Single
Packs

Single Pack SC18G 220-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4349**

Position	Title	Code	Amount
1	Compressor SC18G	104G8820	1
2	Starting relay	117U7019	1
3	Starting capacitor (80µF 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2009	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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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

Model
SC18G

Sales code:
104G8820

Compressor Design

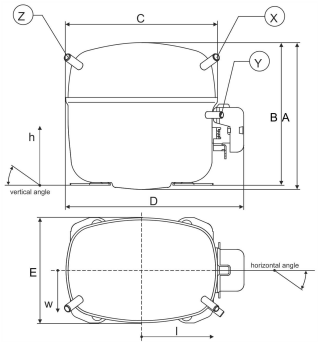
Oil type	**POE**	Winding resistance main	**3.7 Ohm**
Oil viscosity	**22cSt**	Winding resistance aux	**14 Ohm**
Oil quantity	**550 / 18.60fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,460 cm3 / 49.37fl.oz**	Max. discharge temp.	**135°C / 275°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

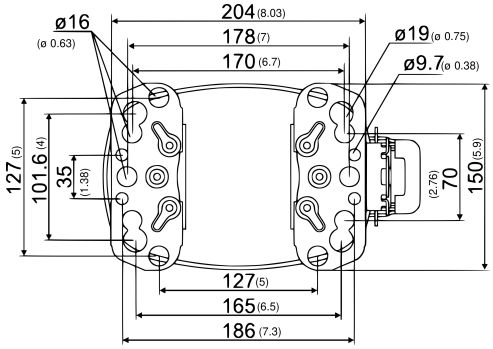
A Height	**219mm / 8.62in**
B Height	**213mm / 8.39in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



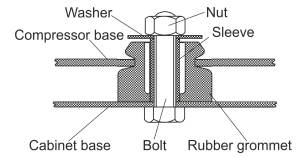
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

Mounting Accessories

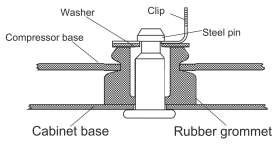


Dimensions in mm [in]

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
SC18G Configuration 1

Sales code:
104G8820

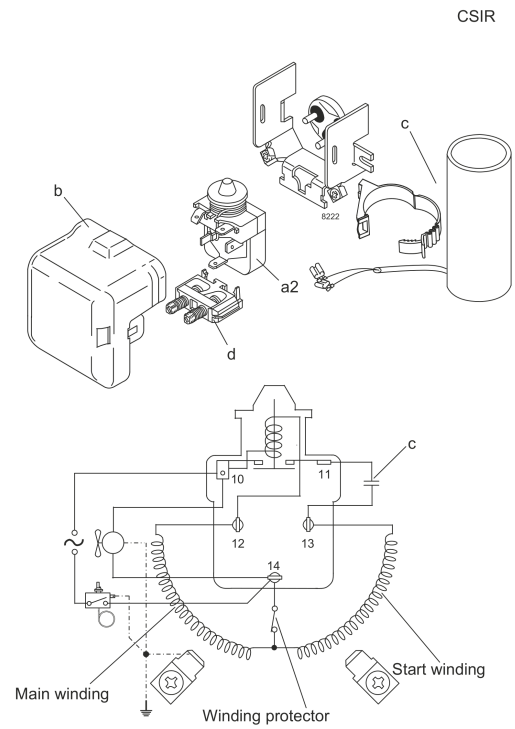
Configuration

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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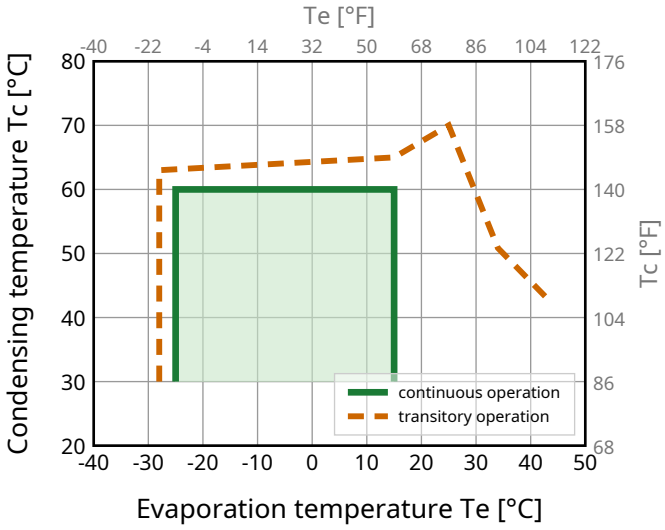
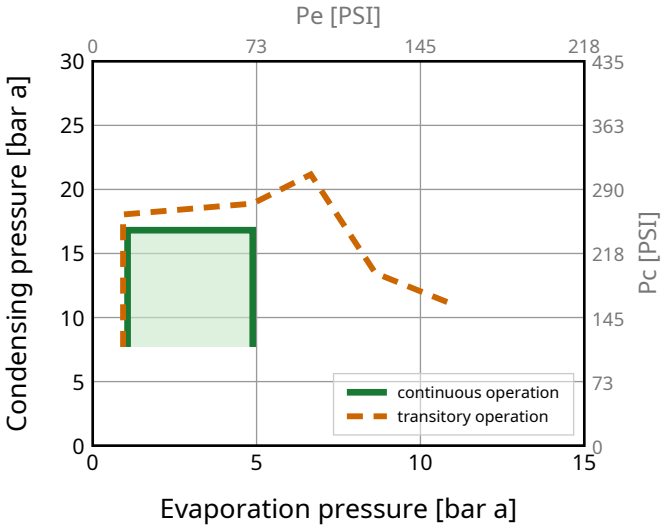
Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Operation Pressure Range





Model
SC18G Configuration 1

Sales code:
104G8820

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]	
-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	ṁ
[°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

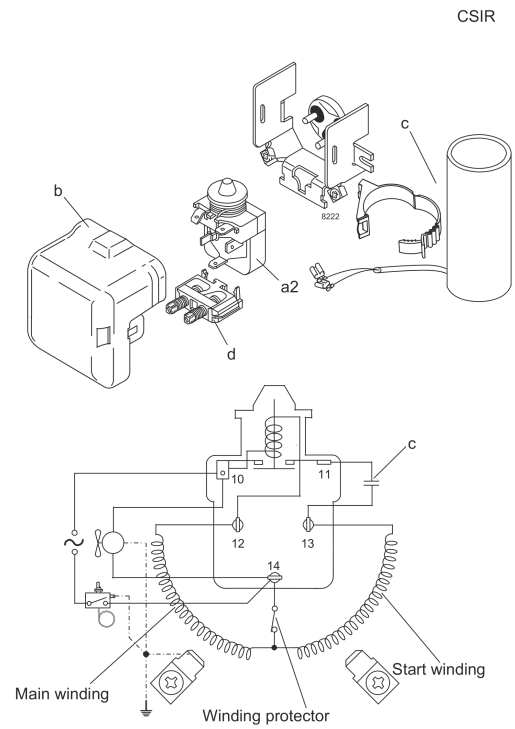
Configuration

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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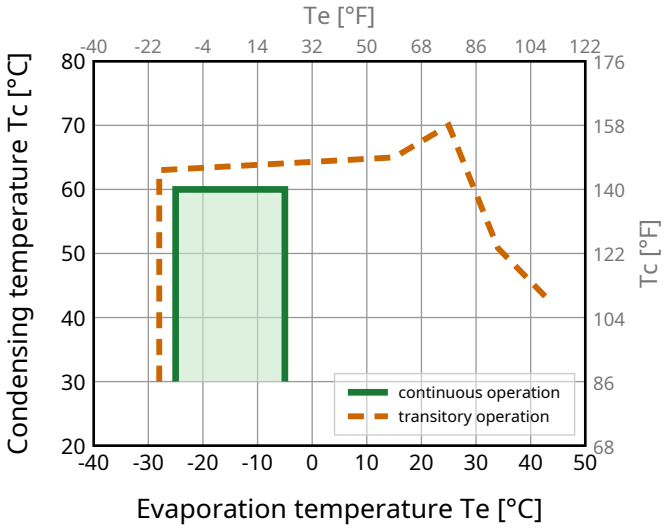
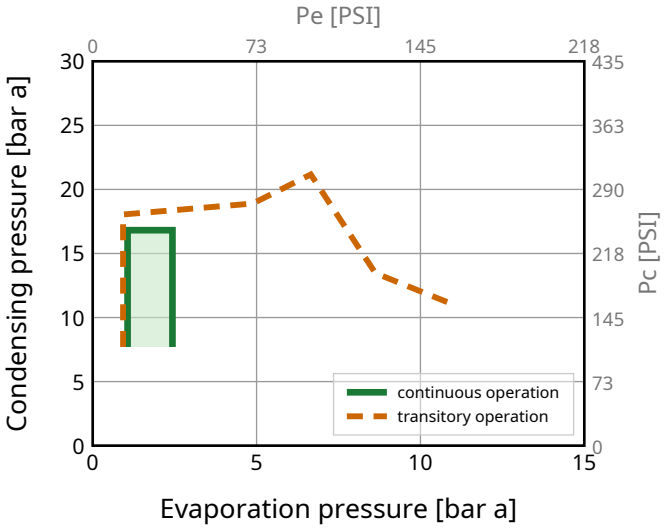
Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

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	ṁ	
[°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	ṁ
[°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

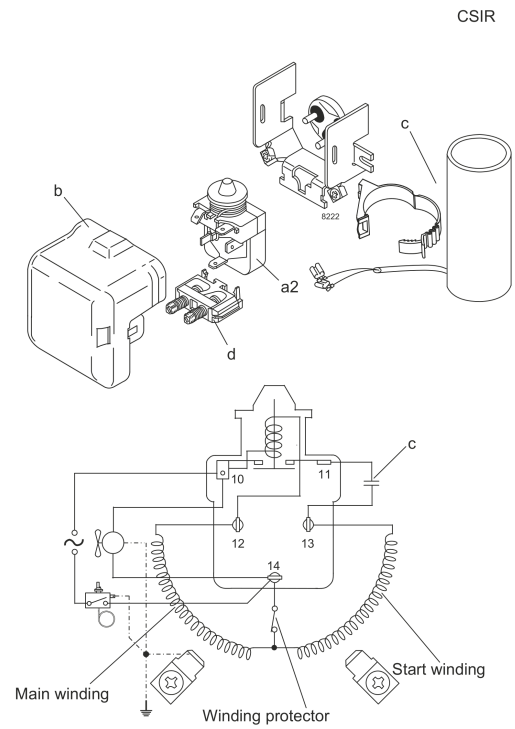
Configuration

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



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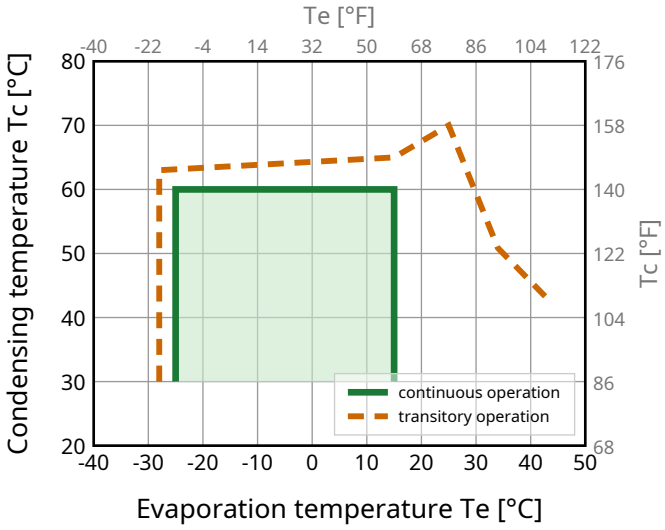
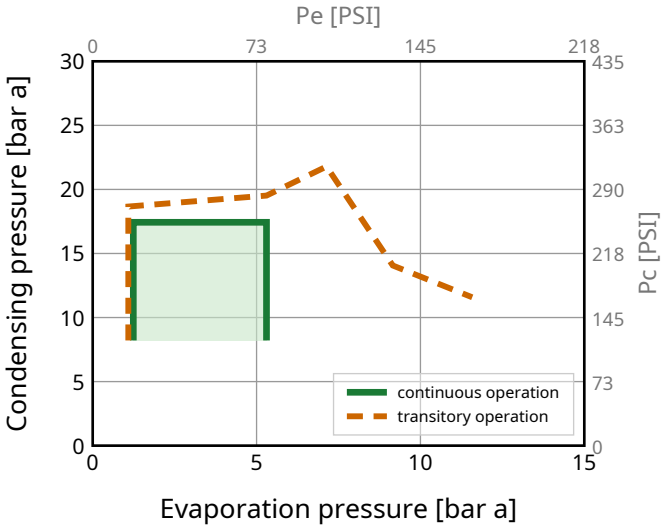
Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Operation Pressure Range





Model
SC18G Configuration 3

Sales code:
104G8820

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]	
-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	ṁ
[°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

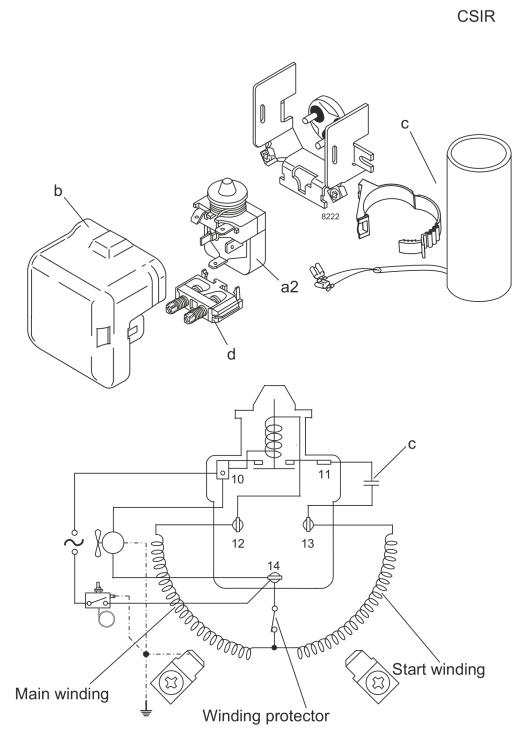
Configuration

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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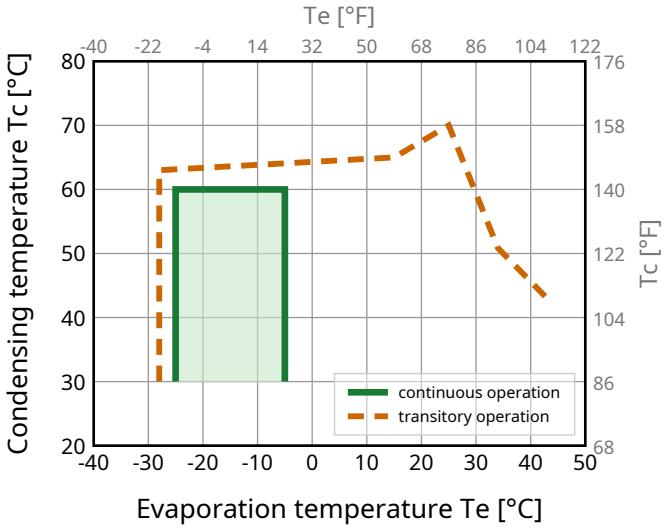
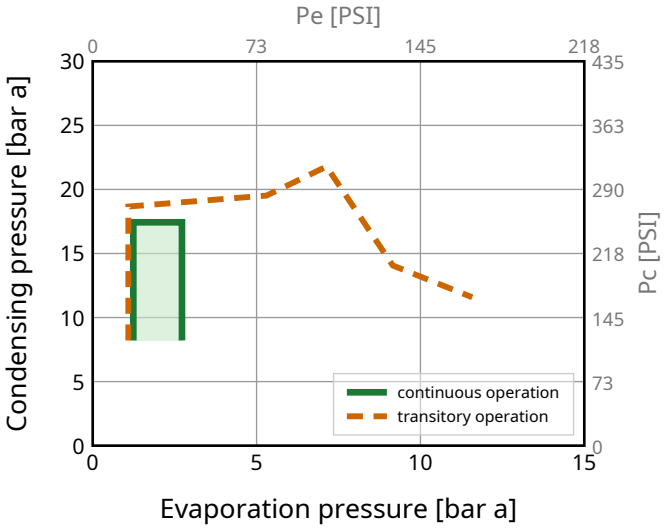
Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Operation Pressure Range





Model Sales code:

SC18G Configuration 4 **104G8820**

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]	
-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

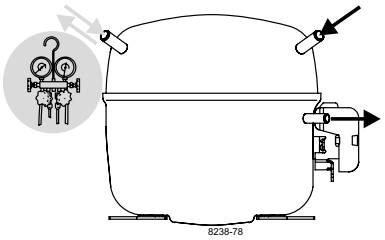
R513A, 230 V/60 Hz, CSIR, fan 3m/s

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

pe		Cooling capacity			COP	EER	P	I	ṁ
[°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



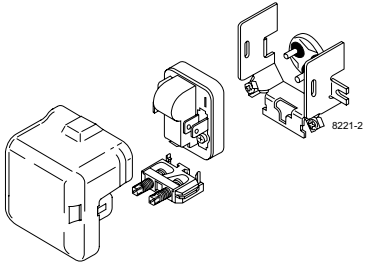
SC Compressors

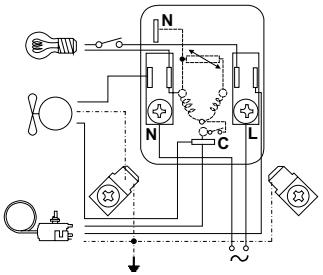
SECOP

Keep electrical equipment clear from oil, chemicals, and water

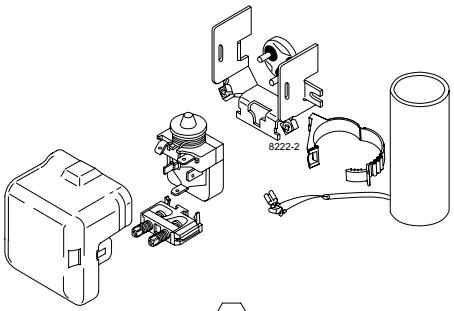
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

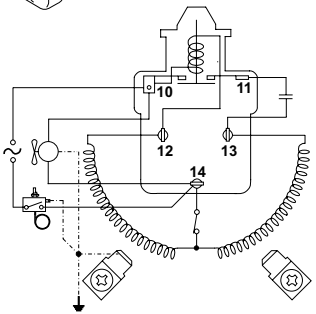
RSIR



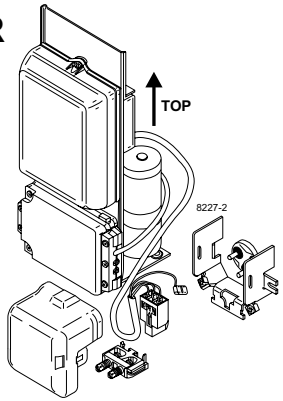


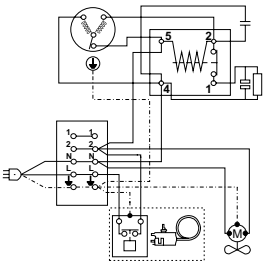
CSIR

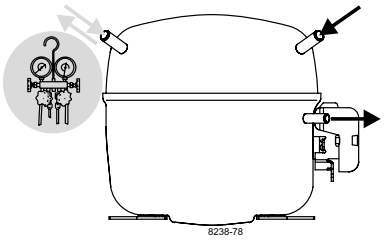




CSCR







SC Compressors

SECOP

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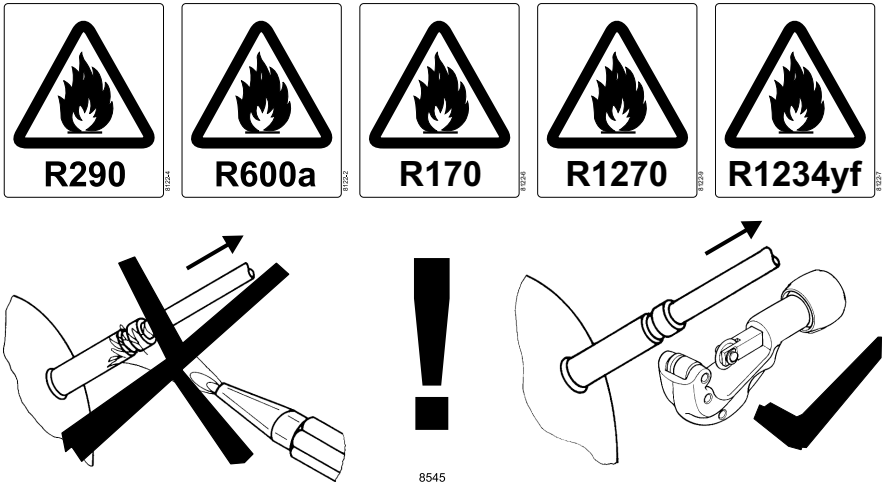
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



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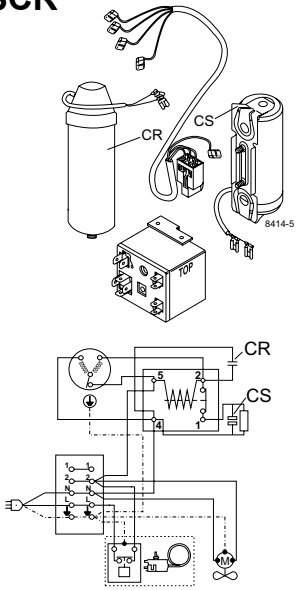

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be 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**