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 **Crabtree**

Fuse Switches
& Isolators



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Certificate Number 18828
ISO 9001, ISO 14001, ISO 45001



2013-RTL-L4-75
2013-RTL-L4-36



Testing Laboratory No. 1460
Testing Laboratory No. 2003

As a leading manufacturer of electrical installation equipment, Crabtree is committed to the continual improvement of all quality assurance procedures and performance.



FUSESTAR SWITCH DISCONNECTORS & FUSE SWITCHES



Fused Switch Units

- BS EN 60947-3
- SP&N units from 20A to 200A
- TP&N units from 20A to 800A
- Four pole units from 20A to 800A
- Fused Short Circuit 80kA RMS
- Five frame sizes
- Ratings to 125A supplied with fuses
- Other ratings fuses not supplied
- Cable spreader extension boxes available
- Hinged door (180 degree)
- Lockable operating switch handle

Enclosed Switch Disconnectors

- Ratings from 20A to 125A
- Choice of TP&N and Four Pole configuration
- Large enclosures for ratings from 63 to 125A
- Hinged door
- Lockable Operating switch handle





FUSE COMBINATION UNIT 20A–32A

20A	SP&N	supplied	190201NF
	TP&N	with	190203NF
	4P**	20A fuses	190204F
32A	SP&N	supplied	190321NF
	TP&N	with	190323NF*
	4P**	32A fuses	190324F
Accessories	Cable Spreader Box		19032CSB
	Copper Isolator Link Each		19LK32
Modular width			4
Terminals	20A–32A	16mm ² Max	Cable Clamp
Spreading room	up to 10mm ² 4 Core *		

* Spreading Room is allowed for at one end only. To fit a 4 core cable at both ends an additional Cable spreader box will be required.
1 Module = 52.5mm

** 4P versions require an extra Copper Isolator Link



FUSE COMBINATION UNIT 63A–100A

63A	SP&N	supplied	190631NF
	TP&N	with	190633NF*
	4P**	63A fuses	190634F
100A	SP&N	supplied	191001NF
	TP&N	with	191003NF*
	4P**	100A fuses	191004F
Accessories	Cable Spreader Box		19100CSB
	Copper Isolator Link Each 63A		19LK63
	Copper Isolator Link Each 100A		19LK200
	Castell Lock (factory fitted)		Suffix CLK
Modular width			5
Terminals	63A–100A	63A-Cable Clamp 25mm ² 100A- M8 Hole	
Spreading room	up to 70mm ² 4 Core *		
Cable lug palm copper size	20mm wide Maximum		

* Spreading Room is allowed for at one end only. To fit a 4 core cable at both ends an additional Cable spreader box will be required.
1 Module = 52.5mm

** 4P versions require an extra Copper Isolator Link



FUSE COMBINATION UNIT 125A–200A

125A	SP&N	supplied	191251NF
	TP&N	with	191253NF
	4P**	125A fuses	191254F
160A	SP&N	no	191601N
	TP&N	fuses	191603N*
	4P**	supplied	191604
200A	SP&N	no	192001N
	TP&N	fuses	192003N
	4P**	supplied	192004
Accessories	Cable Spreader Box		19200CSB
	Copper Isolator Link Each		19LK200
	Castell Lock (factory fitted)		Suffix CLK
Modular width			6
Terminals	125A–200A		M8
Spreading room		up to 150mm ² 4 Core *	
Cable lug palm copper size		20mm wide Maximum	

* Spreading Room is allowed for at one end only. To fit a 4 core cable at both ends an additional Cable spreader box will be required.
1 Module = 52.5mm

** 4P versions require an extra Copper Isolator Link

FUSE COMBINATION UNIT 315A–400A

315A	TP&N	no fuses	193153N*
	4P**	supplied	193154
400A	TP&N	no fuses	194003N
	4P**	supplied	194004
Accessories	Cable Spreader Box		19400CSB
	Copper Isolator Link Each		
19LK400	Castell Lock (factory fitted)		Suffix CLK
Modular width			8
Terminals	315A–400A		M10
Spreading room		up to 300mm ² 4 Core *	
Cable lug palm copper size		45mm wide Maximum	

* Spreading Room is allowed for at one end only. To fit a 4 core cable at both ends an additional Cable spreader box will be required.
1 Module = 52.5mm

** 4P versions require an extra Copper Isolator Link



FUSE COMBINATION UNIT 630A-800A

630A	TP&N 4P	no fuses supplied	196303N* 196304
800A	TP&N 4P	no fuses supplied	198003N 198004
Accessories	Cable Spreader Box Copper Isolator Link Each Castell Lock (factory fitted)		19800CSB 19LK800 Suffix CLK
Modular width			12
Terminals	630A-800A		M12
Spreading room	up to 630mm ² 4 Core *		
Cable lug palm copper size	63mm wide Maximum		



BUS BAR CHAMBER

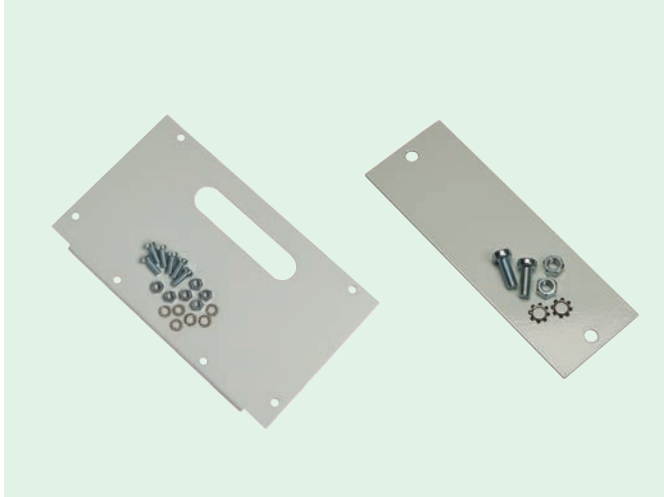
400A	TP&N	16 Mod.	1949BB
Dimensions	H 368	W 840	D 190
Terminals Pre fitted	4 x 250A & 400A Supplied		M8
Fault rated	31.5kA 1Sec		



FUSESTAR DIMENSION DETAILS

	H	W	D	D inc. handle
20-32A	225	210	136	200
63- 100A	425	263	188	263
125-200A	530	315	241	305
315-400A	800	420	241	320
630-800A	900	640	293	400

FUSESTAR PLATES AND SWITCH DISCONNECTORS



SWITCH MOUNTING & BLANK FILLER PLATES

20A-32A	4 MOD	1932MTG
63A-100A	5 MOD	19125MTG
125A-200A	6 MOD	19200MTG
315A-400A	8 MOD	19400MTG
1 Mod	Blank Filler Plate	191BL
2 Mod	Blank Filler Plate	192BL
4 Mod	Blank Filler Plate	194BL
8 Mod	Blank Filler Plate	198BL

Note: Bus Bar chamber supplied with 2 x 4 Mod, 2 x 2 Mod & 2 x 1 Mod Blank Filler Plates 1 – Mod = 52.5

250A	250A Busbar terminals - quantity 4	19TMBB
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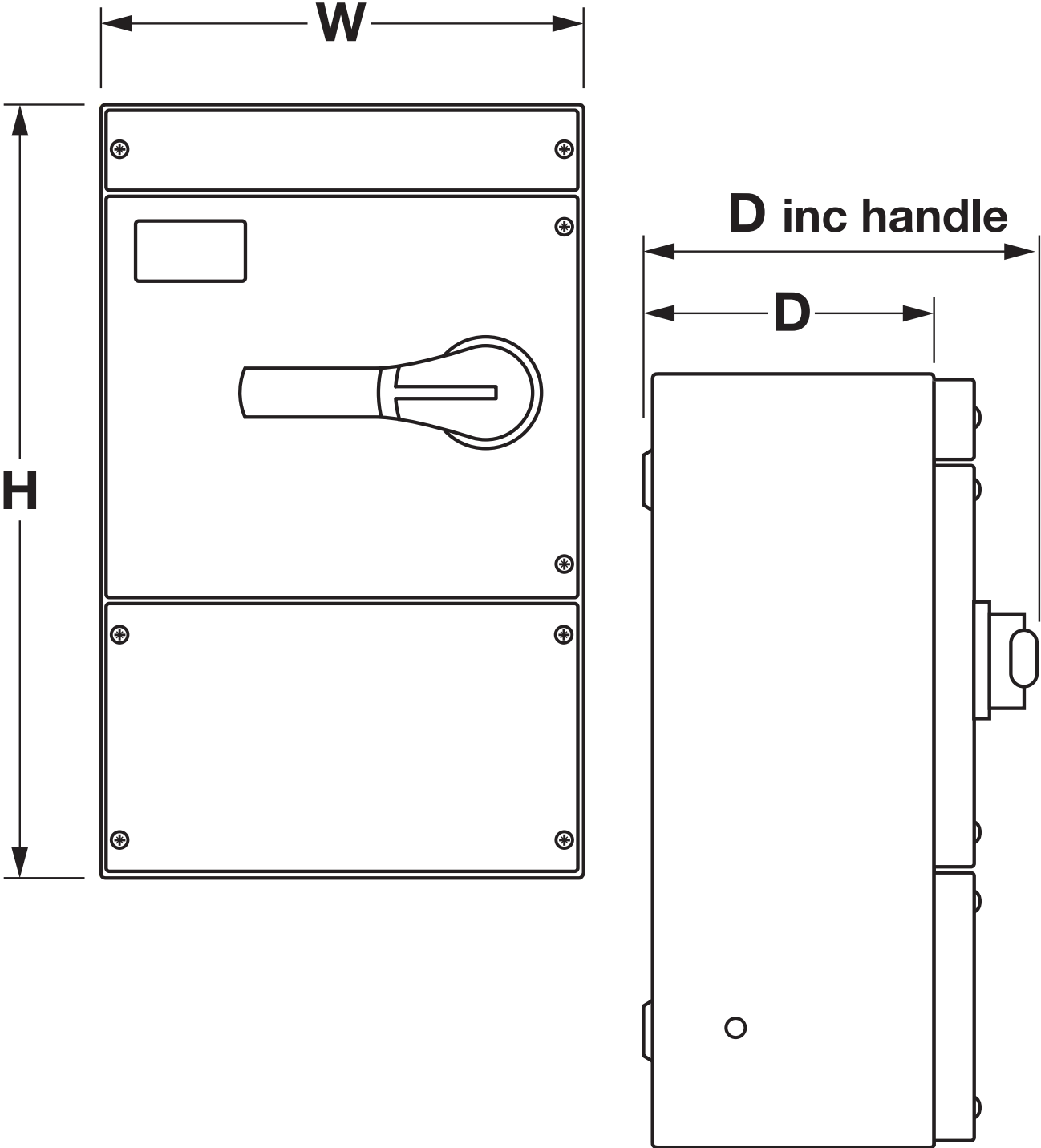


ENCLOSED SWITCH DISCONNECTORS

Rating (A)	Box Size	TP&N/SP&N	TP&SWN
20	1	190203NSW1	190204SW1
32	1	190323NSW1	190324SW1
40	1	190403NSW1	190404SW1
63	1	190633NSW1	190634SW1
63	2	190633NSW2	190634SW2
100	2	191003NSW2	191004SW2
125	2	191253NSW2	191254SW2

- Hinged Door

TECHNICAL DATA & DIMENSIONS



TECHNICAL DATA FUSESTAR HOUSED FUSE SWITCH

SPECIFICATION

- BS EN60947-3, IEC 60947-3
- Range of ratings 20A -800A in 5 frame sizes
- Pole configurations SP & N, TP & N, and 4 Pole
- Voltage rating 415V ac
- Frequency rating 50/60 Hz
- Fuse type BS88
- Fused Short Circuit, 80kA RMS

PRODUCT FEATURES

- Switching speed totally operator independent
- Handle padlockable on or off

HOUSED UNITS

- Modular enclosure design (52.5mm) with inbuilt cable spreader box
- Reversible door which opens 180°
- IP4X



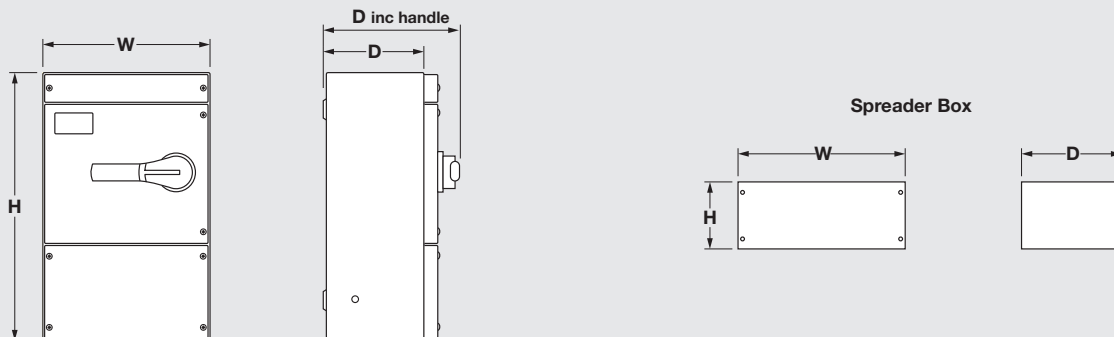
TECHNICAL DATA

	20–32A	63A	100A	125A	160A	200A	315A	400A	630A	800A
Mechanical Endurance	20,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	8,000	8,000
Ratings	A kW	A kW	A kW	A kW	A kW	A kW	A kW	A kW	A kW	A kW
415V Ie/pe	32 15	63 30	100 51	125 75	160 90	200 80	315 160	400 220	630 355	800 450

FUSE COMPARISON DATA*

Current Rating	BS 88 Reference	Lawson	GEC	Bussman
20/32A	A1	NIT	NIT	NITD
63A	A3	TIS, TIA GTIA	TIS, TIA	BAO, AAO
100A	A4 (Dia 31 max)	TCP	-	CEO
125A	A4 (Dia 31 max)	TFP	TFP	DEO, CEO
160/200A	A4 (Dia 31 max)	TFP	TFP	DEO, CEO
315A	B3, B2, B1	TFK, TF	TF	ED, DD, CD
400A	B3, B2, B1	TMF, TFK, TF, TC	TMF, TFK, TF, TC	ED, DD, CD
630A	C2, C1	TTM, TM	TTM, TM	FF, EF
800A	C3, C2, C1	TLM, TTM, TM	TLM, TTM, TM	GF, FF, EF

FUSESTAR DIMENSION DETAILS



DIMENSIONS (mm)

	H	W	D	D inc. handle		H	W	D
20-32A	225	210	136	200	SPREADER BOX	125	210	130
63A-100A	425	263	188	263	SPREADER BOX	125	263	185
125-200A	530	315	241	305	SPREADER BOX	125	315	235
315-400A	800	420	241	320	SPREADER BOX	230	420	235
630-800A	900	640	293	400	SPREADER BOX	230	640	300

* Fuse selections are indicative and maybe subject to change, please contact manufacturer for latest details.

FUSESTAR HOUSED SWITCH DISCONNECTOR

	Sheet Steel Enclosure						
RATING IN AMPS	20A	32A	40A	63A	63A	100A	125A
Rated Insulation Voltage U_i (V)	800	800	800	800	800	800	800
Dielectric Strength (kV) 50 Hz 1min	3	3	3	3	3	3	3
Shock Resistance U_{imp} (kV)	8	8	8	8	8	8	8
OPERATIONAL CURRENT I_e (A)							
415 V AC - AC21A / AC21B	20	32	40	63	80	100	125
AC22A / AC22B	20	32	40	63	80	100	125
AC23A / AC23B	20	32	40	63	80	80	80
500 V AC - AC21A / AC21B	20	32	40	63	80	100	125
AC22A / AC22B	20	32	40	63	80	100	125
AC23A / AC23B	20	32	40	40	63	63	63
690 V AC - AC20A / AC20B	20	32	40	63	80	100	125
AC21A / AC21B	20	32	40	63	80	100	125
AC22A / AC22B	20	32	40	63	80	100	100
AC23A / AC23B	20	25	25	25	50	50	50
MOTOR POWER (kW) AC 23							
415 V AC	7.5	11	11	15	18.5	37	40
500 V AC	7.5	11	15	18.5	22	37	37
690 V AC	11	11	18.5	18.5	25	30	30
FUSE TYPES TO BS88							
OVERLOAD CAPACITY							
Fuse rating gG	20	32	40	63/40	63	100	125
Short circuit current with fuses (kA Rms)	50	50	50	20/50	50	20	15
Asymmetric short time rating current (kA peak)	6	6	6	9	9	9	9
Admissible short time current 1 s. (kA Rms)	1.26	1.26	1.26	1.5	1.5	1.5	1.5
MAKING & BREAKING CHARACTERISTICS							
Breaking capacity (A Rms) 415 V AC 23 A	160	256	320	504	504	640	640
Making capacity (A Rms) 415 V AC 23 A	200	320	400	630	630	800	800
WITHSTAND							
Mechanical (number of operations) x 1000	100	100	100	100	30	30	30
Electrical (number of operations at 415V AC 23A) x 1000	3	3	3	3	1.5	1.5	1.5
CONNECTION							
Maximum Cu cable section (mm ²) lth	16	16	16	25	50	50	50
WEIGHT (kg)							
3 pole	2.00	2.00	2.00	2.00	2.50	2.50	2.50
4 pole	2.00	2.00	2.00	2.00	2.50	2.50	2.50
BOX SIZE	1	1	1	1	2	2	2

TERMINAL SIZES AND CAPACITIES

Size	Phase Width	Terminal Width	Terminal Hole Size
20A - 32A	21.5mm	6.5mm	Box Terminals Max 16mm ²
63A	32.0mm	7.0mm	Box terminals Max 25mm ²
100A - 125A	36.0mm	22.0mm	M8
160A - 200A	36.0mm	22.0mm	M8
250A	60.0mm	32.0mm	M10
315A - 400A	66.0mm	50.0mm	M10
630A	80.0mm	50.0mm	M12
800A	80.0mm	50.0mm	4 x M8 or 1 x M14

FUSE AND TERMINAL TORQUE VALUES

Thread Size	Torque Value
M4	1.35Nm
M5	5.5Nm
M6	9.5Nm
M8	17Nm
M10	28Nm
M12	45Nm

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Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication, specifications and performance data are constantly changing. Latest details can be obtained from Crabtree.

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