

# IEC and British standard fuses

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## Application Data

The standard range of fuses for low voltage industrial and general purpose applications meet the requirements of BS88 and IEC 60269. By using advanced fuse technology, current ratings up to 400A have compact dimensions but retain standard dimensional and performance requirements. These designs are for 315/240V systems. The standard range of fuses are available from 2-1250A in the following tag forms: Offset Blade - Offset Bolted - Center Bolted.

Supplementary ranges cover applications up to 660Vac and 500Vdc including those with nonstandard tag fixings.

Cooper Bussmann fuses are manufactured under quality systems independently assessed to BS5750 (ISO9002) and appropriate ratings carry the ASTA20 endorsement.

Selecting fuses is relatively simple and effective. The following notes cover the majority of applications. For further information contact our Application Engineers at 636-527-1270.

### Circuit Loading

The current rating of the fuse should not be less than the full load current of the circuit. The circuit should be so designed that small overloads of long duration will not be of frequent occurrence.

### Cable Ratings & Protection

There is an increasing move away from 70°C PVC insulation to materials that are more environmentally friendly, for example 90°C XLPE. The ratings of fusegear, switches, accessories, etc. are generally based upon the equipment being connected to conductors intended to be operated at a temperature not exceeding 70°C in normal service.

In view of the above, it is recommended that the practice of designs based upon conductor temperatures of 70°C be regarded as the norm. The equipment manufacturer should be consulted to ascertain the reduction of nominal current rating of the equipment if conductor temperatures exceeding 70°C are used. In addition, an overriding factor is often voltage drop.

Fuses with gG characteristics protect associated cables against both overload and short circuit current, provided that the current rating of the fuse 1N is equal or less than the current carrying capacity of the cable 1z.

In motor circuits, the motor starter will provide the overload protection and the fuses will provide the short circuit protection. The maximum fuse size that can be used depends upon the type of cable used and is determined using the appropriate K factor. The following table gives the maximum sizes of fuses that are recommended for two popular cables with copper conductors, 70°C PVC (K = 115) and 90°C thermosetting (K = 143).



IEC & British Fuses

## Application data for BS low voltage fuses

Cable Size mm <sup>2</sup>	Max. Fuse Rating	
	K = 115	K = 143
1	16	16
1.5	20	25*
2.5	32*	32*
4	50*	50*
6	63*	63*
10	100*	125*
16	125*	160*
25	200*	250*
35	315*	355*
50	400*	500
70	560	630
95	710	800
120	800	1000

\* Extended Motor Circuit dual ratings can be used

### Protection Against Electrical Shock

For a TN System, a disconnecting time not exceeding 5s is permitted for a distribution circuit. The maximum values of earth fault loop impedance (Zs) of 240V for Cooper Bussmann gG fuses to BS88: Parts 2 and 6 are:

Rating (A)	Zs Ohms	Rating (A)	Zs Ohms
6	14	100	0.44
10	7.7	125	0.35
16	4.3	160	0.27
20	3.0	200	0.20
25	2.4	250	0.16
32	1.9	315	0.13
40	1.4	400	0.096
50	1.1	500	0.073
63	0.86	630	0.054
80	0.60	800	0.044

### Ambient Temperature

The de-rating, in terms of current, of 0.5% per °C above an ambient of 35°C is recommended.

### Interrupting Rating

The standardized interrupting rating values are 80kA for voltages of 415Vac and above, and 40kA for dc applications. The 240Vac designs have a breaking capacity of 50kA.

### Coordination Ratio

All fuses to BS88 Parts 2 and 6 will give a coordination ratio of 2:1; and for most practical situations a ratio of 1.6:1 (two steps in the R10 series). Example: an upstream fuse rated at 160A will coordinate with a downstream fuse rated at 100A.

### Current and Energy Limitation

The range of fuses have pre-arcing I<sup>2</sup>t values towards the bottom limits of BS88 Parts 2 and 6. This ensures excellent current and energy limitation. They also have lower power losses at rated current. This assists in the appropriate interchangeability with other makes of fuses.

### Transformers

When fuses are used on the primary side of transformers, the normal fuse current rating should be at least twice the nominal transformer primary current.

### Fluorescent Lighting

The normal fuse current rating should be at least twice the

normal full load current of the maximum number of lights to be simultaneously switched.

### Capacitor Circuits

For power factor correction in capacitor circuits, the fuse should be chosen with a current rating greater than 1.5 times the rated capacitor current. This takes into account the high inrush current, circuit harmonics and capacitor tolerances.

### Motor Circuits

In motor circuits, the fuse has to withstand the motor's starting current and often requires a higher rating than the motor's full load current. Coordination recommendations are made by the manufacturers of motor starters in accordance with IEC 60947-4-1. To get Type 2 coordination with fuses, tests are performed with the latest gG or gM fuses to BS88 or IEC 60269 that have pre-arcing I<sup>2</sup>t values towards the bottom of specified limits. This means that Cooper Bussmann fuses are suitable to provide Type 2 coordination.

Extended dual ratings of motor circuit protection fuses with gM characteristics are available in most popular fuse sizes to extend the use of associated equipment with appropriate economies. In the majority of applications, gG fuses are used. It is not essential to use gM fuses for motor circuit protection, they simply extend the utilization of standard equipment.

Below is a table of recommended fuses at 415V. In most applications, the run-up time is less than 5 seconds and duty is infrequent - no more than twice per hour. The next larger rating should be used for more demanding applications.

Rating Motor kW	Motor A	Direct On-line Standard Motor Circuit (gG)		Asst. Start Standard (gG)
		A	A	A
0.25	0.8	4	-	2
0.37	1.1	4	-	2
0.55	1.5	6	-	4
0.75	2.0	6	-	4
1.1	3.0	10	-	6
1.5	3.6	16	-	0.1
2.2	5.0	16	-	0.1
3.0	6.5	20	-	6.1
4.0	8.4	20	-	6.1
5.5	11.0	25	20M25	2.20
7.5	15.0	40	32M40	25
11.0	20.0	50	32M50	32
15.0	27.0	63	32M63	40
18.5	33.0	80	63M80	50
22.0	38.0	80	63M80	50
30.0	54.0	100	63M100	80
37.0	66.0	125	100M125	80
45.0	79.0	160	100M160	100
55.0	98.0	160	100M160	100
75.0	135.0	250	200M250	160
90.0	155.0	250	200M250	160
110.0	185.0	315	200M315	200
132.0	220.0	355	315M400	250
150.0	250.0	355	315M400	315
185.0	310.0	450	400M500	355
200.0	335.0	500	400M500	400
225.0	375.0	560	-	400
250.0	415.0	560	-	450
280.0	460.0	630	-	500
335.0	562.0	710	-	630
355.0	596.0	800	-	710

# CSA Type P and Type D fuses

## CDS, CDN & PON Type P & D

### Specifications

**Description:** CSA time-delay Type D & P fuses.

**Dimensions:** See Catalog Numbers table and Dimensions illustration.

**Construction:** Fiberglass body.

### Ratings:

Volts: — 250V (CDN & PON)  
— 600V (CDS)

Amps: — 10-600A

IR: — 10kA minimum

**Agency Information:** CE, CSA Certified to C22.2 No. 59.1.

### Features and Benefits

- Economical fuse in a variety of ratings for applications not requiring time-delay.

### Typical Applications

- Lighting, heating and other circuits not subject to temporary surges and where available short-circuit current are relatively low.



### Basic Catalog Numbers

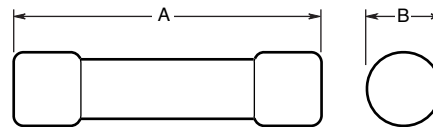
#### Time-Delay CSA Type “D” Fuses

Catalog Numbers	Volts	Amp Ratings
CDN	250	Below 10A use FRN-R 10, 12, 15, 20, 25, 30,
		35, 40, 45, 50, 60, 70, 80, 90, 100
		110, 125, 150, 175, 200, 225, 250, 300, 350, 400,
		450, 500, 600
		Below 10A use FRS-R 10, 12, 15, 20, 25, 30,
		35, 40, 45, 50, 60
CDS	600	70, 80, 90, 100, 110, 125, 150, 175, 200,
		225, 250, 300, 350, 400, 450, 500, 600

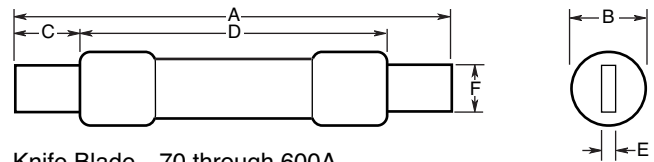
#### One-Time CSA Type “P” Fuses

Catalog Number	Volts	Amp Ratings
PON	250	15, 20, 25, 30, 35, 40, 45, 50, 60

### Dimensions



Ferrule Design—1 through 60A



Knife Blade—70 through 600A

IEC & British Fuses

### Catalog Numbers

Basic Catalog Number and Volts	Amp Ratings	Dimensions in (mm)					
		A Overall	B Max Diameter	C Min Blade Length	D Min Barrel Length	E Blade Thickness	F Blade Width
CDN/PON 250Vac	1-30	2.0 (50.8)	0.56 (14.3)	—	—	—	—
	35-60	3.0 (76.2)	0.81 (20.6)	—	—	—	—
	70-100	5.88 (149.4)	—	1.0 (25.4)	—	0.13 (3.2)	0.75 (19.1)
	110-200	7.3 (185.4)	—	1.38 (34.9)	4.13 (104.8)	0.19 (4.8)	1.13 (28.6)
	225-400	8.63 (219.2)	—	1.88 (47.6)	4.63 (117.5)	0.25 (6.4)	1.63 (41.3)
CDS 600V	450-600	10.38 (263.7)	—	2.25 (57.2)	5.19 (131.8)	0.25 (6.4)	2 (50.8)
	1-30	5.0 (127.0)	0.81 (20.6)	—	—	—	—
	35-60	5.5 (139.7)	1.06 (27.0)	—	—	—	—
	70-100	7.88 (200.2)	—	1.0 (25.4)	—	0.13 (3.2)	0.75 (19.1)
	110-200	9.63 (244.6)	—	1.38 (34.9)	6.13 (115.6)	0.19 (4.8)	1.13 (28.6)
	225-400	11.63 (295.4)	—	1.88 (47.6)	7.13 (118.1)	0.25 (6.4)	1.63 (41.3)
	450-600	13.38 (339.9)	—	2.25 (57.2)	8.19 (208.0)	0.25 (6.4)	2 (50.8)

### To Order

To order, specify Basic Catalog Number and amp rating. Example: CDN-30

# Tron® HRC Form II Class C fuses

## CGL Form II Class C

### Specifications

**Description:** Current-limiting HRCII-C fuses

designed to withstand inrush currents on typical motor start-ups while offering high current limitation in the short-circuit region.

**Dimensions:** See Dimensions illustrations.

**Construction:** Fiberglass and melamine body.

### Ratings:

Volts: — 600Vac/250Vdc (1-30A)

Amps: — 1-600A

IR: — 200,000A (40,000A dc)

**Agency Information:** CE, CSA Certified, C22.2 No. 106.

### Features and Benefits

- Close sizing to loads allows using smaller and less costly switches
- \* Provides a higher degree of short-circuit protection
- Helps protect motors against burnout from overloads

### Typical Applications

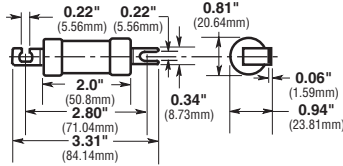
- For use in circuits subject to surge currents such as those caused by motors, transformers and other inductive loads

### Catalog Numbers (-Amps)

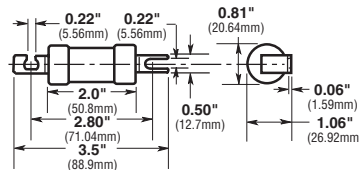
CGL-1	CGL-40	CGL-175
CGL-2	CGL-45	CGL-200
CGL-3	CGL-50	CGL-225
CGL-4	CGL-60	CGL-250
CGL-6	CGL-70	CGL-300
CGL-10	CGL-80	CGL-350
CGL-15	CGL-90	CGL-400
CGL-20	CGL-100	CGL-450
CGL-25	CGL-110	CGL-500
CGL-30	CGL-125	CGL-600
CGL-35	CGL-150	



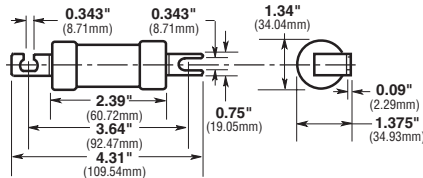
### Dimensions



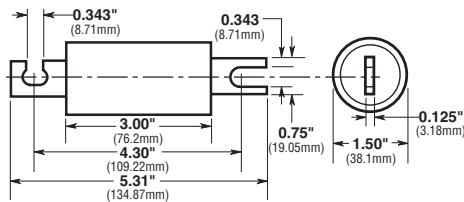
CGL 1-30



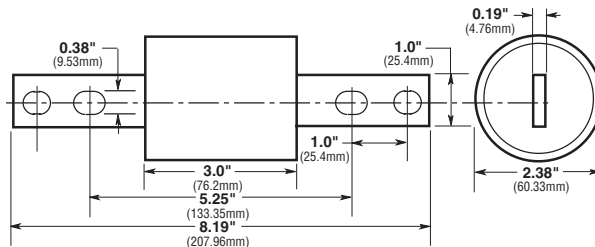
CGL 35-60



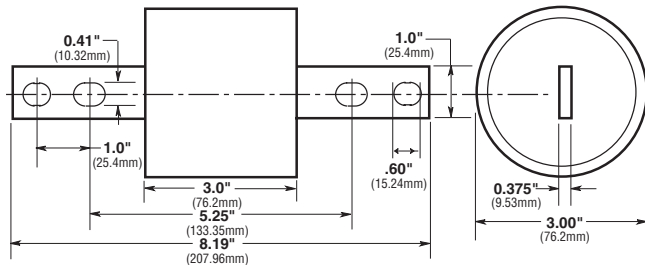
CGL 70-100



CGL 110-200



CGL 225-400



CGL 450-600

## HRCI industrial ceramic body fuses

### CIF21 HRCI-CA

#### Specifications

**Description:** The HRCI-CA fuse provides both overload and short-circuit protection to HRCI requirements. Offset blades for bolt-on mounting. CIF21 fuse fits the Cooper Bussmann-CAMaster fuse holder.

**Dimensions:** See Dimensions illustration.

**Construction:** Ceramic body.

#### Ratings:

Volts: — 600Vac/250Vdc

Amps: — 1-30A

IR: — 200,000A RMS Sym.

**Agency Information:** CE, CSA C22.2, No. 106-M92.

**Mounting:** Bolt-on.

#### Catalog Numbers

Catalog Numbers	Amp Ratings
1CIF21	1
3CIF21	3
10CIF21	10
15CIF21	15
20CIF21	20
25CIF21	25
30CIF21	30



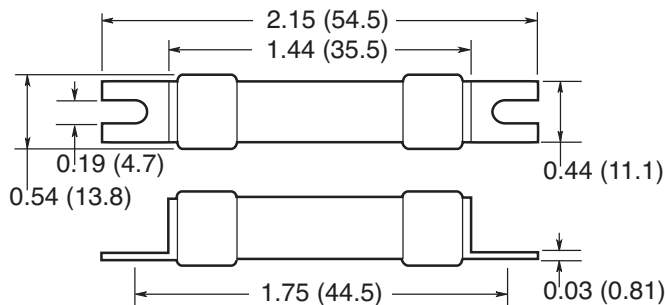
#### Features and Benefits

- Close sizing to loads allows using smaller and less costly switches
- \* Provides a higher degree of short-circuit protection
- Helps protect motors against burnout from overloads

#### Typical Applications

- For use in circuits subject to surge currents such as those caused by motors, transformers and other inductive loads

#### Dimensions - in (mm)



Data Sheet: 4127

### CIF06 HRCI-CB

#### Specifications

**Description:** A miniature industrial fuse that provides both short-circuit and overload protection and the CIF06 fits the 30A SAFEloc fuse holder.

**Dimensions:** See Dimensions illustration.

**Construction:** Ground ceramic body with plated end caps.

#### Ratings:

Volts: — 600Vac/250Vdc

Amps: — 1-30A

IR: — 200,000A RMS Sym.

**Agency Information:** CE, CSA C22.2 No. 106-M92 (3-30A only).

**Mounting:** Clip-in offset blades.

#### Catalog Number

Catalog Numbers	Amp Ratings
3CIF06	3
6CIF06	6
10CIF06	10
15CIF06	15
20CIF06	20
25CIF06	25
30CIF06	30



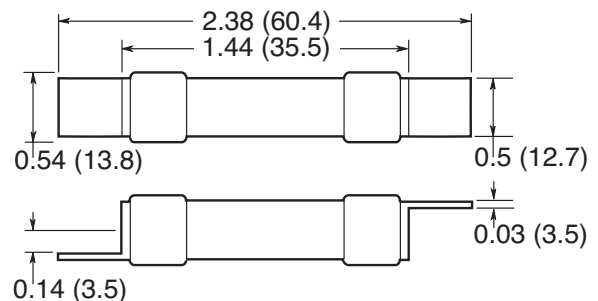
#### Features and Benefits

- Close sizing to loads allows using smaller and less costly switches
- \* Provides a higher degree of short-circuit protection
- Helps protect motors against burnout from overloads

#### Typical Applications

- For use in circuits subject to surge currents such as those caused by motors, transformers and other inductive loads

#### Dimensions - in (mm)



Data Sheet: 4128

# IEC & British Standard Fuses

## HRCI-J fast-acting fuses

### CJ HRCI-J

#### Specifications

**Description:** HRCI-J fast-acting fuses are industrial duty fuses with the excellent current-limiting characteristics of fast-acting HRCI-J fuses to limit damage to equipment and installations by the thermal and magnetic energy associated with a large short-circuit fault current. Overload characteristics limit cable damage due to low overload currents.

**Dimensions:** See Catalog Numbers table and Dimensions illustrations.

**Construction:** Ceramic body fuse.

#### Ratings:

Volts: — 600Vac (or less), 250Vdc

Amps: — 1-600A

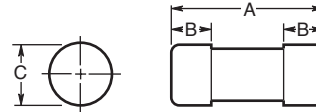
IR: — 200,000A

**Agency Information:** CSA C22.2 No. 106 M92; Designed to BS 88:2, IEC 60269-2.

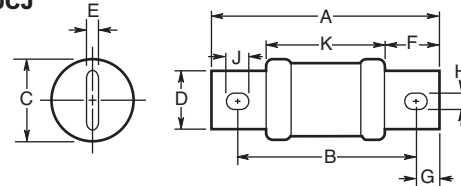


### Dimensions

#### 1CJ to 60CJ



#### 70CJ to 600CJ



### Catalog Numbers

Catalog Numbers	Amp Ratings	Dimensions: in (mm)									
		A	B	C	D	E	F	G	H	J	K
1CJ	1	2.25 (57)	0.5 (12.7)	0.81 (20.6)	—	—	—	—	—	—	—
3CJ	3										
6CJ	6										
10CJ	10										
15CJ	15										
20CJ	20										
25CJ	25										
30CJ	30										
35CJ	35	2.38 (60)	0.63 (16)	1.06 (27)	—	—	—	—	—	—	—
40CJ	40										
45CJ	45										
50CJ	50										
60CJ	60										
70CJ	70	4.63 (117)	3.63 (92)	1.13 (28)	0.75 (19)	0.13 (3.2)	1 (25.4)	0.5 (12.7)	0.28 (7.1)	0.38 (9.5)	2.63 (67)
80CJ	80										
90CJ	90										
100CJ	100										
110CJ	110	5.75 (146)	4.38 (111)	1.63 (41)	1.13 (28.6)	0.19 (4.8)	1.38 (35)	0.69 (17.5)	0.28 (7.1)	0.38 (9.5)	3 (76)
125CJ	125										
150CJ	150										
175CJ	175										
200CJ	200										
225CJ	225	7.13 (181)	5.25 (133)	2.13 (54)	1.63 (41)	0.25 (6.3)	1.88 (47.6)	0.94 (24)	0.41 (10.3)	0.53 (13.5)	3.38 (86)
250CJ	250										
300CJ	300										
350CJ	350										
400CJ	400										
450CJ	450	8 (203)	6 (152)	2.63 (66)	2 (51)	0.38 (9.5)	2.13 (54)	1 (25.4)	0.53 (13.5)	0.69 (17.5)	3.75 (96)
500CJ	500										
600CJ	600										

Data Sheet: 4129

## HRCI-miscellaneous Type K fuses

### CIH, CIK & CIL HRCI-MISC

**Specifications**

**Description:** HRI fuses provide both overload and short-circuit protection, featuring offset blades for bolt down mounting.

**Dimensions:** See Catalog Numbers table and Dimensions illustration.

**Construction:** Ceramic body.

**Ratings:**

Volts: — 600V

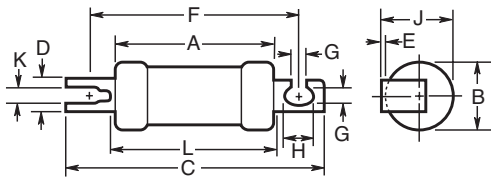
Amps: — 1-100A

IR: — 200,000A@600V

**Agency Information:** CE, CSA C22.2 No. 106 M92.



**Dimensions**



**Catalog Numbers**

Catalog Numbers	Amp Ratings	Dimensions: in (mm)										
		A Max	B Max	C Max	D Nom	E Nom	F Nom	G Nom	H Nom	J Max	K Nom	L Max
1CIH07	1	2.25 (57)	0.94 (24)	3.38 (86)	0.38 (9.2)	0.04 (1.0)	2.88 (73)	0.21 (5.2)	0.31 (8)	1 (25.4)	0.10 (2.6)	2.38 (60)
3CIH07	3											
6CIH07	6											
10CIH07	10											
15CIH07	15											
20CIH07	20											
25CIH07	25											
30CIH07	30	2.28 (58)	1.06 (27)	3.56 (91)	0.5 (12.7)	0.05 (1.2)	2.88 (73)	0.21 (5.2)	0.41 (10.5)	1.09 (28)	0.13 (3.2)	2.38 (61)
35CIK07	35											
40CIK07	40											
50CIK07	50											
60CIK07	60	2.75 (70)	1.44 (37)	4.38 (111)	0.75 (19)	0.09 (2.5)	3.69 (94)	0.34 (8.7)	0.41 (10.5)	1.5 (38.5)	—	2.91 (74)
80CIL14	80											
90CIL14	90											
100CIL14	100											

**Recommended Fuse Holders**

Fuse	Fuse Holder
1-30A	CM30CF
35-60A	CM60CF

Data Sheet: 4130

**HRC Form II current-limiting fuses**

**HRC Form II**

**Specifications**

**Description:** HRC Form II current-limiting fuses.

**Dimensions:** See Catalog Numbers table and Dimensions illustrations.

**Construction:** Ceramic body.

**Ratings:**

Volts: — 600Vac (or less)  
— 250Vdc

Amps: — 2-600A

IR: — 200,000A RMS Sym.

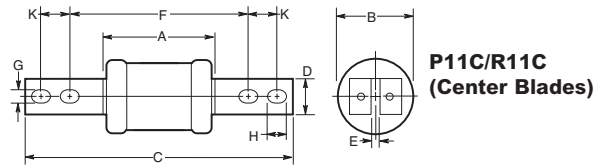
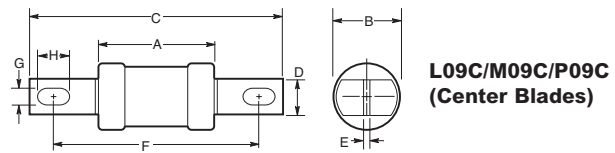
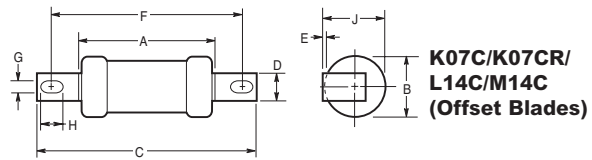
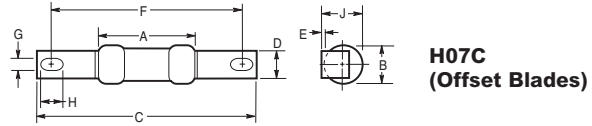
**Agency Information:** CE, CSA C22.2 No.106M1992; BS 88:2, IEC 60269:2.

**Typical Applications**

- Used to protect motor control circuits, together with contactors and overload protection relays to provide Type 2 coordination - per IEC 60947-4.



**Dimensions**



**Catalog Numbers**

Catalog Numbers	Amp Ratings	Dimensions in (mm)										CSA Category		
		A	B	C	D	E	F	G	H	J	K			
2H07C	2	1.38 (35)	0.56 (14)	3.38 (85)	0.38 (9)	0.06 (1.2)	2.88 (73)	0.22 (5.6)	0.31 (8)	0.56 (14)	—	HRCII-C		
4H07C	4													
6H07C	6													
10H07C	10													
15H07C	15													
20H07C	20													
25H07C	25	2.19 (56)	0.88 (22)	3.44 (87)	0.5 (13)	0.06 (1.2)	2.88 (73)	0.22 (5.6)	0.31 (8)	0.88 (22)	—	HRCII-C		
30H07C	30													
40K07C	40													
50K07C	50	2.38 (60)	0.88 (21.4)	4.38 (111)	0.56 (14.3)	0.13 (3.2)	3.69 (94)	0.22 (5.6)	0.31 (8)	1 (25.4)	—	HRCII-C		
60K07C	60													
80K07CR	80	3.06 (178)	2.31 (59)	5.38 (136)	0.75 (19)	0.13 (3.2)	4.38 (111)	0.34 (8.7)	0.44 (11)	—	—	HRCII-MISC		
100K07CR	100													
80L14C	80													
100L14C	100													
125M14C	125			3.06 (178)	2.31 (59)	5.38 (136)	0.75 (19)	0.13 (3.2)	4.38 (111)	0.34 (8.7)	0.44 (11)	—	—	HRCII-C
150M14C	150													
200M14C	200													
80L09C	80													
100L09C	100													
125M09C	125													
150M09C	150	3.06 (178)	2.31 (59)	8.25 (210)	1 (25.4)	0.19 (4.8)	5.25 (133)	0.41 (10)	0.63 (16)	—	1 (25)	HRCII-C		
200M09C	200													
250P09C	250													
300P09C	300													
350P09C	350													
400P09C	400													
250P11C	250													
300P11C	300													
350P11C	350													
400P11C	400													
450R11C	450	3.19 (81)	2.88 (73)	8.25 (210)	1 (25.4)	0.19 (5)	5.25 (133)	0.41 (10)	0.63 (16)	—	1 (25)	HRCII-C		
500R11C	500													
600R11C	600	3.19 (81)	2.88 (73)	8.25 (210)	1 (25.4)	0.25 (6.3)	5.25 (133)	0.41 (10)	0.63 (16)	—	1 (25)	HRCII-C		
600R11C	600													



# BS 88 British Standard low voltage fuses

## SSD, NSD, ESD BS 88 Part 1

### Specifications

**Description:** The NSD and ESD are low voltage fuses complying with general purpose gG characteristics.

**Construction:** Ceramic body.

### Ratings:

Volts: — 240-550Vac (See Catalog Numbers table)

Amps: — 2-63A (See Catalog Numbers table)

— 20M25-63M100A Motor Starter ratings (See Catalog Numbers table)

IR: — 80kA

**Agency Information:** CE, Meets the requirements of BS 88 Part 1 and IEC 60269-1.

**Mounting:** Offset blades.

### Basic Catalog Numbers

Basic Catalog Numbers	Amp Ratings	Max Voltage Rating		BS 88 Ref.
		AC	DC	
SSD	2, 4, 6, 10, 16, 20, 25, 32	240	—	E1
NSD	2, 4, 6, 10, 16, 20, 25, 32, 20M25*, 20M32*	550	—	F1
	20M36*, 32M36*, 32M40*, 32M50*, 32M63*	415	—	—
ESD	2, 4, 6, 10, 16, 25, 32	550	250	F2
	40, 50, 63, 63M80, 63M100	415	250	F2

\*\*M\* indicates motor starter ratings.

### To Order

To order, specify Basic Catalog Number and amp rating. Example: SSD-20

### Recommended Fuse Holders

Basic Fuse Catalog Numbers	Holder Catalog Numbers
NSD	32NNSF
ESD	63ENSF



## STD, NITD, AAO, BAO, OSD, CEO, DEO BS 88 Part 1

### Specifications

**Description:** The NITD to DEO types are low voltage fuses complying with general purpose gG characteristics.

**Construction:** Ceramic body.

### Ratings:

Volts: — 240-550Vac (See Catalog Numbers table)

Amps: — 2-200A (See Catalog Numbers table)

— 20M25-200M315A Motor Starter ratings (See Catalog Numbers table)

IR: — 80kA

**Agency Information:** CE, Meets the requirements of BS 88 Part 1 and IEC 60269-1.

**Mounting:** Offset bolted blades.

### Typical Applications

- The STD type are used in 240V street lighting cut-outs.
- NITD to DEO types used for industrial and general purpose applications

### Basic Catalog Numbers

Basic Catalog Numbers	Amp Ratings	Max AC Voltage Rating	BS 88 Ref.
STD	2, 4, 6, 10, 16, 20, 25, 32	240	—
NITD	2, 4, 6, 10, 16, 20,	550	A1
	25, 32	550	—
	20M25*, 20M32*	550	A1
AAO	32M40*, 32M50*, 32M63*	415	—
	2, 4, 6, 10, 16, 20, 25, 32, 32M40*, 32M50*, 32M63*	550	A2
	40, 50, 63, 63M80*, 63M100*	550	A3
BAO	80, 100	550	—
	100M125*, 100M160*	415	—
OSD	32, 40, 50, 63, 80, 100	550	A4
	100M125*, 100M160*, 100M200*	415	A4
DEO	125, 160, 200, 200M250*, 200M315*	415	—

\*\*M\* indicates motor starter ratings.

### To Order

To order, specify Basic Catalog Number and amp rating. Example: BAO-16

### Recommended Fuse Blocks & Holders

Basic Fuse Catalog Numbers	Block/Holder Catalog Numbers
NITD	CM32FC
AAO	CM32F
BAO	CM63F
OSD	CM100F
CEO	BH-0111

Data Sheets 4123 (STD), 4106 (NITD), 4109 (AAO), 4112 (BAO), 4107 (OSD), 4115 (CEO) and 4117 (DEO)

Data Sheets 4105 (SSD), 4100 (NSD) and 4101 (ESD)

## IEC & British Standard Fuses

# BS 88 British Standard low voltage fuses

### AC, AD, BC, BD, CD, DD, ED, EFS BS 88

#### Specifications

**Description:** Low voltage fuses that comply with general purpose gG characteristics and available up to 400A with two hole mount and up to 1250A with four hole mount.

**Construction:** Ceramic body.

#### Ratings:

Volts: — 415/550Vac, 250Vdc (See Catalog Numbers table)

Amps: — 2-400A (See Catalog Numbers table)  
— 63M80-400M500A Motor Starter ratings (See Catalog Numbers table)

IR: — See Catalog Numbers table

**Agency Information:** CE, Meets the requirements of BS 88 Parts 1 and 2 and IEC 60269-1.

**Mounting:** Center bolted blades, two-hole mount.



#### Basic Catalog Numbers

Basic Catalog Numbers	Amp Ratings	Interrupting Rating		Max Voltage Rating		BS 88 Ref.
		AC	DC	AC	DC	
AC	2, 4, 6, 10, 16, 20, 25, 32	80kA	40kA	550	250	—
AD	2, 4, 6, 10, 16, 20, 25, 32	@	@	550	250	—
BC	40, 50, 63 63M80*, 63M100*	550V	250V	550	250	—
BD	40, 50, 63	—	—	550	250	—
CD	80, 100 100M125*, 100M160*, 100M200*, 100M200*	—	—	550	—	B1
DD	125, 160, 200, 200M250*, 200M315*	—	—	415	—	B2
ED	250, 315, 315M400* 355, 400 400M500*	80kA @ 415V	—	415	—	B3 B4 B4
EFS	125, 160, 200, 250, 315	—	—	415	—	—

\*"M" indicates motor starter ratings.

#### To Order

To order, specify Basic Catalog Number and amp rating. Example: BC-40

#### Recommended Fuse Blocks & Holder

Basic Fuse Catalog Numbers	Block/Holder Catalog Numbers
AC	BH-0111 Modular fuse block
AD	200DF Fuse holder
BC	BH-0111 Modular fuse block
BD	200DF Fuse holder
CD	200DF Fuse holder
DD	200DF Fuse holder
ED	BH-1131 Modular fuse block

Data Sheets 4110 (AC), 4111 (AD), 4113 (BC), 4114 (BD), 4116 (CD), 4118 (DD), 4119 (ED) and 4121 (EFS)

### EF, FF, FG, GF, GG, GH BS 88

#### Specifications

**Description:** Low voltage fuses complying with general purpose gG characteristics and available up to 400A with two hole mount and up to 1250A with four hole mount.

**Construction:** Ceramic body.

#### Ratings:

Volts: — 415/550Vac, 250/400Vdc  
(See Catalog Numbers table for details)

Amps: — 355-1250

IR: — See Catalog Numbers table

**Agency Information:** CE, Meets the requirements of BS 88 Parts 1 and 2 and IEC269-1.

**Mounting:** Center bolted blades, four-hole mount.



#### Basic Catalog Numbers

Basic Catalog Numbers	Amp Ratings	Interrupting Rating		Max Voltage Rating		BS 88 Ref.
		AC	DC	AC	DC	
EF	355, 400 400M500*	80kA@415V	—	415	—	C1
FF	450, 500, 560, 630	80kA@550V	40kA@400V	550	400	C2
FG	450, 500, 560, 630	—	—	550	400	—
GF	710, 800	80kA@550V	40kA@250V	550	250	C3
GG	710, 800 1000, 1250	—	—	550	250	—
GH	710, 800 1000, 1250	—	—	550	250	D1

\*"M" indicates motor starter ratings.

#### To Order

To order, specify Basic Catalog Number and amp rating. Example: FG-450

Data Sheets 4120 (EF), 4102 (FF), 4122 (FG), 4103 (GF), 4104 (GG) and 4108 (GH)

## DIN style Type D and Neozed low voltage fuses

### D16, D27, D33, D125 Type D

**Specifications**

**Description:** DIN style Type D low voltage fuses.

**Dimensions:** See Catalog Numbers table and Dimensions illustrations.

**Construction:** Ceramic body.

**Ratings:**

Volts: — 500Vac

Amps: — 2-100A

IR: — 100kA

**Agency Information:** CE, “D” type fuses complying with DIN 49360 Part 2 and DIN 49515, operating class gL.

**Catalog Numbers**

Catalog Numbers	Amp Ratings	Dimension “D” (mm)	Color Code	Figure Number
2D16	2	6	Pink	1
4D16	4	6	Brown	
6D16	6	6	Green	
10D16	10	7	Red	
16D16	16	10	Grey	
20D16	20	12	Blue	
25D16	25	14	Yellow	
2D27	2	6	Pink	2
4D27	4	6	Brown	
6D27	6	6	Green	
10D27	10	8	Red	
16D27	16	10	Grey	
20D27	20	12	Blue	
25D27	25	14	Yellow	
35D33	35	16	Black	3
50D33	50	18	White	
63D33	63	20	Copper	
80D125	80	5	Silver	4
100D125	100	7	Red	

Additional Fuselinks: Quick acting fuselinks in body sized D16, D27, D33 and D125 rated 2-100A. Reference number suffixed Q, i.e. 10D27Q. Voltage rating 500V. Gauge rings and keys can also be supplied.

**Dimensions (mm)**

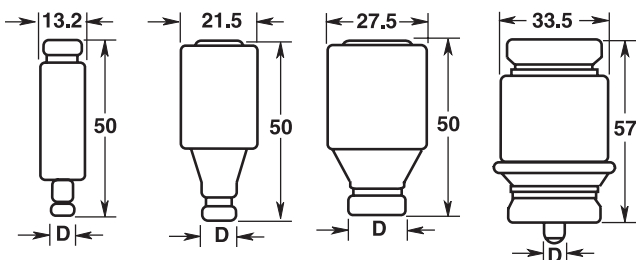


Figure 1

Figure 2

Figure 3

Figure 4

Data Sheet: 4124

### NZ01, NZ02 Type D0

**Specifications**

**Description:** Low voltage Neozed fuses suitable for use on 250Vdc systems.

**Dimensions:** See Catalog Numbers table and Dimensions illustration.

**Construction:** Ceramic body.

**Ratings:**

Volts: — 400Vac

Amps: — 2-63A

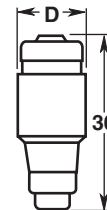
IR: — 100kA

**Agency Information:** CE

**Catalog Numbers**

Catalog Numbers	Amp Ratings	Dimension “D” (mm)	Color Code
2NZ01	2	11	Pink
4NZ01	4	11	Brown
6NZ01	6	11	Green
10NZ01	10	11	Red
16NZ01	16	11	Grey
20NZ02	20	15	Blue
25NZ02	25	15	Yellow
35NZ02	35	15	Black
50NZ02	50	15	White
63NZ02	63	15	Copper

**Dimensions (mm)**



Data Sheet: 4124

IEC & British Fuses

# IEC & British Standard Fuses

## NH HRC fuses

### NHG B

#### Specifications

**Class:** gL/gG

**Description:** DIN square bodied, dual indication industrial fuses.

**Construction:** Steatite insulator, corrosion-proof (aluminum) metal parts with full-contact, silver-plated copper blades.

**Sizes:** DIN 000 to 3.

#### Catalog Numbers



#### Ratings:

Volts: — 500Vac

Amps: — 10-630A

IR: — 120kA

Frequency: — 50Hz

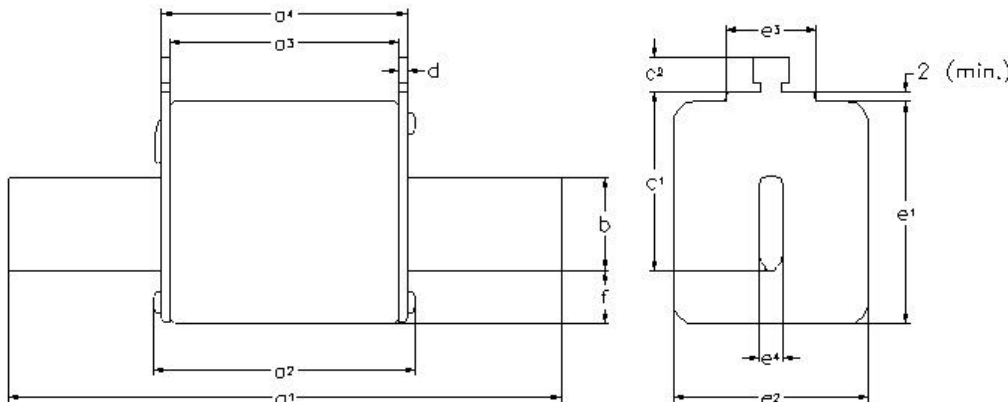
Operating Frequency: — 45-62Hz

**Agency Information:** IEC 60269, VDE0636, DIN 43 620 Part 1 to 4.

Catalog Numbers	Amp Ratings	I <sup>2</sup> t (A <sup>2</sup> Sec) Min Pre-arc	20 x I <sub>n</sub> @ 500Vac	I <sub>1</sub> 120kA @ 500Vac	Watts Loss
<b>Size 000</b>					
10NHG000B	10	58	290	232	1.5
16NHG000B	16	234	1170	1000	2.3
20NHG000B	20	584	3000	2400	2.2
25NHG000B	25	1000	4600	3700	2.8
32NHG000B	32	2400	11800	9400	3.7
35NHG000B	35	2400	11800	9400	3.7
40NHG000B	40	3300	16500	13200	4.0
50NHG000B	50	5600	27800	16700	4.9
63NHG000B	63	6300	24900	18700	4.5
80NHG000B	80	9800	38900	29200	6.3
100NHG000B	100	18100	72300	54300	7.4

#### Dimensions (mm)

Link Size	a <sup>1</sup>	a <sup>2</sup> (max)	a <sup>3</sup>	a <sup>4</sup>	b (nom)	c <sup>1</sup> (± 8)	c <sup>2</sup> (nom)	D (nom)	e <sup>1</sup> (max)	e <sup>2</sup> (max)	e <sup>3</sup> (max)	e <sup>4</sup> (nom)	f (max)
000	78.5 ± 1.5	54	45 ± 1.5	49 ± 1.5	15	35	10	2 ± 0.5	41	21	21	6	8
00	78.5 ± 1.5	54	45 ± 1.5	49 ± 1.5	15	35	10	2.5 ± 0.5	48	30	25	6	15
0	125 ± 2.5	68	62 +3/-1.5	68 +1.5/-3	15	35	11	2.5 ± 0.5	48	30	25	6	15
01	135 ± 2.5	75	62 ± 2.5	68 ± 2.5	15	40	11	2.5 ± 0.5	48	30	25	6	15
1	135 ± 2.5	75	62 ± 2.5	68 ± 2.5	20	40	11	2.5 ± 0.5	53	52	25	6	15
02	150 ± 2.5	75	62 ± 2.5	68 ± 2.5	20	48	11	2.5 ± 0.5	53	52	25	6	15
2	150 ± 2.5	75	62 ± 2.5	68 ± 2.5	25	48	11	2.5 ± 0.5	61	60	25	6	15
03	150 ± 3	75	62 ± 2.5	68 ± 2.5	25	60	11	2.5 ± 0.5	61	60	25	6	15
3	150 ± 3	75	62 ± 2.5	68 ± 2.5	32	60	11	3.0 ± 0.5	76	75	25	6	18



**NH HRC fuses**

**Catalog Numbers**

Catalog Numbers	Amp Ratings	I <sup>2</sup> t (A <sup>2</sup> Sec) Min Pre-arc	20 x I <sub>n</sub> @ 500Vac	I <sub>1</sub> 120kA @ 500Vac	Watts Loss
<b>Size 00</b>					
125NHG00B	125	25000	125000	80000	10.0
160NHG00B	160	62000	310000	204600	10.0
<b>Size 0</b>					
10NHG0B	10	58	290	240	1.7
16NHG0B	16	240	1200	1000	3.0
20NHG0B	20	490	2500	2000	3.2
25NHG0B	25	1200	5600	4500	3.2
32NHG0B	32	1800	9000	7200	4.8
35NHG0B	35	2400	11800	9400	4.4
40NHG0B	40	3300	16500	13200	4.7
50NHG0B	50	5600	22300	16700	6.3
63NHG0B	63	6600	26100	19600	5.6
80NHG0B	80	9800	38900	29200	7.1
100NHG0B	100	20600	82300	61700	7.5
125NHG0B	125	25000	125000	72500	10.0
160NHG0B	160	62000	310000	179800	11.5
<b>Sizes 01 &amp; 1</b>					
10NHG01B	10	58	300	300	2.0
16NHG01B	16	240	1200	1000	3.0
20NHG01B	20	490	2500	2000	3.2
25NHG01B	25	1200	5600	4500	3.2
32NHG01B	32	1800	9000	7200	4.8
35NHG01B	35	2400	11800	9400	4.6
40NHG01B	40	3300	16500	13200	5.0
50NHG01B	50	5600	22300	16700	6.7
63NHG01B	63	6600	26100	19600	5.6
80NHG01B	80	9800	38900	29200	7.1
100NHG01B	100	20600	82300	61700	7.7
125NHG01B	125	25000	125000	72500	11.6
160NHG01B	160	62000	310000	179800	12.3
200NHG1B	200	97000	368600	291000	15.0
224NHG1B	224	124000	471200	372000	15.0
250NHG1B	250	151300	574900	453800	19.0
<b>Sizes 02 &amp; 2</b>					
35NHG02B	35	2400	11800	9400	4.4
40NHG02B	40	3300	16500	13200	5.0
50NHG02B	50	5600	22300	16700	6.4
63NHG02B	63	6600	26100	19600	6.0
80NHG02B	80	9800	38900	29200	7.0
100NHG02B	100	20600	82300	61700	8.0
125NHG02B	125	25000	100000	72500	12.0
160NHG02B	160	62000	248000	179800	12.0
200NHG02B	200	96900	367900	290500	15.0
224NHG02B	224	124000	472000	372000	15.0
250NHG02B	250	151300	574900	453800	19.0
315NHG2B	315	361700	1446500	940300	21.0
355NHG2B	355	446500	1785800	1160800	27.0
400NHG2B	400	642900	2571500	1671500	29.0
<b>Sizes 03 &amp; 3</b>					
250NHG03B	250	160800	642900	417900	20.0
315NHG03B	315	361700	1446500	940300	21.0
355NHG03B	355	446500	1785800	1160800	27.0
400NHG03B	400	642900	2571500	1671500	29.0
500NHG3B	500	886000	3898400	2923800	37.0
630NHG3B	630	1590000	6996000	5406000	46.0

IEC & British Fuses

## NH low voltage fuses

### NH\_M

**Specifications**

**Class:** aM Category

**Description:** A range of industrial fuses for the protection of motor circuits.

**Ratings:**

Volts: — 500Vac

Amps: — 4-630A

IR: — 120kA

**Agency Information:** IEC 60269, VDE, DIN43620 Part 1

The ordering code is made up as follows:

Rating	Product Code	Body	Category
100	NH	1	M

Type	Amp Rating	Fuse Body Size
NHC00M	4, 6, 8, 10, 12, 16, 20, 25, 32, 40, 50	C00
NH00M	63, 80, 100	00
NH1M	40, 50, 63, 80, 100, 125, 160	01
	200, 250	02
NH2M	125, 160, 200, 250	02
	315, 400	2
NH3M	315, 400	03
	500, 630	3

**Dimensions (mm)**

Type	Amp Rating	Depth	Width	Overall Length
NHC00M	4-50A	39.5	20.5	78.5
NH00M	63-100A	38	29	78.5
NH1M	40-160A	45	29	135
NH1M	200-250A	50	44.5	135
NH2M	125-250A	50	44.5	150
NH2M	315-400A	58	50	150
NH3M	315-400A	58	50	150
NH3M	500-630A	73	71	150

**Data Sheet: 4173**



### NH\_G-690

**Specifications**

**Class:** gL/gG Category

**Description:** A range of industrial fuses for a wide variety of applications where 690V is needed.

**Ratings:**

Volts: — 690Vac/250Vdc

Amps: — 10-630A

IR: — 50kA

**Agency Information:** IEC 60269, DIN43620 Part 1

The ordering code is made up as follows:

Rating	Product Code	Body	Category
250	NH	2	G-690

Type	Amp Rating	Fuse Body Size
NH00G-690	10, 16, 20, 25, 32, 40, 50, 63, 80, 100	C00
NH1G-690	32, 40, 50, 63, 80, 100	01
	125, 160, 200, 200, 224, 225, 250	1
NH2G-690	100, 125, 160, 200, 224, 250, 315, 350, 400	2
NH3G-690	315, 350, 400, 500, 630	3

**Dimensions (mm)**

Type	Amp Rating	Depth	Width	Overall Length
NH00G-690	10-100	38	29	78.5
NH1G-690	32-100	45	29	135
NH1G-690	125-250	50	44.5	135
NH2G-690	100-400	50	44.5	150
NH3G-690	315-630	58	50	150

**Data Sheet: 4173**



## Class gG/gL IEC industrial ferrule fuses

**C08G, C08M, C10G, C10M, C14G, C14M, C22G, C22M**

**Specifications**

**Class:** gG/gL and aM

**Description:** IEC ferrule fuses are available in physical sizes and amp ratings for system voltages of 250, 380, 400, 500 & 690Vac.

**Construction:** Ceramic with silver-plated copper endcaps

**Ratings:** See Catalog Number tables.

**Features and Benefits**

- All fuses are available with an operated visible fuse indicator.
- Sizes 14x51 & 22x58 available with a built-in striker for micro-switch operation and remote indication.

**Typical Applications**

- Class gG/gL and aM fuses are intended for industrial applications.

**8 X 31**



**10 X 38**



**14 X 51**



**22 X 58**



Catalog Number Without Indicator	Catalog Number With Indicator	Amp Rating	Watts Loss (W)	Voltage (AC)	Interrupting Rating (kA)		
C08G0.5	C08G0.5I	0.5	2.60	400	20		
C08G1	C08G1I	1	2.50				
C08G2	C08G2I	2	0.70				
C08G4	C08G4I	4	0.85				
C08G6	C08G6I	6	0.95				
C08G8	C08G8I	8	1.55				
C08G10	C08G10I	10	1.65				
C08G12	C08G12I	12	2.00				
C08G16	C08G16I	16	2.30				
C08G20	C08G20I	20	2.55				
C08G25	C08G25I	25	2.65				
C10G0.5	C10G0.5I	0.5	1.43			500	120
C10G1	C10G1I	1	2.77				
C10G2	C10G2I	2	0.60				
C10G4	C10G4I	4	0.70				
C10G6	C10G6I	6	0.85				
C10G8	C10G8I	8	0.75				
C10G10	C10G10I	10	1.00				
C10G12	C10G12I	12	1.30				
C10G16	C10G16I	16	1.60				
C10G20	C10G20I	20	2.00				
C10G25	C10G25I	25	2.60				
C10G32	C10G32I	32	2.90				
C14G1	C14G1I	1	3.90	690	80		
C14G2	C14G2I	2	0.90				
C14G4	C14G4I	4	1.00				
C14G6	C14G6I	6	1.15				
C14G8	C14G8I	8	1.00				
C14G10	C14G10I	10	1.30				
C14G12	C14G12I	12	1.70				
C14G16	C14G16I	16	2.00				
C14G20	C14G20I	20	2.50				
C14G25	C14G25I	25	3.30				
C14G32	C14G32I	32	3.50	500	500		
C14G40	C14G40I	40	4.85				
C14G50	C14G50I	50	4.90	400			
C22G2	C22G2I	2	1.00	690	690		
C22G4	C22G4I	4	1.10				
C22G6	C22G6I	6	1.30				
C22G8	C22G8I	8	1.10				
C22G10	C22G10I	10	1.50				
C22G12	C22G12I	12	1.80				
C22G16	C22G16I	16	2.10				
C22G20	C22G20I	20	2.70				
C22G25	C22G25I	25	3.60				
C22G32	C22G32I	32	3.70				
C22G40	C22G40I	40	4.50				
C22G50	C22G50I	50	5.20				
C22G63	C22G63I	63	6.90				
C22G80	C22G80I	80	7.80				
C22G100	C22G100I	100	8.60			500	500
C22G125	C22G125I	125	11.40	400			

IEC & British Standard Fuses

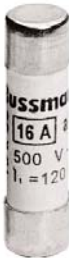
**Class aM IEC industrial ferrule fuses**

**8 X 32**



Catalog Number Without Indicator	Catalog Number With Indicator	Amp Rating	Watts Loss (W)	Voltage (AC)	Interrupting Rating (kA)
C08M1	C08M1I	1	0.11	400V	20 kA
C08M2	C08M2I	2	0.14		
C08M4	C08M4I	4	0.25		
C08M6	C08M6I	6	0.28		
C08M8	-	8	0.43		
C08M10	C08M10I	10	0.45		
C08M12	C08M12I	12	0.50		
C08M16	C08M16I	16	0.55		
C08M20	C08M20I	20	0.58		
C08M25	-	25	0.62		

**10 X 38**



Catalog Number Without Indicator	Catalog Number With Indicator	Amp Rating	Watts Loss (W)	Voltage (AC)	Interrupting Rating (kA)
C10M0.16	-	0.16	0.24	500V	120 kA
C10M0.25	-	0.25	0.36		
C10M0.5	-	0.5	0.49		
C10M1	C10M1I	1	0.10		
C10M2	C10M2I	2	0.18		
C10M4	C10M4I	4	0.31		
C10M6	C10M6I	6	0.32		
C10M8	C10M8I	8	0.52		
C10M10	C10M10I	10	0.55		
C10M12	C10M12I	12	0.63		
C10M16	C10M16I	16	0.92		
C10M20	C10M20I	20	0.96		
C10M25	C10M25I	25	1.40		
C10M32	C10M32I	32	1.80		

**14 X 51**



Catalog Number Without Indicator	Catalog Number With Indicator	Amp Rating	Watts Loss (W)	Voltage (AC)	Interrupting Rating (kA)
C14M0.25	-	0.25	0.41	690V	80 kA
C14M0.5	-	0.5	0.69		
C14M1	C14M1I	1	0.14		
C14M2	C14M2I	2	0.24		
C14M4	C14M4I	4	0.45		
C14M6	C14M6I	6	0.42		
C14M8	C14M8I	8	0.70		
C14M10	C14M10I	10	0.53		
C14M12	C14M12I	12	0.88		
C14M16	C14M16I	16	1.16		
C14M20	C14M20I	20	1.23		
C14M25	C14M25I	25	1.46		
C14M32	C14M32I	32	2.04		
C14M40	C14M40I	40	3.34		
C14M50	C14M50I	50	3.04		

**22 X 58**



Catalog Number Without Indicator	Catalog Number With Indicator	Amp Rating	Watts Loss (W)	Voltage (AC)	Interrupting Rating (kA)
C22M2	C22M2I	2	0.29	690V	80 kA
C22M4	C22M4I	4	0.48		
C22M6	C22M6I	6	0.47		
C22M8	C22M8I	8	0.73		
C22M10	C22M10I	10	0.74		
C22M12	C22M12I	12	0.83		
C22M16	C22M16I	16	1.21		
C22M20	C22M20I	20	1.29		
C22M25	C22M25I	25	1.53		
C22M32	C22M32I	32	2.13		
C22M40	C22M40I	40	3.40		
C22M50	C22M50I	50	3.48		
C22M63	C22M63I	63	4.46		
C22M80	C22M80I	80	5.86		
C22M100	C22M100I	100	6.61		
C22M125	C22M125I	125	8.42		



**Class aM & gG/gL IEC industrial ferrule fuses with striker**

14 X 51



22 X 58



**Class gG/gL with Striker**

Catalog Number With Striker	Amp Rating	Watts Loss (W)	Voltage (AC)	Interrupting Rating (kA)
C14G2S	2	0.24	500	120 kA
C14G4S	4	0.45		
C14G6S	6	0.42		
C14G8S	8	0.70		
C14G10S	10	0.53		
C14G12S	12	0.88		
C14G16S	16	1.16		
C14G20S	20	1.23		
C14G25S	25	1.46		
C14G32S	32	2.04		
C14G40S	40	3.34		
C14G50S	50	3.04		
Catalog Number With Striker	Amp Rating	Watts Loss (W)	Voltage (AC)	Interrupting Rating (kA)
C22G4S	4	0.48	690	80 kA
C22G6S	6	0.47		
C22G8S	8	0.73		
C22G10S	10	0.74		
C22G12S	12	0.83		
C22G16S	16	1.21		
C22G20S	20	1.29		
C22G25S	25	1.53		
C22G32S	32	2.13		
C22G40S	40	3.40		
C22G50S	50	3.48		
C22G63S	63	4.46		
C22G80S	80	5.86		
C22G100S	100	6.61		
C22G125S	125	8.42		
			500	120 kA
			400	

14 X 51



22 X 58



**Class aM with Striker**

Catalog Number With Striker	Amp Rating	Watts Loss (W)	Voltage (AC)	Interrupting Rating (kA)
C14M1S	1	0.14	500	120 kA
C14M2S	2	0.24		
C14M4S	4	0.45		
C14M6S	6	0.42		
C14M8S	8	0.70		
C14M10S	10	0.53		
C14M12S	12	0.88		
C14M16S	16	1.16		
C14M20S	20	1.23		
C14M25S	25	1.46		
C14M32S	32	2.04		
C14M40S	40	3.34		
C14M50S	50	3.04		
Catalog Number With Striker	Amp Rating	Watts Loss (W)		
C22M2S	2	0.29	690	80 kA
C22M4S	4	0.48		
C22M6S	6	0.47		
C22M8S	8	0.73		
C22M10S	10	0.74		
C22M12S	12	0.83		
C22M16S	16	1.21		
C22M20S	20	1.29		
C22M25S	25	1.53		
C22M32S	32	2.13		
C22M40S	40	3.40		
C22M50S	50	3.48		
C22M63S	63	4.46		
C22M80S	80	5.86		
C22M100S	100	6.61		
C22M125S	125	8.42		
			500	120 kA
			400	

IEC & British Fuses

## HRC fuse holders

### CAMaster

**Specifications  
Catalog Symbol:**

See table below.

**Description:** The CAMaster HRC fuse holder features a unique cam-action for easy fuse removal while allowing significantly improved contact pressure between fuse carrier and base contact that enhances electrical performance. A range of lockable safety carriers for the fuse holder (catalog reference: LSC), are available.

**Ratings:**

Volts: — 690V

Amps: — 30-100A (See Catalog Number table for details)

**Agency Information:** CE, CSA C22.2 No. 39; IEC 269 AND BS 88.

**Mounting:** 35mm DIN-rail or single screw mounting.

**Catalog Numbers**

Catalog Numbers	Amp Ratings	Details For:	Fuse Accepted
CM20CF	30	HRCI-CA Applications	_CIF21
CM30CF	30	HRCII Applications	_H07C
CM60CF	60		_K07C
CM100CF	100		_K07CR

**Accessory Catalog Numbers for CAMaster Units**

Catalog Numbers	Amp Ratings	Details	Fuse Holder Accepted
20BS	30	Back Stud	CM20CF
32BS	30		CM30CF
60/100BS	60/100		CM60/100CF
GLP	All	Ganging Link Kit	3-Pole
NI	All	660V Neon Indicator	—
20LSC	30	Security Carrier with Clip	CM20CF
30LSC	30		CM30CF
60/100LSC	60/100A		CM60/100CF



### SAFEloc

**Specifications  
Catalog Symbol:**

See table below.

**Description:** The SAFEloc HRC fuse holders (for use with HRCI-CB fuses) provides a positive, stress-free fuse fitting and locks it in position to ensure safe insertion and withdrawal from the base. Base contacts are fully shrouded to help protect against electric shock. Shrouds utilize simple slide/snap action allowing access to the contact terminal screws.

**Ratings:**

Volts: — 600V

Amps: — 30-60A (See Catalog Number table for details)

**Agency Information:** CE, Designed to accommodate the compact range of offset blade fuse to CSA C22.2 No. 106, HRCI-CB.

**Mounting:** 35mm DIN rail or single screw mounting.

**Catalog Numbers\***

Catalog Numbers	Amp Ratings	Connection	Fuse Accepted
C30F	30	Front	_CIF06
C30BS		Back	
C30FBS		Front-Back	
C60F	60	Front	EK-Amp
C60BS		Back	
C60FBS		Front-Back	

\*For use with HRCI-CB Fuses.

