Single
Packs

Single Pack SC21F 220-240V 50Hz CSIR

Single pack code number: **195B4099**

Position	Title	Code	Amount
1	Compressor SC21F	104G8100	1
2	Starting relay	117U6019	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
SC21F

Sales code:
104G8100

Compressor Data

Refrigerant(s)	**R134a**
Refr. charge - tech. limit	**1300g / 45.86oz**
Weight	**13.70 kg / 30.20lbs**
Displacement	**20.95 cm3 / 1.28cu.in**
Compressors on pallet	**80**

General – Configurations With SC21F

–	**Conf. 1**
Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz
Number of phases	1
Voltage range	198-254 V
Starting torque	HST
Refrigerant	R134a
Application	LBP+MBP
Hot gas defrost	OK
Long interval pull down	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor
- Can be used as a HBP compressor with 240 V 50 Hz mains (216-254 V).

Model
SC21F

Sales code:
104G8100

Compressor Design

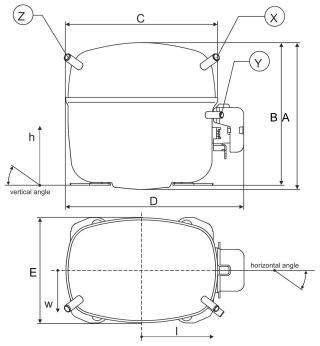
Oil type	**POE**	Winding resistance main	**3.7 Ohm**
Oil viscosity	**22cSt**	Winding resistance aux	**14 Ohm**
Oil quantity	**550 / 18.60fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,460 cm3 / 49.37fl.oz**	Max. discharge temp.	**135°C / 275°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

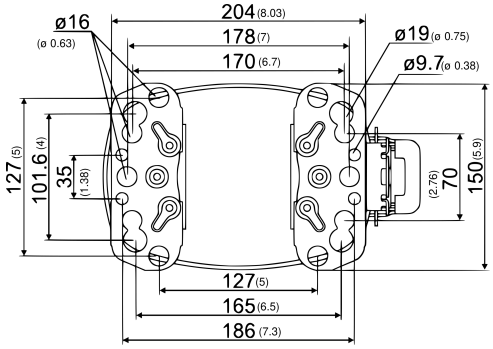
A Height	**219mm / 8.62in**
B Height	**213mm / 8.39in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



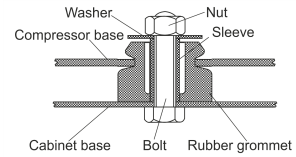
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

Mounting Accessories

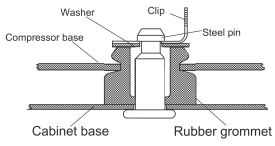


Dimensions in mm [in]

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
SC21F Configuration 1

Sales code:
104G8100

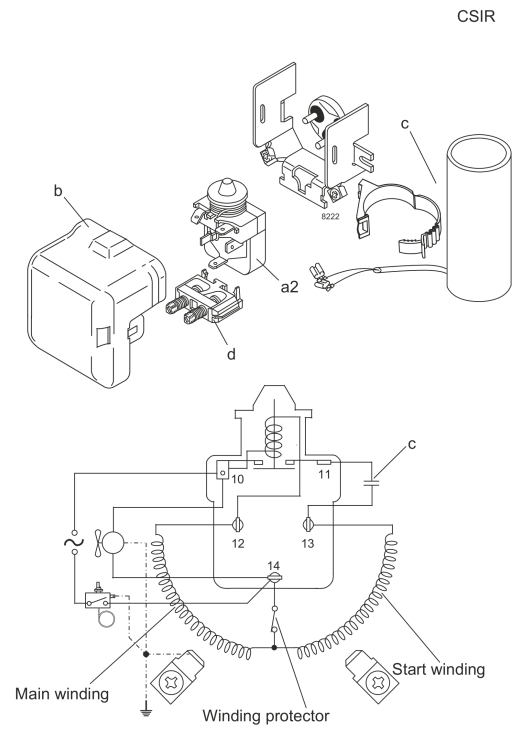
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**LBP+MBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
RLA (rated load amps / 1s/ U(N))	**-/-A**

Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 38°C / 50 - 100°F
Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling
fan 1,5m/s

Electrical Accessories / Wiring Diagram



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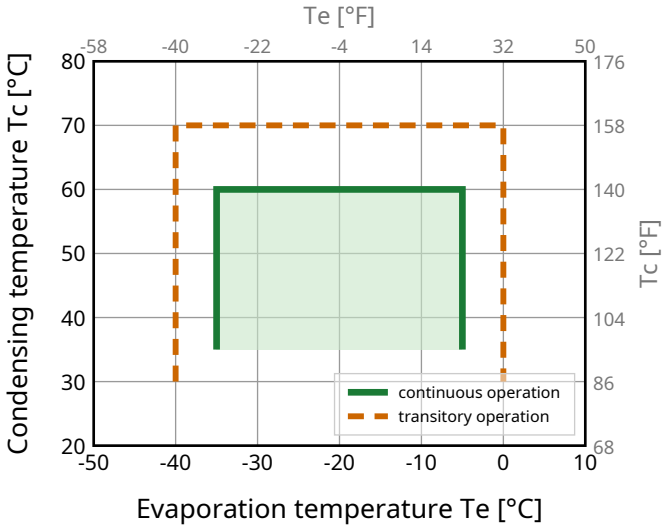
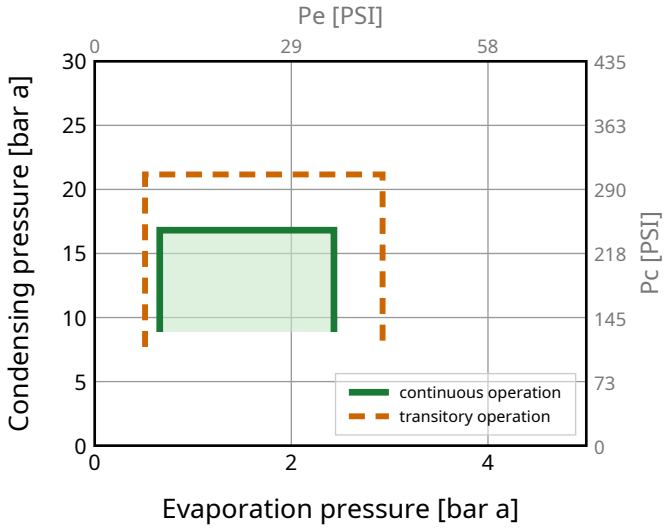
Components
a2 relay 117U6019
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Operation Pressure Range





Model
SC21F Configuration 1

Sales code:
104G8100

Standard Conditions

R134a, 220 V/50 Hz, CSIR, fan 1,5m/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	**457**	1559	393	**1.13**	3.87	403	2.81	8.87	**ASHRAE LBP**
-25 -13	55 131	32 89.6	55 131	**335**	1143	288	**0.88**	2.99	382	2.77	7.99	**CECOMAF LBP**
-35 -31	40 104	20 68	40 104	**245**	836	211	**0.82**	2.79	299	2.57	5.36	**EN12900 LBP**
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	**370**	1262	318	**0.93**	3.18	397	2.76	9.70	**ARI540 LBP**
-23.3 -10	40.6 105.1	32.2 90	32.2 90	**507**	1729	436	**1.29**	4.41	392	2.74	9.83	**AHAM LBP**
-35 -31	45 113	32 89.6	45 113	**219**	748	188	**0.76**	2.59	288	2.52	4.72	**opt LBP**

Performance Tables

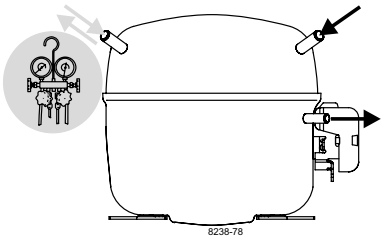
R134a, 220 V/50 Hz, CSIR, fan 1,5m/s

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]
-35	-31	**219**	748	188	**0.76**	2.59	288	2.52	4.72
-30	-22	**290**	991	250	**0.88**	3.02	328	2.63	6.26
-25	-13	**391**	1334	336	**1.04**	3.55	376	2.71	8.45
-20	-4	**521**	1778	448	**1.21**	4.13	430	2.83	11.30
-15	5	**681**	2323	586	**1.38**	4.72	492	3.03	14.81
-10	14	**870**	2969	748	**1.55**	5.29	561	3.37	19.00
-5	23	**1089**	3716	937	**1.71**	5.83	638	3.89	23.89

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

-35	-31	**186**	635	160	**0.68**	2.32	273	2.50	4.42
-30	-22	**246**	839	211	**0.76**	2.59	324	2.64	5.85
-25	-13	**335**	1143	288	**0.88**	2.99	382	2.77	7.99
-20	-4	**454**	1548	390	**1.01**	3.46	447	2.92	10.85
-15	5	**602**	2054	518	**1.16**	3.95	520	3.16	14.45
-10	14	**780**	2661	671	**1.30**	4.44	600	3.53	18.80
-5	23	**987**	3369	849	**1.44**	4.90	688	4.09	23.93



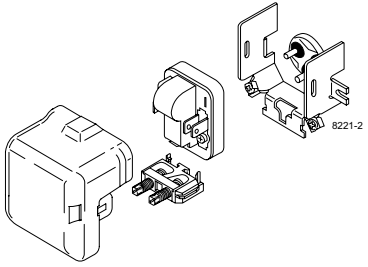
SC Compressors

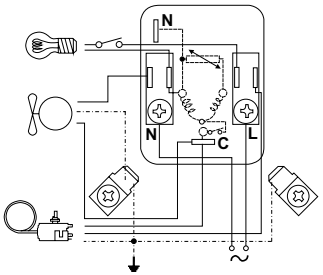
SECOP

Keep electrical equipment clear from oil, chemicals, and water

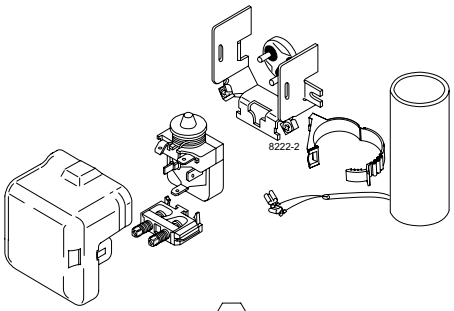
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

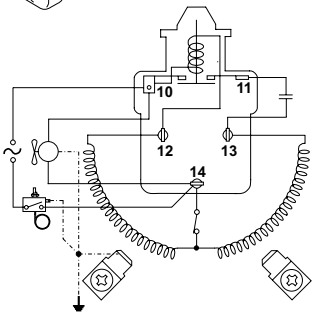
RSIR



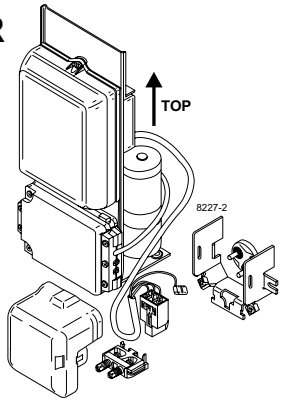


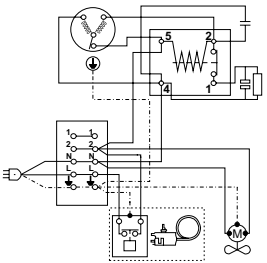
CSIR

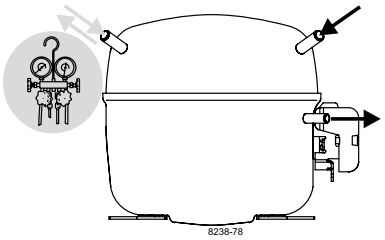




CSCR







SC Compressors

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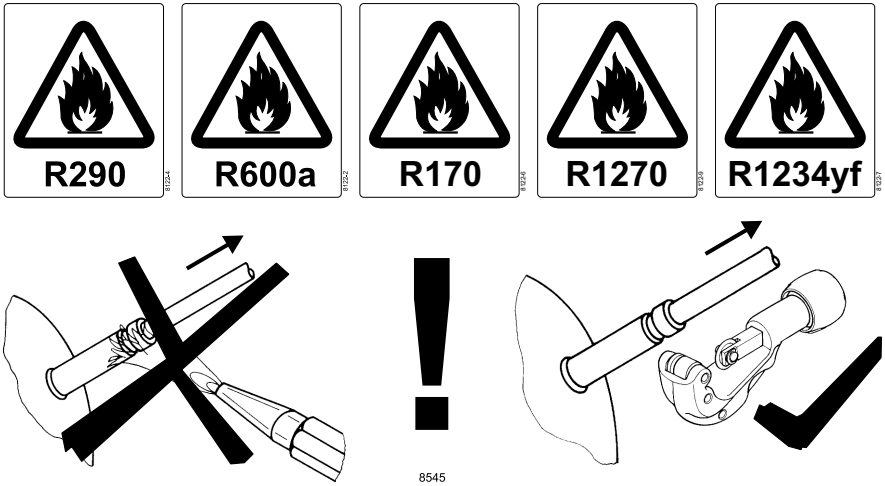
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



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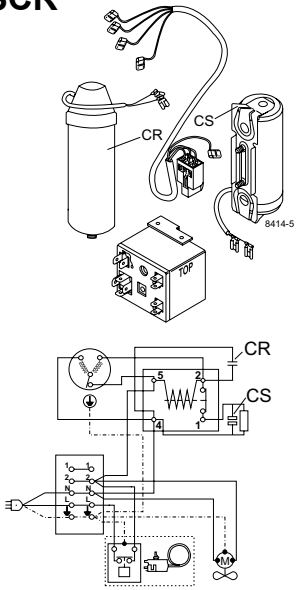

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be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