

Single Pack SC18G 115V 60Hz CSIR

Single pack code number: **195B4158**

Position	Title	Code	Amount
1	Compressor SC18G	104G7800	1
2	Starting relay (RVA 7AA3R435)	117-7441	1
3	Starting capacitor (410 μ F 125V, 6.3mm)	117U5042	1
4	Bolt joint for one compressor M6 \varnothing 16mm	118-1917	1

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Model

Designation	SC18G	115V/60Hz 1~	Sales code:	104G7800
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	22cST	Displacement	17,69cm ³ / 1,08cu.in
Oil quantity	550cm ³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm ³ / 49,4fl.oz		
Weight	13,8kg / 30,4lbs		
Motor protection	external		
Winding resistance main	0,66Ω (at 25°C)		
Winding resistance aux	2,7Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with SC18G

	Conf. 1	Conf. 2
Motorconfiguration	CSIR	CSIR
Power supply (nominal)	115V/60Hz	115V/60Hz
Number of phases	1	1
Voltage range	95-135V	95-135V
Approvals	UL	UL
Starting torque	HST	HST
Note	Protector and cover are included and pre-assembled to compressor.	

Applications with SC18G

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

Electrical data - Configurations with SC18G

	Conf. 1	Conf. 2
Starting device type	relay	relay
Run capacitor	-/-	-/-
Start capacitor	410μF	410μF
LRA (locked rotor amps / 4s)	56,8A	56,8A
RLA (rated load amps / 1s)	9,8A	9,8A
Cut in current	56,8A	56,8A
IP class	21	21

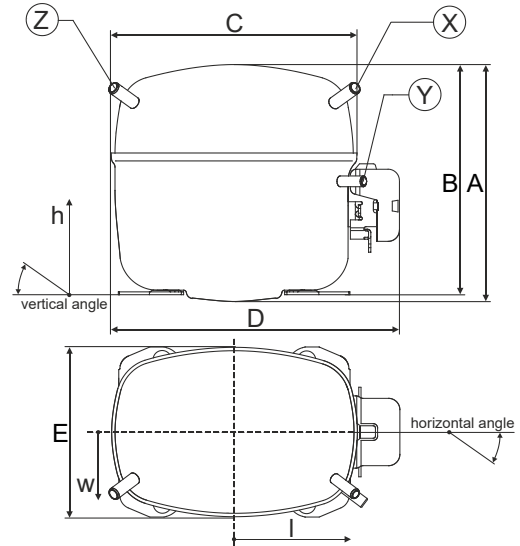
Model

Designation	SC18G	115V/60Hz 1~	Sales code:	104G7800
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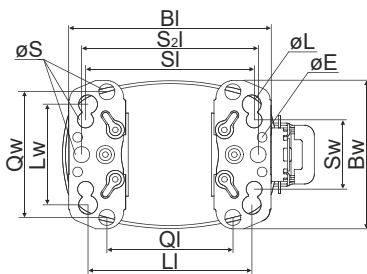
Compressor dimensions

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	Discharge	Process
		X	Y	Z
Diameter	[mm]	øi 9,54-9,72	øi 6,41-6,59	øi 6,41-6,59
(i:inside, o:outside)	[in]	øi 0,38-0,38	øi 0,25-0,26	øi 0,25-0,26
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

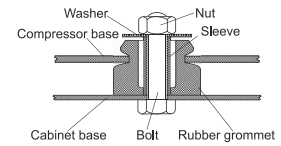


Compressor fixation

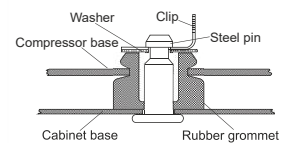


Baseplate	[mm]	[inch]
BI	204	8.03
BW	150	5.9
øE	ø 9.7	ø 0.38
Large holes	[mm]	[inch]
LI	165	6.5
LW	101.6	4
øL	ø 19	ø 0.75
Small holes	[mm]	[inch]
SI	170	6.7
SW	70	2.76
øS	ø 16	ø 0.63
QI	127	5
Qw	127	5

Bolt joint



Snap-on



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

LRA value on compressor label and datasheet may differ due to different test conditions for UL approval.

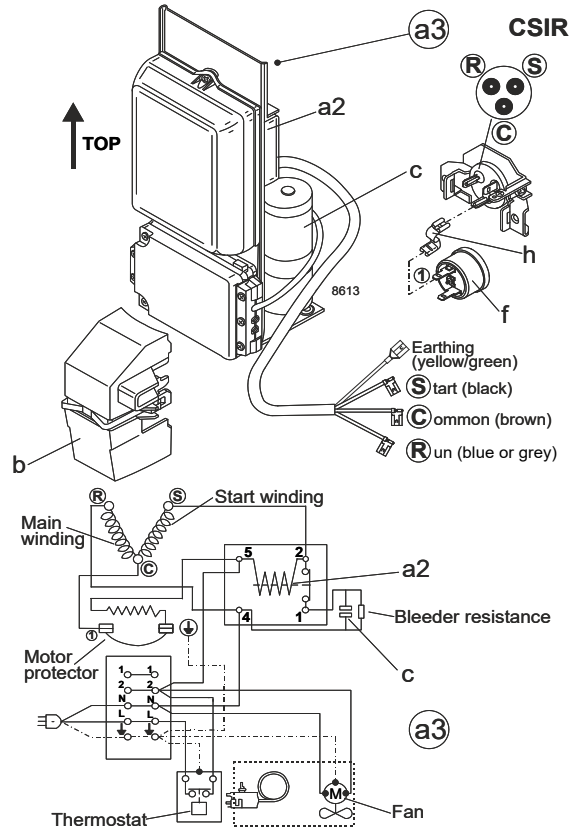
Model

Designation	SC18G	115V/60Hz	Conf. 1	Sales code:	104G7800
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	95-135V
Starting torque	HST
Approvals	UL SA3693

Electrical accessories / wiring diagram

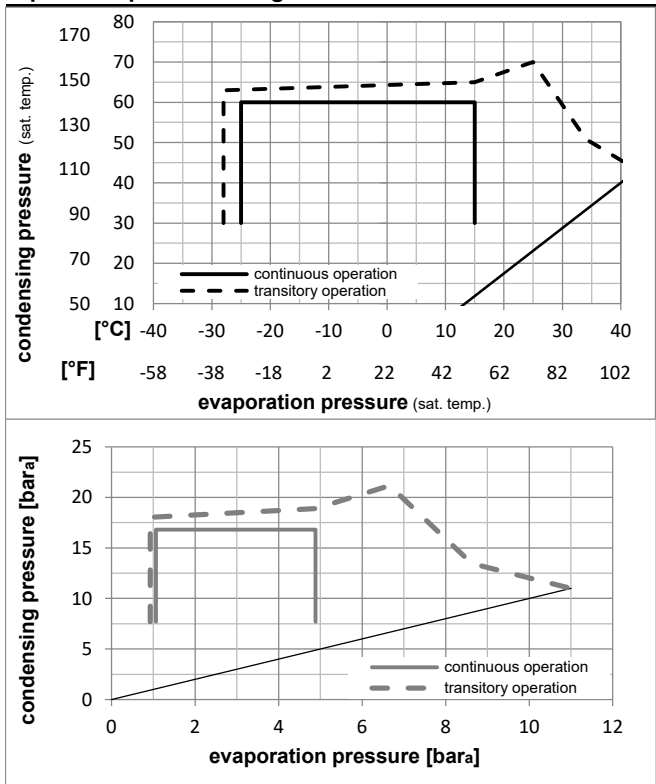


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
T ambient	LBP	MBP	HBP
32°C / 90°F	fan 3m/s	fan 3m/s	fan 3m/s
38°C / 100°F	fan 3m/s	fan 3m/s	fan 3m/s
43°C / 110°F	fan 3m/s	fan 3m/s	fan 3m/s

Operation pressure range



Components (protector + ~holder + cover: pre assembled)

a3	SC starter kit	117-7053
f	ext. protector (T0761/46)	117U3212
h	protector holder	117U0439
b	plastic cover	117U1021

Alternative comp. (protector + ~holder + cover: pre assemb.)

a2	potential relay (RVA 7AA3R)	117-7441
c	start capacitor	117U5042
f	ext. protector (T0761/46)	117U3212
h	protector holder	117U0439
b	plastic cover	117U1021

Model

Designation **SC18G 115V/60Hz** Conf. 1 Sales code: **104G7800**

Optimization + standard conditions

115V/60Hz, CSIR, fan 3m/s, UL

Evaporating pressure (saturation temperature)		Condensing pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Current consumption		Ref. mass flow ṁ	ASHRAE LBP
pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	I	ṁ			
[°C]	[°C]	[°C]	[°C]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]			
-23,3	54,4	32,2	32,2	397,3	1357	341,9	0,98	3,36	0,85	404,1	6,71	7,71		ASHRAE LBP	
[°F]															
-10	130	90	90												
-6,66	54,4	35	46,1	1024,1	3497	881,3	1,48	5,06	1,28	690,6	8,41	22,34		ASHRAE MBP	
[°C]															
[°F]															
20	130	95	115												
7,22	54,4	35	46,1	1831,5	6255	1576,2	2,01	6,86	1,73	912,1	10,07	40,63		ASHRAE HBP	
[°C]															
[°F]															
45	130	95	115												
-35	40	20	40	183,9	628	158,2	0,64	2,19	0,55	287,1	6,26	4,03		EN12900 LBP	
[°C]															
[°F]															
-31	104	68	104												
-10	45	20	45	910,0	3108	783,1	1,44	4,93	1,24	629,8	7,93	21,30		EN12900 MBP	
[°C]															
[°F]															
14	113	68	113												
5	50	20	50	1574,7	5378	1355,2	1,84	6,28	1,58	856,7	9,62	39,68		EN12900 HBP	
[°C]															
[°F]															
41	122	68	122												

Performance tables

115V/60Hz, CSIR, fan 3m/s, UL

	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]	-25	-13	404,1	1380	347,7	0,96	3,29	0,83	419,8	6,75	8,75
cond. pressure	-23,3	-10	454,9	1553	391,5	1,02	3,49	0,88	444,6	6,87	9,86
pc= 45/113	-9,4	15	968,4	3307	833,4	1,52	5,19	1,31	637,1	7,98	21,21
return gas temp.	-3,9	25	1234,3	4215	1062,2	1,74	5,95	1,50	709,0	8,49	27,17
RGT= 32/90	0	32	1446,7	4941	1245,1	1,91	6,51	1,64	758,4	8,87	31,99
liquid temp	4,4	40	1719,5	5873	1479,8	2,11	7,21	1,82	814,4	9,32	38,25
Tliq= 45/113	15	59	2516,1	8593	2165,4	2,65	9,06	2,28	947,9	10,49	56,99
[°C / °F]	-25	-13	263,8	901	227,1	0,71	2,44	0,62	369,2	6,54	6,31
cond. pressure	-23,3	-10	315,1	1076	271,2	0,79	2,69	0,68	400,3	6,69	7,54
pc= 55/131	-9,4	15	804,4	2747	692,3	1,25	4,27	1,08	643,9	8,10	19,46
return gas temp	-3,9	25	1046,5	3574	900,7	1,42	4,86	1,22	735,6	8,73	25,47
RGT= 32/90	0	32	1237,6	4226	1065,1	1,55	5,29	1,33	798,6	9,19	30,27
liquid temp	4,4	40	1481,1	5058	1274,6	1,70	5,81	1,47	869,9	9,74	36,46
Tliq= 55/131	15	59	2187,5	7471	1882,5	2,11	7,19	1,81	1038,9	11,14	54,94

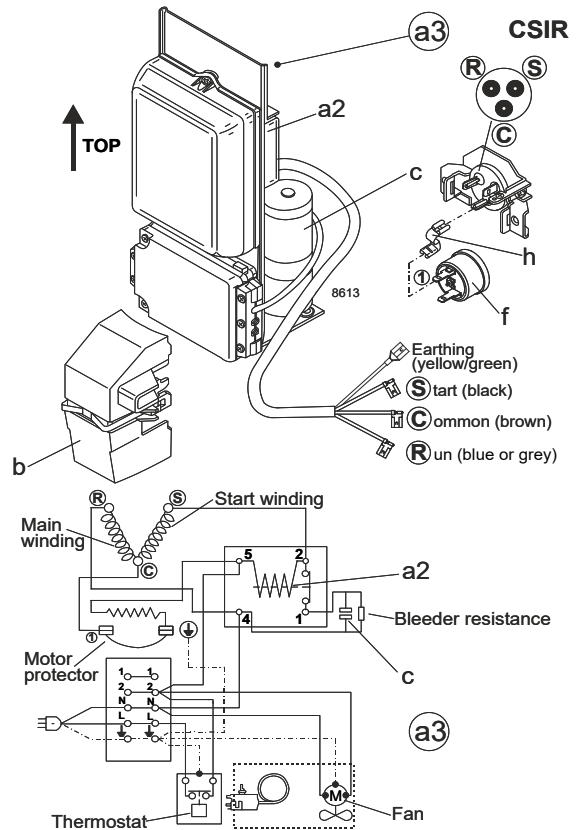
Model

Designation	SC18G	115V/60Hz	Conf. 2	Sales code:	104G7800
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	115V/60Hz 1~
Refrigerant	R513A
Application	LBP+MBP+HBP
Voltage range	95-135V
Starting torque	HST
Approvals	UL SA3693

Electrical accessories / wiring diagram

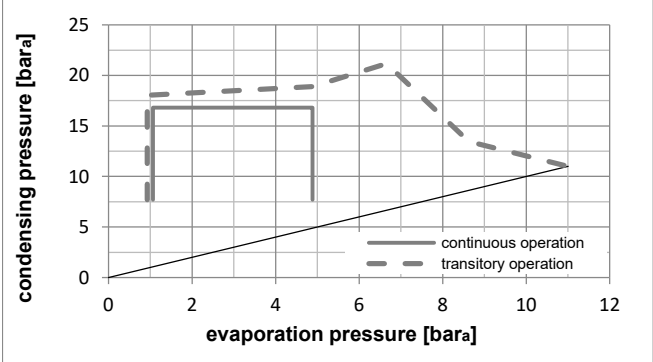
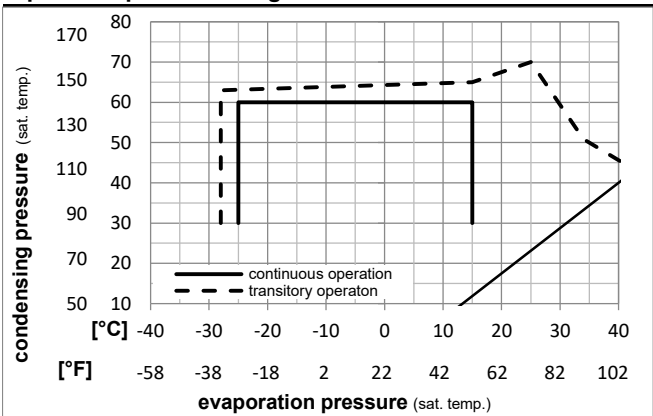


Ambient temperatures / system cooling

Ambient temperature min.:	10°C / 50°F
Ambient temperature max.:	43°C / 110°F

System cooling (n/a: outside limits)			
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32°C / 90°F	fan 3m/s	fan 3m/s	fan 3m/s
38°C / 100°F	fan 3m/s	fan 3m/s	fan 3m/s
43°C / 110°F	fan 3m/s	fan 3m/s	fan 3m/s

Operation pressure range



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Model

Designation **SC18G 115V/60Hz** Conf. 2 Sales code: **104G7800**

Optimization + standard conditions

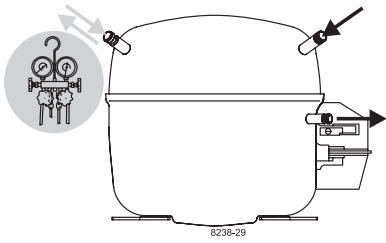
115V/60Hz, CSIR, fan 3m/s, UL

Evaporating pressure (saturation temperature)														
Condensing pressure (saturation temperature)														
Return gas temp.														
Liquid temp.														
Cooling capacity														
COP														
EER														
Power consumption														
Current consumption														
Ref. mass flow														
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°C]	[°C]	[°C]	[°C]							[W]	[A]	[kg/h]	
[°F]	-23,3	54,4	32,2	32,2	442,2	1510	380,6	1,02	3,48	0,88	433,9	6,83	9,52	ASHRAE LBP
[°F]	-10	130	90	90										
[°C]	-6,66	54,4	35	46,1	1076,7	3677	926,6	1,47	5,01	1,26	733,8	8,81	26,37	ASHRAE MBP
[°F]	20	130	95	115										
[°C]	7,22	54,4	35	46,1	1883,6	6433	1621,0	1,98	6,75	1,70	953,1	10,26	46,79	ASHRAE HBP
[°F]	45	130	95	115										
[°C]	-35	40	20	40	211,3	722	181,8	0,79	2,70	0,68	267,3	5,73	5,23	EN12900 LBP
[°F]	-31	104	68	104										
[°C]	-10	45	20	45	952,3	3252	819,5	1,42	4,85	1,22	670,8	8,40	25,24	EN12900 MBP
[°F]	14	113	68	113										
[°C]	5	50	20	50	1598,4	5459	1375,6	1,78	6,08	1,53	897,3	9,89	45,83	EN12900 HBP
[°F]	41	122	68	122										

Performance tables

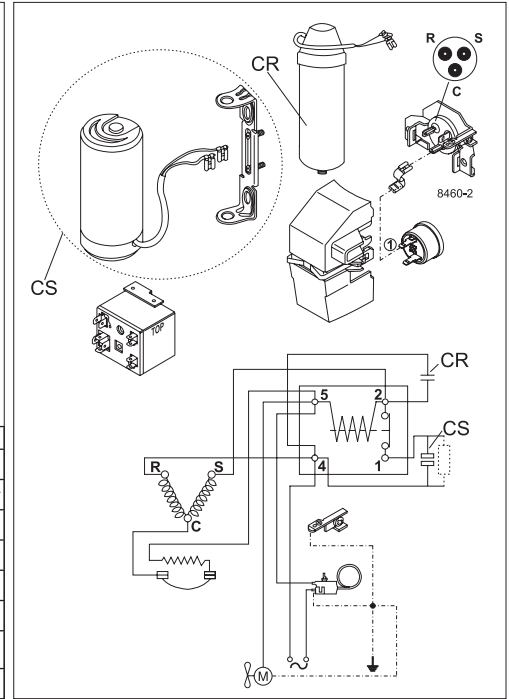
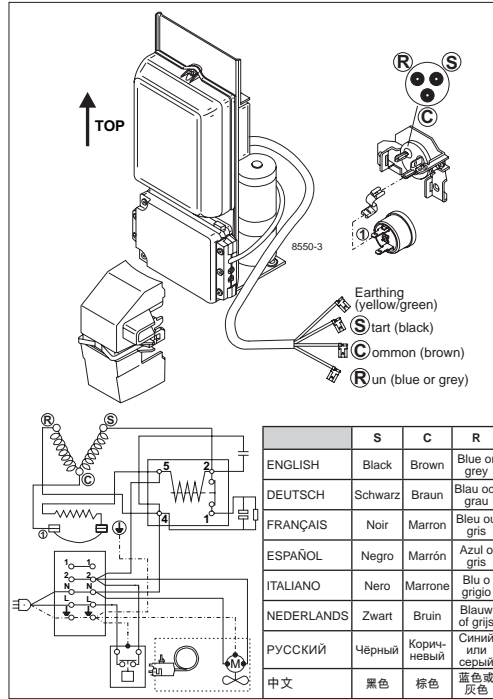
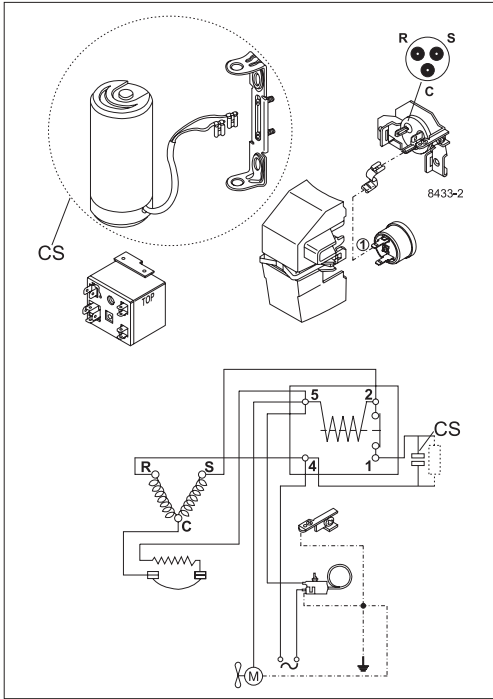
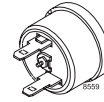
115V/60Hz, CSIR, fan 3m/s, UL

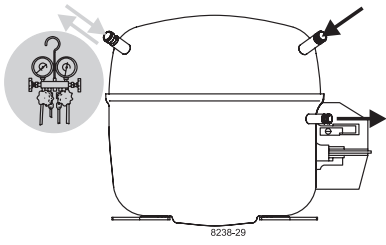
	pe	Cooling capacity			COP	EER	P1	I	m			
		[°C]	[°F]	[W]						[Btu/h]	[kcal/h]	[W/W]
[°C / °F]	-25	-13		442,4	1511	380,7	1,00	3,42	0,86	442,0	6,88	10,78
cond. pressure	-23,3	-10		495,2	1691	426,2	1,05	3,59	0,90	471,0	7,08	12,08
pc= 45/113	-9,4	15		1020,4	3485	878,2	1,50	5,14	1,29	678,3	8,44	25,10
return gas temp.	-3,9	25		1288,2	4399	1108,6	1,72	5,87	1,48	749,9	8,92	31,83
RGT= 32/90	0	32		1500,9	5126	1291,7	1,88	6,42	1,62	798,4	9,24	37,23
liquid temp	4,4	40		1773,0	6055	1525,9	2,08	7,09	1,79	853,5	9,60	44,19
Tliq= 45/113	15	59		2562,9	8753	2205,7	2,59	8,84	2,23	990,4	10,50	64,84
[°C / °F]	-25	-13		286,7	979	246,7	0,73	2,48	0,62	395,4	6,58	7,85
cond. pressure	-23,3	-10		339,8	1160	292,4	0,79	2,70	0,68	430,4	6,81	9,31
pc= 55/131	-9,4	15		835,3	2853	718,9	1,22	4,15	1,05	687,2	8,50	23,11
return gas temp	-3,9	25		1075,5	3673	925,6	1,38	4,72	1,19	778,4	9,11	29,91
RGT= 32/90	0	32		1263,7	4316	1087,5	1,50	5,13	1,29	840,4	9,51	35,29
liquid temp	4,4	40		1502,3	5131	1292,9	1,65	5,63	1,42	910,9	9,98	42,19
Tliq= 55/131	15	59		2189,7	7478	1884,5	2,02	6,90	1,74	1084,0	11,12	62,54



SC Compressors

(External Protector)

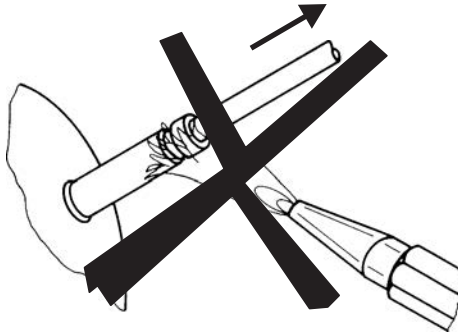




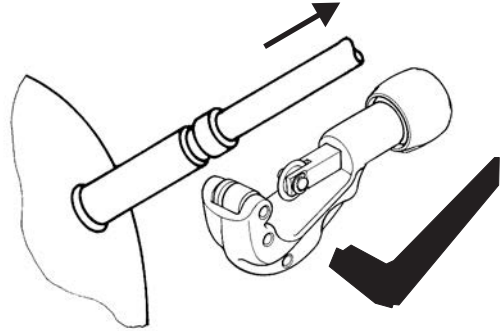
SC Compressors (External Protector)



Service/Repair – R290



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