



Bypass COS

Bypass changeover switch
from 125 to 1600 A

Changeover
switches



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



Approvals and certifications

- > CPRI

Function

The **SOCOMECS bypass COS** 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 BY-PASS and lockable in OFF position.

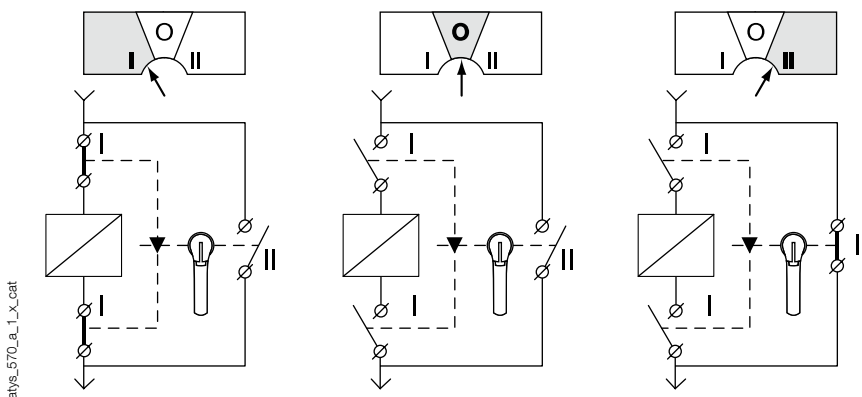
External

The pad lockable handle is to be mounted on the panel door and can be locked in 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

Functional diagram



Characteristics

125 to 1600 A

References	GBP01254POI (1)	GBP02004POI (1)	GBP02504POI (1)(2)	GBP03204POI (1)(2)	GBP04004POI (1)(2)	GBP06304POI (1)(2)	GBP08004POI (1)(2)	GBP10004POI (1)(2)	GBP12504POI (1)(2)	GBP16004POI (1)(2)
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 Aux. contact	63	80	132	160	200	220	450	560	560	560
500 VAC without pre break Aux. contact	63	63	140	220	220	220	450	560	560	710
690 VAC without pre break Aux. contact	55	55	90	150	150	150	185	400	400	475
415 VAC with pre break Aux. contact	63	80	132	160	220	355	450	560	710	710
500 VAC with pre break Aux. contact	80	80	160	220	280	355	550	710	710	900
690 VAC with pre break Aux. 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	2x00
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	30x5x2	40x5x2	50x5x2	60x5x2	80x5x2	100x5x2
Min. Al cablebus bar size (mm ²)	70	150	185	240	32x8x2	40x8x2	50x8x2x	50x10x2	63x12x2	100x8x2

1. Includes switch + handle + door interlock.

2. A 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...400	42091040GI	125...400	42092040GI
630	42091040GI	630	42092040GI
800...1600	42091050GI	800...1600	42092060GI

Phase barrier

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

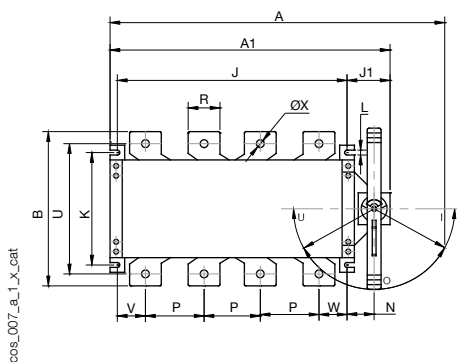
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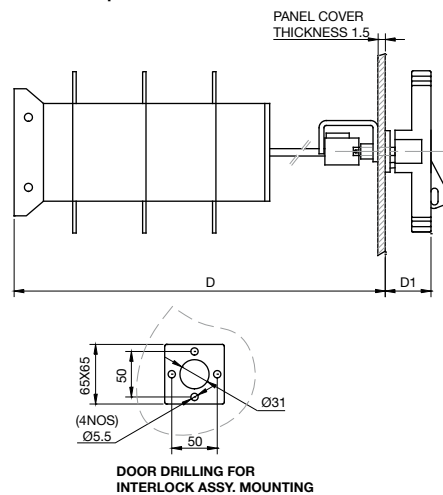
Dimensions (mm)

125 to 630 A

Direct front operation



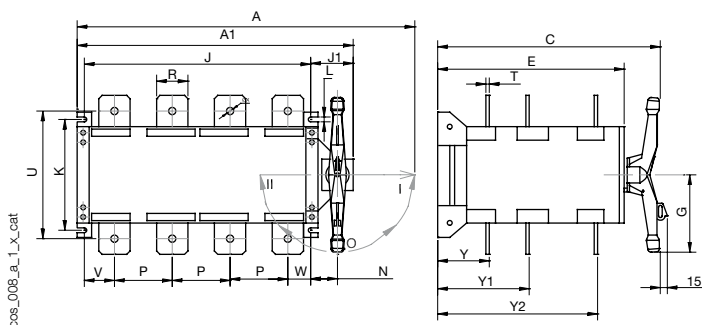
External front operation



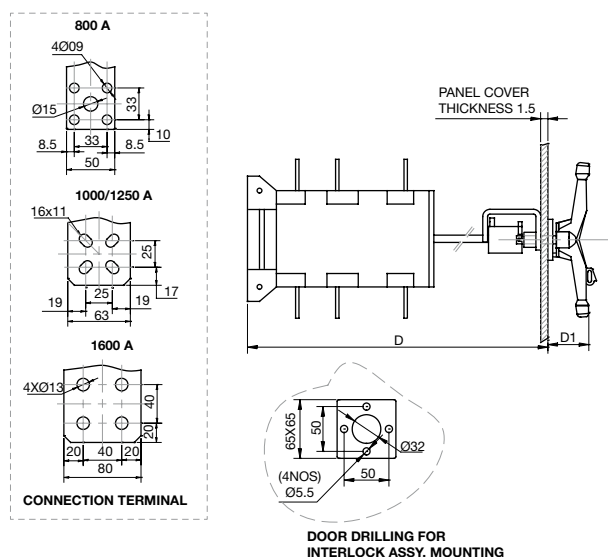
Rating (A)	Dimensions						Fixing of Sw.						Connection terminal								Sw. Wt. Open Ex. (kg)				
	A	A1	B	C	D	D1	E	G	J	J1	K	L	N	P	R	S	T	U	V	W		ØX	Y	Y1	Y2
4 x 125	305	232	142	347	297	65	282	140	159	58	95	7.0	26	45	22	28	3.0	118	12	12	8.5	54	120	186	6.0
4 x 200	305	232	155	347	297	65	282	140	159	58	95	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	306	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



Rating (A)	Overall dimensions						Fixing of Sw.						Connection terminal								Sw. Wt. Open Ex. (kg)			
	A	A1	B	C	D	D1	E	G	J	J1	K	L	N	P	R	T	U	W	V	ØX		Y	Y1	Y2
4 x 800	610	432	320	521	521	81	448	165	340	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	256	400	7.3



Enclosed bypass COS

Bypass changeover switch
from 125 to 1600 A

Changeover
switches



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



Function

Manually operated sheet steel **enclosed bypass COS** changeover switches provide bypass function of an electrical equipment as well as its safety isolation. The enclosure provides protection against contact with live parts as well as environmental factors such as dust, water and other hazards.

- On load switch ON and OFF + BY-PASS mode to insulate any loads (UPS, VSD...) while maintaining the supply during maintenance.
- Emergency breaking
- Safe and local isolation of downstream + upstream for maintenance purpose

General Characteristics

- Black Handle padlockable in 0/I/II position
- CRCA sheet (Door 1.2 mm, Body 1.6 mm)
- Colour shade: RAL 7035
- 2 external earthing points on each side
- Wall mounted with 4 bolts
- Door locking system allows opening of door only in off position
- Incoming & outgoing easily interchangeable at site
- Coating of epoxy polyester powder 70 micron
- Removable plate top & bottom
- Door with solid hinges

References & dimensions

Rating (A)	Reference	L (mm)	W (mm)	X (mm)	Y (mm)	H (mm)
125	GBP01254PEI	355	285	245	385	324
200	GBP02004PEI	355	285	245	385	324
250	GBP02504PEI	425	375	335	455	354
320	GBP03204PEI	425	375	335	455	354
400	GBP04004PEI	510	475	422	560	457
630	GBP06304PEI	510	475	422	560	457
800	GBP08004PEI	555	470	422	605	545

For above ratings, contact us

