Single
Packs

Single Pack SC12GH 220-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4222**

Position	Title	Code	Amount
1	Compressor SC12GH	104G8261	1
2	Starting relay	117U6011	1
3	Starting capacitor (80µF 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2008	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model
SC12GH

Sales code:
104G8261

Compressor Data

Refrigerant(s)	**R134a / R513A**
Refr. charge - tech. limit	**1300g / 45.86oz**
Weight	**12.50 kg / 27.56lbs**
Displacement	**12.87 cm3 / 0.79cu.in**
Compressors on pallet	**80**

General – Configurations With SC12GH

–	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/50 Hz	208-230 V/60 Hz	208-230 V/60 Hz
Number of phases	1	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V	198-254 V
Approvals	VDE, UL, KC	VDE, UL	VDE, UL, KC	VDE, UL
Starting torque	HST	HST	HST	HST
Refrigerant	R134a	R513A	R134a	R513A
Application	HBP	HBP	HBP	HBP
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

Model
SC12GH

Sales code:
104G8261

Compressor Design

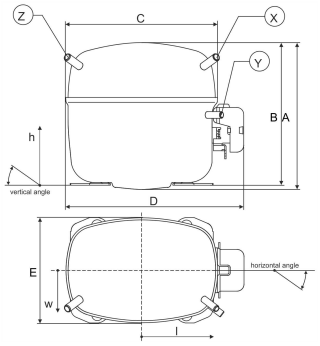
Oil type	**POE**	Winding resistance main	**4.4 Ohm**
Oil viscosity	**22cSt**	Winding resistance aux	**14 Ohm**
Oil quantity	**504 / 17.04fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,510 cm3 / 51.06fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

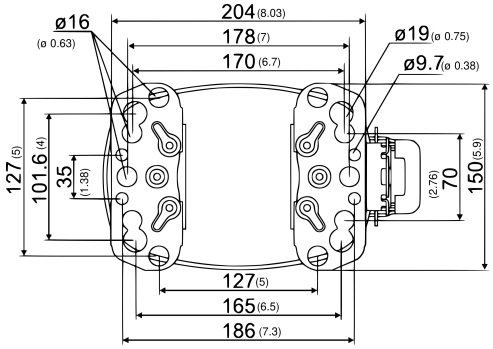
A Height	**209mm / 8.23in**
B Height	**203mm / 7.99in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



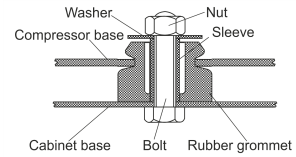
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in	-107/183/55 / -4.21/7.20/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

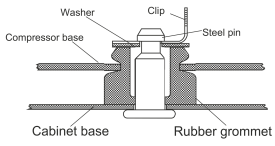


Dimensions in mm [in]

Bolt joint



Snap-on



	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
SC12GH Configuration 1

Sales code:
104G8261

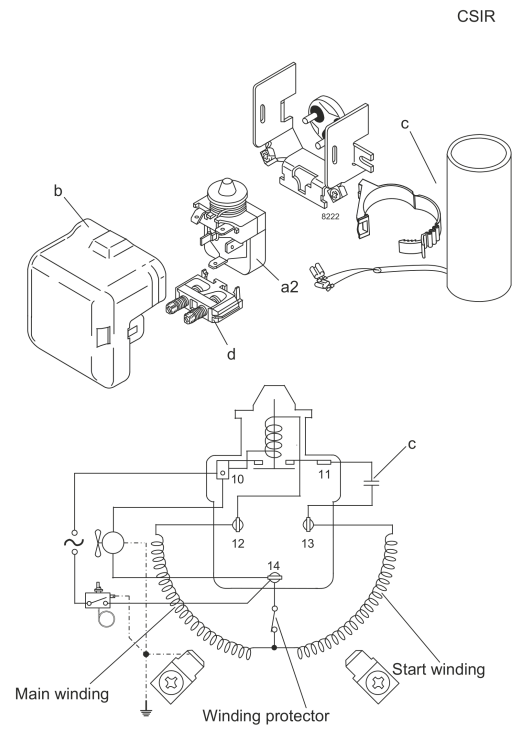
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**HBP**
Voltage range	**198-254 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))	**19 A**
RLA (rated load amps / 1s/ U(N))	**3.9 A**
Cut in current (U(N))	**19 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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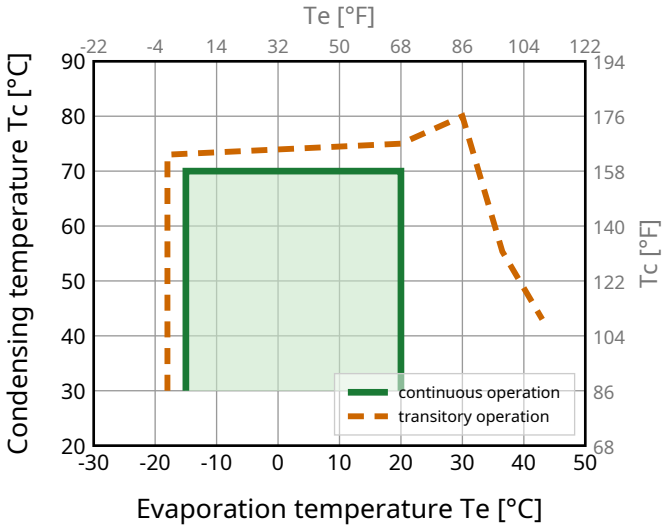
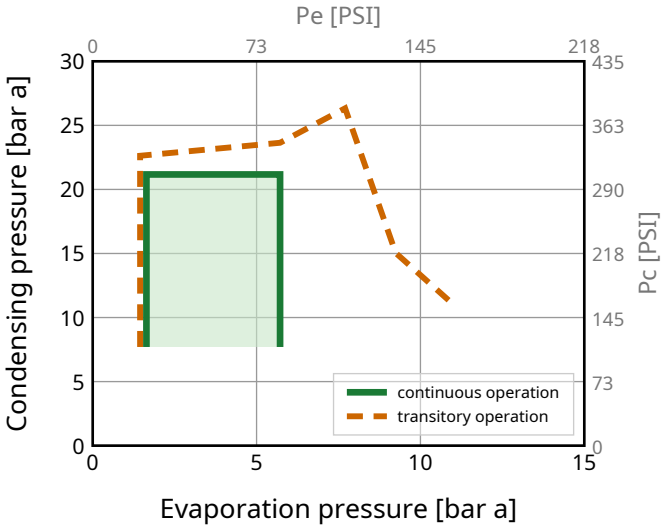
Components
a2 relay 117U6011
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model
SC12GH Configuration 1

Sales code:
104G8261

Standard Conditions

R134a, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**582**	1986	501	**1.51**	5.16	385	3.16	12.68	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**429**	1463	369	**1.20**	4.10	356	3.08	10.34	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**519**	1770	446	**1.49**	5.08	348	3.06	12.10	**EN12900 MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**1174**	4005	1010	**2.34**	7.99	502	3.52	25.98	**ASHRAE HBP**
5 41	55 131	32 89.6	55 131	**957**	3266	823	**1.97**	6.70	487	3.47	23.51	**CECOMAF HBP**
5 41	50 122	20 68	50 122	**1000**	3412	860	**2.15**	7.34	465	3.39	25.08	**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	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-15	5	**396**	1349	340	**1.27**	4.32	312	2.98	8.60
-10	14	**537**	1833	462	**1.54**	5.26	348	3.06	11.73
-5	23	**704**	2404	606	**1.84**	6.27	383	3.14	15.46
0	32	**901**	3074	775	**2.17**	7.40	416	3.23	19.88
5	41	**1130**	3856	972	**2.54**	8.68	444	3.31	25.10
10	50	**1396**	4763	1200	**2.98**	10.18	468	3.39	31.24
15	59	**1702**	5806	1463	**3.51**	11.96	485	3.47	38.44
20	68	**2051**	6998	1764	**4.14**	14.13	495	3.55	46.85

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

-15	5	**302**	1032	260	**0.97**	3.31	312	2.94	7.26
-10	14	**429**	1463	369	**1.20**	4.10	356	3.08	10.34
-5	23	**578**	1970	497	**1.44**	4.91	401	3.21	13.99
0	32	**752**	2568	647	**1.69**	5.77	445	3.34	18.35
5	41	**957**	3266	823	**1.97**	6.70	487	3.47	23.51
10	50	**1196**	4079	1028	**2.27**	7.76	526	3.60	29.62
15	59	**1471**	5019	1265	**2.62**	8.95	561	3.73	36.82
20	68	**1787**	6098	1537	**3.03**	10.34	590	3.86	45.28

Model
SC12GH Configuration 2

Sales code:
104G8261

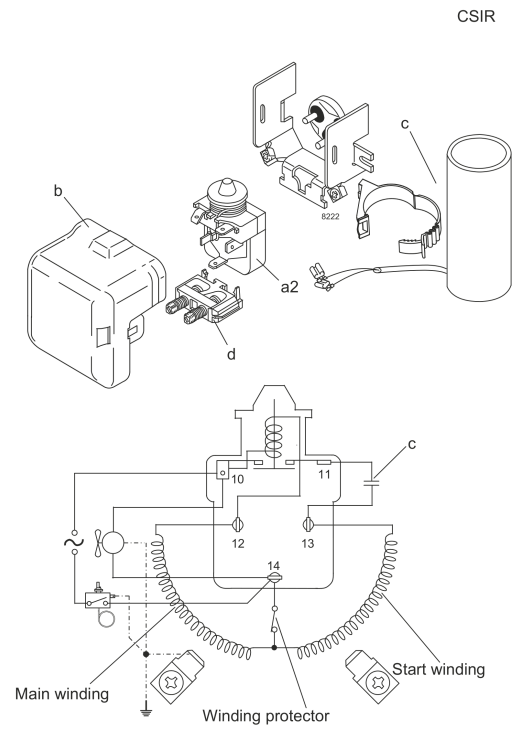
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R513A**
Application	**HBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**VDE, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**19 A**
RLA (rated load amps / 1s/ U(N))	**3.9 A**
Cut in current (U(N))	**19 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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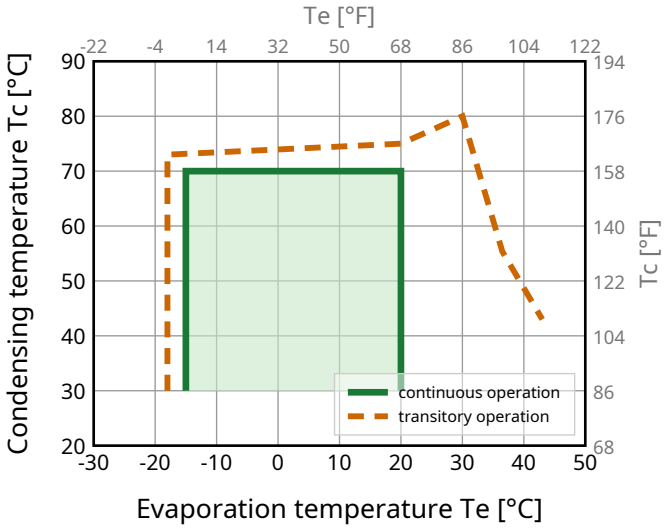
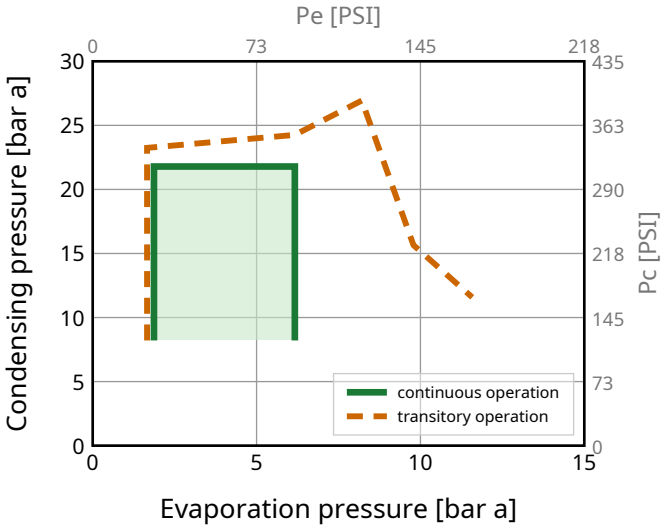
Components
a2 relay 117U6011
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model
SC12GH Configuration 2

Sales code:
104G8261

Standard Conditions

R513A, 220 V/50 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**612**	2087	526	**1.51**	5.14	406	3.22	15.25	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**446**	1521	383	**1.18**	4.03	378	3.13	12.51	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**540**	1844	465	**1.47**	5.01	368	3.11	14.63	**EN12900 MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**1208**	4123	1039	**2.31**	7.89	522	3.58	30.70	**ASHRAE HBP**
5 41	55 131	32 89.6	55 131	**971**	3312	835	**1.91**	6.51	508	3.54	27.84	**CECOMAF HBP**
5 41	50 122	20 68	50 122	**1008**	3439	867	**2.08**	7.09	485	3.47	29.72	**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	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-15	5	**422**	1438	362	**1.27**	4.34	332	2.99	10.50
-10	14	**567**	1934	488	**1.54**	5.25	368	3.11	14.19
-5	23	**737**	2515	634	**1.83**	6.24	403	3.21	18.55
0	32	**935**	3192	804	**2.15**	7.33	435	3.31	23.70
5	41	**1166**	3977	1002	**2.52**	8.58	463	3.40	29.75
10	50	**1431**	4882	1230	**2.94**	10.04	486	3.47	36.85
15	59	**1735**	5918	1492	**3.45**	11.79	502	3.52	45.15
20	68	**2080**	7099	1789	**4.07**	13.89	511	3.55	54.85

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

-15	5	**318**	1086	274	**0.96**	3.27	332	3.00	8.88
-10	14	**446**	1521	383	**1.18**	4.03	378	3.13	12.51
-5	23	**595**	2029	512	**1.41**	4.80	423	3.27	16.79
0	32	**769**	2623	661	**1.65**	5.62	467	3.41	21.86
5	41	**971**	3312	835	**1.91**	6.51	508	3.54	27.84
10	50	**1205**	4110	1036	**2.20**	7.52	547	3.66	34.90
15	59	**1474**	5029	1268	**2.54**	8.66	580	3.76	43.22
20	68	**1782**	6080	1532	**2.93**	9.99	608	3.85	53.00

Model
SC12GH Configuration 3

Sales code:
104G8261

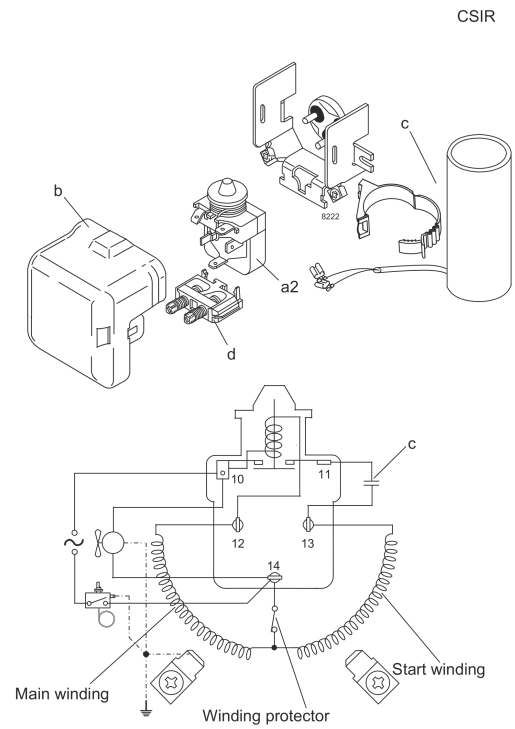
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**HBP**
Voltage range	**198-254 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))	**19 A**
RLA (rated load amps / 1s/ U(N))	**3.9 A**
Cut in current (U(N))	**19 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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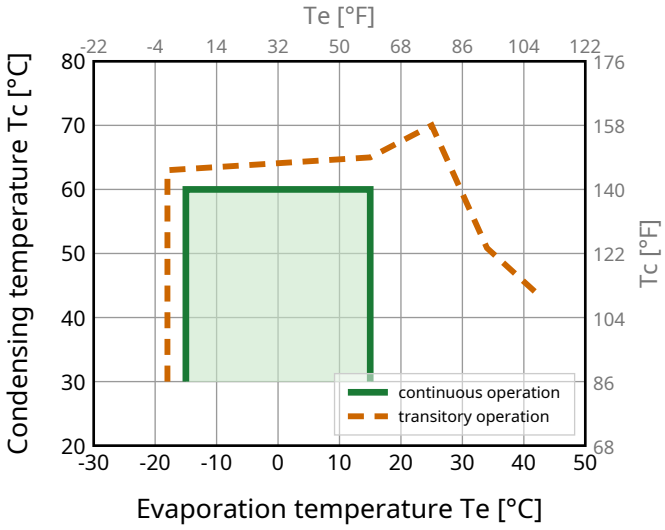
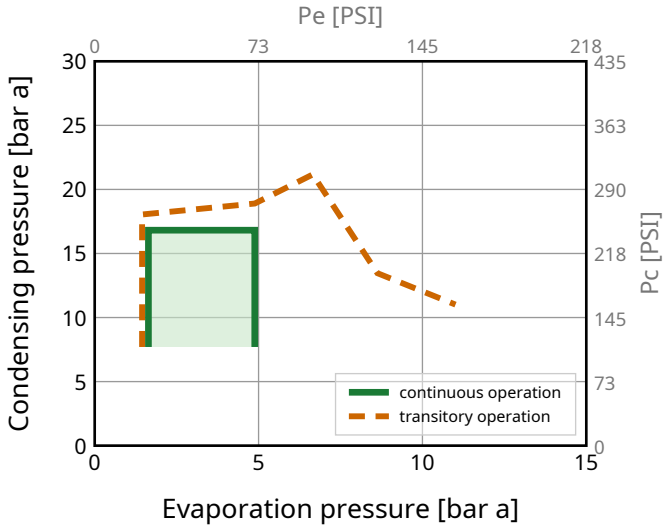
Components
a2 relay 117U6011
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model

SC12GH Configuration 3

Sales code:

104G8261

Standard Conditions

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

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**686**	2342	590	**1.61**	5.51	425	2.76	14.95	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**511**	1744	440	**1.31**	4.48	389	2.61	12.33	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**610**	2081	524	**1.61**	5.49	379	2.57	14.22	**EN12900 MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**1368**	4668	1177	**2.38**	8.11	575	3.35	30.28	**ASHRAE HBP**
5 41	55 131	32 89.6	55 131	**1116**	3809	960	**2.01**	6.85	556	3.28	27.42	**CECOMAF HBP**
5 41	50 122	20 68	50 122	**1166**	3977	1003	**2.21**	7.53	528	3.16	29.24	**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	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-15	5	**470**	1603	404	**1.41**	4.80	334	2.40	10.22
-10	14	**632**	2155	543	**1.67**	5.69	379	2.57	13.79
-5	23	**824**	2813	709	**1.95**	6.66	422	2.74	18.09
0	32	**1052**	3591	905	**2.27**	7.74	464	2.90	23.22
5	41	**1320**	4503	1135	**2.62**	8.96	503	3.05	29.31
10	50	**1630**	5562	1402	**3.03**	10.33	539	3.19	36.49
15	59	**1988**	6782	1710	**3.48**	11.89	571	3.33	44.91

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

-15	5	**371**	1266	319	**1.12**	3.81	332	2.37	8.91
-10	14	**511**	1744	440	**1.31**	4.48	389	2.61	12.33
-5	23	**680**	2318	584	**1.52**	5.20	446	2.84	16.47
0	32	**880**	3002	757	**1.75**	5.99	501	3.06	21.45
5	41	**1116**	3809	960	**2.01**	6.85	556	3.28	27.42
10	50	**1393**	4753	1198	**2.29**	7.81	608	3.49	34.52
15	59	**1714**	5849	1474	**2.60**	8.88	658	3.69	42.91

Model
SC12GH Configuration 4

Sales code:
104G8261

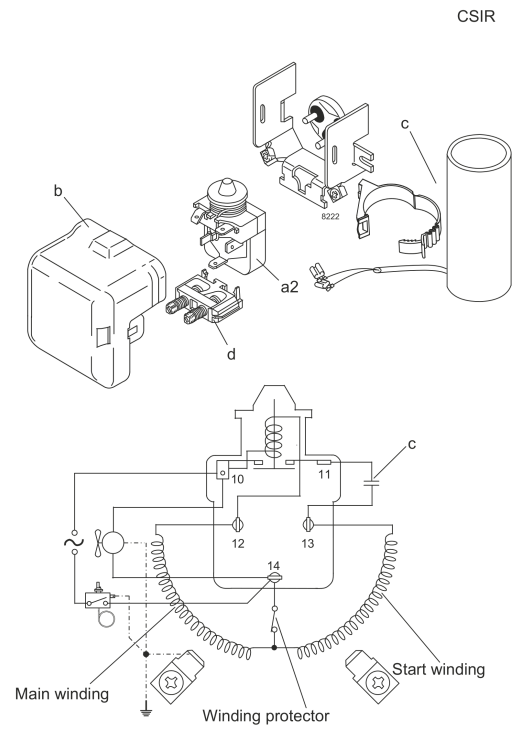
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R513A**
Application	**HBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**VDE, UL**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**19 A**
RLA (rated load amps / 1s/ U(N))	**3.9 A**
Cut in current (U(N))	**19 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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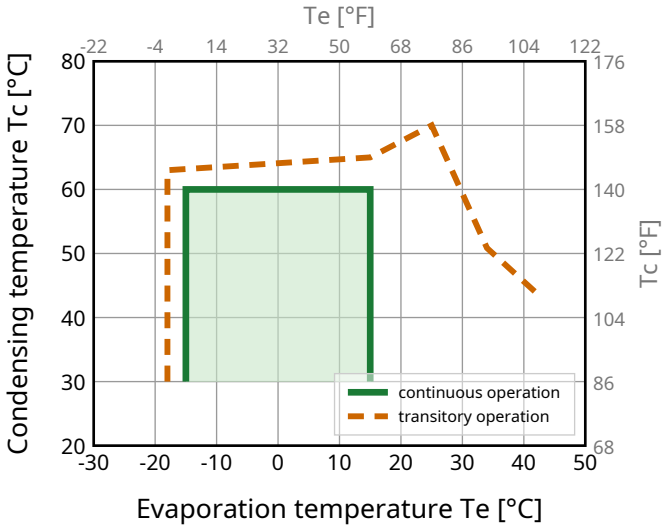
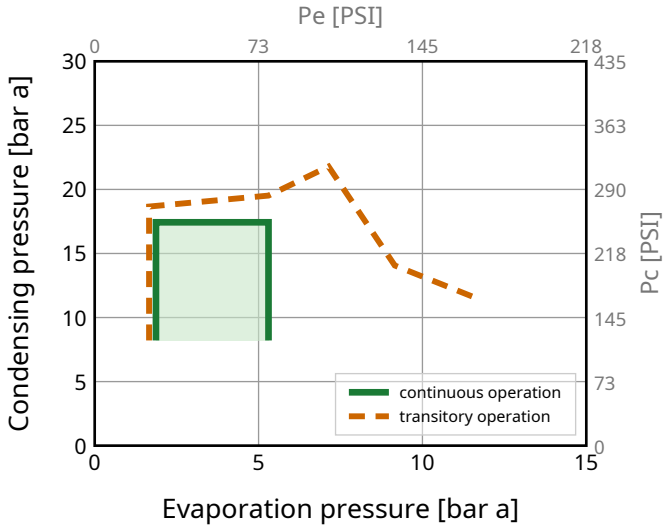
Components
a2 relay 117U6011
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model

SC12GH Configuration 4

Sales code:

104G8261

Standard Conditions

R513A, 230 V/60 Hz, CSIR, fan 3m/s

pe	pc	RGT	Tliq	Cooling capacity			COP	EER	P	I	ṁ	
[°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	**722**	2462	620	**1.61**	5.48	449	2.85	17.99	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**532**	1815	457	**1.29**	4.39	413	2.70	14.92	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**635**	2168	546	**1.58**	5.40	401	2.65	17.20	**EN12900 MBP**
7.2 45	54.4 129.9	35 95	46.1 115	**1408**	4805	1211	**2.35**	8.01	600	3.45	35.78	**ASHRAE HBP**
5 41	55 131	32 89.6	55 131	**1132**	3863	974	**1.95**	6.66	580	3.37	32.47	**CECOMAF HBP**
5 41	50 122	20 68	50 122	**1175**	4010	1011	**2.13**	7.27	551	3.25	34.65	**EN12900 HBP**

Performance Tables

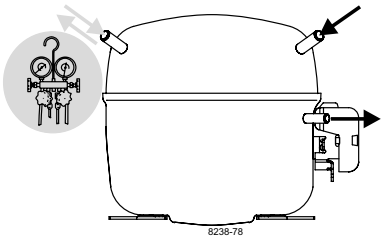
R513A, 230 V/60 Hz, CSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-15	5	**501**	1708	431	**1.41**	4.81	355	2.47	12.48
-10	14	**667**	2274	573	**1.66**	5.67	401	2.65	16.68
-5	23	**863**	2944	742	**1.94**	6.62	445	2.83	21.71
0	32	**1093**	3729	940	**2.25**	7.67	486	2.99	27.68
5	41	**1361**	4644	1170	**2.59**	8.85	525	3.15	34.74
10	50	**1671**	5701	1437	**2.98**	10.18	560	3.29	43.03
15	59	**2026**	6914	1743	**3.43**	11.70	591	3.41	52.75

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

-15	5	**390**	1332	336	**1.10**	3.75	355	2.47	10.90
-10	14	**532**	1815	457	**1.29**	4.39	413	2.70	14.92
-5	23	**700**	2388	602	**1.49**	5.08	470	2.93	19.76
0	32	**899**	3067	773	**1.71**	5.83	526	3.15	25.56
5	41	**1132**	3863	974	**1.95**	6.66	580	3.37	32.47
10	50	**1404**	4790	1207	**2.22**	7.57	633	3.58	40.67
15	59	**1718**	5861	1477	**2.52**	8.59	682	3.78	50.37



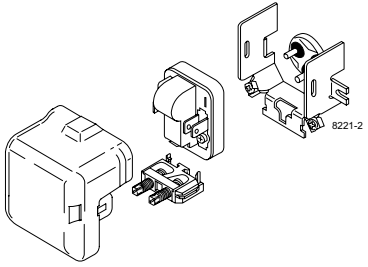
SC Compressors

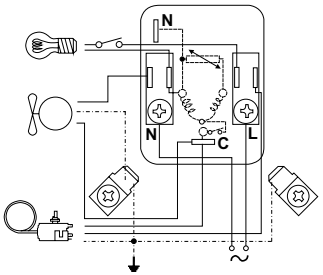
SECOP

Keep electrical equipment clear from oil, chemicals, and water

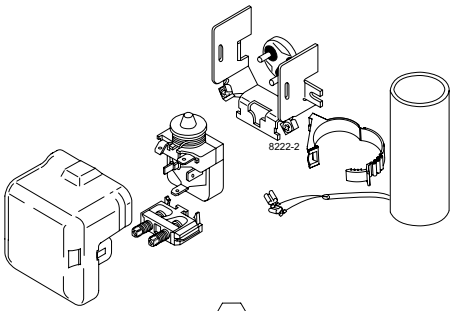
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

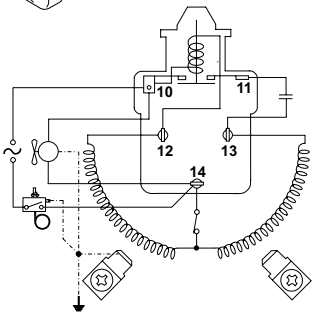
RSIR



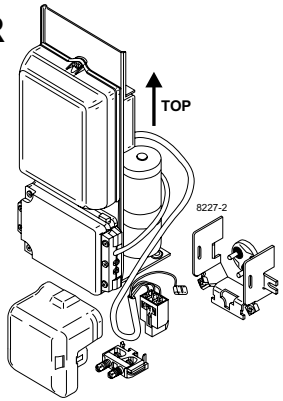


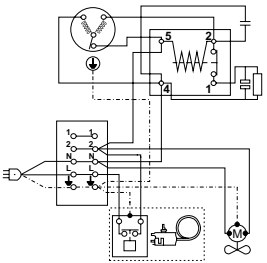
CSIR

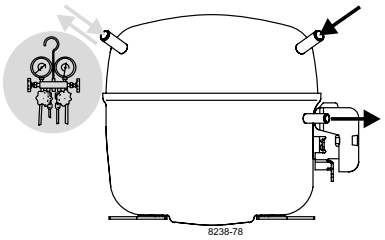




CSCR







SC Compressors

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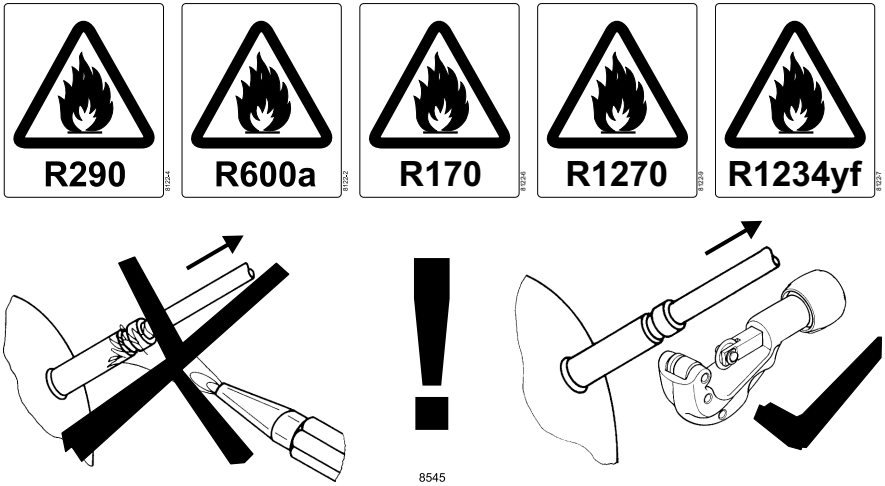
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



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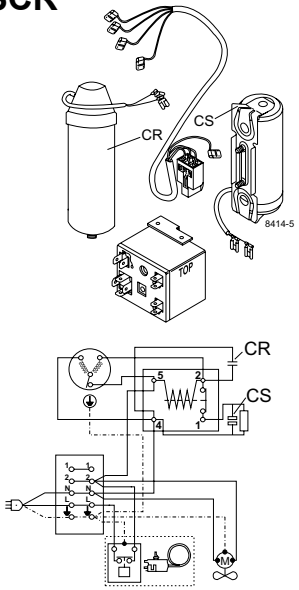

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be released into the environment and should be recovered by qualified operators. Compressor oil must also be collected separately. The compressor should be disposed of at specialized disposal centers in accordance with the applicable regulations. **Subject to modifications/alterations. www.secop.com**