

# Technical Data Sheet

## Sheet Steel Hinged Door Switchgear

Issue 2

### General Description

A range of 32A - 1000A enclosed switchgear supplied in grey powder coated IP65 sheet steel hinged door enclosures.

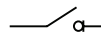


### Design Features

- Generous sized IP65 enclosures to help avoid the need for extension boxes.
- Safety handle - when padlocked in the 'Off' position, the enclosure door cannot be opened. Capable of accepting up to three padlocks in the 'Off' position. ('On' position on request).
- Door interlock handle can be defeated to enable emergency opening or for testing purposes.
- Removable gland plates on top & bottom of all enclosures.
- All switches are mounted on a removable galvanised chassis plate.
- Castell Lock options available on request.
- All enclosures are supplied with external fixing feet.

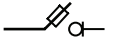
### Catalogue Numbers

#### Switch-Disconnectors\* (O-I)



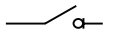
Rating	Format	Cat. No.	Encl. Size
32A	3P+N	EDG00323N	1
	3P+NL	EDG00323NL	
63A	3P+N	EDG00633N	1
	3P+NL	EDG00633NL	
	6P+2E/B	EDG00636EB	
80A	3P+N	EDG00803N	1
	3P+NL	EDG00803NL	
100A	3P+N	EDG01003N	1
	3P+NL	EDG01003NL	
125A	3P+N	EDG01253N	3
	3P+NL	EDG01253NL	
160A	3P+N	EDG01603N	3
	3P+NL	EDG01603NL	
200A	3P+N	EDG02003N	6
	3P+NL	EDG02003NL	
250A	3P+N	EDG02503N	8
	3P+NL	EDG02503NL	
400A	3P+N	EDG04003N	10
	3P+NL	EDG04003NL	
630A	3P+N	EDG06303N	12
	3P+NL	EDG06303NL	
800A	3P+N	EDG08003N	12
	3P+NL	EDG08003NL	
1000A	3P+N	EDG10003N	13
	3P+NL	EDG10003NL	

#### Fuse Combination Units (O-I)



Rating	Format	Cat. No.	Enclosure Size
32A	3P+NL	EDFG00323NL	2
63A	3P+NL	EDFG00633NL	
100A	3P+NL	EDFG01003NL	5
125A	3P+NL	EDFG01253NL	
160A	3P+NL	EDFG01603NL	7
200A	3P+NL	EDFG02003NL	
250A	3P+NL	EDFG02503NL	11
315A	3P+NL	EDFG03153NL	
400A	3P+NL	EDFG04003NL	12
630A	3P+NL	EDFG06303NL	

#### Changeover Switch Disconnectors (I-O-II)



Rating	Format	Sheet steel	Encl. Size
63A	4P C/O	ECODG00634	4
100A	4P C/O	ECODG01004	
125A	4P C/O	ECODG01254	7
160A	4P C/O	ECODG01604	
200A	4P C/O	ECODG02004	9
250A	4P C/O	ECODG02504	
400A	4P C/O	ECODG04004	12
630A	4P C/O	ECODG06304	

'N' = switched neutral

'NL' = Unswitched neutral (100% rated 32A-200A, 50% rated 250A-1000A)

'EB' = Early break auxiliary contacts

# Technical Data Sheet

## Sheet Steel Hinged Door Switchgear

Issue 2

### Accessories

### Auxiliary Contacts



Add-on auxiliary blocks are available for all hinged door products. Please select the blocks/kit from the tables below.

All auxiliaries are supplied as 1 N/O+1 N/C pair. All N/O auxiliary contacts are early break with respect to the main poles when switching from 'On' to 'Off'.

For additional contacts or details regarding auxiliaries for Changeover Switch-Disconnectors please contact our sales team.

For Switch-Disconnectors

#### Catalogue Numbers

Rating (A)	63-200	250	400-800	1000
Cat No	SAUXCO	SAUXKITB	SAUXKITC	SAUXKITD
Type	A	C	C	B

For Fuse Combination Units

Rating (A)	32-160	200-400	630
Cat No	SAUXKITA	SAUXKITC	SAUXKITD
Type	B	C	B

### Fuse Links

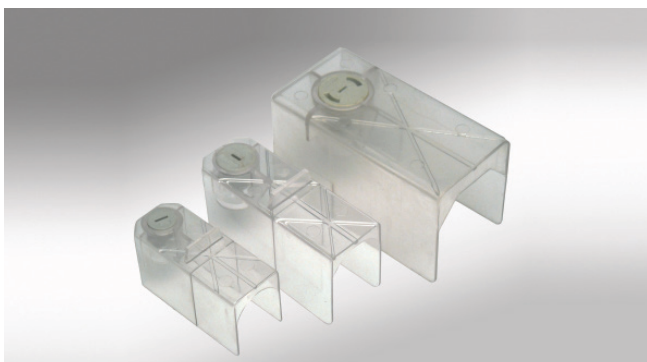


All of the Fuse Combination Units are supplied fitted with a set of fully rated IEC/BS EN 60269 (BS88) fuse links. Replacements can be supplied as individual fuse links to the table below.

Fuse links can be fitted to a lower rating to suit a particular load: please refer to the rating table below to maintain the correct size/tag format (A2, A4, B1 etc.).

Rating (A)	32	63	100	125	160	200	250	315	400	630
C&D Cat. No.	SFL32	SFL63	SFL100	SFL125	SFL160	SFL200	SFL250	SFL315	SFL400	SFL630
Cooper Bussmann Cat. No.	AA032	BA063	CE0100	DE0125	DD160	DD200	ED250	ED315	ED400	FF630
Lawson Cat. No.	TIA32	TIS63	TCP100	TFP125	TF160	TF200	TKF250	TKF315	TMF400	3T630
BS fuse format	A2, A3	A2, A3	A4	A4	B1, B2	B1-B2	B1-B2	B1-B4	B1-B4	C1-C3
Fuse Fixing CRS (mm)	73 nom.	73 nom.	94 nom.	94 nom.	111 nom.	111 nom.	111 nom.	111 nom.	111 nom.	133/184 nom.

### Terminal Covers



Terminal protection is provided on all items for live incoming terminals; spare terminal covers are available for replacement or extending the protection to the outgoing terminals. (Not available for 800A & 1000A switch-disconnectors.)

For Switch-Disconnectors

#### Catalogue Numbers - individual covers

Isol Rating (A)	63-160	200	250-400	630
Cat No	Not reqd	STS1	STS2	STS4

For Fuse Combination Units

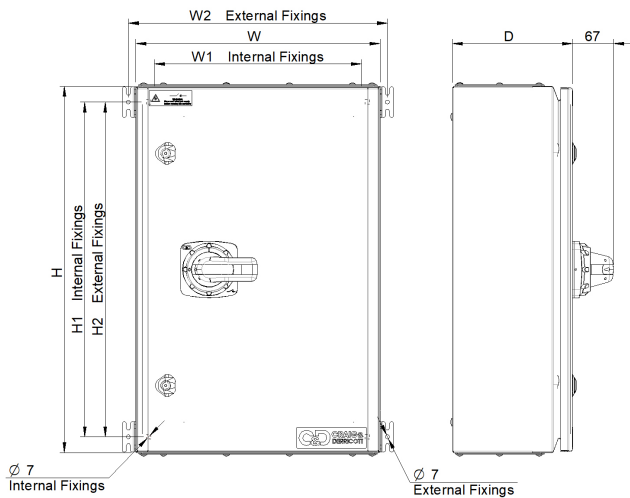
Isol Rating (A)	32-63	100-160	200-400	630
Cat No	Not reqd	STS1	STS2	STS3

# Technical Data Sheet

## Sheet Steel Hinged Door Switchgear

Issue 2

### Dimensions



Encl. Size	H	W	D	H1	H2	W1	W2
1	300	300	150	248	248	258	324
2	300	300	200	248	248	258	324
3	400	300	150	348	348	258	324
4	400	300	200	348	348	258	324
5	500	400	200	448	448	458	524
6	600	400	200	548	548	358	424
7	600	400	300	548	548	358	424
8	600	500	200	548	548	458	524
9	700	500	300	648	648	458	524
10	800	600	200	748	748	558	624
11	800	600	300	748	748	558	624
12	1000	600	300	948	948	558	624
13	1000	800	300	948	948	758	824

### Technical Specification - Hinged Door

### Switch-Disconnectors

Data supplied against tests to IEC/BS EN 60947-3				3P	3P	6P	3P	3P	3P	3P	3P	3P	3P	3P	3P		
Application	Sym	Unit	Category	32	63	63	80	100	125	160	200	250	400	630	800	1000	
Rated thermal current	$I_{the}$	A		32	63	63	80	100	125	160	200	250	400	630	720	1000	
Rated insulation voltage	$U_i$	V		690	690	690	690	1000	1000	1000	1000	1000	1000	1000	1000	1000	
Rated impulse voltage	$U_{imp}$	kV		6	6	6	6	8	8	8	8	12	12	12	12	8	
Rated operational current (AC)	$I_e$	A	400V - AC21A	32	63	63	80	100	125	160	200	250*	400*	630*	800*	1000*	
			690V - AC21A	32	63	63	80	100	125	160	200	250	400	630	800	1000	
			400V - AC22A	-	-	-	-	100	125	160	200	250*	400*	630*	800*	1000*	
			690V - AC22A	-	-	-	-	100	125	160	160	250	400	630	800	-	
			400V - AC23A	29	48	48	56	100	112	128	128	250*	400*	630*	720*	1000	
			690V - AC23A	17	33	33	33	-	-	-	-	250	350	350	350	-	
Rated operational current (DC) (/poles in series)	$I_e$	A	Up to 48V - DC21A	32/1	63/1	63/1	80/1	-	-	-	-	250/2	400/2	630/1	800/1	1000/1	
			220V - DC21A	32/3	63/4	1/1	80/4	-	-	-	-	250/2	400/2	630/2	800/2	1000/3	
			Up to 48V - DC22A	-	-	-	-	-	-	-	-	250/2	400/1	630/1	800/1	-	
			220V - DC22A	-	-	-	-	-	-	-	-	250/2	400/2	630/2	800/2	-	
			Up to 48V - DC23A	-	-	-	-	-	-	-	-	250/2	400/1	630/1	800/1	-	
			220V - DC23A	-	-	-	-	-	-	-	-	250/2	400/2	630/2	630/2	-	
Rated operational power	$P_e$	kW	400/415V - AC23A	15	25	25	30	59	63	75	75	132	200	315	355	400	
			690V - AC23A	15	30	30	30	51	55	55	55	200	315	355	355	-	
Short circuit making capacity	$I_{cm}$	kA	Peak value	1.4	2.9	2.9	3.0	3.7	4.0	5.0	5.0	35	65	80	80	105	
Short circuit withstand (1sec)	$I_{cw}$	kA	rms value	0.6	1.3	1.3	1.4	2.6	2.8	3.0	3.0	8	17	17	17	50	
Min. mechanical endurance	-	-	Operations ( $10^3$ )	250	250	500	250	50	50	50	50	16	10	10	10	6	
Min. electrical endurance	-	-	415V - at 0.65 pf	-	-	-	-	-	-	-	-	1,000	1,000	500	500	500	
Connecting capacity	-	-	Terminal type														
	mm <sup>2</sup>	Min/Max		2.5/10	2.5/25	2.5/25	2.5/25	-/70	-/70	-/70	-/95	120	2x150	2x185	2x240	60x5	
	mm	Stud/Cu palm width		-	-	-	-	-	-	-	-	8x25	10x30	10x30	12x40	12x40	12x60
	Nm	Tightening torque		1.2	1.2	1.2	1.2	5	5	5	5	6	35	35	50	50	50

\* All AC21, AC22 & AC23 tests carried out at 415V











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## Sheet Steel Hinged Door Switchgear

Issue 2

### Technical Specification - Hinged Door










### Fuse Combination Units

Data supplied against tests to IEC/BS EN 60947-3				Rating (A)									
Application	Sym	Unit	Category	32	63	100	125	160	200	250	315	400	630
Rated thermal current	$I_{the}$	A		32	63	100	125	160	200	250	315	400	630
Rated insulation voltage	$U_i$	V		750	750	750	750	750	750	750	750	750	750
Rated impulse voltage	$U_{imp}$	kV		12	12	12	12	12	12	12	12	12	12
Rated operational current (AC)	$I_o$	A	415V - AC23A	32	63	100	125	160	200	250	315	400	630
Rated operational current (DC)*			220V - DC23A	-	-	100	125	160	200	250	315	400	630
Rated making capacity (AC23A)		A	415V, 0.35 pf	320	630	1,000	1,250	1,600	2,000	2,500	3,150	4,000	6,300
Rated breaking capacity (AC23A)		A	415V, 0.35 pf	256	504	800	1,000	1,280	1,600	2,000	2,520	3,200	5,040
Rated Conditional (Fused) short circuit		kA	S/C current rms	80	80	80	80	80	80	80	80	80	80
		A	back-up fuse	32	63	100	125	160	200	250	315	400	630
Min. mechanical endurance		-	Operations	25,000	25,000	15,000	15,000	15,000	10,000	10,000	10,000	10,000	6,000
Min. electrical endurance		-	415V - at 0.65 pf	1,500	1,500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
BS fuse format				A2	A2	A4	A4	B1, B2	B1, B2	B1, B2	B1, B4	B1, B4	C1, C3
Connecting capacity		-	Terminal type										
		mm <sup>2</sup>	Min/Max	16	25	95	95	120	150	185	240	300	400
		mm	Stud/Cu palm width	-	-	8x20	8x20	8x20	10x25	10x25	10x25	10x25	12x50
		Nm	Tightening torque	3.5	5.5	9	12	16	35	35	35	35	50

\* Two poles in series

### Technical Specification - Hinged Door

### Changeover Switch-Disconnectors

Data supplied against tests to BS EN 60947-3				Rating (A)								
Application	Sym	Unit	Category	63	100	125	160	200	250	400	630	
Rated thermal current	$I_{the}$	A		63	100	125	160	200	250	400	630	
Rated insulation voltage	$U_i$	V		750	750	1000	1000	1000	1000	1000	1000	
Rated impulse voltage	$U_{imp}$	kV		6	6	6	6	6	12	12	12	
Rated operational current	$I_o$	A	415V - AC22A	63	100	125	160	200	250	400	630	
Rated making capacity (AC23A)		A	415V, 0.35 pf	630	630	1,250	1,600	2,000	2,500	4,000	6,300	
Rated breaking capacity (AC23A)		A	415V, 0.35 pf	504	504	1,000	1,280	1,600	2,000	3,200	5,040	
Short circuit current		kA	rms (with fuses)	80	80	80	80	80	100	100	80	
Rated S/C making capacity		kA	Peak	15	15	20	20	20	30	40	50	
Min. mechanical endurance		-	Operations	20,000	20,000	10,000	10,000	10,000	10,000	10,000	10,000	
Min. electrical endurance		-	415V - at 0.65 pf	2,500	1,500	1,000	1,000	1,000	1,000	1,000	500	
Connecting capacity		-	Terminal type									
		mm <sup>2</sup>	Max	35	35	95	95	95	240	300	400	
		mm	Stud/Cu palm width	6/12	6/12	8/22	8/22	8/22	10/25	10/25	12/50	
		Nm	Tightening torque	3	3	10	10	10	30	45	50	