

Model
SC18G

Sales code:
104G8820

Compressor Data

Refrigerant(s)	R134a / R513A
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	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/60 Hz	220-240 V/50 Hz	220-240 V/60 Hz
Number of phases	1	1	1	1
Voltage range	187-254 V	198-254 V	187-254 V	198-254 V
Approvals	VDE, UL, CCC, EAC, KC	VDE, UL, CCC, EAC, KC	VDE, UL, CCC	VDE, UL, CCC
Starting torque	HST	HST	HST	HST
Refrigerant	R134a	R134a	R513A	R513A
Application	LBP+MBP+HBP	LBP	LBP+MBP+HBP	LBP
Hot gas defrost	OK	OK	OK	OK
Long interval pull down	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

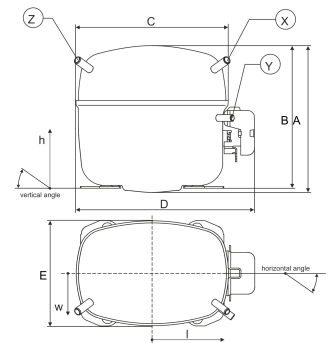
Oil type	POE	Winding resistance main	3.7 Ohm
Oil viscosity	22cSt	Winding resistance aux	14 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm ³ / 49.37fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

Compressor Dimensions

Housing

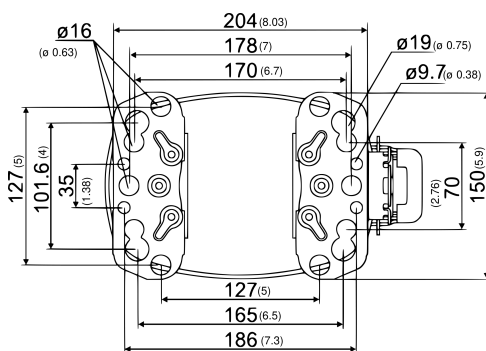
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

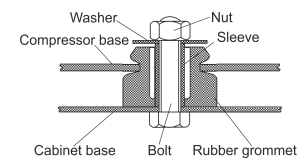


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

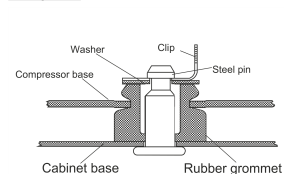
Mounting Accessories



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

Model

SC18G

Configuration 1

Sales code:

104G8820

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))	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

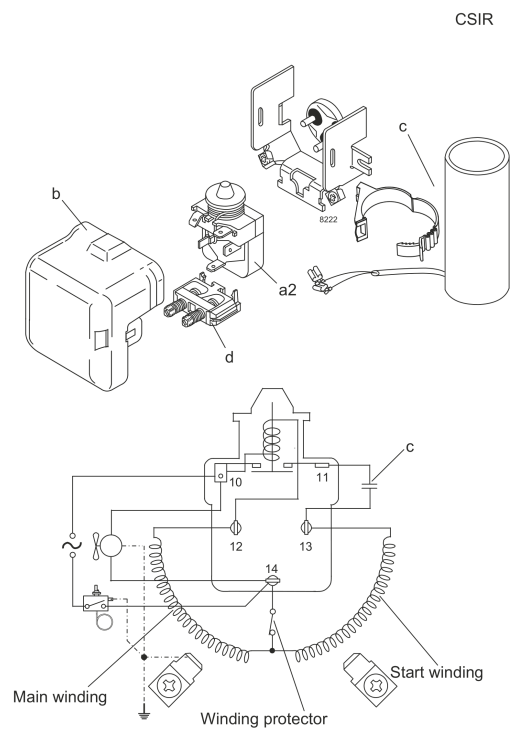
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

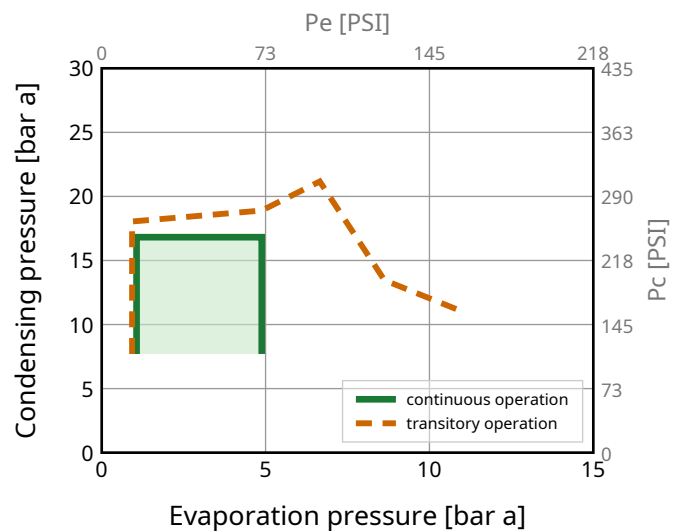
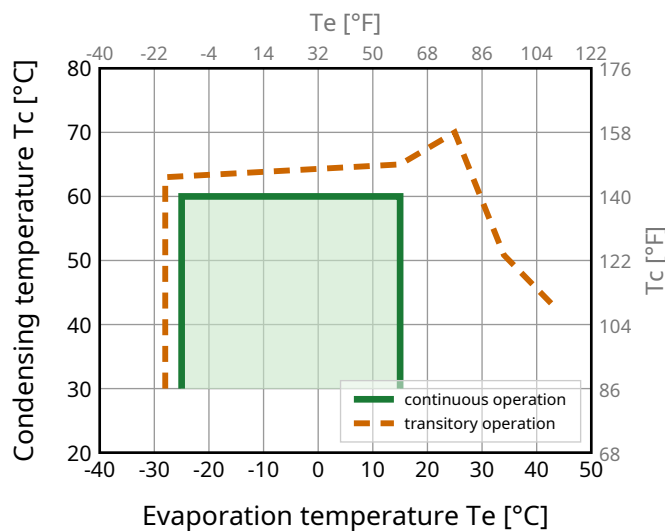
a2 relay 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC18G

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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	397	1354	341	1.13	3.86	350	2.61	7.70	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	892	3045	767	1.58	5.39	564	3.17	19.43	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1610	5494	1385	2.21	7.53	729	3.82	35.65	ASHRAE HBP
-35 -31	40 104	20 68	40 104	146	499	126	0.67	2.30	217	2.25	3.20	EN12900 LBP
-10 14	45 113	20 68	45 113	765	2610	658	1.54	5.27	495	2.91	17.84	EN12900 MBP
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

Model

SC18G

Configuration 2

Sales code:

104G8820

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))	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

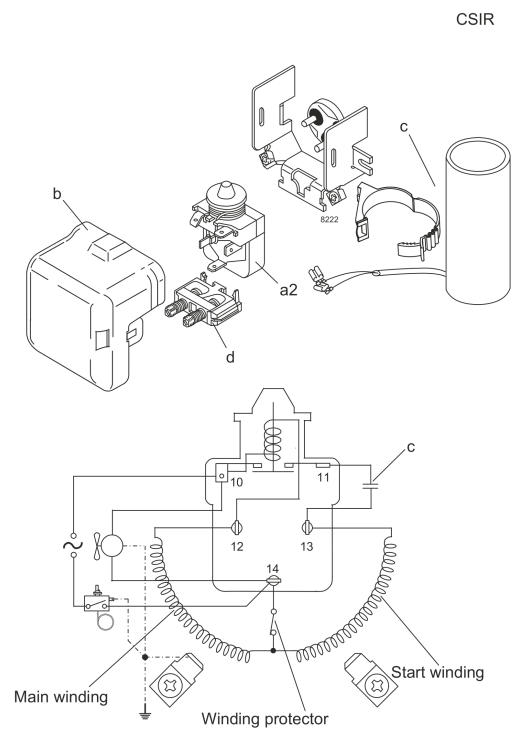
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

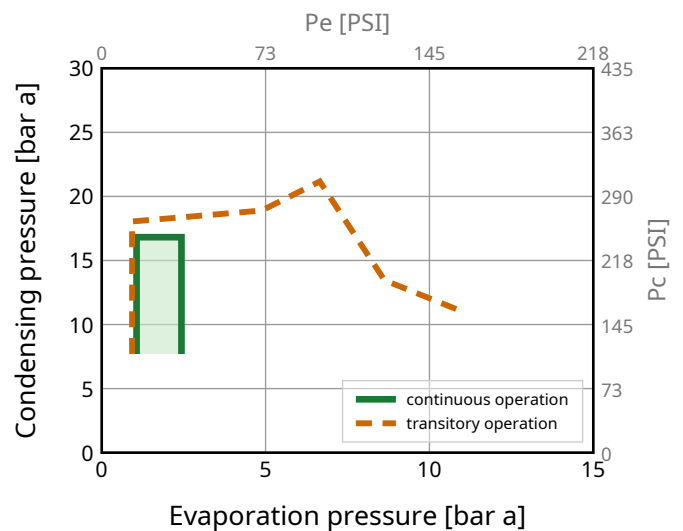
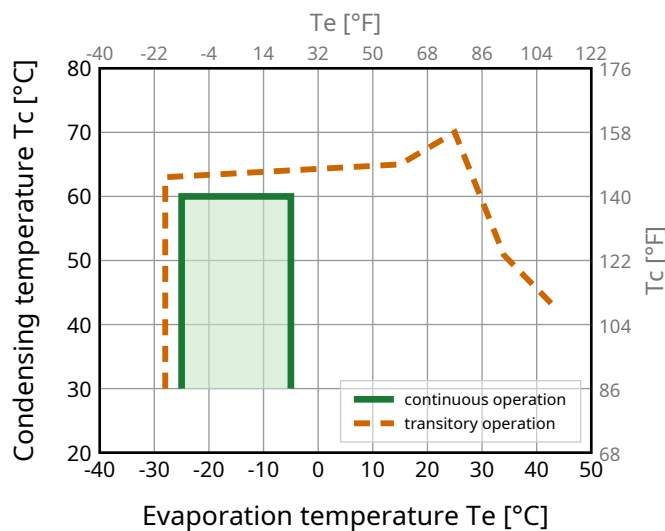
a2 relay 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC18G

Configuration 2

Sales code:
104G8820

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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	468	1595	402	1.13	3.86	414	3.09	9.07	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1043	3560	897	1.58	5.39	660	3.69	22.72	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1876	6401	1613	2.21	7.53	850	4.46	41.52	ASHRAE HBP
-35 -31	40 104	20 68	40 104	186	633	160	0.68	2.31	274	2.85	4.06	EN12900 LBP
-10 14	45 113	20 68	45 113	895	3052	769	1.55	5.27	579	3.40	20.86	EN12900 MBP
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

Model

SC18G

Configuration 3

Sales code:

104G8820

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))	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

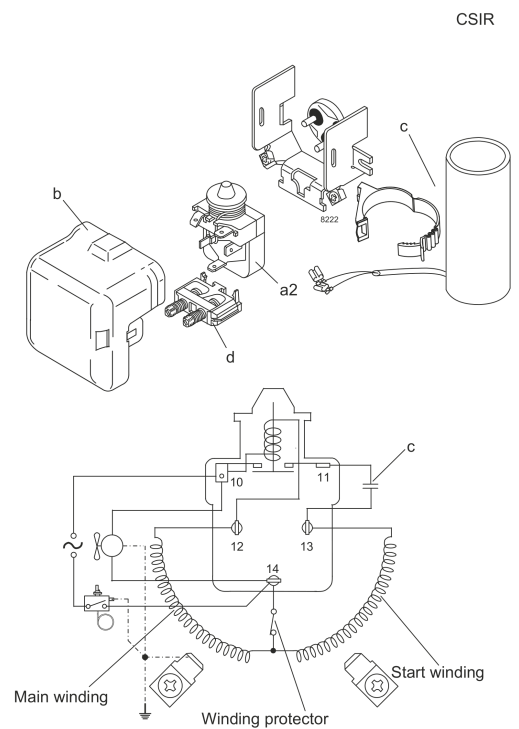
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



Components

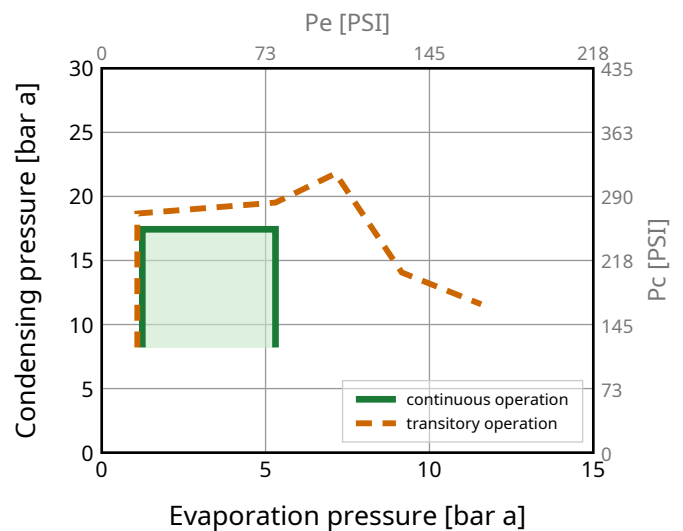
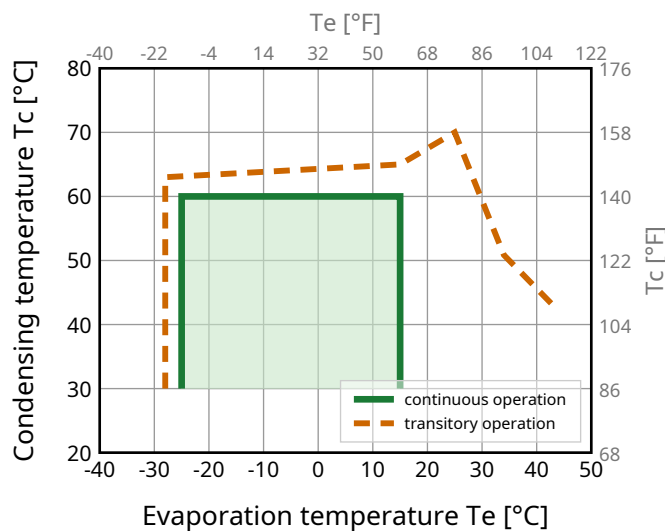
a2 relay 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC18G

Configuration 3

Sales code:
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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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	440	1501	378	1.15	3.93	382	2.86	9.63	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	937	3196	806	1.56	5.32	600	3.54	23.35	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1656	5649	1424	2.17	7.39	764	4.22	42.06	ASHRAE HBP
-35 -31	40 104	20 68	40 104	167	569	143	0.70	2.38	238	2.51	4.19	EN12900 LBP
-10 14	45 113	20 68	45 113	796	2716	685	1.51	5.15	527	3.26	21.56	EN12900 MBP
5 41	50 122	20 68	50 122	1371	4678	1179	1.95	6.65	703	3.97	40.42	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]
-25	-13	364	1241	313	1.01	3.44	361	2.78	9.00
-20	-4	499	1702	429	1.18	4.04	422	2.94	12.38
-10	14	835	2850	718	1.58	5.40	527	3.26	20.91
0	32	1281	4370	1101	2.06	7.03	622	3.62	32.45
10	50	1860	6346	1599	2.60	8.87	715	4.04	47.90
15	59	2207	7530	1898	2.88	9.84	765	4.29	57.45

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

-25	-13	310	1057	266	0.87	2.97	356	2.80	8.58
-20	-4	425	1449	365	0.99	3.37	430	3.00	11.81
-10	14	716	2443	616	1.27	4.34	563	3.40	20.09
0	32	1109	3785	954	1.62	5.54	683	3.86	31.55
10	50	1629	5558	1401	2.03	6.92	803	4.40	47.20
15	59	1944	6633	1672	2.25	7.66	866	4.71	57.00

Model

SC18G

Configuration 4

Sales code:

104G8820

Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/60 Hz 1~
Refrigerant	R513A
Application	LBP
Voltage range	198-254 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))	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

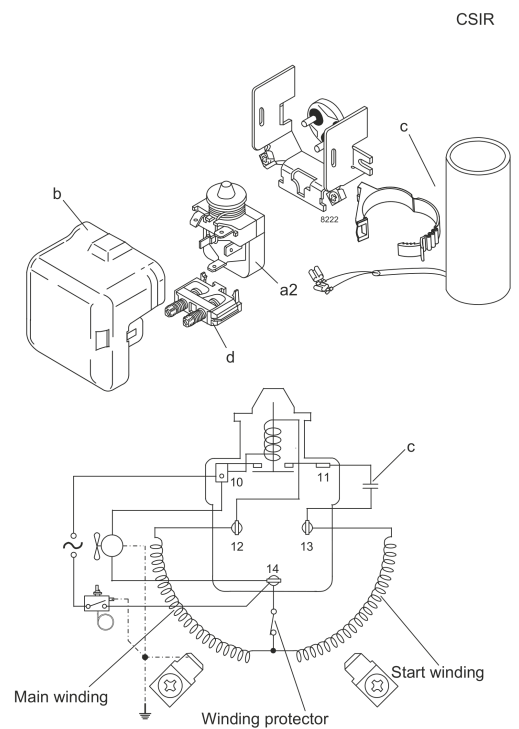
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 3m/s

Electrical Accessories / Wiring Diagram



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Components

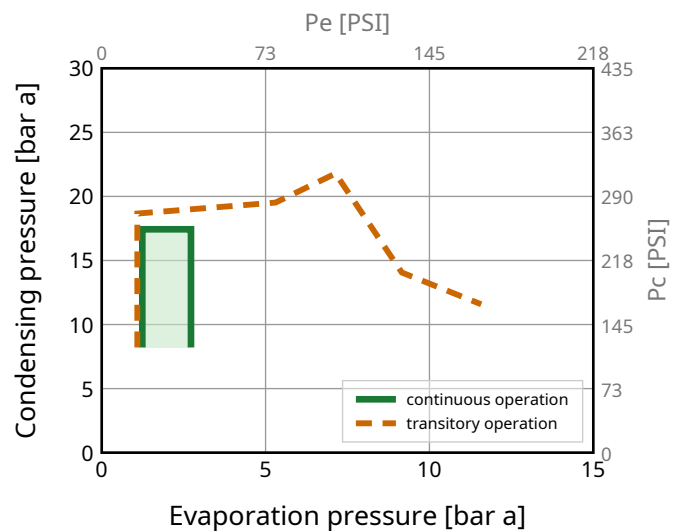
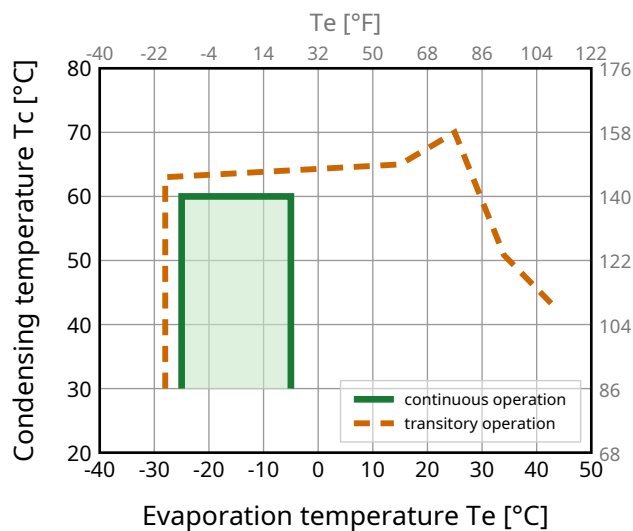
a2 relay 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC18G

Configuration 4

Sales code:
104G8820

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]	
-23.3 -10	54.4 129.9	32.2 90	32.2 90	518	1769	446	1.14	3.90	453	3.12	11.35	ASHRAE LBP
-6.7 20	54.4 129.9	35 95	46.1 115	1095	3735	941	1.55	5.31	704	3.92	27.29	ASHRAE MBP
7.2 45	54.4 129.9	35 95	46.1 115	1927	6574	1657	2.16	7.36	894	4.53	48.96	ASHRAE HBP
-35 -31	40 104	20 68	40 104	211	719	181	0.69	2.35	306	2.65	5.29	EN12900 LBP
-10 14	45 113	20 68	45 113	930	3175	800	1.51	5.14	618	3.65	25.19	EN12900 MBP
5 41	50 122	20 68	50 122	1596	5447	1373	1.94	6.62	823	4.31	47.07	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]
-25	-13	430	1468	370	1.00	3.41	431	3.05	10.65
-20	-4	586	1999	504	1.18	4.02	498	3.27	14.54
-15	5	767	2616	659	1.37	4.67	560	3.46	19.11
-10	14	976	3331	840	1.58	5.39	618	3.65	24.44
-5	23	1218	4154	1047	1.81	6.17	674	3.83	30.64

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

-25	-13	366	1249	315	0.86	2.94	425	3.03	10.14
-20	-4	499	1702	429	0.98	3.35	508	3.30	13.86
-15	5	655	2235	563	1.12	3.81	586	3.55	18.28
-10	14	837	2857	720	1.27	4.33	660	3.79	23.50
-5	23	1050	3581	903	1.44	4.90	732	4.01	29.63