

# HCTR Current Limiting Class CC Fuses



## Features

- Branch circuit rated for 600 VAC
- Compact dimensions
- Time-delay design allows closer sizing for inductive loads such as control transformers and solenoids

## Applications

- Primary protection for our PH series of control power transformers. See our complete selection listed at the end of this catalog section.

## HCTR Specifications

Time-Delay

Voltage Rating: HCTR - 600 VAC

Ampere Rating: 0.25 - 30 Amps

Interrupting Rating:  
200,000 RMS Symmetrical Amps

Current Limiting: Class CC Fuse

## Agency Approvals

- UL Listed, Class CC, Guide JDDZ, File E162363
- CSA Certified HRCI-MISC per C22.2, No. 248.4
- CE Compliant

### HCTR Current Limiting Class CC Fuses

| Part Number              | AMP Rating | Pcs/Pkg | Package Weight | Price    |
|--------------------------|------------|---------|----------------|----------|
| <a href="#">HCTR-25</a>  | 0.25       | 10      | 0.2 lb         | \$185.00 |
| <a href="#">HCTR-5</a>   | 0.5        |         |                | \$159.00 |
| <a href="#">HCTR-75</a>  | 0.75       |         |                | \$200.00 |
| <a href="#">HCTR1</a>    | 1          |         |                | \$159.00 |
| <a href="#">HCTR1-25</a> | 1.25       |         |                | \$200.00 |
| <a href="#">HCTR1-5</a>  | 1.5        |         |                | \$161.00 |
| <a href="#">HCTR2</a>    | 2          |         |                | \$161.00 |
| <a href="#">HCTR2-5</a>  | 2.5        |         |                | \$178.00 |
| <a href="#">HCTR3</a>    | 3          |         |                | \$159.00 |
| <a href="#">HCTR3-5</a>  | 3.5        |         |                | \$200.00 |
| <a href="#">HCTR4</a>    | 4          |         |                | \$173.00 |
| <a href="#">HCTR5</a>    | 5          |         |                | \$161.00 |
| <a href="#">HCTR6</a>    | 6          |         |                | \$178.00 |
| <a href="#">HCTR7-5</a>  | 7.5        |         |                | \$193.00 |
| <a href="#">HCTR8</a>    | 8          |         |                | \$178.00 |
| <a href="#">HCTR10</a>   | 10         |         |                | \$173.00 |
| <a href="#">HCTR15</a>   | 15         |         |                | \$163.00 |
| <a href="#">HCTR20</a>   | 20         |         |                | \$171.00 |
| <a href="#">HCTR25</a>   | 25         |         |                | \$171.00 |
| <a href="#">HCTR30</a>   | 30         |         |                | \$171.00 |

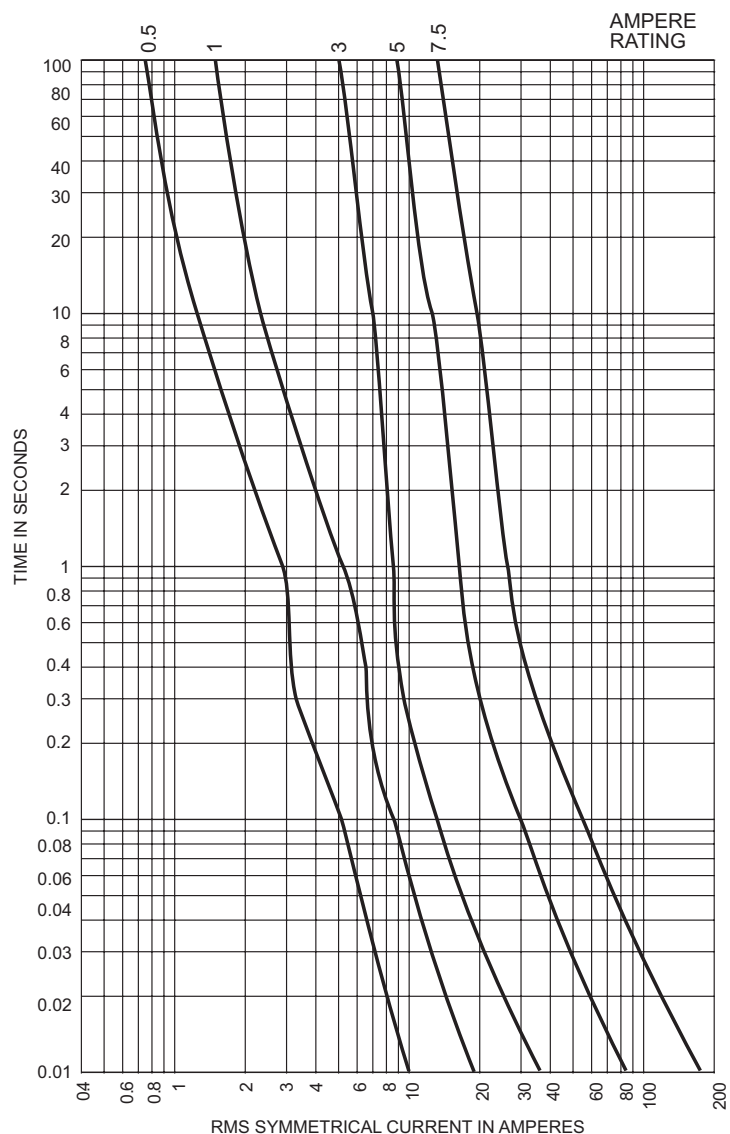
### DIMENSIONS

| Amps      | Ferrule (in) | Length (in) |
|-----------|--------------|-------------|
| 0.25 - 30 | 13/32        | 1-1/2       |

### CROSS REFERENCE

| EDISON | BUSSMANN | GOULD | LITTELFUSE |
|--------|----------|-------|------------|
| HCTR   | FNQ-R    | ATQR  | KLDR       |

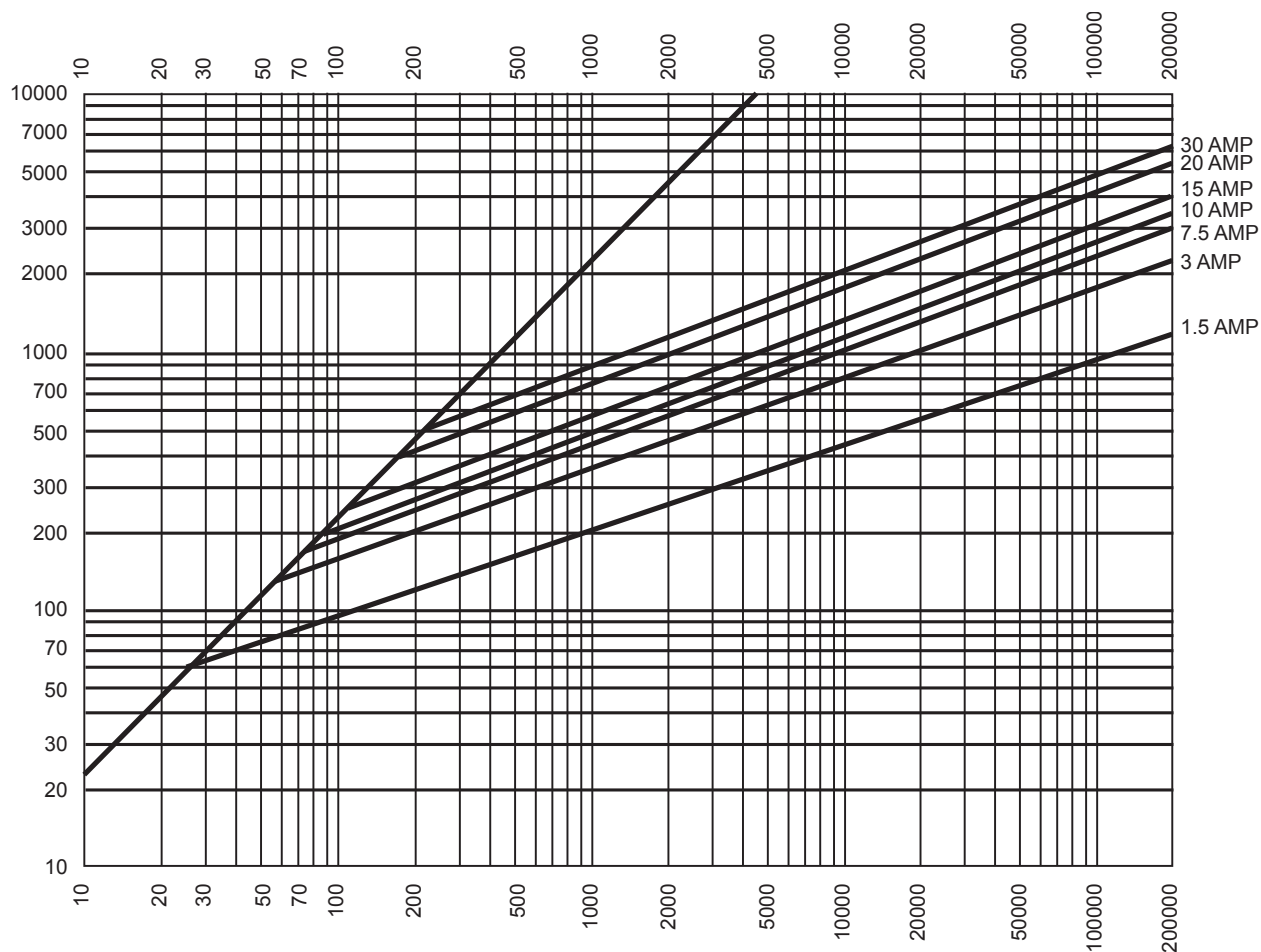
Time-Current Characteristic Curves - Total Clearing



# HCTR Current Limiting Class CC Fuses



## Instantaneous Peak Let-Thru Current





# Selection Guide

## Line Overview

The Edison family of fuses, fuse blocks and fuse holders is divided into two classes:

1. Current Limiting: Class CC, Class J, Class L, Class RK, Class T
2. General Purpose: Class M Midget and Small Dimension

The fuse selection guide below is a general summary of the

specifications included for each fuse type. This selection guide does not include the many variables that can exist for specific situations such as local codes, unusual temperature, or other operating conditions. When selecting fuses, be sure to comply with any applicable PUBLIC SAFETY standards that apply to Overcurrent Protection Devices (OPD).

| Edison Fuses Selection Guide and General Specifications |                                                                                                                                              |                                                                                                                         |                                                                                                                                           |                   |                                                        |                   |                                                                                                                                                   |        |                                                                                                                  |                                                                                                                           |            |                                             |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------|
| Description                                             | Current Limiting                                                                                                                             |                                                                                                                         |                                                                                                                                           |                   |                                                        |                   |                                                                                                                                                   |        |                                                                                                                  |                                                                                                                           |            |                                             |
|                                                         | Class J                                                                                                                                      |                                                                                                                         | Class RK5                                                                                                                                 |                   | Class RK1                                              |                   | Class T                                                                                                                                           |        | Class L                                                                                                          | Class CC                                                                                                                  |            |                                             |
| Fuse Type                                               | Fast-Acting                                                                                                                                  | Time-Delay                                                                                                              | Time-Delay                                                                                                                                |                   |                                                        |                   | Extremely Fast-Acting                                                                                                                             |        | Fast-Acting                                                                                                      | Fast-Acting                                                                                                               | Time-Delay |                                             |
| Part Number                                             | JHL                                                                                                                                          | JDL                                                                                                                     | ECNR                                                                                                                                      | ECSR              | LENRK                                                  | LESRK             | TJN                                                                                                                                               | TJS    | LCU                                                                                                              | HCLR                                                                                                                      | HCTR       | EDCC                                        |
| Voltage Rating                                          | 600VAC<br>450VDC                                                                                                                             | 600VAC<br>300VDC*                                                                                                       | 250VAC<br>125 VDC*<br>(1-200A)<br>250VDC*<br>(201-600A)                                                                                   | 600VAC<br>300VDC* | 250VAC<br>125 VDC*<br>(10-60A)<br>250VDC*<br>(70-600A) | 600VAC<br>300VDC* | 300VAC<br>160 VDC<br>(15-600A)                                                                                                                    | 600VAC | 600V                                                                                                             | 600VAC<br>300VDC<br>(15-20A)                                                                                              | 600VAC     | 600VAC<br>300VDC<br>(0.5-2.25A)<br>(20-30A) |
| Amp Rating                                              | 1 - 600                                                                                                                                      |                                                                                                                         | 1 - 600                                                                                                                                   | 3 - 600           | 10 - 600                                               | 5 - 600           | 1 - 600                                                                                                                                           |        | 601 - 1200                                                                                                       | 0.5 - 30                                                                                                                  | 0.25 - 30  | 0.5 - 30                                    |
| Interrupting Rating                                     | 200,000 RMS Symmetrical Amps                                                                                                                 |                                                                                                                         |                                                                                                                                           |                   |                                                        |                   |                                                                                                                                                   |        |                                                                                                                  |                                                                                                                           |            |                                             |
| Current Limiting                                        | Class J                                                                                                                                      |                                                                                                                         | Class RK5                                                                                                                                 |                   | Class RK1                                              |                   | Class T                                                                                                                                           |        | Class L                                                                                                          | Class CC                                                                                                                  |            |                                             |
| Agency Approvals                                        | UL Listed<br>Class J<br>Guide JDDZ<br>File E162363<br>CSA Certified<br>HRCI-J per<br>C22.2,<br>No. 248.8<br>File 700489<br>RoHS<br>compliant | UL Listed<br>Class J<br>Guide JDDZ<br>File E162363<br>CSA Certified<br>HRCI-J per<br>C22.2, No.<br>248.8<br>File 700489 | UL Listed, Class RK, Guide JDDZ,<br>File E162363<br>CSA Certified HRCI-R per C22.2, No. 248.12,<br>File 700489<br>(LENRK CSA File 053787) |                   |                                                        |                   | UL Listed, Class T,<br>Guide JDDZ, File<br>E162363<br>CSA Certified HRCI-T<br>per C22.2, No. 248.12,<br>File 53787,<br>Class 1422-02 &<br>1422-82 |        | UL Listed,<br>Std. 248-10<br>CSA<br>Certified,<br>HRC-L C22.2<br>No. 248.10,<br>Class 1422-<br>02,<br>File 53787 | UL Listed to 248.4, Class CC,<br>Guide JDDZ, File E162363,<br>CSA certified HRCI-MISC per C22.2<br>No. 248.4, File 700489 |            |                                             |
| Dimensions                                              | See product specification pages.                                                                                                             |                                                                                                                         |                                                                                                                                           |                   |                                                        |                   |                                                                                                                                                   |        |                                                                                                                  | ferrule (in): 13/32, length (in): 1-1/2                                                                                   |            |                                             |

\* Self-certified DC ratings

| Edison Fuses Selection Guide and General Specifications |                                                                           |                 |            |           |                                                                                                                                                                                                                                                                              |                                                  |                                                                                                                                                                                        |                                             |                                                                                                                                                                                                                                        |                                                    |                                                                                                                            |                  |
|---------------------------------------------------------|---------------------------------------------------------------------------|-----------------|------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------|
| Description                                             | General Purpose – Midget                                                  |                 |            |           | General Purpose – Small Dimension Electronic                                                                                                                                                                                                                                 |                                                  |                                                                                                                                                                                        |                                             |                                                                                                                                                                                                                                        |                                                    |                                                                                                                            |                  |
| Fuse Type                                               | Fast-Acting                                                               |                 | Time-Delay |           | Fast-Acting Ceramic                                                                                                                                                                                                                                                          | Fast-Acting Glass                                |                                                                                                                                                                                        | Medium Time-Delay Glass                     | Time-Delay Ceramic                                                                                                                                                                                                                     | Time-Delay Glass                                   | Fast-Acting Glass                                                                                                          | Time-Delay Glass |
| Part Number                                             | MCL                                                                       | MOL             | MEQ        | MEN       | ABC                                                                                                                                                                                                                                                                          | AGC                                              | GMA                                                                                                                                                                                    | GMC                                         | MDA                                                                                                                                                                                                                                    | MDL                                                | S500                                                                                                                       | S506             |
| Voltage Rating                                          | 600 VAC                                                                   | 250 VAC         | 500 VAC    | 250 VAC   | 250 VAC<br>(0.5 to 30A)<br>125VDC:<br>(0.5 to 30A)                                                                                                                                                                                                                           | 250VAC:<br>(0.1 to 10A)<br>32VAC:<br>(15 to 30A) | 250VAC<br>(0.063 - 3A)<br>125VAC<br>(4 - 15A)                                                                                                                                          | 250VAC<br>(0.5 - 3A)<br>125VAC<br>(4 - 10A) | 250VAC<br>125VDC<br>(20A)                                                                                                                                                                                                              | 250VAC:<br>(0.0625 to 8A)<br>32VAC:<br>(10 to 20A) | 250VAC                                                                                                                     | 250VAC           |
| Amp Rating                                              | 0.5 to 50                                                                 | 0.5 to 30       | 0.25 to 30 | 0.5 to 30 | 0.5 to 30                                                                                                                                                                                                                                                                    | 0.10 to 30                                       | 0.063 to 15                                                                                                                                                                            | 0.5 to 10                                   | 0.5 to 20                                                                                                                                                                                                                              | 0.0625 to 20                                       | 0.032 to 10                                                                                                                | 0.25 to 6.3      |
| Interrupting Rating                                     | 100,000 RMS Amps                                                          | 10,000 RMS Amps |            |           | See specifications table on product pages                                                                                                                                                                                                                                    |                                                  |                                                                                                                                                                                        |                                             |                                                                                                                                                                                                                                        |                                                    |                                                                                                                            |                  |
| Current Limiting                                        | N/A                                                                       |                 |            |           | N/A                                                                                                                                                                                                                                                                          |                                                  |                                                                                                                                                                                        |                                             |                                                                                                                                                                                                                                        |                                                    |                                                                                                                            |                  |
| Agency Approvals                                        | UL Listed to 248.14, File E162443<br>CSA Cert. C22.2 Part 59.2, LR 700489 |                 |            |           | UL Listed standard 248-14<br>UL Listed Guide and File nos. (ABC 0.25-20 A): (AGC 1/100-10 A) JDYX and E19180<br>UL Recognition Guide and File nos. (ABC 20-30A): (AGC 11-30) JDYX2 and E19180<br>CSA Certification Record No: 053787 C 000 and Class No: 1422 01 and 1422 30 |                                                  | Designed to UL/CSA 248-14<br>UL Listed, Guide JDYX, File E19180 63mA-6A<br>UL Recognition, Guide JDYX2, File E19180, 7A-15A<br>CSA Certified, File 053787 C_000, 63mA-6A Class 1422-01 |                                             | UL Listed standard 248-14<br>UL Listed Card: MDA 2/10-20A , MDL 1/16-8A<br>(Guide JDYX, File E19180<br>UL Recognized Card: MDA 25-30A MDL 9-30A (Guide JDYX2, File E19180)<br>CSA Certification Card: MDA 2/10-15A (Class No. 1422-01) |                                                    | UL Recognized Guide JDYX2, File E19180<br>Semko Approval<br>VDE Approval<br>BSI Approval<br>IMQ Approval<br>RoHS compliant |                  |
|                                                         |                                                                           |                 |            |           | RoHS                                                                                                                                                                                                                                                                         |                                                  |                                                                                                                                                                                        |                                             |                                                                                                                                                                                                                                        |                                                    |                                                                                                                            |                  |
| Dimensions                                              | ferrule (in): 13/32 length (in): 1-1/2                                    |                 |            |           | 1/4" x 1-1/4",<br>(6.3mm x 32mm)                                                                                                                                                                                                                                             |                                                  | 0.197" x 0.788"<br>(5mm x 20mm)                                                                                                                                                        |                                             | 1/4" x 1-1/4",<br>(6.3mm x 32mm)                                                                                                                                                                                                       |                                                    | 0.197" x 0.788"<br>(5mm x 20mm)                                                                                            |                  |

# Modular Ferrule Fuse Blocks for Midget Class and CC Fuses



## Description

- BCM Series for use with Class CC fuses EDCC, HCTR and HCLR
- BMM Series for use with Midget Class Midget fuses MCL, MEQ, MEN & MOL

### Mounting

35mm DIN rail or panel mount

## Specifications

### Materials:

Base – Thermoplastic

Terminals – Tin-plated bimetallic copper

Covers – Thermoplastic

Screws and pressure plates – Zinc-plated steel

**SCCR:** 200kA

### Flammability rating:

Blocks – UL 94V0, self-extinguishing

Covers – UL 94HB, self-extinguishing

### Operating and storage temp range:

Blocks – -40° to 120°C [-40° to 248°F]

Covers – indicating -20° to 90°C [-4° to 194°F]

– non-indicating -40° to 120°C [-40° to 248°F]

### Wire:

Cu – 75°/90°C [167°/194°F]

Ring or Fork terminal to fit a #10-32 screw

## Agency Approvals

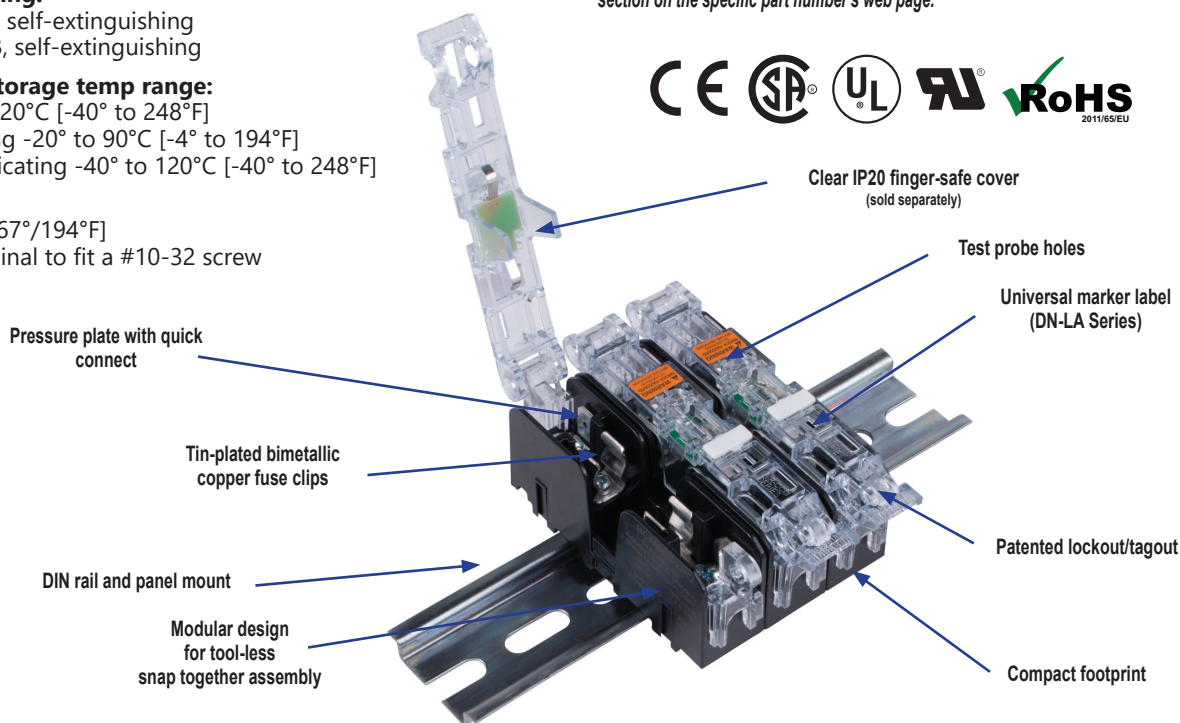
### Fuse Blocks

- BCM – UL® Listed E14853 - IZLT
- BMM and BCCM UL Recognized E14853-IZLT2
- CSA® Certified 47235-6225-01
- CE
- RoHS Compliant
- Conflict mineral free
- REACH Compliant

### Covers

- Covers are included in the overall UL Listing/Recognition and CSA Certification
- IP20 finger-safe
- RoHS compliant
- REACH Compliant

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.



| Pressure Plate (with Quick Connect**) Modular Ferrule Fuse Blocks for Midget Class and CC Fuses |                           |        |          |            |      |       |                         |               |                       |                |                           |                              |        |
|-------------------------------------------------------------------------------------------------|---------------------------|--------|----------|------------|------|-------|-------------------------|---------------|-----------------------|----------------|---------------------------|------------------------------|--------|
| Class                                                                                           | Part Number               | Pc/pkg | Price    | Volts      | Amps | Poles | Wire Range <sup>1</sup> |               | Torque<br>lb-in [N·m] | Wt.<br>lb [kg] | Covers* (Sold Separately) |                              |        |
|                                                                                                 |                           |        |          |            |      |       | Solid and Stranded      | Fine Stranded |                       |                | w/o Indication            | With Indication <sup>3</sup> | Pc/pkg |
| Midget                                                                                          | BMM603-1PQ                | 15     | \$127.00 | 600V AC/DC | 30   | 1     | 18-10 AWG               | 18-10 AWG     | 20 [2.3]              | 0.05 [0.04]    | CVR-CCM-QC<br>\$26.50     | CVRI-CCM-QC<br>\$34.00       | 3      |
|                                                                                                 | BMM603-2PQ                | 5      | \$72.00  |            |      | 2     |                         |               |                       | 0.15 [0.06]    |                           |                              |        |
|                                                                                                 | BMM603-3PQ                | 5      | \$91.00  |            |      | 3     |                         |               |                       | 0.20 [0.10]    |                           |                              |        |
|                                                                                                 | BMM603-1PQ-1              | 1      | \$9.50   |            |      | 1     |                         |               |                       | 0.05 [0.04]    |                           |                              |        |
| CC                                                                                              | BCM603-1PQ                | 15     | \$174.00 |            |      | 1     |                         |               |                       | 0.05 [0.04]    |                           |                              |        |
|                                                                                                 | BCM603-2PQ                | 5      | \$89.00  |            |      | 2     |                         |               |                       | 0.15 [0.06]    |                           |                              |        |
|                                                                                                 | BCM603-3PQ                | 5      | \$112.00 |            |      | 3     |                         |               |                       | 0.20 [0.10]    |                           |                              |        |
|                                                                                                 | BCM603-1PQ-1              | 1      | \$12.50  |            |      | 1     |                         |               |                       | 0.05 [0.04]    |                           |                              |        |
| Combo                                                                                           | BCCMM603-3PQ <sup>2</sup> | 5      | \$122.00 |            |      | 3     |                         |               |                       | 0.20 [0.10]    |                           |                              |        |

<sup>1</sup> Ratings are for copper wire only.

<sup>2</sup> Combination modular fuse block for use with transformers. Accepts two (2) Class CC and one (1) Midget class fuse.

<sup>3</sup> Open fuse indication requires 90V minimum and closed circuit to operate.

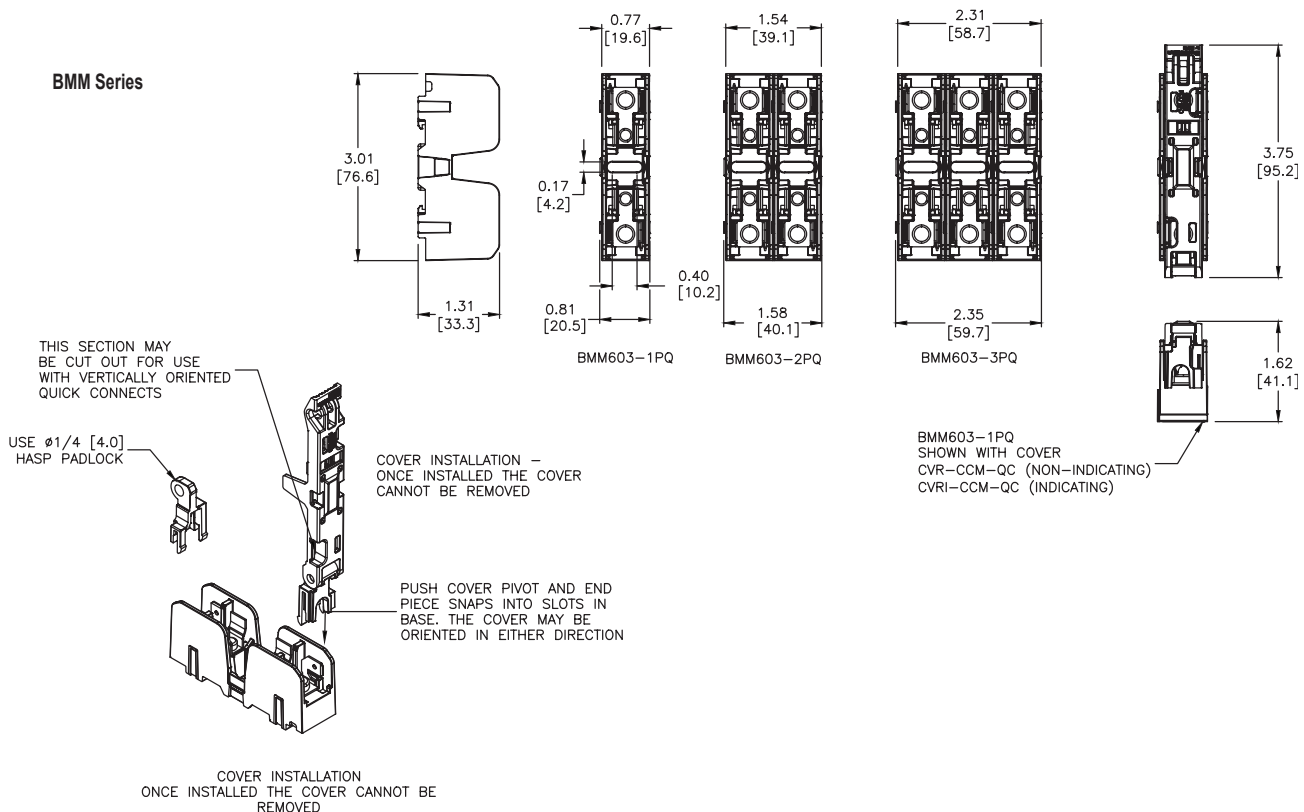
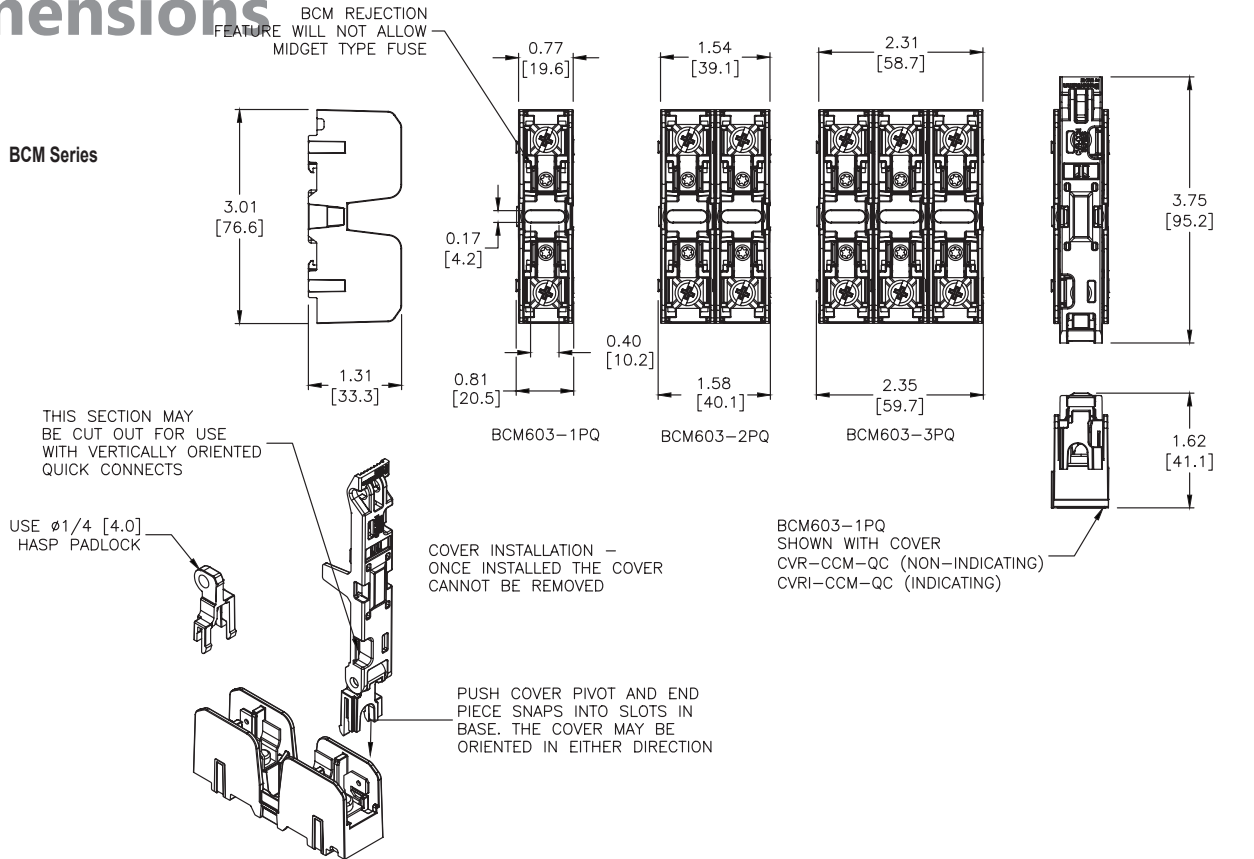
\*Once installed, the cover cannot be removed.

\*\*Quick connect terminal rated for 20A maximum.

# Modular Ferrule Fuse Blocks for Midget Class and CC Fuses

## Dimensions

in [mm]

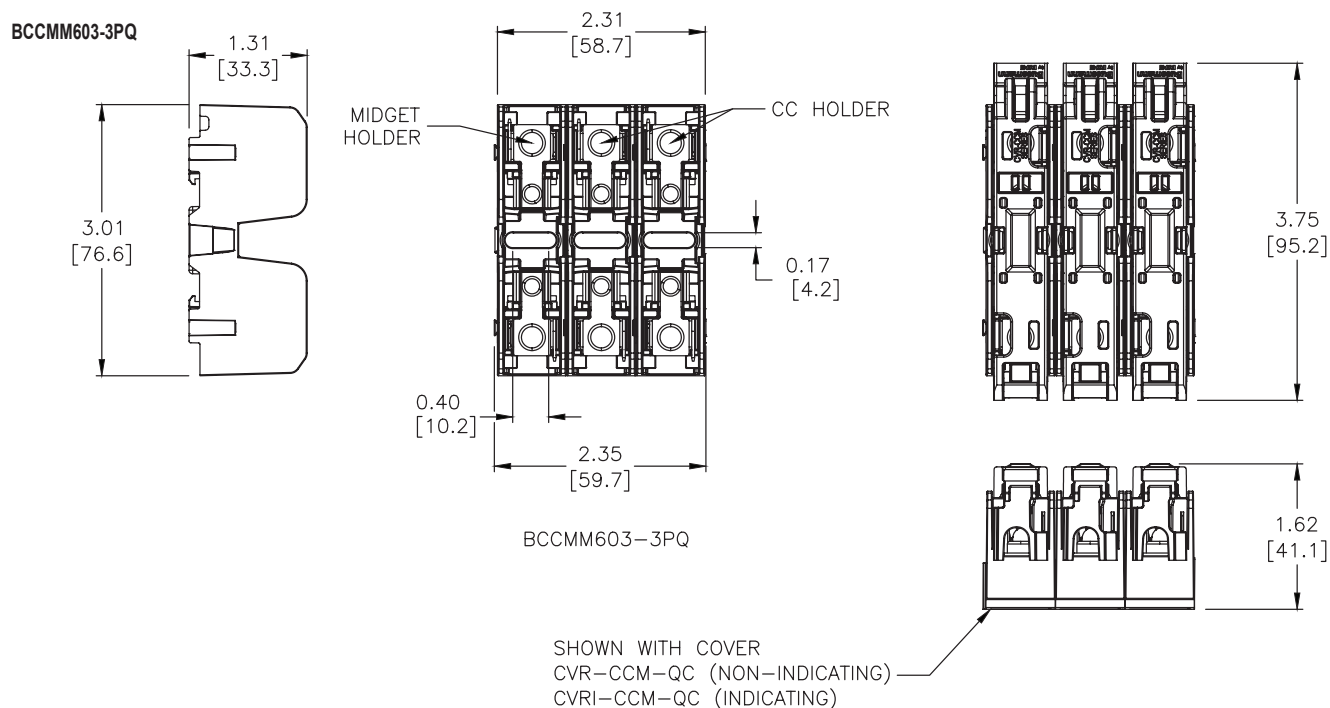


Please see our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

# Modular Ferrule Fuse Blocks for Midget Class and CC Fuses

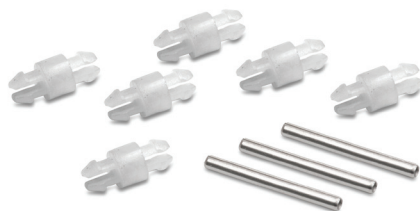
## Dimensions

in [mm]



Please see our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete engineering drawings. Dimensions are approximate. Not for construction purposes.

# Accessories

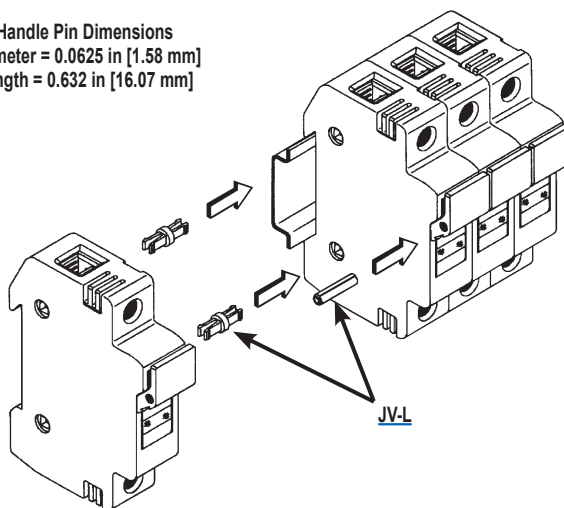
**FP-2****JV-L**

| Accessories                             |                                                                                                                                                                                           |         |         |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| Part Number                             | Description                                                                                                                                                                               | Pcs/Pkg | Price   |
| <b>FP-2</b>                             | Fuse puller for fuse dia. 13/32" - 13/16". Fuse type: 0-60A, 250V; 0-30A, 600V                                                                                                            | 1       | \$33.00 |
| <b>JV-L*</b><br>(Not Field Installable) | Multi-pole connection kit to connect new design multiple Class CC and Midget Class fuse holders together. Kit consists of 6 connectors and 3 handle pins to connect up to 4 fuse holders. |         | \$12.50 |

Note: Will not work with retired design fuse holders shipped before November 1, 2009.

\*Roll pin punch or installation tool is required to install handle pins (Tool not sold by [AutomationDirect.com](http://AutomationDirect.com)).

Handle Pin Dimensions  
Diameter = 0.0625 in [1.58 mm]  
Length = 0.632 in [16.07 mm]





# Cross Reference Guide



## CROSS REFERENCE GUIDE By manufacturers type reference or series number. Ampere ratings must be added for ordering purposes.

| FUSE TYPE                                   |                            | VOLT    | EDISON                    | BRUSH/<br>DORMAN | BUSSMANN  | MERSEN /<br>GOULD | GEC/CEFCO | LITTELFUSE |
|---------------------------------------------|----------------------------|---------|---------------------------|------------------|-----------|-------------------|-----------|------------|
| UL CLASS CURRENT LIMITING FUSES (CSA CLASS) |                            |         |                           |                  |           |                   |           |            |
| CC (HRCI-CC)                                | Time-Delay                 | 600     | EDCC                      | –                | LP-CC     | ATDR              | –         | CCMR       |
|                                             | Time-Delay                 | 600     | HCTR                      | –                | FNQ-R     | ATQR              | –         | KLDR       |
|                                             | Fast-Acting                | 600     | HCLR                      | HCLR             | KTK-R     | ATMR              | CTK-R     | KLKR       |
| RK1                                         | Time-Delay Dual<br>Element | 250     | LENRK                     | –                | LPN-RK-SP | A2DR              | –         | LLNRK      |
|                                             |                            | 600     | LESRK                     | –                | LPS-RK-SP | A6DR              | –         | LLSRK      |
| RK5                                         | Time-Delay Dual<br>Element | 250     | ECNR                      | –                | FRN-R     | TR                | –         | FLNR       |
|                                             |                            | 600     | ECSR                      | –                | FRS-R     | TRS               | –         | FLSR       |
| J                                           | Time-Delay Dual<br>Element | 600     | JDL                       | –                | LPJ       | AJT               | –         | JTD        |
|                                             | High-Speed AC<br>Drive     | 600     | JHL                       | –                | DFJ       | HSJ               | –         | –          |
| T                                           | Extremely Fast-<br>Acting  | 300     | TJN                       | –                | JJN       | A3T               | –         | JLLN       |
|                                             |                            | 600     | TJS                       | –                | JJS       | A6T               | –         | JLLS       |
| UL CLASS GENERAL PURPOSE FUSES              |                            |         |                           |                  |           |                   |           |            |
| Midget                                      | Fast-Acting                | 600     | MCL                       | MCL              | KTK       | ATM               | CTK       | KLK        |
|                                             |                            | 250     | MOL                       | MOL              | BAF/BAN   | OTM               | –         | BLF        |
|                                             | Time-Delay                 | 500     | MEQ                       | MEQ              | FNQ       | ATQ               | –         | FLQ        |
|                                             |                            | 250     | MEN                       | MEN              | FNM       | TRM               | –         | FLM        |
| 1/4"x 1-1/4"<br>Ceramic                     | Fast-Acting                | 250/125 | ABC                       | ABC              | ABC       | GAB               | –         | 314        |
| 1/4"x 1-1/4" Glass                          |                            | 250/32  | AGC                       | AGC              | AGC       | GGC               | –         | 312        |
| 1/4"x 1-1/4"<br>Ceramic                     | Time-Delay                 | 250     | MDA                       | MDA              | MDA       | –                 | –         | 326        |
| 1/4"x 1-1/4" Glass                          |                            | 250/32  | MDL                       | MDL              | MDL       | GDL               | –         | 313        |
| 5x20 mm Glass                               | Fast-Acting                | 250/125 | GMA                       | GMA              | GMA       | GGM               | –         | 235        |
|                                             | Medium Time-Delay          | 250/125 | GMC                       | GMC              | GMC       | GSC               | –         | –          |
| 5x20 mm Glass                               | Fast-Acting                | 250     | S500                      | BDB              | GDB       | GSB               | –         | 217        |
|                                             | Time-Delay                 | 250     | S506                      | BDC              | GDC       | GDG               | –         | 218        |
| Fuse Puller                                 |                            |         |                           |                  |           |                   |           |            |
| Fuse Puller FP-2                            |                            |         | old - 38072<br>new - FP-2 | –                | FP-2      | –                 | –         | –          |