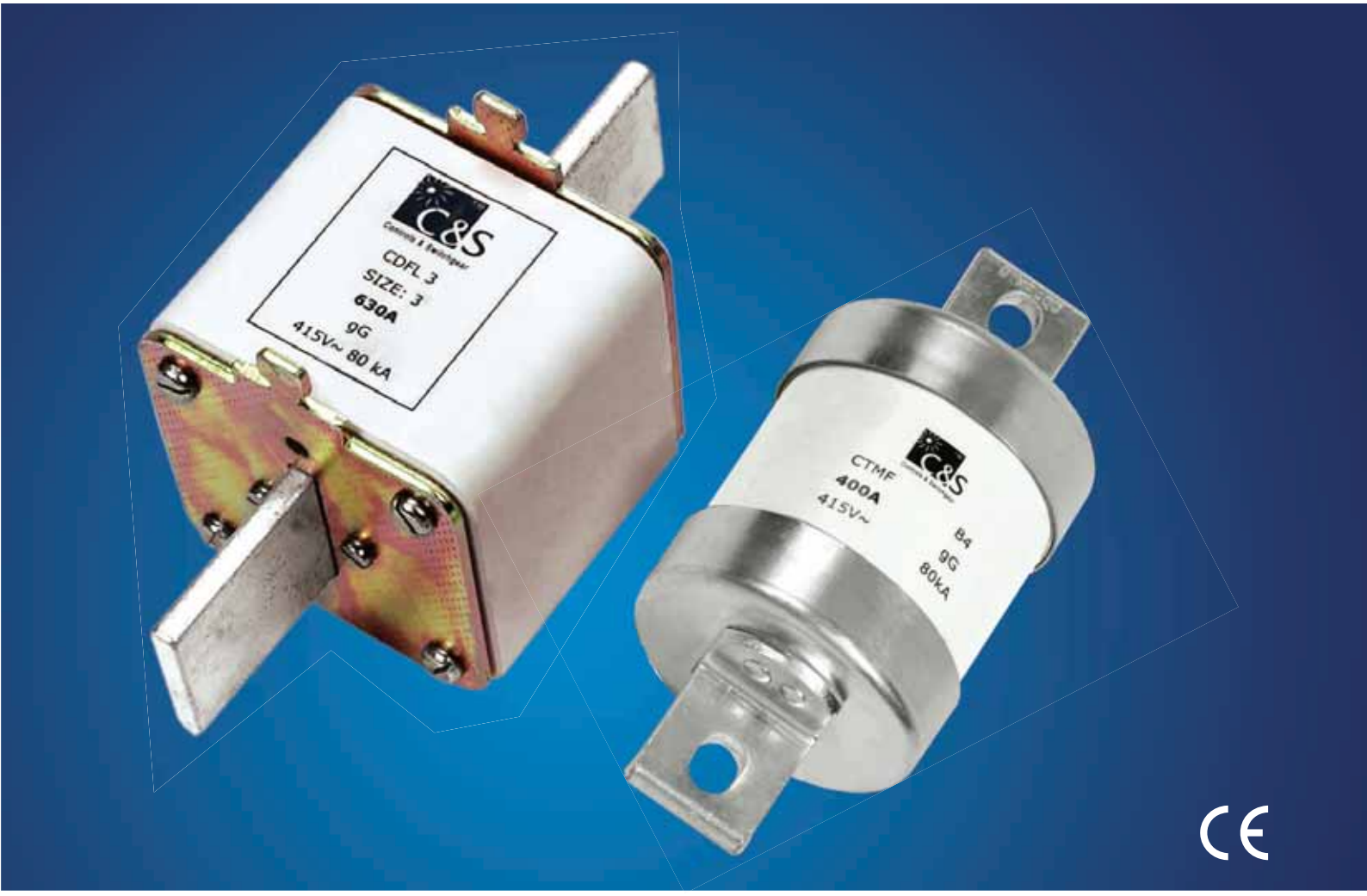
We touch your electricity everyday!



C&S electric

HRC Fuse Links & Bases

HRC Fuse Links

Application

Control HRC fuse-links have been designed to meet the requirements set for modern industrial installations & electrical power plants. Their breaking capacity is sufficient even for the highest short-circuit levels which are reached in practice.

Breaking Capacity

Breaking capacity of fuse links is 80 kA at 415V & 500V.

Current Limiting Effect

Graphs in subsequent pages show the current limiting effect of fuses. At high short-circuit currents, the fuse limits the current to a much lower value than would be reached without fuses. As a result, cables and apparatus will only be subjected to much lower short-circuit stresses.

Salient Features DIN / BS Type

- Compliance to performance and dimensional requirement of Indian and International standard IS: 13703 - 1993. BS: 88 - (Part I & II) 1975 IEC - 269 - (Part I & II) 1986.
- Short circuit capacity at $\geq$80 kA, 415/500V AC 50 Hz
- Positive indication of the operation with red colour pop. The pop up force can be utilised for operating some auxiliary circuit.
- Low power loss not only saves energy but also ensures cool running and longer life of equipment.
- Low cut-off current reduces electromagnetic stresses and damage to circuit & equipment.
- Low I2t let through energy reduces thermal stresses, fire risks and damage to equipment.
- Ideally suitable for back up protection to motor starters against short circuit faults.

Selection Table

Highest Mechanical Strength

- Body of high grade flame retardant non - hygroscopic phenolic moulding with a hard gloss surface in off white finish - having high electrical properties with high tracking resistance. Alternatively, fuse bases with fibre-glass reinforced polyester resin moulded base can be supplied.
- Contact material is ETP grade copper which is silver plated and designed to withstand electrodynamic short circuit stresses.

Longer Electrical Life

- Sufficient contact pressure is maintained by ring springs throughout the life of the base which also does not allow temperature rise to exceed.

Ratings

- Fuse bases are available for all rating of fuse links upto 630A & for voltages upto 500V, 50 Hz AC.
- Fuse bases have been tested for compliance to IEC 269 /IS : 13703.
- Fuse Holders have been tested at 415V to compliance IEC 269 / IS 1373
- Fuse Fittings are also available in Busbar mounting Type.

Fuse Links with Blade Contacts

	Type	IEC Size	In A	Reference
	DIN	00	6	OFAA 00H 6
			10	OFAA 00H 10
			16	OFAA 00H 16
			20	OFAA 00H 20
			25	OFAA 00H 25
			32	OFAA 00H 32
			35	CDFL00 35
			40	CDFL00 40
			50	CDFL00 50
			63	CDFL 00 63
			80	CDFL 00 80
			100	CDFL 00 100
			125	CDFL 00 125
			160	CDFL 00 160
	DIN	1	32	CDFL 1 32
			35	CDFL 1 35
			50	CDFL 1 50
			63	CDFL 1 63
			80	CDFL 1 80
			100	CDFL 1 100
			125	CDFL 1 125
			160	CDFL 1 160
			200	CDFL 1 200
			250	CDFL 1 250
	DIN	2	100	CDFL 2 100
			125	CDFL 2 125
			160	CDFL 2 160
			200	CDFL 2 200
			250	CDFL 2 250
			315	CDFL 2 315
	DIN	3	400	CDFL 2 400
			315	CDFL 3 315
			400	CDFL 3 400
			500	CDFL 3 500
			630	CDFL 3 630

Fuse Bases for DIN Type Fuse Links

	Type	IEC Size	In A	Reference
	DIN	0	160	CDFB 00-1-160
		1	250	CDFB1 250
		2	400	CDFB2 400
		3	630	CDFB3 630

Solid Links

	IEC Size	Reference
	00	CDSL 00
	1	CDSL 1
	2	CDSL 2
	3	CDSL 3

Selection Table & Characteristics Curves

CNS (Off Set) clip in Type

IEC Size	In A	Reference
F1	2, 4, 6, 8, 10,12 ,16, 20, 25 & 32A	CNS*

Off Set TAG Type

IEC Size	In A	Reference
A1	2, 4, 6, 8, 10, 12,16, 20, 25, & 32A	CNIT*
A2	4, 6,10,16, 20, 25 & 32A	CTIA*
A3	32, 35, 40, 50 & 63A	CTIS*
A4	50A	CTCP 50
	63A	CTCP 63
	80A	CTCP 80
	100A	CTCP 100
	125A	CTCP 125
as A4	125A	CTFP 125
	160A	CTFP 160
	200A	CTFP 200

Central TAG (2 hole fixing) Type

IEC Size	In A	Reference
B1	80A	CTC 80
	100A	CTC 100
	125A	CTC 125
B2	125A	CTF 125
	160A	CTF 160
	200A	CTF 200
	250A	CTF 250
B3	250A	CTKF 250
	300A	CTKF 300
	315A	CTKF 315
B4	355A	CTMF 355
	400A	CTMF 400

Central TAG (4 hole fixing) Type

IEC Size	In A	Reference
C1	355A	CTM 355
	400A	CTM 400
C2	450A	CTTM 450
	500A	CTTM 500
	630A	CTTM 630
C3	670A	CTLM 670
	710A	CTLM 710
	750A	CTLM 750
	800A	CTLM 800

Fuse Handle

Handle CDFH003 is suitable for all sizes of fuse-links & solid links

Fuse Holders for British Pattern Fuses Links

Type	IEC Size	In A	Reference
	F1	20A	CNS20H
	A2	32A	CSM32H
	A3	63A	CSM63H
	A4	100A	CSM100H
	A4	100A	CSM100B*

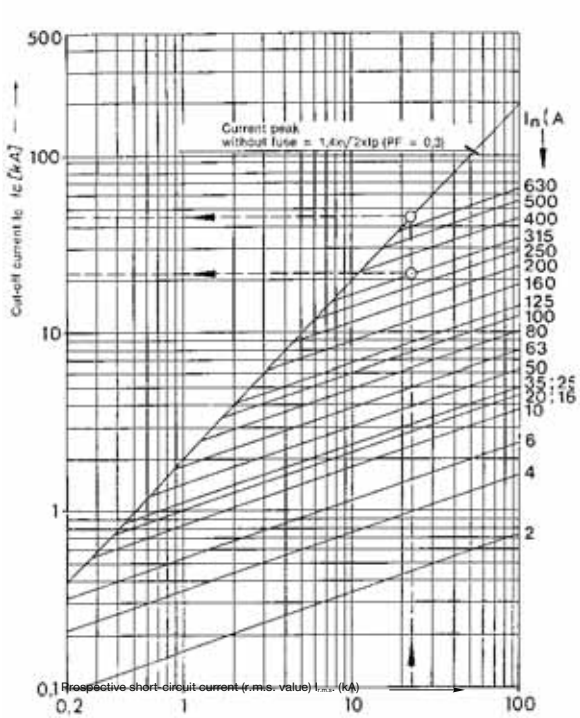
Fuse Holders for Cylinderical HBC Fuse Links

Type	IEC Size	In A	Reference
	14 x 51	32A	CHO32R
	14 x 51	63A	CHC63R

Cylinderical Type Fuse Links

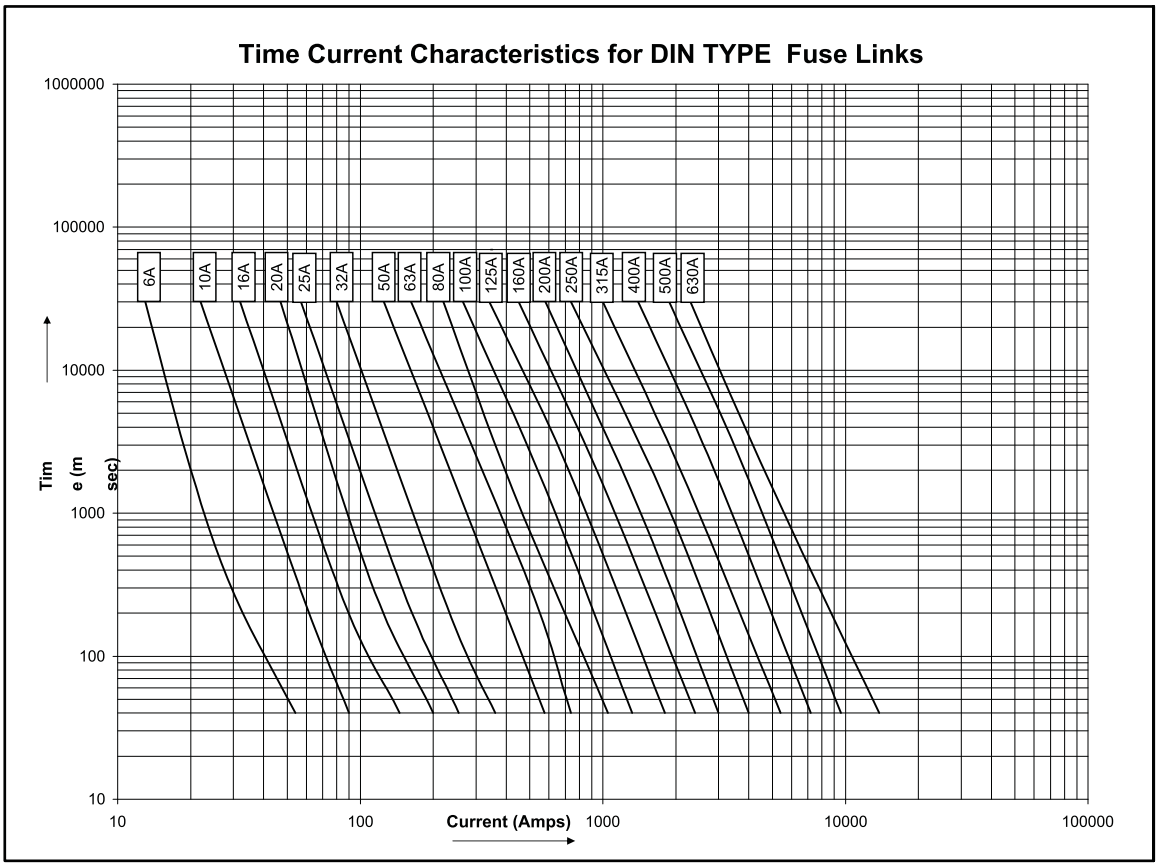
IEC Size	In A	Reference
(14*51)	2, 4, 6, 8 & 10A	CHF
	16, 20 & 25A	
	32 & 40A	
	50A	
	63A	
(10*38)	2, 4, 6, 8, 10 & 16A	CGF
	20 & 25A	
	32A	

Cut-off Characteristics



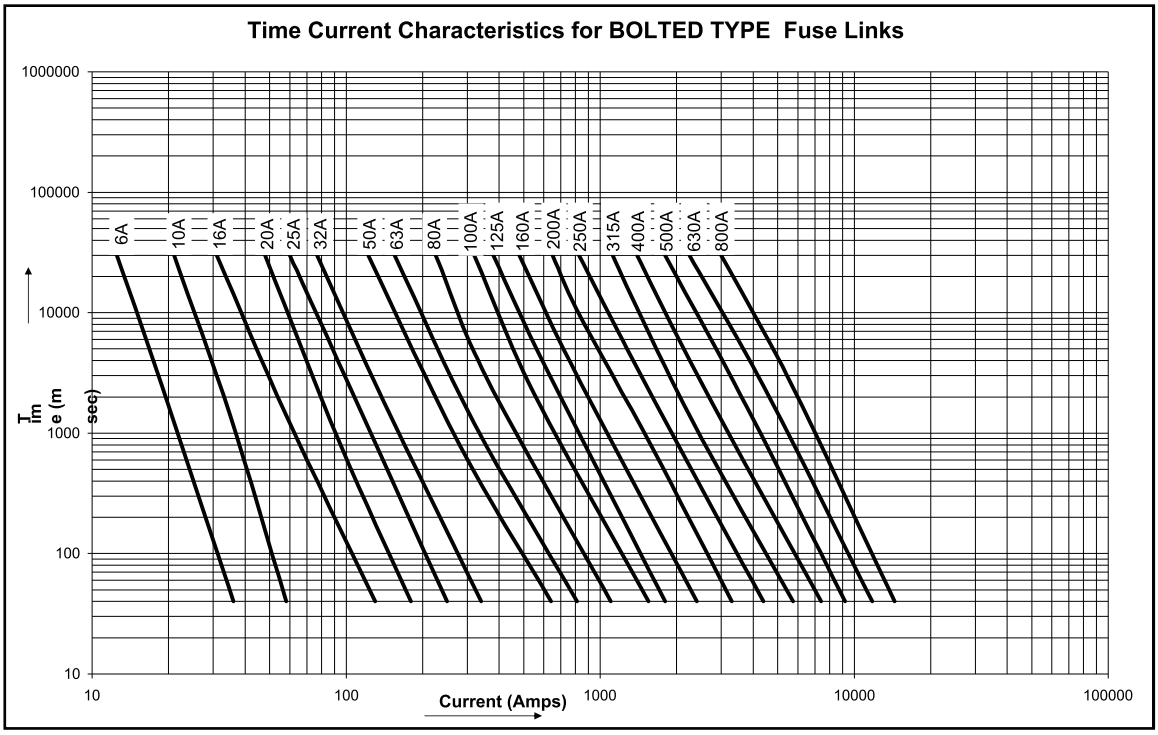
Charactristics Curves

Fusing current time curves of DIN Type (Knife Edge) fuses



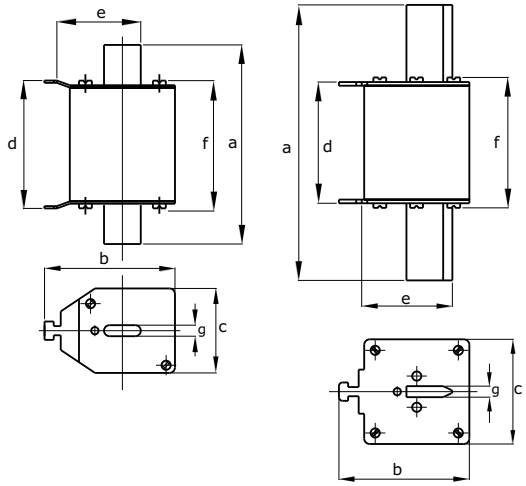
e.g.; At I_{sc} = 32 kA_{rms}, 315 A fuse limits the cut-off current to 26 kAp. Without a fuse it would be 67.2 kAp i.e . after the use of the fuse, the short-circuit force is reduced to 15% of the value that is possible without the effect of the fuse.

Fusing current time curves of Bolted type fuses upto 800A



Dimensions

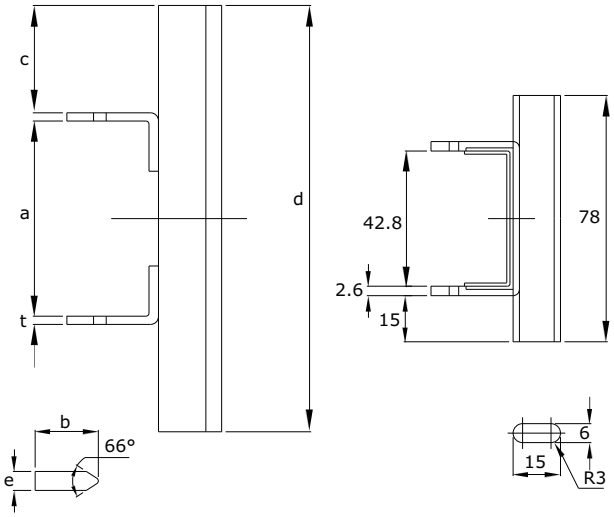
DIN (Knife Edge) Fuse Links



OFAA 00H **CDFL-1, 2 & 3**

Type	a	b	c	d	e	f	g
CDFL 00	79	60	30	50	35	53	6
CDFL 1	135	58	46	65	40	69	6
CDFL 2	150	71	57	66	48	71	6
CDFL 3	150	86	70	66	60	71	6

Solid Links

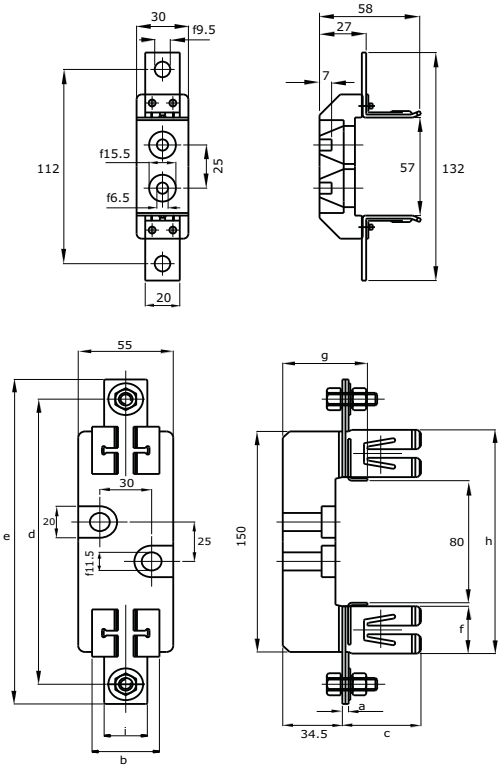


CDSL-1, 2 & 3 **CDSL - 00**

Type	Dimensions					
	a	b	c	d	e	t
CDSL1	62.0	20.0	34	135	6	2.6
CDSL2	62.0	30.0	41.5	150	6	2.6
CDSL	62.0	36.0	41.5	150	6	2.6

Fuse Bases

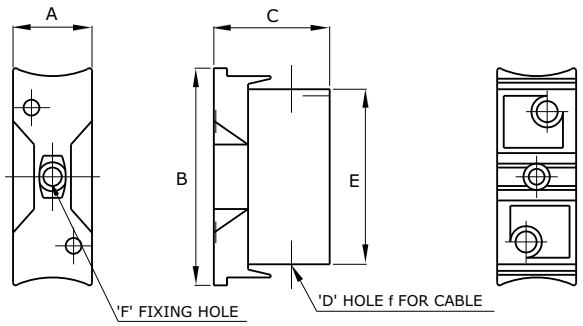
CDFB00 - 1



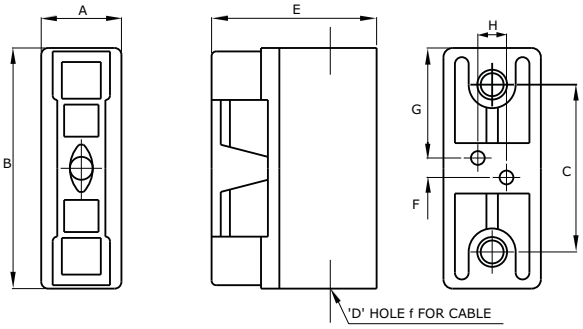
Type	a	b	c	d	e	f	g	h	i	BOLT
CDFB1-1	3.6	39	45.5	181	206	30	49	146	25	M 10X30
CDFB2-1	4.4	39	59.5	206	236	35	56	156	25	M 10X30
CDFB3-1	6	46	68.5	216	256	35	62	156	30	M 12X40

Fuse Fittings

CNS 20H



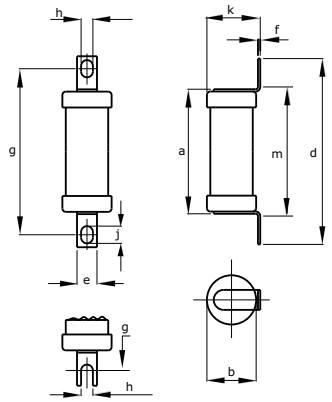
CSN32 ~ 100H

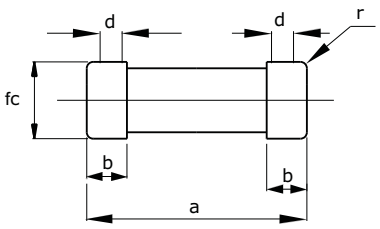


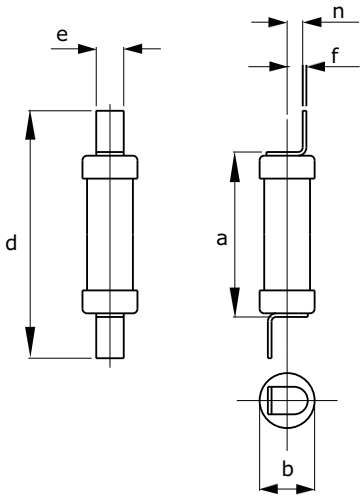
Type	Rating Amp.	Dimensions							
		A	B	C	D	E	F	G	H
CNS 20H	20	24.5	82.5	44	7f	66.5	5	-	-
CSM 32H	32	32	98	73	10f	66	6.5	45.5	12.5
CSM 63H	63	35	105	78	12.5f	72	6.5	48	12.5
CSM100H	100	47	130	93	16f	91	22.5	54	21.0

Dimensions

BS (Bolted Type) Fuse Links







Cylindrical HBC Fuse Links

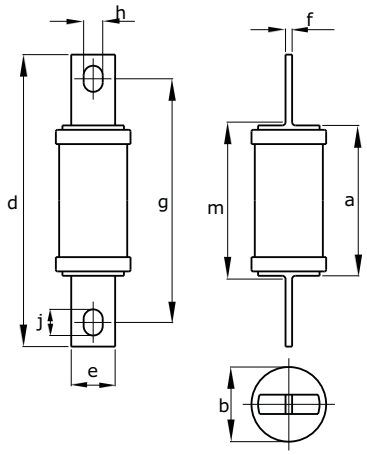
Type	Ref.	Dimensions				
		a	b	c	d	r
CGF	10 X 38	38.0±0.5	9.6	10.3	6.5	1.2
CHF	14 X 51	51±0.5	9.8	14.3	8.0	1.5

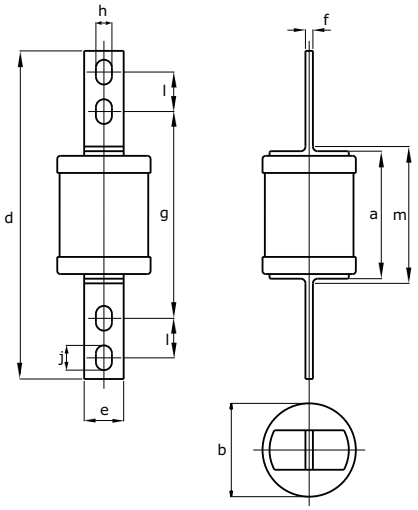
Off Set Tag

Type	Ref.	Dimensions									
		a	b	d	e	f	g	h	j	k	l	m
CNIT	A1	35	14	58	11.2	0.8	44.5	4.2	8.2	3.4	-	-
CTIA	A2	55	21.7	84	8.8	1.2	73	5.6	8.0	23.5		
CTIS	A3	55	21.7	84	8.8	1.2	73	5.6	8.0	23.5		
CTCP	A4	69.0	34.0	111	20	2.4	94	8.7	11.2	34.5	-	-
CTFP	-	77.5	40.0	111	20	2.4	94	8.7	11.9	42.0	-	-

Off Set Tag (Clip in Type)

Type	Ref.	Dimensions					
		a	b	d	e	f	n
CNS	F1	36	12	58	12.7	0.8	3.4





Central Tag (Two hole fixing)

Type	Ref.	Dimensions										
		a	b	d	e	f	g	h	j	k	l	m
CTC	B1	68.5	34.0	133	20	3.2	111	8.7	11.9	-	-	79.4
CTF	B2	76.0	40.0	136	20	3.2	111	8.7	11.9	-	-	79.4
CTKF	B3	76.0	53	138	25.4	3.2	111	8.7	11.9	-	-	79.4
CTMF	B4	82.0	60.0	132	25.4	6.4	111	8.7	11.9	-	-	85.8

Central Tag (Four hole fixing)

Type	Ref.	Dimensions										
		a	b	d	e	f	g	h	j	k	l	m
CTM	C1	82.0	60.0	211	25.4	4.8	133	10.3	15.8	-	25.4	95.0
CTTM	C2	84.0	76.0	209	25.4	6.4	133	10.3	15.8	-	25.4	95.0
CTLM	C3	88.0	83.0	211	25.4	10.0	133	10.3	15.8	-	25.4	100.1

Product innovation is a continuous process, hence data given is subject to change without prior notice

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HRC Fuse

State of the art Manufacturing Facilities

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