



# COS

On load changeover switch  
from 63 to 3150 A

Changeover  
switches



## 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



## 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 ON/OFF position.

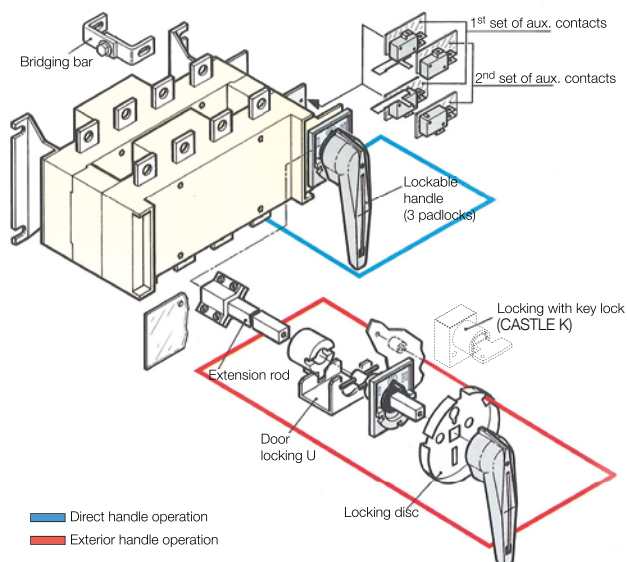
### External

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

## General Characteristics

- 3 stable positions (I - O - II)
- 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 cable entry 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

## Functional diagram



siro-hpl\_011\_b\_1\_gb\_cat

## Characteristics

### 63 to 400 A

COS from 63 to 400 A								
References	GCD00634POI	GCD01004POI <sup>(1)</sup>	GC01254POI	GC01604POI	GC02004POI	GC02504POI	GC03204POI	GC04004POI
<b>Thermal current I<sub>th</sub> (40°C)</b>	<b>63 A</b>	<b>100 A</b>	<b>125 A</b>	<b>160 A</b>	<b>200 A</b>	<b>250 A</b>	<b>320 A</b>	<b>400 A</b>
Max. Normal rating of fuses	63	100	125	160	200	250	315	400
Insulation voltage U <sub>i</sub> (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
<b>Rated operational currents I<sub>e</sub> (A)</b>								
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
<b>Motor Power (kW) 415V</b>								
415 VAC without pre-break auxiliary contact	30	30	63	70	80	132	160	200
500 VAC without pre-break auxiliary contact	30	30	63	60	63	140	220	220
690 VAC without pre-break auxiliary contact	22	22	55	50	55	90	150	150
415 VAC with pre-break auxiliary contact	30	30	63	70	80	132	160	220
500 VAC with pre-break auxiliary contact	30	30	80	70	80	160	220	280
690 VAC with pre-break auxiliary contact	35	35	110	100	110	110	220	220
Motor Reactive 415 VAC (kVAR)	25	25	55	50	60	100	125	150
<b>Protection</b>								
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
<b>Making &amp; Breaking Characteristics</b>								
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
<b>Endurance</b>								
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
<b>Connection</b>								
Min. Cu Cable / Bus bar size (mm <sup>2</sup> )	16	35	50	70	95	120	185	240
Min. Al Cable / Bus bar size (mm <sup>2</sup> )	25	2 x 25	70	95	150	185	240	300

(1) 100 A Rated operational currents I<sub>e</sub> (A) - AC22B.

## Accessories

### Handle

Rating (A)	Reference
63 ... 100	42990001GI
125 ... 160	42990003GI
200	42990005GI
250	42990006GI
320	42990007GI
400	42990008GI
630	42990009GI
800	42990010GI
1000 ... 3150	42990011GI



access\_426\_a\_1\_cat

### Door Interlock assembly

Rating (A)	Reference
63 ... 100	42590002GI
125 ... 630	42590003GI
800 ... 3150	42590004GI



access\_424\_a\_1\_cat

## Characteristics (continued)

630 to 3150 A

COS from 630 to 3150 A								
References	GC06304POI	GC08004POI	GC10004POI	GC12504POI	GC16004POI	GC20004POI	GC25004POI	GC31504POI
<b>Thermal current I<sub>th</sub> (40°C)</b>	<b>630 A</b>	<b>800 A</b>	<b>1000 A</b>	<b>1250 A</b>	<b>1600 A</b>	<b>2000 A</b>	<b>2500 A</b>	<b>3150 A</b>
Max. normal rating of fuses	630	800	1000	1250	1250	2 x 800	2 x 1000	2 x 1250
Insulation voltage U <sub>i</sub> (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
<b>Rated operational currents I<sub>e</sub> (A)</b>								
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
<b>Motor power (kW) 415V</b>								
415 VAC without pre-break auxiliary contact	220	450	560	560	560	710	710	710
500 VAC without pre-break auxiliary contact	220	450	560	560	710	710	710	710
690 VAC without pre-break auxiliary contact	150	185	400	400	475	475	750	750
415 VAC with pre-break auxiliary contact	355	450	560	710	710	900	1100	1155
500 VAC with pre-break auxiliary contact	355	550	710	710	900	900	1100	1100
690 VAC with pre-break auxiliary 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
<b>Protection</b>								
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
<b>Making &amp; breaking characteristics</b>								
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
<b>Endurance</b>								
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
<b>Connection</b>								
Min. Cu cable/bus bar size (mm <sup>2</sup> )	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	100 x 5 x 3	100 x 5 x 4	100 x 10 x 3
Min. Al cable/bus bar size (mm <sup>2</sup> )	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	100 x 10 x 3	100 x 10 x 4	

## Accessories (continued)

### Auxiliary contact

1 <sup>st</sup> auxiliary contact	
Rating (A)	Reference
63 ... 100	<b>26091020GI</b>
125 ... 630	<b>26091040GI</b>
800 ... 3150	<b>26091040GI</b>

2 <sup>nd</sup> auxiliary contact	
Rating (A)	Reference
63 ... 100	<b>26092020GI</b>
125 ... 630	<b>26092040GI</b>
800 ... 3150	<b>26092040GI</b>



access\_421\_la\_1\_cat

### Phase barrier

Small	
Rating (A)	Reference
800...3150	<b>G89B136GI</b>

Big	
Rating (A)	Reference
800...1600	<b>G89B143GI</b>
2000...3150	<b>G89B491GI</b>



access\_432\_ba\_1\_cat

Accessories (continued)

Bridging bars

Rating (A)	Reference
63 ... 100	41094006-SA
125	41094013-SA
160 ... 200	41094020-SA
250 ... 320	41094032-SA
400	41094040-SA
630	41094063-SA

Rating (A)	Reference
800	41094080-SA
1000	41094100-SA
1250	41094120-SA
1600	41094160-SA
2000	41094200-SA
2500	41094250-SA
3150	41094310-SA

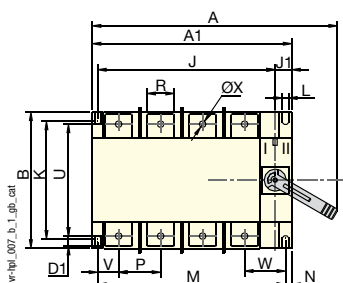


access\_435\_a\_1\_cat

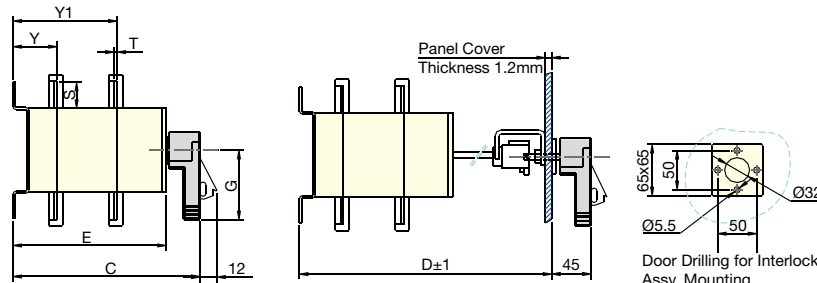
Dimensions (mm)

63 to 100 A

Direct front operation



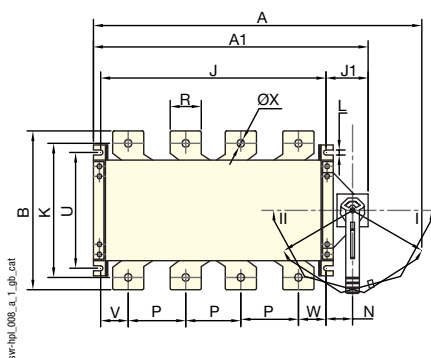
External front operation



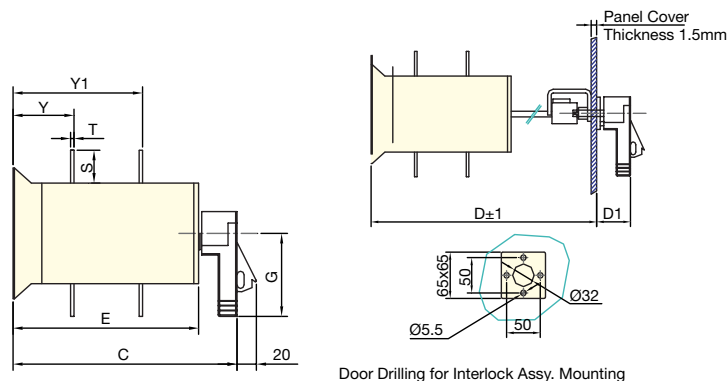
Rating (A)	Dimensions							Fixing of Sw.							Connection terminal							Sw. Wt. Open Ex. (kg)			
	A	A1	B	C	D	D1	E	G	J	J1	K	L	M	N	P	R	S	T	U	V	W		ØX	Y	Y1
4 x 63	181	141.5	111	168.5	192	44	127	62	116	18	95	6.5	127	6.25	27	14	16	2.6	91	11	35	6.5	45	101	2
4 x 100	181	141.5	111	168.5	192	44	127	62	116	18	95	6.5	127	6.25	27	14	16	2.6	91	11	35	6.5	45	101	2

125 to 630 A

Direct front operation



External front operation

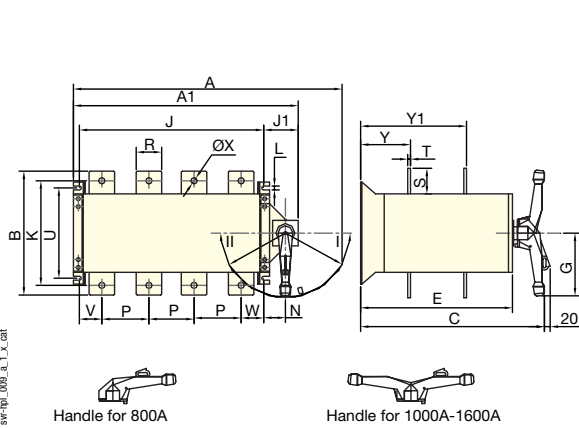


Rating (A)	Overall dimensions							Fixing of Sw.							Connection terminal							Sw. Wt. Open Ex. (kg)		
	A	A1	B	C	D	D1	E	G	J	J1	K	L	N	P	R	S	T	U	V	W	X		Y	Y1
4 x 125	305	227	142	216	232	65	151	115	159	58	95	7.0	26	45	22	28	3.0	118	12	12	8.5	54	120	4.0
4 x 160	305	227	155	216	232	65	151	115	159	58	95	7.0	26	48	25	35	4.0	123	7	7	10.5	54	120	5.0
4 x 200	305	227	155	216	232	65	151	115	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	168	127	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	168	127	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	140	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	140	271	80	180	9.0	45	81	55	55	5.0	230	14	14	14.5	84	195	17.0

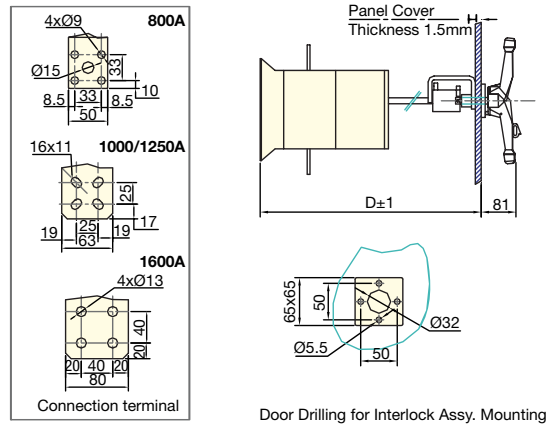
## Dimensions (mm)

### 800 to 1600 A

#### Direct front operation



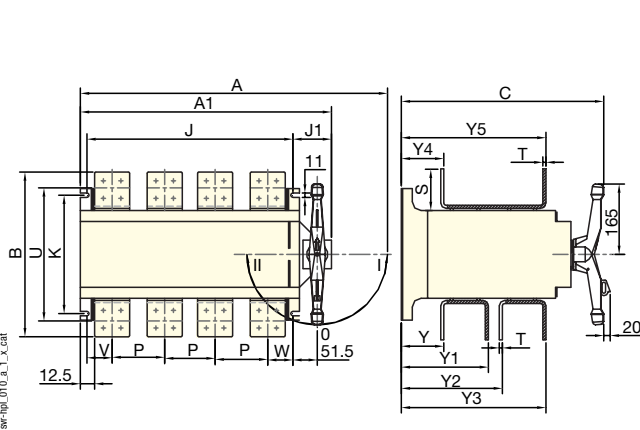
#### External front operation



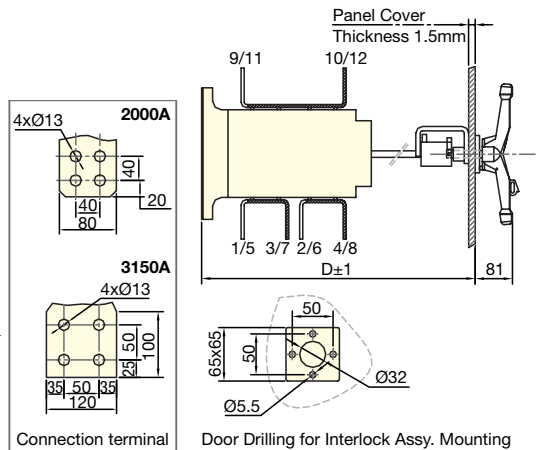
Rating (A)	Overall dimensions					Fixing of Sw.					Connection terminal										Sw. Wt. Open Ex. (kg)			
	A	A1	B	C	D	D1	E	G	J	J1	K	L	N	P	R	S	T	U	V	W		ØX	Y	Y1
4 x 800	610	432	320	370	380	81	305	212	330	84	220	11	50.5	80	50	60	6.0	268	52	48	15	107	251	27.2
4 x 1000	703	565	332	370	380	81	305	165	474	84	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. Open Ex. (kg)
	A	A1	B	C	D	J	J1	K	P	S	T	U	V	W	Y/Y4	Y1	Y2	Y3/Y5			
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		