

## Model

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

Oil type	Polyolester	Refrigerant(s)	<b>R134a</b>
Oil viscosity	22cST	Displacement	20,95cm <sup>3</sup> / 1,28cu.in
Oil quantity	550cm <sup>3</sup> / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm <sup>3</sup> / 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.	140°C / 284°F		



## General - Configurations with SC21G

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

## Applications with SC21G

	<b>Conf. 1</b>	<b>Conf. 2</b>
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

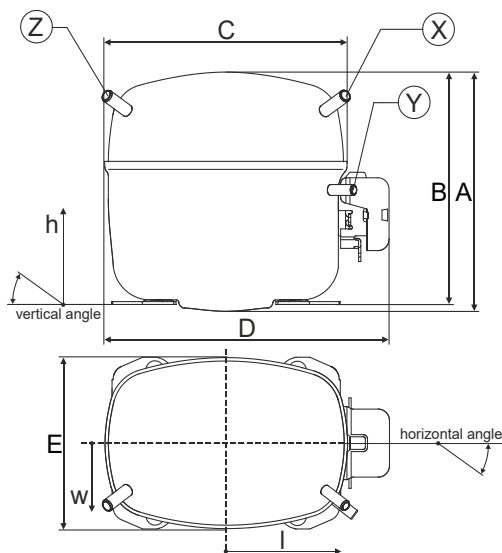
	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	relay
Run capacitor	10μF	10μF
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s)	22A	22A
RLA (rated load amps / 1s)	3,9A	3,9A
Cut in current	22A	22A

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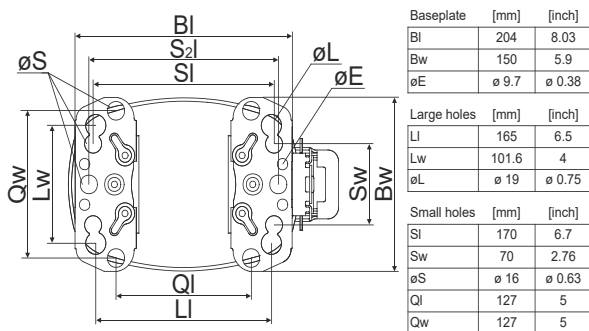
## Compressor dimensions

<b>Housing</b>	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

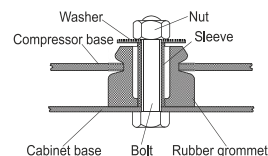


Connectors	Suction		Discharge	Process
	X	Y	Z	Z
Diameter [mm]	øi 7,8-8,2	øi 6,11-6,29	ø 0-0	
(i:inside, o:outside) [in]	øi 0,31-0,32	øi 0,24-0,25		
Material	steel	copper	###	
Horizontal angle ±2°	37°	37°	0°	
Vertical angle ±2°	30°	0°	0°	
Position l/h/w [mm]	107/193/55	115/110/63	0/0/0	
[in]	4,2/7,6/2,2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

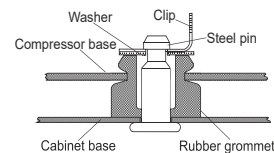
## Compressor fixation



## 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

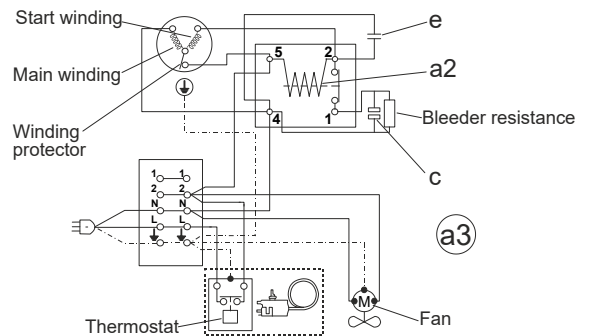
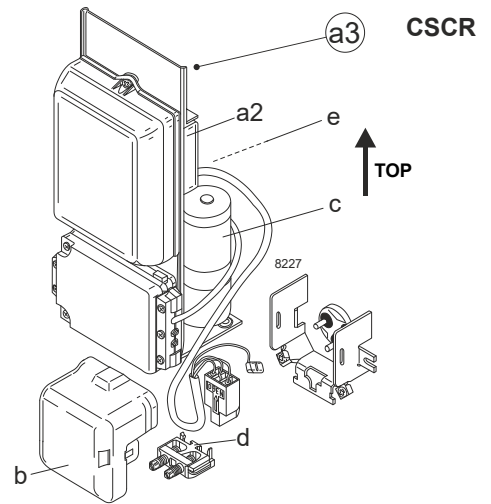
## Model

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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	CCC
	VDE

## Electrical accessories / wiring diagram



## Ambient/ machine room temperatures minimum /maximum

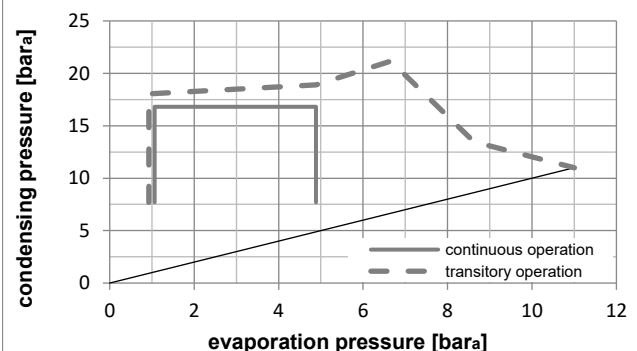
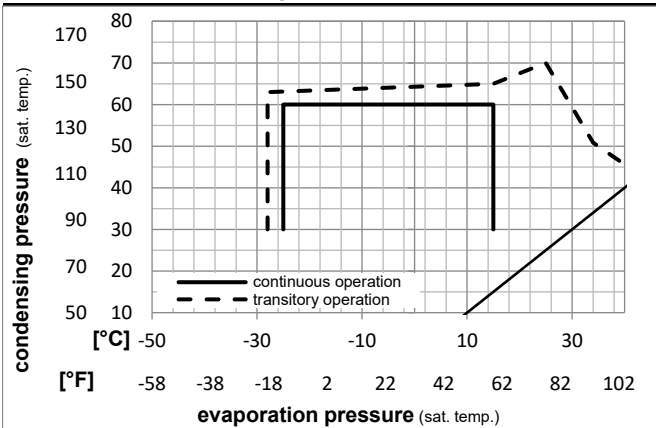
Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

## Operation Limits

### 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

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## Optimization + standard conditions

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

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

## Performance tables

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

	pe		Cooling capacity			COP	EER		P1	I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]		[Btu/Wh]	[kcal/Wh]			
[°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

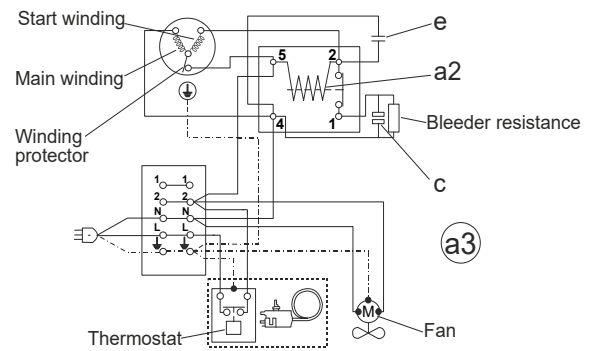
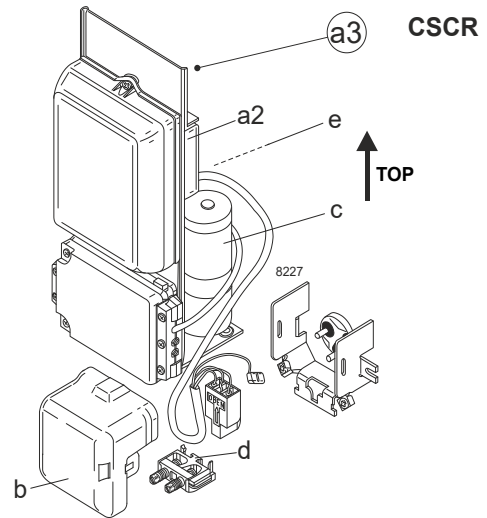
## Model

Designation	<b>SC21G</b>	<b>208-230V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>104G8145</b>
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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	CCC
	VDE

## Electrical accessories / wiring diagram



## Ambient/ machine room temperatures minimum /maximum

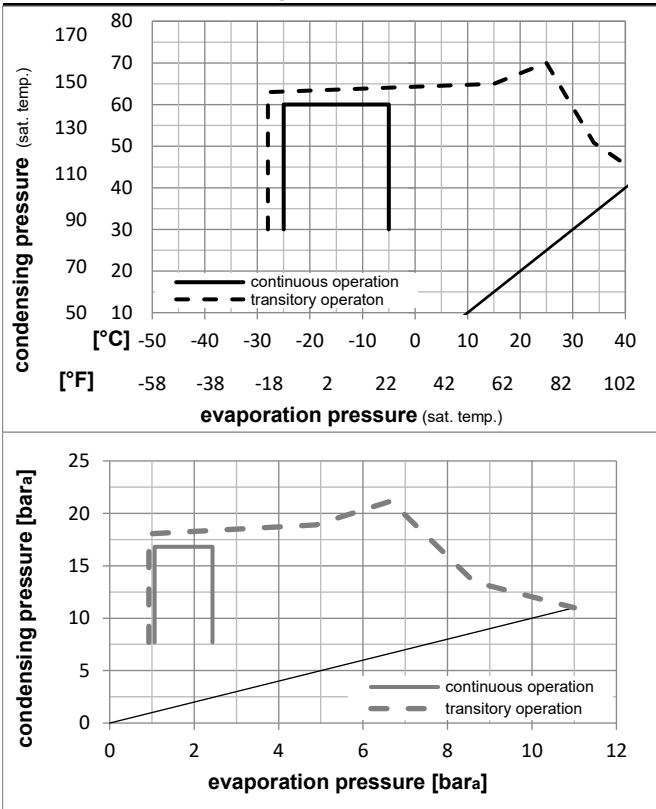
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## Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.		Cooling capacity			COP	EER	Power consumption			ASHRAE
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow				m				
[°C]	[°F]											[W]	[A]	[kg/h]								
-23	-10	54	130	32	90	443,9	1516	382,0	1,07	3,67	0,92	413,2	1,90	8,62				LBP				
-7	20	54	130	35	95	1165,8	3981	1003,3	1,67	5,69	1,43	700,0	3,09	25,43				MBP				
7,2	45	54	130	35	95	2196,3	7501	1890,2	2,36	8,07	2,03	930,0	4,00	48,73				HBP				
-35	-31	40	104	20	68	231,4	790	199,1	0,82	2,79	0,70	283,4	1,29	5,08				LBP				
-10	14	45	113	20	68	1000,0	3415	860,6	1,61	5,49	1,38	622,6	2,73	23,41				MBP				
5	41	50	122	20	68	1828,2	6244	1573,3	2,09	7,15	1,80	872,9	3,71	46,07				HBP				

## Performance tables

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

	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