

Model

Designation	SC18G	220-240V/50Hz 1~ 220-240V/60Hz 1~	Sales code:	104G8822
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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	13,5kg / 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

	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	VDE, CCC
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

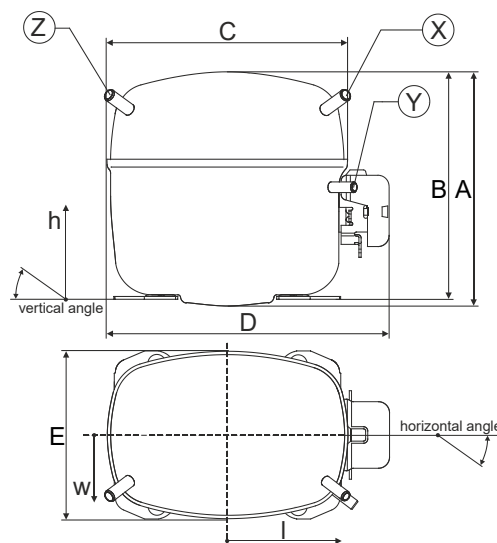
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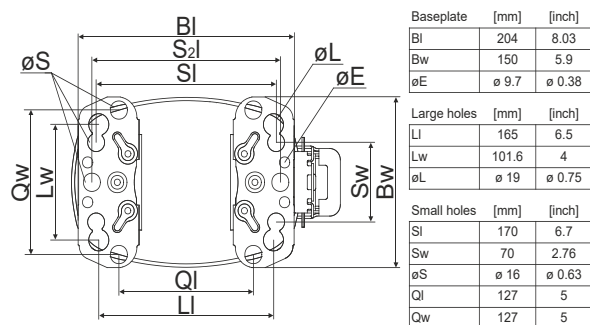
Compressor dimensions

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

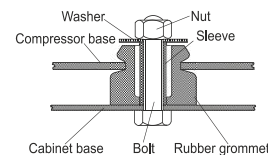
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10,11-10,29	øi 6,41-6,59	øi 6,41-6,59
(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,25-0,26	øi 0,25-0,26
Material	copper	copper	copper
Horizontal angle	±2° 37°	37°	143°
Vertical angle	±2° 30°	0°	150°
Position l/h/w [mm]	107/193/55	115/110/63	-107/193/55
	[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



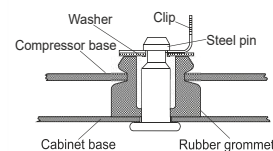
Compressor fixation



Bolt joint



Snap-on



Mounting accessories

	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

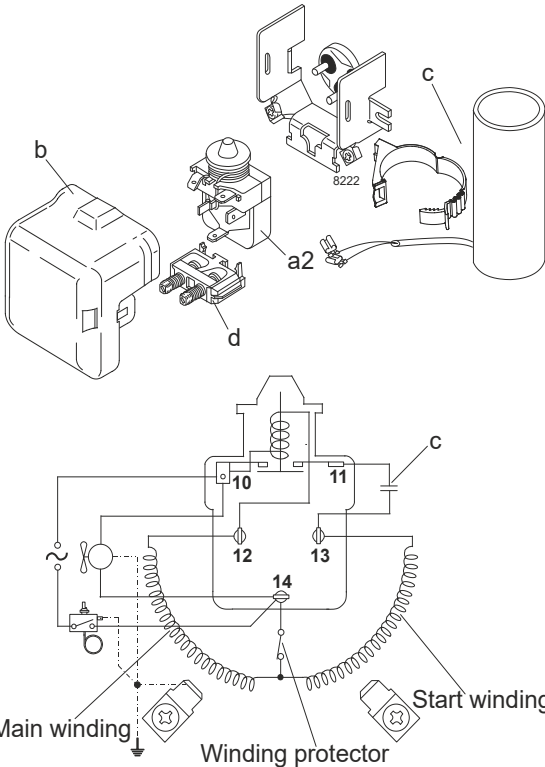
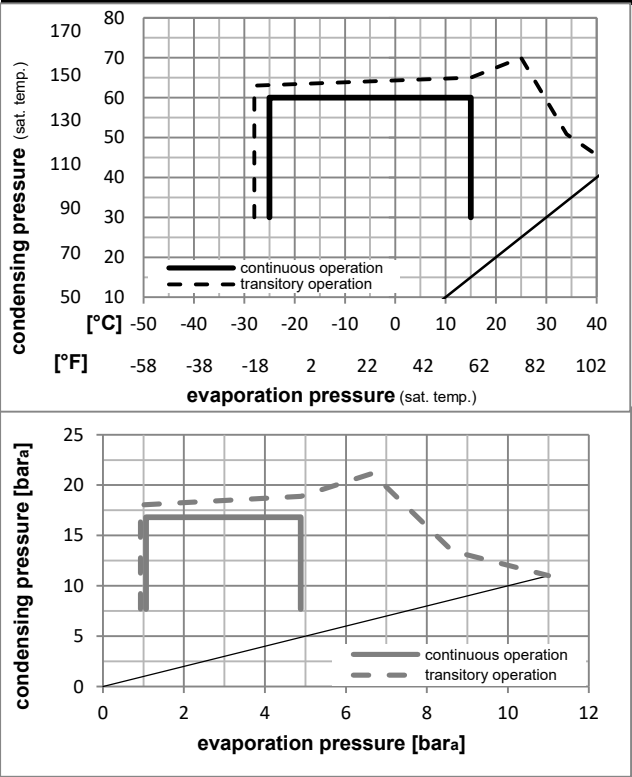
Model				
Designation	SC18G	220-240V/50Hz	Conf. 1	Sales code: 104G8822

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			

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

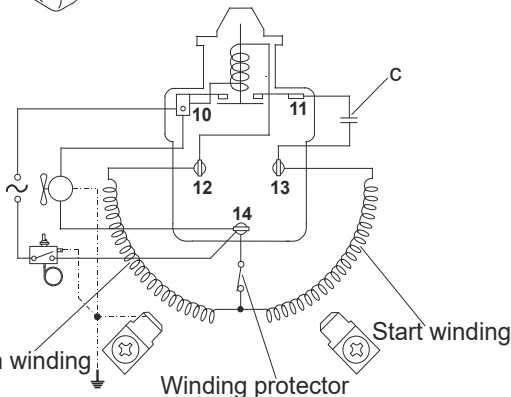
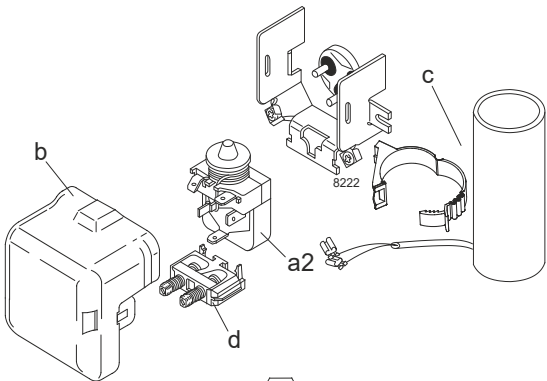
Designation	SC18G	220-240V/60Hz	Conf. 2	Sales code:	104G8822
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Configuration

Electrical accessories / wiring diagram

Motor configuration	CSIR
Power supply (nominal)	220-240V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE
	CCC

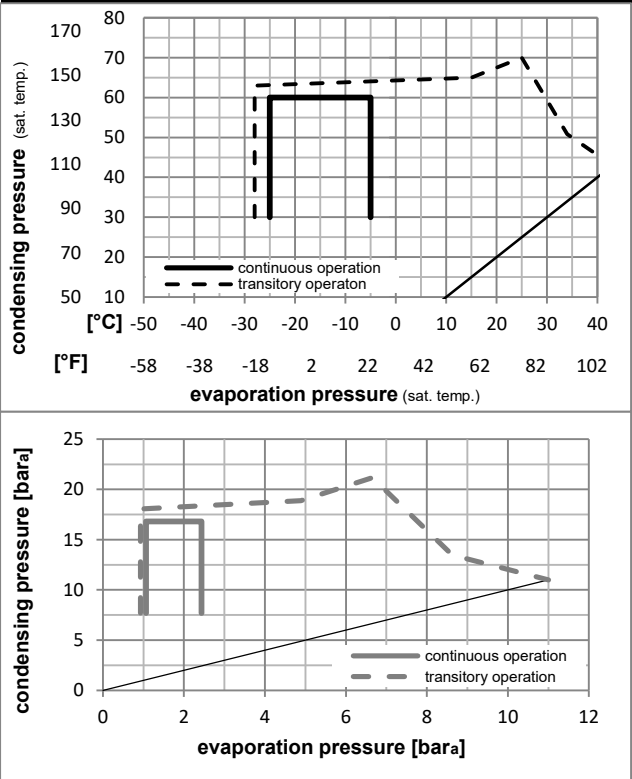
CSIR



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