

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).

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Compressor Design

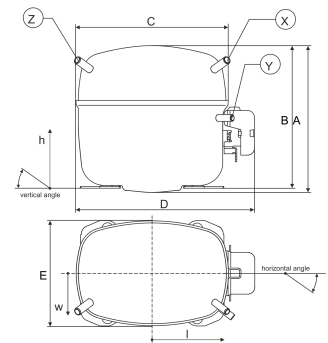
Oil type	POE	Winding resistance main	3.7 Ohm
Oil viscosity	22cSt	Winding resistance aux	14 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,460 cm ³ / 49.37fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

Compressor Dimensions

Housing

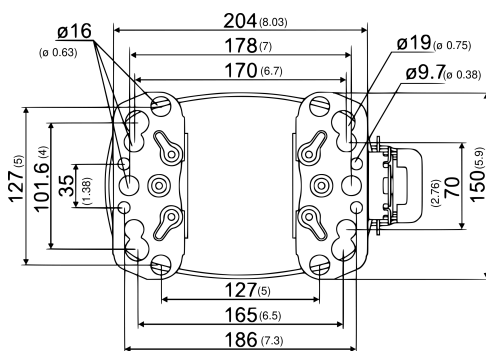
A Height	219mm / 8.62in
B Height	213mm / 8.39in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)

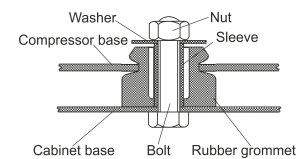


Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55 / 4.21/7.60/2.17in	115/110/63 / 4.53/4.33/2.48in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

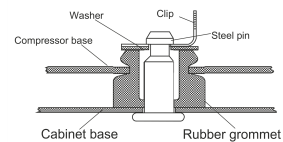
Mounting Accessories



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

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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

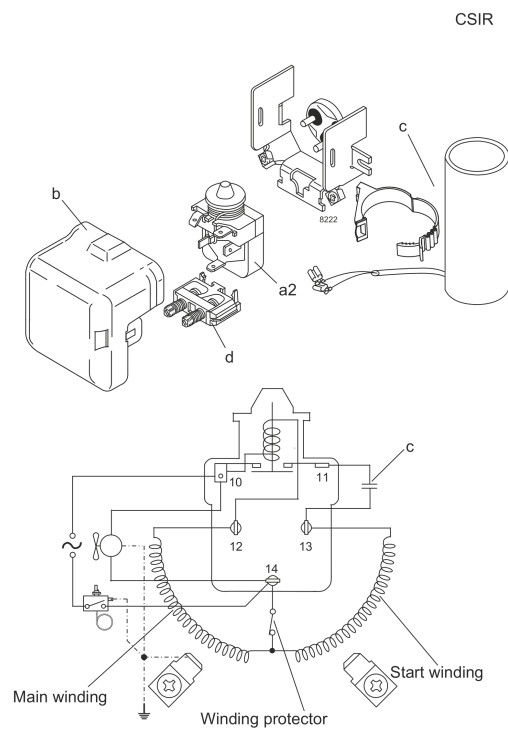
Ambient temperature range: 10 - 38°C / 50 - 100°F

Machine room temp. compressor: 10 - 43°C / 50 - 109°F

System Cooling

fan 1,5m/s

Electrical Accessories / Wiring Diagram



[View full size](#)

Components

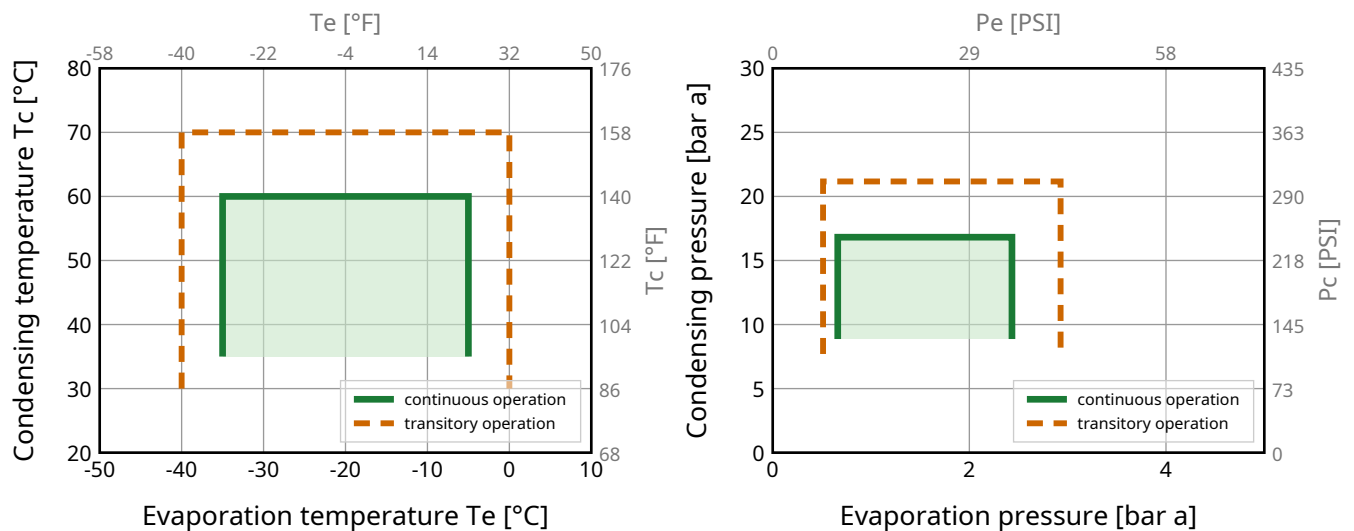
a2 relay 117U6019

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



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Standard Conditions

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