

# UltraSafe™ Fuse Module (USFM)

Smallest Footprint in the Industry



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# UltraSafe™ Fuse Modules (USFM)

Motor control protection achieves greater efficiency, productivity and safety with the UltraSafe™ Fuse Modules (USFM)



MERSEN's UltraSafe™ Fuse Module (USFM) provides a lower cost, technically beneficial solution for motor control overcurrent protection applications. At 45mm wide, the USFM was designed to be used in series with IEC contactors and overload relays which typically have the same width, providing superior fit, form and function. The USFM's easy to use DIN-rail adapter allows for quick installation and removal in and out of tiny spaces – all while delivering higher short circuit current ratings than any other option in the industry today.



## The Benefits of UltraSafe Fuse Modules

UL508 panel shops, original equipment manufacturers (OEMs) and industrial users will benefit mostly from the USFM's high short circuit current rating (SCCR) of 200kA (Class CC version) when replacing circuit breakers which typically have short circuit current ratings of 14 to 65kA. Other advantages over circuit breakers include superior short circuit protection capability of fuses, Type 2 "No Damage" protection to motor control components, lock out/tag out functionality, optional IEC contactor flexible connectors and optional remote monitoring of the fuse carrier.

Each module includes an auxiliary contact option for increased user protection and worker safety. A factory or field installed auxiliary microswitch monitors the status of the modules fuse cartridge. If wired correctly to an adjacent relay or contactor coil, the moment the fuse extractor handle begins to open the load is dropped out by the contactor.

Other safety features of the USFM include a padlocking capability allowing lock out / tag out procedures to be followed, tool-free DIN rail removal, IP-20 finger-safe protection, and optional visual blown fuse indication.

Connection accessories such as comb wiring bars allow users to gang up to five USFM modules. Flexible wiring connectors are available in three lengths, 47mm, 74mm and 99mm allowing the USFM to be easily connected to various manufacturers' motor control equipment. All components are UL Approved.

"A great feature is the small 45mm footprint . . ."

## Available in Two Configurations

These dedicated 3-Pole modules are available in two separate configurations; USFMCC (Class CC fuse version) is rated 600V, 30A maximum while being UL and CSA listed and the dual rated USFM10 (UL Midget Class or IEC 10x38mm version) accepts either IEC 10x38mm fuses rated for 690V 32A maximum which complies to the IEC 269 standard or UL Midget Class fuses rated 600V, 30A maximum while being UL and CSA Recognized. Both configurations meet the UL4248 fuse holder requirements and UL508 spacing requirements.

### Features:

- Compact 45mm width matches IEC motor starters
- Pad-lockable and IP20 finger-safe rated
- High SCCR rating of 200kA for UL508A compliance
- 35mm DIN-rail mount with tool-free removal
- Optional auxiliary contact provides remote monitoring
- Optional visual blown fuse indication provides labor savings

### Applications:

- Primarily for motor circuits to replace circuit breakers for higher SCCR
- Control circuits, CPT protection
- Industrial control cabinets
- Automated systems
- Distribution warehouse and conveyor systems

# USFM Delivers Superior Fit, Form & Function

Enjoy the best of both worlds — the highest short circuit current rating and the smallest footprint

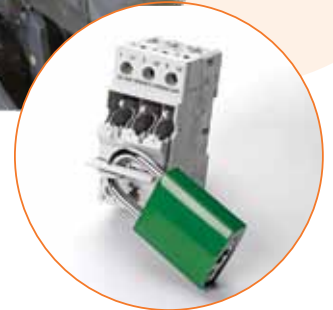
## USFM Catalog Numbers

For use with Class CC Fuses

Catalog No.	Description
USFMCC	3-pole fuse module
USFMCCI	3-pole fuse module with visual blown fuse indication
USFMCCM	3-pole fuse module with microswitch style auxiliary contact
USFMCCMI	3-pole fuse module with microswitch style auxiliary contact & indicators

For use with Midget (1-1/2" x 13/32") Fuses, and  
For use with 10x38mm IEC (gG, aM, gR) Fuses

Catalog No.	Description
USFM10	3-pole fuse module
USFM10I	3-pole fuse module with visual blown fuse indication
USFM10M	3-pole fuse module with microswitch style auxiliary contact
USFM10MI	3-pole fuse module with microswitch style auxiliary contact & indicators



## Ratings

- USFMC
  - Class CC fuse version
  - 600V, 30A maximum, 200kA SCCR
- USFM10
  - Midget Class and IEC 10x38mm fuse version
  - UL Rated, 600V, 30A maximum, 200kA SCCR
  - IEC Rated, 690V, 32A maximum, 120kA SCCR

## Approvals

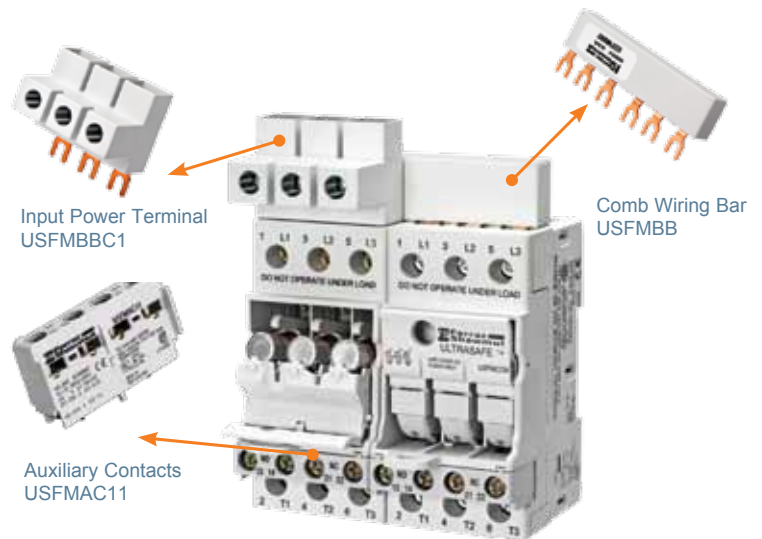
- CE – All models
- USFMCC
  - Class CC fuse version
  - UL Listed UL512 - Guide IZLT, File E52283
  - CSA Approved - C22.2, Class 6225 01, File 32169
- USFM10
  - Midget Class and IEC 10x38mm fuse version
  - IEC Approved - IEC 60269-2-1
  - UL Recognized UL512- Guide IZLT2, File E52283
  - CSA Recognized - C22.2, Class 6225 01, File 32169

## Recommended Fuse Usage

USFMCC use with ATDR, ATMR, ATQR

USFM10 use with ATQ, ATM, TRM, OTM, A15QS, A60Q-2, DCT and IEC 10x38mm gG, aM, gR fuses

## Optional Accessories



## Optional Accessories

Catalog No.	Description
USFMAC11	1NO (late make)/1NC (early break) auxiliary contact
USFMBB2	Comb Wiring Bar to connect 2 modules together
USFMBB3	Comb Wiring Bar to connect 3 modules together
USFMBB4	Comb Wiring Bar to connect 4 modules together
USFMBB5	Comb Wiring Bar to connect 5 modules together
USFMBBC1	Input Power terminal



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representatives in more than 70 countries and 250 commercial contacts throughout the world, MERSEN offers its customers everywhere reliable, high technology products and services backed by its expert technicians.

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