

## Single Pack SC15GH 220-240V 50Hz / 208-230V 60Hz CSIR

Single pack code number: **195B4183**

Position	Title	Code	Amount
1	Compressor SC15GH	104G8561	1
2	Starting relay	117U6011	1
3	Starting capacitor (80 $\mu$ F 220V, 6.3mm)	117U5017	1
4	Cord relief	103N1004	1
5	Cover	103N2008	1
6	Bolt joint for one compressor   M6   $\varnothing$ 16mm	118-1917	1

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## Model

Designation	<b>SC15GH</b>	220-240V/50Hz 1~ 208-230V/60Hz 1~	Sales code:	<b>104G8561</b>
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## Compressor design

Oil type	Polyolester	Refrigerant(s)	<b>R134a, R513A</b>
Oil viscosity	22cST	Displacement	15,28cm <sup>3</sup> / 0,93cu.in
Oil quantity	504cm <sup>3</sup> / 17fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1410cm <sup>3</sup> / 47,7fl.oz		
Weight	13kg / 28,7lbs		
Motor protection	1# internal		
Winding resistance main	4,4Ω (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 SC15GH

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

## Applications with SC15GH

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Refrigerant	R134a	R513A	R134a	R513A
Application	HBP	HBP	HBP	HBP
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 SC15GH

	<b>Conf. 1</b>	<b>Conf. 2</b>	<b>Conf. 3</b>	<b>Conf. 4</b>
Starting device type	relay	relay	relay	relay
Run capacitor	- / -	- / -	- / -	- / -
Start capacitor	80μF	80μF	80μF	80μF
LRA (locked rotor amps / 4s)	19A	19A	18,3A	18,3A
RLA (rated load amps / 1s)	3,9A	3,9A	3,52A	3,52A
Cut in current	19A	19A	18,3A	18,3A

## Model

Designation

**SC15GH**

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

Sales code:

**104G8561**

## 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 8,11-8,29	øi 6,11-6,29
(i:inside, o:outside) [in]	øi 0,4-0,41	øi 0,32-0,33	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

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

## Model

Designation	<b>SC15GH</b>	<b>220-240V/50Hz</b>	<b>Conf. 1</b>	Sales code:	<b>104G8561</b>
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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	HBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE UL CCC KC

## Electrical accessories / wiring diagram

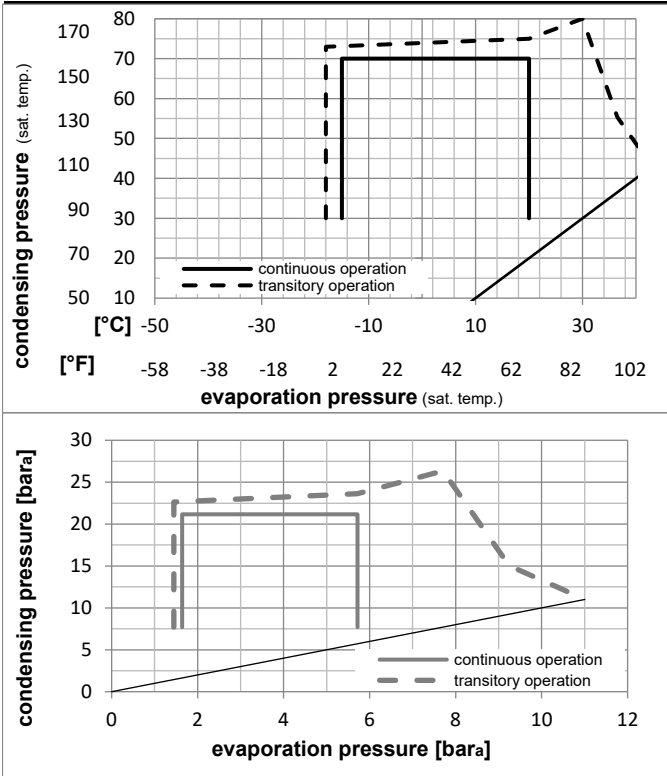


## Ambient/ machine room temperatures minimum /maximum

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	117U6011
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

### Model

Designation **SC15GH** **220-240V/50Hz** Conf. 1 Sales code: **104G8561**

### Optimization + standard conditions

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

		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	Ref. mass flow									
[°C]	[°F]											[W]	[A]	[kg/h]									
7,2	45	54	35	46	1387,1	4737	1193,7	2,41	8,21	2,07	576,7	3,20	30,77	ASHRAE HBP									
5	41	55	32	55	1139,1	3890	980,3	2,02	6,89	1,74	564,9	3,14	28,07	cecomaf HBP									
5	41	50	20	50	1182,5	4039	1017,7	2,19	7,48	1,88	540,0	3,03	29,80	EN12900 HBP									
-7	20	54	35	46	738,1	2521	635,2	1,60	5,48	1,38	460,1	2,67	16,10	ASHRAE MBP									
-10	14	55	32	55	558,6	1908	480,7	1,32	4,50	1,13	423,9	2,50	13,51	cecomaf MBP									
-10	14	45	20	45	647,1	2210	556,9	1,58	5,40	1,36	409,1	2,44	15,15	EN12900 MBP									

### Performance tables

R134a, 220V/50Hz, CSIR, fan 3m/s, VDE, UL, CCC, 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]	-15	5	510,8	1744	439,6	1,42	4,85	1,22	359,4	2,21	11,13
cond. pressure	-10	14	671,4	2293	577,8	1,64	5,60	1,41	409,1	2,44	14,69
pc= 45/113	-5	23	859,7	2936	739,9	1,90	6,50	1,64	451,7	2,63	18,91
return gas temp.	0	32	1080,1	3689	929,6	2,22	7,58	1,91	486,8	2,79	23,89
RGT= 32/90	5	41	1336,7	4565	1150,3	2,60	8,88	2,24	514,2	2,91	29,76
liquid temp	15	59	1975,0	6745	1699,7	3,63	12,39	3,12	544,3	3,05	44,74
Tliq= 45/113	20	68	2365,2	8078	2035,5	4,33	14,79	3,73	546,2	3,06	54,17
[°C / °F]	-15	5	416,9	1424	358,8	1,15	3,93	0,99	362,2	2,22	10,04
cond. pressure	-10	14	558,6	1908	480,7	1,32	4,50	1,13	423,9	2,50	13,51
pc= 55/131	-5	23	723,4	2470	622,5	1,51	5,16	1,30	478,5	2,75	17,58
return gas temp	0	32	915,5	3126	787,9	1,74	5,95	1,50	525,6	2,96	22,39
RGT= 32/90	5	41	1139,1	3890	980,3	2,02	6,89	1,74	564,9	3,14	28,07
liquid temp	15	59	1697,6	5798	1461,0	2,75	9,38	2,36	618,4	3,39	42,64
Tliq= 55/131	20	68	2040,9	6970	1756,4	3,23	11,03	2,78	631,9	3,45	51,90

## Model

Designation	<b>SC15GH</b>	<b>220-240V/50Hz</b>	<b>Conf. 2</b>	Sales code:	<b>104G8561</b>
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## Configuration

Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R513A
Application	HBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE UL CCC

## Electrical accessories / wiring diagram

CSIR

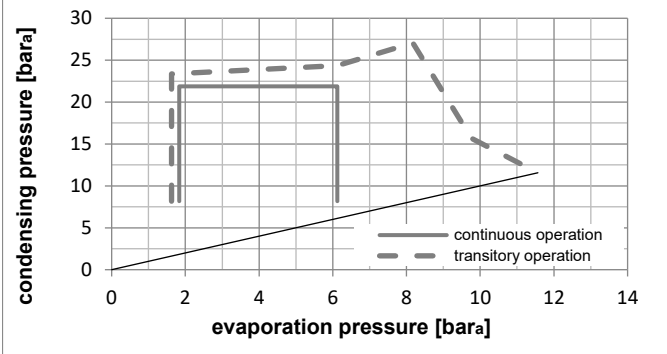
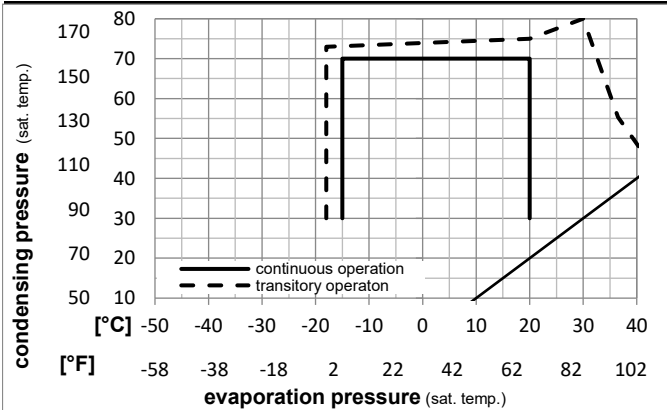


## Ambient/ machine room temperatures minimum /maximum

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	relay	117U6011
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

## Model

Designation **SC15GH** **220-240V/50Hz** Conf. 2 Sales code: **104G8561**

## Optimization + standard conditions

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

		Evaporating pressure (saturation temperature)				Condensing pressure (saturation temperature)						Power consumption			
		Return gas temp.		Liquid temp.		Cooling capacity		COP	EER		P1	I	Ref. mass flow		
		pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	7,2	54	35	46	1427,0	4873	1228,1	2,37	8,10	2,04	601,9	3,29	35,45	ASHRAE HBP	
[°F]	45	130	95	115											
[°C]	5	55	32	55	1154,7	3944	993,8	1,95	6,67	1,68	590,9	3,24	32,45	cecomaf HBP	
[°F]	41	131	90	131											
[°C]	5	50	20	50	1200,8	4101	1033,4	2,13	7,26	1,83	564,6	3,12	34,43	EN12900 HBP	
[°F]	41	122	68	122											
[°C]	-7	54	35	46	776,0	2650	667,8	1,59	5,44	1,37	487,4	2,77	19,01	ASHRAE MBP	
[°F]	20	130	95	115											
[°C]	-10	55	32	55	580,7	1983	499,8	1,29	4,40	1,11	450,9	2,61	16,06	cecomaf MBP	
[°F]	14	131	90	131											
[°C]	-10	45	20	45	677,2	2313	582,8	1,56	5,33	1,34	434,0	2,53	17,95	EN12900 MBP	
[°F]	14	113	68	113											

## Performance tables

R513A, 220V/50Hz, CSIR, fan 3m/s, VDE, UL, 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]	-15	5	544,2	1859	468,4	1,42	4,85	1,22	383,1	2,30	13,33
cond. pressure	-10	14	708,2	2419	609,5	1,63	5,57	1,40	434,0	2,53	17,41
pc= 45/113	-5	23	899,1	3071	773,8	1,89	6,44	1,62	476,7	2,72	22,19
return gas temp.	0	32	1121,0	3828	964,8	2,19	7,49	1,89	511,3	2,88	27,80
RGT= 32/90	5	41	1377,9	4706	1185,9	2,56	8,76	2,21	537,4	3,00	34,37
liquid temp	15	59	2012,8	6874	1732,3	3,57	12,19	3,07	563,8	3,12	50,93
Tliq= 45/113	20	68	2398,9	8193	2064,5	4,25	14,53	3,66	563,9	3,12	61,25
[°C / °F]	-15	5	438,6	1498	377,4	1,13	3,86	0,97	387,5	2,32	12,08
cond. pressure	-10	14	580,7	1983	499,8	1,29	4,40	1,11	450,9	2,61	16,06
pc= 55/131	-5	23	744,8	2544	641,0	1,47	5,03	1,27	506,1	2,86	20,69
return gas temp	0	32	934,8	3192	804,5	1,69	5,78	1,46	552,8	3,07	26,10
RGT= 32/90	5	41	1154,7	3944	993,8	1,95	6,67	1,68	590,9	3,24	32,45
liquid temp	15	59	1700,5	5808	1463,5	2,65	9,06	2,28	641,0	3,46	48,56
Tliq= 55/131	20	68	2034,4	6948	1750,8	3,12	10,65	2,68	652,6	3,51	58,70

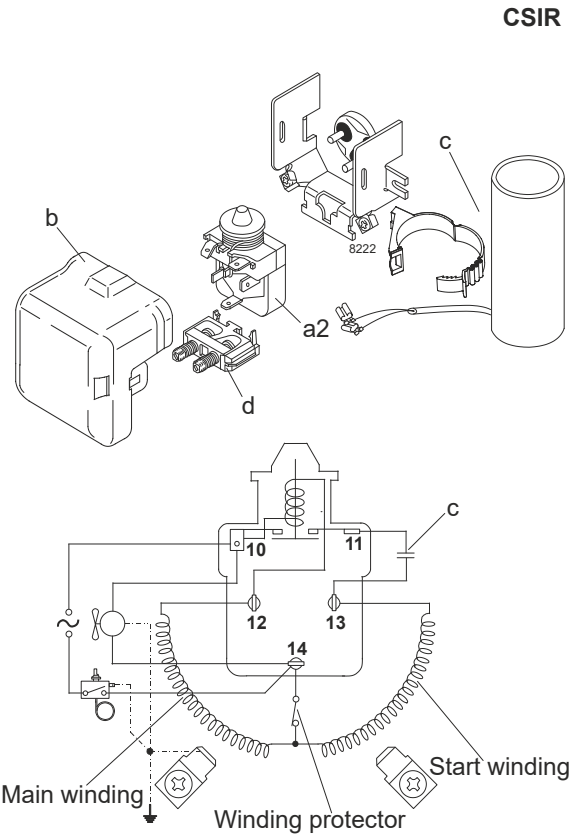
## Model

Designation	<b>SC15GH</b>	<b>208-230V/60Hz</b>	<b>Conf. 3</b>	Sales code:	<b>104G8561</b>
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## Configuration

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

## Electrical accessories / wiring diagram

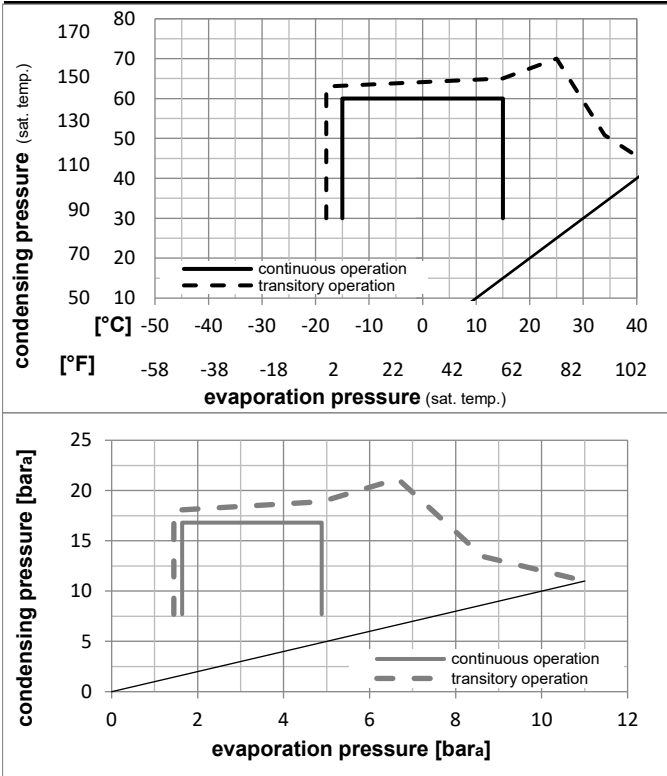


## Ambient/ machine room temperatures minimum /maximum

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	117U6011
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008



### Model

Designation **SC15GH** **208-230V/60Hz** Conf. 3 Sales code: **104G8561**

### Optimization + standard conditions

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

		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						
[°C]	[°F]											[W]	[A]	[kg/h]						
7,2	45	54	35	46	1595,4	5449	1373,0	2,39	8,17	2,06	667,1	3,28	35,39	ASHRAE HBP						
5	41	55	32	55	1295,1	4423	1114,6	2,03	6,92	1,74	639,0	3,13	31,91	cecomaf HBP						
5	41	50	20	50	1349,4	4608	1161,3	2,21	7,56	1,91	609,3	2,97	34,00	EN12900 HBP						
-7	20	54	35	46	783,1	2675	674,0	1,67	5,70	1,44	469,3	2,25	17,09	ASHRAE MBP						
-10	14	55	32	55	581,5	1986	500,5	1,37	4,69	1,18	423,6	2,01	14,06	cecomaf MBP						
-10	14	45	20	45	677,9	2315	583,4	1,64	5,59	1,41	414,0	1,96	15,87	EN12900 MBP						

### Performance tables

R134a, 230V/60Hz, CSIR, fan 3m/s, VDE, UL, CCC, 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]	-15	5	512,6	1751	441,1	1,44	4,91	1,24	356,5	1,66	11,17
cond. pressure	-10	14	703,3	2402	605,2	1,70	5,80	1,46	414,0	1,96	15,39
pc= 45/113	-5	23	934,2	3190	804,0	1,98	6,77	1,71	471,5	2,26	20,54
return gas temp.	0	32	1209,9	4132	1041,3	2,29	7,83	1,97	528,0	2,55	26,76
RGT= 32/90	5	41	1535,2	5243	1321,2	2,63	9,00	2,27	582,8	2,84	34,18
liquid temp	10	50	1914,6	6539	1647,7	3,02	10,30	2,60	634,9	3,11	42,96
Tliq= 45/113	15	59	2352,7	8035	2024,7	3,44	11,76	2,96	683,5	3,36	53,29
[°C / °F]	-15	5	424,6	1450	365,4	1,20	4,08	1,03	355,0	1,65	10,22
cond. pressure	-10	14	581,5	1986	500,5	1,37	4,69	1,18	423,6	2,01	14,06
pc= 55/131	-5	23	775,9	2650	667,7	1,57	5,36	1,35	494,4	2,38	18,86
return gas temp	0	32	1012,2	3457	871,1	1,79	6,10	1,54	566,5	2,75	24,76
RGT= 32/90	5	41	1295,1	4423	1114,6	2,03	6,92	1,74	639,0	3,13	31,91
liquid temp	10	50	1629,4	5565	1402,2	2,29	7,83	1,97	711,0	3,50	40,50
Tliq= 55/131	15	59	2019,5	6897	1738,0	2,58	8,82	2,22	781,6	3,87	50,72

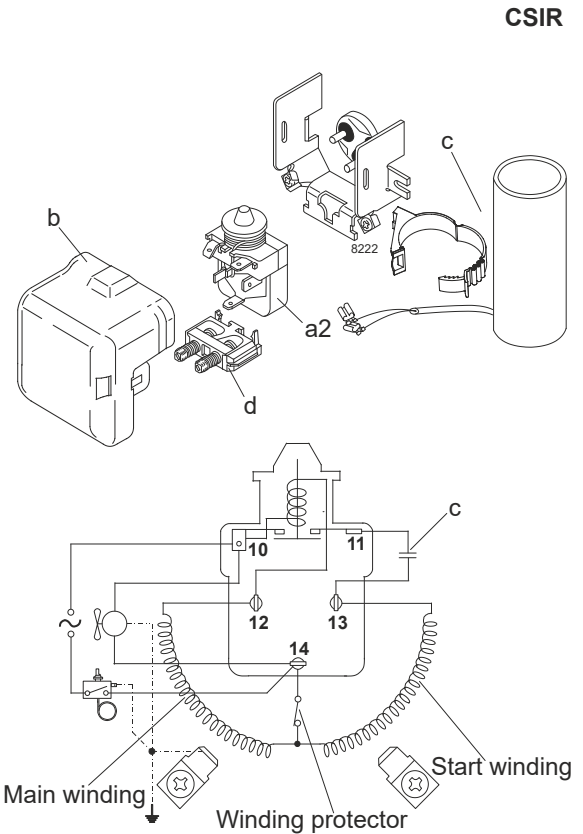
## Model

Designation	<b>SC15GH</b>	<b>208-230V/60Hz</b>	<b>Conf. 4</b>	Sales code:	<b>104G8561</b>
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## Configuration

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

## Electrical accessories / wiring diagram

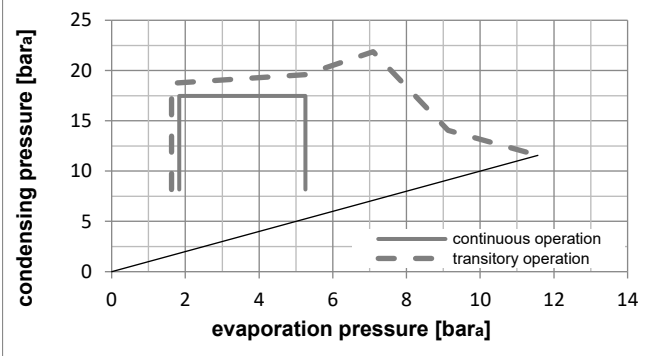
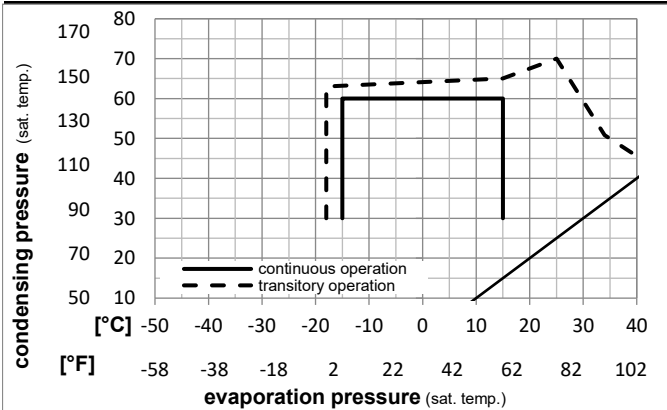


## Ambient/ machine room temperatures minimum /maximum

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	relay	117U6011
c	start capacitor (80μF)	117U5017
d	cord relief	103N1004
b	plastic cover	103N2008

### Model

Designation **SC15GH** **208-230V/60Hz** Conf. 4 Sales code: **104G8561**

### Optimization + standard conditions

R513A, 230V/60Hz, CSIR, fan 3m/s, VDE, UL, 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]																						
7,2	45	54	35	46	1641,7	5607	1412,8	2,36	8,05	2,03	696,4	3,42	40,78								ASHRAE HBP		
5	41	55	32	55	1313,2	4485	1130,2	1,96	6,71	1,69	668,4	3,28	36,90								cecomaf HBP		
5	41	50	20	50	1370,6	4681	1179,5	2,15	7,35	1,85	637,0	3,11	39,30								EN12900 HBP		
-7	20	54	35	46	823,7	2813	708,9	1,66	5,66	1,43	496,8	2,38	20,18								ASHRAE MBP		
-10	14	55	32	55	604,8	2066	520,5	1,34	4,59	1,16	450,3	2,14	16,72								cecomaf MBP		
-10	14	45	20	45	709,7	2424	610,8	1,62	5,52	1,39	439,0	2,08	18,81								EN12900 MBP		

### Performance tables

R513A, 230V/60Hz, CSIR, fan 3m/s, VDE, UL, 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]	-15	5	546,5	1866	470,3	1,44	4,91	1,24	380,1	1,78	13,39	
cond. pressure	-10	14	742,1	2535	638,7	1,69	5,77	1,45	439,0	2,08	18,25	
pc= 45/113	-5	23	977,2	3337	841,0	1,96	6,71	1,69	497,4	2,39	24,12	
return gas temp.	0	32	1256,0	4290	1081,0	2,27	7,74	1,95	554,3	2,68	31,15	
RGT= 32/90	5	41	1582,9	5406	1362,2	2,60	8,87	2,24	609,1	2,97	39,48	
liquid temp	10	50	1962,0	6700	1688,5	2,97	10,14	2,55	661,0	3,24	49,26	
Tliq= 45/113	15	59	2397,7	8188	2063,5	3,38	11,55	2,91	709,1	3,49	60,66	
[°C / °F]	-15	5	446,5	1525	384,3	1,18	4,02	1,01	379,7	1,77	12,30	
cond. pressure	-10	14	604,8	2066	520,5	1,34	4,59	1,16	450,3	2,14	16,72	
pc= 55/131	-5	23	799,2	2729	687,8	1,53	5,22	1,32	522,4	2,52	22,20	
return gas temp	0	32	1033,9	3531	889,8	1,74	5,93	1,49	595,4	2,90	28,87	
RGT= 32/90	5	41	1313,2	4485	1130,2	1,96	6,71	1,69	668,4	3,28	36,90	
liquid temp	10	50	1641,5	5606	1412,7	2,22	7,57	1,91	740,6	3,65	46,47	
Tliq= 55/131	15	59	2023,0	6909	1741,0	2,49	8,52	2,15	811,4	4,02	57,77	



# SC Compressors





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## Service/Repair – R290



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