

i-switch ISD Range Sw Disconnectors Interiors 16A - 1250A

General Description

Craig & Derricott produces several ranges of enclosed switchgear within the i-switch family; each of which uses 'load break' switches in various formats. An increased range of these products are also available for installation in the users own enclosure/panel. All items include all of the necessary options to complete the installation such as shafts, handles, terminal shields etc. Below are listed the various switch formats and options available to the user in the following product types:-

- Switch Disconnectors
- Changeover Switch Disconnectors
- Fuse Combination Units

i Switch Disconnectors

ISD Range (16A - 80A)



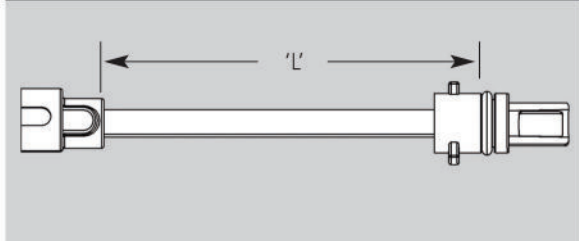
A compact range of switch disconnectors with the capacity to add a range of auxiliary and neutral block options to the basic load break switch block. Features:-

- On-load AC23A ratings.
- Four frame sizes.
- IP20 terminal protection.
- IP65 door interlocking handle.
- DIN rail or screw mounting.
- Add-on auxiliary/neutral blocks for 3 pole version.

Switch Disconnectors

Catalogue Numbers

Current rating	16A	20A	25A	32A	40A	40A	63A	80A
Frame Size *	A0	A2	A0	A0	A0	A3	A1	A1
3 Pole	SD00163/RS	-	SD00253/RS	SD00323/RS	SD00403/RS	-	SD00633/RS	SD00803/RS
6 Pole + 2 E/B Aux	-	SD00256/EB/RS	-	-	-	SD00406/EB/RS	-	-



Operating Shaft

Catalogue Numbers

Shaft Length 'L'	Catalogue Number
100mm	SSH1/RS
200mm	SSH2/RS

i Safety Features

Door Interlocked Handle Assembly



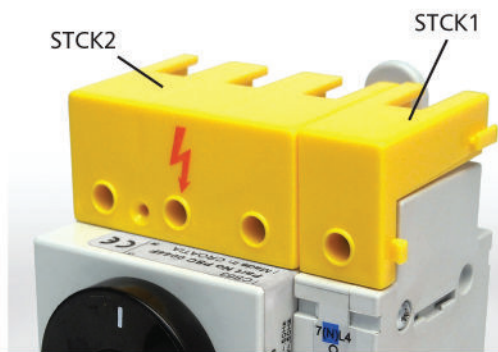
The door interlocked handle is of a stylish design and compact in size. As the illustration shows, it can take up to 3 padlocks in the 'Off' position (Ø6.4 max. hasp diameter).

Catalogue Numbers

Sealing	Catalogue Number
IP65	SDH1/RS

Technical Data Sheet

i-switch ISD Range Sw Disconnectors Interiors 16A - 1250A



Accessories

Add-on Auxiliary Blocks

Auxiliary/neutral blocks can be fitted on the left, right or both sides of the 3Pole load break switch only. Before installing ensure the load break switch is in the 'Off' position.

Description	Cat. No.
Auxiliary Contact - 2 Early Break	SAUX2EB
Auxiliary Contact - 1 N/O + 1 N/C	SAUXCO
16A Neutral (Unswitched)	SNL16/RS
25A Neutral (Unswitched)	SNL25
32A Neutral (Unswitched)	SNL32/RS
40A Neutral (Unswitched)	SNL40
63A Neutral (Unswitched)	SNL63
80A Neutral (Unswitched)	SNL80/RS
16A Neutral (Switched)	SSP16/RS
25A Neutral (Switched)	SSP25
32A Neutral (Switched)	SSP32/RS
40A Neutral (Switched)	SSP40
63A Neutral (Switched)	SSP63
80A Neutral (Switched)	SSP80/RS

Terminal Covers

Additional protection can be added to the terminals of the 'A1' frame size items by fitting one of the following covers. Both items are supplied moulded in Yellow.

Description	Cat. No.
Neutral Link Cover	STCK1
Switch Disconnector Cover	STCK2

Assembly Options

Rating (A)	Frame *	Main Switch		Operating Shaft		Door Interlock Handle	Terminal Cover (Screwed)	Auxiliary Contacts		Neutral Links			
		3 Pole	6 Pole	100mm	200mm			1N/O* + 1 N/C	2 E/B	Switched	Unswitched		
16	A0	✓		SSH1	SSH2	SDH1		SAUXCO	SAUX2EB	SSP16	SNL16		
20	A2		✓							N/A	N/A	N/A	N/A
25	A0	✓								SAUXCO	SAUX2EB	SSP25	SNL25
32	A0	✓								SAUXCO	SAUX2EB	SSP32	SNL32
40	A0	✓								SAUXCO	SAUX2EB	SSP40	SNL40
40	A3		✓								N/A	N/A	N/A
63	A1	✓					✓	SAUXCO	SAUX2EB	SSP63	SNL63		
80	A1	✓					✓	SAUXCO	SAUX2EB	SSP80	SNL80		

Technical Data Sheet

i-switch ISD Range Sw Disconnectors Interiors 16A - 1250A

Technical Specification

Isolator Interiors

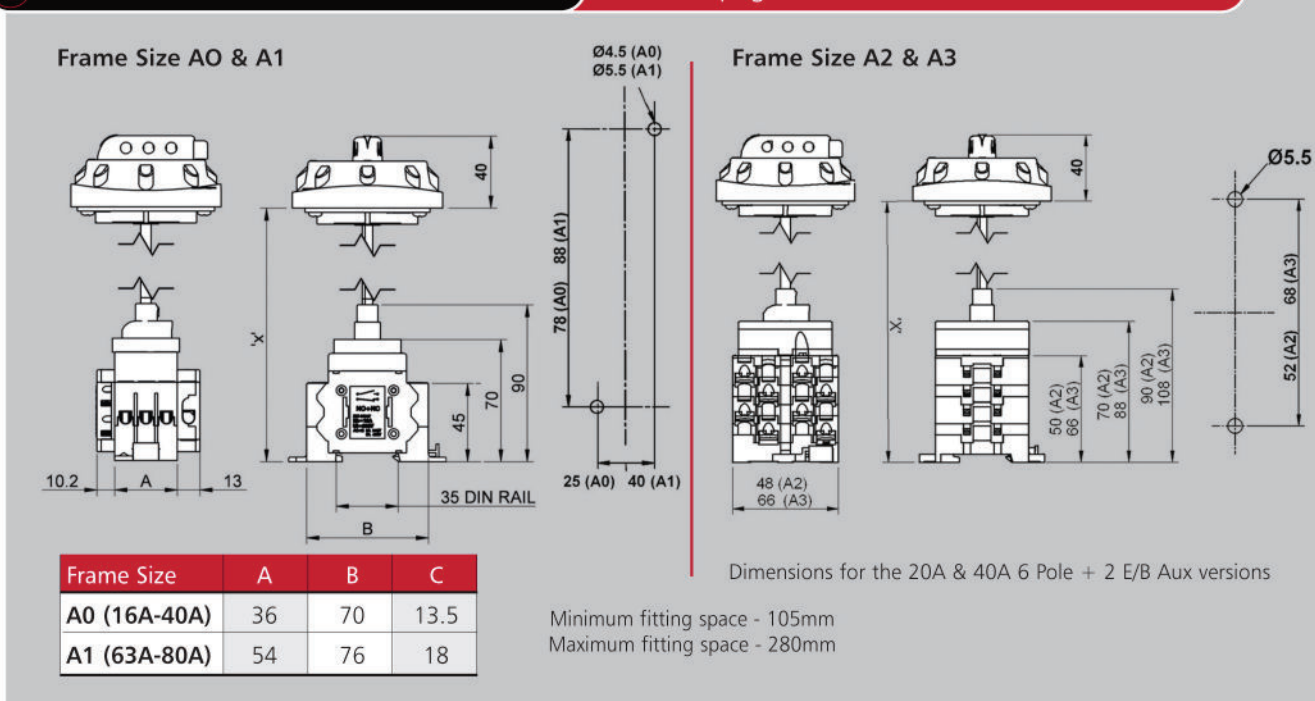
Data supplied against tests to IEC/BS EN 60947-3

Application	Sym.	Unit	Category	Rating							
				16A	20A	25A	32A	40A	63A	80A	
Switch Product Range	-	-	-	CS16	GX20	CS25	CS32	GX40	CS40R	CS63	CS80
Rated thermal current	I_{the}	A		16	20	25	32	40	40	63	80
Rated Insulation voltage	U_i	V		690	690	690	690	690	690	690	690
Rated impulse voltage	U_{imp}	kV		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Rated operational power (3 phase AC)		kW	380/440V - AC23	7.5	7.5	11.0	15.0	18.5	15.0	25.0	30.0
			500V - AC23	9.0	7.5	15.0	15.0	15.0	15.0	30.0	37.0
			600V - AC23	9.0	7.5	15.0	15.0	15.0	15.0	30.0	30.0
Rated short time withstand current (1 sec)	I_{cw}	A		400	250	500	600	800	600	1300	1400
Max. fuse size for short circuit protection (gG characteristic)		A	10kA	35	20	35	32	40	40	80	80
			25kA	32	16	32	32	35	32	63	63
			50kA	32	-	32	32	-	32	63	63
Connecting capacity		-	Terminal type								
		mm ²	Flexible type	6.0	2.5 x 2	6.0	6.0	6.0 x 2	6.0	16.0	16.0
		mm ²	Rigid cable	10.0	2.5 x 2	10.0	10.0	10.0 x 2	10.0	25.0	25.0
		Nm	Tightening torque	1.2	1.0	1.2	1.2	1.0	1.2	1.2	1.2

Dimensions

Load Break Switch Disconnectors

refers to page 1



i-switch ISD Range Sw Disconnectors Interiors 16A - 1250A

i Switch Disconnectors (continued)

ISD Range (100A - 1250A)



A robust range of load break switches designed to ensure simple installation in applications such as power distribution boards. The compact design also suits OEM's and stand alone enclosure installations. A range of accessories extends the versatility.

Features:-

- On-load AC23A ratings.
- Four frame sizes covering 100A - 1250A.
- Direct lug connection onto Cu palms.
- Supplied as 3 or 4 pole load break switches.
- IP65 sealing door interlocking handles.

Switch Disconnectors

Catalogue Numbers

Current rating	100A	125A	160A	200A	250A	400A	630A	800A	1000A	1250A
Frame size *	B1	B1	B1	B2	B2	B3	B3	B3	B4	B4
3 Pole	SD01003/RS	SD01253/RS	SD01603	SD02003	SD02503	SD04003	SD06303	SD08003	SD10003	SD12503
4 Pole	SD01004/RS	SD01254/RS	SD01604	SD02004	SD02504	SD04004	SD06304	SD08004	SD10004	SD12504

Operating Shaft

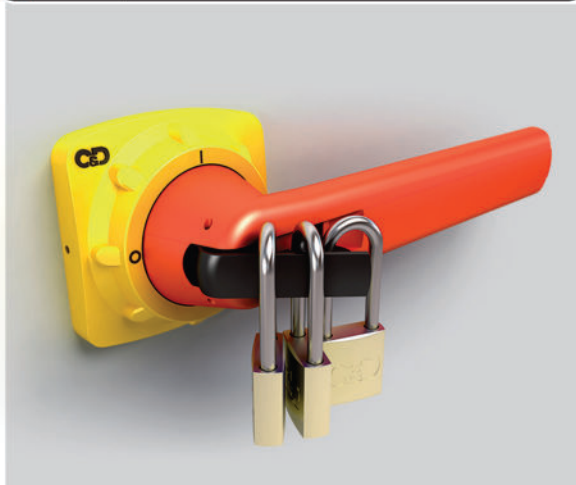
All operating shafts are manufactured from square section steel and zinc plated. The height setting is adjusted by passing the shaft through a bush in the load break switch mechanism and locking it in position using two 'cup point' grub screws.



Catalogue Numbers

Shaft Length 'L'	Load Break Switch Current Rating		
	100 - 160A	200 - 315A	400 - 1250A
200mm	SSH3/RS	SSH4	SSH5
400mm	SSH13	SSH14	SSH15
Shaft Section	6mm ²	8mm ²	12mm ²
Max. Possible	200mm	250	285
Enclosure depth	400mm	450	485

i Safety Features



Door Interlocked Handle Assembly

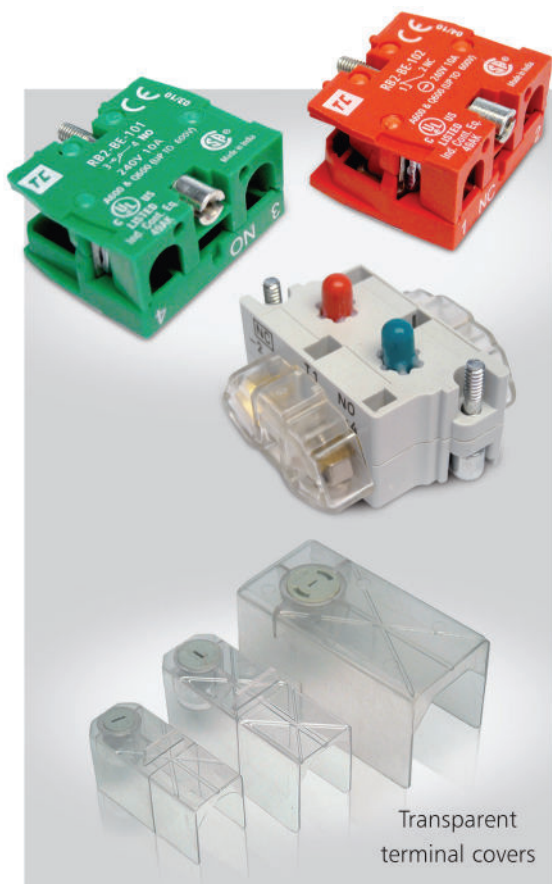
The door interlocked handle is of a stylish design in three sizes. As the illustration shows it can take up to 3 padlocks in the 'Off' position (Ø6.4 max. hasp diameter). For emergency or testing situations there is an override facility available for use by a competent person. All handles are sealed to IP65 which will enable installations in a wide variety on environmental conditions.

Catalogue Numbers

	Load Break Switch Current Rating		
	100 - 160A	200 - 315A	400 - 1250A
Handle	SDH2/RS	SDH3	SDH4
Handle length	80mm	80mm	145mm
Shaft section (□)	6mm	8mm	12mm

Technical Data Sheet

i-switch ISD Range Sw Disconnectors Interiors 16A - 1250A



Transparent terminal covers

Accessories

Add-on auxiliary blocks are available for all load-break switches. Select the blocks required and the associated mounting kit from the tables located on page 19.

Electrical Rating (BS EN 60947-5-1)

Rated thermal current I_{th} - 10A AC ratings (inductive A600)
 Rated Insulation voltage U_i - 500V 240V - Make 30A, Break 3A
 Utilisation Category AC15 (DC13) 480V - Make 15A, Break 1.5A

Catalogue Numbers

See page 19 for Catalogue Numbers...

Terminal Covers

The catalogue numbers shown are for individual covers. The covers are attached by screwing on to the thread of the terminal bolt.

Isolator Rating (A)	100-160	200-400	630-800	1000-1250
Terminal Cover Catalogue No.	STS1	STS2	STS4	-

Assembly Options

Rating (A)	Main Switch	Operating Shaft		Door Interlock Handle	Terminal Cover (Screwed)	Aux. Contacts Mtg. Kit
	3/4 Pole	200mm	400mm			
100	✓	SSH3	SSH13	SDH2	STS1	SAUXKITA
125	✓					
160	✓					
200	✓	SSH4	SSH14	SDH3	STS2	SAUXKITB
250	✓					
400	✓	SSH5	SSH15	SDH4	STS4	SAUXKITC
630	✓					
800	✓					
1000	✓					
1250	✓				-	SAUXKITD

i-switch ISD Range Sw Disconnectors Interiors 16A - 1250A

Technical Specification

Switch Disconnectors

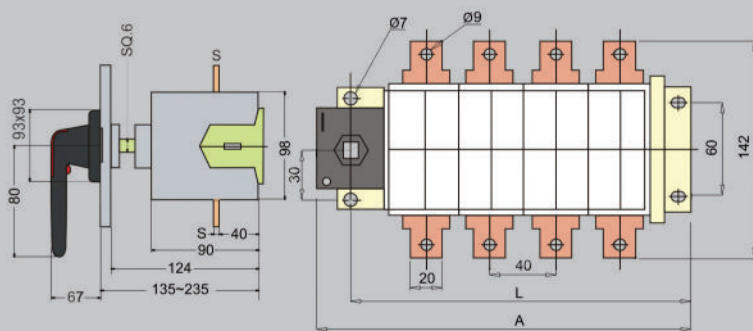
Data supplied against tests to BS EN 60947-3

Application	Sym.	Unit	Category	Rating (A)													
				3P 32	3P 63	6P 63	3P 100	3P 125	6P 125	3P 160	3P 200	3P 250	3P 400	3P 630	3P 800	3P 1000	3P 1250
Rated thermal current	I_{the}	A		32	63	63	100	125	125	160	200	270	500	630	720	1000	1250
Rated Insulation voltage	U_i	V		690	690	690	750	750	690	750	1000	1000	1000	1000	1000	1000	1000
Rated impulse voltage	U_{imp}	kV		6	6	4	8	8	6	12	12	12	12	12	12	8	8
Rated operational current (AC)	I_e	A	up to 415V - AC21A	32	63	63	100	125	125	160	200	250	400	630	800	1000	1250
			440-690V - AC21A	-	-	-	100	125	-	160	200	250	400	630	800	1000	1250
			up to 415V - AC22A	-	-	-	100	125	-	160	200	250	400	630	800	1000	1250
			690V - AC22A	-	-	-	100	125	-	160	200	250	400	630	800	-	-
			up to 415V - AC23A	-	-	-	100	125	-	160	200	250	400	630	720	-	-
			690V - AC23A	-	-	-	40	50	-	63	200	250	350	350	350	-	-
Rated operational current (DC) /poles in series	I_e	A	up to 48V - DC21A	-	-	63	100/2	125/2	125	160/2	200/2	250/2	400/2	630/1	800/1	1000/1	1250/1
			220V - DC21A	-	-	-	100/3	125/3	-	160/3	200/2	250/2	400/2	630/2	800/2	1000/3	1250/3
			up to 48V - DC22A	-	-	-	100/2	125/2	-	160/2	200/2	250/2	400/1	630/1	800/1	-	-
			220V - DC22A	-	-	-	100/3	125/3	-	160/3	200/2	250/2	400/2	630/2	800/2	-	-
			up to 48V - DC23A	-	-	50/2	100/2	125/2	125/2	160/2	200/2	250/2	400/1	630/1	800/1	-	-
			220V - DC23A	-	-	15/4	100/3	125/3	20/4	160/3	200/2	250/2	400/2	630/2	630/2	-	-
Rated operational power	P_e	kW	400/415V - AC23A	15	25	30	37	45	45	45	110	132	200	315	355	400	400
			690V - AC23A	15	30	30	37	45	37	45	170	200	315	355	355	-	-
Short circuit making capacity	I_{cm}	kA	Peak value	-	-	-	3.6	3.6	-	7	35	35	65	80	80	105	105
Short circuit withstand (1 sec)	I_{cw}	kA	RMS value	0.6	1.3	1.6	2.5	2.5	2.1	5	8	8	17	17	17	50	50
Min. mechanical endurance	-	-	Operations	-	-	5x10 ⁶	20,000	20,000	1,000	20,000	16,000	16,000	10,000	10,000	10,000	6,000	6,000
Min. electrical endurance	-	-	415V - at 0.65 pf	-	-	-	5,000	5,000	-	1,000	1,000	1,000	1,000	500	500	500	500
Connecting capacity	-	-	Terminal type														
	mm ²	Min/Max		2.5/10	2.5/25	2x2.5/2x16	10/70	10/70	70	10/95	-	-	-	-	-	-	-
	mm	Stud/Cu palm width		-	-	-	8x20	8x20	-	8x20	8x25	10x25	10x25	12x40	12x40	12x60	12x60
	Nm	Tightening torque		1.2	1.3	1.5	6	8	2	8	30-44	30-44	30-44	50-75	50-75	50-75	50-75

Dimensions

Load Break Switch Disconnectors

refers to page 4



100A - 160A

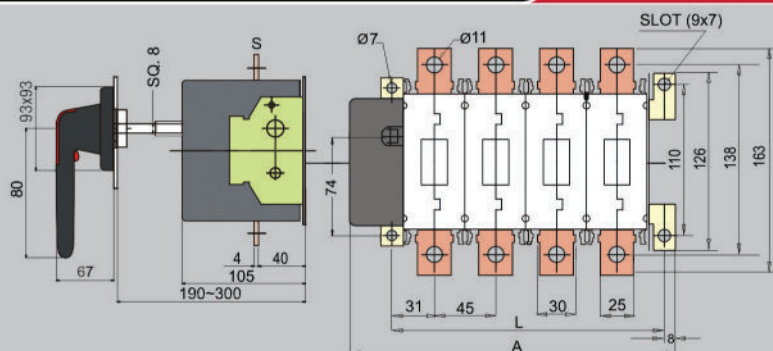
	A		L		S
Rating	3P	4P	3P	4P	-
100A	190	230	160	200	2
160A	190	230	160	200	3

Frame Size B1

i-switch ISD Range Sw Disconnectors Interiors 16A - 1250A

Dimensions Contd.

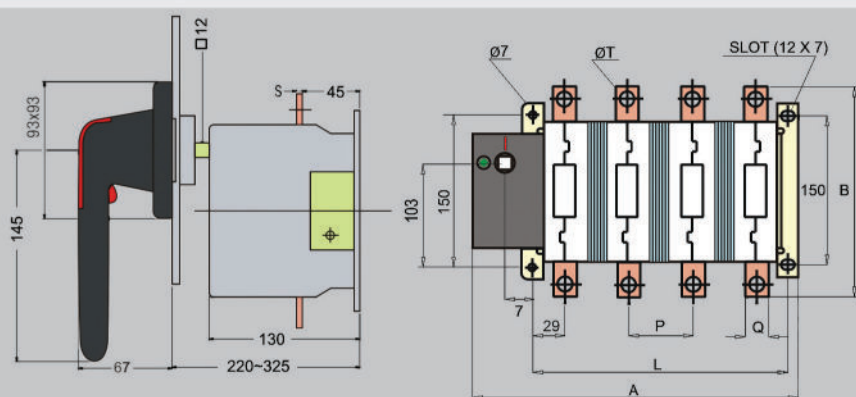
Load Break Switch Disconnectors refers to page 4



200A - 250A

	A		L		S
Rating	3P	4P	3P	4P	-
200A-250A	195	240	155.5	200.5	4

Frame Size B2

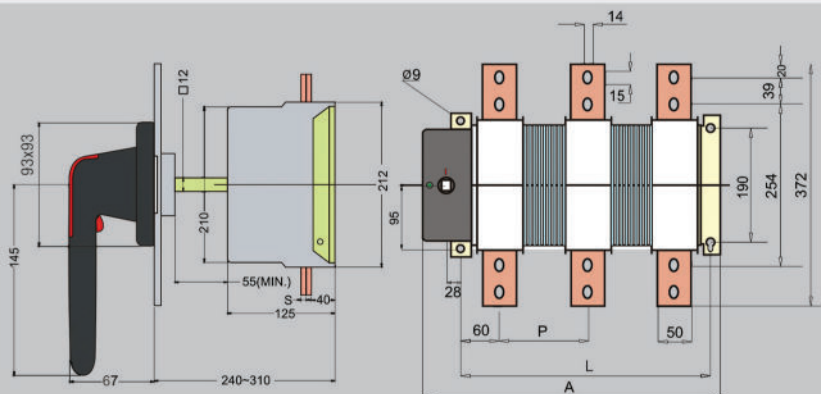


400A - 800A

Rating	A		B	L	
	3P	4P		3P	4P
400A	211	257	205	151	197
600A	244	306	223	183	245
800A	260	330	223	199	269

Rating	P	Q	S	T
400A	46	25	4	11
600A	62	40	5	13.5
800A	70	40	5	13.5

Frame Size B3

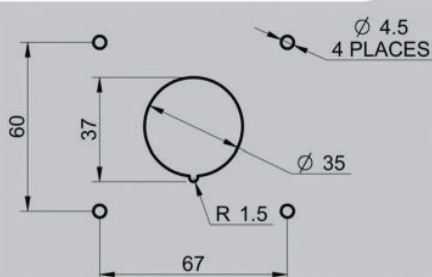


1000A - 1250A

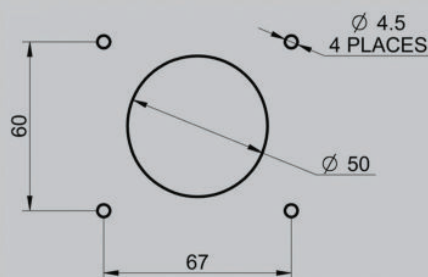
Rating	A		L		P	S
1000A-1250A	343	423	278	358	80	12

Frame Size B4

Door Interlocking Handle Fixings



Handle Ref SDH1 (Page 1)



Handle Refs SDH2-6 (Page 4)