

A complete range of Fuse Switch & Switch Fuse units are offered to suit varied power distribution applications. The heavy duty Fuse Switches are fully type tested with short circuit breaking capacity of 80 KA at 415V suitable for utilisation category AC-22A/AC-23A. Four frame sizes cover the full range.

The Switch Fuse units are suitable for utilisation category AC-22A.

**Range :**

Fuse Switch : 63A to 800A in TPN & FP Execution

Switch Fuse : 16A to 63A in SPN / DP Execution

16A to 320A in TPN Execution

**Specification :**

Conforms to IEC:60947-1&3 / IS:13947 - 1&3

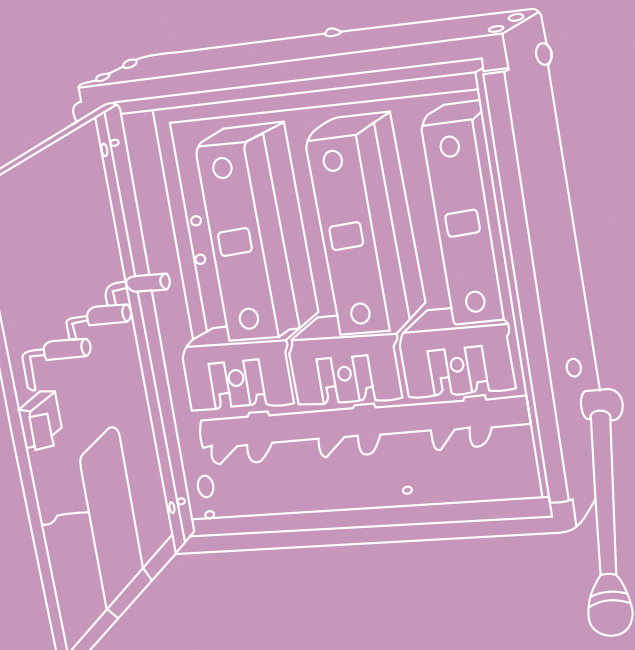
**Features :**

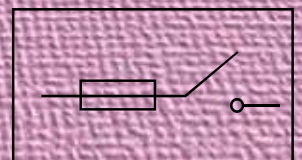
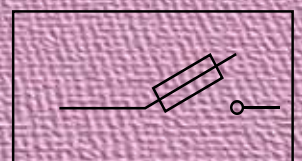
**Fuse Switches**

- Double break with side handle operation
- Positive indication of contacts
- Suitable for surface mounting
- Door interlock facility
- Sheet steel enclosure duly phosphatised and powder painted

**Switch Fuses**

- Side handle operation
- Suitable for surface mounting
- Sheet steel enclosure duly phosphatised and powder painted
- Provision of conduit knockouts and detachable gland plates.





## General Purpose Fuse Switch & Switch Fuse

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### Construction

#### Fuse Switch

Fuse Switch units are fitted with sturdy side operating handle which drives the quick make-break mechanism incorporating operating springs. Liberal sized silver plated terminals, suitable for aluminium cable/bus-bar termination, are provided with terminal cover shields to prevent any accidental contact with live metal parts. Positive ON-OFF indication is provided on the switch door.

#### Contacts

Contacts are made of electrolytic copper, electro-plated with silver, for better contact and greater resistance to corrosion. Specially designed female contacts ensure low contact resistance and better arc-control.

#### Fuses

Fuse switches are designed for use with HBC Cartridge fuselinks conforming to IS:13703.

#### Enclosures

The enclosure is made of sheet steel, rust protected, phosphatized and powder coated. They are fitted with removable top and bottom end plates provided with knock-outs for bus bars/cables entry. Front accessible door, fitted with dust-excluding gasket, is interlocked to prevent opening when the switch is in 'ON' condition. They are suitable for surface mounting.



#### Switch Fuse

Switch Fuse Unit comprises of vitreous steatite porcelain rewirable fuses or HBC fuse fittings complete with their conducting parts. The switch is fitted with sturdy side operating handle with quick make-break type mechanism.

#### Contacts

Contacts are made of electrolytic copper, silver-plated. The fixed contacts are provided with removable shield.

#### Fuses

Switch Fuse units are provided with rewirable fuse or HBC Fuse Links.

#### Enclosures

The Enclosure is made of sheet steel duly phosphatised and power-coated. They are provided with conduit knock-outs and have detachable gland plates. Door interlock is provided to prevent opening when the switch is in 'ON' condition.



Technical Information - Fuse Switch



Rating Thermal	AC-23 Isolating Switch rating	AC-22 Fuse Switch rating	AC-23 Fuse Switch rating	Suggested Fuse Type	AC-23 Motor Switch rating	Mechanical Endurance (Operating cycles)
63A	80A	80A	63A	H TS	28 KW	12,000
100A	125A	125A	100A	H TSD	45 KW	12,000
200A	250A	250A	200A	H TSF	90 KW	10,000
320A	400A	320A	320A	H TSK	150 KW	10,000
400A	500	460A	400	H TSMF	185 KW	10,000
500A	630A	630A	500A	H TTM	225 KW	10,000
800A	800A	750A	630A	H TLM	300 KW	6,000

Technical Information - Switch Fuse



Rating	Short Time with Stand Current (1 sec)	Short Circuit Making Capacity	Rated fused Short Circuit Current	AC-21 Switch Rating at 415V, AC	AC-22 Switch Rating at 415V, AC	AC-23 Motor Rating	Recommended Fuses (for Non-rewirable types)
16A	700A	4.6 KA	45 KA	20A	16A	5.5 KW	NS
	1200A	7.2 KA	45 KA	32A	32A	11 KW	TIA
63A	2200A	8.4 KA	65 KA	80A	63A	22 KW	TIA/TIS
100A	4000A	9.8 KA	65 KA	125A	100A	41 KW	TCP
200A	--	--	--	200A	--	55 KW	--
320A	--	--	--	320A	--	70 KW	--

Recommended Fuse Wire Sizes

Switch Rating	16 Amp		32 Amp		63 Amp			100 Amp		160 Amp		200 Amp		320 Amp		
Tinned Copper	29	25	32	40	19	18	17	2x19	14	14	2x15	2x15	2x14	2x14x3x14		
Fuse Wire Gauge (SWG)	1x15														4x15	
Carrying Capacity (A)	10	16	25	32	40	50	63	80	100	100	160	160	200	200	300	

## General Purpose Fuse Switch & Switch Fuse

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### Switch Fuse Unit (Rewirable Type) SPN & DP



Current Rating (Amps/Volts)	SPN Cat No.	DP Cat. No.
16/240	IHSRSE2016	IHSRDE2016
32/240	IHSRSE2032	IHSRDE2032
63/415	IHSRSE4063	IHSRDE4063

### Switch Fuse Unit (Rewirable Type) TPN



Current Rating (A)	Rewireable Porcelain Fuse Units  Cat No.	HBC cum Rewireable Porcelain Fuse Units Cat No.	Bakelite Fuse Fittings (without HBC Fuse Links) Cat No.
16	IHSRTE4016	IHSHTe4016	IHSBTE4016
32	IHSRTE4032	IHSHTe4032	IHSBTE4032
63 (Standard)	IHSRTE4063	--	--
63 (Deluxe)	IHSDTE4063	IHSHTe4063	IHSBTE4063
100 (Standard)	IHSRTE4100	--	--
100 (Deluxe)	IHSDTE4100	IHSHTe4100	IHSBTE4100
200	IHSRTE4200	--	--
320	IHSRTE4320	--	--

### Fuse Switch Unit - HBC Fuse Type

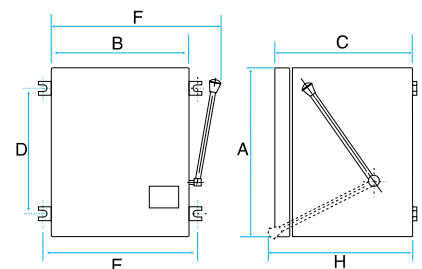


Current Rating (A)	TPN Cat No.	FP Cat No.
63	IHFNTW4063	IHFNFW4063
100	IHFNTW4100	IHFNFW4100
200	IHFNTW4200	IHFNFW4200
320	IHFNTW4320	IHFNFW4320
400	IHFNTW4400	IHFNFW4400
500	IHFNTW4500	--
800*	IHFNTW4800	--

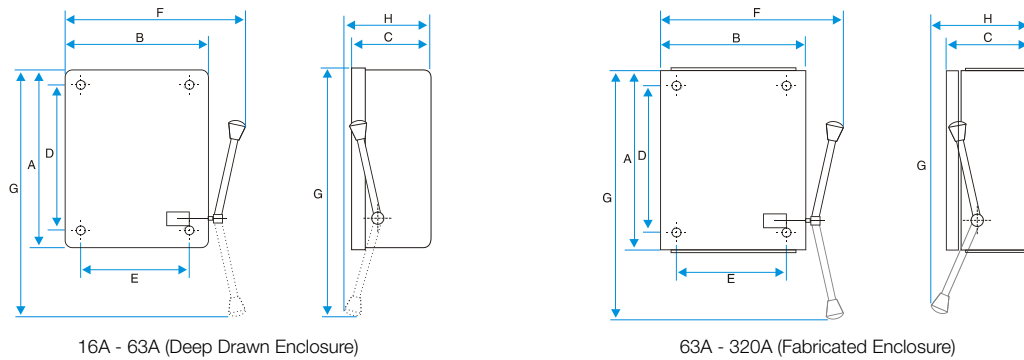
\*Switch suitable for 800 Amp. but fitted with 630Amp. Fuse.

### Dimensions (in mm) - Fuse Switch Unit, TPN

Rating	A	B	C	D	E	F	G	H	Size for Cable entry & exit	Size of Al. conductor	Size of knock-out
63/415	292	270	237	244	328	340	--	270	235x80	35mm <sup>2</sup>	25φ/31φ
100/415	292	270	237	244	328	340	--	270	235x80	70mm <sup>2</sup>	25φ/31φ
200/415	360	350	339	312	408	435	--	360	295x140	185mm <sup>2</sup>	--
320/415	360	350	339	312	408	435	--	360	295x140	350mm <sup>2</sup>	--
400/415	360	350	339	312	408	435	--	360	295x140	2(32x10)*	--
500/415	360	430	339	312	488	535	--	380	295x140	2(40x10)*	--
800/415	480	498	408	433	556	605	--	425	428x183	1(50x10)*	--



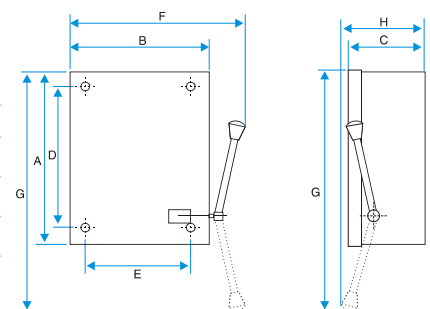
Dimensions (in mm) - Switch Fuse Units



Rating	A	B	C	D	E	F	G	H	Size for cable	Size of Al. conductor entry & exit	Size of knock-out
SPN/DP Rew											
16/240	145	95	55	110	60	130	180	--	--	4 mm <sup>2</sup>	19φ
32/240	220	140	75	166	85	180	285	--	--	6 mm <sup>2</sup>	25φ
TP Rew/HBC-Rew/BFF											
16/415	225	175	75	172	123	210	285	--	--	6 mm <sup>2</sup>	25φ
32/415	260	205	82	213	171	260	315	--	--	16 mm <sup>2</sup>	25φ
DP Rew/HBC-Rew/BFF											
32/415	265	215	85	213	171	260	315	--	--	16 mm <sup>2</sup>	25φ
63/415	278	210	116	213	128	250	380	160	--	35mm <sup>2</sup>	25φ/31φ
TP Rew / BFF											
32/415	265	215	85	213	171	260	315	--	--	16 mm <sup>2</sup>	25φ
63/415	265	215	85	213	171	260	315	--	--	35 mm <sup>2</sup>	25φ
100/415	347	310	120	285	248	380	435	170	--	70mm <sup>2</sup>	25φ/31φ
Rew. T.P. / STD											
63/415	280	270	116	223	205	325	390	175	--	35mm <sup>2</sup>	25φ/31φ
100/415	347	310	120	285	248	380	435	170	--	70mm <sup>2</sup>	25φ/31φ
DLX. TP / HBC cum Rew											
63/415	350	280	120	288	218	360	445	160	246x61	35mm <sup>2</sup>	25φ/31φ
100/415	400	330	150	338	268	400	490	160	296x80	70mm <sup>2</sup>	25φ/31φ
TP Rew											
200/415	554	315	160	450	215	385	565	260	280x97	185mm <sup>2</sup>	38φ
320/415	565	398	182	465	298	475	585	260	363x104	300mm <sup>2</sup>	38φ

Dimensions (in mm) - Isolator Switch TPN

Rating	A	B	C	D	E	F	G	H	Size for Cable entry & exit	Size of Al. conductor	Size of knock-out
16/415	167	207	80	121	163	250	220	100	174x30	6mm <sup>2</sup>	25φ/31φ
32/415	167	207	80	121	163	250	220	100	174x30	16mm <sup>2</sup>	25φ/31φ
63/415	238	310	125	176	248	365	345	160	275x60	35mm <sup>2</sup>	25φ/31φ
100/415	238	310	125	176	248	365	345	160	275x60	70mm <sup>2</sup>	25φ/31φ



Fabricated Enclosure