



COS

OnLoad changeover switch from 63 to 3150 A

Changeover
switches



Function

The **SOCOMECS COS** is a manually operated 4 poles changeover switch. It provides safe changeover, source inversion or switching on load between two low voltage power circuits as well as their safety isolation.

Operations

Direct

The pad lockable handle is mounted directly on the COS and lockable in OFF position.

External

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

General Characteristics

- 3 stable positions (I - O - II)
- Fully visualized breaking
- Bridging Bars mounted on all ratings as standard
- 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 connection
- 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

- > Safe supply of medium critical loads



Strong points

- > Safe and easy to use
- > Stable positions
- > Large connection capabilities for direct aluminium connection

Conformity to standards

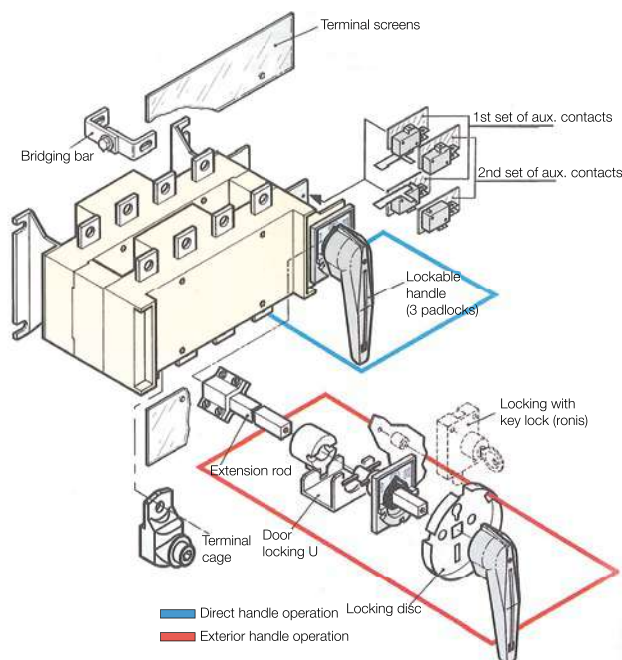
- > IS/IEC 60947-3



Approvals and certifications

- > CPRI

Functional diagram



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Characteristics

63 to 400 A

References	COS from 63 to 400 A							
	GCD00 634POI	GCD0 1004POI	GCD 1254POI	GCD 1604POI	GCD 2004POI	GCD 2504POI	GCD 3204POI	GCD 4004POI
Thermal current I_{th} (40°C)	63 A	100 A	125 A	160 A	200 A	250 A	320 A	400 A
Max. Normal rating of fuses	63	100	125	160	200	250	315	400
Insulation voltage U_i (V)	750	750	750	750	1000	1000	1000	1000
Dielectric strength (V) 50 Hz 1 mn.	4000	4000	5000	5000	5000	5000	5000	8000
Impulse voltage (kV)	6	6	6	6	8	8	8	12
Rated operational currents I_e (A)								
415 VAC-AC 23A	63	100**	125	160	200	250	320	400
500 VAC-AC 23A	55	55	100	130	160	200	250	315
260 VDC-DC 21A	63	100	125	160	200	250	320	400
260 VDC-DC 22A	63	100++	125	160	200	250	320	400
260 VDC-DC 23A	63	63	125	160	160	200	250	400
440 VDC-DC 21A	63	100	125	160	200	250	320	400
440 VDC-DC 22A	63	100++	125	130	160	200	250	400
440 VDC-DC 23A	63	63	125	130	160	200	250	400
Motor Power (kW) 415V								
415 VAC without pre-break Aux. contact	30	30	63	70	80	132	160	200
500 VAC without pre-break Aux. contact	30	30	63	60	63	140	220	220
690 VAC without pre-break Aux. contact	22	22	55	50	55	90	150	150
415 VAC with pre-break Aux. contact	30	30	63	70	80	132	160	220
500 VAC with pre-break Aux. contact	30	30	80	70	80	160	220	280
690 VAC with pre-break Aux. contact	35	35	110	100	110	110	220	220
Motor Reactive 415 VAC (kVAR)	25	25	55	50	60	100	125	150
Protection								
Short-circuit current with fuses (kA rms)	80	80	80	80	80	80	80	80
Fuse rating	63	100	125	160	200	250	315	400
Peak short-circuit making capacity (kA rms)	15	15	20	20	20	30	45	45
Admissible short time current 1 sec (kA rms)	5	5	7	7	7	9	13	13
Making & Breaking Characteristics								
Breaking Capacity (Arms) 415 VAC pf-0.35	504	504	1000	1280	1600	2000	2520	3200
Making Capacity (Arms) 415 VAC pf-0.35	630	630	1250	1600	2000	2500	3150	4000
Endurance								
Mechanical No. of Operations	10000	10000	8000	8000	8000	8000	5000	5000
Electrical No. of Operations	2500	1500	1000	1000	1000	1000	1000	1000
Operating Force (Nm)	3.5	3.5	9.5	9.5	9.5	11	11	17
Connection								
Min. Cu Cable / Bus bar size (mm²)	16	25	50	70	95	120	185	30x5x2
Min. Al Cable / Bus bar size (mm²)	25	2 x 25	70	95	150	185	240	32x8x2

Accessories

Handle

Rating (A)	Reference
63 ... 100	4299 0001GI
125	4299 0003GI
200	4299 0005GI
250	4299 0006GI
320	4299 0007GI
400	4299 0008GI
630	4299 0009GI
800	4299 0010GI
1000 ... 3150	4299 0011GI



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Door Interlock assembly

Rating (A)	Reference
63 ... 100	2659 0001GI
800 ... 3150	2659 0003GI



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Characteristics (continued)

630 to 3150 A

References	COS from 630 to 3150 A							
	GC06304POI	GC08004POI	GC10004POI	GC12504POI	GC16004POI	GC20004POI	GC25004POI	GC31504POI
Thermal current I_{th} (40°C)	630 A	800 A	1000 A	1250 A	1600 A	2000 A	2500 A	3150 A
Max. Normal rating of fuses	630	800	1000	1250	1250	2 x 800	2 x 1000	2 x 1250
Insulation voltage U_i (V)	1000	1000	1000	1000	1000	1000	1000	1000
Dielectric strength (V) 50 Hz 1 mn.	8000	8000	8000	10000	10000	10000	10000	10000
Impulse voltage (kV)	12	12	12	12	12	12	12	12
Rated operational currents I_e (A)								
415 VAC-AC 23A	630	800	1000	1000	1000	1250	1250	1250
500 VAC-AC 23A	315	630	1000	1000	1000	1000	1000	1000
260 VDC-DC 21A	630	800	1000	1250	1600	2000	2000	2000
260 VDC-DC 22A	500	800	1000	1250	1250	1250	1250	1250
260 VDC-DC 23A	500	800	1000	1250	1250*	1250*	1250*	1250*
440 VDC-DC 21A	500	630	1000	1250	1600	2000	2000	2000
440 VDC-DC 22A	500	800	1000	1250	1250	1250	1250	1250
440 VDC-DC 23A	500	800	1000	1000	1000	1000	1000	1000
Motor power (kW) 415V								
415 VAC without pre-break Aux. contact	220	450	560	560	560	710	710	710
500 VAC without pre-break Aux. contact	220	450	560	560	710	710	710	710
690 VAC without pre-break Aux. contact	150	185	400	400	475	475	750	750
415 VAC with pre-break Aux. contact	355	450	560	710	710	900	1100	1155
500 VAC with pre-break Aux. contact	355	550	710	710	900	900	1100	1100
690 VAC with pre-break Aux. contact	295	475	600	600	750	750	900	900
Motor Reactive 415 VAC (kVAR)	2 x 125	2 x 150	3 x 150	4 x 125	5 x 150	6 x 150	7 x 150	9 x 150
Protection								
Short-circuit current with fuses (kA rms)	80	80	80	80	80	80	80	80
Fuse rating	630	800	1000	1250	2 x 800	2 x 1000	2 x 1250	2 x 1250
Peak short-circuit making capacity (kA rms)	45	55	105	105	110	110	110	120
Admissible short time current 1 sec (kA rms)	13	26	50	50	50	50	50	55
Making & breaking characteristics								
Breaking capacity (A rms) 415 VAC pf-0.35	5040	6400	8000	8000	8000	10000	10000	10000
Making capacity (A rms) 415 VAC pf-0.35	6300	8000	10000	10000	10000	12500	12500	12500
Endurance								
Mechanical No. of operations	5000	4000	4000	4000	3000	3000	2500	2500
Electrical No. of operations	1000	500	500	500	500	500	500	500
Operating force (Nm)	17	40	40	40	40	60	60	60
Connection								
Min. Cu cable/bus bar size (mm ²)	40x5x2	50x5x2	60x5x2	80x5x2	100x5x2	100x5x3	100x5x4	100x10x3
Min. Al cable/bus bar size (mm ²)	40x8x2	50x8x2	50x10x2	63x12x2	100x8x2	100x10x3	100x10x4	

*AC 22 A.

Accessories (continued)

Auxiliary contact

1 st Auxiliary contact	
Rating (A)	Reference
63	26091020GI
125...630	26091040GI
800...3150	26091040GI
2 nd Auxiliary contact	
Rating (A)	Reference
63	26092020GI
125...630	26092040GI
800...3150	26092040GI



Phase barrier

Small	
Rating (A)	Reference
800...3150	G89B136GI
Big	
Rating (A)	Reference
800...1600	G89B143GI
2000...3150	G89B491GI



Accessories (continued)

Bridging Bars

Rating (A)	Reference	Rating (A)	Reference
63...100	4109 4006-SA	800	4109 4080-SA
125	4109 4013-SA	1000	4109 4100-SA
160...200	4109 4020-SA	1250	4109 4120-SA
250...320	4109 4032-SA	1600	4109 4160-SA
400	4109 4040-SA	2000	4109 4200-SA
630	4109 4063-SA	2500	4109 4250-SA
		3150	4109 4310-SA

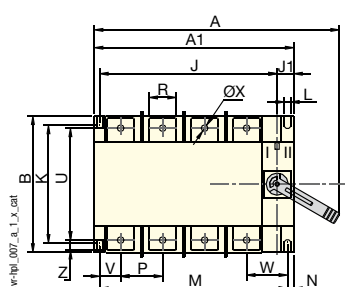


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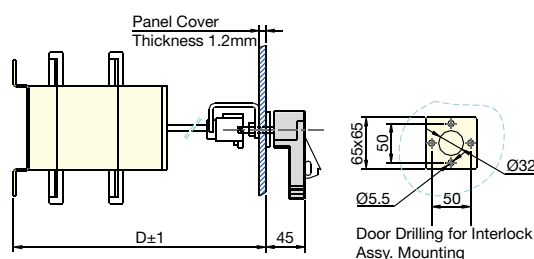
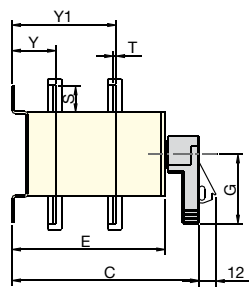
Dimensions (mm)

63 to 100 A

Direct front operation



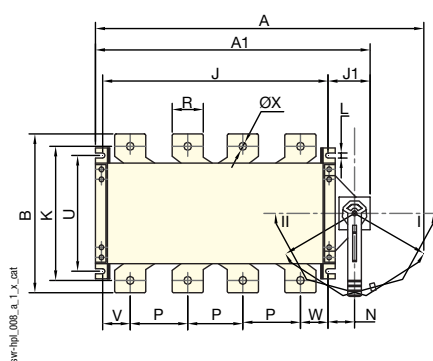
External front operation



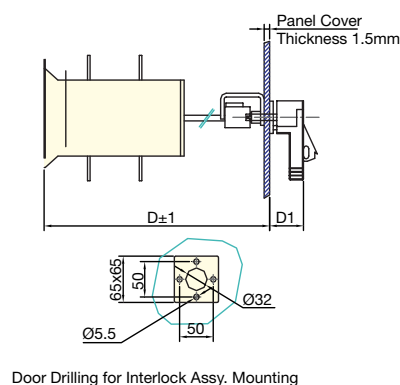
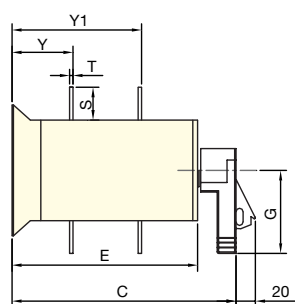
Rating (A)	Dimensions								Fixing of Sw.						Connection terminal												Sw. Wt.
	A	A1	B	C	D	E	G	J	J1	K	L	M	N	P	R	S	T	U	V	W	X	Y	Y1	Z	Open Ex. (kg)		
4 x 63	200	141.5	111	168.5	192	127	84	116	18.25	95	6.5	127	7.25	27	14	16	2.0	91	11	35	6.5	45	101	7.5	2		
4 x 100	200	141.5	111	168.5	192	127	84	116	18.25	95	6.5	127	7.25	27	14	16	2.0	91	11	35	6.5	45	101	7.5	2		

125 to 630 A

Direct front operation



External front operation

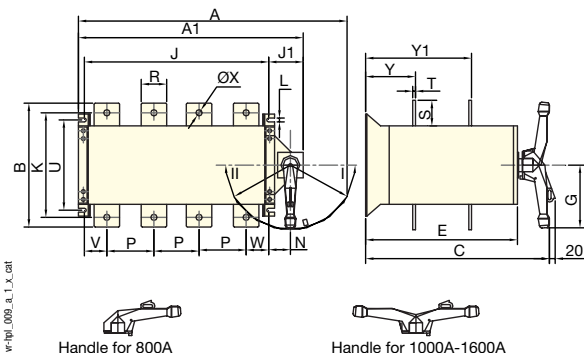


Rating (A)	Overall dimensions								Fixing of Sw.						Connection terminal										Sw. Wt.
	A	A1	B	C	D	D1	E	G	J	J1	K	L	N	P	R	S	T	U	V	W	X	Y	Y1	Open Ex. (kg)	
4 x 125	305	232	142	216	232	65	151	118	159	58	95	7.0	26	45	22	28	3.0	118	12	12	8.5	54	120	4.0	
4 x 160	305	232	155	216	232	65	151	118	159	58	95	7.0	26	48	25	35	4.0	123	7	7	10.5	54	120	5.0	
4 x 200	305	232	155	216	232	65	151	118	159	58	95	7.0	26	48	25	35	4.0	123	7	7	10.5	54	120	5.0	
4 x 250	363	285	192	238	249	65	173	130	212	63	111	7.5	27	64	32	46	4.5	152	7	13	12	62	140	7.3	
4 x 320	363	285	192	238	249	65	173	130	212	63	111	7.5	27	64	32	46	4.5	152	7	13	12	62	140	7.3	
4 x 400	458	360	235	307	320	65	242	142	271	80	180	9.0	45	73	40	40	5.0	205	26	26	11	84	195	14.0	
4 x 630	458	360	270	307	320	65	242	142	271	80	180	9.0	45	81	55	55	5.0	230	14	14	14.5	84	195	17.0	

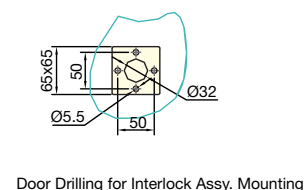
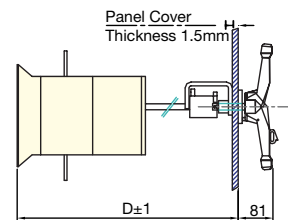
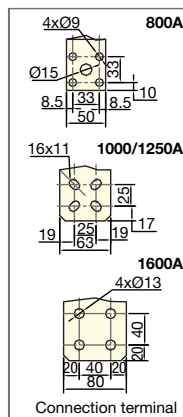
Dimensions (mm)

800 to 1600 A

Direct front operation



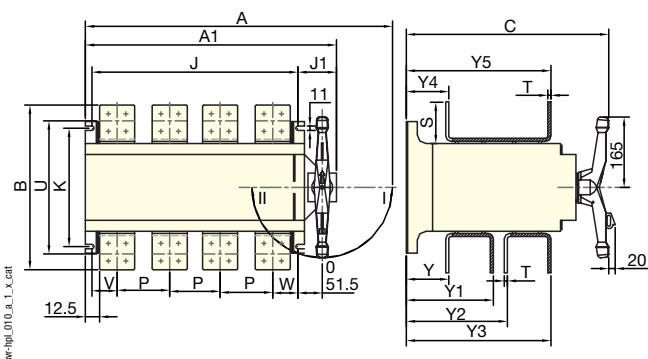
External front operation



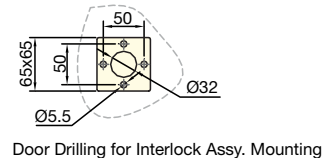
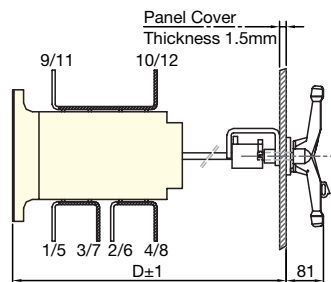
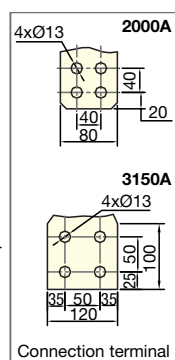
Rating (A)	Overall dimensions							Fixing of Sw.					Connection terminal										Sw. Wt.	
	A	A1	B	C	D	D1	E	G	J	J1	K	L	N	P	R	S	T	U	V	W	ØX	Y	Y1	Open Ex. (kg)
4 x 800	610	432	320	370	380	81	305	212	340	84	220	11	50.5	80	50	60	6.0	268	52	48	15	107	251	27.2
4 x 1000	703	565	332	370	380	81	305	165	474	84	220	11	50.5	120	63	65	6.0	267	66	48		107	251	35.3
4 x 1250	703	565	332	370	380	81	305	165	474	84	220	11	50.5	120	63	65	7.0	267	66	48		108	252	37.0
4 x 1600	703	565	362	370	380	81	305	165	474	84	220	11	50.5	120	80	80	15	282	66	48		112	256	61.0

2000 to 3150 A

Direct front operation



External front operation



Rating (A)	Overall dimensions					Fixing of Sw.				Connection terminal									Sw. Wt.
	A	A1	B	C	D	J	J1	K	P	S	T	U	V	W	Y/Y4	Y1	Y2	Y3/Y5	Open Ex. (kg)
4 x 2000	703	570	450	578	580	474	84	330	120	125	8	350	66	48	88	223	318	450	72
4 x 2500	703	570	450	578	580	474	84	330	120	125	10	350	66	48	89	228	315	454	77.4
4 x 3150	703	570	500	578	580	474	84	330	120	150	15	375	66	48	82	232	305	458	110



Enclosed COS

OnLoad changeover switch

from 63 to 3150 A



Function

Manually operated sheet steel enclosed changeover switches provide changeover, source inversion or switching under load between two low voltage power circuits, as well as their 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 manual changeover between 2 sources
- Emergency breaking
- Selection between two loads
- Safe isolation of downstream loads for maintenance purpose

Advantages

On load operation (AC22/AC23)

Manual changeover enclosures are designed for operation on load and are able to make and break mixed/inductive loads (utilisation categories AC22/AC23).

Robust product Products have been designed for severe industrial conditions with chemical, pollution or atmospheric corrosion risks.

General Characteristics

- Adapted to environments subject to chemical, dust, contamination and atmospheric corrosion risks.
- 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

The solution for

- > Standby power



Strong points

- > Safe and easy to use
- > Stable positions
- > Large connection capabilities for direct aluminium cable connection

Conformity to standards

- > IS/IEC 60947-3



References & dimensions

Rating (A)	Reference	L (mm)	W (mm)	X (mm)	Y (mm)	H (mm)
63	GCD00634PEI	250	200	160	280	212
100	GCD01004PEI	250	200	160	280	212
125	GCD01254PEI	355	285	245	385	254
160	GC01604PEI	355	285	245	385	254
200	GC02004PEI	355	285	245	385	254
250	GC02504PEI	425	375	335	455	271
320	GC03204PEI	425	375	335	455	271
400	GC04004PEI	510	475	422	560	342
630	GC06304PEI	510	475	422	560	342
800	GC08004PEI	555	470	422	605	404
1000	GC10004PEI	800	655	600	825	423
1250	GC12504PEI	800	655	600	825	423
1600	GC16004PEI	800	655	600	825	423
2000	GC20004PEI	800	750	685	825	632
2500	GC25004PEI	800	750	685	825	632
3150	GC31504PEI	800	750	685	825	632

