Single
Packs

Single Pack SC21G 220-240V 50/60Hz CSCR

Single pack code number: **195B4320**

Position	Title	Code	Amount
1	Compressor SC21G	104G8143	1
2	SC starting device (550mm)	117-7039	1
3	Cord relief	103N1004	1
4	Cover	103N2008	1
5	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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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

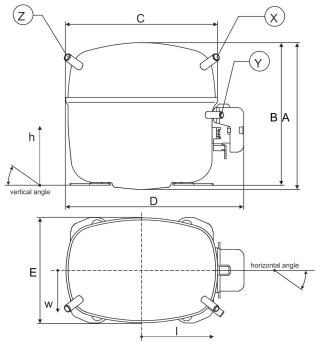
Oil type	**POE**	Winding resistance main	**3.5 Ohm**
Oil viscosity	**22cSt**	Winding resistance aux	**13 Ohm**
Oil quantity	**550 / 18.60fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,460 cm3 / 49.37fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

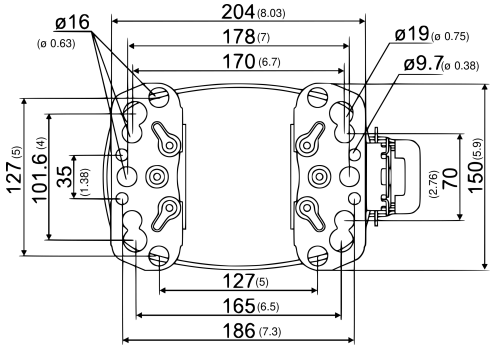
A Height	**219mm / 8.62in**
B Height	**213mm / 8.39in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



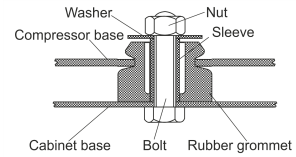
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

Mounting Accessories

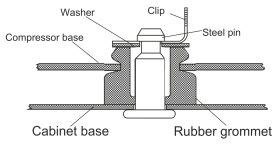


Dimensions in mm [in]

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
SC21G Configuration 1

Sales code:
104G8143

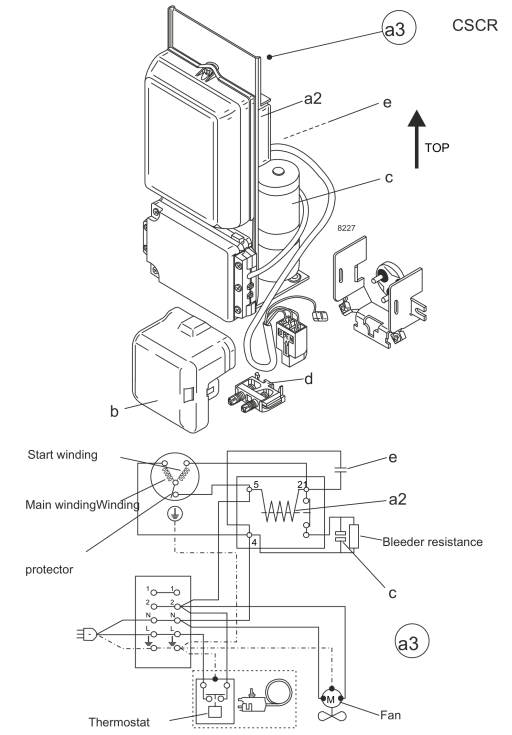
Configuration

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



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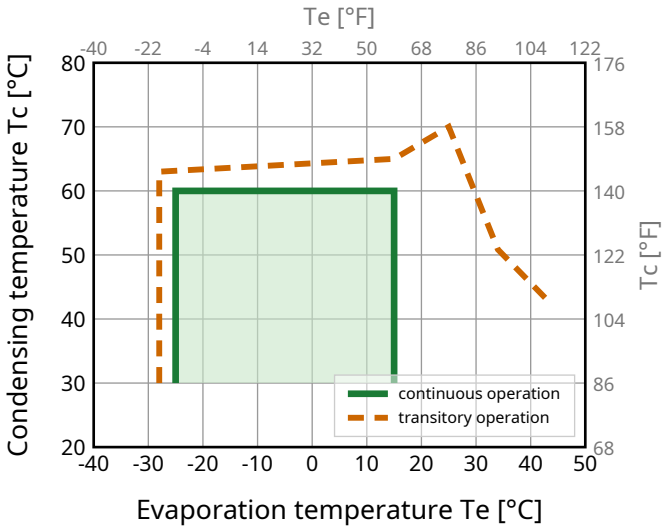
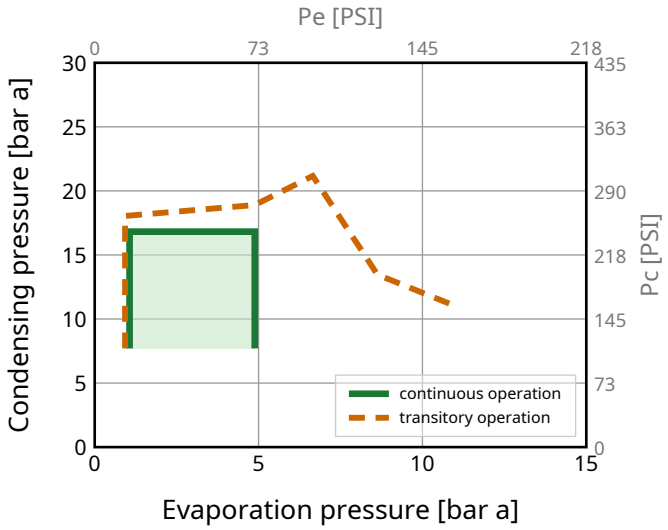
Components
a3 SC starter kit (550mm) 117-7039
b plastic cover 103N2008
d cord relief 103N1004

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	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	**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	ṁ
[°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

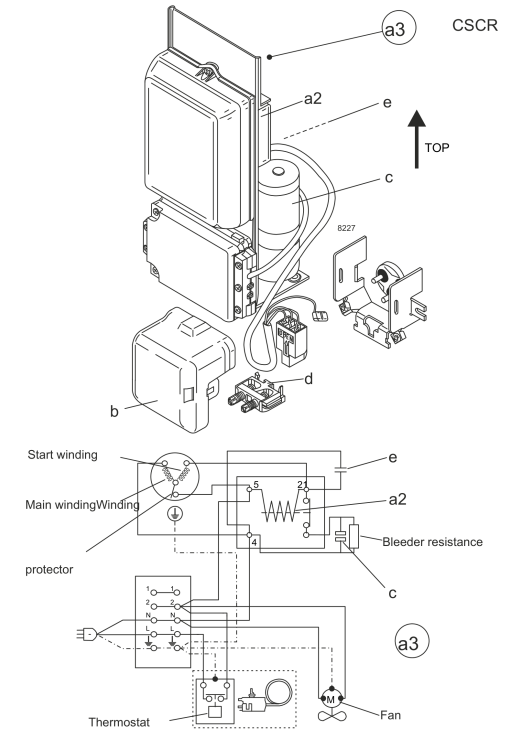
Configuration

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



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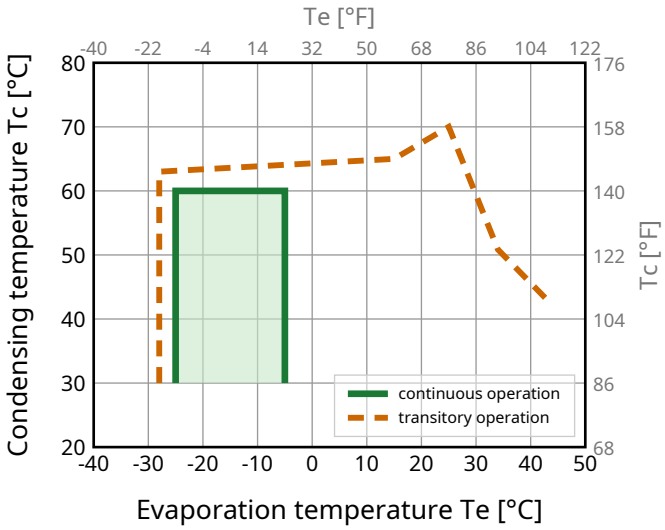
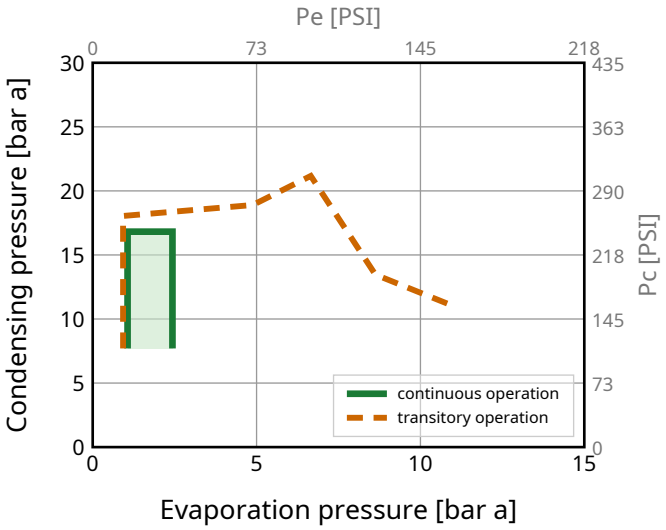
Components
a3 SC starter kit (550mm) 117-7039
b plastic cover 103N2008
d cord relief 103N1004

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	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	**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	ṁ
[°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

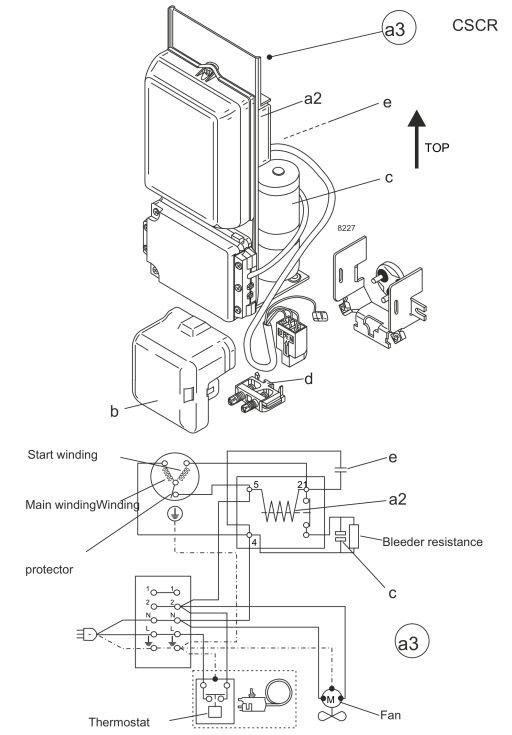
Configuration

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



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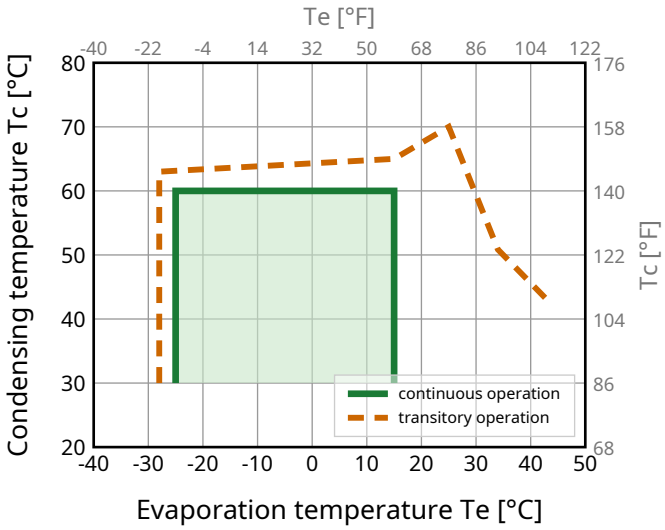
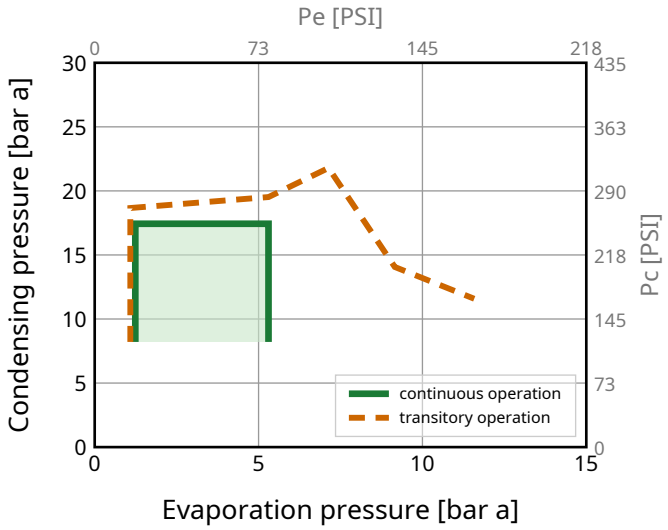
Components
a3 SC starter kit (550mm) 117-7039
b plastic cover 103N2008
d cord relief 103N1004

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	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	**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	ṁ
[°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

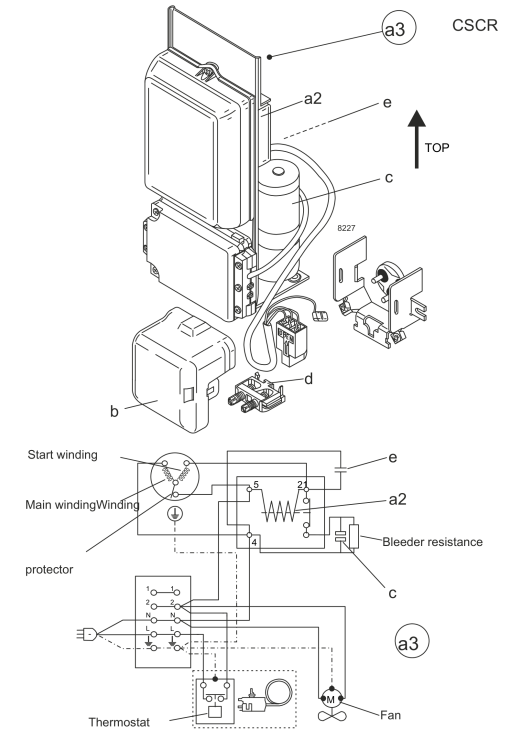
Configuration

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



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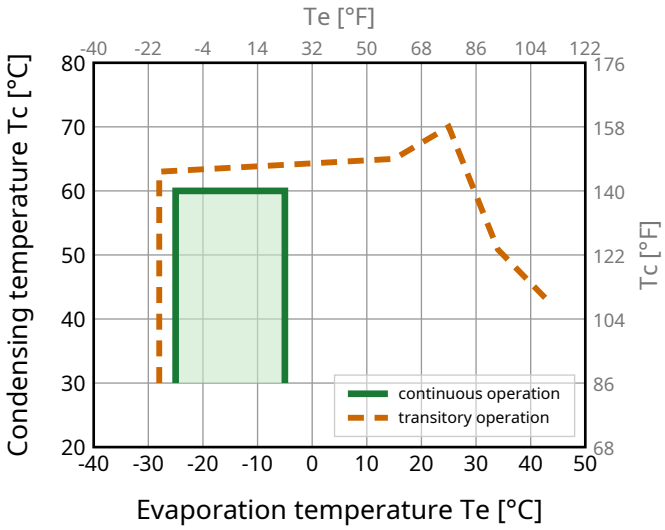
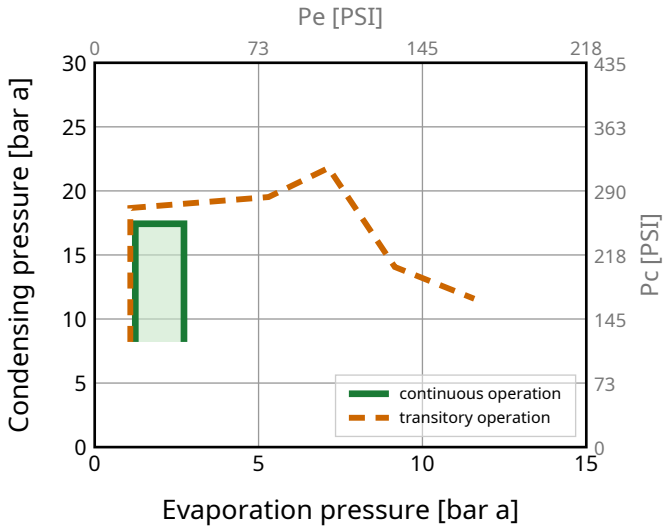
Components
a3 SC starter kit (550mm) 117-7039
b plastic cover 103N2008
d cord relief 103N1004

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	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	**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

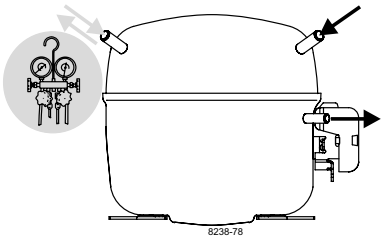
R513A, 230 V/60 Hz, CSCR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°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



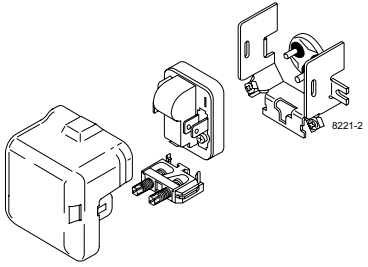
SC Compressors

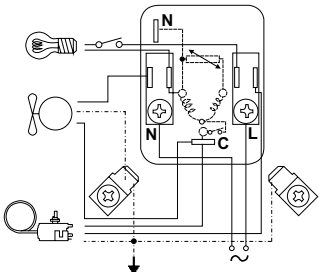
SECOP

Keep electrical equipment clear from oil, chemicals, and water

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

RSIR





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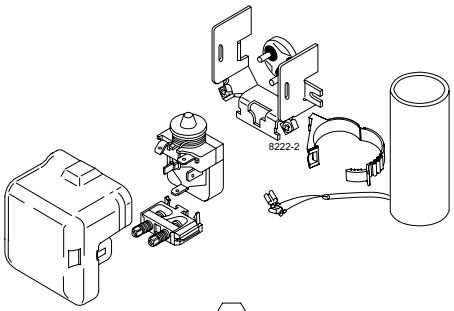

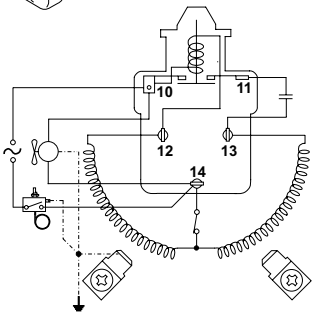

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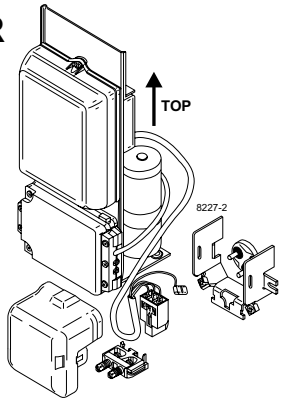

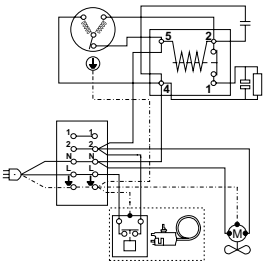

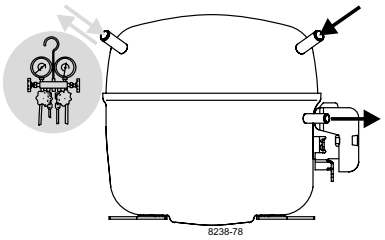

SC Compressors

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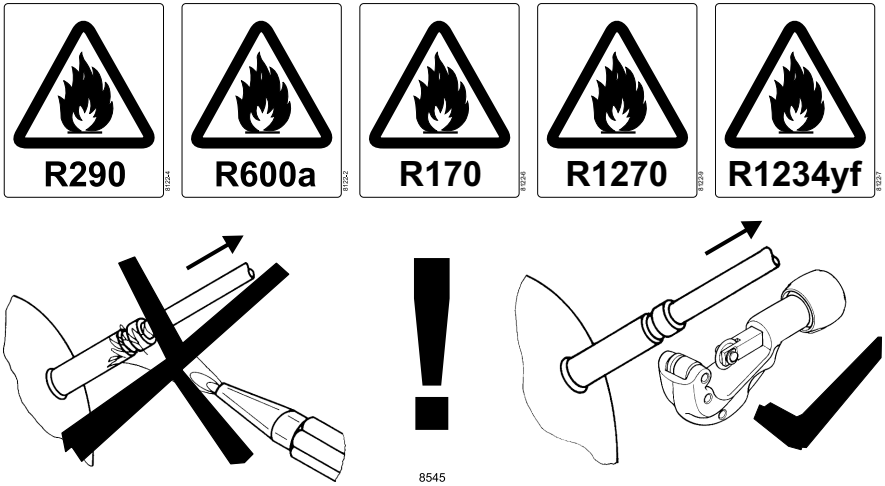
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



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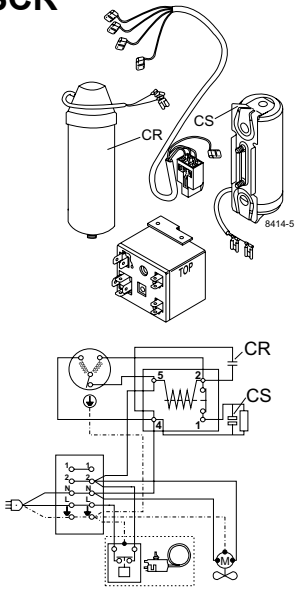

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be 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**