

Model

Designation	SC21G	220-240V/50Hz 1~	220-240V/60Hz 1~	Sales code:	104G8145
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R1234yf, R513A
Oil viscosity	22cSt	Displacement	20,95cm ³ / 1,28cu.in
Oil quantity	550cm ³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm ³ / 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	Conf. 5
Motor configuration	CSCR	CSCR	CSCR	CSCR	CSCR
Power supply (nominal)	220-240V/50Hz	220-240V/60Hz	220-240V/50Hz	220-240V/60Hz	220-240V/50Hz
Number of phases	1	1	1	1	1
Voltage range	187-254V	198-254V	187-254V	198-253V	198-254V
Approvals	VDE, CCC, EAC	CCC, EAC, UL, KC	VDE, CCC	CCC, UL, KC	
Starting torque	HST	HST	HST	HST	HST
Note	- / -				

Applications with SC21G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4	Conf. 5
Refrigerant	R134a	R134a	R513A	R513A	R1234yf
Application	LBP+MBP+HBP	LBP	LBP+MBP+HBP	LBP	LBP+MBP+HBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK	OK

Electrical data - Configurations with SC21G

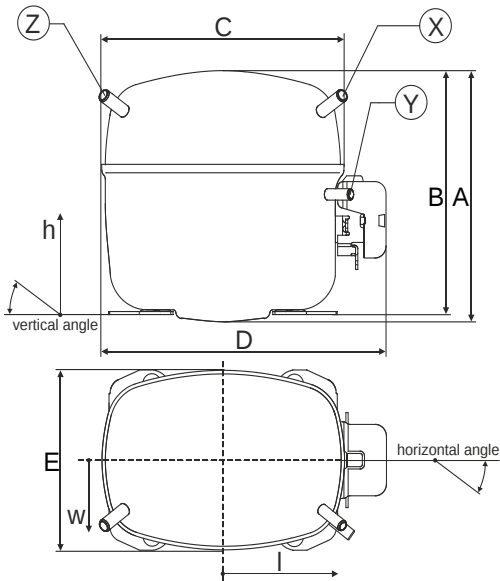
	Conf. 1	Conf. 2	Conf. 3	Conf. 4	Conf. 5
Starting device type	relay	relay	relay	relay	relay
Run capacitor	10μF	10μF	10μF	10μF	10μF
Start capacitor	80μF	80μF	80μF	80μF	80μF
LRA (locked rotor amps / 4s/ U(N))	22A	22A	22A	22A	22A
RLA (rated load amps / 1s/ U(N))	3,9A	3,9A	3,9A	3,9A	3,9A
Cut in current (U(N))	22A	22A	22A	22A	22A

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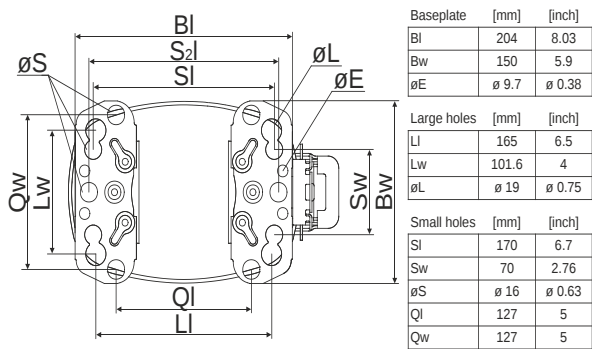
Compressor dimensions

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

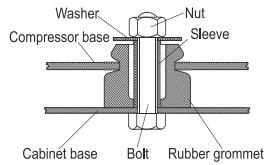
Connectors	Suction	Discharge	Process
	X	Y	Z
Diameter [mm]	øi 7,8-8,2	øi 6,11-6,29	ø 0-0
(i:inside, o:outside) [in]	øi 0,31-0,32	øi 0,24-0,25	
Material	steel	copper	###
Horizontal angle ±2°	37°	37°	0°
Vertical angle ±2°	30°	0°	0°
Position l/h/w [mm]	107/193/55	115/110/63	0/0/0
	[in] 4,2/7,6/2,2	4,5/4,3/2,5	0/0/0
Straight tube l. [mm]	16	12	0
	[in] 0,6	0,5	



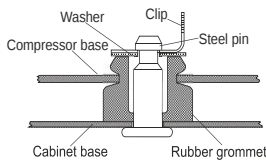
Compressor fixation



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

Compressor without process connector/ Dimension sketch is different.
Provision for PE Grounding is located at the PE Stamp on the compressor

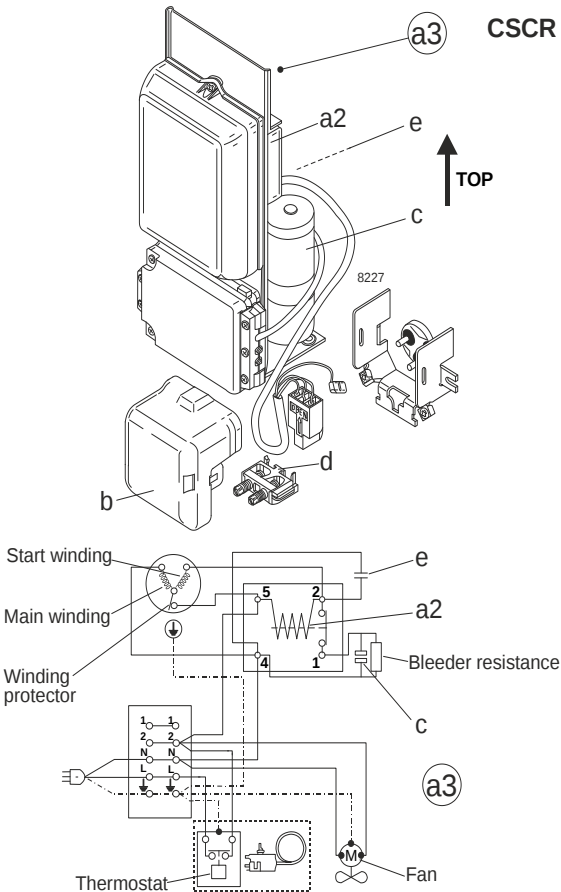
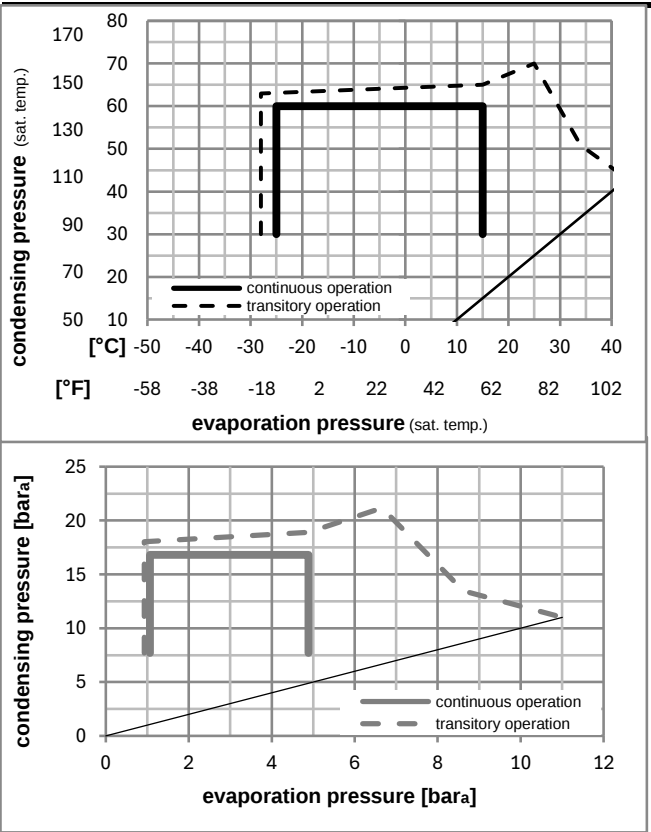
Model				
Designation	SC21G	220-240V/50Hz	Conf. 1	Sales code: 104G8145

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

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)	117-7029
b	plastic cover	103N2009
d	cord relief	103N1004

Alternative components		
a3	SC starter kit (650mm)	117-7032
b	plastic cover	103N2009
d	cord relief	103N1004
c	start capacitor (80μF)	117U5373
e	run capacitor (10μF, 6.3mm)	117-7112

Model					
Designation	SC21G	220-240V/50Hz	Conf. 1	Sales code:	104G8145
Optimization + standard conditions			R134a, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC, EAC		

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)														
Return gas temp.														
Liquid temp.														
Cooling capacity														
COP														
EER														
Power consumption														
Current consumption														
Ref. mass flow														
pe	pc	RGT	Tliq		[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°C]										[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	460,1	1571	396,0	1,22	4,18	1,05	375,7	2,34	8,93	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-7	54	35	46	1040,5	3553	895,5	1,68	5,75	1,45	617,9	3,14	22,70	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	7,2	54	35	46	1889,9	6454	1626,4	2,40	8,19	2,06	788,0	4,01	41,93	ASHRAE HBP
[°F]	45	130	95	115										
[°C]	-35	40	20	40	222,2	759	191,2	0,88	2,99	0,75	253,6	1,96	4,87	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-10	45	20	45	931,8	3182	801,9	1,63	5,58	1,41	570,2	2,87	21,81	EN12900 MBP
[°F]	14	113	68	113										
[°C]	5	50	20	50	1621,9	5539	1395,9	2,16	7,37	1,86	752,1	3,79	40,87	EN12900 HBP
[°F]	41	122	68	122										

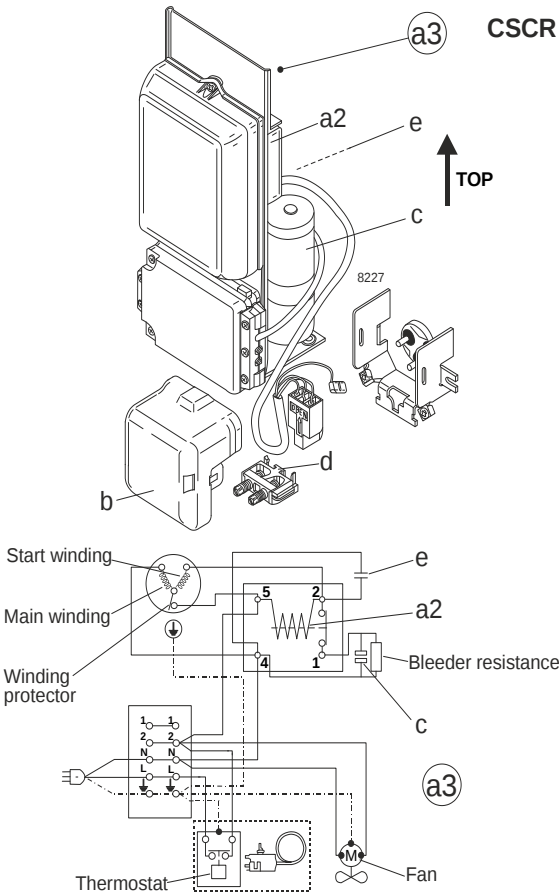
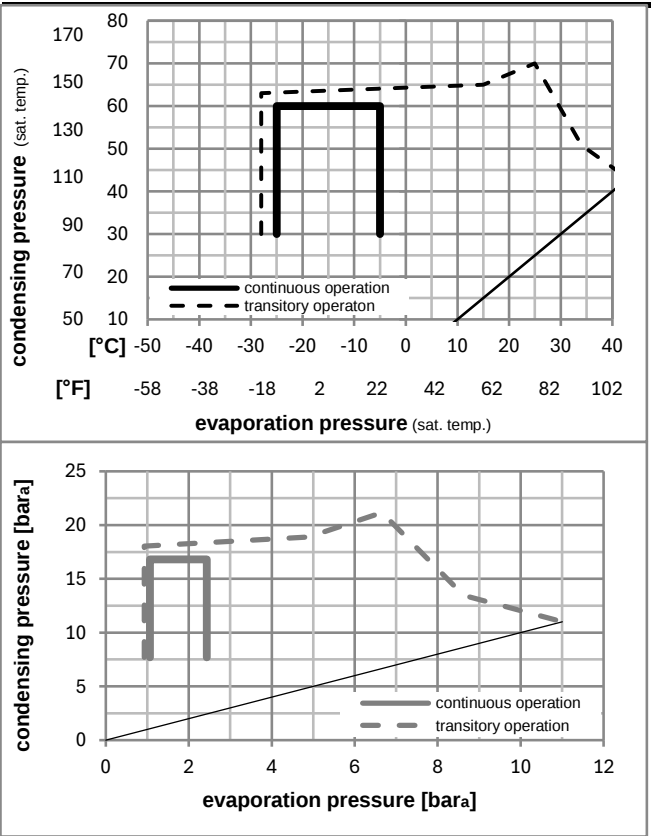
Model				
Designation	SC21G	220-240V/60Hz	Conf. 2	Sales code: 104G8145

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

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)	117-7029
b	plastic cover	103N2009
d	cord relief	103N1004

Alternative components		
a3	SC starter kit (650mm)	117-7032
b	plastic cover	103N2009
d	cord relief	103N1004
c	start capacitor (80μF)	117U5373
e	run capacitor (10μF, 6.3mm)	117-7112

Model

Designation	SC21G	220-240V/60Hz	Conf. 2	Sales code:	104G8145
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Optimization + standard conditions

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

ASHRAE LBP														
ASHRAE MBP														
ASHRAE HBP														
EN12900 LBP														
EN12900 MBP														
EN12900 HBP														

Performance tables

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

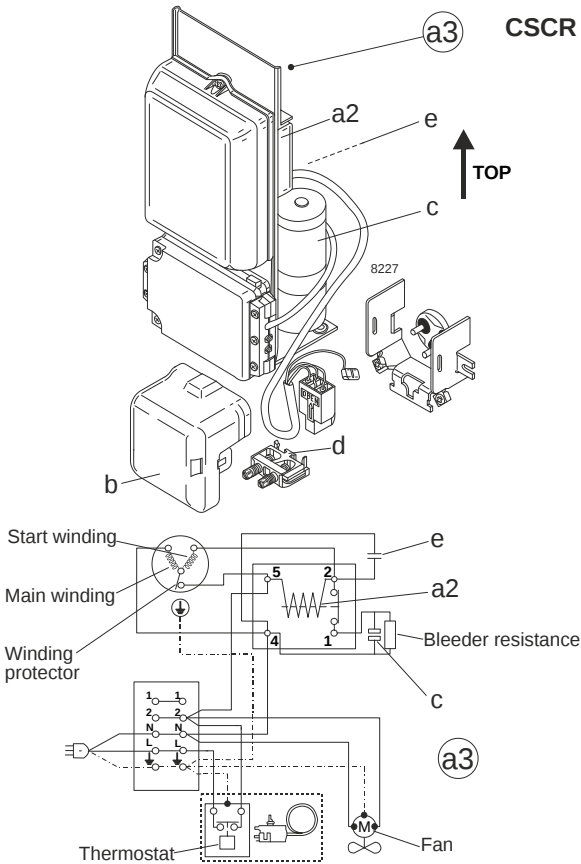
	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-25	-13	439,8	1502	378,5	1,07	3,64	0,92	412,9	1,84	9,53
cond. pressure	-23	-10	493,1	1684	424,3	1,13	3,85	0,97	437,2	1,94	10,69
pc= 45/113	-20	-4	606,1	2070	521,6	1,25	4,28	1,08	483,6	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: 104G8145

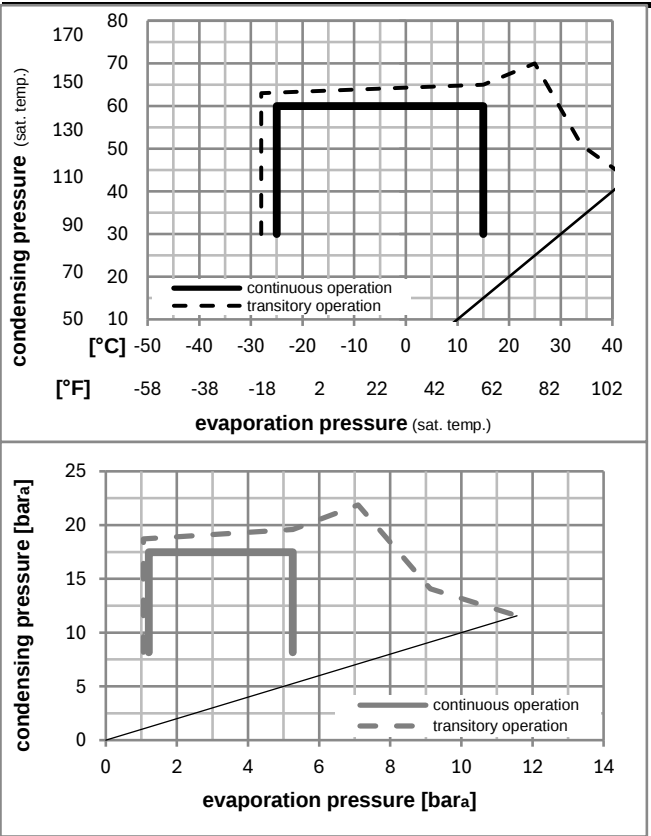
Configuration	Electrical accessories / wiring diagram			
Motor configuration	CSCR			
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R513A			
Application	LBP+MBP+HBP			
Voltage range	187-254V			
Starting torque	HST			
Approvals	VDE			
	CCC			

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)	117-7029
b	plastic cover	103N2009
d	cord relief	103N1004

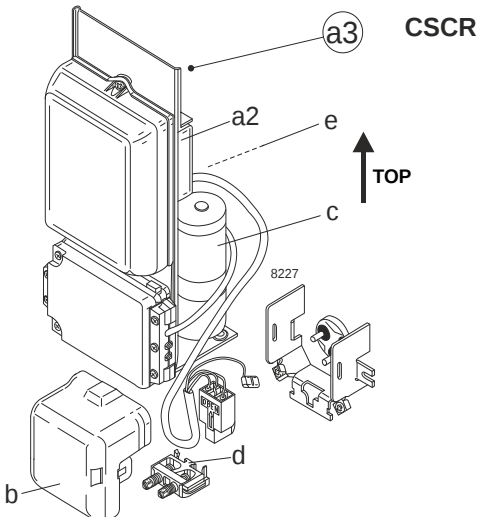
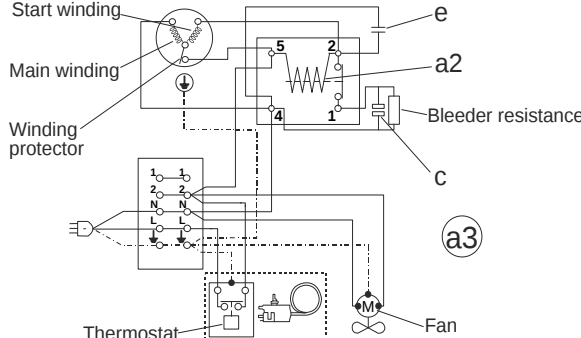
Alternative components		
a3	SC starter kit (650mm)	117-7032
b	plastic cover	103N2009
d	cord relief	103N1004
c	start capacitor (80μF)	117U5373
e	run capacitor (10μF, 6.3mm)	117-7112

Model					
Designation	SC21G	220-240V/50Hz	Conf. 3	Sales code:	104G8145
Optimization + standard conditions			R513A, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC		

	Evaporating pressure (saturation temperature)										Condensing pressure (saturation temperature)				Power consumption			
															Current consumption			
															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	512,0	1749	440,6	1,25	4,26	1,07	410,5	2,40	11,02	ASHRAE LBP				
[°F]	-10	130	90	90														
[°C]	-7	54	35	46	1092,8	3732	940,4	1,66	5,67	1,43	658,3	3,39	26,77	ASHRAE MBP				
[°F]	20	130	95	115														
[°C]	7,2	54	35	46	1941,9	6632	1671,2	2,35	8,02	2,02	826,8	4,06	48,24	ASHRAE HBP				
[°F]	45	130	95	115														
[°C]	-35	40	20	40	249,6	852	214,8	0,90	3,06	0,77	278,8	1,87	6,17	EN12900 LBP				
[°F]	-31	104	68	104														
[°C]	-10	45	20	45	974,3	3328	838,5	1,60	5,46	1,38	608,9	3,19	25,82	EN12900 MBP				
[°F]	14	113	68	113														
[°C]	5	50	20	50	1644,8	5617	1415,5	2,08	7,11	1,79	790,4	3,91	47,16	EN12900 HBP				
[°F]	41	122	68	122														

Performance tables						R513A, 220V/50Hz, CSCR, fan 3m/s, VDE, 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

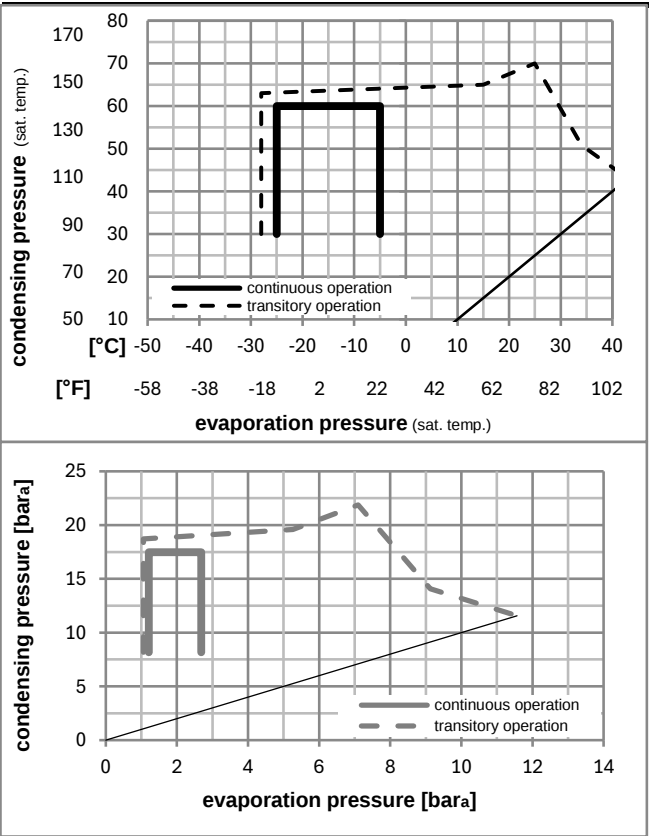
Model				
Designation	SC21G	220-240V/60Hz	Conf. 4	Sales code: 104G8145

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

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)	117-7029
b	plastic cover	103N2009
d	cord relief	103N1004

Alternative components		
a3	SC starter kit (650mm)	117-7032
b	plastic cover	103N2009
d	cord relief	103N1004
c	start capacitor (80µF)	117U5373
e	run capacitor (10µF, 6.3mm)	117-7112

Model

Designation	SC21G	220-240V/60Hz	Conf. 4	Sales code:	104G8145
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Optimization + standard conditions

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

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)														
Return gas temp.														
Liquid temp.														
Cooling capacity														
COP														
EER														
Power consumption														
Current consumption														
Ref. mass flow														
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m		
[°C]										[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]	-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]	7,2	54	35	46	2258,8	7714	1943,9	2,32	7,93	2,00	972,7	4,02	56,11	ASHRAE HBP
[°F]	45	130	95	115										
[°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]	-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										
[°C]	5	50	20	50	1855,5	6337	1596,8	2,03	6,93	1,75	914,5	3,81	53,20	EN12900 HBP
[°F]	41	122	68	122										

Performance tables

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

	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

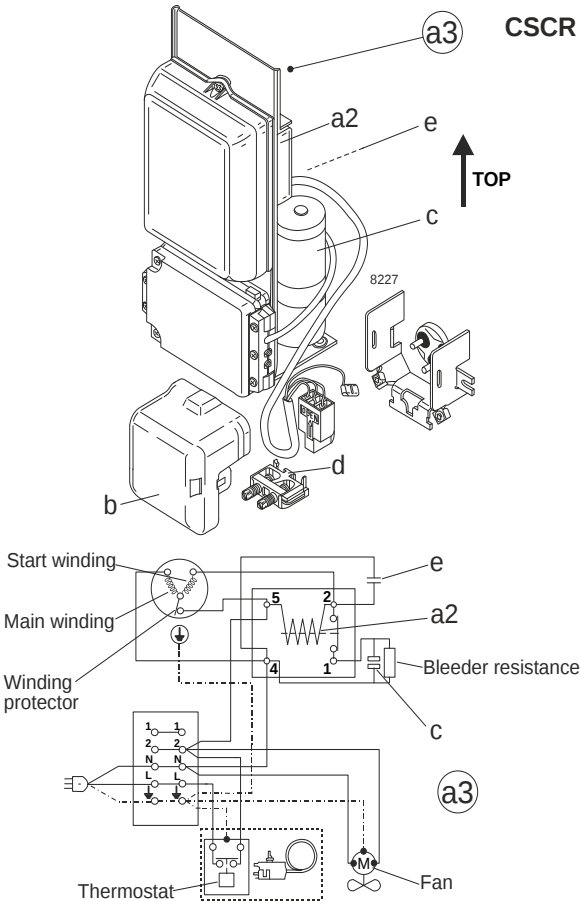
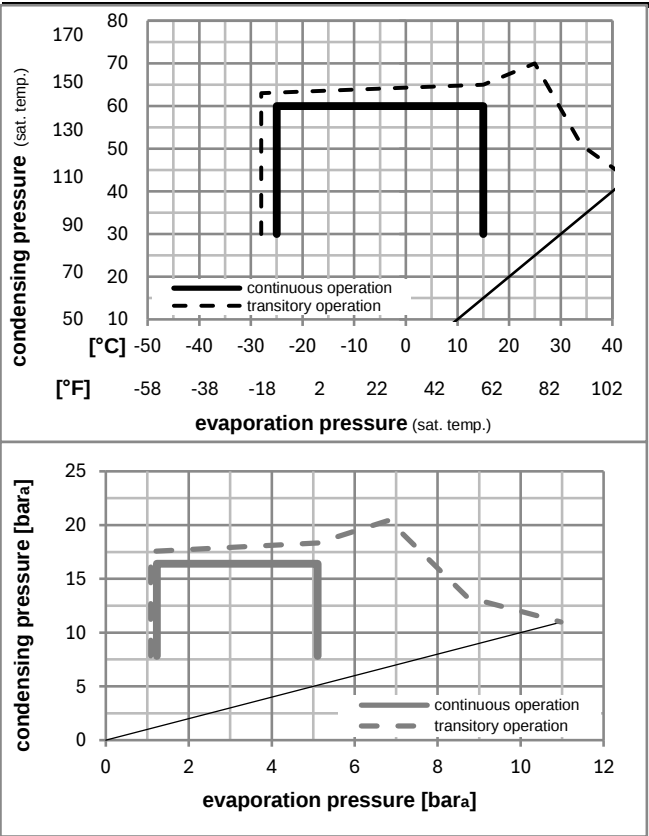
Model				
Designation	SC21G	220-240V/50Hz	Conf. 5	Sales code: 104G8145

Configuration	Electrical accessories / wiring diagram			
Motor configuration	CSCR			
Power supply (nominal)	220-240V/50Hz 1~			
Refrigerant	R1234yf			
Application	LBP+MBP+HBP			
Voltage range	198-254V			
Starting torque	HST			
Approvals				

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)	117-7029
b	plastic cover	103N2009
d	cord relief	103N1004

Alternative components		
a3	SC starter kit (650mm)	117-7032
b	plastic cover	103N2009
d	cord relief	103N1004
c	start capacitor (80μF)	117U5373
e	run capacitor (10μF, 6.3mm)	117-7112

Model					
Designation	SC21G	220-240V/50Hz	Conf. 5	Sales code:	104G8145
Optimization + standard conditions			R1234yf, 220V/50Hz, CSCR, fan 3m/s,		

	Evaporating pressure (saturation temperature)										Power consumption			
	Condensing pressure (saturation temperature)										Current consumption			
	Return gas temp.										Ref. mass flow			
	Liquid temp.													
	Cooling capacity										COP	EER	P1	I
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	507,0	1732	436,3	1,27	4,34	1,09	398,5	2,35	11,95	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-7	54	35	46	1049,5	3584	903,2	1,68	5,73	1,45	625,0	3,20	28,38	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	7,2	54	35	46	1838,5	6279	1582,2	2,38	8,13	2,05	772,0	3,82	50,68	ASHRAE HBP
[°F]	45	130	95	115										
[°C]	-35	40	20	40	250,3	855	215,4	0,91	3,12	0,79	274,3	1,99	6,87	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-10	45	20	45	924,0	3155	795,2	1,59	5,42	1,37	581,7	3,02	27,44	EN12900 MBP
[°F]	14	113	68	113										
[°C]	5	50	20	50	1524,4	5206	1311,9	2,06	7,02	1,77	741,1	3,69	49,58	EN12900 HBP
[°F]	41	122	68	122										

Performance tables										R1234yf, 220V/50Hz, CSCR, fan 3m/s,			
	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	452,8	1546	389,7	1,13	3,86	0,97		401,1		2,35	12,16
cond. pressure	-20	-4	599,3	2047	515,7	1,29	4,41	1,11		463,6		2,57	16,15
pc= 45/113	-10	14	979,2	3344	842,7	1,68	5,75	1,45		581,7		3,02	26,62
return gas temp.	-5	23	1212,8	4142	1043,8	1,91	6,53	1,65		634,2		3,23	33,16
RGT= 32/90	0	32	1475,7	5040	1270,0	2,17	7,41	1,87		680,3		3,43	40,61
liquid temp	5	41	1767,8	6037	1521,4	2,46	8,40	2,12		718,5		3,59	49,02
Tliq= 45/113	15	59	2440,3	8334	2100,1	3,19	10,89	2,74		765,2		3,79	69,03
[°C / °F]	-25	-13	355,0	1212	305,5	0,96	3,26	0,82		371,5		2,26	10,76
cond. pressure	-20	-4	470,1	1605	404,6	1,06	3,62	0,91		443,0		2,50	14,30
pc= 55/131	-10	14	788,2	2692	678,3	1,36	4,63	1,17		581,0		3,02	24,22
return gas temp	-5	23	991,4	3386	853,2	1,54	5,25	1,32		644,6		3,28	30,65
RGT= 32/90	0	32	1224,0	4180	1053,4	1,74	5,95	1,50		702,5		3,52	38,13
liquid temp	5	41	1486,2	5076	1279,1	1,97	6,74	1,70		753,3		3,74	46,70
Tliq= 55/131	15	59	2099,7	7171	1807,0	2,54	8,67	2,18		827,4		4,06	67,48