



Productivity Through Protection™

# Circuit Protection Solutions

## CAMASTER and SAFELOC BS88 Fuseholders Product Guide



**Safeloc HRC Fuseholder - 660V ac: 32A - 63A**

**NNS, ENS**

**Specification Description:**

Fuseholder to use with BS88 Fuse links for bolted panel mounting or DIN rail.

**Dimensions:** See Dimensions illustrations

**Ratings:**

Volts: -550Vac, 415V (63A)

Amps: -32, 63A

**Agency information:** CE, Compliance to BS88, EN IEC 60269 and CSA C22.2. NO .106 standards



**Features & Benefits**

- Unique slide/snap action carrier which eliminates the need for fuse carrier contacts
- Low power loss and increased reliability due to the design of the carrier that provides positive stress free fitting of fuse and locates position of the fuse.
- Protection against electrical shock. Base contacts are fully shrouded
- Easy and fast access to the contact terminal screw due to simple sliding retained shrouds
- Flexible mounting: simple screw or DIN Rail

**Typical applications**

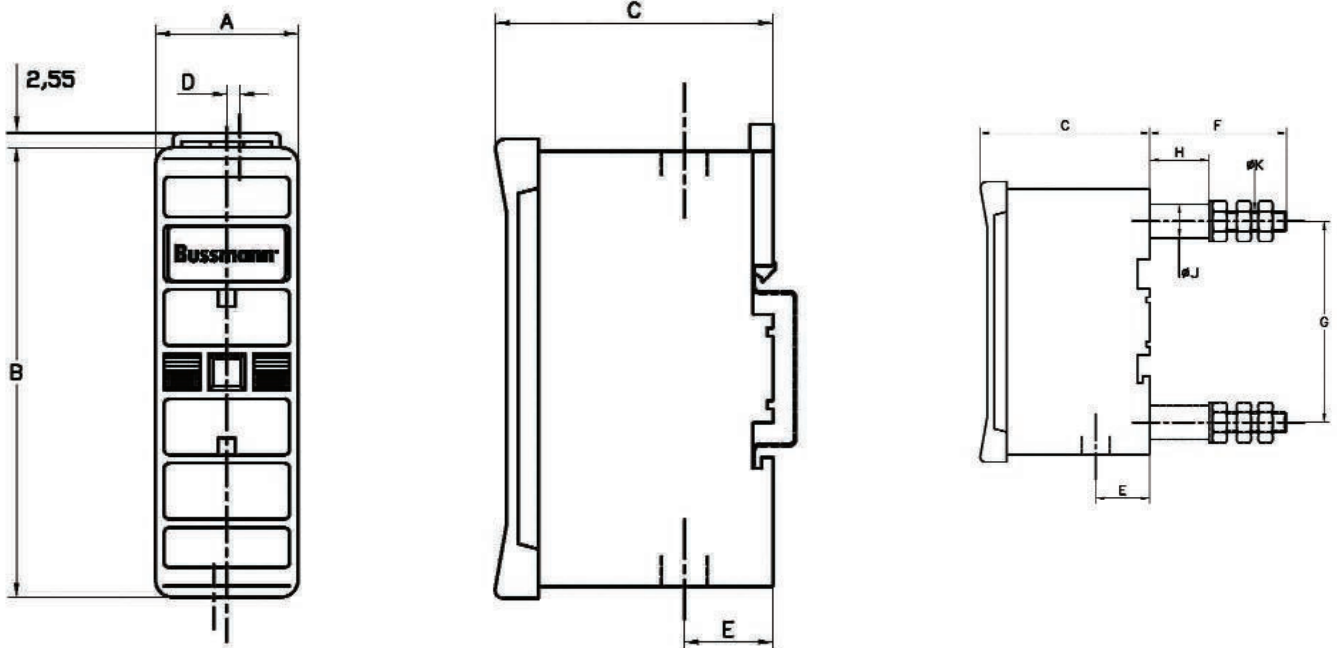
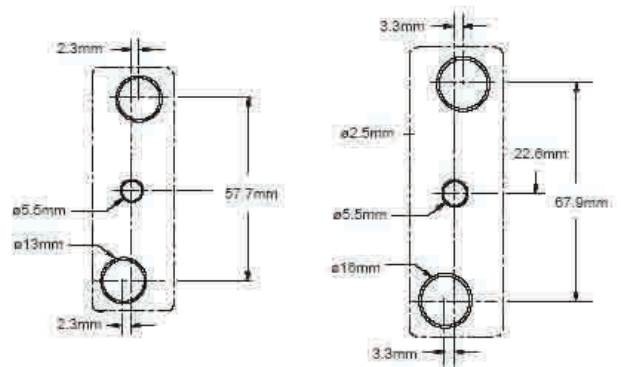
- Lighting equipment and circuit protection
- Heating equipment and circuit protection
- Motor protection
- Control equipment circuit protection

**Catalogue Part Numbers**

| Available Variants              | Catalogue request |          |
|---------------------------------|-------------------|----------|
|                                 | NNS               | ENS      |
| Front connected/Front connected | 32NNSF            | 63ENSF   |
| Back Stud/Back/Stud             | 32NNSBS           | 63ENSBS  |
| Front connected/Back Stud       | 32NNSFBS          | 63ENSFBS |
| Neutral Links                   | 32NNL             | 63ENL    |

**Dimensions**

| Rating (A) | Part No | Max Cable mm <sup>2</sup> | Rec. Fuse Link | Dimensions (mm) |      |      |     |      |      |      |      |      |    |
|------------|---------|---------------------------|----------------|-----------------|------|------|-----|------|------|------|------|------|----|
|            |         |                           |                | A               | B    | C    | D   | E    | F    | G    | H    | J    | K  |
| 32         | NNS     | 16                        | NSD            | 25.4            | 80.3 | 48.5 | 2.3 | 16.0 | 39.2 | 57.7 | 17.0 | 9.7  | M6 |
| 63         | ENS     | 35                        | ESD            | 29.1            | 90.0 | 55.0 | 3.3 | 17.7 | 75.0 | 67.9 | 39.2 | 11.0 | M8 |



## Camaster HRC Fuseholder - 660V ac: 20A-32A-63A-100A-200A\*-400A\*

### CM

**Specification Description:** Fully shrouded fuse bases with unique cam action system for BS88 Fuse link applications

**Dimensions:** See Dimensions illustrations

**Ratings:**

Volts - 660 Vac

Amps : 20, 32 (Compact)32, 63, and 100A

**Agency information:** CE, Compliance to BS88, EN IEC 60269

\* Please note that the 200A & 400A do not have the CAM action



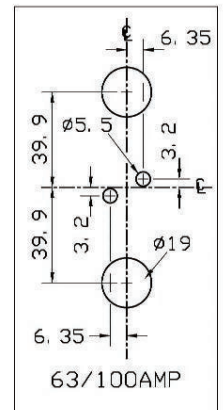
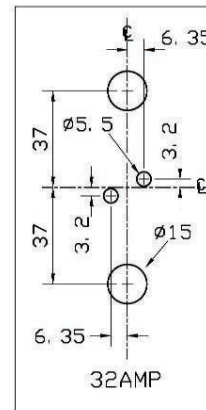
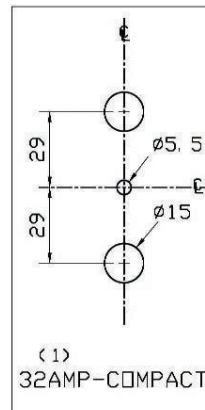
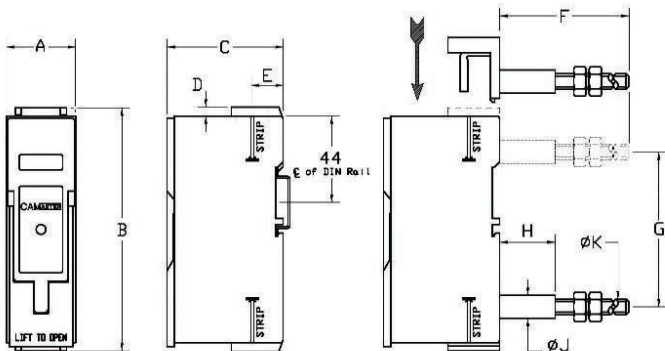
### Features and Benefits

- Easy to remove the carrier from the fuse base due to the cam action system (\*excluding 200A & 400A)
- Enhanced electrical performance level due to special design of cam system that increase the pressure between fuse base and fuse carrier contact
- Easy and fast connection; conversion capability, retro fit on site
- Safer maintenance operations thanks to lockable safety carriers
- Flexible mounting capability both DIN rail and panel bolted without accessories
- Reduce downtime operations installing a neon clip-in indicator, easy to identify operated fuse location
- Flexible use of multiple configurations needed due to the 2 or 3 poles ganging accessories

### Dimensions

| Rating (A) | Cat. No | Max cable mm <sup>2</sup> | Rec. Fuse Link | Dimensions (mm) |       |       |      |      |      |      |      |      |     |
|------------|---------|---------------------------|----------------|-----------------|-------|-------|------|------|------|------|------|------|-----|
|            |         |                           |                | A               | B     | C     | D    | E    | F    | G    | H    | J    | K   |
| 20         | CM20F   | 16                        | NITD           | 25.4            | 93.7  | 60    | 3.2  | 17.5 | 66.0 | 58.0 | 28.6 | 11.9 | M6  |
| 32         | CM32FC  | 16                        | NITD           | 25.4            | 93.7  | 60    | 3.2  | 17.5 | 66.0 | 58.0 | 28.6 | 11.9 | M6  |
| 32         | CM32F   | 16                        | AAO            | 31.8            | 117.5 | 60    | 3.2  | 17.5 | 66.0 | 74.0 | 28.6 | 11.9 | M6  |
| 63         | CM63F   | 70                        | BAO            | 35.6            | 125   | 60    | 4.75 | 16.4 | 86.5 | 81.0 | 28.6 | 11.9 | M8  |
| 100        | CM100F  | 70                        | OSD            | 35.6            | 125   | 60    | 4.75 | 16.4 | 86.5 | 81.0 | 28.6 | 11.9 | M8  |
| 200        | 200DF   | 95                        | DD             | 70              | 193   | 149   | 17.5 | 35.6 | 8    | 138  | 30   | 24   | M12 |
| 400        | 400EF   | 240                       | ED             | 98.4            | 254   | 192.1 | 31.8 | 36.5 | -    | -    | -    | -    | -   |

| Accessory                | Rating (A) | Catalogue No | Carton Qty |
|--------------------------|------------|--------------|------------|
| Back Stud                | 32         | 32BSC        | 10         |
|                          | 32         | 32BS         | 10         |
|                          | 63/100     | 63/100BS     | 5          |
| Ganging Links            |            | GLP          | 1 set      |
| Neon Indicator           | 90-415V ac | NI           | 3          |
| Lockable Safety Carriers |            | 32LSCC       | 3          |
|                          |            | 32LSC        | 3          |
|                          |            | 63/100LSC    | 3          |
| Neutral Links            | 32         | 32CMLC       | 1          |
|                          | 32         | 32CML        |            |
|                          | 63/100     | 63/100CML    |            |
| Security Clip            |            | CMSC         | 20         |



**SAFELOC HRC Fuseholder - 660V: 32A-63A**

| Features                    |   | Benefits |  |
|-----------------------------|---|----------|--|
| <b>Cost Saving</b>          | DIN Rail and screw mounting as standard | ➔        | No need to acquire separate mounting accessories   |
| <b>Time saving</b>          | Sliding retained shrouds                | ➔        | Reduce installing time, no need to remove screws to access the fuse base terminal                                  |
| <b>Increased safety</b>     | Base contacts fully shrouded            | ➔        | Protection to electrical shock for accidental touch of live parts  |
| <b>Superior performance</b> | Slide/snap action for fuse extractions  | ➔        | Reduce power loss by perfect alignments of contacts and direct contacts between fuse tags and fuse holder contacts |
|                             |   | ➔        | No tools required to install or replace fuselinks  |

**SAFELOC Cross Reference**

| Cooper Bussmann | Bill  | GE    | Lawson       |
|-----------------|-------|-------|--------------|
| 32NNSF          | V32FF | SC32H | LCF32FC/FCBK |
| 32NNSFBS        | V32FB | -     | LCF32FC/BCBK |
| 32NNSBS         | -     | SC32P | LCF32BC/BCBK |
| 63ENSF          | V63FF | SC63H | LCF63FC/FCBK |
| 63ENSFBS        | V63FB | -     | LCF63FC/BCBK |
| 63ENSBS         | -     | SC63P | LCF63BC/BCBK |

**Fusebanks**

Two ranges of fuse banks are available, utilising the CAMASTER and SAFELOC fuseholders. The fuse banks consist of single phase assemblies of busbar connected fuseholders mounted on a back strap, for incorporation in distribution fuse boards to facilitate compliance with BS5486 parts 1&2.

The banks are available in 4 to 12 ways (4 to 8 ways at 100A) and a compatible range of neutral bars and earth terminal busbars are also available.



# SAFELOC

## *IT'S EASY TO CHANGE!*



**IT'S EASY TO...**  
install on DIN  
rail or bolted on  
panel without  
accessories



**IT'S EASY TO...**  
insert fuses into  
carrier without  
the use of tools  
with the  
slide/lock  
system



**IT'S EASY TO...**  
access cable  
terminals with  
sliding retained  
shrouds



**IT'S EASY TO...**  
get lower power  
losses with direct  
contact between  
fuselink and base  
terminals

# CAMASTER *IT'S EASY TO CHANGE!*



**IT'S EASY TO...**  
install on DIN  
Rail or bolted on  
panel without  
accessories



**IT'S EASY TO...**  
insert fuses,  
using captive  
hinged screws  
on carrier



**IT'S EASY TO...**  
assembly  
mutiple poles  
with ganging clip  
accessories



**IT'S EASY TO...**  
identify operated  
fuselink with a  
clip neon  
indicator  
accessory



**IT'S EASY TO...**  
access cable  
terminals with  
hinged shroud



**IT'S EASY TO...**  
remove carrier  
from fuse base  
using unique  
patented CAM  
action

## CAMASTER Features & Benefits

| Features                    |  | Benefits   |
|-----------------------------|--|--|
| <b>Cost Saving</b>          | DIN rail and screw mounting as standard<br>Retro-fit back stud connections | ➔ Reduce inventory with less configurations of stock required                            |
|                             | Fuse carrier with captive, hinged screws                                   | ➔ Reduce downtime and installation time and avoid losing screws during fuse replacement  |
| <b>Time saving</b>          | Neon indicator   | ➔ Reduce downtime by immediate location of operated fuse link                            |
|                             | Hinged cable terminal shrouds  | ➔ Reduce installing time, no need to remove screws to access the fuse base terminal      |
| <b>Increased safety</b>     | Base contacts fully shrouded   | ➔ Protection to electrical shock for accidental contact with live parts                  |
| <b>Superior performance</b> | Easily extracted carrier   | ➔ With patented CAM action the carrier needs up to 93% less extraction to remove carrier |

## CAMASTER Cross Reference

| Cooper Bussmann    | MEM     | Lawson        | GE "Red Spot" | Fuse & Neutral Links  |
|--------------------|---------|---------------|---------------|---|
| CM32FC             | 20MFB   | LBI20FC/FCBK  | RS20H         | Fuselink:<br>NITD2-32A<br><br>Neutral Link:<br>32CMLC       |
| CM32FCW            | 20MFBW  | LBI20FC/FCWH  | RS20HWH       |   |
| CM32FC + 32BSC     | 20MFC   | LBI20BC/BCBK  | RS20P/G       |   |
| CM32FCW + 32BSC    | 20MFCW  | LBI20FC/BCBK  | RS20P/GWH     |   |
| CM32FC + 32BSC     | 20MFD   | LBI32FC/FCBK  | RS20PH/G      |   |
| CM32F              | 32MFB   | LBI32FC/FCWH  | RS32H         | Fuselink:<br>AAO 2 - 32<br><br>Neutral Link:<br>32CML       |
| CM32FW             | 32MFBW  | LBI32BC/BCBK  | RS32HWH       |   |
| CM32F + 32BS       | 32MFC   | LBI32BC/BCWH  | RS32P         |   |
| CM32FW + 32BS      | 32MFD   | LBI32FC/BCBK  | RS32PWH       |   |
| CM32F + 32BS       | 63MFB   | LBI63FC/FCBK  | RS32PH        |   |
| CM63F              | 63MFBW  | LBI63FC/FCWH  | RS63H         | Fuselink:<br>BAO35-63A<br><br>Neutral Link:<br>63/100CML    |
| CM63FW             | 63MFC   | LBI63BC/BCBK  | RS63HWH       |   |
| CM63F + 63/100BS   | 63MFCW  | LBI63BC/BCWH  | RS63P         |   |
| CM63FW + 63/100BS  | 63MFD   | LBI63FC/BCBK  | RS63PH        |   |
| CM63FW + 63/100BS  | -       | LBI63FC/BCWH  | RS63PHWH      |   |
| CM100F             | 100MFB  | LBI100FC/FCBK | RS100H        | Fuselink:<br>OSD80 - 100A<br><br>Neutral Link:<br>63/100CML |
| CM100FW            | 100MFBW | LBI100FC/FCWH | RS100HWH      |   |
| CM100F + 63/100BS  | 100MFC  | LBI100BC/BCBK | RS100P        |   |
| CM100FW + 63/100BS | 100MFCW | LBI100BC/BCWH | RS100PWH      |   |
| CM100F + 63/100BS  | 100MFD  | LBI100FC/BCBK | RS100PH       |   |

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## Web services

### [www.cooperbussmann.com](http://www.cooperbussmann.com)

Cooper Bussmann website make available free information and other resources that include:

- Product data sheets for complete technical information on Cooper Bussmann products
- Online catalogues for the latest United States and European products
- Safety BasICs™ for the essentials of electrical safety
- Training modules for increasing skill levels of customers and end-users
- Cross referencing to find the correct Cooper Bussmann replacement for a competitor's fuse

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Your authorised Cooper Bussmann Distributor



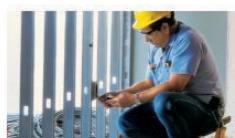
**COOPER** Lighting



**COOPER** Crouse-Hinds



**COOPER** Power Systems



**COOPER** Wiring Devices



**COOPER** B-Line