

Model

Designation	SC21G	220-240V/50Hz 1~ 220-240V/60Hz 1~	Sales code:	104G8124
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	22cST	Displacement	20,95cm ³ / 1,28cu.in
Oil quantity	549cm 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
Motorconfiguration	CSCR	CSCR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz
Number of phases	1	1
Voltage range	187-254V	198-254V
Approvals	VDE, CCC, EAC	VDE, CCC, EAC
Starting torque	HST	HST
Note	- / -	

Applications with SC21G

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

Electrical data - Configurations with SC21G

	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	10μF	10μF
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s)	22A	22A
RLA (rated load amps / 1s)	3,9A	3,9A
Cut in current	22A	22A
IP class	21	21

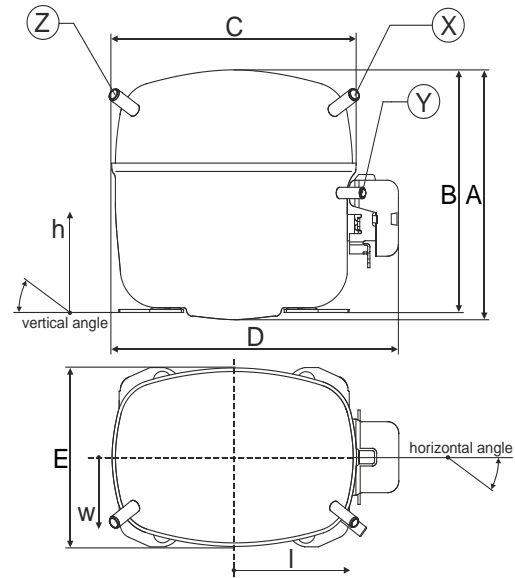
Model

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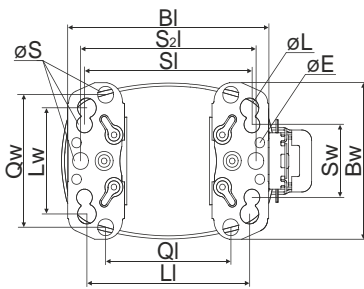
Compressor dimensions

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 10,11-10,29	øi 6,41-6,59	øi 6,41-6,59
	(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,25-0,26	øi 0,25-0,26
Material		copper	copper	copper
Horizontal angle	±2°	37°	37°	143°
Vertical angle	±2°	30°	0°	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

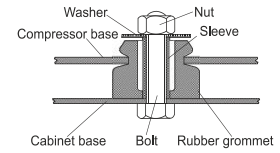


Compressor fixation

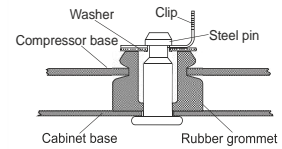


Baseplate	[mm]	[inch]
BI	204	8.03
Bw	150	5.9
øE	ø 9.7	ø 0.38
Large holes		
	[mm]	[inch]
LI	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75
Small holes		
	[mm]	[inch]
SI	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63
QI	127	5
Qw	127	5

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

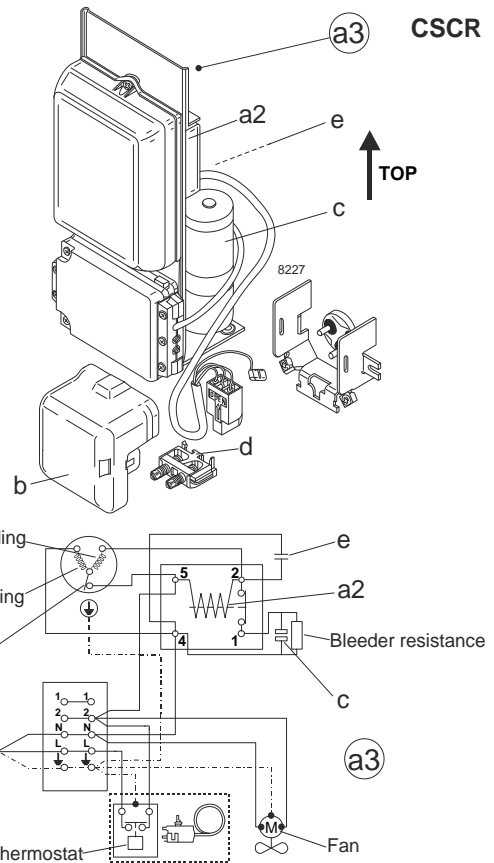
Model

Designation	SC21G	220-240V/50Hz	Conf. 1	Sales code:	104G8124
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Configuration

Motorconfiguration	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

Electrical accessories / wiring diagram



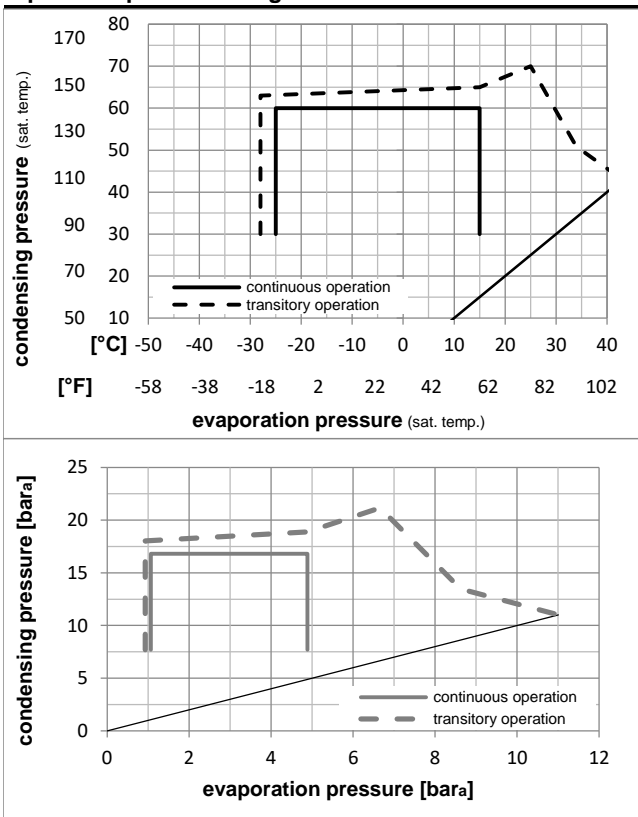
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)

T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	fan 3m/s	fan 3m/s
38°C / 100°F	fan 3m/s	fan 3m/s	fan 3m/s
43°C / 110°F	fan 3m/s	fan 3m/s	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
a3	SC starter kit (1000mm)	117-7041
a2	potential relay (RVA 4H3R341)	117-7427
c	start capacitor (80µF)	117U5373
e	run capacitor (10µF, 6.3mm)	117-7112

Model

Designation	SC21G	220-240V/50Hz	Conf. 1	Sales code:	104G8124
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Optimization + standard conditions

R134a, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC, EAC

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]	-23,3	54,4	32,2	32,2	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]	-25	55	32	55	332,7	1136	286,4	0,96	3,26	0,82	348,2	2,28	7,96	cecomaf LBP
[°F]	-13	131	89,6	131										
[°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]	-6,66	54,4	35	46,1	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]	-10	55	32	55	792,6	2707	682,1	1,39	4,75	1,20	569,4	2,96	19,16	cecomaf MBP
[°F]	14	131	89,6	131										
[°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										

Performance tables

R134a, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC, EAC

	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	420,9	1438	362,3	1,11	3,80	0,96	378,0	2,26	9,12
cond. pressure	-20	-4	570,4	1948	490,9	1,29	4,40	1,11	442,9	2,44	12,39
pc= 45/113	-10	14	966,8	3302	832,0	1,70	5,79	1,46	570,2	2,87	21,16
return gas temp.	-5	23	1215,3	4150	1045,9	1,93	6,60	1,66	629,0	3,12	26,72
RGT= 32/90	0	32	1498,4	5117	1289,5	2,20	7,50	1,89	682,2	3,39	33,14
liquid temp	5	41	1816,9	6205	1563,6	2,50	8,52	2,15	727,9	3,68	40,45
Tliq= 45/113	15	59	2563,1	8754	2205,8	3,25	11,08	2,79	789,8	4,34	58,06
[°C / °F]	-25	-13	332,7	1136	286,4	0,96	3,26	0,82	348,2	2,28	7,96
cond. pressure	-20	-4	453,1	1547	389,9	1,07	3,67	0,92	421,7	2,48	10,87
pc= 55/131	-10	14	792,6	2707	682,1	1,39	4,75	1,20	569,4	2,96	19,16
return gas temp	-5	23	1013,3	3461	872,0	1,58	5,41	1,36	640,0	3,24	24,63
RGT= 32/90	0	32	1269,0	4334	1092,1	1,80	6,14	1,55	705,9	3,54	31,04
liquid temp	5	41	1560,5	5329	1343,0	2,04	6,96	1,75	765,4	3,87	38,45
Tliq= 55/131	15	59	2254,0	7698	1939,8	2,63	8,97	2,26	858,1	4,60	56,61

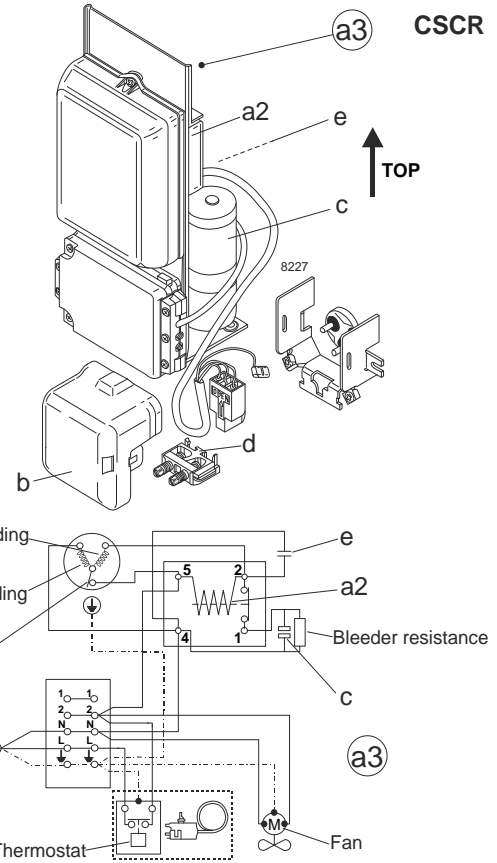
Model

Designation	SC21G	208-230V/60Hz	Conf. 2	Sales code:	104G8124
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Configuration

Motorconfiguration	CSCR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE CCC EAC

Electrical accessories / wiring diagram



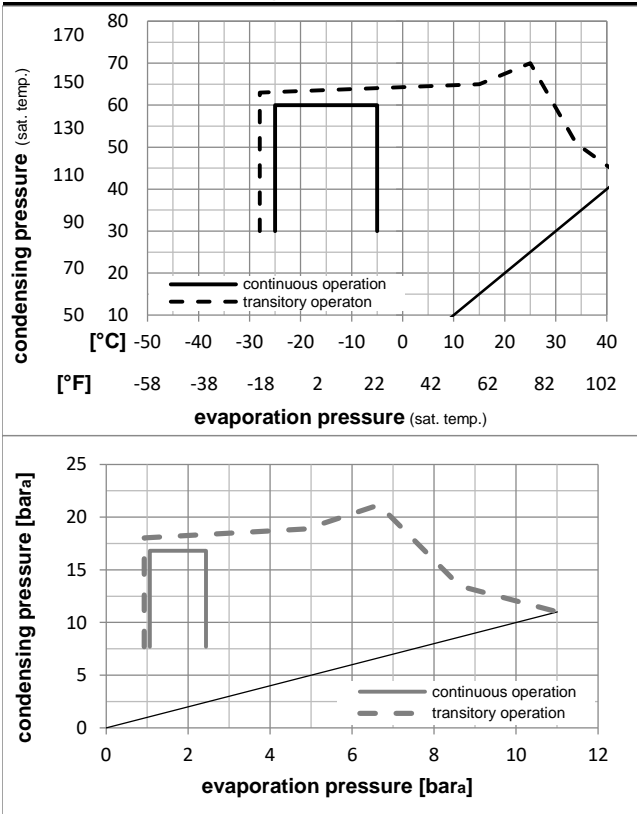
Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)

T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	fan 3m/s	n/a	n/a

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
a3	SC starter kit (1000mm)	117-7041
a2	potential relay (RVA 4H3R341)	117-7427
c	start capacitor (80µF)	117U5373
e	run capacitor (10µF, 6.3mm)	117-7112

Model

Designation **SC21G 208-230V/60Hz** Conf. 2 Sales code: **104G8124**

Optimization + standard conditions

R134a, 220V/60Hz, CSCR, fan 3m/s, VDE, CCC, EAC

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)				Cooling capacity						Power consumption			ASHRAE LBP
		Return gas temp.				COP						Current consumption			
		Liquid temp.				EER						Ref. mass flow			
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m			
[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]			
-23	54,4	32,2	32,2	443,9	1516	382,0	1,07	3,67	0,92	413,2	1,90	8,62	ASHRAE LBP		
[°F]	-10	130	90												
-25	55	32	55	303,4	1036	261,1	0,80	2,74	0,69	378,6	1,77	7,25	cecomaf LBP		
[°F]	-13	131	89,6												
-35	40	20	40	231,4	790	199,1	0,82	2,79	0,70	283,4	1,29	5,08	EN12900 LBP		
[°F]	-31	104	68												
-6,7	54,4	35	46,1	1165,8	3981	1003,3	1,67	5,69	1,43	700,0	3,09	25,43	ASHRAE MBP		
[°F]	20	130	95												
-10	55	32	55	880,1	3006	757,4	1,36	4,66	1,17	645,1	2,86	21,28	cecomaf MBP		
[°F]	14	131	89,6												
-10	45	20	45	1000,0	3415	860,6	1,61	5,49	1,38	622,6	2,73	23,41	EN12900 MBP		
[°F]	14	113	68												

Performance tables

R134a, 220V/60Hz, CSCR, fan 3m/s, VDE, CCC, EAC

	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			