

Model
SC12FT

Sales code:
104G8205

Compressor Data

Refrigerant(s)	R134a
Refr. charge - tech. limit	1300g / 45.86oz
Weight	12.70 kg / 28.00lbs
Displacement	12.87 cm³ / 0.79cu.in
Compressors on pallet	80



General – Configurations With SC12FT

–	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Motor configuration	CSIR	CSIR	RSIR	RSIR
Power supply (nominal)	220-240 V/50 Hz	208-230 V/60 Hz	220-240 V/50 Hz	208-230 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	CCC, VDE	CCC, VDE	CCC, VDE	CCC, VDE
Starting torque	HST	HST	LST	LST
Refrigerant	R134a	R134a	R134a	R134a
Application	LBP	LBP	LBP	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
- F1 at 43 °C ambient temperature possible at 220 V nominal (187-242 V)

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Compressor Design

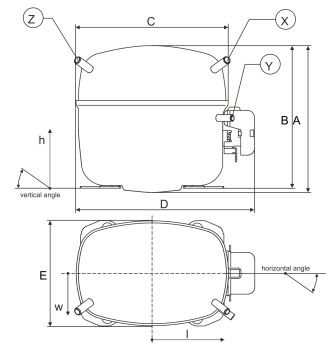
Oil type	POE	Winding resistance main	6.9 Ohm
Oil viscosity	22cSt	Winding resistance aux	11 Ohm
Oil quantity	550 / 18.60fl.oz	Max. winding temp.	125 °C
Free gas volume comp.	1,410 cm ³ / 47.68fl.oz	Max. discharge temp.	135°C / 275°F
Motor protection	internal		

Compressor Dimensions

Housing

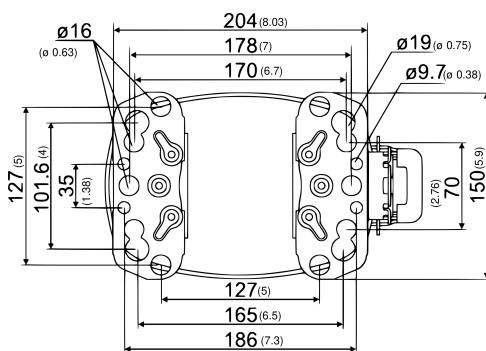
A Height	209mm / 8.23in
B Height	203mm / 7.99in
C Length shell	218mm / 8.58in
D Length w. cover	255mm / 10.04in
E Width	151mm / 5.94in

[Find 3D Model here](#)



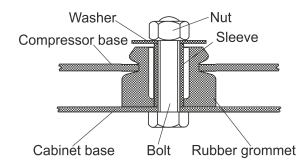
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in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

Mounting Accessories

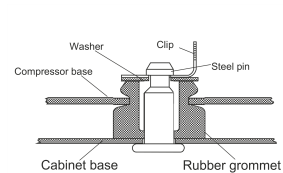


Dimensions in mm [in]

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

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Configuration 1

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Configuration

Motor configuration	CSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254 V
Starting torque	HST
Approvals	CCC, VDE
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

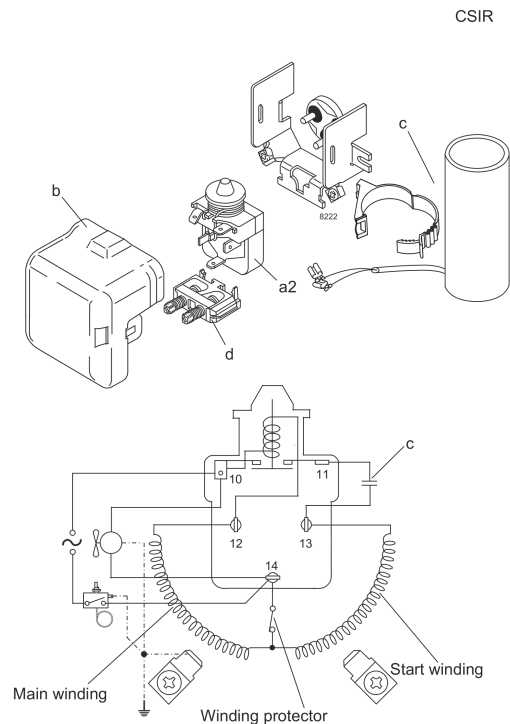
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 1,5m/s

Electrical Accessories / Wiring Diagram



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Components

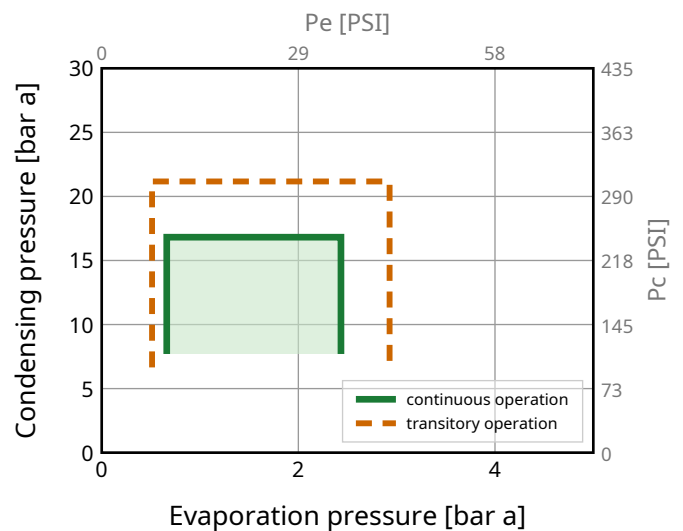
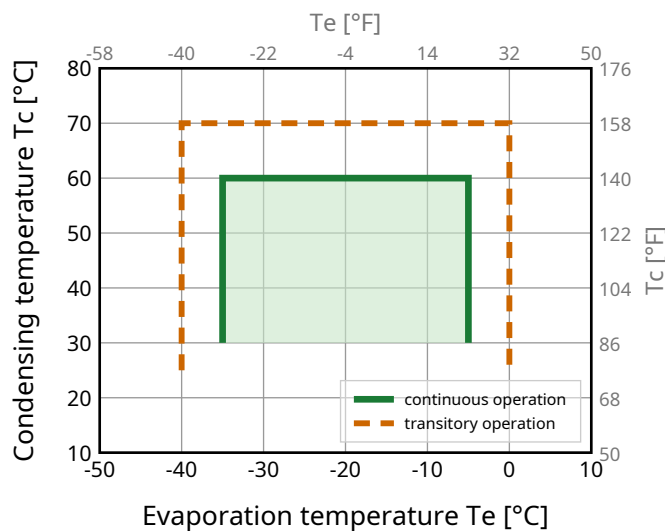
a2 assy. relay 117U6003

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC12FT

Configuration 1

Sales code:
104G8205

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	321	1094	276	1.15	3.93	278	2.08	6.22	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	233	795	200	0.88	3.00	265	2.04	5.56	CECOMAF LBP
-35 -31	40 104	20 68	40 104	155	530	134	0.79	2.69	198	1.87	3.40	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	269	917	231	0.97	3.31	277	2.08	7.05	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	363	1239	312	1.35	4.60	269	2.07	7.04	AHAM LBP
-35 -31	45 113	32 89.6	45 113	142	486	122	0.72	2.47	196	1.86	3.07	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	142	486	122	0.72	2.47	196	1.86	3.07
-30	-22	206	702	177	0.89	3.04	230	1.95	4.43
-25	-13	283	967	244	1.08	3.67	263	2.04	6.13
-20	-4	378	1290	325	1.28	4.35	296	2.15	8.20
-15	5	492	1679	423	1.49	5.08	330	2.27	10.71
-10	14	628	2142	540	1.71	5.84	367	2.40	13.71
-5	23	787	2687	677	1.93	6.60	407	2.55	17.28

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

-35	-31	102	350	88	0.56	1.90	184	1.84	2.43
-30	-22	163	558	141	0.72	2.47	226	1.93	3.89
-25	-13	233	795	200	0.88	3.00	265	2.04	5.56
-20	-4	314	1070	270	1.03	3.53	303	2.17	7.50
-15	5	408	1391	351	1.20	4.08	341	2.30	9.78
-10	14	517	1765	445	1.36	4.64	380	2.45	12.47
-5	23	645	2200	555	1.53	5.21	422	2.61	15.63

Model
SC12FT

Configuration 2

Sales code:
104G8205

Configuration

Motor configuration	CSIR
Power supply (nominal)	208-230 V/60 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254 V
Starting torque	HST
Approvals	CCC, VDE
Starting device type	relay
Run capacitor	-/-
Start capacitor	80 µF
LRA (locked rotor amps / 4s/ U(N))	23.4 A
RLA (rated load amps / 1s/ U(N))	4.3 A
Cut in current (U(N))	23.4 A

Ambient/ machine room temperatures minimum /maximum

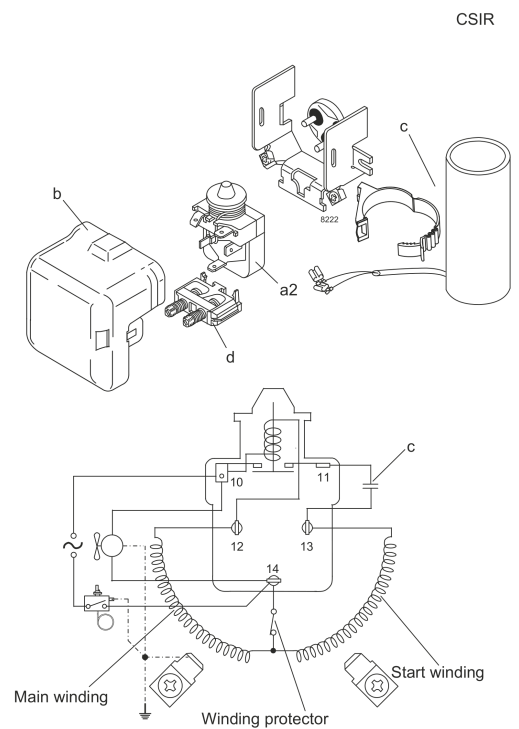
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 1,5m/s

Electrical Accessories / Wiring Diagram



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Components

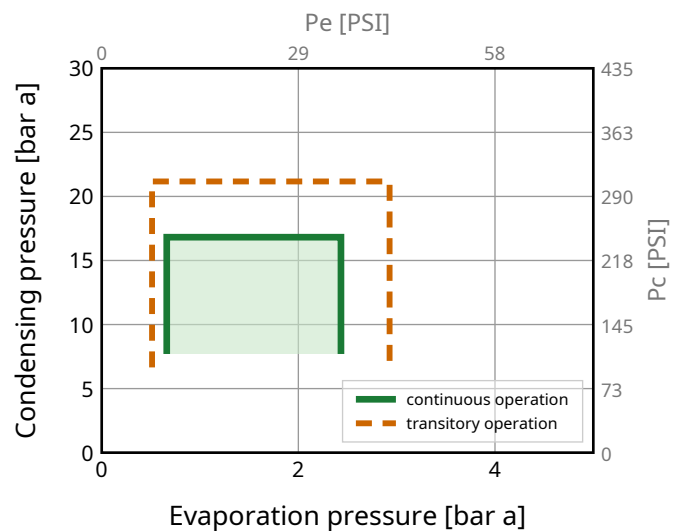
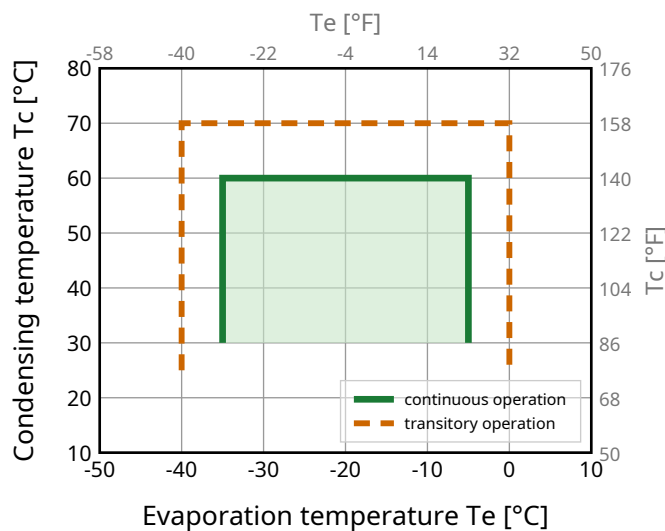
a2 assy. relay 117U6003

c start capacitor (80µF) 117U5017

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



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Configuration 2

Sales code:
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Standard Conditions

R134a, 220 V/60 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	374	1276	322	1.18	4.04	316	1.98	7.26	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	272	928	234	0.91	3.12	298	1.92	6.49	CECOMAF LBP
-35 -31	40 104	20 68	40 104	192	656	165	0.89	3.02	218	1.66	4.21	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	316	1079	272	0.99	3.39	318	1.98	8.30	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	438	1495	377	1.38	4.69	318	1.97	8.51	AHAM LBP
-35 -31	45 113	32 89.6	45 113	173	589	148	0.82	2.80	210	1.64	3.72	opt LBP

Performance Tables

R134a, 220 V/60 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	173	589	148	0.82	2.80	210	1.64	3.72
-30	-22	246	840	212	0.96	3.28	256	1.78	5.31
-25	-13	337	1151	290	1.11	3.80	303	1.93	7.29
-20	-4	448	1530	386	1.28	4.38	349	2.08	9.72
-15	5	582	1987	501	1.47	5.02	396	2.25	12.67
-10	14	742	2530	638	1.68	5.73	442	2.42	16.20
-5	23	929	3170	799	1.91	6.50	488	2.61	20.38

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

-35	-31	124	425	107	0.64	2.20	193	1.58	2.96
-30	-22	192	656	165	0.78	2.68	245	1.75	4.58
-25	-13	272	928	234	0.91	3.12	298	1.92	6.49
-20	-4	366	1249	315	1.04	3.56	351	2.10	8.75
-15	5	477	1628	410	1.18	4.02	405	2.30	11.45
-10	14	608	2074	523	1.33	4.53	458	2.50	14.66
-5	23	761	2597	655	1.49	5.08	511	2.71	18.45

Model
SC12FT

Configuration 3

Sales code:
104G8205

Configuration

Motor configuration	RSIR
Power supply (nominal)	220-240 V/50 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	187-254 V
Starting torque	LST
Approvals	CCC, VDE
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
RLA (rated load amps / 1s/ U(N))	-/-A

Ambient/ machine room temperatures minimum /maximum

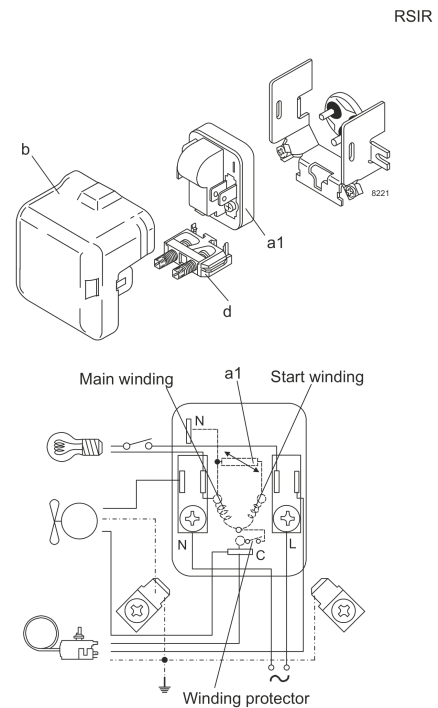
Ambient temperature range: 10 - 43°C / 50 - 109°F

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

System Cooling

fan 1,5m/s

Electrical Accessories / Wiring Diagram



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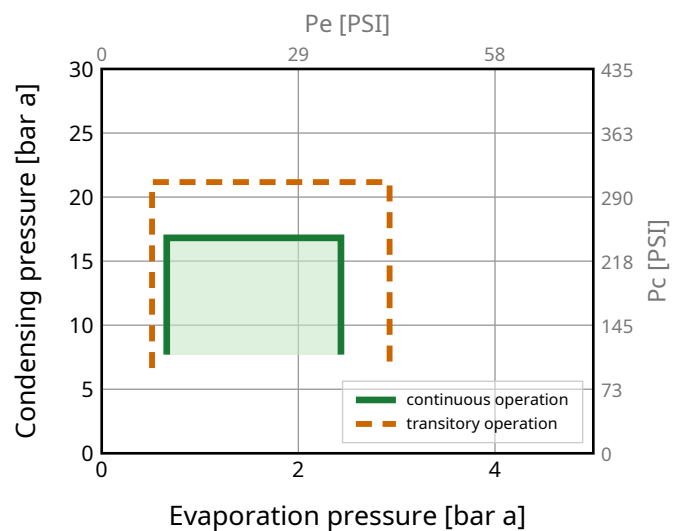
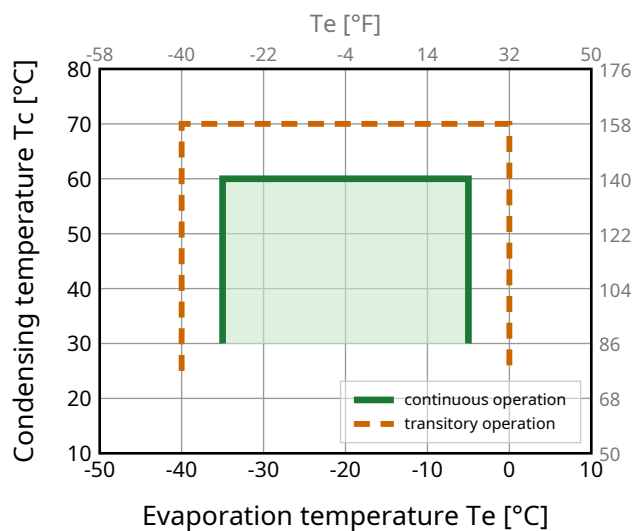
Components

a1 PTC starter (220V, 250ohm, 6.3mm) 103N0011

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC12FT

Configuration 3

Sales code:
104G8205

Standard Conditions

R134a, 220 V/50 Hz, RSIR, 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	321	1094	276	1.15	3.93	278	2.08	6.22	ASHRAE LBP
-25 -13	55 131	32 89.6	55 131	233	795	200	0.88	3.00	265	2.04	5.56	CECOMAF LBP
-35 -31	40 104	20 68	40 104	155	530	134	0.79	2.69	198	1.87	3.40	EN12900 LBP
-23.3 -10	48.8 119.8	4.4 39.9	48.8 119.8	269	917	231	0.97	3.31	277	2.08	7.05	ARI540 LBP
-23.3 -10	40.6 105.1	32.2 90	32.2 90	363	1239	312	1.35	4.60	269	2.07	7.04	AHAM LBP
-35 -31	45 113	32 89.6	45 113	142	486	122	0.72	2.47	196	1.86	3.07	opt LBP

Performance Tables

R134a, 220 V/50 Hz, RSIR, 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	142	486	122	0.72	2.47	196	1.86	3.07
-30	-22	206	702	177	0.89	3.04	230	1.95	4.43
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-20	-4	378	1290	325	1.28	4.35	296	2.15	8.20
-15	5	492	1679	423	1.49	5.08	330	2.27	10.71
-10	14	628	2142	540	1.71	5.84	367	2.40	13.71
-5	23	787	2687	677	1.93	6.60	407	2.55	17.28

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

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-15	5	408	1391	351	1.20	4.08	341	2.30	9.78
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-5	23	645	2200	555	1.53	5.21	422	2.61	15.63

Model
SC12FT

Configuration 4

Sales code:
104G8205

Configuration

Motor configuration	RSIR
Power supply (nominal)	208-230 V/60 Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254 V
Starting torque	LST
Approvals	CCC, VDE
Starting device type	PTC
Run capacitor	-/-
Start capacitor	-/-
RLA (rated load amps / 1s/ U(N))	-/-A

Ambient/ machine room temperatures minimum /maximum

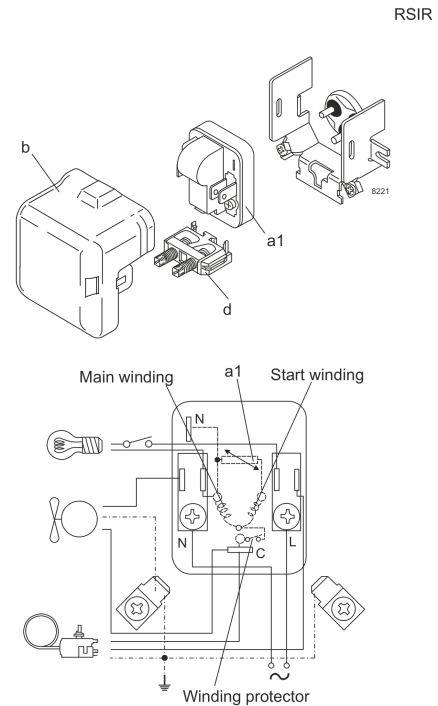
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System Cooling

fan 1,5m/s

Electrical Accessories / Wiring Diagram



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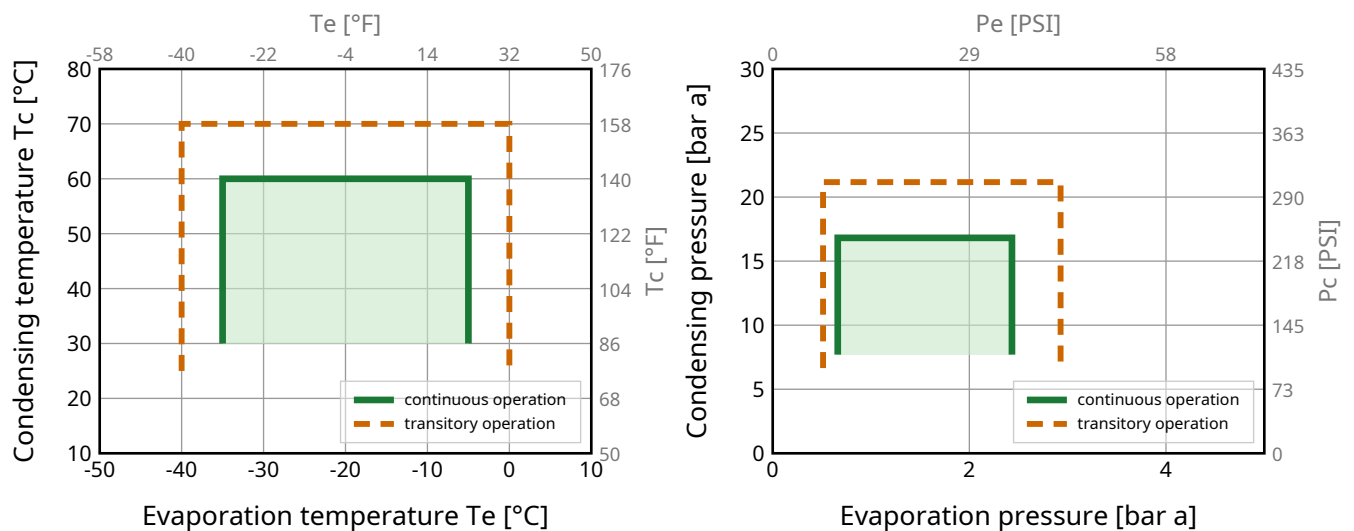
Components

a1 PTC starter (220V, 250ohm, 6.3mm) 103N0011

d cord relief 103N1004

b plastic cover 103N2009

Operation Pressure Range



Model
SC12FT

Configuration 4

Sales code:
104G8205

Standard Conditions

R134a, 220 V/60 Hz, RSIR, 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]	
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-23.3 -10	40.6 105.1	32.2 90	32.2 90	438	1495	377	1.38	4.69	318	1.97	8.51	AHAM LBP
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R134a, 220 V/60 Hz, RSIR, fan 1,5m/s

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

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[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[W]	[A]	[kg/h]
-35	-31	173	589	148	0.82	2.80	210	1.64	3.72
-30	-22	246	840	212	0.96	3.28	256	1.78	5.31
-25	-13	337	1151	290	1.11	3.80	303	1.93	7.29
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-15	5	582	1987	501	1.47	5.02	396	2.25	12.67
-10	14	742	2530	638	1.68	5.73	442	2.42	16.20
-5	23	929	3170	799	1.91	6.50	488	2.61	20.38

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

-35	-31	124	425	107	0.64	2.20	193	1.58	2.96
-30	-22	192	656	165	0.78	2.68	245	1.75	4.58
-25	-13	272	928	234	0.91	3.12	298	1.92	6.49
-20	-4	366	1249	315	1.04	3.56	351	2.10	8.75
-15	5	477	1628	410	1.18	4.02	405	2.30	11.45
-10	14	608	2074	523	1.33	4.53	458	2.50	14.66
-5	23	761	2597	655	1.49	5.08	511	2.71	18.45