Technical Data Compressor

SECOP

Model

Designation				Sales code:	
	SC18G	**220-240V/60Hz 1~**	**220-240V/50Hz 1~**		**104G8820**

Compressor design

Oil type	Polyolester	Refrigerant(s)	**R134a, R513A**
Oil viscosity	22cSt	Displacement	17,69cm³ / 1,08cu.in
Oil quantity	596cm³ / 20,2fl.oz	Compressors on pallet	80
Refr. charge - tech. limit	1300g / 45,9oz		
Free gas volume comp.	1460cm³ / 49,4fl.oz		
Weight	13,6kg / 30lbs		
Motor protection	1# internal		
Winding resistance main	3,7Ω (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 SC18G

	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, UL, CCC, EAC, KC	VDE, UL, CCC, EAC, KC	VDE, UL, CCC	VDE, UL, CCC
Starting torque	HST	HST	HST	HST
Note	- / -			

Applications with SC18G

	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 SC18G

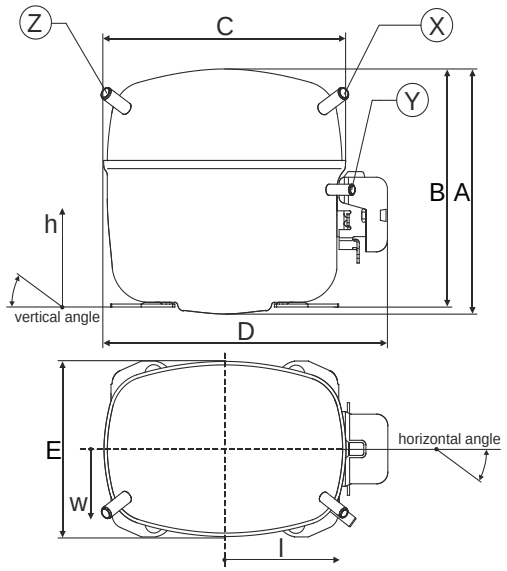
	Conf. 1	**Conf. 2**	**Conf. 3**	**Conf. 4**
Starting device type	relay	relay	relay	relay
Run capacitor	-/-	-/-	-/-	-/-
Start capacitor	80µF	80µF	80µF	80µF
LRA (locked rotor amps / 4s)	20,43A	19A	20,43A	19A
RLA (rated load amps / 1s)	3,9A	3,5A	3,9A	3,5A
Cut in current	20,43A	19A	20,43A	19A
IP class	21	21	21	21

Model

Designation **SC18G** **220-240V/60Hz 1~ 220-240V/50Hz 1~** Sales code: **104G8820**

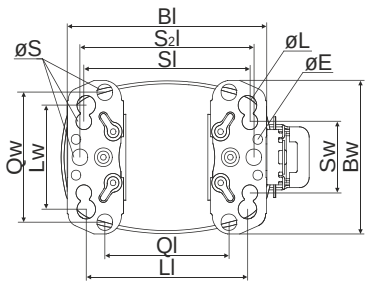
Compressor dimensions

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

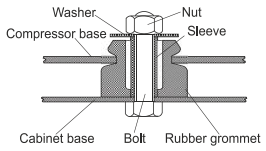


Baseplate	[mm]	[inch]
Bl	204	8.03
Bw	150	5.9
øE	ø 9.7	ø 0.38

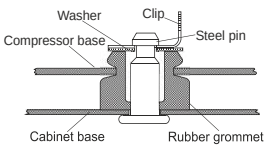
Large holes	[mm]	[inch]
Ll	165	6.5
Lw	101.6	4
øL	ø 19	ø 0.75

Small holes	[mm]	[inch]
Sl	170	6.7
Sw	70	2.76
øS	ø 16	ø 0.63
Ql	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	**220-240V/50Hz**	**Conf. 1**	Sales code: **104G8820**

Configuration

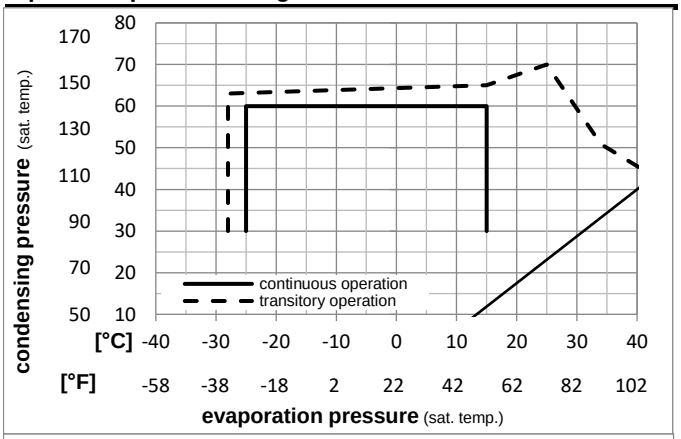
Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R134a
Application	LBP+MBP+HBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE
	UL
	CCC
	EAC
	KC

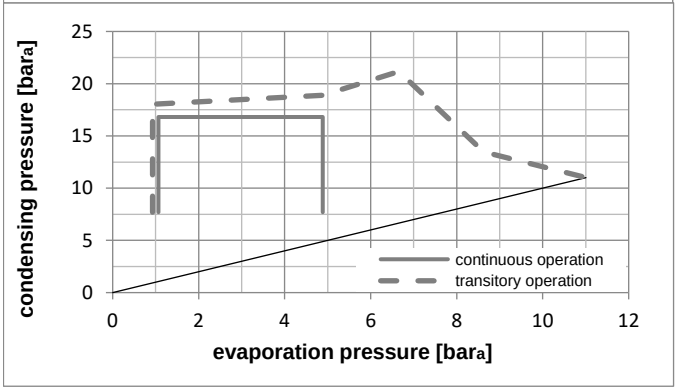
Ambient temperatures / system cooling

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

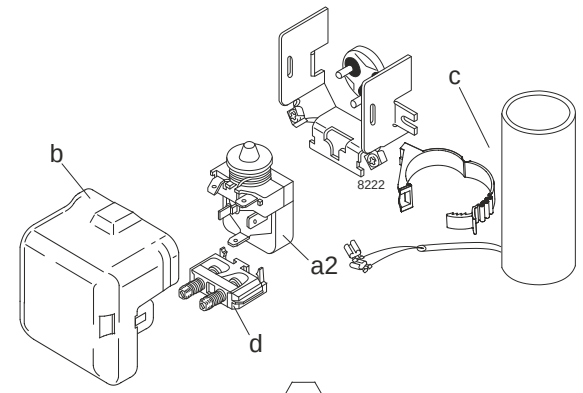
Operation pressure range

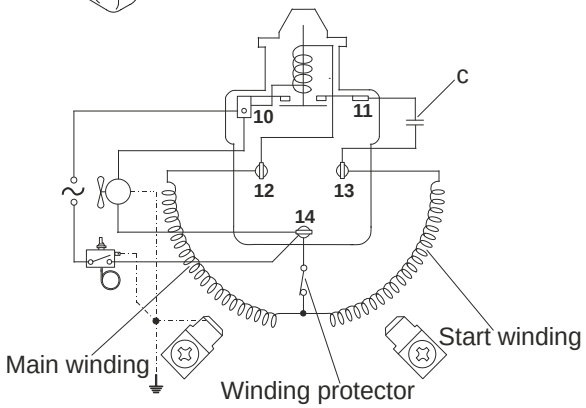




Electrical accessories / wiring diagram

CSIR





Components

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

Model

Designation **SC18G** **220-240V/50Hz** **Conf. 1** Sales code: **104G8820**

Optimization + standard conditions 220V/50Hz, CSIR, fan 3m/s, VDE, UL, CCC, EAC, KC

	Evaporating pressure (saturation temperature)	Condensing pressure (saturation temperature)	Return gas temp.	Liquid temp.	Cooling capacity			COP	EER		Power consumption P1	Current consumption I	Ref. mass flow ṁ	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	396,4	1354	341,2	1,13	3,87	0,97	350,1	2,61	7,70	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	285,6	975	245,8	0,88	2,99	0,75	325,8	2,56	6,83	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	146,0	499	125,7	0,67	2,30	0,58	217,1	2,26	3,20	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	894,7	3055	770,0	1,58	5,41	1,36	565,2	3,17	19,52	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	689,1	2353	593,1	1,31	4,47	1,13	526,8	3,05	16,66	**cecomaf MBP**
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	763,6	2608	657,2	1,54	5,27	1,33	495,2	2,91	17,87	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables 220V/50Hz, CSIR, fan 3m/s, VDE, UL, 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	332,6	1136	286,2	1,00	3,42	0,86	332,4	2,51	7,21
cond. pressure	-20	-4	462,8	1581	398,3	1,18	4,04	1,02	390,9	2,64	10,05
pc= 45/113	-10	14	792,2	2706	681,8	1,60	5,46	1,38	495,2	2,91	17,34
return gas temp.	-5	23	997,8	3408	858,7	1,84	6,27	1,58	543,4	3,07	21,94
RGT= 32/90	0	32	1235,0	4218	1062,8	2,09	7,14	1,80	590,3	3,25	27,31
liquid temp	5	41	1506,8	5146	1296,8	2,36	8,08	2,03	637,3	3,46	33,55
Tliq= 45/113	15	59	2167,5	7402	1865,3	2,95	10,06	2,54	735,6	4,00	49,09
[°C / °F]	-25	-13	285,6	975	245,8	0,88	2,99	0,75	325,8	2,56	6,83
cond. pressure	-20	-4	398,5	1361	343,0	1,00	3,43	0,86	397,0	2,72	9,56
pc= 55/131	-10	14	689,1	2353	593,1	1,31	4,47	1,13	526,8	3,05	16,66
return gas temp	-5	23	873,2	2982	751,5	1,49	5,07	1,28	587,8	3,24	21,23
RGT= 32/90	0	32	1087,4	3714	935,8	1,68	5,73	1,44	647,7	3,46	26,60
liquid temp	5	41	1334,8	4559	1148,8	1,89	6,44	1,62	707,6	3,71	32,89
Tliq= 55/131	15	59	1942,4	6634	1671,7	2,33	7,97	2,01	832,0	4,34	48,79

Model

Designation				
	SC18G	**208-230V/60Hz**	**Conf. 2**	Sales code: **104G8820**

Configuration

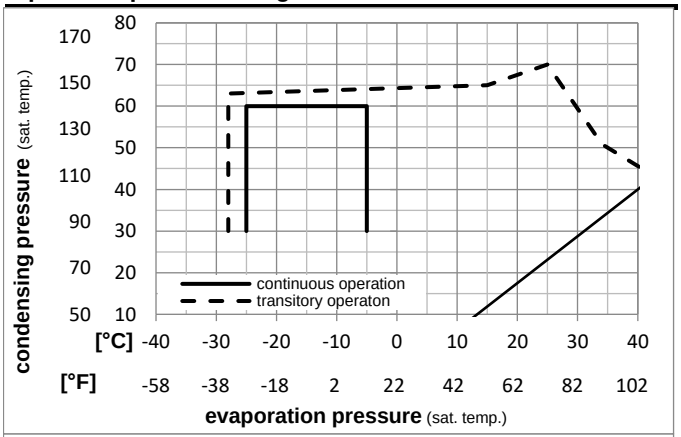
Motorconfiguration	CSIR
Power supply (nominal)	208-230V/60Hz 1~
Refrigerant	R134a
Application	LBP
Voltage range	198-254V
Starting torque	HST
Approvals	VDE
	UL
	CCC
	EAC
	KC

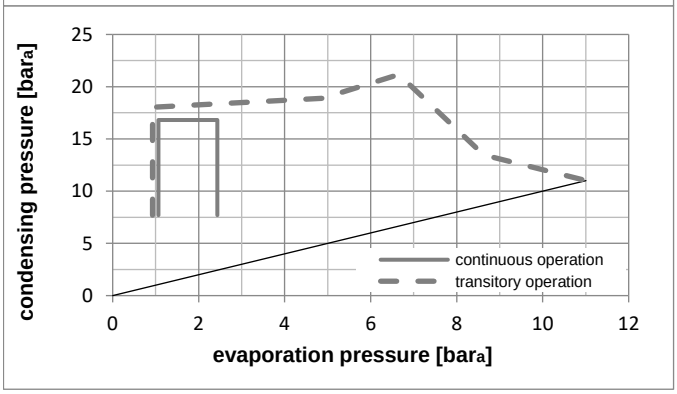
Ambient temperatures / system cooling

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	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	fan 3m/s	n/a	n/a

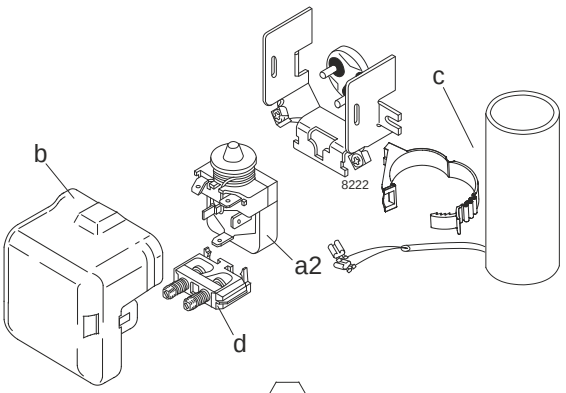
Operation pressure range

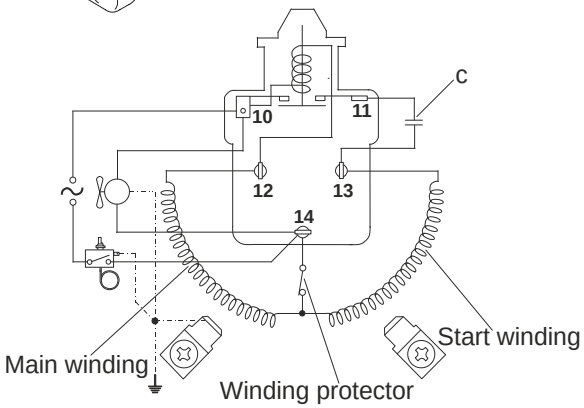




Electrical accessories / wiring diagram

CSIR





Components

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

Model

Designation				Sales code:
	SC18G	**208-230V/60Hz**	**Conf. 2**	**104G8820**

Optimization + standard conditions 220V/60Hz, CSIR, fan 3m/s, VDE, UL, CCC, EAC, KC

	Evaporating pressure (saturation temperature)	Condensing pressure (saturation temperature)	Return gas temp.	Liquid temp.	Cooling capacity			COP	EER		Power consumption P1	Current consumption I	Ref. mass flow ṁ	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	467,3	1596	402,2	1,13	3,86	0,97	413,1	3,09	9,07	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	337,6	1153	290,6	0,88	2,99	0,75	385,7	3,05	8,07	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	185,4	633	159,5	0,68	2,31	0,58	274,4	2,85	4,07	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	1046,2	3573	900,4	1,58	5,41	1,36	660,6	3,69	22,83	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	806,5	2754	694,1	1,31	4,47	1,13	616,0	3,56	19,50	**cecomaf MBP**
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	893,1	3050	768,6	1,54	5,27	1,33	578,6	3,40	20,91	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables 220V/60Hz, CSIR, fan 3m/s, VDE, UL, 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	393,7	1344	338,8	1,00	3,41	0,86	394,6	2,99	8,53
cond. pressure	-23,3	-10	442,0	1509	380,4	1,06	3,62	0,91	417,1	3,03	9,58
pc= 45/113	-20	-4	543,8	1857	468,0	1,18	4,04	1,02	459,5	3,10	11,81
return gas temp.	-17,8	0	618,0	2111	531,9	1,27	4,34	1,09	486,8	3,16	13,45
RGT= 32/90	-15	5	720,3	2460	619,9	1,38	4,73	1,19	520,6	3,24	15,70
liquid temp	-10	14	926,5	3164	797,4	1,60	5,47	1,38	578,6	3,40	20,28
Tliq= 45/113	-5	23	1165,7	3981	1003,2	1,84	6,27	1,58	634,5	3,58	25,63
[°C / °F]	-25	-13	337,6	1153	290,6	0,88	2,99	0,75	385,7	3,05	8,07
cond. pressure	-23,3	-10	379,5	1296	326,6	0,92	3,13	0,79	413,6	3,10	9,08
pc= 55/131	-20	-4	468,2	1599	402,9	1,00	3,43	0,86	466,2	3,19	11,23
return gas temp	-17,8	0	533,3	1821	458,9	1,07	3,64	0,92	500,3	3,26	12,81
RGT= 32/90	-15	5	623,4	2129	536,5	1,15	3,92	0,99	542,7	3,36	15,01
liquid temp	-10	14	806,5	2754	694,1	1,31	4,47	1,13	616,0	3,56	19,50
Tliq= 55/131	-5	23	1020,8	3486	878,6	1,49	5,07	1,28	687,0	3,79	24,81

Model

Designation				
	SC18G	**220-240V/50Hz**	**Conf. 3**	Sales code: **104G8820**

Configuration

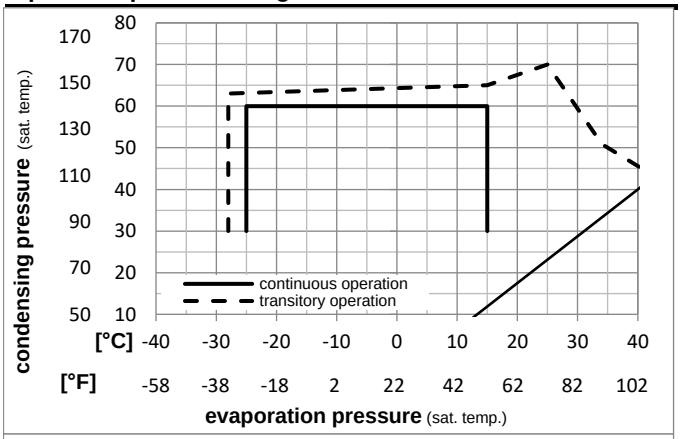
Motorconfiguration	CSIR
Power supply (nominal)	220-240V/50Hz 1~
Refrigerant	R513A
Application	LBP+MBP+HBP
Voltage range	187-254V
Starting torque	HST
Approvals	VDE
	UL
	CCC

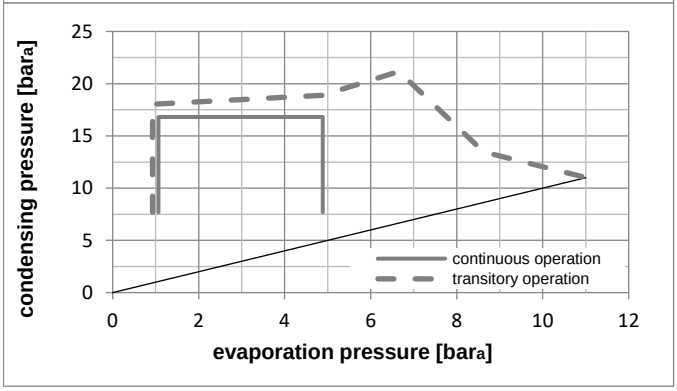
Ambient temperatures / system cooling

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

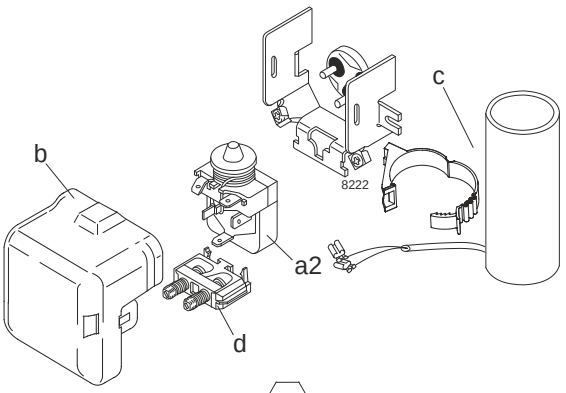
Operation pressure range

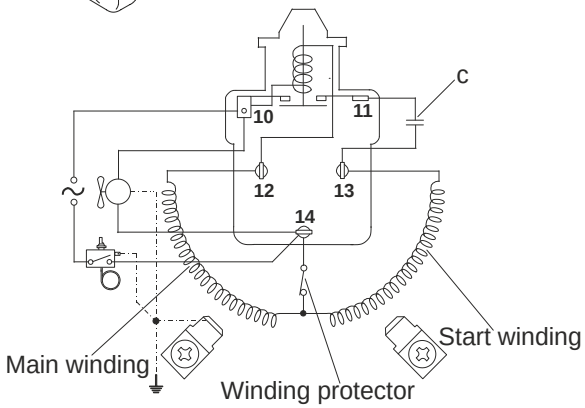




Electrical accessories / wiring diagram

CSIR





Components

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

Model

Designation **SC18G** **220-240V/50Hz** **Conf. 3** Sales code: **104G8820**

Optimization + standard conditions 220V/50Hz, 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 P1	Current consumption I	Ref. mass flow ṁ	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	441,2	1507	379,7	1,16	3,95	0,99	381,7	2,86	9,50	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	309,8	1058	266,7	0,87	2,97	0,75	356,5	2,80	8,48	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	167,0	570	143,7	0,70	2,39	0,60	238,5	2,51	4,13	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	940,0	3210	809,0	1,56	5,34	1,35	601,1	3,54	23,02	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	716,1	2445	616,2	1,27	4,34	1,09	562,8	3,41	19,80	**cecomaf MBP**
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	798,8	2728	687,5	1,51	5,17	1,30	527,4	3,26	21,17	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables 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]	-25	-13	363,8	1242	313,1	1,01	3,44	0,87	361,1	2,78	8,87
cond. pressure	-20	-4	498,8	1703	429,2	1,18	4,04	1,02	421,7	2,94	12,19
pc= 45/113	-10	14	835,3	2853	718,9	1,58	5,41	1,36	527,4	3,26	20,54
return gas temp.	-5	23	1042,9	3562	897,5	1,81	6,19	1,56	575,3	3,43	25,75
RGT= 32/90	0	32	1280,8	4374	1102,3	2,06	7,04	1,77	621,6	3,62	31,77
liquid temp	5	41	1552,1	5301	1335,8	2,32	7,94	2,00	667,8	3,82	38,71
Tliq= 45/113	15	59	2206,9	7537	1899,3	2,88	9,85	2,48	765,1	4,29	55,84
[°C / °F]	-25	-13	309,8	1058	266,7	0,87	2,97	0,75	356,5	2,80	8,48
cond. pressure	-20	-4	424,8	1451	365,6	0,99	3,37	0,85	430,5	2,99	11,66
pc= 55/131	-10	14	716,1	2445	616,2	1,27	4,34	1,09	562,8	3,41	19,80
return gas temp	-5	23	898,4	3068	773,2	1,44	4,92	1,24	623,9	3,62	24,96
RGT= 32/90	0	32	1109,4	3789	954,7	1,62	5,54	1,40	683,4	3,86	30,98
liquid temp	5	41	1351,9	4617	1163,5	1,82	6,22	1,57	742,7	4,12	37,99
Tliq= 55/131	15	59	1944,0	6639	1673,0	2,24	7,67	1,93	866,1	4,70	55,52

Model

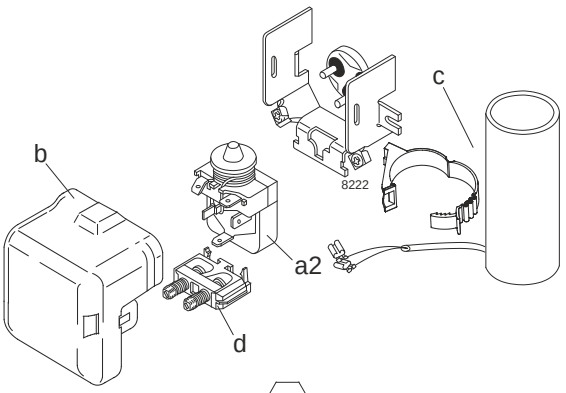
Designation				
	SC18G	**208-230V/60Hz**	**Conf. 4**	Sales code: **104G8820**

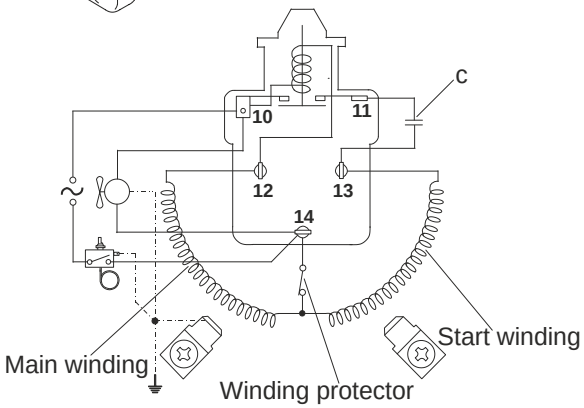
Configuration

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

Electrical accessories / wiring diagram

CSIR



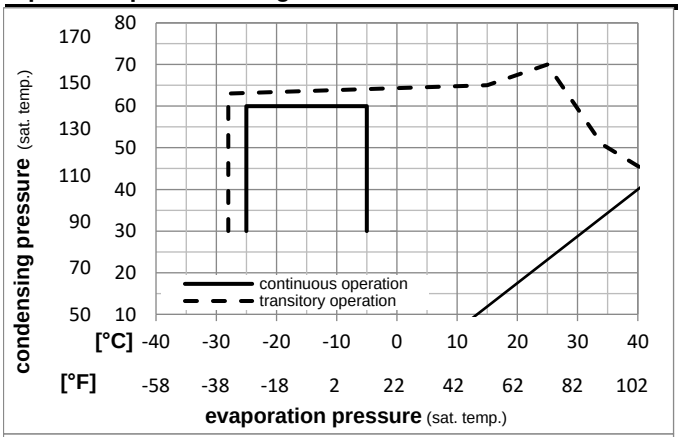


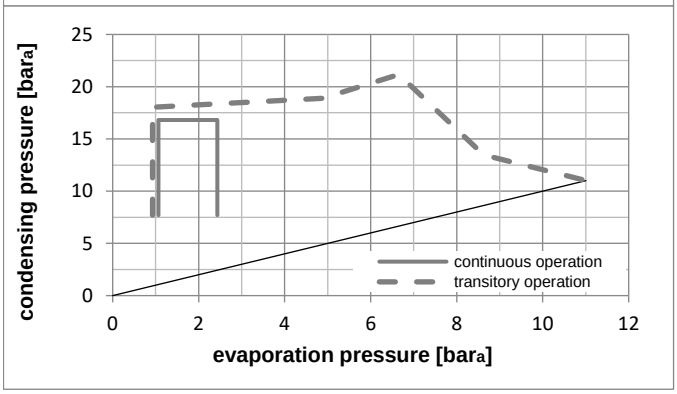
Ambient temperatures / system cooling

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	n/a	n/a
38°C / 100°F	fan 3m/s	n/a	n/a
43°C / 110°F	fan 3m/s	n/a	n/a

Operation pressure range





Components

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

Model

Designation **SC18G** **208-230V/60Hz** **Conf. 4** Sales code: **104G8820**

Optimization + standard conditions 220V/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 P1	Current consumption I	Ref. mass flow ṁ	
	pe	pc	RGT	Tliq	[W]	[Btu/h]	[kcal/h]	[W/W]	[Btu/Wh]	[kcal/Wh]	[W]	[A]	[kg/h]	
[°C]	-23,3	54,4	32,2	32,2	519,9	1775	447,4	1,15	3,92	0,99	452,7	3,12	11,19	**ASHRAE LBP**
[°F]	-10	130	90	90										
[°C]	-25	55	32	55	366,1	1250	315,1	0,86	2,94	0,74	424,6	3,03	10,03	**cecomaf LBP**
[°F]	-13	131	89,6	131										
[°C]	-35	40	20	40	211,0	720	181,6	0,69	2,36	0,59	305,8	2,65	5,22	**EN12900 LBP**
[°F]	-31	104	68	104										
[°C]	-6,66	54,4	35	46,1	1098,4	3751	945,3	1,56	5,32	1,34	704,8	3,93	26,90	**ASHRAE MBP**
[°F]	20	130	95	115										
[°C]	-10	55	32	55	837,4	2860	720,7	1,27	4,33	1,09	660,2	3,79	23,16	**cecomaf MBP**
[°F]	14	131	89,6	131										
[°C]	-10	45	20	45	933,6	3189	803,5	1,51	5,16	1,30	617,9	3,65	24,75	**EN12900 MBP**
[°F]	14	113	68	113										

Performance tables 220V/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]	-25	-13	430,3	1470	370,4	1,00	3,41	0,86	431,0	3,05	10,49
cond. pressure	-23,3	-10	480,5	1641	413,5	1,06	3,61	0,91	454,2	3,13	11,72
pc= 45/113	-20	-4	585,8	2001	504,1	1,18	4,02	1,01	497,6	3,26	14,31
return gas temp.	-17,8	0	662,1	2261	569,8	1,26	4,30	1,08	525,4	3,35	16,20
RGT= 32/90	-15	5	766,7	2619	659,9	1,37	4,68	1,18	559,6	3,46	18,79
liquid temp	-10	14	976,3	3334	840,2	1,58	5,40	1,36	617,9	3,65	24,00
Tliq= 45/113	-5	23	1217,5	4158	1047,8	1,81	6,17	1,56	673,6	3,83	30,06
[°C / °F]	-25	-13	366,1	1250	315,1	0,86	2,94	0,74	424,6	3,03	10,03
cond. pressure	-23,3	-10	408,8	1396	351,8	0,90	3,08	0,78	453,5	3,12	11,20
pc= 55/131	-20	-4	498,8	1704	429,3	0,98	3,36	0,85	507,7	3,30	13,70
return gas temp	-17,8	0	564,4	1928	485,8	1,04	3,55	0,90	542,7	3,41	15,52
RGT= 32/90	-15	5	654,9	2237	563,6	1,12	3,82	0,96	585,9	3,55	18,04
liquid temp	-10	14	837,4	2860	720,7	1,27	4,33	1,09	660,2	3,79	23,16
Tliq= 55/131	-5	23	1049,5	3584	903,2	1,43	4,90	1,23	731,6	4,01	29,15