Single
Packs

Single Pack SC15MFX 220-240V 50Hz CSIR

Single pack code number: **195B4370**

Position	Title	Code	Amount
1	Compressor SC15MFX	104G8501	1
2	Starting relay	117U6005	1
3	Starting capacitor (80µF 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2008	1
6	Bolt joint for one compressor | M6 | ø16mm	118-1917	1

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Model
SC15MFX

Sales code:
104G8501

Compressor Data

Refrigerant(s)	**R134a / R513A**
Refr. charge - tech. limit	**1300g / 45.86oz**
Weight	**13.20 kg / 29.10lbs**
Displacement	**15.28 cm3 / 0.93cu.in**
Compressors on pallet	**80**

General – Configurations With SC15MFX

–	Conf. 1	Conf. 2	Conf. 3
Motor configuration	CSIR	CSIR	CSIR
Power supply (nominal)	220-240 V/50 Hz	220-240 V/50 Hz	220-240 V/50 Hz
Number of phases	1	1	1
Voltage range	198-254 V	198-254 V	198-254 V
Approvals	VDE, CCC, EAC	VDE, CCC, EAC	–
Starting torque	HST	HST	HST
Refrigerant	R134a	R513A	R1234yf
Application	MBP	MBP	MBP
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

Application Notes

- Provision for PE Grounding is located at the PE Stamp on the compressor

Model
SC15MFX

Sales code:
104G8501

Compressor Design

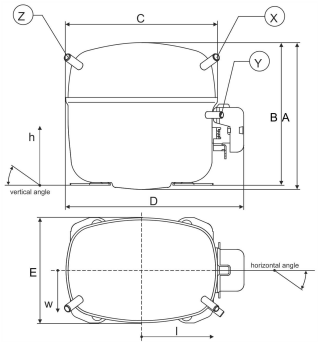
Oil type	**POE**	Winding resistance main	**5.13 Ohm**
Oil viscosity	**22cSt**	Winding resistance aux	**13.51 Ohm**
Oil quantity	**449 / 15.18fl.oz**	Max. winding temp.	**125 °C**
Free gas volume comp.	**1,410 cm3 / 47.68fl.oz**	Max. discharge temp.	**130°C / 266°F**
Motor protection	**internal**		

Compressor Dimensions

Housing

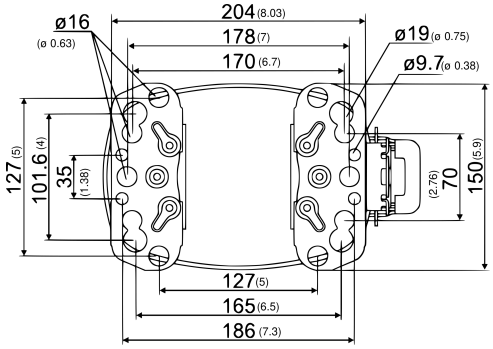
A Height	**209mm / 8.23in**
B Height	**203mm / 7.99in**
C Length shell	**218mm / 8.58in**
D Length w. cover	**255mm / 10.04in**
E Width	**151mm / 5.94in**

Find 3D Model here



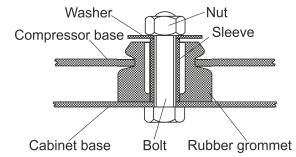
Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10.11–10.29 / 0.40–0.41in	øi 6.11–6.29 / 0.24–0.25in	øi 6.11–6.29 / 0.24–0.25in
Material	CU	CU	CU
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/183/55 / 4.21/7.20/2.17in	115/100/63 / 4.53/3.94/2.48in	-107/183/55 / -4.21/7.20/2.17in
Straight tube l. [mm]	12 / 0.47in	12 / 0.47in	12 / 0.47in

Mounting Accessories

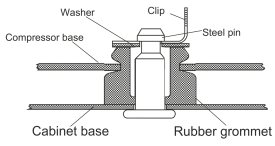


Dimensions in mm [in]

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
SC15MFX Configuration 1

Sales code:
104G8501

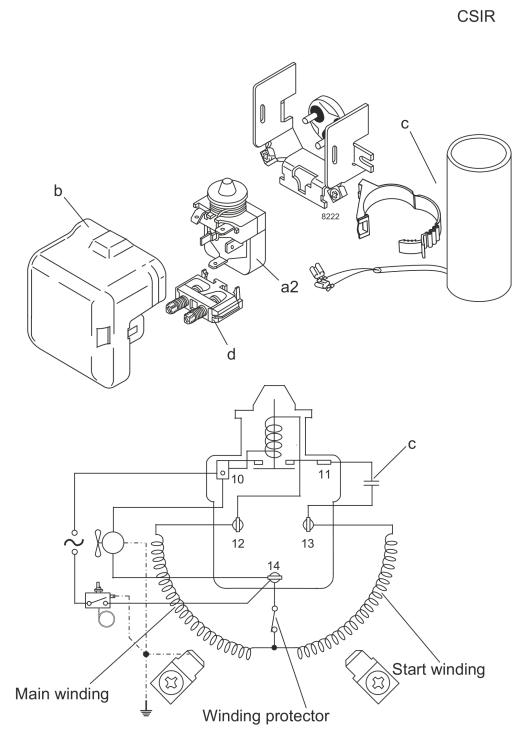
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R134a**
Application	**MBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**VDE, CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**16.2 A**
RLA (rated load amps / 1s/ U(N))	**3.1 A**
Cut in current (U(N))	**16.2 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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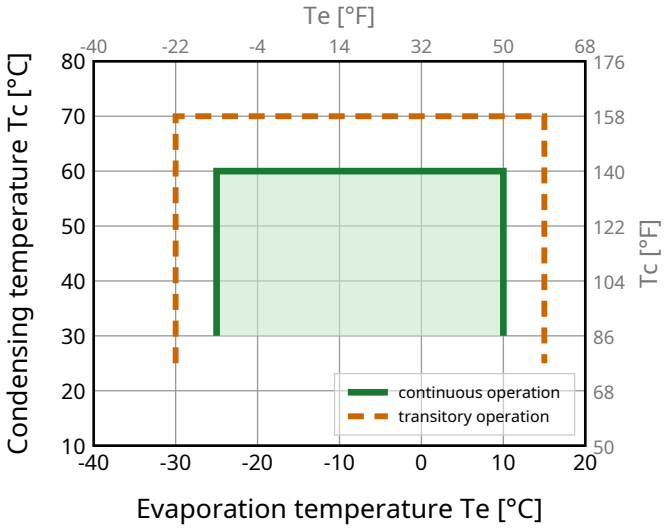
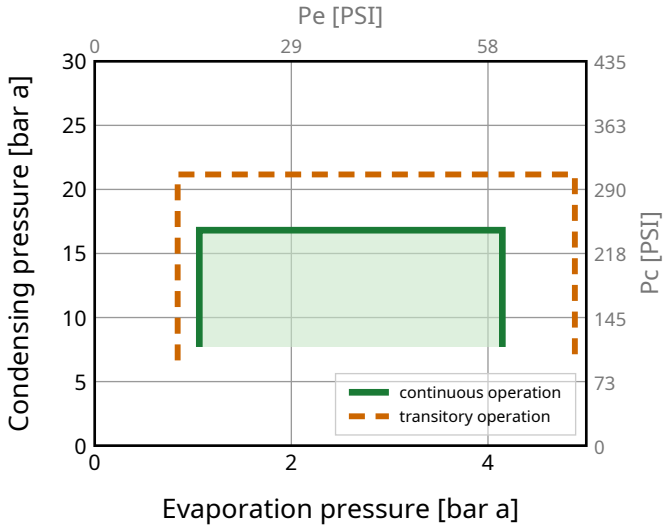
Components
a2 relay 117U6005
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model Sales code:

SC15MFX Configuration 1 **104G8501**

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]	
-6.7 20	54.4 129.9	35 95	46.1 115	**784**	2676	674	**1.66**	5.67	472	2.90	17.08	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**602**	2053	517	**1.38**	4.69	437	2.78	14.50	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**677**	2311	583	**1.64**	5.58	414	2.70	15.80	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**748**	2550	643	**1.63**	5.58	458	2.85	18.37	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**702**	2394	603	**1.69**	5.78	414	2.70	15.32	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**290**	989	249	**1.07**	3.66	270	2.25	6.27	**opt MBP 2**

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	**290**	989	249	**1.07**	3.66	270	2.25	6.27
-20	-4	**404**	1378	347	**1.27**	4.32	319	2.40	8.76
-15	5	**541**	1845	465	**1.47**	5.02	367	2.55	11.76
-10	14	**702**	2394	603	**1.69**	5.78	414	2.70	15.32
-5	23	**889**	3032	764	**1.94**	6.61	459	2.85	19.50
0	32	**1104**	3766	949	**2.21**	7.54	500	2.99	24.35
5	41	**1348**	4600	1160	**2.52**	8.60	535	3.13	29.95
10	50	**1624**	5542	1397	**2.88**	9.83	564	3.25	36.36

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

-25	-13	**226**	770	194	**0.81**	2.77	278	2.29	5.38
-20	-4	**333**	1136	286	**1.01**	3.45	330	2.44	7.96
-15	5	**458**	1561	394	**1.20**	4.08	383	2.61	10.99
-10	14	**602**	2053	517	**1.38**	4.69	437	2.78	14.50
-5	23	**766**	2615	659	**1.56**	5.32	491	2.97	18.58
0	32	**954**	3256	821	**1.75**	5.99	544	3.16	23.27
5	41	**1166**	3979	1003	**1.97**	6.71	593	3.35	28.65
10	50	**1405**	4793	1208	**2.20**	7.51	638	3.55	34.80

Model
SC15MFX Configuration 2

Sales code:
104G8501

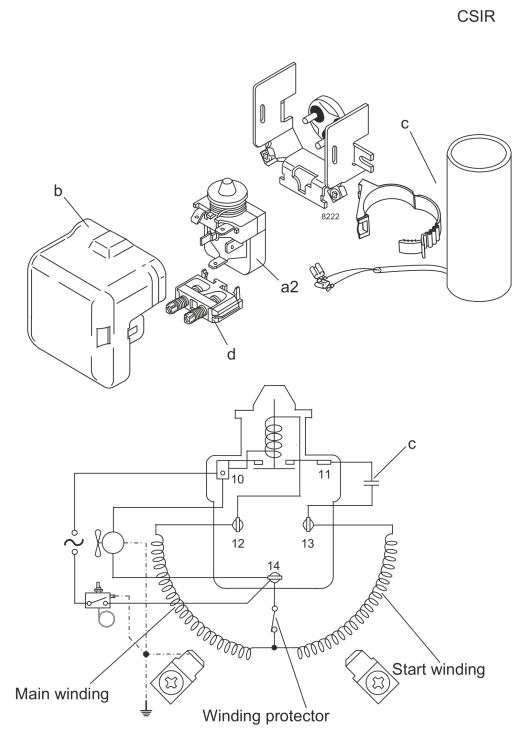
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R513A**
Application	**MBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Approvals	**VDE, CCC, EAC**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**16.2 A**
RLA (rated load amps / 1s/ U(N))	**3.1 A**
Cut in current (U(N))	**16.2 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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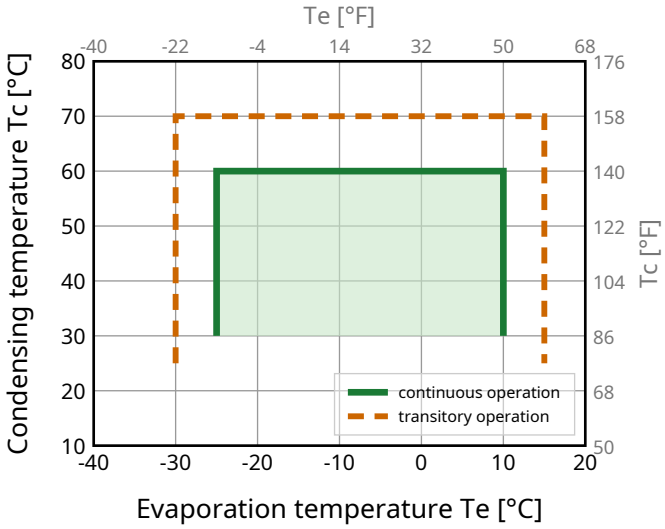
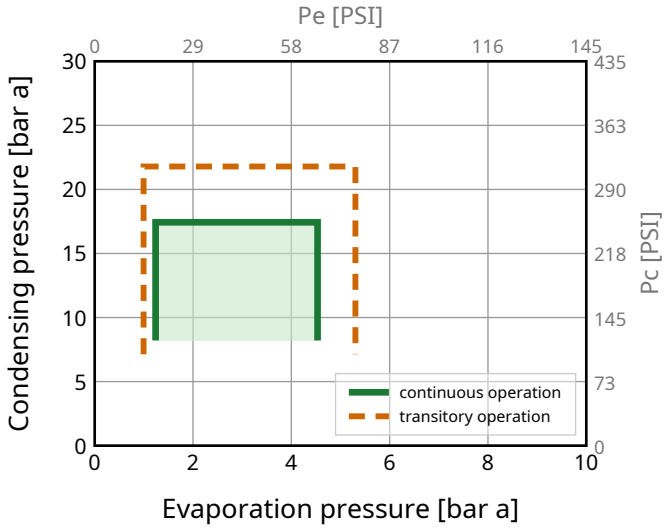
Components
a2 relay 117U6005
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model Sales code:

SC15MFX Configuration 2 **104G8501**

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]	
-6.7 20	54.4 129.9	35 95	46.1 115	**824**	2811	709	**1.65**	5.62	501	3.01	20.54	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**625**	2134	538	**1.34**	4.59	465	2.89	17.55	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**706**	2408	607	**1.61**	5.49	439	2.80	19.11	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**768**	2619	660	**1.58**	5.41	484	2.95	22.10	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**740**	2526	637	**1.69**	5.76	439	2.80	18.53	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**318**	1083	273	**1.11**	3.79	286	2.30	7.85	**opt MBP 2**

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	**318**	1083	273	**1.11**	3.79	286	2.30	7.85
-20	-4	**436**	1487	375	**1.29**	4.40	338	2.47	10.82
-15	5	**576**	1966	496	**1.48**	5.05	390	2.64	14.36
-10	14	**740**	2526	637	**1.69**	5.76	439	2.80	18.53
-5	23	**930**	3171	799	**1.92**	6.55	484	2.95	23.39
0	32	**1145**	3908	985	**2.18**	7.44	525	3.09	29.02
5	41	**1390**	4742	1195	**2.48**	8.48	560	3.20	35.47
10	50	**1664**	5678	1431	**2.84**	9.68	587	3.29	42.86

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

-25	-13	**245**	836	211	**0.82**	2.81	297	2.34	6.78
-20	-4	**355**	1211	305	**1.01**	3.44	352	2.52	9.86
-15	5	**481**	1642	414	**1.18**	4.01	409	2.71	13.43
-10	14	**625**	2134	538	**1.34**	4.59	465	2.89	17.55
-5	23	**789**	2693	679	**1.52**	5.18	520	3.07	22.28
0	32	**974**	3325	838	**1.70**	5.81	572	3.25	27.71
5	41	**1183**	4035	1017	**1.91**	6.50	620	3.40	33.91
10	50	**1415**	4828	1217	**2.13**	7.28	663	3.54	41.00

Model
SC15MFX Configuration 3

Sales code:
104G8501

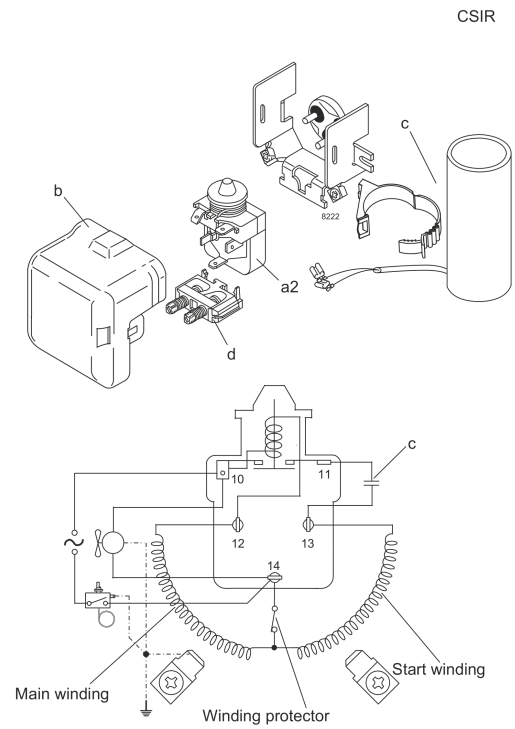
Configuration

Motor configuration	**CSIR**
Power supply (nominal)	**220-240 V/50 Hz 1~**
Refrigerant	**R1234yf**
Application	**MBP**
Voltage range	**198-254 V**
Starting torque	**HST**
Starting device type	**relay**
Run capacitor	**-/-**
Start capacitor	**80 µF**
LRA (locked rotor amps / 4s/ U(N))	**16.2 A**
RLA (rated load amps / 1s/ U(N))	**3.1 A**
Cut in current (U(N))	**16.2 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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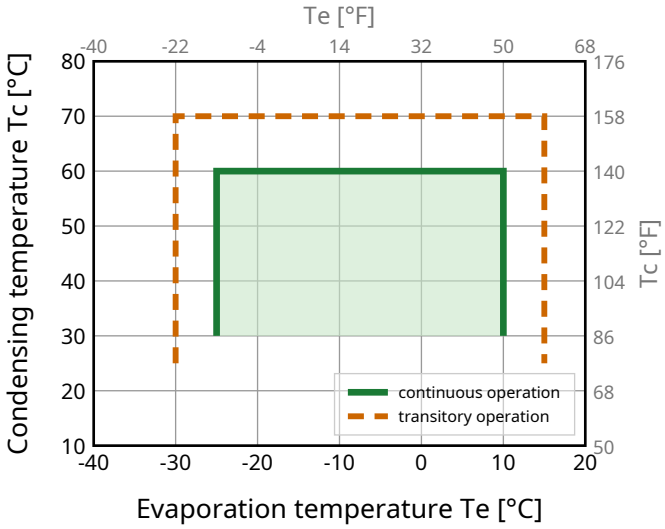
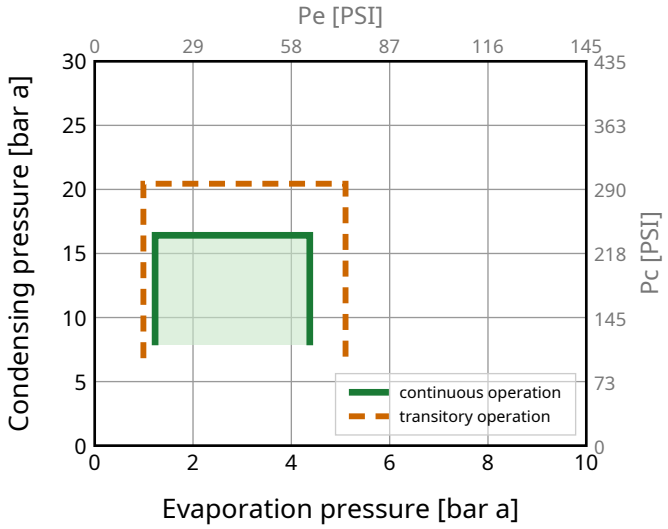
Components
a2 relay 117U7005
c start capacitor (80µF) 117U5017
d cord relief 103N1004
b plastic cover 103N2008

Operation Pressure Range





Model
SC15MFX Configuration 3

Sales code:
104G8501

Standard Conditions

R1234yf, 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]	
-6.7 20	54.4 129.9	35 95	46.1 115	**792**	2704	681	**1.66**	5.66	477	3.43	21.40	**ASHRAE MBP**
-10 14	55 131	32 89.6	55 131	**598**	2042	515	**1.34**	4.58	446	3.35	18.37	**CECOMAF MBP**
-10 14	45 113	20 68	45 113	**672**	2291	577	**1.59**	5.43	422	3.29	19.90	**EN12900 MBP**
-6.7 20	48.8 119.8	18.3 64.9	48.8 119.8	**725**	2472	623	**1.57**	5.35	462	3.39	22.96	**ARI540 MBP**
-10 14	45 113	32 89.6	45 113	**711**	2426	612	**1.69**	5.75	422	3.29	19.31	**opt MBP 1**
-25 -13	45 113	32 89.6	45 113	**312**	1064	268	**1.10**	3.74	285	3.01	8.37	**opt MBP 2**

Performance Tables

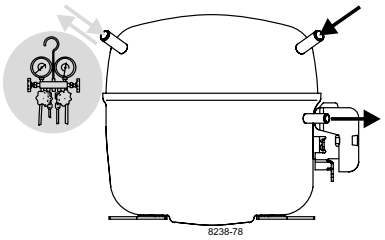
R1234yf, 220 V/50 Hz, CSIR, fan 3m/s

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	**312**	1064	268	**1.10**	3.74	285	3.01	8.37
-20	-4	**425**	1449	365	**1.28**	4.37	332	3.09	11.43
-15	5	**557**	1902	479	**1.47**	5.03	378	3.18	15.06
-10	14	**711**	2426	612	**1.69**	5.75	422	3.29	19.31
-5	23	**887**	3027	763	**1.92**	6.55	462	3.39	24.22
0	32	**1087**	3708	935	**2.18**	7.44	498	3.49	29.87
5	41	**1311**	4474	1128	**2.48**	8.47	528	3.58	36.32
10	50	**1562**	5330	1343	**2.83**	9.66	552	3.66	43.66

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

-25	-13	**240**	819	206	**0.81**	2.77	295	3.02	7.26
-20	-4	**344**	1175	296	**1.00**	3.41	345	3.11	10.47
-15	5	**464**	1581	399	**1.17**	4.00	396	3.22	14.15
-10	14	**598**	2042	515	**1.34**	4.58	446	3.35	18.37
-5	23	**750**	2560	645	**1.52**	5.18	495	3.48	23.18
0	32	**921**	3141	792	**1.70**	5.80	541	3.62	28.65
5	41	**1111**	3790	955	**1.90**	6.49	584	3.76	34.86
10	50	**1322**	4509	1136	**2.12**	7.25	622	3.89	41.91



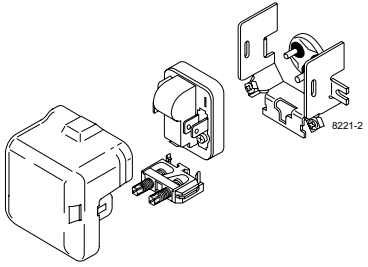
SC Compressors

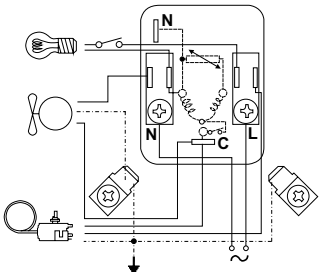
SECOP

Keep electrical equipment clear from oil, chemicals, and water

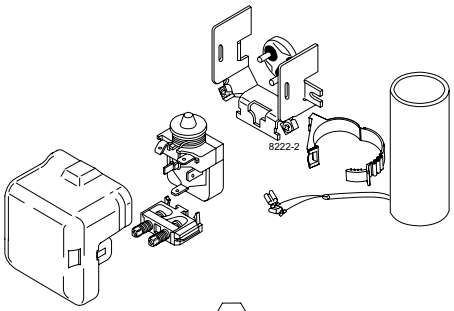
When operated with a flammable refrigerant, only spark-proof starting equipment is allowed.

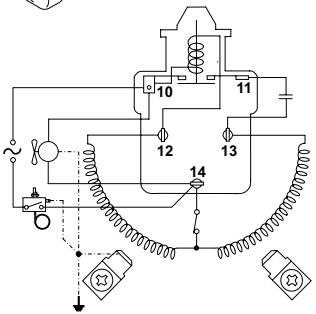
RSIR





CSIR





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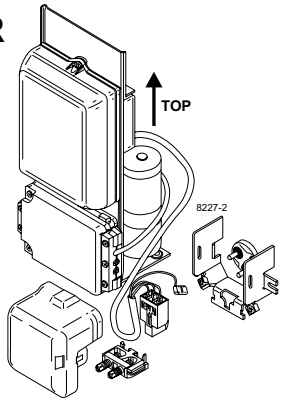
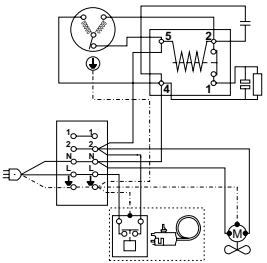
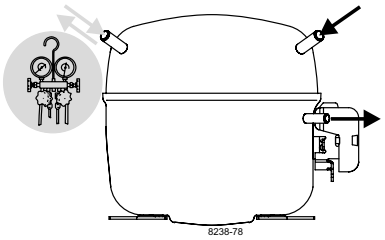






SC Compressors

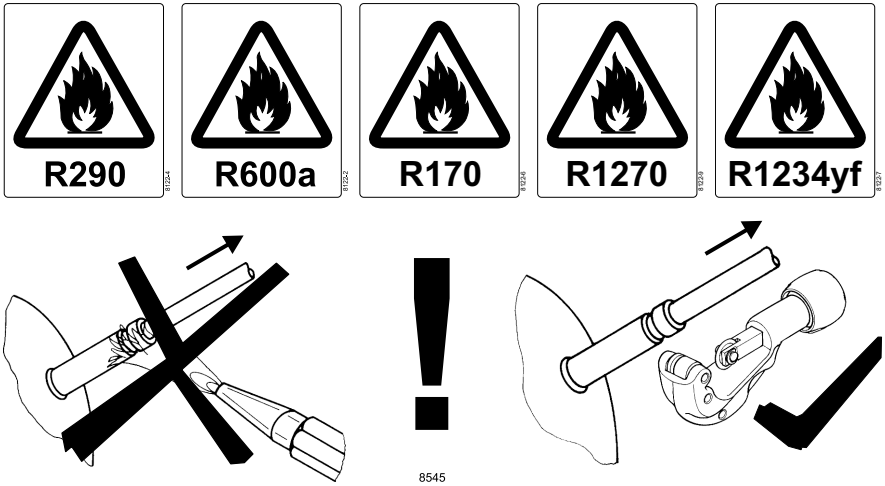
SECOP

Keep electrical equipment clear from oil, chemicals, and water

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

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

(applies to all flammable refrigerants)



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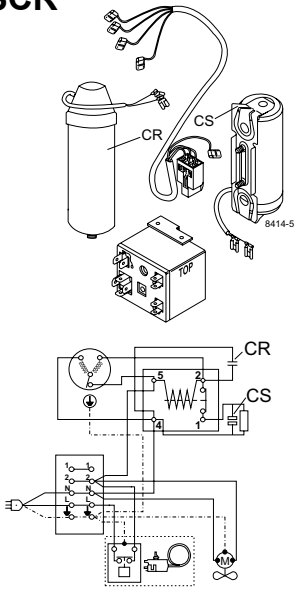

Dismantling, recycling, disposal: At the end of a compressor's lifecycle, proceed by separating and storing components according to their environmental impact. Parts that may cause pollution must be clearly identified and handled separately, ensuring appropriate disposal. Refrigerant gas must not be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