SGC1-D/W Series
AC Contactor

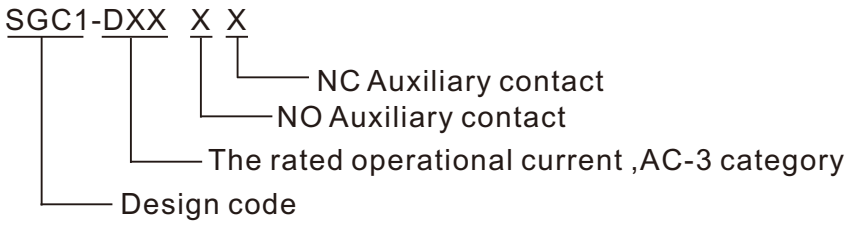
Technical data

Standard		IEC60947-4-1
Electric ratings		Up to 95A,690V
Approvals		CE,SEMKO,CB
Operation Range	Pick-up voltage	(85%~110%) Us
	Drop-out voltage	(20%~75%) Us
Rated insulation voltage Ui(V)		690
Rated impluse withstand voltage Uimp(kV)		6
Rated frequency(Hz)		50/60
Utilization category		AC-3,AC-4
Degree of protection		IP20
Ambient air temperature(℃)		-5 to+40,max.95%humidity
Storage temperature(℃)		-40~+75
Maximum operating altitude (meters)		≤2000
Flame resistance		V1

1.Selection and ordering data

	Rated Oreational current in category AC-3 400V (A)	Number of poles		Instantaneous auxiliary contacts		Standard control circuit voltages (VAC)	Rated frequency (HZ)	Type	Model
	9	3	-	1	-	230	50/60	3NO+NO	SGC1-D0910/W
		3	-	-	1	230	50/60	3NO+NC	SGC1-D0901/W
		4	-	-	-	230	50/60	4NO	SGC1-D09004/W
		2	2	-	-	230	50/60	2NO+2NC	SGC1-D09008/W
	12	3	-	1	-	230	50/60	3NO+NO	SGC1-D1210/W
		3	-	-	1	230	50/60	3NO+NC	SGC1-D1201/W
		4	-	-	-	230	50/60	4NO	SGC1-D12004/W
		2	2	-	-	230	50/60	2NO+2NC	SGC1-D12008/W
	18	3	-	1	-	230	50/60	3NO+NO	SGC1-D1810/W
		3	-	-	1	230	50/60	3NO+NC	SGC1-D1801/W
	25	3	-	1	-	230	50/60	3NO+NO	SGC1-D2510/W
		3	-	-	1	230	50/60	3NO+NC	SGC1-D2501/W
		4	-	-	-	230	50/60	4NO	SGC1-D25004/W
		2	2	-	-	230	50/60	2NO+2NC	SGC1-D25008/W
	32	3	-	1	-	230	50/60	3NO+NO	SGC1-D3210/W
		3	-	-	1	230	50/60	3NO+NC	SGC1-D3201/W
	40	3	-	1	1	230	50/60	3NO+NO+NC	SGC1-D4011/W
		4	-	-	-	230	50/60	4NO	SGC1-D40004/W
		2	2	-	-	230	50/60	2NO+2NC	SGC1-D40008/W
	50	3	-	1	1	230	50/60	3NO+NO+NC	SGC1-D5011/W
		4	-	-	-	230	50/60	4NO	SGC1-D50004/W
		2	2	-	-	230	50/60	2NO+2NC	SGC1-D50008/W
	65	3	-	1	1	230	50/60	3NO+NO+NC	SGC1-D6511/W
		4	-	-	-	230	50/60	4NO	SGC1-D65004/W
		2	2	-	-	230	50/60	2NO+2NC	SGC1-D65008/W
	80	3	-	1	1	230	50/60	3NO+NO+NC	SGC1-D8011/W
		4	-	-	-	230	50/60	4NO	SGC1-D80004/W
		2	2	-	-	230	50/60	2NO+2NC	SGC1-D80008/W
	95	3	-	1	1	230	50/60	3NO+NO+NC	SGC1-D9511/W
		4	-	-	-	230	50/60	4NO	SGC1-D95004/W
		2	2	-	-	230	50/60	2NO+2NC	SGC1-D95008/W

2.Model explanation:



3.Refer to other coil voltage listed as followings:

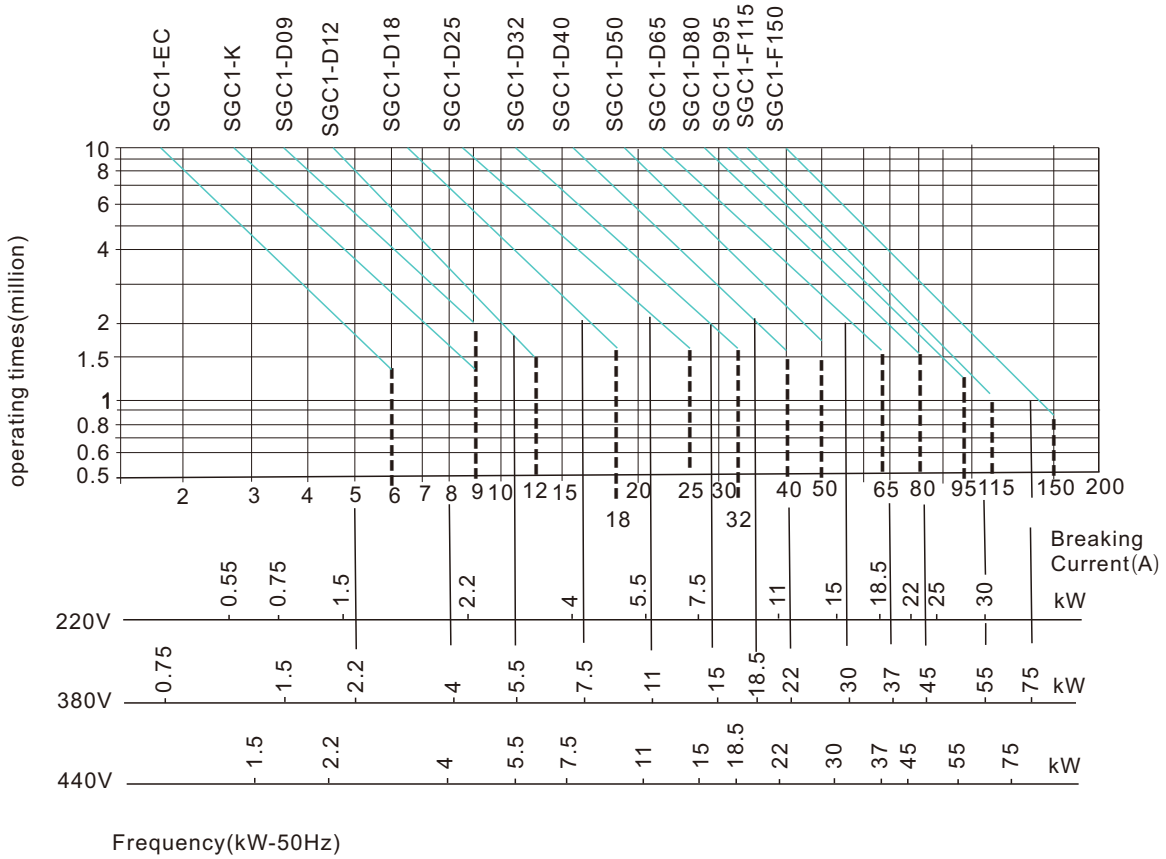
Coil voltage(V)	24	36	48	110	127	220	230	240	380	415	440	480	500	600	660
50Hz	B5	C5	E5	F5	G5	M5	P5	U5	Q5	N5	R5	T5	S5	-	Y5
60Hz	B6	-	E6	F6	G6	M6	P6	U6	Q6	N6	R6	T6	-	S6	-
50/60Hz	B7	C7	E7	F7	G7	M7	P7	U7	Q7	N7	R7	T7	-	-	-

For technical data, see technical specifications for type SGC1-D/W Series

Technical specifications for type SGC1-D/W Series

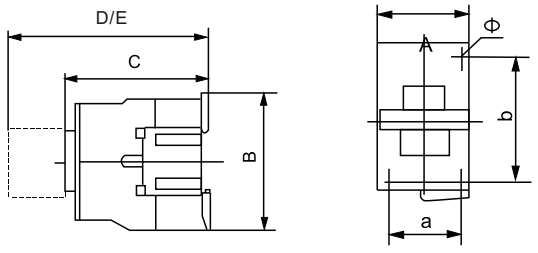
Type			SGC1-D09	SGC1-D12	SGC1-D18	SGC1-D25	SGC1-D32	SGC1-D40	SGC1-D50	SGC1-D65	SGC1-D80	SGC1-D95
Number of poles			3,4	3,4	3	3,4	3	3,4	3,4	3,4	3,4	3,4
Rated operational current(A)	380V	In AC-3	9	12	18	25	32	40	50	65	80	95
		In AC-4	3.5	5	7.7	8.5	12	18.5	24	28	37	44
	660V	In AC-3	6.6	8.9	12	18	21	34	39	42	49	55
		In AC-4	1.5	2	3.8	4.4	7.5	9	12	14	17.3	21.3
	440V	In AC-1	20	25	32	40	50	60	80	80	110	125
Rated conventional themal current Ith(A)			25	25	32	40	50	60	80	80	125	125
Rated making capacity(A)	400V		10 x Ie AC-3 or 12 x Ie AC-4									
Rated breaking capacity(A)	400V		8 x Ie AC-3 or 12 x Ie AC-4									
Rated operational power in category AC-3(kw)	220/230/240V		2.2	3	4	5.5	7.5	11	15	18.5	22	25
	380/400V		4	5.5	7.5	11	15	18.5	22	30	37	45
	415V		4	5.5	9	11	15	22	25	37	45	45
	440V		4	5.5	9	11	15	22	30	37	45	45
	660/690V		5.5	7.5	10	15	18.5	30	33	37	45	45
Average impedance per pole(mΩ)			2.5	2.5	2.5	2	2	1.5	1.5	1.5	0.8	0.8
Add-on auxiliary contact blocks	Front		SGA1-DN									
	Side		LA8-DN									
	Front time delay		SGA2-DT/SGA3-DR									
	Front dust and damp protected		■									
Reversing contactor type			SGC2-D									
Associated thermal overload relays			SGR2-D13				SGR2-D23	SGR2-D33				
Operation cycles （times/hour）	Electrical AC-3		1200	1200	1200	1200	600	600	600	600	600	600
	Electrical AC-4		300	300	300	300	300	300	300	300	300	300
	Mechanical		3600	3600	3600	3600	3600	3600	3600	3600	3600	3600
Elechanical life(X 10^3 times)	AC-3		1000	1000	1000	1000	800	800	600	600	600	600
	AC-4		200	200	200	200	200	150	150	150	100	100
Mechanical life(X 10^6 times)			10	10	10	10	8	8	8	8	6	6
Matching fuse model			RT16-20	RT16-20	RT16-32	RT16-40	RT16-50	RT16-63	RT16-80	RT16-80	RT16-100	RT16-125
Tightening torque(N.m) Connection			1.7	1.7	1.7	2.5	2.5	5	5	5	9	9

1.Electrical life curve for AC contactor SGC1-D/W

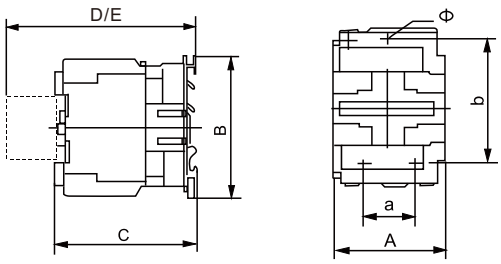


2.Overall and mounting dimensions(SGC1-D/W Series)

SGC1-D09~32 Dimension

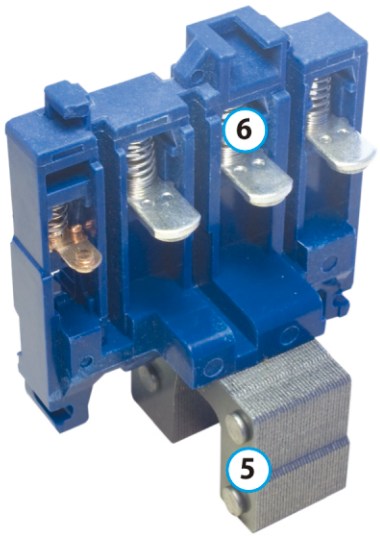


SGC1-D40~95 Dimension

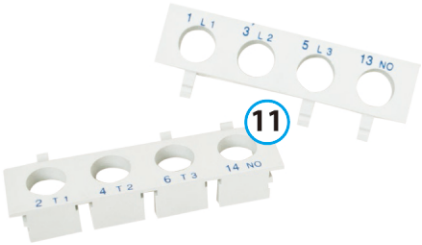


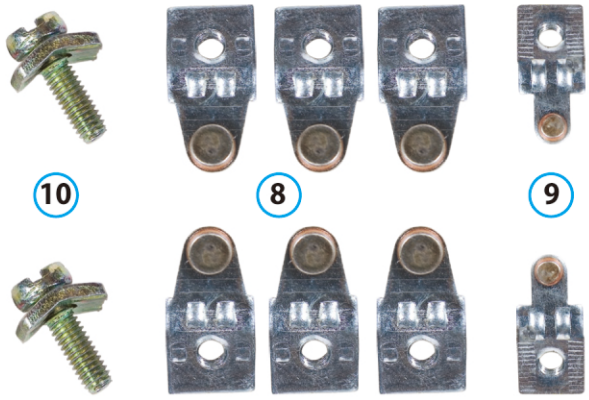
	Type	A max	B max	C max	D max	E max	a	b	φ
3P	SGC1-D09~12	47	76	82	113	133	34/35	50/60	2-/φ4.5
	SGC1-D18	47	76	87	118	138	34/35	50/60	2-/φ4.5
	SGC1-D25	57	86	95	126	146	40	48	2-/φ4.5
	SGC1-D32	57	86	100	131	151	40	48	2-/φ4.5
	SGC1-D40~65	77	129	116	145	165	40	100/110	3-/φ6.5
	SGC1-D80~95	87	129	127	156	176	40	100/110	3-/φ6.5
4P	SGC1-D09008W~12008W	47	76	82	113	133	34/35	50/60	2-/φ4.5
	SGC1-D25008W	57	86	95	126	146	40	48	2-/φ4.5
	SGC1-D40008W~65008W	86	129	116/129	145	165	40	100/110	3-/φ6.5
	SGC1-D80008W~95008W	97	129	127/140	156	176	40	100/110	3-/φ6.5

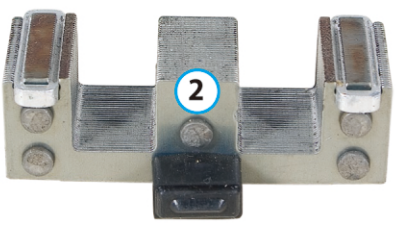
SGC1-D/W Series AC CONTACTOR



- BASE 1
- STATIC MAGNETIC CORE 2
- COIL 3
- REVERSE SPRING 4
- MOVABLE MAGNETIC CORE 5
- MOVABLE CONTACTS 6
- LID 7
- STATIC CONTACTS 8
- AUXILIARY CONTACT 9
- SCREWS 10
- TERMINAL PROTECTION CAPS 11







SGC1-F Series
AC Contactor

Technical data

Standard		IEC60947-4-1
Electric ratings		Up to 800A,1000V
Approvals		CE
Operation Range	Pick-up voltage	(85%~110%) Us
	Drop-out voltage	(20%~75%) Us
Rated insulation voltage Ui(V)		1000
Rated impluse withstand voltage Uimp(kV)		8
Rated frequency(Hz)		50/60
Utilization category		AC-3,AC-4
Degree of protection		IP20
Ambient air temperature(℃)		-5 to+40,max.95%humidity
Storage temperature(℃)		-40~+75
Maximum operating altitude (meters)		≤2000
Flame resistance		V1

1.Technical specifications for type SGC1-F Series

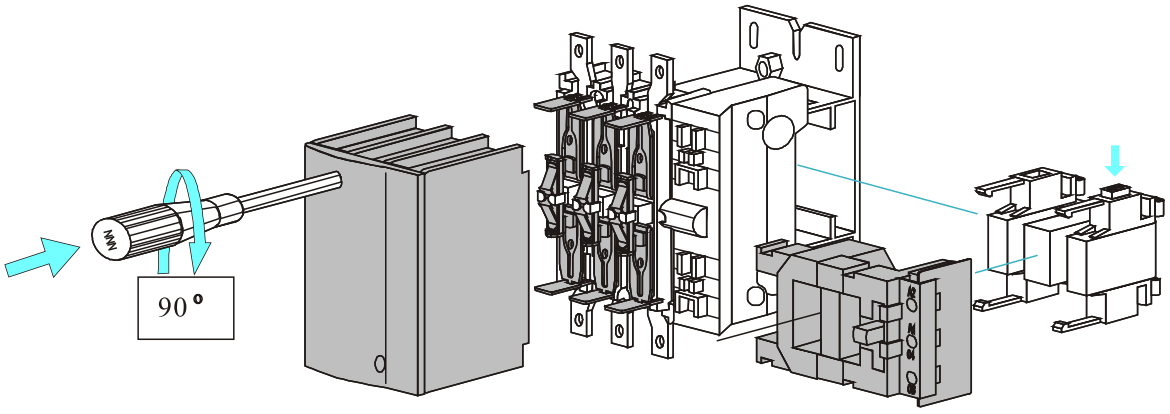
Type		SGC1-F115	SGC1-F150	SGC1-F185	SGC1-F225	SGC1-F265	SGC1-F330	SGC1-F400	SGC1-F500	SGC1-F630	SGC1-F780	SGC1-F800
Number of poles		3,4	3,4	3,4	3,4	3,4	2,3,4	2,3,4	2,3,4	2,3,4	2,3,4	3
current Ie(A) (Ue≤400V)	In AC-3	115	150	185	225	265	330	400	500	630	780	800
	In AC-1	200	250	275	315	350	400	500	700	1000	1600	1000
Rated conventional themal current Ith(A)		200	250	275	315	350	400	500	700	900	1600	1000
Rated making capacity(A) 1ms		10 x In AC-3 or 12 x In AC-4										
Rated breaking capacity(A) 1ms		8 x In AC-3 or 10 x In AC-4										
Rated operational power in category AC-3(kw)	220/230V	30	40	55	63	75	100	129	147	200	220	220
	380/400V	55	75	90	100	132	160	200	250	335	400	400
	415V	59	80	100	110	140	180	220	280	375	425	425
	440V	59	80	100	110	140	180	220	280	375	425	425
	500V	75	90	110	129	160	200	257	335	400	450	450
	660/690V	80	100	120	129	180	220	280	355	450	475	475
	1000V	65	65	100	140	147	160	185	335	450	450	450
Average impedance per pole(mΩ)		0.37	0.35	0.33	0.32	0.3	0.28	0.26	0.18	0.12	0.1	0.12
Add-on auxiliary contact blocks	Front	SGA1-DN										
	Side	-										
	Front time delay	SGA2-DT/SGA3-DR										
	Front dust and damp protected	-										
Operation cycles (times/hour)	AC-1,AC-2,AC-3	1200	1200	1200	1200	1200	600	600	600	600	600	600
	AC-4	300	300	300	300	300	300	300	300	300	300	300
Electrical life(X 10^6times)		1.2	1.2	1	1	0.8	0.8	0.8	0.8	0.8	0.8	0.6
Mechanical life(X 10^6 times)		10	10	6	6	6	6	6	6	6	6	3
Matching fuse model		RT16-2	RT16-2	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3	RT16-3
Tightening torque(N.m) cable connection		10	18	18	35	35	35	35	35	58	58	58

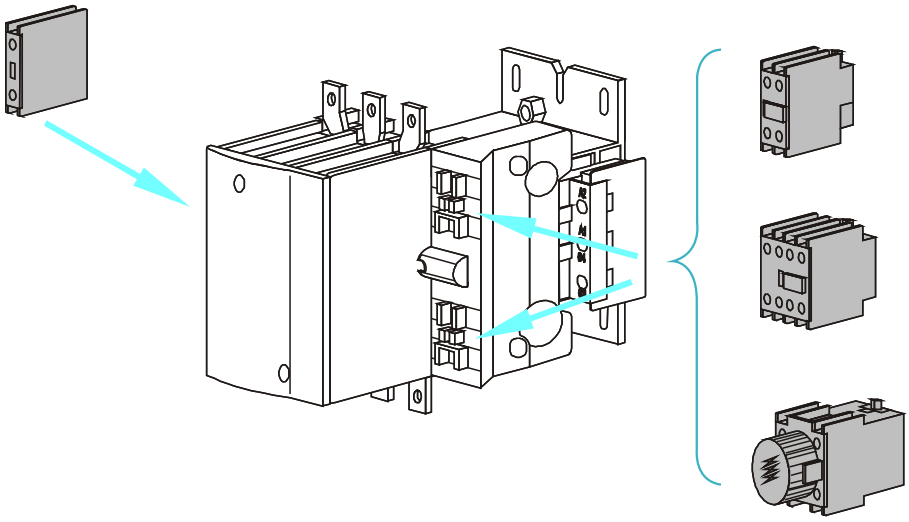
2.Model explanation:

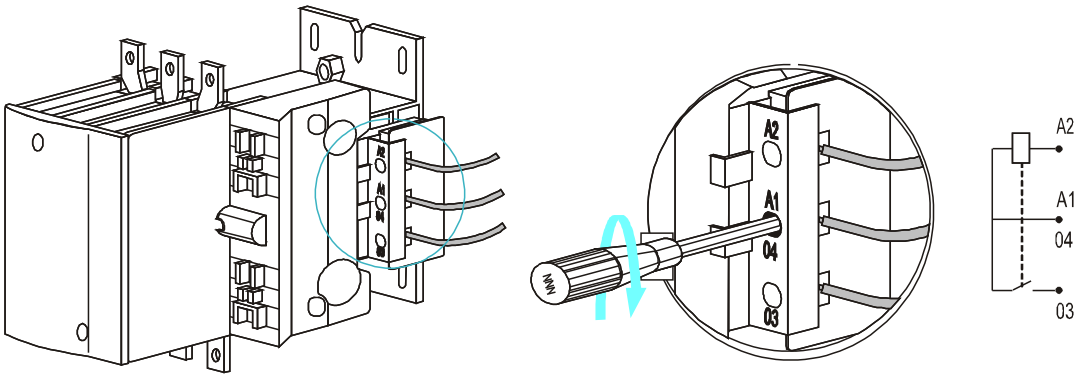
SGC1-F115

- The rated operational current ,AC-3 category
- Design code

SGC1-F Series AC Contactor

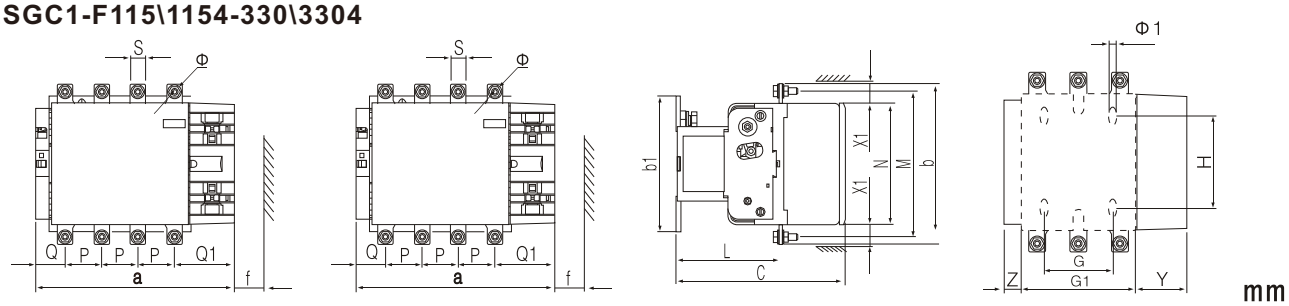






Overall and mounting dimensions(SGC1-F Series)

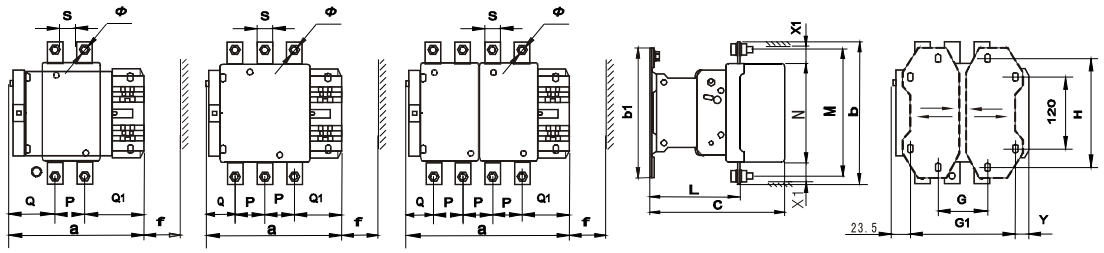
1.SGC1-F115\1154-330\3304



mm

SGC1-F	a	P	Q	Q1	S	ϕ	f	b	b1	M	N	C	L	G	H	ϕ1	G1	Z	Y	X1	
																				500V≤	>500V
115	163.5	37	29.5	60	15	M6	131	162	137	147	124	171	107	80	120-106	6.5	106	13.5	44	10	15
1154	200.5	37	29.5	60	15	M6	131	162	137	147	124	171	107	80	120-106	6.5	143	13.5	44	10	15
150	163.5	40	26	57.5	20	M8	131	170	137	150	124	171	107	80	120-106	6.5	106	13.5	44	10	15
1504	200.5	40	25	55.5	20	M8	131	170	137	150	124	171	107	80	120-106	6.5	143	13.5	44	10	15
185	168.5	40	29	59.5	20	M8	130	174	137	154	127	181	113.5	80	120-106	6.5	111	13.5	44	10	15
1854	208.5	40	29	59.5	20	M8	130	174	137	154	127	181	113.5	80	120-106	6.5	151	13.5	44	10	15
225	168.5	48	21	51.5	25	M10	130	197	137	172	127	181	113.5	80	120-106	6.5	111	13.5	44	10	15
2254	208.5	48	17	47.5	25	M10	130	197	137	172	127	181	113.5	80	120-106	6.5	151	20.5	44	10	15
265	201.5	48	39	66.5	25	M10	147	203	145	178	147	213	141	96	120-106	6.5	140	20.5	38	10	15
2654	244.5	48	34	66.5	25	M10	147	203	145	178	147	213	141	96	120-106	6.5	186	20.5	38	10	15
330	213	48	43	74	25	M10	147	206	145	181	158	219	145	96	120-106	6.5	154.5	20.5	38	10	15
3304	261	48	43	74	25	M10	147	206	145	181	158	219	145	96	120-106	6.5	202.5	20.5	38	10	15

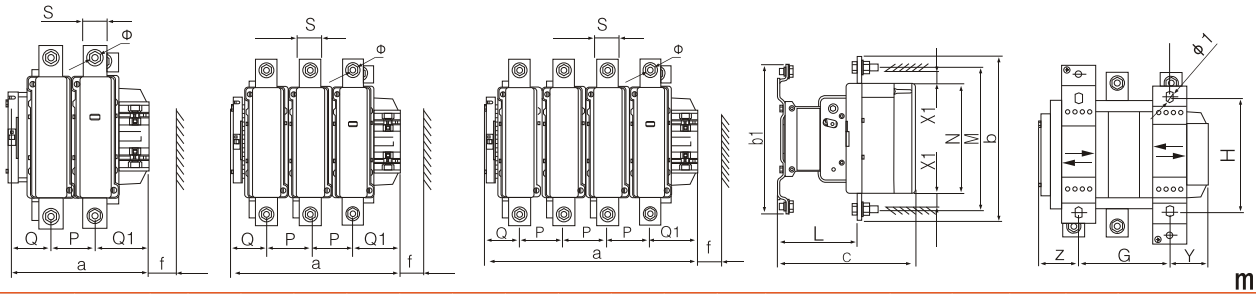
2.SGC1-F400\4004\4002\500\5004\5002



mm

SGC1-F	a	P	Q	Q1	S	ϕ	f	b	b1	M	N	C	L	G	G1	H	ϕ1	Y	X1	
																			500V≤	>500V
4002	213	48	69	96	25	M10	151	206	209	181	158	219	145	80(66-102)	170(156-192)	180	8.5	19.5	15	20
400	213	48	43	74	25	M10	151	206	209	181	158	219	145	80(66-102)	170(156-192)	180	8.5	19.5	15	20
4004	261	48	43	74	25	M10	151	206	209	181	158	219	145	80(66-150)	170(156-240)	180	8.5	67.5	15	20
5002	233	50	76	102	30	M10	169	238	209	208	172	232	146	80(66-120)	170(156-210)	180	8.5	39.5	15	20
500	233	50	46	77	30	M10	169	238	209	208	172	232	146	80(66-120)	170(156-210)	180	8.5	39.5	15	20
5004	288	50	46	77	30	M10	169	238	209	208	172	232	146	140(66-175)	230(156-265)	180	8.5	39.5	15	20

3.SGC1-F630\6304\800



mm

SGC1-F	a	P	Q	Q1	S	ϕ	f	b	b1	M	N	C	L	G	H	ϕ1	Z	Y	X1	
																			500V≤	>500V
6302	309	80	102	127	40	M12	201	304	280	264	202	255	155	180(100-195)	185	10.5	60.5	68.5	20	25
630	309	80	60	89	40	M12	201	304	280	264	202	255	155	180(100-195)	185	10.5	60.5	68.5	20	25
6304	309	80	60	89	40	M12	201	304	280	264	202	255	155	240(150-275)	185	10.5	60.5	68.5	20	25
800	309	80	60	89	40	M12	201	304	280	264	202	255	155	180(100-195)	185	10.5	60.5	68.5	20	25

Auxiliary contact and Time relay

Front auxiliary contact blocks

Type	Mounting Type	Auxiliary Contacts	
SGA1-DN02	Top	0	2
SGA1-DN11	Top	1	1
SGA1-DN20	Top	2	0
SGA1-DN22	Top	2	2
SGA1-DN40	Top	4	0
SGA1-DN04	Top	0	4
SGA1-DN13	Top	1	3
SGA1-DN31	Top	3	1
SGA1-DN10	Top	1	0
SGA1-DN01	Top	0	1

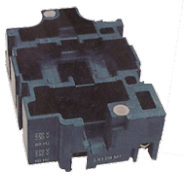
Side auxiliary contact blocks

Type	Mounting Type	Auxiliary Contacts	
LA8-11	Side	1	1
LA8-20	Side	2	0

Time delay auxiliary contact

	Type	Delay range	Auxiliary Contacts	
Making time-delay	SGA2-DT0	0.1-3s	1	1
	SGA2-DT2	0.1-30s		
	SGA2-DT4	10-180s		
Breaking time-delay	SGA3-DR0	0.1-3s		
	SGA3-DR2	0.1-30s		
	SGA3-DR4	10-180s		

Mechanical interlock

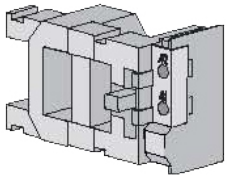


Type	Matched AC Contactor
SGML-0932	SGC1-D09 toSGC1-D32
SGML-4095	SGC1-D40 toSGC1-D95
SG9FF970	SGC1-F115 toSGC1-F150
SG9FG970	SGC1-F185 toSGC1-F225
SG9FJ970	SGC1-F265 toSGC1-F330toSGC1-F400

Spare coils

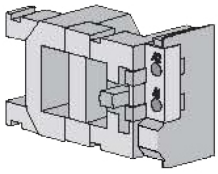
Type	Voltage (VAC)	Rated frequency(Hz)	Matched AC Contactor
SGX1-D2/ SGX1-D4/ SGX1-D6	24(B7) 110(F7) 127(G7) 220(M7) 230(P7) 240(U7) 380(Q7) 440(R7)	50/60Hz	SGC1-D09~ SGC1-D95

SGC1-F Series AC Contactor AC 50/60Hz Coil



Uc V 50Hz	Uc V 60Hz	Type "SGX1"Could be replaced by "LX1"	20℃ resistance Ω	Matched AC CONTACTOR
	24	SGX1-FF020	0.19	SGC1-F115 &SGC1-F150
24		SGX1-FF024	0.27	
	36	SGX1-FF030	0.44	
36		SGX1-FF036	0.64	
	48	SGX1-FF040	0.78	
48		SGX1-FF048	1.17	
	110	SGX1-FF092	4.55	
	120	SGX1-FF100	4.77	
110		SGX1-FF110	6.38	
120/127		SGX1-FF127	9.14	
	220	SGX1-FF184	18.4	
220		SGX1-FF220	28.1	
	380	SGX1-FF316	57.2	
	440	SGX1-FF360	72.6	
380/400		SGX1-FF380	86.9	
415/440		SGX1-FF440	95.1	

Average consumption(20℃): 50Hz inrush: ≤550VA,Sealed: ≤45VA;60Hz inrush: ≤660VA,Sealed: ≤55VA
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h



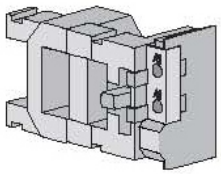
Uc V 50Hz	Uc V 60Hz	Type "SGX1"Could be replaced by "LX1"	20℃ resistance Ω	Matched AC CONTACTOR
	24	SGX1-FG020	0.13	SGC1-F185 &SGC1-F225
24		SGX1-FG024	0.18	
	36	SGX1-FG030	0.28	
36		SGX1-FG036	0.41	
	48	SGX1-FG040	0.47	
48		SGX1-FG048	0.71	
	110	SGX1-FG092	2.74	
	120	SGX1-FG100	2.87	
110		SGX1-FG110	4.18	
120/127		SGX1-FG127	5.35	
	220	SGX1-FG184	8.80	
220		SGX1-FG220	16.5	
	380	SGX1-FG316	34.0	
	440	SGX1-FG360	43.5	
380/400		SGX1-FG380	51.3	
415/440		SGX1-FG440	62.3	

Average consumption(20℃): 50Hz inrush: ≤805VA,Sealed: ≤55VA;60Hz inrush: ≤970VA,Sealed: ≤66VA
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

Uc V 50Hz	Uc V 60Hz	Type "SGX1"Could be replaced by "LX1"	20℃ resistance Ω	Matched AC CONTACTOR
	24	SGX1-FH020	0.082	SGC1-F265
24		SGX1-FH024	0.118	
	36	SGX1-FH030	0.185	
36		SGX1-FH036	0.254	
	48	SGX1-FH040	0.33	
48		SGX1-FH048	0.47	
	110	SGX1-FH092	1.74	
	120	SGX1-FH100	1.87	
110		SGX1-FH110	2.49	
120/127		SGX1-FH127	3.30	
	220	SGX1-FH184	7.00	
220		SGX1-FH220	10.6	
	380/400	SGX1-FH316	20.5	
	415/440	SGX1-FH360	28	
380/400		SGX1-FH380	30	
415/440		SGX1-FH440	39	

Average consumption(20℃): 50Hz inrush: ≤1180VA,Sealed: ≤84VA;60Hz inrush: ≤1420VA,Sealed: ≤100VA
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

SGC1-F Series AC Contactor AC 40/400Hz Coil low inrush voltage ,low sealed consumption



Uc V	Type "SGX1"Could be replaced by "LX9"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
24	SGX1-FF024	0.7	25.6	SGC1-F115 &SGC1-F1154 &SGC1-F150 &SGC1-F1504
36	SGX1-FF036	1.58	57.6	
48	SGX1-FF048	3.03	80.2	
110	SGX1-FF110	14.8	579	
120/127	SGX1-FF127	19	746	
220	SGX1-FF220	59.4	2190	
240	SGX1-FF240	73.5	2750	
380/400	SGX1-FF380	173	6540	
415/440	SGX1-FF440	218	8460	

Average consumption(20℃): Inrush: 690...855VA,Sealed: 6.6...8.1VA.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

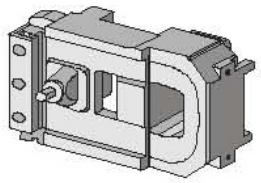
Uc V	Type "SGX1"Could be replaced by "LX9"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
24	SGX1-FG024	0.50	18.6	SGC1-F185 &SGC1-F1854 &SGC1-F225 &SGC1-F2254
36	SGX1-FG036	1.10	41	
48	SGX1-FG048	2.20	60	
110	SGX1-FG110	10.4	411	
120/127	SGX1-FG127	13	520	
220	SGX1-FG220	42.1	1680	
240	SGX1-FG240	50.6	2060	
380/400	SGX1-FG380	128	4730	
415/440	SGX1-FG440	157	5930	

Average consumption(20℃): Inrush: 950...1180VA,Sealed: 8.9...10.9VA.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

Uc V	Type "SGX1"Could be replaced by "LX1"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
24	SGX1-FH0242	0.82	18.8	SGC1-F265 &SGC1-F2654 &SGC1-F3302 &SGC1-F330 &SGC1-F3304
36	SGX1-FH0362	1.84	42	
48	SGX1-FH0482	2.96	72	
110	SGX1-FH1102	18.7	41.5	
120/127	SGX1-FH1272	22.9	536	
220	SGX1-FH2202	71.6	1621	
240	SGX1-FH2402	88.1	1995	
380/400	SGX1-FH3802	222	5075	
415/440	SGX1-FH4402	274	6310	

Average consumption(20℃): Inrush: 600...700VA,Sealed: 8...10VA.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

SGC1-F Series AC Contactor AC 40/400Hz Coil low inrush voltage ,low sealed consumption



Uc V	Type "SGX1"Could be replaced by "LX1"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
48	SGX1-FJ048	1.6	39.5	SGC1-F4002 &SGC1-F400 &SGC1-F4004
55	SGX1-FJ055	2.45	55	
110	SGX1-FJ110	9.8	230	
120/127	SGX1-FJ127	12.8	280	
200	SGX1-FJ200	30	815	
220	SGX1-FJ220	37	1030	
380/400	SGX1-FJ380	120	3310	
415/440	SGX1-FJ415	145	4070	

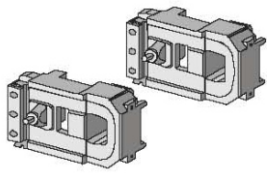
Average consumption(20℃): Inrush: 1000...1150VA,Sealed: 12...18VA.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

Uc V	Type "SGX1"Could be replaced by "LX1"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
48	SGX1-FK048	1.6	36	SGC1-F5002 &SGC1-F500 &SGC1-F5004
55	SGX1-FK055	2.3	50	
110	SGX1-FK110	9.55	210	
120/127	SGX1-FK127	11.5	255	
200	SGX1-FK200	29	735	
220	SGX1-FK220	35.5	915	
380/400	SGX1-FK380	112	2980	
415/440	SGX1-FK415	143	3730	

Average consumption(20℃): Inrush: 1000...1150VA,Sealed: 16...20VA.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

Uc V	Type "SGX1"Could be replaced by "LX1"	20℃ resistance Ω Inrush Ω	Selead Ω	Matched AC CONTACTOR
110	SGX1-FL110	6.45	165	SGC1-F6302 &SGC1-F630 &SGC1-F6304
120/127	SGX1-FL127	8.1	205	
220	SGX1-FL220	25.5	730	
380/400	SGX1-FL380	78	2360	
415/440	SGX1-FL415	96	2960	

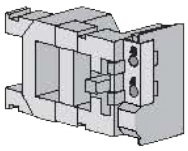
Average consumption(20℃): Inrush: 1500...1730VA,Sealed: 20...25VA.
Maximum operating frequency (θ < 55℃) : ≤1200 Cycles/h



Uc V	Type "SGX1"Could be replaced by "LX1"	20℃ resistance Ω Closed Ω	Keep Ω	Matched AC CONTACTOR
110	SGX1-FX110	4.95	230	SGC1-F7802 &SGC1-F780 &SGC1-F7804
120/127	SGX1-FX127	6.1	280	
220	SGX1-FX220	19.5	920	
380/400	SGX1-FX380	60.9	2780	
415/440	SGX1-FX415	74.3	3340	

Average consumption(20℃): Inrush: 1900...2300VA,Sealed: 44...55VA.
Maximum operating frequency (θ < 55℃) : ≤600 Cycles/h
Note:Total resistance of two coils in series

SGC1-F Series DC Contactor



Uc V	Type "SGX1"Could be replaced by "LX4"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
24	SGX1-FF024	1.12	177	SGC1-F115 &SGC1-F1154 &SGC1-F150 &SGC1-F1504
48	SGX1-FF048	4.52	715	
110	SGX1-FF110	21.7	2940	
125	SGX1-FF125	26.8	3560	
220	SGX1-FF220	84	11100	
250	SGX1-FF250	105	13000	
440	SGX1-FF440	301	48200	

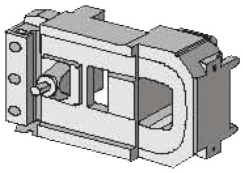
Average consumption(20℃): Inrush: 543...665W,Sealed: 3.94...4.83W.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

Uc V	Type "SGX1"Could be replaced by "LX4"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
24	SGX1-FG024	0.79	169	SGC1-F185 &SGC1-F1854 &SGC1-F225 &SGC1-F2254
48	SGX1-FG048	3.2	662	
110	SGX1-FG110	14.9	2810	
125	SGX1-FG125	19	3320	
220	SGX1-FG220	57.7	10200	
250	SGX1-FG250	76	12400	
440	SGX1-FG440	223	39700	

Average consumption(20℃): Inrush: 737..902W,Sealed: 4.13...5.07W.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

Uc V	Type "SGX1"Could be replaced by "LX4"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
24	SGX1-FH024	0.9	192	SGC1-F265 &SGC1-F2654 &SGC1-F3302 &SGC1-F330 &SGC1-F3304
48	SGX1-FH048	3.49	707	
110	SGX1-FH110	16.8	3180	
125	SGX1-FH125	20.8	3840	
220	SGX1-FH220	65.7	11500	
250	SGX1-FH250	84	13900	
440	SGX1-FH440	255	44000	

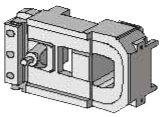
Average consumption(20℃): Inrush: 655..803W,Sealed: 3.68...4.53W.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h



Uc V	Type "SGX1"Could be replaced by "LX4"	20℃ resistance Ω Inrush Ω	Sealed Ω	Matched AC CONTACTOR
48	SGX1-FJ048	2.5	558	SGC1-F4002 &SGC1-F400 &SGC1-F4004
55	SGX1-FJ055	3.35	730	
110	SGX1-FJ110	12.7	2660	
125	SGX1-FJ125	15.8	3130	
220	SGX1-FJ220	47	8820	
250	SGX1-FJ250	61	10500	
440	SGX1-FJ440	236	33750	

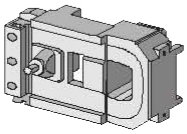
Average consumption(20℃): Inrush: 920..1140W,Sealed: 4...7.5W.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h

SGC1-F AC Contactor DC Coil



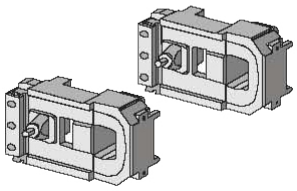
Uc V	Type "SGX1"Could be replaced by "LX4"	20℃ resistance Ω Inrush Ω	20℃ resistance Ω Sealed Ω	Matched AC CONTACTOR
48	SGX1-FK048	2.35	515	SGC1-F5002 &SGC1-F500 &SGC1-F5004
55	SGX1-FK055	3.10	680	
110	SGX1-FK110	11.5	2450	
125	SGX1-FK125	15	2930	
220	SGX1-FK220	44	8150	
250	SGX1-FK250	56	9650	
440	SGX1-FK440	225	31300	

Average consumption(20℃): Inrush: 990...1220W,Sealed: 4.5...8W.
Maximum operating frequency (θ < 55℃) : ≤2400 Cycles/h



Uc V	Type "SGX1"Could be replaced by "LX4"	20℃ resistance Ω Inrush Ω	20℃ resistance Ω Sealed Ω	Matched AC CONTACTOR
48	SGX1-FL048	1.7	353	SGC1-F6302 &SGC1-F630 &SGC1-F6304
110	SGX1-FL110	8.1	1680	
125	SGX1-FL125	10	2110	
220	SGX1-FL220	31	5160	
250	SGX1-FL250	38	6080	
440	SGX1-FL440	152	23120	

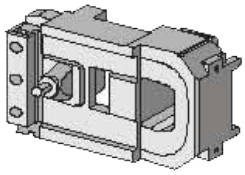
Average consumption(20℃): Inrush: 1420...1920W,Sealed: 6.5...12.5W.
Maximum operating frequency (θ < 55℃) : ≤1200 Cycles/h



Uc V	Type "SGX1"Could be replaced by "LX4"	20℃ resistance Ω Inrush Ω	20℃ resistance Ω Sealed Ω	Matched AC CONTACTOR
110	SGX1-FX110	6.1	280	SGC1-F7802 &SGC1-F780 &SGC1-F7804
125	SGX1-FX125	7.7	410	
220	SGX1-FX220	24.6	1100	
250	SGX1-FX250	29.8	1330	
440	SGX1-FX440	92	4180	

Average consumption(20℃): Inrush: 1960...2420W,Sealed: 42...52W.
Maximum operating frequency (θ < 55℃) : ≤600 Cycles/h

SGC1-F Series AC Contactor
Special coil, for frequent and quick operations



Average consumption(20℃)
AC
Inrush: ≤500VA,Sealed: ≤23VA;
DC
Inrush: ≤430W,Sealed: ≤22W;
Maximum operating
frequency (θ < 70℃) : ≤3600 Cycles/h

Uc V AC	Uc V DC	Type "SGX1"Could be replaced by "LX9"	20℃ resistance Ω Inrush Ω	20℃ resistance Ω Sealed Ω	Matched AC CONTACTOR
48		SGX1-FJ917	4.03	43	SGC1-F4002 &SGC1-F400 &SGC1-F4004
	48	SGX1-FJ918	5.11	52	
110		SGX1-FJ925	25.7	246	
127	110	SGX1-FJ926	32.3	302	
	125	SGX1-FJ927	39.4	370	
220		SGX1-FJ931	99.5	919	
	220	SGX1-FJ932	123	1120	
380		SGX1-FJ936	311	3011	
440		SGX1-FJ937	386	3690	
500	440	SGX1-FJ938	478	4380	

Average consumption(20℃)
AC
Inrush: ≤550VA,Sealed: ≤31VA;
DC
Inrush: ≤470W,Sealed: ≤29W;
Maximum operating
frequency (θ < 70℃) : ≤3600 Cycles/h

Uc V AC	Uc V DC	Type "SGX1"Could be replaced by "LX9"	20℃ resistance Ω Inrush Ω	20℃ resistance Ω Sealed Ω	Matched AC CONTACTOR
48		SGX1-FK917	3.73	30.7	SGC1-F5002 &SGC1-F500 &SGC1-F5004
	48	SGX1-FK918	4.67	37.7	
110		SGX1-FK925	24	204	
127	110	SGX1-FK926	29.8	250	
	125	SGX1-FK927	37.4	307	
220		SGX1-FK931	89.9	770	
	220	SGX1-FK932	115	935	
380		SGX1-FK936	274	2075	
440		SGX1-FK937	361	3060	
500	440	SGX1-FK938	448	3750	

Average consumption(20℃)
AC
Inrush: ≤830VA,Sealed: ≤47VA;
DC
Inrush: ≤733W,Sealed: ≤48W;
Maximum operating
frequency (θ < 70℃) : ≤1800 Cycles/h

Uc V AC	Uc V DC	Type "SGX1"Could be replaced by "LX9"	20℃ resistance Ω Inrush Ω	20℃ resistance Ω Sealed Ω	Matched AC CONTACTOR
48		SGX1-FL917	2.81	20.8	SGC1-F6302 &SGC1-F630 &SGC1-F6304
	48	SGX1-FL918	3.43	29.4	
110		SGX1-FL924	13.5	114	
	110	SGX1-FL925	17.2	137	
127	125	SGX1-FL926	20.8	168	
220		SGX1-FL930	52	425	
	220	SGX1-FL931	64.5	518	
380		SGX1-FL935	163	1360	
440		SGX1-FL936	204	1670	
	440	SGX1-FL937	260	2060	
500		SGX1-FL938	312	2510	

For Uc AC, connect a rectifier externally, For Uc DC, connect a 20W resistance externally
Operating time (Uc): close 60ms ,open :AC 50ms ,DC 20ms.

SGR2-D Series
Thermal Relay

Technical data

Type		SGR2-D13,SGR2-D23,SGR2-D33,SGR2-F53.SGR2-F73
Standard		IEC60947-4-1
Approvals		CE,SEMKO,CB
Tripping class		10A,20A
Rated frame current(A)	SGR2-D13	25
	SGR2-D23	36
	SGR2-D33	93
	SGR2-F53	53
	SGR2-F73	73
Setting range(A)	SGR2-D13	0.1-25
	SGR2-D23	23-36
	SGR2-D33	23-93
	SGR2-F53	30-220
	SGR2-F33	200-630
Rated insulation voltage Ui(V)		690/1000
Rated impulse withstand voltage Uimp(kV)		6/8
Signalling		Trip indicator
Tightening torque(N.m)		0.8
Degree of protection		IP20
Ambient air temperature(℃)		-5 to+40,max.95%humidity
Storage temperature(℃)		-40~+75
Maximum operating altitude (meters)		2000
Flame resistance		V1
Mounting		Directly under the contactor



Selection and ordering data

SGR2-D thermal relay matched with contactor SGC1-D/W

Rated frame current (A)	Rated working current of thermal relay	Rated Current (A)	Current setting range (A)	Matched fuse type aM (A)	gG (A)	Matched AC contactor
25	SGR2-D 1301	0.16	0.1~0.16	0.25	2	SGC1-D09
	SGR2-D 1302	0.25	0.16~0.25	0.25	2	SGC1-D09
	SGR2-D 1303	0.4	0.25~0.4	1	2	SGC1-D09
	SGR2-D 1304	0.63	0.4~0.63	1	2	SGC1-D09
	SGR2-D 1305	1	0.63~1	2	4	SGC1-D09
	SGR2-D 1306	1.6	1~1.6	2	4	SGC1-D09
	SGR2-D 13X6	2	1.25~2	4	6	SGC1-D09
	SGR2-D 1307	2.5	1.6~2.5	4	6	SGC1-D09
	SGR2-D 1308	4	2.5~4	6	10	SGC1-D09
	SGR2-D 1310	6	4~6	8	16	SGC1-D09
	SGR2-D 1312	8	5.5~8	12	20	SGC1-D09
	SGR2-D 1314	10	7~10	12	20	SGC1-D12
	SGR2-D 1316	13	9~13	16	25	SGC1-D18
	SGR2-D 1321	18	12~18	20	35	SGC1-D18
	SGR2-D 1322	25	17~25	25	50	SGC1-D25
36	SGR2-D 2353	32	23~32	40	63	SGC1-D32
	SGR2-D 2355	36	28~36	40	80	SGC1-D40
93	SGR2-D 3353	32	23~32	40	63	SGC1-D32
	SGR2-D 3355	40	30~40	40	100	SGC1-D40
	SGR2-D 3357	50	37~50	63	100	SGC1-D50
	SGR2-D 3359	65	48~65	63	100	SGC1-D65
	SGR2-D 3361	70	55~70	80	125	SGC1-D80
	SGR2-D 3363	80	63~80	80	125	SGC1-D80
	SGR2-D 3365	93	80~93	100	160	SGC1-D95

SGR2-F thermal relay matched with contactor SGC1-F

Type code	Current setting range	Fuses to be used with selected relay Maximum rating aM Type (A)	gG Type (A)	Matched contactor
SGR2-F53/50	30-50	50	80	SGC1-F115~F185
SGR2-F53/80	48-80	80	125	SGC1-F115~F185
SGR2-F53/100	60-100	100	200	SGC1-F115~F185
SGR2-F53/150	90-150	160	250	SGC1-F115~F185
SGR2-F53/220	132-220	250	315	SGC1-F225~F265
SGR2-F73/330	200-330	400	500	SGC1-F225~F500
SGR2-F73/500	300-500	500	800	SGC1-F225~F500
SGR2-F73/630	380-630	630	800	SGC1-F400~F630

1.Overall and mounting dimensions(SGR2-D/SGR2-F Series)

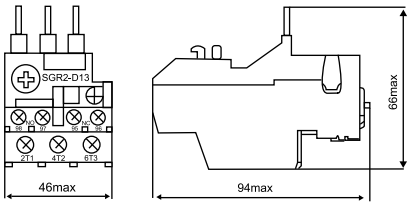


Fig 1：SGR2-D13 outline dimension diagram

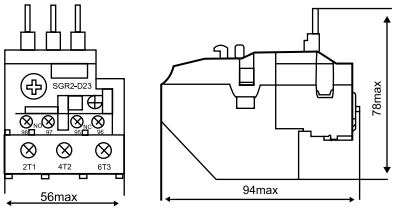


Fig 2：SGR2-D23 outline dimension diagram

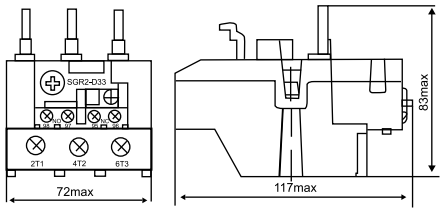
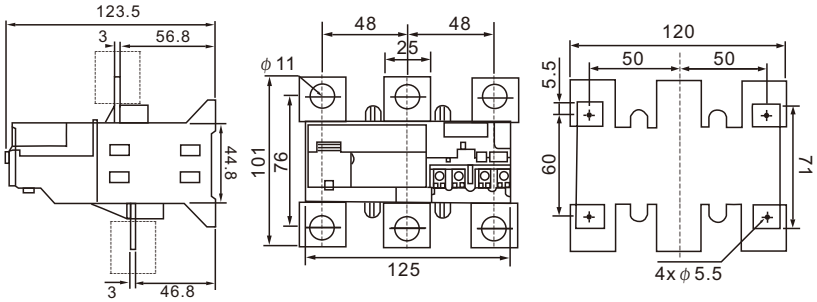
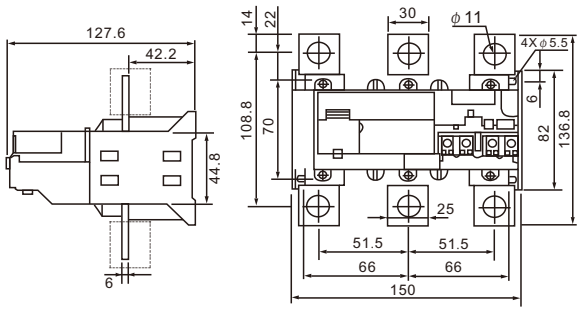


Fig 3：SGR2-D33 outline dimension diagram



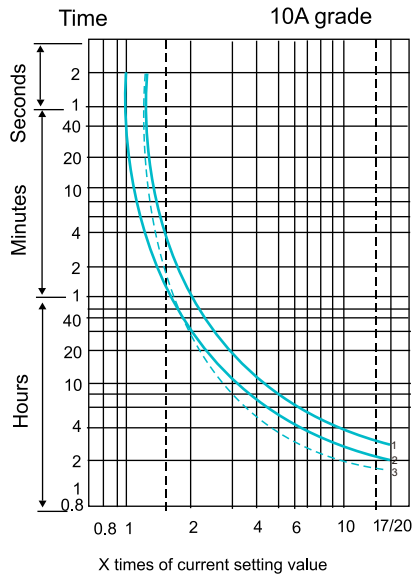
SGR2-F53/220



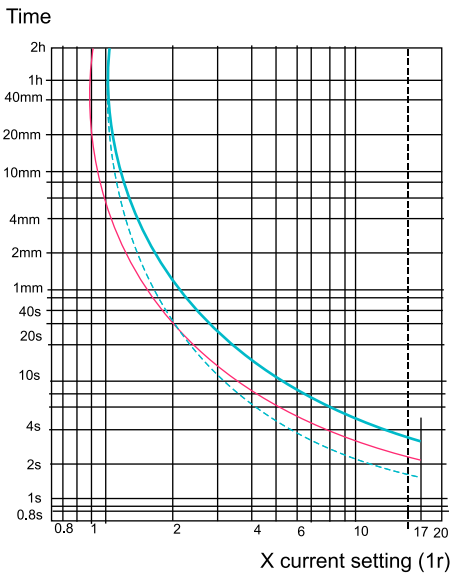
SGR2-F73/630

2.Tripping curve for thermal relay

SGR2-D



SGR2-F

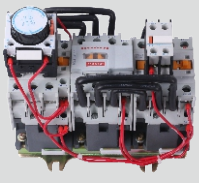


1.Equilibrium running,3phase,start form cold state

2.Equilibrium running,2phase,start form cold state

3.Equilibrium running,3phase,after long period of setting current(hot state)

Derivative products of AC contactor,please refere to pictures below

Contactor	Auxiliary	Relative products
	 Delay timer	 Time-delay
	 Mechanical interlock	 Reversing contactor
	 Thermal relay	 DOL Starter
	 Front auxiliary contact blocks	 Contactor with blocks
	 Delay timer	 Auxiliary block	 Star-delta starter

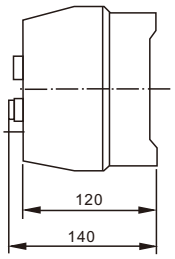
SGE1-D Series
Magnetic Starter

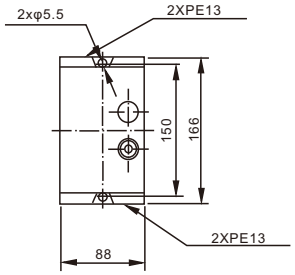
Technical data

Standard	IEC60947-4-1,IEC60439-1
Electric ratings	09,12,18,25,32,40,50,65,80,95
Approvals	CE
Rated operational voltage Ue(V)	690
Rated insulation voltage Ui(V)	690
Rated impulse withstand voltage Uimp(kV)	8
Rated frequency(Hz)	50/60
Control buttons	Green Start button
	Red Stop/Reset button
Enclosure	SGE1-D09/12/18 Frame Double insulated, IP 65
	SGE1-D25/32 Frame Double insulated, IP 55
	SGE1-D40/50/65/80/95 Frame Metal, IP 65
Electrical life (X10^5 times)	5
Mechanical life(X10^5 times)	50
Matched AC Contactor type	SGC1-D/W series
Matched Thermal relay type	SGR2-D series
Ambient air temperature(℃)	-5 to+40,max.95%humidity
Storage temperature(℃)	-40~+75
Maximum operating altitude (meters)	⩽2000

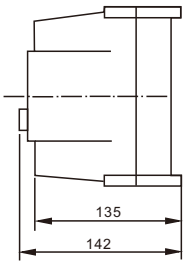
SGE1-D Magnetic Starter

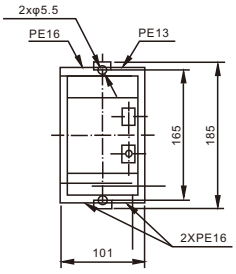
Type	Matched thermal relay	Matched contactor	Rated power AC-3(KW)				
			220/230V	380/400V	415V	440V	660/690V
SGE1-D09	SGR2-D13	SGC1-D09	2.2	4	4	4	5.5
SGE1-D12	SGR2-D13	SGC1-D12	3	5.5	5.5	5.5	7.5
SGE1-D18	SGR2-D13	SGC1-D18	4	7.5	9	9	10



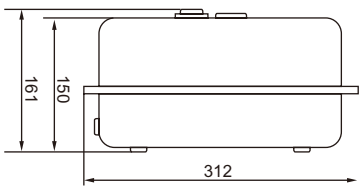


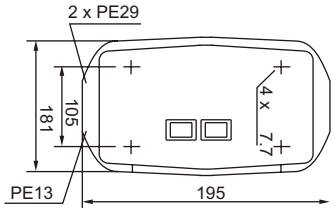
Type	Matched thermal relay	Matched contactor	Rated power AC-3(KW)				
			220/230V	380/400V	415V	440V	660/690V
SGE1-D25	SGR2-D13	SGC1-D25	5.5	11	11	11	15
SGE1-D32	SGR2-D23	SGC1-D32	7.5	15	15	15	18.5





Type	Matched thermal relay	Matched contactor	Rated power AC-3(KW)				
			220/230V	380/400V	415V	440V	660/690V
SGE1-D40	SGR2-D33	SGC1-D40	11	18.5	22	22	30
SGE1-D50	SGR2-D33	SGC1-D50	15	22	25	30	33
SGE1-D65	SGR2-D33	SGC1-D65	18.5	30	37	37	37
SGE1-D80	SGR2-D33	SGC1-D80	22	37	45	45	45
SGE1-D95	SGR2-D33	SGC1-D95	25	45	45	45	45

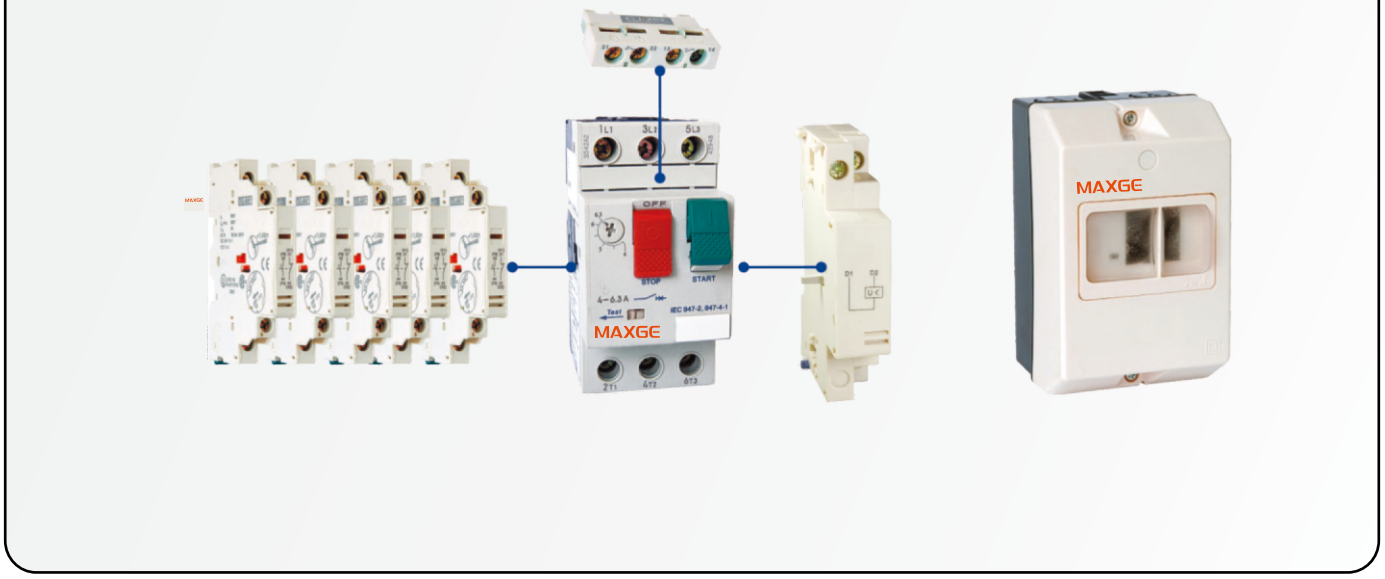




SGV2-M Series
Motor Protection Circuit Breaker

Technical data

Standard		IEC60947-2, IEC60947-4-1
Approvals		CE
Utilization Category	According to IEC60947-2	A
	According to IEC60947-4-1	AC-3
Rated insulation voltage Ui(V)		690
Rated operational voltage Ue(V)		230/240,400/415,440,500,660/690
Rated impulse withstand voltage Uimp(kA)		6
Electrical life in AC-3(times)		10000
Mechanical life(times)		20000
Tightening torque(N.m)		1.7
Degree of Protection		IP 20; IP65 with enclosure
Ambient air temperature(℃)		- 5 to +40, max. 95% humidity
Storage temperature(℃)		-40~+70
Maximum operating altitude(meters)		≤2000

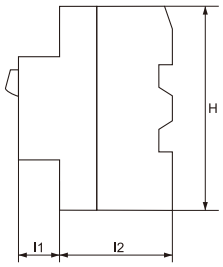


1.Technical specifications for SGV2-M series

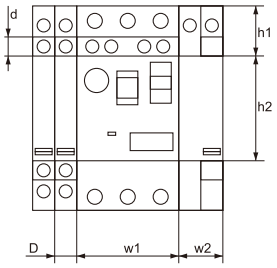
Type	Current setting range (A)	Instantaneous short-circuit release(A)	Thermal current Ithe(A)	Standard rated power of three-phase(kW)				
				230/240V	400V	440V	500V	690V
SGV2-M01	0.1-0.16	1.5	0.16	-	-	-	-	-
SGV2-M02	0.16-0.25	2.4	0.25	-	0.06	0.06	-	-
SGV2-M03	0.25-0.4	5.0	0.4	0.06	0.09	0.09	-	-
SGV2-M04	0.4-0.63	8.0	0.63	-	0.12	0.18	-	0.37
SGV2-M05	0.63-1	13.0	1	0.09	0.25	0.25	0.37	0.55
SGV2-M06	1-1.6	22.5	1.6	0.18	0.37	0.37	0.37	0.75
SGV2-M07	1.6-2.5	33.5	2.5	0.37	0.75	0.75	1.10	1.50
SGV2-M08	2.5-4	51.0	4	0.55	1.10	1.50	1.50	2.20
SGV2-M10	4-6.3	78.0	6.3	1.10	2.20	2.20	3.00	4.00
SGV2-M14	6-10	138	9	1.50	3.00	4.00	4.00	5.50
SGV2-M16	9-14	170	13	2.20	5.50	5.50	7.50	9.00
SGV2-M20	13-18	223	17	4.00	7.50	7.50	9.00	15.00
SGV2-M21	17-23	327	21	5.50	9.00	11.00	11.00	18.50
SGV2-M22	20-25	327	23	5.50	11.00	11.00	15.00	22.00
SGV2-M32	24-32	416	24	7.50	15.00	15.00	18.50	22.00
SGV2-M40	25-40	480	32	11.00	18.50	22.00	25.00	33.00
SGV2-M63	40-63	550	50	15.00	30.00	33.00	40.00	55.00
SGV2-M80	56-80	665.5	64	22.00	40.00	45.00	55.00	63.00

2.Overall and mounting dimensions(SGV2-M Series)

Dimensions



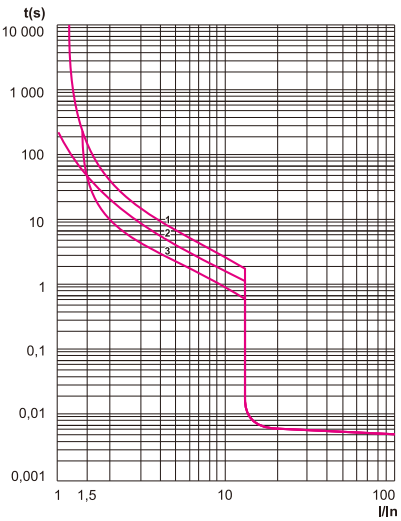
Auxiliary contact UVR

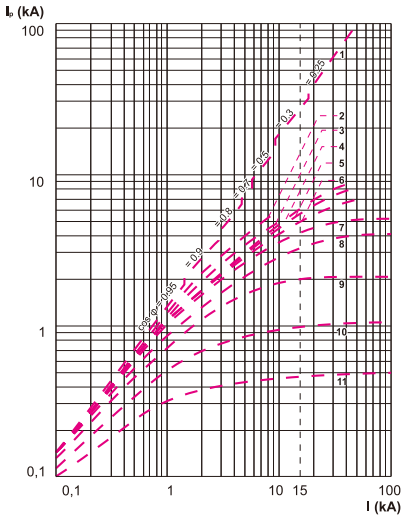


Dimension(mm)

H	l1	l2	d	D
89	16	50	10	9,2
w1	w2	h1	h2	
44,5	18	22	45	

3.Curve characteristics





Auxiliary Devices of Motor Protection Circuit Breaker

Voltage-release

Type	Rated operational voltage Ue(V)	Voltage range of operation	Rated insulation voltage Ui(V)	Frequency (Hz)
SGV2-M AU115	110-127	35%-70% Ue	690	50/60
SGV2-M AU225	220-240	35%-70% Ue	690	50/60
SGV2-M AU385	380-415	35%-70% Ue	690	50/60

Auxiliary contact

Type	Mounting Type	Auxiliary Contacts		Conventional thermal current Ith(A)
LA8-11	Top	1	1	2.5
LA8-20	Top	2	0	2.5

Auxiliary contact

Type	Mounting type	Auxiliary contacts		Conventional thermal current Ith(A)
SGV2-M AN11	Side	1	1	6
SGV2-M AN20	Side	2	0	6

Enclosure

Type	Protection of degree	Material		Suitable SGV2-M
		Plastic box	Screen	
SGV2-M E	IP 65	wear resistance of UV rays and non-flammable	silicon	Up to 32A

SGE1-K/EC Series
Mini Contactors

Technical data

Standard		IEC60947-4-1
Electric ratings		Up to 12A(SGC1-K Series) / 9A(SGC1-EC Series), 690V
Approvals		CE
Operation range	Pick-up voltage	(85%~110%)Us
	Pick-out voltage	(20%~75%)Us
Rated insulation voltage Ui(V)		690
Rated impulse withstand voltage Uimp(kA)		6
Rated frequency(Hz)		50/60
Utilization category		AC-3, AC-4
Degree of protection		IP 20
Ambient air temperature(℃)		-5 to+40,max.95%humidity
Storage temperature(℃)		-40~+75
Maximum operating altitude (meters)		≤2000
Flame resistance		V1

Selection and ordering data

1.SGC1-K Type

Model	Number of poles		Instantaneous auxiliary contacts		Type
SGC1-K0610	3	-	1	-	3P+NO
SGC1-K0601	3	-	-	1	3P+NC
SGC1-K06004	4	-	-	-	4NO
SGC1-K06008	2	2	-	-	2NO+2NC
SGC1-K0910	3	-	1	-	3P+NO
SGC1-K0901	3	-	-	1	3P+NC
SGC1-K09004	4	-	-	-	4NO
SGC1-K09008	2	2	-	-	2NO+2NC
SGC1-K1210	3	-	1	-	3P+NO
SGC1-K1201	3	-	-	1	3P+NC
SGC1-K12004	4	-	-	-	4NO
SGC1-K12008	2	2	-	-	2NO+2NC

2.SGC1-EC Type

Model	Number of poles		Instantaneous auxiliary contacts		Type
SGC1-EC0610	3	-	1	-	3P+NO
SGC1-EC0601	3	-	-	1	3P+NC
SGC1-EC06008	2	2	-	-	2NO+2NC
SGC1-EC0910	3	-	1	-	3P+NO
SGC1-EC0901	3	-	-	1	3P+NC
SGC1-EC09008	2	2	-	-	2NO+2NC

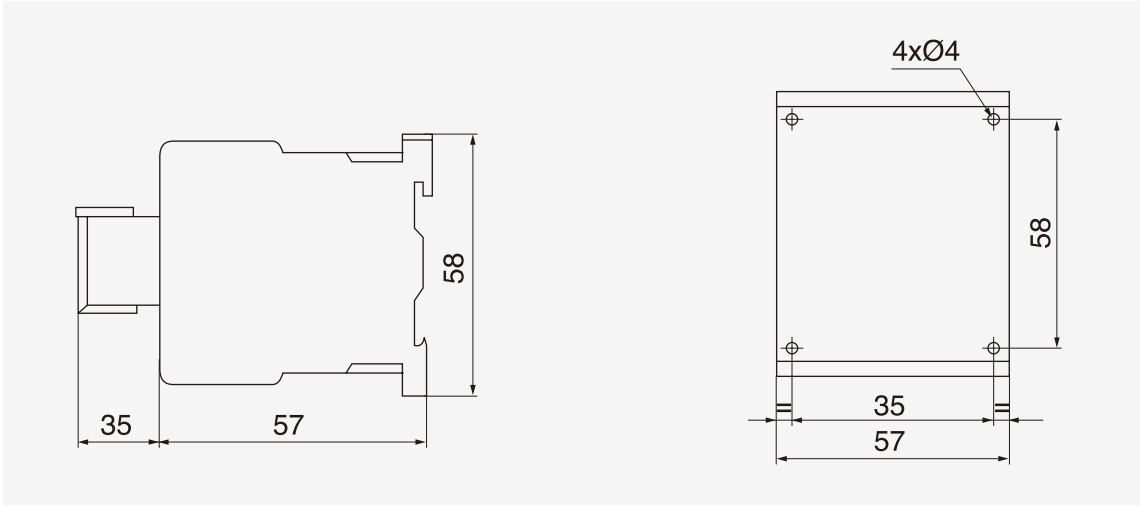
3.Front auxiliary contact blocks

Model	Mounting type	Auxiliary Contacts	
SGC1-KN02	Top	0	2
SGC1-KN11	Top	1	1
SGC1-KN20	Top	2	0
SGC1-KN22	Top	2	2
SGC1-KN40	Top	4	0
SGC1-KN04	Top	0	4
SGC1-KN13	Top	1	3

1.SGC1-K Series Mini Contactors

Type		SGC1-K0610 / SGC1-K0601 / SGC1-K06004 / SGC1-K06008	SGC1-K0910 / SGC1-K0901 / SGC1-K09004 / SGC1-K09008	SGC1-K1210 / SGC1-K1201 / SGC1-K12004 / SGC1-K12008
Number of contacts		3P+NO, 3P+NC, 4NO, 2NO+2NC		
Rated conventional thermal current Ith(A) AC1		20		
Rated operational current(A)	AC3 380/400V	6	9	12
	AC4 380/400V	2.6	3.5	5
Number of poles		3,4	3,4	3,4
Connecting max. current(A)	380V	60	90	120
	660V	72	108	144
Breaking max. current(A)	380V	48	72	96
	660V	60	90	120
Rated operational power in category AC-3(KW)	220/230/240V	1.5	2.2	3
	380/400V	2.2	4	5.5
	660/690V	3	4	5.5
Average impedance per pole(mW)		3		
Operation cycles(times/hour)	Electrical AC-3	1200	1200	1200
	Electrical AC-4	300	300	300
	Mechanical	3600	3600	3600
Electrical life(X 10^4 times)	AC-3	100	120	
	AC-4	20		
Mechanical life(X 10^4 times)		1000		
Matching fuse model		RT16-16	RT16-20	RT16-20
Tightening torque(N.m)		0.8		
Screw clamp terminals	Solid conductor(MM2)	Max.1X4+1X2.5		
	Flexible conductor without cable end(MM2)	Max.2X2.5		
	Flexible conductor with cable end(MM2)	Max.1X1.5+1X2.5		

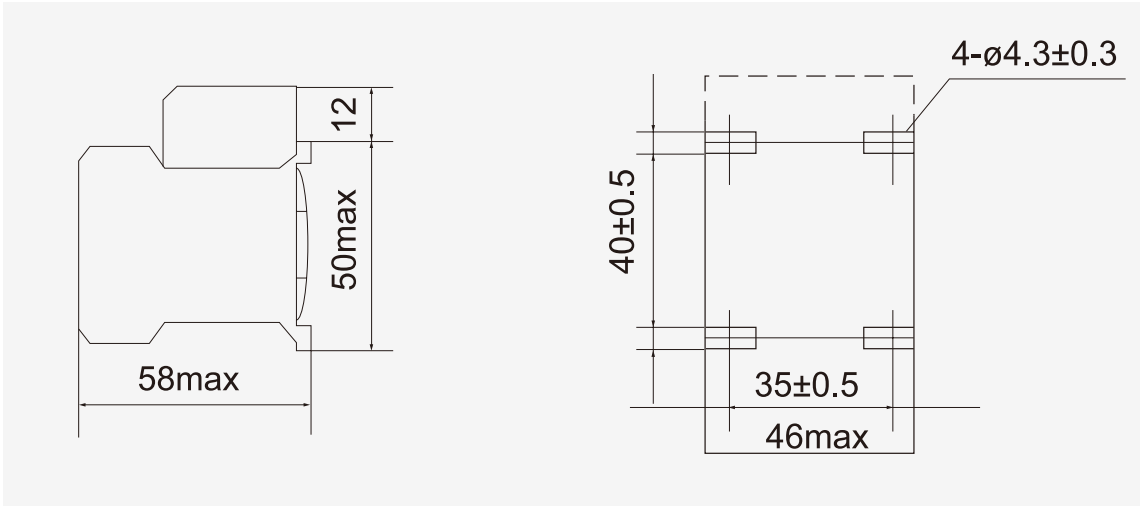
2.Overall and mounting dimensions(SGC1-K Series)



1.SGC1-EC Series Mini Contactors

Type		SGC1-EC0610	SGC1-EC0910
		SGC1-EC0601	SGC1-EC0901
		SGC1-EC06008	SGC1-EC09008
Number of contacts		3P+NO, 3P+NC, 2NO+2NC	
Rated conventional thermal current Ith(A) AC1		16	
Rated operational current(A)	AC3 380/400V	6	9
	AC4 380/400V	2.6	3.5
Number of poles		3,4	3,4
Connecting max. current(A)	380V	60	90
	660V	72	108
Breaking max. current(A)	380V	48	72
	660V	60	90
Rated operational power in category AC-3(KW)	220/230/240V	1.5	2.2
	380/400V	2.2	4
	660/690V	3	4
Average impedance per pole(mW)		3	
Operation cycles(times/hour)	Electrical AC-3	1200	
	Electrical AC-4	300	
Electrical life(X 10^4 times)	AC-3	100	
	AC-4	20	
Mechanical life(X 10^4 times)		1000	
Matching fuse model		NTOO-16	
Wire(mm^2)		1.5	

2.Overall and mounting dimensions(SGC1-EC Series)



SGP1-D Series DC Operated AC Contactor

Model	Rated operating current 380V AC-3(A)	Conventional thermal current(A)	Standard power ratings of 3phase motors 50-60Hz AC-3			Auxiliary contact		Type
			220V/230V (kW)	380V/400V (kW)	660V/690V (kW)			
SGP1-D0910	9	20	2.2	4	5.5	1	-	3P+NO
SGP1-D0901						-	1	3P+NC
SGP1-D1210	12	25	3	5.5	7.5	1	-	3P+NO
SGP1-D1201						-	1	3P+NC
SGP1-D1810	18	32	4	7.5	9	1	-	3P+NO
SGP1-D1801						-	1	3P+NC
SGP1-D2510	25	40	5.5	11	15	1	-	3P+NO
SGP1-D2501						-	1	3P+NC
SGP1-D3210	32	50	7.5	15	18.5	1	-	3P+NO
SGP1-D3201						-	1	3P+NC
SGP1-D4011	40	60	11	18.5	30	1	1	3P+NO+NC
SGP1-D5011	50	80	15	22	33	1	1	3P+NO+NC
SGP1-D6511	65	80	18.5	30	37	1	1	3P+NO+NC
SGP1-D8011	80	125	22	37	45	1	1	3P+NO+NC
SGP1-D9511	95	125	25	45	45	1	1	3P+NO+NC

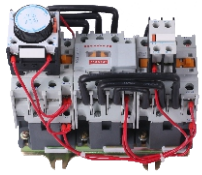
Sg19 Series Contactor for Power Factor Correction

Model	Rated Conventional Thermal Current Ith	Controllable power			Auxiliary contact	
		220V/230V (Kvar)	380V/400V (Kvar)	660V/690V (Kvar)		
SG19-2511	25	6	12	12	1	1
SG19-2502					-	2
SG19-2520					2	-
SG19-3211	32	8.5	16	16	1	1
SG19-3202					-	2
SG19-3202					2	-
SG19-4311	43	10	20	20	1	1
SG19-4302					-	2
SG19-4320					2	-
SG19-5012	50	12	25	25	1	2
SG19-5021					2	1
SG19-6312	63	15	30	30	1	2
SG19-6321					2	1
SG19-8012	80	22	37	37	1	2
SG19-8021					2	1
SG19-9512	95	23	45	45	1	2
SG19-9521					2	1
SG19-12512	125	25	50	50	1	2
SG19-12521					2	1

SGC2-D Series Mechanical Interlocking Contactor

Model	Rated operating current 400V AC-3(A)	Standard power ratings of 3phase motors 50-60Hz AC-3					Poles
		220V/230V (kW)	380V/400V (kW)	415V(kW)	440V(kW)	660V/690V (kW)	
SGC2-D0901	9	2.2	4	4	4	5.5	3
SGC2-D1201	12	3	5.5	5.5	5.5	7.5	3
SGC2-D1801	18	4	7.5	9	9	10	3
SGC2-D2501	25	5.5	11	11	11	15	3
SGC2-D3201	32	7.5	15	15	15	18.5	3
SGC2-D4011	40	11	22	22	18.5	30	3
SGC2-D5011	50	15	25	30	22	33	3
SGC2-D6511	65	18.5	37	37	30	37	3
SGC2-D8011	80	22	45	45	37	45	3
SGC2-D9511	95	25	45	45	45	45	3

SGC3-D Series Star-delta Reduced Voltage Starter



Model	Rated operating current 380V AC-3(A)	Standard power ratings of 3phase motors 50-60Hz AC-3			
		220V/230V (kW)	380V/400V (kW)	415V(kW)	440V(kW)
SGC3-D093	9	4	7.5	7.5	7.5
SGC3-D123	12	5.5	11	11	11
SGC3-D183	18	7.5	15	15	18.5
SGC3-D253	25	11	18.5	18.5	22
SGC3-D323	32	15	25	25	30
SGC3-D403	40	18.5	33	33	37
SGC3-D503	50	25	45	45	59
SGC3-D653	65	30	55	55	59
SGC3-D803	80	37	63	63	75
SGC3-D953	95	45	80	80	80

SGTM Series
Time Relays

Technical data

Standard		IEC60050-445
Approval		CE
Rated voltage (VDC/AC)		12~240
Indicator Operating		ON,UP Operating;Time Operating flicker
Accuracy(class)	Repeat error	0.5%~3% max
	Setting error	0.5%~10% max
	Voltage error	0.5%~2% max
	Temp.Error	0.5%~5% max
O/P contact capacity(A)		5
Reset time		0.1-0.5 second max
Self-consumed power(VA)		2
Ambient Temperature(℃)		-10~+55
Ambient humidity		35~85%RH

Time relays

CLASSIFICATION		TIMER		MULTI RANGE TIMER	
Model		MGH3Y	MGST3P	MGH3BA	
Appearance					
Size		28HX21WX52.6D	55HX40.5WX57.5D	48HX48WX93.5D	
Matched socket	Surface	PYF08A(E) PYF14A(E)	PF-083A(E)	PF-113A(E)	P2CF08 PS-08
	Flush	with Y-20 adapter	US-08/P3G-08	US-11	US-08 P3G-08
Full time range		SEC:1,3,5,10,30,60,120 MIN:3,5,10,30,60 HR:3	A:0.05-0.5s/5s/30s/3min B:0.1-10s/60s/6min C:0.5-5s/50s/5min/30min D:1-10s/100s/10min/60min E:5-60s/10min/60min/6h F:0.25-2min/20min/2h/12h G:0.5-4min/40min/4h/24h	0.5SEC~100HRS	
Rated voltage(V)		DC(V):12/24 AC(V):12/24/110/220/240	DC(V):12/24 AC(V):110/220	DC(V):12/24/48 AC(V):24/50/110/220	
Indicator operating		POWER,UP operating	ON-UP operating	Time operating flicker	
O/P contact	MODEL	MGH3Y-2 MGH3Y-4	MGST3PA MGST3PC	MGH3BA MGH3BA-8 MGH3BA-8H	
	TIME LIMIT 1C		5A		5A
	TIME LIMIT 2C	5A 3A(4C)	5A	5A 5A	
	INSTANTANEOUS LIMIT 1C		5A		5A
Mechanical life(times)		$5X10^6$ times	$5X10^7$ times	$5X10^7$ times	
Electrical life(times)		10^5 times	10^5 times	10^5 times	
Accuracy(class)	Repeat error	±3% max	±1% max	±1% max	
	Setting error		±10% max	±5% max	
	Voltage error	±2% max	±1% max	±1% max	
	Temp. error	±5% max	±2% max	±2% max	
Reset time		0.2 sec max	0.5 sec max	0.5 sec max	
Consumed power(VA)		3	2	100~240VAC:1VA 12VDC/24~240VDC:1.5W	
Ambient temperature(°C)		-10°C~+55°C	-10°C~+55°C	-10°C~+55°C	
Ambient humidty		45~85%RH	35~85%RH	35~85%RH	

Time relays

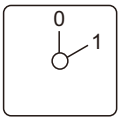
CLASSIFICATION		TIMER			MULTI RANGE TIMER				
Model		MGAH3			MGAH3A			MGAH3-N	
Appearance									
Size		50HX40WX57.5D			50HX40WX57.5D			50HX40WX57.5D	
Matched socket	Surface	PF-083A(E)			PF-083A(E)			PF-083A(E)	
	Flush	US-08 P3G-08			US-08 P3G-08			US-08 P3G-08	
Full time range		SEC:1,3,6,10,12,30,60 MIN:3,6,10,12,30,60 HR:3,6,10,12,30			A:1s,10s,1m,10m B:3s,30s,3m,30m C：6s,60s,6m,60m D:1m,10m,1h,10h E:3m,30m,3h,30h				
Rated voltage(V)		DC(V):12/24 AC(V):12,24,110,220,240,380							
Indicator operating		ON-UP operating						Time operating flicker	
O/P contact	MODEL	MGAH3-1	MGAH3-2	MGAH3-3	MGAH3A-1	MGAH3A-2	MGAH3A-3	Mode A/B	
	TIME LIMIT 1C	5A		5A	5A		5A		5A
	TIME LIMIT 2C		5A			5A		5A	
INSTANTANEOUS LIMIT 1C				5A			5A		5A
Mechanical life(times)		$5X10^6$ times			$5X10^6$ times				
Electrical life(times)		10^5 times			10^5 times				
Accuracy(class)	Repeat error	±1% max			±0.5% max				
	Setting error	±10% max			±0.5% max				
	Voltage error	±1% max			±0.5% max				
	Temp. error	±2% max			±0.5% max				
Reset time		0.1 sec max			0.1 sec max				
Consumed power(VA)		2			2				
Ambient temperature(°C)		-10°C~+55°C			-10°C~+55°C				
Ambient humidty		45~85%RH			45~85%RH				

MGLW Series
Rotary switches(MGLW26)

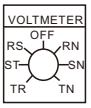
Technical data

Standard	IEC60947-3
Approval	CE
Rated thermal current Ith(A)	10/20/25/32/40/63/125/160/250/315
Rated operational voltage Ue(V)	240/440
Rated insulation voltage Ui(V)	660/690
Rated frequency(Hz)	50/60
Number of poles(P)	1,2,3,4
Handle type	black thumb grip and light grey front plate padlockable handle
Degree of protection	IP20
Ambient air temperature(℃)	-25~+40 max.90% humidity
Storage temperature(℃)	-40~+75
Maximum operating altitude(meters)	2000

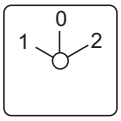
Control switches,with black thumb grip and light grey front plate

	Function	Number of Poles	In(A)	Type code
	0-1	1	10	MGLW26-011010
			20	MGLW26-011020
			25	MGLW26-011025
			32	MGLW26-011032
			40	MGLW26-011040
			63	MGLW26-011063
			125	MGLW26-011125
			160	MGLW26-011160
			250	MGLW26-011250
			315	MGLW26-011315
	0-1	2	10	MGLW26-012010
			20	MGLW26-012020
			25	MGLW26-012025
			32	MGLW26-012032
			40	MGLW26-012040
			63	MGLW26-012063
			125	MGLW26-012125
			160	MGLW26-012160
			250	MGLW26-012250
			315	MGLW26-012315
	0-1	3	10	MGLW26-013010
			20	MGLW26-013020
			25	MGLW26-013025
			32	MGLW26-013032
			40	MGLW26-013040
			63	MGLW26-013063
			125	MGLW26-013125
			160	MGLW26-013160
			250	MGLW26-013250
	0-1	4	10	MGLW26-013010
			20	MGLW26-013020
			25	MGLW26-014025
			32	MGLW26-014032
			40	MGLW26-014040
			63	MGLW26-014063
			125	MGLW26-014125
			160	MGLW26-014160
			250	MGLW26-014250

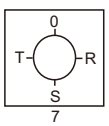
Voltmeter switches,with black thumb grip and light grey front plate

	Function	Number of Poles	In(A)	Type code
	 V2	3	20	MGLW26V

Control switches,with black thumb grip and light grey front plate

	Function	Number of Poles	In(A)	Type code
 	1-0-2	1	10	MGLW26-1021010
			20	MGLW26-1021020
			25	MGLW26-1021025
			32	MGLW26-1021032
			40	MGLW26-1021040
			63	MGLW26-1021063
			125	MGLW26-1021125
			160	MGLW26-1021160
			250	MGLW26-1021250
			315	MGLW26-1021315
	1-0-2	2	10	MGLW26-1022010
			20	MGLW26-1022020
			25	MGLW26-1022025
			32	MGLW26-1022032
			40	MGLW26-1022040
			63	MGLW26-1022063
			125	MGLW26-1022125
			160	MGLW26-1022160
			250	MGLW26-1022250
			315	MGLW26-1022315
	1-0-2	3	10	MGLW26-1023010
			20	MGLW26-1023020
			25	MGLW26-1023025
			32	MGLW26-1023032
			40	MGLW26-1023040
			63	MGLW26-1023063
			125	MGLW26-1023125
			160	MGLW26-1023160
			250	MGLW26-1023250
	1-0-2	4	10	MGLW26-1023010
			20	MGLW26-1023020
			25	MGLW26-1024025
			32	MGLW26-1024032
			40	MGLW26-1024040
			63	MGLW26-1024063
			125	MGLW26-1024125
			160	MGLW26-1024160
			250	MGLW26-1024250

Ammeter switches,with black thumb grip and light grey front plate

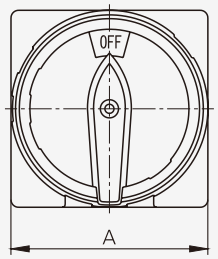
	Function	Number Of Poles	In(A)	Type code
		3	20	MGLW26A

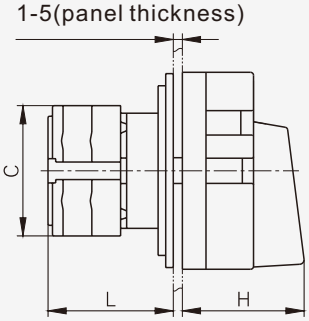
1.Control switches,with padlockable handle

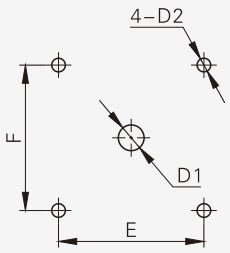
Function	Number of Poles	In(A)	Type code
ON-OFF	1	20	MGLW26GS120
		25	MGLW26GS125
		32	MGLW26GS132
		63	MGLW26GS163
		125	MGLW26GS1125
		160	MGLW26GS1160
ON-OFF	2	20	MGLW26GS220
		25	MGLW26GS225
		32	MGLW26GS232
		63	MGLW26GS263
		125	MGLW26GS2125
		160	MGLW26GS2160
ON-OFF	3	20	MGLW26GS320
		25	MGLW26GS325
		32	MGLW26GS332
		63	MGLW26GS363
		125	MGLW26GS3125
		160	MGLW26GS3160
ON-OFF	4	20	MGLW26GS420
		25	MGLW26GS425
		32	MGLW26GS432
		63	MGLW26GS463
		125	MGLW26GS4125
		160	MGLW26GS4160

2.Outline and installation dimensions

MGLW 26GS-20~160



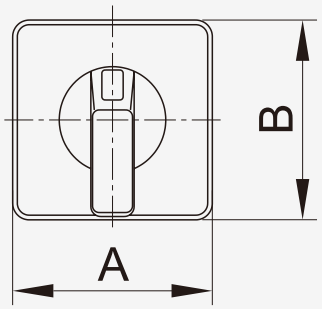




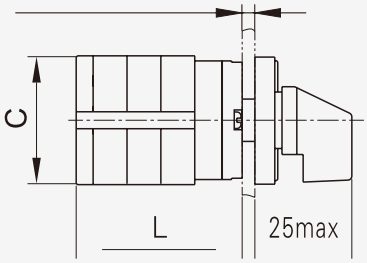
Type	Panel Configuration	Dimension mm				Mounting Dimension mm			
		A	B	C	L	E	F	D1	D2
LW26GS-20	M1	48	43	42	33	36	36	φ8.5	φ4.5
LW26GS-20	M2	64	43	43	42	48	48	φ10	φ4.5
LW26GS-25	M1	48	45.2	50	33	36	36	φ8.5	φ4.5
LW26GS-25	M2	64	45.2	51	42	48	48	φ10	φ4.5
LW26GS-32	M2	64	58	55	42	48	48	φ10	φ4.5
LW26GS-32	M3	88	58	55	52	68	68	φ13	φ6
LW26GS-40	M2	64	58	55	42	48	48	φ10	φ4.5
LW26GS-40	M3	88	58	55	52	68	68	φ13	φ6
LW26GS-63	M2	64	58	55	42	48	48	φ10	φ4.5
LW26GS-63	M3	88	66	72.5	52	68	68	φ13	φ6
LW26GS-125	M3	88	84	88	52	68	68	φ13	φ6
LW26GS-160	M3	88	88	100	52	68	68	φ13	φ6

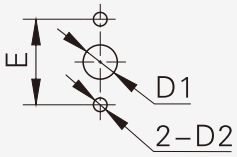
3.Outline and installation dimensions

MGLW 26-10

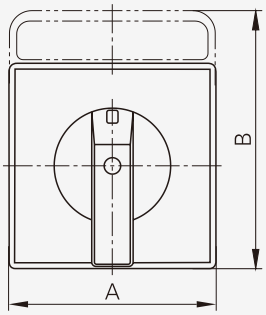


1-5(panel thickness)

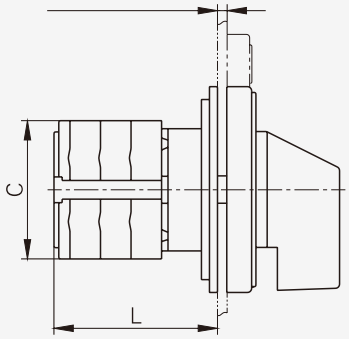


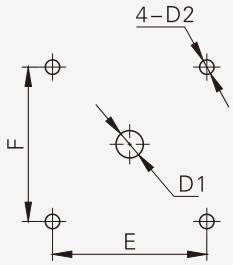


MGLW 26-20~315



1-5(panel thickness)



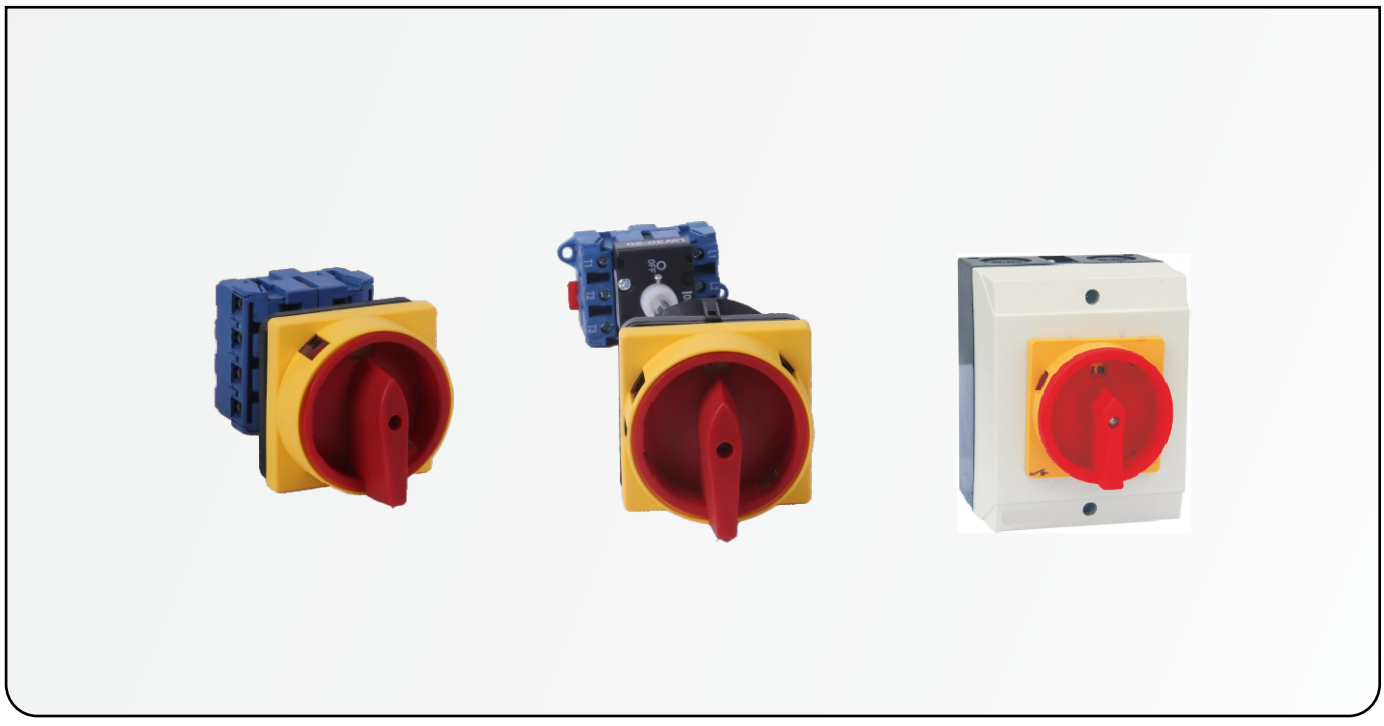


Type	Panel Configuration	Dimension mm				Mounting Dimension mm			
		A	B	C	L	E	F	D1	D2
MGLW26-10	M0	30	30	30.5	15.5+8n	20		φ8	φ3.2
MGLW26-20	M1	48	48	43	22+9.6n	20	36	φ8.5	φ4.5
MGLW26-20	M2	64	64	43	25+9.6n	48	48	φ10	φ4.5
MGLW26-25	M1	48	48	45.2	23+12.8n	36	36	φ8.5	φ4.5
MGLW26-25	M2	64	64	45.2	26.5+12.8n	48	48	φ10	φ4.5
MGLW26-32	M2	64	64	58	29.2+12.8n	48	48	φ10	φ4.5
MGLW26-32	M3	88	88	58	29.2+12.8n	68	68	φ13	φ6
MGLW26-40	M2	64	64	58	29.2+12.8n	48	48	φ10	φ4.5
MGLW26-40	M3	88	88	58	29.2+12.8n	68	68	φ13	φ6
MGLW26-63	M2	64	64	58	29.2+21.5n	48	48	φ10	φ4.5
MGLW26-63	M3	88	88	66	29.2+21.5n	68	68	φ13	φ6
MGLW26-125	M3	88	88	84	35+26.5n	68	68	φ13	φ6
MGLW26-160	M3	88	88	88	35+32.5n	68	68	φ13	φ6
MGLW26-250	M3	88	88	108	35.5+36n	68	68	φ13	φ6
MGLW26-315	M4	130	130	126	39.5+38.5n	104	104	φ16	φ7

MGLW Series
Rotary switches(MGLW30)

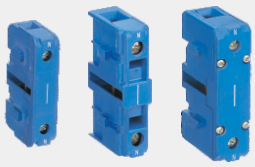
Technical data

Standard	IEC60947-3
Approval	CE
Rated thermal current Ith(A)	20/25/32/40/63/80/100
Rated operational voltage Ue(V)	240/440
Rated insulation voltage Ui(V)	660
Rated frequency(Hz)	50
Number of poles(P)	3,4
Handle type	black thumb grip and light grey front plate padlockable handle
Degree of protection	IP65 with box
Ambient air temperature(℃)	-25~+40 max.90% humidity
Storage temperature(℃)	-40~+75
Maximum operating altitude(meters)	2000

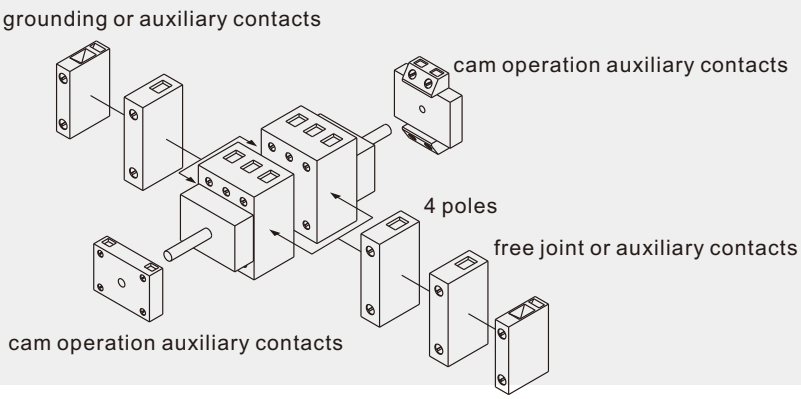


	Function	Number of Poles	In(A)	Type code
Control switches,with padlockable handle 	ON/OFF	3	20	MGLW30-3D20
			25	MGLW30-3D25
			32	MGLW30-3D32
			40	MGLW30-3D40
			63	MGLW30-3D63
			80	MGLW30-3D80
			100	MGLW30-3D100
	ON/OFF	4	20	MGLW30-3D20
			25	MGLW30-3D25
			32	MGLW30-3D32
			40	MGLW30-3D40
			63	MGLW30-3D63
			80	MGLW30-3D80
			100	MGLW30-3D100
Control switches,with padlockable handle 	ON/OFF	3	20	MGLW30-3R20
			25	MGLW30-3R25
			32	MGLW30-3R32
			40	MGLW30-3R40
			63	MGLW30-3R63
			80	MGLW30-3R80
			100	MGLW30-3R100
	ON/OFF	4	20	MGLW30-4R20
			25	MGLW30-4R25
			32	MGLW30-4R32
			40	MGLW30-4R40
			63	MGLW30-4R63
			80	MGLW30-4R80
			100	MGLW30-4R100
Insulated,with padlockable handle IP65 	ON/OFF	3	20	MGLW30-3B20
			25	MGLW30-3B25
			32	MGLW30-3B32
			40	MGLW30-3B40
			63	MGLW30-3B63
			80	MGLW30-3B80
			100	MGLW30-3B100
	ON/OFF	4	20	MGLW30-4B20
			25	MGLW30-4B25
			32	MGLW30-4B32
			40	MGLW30-4B40
			63	MGLW30-4B63
			80	MGLW30-4B80
			100	MGLW30-4B100

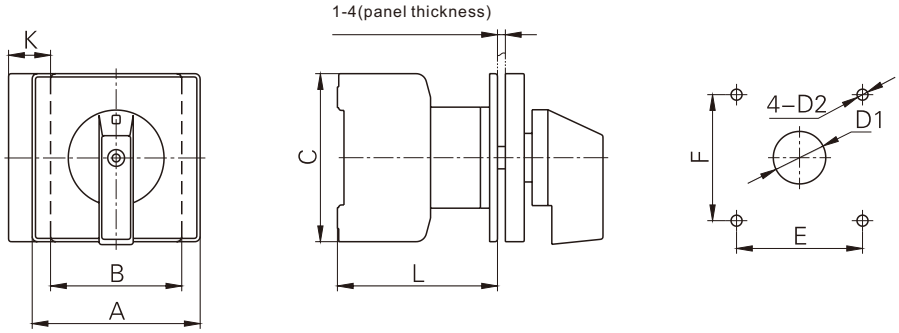
Auxiliary contacts



AC15 220~240V 6A/380~440V 4A

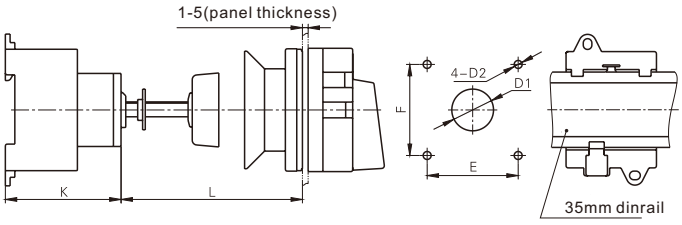


Outline and installation dimensions

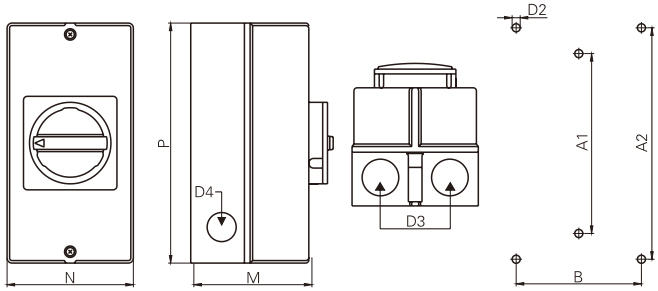


Type	Dimension mm					Mounting Dimension mm			
	A	B	C	L	L	E	F	D1	D2
MGLW30-20	64	42	54	13.5	61	48	48	φ10	φ4.2
MGLW30-25	64	42	54	13.5	61	48	48	φ10	φ4.2
MGLW30-32	64	42	54	13.5	61	48	48	φ10	φ4.2
MGLW30-40	64	50	64	16	67	48	48	φ10	φ4.2
MGLW30-63	64	50	64	16	67	48	48	φ10	φ4.2
MGLW30-80	64	70	80	22.5	82	48	48	φ10	φ4.2
MGLW30-100	64	70	80	22.5	82	48	48	φ10	φ4.2

Type	Dimension mm			Mounting Dimension mm			
	K	Lmin	Lmax	E	F	D1	D2
MGLW30-20	50	32	150	48	48	φ22	φ4.2
MGLW30-25	50	32	150	48	48	φ22	φ4.2
MGLW30-32	50	32	150	48	48	φ22	φ4.2
MGLW30-40	50	32	150	48	48	φ22	φ4.2
MGLW30-63	50	32	150	48	48	φ22	φ4.2
MGLW30-80	50	32	150	48	48	φ22	φ4.2
MGLW30-100	50	32	150	48	48	φ22	φ4.2



Type	Dimension mm					Mounting Dimension mm			
	D3	D4	M	N	P	A1	A2	B	D2
MGLW30-20	φ23	φ19	85	83	160	150	—	—	φ4.2
MGLW30-25	φ23	φ19	85	83	160	150	—	—	φ4.2
MGLW30-32	φ23	φ19	85	83	160	150	—	—	φ4.2
MGLW30-40	φ29	φ23	100	95	190	178	—	—	φ4.2
MGLW30-63	φ29	φ23	100	95	190	178	—	—	φ4.2
MGLW30-80	φ37.5	φ23	144	145	250	—	229	124	φ4.2
MGLW30-100	φ37.5	φ23	144	145	250	—	229	124	φ4.2



SGF-100 Series

Low voltage fuse bases

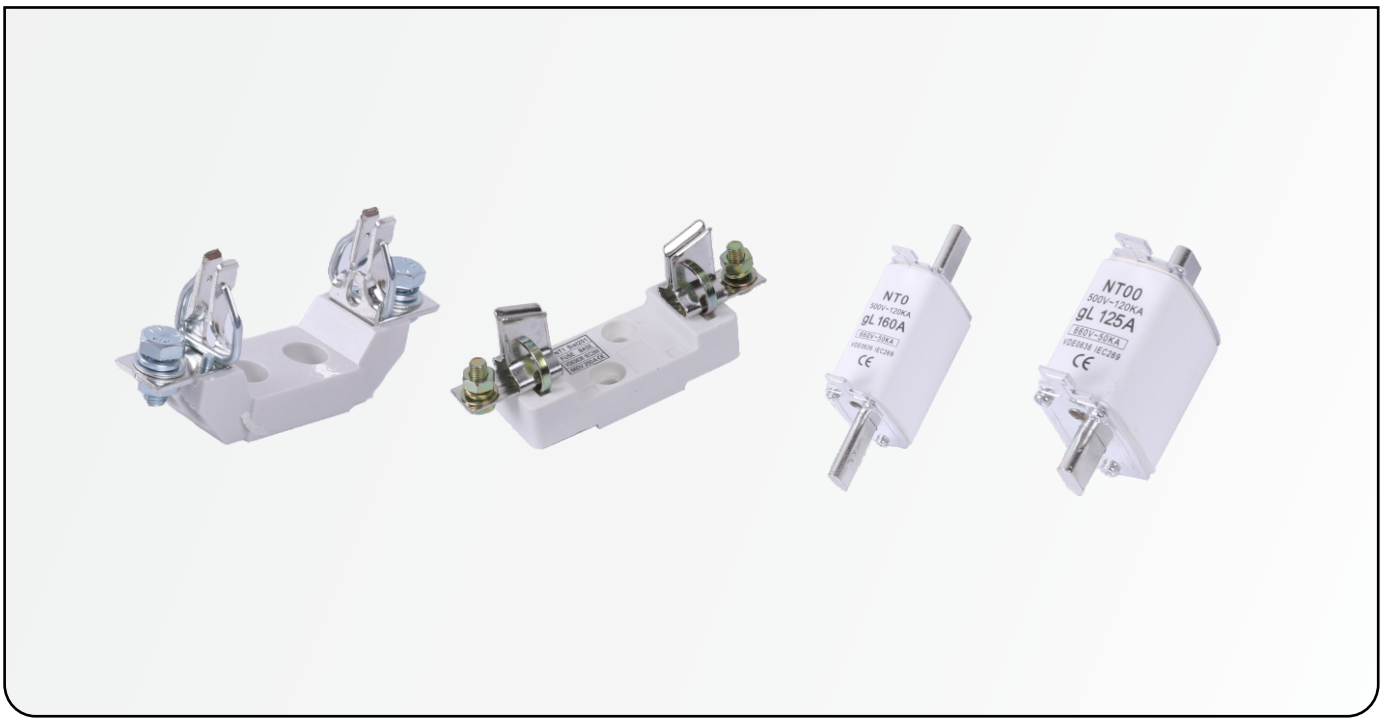
Technical data

Standard	IEC60269
Approval	CE
Rated frequency(Hz)	AC 50
Rated insulation voltage(V)	690
Rated current (A)	up to 1250

Low voltage H.R.C fuse links

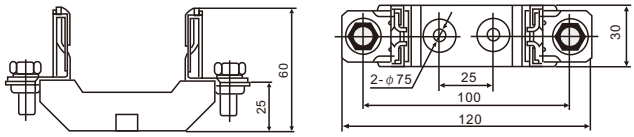
Technical data

Standard	IEC60269
Approval	CE
Rated frequency(Hz)	AC50
Rated voltage(V)	up to1140
Rated current (A)	up to 1250
Rated short circuit current(kA)	120
Ambient temperature(℃)	-5to+55
Altitude(meters)	2000



Low Voltage Fuse Bases

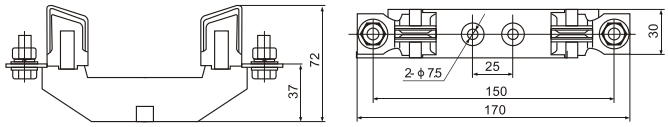
	Model of base	Model of fuse link	Rated insulation voltage(V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)
	NT00	NT00/NH00S	690	160	193	1.1	Refer to drawing 1.1 for detailed data



Drawing 1.1

Remark: Fuse bases are made of porcelain

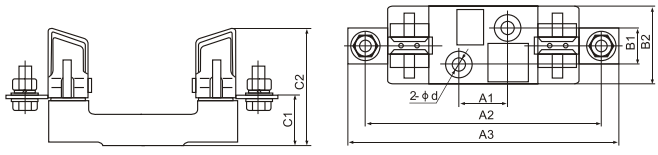
	Model of base	Model of fuse link	Rated insulation voltage(V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)
	NT0	NT0/NH0S	690	160	295	1.2	Refer to drawing 1.2 for detailed data



Drawing 1.2

Remark: Fuse bases are made of porcelain

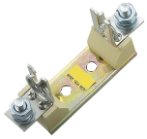
	Model of base	Model of fuse link	Rated insulation voltage(V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)							
							A_1	A_2	A_3	B_1	B_2	C_1	C_1	Φd
	NT1	NT1/NH1S	690	250	550	1.3	25	175	200	30	58	38	84	10.5
	NT2	NT2/NH2S	690	400	770	1.3	25	200	225	30	60	38	100	10.5
	NT3	NT3/NH3S	690	630	965	1.3	25	210	250	30	60	40	105	10.5

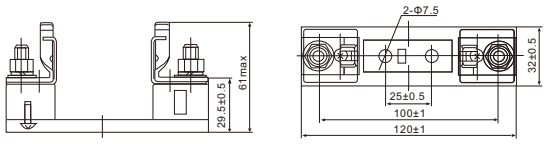


Drawing 1.3

Remark: Fuse bases are made of porcelain

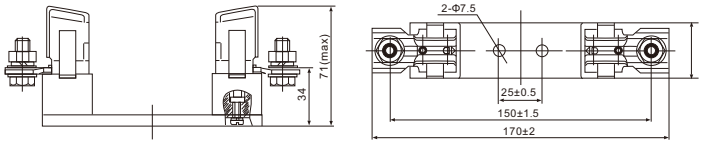
Low Voltage Fuse Bases

	Model of base	Model of Fuse link	Rated insulation voltage(V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)
	NH00	NT00/NH00S	660	160	240	1.4	Refer to drawing 1.4 for detailed data



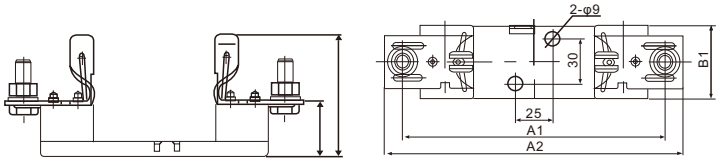
Drawing 1.4

	Model of base	Modelof fuse link	Rated insulation voltage(V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)
	NH0	NT0/NH0S	660	160	322	1.5	Refer to drawing1.5 for detailed data



Drawing 1.5

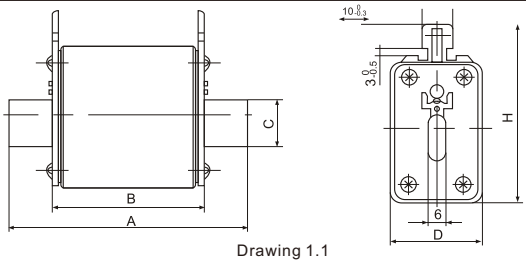
	Model of base	Model of fuse link	Rated insulation voltage(V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)				
							A_1	A_2	B_1	H_1	H_2
	NH1	NT1/NH1S	660	250	604	1.6	175	200	50	38	82
	NH2	NT2/NH2S	660	400	1006	1.6	200	230	64	54	104
	NH3	NT3/NH3S	660	630	1200	1.6	210	250	64	54	120



Drawing 1.6

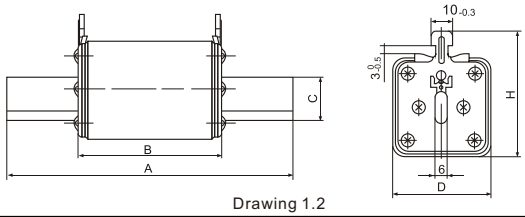
Low Voltage H.R.C Fuse Links

	Model of fuse link	Rated voltage (V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)				
						A	B	C	D	H
	NT00	500/660	10~160	180	1.1	78	50.5	15	30	60
	NT0	500/660	6~160	267	1.1	125	67	15	30	60



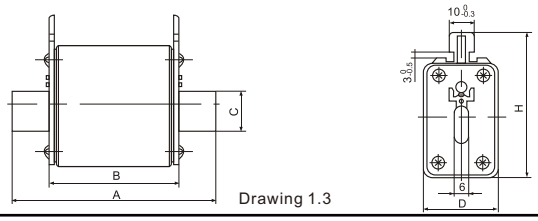
Drawing 1.1

	Model of fuse link	Rated voltage (V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)				
						A	B	C	D	H
	NT1	500/660	32~250	447	1.2	135	67	20	46	58.5
	NT2	500/660	80~400	727	1.2	150	68	30	58.5	68.5
	NT3	500/660	160~630	975	1.2	150	68	36	70	82



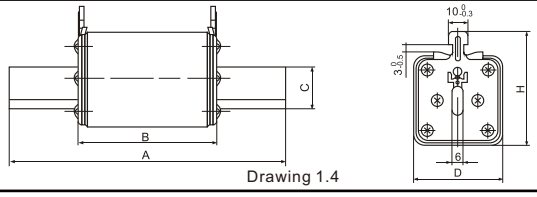
Drawing 1.2

	Model of fuse link	Rated voltage (V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)				
						A	B	C	D	H
	NH00S	500/690	10~160	180	1.3	78	50.5	15	30	60
	NH0S	500/690	6~160	267	1.3	125	67	15	30	60



Drawing 1.3

	Model of fuse link	Rated voltage (V)	Rated current (A)	Weight (g)	Drawing no.	Overall dimension (mm)				
						A	B	C	D	H
	NH1S	500/660	32~250	447	1.4	135	67	20	40	64
	NH2S	500/660	80~400	727	1.4	150	68	30	54	74
	NH3S	500/660	160~630	975	1.4	150	68	36	70	88

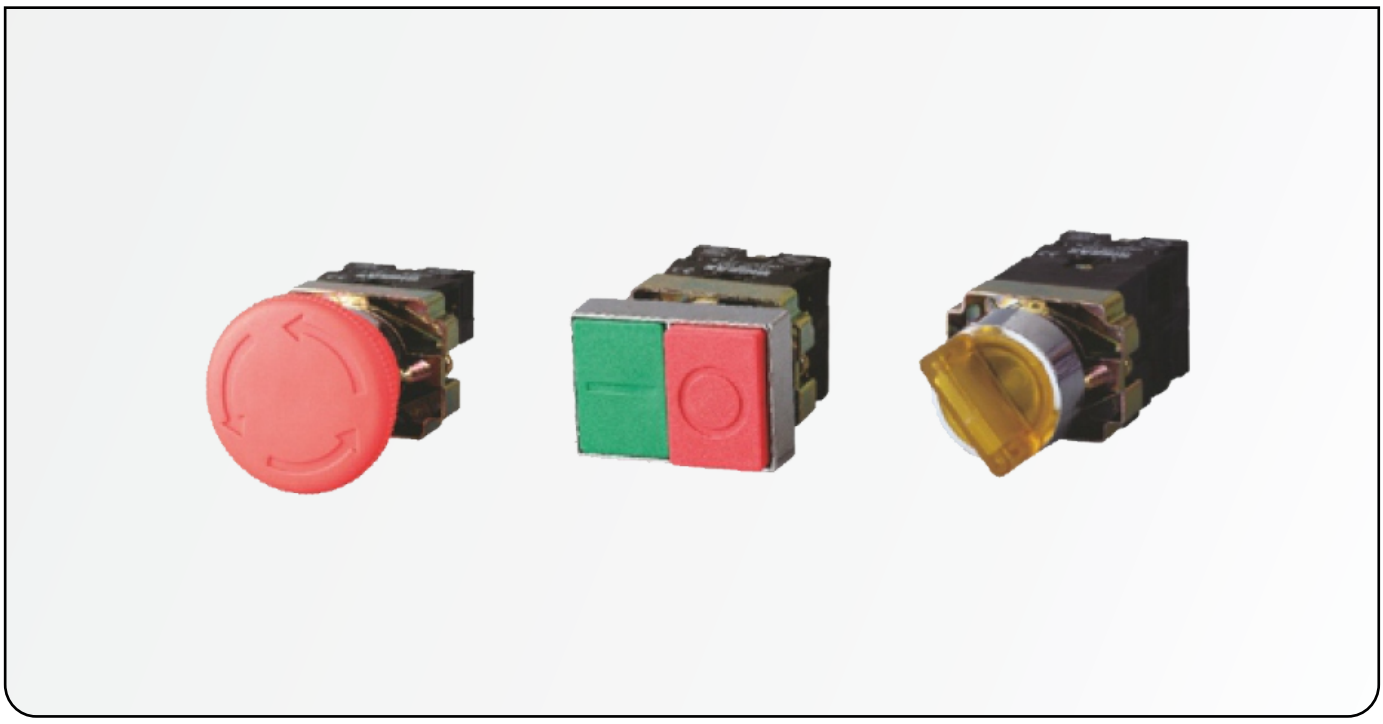


Drawing 1.4

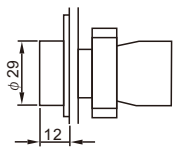
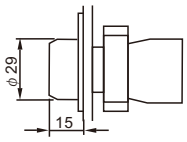
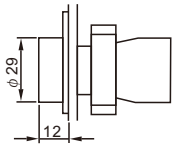
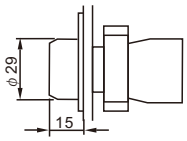
SGB2 Series
Pushbutton switch & LED indicatorsr

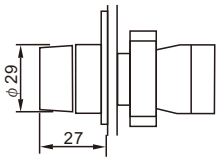
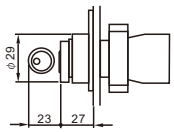
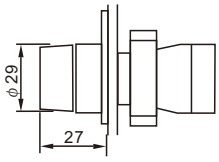
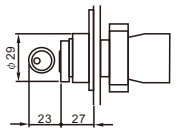
Technical data

Standard	EN60947-1;EN60947-5-1
Insulation voltage	660V;50/60Hz
Impulse voltage wear resistance	6000V
Rated current	6A(230V AC);0.3A(230V DC)
Short circuit protection	safety device 10A gG outside in the circuit
Mechanical wear resistance	1x106 commutation cycles
Power of mechanical compression at closing	20N
Power of mechanical compression at opening	8N
Operating temperature	-20 - +65°C
Humidity	35-85%RH
Tightening moment of the joining conductors	0.15Nm
Section of the conductor	1x0.5; 1x0.75; 1x1; 1x1.5;1x2.5mm^2
To a flat metal or plastic surface with thickness	max 4mm
Opening with size	Ø 22.5mm

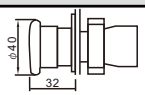
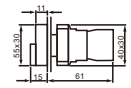
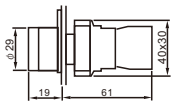
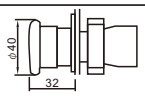
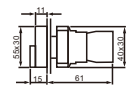
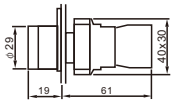


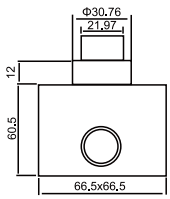
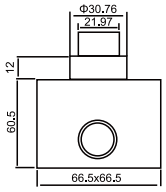
SGB2 Series Pushbutton switch

SGB2 pushbutton switch	Contour	Color	Type of contacts	Plastic/metal
		○	1NO	SGB2-EA11
		●	1NO	SGB2-EA21
		●	1NO	SGB2-EA31
		●	1NO	SGB2-EA51
		●	1NO	SGB2-EA61
		●	1NC	SGB2-EA42
		○	1NO	SGB2-EP11
		●	1NO	SGB2-EP21
		●	1NO	SGB2-EP31
		●	1NO	SGB2-EP51
		●	1NO	SGB2-EP61
		●	1NC	SGB2-EP42
		○	1NO	SGB2-BA11
		●	1NO	SGB2-BA21
		●	1NO	SGB2-BA31
		●	1NO	SGB2-BA51
		●	1NO	SGB2-BA61
		●	1NC	SGB2-BA42
		○	1NO	SGB2-BP11
		●	1NO	SGB2-BP21
		●	1NO	SGB2-BP31
		●	1NO	SGB2-BP51
		●	1NO	SGB2-BP61
		●	1NC	SGB2-BP42

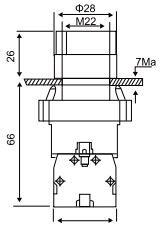
SGB2 selector	Contour	N° of position		Type of contacts	Plastic/Metal
		2	↓	1NO	SGB2-ED21
				1NO+1NC	SGB2-ED25
			↑	1NO	SGB2-ED41
				1NO+1NC	SGB2-ED45
		3	↓	2NO	SGB2-ED33
			↕	2NO	SGB2-ED53
			↓	2NO	SGB2-ED73
			↓	2NO	SGB2-ED83
		2	↓	1NO	SGB2-EG21
				1NO+1NC	SGB2-EG25
			↑	1NO	SGB2-EG41
				1NO+1NC	SGB2-EG45
		3	↕	2NO	SGB2-EG33
			↕	2NO	SGB2-EG53
		2	↓	1NO	SGB2-BD21
				1NO+1NC	SGB2-BD25
			↑	1NO	SGB2-BD41
				1NO+1NC	SGB2-BD45
		3	↓	2NO	SGB2-BD33
			↕	2NO	SGB2-BD53
			↓	2NO	SGB2-BD73
			↓	2NO	SGB2-BD83
		2	↓	1NO	SGB2-BG21
				1NO+1NC	SGB2-BG25
			↑	1NO	SGB2-BG41
				1NO+1NC	SGB2-BG45
		3	↕	2NO	SGB2-BG33
			↕	2NO	SGB2-BG53

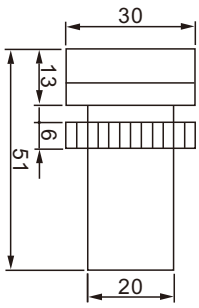
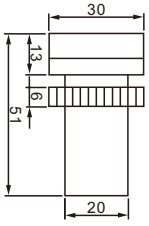
SGB2 Series Pushbutton switch

SGB2 pushbutton switch	Contour	Description	Type of contacts	Plastic/Metal
		Red spring reverse "Mushroom " type	1NC	SGB2-ES442 SGB2-ES542 SGB2-ES642
		Green&Red double button	1NO+1NC	SGB2-EL8325 SGB2-EL9325
		white color green color yellow color blue color	1NO	SGB2-EW3161 SGB2-EW3361 SGB2-EW3561 SGB2-EW3661
		red color	1NC	SGB2-EW3462
		Red spring reverse "Mushroom " type	1NC	SGB2-BS442 SGB2-BS542 SGB2-BS642
		Green&Red double button	1NO+1NC	SGB2-BL8325 SGB2-BL9325
		white color green color yellow color blue color	1NO	SGB2-BW3161 SGB2-BW3361 SGB2-BW3561 SGB2-BW3661
		red color	1NC	SGB2-BW3462

SGB2 selector	Contour	color	N° of position& Type of contacts	Plastic/Metal
		○ ● ● ● ●	2 position 1NO+1NC	SGB2-EK2765 SGB2-EK2365 SGB2-EK2565 SGB2-EK2665 SGB2-EK2465
		○ ● ● ● ●	3 position 1NO+1NC	SGB2-EK3765 SGB2-EK3365 SGB2-EK3565 SGB2-EK3665 SGB2-EK3465
		○ ● ● ● ●	2 position 1NO+1NC	SGB2-BK2765 SGB2-BK2365 SGB2-BK2565 SGB2-BK2665 SGB2-BK2465
		○ ● ● ● ●	3 position 1NO+1NC	SGB2-BK3765 SGB2-BK3365 SGB2-BK3565 SGB2-BK3665 SGB2-BK3465

SGD22 Series LED indicatorsr

SGB2 Indicator	Contour	color	Description	Reference
		○ ● ● ● ●	LED 220/240VAC 50/60HZ	SGB2-EV61 SGB2-EV63 SGB2-EV65 SGB2-EV66 SGB2-EV64

SGB2 Indicator	Contour	color	Description	Reference
		LED white	12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 230VAC 400VAC	SGD22-22D-W-22 SGD22-22D-W-23 SGD22-22D-W-25 SGD22-22D-W-26 SGD22-22D-W-31 SGD22-22D-W-32
		LED green	12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 230VAC/DC 400VAC/DC	SGD22-22D-G-22 SGD22-22D-G-23 SGD22-22D-G-25 SGD22-22D-G-26 SGD22-22D-G-31 SGD22-22D-G-32
		LED yellow	12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 230VAC 400VAC	SGD22-22D-Y-22 SGD22-22D-Y-23 SGD22-22D-Y-25 SGD22-22D-Y-26 SGD22-22D-Y-31 SGD22-22D-Y-32
		LED blue	12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 230VAC 400VAC	SGD22-22D-B-22 SGD22-22D-B-23 SGD22-22D-B-25 SGD22-22D-B-26 SGD22-22D-B-31 SGD22-22D-B-32
		LED red	12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 230VAC 400VAC	SGD22-22D-R-22 SGD22-22D-R-23 SGD22-22D-R-25 SGD22-22D-R-26 SGD22-22D-R-31 SGD22-22D-R-32
		LED red	12VAC/DC 24VAC/DC 48VAC/DC 110VAC/DC 230VAC 400VAC	SGD22-22SM-R-22 SGD22-22SM-R-23 SGD22-22SM-R-25 SGD22-22SM-R-26 SGD22-22SM-R-31 SGD22-22SM-R-32

Auxiliary for Pushbutton Switch

Accessorles for pushbutton	Contactor auxiliary	Description	Reference
	1NO	base for SGB2	SGB2-NO
	1NC	base for SGB2	SGB2-NC

Accessorles for pushbutton	Contactor auxiliary	Description	Reference
	25X11	Brand frame for SGB2	LA800E-P08
	25X18	Brand frame for SGB2	LA800E-P12

Accessorles for pushbutton	Contactor auxiliary	Description	Reference
	ϕ60	Alarm circle	LA800E-P16

Accessorles for pushbutton	Contactor auxiliary	Description	Reference
	220/240VAC	○	LA800E-LW230
		🟢	LA800E-LG230
		🟡	LA800E-LY230
		🔵	LA800E-LB230
		🔴	LA800E-LR230
	24VAC/DC	○	LA800E-LW24
		🟢	LA800E-LG24
		🟡	LA800E-LY24
		🔵	LA800E-LB24
		🔴	LA800E-LR24

SGCK Series Limit Switches

Technical data

Standard	EN60947-1;EN60947-5-1
Ambient temperature	-5℃ to +65℃
Humidity	95% RH max

The switches are applicable to AC control circuits of 50 to 60Hz,with a voltage up to 500V or DC control circuits with a voltage up to 250V ,and a current up to 15A to convert a mechanical signal into an electrical signal for the purpose of controlling mechancial movement or performing sequential control.

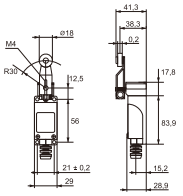
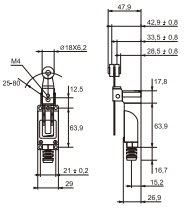
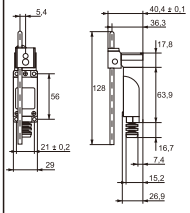
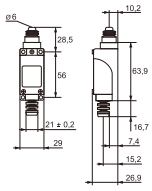
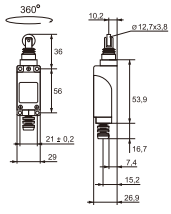
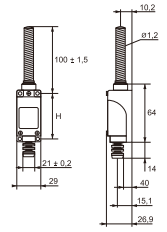
SGZ Series Micro Switches

Technical data

Standard	EN60947-1;EN60947-5-1
Ambient temperature	-10℃ to +80℃
Humidity	95% RH max

General purpose micro switches are used in AC control circuit of 50/60Hz,with a voltage up to 380V and a rated control capacity of 100VA or in DC control circuits with a voltage up to 220V and a rated control capacity of 10W

SGCK Series Limit switches

SGCK Limit switch	Contour	Power of starting(g)	Power of release(g)	Switching position	General movement	Rated current	Reference
		750g	100g	20°	50°	5A-active 3A-inductive	SGCK-TZ8104
		750g	100g	20°	50°	5A-active 3A-inductive	SGCK-TZ8108
		750g	100g	20°	50°	5A-active 3A-inductive	SGCK-TZ8107
		900g	150g	1.5mm	4mm	5A-active 3A-inductive	SGCK-TZ8111
		900g	150g	1.5mm	4mm	5A-active 3A-inductive	SGCK-TZ8112/ SGCK-TZ8122
		150g	/	30mm	/	5A-active 3A-inductive	SGCK-TZ8166/ 8167/8168/8169

1.Characteristics

Description	Reference
Operation speed	0.5mm-50cm/sec
Operating frequency	Mechanical: 120 operations/minute Electical: 30 operations/minute
Contact resistance	25mΩ max. (initial value)
Insulation resistance	100mΩ min. (below 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and noncurrent-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	10-55Hz,1.5mm double amplitude
Shock	Mechanical durable: 1, 000m/Sec2 (about 100G'S)
	Malfunction: 300m/Sec2 (about 30G'S)
Ambient temperature	-5~+65℃ (With no icing)
Humidity	<95% RH
Weight	About 130 to 190g
Life	Mechanical: 10,000,000 operations above
	Electrical: 500,000 operations above
Degree of protection	Ip65

2. Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NO	NC
125VAC	5	5	1.5	0.7	3	3	2	1
250VAC			1	0.5	3	3	1.5	0.8
8VDC	5	5	3	3	5	4	3	3
14VDC	5	5	3	3	4	4	3	3
30VDC	5	5	3	3	4	4	3	3
125VDC	0.4	0.4						
250VDC	0.2	0.2						
Inrush Current	N.C: below 24A, N.O: below 12A							

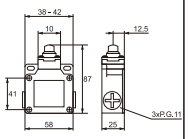
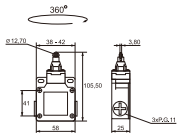
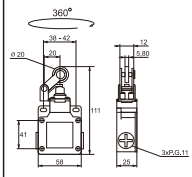
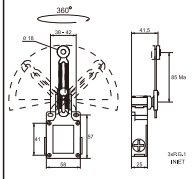
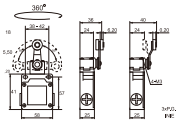
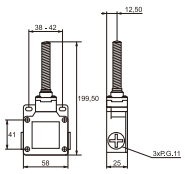
NOTES:

1.Inductive load has a power factor of 0.4 min.(AC) and a time constant of 7 msec.max.(DC)

2.Lamp load has an inrush current of 10 times the steady-state current,while motor, load has an inrush current of 6 times the steady-state current.

3.Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring.

SGCK Series Limit switches

SGCK Limit switch	Contour	Power of starting(g)	Power of release(g)	Switching position	General movement	Rated current	Reference
		800g	400g	2.0mm	5.8mm	10A-active 4A-inductive	SGCK-CSA001
		800g	400g	2.0mm	5.8mm	10A-active 4A-inductive	SGCK-CSA003
		800g	400g	2.0mm	5.8mm	10A-active 4A-inductive	SGCK-CSA012
		400g	100g	22.5°	95°	10A-active 4A-inductive	SGCK-CSA031
		400g	100g	22.5°	95°	10A-active 4A-inductive	SGCK-CSA021
		150g	50g	22.5°	50mm	10A-active 4A-inductive	SGCK-CSA081

SGCK Series Limit switches

1.Characteristics

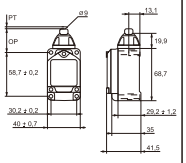
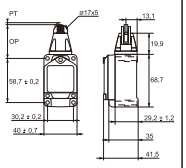
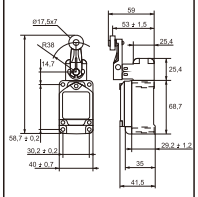
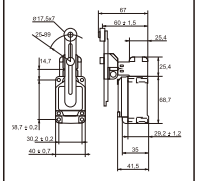
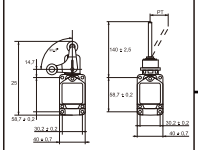
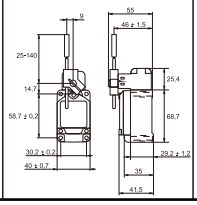
Description	Reference
Double Break Mechanism	INO+INC Force Break snap action
Rated Voltage / Current	10(4)A, 125, 250VAC / 6(2)A, 380VAC For inductance Load, Cosφ=0.4
Contact resistance	25mΩ max. (initial value)
Insulation resistance	100mΩ min. (at 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and non-current-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Electrical Life	500,000 at 10A 250VAC Resistive
Mechanical Life	10, 000, 000 operations min. (under rated conditions)
Operating Speed	5mm/s to 0.5m/s
Degree of Protection	Ip66
Ambient Temperature Rised	Max 30℃ over ambient temperature at rated voltage/current
Conformed Standards	Cenelec EN 50041, EN 50047, IEC 337-1, VDE 0660
Operating Temperature	-5℃~+65℃ (with no icing)
Storage Temperature	-5℃~+65℃ (with no icing)
Ambient Operating Humdity	95% RH Max.
Shock Resistance	Mechanical durable: 1000m/s2 min.
	Malfunction: 300m/s2 min.
Vibration Frequency	Malfunction: 10 to 55Hz, 1.5mm double amplitude
Terminal Screw Torsional Force	6-8 kgf-cm
Other Screw Torsional Force	Cover 12-14 kgf-cm/Head 8-9 kgf-cm/Mounting 50-60 kgf/cm
Bare Wire Diameter	ϕ2 Max
Cable Diameter	ϕ12 Max(IP 65 if use cable φ8-9)

Note: Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring

2.Features

- Strong metal outer shell, swing arm max.±95°
- Stainless steel idler wheel, punch and spring
- Selective M18x1.5 cable gland

SGCK Series Limit switches

SGCK Limit switch	Contour	Power of starting(g)	Power of release(g)	Switching position	General movement	Rated current	Reference
		2720g	910g	2.0mm	6.4mm	10A-active 3A-inductive	SGCK-CWLD
		2720g	910g	2.0mm	5.6mm	10A-active 3A-inductive	SGCK-CWLD2
		1360g	227g	20°	50°	10A-active 3A-inductive	SGCK-CWL-CA2-2
		2720g	910g	20°	50°	10A-active 3A-inductive	SGCK-CWL-CA12-2-Q
		1200g	/	55°	90±10°	10A-active 3A-inductive	SGCK-CA32-41
		150g	/	28mm	90±10°	10A-active 3A-inductive	CWLNJ
		142g	28g	20°	50°	10A-active 3A-inductive	CWLCL

SGCK Series Limit switches

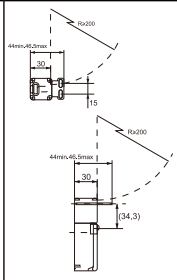
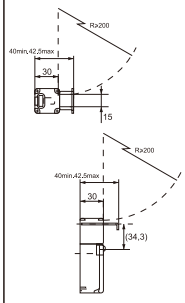
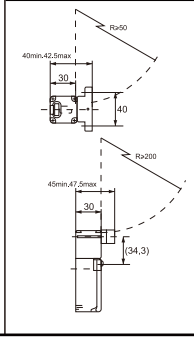
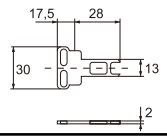
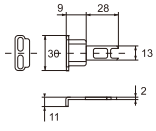
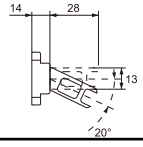
SGCK Limit switch	Contour	Power of starting(g)	Power of release(g)	Switching position	General movement	Rated current	Reference
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93BPG01
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93CPG01
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93BPG02
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93CPG02
		147g	29.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93BPG03
		147g	26.4g	6mm	28mm	10A-active 3A-inductive	SGCK-93CPG03

Image	Contour	Key Actuating	Reference
		Horizontal	SGCK-CZ93-K1
		Vertical	SGCK-CZ93-K2
		Adjustable	SGCK-CZ93-K3

SGCK Series Limit switches

1.Characteristics

Description	Reference
Operation speed	1mm-2m/s
Operating frequency	Mechanical: 120 operations/minute Electical: 30 operations/minute
Contact resistance	15mΩ max. (initial value)
Insulation resistance	100mΩ min. (below 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and noncurrent-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	10-55Hz,1.5mm double amplitude
Shock	Mechanical durable: 1, 000m/Sec2 (about 100G'S)
	Malfunction: 300m/Sec2 (about 30G'S)
Ambient temperature	-5~+65℃ (With no icing)
Humidity	<95% RH
Weight	About 275g
Life	Mechanical: 10,000,000 operations above
	Electrical: 500,000 operations above
Degree of protection	IEC specification: Ip66

2.Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NO	NC
125VAC	10		3	1.5	10		5	2
250VAC	5		2	1	5		3	1
480VAC	3		1.5	0.8	3		1.5	0.8
14VAC	1		1	0.5	1.5		1	0.5
8VDC	10		6	3	10		6	
14VDC	10		6	3	10		6	
30VDC	6		4	2	6		4	
125VDC	0.8		0.2	0.2	0.8		0.2	
250VDC	0.4		0.1	0.1	0.4		0.1	

NOTES:

1.Inductive load has a power factor of 0.4 min.(AC) and a time constant of 7 msec.max.(DC)

2.Lamp load has an inrush current of 10 times the steady-state current,while motor, load has an inrush current of 6 times the steady-state current.

3.Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring.

SGCK Series Limit switches

1.Characteristics

Description	Reference
Rating	3A 240VAC (A300)
Operation speed	0.1mm-0.5m/s
Operating frequency	30 operations/minute
Contact resistance	25mΩ max. (initial)
Insulation resistance	100mΩ min. （500VDC）
Rated insulation voltage(UI)	400V
Dielectric strength	AC2500V/Umip 4KV
Shock	Mechanical durable: 1, 000m/Sec2 (about 100G'S)
	Malfunction: 300m/Sec2 (about 30G'S)
Ambient temperature	-10~+70℃ (With no icing)
Humidity	<95% RH
Weight	Approx. 76g
Life	Mechanical: 10,000,000 operations/min.
	Electrical: 150,000 operations/min.
Degree of protection	IP65(EN60947-5-1)
Short-circuit protective device	10A fuse

2.Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NO	NC
125VAC	10		3	1.5	10		5	2.5
250VAC	10		2	1	10		3	1.5
400VAC	10		1.5	0.8	3		1.5	0.8
8VDC	10		6	3	10		6	
14VDC	10		6	3	10		6	
30VDC	6		4	2	6		4	
125VDC	0.8		0.2	0.2	0.8		0.2	
250VDC	0.4		0.1	0.1	0.4		0.1	

3.Operating Characteristics

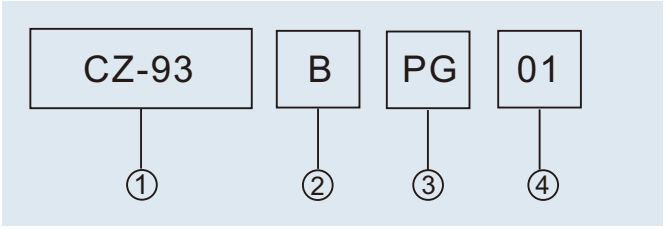
Key plug in force Max	147.N(1,500gf)
key pull out force Max	29.42N(3,000gf)
Pretravel	6 ±3mm
Total travel	28mm
Force required to have positive Min	58.84N(6,000gf)
Positive opening travel Min	10mm

SGCK Series Limit switches

1.Model Designations

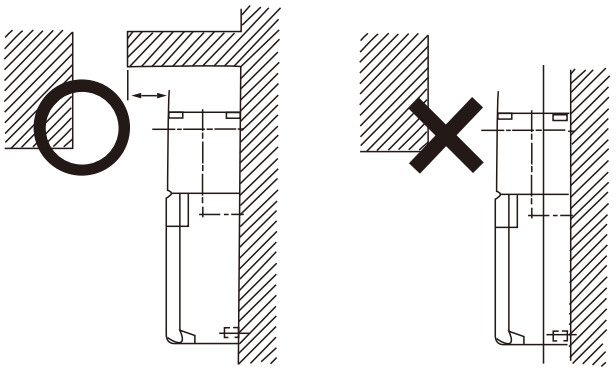
Description	Signal	Description
Type	CZ-93	Safety switch
Type of contact blocks fitted	B	2B(2NC)
	C	1A1B(NO-NC)
Conduit entries	PG	PG 13.5XP1.5
	PM	M20X1.5
Actuating keys	None	None
	1	Horizontal
	2	Vertical
	3	Adjustable

M20x1.5 cable gland that can be equipped



2.Use Attention Affair

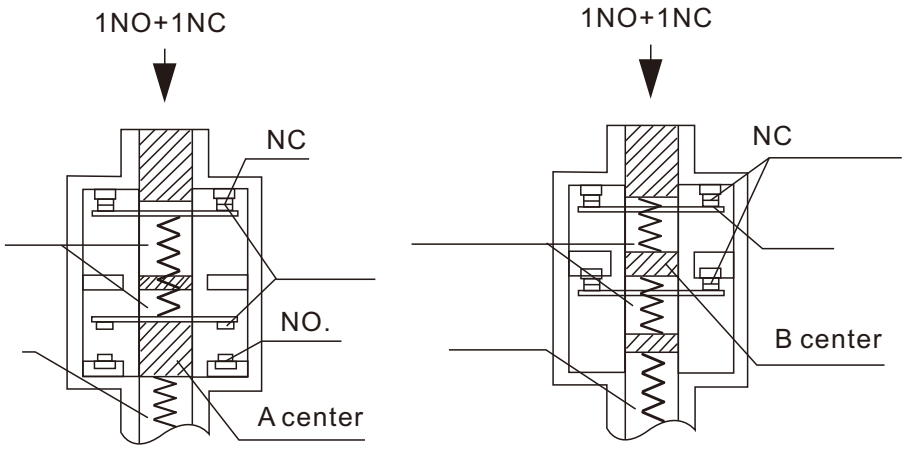
- To prevent the wear and the space should be within 1mm between the key and middle of the insert hole.
- When in use,there should put a plate on the top to prevent the key overinsert.To prevent nonmovement ,the space between the plateand the switch should be under 3 mm.



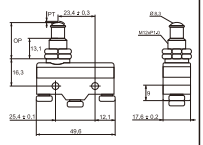
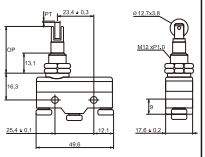
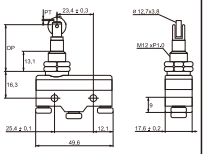
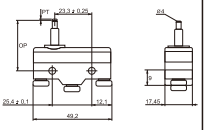
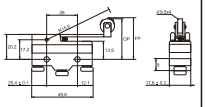
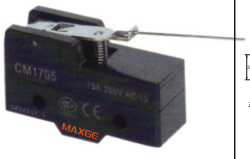
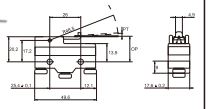
Normal used state　　Unsuitable used state

3.Required to Have Positive Machine

- When the contact block get fire, press on the middle of the key structure, the NC strict leaving structure can push the contact block a way cut off the movement.



SGZ Series Micro switches

SGZ Micro switch	Contour	Power of starting(g)	Power of release(g)	Switching position	General movement	Rated current	Reference
		350g	114g	0.4mm	5.8mm	15A-active 5A-inductive	SGZ-CM1307
		350g	114g	0.4mm	5.8mm	15A-active 5A-inductive	SGZ-CM1309
		350g	114g	0.4mm	5.8mm	15A-active 5A-inductive	SGZ-CM1308
		350g	114g	0.4mm	95°	15A-active 5A-inductive	SGZ-CM1305
		150g	22g	7.1mm	95°	15A-active 5A-inductive	SGZ-CM1703
		10g	3g	20mm	50mm	15A-active 5A-inductive	SGZ-CM1705

SGZ Series Micro switches

1.Characteristics

Description	Reference
Operation speed	0.1mm-1m/s
Operating frequency	Mechanical: 240 operations/minute Electical: 20 operations/minute
Contact resistance	15mΩ max. (initial value)
Insulation resistance	100mΩ min. (at 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and noncurrent-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	10-55Hz,1.5mm double amplitude
Shock	Mechanical durable: 1, 000m/Sec2 (about 100G'S)
	Malfunction: 300m/Sec2 (about 30G'S)
Ambient temperature	General purpose type: -25℃ to +80℃(With no icing)
	Sealed type: -15℃ to +80℃(With no icing)
Humidity	General purpose type: 85% RH max., Sealed type: 95% RH max.
Life	Mechanical: 20,000,000 operations above
	Electrical: 500,000 operations above
Weight	About 22g to 58g

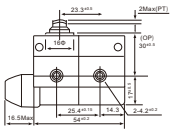
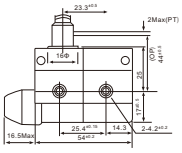
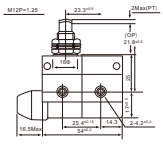
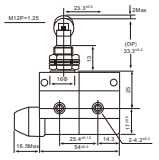
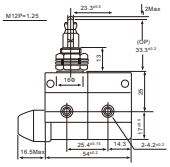
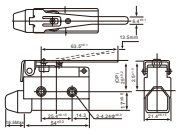
2.Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)				Inrush Current	
	Resistance Load		Lamp Load		Inductive Load		Motor Load			
	NC	NO	NC	NO	NC	NO	NO	NC	NC	NO
125VAC	15		3	1.5	15		5	2	30	15
250VAC	15		2.5	1.25	15		3	1	max	max
500VAC	3		1.5	0.75	2.5		1.5	0.8	/	/
8VDC	15		3	1.5	15		5	2.5	/	/
14VDC	15		3	1.5	15		5	2.5	/	/
30VDC	6(2)		3	1.5	2.5		5	2.5	/	/
125VDC	0.4		0.4	0.4	/		0.05	0.05	/	/
250VDC	0.2		0.2	0.2	/		0.03	0.03	/	/

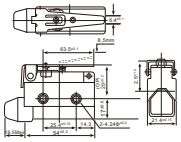
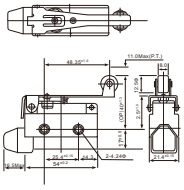
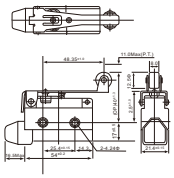
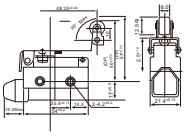
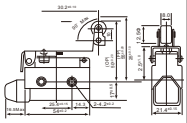
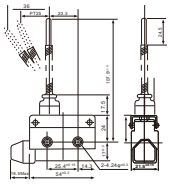
3.Features

- Virous of actuators, action position is adjustable(such as CM1701)
- High switch on and off capacity(15A)
- High accuracy
- Wide range of operation speed
- Each type of CM series has solder terminal, screw terminal and tab terminal are selective
- Add A for solder terminal, add C for tab terminal, blank for screw terminal

SGZ Series Micro switches

SGZ Micro switch	Contour	Power of starting(g)	Power of release(g)	Switching position	General movement	Rated current	Reference
		600g	100g	2.0mm	0.8mm	10A-active 5A-inductive	SGZ-CZ7100
		600g	100g	2.0mm	5.0mm	10A-active 5A-inductive	SGZ-CZ7110
		600g	100g	2.0mm	6.0mm	10A-active 5A-inductive	SGZ-CZ7310
		600g	100g	2.0mm	6.0mm	10A-active 5A-inductive	SGZ-CZ7311
		600g	100g	2.0mm	6.0mm	10A-active 5A-inductive	SGZ-CZ7312
		150g	40g	13.5mm	4.0mm	10A-active 5A-inductive	SGZ-CZ7120

SGZ Series Micro switches

SGZ Micro switch	Contour	Power of starting(g)	Power of release(g)	Switching position	General movement	Rated current	Reference
		220g	60g	8.5mm	2.5mm	10A-active 5A-inductive	SGZ-CZ7140
		180g	50g	11.0mm	3.0mm	10A-active 5A-inductive	SGZ-CZ7121
		240g	80g	6.5mm	2.0mm	10A-active 5A-inductive	SGZ-CZ7141
		200g	60g	11.0mm	3.0mm	10A-active 5A-inductive	SGZ-CZ7124
		280g	100g	6.5mm	2.0mm	10A-active 5A-inductive	SGZ-CZ7144
		120g	/	250mm	11mm	10A-active 5A-inductive	SGZ-CZ7166

SGZ Series Micro switches

1.Characteristics

Description	Reference
Operation speed	0.01mm-1m/sec
Operating frequency	Mechanical: 240 operations/minute Electical: 20 operations/minute
Contact resistance	15mΩ max. (initial value)
Insulation resistance	100mΩ min. (at 500VDC)
Dielectric strength	1000VAC, 50/60 Hz for 1 minute between terminals of the same polarity
	1500VAC, 50/60 Hz for 1 minute between current-carrying and noncurrent-carrying metal parts
	1500VAC, 50/60 Hz for 1 minute between each terminal and ground
Vibration	10-55Hz,1.5mm double amplitude
Shock	Mechanical durable: 1, 000m/Sec2 (about 100G'S)
	Malfunction: 300m/Sec2 (about 30G'S)
Ambient temperature	General purpose type: -25℃ to +80℃(With no icing)
	Sealed type: -15℃ to +80℃(With no icing)
Humidity	General purpose type: 85% RH max., Sealed type: 95% RH max.
Life	Mechanical: 20,000,000 operations above (under rated OT)
	Electrical: 500,000 operations above
Weight	About 22g to 58g

2.Ratings

Rated voltage	Noninductive Load (A)				Inductive Load (A)			
	Resistance Load		Lamp Load		Inductive Load		Motor Load	
	NC	NO	NC	NO	NC	NO	NO	NC
125VAC	10		3	1.5	10		5	2.5
250VAC	10		2.5	1.25	10		3	1.5
480VAC	3		1.5	0.75	2.5		1.5	0.75
8VDC	10		3	1.5	6		6	5
14VDC	10		3	1.5	6		6	5
30VDC	8		3	1.5	6		5	2.5
125VDC	0.5		0.4	0.4	0.05		0.05	0.05
250VDC	0.25		0.2	0.2	0.03		0.03	0.03

NOTES:

1.Inductive load has a power factor of 0.4 min.(AC) and a time constant of 7 msec.max.(DC).

2.Lamp load has an inrush current of 10 times the steady-state current,while motor load has an inrush current of 6 times the steady-state current.

3.Product with spring, its usable range of operating part is within one third of the whole spring length from the front end of spring.