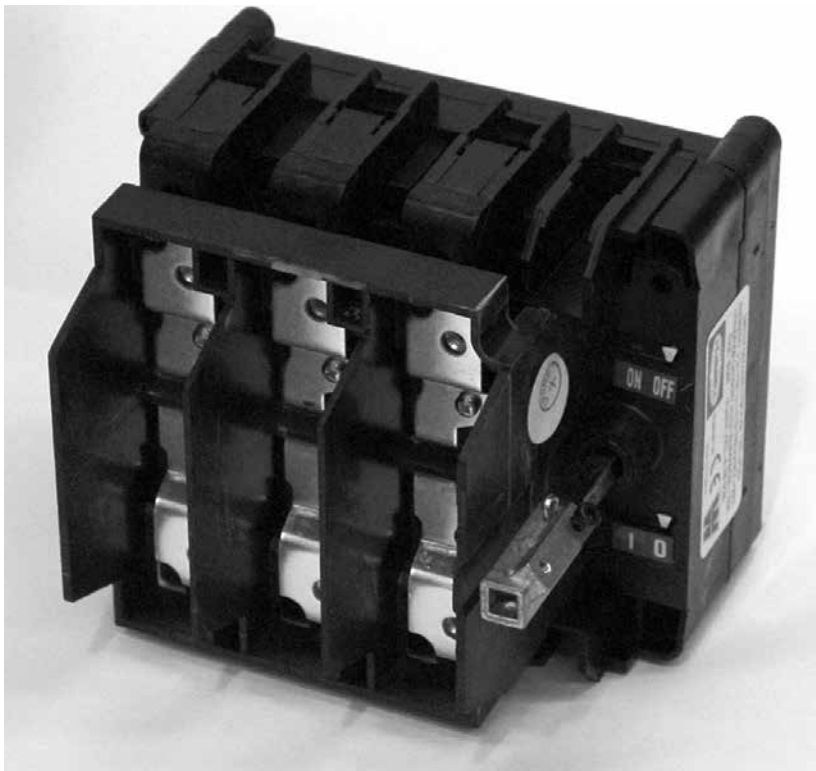


SECTION 1 FUSE SWITCHES

SWITCHES FOR BS FUSES & SOLID LINKS

- Fully comply with BSEN60947-3
- 10 Sizes up to 800 Amps
- 3, 4 and 6 Pole Versions
- Neutral Link Assemblies available
- Option of tinned contacts for sulphur laden atmospheres
- ASTA, KEMA tested

UFS FUSE SWITCHES
HAVE SWITCHED,
PROTECTED AND
ISOLATED FOR OVER
40 YEARS



- Operates safely under normal load, overload and short circuit conditions
- Powerful independent manual operation ensures contacts cannot be closed or opened slowly
- Contacts are knife type and do not 'Blow' apart on short circuit
- Incoming connection can be made to either side of switch. All switches provide isolating distance contact breaks on either side of fuse link

Fuse Switch Index / Ordering Guide

Select switch required from page 3 or 5 and determine UFS number.

For switch order codes, accessories and technical details, use the UFS reference code throughout the catalogue.

Below example would represent a 4 pole 315A fuse switch with sufficient solid links to fit to each pole; full safety shrouding for: main/load terminals and fuse/solid links; mechanical flag indicator; safety handle figure interlock kit, standard handle with padlock kit and ingress protection kit to IP65; two-circuit auxiliary blocks sufficient to switch 4 auxiliary circuits, complete with additional terminal shroud.

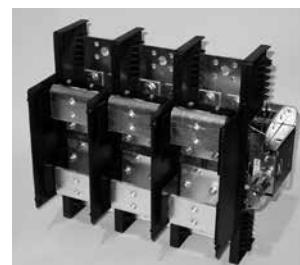
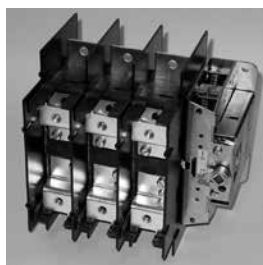
Page Number	Switch Selector	Order Codes	Qty	Example	Qty
3	UFS No. (Normal Environment)	UFS		UFS315	1
3	Switch Rating - AC	AC		AC23A	
14	Switch Rating - DC	DC			
5	UFS No. (Airborne Sulphur Environment)	UFS		-	
4 or 5	Switch Selection (Poles)			62270-1	1
4 or 5	Free Standing Neutral Link (3 Pole Only)			-	
4 or 5	Solid Links			-	
6	Safety - Safety Shroud (Terminal Cover)			62276-1	2
6	- Safety Shroud (Fuse Cover)			62274-1	1
6	- Shaft Padlock Kit			-	
6	- Interlock Kit for Figure Locks (HK Handles)			60898-1	1
6	- Interlock Kit for Figure Locks (Rod & Ball Handles)			-	
6	- Flag Indicator			62027-2	1
7 & 8	Standard Handle - Type & Colour			61554-1	1
8	- Padlock Kit			61866-1	1
8	Optional Ingress Protection Kit for IP65			61557-1	1
7 & 9	Specialist Handle - Type & Colour			-	
10	Extra Long Shafts for Handles			-	
11	Auxiliary Contacts - First Block Inner			61929-2	1
11	- Additional Blocks Outer			61929-2	1
11	- Additional Mounting Kit			-	
11	- Additional Terminal Cover			61942-1	2
12	Mechanical Interlock			-	
12	Fuse Switch Reclosure Preventers Mechanism			-	
13-17	Technical Data				
18-24	Dimensions				

NOTE 1

To use this page for a quotation request: Photocopy/print the page and write in your order codes. Fax or email into the sales office for a quote. **+44 (0)1283 500 400** or **sales@hubbell.co.uk**

Fuse Switch Selection

Fuse Switches to IEC 947-3, Fuses to IEC 269-1 (BS88-2).



FUSE SWITCH UFS NUMBER

UFS 32 A1

UFS 32

UFS 63

UFS 100 A3

UFS 160

UFS 200

UFS 315

UFS 400

UFS 630

UFS 800 C3

MOTOR CONTROL **AC23A** RATINGS 415 VOLT 3 PHASE

le amps	kW	Maximum Fuse Size	
32	15	32M63	A1
32	15	32M63	A2
63	30	63M100	A2 A3
100	55	100M160	A2 A3
160	75	200M250	A4
200	110	200M315	B1 B2
315	160	315M400	B1 B2 B3
400	230	400M500	B1 B2 B3 B4
630	355	630M670	C1 C2 C3
800	450	800	C1 C2 C3

ELECTRICAL DISTRIBUTION **AC22A** RATINGS 415 VOLT 3 PHASE

le amps	Maximum Fuse Size	
32	32	A1
50	50	A2
100	100	A2 A3
100	100	A2 A3
160	160	A4
250	250	B1 B2
355	355	B1 B2 B3
400	400	B1 B2 B3 B4
630	630	C1 C2 C3
800	800	C1 C2 C3

Fuse Switch Selection

Fuse Switch catalogue numbers include basic switch, terminal hardware and standard operating shaft.

For extra long shafts see page 10.



For fuse guide to sizes see page 16.

PANEL MOUNTED FUSE SWITCHES			LINK	SOLID LINKS	FUZE SWITCH UFS NUMBER	
3 POLE	4 POLE	6 POLE	Free Standing Neutral Link	Set of Solid Links		
62303-1	62281-1		60006-32	61968-1	UFS 32 A1	
62304-1	62282-1	-		62078-1	UFS 32	
62289-1	62290-1			62249-1	UFS 63	
62489-1	62490-1	62491-1 Note 1	60006-2	60510-1	UFS 100 A3	
62189-1	62190-1	62191-1 Note 1		62087-1	UFS 160	
62132-1	62133-1	62244-1 Note 1		60512-1-UK		UFS 200
62269-1	62270-1	62271-1 Note 1				UFS 315
62344-1	62345-1	-	60707-1		UFS 400	
62350-1	62351-1-UK	-		62359-1	UFS 630	
62371-1	62372-1	-			UFS 800 C3	

NOTE 1 → 6 pole fuse switches require double rod and ball handles to operate. Use kit 61853-1 (page 9) to convert standard handles.

Tinned Fuse Switch Selection

Fuse Switches for use in sulphur contaminated atmospheres.

In certain industries, the presence of airborne sulphur can exist. These include but are not limited to:

- Water Treatment Plants
- Sewerage Treatment Plants
- Paper manufacturing and Process Plants
- Coking Plants
- Coal Handling or Process Plants
- Chemical Manufacturing and Process Plants
- Food Process
- Oil, Gas and Refining Industries

In atmospheres containing sulphur, conventional silver plated switchgear and controlgear components are adversely affected in two ways;

- Silver sulphide is formed, thus increasing resistance and causing overheating
- In certain conditions the silver sulphide can form conducting 'whiskers' which can reduce insulation distances and create short circuit conditions

The Hubbell range of tin plates fuse switches are proven to perform without effect in sulphur laden atmospheres. The plating alloy used is the result of many years of Hubbell experience, investigation and testing.

FUSE SWITCH UFS NUMBER	FUSES			LINK	SOLID INKS
	3 Pole	4 Pole	AC22/AC23 Rating	Free Standing Neutral Link	Set of Three Solid Links
UFS 32 A1T	62352-1	62353-1	29A	60006-32	61968-1
UFS 32T	62354-1	62355-1	32A		62078-1
UFS 63T	62362-1	62314-1	63A		62249-1
UFS 100 A3T	62499-1	62500-1	90A	60006-2	60510-1
UFS 160T	62218-1	62329-1	144A		62087-1
UFS 200T	62277-1	62330-1	200A		60512-1-UK
UFS 315T	62326-1	62327-1	315A	60707-1	62359-1
UFS 400T	62363-1	62364-1	360A		
UFS 630T	62360-1	62361-1	565A		
UFS 800 C3T	62424-1	62425-1	720A		

NOTE

Hubbell's complete range of standard accessories are available for the above fuse switches. Refer to pages 6 to 12.

Safety Accessories

Shaft Padlock Kit

Functions

- Switch in OFF position Padlock can be inserted
- With Padlock inserted switch cannot be operated
- Switch in ON position Padlock cannot be inserted



Interlocking Kit For Installing Figure Locks

Notes

- Interlock CAM/fixing kit for HK handles
- Fixing Kit only for Rod & Ball handles
- Locks not supplied
- Suitable for Figure Locks

Castell part ref:
 FS K-FSB-6.4 -3
 Q K-QB-6.4-3

Fortress part Ref: BM1 + MBOB

For dimensions see page 24.



Flag Indicators

Functions

- Positive indication of switch position
- Depth adjustable
- Mounted on power pole side of switch
- **Note:** when flag fitted to UFS32-63 the max. number of auxiliary blocks is limited to 3 outer blocks only

For dimensions see page 23.



SAFETY SHROUDS		SHAFT PADLOCK	INTERLOCK KITS FOR FIGURE LOCKS		Flag indicator is supplied c/w window and bezel	FUSE SWITCH UFS NUMBER
Terminal Cover	Fuse Cover	For Basic Switch	For HK Handles	For Rod & Ball Handles		
62305-1	62306-1	61936-3	-	-	62378-1	UFS 32 A1
	62307-1					UFS 32 A1T
62248-2	62247-1	61936-2				UFS 32
						UFS 32T
3 Pole 62401-1 4 Pole 62401-2 6 Pole 62401-3	3 Pole 62394-1UK 4 Pole 62394-2 6 Pole 62394-3				62027-1	UFS 63
3/4 Pole 62135-1 6 Pole 62241-1	62134-1 (Per Pole)		60898-1 Note 1	61955-1		UFS 63T
3 Pole 62377-1 4 Pole 62377-2 6 Pole 62377-3	3 Pole 62237-1 4 Pole 62280-1 6 Pole 62291-1					UFS 100 A3
3 Pole 62275-1 4 Pole 62276-1 6 Pole 62293-1	3 Pole 62273-1 4 Pole 62274-1 6 Pole 62292-1	Included in Basic Switch Design				UFS 100 A3T
3 Pole 62348-1 4 Pole 62349-1	3 Pole 62346-1 4 Pole 62347-1				62027-2	UFS 160
						UFS 160T
3 Pole 62358-1 4 Pole 62358-2	3 Pole 62357-1 4 Pole 62357-2		60898-5			UFS 200
						UFS 200T
						UFS 315
						UFS 315T
						UFS 400
						UFS 400T
						UFS 630
						UFS 630T
						UFS 800 C3
						UFS 800 C3T

NOTE 1 → For 6 pole UFS200 / UFS315 use 60898-5

ORDERING GUIDE

Hi-Tech Fuse Switch Standard Handles

Hubbell offers a wide range of operating handles. The extensive options available provide users with a variety of degrees of protection for operators and maintenance personnel. To select the style and type of function refer to the information below. Order codes are listed on pages 8 & 9.

Moulded: All insulated construction manufactured from high impact resistant thermoplastic, impervious to oil and chemicals, with variable protection from dust and water up to IP65.

Colour choice:

- Black • Red and Yellow • Grey

Handles for UFS630 to UFS800 fuse switches fitted with double rod & ball (see page 22 for dimensions).



HS Style

HK Style

HS2000 Style

Rod & Ball: All metal construction, stainless steel arms with black gloss painted hub. Double arm fitted to handles for UFS630 to UFS800 fuse switches, with option of one shorter arm where overlap exists. (for asymmetric version see page 9) IP65 as standard (see page 22 for dimensions).



Single Arm

Double Arm

Asymmetric

Flange: All metal construction in black gloss mild steel. Designed to offer greater safety than normal defeatable handle when working in live panels. IP65. (see page 24 for dimensions).



Flange

HANDLE TYPES

INTERLOCK FUNCTIONS	Type A	Type B	Type C	Type D	Type E	Type F	Type H	Type I Internal mounted
Door INTERLOCKED in ON position	✗	✗	✗	✗	✗	✗	✗	
Door INTERLOCKED in OFF position				✗	✗			
Door FREE in OFF position	✗	✗	✗			✗	✗	
PADLOCKABLE in ON position						✗		
PADLOCKABLE in OFF position		✗				✗	✗	
PADLOCKABLE in OFF position with optional kit	✗		✗					
PADLOCKABLE in OFF position making DEFEAT function INOPERATIVE				✗	✗			
Secondary action to INTERLOCK in OFF position. PADLOCK required to maintain this position		✗						
Interlock DEFEATABLE in ON position			✗		✗		✗	
Interlock DEFEATABLE in OFF position				✗	✗			
HANDLE is permanently connected to Fuse Switch							✗	✗

Standard Moulded Handles for Fuse Switches

For handle type and function see page 7.



NOTE 1

HS2000 handles can be modified to padlock in the ON position.

Type A	Type B	Type C	Type D	Type E	Type F
HS2000 (IP65) Note 1 Black 62339-1 Red/Yellow 62339-1RY HS (IP54) Grey 61935-1	HS (IP54) Grey 61935-2	HS (IP54) Grey 61935-3	HS2000 (IP65) Note 1 Black 62339-3 Red/Yellow 62339-3RY HS (IP54) Grey 61935-4	HS2000 (IP65) Note 1 Black 62339-4 Red/Yellow 62339-4RY	HS (IP54) Grey 61935-7
HK (IP41) Grey 61554-1 Padlock Kit Grey Single 61866-1 Multi 61866-2	HK (IP41) Grey 61554-2 Padlock Kit included	HK (IP41) Grey 61554-3 Padlock Kit Grey Single 61866-1 Multi 61866-2	HK (IP41) Grey 61554-10 Padlock Kit included	-	HK (IP41) Grey 61554-1 plus 61866-7
Double Arm (IP65) Padlock Kit included Grey 62337-1-UK	Double Arm (IP65) Padlock Kit included Grey 62337-2	Double Arm (IP65) Padlock Kit included Grey 62337-3	Double Arm (IP65) Padlock Kit included Grey 62337-10	-	-
	OPTIONAL Ingress Protection Kit for IP65 HS 61940-1 HK 61557-1				OPTIONAL Ingress Protection Kit for IP65 HS 61940-1 HK 61557-1

FUSE SWITCH UFS NUMBER

UFS 32 A1
UFS 32 A1T

UFS 32
UFS 32T

UFS 63
UFS 63T

UFS 100 A3
UFS 100 A3T

UFS 160
UFS 160T

UFS 200
UFS 200T

UFS 315
UFS 315T

UFS 400
UFS 400T

UFS 630
UFS 630T

UFS 800 C3
UFS 800 C3T

Specialist Application Handles for Fuse Switches

FUSE SWITCH UFS NUMBER
UFS 32 A1 UFS 32 A1T
UFS 32 UFS 32T
UFS 63 UFS 63T
UFS 100 A3 UFS 100 A3T
UFS 160 UFS 160T
UFS 200 UFS 200T
UFS 315 UFS 315T
UFS 400 UFS 400T
UFS 630 UFS 630T
UFS 800 C3 UFS 800 C3T

ROD/BALL HANDLE		FLANGE MOUNTED	INTERNAL MOUNTED	DOUBLE ARM KIT
TYPE A	TYPE B	TYPE H	TYPE I	
-	-	-	-	-
Single arm 61572-2 (IP65) Padlock kit included Note 1	Single arm 61572-4 (IP65) Padlock kit included Note 1	IP65 61979-3	61915-1	To convert standard moulded handles to double arm 61853-1
Single arm 61572-2 (IP65) Padlock kit included	Single arm 61572-4 (IP65) Padlock kit included			
IP65 Standard 62337-1 Asymmetric 62431-1 Padlock Kit included	IP65 Standard 62337-2 Asymmetric 62431-2 Padlock Kit included	-	-	-

6mm sq shaft
8mm sq shaft
10mm sq shaft

NOTE 1

UFS 100 to UFS315: When installing a single arm rod & ball handle, replace the standard shaft supplied in switch with 61930-1 (170mm). For extra long shafts, see page 10.

Extra Long Shafts for Handles

For handle type and function see page 7.



EXTRA LONG SHAFTS FOR HANDLES

LENGTH					
SHAFT SUPPORT OUTRIGGER C/W 320MM SHAFT		225mm Special	320mm Special Note 1	500mm Special Note 1	600mm Special Note 1
Distance between base & inside of door	Part No.				
-	-	HHL46188	-	-	-
416mm	60793-3		HHL44093	HHL46051	HHL46052
430mm			HHL44093 Note 2	HHL46051 Note 2	HHL46052 Note 2
510mm	62090-3		HHL46272	-	-

EXTRA LONG SHAFT FOR SINGLE ARM ROD/BALL HANDLE

320mm Special Note 1	FUSE SWITCH UFS NUMBER
-	UFS 32 A1 UFS 32 A1T
-	UFS 32 UFS 32T
-	UFS 63 UFS 63T
61930-2	UFS 100 A3 UFS 100 A3T
	UFS 160 UFS 160T
-	UFS 200 UFS 200T
-	UFS 315 UFS 315T
-	UFS 400 UFS 400T
-	UFS 630 UFS 630T
-	UFS 800 C3 UFS 800 C3T

NOTE 1 Shafts 320mm and above should be supported

NOTE 2 6 pole switches need 10mm sq shafts - max length permissible 320mm

ORDERING GUIDE

Auxiliary Contacts for Fuse Switches



All blocks are 2-circuit, 2 normally open electrically separate contacts which can be easily changed to normally closed.

One terminal cover is provided with each block. For dimensions see page 21.

DC CONTACT RATING UTILIZATION CATEGORY DC1

VOLTAGE	MAKE	BREAK	THERMAL
up to 250v	-	100w	6A

FUSE SWITCH UFS NUMBER

UFS 32 A1
UFS 32 A1T

UFS 32
UFS 32T

UFS 63
UFS 63T

UFS 100 A3
UFS 100 A3T

UFS 160
UFS 160T

UFS 200
UFS 200T

UFS 315
UFS 315T

UFS 400
UFS 400T

UFS 630
UFS 630T

UFS 800 C3
UFS 800 C3T

MAXIMUM BLOCKS PER SWITCH	FIRST BLOCK INNER	ADDITIONAL BLOCKS OUTER	ADDITIONAL MOUNTING KIT	ADDITIONAL TERMINAL COVER
4	61929-1		-	
8 Notes 1, 2 & 3	61929-2	61929-2	62024-1	61942-1
			62245-1	

NOTES

1. Maximum of 4 blocks can be mounted on the switch end plate (power pole side). The separations of the normally open auxiliary contact occurs 8 msec before main contact separation.

2. 4 blocks can be mounted on the mechanism end plate (operating handle side). The separation of the normally open auxiliary contact occurs over 24 msec before main contact separation.

3. Additional mounting kits accept up to 4 additional blocks making total of 12 circuits. Mounted on the mechanism end plate.

AC CONTACT RATING UTILISATION CATEGORY AC-15

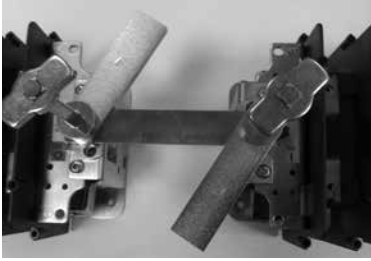
AC CONTACT DESIGNATION A600

RATED OPERATIONAL VOLTAGE	RATED OPERATIONAL CURRENT
120 Volts	6 Amps
240 Volts	3 Amps
480 Volts	1.5 Amps
600 Volts	1.2 Amps
VA Ratings - Make 7200 Break 720	
Thermal Rating Ith 10 Amps	

Mechanical Interlocks

Mechanical Interlocks

Interference mechanical interlock between 2 switches preventing the operation on one switch whilst the other switch is closed.



62021-1	
62021-2	

Mechanical Interlock Functions

Handle Position	Switch 1	Switch 2
Position 1	Closed	Open
OFF	Open	Open
Position 2	Open	Closed

Fuse Switches

for Reclosure Preventers

Hubbell offer a unique device to mechanically interlock a UFS Fuse Switch to a Hi-Tech UCA Contactor.

The function of this device is to allow the fuse switch to be opened in the case of a contactor welding but then prevent the fuse switch from closing until the contactor is open.

For dimensions see page 23.



FUSE SWITCH RECLOSURE PREVENTOR MECHANISM
62025-1
62025-2

FUSE SWITCH UFS NUMBER
UFS 32 A1 UFS 32 A1T
UFS 32 UFS 32T
UFS 63 UFS 63T
UFS 100 A3 UFS 100 A3T
UFS 160 UFS 160T
UFS 200 UFS 200T
UFS 315 UFS 315T
UFS 400 UFS 400T
UFS 630 UFS 630T
UFS 800 C3 UFS 800 C3T

NOTES

UCA Contactor and Contactor Reclosure Preventer Mechanism to be selected from Contactor section, page 25.
Linking cable is supplied with Contactor Reclosure Preventer Mechanism.

ORDERING GUIDE

Technical Data - Electrical Details

Fuse Size	Rated Insulation Voltage Pollution Degree. Note 1	Dielectric Strength 50Hz 1 Min	Rated Impulse Withstand Voltage	Rated Enclosed Thermal Current (with Fuses). Notes 1&2	With Maximum Fuse Power Dissipation	Rated Enclosed Thermal Current (with Solid Links). Note 2	Operational Current AC22A		Operational Current AC23A		Operational Power AC23A (Based on nominal Full Load Current)		
							380/415V	380/415V	500/550V	600/690V	415V	550V	660V
ELECTRICAL PERFORMANCE													
A1	690	2.5	8.0	32	3.5	50	32	32	32	20	15	11	11
A2	690	2.5	8.0	50	5.0	50	50	32	32	20	15	22	11
A3	690	2.5	8.0	100	8.5	100	100	63	45	45	30	30	37
A3	660	2.5	8.0	100	8.5	100	100	100	63	63	55	45	55
A4	690	2.5	8.0	160	14.5	200	160	160	125	80	75	90	75
B2	690	2.5	8.0	250	19.0	315	250	200	200	200	110	150	160
B3	690	2.5	8.0	355	28.0	400	355	315	315	250	160	220	275
B4	690	2.5	8.0	400	32.0	500	400	400	400	-	220	-	-
C3	690	2.5	8.0	630	50.0	800	630	630	-	-	355	-	-
C3	690	2.5	8.0	800	64.0	800	800	800	-	-	450	-	-
	V	kV	kV	A	W	A	A	A	A	A	kW	kW	kW

NOTE

1. At these ratings the external copper connections must not be less than those specified in IEC947-3.
2. The ratings are for switches in ambient temperatures up to 40°C. Above this temperature, derate the switches with solid links by 5% per 5° and switches with fuses in accordance.
3. The operational current and category correspond to a breaking capacity of AC22A 3xl 0.45pf & AC23A UFS32A1-100 8xl 0.45pf, UFS160up 8xl 0.35pf.

Rated Conditional Short Circuit rms 415V. Note 4	Corresponding max. allowed fuse cut off currents peak values. Note 5	AC23A operational performance, number of operations	Operational Current DC21 Note 6		Operational Current DC22 Note 6		Operational Current DC23 Note 6			
			Connection Diagram A.250V	Connection Diagram B.400V	Connection Diagram A.250V	Connection Diagram B.400V	Connection Diagram A.250V	Connection Diagram B.400V	Connection Diagram B.500V	Connection Diagram C.500V
80	7.5	10,000	32	32	32	32	32	32	15	32
80	10	10,000	32	32	32	32	32	32	15	32
80	12	10,000	80	80	80	80	80	80		80
80	16	10,000	100	100	100	100	100	100	75	100
80	27	8,000	170	170	170	170	170	170	125	170
80	33	8,000	315	315	315	315	315	315	200	315
80	37	8,000	315	315	315	315	315	315	200	315
80	47	5,000	400	400	400	400	400	400	315	400
80	61	5,000	630	630	630	630	630	630	630	630
80	61	3,000	630	630	630	630	630	630	630	630
kA	kA		A	A	A	A	A	A	A	A

DC CONNECTIONS

Diagram 'A'

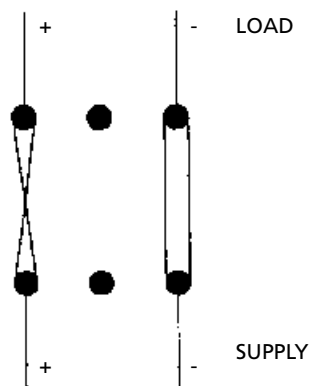


Diagram 'B'

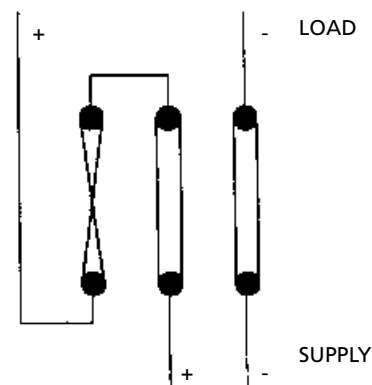
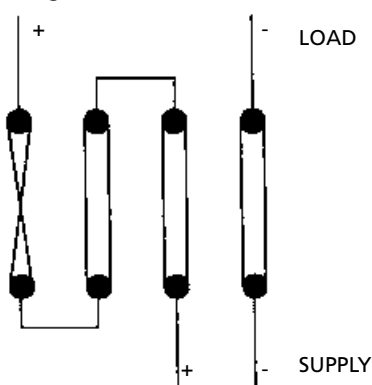


Diagram 'C'



- The rated conditional short-circuit currents quoted were used for proving tests. The switches are therefore rated for use on any prospective short circuit not exceeding the value tested.
- Fuse links must be selected with due regard to the prospective fault current of the system and the maximum peak cut-off current shown, which must not be exceeded.
- DC21 - Switching of resistive loads, DC22 - Switching of mixed resistive and inductive loads, DC23 - Switching of inductive loads (e.g. series motors).

Technical Data - Mechanical Details

FUSE SWITCH UFS NUMBER

UFS 32 A1
UFS 32 A1T

UFS 32
UFS 32T

UFS 63
UFS 63T

UFS 100 A3
UFS 100 A3T

UFS 160
UFS 160T

UFS 200
UFS 200T

UFS 315
UFS 315T

UFS 400
UFS 400T

UFS 630
UFS 630T

UFS 800 C3
UFS 800 C3T

Operating Torque (typical for 3 pole Sw).	Terminal Bolt Size. Note 7	Terminal Tightening Torque. Note 7&8	Fuse Bolt Tightening Torque. Note 7	Creepage distance, Phase-Phase/Phase-Earth	Clearance distance, Phase-Phase/Phase-Earth	Isolation distance between contacts	Weight of basic Switch 3 Pole	Maximum size of connections, Cable C.S.A.	Cable size when using crimp type Spade Terminal ANE-3-U4	1 Connection strip width maximum	Minimum c.s.a of external connections at AC23A rating	Max padlock hasp for shaft padlock
MECHANICAL DETAILS												
3	Cage Clamp	1.35	1.4	10/8	10/8	16	0.54	10	16	8.5	2.5	6
3	Cage Clamp	1.35	2.2	10/8	10/8	16	0.61	10	16	8.5	6	6
5	Cage Clamp	3.5	2.2	25/24	25/20	20	1.5	35	-	7.0	16	6
12	M6	4.5	2.2	24/14	20/14	14	2.4	95	-	20	35	8
16	M6	4.5	11.0	25/14	24/14	14	3.5	95	-	26	70	8
27	M10	19.0	11.0	40/18	20/34	14	6.5	185	-	40	95	8
27	M10	19.0	11.0	40/18	20/34	14	7.25	240	-	40	185	8
27	M12	19.0	11.0	40/18	20/34	14	9.5	-	-	50	240	8
27	1 x M16 4 x M8	62.0 11.0	19.0	40/18	20/34	14	19.25	-	-	75	400	8
27	1 x M16 4 x M8	62.0 11.0	19.0	40/18	20/34	14	19.25	-	-	75	500	8
Nm	-	Nm	Nm	mm	mm	mm	Kg	mm ²	mm ²	mm	mm ²	Ømm

NOTES

- Torque values defined relate to nuts and bolts with clean dry threads.
- On UFS100 upwards, where main connections are of bolted type, care must be taken not to impose a heavy twisting force on the copper switch palms. The twisting load should be taken by a spanner holding the nut at the rear of the palm.

Motor Start & Distribution Fuse Sizes

Relating to Hubbell Fuse Switches

Maximum GEC Fuse	Maximum Bussmann Fuse	MEM Fuse	Lawson Fuse	FUSE SWITCH UFS NUMBER
NET32 NET32M63	NITD32 NITD32M63	32SA2 32SA2M63	NIT32 NIT20M32	UFS 32 A1 UFS 32 A1T
TIS50 TIA32M63	AA032 AA032M63	32SB3 50SB4 32SB3M63	TIA32 TIA32M63	UFS 32 UFS 32T
OS100 TIS63M100	OSD100 BAO63M100	100S0 63SB4 M100	TIS100 TIS63M100	UFS 63 UFS 63T
OS100 OS100M160	OSD100 OSD100M160	100S0 63SB4M100	TIS100 TIS100M125	UFS 100 A3 UFS 100 A3T
TFP200	DEO200 DEO200M250	125SD5 100SD5M160	TFP200 TFP200M250	UFS 160 UFS 160T
TF200 TF200M315	ED250 DD200M315	200SF6M250 250SF6	TF200 TF200M315	UFS 200 UFS 200T
TKF315 TKF315M355	ED355 ED315M400	315SF7 355SF8	TKF315 TKF315M400	UFS 315 UFS 315T
TMF400 TMF400M500	ED400 ED400M500	400SF8	TMF400 TMF400M500	UFS 400 UFS 400T
TLM800 TTM630M670	GF800	800SH10	TLM800	UFS 630 UFS 630T
TLM800	GF800	800SH10	TLM800	UFS 800 C3 UFS 800 C3T

OLD WATFORD UFSB TO NEW UFS FUSE SWITCH

COMPARISON CHART

Hubbell have provided switch solutions for over four decades. The old WATFORD range of fuse switches are common in installations dating back to the 1970's, some are now found to be reaching the end of their practical service life.

Where spare parts are exhausted, and old switches are found to be in need of replacement we offer old to new switch adapter plates. These plates ensure that the operating shaft position is maintained to the handle and therefore disruption to the panel door is minimal. Often the existing handle can be used on the new switch, or can be exchanged to include modern padlock features.

For replacement tinned plated switches refer to switch ratings on Page 5.

FUSE SWITCH UFS NUMBER	REPLACEMENT 3 POLE FUSE SWITCH	CURRENT RATING AC23 415V	KW RATING AC23 415V	ADAPTER PLATE NOTE 2	OBSOLETE FUSE SWITCH	OBSOLETE SWITCH PART NUMBER	OBSOLETE SWITCH RATING NOTE 1
UFS 32 A1	-	-	-	-	-	-	-
UFS 32	62304-1	32A	15	62545-1	UFS3	60696-1	42A
UFS 63	62289-1	63A	30	62546-1	UFS3	60696-1	42A
UFS 100 A3	62489-1	100A	55	62548-1	UFS6	62156-1	63A
	62489-1	100A	55	62577-1	UFS13	62157-1	125A
UFS 160	62189-1	160A	75	62549-1	UFS13	62157-1	125A
UFS 200	62132-1	200A	110	62550-1	UFS25	62158-1	200A
UFS 315	62269-1	315A	160	62551-1	UFS30	62159-1	250A
UFS 400	62344-1	400A	230	62552-1	UFS40	62080-1	400A
	62344-1	400A	230	62553-1	UFS80	62080-1	550A
UFS 630	62350-1	630A	355	62554-1	UFS80	62083-1	550A
UFS 800 C3	-	-	-	-	-	-	-

Please contact the sales office for advice on the following:

- Auxiliary switches and accessories; as the old accessories will not fit the new switch.
- For other old Hubbell / Watford switches not listed above.
- In addition to the standard adapter plates we have developed separate solutions for panel boards manufactured by Laurence Scott & Electromotors of Norwich (LSE).

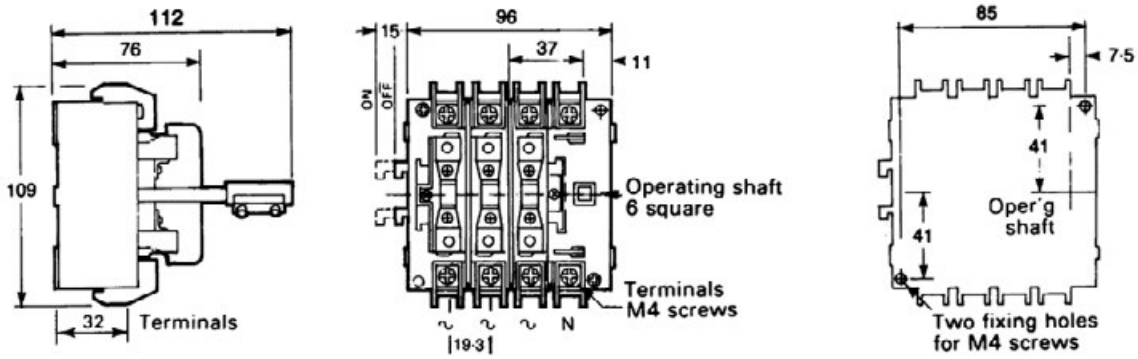
NOTES

1. Ratings shown are maximum when fitted with BS fuse links.
2. If using adapter plates with tinned plated fuse switches please observe the switch ratings.

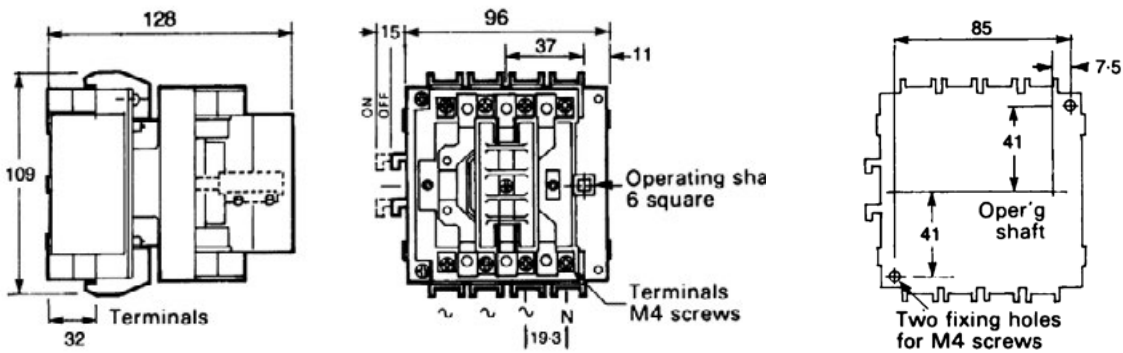
Technical Data - Fuse Switches

Dimensions in millimetres

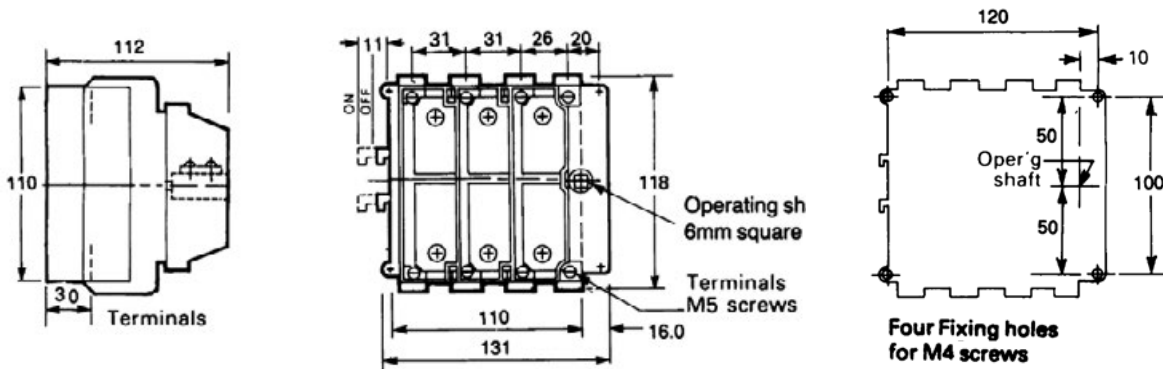
UFS32A1



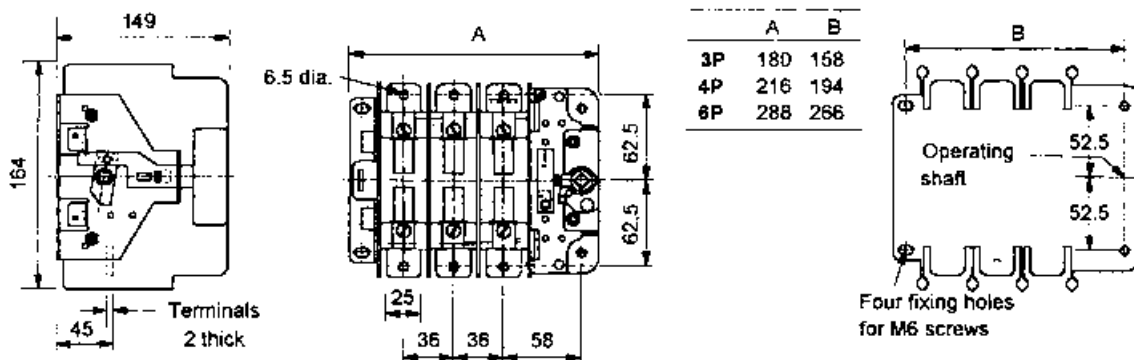
UFS32



UFS63



UFS100A3

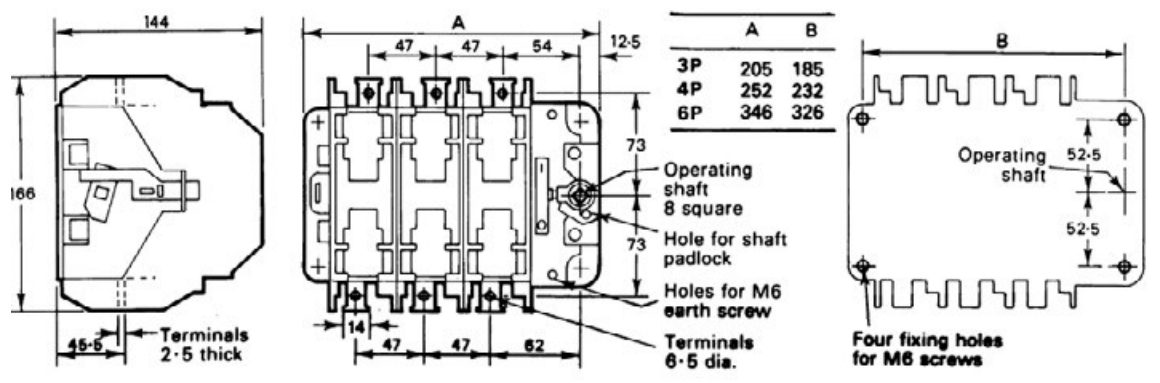


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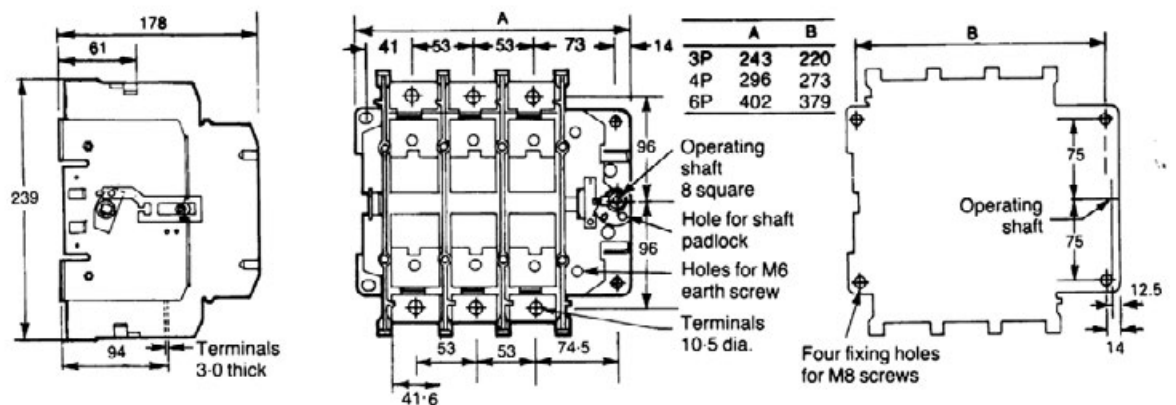
Technical Data - Fuse Switches

Dimensions in millimetres

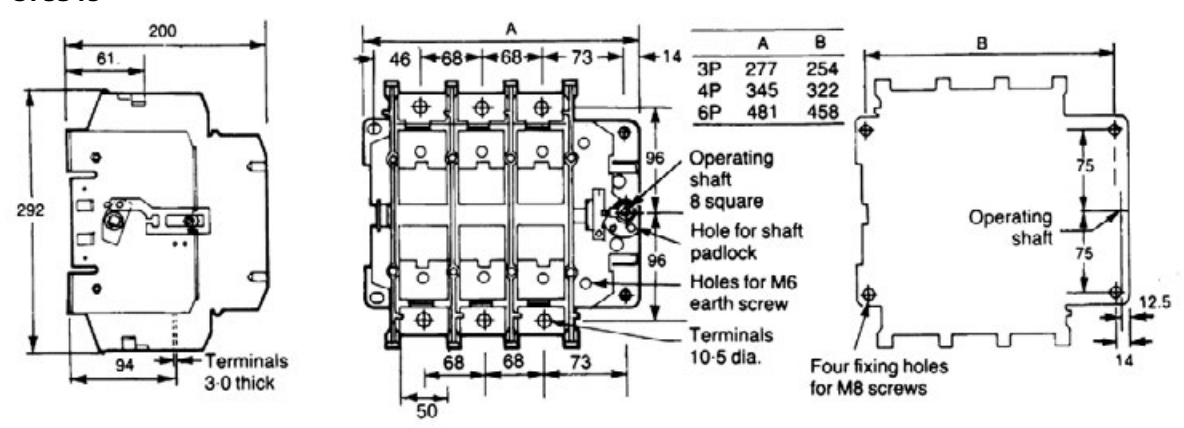
UFS 160



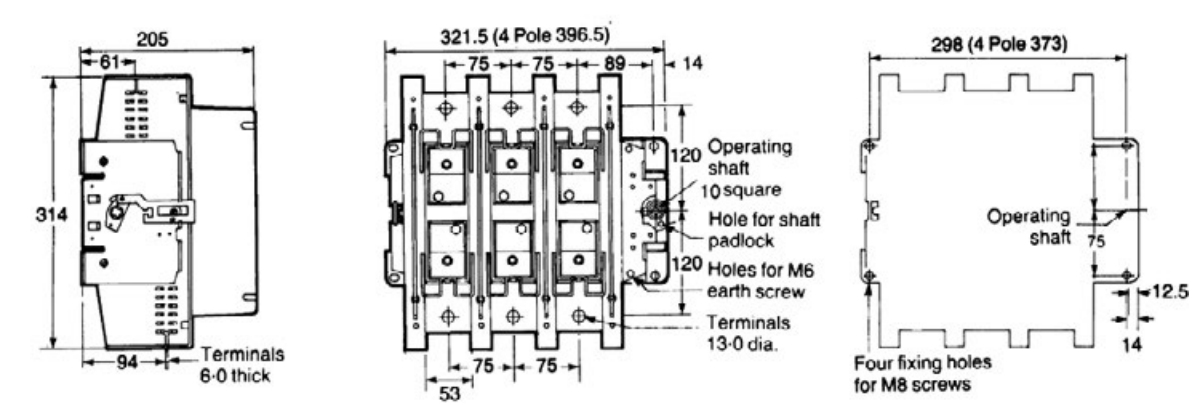
UFS200



UFS315



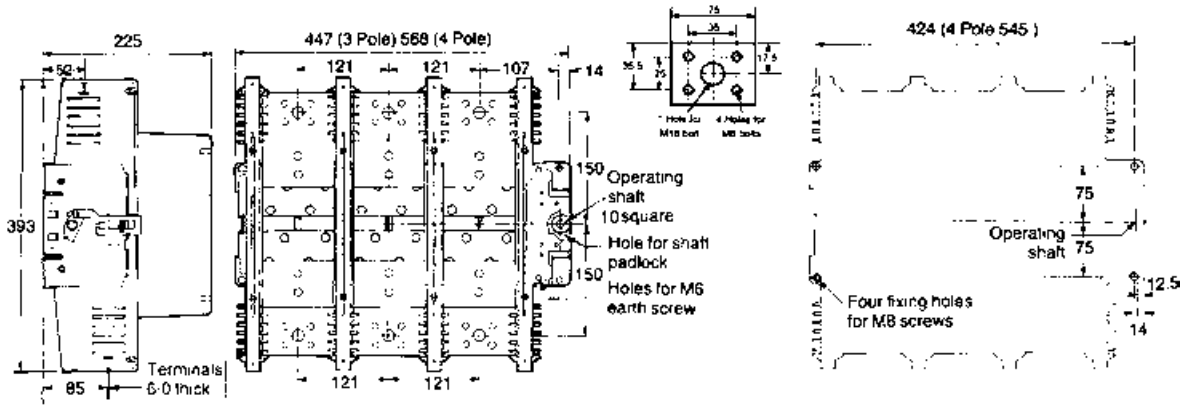
UFS400



Technical Data - Fuse Switches & Bolted Neutrals

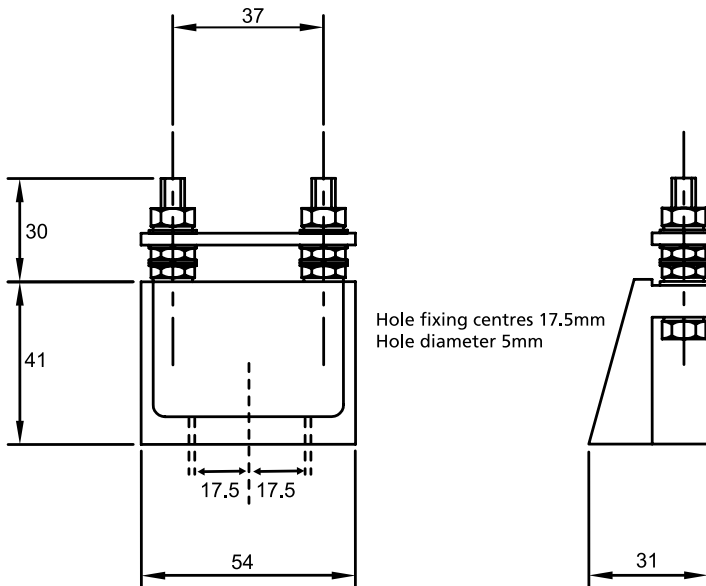
Dimensions in millimetres

FUSE SWITCHES - UFS630 & UFS800C3

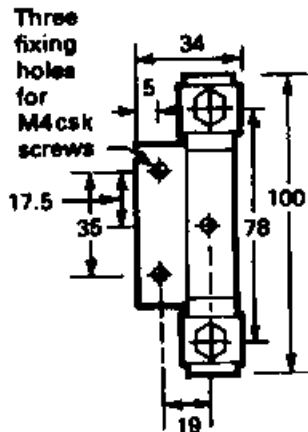


BOLTED NEUTRALS - FREE STANDING

UFS32A1 & UFS32

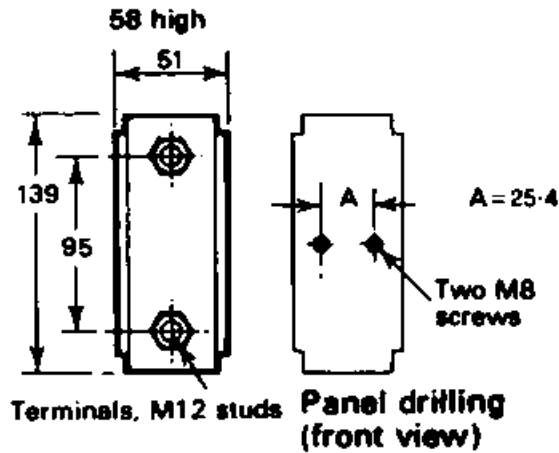


UFS63 to UFS315



Panel drilling (front view)

UFS400 & UFS630



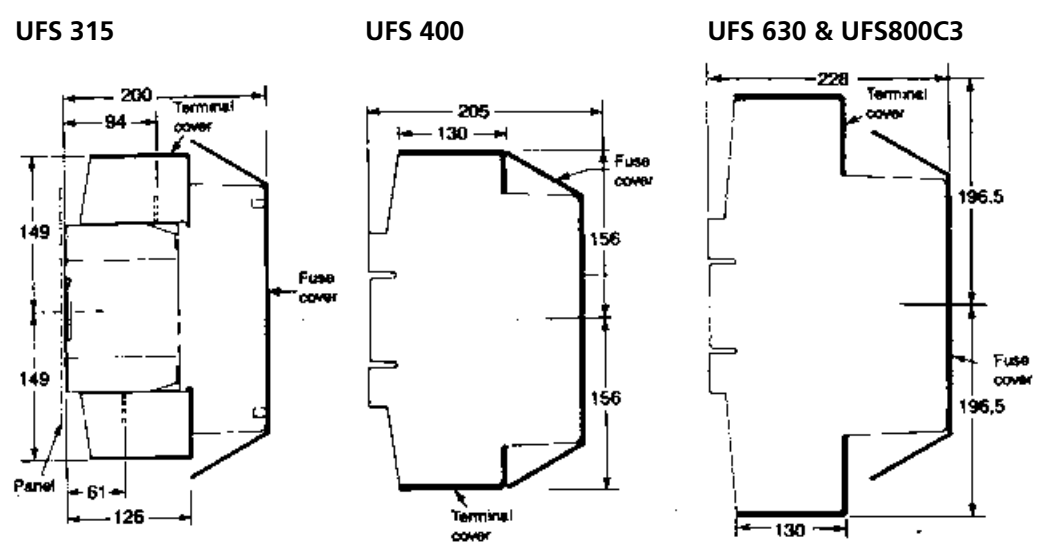
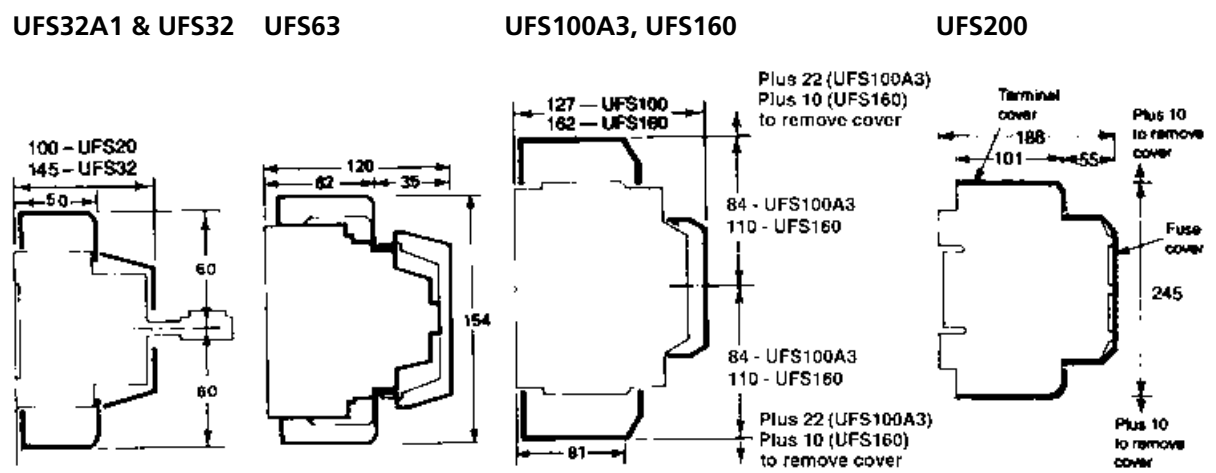
Panel drilling (front view)

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Technical Data - Safety Covers & Auxiliary Contacts

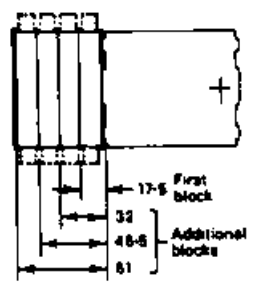
Dimensions in millimetres

SAFETY COVERS

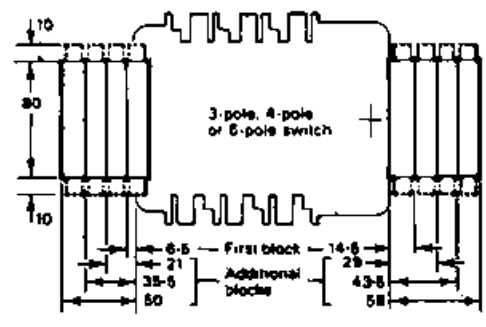


AUXILIARY CONTACTS

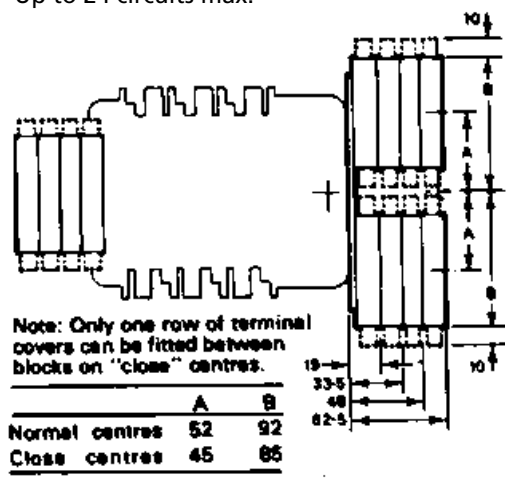
UFS32A1 to UFS63
Up to 8 circuits max.



UFS100A3 to UFS800C3
Up to 16 circuits max.



Up to 24 circuits max.

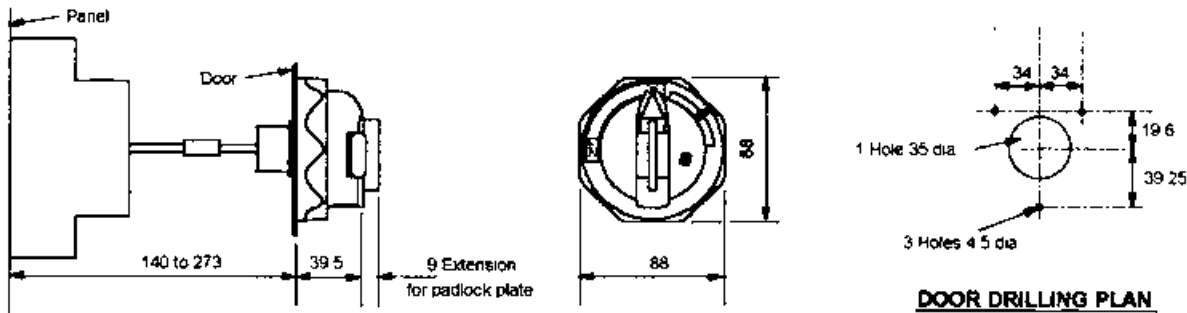


Technical Data - Operating Handles

Dimensions in millimetres

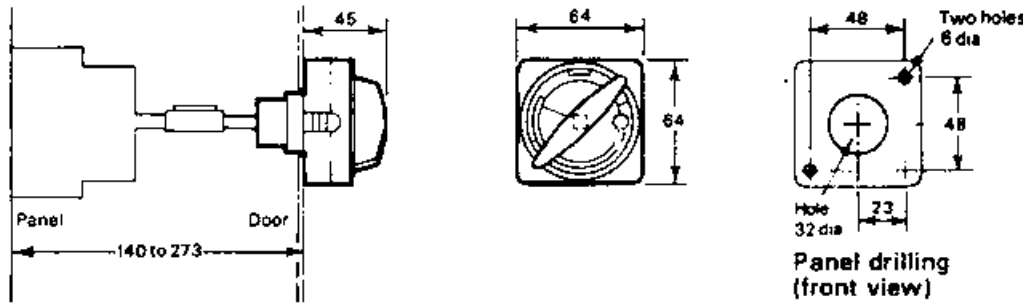
OPERATING HANDLES - HS2000

For UFS32A1, UFS32 & UFS63 Switches



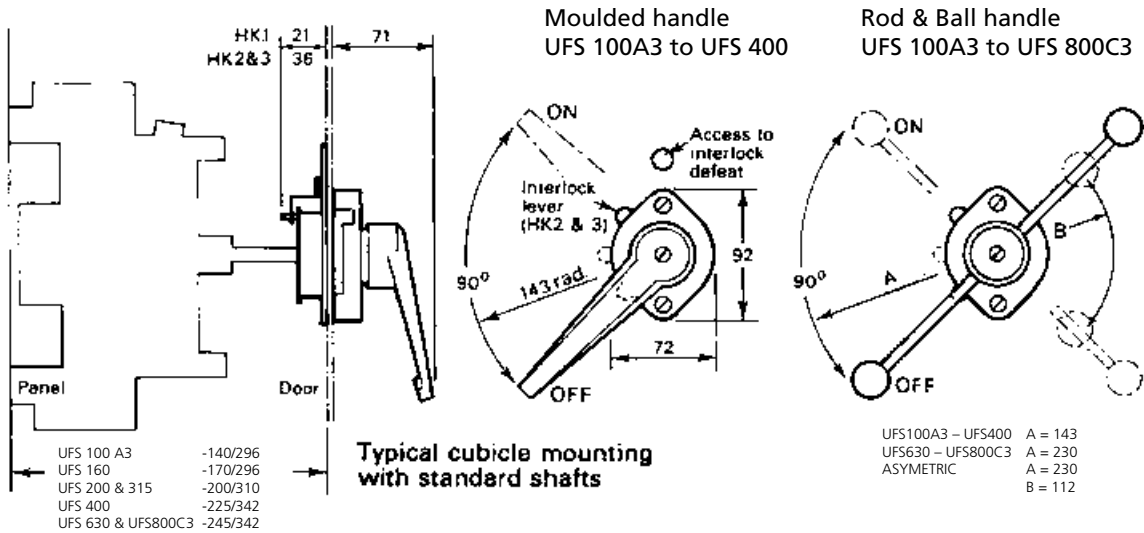
TYPE HS

For UFS32A1, UFS32 & UFS63 Switches

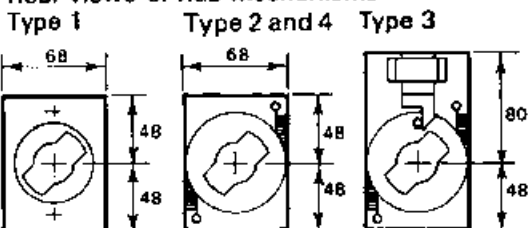


TYPE HK

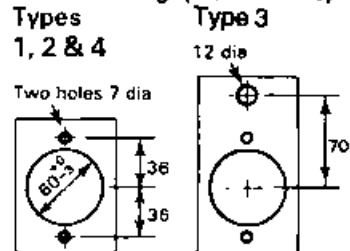
For UFS100A3 to UFS800C3 Switches



Rear views of hub mechanisms



Panel drilling (front views)



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Technical Data - Flag Indicators & Mechanical Interlocks

Dimensions in millimetres

FLAG INDICATORS - UFS32A1 to UFS800C3

UFS32A1 to UFS63 - 226 to 273
 UFS100A3 to UFS160 - 210 to 257
 UFS200 to UFS800C3 - 262 to 309

9.5 min. clearance

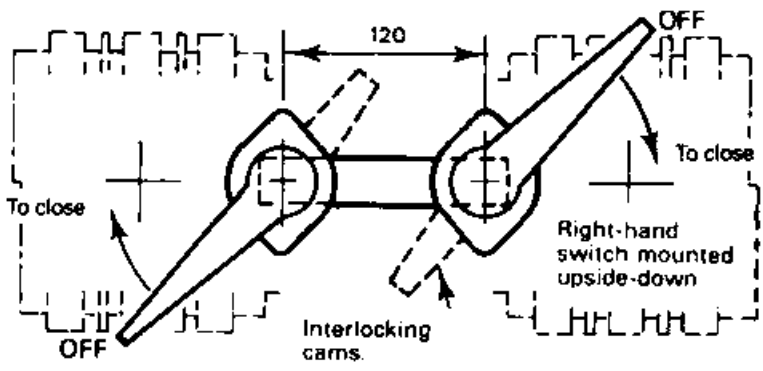
26 dia hole in door for indicator window

Operating shaft centre

Drilling detail for Flag indicator Observation window

UFS	3 POLE	4 POLE	B	C
32A1	106		14	26
32	106		14	26
63	134		14	26
100A3	168	204	27	26
160	195	243	27	26
200	231	284	25	26
315	265	333	25	26
400	309	384	25	26
630	435	556	25	26
800C3	435	556	25	26

MECHANICAL INTERLOCKS



RECLOSURE PREVENTERS UFS100A3 to UFS800C3

