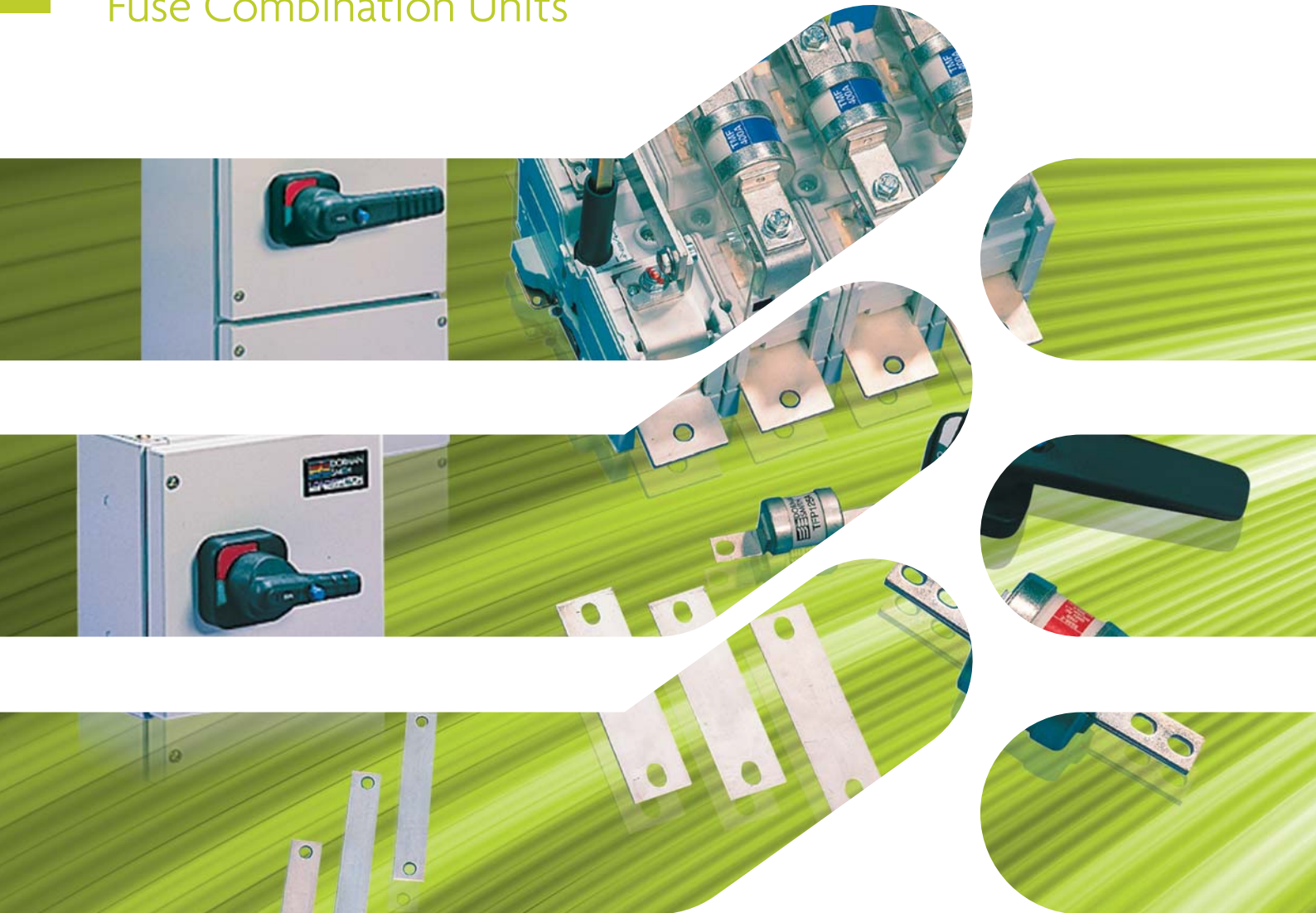
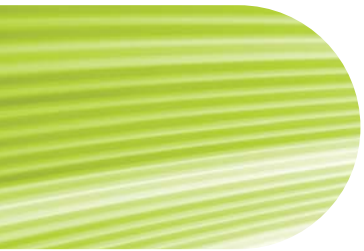


Loadswitch

Fuse Combination Units





Dorman Smith Switchgear Limited

With over 130 years of experience in switchgear design and production Dorman Smith Switchgear Limited continues to provide high quality equipment for low-voltage electrical distribution and circuit protection.

Our product range begins with single-pole and neutral distribution board systems and continues up to custom designed, factory built low-voltage electrical switchboards for a broad range of commercial, industrial and retrofit applications.

We continue to build on our extensive technical knowledge and awareness of customer and market demands, operating conditions and current regulations.

This breadth of experience supports the development and manufacturing techniques of our electrical products to exceed the industry standards.



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Loadswitch

Fuse Combination Units

Overview

The Loadswitch fuse combination range includes skeleton switches, housed switches and switch disconnectors from 32A to 800A.

All Loadswitch fuse combination units exceed EN 60947-3 and meet the specifications for full uninterrupted duty to ensure that the switches will maintain the maximum rated load indefinitely.

Given their utilisation category of AC23A and their short-circuit capacity of 80kA, the Loadswitch fuse combination devices provide complete confidence when installed in any resistive or inductive load applications.

Housed switches are supplied in sheet steel enclosures with integral cable spreading room that can be positioned above or below the switch to suit the ease of installation.

The robust steel enclosures are finished in light grey RAL 7035 epoxy powder coating and have doors that open 180° for ease of access.

A variety of accessories are available for both the skeleton and housed switches, which include cable spreader boxes, solid links for isolation, longer shafts, terminal shrouds and auxiliary switches.

Housed Switches

32A to 800A and accessories.

PAGES 4-5

Compliance

Switches EN 60947-3

Add-on enclosures

We have a range of matching cable spreader boxes to allow for easier installation and cabling.

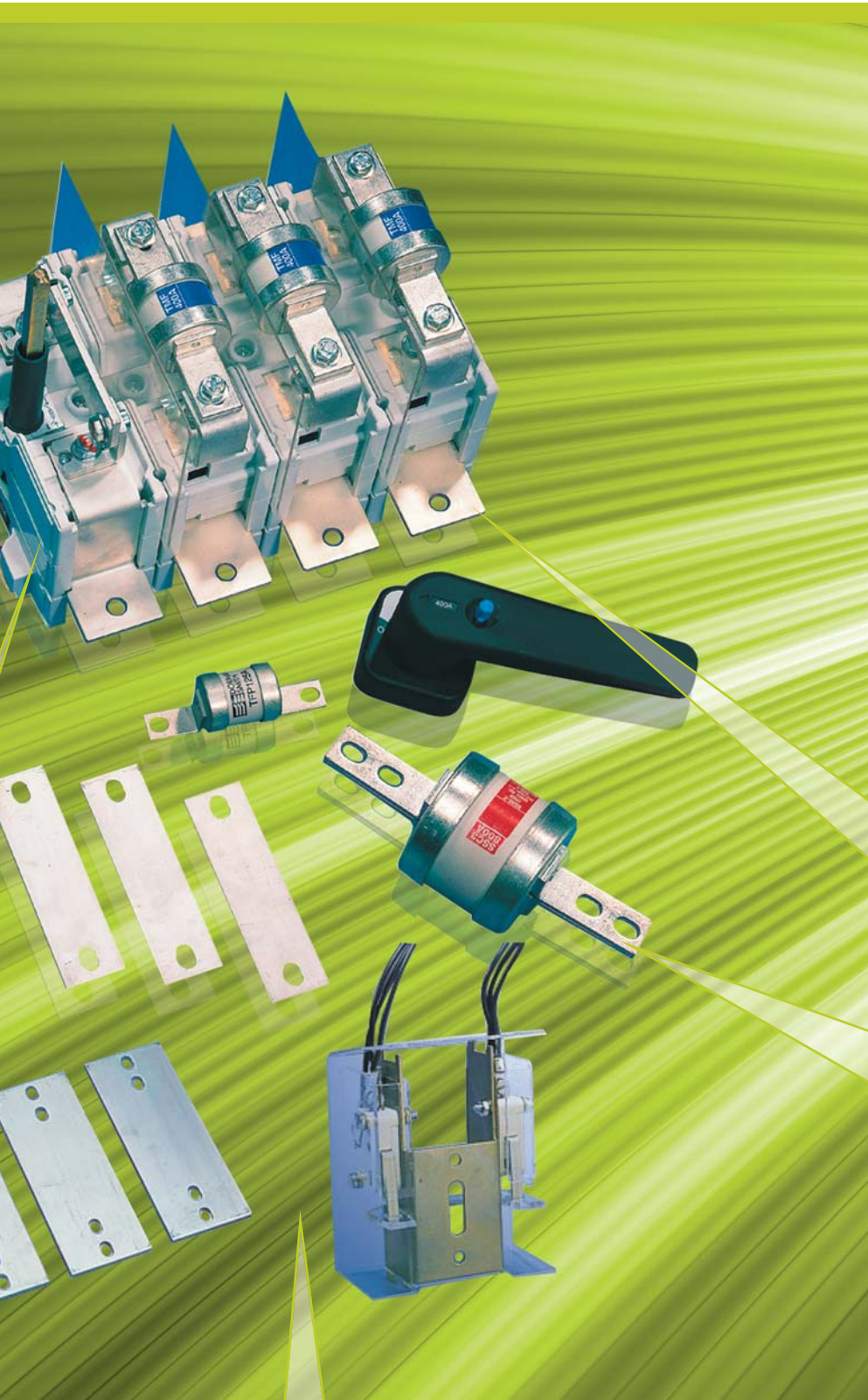
PAGE 4

Skeleton Switches

63A to 800A and accessories.

PAGES 6-7





Ingress Protection

Our Loadswitch housed units have an ingress protection rating of IP4X.

PAGE 4

Rated voltage

415V AC.

Doors

All of the doors on the housed fuse switches open to 180°C for ease of access during installation.

PAGE 4

Terminals

Our 32A housed units are provided with cable clamps for easy installation. Our 63A to 400A housed units are built with inserted terminals.

PAGES 4-6

Fuses

All of our housed switches up to 125A are provided with fuses. We also offer solid links as an accessory for this range to allow switches to be converted to isolators.

PAGE 8

Utilisation category

With a utilisation category of AC23A our switches provide confidence when installed in any resistive or inductive load application.

PAGE 4 & 6

Accessories

We offer a wide range of accessories designed for the Loadswitch range including; lock mounting kits, auxiliary switches, shaft extensions, terminal shrouds and terminal barriers.

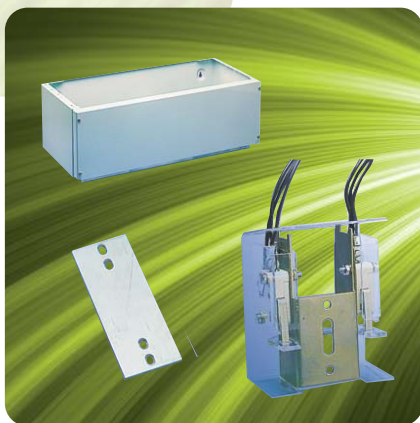
PAGE 4 & 6

Fused short-circuit capacity

All of our switches in the Loadswitch range have a short-circuit capacity of 80kA rms.

PAGE 4 & 6

Loadswitch Fuse Combination Units



Housed Fuse Switches 32A - 800A

Features

- Exceeds the requirements of EN 60947-3
- Full withstand duty
- 80kA rms fused short circuit capacity
- 415V AC rated voltage
- AC23A Utilisation category
- IP4X Ingress Protection
- Single solid links available as optional extras as per table below (one required per phase)

Current Rating (A)	Terminal Type	Terminal fixing Screws	Supplied with fuses	3 Pole & Neutral Product Code	4 Pole Product Code	Solid Link Product Code
32A	Cable clamps	N/A	Yes	HBE3P32N	N/A	HEL32
63A	M8 Inserted	Supplied with lug fixing screws	Yes	HBF3P63N	N/A	HFL63
100A	M8 Inserted	Supplied with lug fixing screws	Yes	HBF3P100N	HBF4P100	HFL200A
125A	M8 Inserted	Supplied with lug fixing screws	Yes	HBF3P125N	N/A	HFL200A
160A	M8 Inserted	Supplied with lug fixing screws	No	HBF3P160N	N/A	HFL200A
200A	M8 Inserted	Supplied with lug fixing screws	No	HBF3P200N	HBF4P200	HFL200A
315A	M10 Inserted	Supplied with lug fixing screws	No	HBK3P315N	N/A	HLL400
400A	M10 Inserted	Supplied with lug fixing screws	No	HBL3P400N	HBL4P400	HLL400
630A	M16 x 1 and M8 x 4	Not supplied	No	HBN3P630N	N/A	HNL800
800A	M16 x 1 and M8 x 4	Not supplied	No	HBN3P800N	HBN4P800	HNL800

Housed Fuse Switches Accessories

Description	Current Rating (A)	Product Code
Cable Spreader Box	63 to 125A	HB125CSB
	160 to 200A	HB200CSB
	315 and 400A	HB400CSB
	630 and 800A	HB800CSB
Castell * lock mounting kit	All	SCLK
2 Bank Auxiliary Switch	63 to 200A	SAUX2F
	315 to 800A	SAUX2N
4 Bank Auxiliary Switch	63 to 200A	SAUX4F
	315 to 800A	SAUX4N
6 Bank Auxiliary Switch	315 to 800A	SAUX6N

* Castell is a trademark of Castell Safety International Limited

NOTE: Standard symbol DSI, special symbols are available direct from Castell*. Quote reference: Castell FS2 – Spigot 9.5mm square x 22.5mm, 65° anti-clockwise to trap key.

Housed Fuse Switches Dimensions

Housed Switches Dimensions

Current Rating (A)	Height (mm)	Width (mm)	Depth over handle (mm)	Weight (kg)
32	210	210	230	3
63	420	263	273	6
100	420	263	273	6
125	420	263	273	6
160	525	315	325	12
200	525	315	325	12
315	735	420	325	21
400	735	420	325	21
630	840	630	378	37
800	840	630	378	37

Cable Spreader Box Dimensions

Current Rating (A)	Height (mm)	Width (mm)	Depth over handle (mm)	Weight (kg)
63 to 125A	105	262	183	3
200A	105	315	235	3
315 to 400A	210	420	235	5
630 to 800A	210	630	288	5

Housed Switch Technical Information

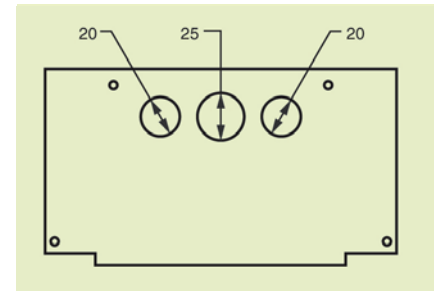
Rated Current (A)	32	63	100	125	160	200	315	400	630	800
Mechanical Endurance	10,000	10,000	10,000	8,000	8,000	8,000	8,000	5,000	5,000	3,000
kW at 415V AC	15	30	55	75	90	110	160	230	330	450
Maximum cable (mm ²) *	10	70	70	70	150	150	185**	300	630	630
Maximum cable lug palm width	N/A	22	22	22	22	22	35	50	80	80

* These figures are for guidance only and are dependent upon lug palm width.

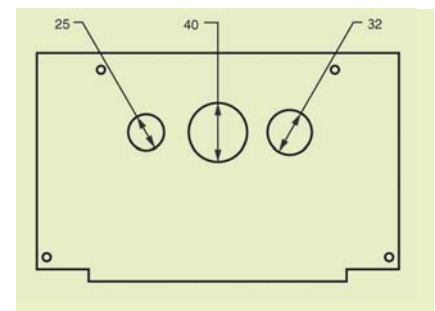
** 240mm² with terminal barriers fitted.

Loadswitch Fuse Combination Units

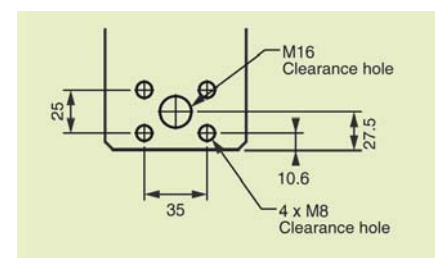
32A Top and Bottom Knock Out Dimensions



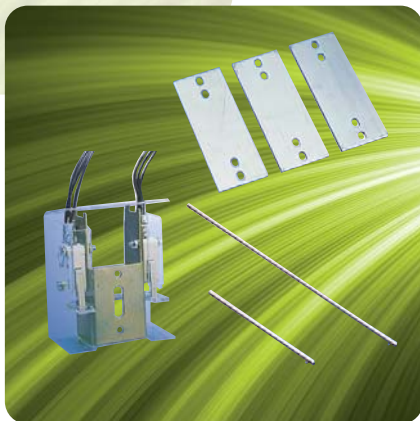
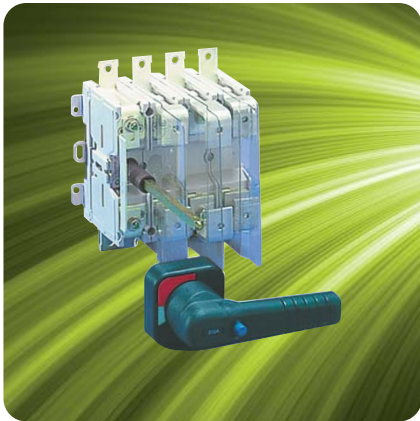
63 - 125A Top and Bottom Knock Out Dimensions



630-800A Loadswitch Terminal



Loadswitch Fuse Combination Units



Skeleton Fuse Switches 63A - 800A

Features

- Exceeds the requirements of EN 60947-3
- Full uninterrupted duty
- 80kA rms fused short circuit capacity
- 415V AC rated voltage
- AC23A Utilisation category
- Lug fixings and fuses not supplied
- Single solid links available as optional extras as per table below (one required per phase)

Current Rating (A)	Terminal Type	Supplied with fuses	3 Pole & Neutral Product Code	4 Pole Product Code	Solid Link Product Code
63A	M8 clearance hole	No	SF3P63N	SF4P63	HFL63
100A	M8 clearance hole	No	SF3P100N	SF4P100	HFL200A
125A	M8 clearance hole	No	SF3P125N	SF4P125	HFL200A
160A	M8 clearance hole	No	SF3P160N	SF4P160	HFL200A
200A	M8 clearance hole	No	SF3P200N	SF4P200	HFL200A
315A	M12 clearance hole	No	SK3P315N	SK4P315	HLL400
400A	M12 clearance hole	No	SL3P400N	SL4P400	HLL400
630A	4 x M8 and 1 x M16 *	No	SN3P630N	SN4P630	HNL800
800A	M16 x 1 and M8 x 4	No	SN3P800N	SN4P800	HNL800

Housed Fuse Switches Accessories

Description	Current Rating (A)	Product Code
Cable extension terminals (set of 8)	630 and 800A	SNCET
Castell ** lock mounting kit	All	SCLK
2 Bank Auxiliary Switch	63 to 200A 315 to 800A	SAUX2F SAUX2N
4 Bank Auxiliary Switch	63 to 200A 315 to 800A	SAUX4F SAUX4N
6 Bank Auxiliary Switch	315 to 800A	SAUX6N
Terminal Shrouds	160 and 200A 315A 400 630 and 800A	SFTSL SKTS SLTS SNTS
Terminal Barriers (set of 3)	63 to 200A 315A 400A 630 and 800A	SFTB SKTB SLTB Supplied
Fuse Shrouds (set of 3)	63 to 125A 160 and 200A 315A 400A 630 and 800A	SFFS125 SFFS200 SKFS SLFS SNFS
Handle Assembly (Standard size)	For 32A E Frame (small handle) For 63 to 200A F Frame (medium handle) For 315 to 800A K,L and N Frame (large handle)	SHA1 SHA2 SHA4
Handle Assembly (Special size)	For 315 to 400A (medium handle)	SHA3
Shaft Extension For 270mm deep panel	63 to 200A 315 to 800A	SXT127 SXT227
Shaft Extension For 600mm deep panel	63 to 200A 315 to 800A	SXT160 SXT260

* Only with SNCET cable extension terminals fitted.

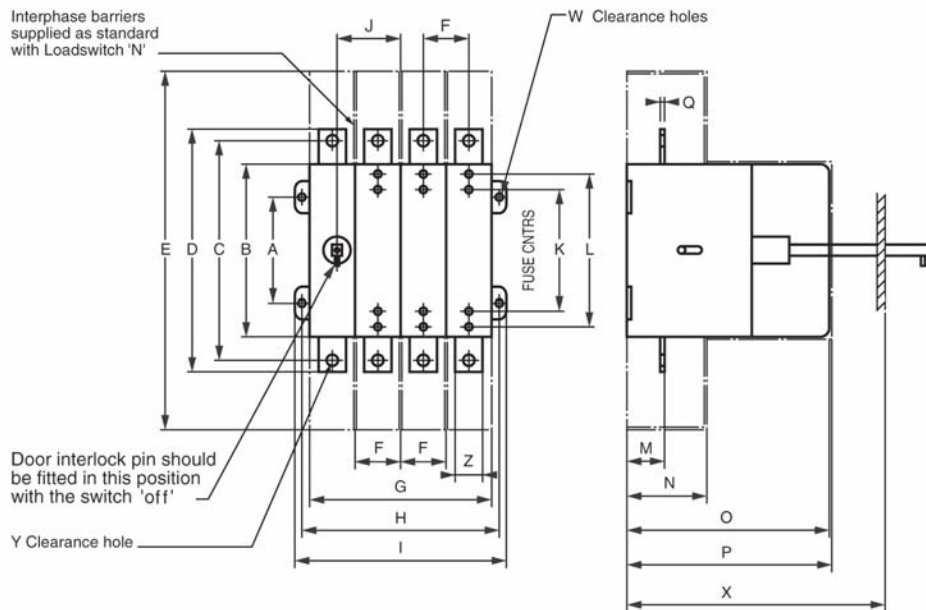
** Castell is a trademark of Castell Safety International Limited.

NOTE: Standard symbol DSI, special symbols are available direct from Castell*. Quote reference: Castell FS2 – Spigot 9.5mm square x 22.5mm, 65° anti-clockwise to trap key.

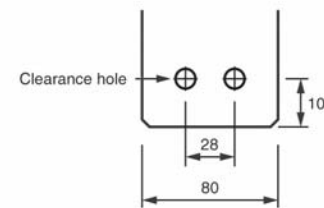
Skeleton Fuse Switches Dimensions

Loadswitch Fuse Combination Units

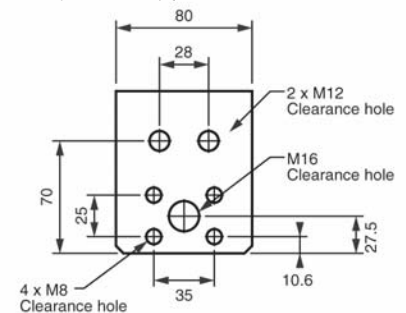
Skeleton Switches Dimensions



630/800A Standard Terminal



630/800A extension terminal (accessory)



Rating (A)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	W	X	Y	Z
63	80	135	170	186	270	35	140	150	165	50	73	N/A	30	80	160	161	3	M5	170*	M8	20
100-125	80	135	170	186	270	35	140	150	165	50	94	N/A	30	80	160	161	3	M5	170*	M8	20
160-200	80	135	170	186	300	35	140	150	165	50	94	N/A	30	80	196	197	3	M5	220	M8	20
315	60	180	220	250	384	52.5	210	220	235	90	111	N/A	45	87	210	212	5	M5	220	M12	35
400	60	180	220	250	414	70	280	295	305	125	111	N/A	45	87	210	212	5	M5	220	M12	50
630-800	100	180	235	255	534	105	420	460	475	195	133	184	60	129	240	242	5	M6	270	M12	80

Skeleton Switch Technical Information

Rated Current (A)	63	100	125	160	200	315	400	630	800
Mechanical Endurance	10,000	10,000	8,000	8,000	8,000	8,000	5,000	5,000	3,000
kW at 415V AC	30	55	75	90	110	160	230	330	450
Maximum cable (mm ²) **	70	70	70	150	150	185***	300	630	630
Maximum cable lug palm width	22	22	22	22	22	35	50	80	80
Weight (kg)	6	6	6	12	12	21	21	37	37



* Supplied suitable for an X dimension of 220mm, the drive shaft can be cut down to give a minimum X dimension of 170mm
 ** These figures are for guidance only and are dependent upon lug palm width.
 *** 240mm² with terminal barriers fitted.

Fuse Comparison Chart

415V

Loadswitch Fuse Combination Units

Frame Size	Current Rating (A)	Bussman	GEC / Lawson	MEM	Tag Type	BS88 Ref	Fuse fixing centres (mm)
HBE	32	NITD2	NIT2	25A2	OFFSET	A1	44.50
		NITD4	NIT4	45A2			
		NITD6	NIT6	65A2			
		NITD10	NIT10	105A2			
		NITD16	NIT16	165A2			
		NITD20	NIT20	205A2			
		NITD25	NIT25	255A2			
		NITD32	NIT32	325A2			
HBF SF SFT	63	AAO2	TIA2	25B3	OFFSET	A2	73.00
		AAO4	TIA4	45B3			
		AAO6	TIA6	65B3			
		AAO10	TIA10	105B3			
		AAO16	TIA16	165B3			
		AAO20	TIA20	205B3			
		AAO25	TIA25	255B3	OFFSET	A3	73.00
		AAO32	TIA32	325B3			
		BAO40	TIS40	405B4			
		BAO50	TIS50	505B4			
BAO63	TIS63	635B4					
HBF SF SFT	100	-	TCP6	-	OFFSET	A4 (dia. 33 max)	94.00
		-	TCP10	-			
		-	TCP16	-			
		-	TCP20	-			
		-	TCP25	-			
		CEO32	TCP32	-			
		CEO40	TCP40	-			
		CEO50	TCP50	-			
		CEO63	TCP63	-			
		CEO80	TCP80	80SD5			
CEO100	TCP100	100SD5					
HBF SF SFT	125	DEO125	TFP125	125SD6	OFFSET	A4	94.00
		HBF SF SFT	160	DEO125	TFP125	125SD6	OFFSET
HBF SF SFT	200	DEO160		TFP160	160SD6	OFFSET	A4 (dia. 38 max)
HBF SF SFT		DEO200	TFP200	200SD6	OFFSET	A4 (dia. 38 max)	94.00
HBF SF SFT		315	CD80	TC80	80SF5	CENTRE	B1
HBF SF SFT	CD100		TC100	100SF5	CENTRE	B2	111.00
HBF SF SFT	DD125		TF125	125SF6	CENTRE	B2	111.00
HBF SF SFT	DD160		TF160	160SF6	CENTRE	B2	111.00
HBF SF SFT	DD200		TF200	200SF6	CENTRE	B2	111.00
HBF SF SFT	315	ED250	TKF250	250SF7	CENTRE	B3	111.00
		ED315	TKF315	315SF7	CENTRE	B3	111.00
		HBF SF SFT	400	EF355	TM355	355SH8	CENTRE
HBF SF SFT	EF400	TM400		400SH8	CENTRE	C1	133.00
HBF SF SFT	ED400	TMF400		400SF8	CENTRE	B4	111.00 S
HBN SN SNT	630	FF450	TTM450	450SH9	CENTRE	C2	133.00
		FF500	TTM500	500SH9			
		FF560	TTM560	560SH9			
		FF630	TTM630	630SH9			
HBN SN SNT	800	-	TLM670	-	CENTRE	C3	133.00
		GF710	TLM710	710SH10			
		-	TLM750	-			
HBN SN SNT	800	GF800	TLM800	800SH10	CENTRE	C3	133.00

NOTE:

- 1) The comparative types are a guide to interchange ability with regards to dimensions and current rating only. It is essential that rated voltage and other electrical characteristics are checked to ensure the compatibility of the fuse.
- 2) Please check maximum barrel size prior to fitting
- 3) * Lawson fuse reference only

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