

Single Pack SC15G 220-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4420**

Position	Title	Code	Amount
1	Compressor SC15G	104G8520	1
2	Starting relay	117U7005	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	SC15G	220-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	104G8520
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Compressor design

Oil type	Polyolester	Refrigerant(s)	R134a, R513A
Oil viscosity	22cST	Displacement	15,28cm ³ / 0,93cu.in
Oil quantity	507cm ³ / 17,1fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1410cm ³ / 47,7fl.oz		
Weight	13,2kg / 29,1lbs		
Motor protection	1# internal		
Winding resistance main	5,13Ω (at 25°C)		
Winding resistance aux	13,51Ω (at 25°C)		
Max. winding temp.	125°C / 257°F		
Max. discharge temp.	130°C / 266°F		



General - Configurations with SC15G

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

Applications with SC15G

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

Electrical data - Configurations with SC15G

	Conf. 1	Conf. 2	Conf. 3	Conf. 4
Starting device type	relay	relay	relay	relay
Run capacitor	- / -	- / -	- / -	- / -
Start capacitor	80μF	80μF	80μF	80μF
LRA (locked rotor amps / 4s)	16,2A	15,6A	16,2A	15,6A
RLA (rated load amps / 1s)	3,1A	2,8A	3,1A	2,8A
Cut in current	16,2A	15,6A	16,2A	15,6A

Model

Designation

SC15G

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

Sales code:

104G8520

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

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]	107/183/55	115/100/63	-107/183/55
[in]	4,2/7,2/2,2	4,5/3,9/2,5	-4,2/7,2/2,2
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

Operation possible until tilted up to 3 degrees

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

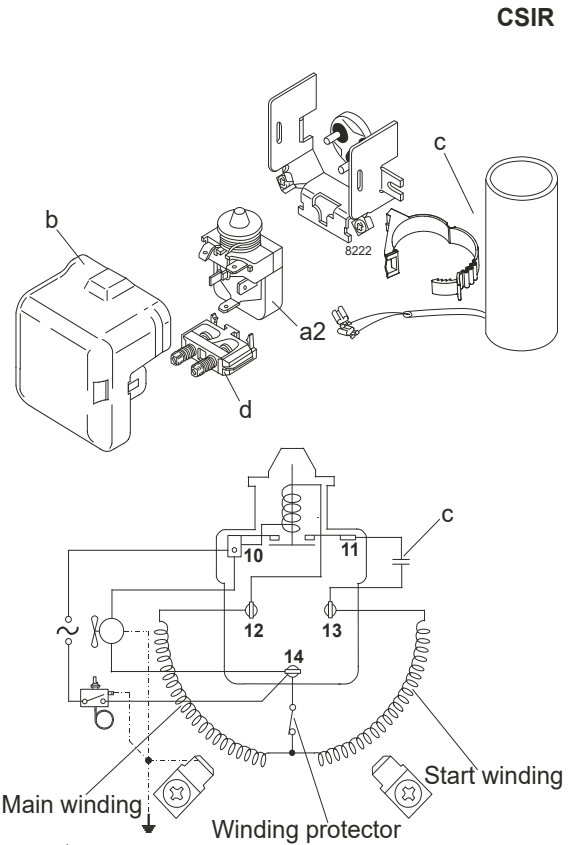
Model

Designation	SC15G	220-240V/50Hz	Conf. 1	Sales code:	104G8520
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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 KC

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	117U6005
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation	SC15G	220-240V/50Hz	Conf. 1	Sales code:	104G8520
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Optimization + standard conditions

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

	Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)			Return gas temp.	Liquid temp.	Cooling capacity	COP	EER	Power consumption			ASHRAE LBP
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]						P1	I	Ref. mass flow	
[°C]																
[°F]																
	-23	54	32	32	303,8	1037	261,4	1,10	3,76	0,95	275,6	2,27	5,90	ASHRAE LBP		
	-10	130	90	90												
	-25	55	32	55	214,0	731	184,2	0,83	2,83	0,71	257,9	2,21	5,12	cecomaf LBP		
	-13	131	90	131												
	-35	40	20	40	141,4	483	121,7	0,76	2,61	0,66	185,0	1,95	3,10	EN12900 LBP		
	-31	104	68	104												
	-7	54	35	46	742,4	2535	638,9	1,57	5,35	1,35	474,1	2,91	16,20	ASHRAE MBP		
	20	130	95	115												
	-10	55	32	55	566,0	1933	487,1	1,30	4,43	1,12	436,2	2,78	13,69	cecomaf MBP		
	14	131	90	131												
	-10	45	20	45	644,4	2201	554,6	1,58	5,41	1,36	407,1	2,66	15,08	EN12900 MBP		
	14	113	68	113												

Performance tables

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

	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	271,8	928	233,9	1,08	3,70	0,93	250,9	2,19	5,89
cond. pressure	-20	-4	380,2	1299	327,2	1,27	4,34	1,09	299,3	2,34	8,26
pc= 45/113	-10	14	668,5	2283	575,3	1,64	5,61	1,41	407,1	2,66	14,63
return gas temp.	-5	23	850,8	2906	732,2	1,84	6,30	1,59	461,2	2,83	18,71
RGT= 32/90	0	32	1060,1	3620	912,3	2,07	7,07	1,78	511,9	3,01	23,44
liquid temp	5	41	1297,5	4431	1116,7	2,33	7,96	2,01	556,4	3,19	28,89
Tliq= 45/113	15	59	1861,9	6359	1602,4	3,02	10,32	2,60	616,3	3,59	42,17
[°C / °F]	-25	-13	214,0	731	184,2	0,83	2,83	0,71	257,9	2,21	5,12
cond. pressure	-20	-4	311,8	1065	268,4	0,99	3,38	0,85	314,8	2,40	7,48
pc= 55/131	-10	14	566,0	1933	487,1	1,30	4,43	1,12	436,2	2,78	13,69
return gas temp	-5	23	724,9	2476	623,8	1,46	5,00	1,26	495,4	2,99	17,62
RGT= 32/90	0	32	906,4	3096	780,1	1,65	5,63	1,42	550,0	3,20	22,17
liquid temp	5	41	1111,9	3797	956,9	1,86	6,36	1,60	597,2	3,42	27,40
Tliq= 55/131	15	59	1599,5	5463	1376,6	2,43	8,29	2,09	659,0	3,88	40,18

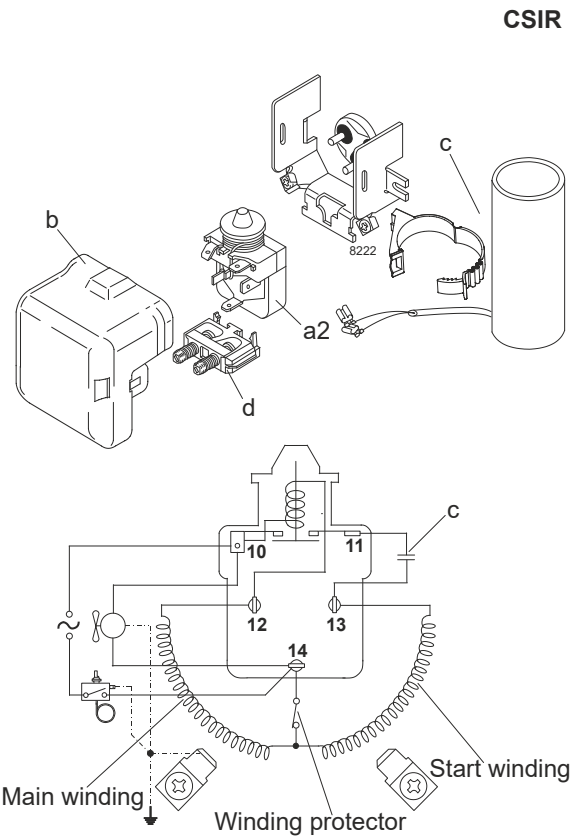
Model

Designation	SC15G	208-230V/60Hz	Conf. 2	Sales code:	104G8520
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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 KC

Electrical accessories / wiring diagram

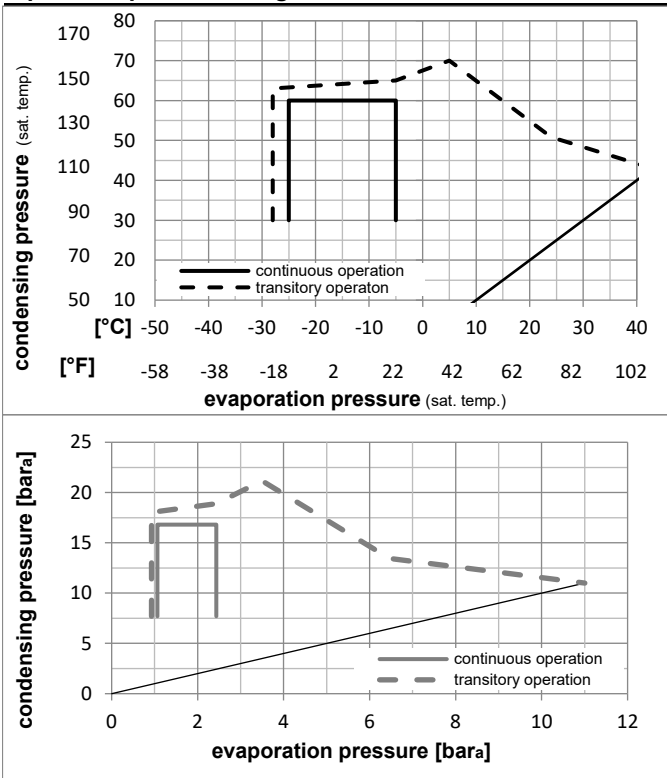


Ambient/ machine room temperatures minimum /maximum

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	117U6005
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation **SC15G** **208-230V/60Hz** Conf. 2 Sales code: **104G8520**

Optimization + standard conditions

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

		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]	-23	54	32	32	370,0	1264	318,4	1,07	3,64	0,92	347,0	2,03	7,18	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	262,0	895	225,5	0,79	2,71	0,68	330,2	1,99	6,27	cecomaf LBP	
[°F]	-13	131	90	131											
[°C]	-35	40	20	40	167,8	573	144,4	0,94	3,22	0,81	177,9	1,56	3,68	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-7	54	35	46	884,5	3021	761,2	1,64	5,59	1,41	540,7	2,73	19,30	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	677,1	2312	582,7	1,34	4,57	1,15	505,6	2,59	16,37	cecomaf MBP	
[°F]	14	131	90	131											
[°C]	-10	45	20	45	784,8	2680	675,4	1,69	5,76	1,45	465,6	2,47	18,37	EN12900 MBP	
[°F]	14	113	68	113											

Performance tables

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

	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	346,8	1184	298,5	1,15	3,94	0,99	300,8	1,90	7,51	
cond. pressure	-23	-10	389,3	1330	335,1	1,22	4,16	1,05	319,8	1,96	8,44	
pc= 45/113	-20	-4	479,5	1638	412,7	1,34	4,59	1,16	356,7	2,08	10,42	
return gas temp.	-18	0	545,3	1862	469,3	1,43	4,89	1,23	381,1	2,17	11,86	
RGT= 32/90	-15	5	635,4	2170	546,9	1,54	5,27	1,33	411,9	2,27	13,85	
liquid temp	-10	14	814,2	2781	700,7	1,75	5,97	1,51	465,6	2,47	17,82	
Tliq= 45/113	-5	23	1015,5	3468	874,0	1,97	6,71	1,69	516,6	2,67	22,33	
[°C / °F]	-25	-13	262,0	895	225,5	0,79	2,71	0,68	330,2	1,99	6,27	
cond. pressure	-23	-10	298,2	1018	256,6	0,85	2,91	0,73	349,7	2,05	7,14	
pc= 55/131	-20	-4	376,5	1286	324,0	0,97	3,31	0,83	388,0	2,17	9,03	
return gas temp	-18	0	434,4	1484	373,9	1,05	3,59	0,90	413,8	2,25	10,44	
RGT= 32/90	-15	5	514,9	1759	443,1	1,15	3,94	0,99	446,8	2,37	12,40	
liquid temp	-10	14	677,1	2312	582,7	1,34	4,57	1,15	505,6	2,59	16,37	
Tliq= 55/131	-5	23	862,5	2946	742,3	1,53	5,23	1,32	563,3	2,82	20,97	

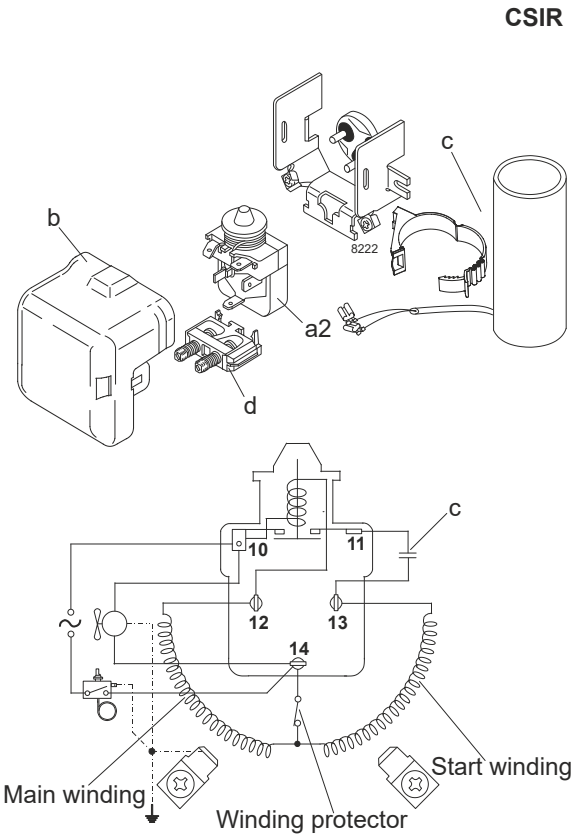
Model

Designation	SC15G	220-240V/50Hz	Conf. 3	Sales code:	104G8520
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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 UL

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	117U6005
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation	SC15G	220-240V/50Hz	Conf. 3	Sales code:	104G8520
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Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)					Power consumption				
		Return gas temp.			Liquid temp.		Cooling capacity			COP	EER	Current consumption		Ref. mass flow	
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°F]	[°C]	[°F]	[°C]	[°C]							[W]	[A]	[kg/h]	
-23	-10	54	130	32	90	338,2	1155	291,1	1,13	3,87	0,98	298,2	2,70	7,28	ASHRAE LBP
-25	-13	55	131	32	90	232,3	793	199,9	0,83	2,84	0,71	279,8	2,67	6,36	cecomaf LBP
-35	-31	40	104	20	68	158,9	543	136,8	0,80	2,72	0,69	199,3	2,60	3,93	EN12900 LBP
-7	20	54	130	35	95	780,5	2666	671,7	1,55	5,30	1,34	502,5	3,26	19,12	ASHRAE MBP
-10	14	55	131	32	90	588,4	2010	506,4	1,27	4,33	1,09	464,2	3,14	16,27	cecomaf MBP
-10	14	45	113	20	68	674,4	2303	580,4	1,56	5,33	1,34	431,8	3,04	17,87	EN12900 MBP

Performance tables

R513A, 220V/50Hz, CSIR, fan 3m/s, VDE, CCC, 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	297,5	1016	256,0	1,10	3,76	0,95	270,0	2,65	7,25	
cond. pressure	-20	-4	410,1	1401	353,0	1,28	4,37	1,10	320,5	2,75	10,02	
pc= 45/113	-10	14	705,2	2408	606,9	1,63	5,58	1,41	431,8	3,04	17,34	
return gas temp.	-5	23	889,6	3038	765,6	1,83	6,24	1,57	487,0	3,21	21,96	
RGT= 32/90	0	32	1100,0	3757	946,7	2,04	6,98	1,76	538,1	3,38	27,28	
liquid temp	5	41	1337,3	4567	1150,9	2,30	7,84	1,98	582,3	3,54	33,35	
Tliq= 45/113	15	59	1896,6	6477	1632,2	2,97	10,14	2,56	638,6	3,76	47,98	
[°C / °F]	-25	-13	232,3	793	199,9	0,83	2,84	0,71	279,8	2,67	6,36	
cond. pressure	-20	-4	332,4	1135	286,1	0,98	3,35	0,84	339,1	2,80	9,13	
pc= 55/131	-10	14	588,4	2010	506,4	1,27	4,33	1,09	464,2	3,14	16,27	
return gas temp	-5	23	746,4	2549	642,4	1,42	4,86	1,23	524,3	3,34	20,73	
RGT= 32/90	0	32	925,6	3161	796,6	1,60	5,46	1,38	579,0	3,52	25,85	
liquid temp	5	41	1127,2	3849	970,1	1,80	6,16	1,55	625,4	3,70	31,68	
Tliq= 55/131	15	59	1601,0	5468	1377,8	2,35	8,02	2,02	682,2	3,95	45,72	

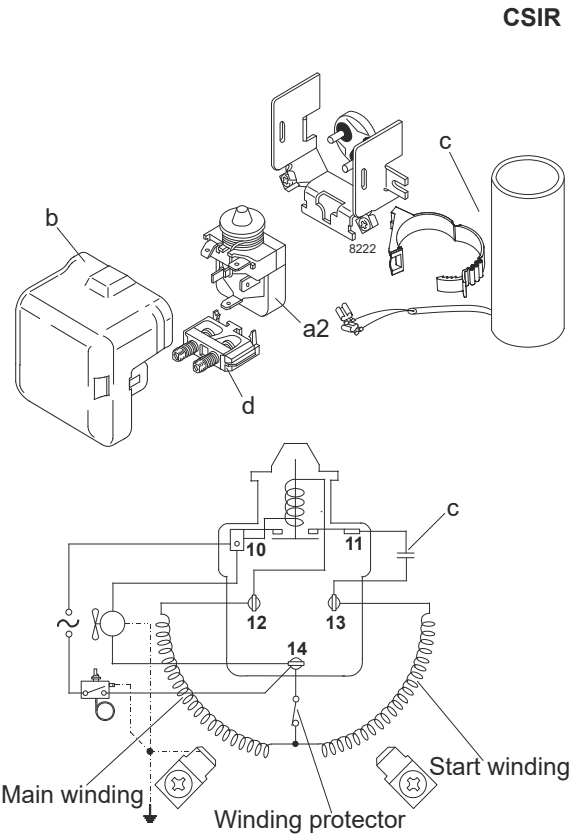
Model

Designation	SC15G	208-230V/60Hz	Conf. 4	Sales code:	104G8520
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Configuration

Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R513A
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE CCC UL

Electrical accessories / wiring diagram

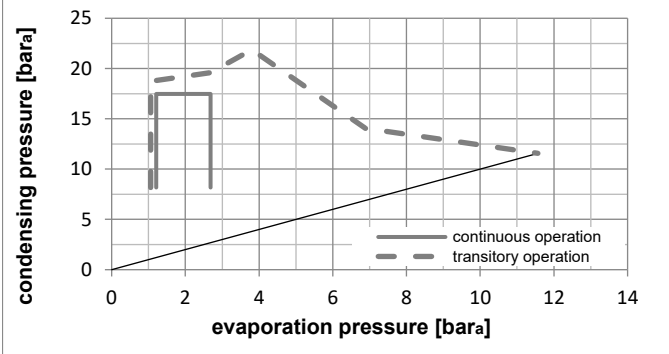
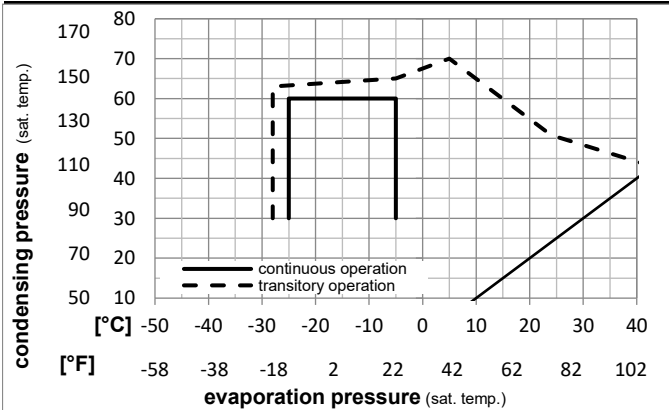


Ambient/ machine room temperatures minimum /maximum

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	117U6005
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2009

Model

Designation **SC15G** **208-230V/60Hz** Conf. 4 Sales code: **104G8520**

Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)					Power consumption				
		Return gas temp.			Liquid temp.		Cooling capacity			COP	EER	Current consumption		Ref. mass flow	
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	P1	I	m	
[°C]	[°F]	[°C]	[°F]	[°C]	[°C]							[W]	[A]	[kg/h]	
[°C]	-23	54	32	32	411,6	1406	354,2	1,07	3,67	0,92	383,1	2,19	8,86	ASHRAE LBP	
[°F]	-10	130	90	90											
[°C]	-25	55	32	55	284,0	970	244,4	0,77	2,65	0,67	366,7	2,13	7,78	cecomaf LBP	
[°F]	-13	131	90	131											
[°C]	-35	40	20	40	187,8	641	161,6	0,94	3,21	0,81	199,6	1,47	4,65	EN12900 LBP	
[°F]	-31	104	68	104											
[°C]	-7	54	35	46	928,2	3170	798,8	1,61	5,49	1,38	577,4	2,95	22,74	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	702,6	2400	604,7	1,29	4,42	1,11	542,7	2,81	19,43	cecomaf MBP	
[°F]	14	131	90	131											
[°C]	-10	45	20	45	820,4	2802	706,0	1,65	5,63	1,42	497,9	2,64	21,74	EN12900 MBP	
[°F]	14	113	68	113											

Performance tables

R513A, 230V/60Hz, CSIR, fan 3m/s, VDE, CCC, 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	378,7	1293	325,9	1,15	3,92	0,99	330,2	1,98	9,23
cond. pressure	-23	-10	423,0	1445	364,1	1,21	4,13	1,04	349,7	2,06	10,32
pc= 45/113	-20	-4	516,5	1764	444,5	1,33	4,55	1,15	387,4	2,21	12,62
return gas temp.	-18	0	584,1	1995	502,7	1,42	4,84	1,22	412,4	2,30	14,29
RGT= 32/90	-15	5	676,3	2310	582,1	1,52	5,21	1,31	443,7	2,43	16,57
liquid temp	-10	14	857,8	2930	738,3	1,72	5,88	1,48	497,9	2,64	21,09
Tliq= 45/113	-5	23	1060,6	3622	912,7	1,93	6,60	1,66	549,1	2,84	26,18
[°C / °F]	-25	-13	284,0	970	244,4	0,77	2,65	0,67	366,7	2,13	7,78
cond. pressure	-23	-10	321,2	1097	276,4	0,83	2,84	0,72	386,3	2,20	8,80
pc= 55/131	-20	-4	401,0	1369	345,1	0,94	3,22	0,81	424,9	2,35	11,01
return gas temp	-18	0	459,7	1570	395,6	1,02	3,48	0,88	450,8	2,45	12,64
RGT= 32/90	-15	5	540,7	1847	465,3	1,12	3,82	0,96	483,9	2,58	14,89
liquid temp	-10	14	702,6	2400	604,7	1,29	4,42	1,11	542,7	2,81	19,43
Tliq= 55/131	-5	23	886,4	3027	762,8	1,48	5,04	1,27	600,3	3,04	24,62



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