

Model				
Designation	SC21G	220-240V/50Hz 1~	220-240V/60Hz 1~	Sales code: 104G8143

Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	22cST	Displacement	20,95cm³ / 1,28cu.in
Oil quantity	550cm³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm³ / 49,4fl.oz		
Weight	13,6kg / 30lbs		
Motor protection	1# internal		
Winding resistance main	3,5Ω (at 25°C)		
Winding resistance aux	13Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with SC21G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motorconfiguration	CSCR	CSCR	CSCR	CSCR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1	1	1
Voltage range	187-254V	198-254V	187-254V	198-253V
Approvals	CCC	UL, CCC	CCC	UL, CCC
Starting torque	HST	HST	HST	HST
Note	- / -			

Applications with SC21G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Refrigerant	R134a	R134a	R513A	R513A
Application	LBP+MBP+HBP	LBP	LBP+MBP+HBP	LBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK

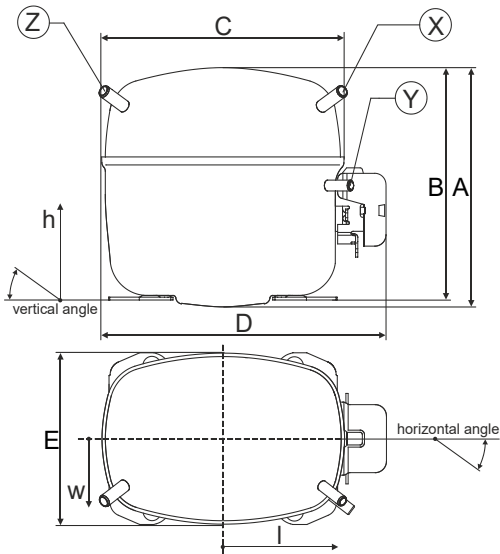
Electrical data - Configurations with SC21G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	relay	relay	relay
Run capacitor	10μF	10μF	10μF	10μF
Start capacitor	80μF	80μF	80μF	80μF
LRA (locked rotor amps / 4s/ U(N))	22A	22A	22A	22A
RLA (rated load amps / 1s/ U(N))	3,9A	3,9A	3,9A	3,9A
Cut in current (U(N))	22A	22A	22A	22A

Model				
Designation	SC21G	220-240V/50Hz 1~	220-240V/60Hz 1~	Sales code: 104G8143

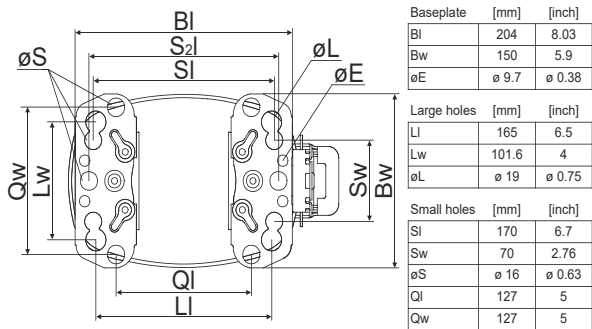
Compressor dimensions

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



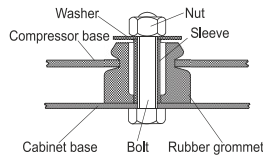
Connectors	Suction		Discharge		Process	
	X		Y		Z	
Diameter [mm]	øi 10,11-10,29		øi 6,11-6,29		øi 6,11-6,29	
(i:inside, o:outside) [in]	øi 0,4-0,41		øi 0,24-0,25		øi 0,24-0,25	
Material	copper		copper		copper	
Horizontal angle	±2°	37°	37°	143°	143°	
Vertical angle	±2°	30°	0°	150°	150°	
Position l/h/w [mm]	107/193/55		115/110/63		-107/193/55	
	[in] 4,2/7,6/2,2		4,5/4,3/2,5		-4,2/7,6/2,2	
Straight tube l.	[mm] 12		12		12	
	[in] 0,5		0,5		0,5	

Compressor fixation

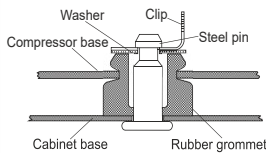


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	150	5.9
øE	ø 9.7	ø 0.38
Large holes		
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes		
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63
QI	127	5
Qw	127	5

Bolt joint



Snap-on

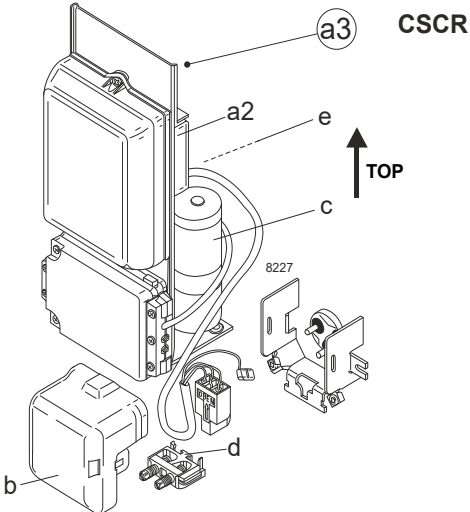


Mounting accessories	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

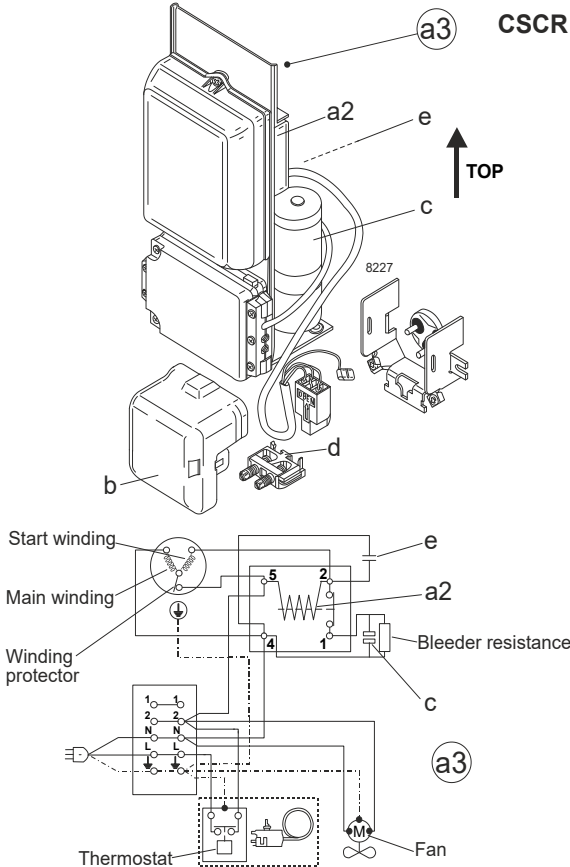
Provision for PE Grounding is located at the PE Stamp on the compressor

Model				
Designation	SC21G	220-240V/50Hz	Conf. 1	Sales code: 104G8143

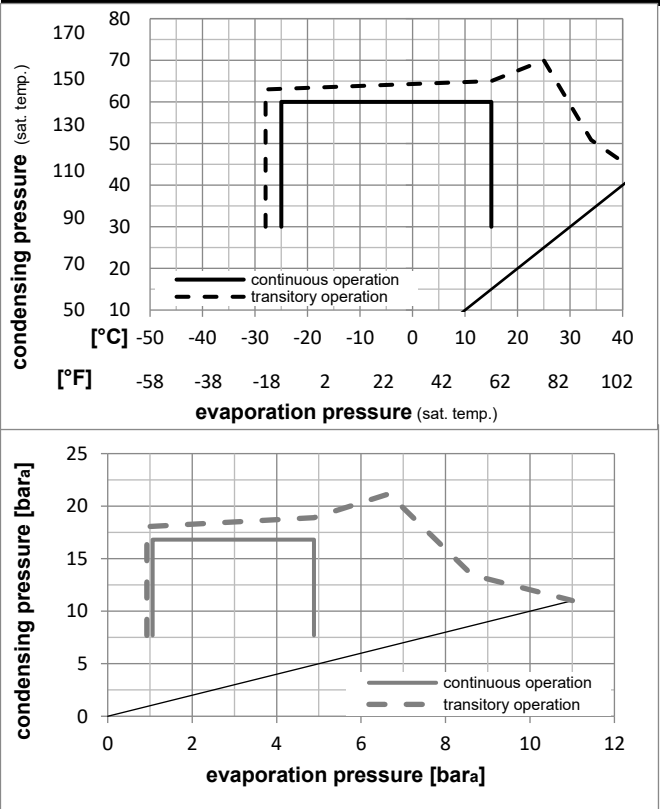
Configuration		Electrical accessories / wiring diagram		
Motorconfiguration	CSCR			
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R134a			
Application	LBP+MBP+HBP			
Voltage range	187-254V			
Starting torque	HST			
Approvals	CCC			

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s



Operation pressure range



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

Model					
Designation	SC21G	220-240V/50Hz	Conf. 1	Sales code:	104G8143
Optimization + standard conditions			R134a, 220V/50Hz, CSCR, fan 3m/s, CCC		

	Evaporating pressure (saturation temperature)										Condensing pressure (saturation temperature)				Power consumption			
											Return gas temp.				Current consumption			
											Liquid temp.				Ref. mass flow			
											Cooling capacity							
											pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	COP
									</									

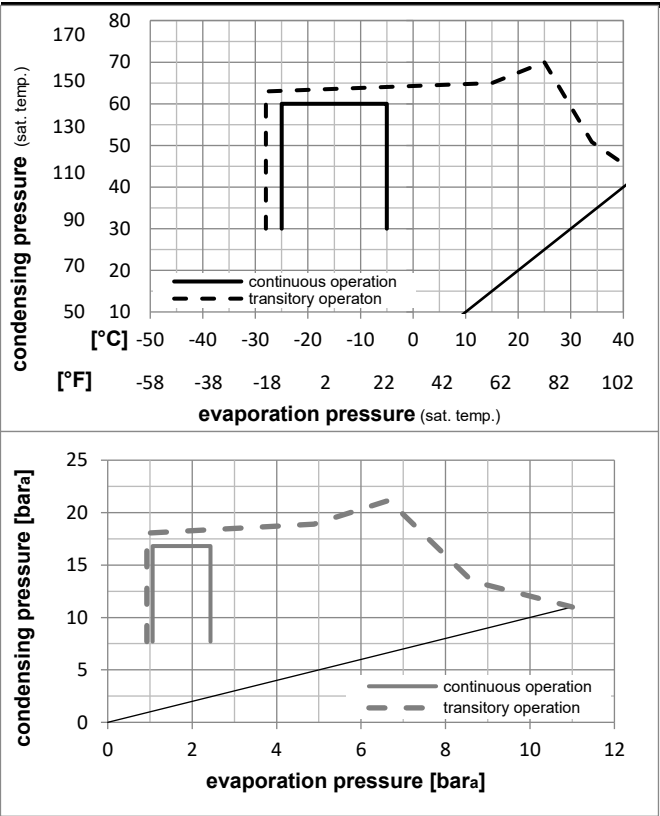
Model				
Designation	SC21G	208-230V/60Hz	Conf. 2	Sales code: 104G8143

Configuration		Electrical accessories / wiring diagram		
Motorconfiguration	CSCR			
Power supply (nominal)	208-230V/60Hz 1~			
Refrigerant	R134a			
Application	LBP			
Voltage range	198-254V			
Starting torque	HST			
Approvals	UL CCC			

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

Operation pressure range



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
----	-------------------------	----------

Model					
Designation	SC21G	208-230V/60Hz	Conf. 2	Sales code:	104G8143
Optimization + standard conditions			R134a, 230V/60Hz, CSCR, fan 3m/s, UL, CCC		

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption									
					Return gas temp.						Current consumption									
					Liquid temp.						Ref. mass flow									
					Cooling capacity						COP		EER		P1		I		ṁ	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]							
[°C]	-23	54	32	32																
[°F]	-10	130	90	90	443,9	1516	382,0	1,07	3,67	0,92	413,2	1,90	8,62	ASHRAE LBP						
[°C]	-25	55	32	55																
[°F]	-13	131	90	131	303,4	1036	261,1	0,80	2,74	0,69	378,6	1,77	7,25	cecomaf LBP						
[°C]	-35	40	20	40																
[°F]	-31	104	68	104	231,4	790	199,1	0,82	2,79	0,70	283,4	1,29	5,08	EN12900 LBP						
[°C]	-7	54	35	46																
[°F]	20	130	95	115	1165,8	3981	1003,3	1,67	5,69	1,43	700,0	3,09	25,43	ASHRAE MBP						
[°C]	-10	55	32	55																
[°F]	14	131	90	131	880,1	3006	757,4	1,36	4,66	1,17	645,1	2,86	21,28	cecomaf MBP						
[°C]	-10	45	20	45																
[°F]	14	113	68	113	1000,0	3415	860,6	1,61	5,49	1,38	622,6	2,73	23,41	EN12900 MBP						

Performance tables

R134a, 230V/60Hz, CSCR, fan 3m/s, UL, CCC

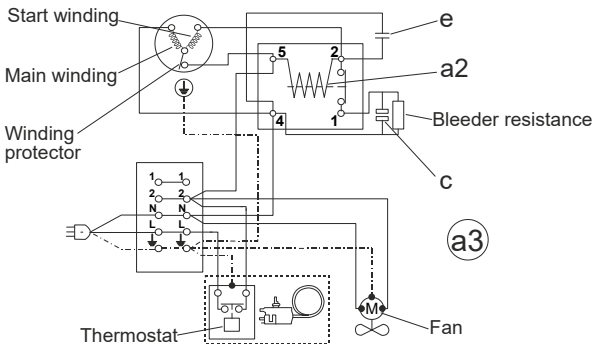
	pe		Cooling capacity			COP		EER			P1		I		m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]		[Btu/Wh]	[kcal/Wh]		[W]		[A]		[kg/h]	
[°C / °F]	-25	-13	439,8	1502	378,5	1,07		3,64	0,92		412,9		1,84		9,53	
cond. pressure	-23	-10	493,1	1684	424,3	1,13		3,85	0,97		437,2		1,94		10,69	
pc= 45/113	-20	-4	606,1	2070	521,6	1,25		4,28	1,08		483,6		2,15		13,17	
return gas temp.	-18	0	688,9	2353	592,9	1,34		4,58	1,15		514,2		2,28		14,99	
RGT= 32/90	-15	5	803,8	2745	691,7	1,45		4,96	1,25		553,0		2,44		17,52	
liquid temp	-10	14	1037,5	3543	892,9	1,67		5,69	1,43		622,6		2,73		22,71	
Tliq= 45/113	-5	23	1311,7	4480	1128,9	1,89		6,46	1,63		693,8		3,01		28,84	
[°C / °F]	-25	-13	303,4	1036	261,1	0,80		2,74	0,69		378,6		1,77		7,25	
cond. pressure	-23	-10	354,9	1212	305,4	0,86		2,95	0,74		410,9		1,90		8,49	
pc= 55/131	-20	-4	464,0	1585	399,3	0,98		3,36	0,85		471,7		2,14		11,13	
return gas temp	-18	0	543,9	1858	468,1	1,06		3,63	0,92		511,1		2,30		13,07	
RGT= 32/90	-15	5	654,7	2236	563,4	1,17		3,99	1,01		560,1		2,51		15,76	
liquid temp	-10	14	880,1	3006	757,4	1,36		4,66	1,17		645,1		2,86		21,28	
Tliq= 55/131	-5	23	1144,6	3909	985,1	1,57		5,37	1,35		728,2		3,21		27,82	

Model				
Designation	SC21G	220-240V/50Hz	Conf. 3	Sales code: 104G8143

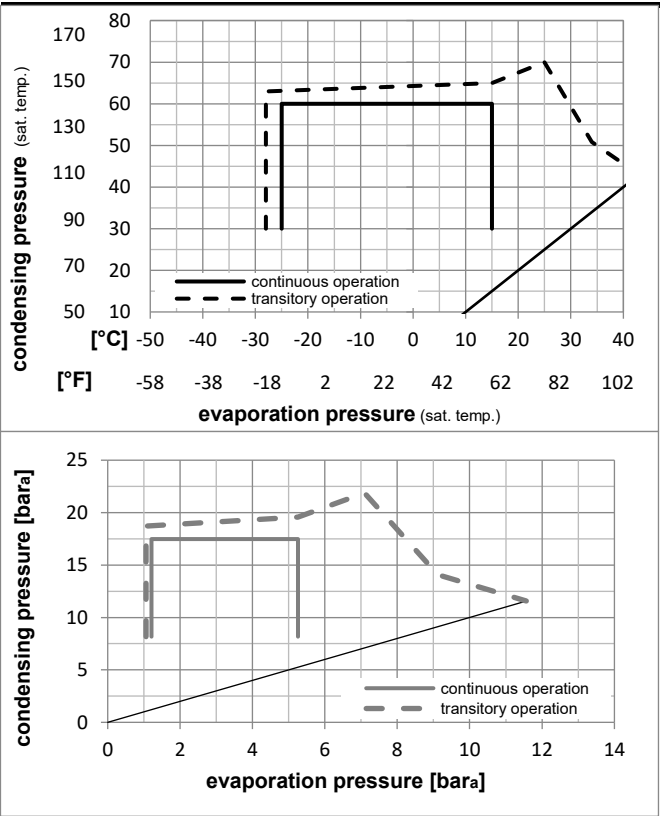
Configuration		Electrical accessories / wiring diagram		
Motorconfiguration	CSCR			
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R513A			
Application	LBP+MBP+HBP			
Voltage range	187-254V			
Starting torque	HST			
Approvals	CCC			

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s



Operation pressure range



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

Model					
Designation	SC21G	220-240V/50Hz	Conf. 3	Sales code:	104G8143
Optimization + standard conditions			R513A, 220V/50Hz, CSCR, fan 3m/s, CCC		

	Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)					Power consumption													
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	COP	EER	[W]	I	Ref. mass flow												
														[°C]	[°F]	[W/W]	[Btu/Wh]	[kcal/Wh]	[A]	[kg/h]				
																					Cooling capacity	P1	Current consumption	ṁ
	-23	54	32	32	512,0	1749	440,6	1,25	4,26	1,07	410,5	2,40	11,02	ASHRAE LBP										
	-10	130	90	90																				
	°C																							
	°F																							
	-25	55	32	55	360,7	1232	310,4	0,94	3,23	0,81	381,8	2,28	9,88	cecomaf LBP										
	-13	131	90	131																				
	°C																							
	°F																							
	-35	40	20	40	249,6	852	214,8	0,90	3,06	0,77	278,8	1,87	6,17	EN12900 LBP										
	-31	104	68	104																				
	°C																							
	°F																							
	-7	54	35	46	1092,8	3732	940,4	1,66	5,67	1,43	658,3	3,39	26,77	ASHRAE MBP										
	20	130	95	115																				
	°C																							
	°F																							
	-10	55	32	55	823,3	2812	708,5	1,35	4,61	1,16	609,3	3,19	22,76	cecomaf MBP										
	14	131	90	131																				
	°C																							
	°F																							
	-10	45	20	45	974,3	3328	838,5	1,60	5,46	1,38	608,9	3,19	25,82	EN12900 MBP										
	14	113	68	113																				
	°C																							
	°F																							

Performance tables			R513A, 220V/50Hz, CSCR, fan 3m/s, CCC								
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-25	-13	460,1	1571	395,9	1,12	3,81	0,96	412,1	2,40	11,21
cond. pressure	-20	-4	614,7	2099	529,0	1,28	4,38	1,10	479,4	2,67	15,02
pc= 45/113	-10	14	1018,9	3480	876,8	1,67	5,71	1,44	608,9	3,19	25,05
return gas temp.	-5	23	1269,5	4335	1092,5	1,90	6,49	1,64	667,7	3,42	31,34
RGT= 32/90	0	32	1553,1	5304	1336,6	2,16	7,37	1,86	720,1	3,63	38,52
liquid temp	5	41	1870,4	6388	1609,7	2,45	8,36	2,11	764,5	3,81	46,65
Tliq= 45/113	15	59	2607,8	8906	2244,3	3,17	10,84	2,73	821,8	4,04	65,98
[°C / °F]	-25	-13	360,7	1232	310,4	0,94	3,23	0,81	381,8	2,28	9,88
cond. pressure	-20	-4	483,1	1650	415,8	1,05	3,60	0,91	458,2	2,59	13,26
pc= 55/131	-10	14	823,3	2812	708,5	1,35	4,61	1,16	609,3	3,19	22,76
return gas temp	-5	23	1042,1	3559	896,8	1,53	5,23	1,32	680,4	3,47	28,95
RGT= 32/90	0	32	1294,2	4420	1113,8	1,73	5,92	1,49	746,2	3,74	36,14
liquid temp	5	41	1580,0	5396	1359,8	1,96	6,70	1,69	804,9	3,97	44,40
Tliq= 55/131	15	59	2255,0	7701	1940,7	2,52	8,61	2,17	894,0	4,33	64,40

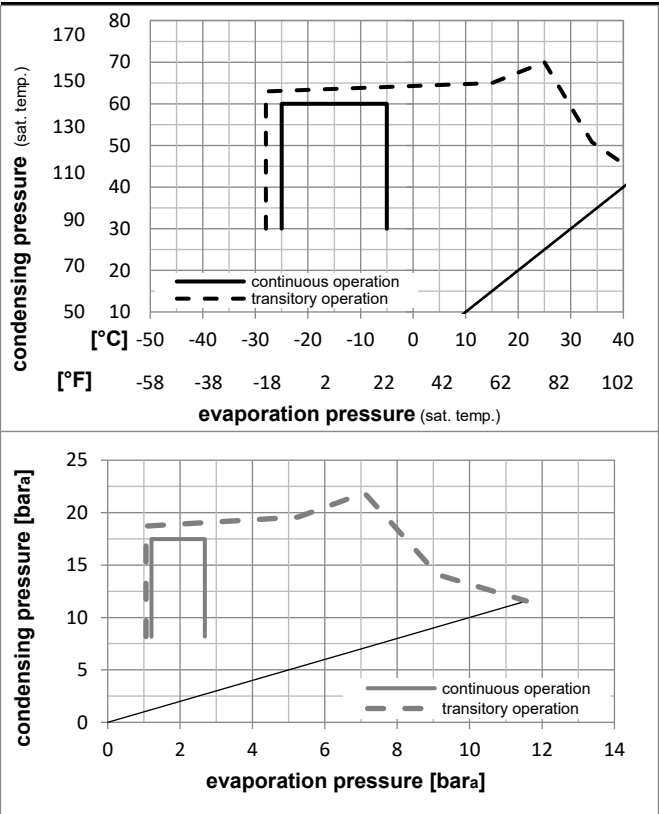
Model				
Designation	SC21G	208-230V/60Hz	Conf. 4	Sales code: 104G8143

Configuration		Electrical accessories / wiring diagram		
Motorconfiguration	CSCR			
Power supply (nominal)	208-230V/60Hz 1~			
Refrigerant	R513A			
Application	LBP			
Voltage range	198-253V			
Starting torque	HST			
Approvals	UL			
	CCC			

Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

Operation pressure range



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
----	-------------------------	----------

Model					
Designation	SC21G	208-230V/60Hz	Conf. 4	Sales code:	104G8143
Optimization + standard conditions			R513A, 230V/60Hz, CSCR, fan 3m/s, UL, CCC		

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)					Power consumption							
Return gas temp.										Current consumption							
Liquid temp.										Ref. mass flow							
Cooling capacity					COP					EER					P1	I	m
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]					
[°C]	-23	54	32	32	494,1	1687	425,2	1,10	3,75	0,95	449,4	2,09	10,63		ASHRAE LBP		
[°F]	-10	130	90	90													
[°C]	-25	55	32	55	329,3	1125	283,4	0,80	2,72	0,69	413,1	1,95	9,02		cecomaf LBP		
[°F]	-13	131	90	131													
[°C]	-35	40	20	40	262,1	895	225,5	0,84	2,88	0,72	311,3	1,58	6,48		EN12900 LBP		
[°F]	-31	104	68	104													
[°C]	-7	54	35	46	1225,5	4185	1054,7	1,65	5,63	1,42	743,2	3,17	30,02		ASHRAE MBP		
[°F]	20	130	95	115													
[°C]	-10	55	32	55	914,8	3124	787,3	1,33	4,54	1,14	687,9	2,97	25,30		cecomaf MBP		
[°F]	14	131	90	131													
[°C]	-10	45	20	45	1046,7	3575	900,8	1,58	5,40	1,36	662,6	2,87	27,74		EN12900 MBP		
[°F]	14	113	68	113													

Performance tables			R513A, 230V/60Hz, CSCR, fan 3m/s, UL, CCC								
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-25	-13	480,8	1642	413,8	1,07	3,66	0,92	448,6	2,08	11,72
cond. pressure	-23	-10	536,3	1832	461,6	1,13	3,87	0,97	473,7	2,18	13,08
pc= 45/113	-20	-4	653,4	2232	562,3	1,25	4,28	1,08	521,5	2,35	15,96
return gas temp.	-18	0	738,8	2523	635,8	1,34	4,56	1,15	552,8	2,47	18,07
RGT= 32/90	-15	5	856,6	2925	737,2	1,45	4,94	1,24	592,3	2,61	20,99
liquid temp	-10	14	1094,5	3738	942,0	1,65	5,64	1,42	662,6	2,87	26,91
Tliq= 45/113	-5	23	1371,6	4684	1180,4	1,87	6,38	1,61	734,0	3,14	33,86
[°C / °F]	-25	-13	329,3	1125	283,4	0,80	2,72	0,69	413,1	1,95	9,02
cond. pressure	-23	-10	382,6	1306	329,2	0,86	2,92	0,74	446,9	2,08	10,48
pc= 55/131	-20	-4	494,6	1689	425,6	0,97	3,31	0,83	510,2	2,31	13,58
return gas temp	-18	0	576,1	1967	495,8	1,05	3,57	0,90	550,9	2,46	15,84
RGT= 32/90	-15	5	688,3	2351	592,4	1,14	3,91	0,99	601,3	2,65	18,96
liquid temp	-10	14	914,8	3124	787,3	1,33	4,54	1,14	687,9	2,97	25,30
Tliq= 55/131	-5	23	1178,4	4025	1014,2	1,53	5,21	1,31	771,8	3,28	32,73