

Model

SC18G

Sales code:

104G8825

Compressor Data

Refrigerant(s)	R134a
Refr. charge - tech. limit	1300g / 45.86oz
Weight	13.60 kg / 29.98lbs
Displacement	17.69 cm3 / 1.08cu.in
Compressors on pallet	80



General – Configurations With SC18G

-	Conf. 1	Conf. 2
Motor configuration	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/60 Hz
Number of phases	1	1
Voltage range	187-254 V	198-254 V
Approvals	VDE, CCC, UL, KC	VDE, CCC, UL, KC
Starting torque	HST	HST
Refrigerant	R134a	R134a
Application	LBP+MBP+HBP	LBP
Hot gas defrost	OK	OK
Long interval pull down	OK	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	3.700 Ohm
Oil viscosity	22cSt	Winding resistance aux	13.70 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm ³ / 49.37fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

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

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Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in	-107/193/55 / -4.21/7.60/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

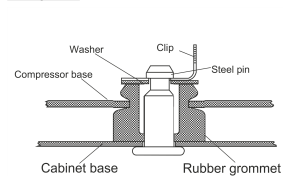
Mounting Accessories



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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Configuration 1

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Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	187-254 V
Starting torque	HST
Approvals	VDE, CCC, UL, KC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	20.43 A
RLA (rated load amps / 1s/ U(N))	3.9 A
Cut in current (U(N))	20.43 A

Ambient/ machine room temperatures minimum /maximum

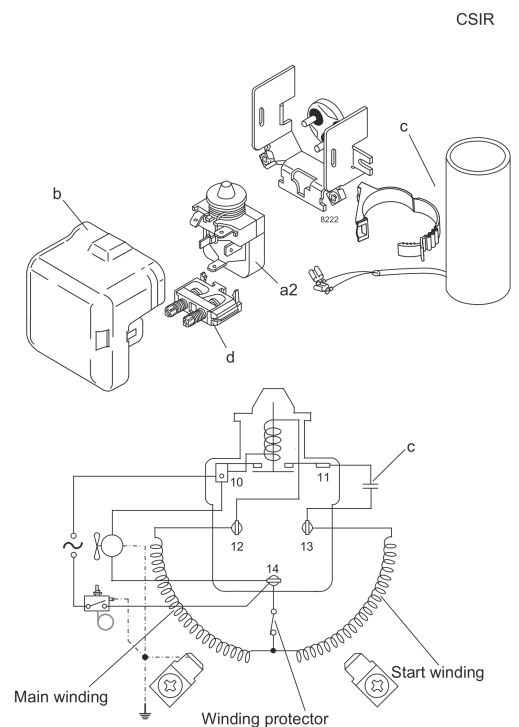
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

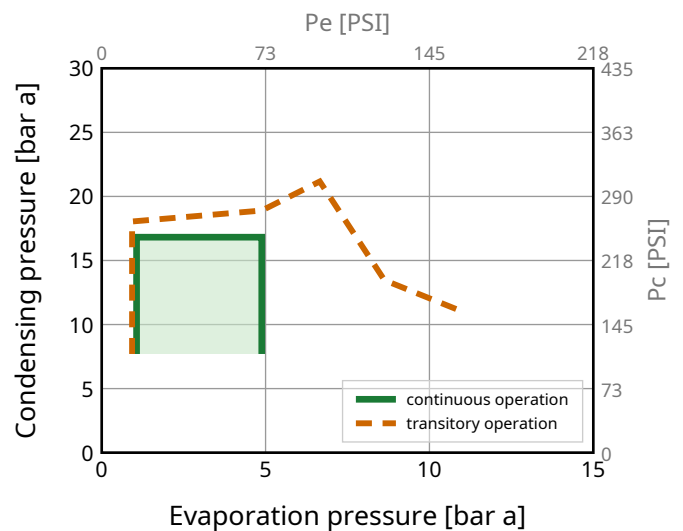
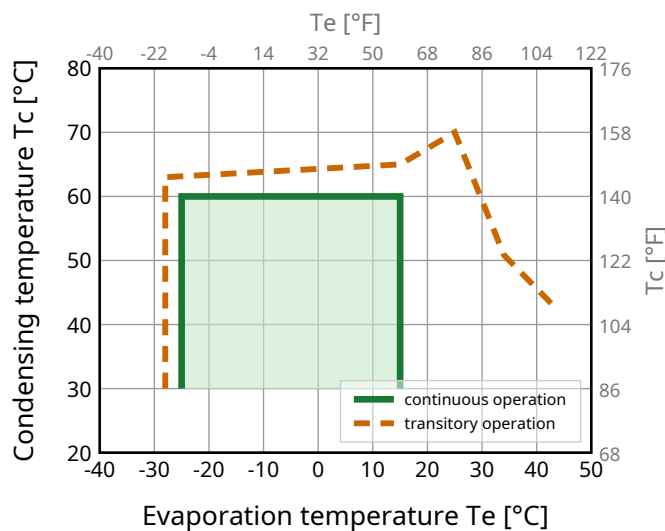
a2 relay 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



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Configuration 1

Sales code:
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Standard Conditions

R134a, 220 V/50 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]	
-25 -13	55 131	32 89.6	55 131	286	974	246	0.88	2.99	326	2.56	6.81	CECOMAF LBP
-35 -31	40 104	20 68	40 104	146	499	126	0.67	2.30	217	2.25	3.20	EN12900 LBP
-10 14	55 131	32 89.6	55 131	689	2351	593	1.31	4.46	527	3.05	16.61	CECOMAF MBP
-10 14	45 113	20 68	45 113	765	2610	658	1.54	5.27	495	2.91	17.84	EN12900 MBP
5 41	55 131	32 89.6	55 131	1335	4554	1148	1.89	6.44	708	3.71	32.79	CECOMAF HBP
5 41	50 122	20 68	50 122	1362	4645	1171	2.03	6.93	670	3.58	34.15	EN12900 HBP

Performance Tables

R134a, 220 V/50 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]
-25	-13	333	1135	286	1.00	3.42	332	2.51	7.19
-20	-4	463	1579	398	1.18	4.04	391	2.64	10.04
-10	14	792	2703	681	1.60	5.46	495	2.91	17.30
0	32	1235	4214	1062	2.09	7.14	590	3.25	27.25
10	50	1817	6198	1562	2.65	9.05	685	3.71	40.66
15	59	2168	7396	1864	2.95	10.05	736	4.00	48.97

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

-25	-13	286	974	246	0.88	2.99	326	2.56	6.81
-20	-4	398	1360	343	1.00	3.43	397	2.72	9.53
-10	14	689	2351	593	1.31	4.46	527	3.05	16.61
0	32	1087	3710	935	1.68	5.73	648	3.46	26.52
10	50	1619	5523	1392	2.11	7.19	769	4.00	40.11
15	59	1942	6627	1670	2.33	7.97	832	4.34	48.62

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Configuration 2

Sales code:

104G8825

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/60 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254 V
Starting torque	HST
Approvals	VDE, CCC, UL, KC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	20.43 A
RLA (rated load amps / 1s/ U(N))	3.9 A
Cut in current (U(N))	20.43 A

Ambient/ machine room temperatures minimum /maximum

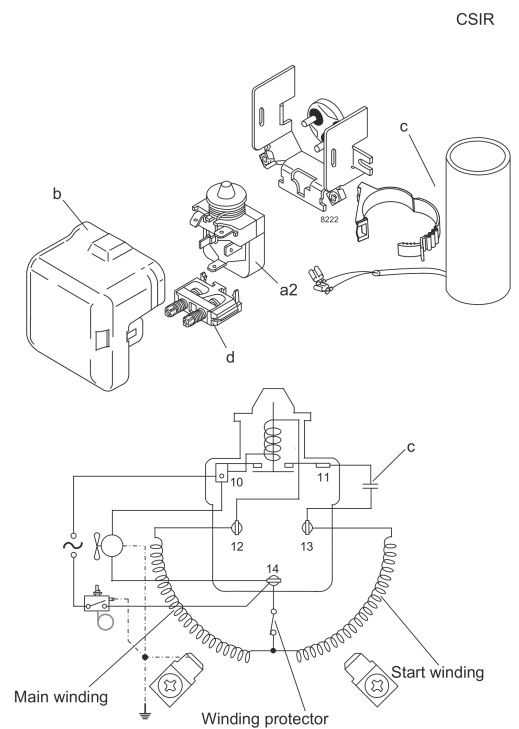
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

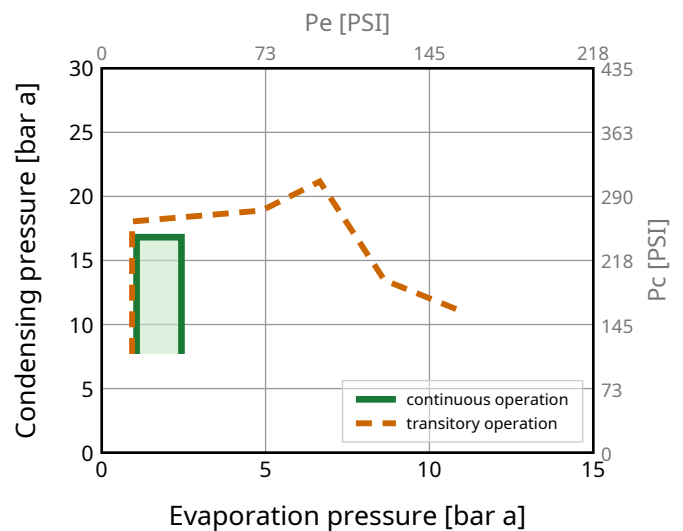
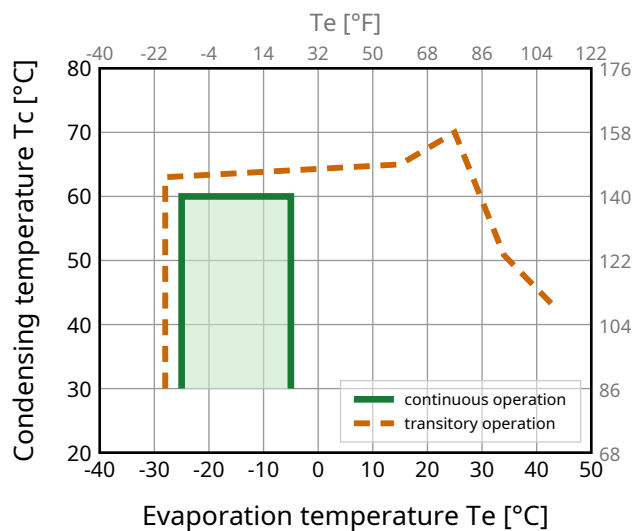
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c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2008

Operation Pressure Range



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Configuration 2

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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]	
-25 -13	55 131	32 89.6	55 131	338	1152	290	0.88	2.99	386	3.05	8.05	CECOMAF LBP
-35 -31	40 104	20 68	40 104	186	633	160	0.68	2.31	274	2.85	4.06	EN12900 LBP
-10 14	55 131	32 89.6	55 131	806	2752	694	1.31	4.47	616	3.56	19.45	CECOMAF MBP
-10 14	45 113	20 68	45 113	895	3052	769	1.55	5.27	579	3.40	20.86	EN12900 MBP
5 41	55 131	32 89.6	55 131	1556	5310	1338	1.89	6.43	826	4.34	38.23	CECOMAF HBP
5 41	50 122	20 68	50 122	1587	5415	1365	2.03	6.92	782	4.18	39.80	EN12900 HBP

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]
-25	-13	394	1343	339	1.00	3.41	395	2.99	8.51
-20	-4	544	1855	468	1.18	4.04	460	3.10	11.79
-15	5	720	2458	619	1.38	4.72	521	3.24	15.67
-10	14	926	3161	797	1.60	5.46	579	3.40	20.23
-5	23	1166	3977	1003	1.84	6.27	634	3.58	25.58

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

-25	-13	338	1152	290	0.88	2.99	386	3.05	8.05
-20	-4	468	1597	403	1.00	3.43	466	3.19	11.20
-15	5	623	2127	536	1.15	3.92	543	3.36	14.97
-10	14	806	2752	694	1.31	4.47	616	3.56	19.45
-5	23	1021	3483	878	1.49	5.07	687	3.79	24.74