

We touch  
your **electricity**  
everyday!



**HRC Fuse  
Links & Bases**



C&S Electric Ltd. is a leading manufacturer of electrical and electronic equipment in India. It is one of India's largest exporters of industrial switchgear & power busbar products. C&S Electric products are used in applications ranging from power generation, transmission and distribution, protection and final consumption.

C&S Electric has the following product verticals:

- LV Switchgear
- LV Switchboards
- LV & MV Bus-Ducts
- LV Busways
- Protection and Measurement Devices

## MANUFACTURING FACILITIES



C&S Controlgear Plant at Noida



C&S Switchgear Plant at Noida



World-Class Manufacturing Plants at SIDCUL, Haridwar

### MARKET LEADER

C&S is one of the leading supplier in the LV Switchgear business segment and a market leader in the busbar business with more than 50% share in Indian market.

### 11 MANUFACTURING PLANTS

C&S Electric have 11 state-of-the-art manufacturing facilities in Noida, Haridwar & Guwahati, which are equipped with latest tools and systems to ensure highest level of quality and services.

### 600+ STOCKISTS

A dedicated network of channel partners, ensuring access to the farthest corners of India, with an obsession for customer services. In addition C&S products are available in 8000+ retail counters nationally.

### EXPORTS TO OVER 85 COUNTRIES

C&S exports the entire range of products across all 7 continents, thus reaffirming its position as one of India's largest exporters of industrial electrical products.

### 5000+ WORKFORCE

5000+ Workforce including over 371 engineers, dedicated sales team of 424 people & millions of satisfied customers.

### R&D

4 Govt. approved labs/centres, over 20,000 sqft. space dedicated to R&D, 70 R&D engineers, state of the art testing & design facilities ... & most of the all a passion for innovation & excellence.

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## Quality Assurance





**Conforms to:**  
IS/IEC 60269/ IS 13703

## HRC Fuse Links & Bases



**Current Rating:**

Fuse Link - 2A to 800A  
Fuse Holder - up to 100A  
Fuse Base - up to 630A



**Breaking Capacity:**

up to 80kA



**POP UP Indicator:**

For Trip indication



**Operating Voltage:**

Fuse Link - 415V ~ 500V AC  
Fuse Holder - 415V AC  
Fuse Base - 500V AC



**Construction:**



DIN / BS Type



**Optimized Selection:**


Multiple fuse sizes  
help in quick selection

## Fuse Links with Blade Contacts (DIN Type)

	Type	IEC Size	Rating (A)	Product Reference
	DIN	00	6	CSDFL*/CDFL00 6
			10	CSDFL*/CDFL00 10
			16	CSDFL*/CDFL00 16
			20	CSDFL*/CDFL00 20
			25	CSDFL*/CDFL00 25
			32	CSDFL*/CDFL00 32
			35	CSDFL*/CDFL00 35
			40	CSDFL*/CDFL00 40
			50	CSDFL*/CDFL00 50
			63	CSDFL*/CDFL00 63
			80	CSDFL*/CDFL00 80
			100	CSDFL*/CDFL00 100
			125	CSDFL*/CDFL00 125
			160	CSDFL*/CDFL00 160
				DIN
35	CDFL01 35			
50	CDFL01 50			
63	CDFL01 63			
80	CDFL01 80			
100	CDFL01 100			
125	CDFL01 125			
160	CDFL01 160			
200	CSDFL / CDFL1 200			
250	CSDFL / CDFL1 250			
DIN	2	100	CDFL02 100	
		125	CDFL02 125	
		160	CDFL02 160	
		200	CDFL02 200	
		250	CDFL02 250	
		315	CSDFL / CDFL2 315	
DIN	3	315	CDFL03 315	
		400	CDFL03 400	
		500	CDFL3 500	
		630	CDFL3 630	

\* CSDFL - Non ISI Range

## Solid Links (DIN Type)

	Type	IEC Size	Rating (A)	Product Reference
	Blade (DIN)	00	160	CDSL 00
		1	250	CDSL 1
		2	400	CDSL 2
		3	630	CDSL 3

## Fuse Puller

Type	Product Reference
suitable for all sizes of fuse-links & solid links	CDFH003

## Fuse Bases for DIN Type Fuse Links



Type	IEC Size	Rating (A)	Product Reference
Blade (DIN)	00	160	CSDFB00
	1	250	CSDFB1
	2	400	CSDFB2
	3	630	CDFB3

## Central TAG ( 2 hole fixing ) Type



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


## Central TAG ( 4 hole fixing ) Type




	IEC Size	Rating (A)	Product Reference
C1		355	CTM 355
		400	CTM 400
C2		450	CTTM 450
		500	CTTM 500
		630	CTTM 630
C3		670	CTLM 670
		710	CTLM 710
		750	CTLM 750
		800	CTLM 800

**Note:** Replace\* by required rated current. # for busbar connection

### Cylindrical Type Fuse Links

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

### Off Set (Clip in Type)

	IEC Size	Rating (A)	Product Reference
	F1	2, 4, 6, 8, 10, 12, 16, 20, 25 & 32	CNS*


### Off Set TAG Type

	IEC Size	Rating (A)	Product Reference
	A1	2, 4, 6, 8, 10, 12, 16, 20, 25, & 32	CNIT*
	A2	4, 6, 10, 16, 20, 25 & 32	CTIA / CSTIA*
	A3	32, 35, 40, 50 & 63	CTIS* / CSTIS
	A4	50	CTCP 50
		63	CTCP 63
		80	CTCP 80
		100	CTCP 100
		125	CTCP 125
		125	CTFP 125
160	CTFP 160		
200	CTFP 200		

### Fuse Holders for Bolted Type Fuses Links

	IEC Size	Rating (A)	Product Reference
	F1	20	CNS20H
	A2	32	CSM32H
	A3	63	CSM63H
	A4	100	CSM100H
	A4	100	CSM100B*

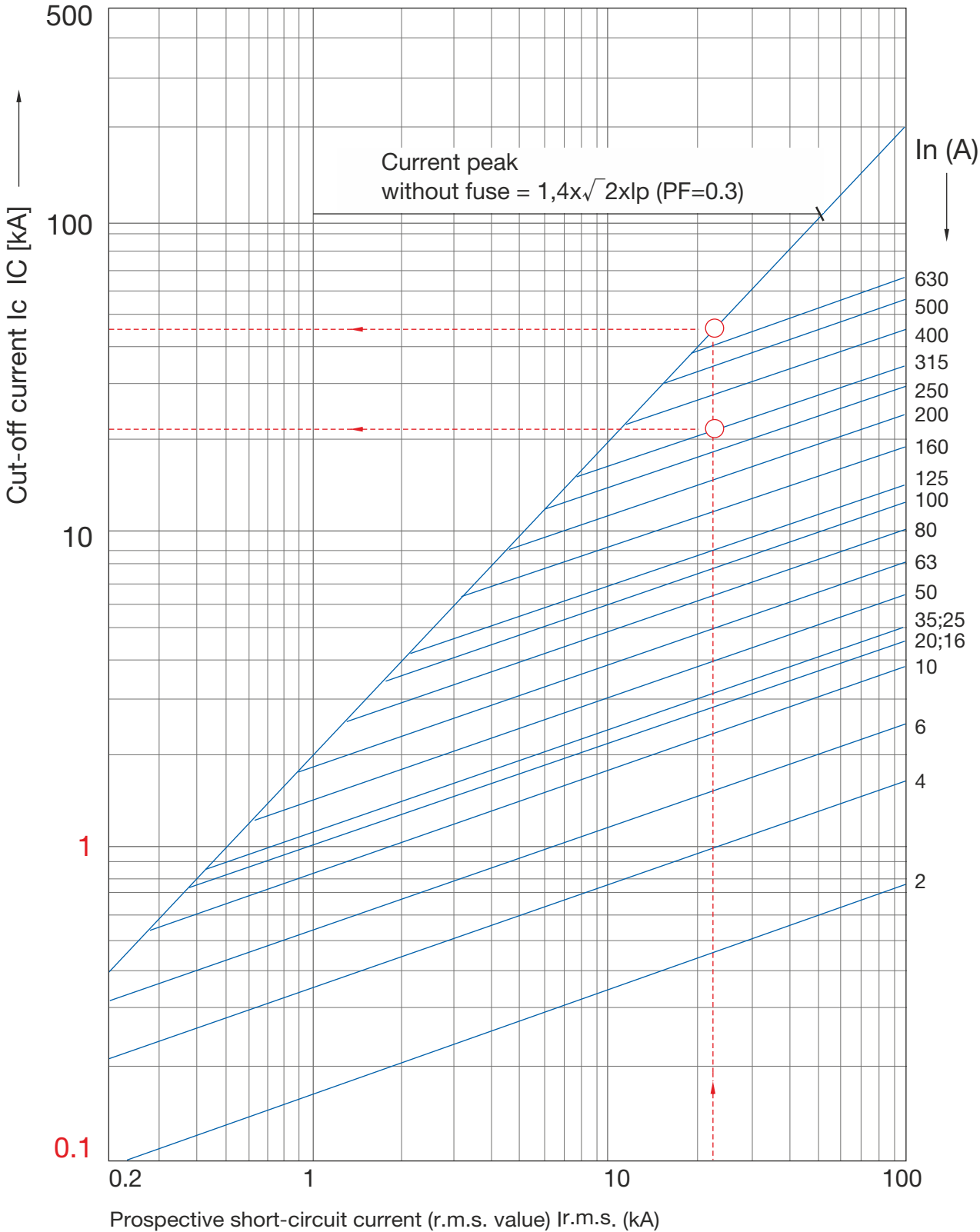
### Fuse Holders for Cylindrical HRC Fuse Links

	IEC Size	Rating (A)	Product Reference
	14 x 51	32	CHO32R
	14 x 51	63	CHC63R

**Note:** Replace\* by required rated current.



Cut-off Characteristics

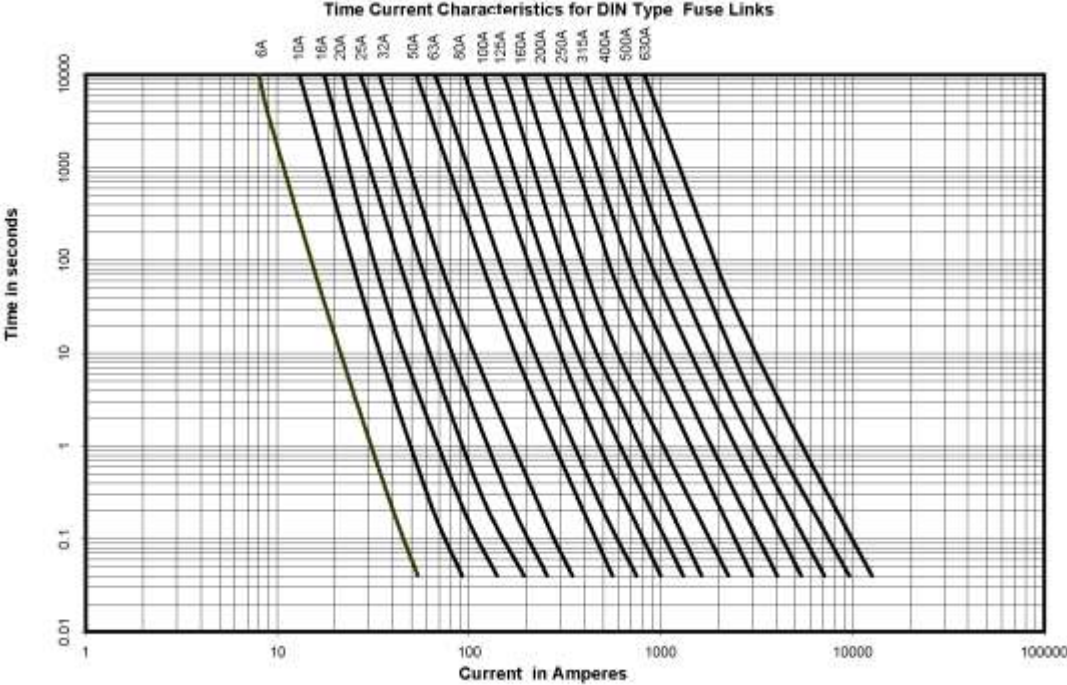


## Recommended Fuse rating for 3 phase, 415V Induction Motors

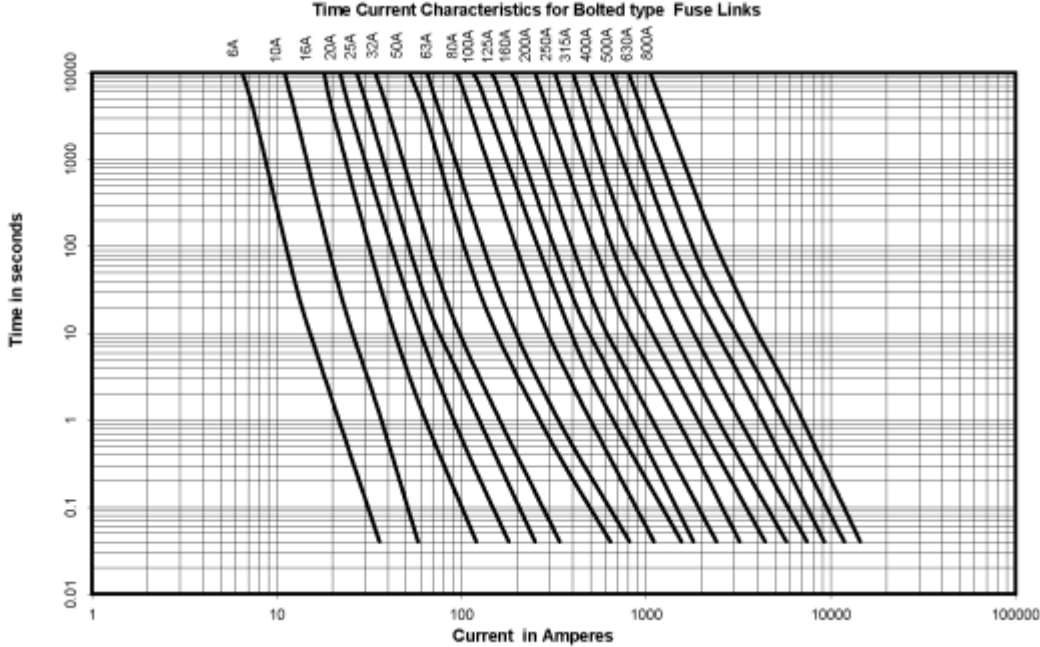
Sl. No	Direct on line Starters			Star Delta Starters		
	KW	HP	Fuse Rating (A) gG	KW	HP	Fuse Rating (A) gG
1	0.37	0.5	4	0.37	0.5	2
2	0.55	0.75	6	0.55	0.75	4
3	0.75	1	6	0.75	1	4
4	1.1	1.5	10	1.1	1.5	6
5	1.5	2	10	1.5	2	6
6	2.2	3	16	2.2	3	10
7	3	4	20	3	4	10
8	3.7	5	20	3.7	5	10
9	4	5.5	20	4	5.5	16
10	5.5	7.5	25	5.5	7.5	16
11	7.5	10	32	7.5	10	20
12	11	15	50	11	15	32
13	15	20	63	15	20	32
14	19	25	80	19	25	40
15	22	30	80	22	30	50
16	30	40	100	30	40	63
17	37	50	125	37	50	80
18	45	60	160	55	75	100
19	55	75	200	75	100	160
20	75	100	250	100	135	200
21	90	125	250	110	150	200
22	100	135	315	132	175	250
23	110	150	315	150	200	315
24	132	175	355	160	215	315
25	150	200	400	185	250	355
26	160	215	400	200	270	355
27	185	250	450	220	300	400
28	200	270	450	250	335	450
29	220	300	500	300	400	560
30	250	335	560	375	500	630

Time Current Characteristics

DIN type Fuse Links

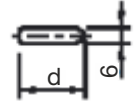
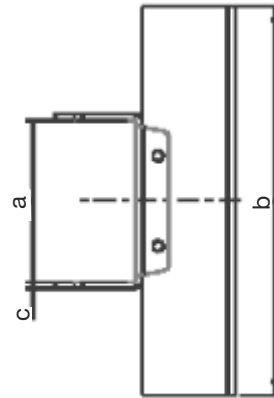
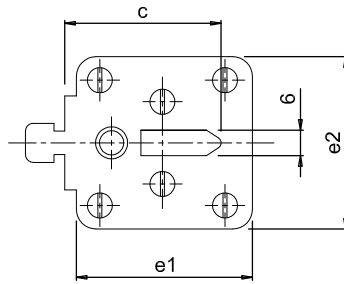
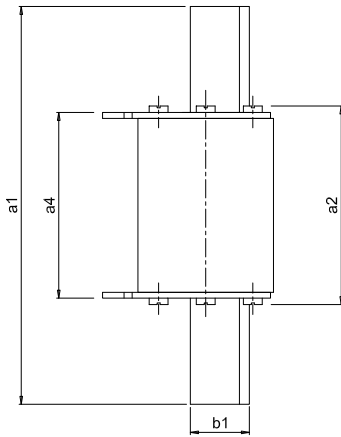


Bolted type Fuse Links



## DIN (Blade Type) Fuse Links

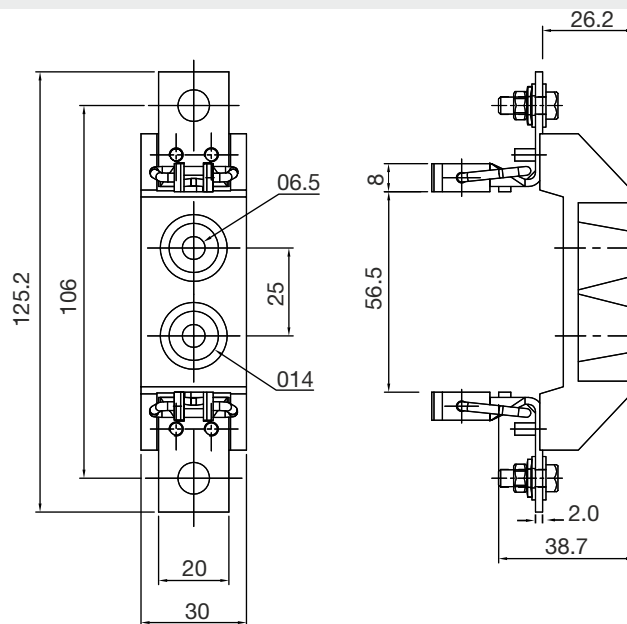
## Solid Links



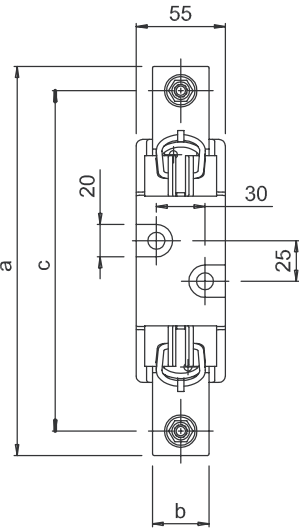
Type	a1	a2	a4	b1	c	e1	e2
CSDFL*/CDFL00	78.5	53	49	15	35	43	29
CDFL01	135	70	67	15	40	43	29
CSDFL*/CDFL1	135	70	67	20	40	46	46
CSDFL*02	150	70	67	20	48	46	46
CSDFL*/CDFL2	150	71	67	25	48	57	57
CSDFL*03	150	72	67	25	60	57	57
CSDFL*3	150	72	68	36	60	72	72

Type	a	b	c	d
CDSL00	45	78	2.3	15
CDSL1	62	135	2.5	20
CDSL2	62	150	2.5	25
CDSL3	62	150	2.5	36

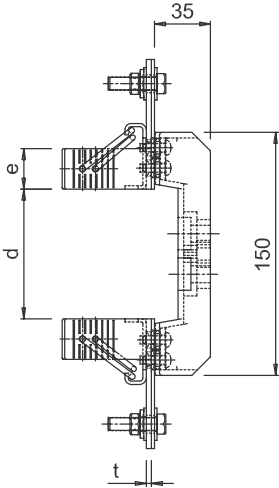
\*CSDFL - Non ISI Range



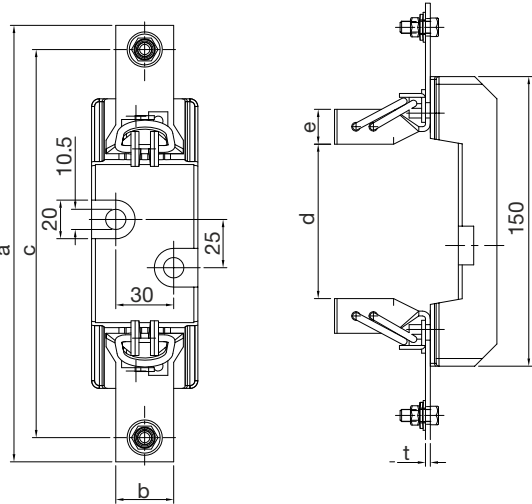
### Fuse Bases



### CDFB3



### CSDFB1 & 2

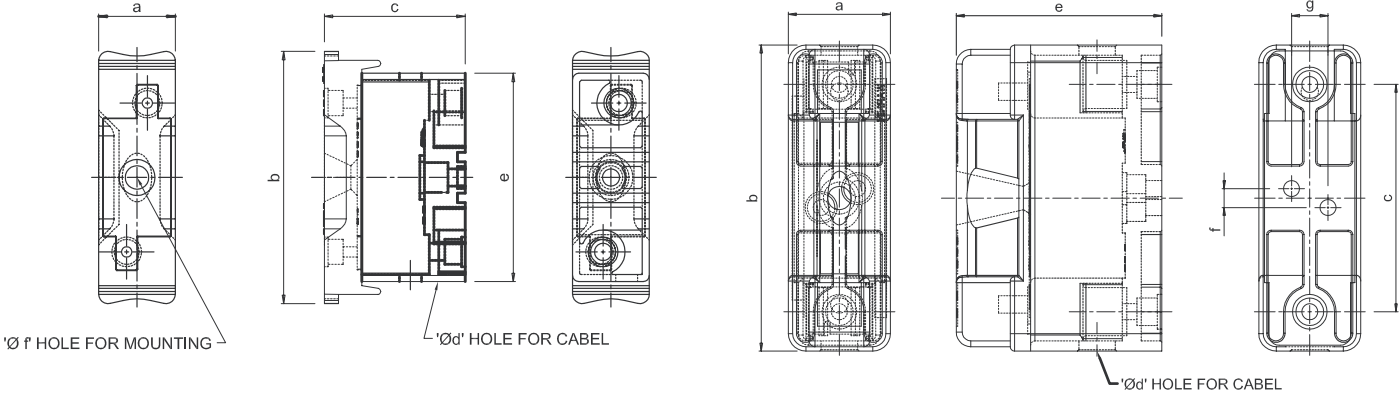


Type	a	b	c	d	e	t
CSDFB1	200	28	175	80	12	2
CSDFB2	225	30	200	80	18	2.5
CDFB3	240	35	210	80	25	3.2

### Fuse Holder

#### CNS 20H

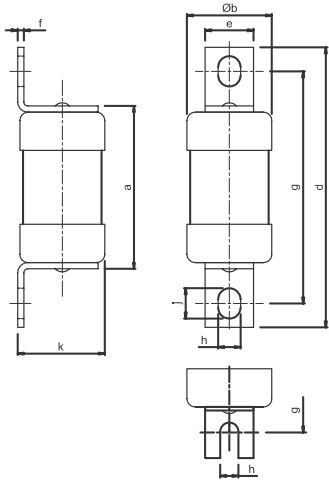
#### CSM 32~100H



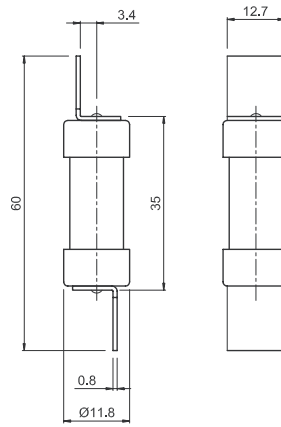
Type	Rating (A)	a	b	c	ød	e	øf	g
CNS 20H	20	24.5	80.5	44	7	66.5	5	-
CSM 32H	32	32	98	73	10	66	6.5	12.5
CSM 63H	63	35	105	73	12.5	72	6.5	12.5
CSM100H	100	47	130	94	16	91	22.5	21

All dimensions are in mm

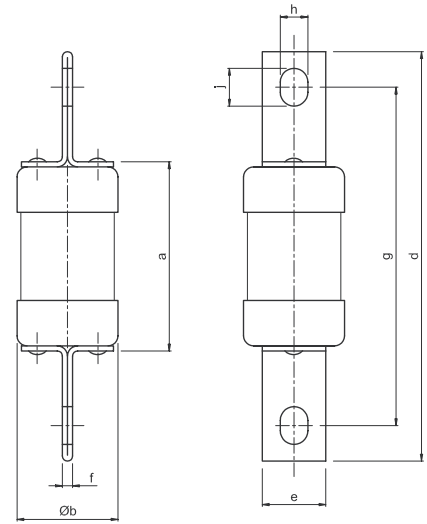
## Off Set Tag



## Off Set Tag (Clip in type)



## Central Tag (Two hole fixing)

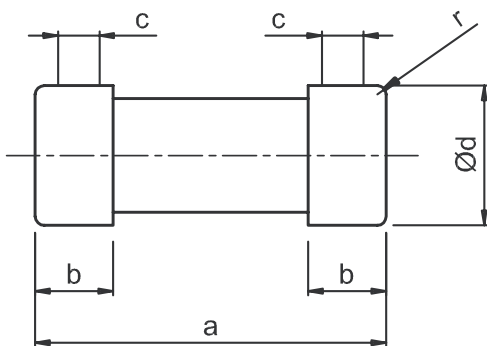


Type	Ref.	a	Øb	d	e	f	g	h	j	k
CNIT	A1	33.2	14.4	55	11.2	0.8	44.5	4.2	8.2	15.2
CSTIA	A2	34	14	84	8.8	1.2	73	5.6	8	15
CTIS/CSTIS	A3	55	21.7	84	8.8	1.2	73	5.6	8	23.5
CTCP	A4	63.8	26	110	17	2.4	94	8.7	11.2	27
CTFP	-	63.5	33.4	110	19.2	2.4	94	8.7	11.9	34.5

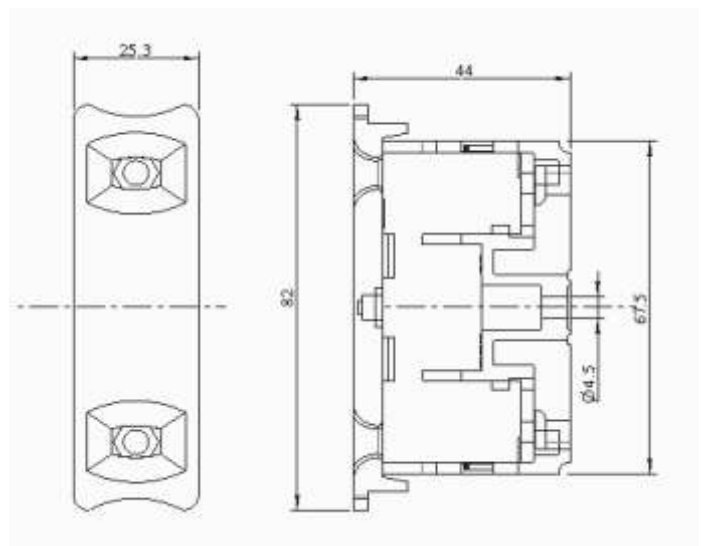
Type	Ref.	a	Øb	d	e	f	g	h	j
CTC	B1	62.2	26	135	17	3.2	111	8.7	11.2
CTF	B2	62	33.4	134	20	3.2	111	8.7	11.9
CTKF	B3	73.2	52.6	136	25.4	3.2	111	8.7	11.9
CTMF	B4	79	60.3	132.5	25.4	6.4	111	8.7	11.9

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

## Cylindrical HRC Fuse Links



## Cylindrical Fuse Holder CHO 32R & CHC 63R



Type	Ref.	a	Øb	c	d	r
CGF	10 X 38	38	9.6	6.5	10.3	1.2
CHF	14 X 51	51	9.8	8	14.3	1.5





## C&S Electric Limited

### CENTRAL MARKETING OFFICE

C-60, Wing-A, Phase-II, Noida, District Gautam Budh Nagar, Uttar Pradesh-201 305 (INDIA)  
Tel.: +91 120 387 4800 / 01 | Email : cmo@cselectric.co.in

### CUSTOMER CARE

Toll Free Number: 1800 572 2012  
E-mail: customercare@cselectric.co.in

