Single
Packs

Single Pack SC12FT 220-240V 50/60Hz CSIR

Single pack code number: **195B4057**

Position	Title	Code	Amount
1	Compressor SC12FT	104G8205	1
2	Starting relay	117U6003	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
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)

Model
SC12FT

Sales code:
104G8205

Compressor Design

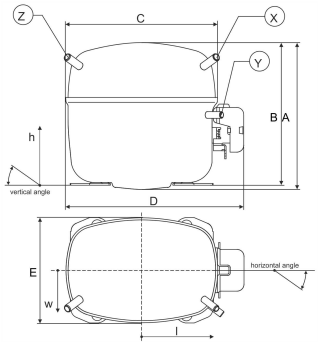
Oil type	**POE**	Winding resistance main	**6.9 Ohm**
Oil viscosity	**22cSt**	Winding resistance aux	**11 Ohm**
Oil quantity	**550 / 18.60fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,410 cm3 / 47.68fl.oz**	Max. discharge temp.	**135°C / 275°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

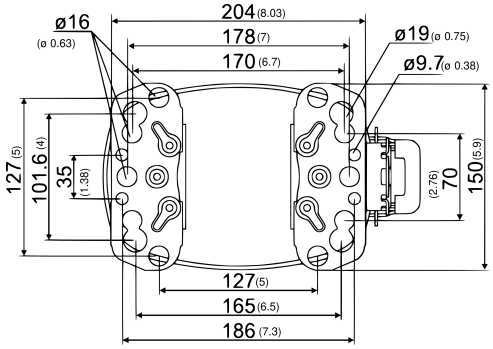
A Height	**209mm / 8.23in**
B Height	**203mm / 7.99in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



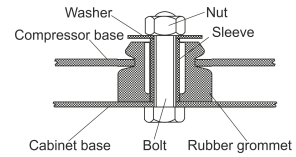
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 8.11–8.29 / 0.32–0.33in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in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

Mounting Accessories

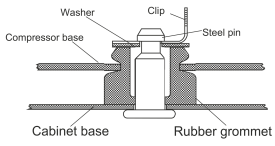


Dimensions in mm [in]

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

Model
SC12FT Configuration 1

Sales code:
104G8205

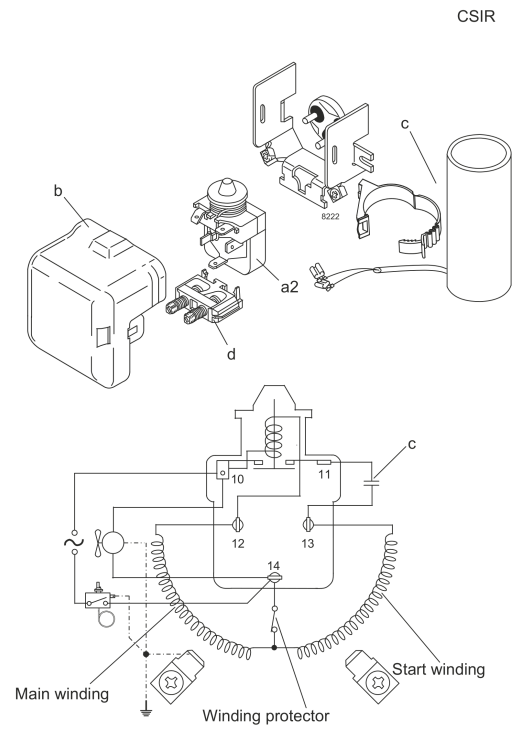
Configuration

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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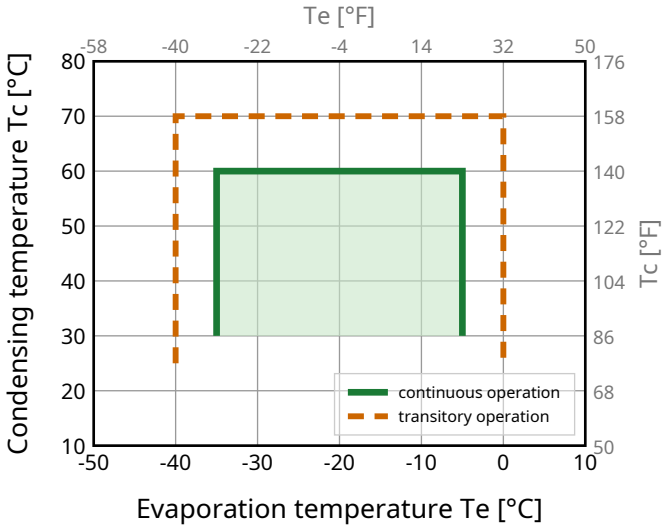
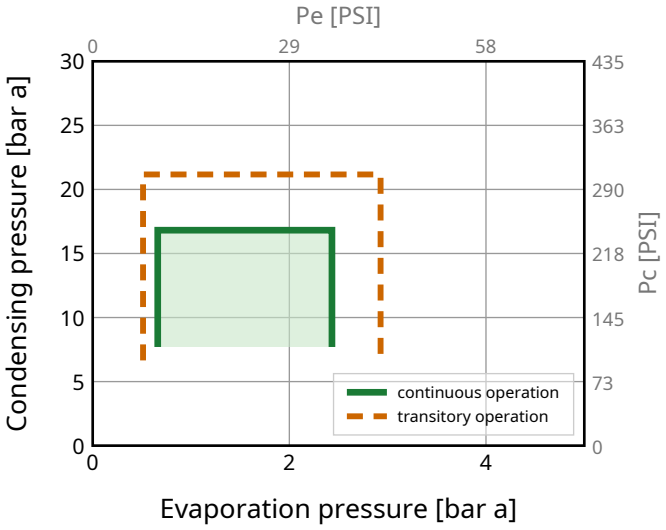
Components
a2 assy. relay 117U6003
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

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	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	**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	ṁ
[°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

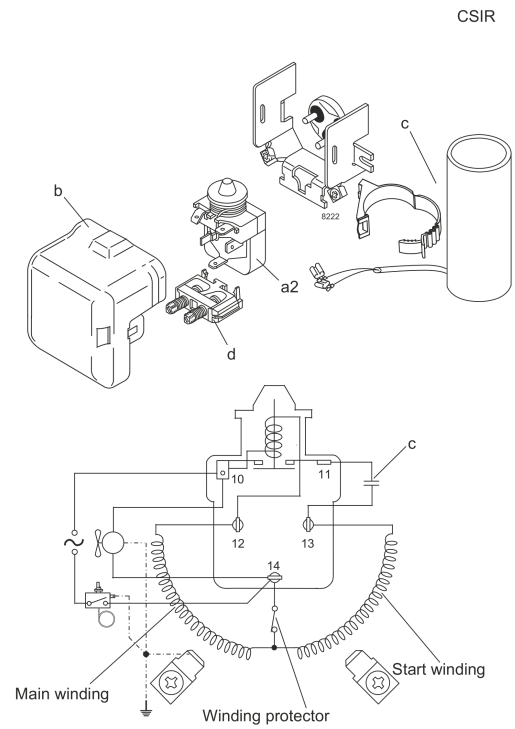
Configuration

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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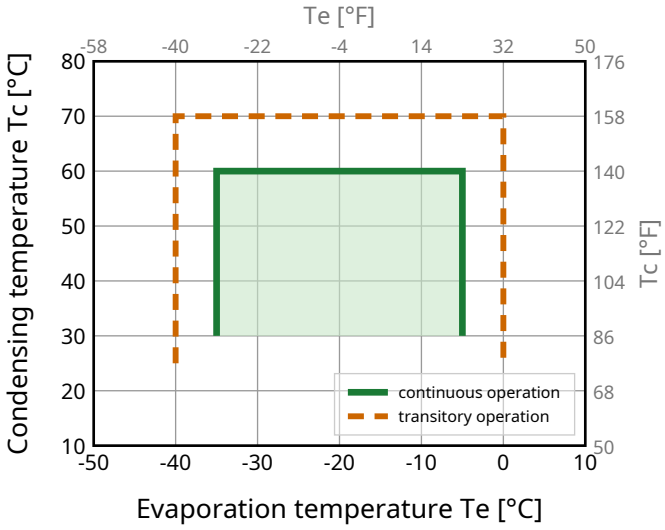
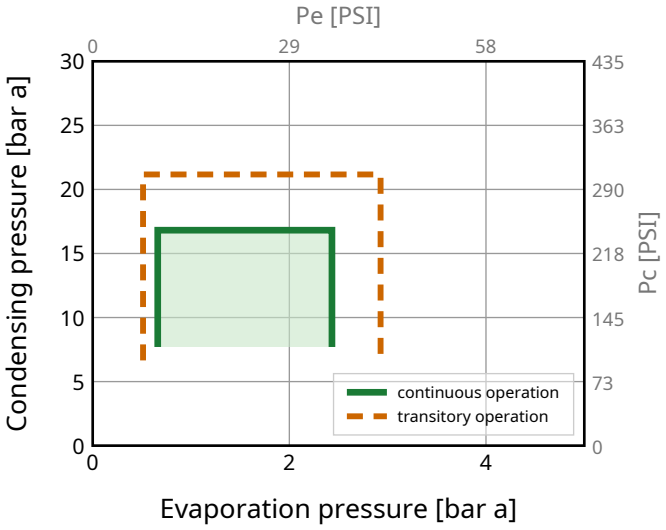
Components
a2 assy. relay 117U6003
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2009

Operation Pressure Range





Model
SC12FT Configuration 2

Sales code:
104G8205

Standard Conditions

R134a, 220 V/60 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	**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	ṁ
[°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

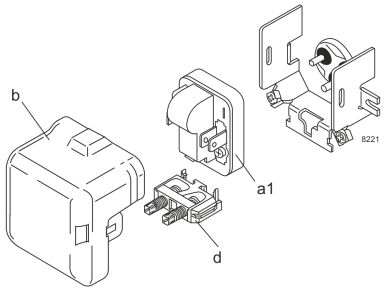
Motor configuration	**RSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**LBP**
Voltage range	**187-254 V**
Starting torque	**LST**
Approvals	**CCC, VDE**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
RLA (rated load amps / 1s/ U(N))	**-/-A**

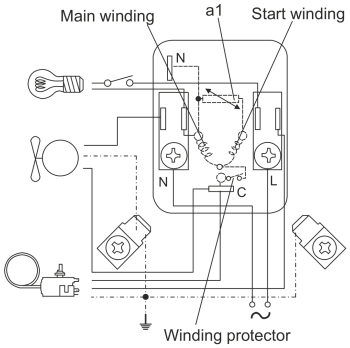
Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 1,5m/s

Electrical Accessories / Wiring Diagram

RSIR





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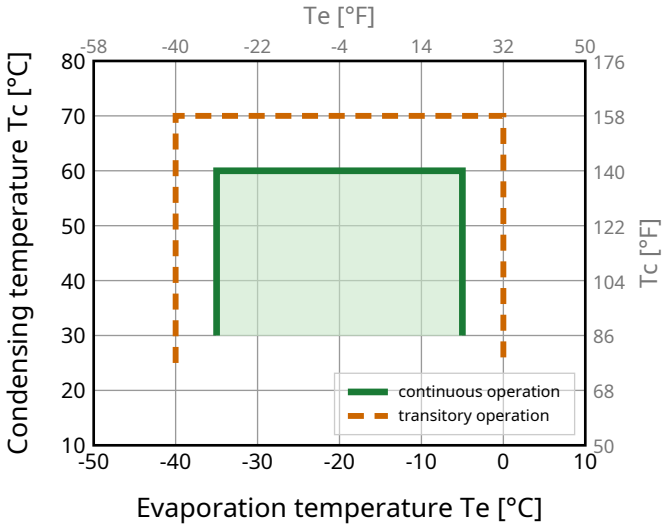
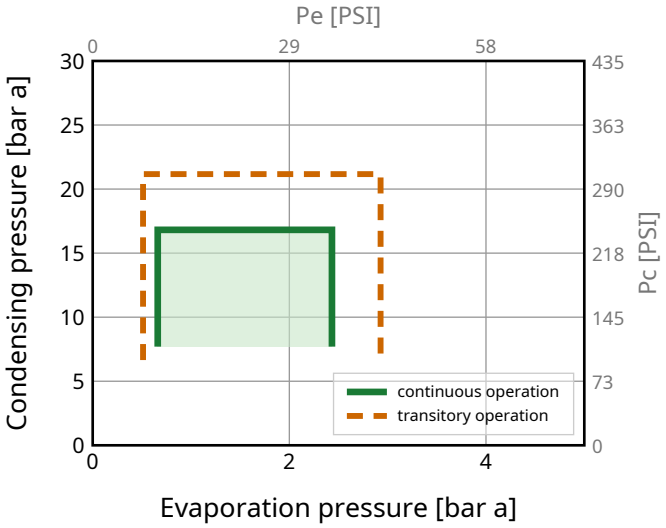
Components
a1 PTC starter (220V, 25Ohm, 6.3mm) 103N0011
d cord relief 103N1004
b plastic cover 103N2009

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	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	**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	ṁ
[°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 4

Sales code:
104G8205

Configuration

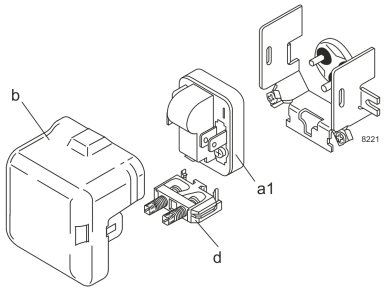
Motor configuration	**RSIR**
Power supply (nominal)	**208-230 V/60 Hz 1~**
Refrigerant	**R134a**
Application	**LBP**
Voltage range	**198-254 V**
Starting torque	**LST**
Approvals	**CCC, VDE**
Starting device type	**PTC**
Run capacitor	**-/-**
Start capacitor	**-/-**
RLA (rated load amps / 1s/ U(N))	**-/-A**

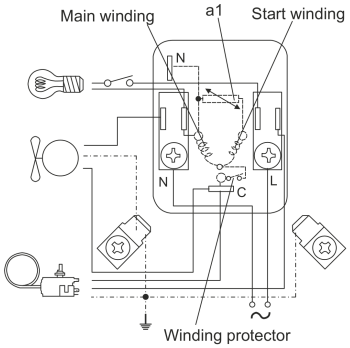
Ambient/ machine room temperatures minimum /maximum
Ambient temperature range: 10 - 43°C / 50 - 109°F
Machine room temp. compressor: 10 - 48°C / 50 - 118°F

System Cooling
fan 1,5m/s

Electrical Accessories / Wiring Diagram

RSIR





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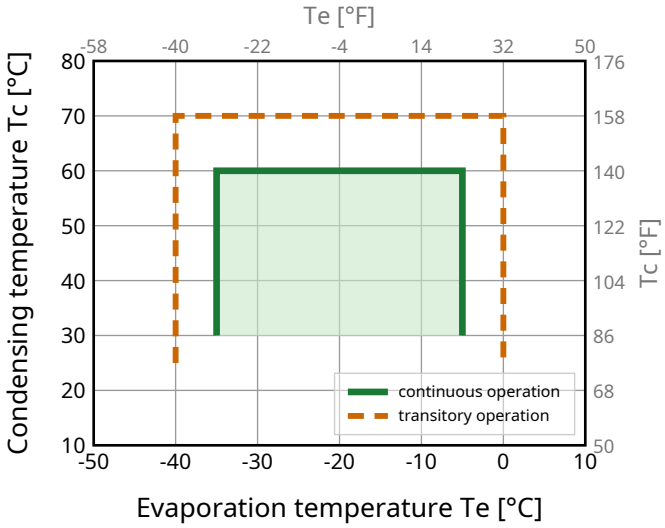
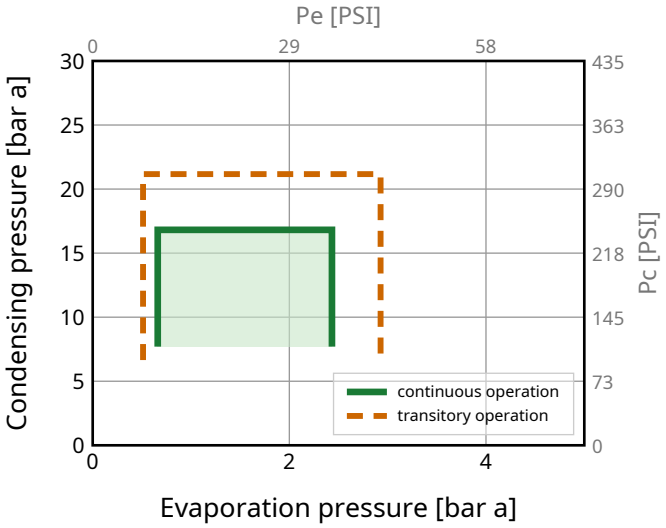
Components
a1 PTC starter (220V, 25Ohm, 6.3mm) 103N0011
d cord relief 103N1004
b plastic cover 103N2009

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	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	**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

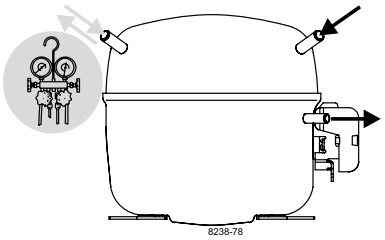
R134a, 220 V/60 Hz, RSIR, fan 1,5m/s

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	**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



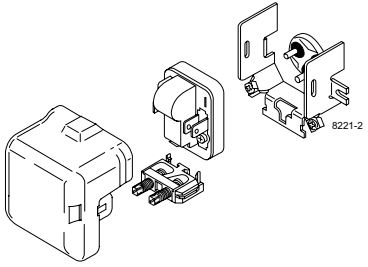
SC Compressors

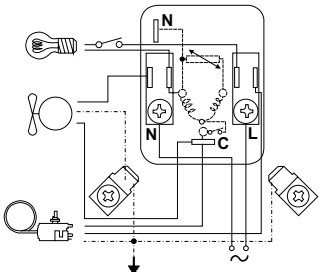
SECOP

Keep electrical equipment clear from oil, chemicals, and water

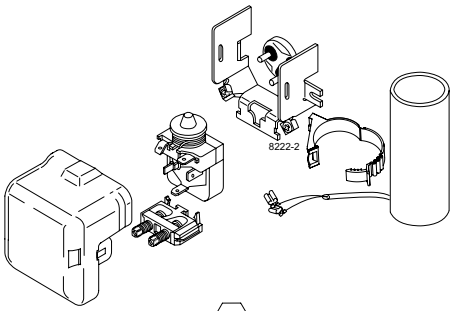
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

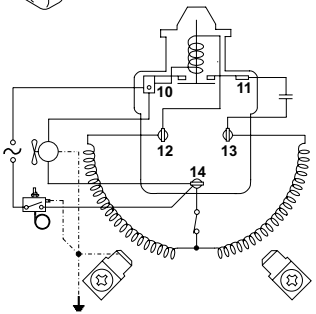
RSIR



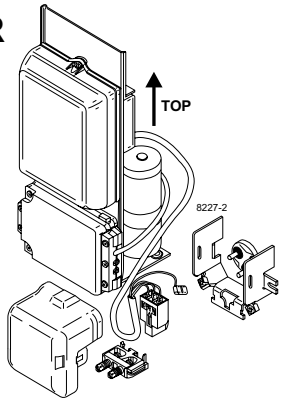


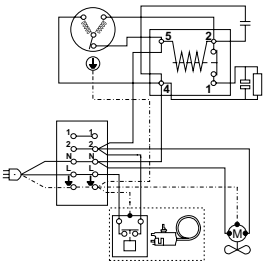
CSIR

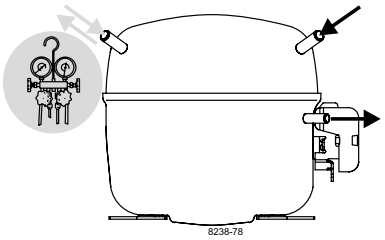




CSCR







SC Compressors

SECOP

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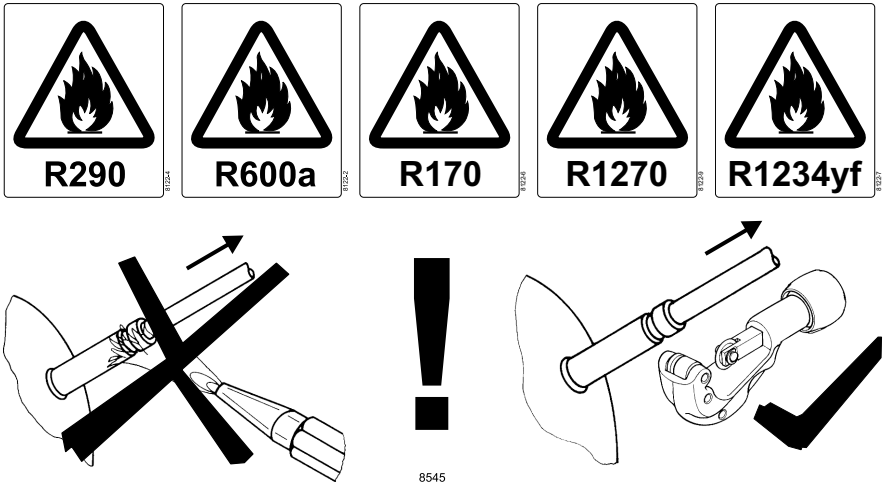
Service/Repair – R290, R600a, R170, R1270, R1234yf

(applies to all flammable refrigerants)



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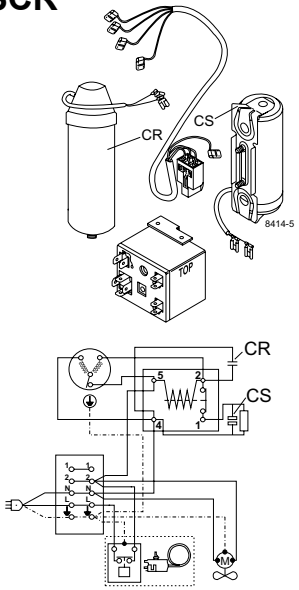

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be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