

Model

SC12G

Sales code:

104G8240

Compressor Data

Refrigerant(s)	R134a / R513A
Refr. charge - tech. limit	1300g / 45.86oz
Weight	12.70 kg / 28.00lbs
Displacement	12.87 cm³ / 0.79cu.in
Compressors on pallet	80



General – Configurations With SC12G

-	Conf. 1	Conf. 2	Conf. 3	Conf. 4	Conf. 5
Motor configuration	CSIR	CSIR	CSIR	CSIR	RSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/60 Hz	220-240 V/50 Hz	220-240 V/60 Hz	220-240 V/50 Hz
Number of phases	1	1	1	1	1
Voltage range	187-254 V	198-254 V	187-254 V	187-253 V	187-254 V
Approvals	VDE, UL, CCC, EAC, KC	VDE, UL, CCC, EAC, KC	VDE, UL, CCC	VDE, UL, CCC	VDE, UL, CCC, EAC, KC
Starting torque	HST	HST	HST	HST	LST
Refrigerant	R134a	R134a	R513A	R513A	R134a
Application	LBP+MBP+HBP	LBP	LBP+MBP+HBP	LBP	LBP+MBP+HBP
Hot gas defrost	OK	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	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	6.900 Ohm
Oil viscosity	22cSt	Winding resistance aux	10.90 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,510 cm ³ / 51.06fl.oz	Max. discharge temp.	130°C / 266°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

[Find 3D Model here](#)



Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	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]	107/183/55 / 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

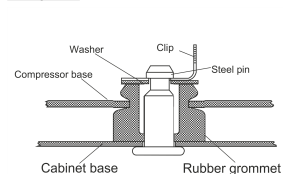
Mounting Accessories



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

Model

SC12G

Configuration 1

Sales code:

104G8240

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, UL, CCC, EAC, KC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	13 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	17 A

Ambient/ machine room temperatures minimum /maximum

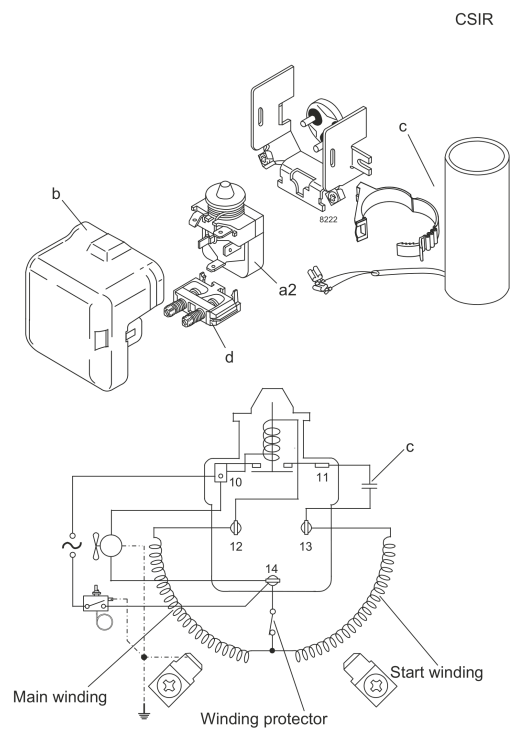
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

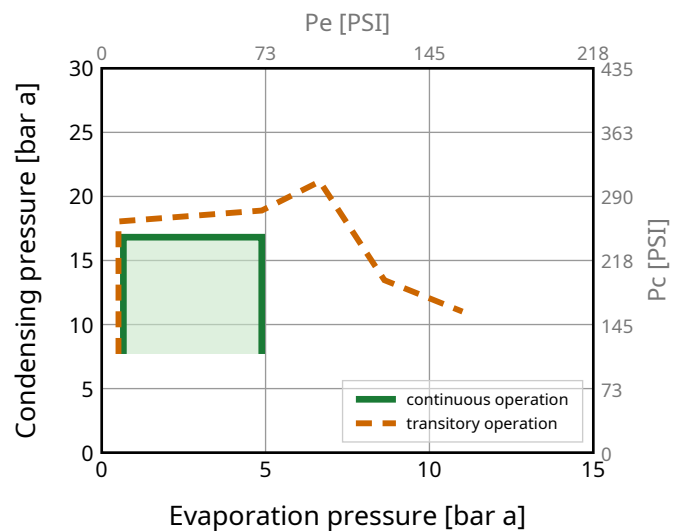
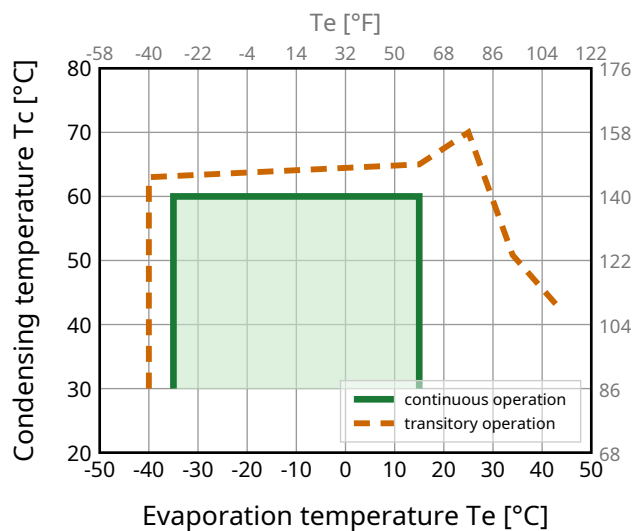
a2 assy. relay 117U6003

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC12G

Configuration 1

Sales code:
104G8240

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	175	597	150	0.77	2.63	227	1.83	4.17	CECOMAF LBP
-35 -31	40 104	20 68	40 104	123	421	106	0.75	2.55	165	1.73	2.70	EN12900 LBP
-10 14	55 131	32 89.6	55 131	464	1584	399	1.31	4.46	355	2.24	11.19	CECOMAF MBP
-10 14	45 113	20 68	45 113	548	1870	471	1.62	5.51	339	2.15	12.78	EN12900 MBP
5 41	55 131	32 89.6	55 131	960	3275	825	1.95	6.64	493	2.76	23.57	CECOMAF HBP
5 41	50 122	20 68	50 122	996	3400	857	2.10	7.16	475	2.67	25.00	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]
-35	-31	103	350	88	0.65	2.21	158	1.69	2.21
-30	-22	161	550	139	0.84	2.86	193	1.76	3.48
-20	-4	325	1110	280	1.23	4.20	264	1.93	7.05
-10	14	568	1937	488	1.67	5.71	339	2.15	12.40
0	32	908	3097	781	2.18	7.43	417	2.42	20.03
10	50	1365	4657	1174	2.75	9.40	496	2.75	30.55
15	59	1644	5608	1413	3.07	10.47	536	2.94	37.13

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

-35	-31	65	220	56	0.44	1.49	148	1.63	1.53
-30	-22	113	386	97	0.61	2.07	187	1.72	2.69
-20	-4	252	861	217	0.94	3.21	268	1.95	6.04
-10	14	464	1584	399	1.31	4.46	355	2.24	11.19
0	32	768	2619	660	1.72	5.87	446	2.57	18.72
10	50	1182	4034	1017	2.19	7.46	540	2.96	29.29
15	59	1437	4904	1236	2.44	8.33	589	3.17	35.98

Model

SC12G

Configuration 2

Sales code:

104G8240

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, UL, CCC, EAC, KC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	13 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	17 A

Ambient/ machine room temperatures minimum /maximum

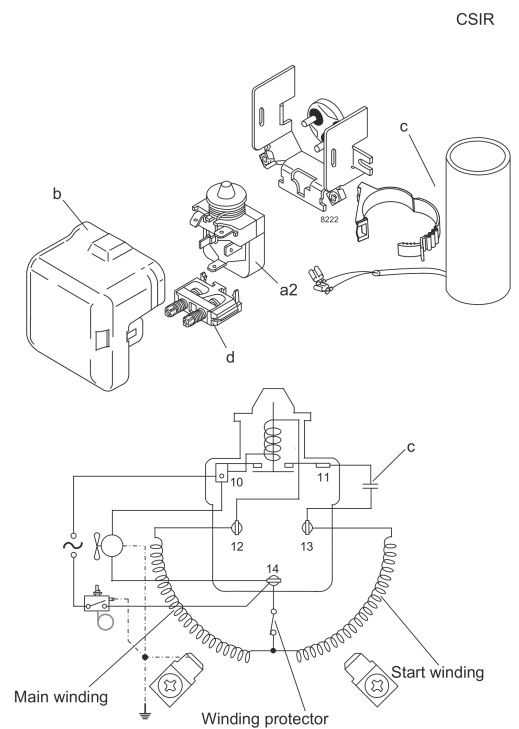
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

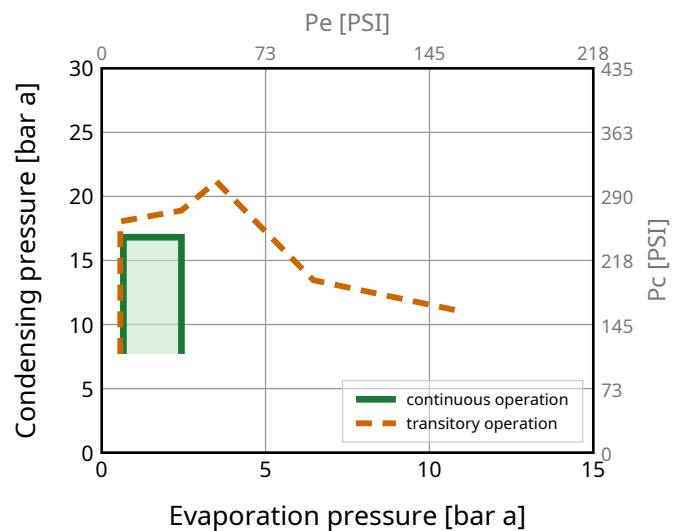
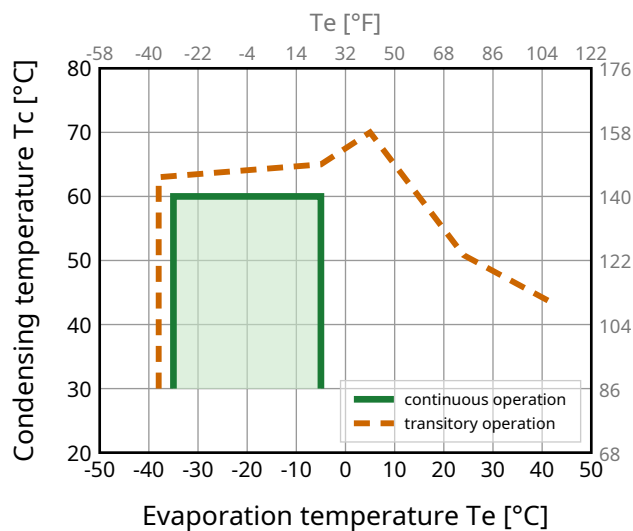
a2 assy. relay 117U6003

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC12G

Configuration 2

Sales code:
104G8240

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	203	694	175	0.77	2.62	265	2.01	4.85	CECOMAF LBP
-35 -31	40 104	20 68	40 104	143	488	123	0.74	2.54	192	1.90	3.13	EN12900 LBP
-10 14	55 131	32 89.6	55 131	542	1848	466	1.31	4.46	415	2.46	13.06	CECOMAF MBP
-10 14	45 113	20 68	45 113	640	2183	550	1.61	5.51	396	2.36	14.92	EN12900 MBP
5 41	55 131	32 89.6	55 131	1122	3827	965	1.95	6.64	576	3.04	27.55	CECOMAF HBP
5 41	50 122	20 68	50 122	1165	3974	1002	2.10	7.16	555	2.94	29.21	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]
-35	-31	119	405	102	0.64	2.19	185	1.86	2.56
-30	-22	187	639	161	0.83	2.84	225	1.93	4.04
-25	-13	273	932	235	1.03	3.50	266	2.02	5.91
-20	-4	379	1294	326	1.23	4.19	309	2.12	8.22
-15	5	508	1734	437	1.44	4.92	352	2.23	11.05
-10	14	663	2261	570	1.67	5.71	396	2.36	14.47
-5	23	846	2887	728	1.92	6.54	441	2.51	18.56

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

-35	-31	74	253	64	0.43	1.47	172	1.79	1.76
-30	-22	131	447	113	0.60	2.05	218	1.89	3.12
-25	-13	203	694	175	0.77	2.62	265	2.01	4.85
-20	-4	294	1003	253	0.94	3.20	313	2.15	7.03
-15	5	406	1385	349	1.12	3.81	363	2.30	9.74
-10	14	542	1848	466	1.31	4.46	415	2.46	13.06
-5	23	704	2403	606	1.51	5.14	468	2.64	17.07

Model

SC12G

Configuration 3

Sales code:

104G8240

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R513A
Application	LBP+MBP+HBP
Voltage range	187-254 V
Starting torque	HST
Approvals	VDE, UL, CCC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	13 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	17 A

Ambient/ machine room temperatures minimum /maximum

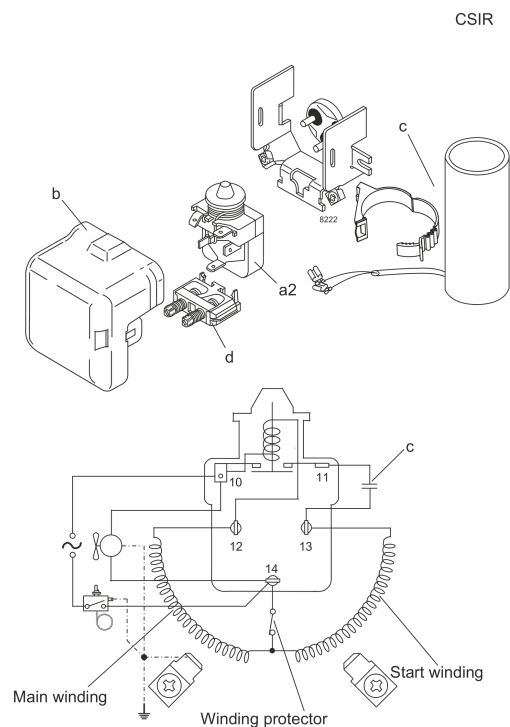
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

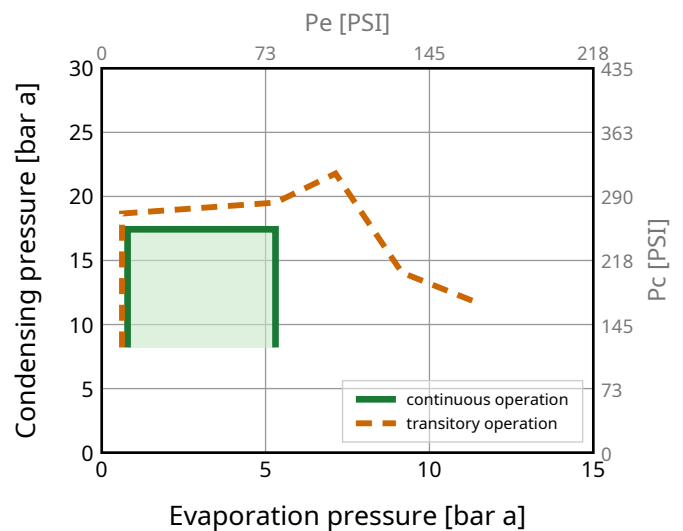
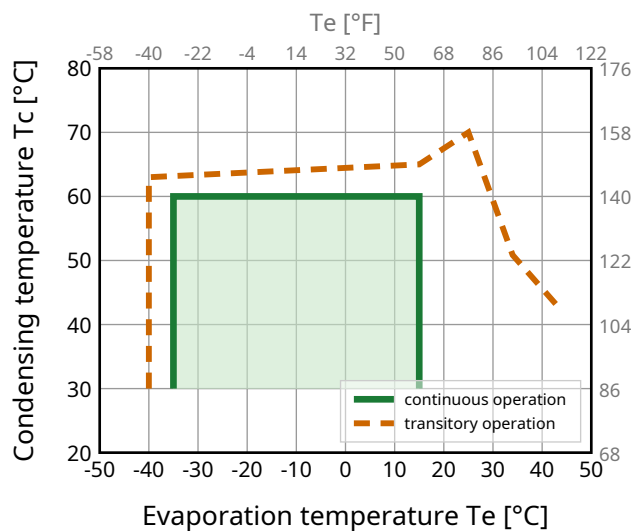
a2 assy. relay 117U6003

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC12G

Configuration 3

Sales code:
104G8240

Standard Conditions

R513A, 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	190	649	163	0.78	2.65	245	1.85	5.26	CECOMAF LBP
-35 -31	40 104	20 68	40 104	139	476	120	0.78	2.67	178	1.62	3.50	EN12900 LBP
-10 14	55 131	32 89.6	55 131	483	1647	415	1.28	4.38	376	2.31	13.54	CECOMAF MBP
-10 14	45 113	20 68	45 113	571	1948	491	1.59	5.44	358	2.25	15.46	EN12900 MBP
5 41	55 131	32 89.6	55 131	973	3321	837	1.89	6.45	515	2.80	27.91	CECOMAF HBP
5 41	50 122	20 68	50 122	1004	3427	864	2.03	6.92	496	2.73	29.61	EN12900 HBP

Performance Tables

R513A, 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]
-35	-31	118	401	101	0.68	2.33	172	1.60	2.89
-30	-22	180	613	155	0.87	2.95	208	1.72	4.43
-20	-4	351	1197	302	1.25	4.25	282	1.98	8.71
-10	14	599	2044	515	1.67	5.70	358	2.25	15.00
0	32	942	3215	810	2.16	7.37	436	2.52	23.87
10	50	1399	4772	1203	2.71	9.26	515	2.80	36.02
15	59	1675	5714	1440	3.02	10.30	555	2.94	43.60

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

-35	-31	75	256	64	0.46	1.58	162	1.56	2.06
-30	-22	126	430	108	0.62	2.12	203	1.71	3.48
-20	-4	269	919	232	0.94	3.20	288	2.00	7.49
-10	14	483	1647	415	1.28	4.38	376	2.31	13.54
0	32	784	2675	674	1.68	5.72	468	2.63	22.29
10	50	1191	4065	1025	2.12	7.23	562	2.96	34.51
15	59	1440	4914	1239	2.36	8.06	610	3.13	42.23

Model

SC12G

Configuration 4

Sales code:

104G8240

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/60 Hz 1~
Refrigerant	R513A
Application	LBP
Voltage range	187-253 V
Starting torque	HST
Approvals	VDE, UL, CCC
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	13 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	17 A

Ambient/ machine room temperatures minimum /maximum

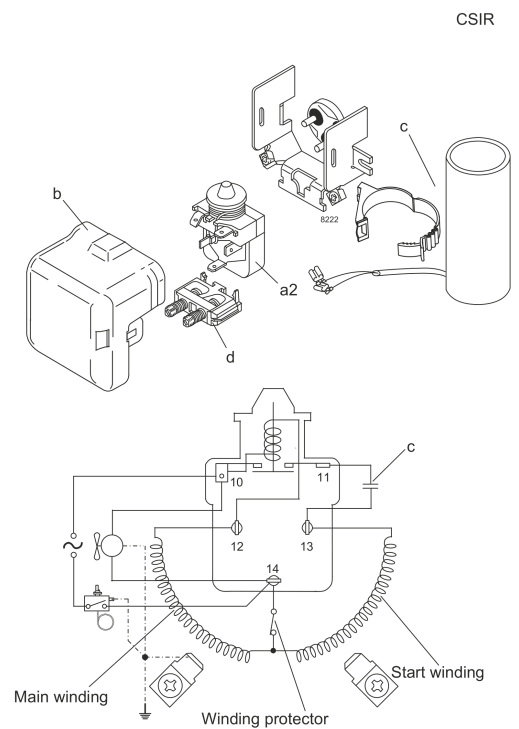
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

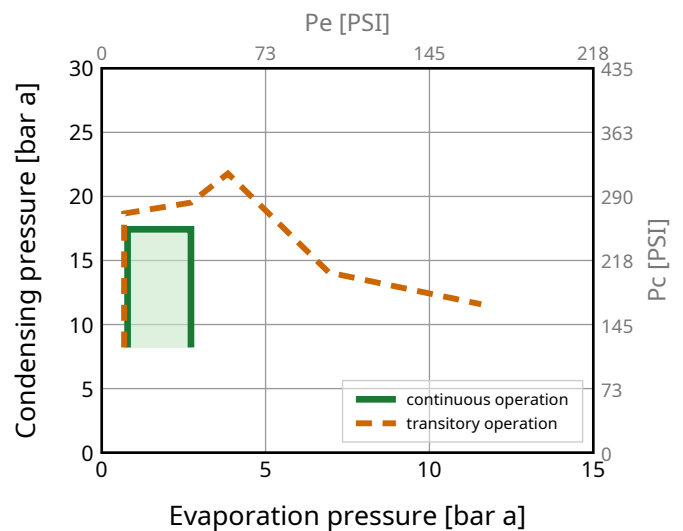
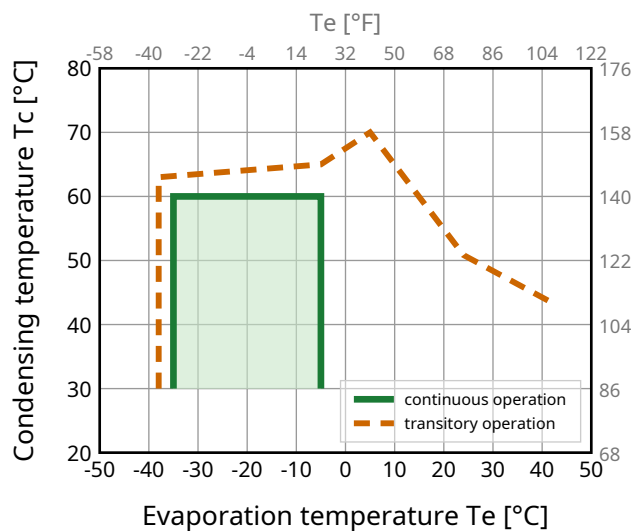
a2 assy. relay 117U6003

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC12G

Configuration 4

Sales code:
104G8240

Standard Conditions

R513A, 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	221	753	190	0.76	2.59	291	2.06	6.12	CECOMAF LBP
-35 -31	40 104	20 68	40 104	162	552	139	0.76	2.61	212	1.80	4.07	EN12900 LBP
-10 14	55 131	32 89.6	55 131	563	1921	484	1.27	4.33	443	2.56	15.80	CECOMAF MBP
-10 14	45 113	20 68	45 113	666	2274	573	1.58	5.38	422	2.49	18.05	EN12900 MBP
5 41	55 131	32 89.6	55 131	1137	3879	978	1.88	6.42	604	3.09	32.61	CECOMAF HBP
5 41	50 122	20 68	50 122	1174	4004	1009	2.02	6.89	581	3.02	34.60	EN12900 HBP

Performance Tables

R513A, 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]
-35	-31	136	464	117	0.67	2.27	204	1.77	3.35
-30	-22	209	712	180	0.85	2.89	247	1.91	5.15
-25	-13	299	1020	257	1.03	3.52	290	2.06	7.39
-20	-4	409	1395	352	1.23	4.18	334	2.20	10.15
-15	5	542	1848	466	1.43	4.89	378	2.35	13.49
-10	14	699	2386	601	1.66	5.65	422	2.49	17.50
-5	23	885	3019	761	1.89	6.46	467	2.64	22.27

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

-35	-31	86	294	74	0.45	1.52	194	1.74	2.37
-30	-22	146	498	125	0.60	2.06	242	1.90	4.03
-25	-13	221	753	190	0.76	2.59	291	2.06	6.12
-20	-4	314	1070	270	0.92	3.14	341	2.22	8.71
-15	5	427	1456	367	1.09	3.72	392	2.39	11.91
-10	14	563	1921	484	1.27	4.33	443	2.56	15.80
-5	23	725	2474	624	1.46	4.99	496	2.73	20.47

Model

SC12G

Configuration 5

Sales code:

104G8240

Configuration

Motor configuration	RSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	187-254 V
Starting torque	LST
Approvals	VDE, UL, CCC, EAC, KC
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
LRA (locked rotor amps / 4s/ U(N))	13 A
RLA (rated load amps / 1s/ U(N))	2.5 A
Cut in current (U(N))	17 A

Ambient/ machine room temperatures minimum /maximum

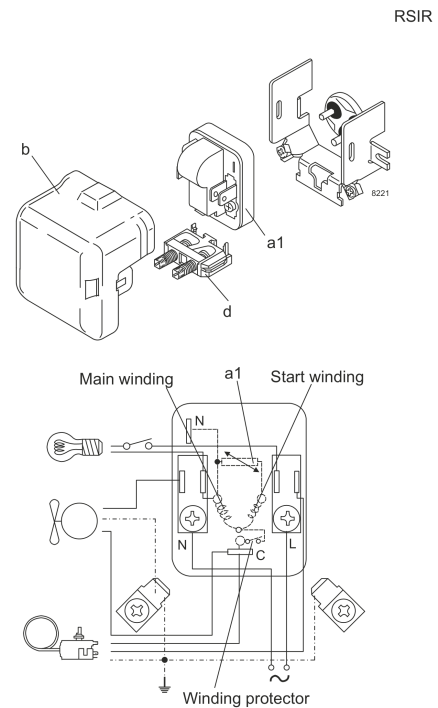
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Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

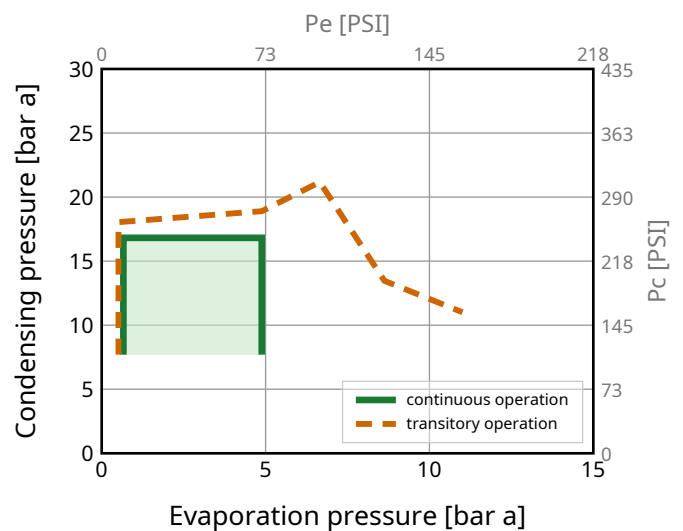
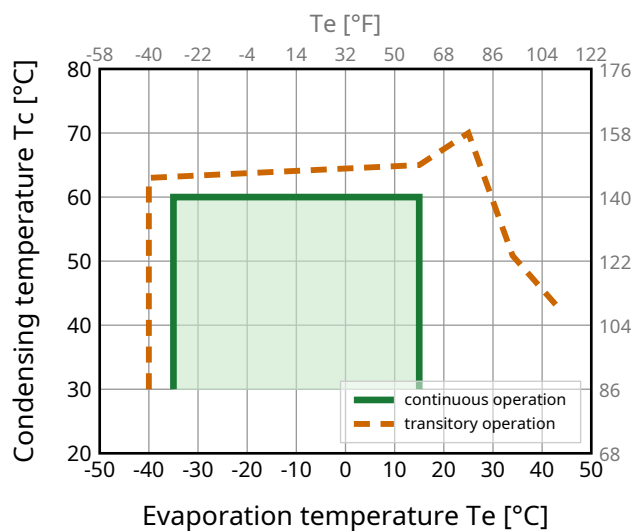
Components

a1 PTC starter (220V, 250ohm, 6.3mm) 103N0011

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC12G

Configuration 5

Sales code:
104G8240

Standard Conditions

R134a, 220 V/50 Hz, RSIR, 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	175	597	150	0.77	2.63	227	1.83	4.17	CECOMAF LBP
-35 -31	40 104	20 68	40 104	123	421	106	0.75	2.55	165	1.73	2.70	EN12900 LBP
-10 14	55 131	32 89.6	55 131	464	1584	399	1.31	4.46	355	2.24	11.19	CECOMAF MBP
-10 14	45 113	20 68	45 113	548	1870	471	1.62	5.51	339	2.15	12.78	EN12900 MBP
5 41	55 131	32 89.6	55 131	960	3275	825	1.95	6.64	493	2.76	23.57	CECOMAF HBP
5 41	50 122	20 68	50 122	996	3400	857	2.10	7.16	475	2.67	25.00	EN12900 HBP

Performance Tables

R134a, 220 V/50 Hz, RSIR, 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]
-35	-31	103	350	88	0.65	2.21	158	1.69	2.21
-30	-22	161	550	139	0.84	2.86	193	1.76	3.48
-20	-4	325	1110	280	1.23	4.20	264	1.93	7.05
-10	14	568	1937	488	1.67	5.71	339	2.15	12.40
0	32	908	3097	781	2.18	7.43	417	2.42	20.03
10	50	1365	4657	1174	2.75	9.40	496	2.75	30.55
15	59	1644	5608	1413	3.07	10.47	536	2.94	37.13

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

-35	-31	65	220	56	0.44	1.49	148	1.63	1.53
-30	-22	113	386	97	0.61	2.07	187	1.72	2.69
-20	-4	252	861	217	0.94	3.21	268	1.95	6.04
-10	14	464	1584	399	1.31	4.46	355	2.24	11.19
0	32	768	2619	660	1.72	5.87	446	2.57	18.72
10	50	1182	4034	1017	2.19	7.46	540	2.96	29.29
15	59	1437	4904	1236	2.44	8.33	589	3.17	35.98