

Model

Designation	SC18G	220-240V/50Hz 1~ 220-240V/60Hz 1~	Sales code:	104G8825
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	22cSt	Displacement	17,69cm ³ / 1,08cu.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	3,7Ω (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

	Conf. 1	Conf. 2
Motor configuration	CSIR	CSIR
Power supply (nominal)	220-240V/50Hz	220-240V/60Hz
Number of phases	1	1
Voltage range	187-254V	198-254V
Approvals	VDE, CCC, UL, KC	VDE, CCC, UL, KC
Starting torque	HST	HST
Note	- / -	

Applications with SC18G

	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 SC18G

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

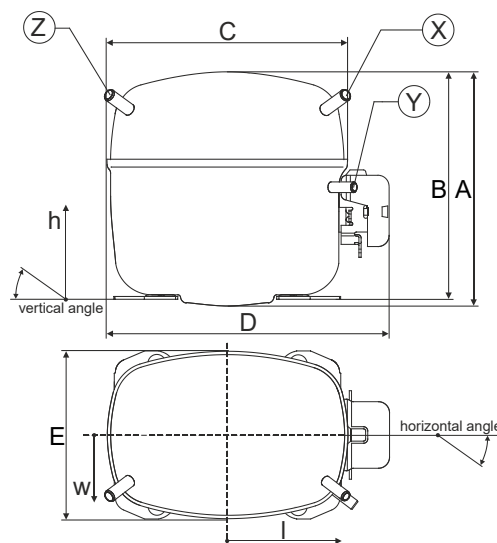
Model

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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

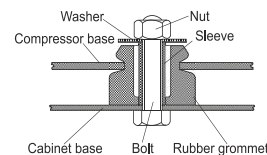
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10,11-10,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle	±2° 37°	37°	143°
Vertical angle	±2° 30°	0°	150°
Position l/h/w [mm]	107/193/55	115/110/63	-107/193/55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



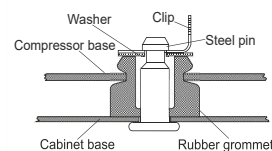
Compressor fixation

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

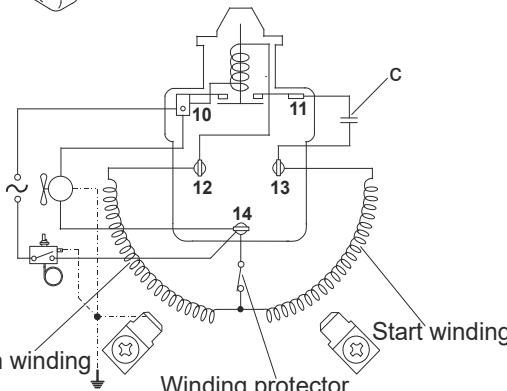
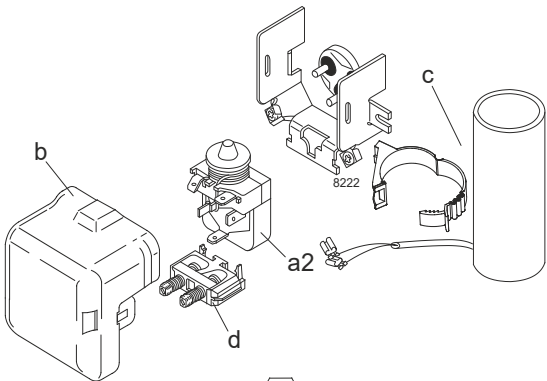
	one comp.	multi pack
Bolt joint M6 ø16mm	118-1917	118-1918
Bolt joint ø1/4" ø16mm	118-1946	
Bolt joint ø1/4" ø19mm	118-1949	
Snap-on ø7,3 ø16mm	118-1947	118-1919

Application notes

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

Model				
Designation	SC18G	220-240V/50Hz	Conf. 1	Sales code: 104G8825

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



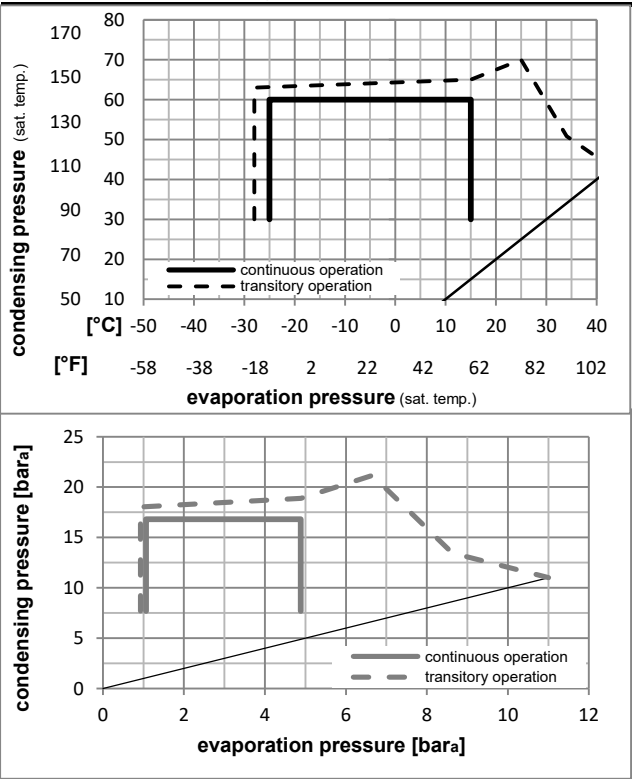
Ambient/ machine room temperatures minimum /maximum

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		
a2	relay	117U6019
c	start capacitor (80µF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

Model

Designation **SC18G** **220-240V/50Hz** Conf. 1 Sales code: **104G8825**

Optimization + standard conditions

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption				ASHRAE LBP
Return gas temp.					Current consumption						ASHRAE MBP				
Liquid temp.					Ref. mass flow										
Cooling capacity					COP							EER		ASHRAE HBP	
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	EN12900 LBP		
[°C]	[°F]									[W]	[A]	[kg/h]		EN12900 MBP	
-23	-10	54	32	32	396,4	1354	341,2	1,13	3,87	0,97	350,1	2,61	7,70		EN12900 HBP
-7	20	54	35	46	894,7	3055	770,0	1,58	5,41	1,36	565,2	3,17	19,52	EN12900 LBP	
7,2	45	54	35	46	1613,1	5509	1388,3	2,21	7,55	1,90	729,8	3,82	35,79	EN12900 MBP	
-35	-31	40	20	40	146,0	499	125,7	0,67	2,30	0,58	217,1	2,26	3,20	EN12900 HBP	
-10	14	45	20	45	763,6	2608	657,2	1,54	5,27	1,33	495,2	2,91	17,87	EN12900 LBP	
5	41	50	20	50	1359,1	4642	1169,7	2,03	6,92	1,74	670,4	3,58	34,25	EN12900 MBP	

Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, 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]	[W]	[A]	[kg/h]	[W]	[A]	[kg/h]	[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	332,4	2,51	7,21	332,4	2,51	7,21	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	390,9	2,64	10,05	390,9	2,64	10,05	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	495,2	2,91	17,34	495,2	2,91	17,34	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	543,4	3,07	21,94	543,4	3,07	21,94	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	590,3	3,25	27,31	590,3	3,25	27,31	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	637,3	3,46	33,55	637,3	3,46	33,55	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	735,6	4,00	49,09	735,6	4,00	49,09	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	325,8	2,56	6,83	325,8	2,56	6,83	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	397,0	2,72	9,56	397,0	2,72	9,56	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	526,8	3,05	16,66	526,8	3,05	16,66	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	587,8	3,24	21,23	587,8	3,24	21,23	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	647,7	3,46	26,60	647,7	3,46	26,60	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	707,6	3,71	32,89	707,6	3,71	32,89	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	832,0	4,34	48,79	832,0	4,34	48,79	832,0	4,34	48,79

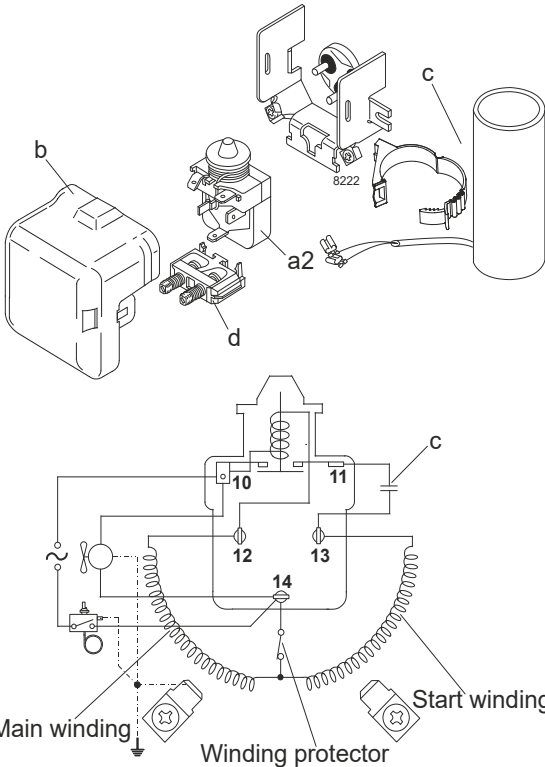
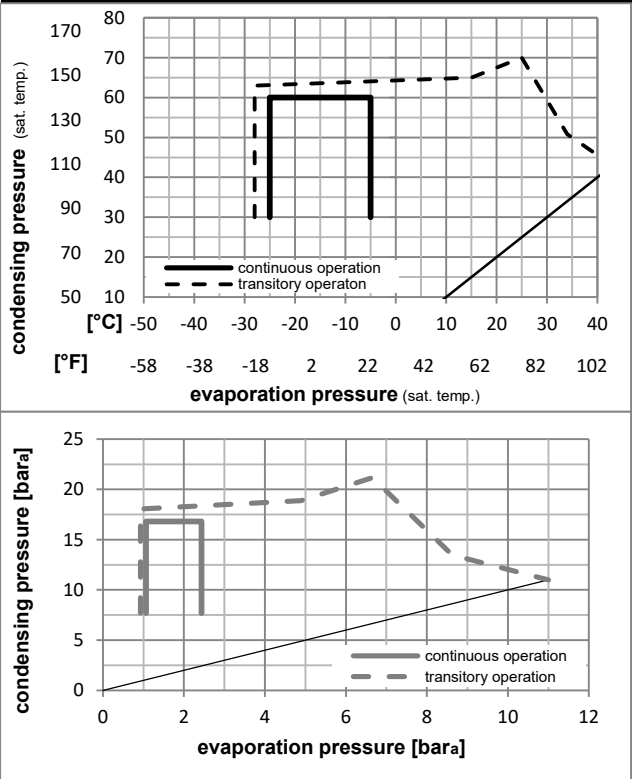
Model				
Designation	SC18G	220-240V/60Hz	Conf. 2	Sales code: 104G8825

Configuration		Electrical accessories / wiring diagram		
Motor configuration	CSIR	CSIR		
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Application	LBP			
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Starting torque	HST			
Approvals	VDE			
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Optimization + standard conditions

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

Evaporating pressure (saturation temperature)					Condensing pressure (saturation temperature)						Power consumption																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Performance tables

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