

Model
SC12G

Sales code:
104G8245

Compressor Data

Refrigerant(s)	R134a
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.00 kg / 28.66lbs
Displacement	12.87 cm3 / 0.79cu.in
Compressors on pallet	80



General – Configurations With SC12G

-	Conf. 1
Motor configuration	CSIR
Power supply (nominal)	208-230 V/60 Hz
Number of phases	1
Voltage range	187-254 V
Approvals	VDE, UL, KC
Starting torque	HST
Refrigerant	R134a
Application	MBP
Hot gas defrost	OK
Long interval pull down	OK

Application Notes

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

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Compressor Design

Oil type	POE	Winding resistance main	4.400 Ohm
Oil viscosity	22cSt	Winding resistance aux	14.50 Ohm
Oil quantity	500 / 16.91fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,410 cm ³ / 47.68fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

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

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Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.41–6.59 / 0.25–0.26in	øi 6.41–6.59 / 0.25–0.26in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in	-107/183/55 / -4.21/7.20/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

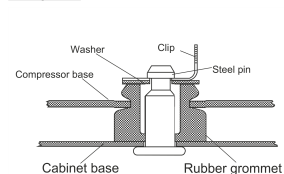
Mounting Accessories



Bolt joint



Snap-on



Dimensions in mm [in]

	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

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Power supply (nominal)	208-230 V/60 Hz 1~
Refrigerant	R134a
Application	MBP
Voltage range	187-254 V
Starting torque	HST
Approvals	VDE, UL, KC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

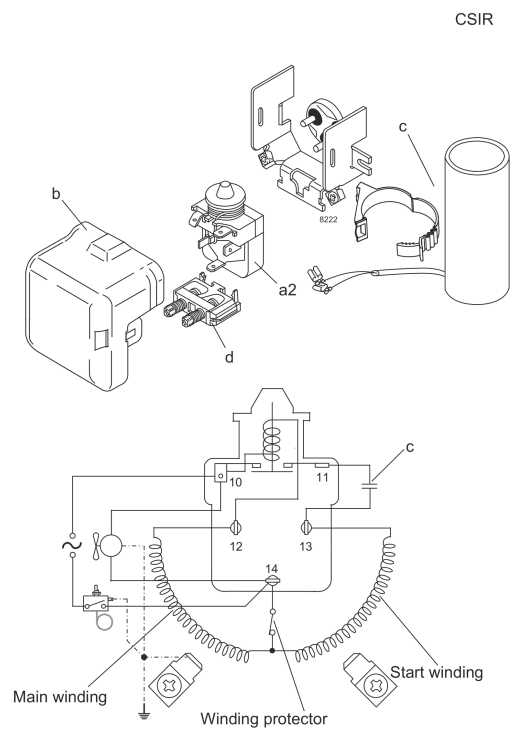
Ambient temperature range: 10 - 43°C / 50 - 109°F

Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram


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Components

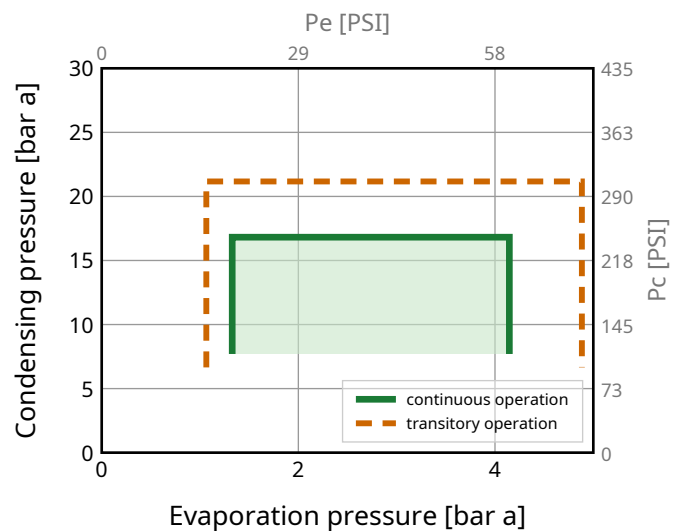
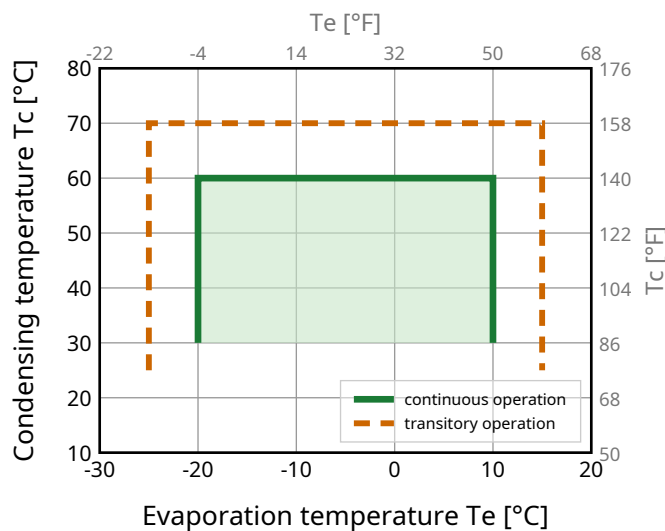
a2 relay 117U6011

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



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Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	m	
[°C] [°F]	[°C] [°F]	[°C] [°F]	[°C] [°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]	
-6.7 20	54.4 129.9	35 95	46.1 115	701	2393	603	1.65	5.63	425	2.73	15.27	ASHRAE MBP
-10 14	55 131	32 89.6	55 131	518	1769	446	1.34	4.57	388	2.62	12.50	CECOMAF MBP
-10 14	45 113	20 68	45 113	623	2126	536	1.65	5.64	377	2.51	14.53	EN12900 MBP
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	688	2347	592	1.66	5.68	413	2.66	16.90	ARI540 MBP
-10 14	45 113	32 89.6	45 113	646	2202	555	1.71	5.84	377	2.51	14.10	opt MBP
-23.3 -10	45 113	32.2 90	32.2 90	281	957	241	1.11	3.78	253	2.18	5.44	opt LBP

Performance Tables

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

pc= 45/113 | RGT= 32/89.6 | Tliq= 45/113 | °C/°F

pe		Cooling capacity			COP	EER	P	I	m
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-20	-4	332	1133	286	1.17	3.99	284	2.25	7.20
-15	5	475	1619	408	1.43	4.89	331	2.38	10.32
-10	14	646	2202	555	1.71	5.84	377	2.51	14.10
-5	23	849	2897	730	2.01	6.86	422	2.67	18.63
0	32	1090	3718	937	2.35	8.00	465	2.84	24.04
5	41	1372	4680	1180	2.72	9.27	505	3.02	30.46
10	50	1699	5798	1461	3.14	10.70	542	3.22	38.03

pc= 55/131 | RGT= 32/89.6 | Tliq= 55/131 | °C/°F

-20	-4	248	845	213	0.91	3.12	271	2.28	5.93
-15	5	370	1264	319	1.12	3.84	329	2.44	8.89
-10	14	518	1769	446	1.34	4.57	388	2.62	12.50
-5	23	696	2375	599	1.56	5.33	446	2.80	16.87
0	32	908	3096	780	1.80	6.15	503	3.01	22.13
5	41	1157	3948	995	2.07	7.06	559	3.23	28.42
10	50	1449	4945	1246	2.36	8.06	614	3.46	35.90