

## Single Pack SC21MFX 220-240V 50Hz CSCR

Single pack code number: **195B4353**

Position	Title	Code	Amount
1	Compressor SC21MFX	104G8120	1
2	SC starting device (550mm)	117-7039	1
3	Cord relief	103N1004	1
4	Cover	103N2009	1
5	Bolt joint for one compressor   M6   ø16mm	118-1917	1

**Secop GmbH** • Lise-Meitner-Straße 29 • 24941 Flensburg, Germany • Tel: +49 461 4941 0 • [www.secop.com](http://www.secop.com)

Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved.

## Model

Designation	<b>SC21MFX</b>	220-240V/50Hz 1~	Sales code:	<b>104G8120</b>
-------------	----------------	------------------	-------------	-----------------

## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a, R513A</b>
Oil viscosity	22cST	Displacement	20,95cm <sup>3</sup> / 1,28cu.in
Oil quantity	550cm <sup>3</sup> / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm <sup>3</sup> / 49,4fl.oz		
Weight	13,7kg / 30,2lbs		
Motor protection	1# internal		
Winding resistance main	3,4Ω (at 25°C)		
Winding resistance aux	14,4Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



## General - Configurations with SC21MFX

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>
Motorconfiguration	CSIR	CSCR	CSIR
Power supply (nominal)	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz
Number of phases	1	1	1
Voltage range	187-254V	187-254V	187-254V
Approvals	VDE, CCC, EAC	VDE, CCC, EAC	VDE, CCC, EAC
Starting torque	HST	HST	HST
Note	- / -		

## Applications with SC21MFX

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>
Refrigerant	R134a	R134a	R513A
Application	MBP	MBP	MBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK
Long interval pull down	OK	OK	OK

## Electrical data - Configurations with SC21MFX

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>
Starting device type	relay	relay	relay
Run capacitor	- / -	10μF	- / -
Start capacitor	80μF	80μF	80μF
LRA (locked rotor amps / 4s)	23,4A	23,4A	23,4A
RLA (rated load amps / 1s)	4,3A	4,3A	4,3A
Cut in current	23,4A	23,4A	23,4A

## Model

Designation

**SC21MFX**

220-240V/50Hz 1~

Sales code:

**104G8120**

## 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

Connectors	Suction X	Discharge Y	Process Z
Diameter [mm]	øi 10,11-10,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,24-0,25	øi 0,24-0,25
Material	copper	copper	copper
Horizontal angle ±2°	37°	37°	143°
Vertical angle ±2°	30°	0°	150°
Position l/h/w [mm]	107/193/55	115/110/63	-107/193/55
[in]	4,2/7,6/2,2	4,5/4,3/2,5	-4,2/7,6/2,2
Straight tube l. [mm]	12	12	12
[in]	0,5	0,5	0,5



## Compressor fixation



### Bolt joint



### Snap-on



## Mounting accessories

Mounting accessories	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

## Application notes

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

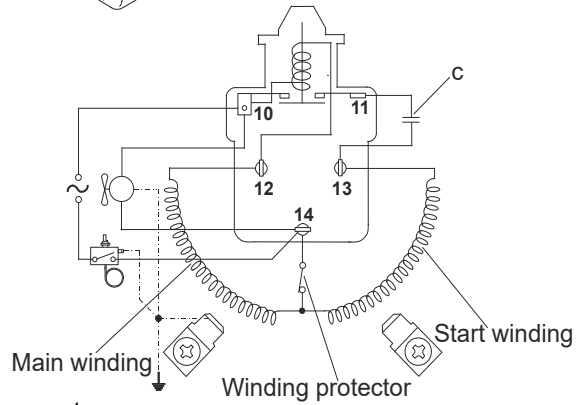
## Model

Designation	<b>SC21MFX</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>104G8120</b>
-------------	----------------	----------------------	----------------	-------------	-----------------

## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE CCC EAC

## Electrical accessories / wiring diagram

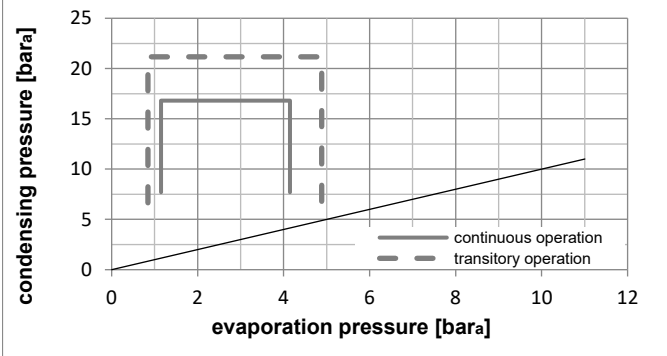
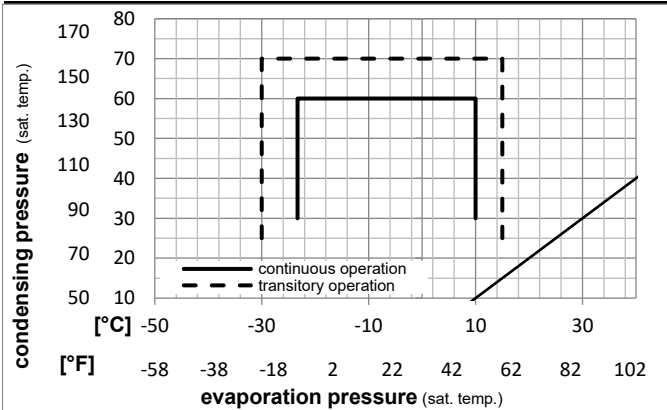


## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

## Operation Limits

## Operation pressure range



## Components

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

## Model

Designation **SC21MFX** **220-240V/50Hz** Conf. 1 Sales code: **104G8120**

## Optimization + standard conditions

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.	Liquid temp.	Cooling capacity	COP	EER	Power consumption			ASHRAE MBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]						P1	I	Ref. mass flow	
[°C]	-7	54	35	46	1082,2	3696	931,4	1,65	5,63	1,42	656,3	4,48	23,61			
[°F]	20	130	95	115												
	-10	55	32	55	840,0	2869	722,9	1,37	4,66	1,18	615,0	4,35	20,31	cecomaf MBP		
	-10	45	20	45	940,6	3212	809,5	1,62	5,52	1,39	581,7	4,18	22,02	EN12900 MBP		
	-10	45	32	45	975,9	3333	839,8	1,68	5,73	1,44	581,7	4,18	21,36	opt		
	-25	45	32	45	464,8	1587	400,0	1,14	3,88	0,98	408,8	3,47	10,07	opt		

## Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

	pe		Cooling capacity			COP	EER	P1	I	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]
[°C / °F]	-23	-10	509,3	1739	438,3	1,19	4,06	1,02	428,3	3,55	11,04
cond. pressure	-20	-4	604,5	2065	520,3	1,30	4,43	1,12	466,1	3,72	13,13
pc= 45/113	-15	5	773,4	2641	665,6	1,48	5,04	1,27	523,6	3,95	16,86
return gas temp.	-10	14	975,9	3333	839,8	1,68	5,73	1,44	581,7	4,18	21,36
RGT= 32/90	0	32	1498,6	5118	1289,7	2,14	7,30	1,84	701,4	4,59	33,14
liquid temp	5	41	1827,7	6242	1572,9	2,39	8,17	2,06	763,7	4,78	40,69
Tliq= 45/113	10	50	2207,7	7540	1900,0	2,67	9,10	2,29	828,2	4,96	49,54
[°C / °F]	-23	-10	429,7	1467	369,8	0,97	3,33	0,84	441,3	3,69	10,28
cond. pressure	-20	-4	513,5	1754	441,9	1,06	3,62	0,91	484,7	3,86	12,32
pc= 55/131	-15	5	661,9	2261	569,7	1,20	4,11	1,04	550,0	4,11	15,93
return gas temp	-10	14	840,0	2869	722,9	1,37	4,66	1,18	615,0	4,35	20,31
RGT= 32/90	0	32	1302,7	4449	1121,1	1,75	5,96	1,50	746,0	4,79	31,87
liquid temp	5	41	1596,0	5451	1373,6	1,96	6,71	1,69	812,7	4,99	39,33
Tliq= 55/131	10	50	1936,4	6613	1666,5	2,20	7,51	1,89	880,8	5,18	48,14

## Model

Designation	<b>SC21MFX</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>104G8120</b>
-------------	----------------	----------------------	----------------	-------------	-----------------

## Configuration

Motorconfiguration	CSCR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE CCC EAC

## Electrical accessories / wiring diagram

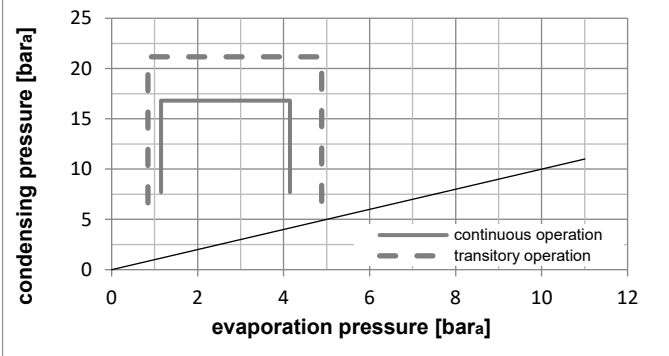
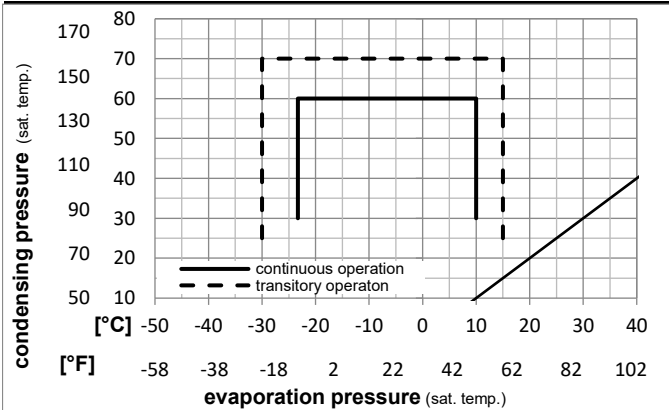


## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

## Operation Limits

### Operation pressure range



### Components

a3	SC starter kit (550mm)	117-7039
b	plastic cover	103N2009
d	cord relief	103N1004

### Alternative components

a3	SC starter kit (1000mm)	117-7043
----	-------------------------	----------

## Model

Designation **SC21MFX** **220-240V/50Hz** Conf. 2 Sales code: **104G8120**

## Optimization + standard conditions

R134a, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC, EAC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.				Liquid temp.						Current consumption			Ref. mass flow
		Cooling capacity				COP	EER	P1			I	m			
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	[°F]														
-7	20	54	35	46	1115,5	3810	960,1	1,76	6,01	1,52	633,6	3,69	24,34	ASHRAE MBP	
54	130	95	115												
-10	14	55	32	55	866,0	2957	745,2	1,46	4,98	1,25	594,0	3,52	20,94	cecomaf MBP	
55	131	90	131												
-10	14	45	20	45	969,6	3311	834,4	1,73	5,89	1,48	562,1	3,28	22,70	EN12900 MBP	
45	113	68	113												
-7	20	49	18	49	1055,5	3605	908,4	1,72	5,88	1,48	612,7	3,52	26,07	ARI540 MBP	
49	120	65	120												
-10	14	45	32	45	1005,9	3435	865,7	1,79	6,11	1,54	562,1	3,28	22,01	opt	
45	113	90	113												
-25	-13	45	32	45	479,3	1637	412,5	1,21	4,13	1,04	396,2	2,38	10,38	opt	
45	113	90	113												

## Performance tables

R134a, 220V/50Hz, CSCR, fan 3m/s, VDE, CCC, EAC

	pe		Cooling capacity			COP	EER	P1			I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C / °F]	-23	-10	525,2	1794	452,0	1,27	4,32	1,09	414,8	2,49	11,39	
cond. pressure	-20	-4	623,3	2129	536,4	1,38	4,72	1,19	451,1	2,69	13,54	
pc= 45/113	-15	5	797,3	2723	686,2	1,57	5,38	1,36	506,3	2,99	17,38	
return gas temp.	-10	14	1005,9	3435	865,7	1,79	6,11	1,54	562,1	3,28	22,01	
RGT= 32/90	0	32	1544,5	5275	1329,2	2,28	7,79	1,96	676,9	3,80	34,16	
liquid temp	5	41	1883,5	6433	1621,0	2,56	8,73	2,20	736,7	4,04	41,93	
Tliq= 45/113	10	50	2275,0	7770	1957,9	2,85	9,73	2,45	798,5	4,26	51,05	
[°C / °F]	-23	-10	443,2	1513	381,4	1,04	3,54	0,89	427,3	2,65	10,61	
cond. pressure	-20	-4	529,5	1808	455,7	1,13	3,86	0,97	468,9	2,88	12,70	
pc= 55/131	-15	5	682,4	2331	587,3	1,28	4,38	1,10	531,6	3,21	16,43	
return gas temp.	-10	14	866,0	2957	745,2	1,46	4,98	1,25	594,0	3,52	20,94	
RGT= 32/90	0	32	1342,7	4585	1155,5	1,87	6,37	1,61	719,7	4,10	32,84	
liquid temp	5	41	1644,8	5617	1415,6	2,10	7,17	1,81	783,7	4,36	40,53	
Tliq= 55/131	10	50	1995,6	6815	1717,4	2,35	8,03	2,02	849,0	4,61	49,61	

## Model

Designation	<b>SC21MFX</b>	<b>220-240V/50Hz</b>	<b>Conf. 3</b>	Sales code:	<b>104G8120</b>
-------------	----------------	----------------------	----------------	-------------	-----------------

## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R513A
Application	MBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE CCC EAC

## Electrical accessories / wiring diagram

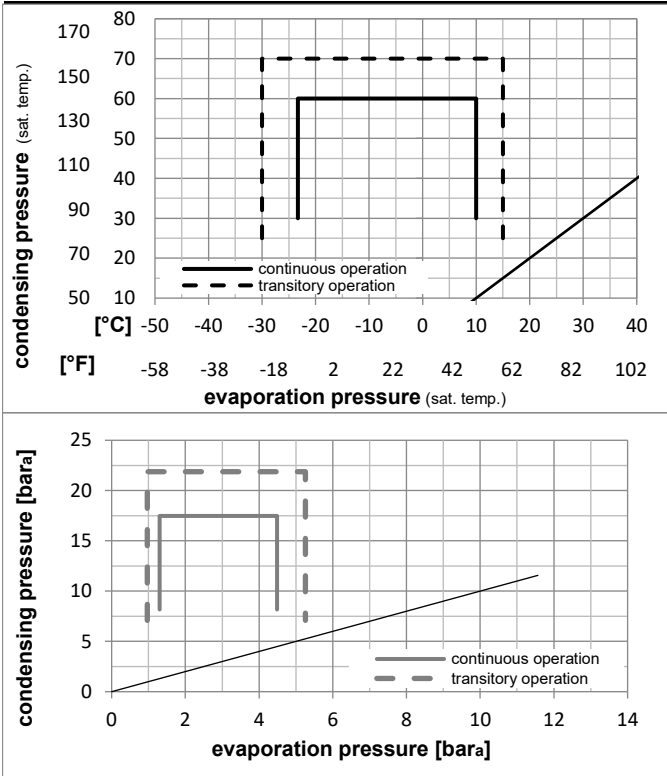


## Ambient/ machine room temperatures minimum /maximum

Ambient temperature range:	10 - 43°C / 50 - 110°F
Machine room temperature range:	10 - 48°C / 50 - 119°F
Compressor cooling:	fan 3m/s

## Operation Limits

## Operation pressure range



## Components

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



### Model

Designation **SC21MFX** **220-240V/50Hz** Conf. 3 Sales code: **104G8120**

### Optimization + standard conditions

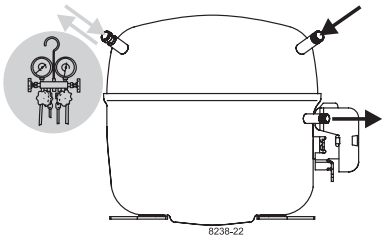
R513A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.				Liquid temp.						Current consumption			Ref. mass flow
		Cooling capacity				COP	EER	P1			I	m			
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-7	54	35	46	1131,2	3863	973,5	1,62	5,55	1,40	696,6	4,57	27,71	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	867,3	2962	746,4	1,32	4,52	1,14	655,8	4,41	23,98	cecomaf MBP	
[°F]	14	131	90	131											
[°C]	-10	45	20	45	979,7	3346	843,1	1,58	5,40	1,36	619,9	4,28	25,97	EN12900 MBP	
[°F]	14	113	68	113											
[°C]	-7	49	18	49	1053,0	3596	906,2	1,56	5,34	1,35	673,0	4,48	29,67	ARI540 MBP	
[°F]	20	120	65	120											
[°C]	-10	45	32	45	1024,5	3499	881,7	1,65	5,64	1,42	619,9	4,28	25,19	opt	
[°F]	14	113	90	113											
[°C]	-25	45	32	45	501,7	1713	431,8	1,12	3,83	0,97	447,2	3,62	12,23	opt	
[°F]	-13	113	90	113											

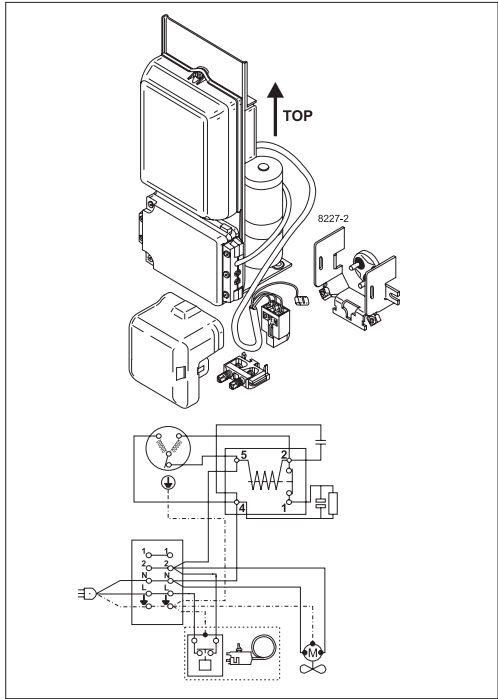
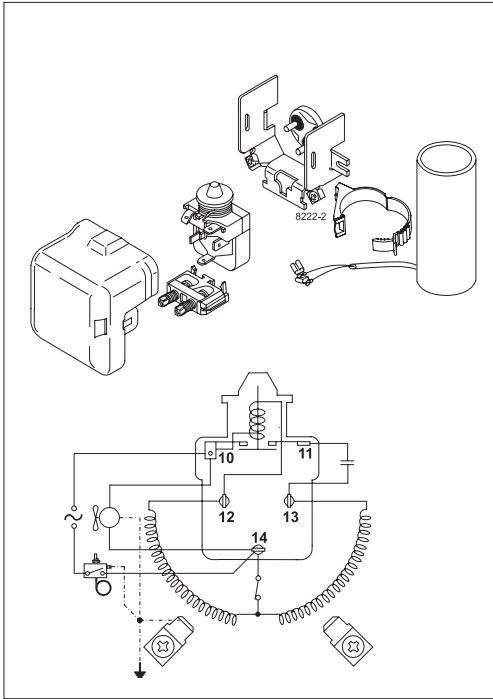
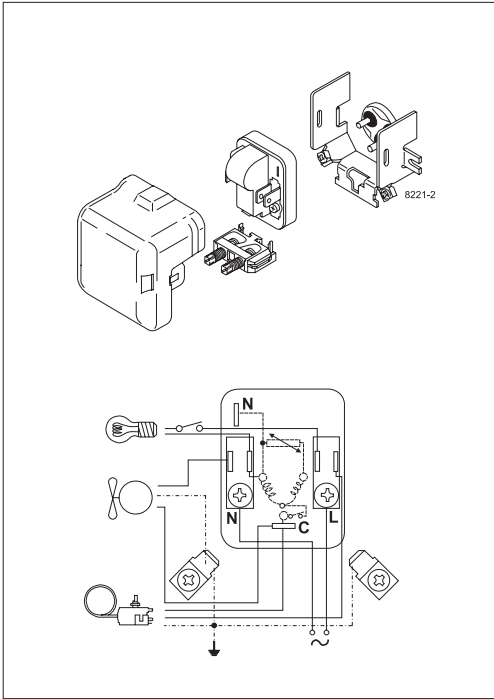
### Performance tables

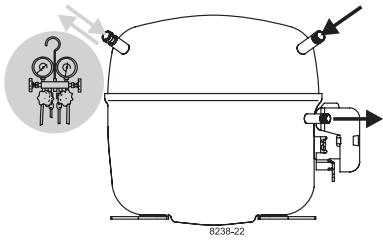
R513A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, EAC

	pe		Cooling capacity			COP	EER	P1			I	m
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C / °F]	-23	-10	547,7	1871	471,4	1,17	4,00	1,01	467,2	3,70	13,36	
cond. pressure	-20	-4	645,8	2206	555,8	1,28	4,36	1,10	505,6	3,84	15,78	
pc= 45/113	-15	5	818,8	2796	704,7	1,45	4,97	1,25	562,8	4,06	20,06	
return gas temp.	-10	14	1024,5	3499	881,7	1,65	5,64	1,42	619,9	4,28	25,19	
RGT= 32/90	0	32	1549,8	5293	1333,8	2,10	7,16	1,81	738,8	4,73	38,44	
liquid temp	5	41	1877,3	6411	1615,6	2,34	7,98	2,01	803,0	4,97	46,82	
Tliq= 45/113	10	50	2253,2	7695	1939,2	2,58	8,82	2,22	872,0	5,24	56,57	
[°C / °F]	-23	-10	455,5	1556	392,0	0,95	3,23	0,81	481,7	3,75	12,48	
cond. pressure	-20	-4	540,4	1845	465,0	1,03	3,51	0,88	525,8	3,92	14,84	
pc= 55/131	-15	5	689,6	2355	593,5	1,17	3,98	1,00	591,1	4,17	19,00	
return gas temp.	-10	14	867,3	2962	746,4	1,32	4,52	1,14	655,8	4,41	23,98	
RGT= 32/90	0	32	1323,7	4521	1139,2	1,68	5,74	1,45	787,6	4,91	36,97	
liquid temp	5	41	1610,3	5500	1385,9	1,88	6,42	1,62	857,3	5,18	45,25	
Tliq= 55/131	10	50	1941,2	6629	1670,6	2,08	7,12	1,79	931,0	5,46	54,96	



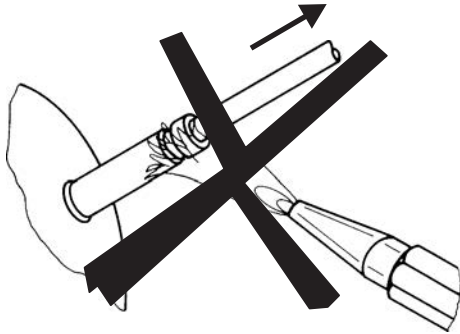
# SC Compressors



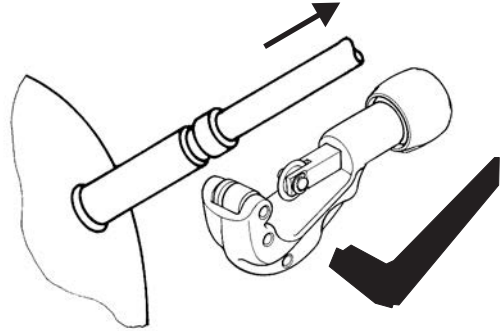


# SC Compressors

## Service/Repair – R290



8545



Secop accepts no responsibility for possible errors in catalogs, brochures, and other printed material. Secop reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary to specifications already agreed. All trademarks in this material are the property of the respective companies. Secop and the Secop logotype are trademarks of Secop GmbH. All rights reserved. [www.secop.com](http://www.secop.com)