



BPCOS

Bypass changeover switch
from 125 to 1600 A

Changeover
switches



Function

The **SOCOMEK BPCOS** is a manually operated changeover switch. It is a combination of three interlocked switches enabling the use with 4 + 8 poles. It insulates by providing simultaneous safety isolation top and bottom and Bypassing loads of low voltage circuits mainly during maintenance operations.

Operations

Direct

The pad lockable handle is mounted directly on the Bypass and lockable in ON/OFF position.

External

The pad lockable handle is to be mounted on the panel door and can be locked in ON/OFF position. The external front operation ensures that the door is interlocked in ON position.

General Characteristics

- 3 stable positions (I - O - II)
- Very compact design
- Resistant to Tropical conditions and Polluted environment
- Quick Make & Quick Break
- High thermal and Dynamic withstand capacity
- Available in open execution and Sheet Steel Enclosure for top or bottom cable connection
- High performance : AC23 category
- Bounce Free contacts
- Any pole suitable for Neutral
- Unique Safety Handle with built in door Padlock facility
- High Electrical and Mechanical Endurance

The solution for

- > Bypass of an electrical equipment. E.g. UPS...



Strong points

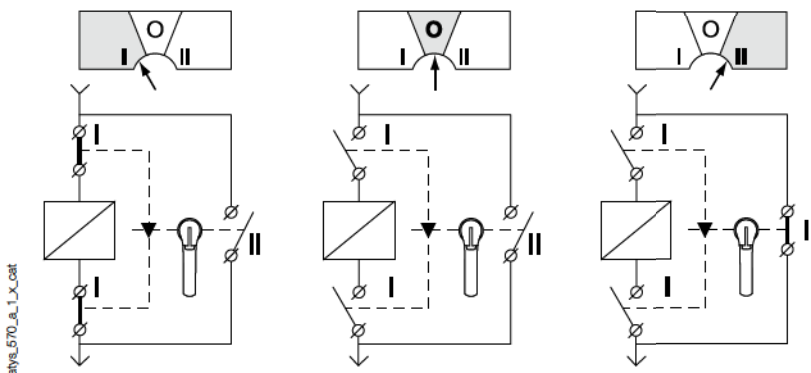
- > Safe and easy to use
- > Bypass with a single operation
- > Large connection capabilities for direct aluminium cable connection

Conformity to standards

- > IS/IEC 60947-3



Functional diagram



Characteristics

125 to 1600 A

BPCOS from 125 to 1600 A										
References	GBP01254POI (1)	GBP02004POI (1)	GBP02504POI (1)	GBP03204POI (1)	GBP04004POI (1)	GBP06304POI (1)	GBP08004POI (1)	GBP10004POI (1)	GBP12504POI (1)	GBP16004POI (1)
Thermal current I_{th} (40°C)	125 A	200 A	250 A	320 A	400 A	630 A	800 A	1000 A	1250 A	1600 A
Max. normal rating of fuses	125	200	250	315	400	630	800	1000	1250	1600
Insulation voltage U _i (V)	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Dielectric strength (V) 50 Hz 1 mn.	5000	5000	5000	5000	8000	8000	8000	8000	10000	10000
Impulse voltage (kV)	6	6	8	8	12	12	12	12	12	12
Rated operational currents I_e (A)										
415 VAC-AC 23A	125	200	250	320	400	630	800	1000	1000	1000
500 VAC-AC 23A	100	160	200	250	315	315	630	1000	1000	1000
260 VDC-DC 21A	125	200	250	320	400	630	800	1000	1250	1600
260 VDC-DC 22A	125	200	250	320	400	500	800	1000	1250	1250
260 VDC-DC 23A	125	160	200	250	400	500	800	1000	1250	1250*
440 VDC-DC 21A	125	200	250	320	400	500	630	1000	1250	1600
440 VDC-DC 22A	125	160	200	250	400	500	800	1000	1250	1250
440 VDC-DC 23A	125	160	200	250	400	500	800	1000	1000	1000
Motor power (kW) 415V										
415 VAC without pre break auxiliary contact	63	80	132	160	200	220	450	560	560	560
500 VAC without pre break auxiliary contact	63	63	140	220	220	220	450	560	560	710
690 VAC without pre break auxiliary contact	55	55	90	150	150	150	185	400	400	475
415 VAC with pre break auxiliary contact	63	80	132	160	220	355	450	560	710	710
500 VAC with pre break auxiliary contact	80	80	160	220	280	355	550	710	710	900
690 VAC with pre break auxiliary contact	110	110	110	220	220	295	475	600	600	750
Motor Reactive 415 VAC (kVAR)	55	60	100	125	150	2 x 125	2 x 150	3 x 150	4 x 125	5 x 150
Protection										
Short-circuit current with fuses (kA rms)	80	80	80	80	80	80	80	80	80	80
Fuse rating	125	200	250	315	400	630	800	1000	1250	2 x 00
Peak short-circuit making capacity (kA rms)	20	20	30	45	45	45	55	105	105	110
Admissible short time current 1 sec (kA rms)	7	7	9	13	13	13	26	50	50	50
Making & breaking characteristics										
Breaking capacity (A rms) 415 VAC pf-0.35	1000	1600	2000	2520	3200	5040	6400	8000	8000	8000
Making capacity (A rms) 415 VAC pf-0.35	1250	2000	2500	3150	4000	6300	8000	10000	10000	10000
Endurance										
Mechanical No. of operations	8000	8000	8000	5000	5000	5000	4000	4000	4000	3000
Electrical No. of operations	1000	1000	1000	1000	1000	1000	500	500	500	500
Operating force (Nm)	9.5	9.5	11	11	17	17	40	40	40	40
Connection										
Min. Cu cablebus bar size (mm ²)	50	95	120	185	240 or 30 x 5 x 2	40 x 5 x 2	50 x 5 x 2	60 x 5 x 2	80 x 5 x 2	100 x 5 x 2
Min. Al cablebus bar size (mm ²)	70	150	185	240	300 or 32 x 8 x 2	40 x 8 x 2	50 x 8 x 2	50 x 10 x 2	63 x 12 x 2	100 x 8 x 2

1. Includes switch + handle + door interlock. 2. 1 NO,NC factory fitted.

Accessories

Handle

Rating (A)	Reference
125	41990001GI
200	41990002GI
250	41990003GI
320	41990004GI
400	41990005GI
630	41990006GI
800 ... 1600	42990011GI

Door Interlock assembly

Rating (A)	Reference
125 ... 630	42590003GI
800 ... 1600	42590004GI

Bridging bars

Rating (A)	Reference
125	41094013-SA
200	41094020-SA
250 ... 320	41094032-SA
400	41094040-SA
630	41094063-SA
800	41094080-SA
1000	41094100-SA
1250	41094120-SA
1600	41094160-SA

Auxiliary contact

1 st auxiliary contact		2 nd auxiliary contact	
Rating (A)	Reference	Rating (A)	Reference
125 ... 630	42091040GI	125 ... 400	42092040GI
800 ... 1600	42091050GI	630	42092040GI
		800 ... 1600	42092060GI

Phase barrier

Rating (A)	Type	Reference
800 ... 1600	Small	G89B604GI
	Big	G89B766GI

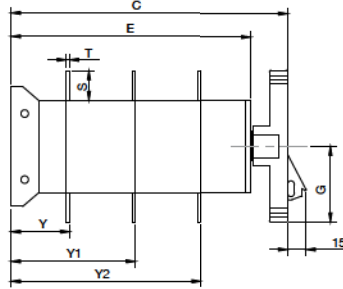
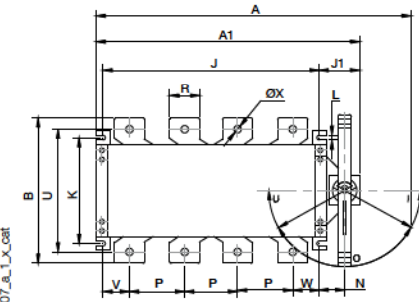
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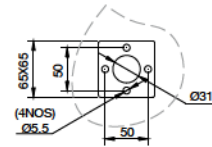
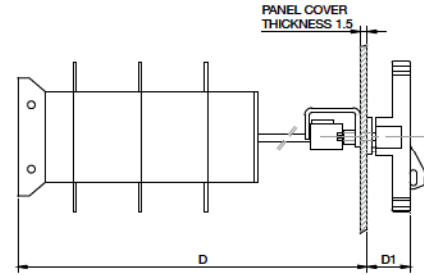
Dimensions (mm)

125 to 630 A

Direct front operation



External front operation

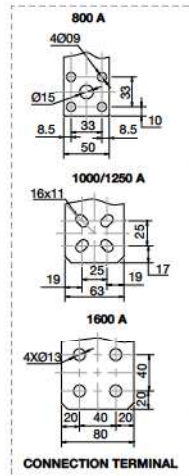
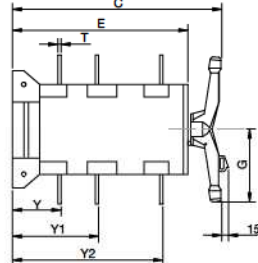
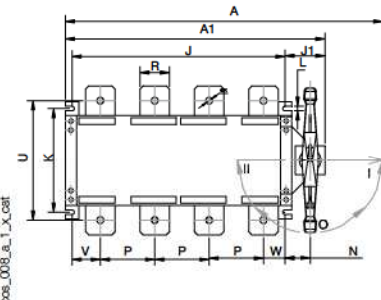


DOOR DRILLING FOR INTERLOCK ASSY. MOUNTING

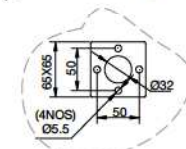
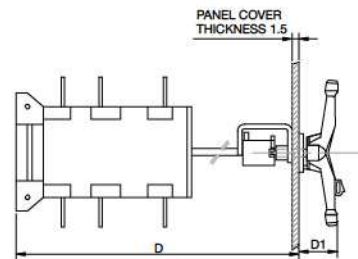
Rating (A)	Dimensions							Fixing of Sw.					Connection terminal										Sw. Wt.			
	A	A1	B	C	D	D1	E	G	J	J1	K	L	N	P	R	S	T	U	V	W	ØX	Y	Y1	Y2	Open Ex. (kg)	Ex. (kg)
4 x 125	305	227	142	347	297	65	282	140	159	58	95	7.0	26	45	22	28	3.0	118	12	12	8.5	54	120	186	6.0	
4 x 200	305	227	155	347	297	65	282	140	159	58	95	7.0	26	48	25	35	4.0	123	7	7	10.5	54	120	186	7.0	
4 x 250	363	285	192	351	327	65	316	140	212	63	111	7.5	27	64	32	46	4.5	152	7	13	12	62	140	218	10.0	
4 x 320	363	285	192	351	327	65	316	140	212	63	111	7.5	27	64	32	46	4.5	152	7	13	12	62	140	218	10.0	
4 x 400	458	360	235	483	430	65	418	140	271	80	180	9.0	45	73	40	40	5.0	205	26	26	11	84	195	300	20.0	
4 x 630	458	360	270	483	430	65	418	140	271	80	180	9.0	45	81	55	55	5.0	230	14	14	14.5	84	195	306	26.0	

800 to 1600 A

Direct front operation



External front operation



DOOR DRILLING FOR INTERLOCK ASSY. MOUNTING

Rating (A)	Overall dimensions							Fixing of Sw.					Connection terminal										Sw. Wt.		
	A	A1	B	C	D	D1	E	G	J	J1	K	L	N	P	R	T	U	W	V	ØX	Y	Y1	Y2	Open Ex. (kg)	Ex. (kg)
4 x 800	610	432	320	521	521	81	448	165	330	84	220	11	50.5	80	50	6	268	52	48	15	107	251	395	4.0	
4 x 1000	703	565	332	521	521	81	448	165	474	84	220	11	50.5	120	63	6	267	66	48	-	107	251	395	5.0	
4 x 1250	703	565	332	521	521	81	448	165	474	84	220	11	50.5	120	63	7	267	66	48	-	108	252	396	7.3	
4 x 1600	703	565	362	521	521	81	448	165	474	84	220	11	50.5	120	80	15	282	66	48	-	112	258	400	7.3	