

## Single Pack SC18G 220-240V 50/60Hz CSIR

Single pack code number: **195B4502**

Position	Title	Code	Amount
1	Compressor SC18G	104G8822	1
2	Starting relay	117U6019	1
3	Starting capacitor (80 $\mu$ F 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2009	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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## Model

Designation	<b>SC18G</b>	220-240V/50Hz 1~ 220-240V/60Hz 1~	Sales code:	<b>104G8822</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a</b>
Oil viscosity	22cST	Displacement	17,69cm <sup>3</sup> / 1,08cu.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	13,5kg / 29,8lbs		
Motor protection	1# internal		
Winding resistance main	3,7Ω (at 25°C)		
Winding resistance aux	14Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	135°C / 275°F		



## General - Configurations with SC18G

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

## Applications with SC18G

	<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 SC18G

	<b>Conf. 1</b>	<b>Conf. 2</b>
Starting device type	relay	relay
Run capacitor	- / -	- / -
Start capacitor	80μF	80μF
LRA (locked rotor amps / 4s)	20,43A	19A
RLA (rated load amps / 1s)	3,9A	3,5A
Cut in current	20,43A	19A

## Model

Designation

**SC18G**

220-240V/50Hz 1~ 220-240V/60Hz 1~

Sales code:

**104G8822**

## 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 X	Discharge Y	Process 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



### Bolt joint



### Snap-on



## Mounting accessories

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

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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE CCC

## Electrical accessories / wiring diagram

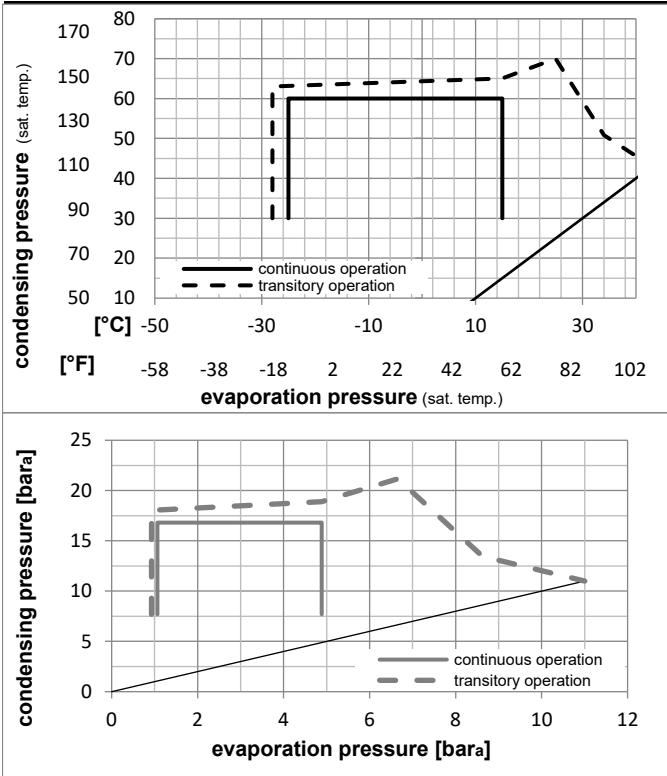


## Ambient/ machine room temperatures minimum /maximum

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

a2	relay	117U6019
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

## Alternative components

a2	relay	117U6019
c	start capacitor i-pack 40# (80μF)	117U5067
d	cord relief	103N1004
b	plastic cover	103N2008

### Model

Designation **SC18G** **220-240V/50Hz** Conf. 1 Sales code: **104G8822**

### Optimization + standard conditions

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

	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]						P1	I	Ref. mass flow	
[°C]																
[°F]																
	-23	54	32	32	396,4	1354	341,2	1,13	3,87	0,97	350,1	2,61	7,70	ASHRAE LBP		
	-10	130	90	90												
	-7	54	35	46	894,7	3055	770,0	1,58	5,41	1,36	565,2	3,17	19,52	ASHRAE MBP		
	20	130	95	115												
	7,2	54	35	46	1613,1	5509	1388,3	2,21	7,55	1,90	729,8	3,82	35,79	ASHRAE HBP		
	45	130	95	115												
	-35	40	20	40	146,0	499	125,7	0,67	2,30	0,58	217,1	2,26	3,20	EN12900 LBP		
	-31	104	68	104												
	-10	45	20	45	763,6	2608	657,2	1,54	5,27	1,33	495,2	2,91	17,87	EN12900 MBP		
	14	113	68	113												
	5	50	20	50	1359,1	4642	1169,7	2,03	6,92	1,74	670,4	3,58	34,25	EN12900 HBP		
	41	122	68	122												

### Performance tables

R134a, 220V/50Hz, CSIR, 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	332,6	1136	286,2	1,00	3,42	0,86	332,4	2,51	7,21
cond. pressure	-20	-4	462,8	1581	398,3	1,18	4,04	1,02	390,9	2,64	10,05
pc= 45/113	-10	14	792,2	2706	681,8	1,60	5,46	1,38	495,2	2,91	17,34
return gas temp.	-5	23	997,8	3408	858,7	1,84	6,27	1,58	543,4	3,07	21,94
RGT= 32/90	0	32	1235,0	4218	1062,8	2,09	7,14	1,80	590,3	3,25	27,31
liquid temp	5	41	1506,8	5146	1296,8	2,36	8,08	2,03	637,3	3,46	33,55
Tliq= 45/113	15	59	2167,5	7402	1865,3	2,95	10,06	2,54	735,6	4,00	49,09
[°C / °F]	-25	-13	285,6	975	245,8	0,88	2,99	0,75	325,8	2,56	6,83
cond. pressure	-20	-4	398,5	1361	343,0	1,00	3,43	0,86	397,0	2,72	9,56
pc= 55/131	-10	14	689,1	2353	593,1	1,31	4,47	1,13	526,8	3,05	16,66
return gas temp	-5	23	873,2	2982	751,5	1,49	5,07	1,28	587,8	3,24	21,23
RGT= 32/90	0	32	1087,4	3714	935,8	1,68	5,73	1,44	647,7	3,46	26,60
liquid temp	5	41	1334,8	4559	1148,8	1,89	6,44	1,62	707,6	3,71	32,89
Tliq= 55/131	15	59	1942,4	6634	1671,7	2,33	7,97	2,01	832,0	4,34	48,79

## Model

Designation	<b>SC18G</b>	<b>208-230V/60Hz</b>	<b>Conf. 2</b>	Sales code:	<b>104G8822</b>
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## Configuration

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

## Electrical accessories / wiring diagram

CSIR

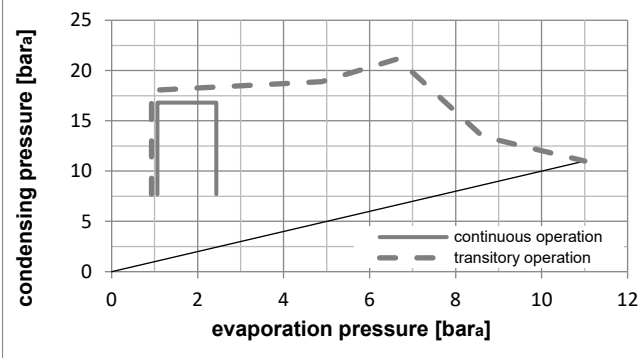
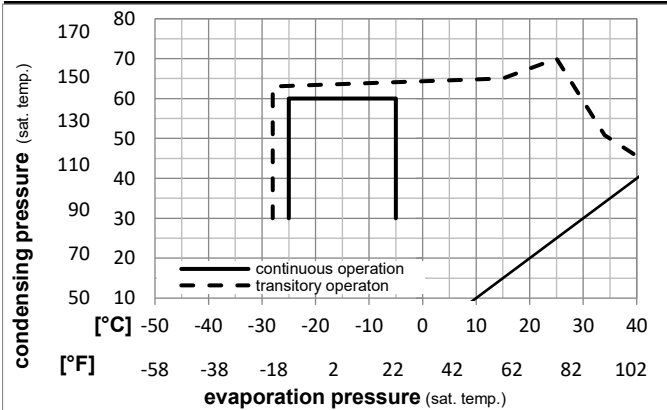


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## Operation Limits

## Operation pressure range



## Components

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d	cord relief	103N1004
b	plastic cover	103N2009

## Alternative components

a2	relay	117U6019
c	start capacitor i-pack 40# (80μF)	117U5067
d	cord relief	103N1004
b	plastic cover	103N2008

### Model

Designation **SC18G** **208-230V/60Hz** Conf. 2 Sales code: **104G8822**

### Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.	Liquid temp.	Cooling capacity	COP	EER	Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]						P1	I	m	
[°C]																
[°F]																
-23	54	32	32	467,3	1596	402,2	1,13	3,86	0,97	413,1	3,09	9,07	ASHRAE LBP			
-10	130	90	90													
-7	54	35	46	1046,2	3573	900,4	1,58	5,41	1,36	660,6	3,69	22,83	ASHRAE MBP			
20	130	95	115													
7,2	54	35	46	1879,2	6418	1617,2	2,21	7,54	1,90	851,1	4,46	41,69	ASHRAE HBP			
45	130	95	115													
-35	40	20	40	185,4	633	159,5	0,68	2,31	0,58	274,4	2,85	4,07	EN12900 LBP			
-31	104	68	104													
-10	45	20	45	893,1	3050	768,6	1,54	5,27	1,33	578,6	3,40	20,91	EN12900 MBP			
14	113	68	113													
5	50	20	50	1584,1	5410	1363,3	2,03	6,92	1,74	782,1	4,18	39,92	EN12900 HBP			
41	122	68	122													

### Performance tables

R134a, 230V/60Hz, CSIR, 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	393,7	1344	338,8	1,00	3,41	0,86	394,6	2,99	8,53
cond. pressure	-23	-10	442,0	1509	380,4	1,06	3,62	0,91	417,1	3,03	9,58
pc= 45/113	-20	-4	543,8	1857	468,0	1,18	4,04	1,02	459,5	3,10	11,81
return gas temp.	-18	0	618,0	2111	531,9	1,27	4,34	1,09	486,8	3,16	13,45
RGT= 32/90	-15	5	720,3	2460	619,9	1,38	4,73	1,19	520,6	3,24	15,70
liquid temp	-10	14	926,5	3164	797,4	1,60	5,47	1,38	578,6	3,40	20,28
Tliq= 45/113	-5	23	1165,7	3981	1003,2	1,84	6,27	1,58	634,5	3,58	25,63
[°C / °F]	-25	-13	337,6	1153	290,6	0,88	2,99	0,75	385,7	3,05	8,07
cond. pressure	-23	-10	379,5	1296	326,6	0,92	3,13	0,79	413,6	3,10	9,08
pc= 55/131	-20	-4	468,2	1599	402,9	1,00	3,43	0,86	466,2	3,19	11,23
return gas temp	-18	0	533,3	1821	458,9	1,07	3,64	0,92	500,3	3,26	12,81
RGT= 32/90	-15	5	623,4	2129	536,5	1,15	3,92	0,99	542,7	3,36	15,01
liquid temp	-10	14	806,5	2754	694,1	1,31	4,47	1,13	616,0	3,56	19,50
Tliq= 55/131	-5	23	1020,8	3486	878,6	1,49	5,07	1,28	687,0	3,79	24,81



# SC Compressors







# SC Compressors

## Service/Repair – R290



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