

Model

Designation	SC12G	208-230V/60Hz 1~	Sales code:	104G8245
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a
Oil viscosity	22cST	Displacement	12,87cm ³ / 0,79cu.in
Oil quantity	500cm ³ / 16,9fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1410cm ³ / 47,7fl.oz		
Weight	13kg / 28,7lbs		
Motor protection	1# internal		
Winding resistance main	4,4Ω (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 SC12G

	Conf. 1
Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz
Number of phases	1
Voltage range	187-254V
Approvals	VDE, UL, KC
Starting torque	HST
Note	- / -

Applications with SC12G

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

Electrical data - Configurations with SC12G

	Conf. 1
Starting device type	relay
Run capacitor	- / -
Start capacitor	80μF
LRA (locked rotor amps / 4s)	23,4A
RLA (rated load amps / 1s)	4,3A
Cut in current	23,4A

Model

Designation

SC12G

208-230V/60Hz 1~

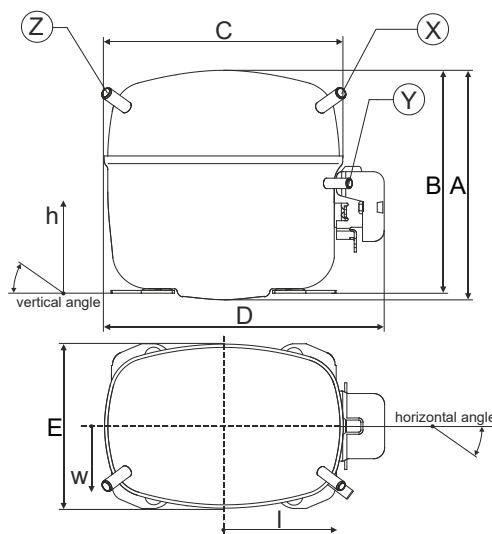
Sales code:

104G8245

Compressor dimensions

Housing	A Height	209mm / 8,23in
	B Height	203mm / 7,99in
	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]	107/183/55	115/100/63	-107/183/55
[in]	4,2/7,2/2,2	4,5/3,9/2,5	-4,2/7,2/2,2
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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

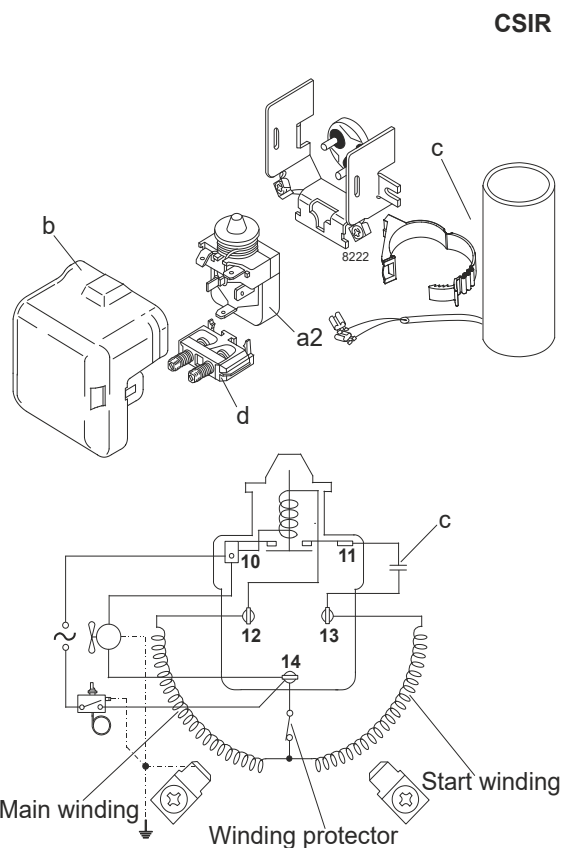
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Configuration

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Refrigerant	R134a
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE UL KC

Electrical accessories / wiring diagram

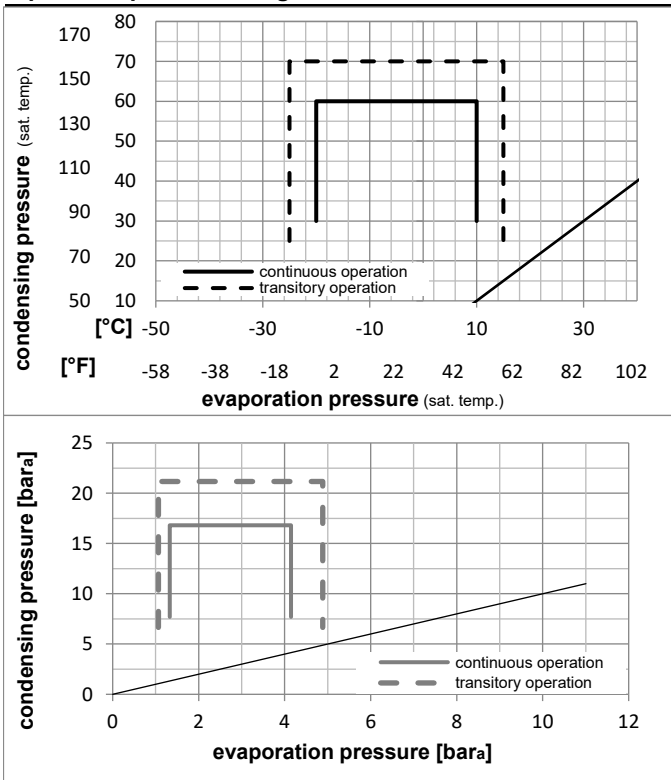


Ambient/ machine room temperatures minimum /maximum

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	117U6011
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

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Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	Ref. mass flow									
[°C]	[°F]											[W]	[A]	[kg/h]									
-7	20	54	130	35	95	46	115	703,4	2402	605,3	1,65	5,65	1,42	425,3	2,73	15,35						ASHRAE MBP	
-10	14	55	131	32	90	55	131	518,5	1771	446,2	1,34	4,57	1,15	387,6	2,62	12,54						cecomaf MBP	
-10	14	45	113	20	68	45	113	622,2	2125	535,4	1,65	5,63	1,42	377,2	2,51	14,56						EN12900 MBP	
-7	20	49	120	18	65	49	120	686,9	2346	591,1	1,66	5,67	1,43	413,9	2,66	16,97						ARI540 MBP	
-10	14	45	113	32	90	45	113	645,5	2204	555,5	1,71	5,84	1,47	377,2	2,51	14,13						opt	
-25	-13	45	113	32	90	45	113	213,9	730	184,1	0,90	3,08	0,78	237,0	2,15	4,63						opt	

Performance tables

R134a, 230V/60Hz, CSIR, fan 3m/s, VDE, 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]	-20	-4	332,2	1135	285,9	1,17	3,99	1,01	284,1	2,25	7,22
cond. pressure	-15	5	474,6	1621	408,5	1,43	4,90	1,23	331,1	2,38	10,35
pc= 45/113	-10	14	645,5	2204	555,5	1,71	5,84	1,47	377,2	2,51	14,13
return gas temp.	-7	20	775,9	2650	667,7	1,91	6,51	1,64	407,0	2,61	17,03
RGT= 32/90	0	32	1089,7	3721	937,8	2,34	8,01	2,02	464,7	2,84	24,10
liquid temp	5	41	1371,6	4684	1180,4	2,72	9,28	2,34	504,9	3,02	30,54
Tliq= 45/113	10	50	1699,2	5803	1462,3	3,14	10,71	2,70	541,7	3,22	38,13
[°C / °F]	-20	-4	247,7	846	213,2	0,91	3,12	0,79	271,4	2,28	5,94
cond. pressure	-15	5	370,5	1265	318,9	1,13	3,84	0,97	329,2	2,44	8,92
pc= 55/131	-10	14	518,5	1771	446,2	1,34	4,57	1,15	387,6	2,62	12,54
return gas temp	-7	20	632,1	2159	544,0	1,48	5,07	1,28	426,1	2,74	15,34
RGT= 32/90	0	32	907,5	3099	781,0	1,80	6,16	1,55	503,3	3,01	22,20
liquid temp	5	41	1157,1	3952	995,8	2,07	7,06	1,78	559,4	3,23	28,51
Tliq= 55/131	10	50	1449,2	4949	1247,2	2,36	8,07	2,03	613,6	3,46	36,02