0.97	3.31	510	2.31	13.74
-15	5	688	2348	592	1.15	3.91	601	2.65	19.21
-10	14	915	3121	787	1.33	4.54	688	2.97	25.67
-5	23	1178	4021	1013	1.53	5.21	772	3.28	33.27