

Single Pack SC10G 220-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4035**

Position	Title	Code	Amount
1	Compressor SC10G	104G8000	1
2	Starting relay	117U6002	1
3	Starting capacitor (80 μ F 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2009	1
6	Bolt joint for one compressor M6 \varnothing 16mm	118-1917	1

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Model

Designation	SC10G	220-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	104G8000
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	22cST	Displacement	10,29cm ³ / 0,63cu.in
Oil quantity	550cm ³ / 18,6fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1510cm ³ / 51,1fl.oz		
Weight	12,1kg / 26,7lbs		
Motor protection	1# internal		
Winding resistance main	7,9Ω (at 25°C)		
Winding resistance aux	14Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with SC10G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4	Conf. 5
Motorconfiguration	CSIR	CSIR	CSIR	CSIR	RSIR
Power supply (nominal)	220-240V/50Hz	208-230V/60Hz	220-240V/50Hz	208-230V/60Hz	220-240V/50Hz
Number of phases	1	1	1	1	1
Voltage range	187-254V	198-254V	187-254V	198-253V	187-254V
Approvals	VDE, CCC, EAC	VDE, CCC, EAC	VDE, CCC	VDE, CCC	VDE, CCC, EAC
Starting torque	HST	HST	HST	HST	LST
Note	- / -				

Applications with SC10G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4	Conf. 5
Refrigerant	R134a	R134a	R513A	R513A	R134a
Application	LBP+MBP+HBP	LBP	LBP+MBP+HBP	LBP	LBP+MBP+HBP
System cooling	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s	fan 3m/s
Hot gas defrost	OK	OK	OK	OK	OK
Long interval pull down	OK	OK	OK	OK	OK

Electrical data - Configurations with SC10G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4	Conf. 5
Starting device type	relay	relay	relay	relay	PTC
Run capacitor	- / -	- / -	- / -	- / -	- / -
Start capacitor	80μF	80μF	80μF	80μF	- / -
LRA (locked rotor amps / 4s)	11A	11A	11A	11A	10A
RLA (rated load amps / 1s)	2,1A	2,1A	2,1A	2,1A	2,1A
Cut in current	15A	15A	15A	15A	15A

Model

Designation

SC10G

220-240V/50Hz 1~ 208-230V/60Hz 1~

Sales code:

104G8000

Compressor dimensions

Housing	A Height	199mm / 7,83in
	B Height	193mm / 7,6in
	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 8,11-8,29	øi 6,11-6,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,32-0,33	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]	107/173/55	115/90/63	-107/173/55
[in]	4,2/6,8/2,2	4,5/3,5/2,5	-4,2/6,8/2,2
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

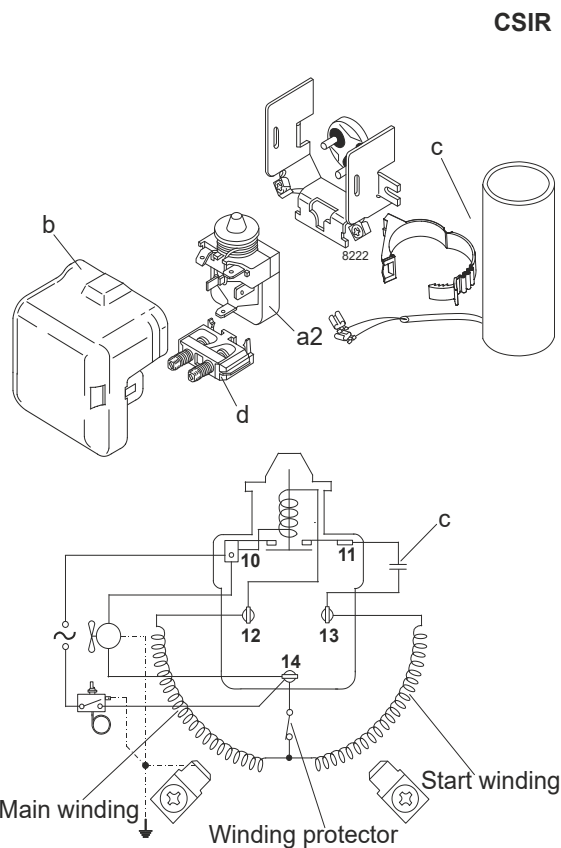
Model

Designation	SC10G	220-240V/50Hz	Conf. 1	Sales code:	104G8000
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Configuration

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

Electrical accessories / wiring diagram

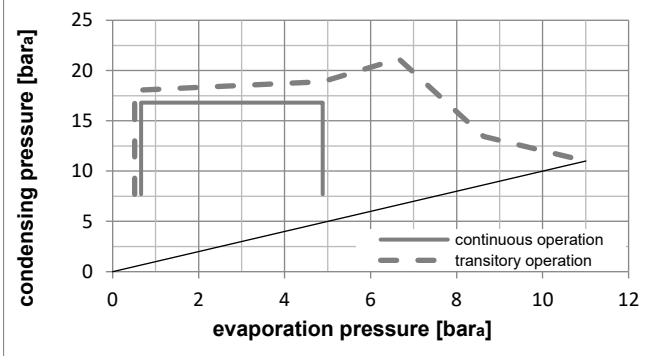
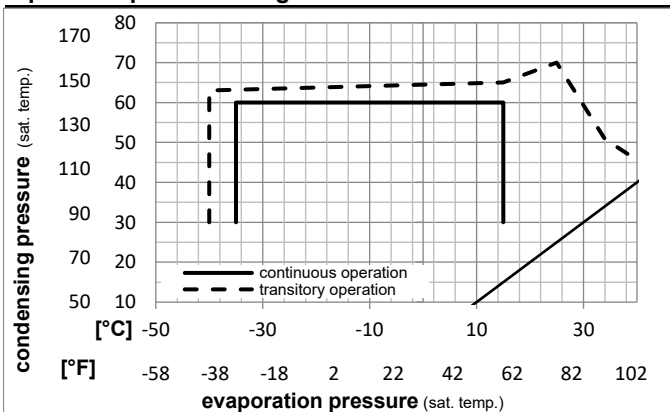


Ambient/ machine room temperatures minimum /maximum

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	assy. relay	117U6002
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation	SC10G	220-240V/50Hz	Conf. 1	Sales code:	104G8000
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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			Ref. mass flow	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]			[W/W]	[Btu/Wh]	[kcal/Wh]			P1	I	m		
[°C]																			
[°F]																			
	-23	54	32	32	167,8	573	144,4	0,86	2,95	0,74	194,1	1,44	3,26	ASHRAE LBP					
	-10	130	90	90															
	-25	55	32	55	113,2	386	97,4	0,63	2,14	0,54	181,0	1,41	2,71	cecomaf LBP					
	-13	131	90	131															
	-35	40	20	40	71,3	244	61,4	0,61	2,07	0,52	117,6	1,33	1,56	EN12900 LBP					
	-31	104	68	104															
	-7	54	35	46	493,8	1686	424,9	1,59	5,43	1,37	310,3	1,80	10,77	ASHRAE MBP					
	20	130	95	115															
	-10	55	32	55	369,4	1262	317,9	1,27	4,35	1,10	290,0	1,72	8,93	cecomaf MBP					
	14	131	90	131															
	-10	45	20	45	437,8	1495	376,8	1,61	5,49	1,38	272,4	1,67	10,25	EN12900 MBP					
	14	113	68	113															

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]	-35	-31	53,5	183	46,1	0,49	1,69	0,43	108,3	1,31	1,16
cond. pressure	-25	-13	166,6	569	143,4	0,91	3,12	0,79	182,5	1,42	3,61
pc= 45/113	-15	5	343,0	1171	295,2	1,40	4,79	1,21	244,7	1,57	7,48
return gas temp.	-10	14	454,2	1551	390,9	1,67	5,69	1,43	272,4	1,67	9,94
RGT= 32/90	0	32	721,0	2462	620,5	2,23	7,62	1,92	323,3	1,87	15,94
liquid temp	5	41	876,0	2992	753,9	2,52	8,61	2,17	347,3	1,97	19,50
Tliq= 45/113	15	59	1227,7	4193	1056,5	3,11	10,63	2,68	394,6	2,18	27,81
[°C / °F]	-35	-31	23,3	80	20,1	0,25	0,85	0,22	93,4	1,29	0,56
cond. pressure	-25	-13	113,2	386	97,4	0,63	2,14	0,54	181,0	1,41	2,71
pc= 55/131	-15	5	268,2	916	230,8	1,05	3,58	0,90	256,1	1,61	6,46
return gas temp	-10	14	369,4	1262	317,9	1,27	4,35	1,10	290,0	1,72	8,93
RGT= 32/90	0	32	617,7	2110	531,6	1,75	5,98	1,51	352,9	1,98	15,11
liquid temp	5	41	764,2	2610	657,7	2,00	6,82	1,72	382,7	2,12	18,83
Tliq= 55/131	15	59	1100,2	3757	946,8	2,49	8,52	2,15	441,2	2,40	27,63

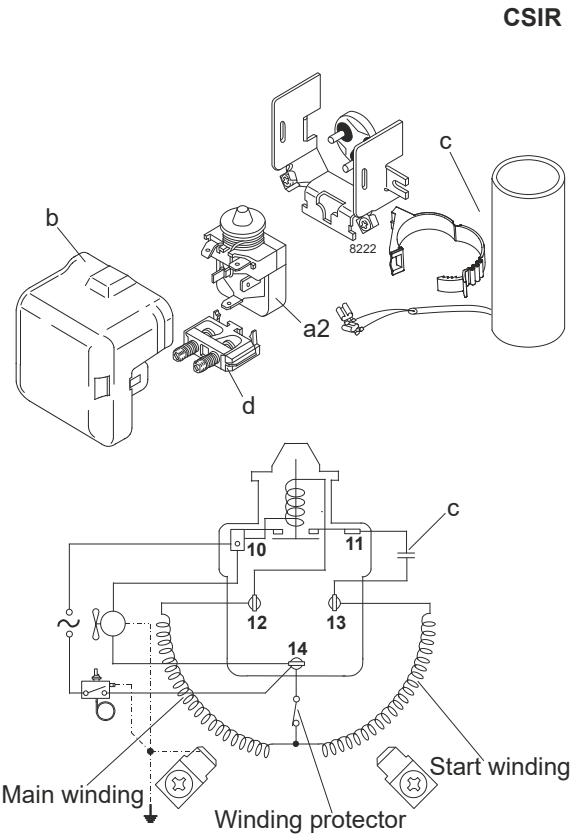
Model

Designation	SC10G	208-230V/60Hz	Conf. 2	Sales code:	104G8000
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE CCC EAC

Electrical accessories / wiring diagram

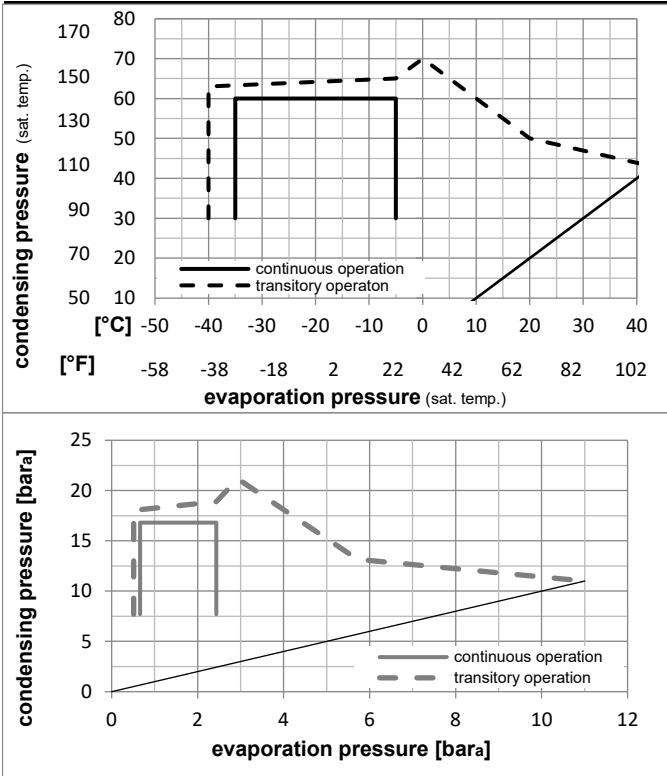


Ambient/ machine room temperatures minimum /maximum

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	assy. relay	117U6002
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation	SC10G	208-230V/60Hz	Conf. 2	Sales code:	104G8000
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Optimization + standard conditions

R134a, 230V/60Hz, CSIR, fan 3m/s, VDE, CCC, EAC

	Evaporating pressure (saturation temperature)				Cooling capacity			COP	EER	P1	Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]				l	Current consumption	Ref. mass flow	
	[°C]	[°F]	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
	-23	54	32	32	196,3	670	168,9	0,86	2,95	0,74	227,1	1,69	3,81	ASHRAE LBP
	[-10]	[130]	[90]	[90]										
	-25	55	32	55	132,4	452	113,9	0,63	2,14	0,54	211,7	1,66	3,17	cecomaf LBP
	[-13]	[131]	[90]	[131]										
	-35	40	20	40	83,4	285	71,8	0,61	2,07	0,52	137,6	1,56	1,83	EN12900 LBP
	[-31]	[104]	[68]	[104]										
	-7	54	35	46	577,7	1973	497,2	1,59	5,43	1,37	363,1	2,11	12,60	ASHRAE MBP
	[20]	[130]	[95]	[115]										
	-10	55	32	55	432,2	1476	372,0	1,27	4,35	1,10	339,3	2,02	10,45	cecomaf MBP
	[-14]	[131]	[90]	[131]										
	-10	45	20	45	512,2	1749	440,8	1,61	5,49	1,38	318,7	1,95	11,99	EN12900 MBP
	[-14]	[113]	[68]	[113]										

Performance tables

R134a, 230V/60Hz, CSIR, fan 3m/s, VDE, CCC, EAC

	pe		Cooling capacity			COP	EER	P1	l	m	
	[°C]	[°F]	[W]	[Btu/h]	[kcal/h]						
[°C / °F]	-35	-31	62,7	214	53,9	0,49	1,69	0,43	126,8	1,53	1,35
cond. pressure	-30	-22	119,3	408	102,7	0,69	2,37	0,60	172,1	1,59	2,58
pc= 45/113	-25	-13	194,9	666	167,7	0,91	3,12	0,79	213,5	1,66	4,22
return gas temp.	-23	-10	224,8	768	193,5	0,99	3,39	0,85	226,7	1,69	4,88
RGT= 32/90	-20	-4	289,0	987	248,7	1,15	3,93	0,99	251,4	1,74	6,28
liquid temp	-15	5	401,3	1371	345,4	1,40	4,79	1,21	286,3	1,84	8,75
Tliq= 45/113	-5	23	678,9	2319	584,3	1,94	6,64	1,67	349,2	2,07	14,93
[°C / °F]	-35	-31	27,3	93	23,5	0,25	0,85	0,22	109,3	1,50	0,65
cond. pressure	-30	-22	70,1	239	60,3	0,43	1,47	0,37	162,6	1,57	1,67
pc= 55/131	-25	-13	132,4	452	113,9	0,63	2,14	0,54	211,7	1,66	3,17
return gas temp	-23	-10	157,9	539	135,9	0,69	2,37	0,60	227,6	1,69	3,78
RGT= 32/90	-20	-4	213,7	730	183,9	0,83	2,84	0,72	257,2	1,76	5,13
liquid temp	-15	5	313,8	1072	270,1	1,05	3,58	0,90	299,6	1,88	7,55
Tliq= 55/131	-5	23	568,7	1942	489,4	1,51	5,15	1,30	376,9	2,16	13,82

Model

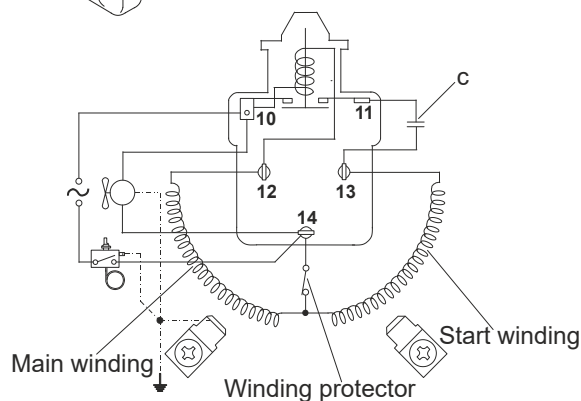
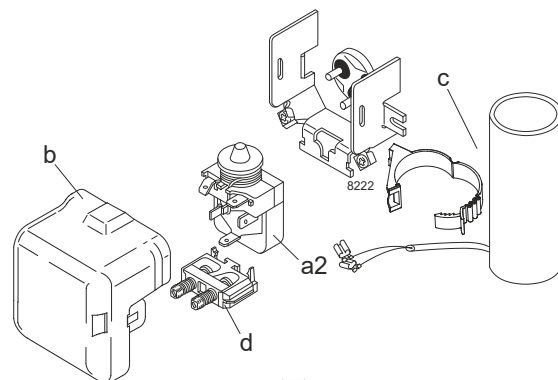
Designation	SC10G	220-240V/50Hz	Conf. 3	Sales code:	104G8000
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Configuration

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

Electrical accessories / wiring diagram

CSIR



Ambient/ machine room temperatures minimum /maximum

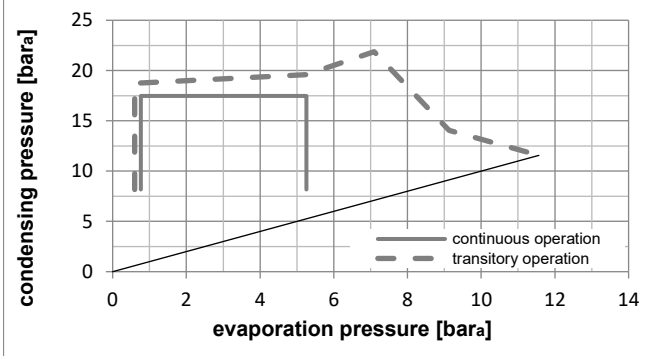
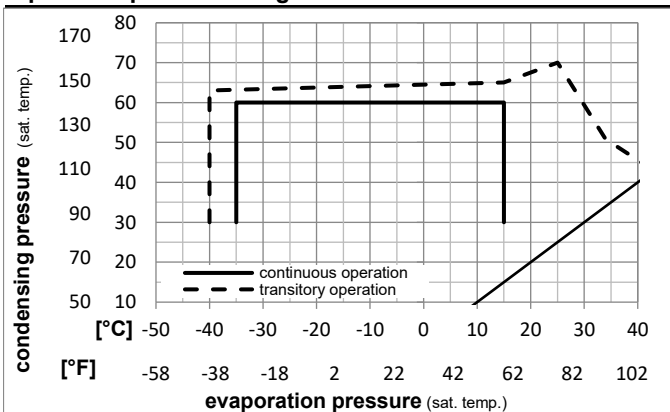
Ambient temperature range: 10 - 43°C / 50 - 110°F

Machine room temperature range: 10 - 48°C / 50 - 119°F

Compressor cooling: fan 3m/s

Operation Limits

Operation pressure range



Components

a2	assy. relay	117U6002
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation	SC10G	220-240V/50Hz	Conf. 3	Sales code:	104G8000
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Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.	Liquid temp.	Cooling capacity	COP	EER	Power consumption			Ref. mass flow
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]						P1	I	m	
[°C]																
[°F]																
	-23	54	32	32	187,0	639	160,9	0,89	3,03	0,76	210,7	1,49	4,02	ASHRAE LBP		
	-10	130	90	90												
	-25	55	32	55	122,9	420	105,8	0,62	2,13	0,54	197,1	1,44	3,37	cecomaf LBP		
	-13	131	90	131												
	-35	40	20	40	79,4	271	68,3	0,62	2,12	0,53	128,1	1,20	1,96	EN12900 LBP		
	-31	104	68	104												
	-7	54	35	46	518,9	1772	446,6	1,57	5,38	1,36	329,5	1,90	12,71	ASHRAE MBP		
	20	130	95	115												
	-10	55	32	55	383,9	1311	330,4	1,24	4,24	1,07	309,3	1,83	10,62	cecomaf MBP		
	14	131	90	131												
	-10	45	20	45	458,2	1565	394,3	1,58	5,40	1,36	289,5	1,76	12,14	EN12900 MBP		
	14	113	68	113												

Performance tables

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

	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]	-35	-31	59,8	204	51,5	0,50	1,72	0,43	118,6	1,17	1,45
cond. pressure	-25	-13	182,1	622	156,7	0,92	3,15	0,79	197,2	1,44	4,44
pc= 45/113	-15	5	365,5	1248	314,6	1,40	4,77	1,20	261,5	1,67	8,96
return gas temp.	-10	14	479,1	1636	412,3	1,65	5,65	1,42	289,5	1,76	11,78
RGT= 32/90	0	32	748,1	2555	643,9	2,20	7,51	1,89	340,1	1,94	18,56
liquid temp	5	41	902,7	3083	776,9	2,48	8,48	2,14	363,7	2,02	22,52
Tliq= 45/113	15	59	1250,2	4270	1075,9	3,05	10,41	2,62	410,2	2,19	31,63
[°C / °F]	-35	-31	26,2	90	22,6	0,25	0,86	0,22	104,1	1,12	0,72
cond. pressure	-25	-13	122,9	420	105,8	0,62	2,13	0,54	197,1	1,44	3,37
pc= 55/131	-15	5	282,0	963	242,7	1,03	3,50	0,88	274,8	1,71	7,77
return gas temp	-10	14	383,9	1311	330,4	1,24	4,24	1,07	309,3	1,83	10,62
RGT= 32/90	0	32	630,6	2154	542,7	1,69	5,79	1,46	372,1	2,05	17,61
liquid temp	5	41	774,5	2645	666,5	1,93	6,59	1,66	401,5	2,16	21,77
Tliq= 55/131	15	59	1101,5	3762	947,9	2,40	8,19	2,06	459,1	2,36	31,46

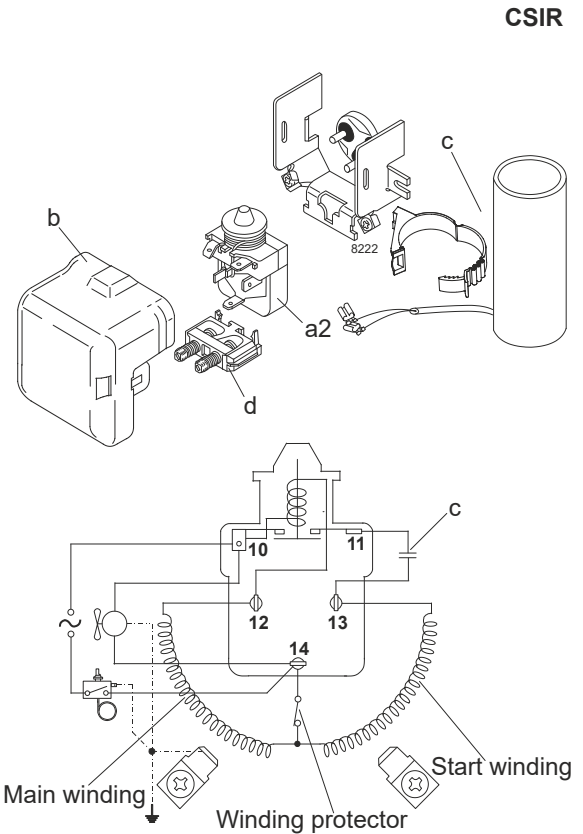
Model

Designation	SC10G	208-230V/60Hz	Conf. 4	Sales code:	104G8000
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R513A
Application	LBP
Voltage range	198-253V
Starting torque	HST
Approvals	VDE CCC

Electrical accessories / wiring diagram

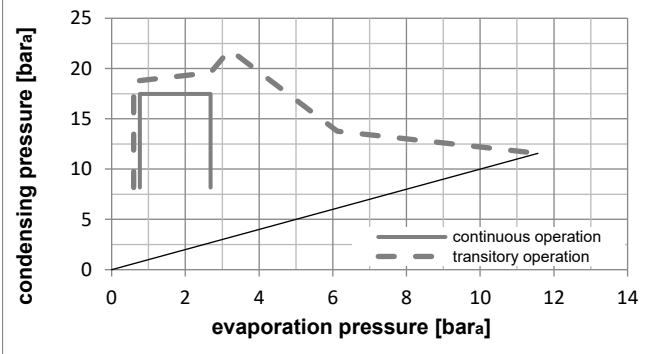
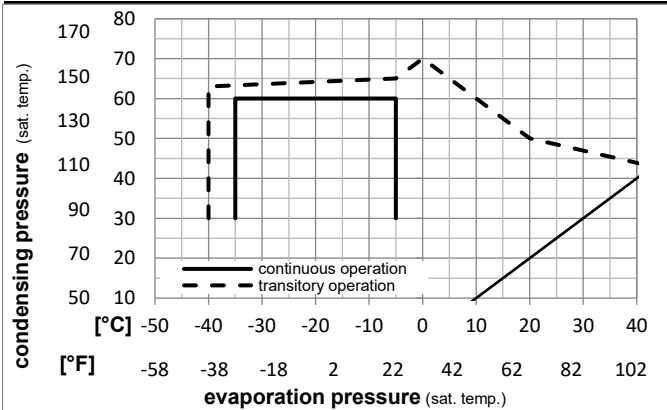


Ambient/ machine room temperatures minimum /maximum

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	assy. relay	117U6002
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation **SC10G** **208-230V/60Hz** Conf. 4 Sales code: **104G8000**

Optimization + standard conditions

R513A, 230V/60Hz, CSIR, fan 3m/s, VDE, CCC

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.			Liquid temp.			Cooling capacity			COP	EER	Power consumption			
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	[W]	[A]	[kg/h]						
[°C]	[°F]																						
-23	54	32	32		218,7	747	188,2	0,88	3,00	0,76	249,1	1,75	4,71								ASHRAE LBP		
-10	130	90	90																				
-25	55	32	55		143,8	491	123,7	0,62	2,10	0,53	233,4	1,70	3,94								cecomaf LBP		
-13	131	90	131																				
-35	40	20	40		92,8	317	79,9	0,61	2,07	0,52	153,1	1,41	2,30								EN12900 LBP		
-31	104	68	104																				
-7	54	35	46		607,0	2073	522,4	1,57	5,35	1,35	387,3	2,23	14,87								ASHRAE MBP		
20	130	95	115																				
-10	55	32	55		449,1	1534	386,5	1,23	4,22	1,06	363,7	2,15	12,42								cecomaf MBP		
14	131	90	131																				
-10	45	20	45		536,0	1830	461,3	1,57	5,38	1,35	340,5	2,07	14,21								EN12900 MBP		
14	113	68	113																				

Performance tables

R513A, 230V/60Hz, CSIR, fan 3m/s, VDE, CCC

	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]	-35	-31	70,0	239	60,2	0,49	1,68	0,42	142,2	1,38	1,70	
cond. pressure	-30	-22	132,3	452	113,9	0,70	2,38	0,60	190,1	1,54	3,22	
pc= 45/113	-25	-13	213,0	728	183,3	0,91	3,12	0,79	233,3	1,69	5,19	
return gas temp.	-23	-10	244,6	835	210,5	0,99	3,38	0,85	247,0	1,74	5,97	
RGT= 32/90	-20	-4	311,6	1064	268,2	1,14	3,91	0,98	272,3	1,83	7,61	
liquid temp	-15	5	427,6	1460	368,0	1,39	4,74	1,20	307,9	1,96	10,48	
Tliq= 45/113	-5	23	709,8	2424	610,9	1,91	6,54	1,65	370,8	2,18	17,52	
[°C / °F]	-35	-31	30,7	105	26,4	0,24	0,83	0,21	125,7	1,32	0,84	
cond. pressure	-30	-22	77,9	266	67,0	0,43	1,46	0,37	182,0	1,52	2,13	
pc= 55/131	-25	-13	143,8	491	123,7	0,62	2,10	0,53	233,4	1,70	3,94	
return gas temp	-23	-10	170,4	582	146,6	0,68	2,33	0,59	249,8	1,75	4,67	
RGT= 32/90	-20	-4	227,9	778	196,2	0,81	2,78	0,70	280,4	1,86	6,26	
liquid temp	-15	5	329,9	1127	283,9	1,02	3,48	0,88	323,6	2,01	9,09	
Tliq= 55/131	-5	23	585,2	1999	503,6	1,46	4,98	1,26	401,3	2,28	16,26	

Model

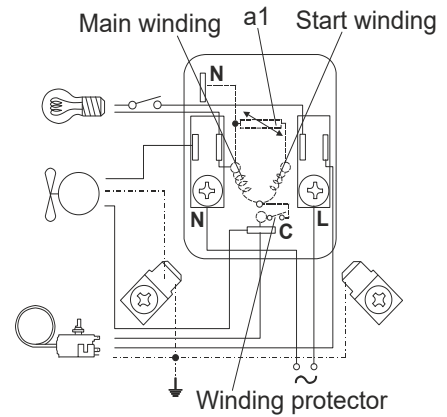
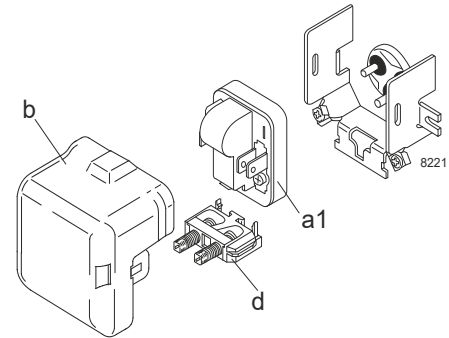
Designation	SC10G	220-240V/50Hz	Conf. 5	Sales code:	104G8000
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Configuration

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

Electrical accessories / wiring diagram

RSIR

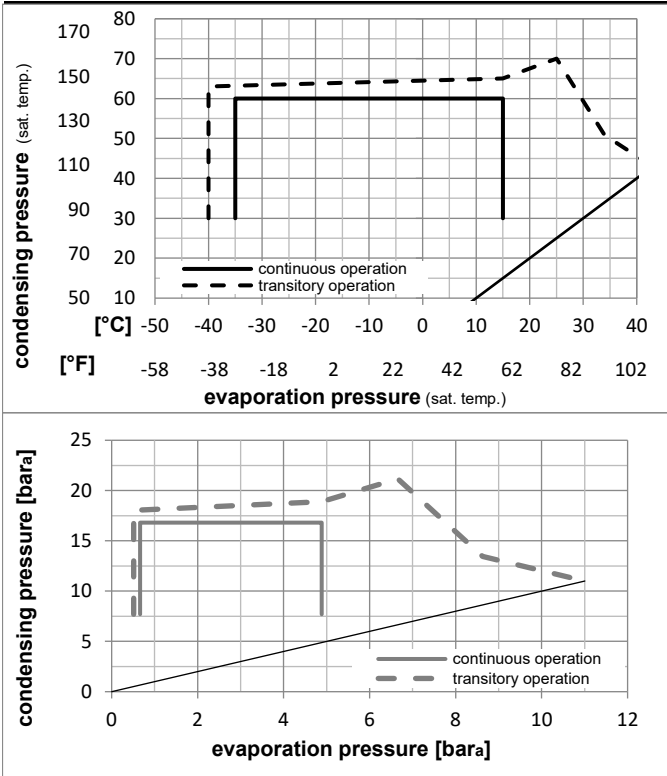


Ambient/ machine room temperatures minimum /maximum

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

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



SC Compressors





SC Compressors

Service/Repair – R290



8545



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