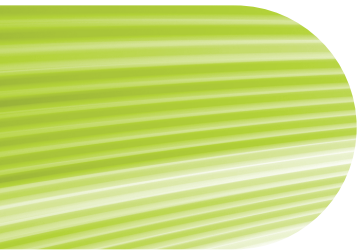


Loadswitch

Fuse Combination Units





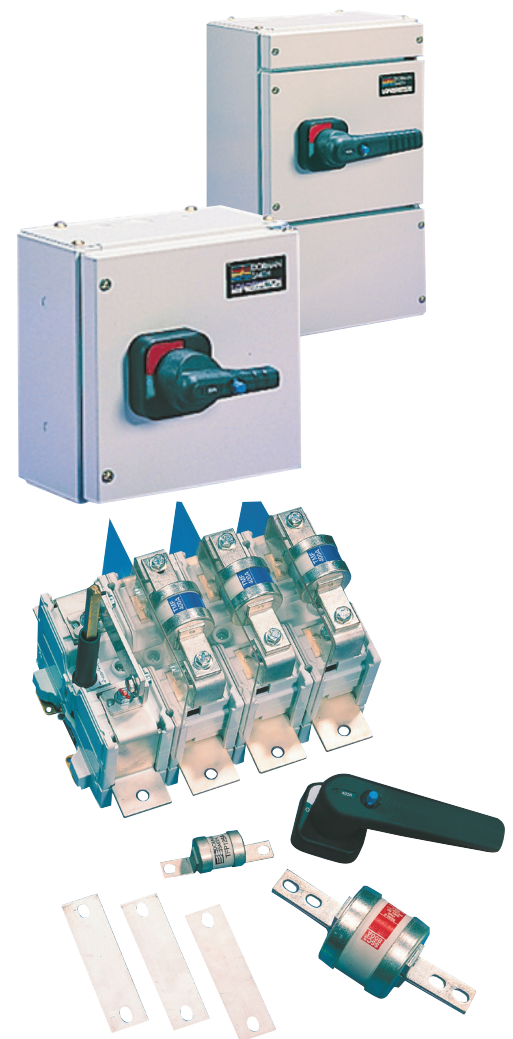
Dorman Smith Switchgear Limited

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 units provide complete confidence when installed in any resistive or inductive load applications.

Housed fuse combination units 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 fuse combination units, which include cable spreader boxes, solid links for isolation, longer shafts and terminal shrouds.

Housed Fuse Combination Units
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.

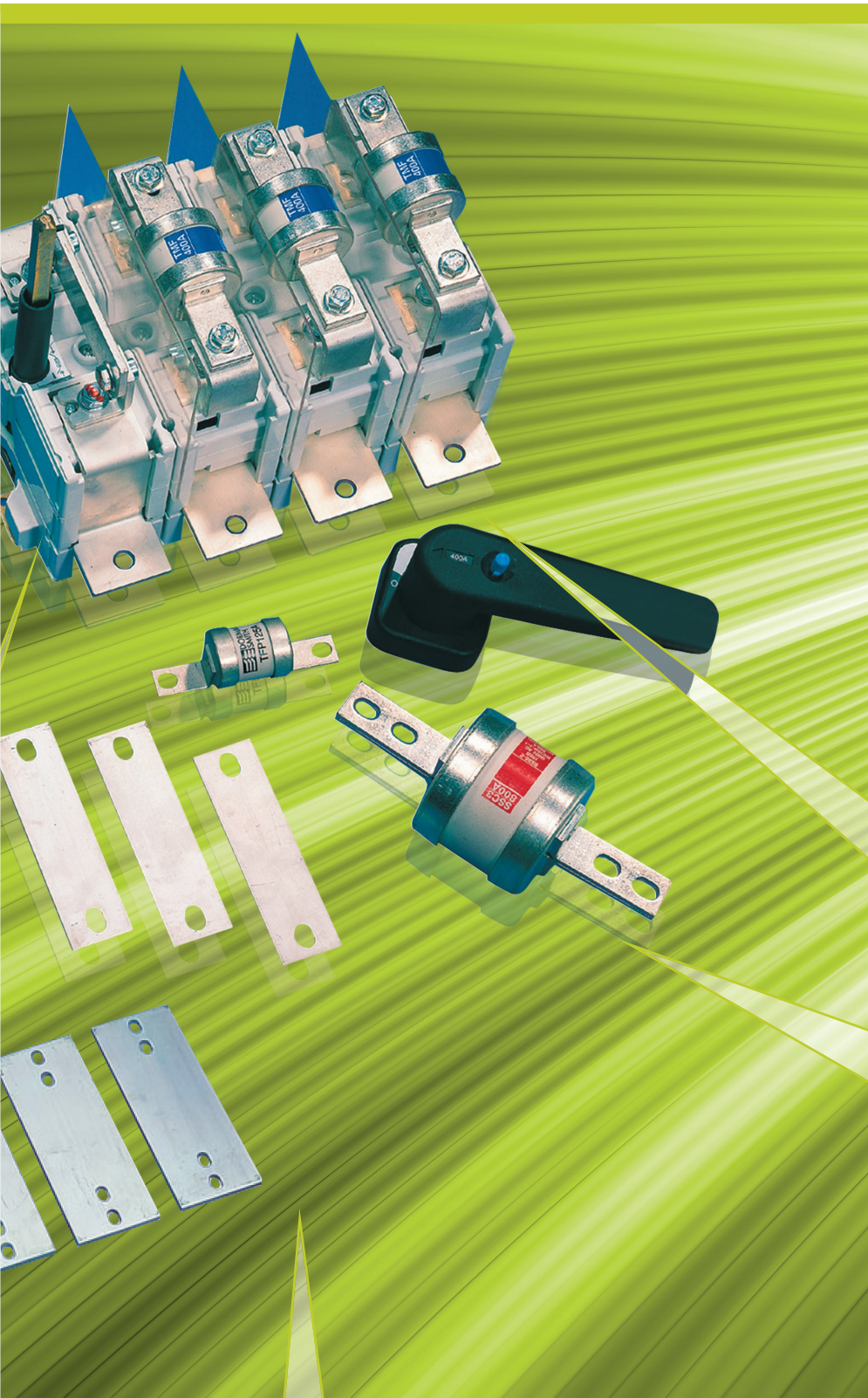
PAGE 4

Skeleton Fuse Combination Units

63A to 800A and accessories.

PAGES 6-7





Ingress Protection

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

PAGE 4

Rated voltage

415V AC.

Doors

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

PAGE 4

Terminals

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

PAGES 4-6

Fuses

All of our housed fuse combination units up to 125A are provided with fuses. We also offer solid links as an accessory for this range to allow conversion to isolators.

PAGE 8

Utilisation category

With a utilisation category of AC23A our fuse combination units 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, shaft extensions, terminal shrouds and terminal barriers.

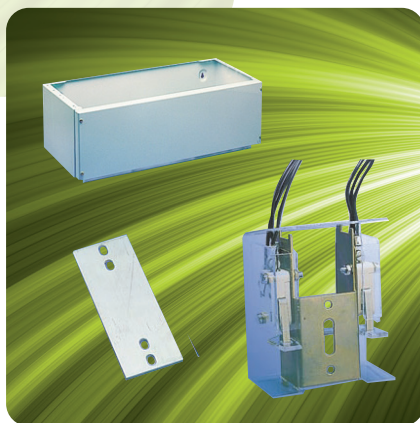
PAGE 4 & 6

Fused short-circuit capacity

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

PAGE 4 & 6

Loadswitch Fuse Combination Units



Housed Fuse Combination Units 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 Combination Unit 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

* 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 Combination Units

Dimensions

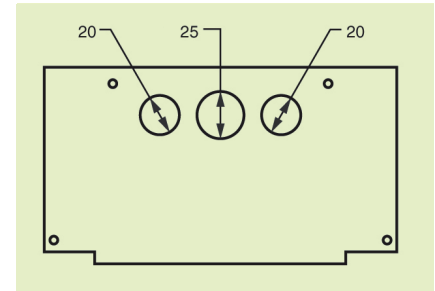
Loadswitch

Fuse Combination Units

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

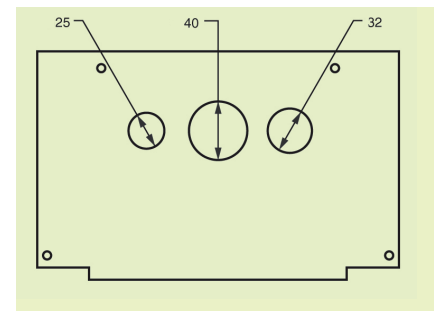
32A Top and Bottom Knock Out Dimensions



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

63 - 125A Top and Bottom Knock Out Dimensions



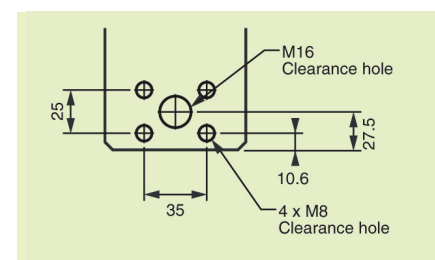
Technical Information

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

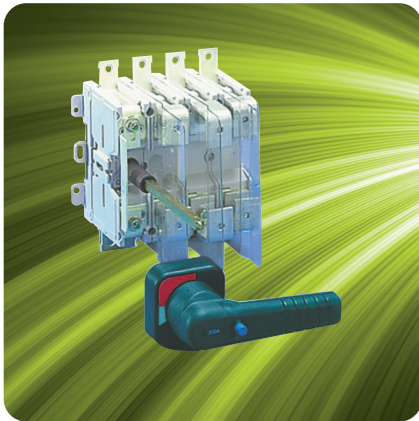
* These figures are for guidance only and are dependent upon lug palm width.

** 240mm² with terminal barriers fitted.

630-800A Loadswitch Terminal



Loadswitch Fuse Combination Units



Skeleton Fuse Combination Units 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

Skeleton Fuse Combination Unit Accessories

Description	Current Rating (A)	Product Code
Cable extension terminals (set of 8)	630 and 800A	SNCET
Castell ** lock mounting kit	All	SCLK
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
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.

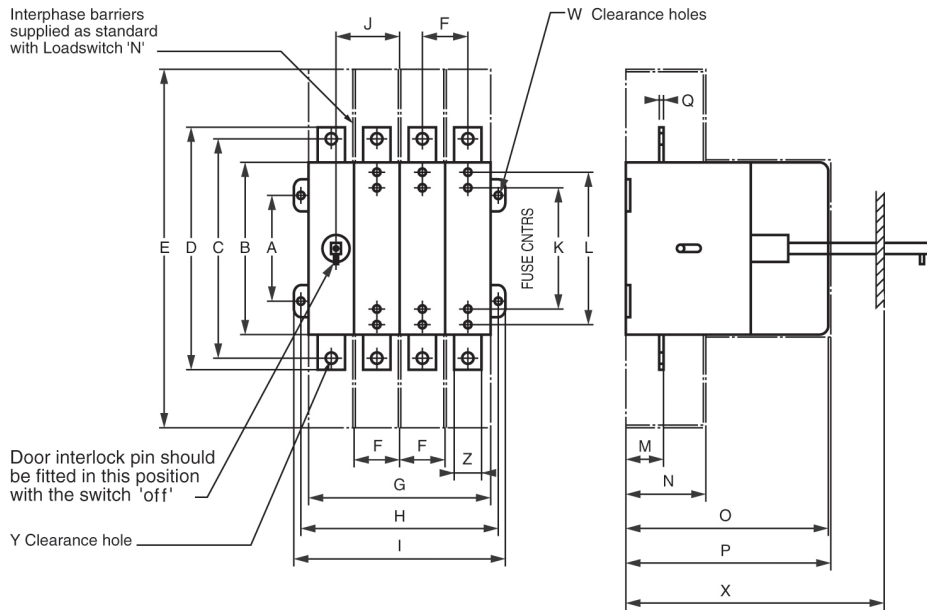
NOTE: Standard symbol DS1, special symbols are available direct from Castell*. Quote reference: Castell FS2 – Spigot 9.5mm square x 22.5mm, 65° anti-clockwise to trap key.

Skeleton Fuse Combination Unit

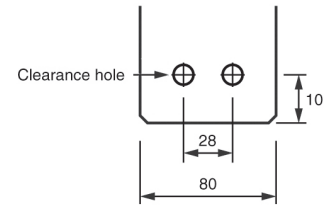
Dimensions

Loadswitch

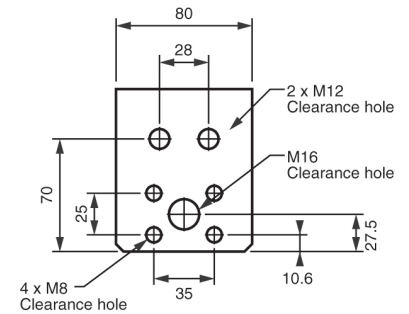
Fuse Combination Units



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

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

Fuse Comparison Chart 415V								
Loadswitch Rating	Fuse Type	Fuse Fixing Centres	BS 88 Reference	FUSE RATING	BUSSMANN	GEC/LAW-SON	MEM	
32A	OFFSET	44.5mm	A1	2A	NITD2	NIT2	2SA2	
				4A	NITD4	NIT4	4SA2	
				6A	NITD6	NIT6	6SA2	
				10A	NITD10	NIT10	10SA2	
				16A	NITD16	NIT16	16SA2	
				20A	NITD20	NIT20	20SA2	
				25A	NITD25	NIT25	25SA2	
				32A	NITD32	NIT32	32SA2	
63A	OFFSET	73mm	A2	2A	AAO2	TIA2	2SB3	
				4A	AAO4	TIA4	4SB3	
				6A	AAO6	TIA6	6SB3	
				10A	AAO10	TIA10	10SB3	
				16A	AAO16	TIA16	16SB3	
				20A	AAO20	TIA20	20SB3	
				25A	AAO25	TIA25	25SB3	
				32A	AAO32	TIA32	32SB3	
				40A	BAO40	TIS40	40SB3	
				50A	BAO50	TIS50	50SB3	
100A	OFFSET	94mm	A3	63A	BAO63	TIS63	63SB3	
				A4 (33mm diameter max)	20A		TCP20	
					25A		TCP25	
					32A	CEO32	TCP32	
					40A	CEO40	TCP40	
					50A	CEO50	TCP50	
					63A	CEO63	TCP63	
					80A	CEO80	TCP80	80SD5
					100A	CEO100	TCP100	100SD5
					125A	DEO125	TFP125	125SD5
160A	DEO160	TFP160	160SD5					
200A	DEO200	TFP200	200SD5					
315A	CENTRE	111mm	B1	80A	CD80	TC80	80SF5	
				100A	CD100	TC100	100SF5	
				B2	125A	DD125	TF125	125SF6
					160A	DD160	TF160	160SF6
				B3 (50mm diameter max)	200A	DD200	TF200	200SF6
					250A	ED250	TKF250	250SF7
				315A	ED315	TKF315	315SF7	
				B4	355A	ED355	TMF355	355SF8
400A	ED400	TMF400	400SF8					
400A	CENTRE	133mm	C1	355A	EF355	TM355	355SH8	
				400A	EF400	TM400	400SH8	
				C2	450A	FF450	TTM450	450SH9
					500A	FF500	TTM500	500SH9
				C3	560A	FF560	TTM560	560SH9
					630A	FF630	TTM630	630SH9
				670A		TLM670		
				710A	GF710	TLM710	710SH10	
750A		TLM750						
800A	GF800	TLM800	800SH10					

NOTE
 1) The comparative types are a guide to interchangeability with regards to dimensions and current ratings 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.

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