

Архангельск (8182)63-90-72  
 Астана (7172)727-132  
 Астрахань (8512)99-46-04  
 Барнаул (3852)73-04-60  
 Белгород (4722)40-23-64  
 Брянск (4832)59-03-52  
 Владивосток (423)249-28-31  
 Волгоград (844)278-03-48  
 Вологда (8172)26-41-59  
 Воронеж (473)204-51-73  
 Екатеринбург (343)384-55-89  
 Иваново (4932)77-34-06

Ижевск (3412)26-03-58  
 Иркутск (395)279-98-46  
 Казань (843)206-01-48  
 Калининград (4012)72-03-81  
 Калуга (4842)92-23-67  
 Кемерово (3842)65-04-62  
 Киров (8332)68-02-04  
 Краснодар (861)203-40-90  
 Красноярск (391)204-63-61  
 Курск (4712)77-13-04  
 Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
 Москва (495)268-04-70  
 Мурманск (8152)59-64-93  
 Набережные Челны (8552)20-53-41  
 Нижний Новгород (831)429-08-12  
 Новокузнецк (3843)20-46-81  
 Новосибирск (383)227-86-73  
 Омск (3812)21-46-40  
 Орел (4862)44-53-42  
 Оренбург (3532)37-68-04  
 Пенза (8412)22-31-16

Пермь (342)205-81-47  
 Ростов-на-Дону (863)308-18-15  
 Рязань (4912)46-61-64  
 Самара (846)206-03-16  
 Санкт-Петербург (812)309-46-40  
 Саратов (845)249-38-78  
 Севастополь (8692)22-31-93  
 Симферополь (3652)67-13-56  
 Смоленск (4812)29-41-54  
 Сочи (862)225-72-31  
 Ставрополь (8652)20-65-13

Сургут (3462)77-98-35  
 Тверь (4822)63-31-35  
 Томск (3822)98-41-53  
 Тула (4872)74-02-29  
 Тюмень (3452)66-21-18  
 Ульяновск (8422)24-23-59  
 Уфа (347)229-48-12  
 Хабаровск (4212)92-98-04  
 Челябинск (351)202-03-61  
 Череповец (8202)49-02-64  
 Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Россия (495)268-04-70

Казахстан (772)734-952-31

<https://mersen.nt-rt.ru/> || [mnh@nt-rt.ru](mailto:mnh@nt-rt.ru)

# Midget & Class CC

600 Volt Fuse Blocks

## FUSE BLOCKS & HOLDERS

### 600 VOLT MIDGET AND CLASS CC FUSE BLOCKS







FB

Mersen midget fuse blocks accommodate all 30 ampere 1-1/2" x 13/32" midget fuses. Class CC fuse blocks accommodate all 30 ampere Class CC fuses. A choice of box, screw, or pressure-plate connectors fit a wide range of stranded or solid copper wire. Insulators are glass-filled polycarbonate (GFPC) with verified dielectric strength in excess of 2500V. Fuse blocks feature a unique adder block which can be snapped onto 1-, 2- or 3-pole blocks to form multi-pole segmented blocks of as many poles as desired. All fuse clips are made of high conductivity tin-plated copper alloy.

### RECOMMENDED FUSE USAGE:

- **Midget Fuse Block** use with ATQ, ATM, A6Y-2B, A25Z-2, TRM, OTM, A15QS-2, GFN, GGU, A60Q-2, DCT
- **Class CC Fuse Block** use with ATDR, ATMR, ATQR

### CLIP & CONNECTOR TYPES

30A MIDGET/CC			
COPPER BOX CONNECTOR	SCREW WITH DOUBLE QUICK-CONNECTS	PRESSURE PLATE WITH DOUBLE QUICK-CONNECTS	PRESSURE PLATE WITH DOUBLE QUICK-CONNECTS (CLASS CC REJECTION END)
			

### RATINGS:

#### Midget Block

- **Volts:** 600VAC / DC
- **Amps:** 30A Maximum
- **SCCR:** 100kA (depending on fuse I.R.); 10kA (when using quick connect terminal)

#### Class CC Block

- **Volts:** 600VAC / DC
- **Amps:** 30A Maximum
- **SCCR:** 200kA, 10kA (when using quick connect terminal)

Temperature/flammability GFPC insulators rated 125°C, 94V-0 flammability.

### APPROVALS:

All fuse blocks meet the requirements of UL 4248

#### Midget Block

- UL recognized component guide IZLT2, File E52283
- CSA certified class 6225, File 32169

#### Class CC Block

- UL listed, guide IZLT, File E52283
- CSA certified class 6225, File 32169



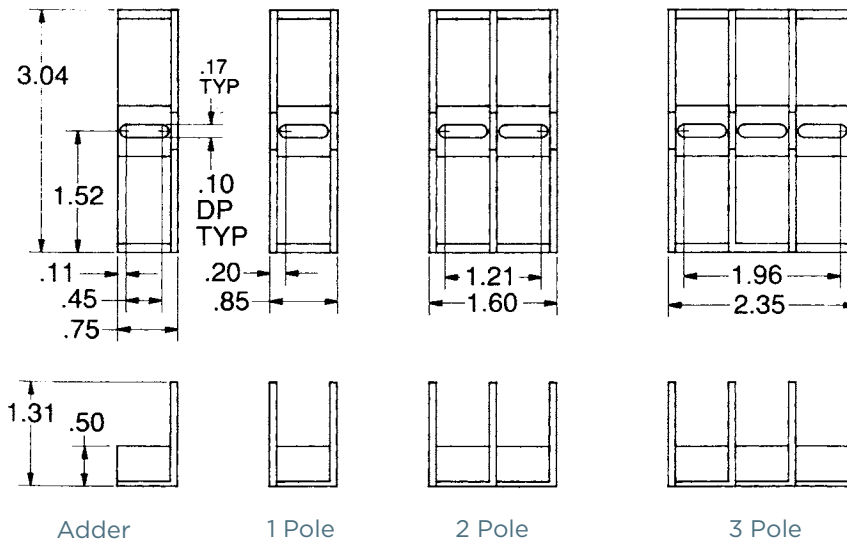
600 VOLT, 30A MIDGET AND CLASS CC FUSE BLOCKS

Connector		Poles*	Catalog No.				Torque In - lb
Type	Wire Range		Midget	Listing	Class CC	Listing	
Screw w/ double quick connects at both ends	Cu #10-14	ADDER	30310	UL Rec. & CSA	30310R	UL & CSA	20
		1	30311		30311R		
		2	30312		30312R		
		3	30313		30313R		
		4	30314		30314R		
Pressure plate (sems) w/double quick connects at both ends	Cu #10-14	ADDER	30320	UL Rec. & CSA	30320R	UL & CSA	20
		1	30321		30321R		
		2	30322		30322R		
		3	30323		30323R		
		4	30324		30324R		
Copper box	Cu #6-14	ADDER	30350	UL Rec. & CSA	30350R	UL & CSA	35
		1	30351		30351R		
		2	30352		30352R		
		3	30353		30353R		
		4	30354		30354R		

Note: To convert Midget or Class CC adder pole to single pole, use end barrier #U09301.  
 \* Available in any number of poles. Replace last digit in Catalog Number with number of poles needed.  
 Example: 303112 is a 12-pole screw/double QC connector Midget Fuse Block.  
 Total width of N poles = (N x .76) + .08 inches. 12 poles = (12 x .76") + .08" = 9.20".

Recommended mounting screws for all Midget and Class CC fuse blocks: #8 (.164" dia.)

DIMENSIONS



# ATDR

Time Delay/Class CC

UL/CSA LISTED POWER FUSES

THE BEST PROTECTION FOR TODAY'S SMALL MOTORS



Amp-Trap 2000® ATDR small-dimension fuses can provide IEC Type 2 No Damage protection to your facility's increasingly sensitive branch circuit components and small motors - minimizing the risk of fault-related damage. ATDR Class CC fuses deliver the best time-delay characteristics in their class with excellent cycling ability for small motor loads.

## FEATURES/BENEFITS:

- Time-delay for motor starting inrush currents without nuisance opening
- Highly current-limiting for low peak let-thru current
- Improved cycling ability for frequent motor starts/stops without nuisance fuse opening
- Rejection-style design prevents replacement errors (when used with recommended fuse blocks)
- High-visibility orange label ensures instant brand recognition, simplifies replacement
- Metal-embossed date and catalog number for traceability and lasting identification
- Fiberglass body provides dimensional stability in harsh industrial settings
- High-grade silica filler ensures fast arc quenching and optimum current-limitation

## RATINGS:

**Volts:** 600VAC, 300VDC

**Amps:** 1/4 to 30A

**IR:** 200kA I.R. AC,  
100kA I.R. DC

## APPLICATIONS:

- Small motors
- Contactors
- Lighting, heating & general loads
- Branch circuit protection

*Note: See motor fuse applications tables for more information*

## APPROVALS:

- UL listed to standard 248-4 File E2137
- CSA certified to standard C22.2 No. 248.4
- DC listed to UL standard 248



### HIGHLIGHTS:

- Time-delay
- Best choice for small motor protection
- Highly current-limiting
- AC & DC rated

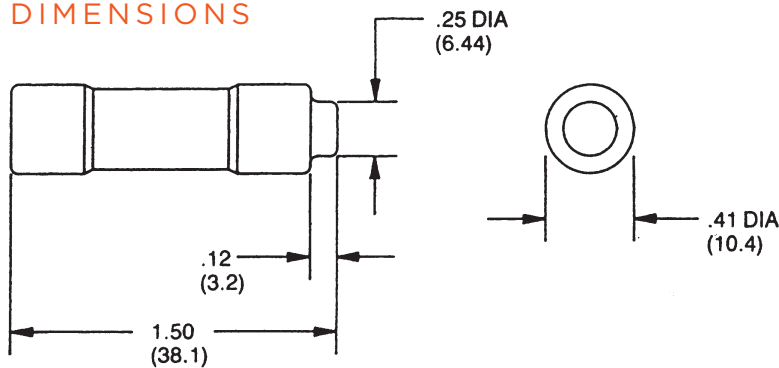
### CATALOG NUMBERS (AMPS)

ATDR1/4	ATDR1-1/2	ATDR3	ATDR6	ATDR12
ATDR1/2	ATDR1-6/10	ATDR3-2/10	ATDR6-1/4	ATDR15
ATDR8/10	ATDR1-8/10	ATDR3-1/2	ATDR7	ATDR17-1/2
ATDR1	ATDR2	ATDR4	ATDR7-1/2	ATDR20
ATDR1-1/8	ATDR2-1/4	ATDR4-1/2	ATDR8	ATDR25
ATDR1-1/4	ATDR2-1/2	ATDR5	ATDR9	ATDR30
ATDR1-4/10	ATDR2-8/10	ATDR5-6/10	ATDR10	

### RECOMMENDED FUSE BLOCKS FOR CLASS CC FUSES

Number of Poles	Catalog Numbers			
	UltraSafe™ Indicating Fuse Holder	Screw Connector w/ Double Quick Connects	Pressure Plate Connector w/ Double Quick Connects	Copper Box Connector
ADDER		30310R	30320R	30350R
1	USCC1I	30311R	30321R	30351R
2	USCC2I	30312R	30322R	30352R
3	USCC3I	30313R	30323R	30353R
3	USFMCCI			

### DIMENSIONS



# ATMR

Fast Acting/Class CC

UL/CSA LISTED POWER FUSES

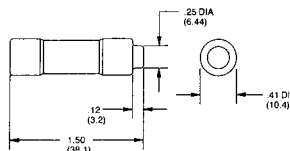
SMALL FUSE - BIG PROTECTION  
FOR GENERAL CIRCUITS



Amp-Trap® ATMR fuses, in the Class CC family, are the smallest dimension 600VAC/DC fuses suitable for branch circuit protection. The ATMR is a popular choice for economical protection of control circuits and control circuit transformers where available short circuit currents exceed 10,000 amperes. ATMR's rejection dimensions prevent substitution by lesser rated fuses. These fast acting fuses give current-limiting protection to general circuits.

## CATALOG NUMBERS (AMPS)      DIMENSIONS

ATMR1/10	ATMR1	ATMR4	ATMR10
ATMR1/8	ATMR1-1/4	ATMR5	ATMR12
ATMR2/10	ATMR1-1/2	ATMR6	ATMR15
ATMR1/4	ATMR2	ATMR7	ATMR20
ATMR3/10	ATMR2-1/2	ATMR8	ATMR25
ATMR1/2	ATMR3	ATMR9	ATMR30
ATMR3/4	ATMR3-1/2		



## RECOMMENDED FUSE BLOCKS FOR AMP-TRAP® CLASS CC FUSES

Number of Poles	UltraSafe™ Indicating Fuse Holders	Screw Connector with Double Quick Connects	Pressure Plate Connector with Double Quick Connects	Cooper Box Connector
Adder	—	30310R	30320R	30350R
1	USCC1I	30311R	30321R	30351R
2	USCC2I	30312R	30322R	30352R
3	USCC3I	30313R	30323R	30353R
3	USFMCCI	—	—	—

A variety of pole configurations and termination provisions are available. Refer to Section FB for details.

## RATINGS:

- **Volts:** 600VAC / DC
- **Amps:** 1/10 to 30A
- **IR:** 200kA I.R. AC, 100kA I.R. DC

## HIGHLIGHTS:

- Fast-acting
- Very current-limiting

## FEATURES/ BENEFITS:

- Rejection-style design prevents replacement errors when used with recommended fuse blocks
- Versatile design for individual component and branch circuit protection

## APPLICATIONS:

- Control circuits
- Lighting
- General loads
- Branch circuit protection

## APPROVALS:

- UL Listed to Standard 248-4 File E2137
- CSA Certified to Standard C22.2 No. 248.4
- DC listed to UL Standard 248



# ATQR

Time Delay/Class CC

UL/CSA LISTED POWER FUSES

TAKE CONTROL OF FAULT CURRENTS HEADED  
FOR YOUR CONTROL TRANSFORMER



ATQR small-dimension fuses feature time-delay characteristics ideally suited for the high inrush currents of control transformers, solenoids, and similar inductive loads. Mersen's ATQR fuses provide superior protection for the branch circuits of electrical distribution systems.

## FEATURES/BENEFITS:

- Time-delay for control transformer inrush loads without nuisance opening
- Highly current-limiting for low peak let-thru current
- Rejection-style design prevents replacement errors (when used with recommended fuse blocks)
- High visibility orange label ensures instant brand recognition, and simplifies replacement
- Metal-embossed date and catalog number for traceability and lasting identification
- Fiberglass body provides dimensional stability in harsh industrial settings
- High-grade silica filler ensures fast arc quenching and high current limitation

## HIGHLIGHTS:

- Time-delay
- Best choice for small transformer protection
- Current-limiting

## RATINGS:

**Volts:** 600VAC (1/10-30A),  
300VDC (3-2/10 - 30A)

**Amps:** 1/10 to 30A

**IR:** 200kA I.R. AC, 100kA I.R.  
DC

## APPLICATIONS:

- Control transformers
- Solenoids
- Inductive loads
- Lighting, heating & general-purpose loads

*Note: See motor fuse applications tables for more information*

## APPROVALS:

- UL listed to standard 248-4  
File E2137
- DC listed to UL standard 248
- CSA certified to standard C22.2 No. 248.4



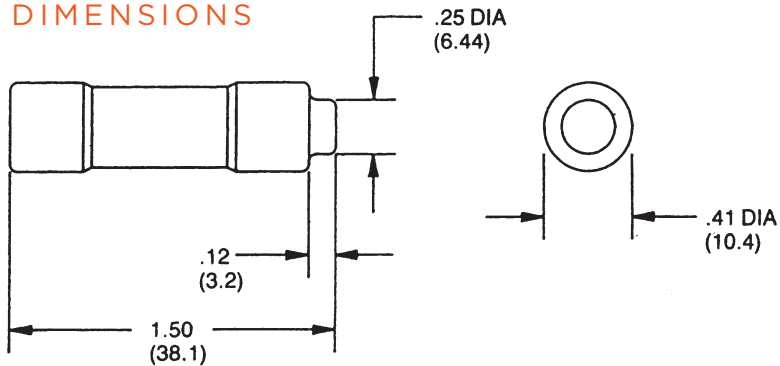
CATALOG NUMBERS (AMPS)

ATOR1/10	ATOR8/10	ATOR2-8/10	ATOR7-1/2
ATOR1/8	ATOR1	ATOR3	ATOR8
ATOR3/16	ATOR1-1/8	ATOR3-2/10	ATOR9
ATOR2/10	ATOR1-1/4	ATOR3-1/2	ATOR10
ATOR1/4	ATOR1-4/10	ATOR4	ATOR12
ATOR3/10	ATOR1-1/2	ATOR4-1/2	ATOR15
ATOR4/10	ATOR1-6/10	ATOR5	ATOR17-1/2
ATOR1/2	ATOR1-8/10	ATOR5-6/10	ATOR20
ATOR6/10	ATOR2	ATOR6	ATOR25
ATOR3/4	ATOR2-1/4	ATOR6-1/4	ATOR30
	ATOR2-1/2	ATOR7	

RECOMMENDED FUSE BLOCKS  
FOR CLASS CC FUSES

Number of Poles	Catalog Numbers			
	UltraSafe™ Indicating Fuse Holder	Screw Connector w/ Double Quick Connects	Pressure Plate Connector w/ Double Quick Connects	Copper Box Connector
ADDER		30310R	30320R	30350R
1	USCC1I	30311R	30321R	30351R
2	USCC2I	30312R	30322R	30352R
3	USCC3I	30313R	30323R	30353R
3	USFMCCI			

DIMENSIONS

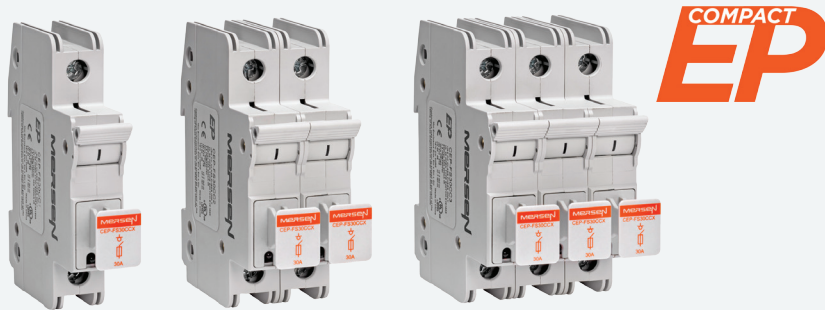


# Compact Fused Switch

Compact EP

## DISCONNECT SWITCHES

THE NEXT LEVEL OF SAFETY AND  
EASE OF INSTALLATION



Mersen's Compact Fused Disconnect incorporates the switch functionality with the high protection level of a fuse. The switch accepts UL class CC fuses up to 30A. In addition to this, the Compact Fused Disconnect is UL 98 listed and suitable for use as main/feeder device and, in conjunction with CC fuses, is rated for branch circuit protection. It has a smaller footprint compared to a traditional Class CC disconnect with a max interrupting rating of 200kA.

The compact form factor and ease of installation makes it a great choice for panel builders. The easy lockout/tagout feature and IP20 rating ensures additional safety along with the built in switch capability.

## FEATURES/BENEFITS:

- UL 98 30A Fused disconnect
- Smaller footprint compared to a traditional Class CC disconnect
- Accepts Class CC 30A fuses for branch circuit protection
- 35mm DIN rail mounted
- Built-in lockout/tagout feature
- 200kA SCCR rating
- 75°C CU Wire

Catalog Numbering System: CEP-FS30CC1

<b>CEP</b>	<b>FS</b>	<b>30</b>	<b>CC</b>	<b>1</b>
Compact Electrical Power	Fused Switch	30 Amps	CC - Accepts Class CC fuses	Single Pole

## RATINGS:

- **Volts:** 347VAC - single pole  
125VDC - single pole  
600VAC - 2-3 pole
- **Amps:** 30A
- **SCCR:** 200kA

## APPROVALS:

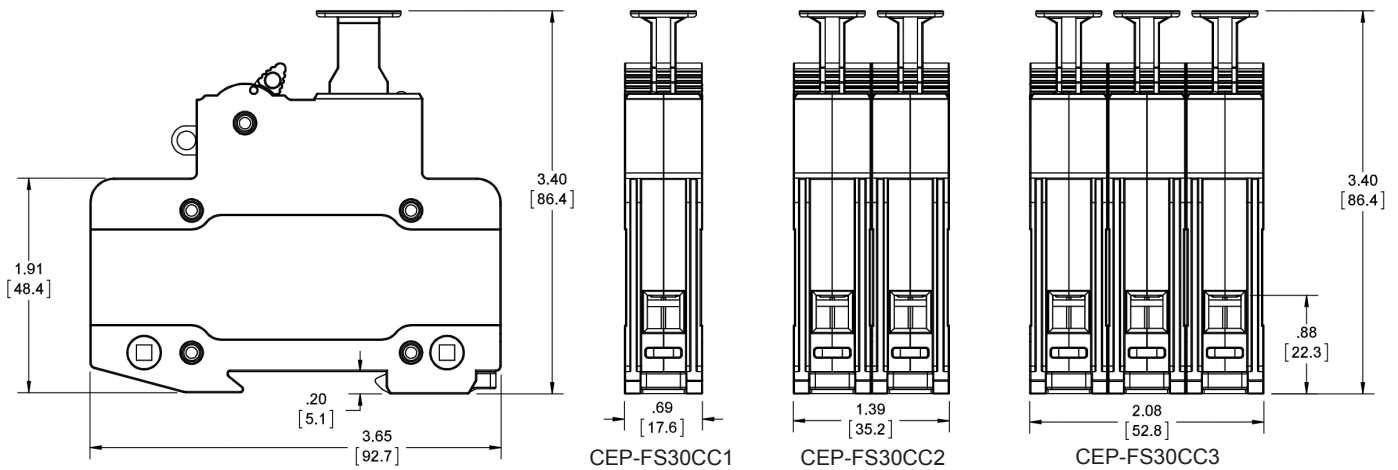
- cULus Listed file No. E191605
- UL 98 - Open type switches
- CSA C22.2 No. 4 - enclosed and deadfront switches
- IEC 60529 degree of protection IP20



DS



## DIMENSIONS



## TERMINAL SPECIFICATIONS

- Wire range #4-18 AWG
- Solid copper wire range 10-18 AWG
- Wire strip length ½"
- Terminal screw driver: Pozidriv style Philips - slot
- Dual wire rated for same-size wire. See table below.

## FACTORY & FIELD WIRING

- Minimum Indicator Voltage - 90VAC

Line Side	Wire Size (CU Stranded)	Torque	Wires/Terminal	Wire Class (UL)
	#4 AWG	18 lbf. in 2 N.m	1	B, C
	#6-18 AWG	18 lbf. in 2 N.m	1-2	

## HORSE POWER RATINGS - FOR MOTOR DISCONNECT APPLICATIONS

- CEP-FS30CC1 - 120VAC; 1 Phase; 0.5
- CEP-FS30CC2 - 240VAC; 1 Phase; 1.5
- CEP-FS30CC3 - 240VAC, 3 Phase; 3  
480VAC; 3 Phase; 5  
600VAC; 3 Phase; 7.5
- For motor HP ratings at full load current refer to UL table 50.1 in UL508A
- Max HP requires use of time delay fuses

## ACCESSORIES

- CEP-FS30CC-FC - Replacement Fuse Carrier sold separately

# FEB, FEC, FEG, FEX, FEY

600 Volt In-Line Fuse Holders

## FUSE BLOCKS & HOLDERS



Mersen's complete line of single and dual pole in-line fuse holders accommodate either 1-1/2" x 13/32" (10 x 38 mm) midget or Class CC fuses. The fuse holders are designed for quick installation. Securing nuts or screws are captive thus speeding installation by reducing the need to locate and assemble loose components in the field. Three internal O-rings per pole seal the fuse holder providing a water-resistant compartment for the fuse. The captive O-rings are colored (blue for single pole and red for dual pole) for quick detection.

Optional cone shaped insulator boots can be slipped on to provide a watertight seal (breakaway versions come with boots standard). Both single and dual pole versions have an optional breakaway feature which safely disconnects the load in case of a pole knockdown. Fuses remain safely encapsulated within the watertight fuse holder on the load side. Once the pole has been reinstalled the fuse holder can be easily reconnected.

## RECOMMENDED FUSE USAGE:

### FEB and FEX holders use with:

Midget (1-1/2" x 13/32", 10 x 38 mm): ATQ, ATM, TRM, OTM, GGU, GFN, A13X-2, A25Z-2, A60Q-2, A6Y-2B

**FEC and FEY holders use with:** Class CC: ATDR, ATMR, ATQR

**FEG holders use with:** Class G: AG35-60A

## RATINGS:

- **Volts:** 600VAC / DC
- **Amps:** 30A Maximum, 60A FEG Series
- **SCCR:** 200kA (Class CC Fuses); 100kA (Midget Fuses)
- **Temperature Rating:** 155°C

## APPLICATIONS:

- Street lighting
- Parking lot lighting
- Traffic signaling
- Sports lighting
- Boats and marinas
- Humid/corrosive environments

## APPROVALS:

- UL Listed Class CC Guide IZLT, File E52283
- UL Recognized Component Midget Guide IZLT2, File E52283
- CSA Certified Class CC and Midget Class 6225, File 32169



**HIGHLIGHTS:**

- Breakaway version quickly disconnects line side during pole knockdown in compliance with state and federal highway commission standards
- 3 O-rings per pole for water tight applications
- Colored O-rings for quick detection
- Single and dual poles
- Accepts midget or Class CC fuses
- Wide assortment of terminal variations
- High heat, impact resistant insulator
- Captive nut or screw for quick installations
- Polarized dual pole provides simultaneous disconnection
- Permanently installed neutral versions quickly identified by white nuts
- Tulip fuse clip for improved contact and low losses
- Environmentally friendly-no lead solder used
- Highly visible catalog number even with insulation boots installed
- Wire gauge size identified on insulation boots for quick, accurate trimming
- Time delay for motor starting and transformer inrush

**CATALOG NUMBERING SYSTEM**

Family	Load Terminal		Line Terminal		Option
FEB-	1	1	1	1	-BA

**NOMENCLATURE LEGEND**

Family	Description
FEB	Single pole midget
FEC	Single pole Class CC
FEX	Dual Pole midget
FEY	Dual pole Class CC
FEBN	Single pole neutral
FEG	Single pole Class G

**Notes:**

1. Non-breakaway units do not include insulator boots. These optional cone shaped boots are available to provide a watertight installation. The insulator boots are designed to form a watertight seal over conductors, but due to varying wire insulation sizes it is suggested that tape wrap be utilized for best results.  
FSB1 = Single conductor boot (used to cover all crimp type & single set screw terminals)  
FSB2 = Double conductor boot (used to cover all double set screw (Y-type) terminals)  
Insulator boot trimming instructions: Locate wire gage size to be utilized marking on the boot and cut just beneath it.
2. Tightening torque for single and double set screw terminations: 35 lbs.-in.
3. Tightening torque for dual pole fastening screw: 10-15 lbs.-in.
4. FEBN versions have a permanently mounted dummy fuse for neutral applications.
5. \*FEG-21-21 accepts only the #6 stranded and solid wires. It is not designed to accept #4 or #10 wires.

Terminal End View	Terminal	Load or Line Terminal Type					Option Description	
		Terminal	Type	Wire	No. Per	Solid		Stranded
	11		Cu Crimp	#8-#12 #12-#14	1 2	Yes Yes	Yes Yes	BA (breakaway version equipped with breakaway stud, breakaway boot, and insulating boots for both line and load sides)
	21*		Cu Crimp	#10 #6 #4	2 1 1	Yes Yes Yes	Yes Yes No	
	31		Cu Crimp	#10 #4	2 1	Yes No	Yes Yes	
	41		Cu Crimp	#6 #2	2 1	Yes No	Yes Yes	
	81		Cu single Set Screw	#2-#12	1	Yes	Yes	
	91		Cu Double Set Screw	#2-#12	1 each	Yes	Yes	
	82		Al single Set Screw	#2-#12	1	Yes	Yes	
	92		Al double Set Screw	#2-#12	1 each	Yes	Yes	
	S		Cu Stud	N/A	1	N/A	N/A	

MERSEN IN-LINE FUSE HOLDER FAMILY -  
TYPICAL COMBINATION CHART

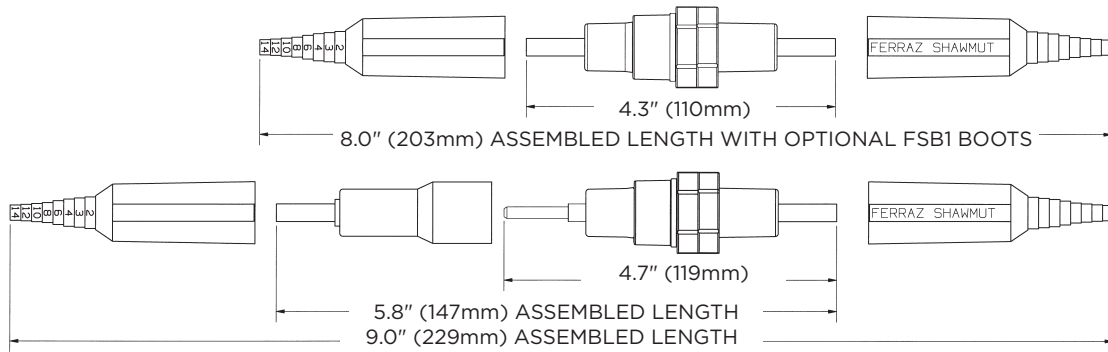
Midget 10x38mm	Midget 10x38mm Breakaway	Class CC	Class CC Breakaway	Midget 10x38mm Dual Pole	Midget 10x38mm Dual Pole Breakaway	Class CC Dual Pole	Class CC Dual Pole Breakaway	Class G
FEB-11-11	FEB-11-11-BA	FEC-11-11	FEC-11-11-BA	FEX-11-11	FEX-11-11-BA	FEY-11-11	FEY-11-11-BA	
FEB-11-21	FEB-11-21-BA	FEC-11-21	FEC-11-21-BA	FEX-11-21	FEX-11-21-BA	FEY-11-21	FEY-11-21-BA	FEG 21-21
FEB-11-31				FEX-11-31		FEY-11-31		
FEB-11-41	FEB-11-41-BA			FEX-11-41	FEX-11-41-BA	FEY-11-41		
	FEB-11-81-BA							
FEB-11-82	FEB-11-82-BA							
FEB-11-91	FEB-11-91-BA	FEC-11-91	FEC-11-91-BA				FEY-11-91-BA	
FEB-11-92	FEB-11-92-BA							
FEB-11-S								
FEB-21-11								
FEB-21-21	FEB-21-21-BA	FEC-21-21	FEC-21-21-BA	FEX-21-21	FEX-21-21-BA	FEY-21-21	FEY-21-21-BA	
FEB-21-91	FEB-21-91-BA							
FEB-31-31	FEB-31-31-BA							
FEB-41-41	FEB-41-41-BA							
FEB-81-81	FEB-81-81-BA	FEC-81-81	FEC-81-81-BA	FEX-81-81			FEY-81-81-BA	
FEB-81-91	FEB-81-91-BA			FEX-81-91	FEX-81-91-BA	FEY-81-91		
FEB-81-S								
FEB-82-82	FEB-82-82-BA							
FEB-82-92	FEB-82-92-BA							
	FEB-91-91-BA				FEX-81-91-BA			
FEBN-11-11	FEBN-11-11-BA							
FEBN-11-91	FEBN-11-91-BA							
FEBN-81-81	FEBN-81-81-BA							
FEB-SS								
					FEX-81-91-BA			

Note: Consult factory for other configurations.

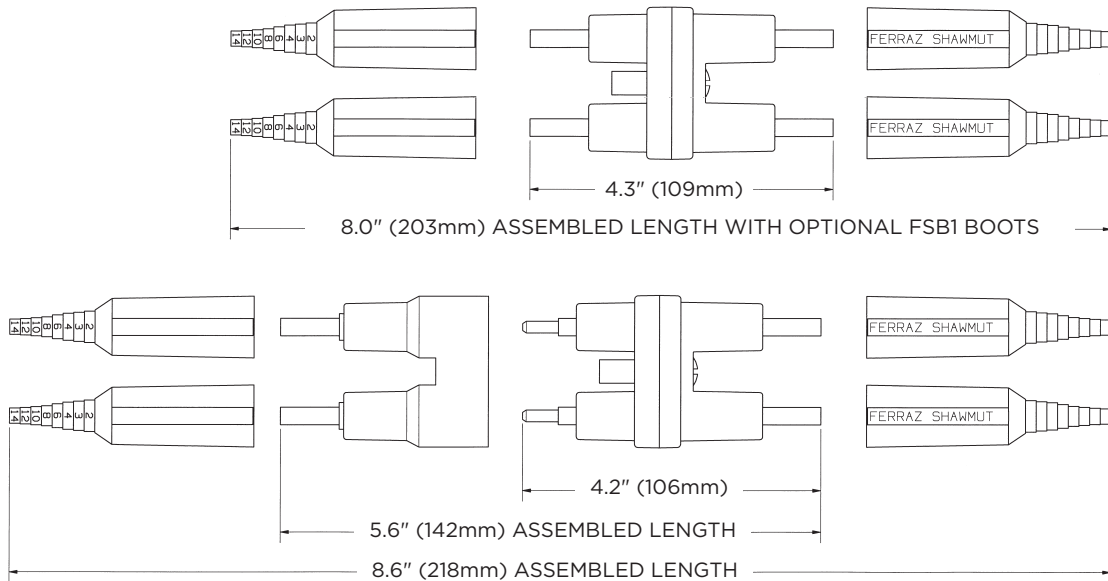
CRIMPING TOOLS REFERENCE CHART, THE FOLLOWING  
CRIMPING TOOLS (OR EQUIVALENT) ARE RECOMMENDED:

Terminal Type	FCI-Burndy	T&B
1	Y8MRB-1	WT-111M
2	Y2MR	TBM2/TBM5 BLUE DIE, WT-115-A DIE O
3	Y2MR	TBM2/TBM5 GREY DIE, WT-115-A DIE E
4	Y2MR	TBM2/TBM5 BROWN DIE, WT-115-A DIE F

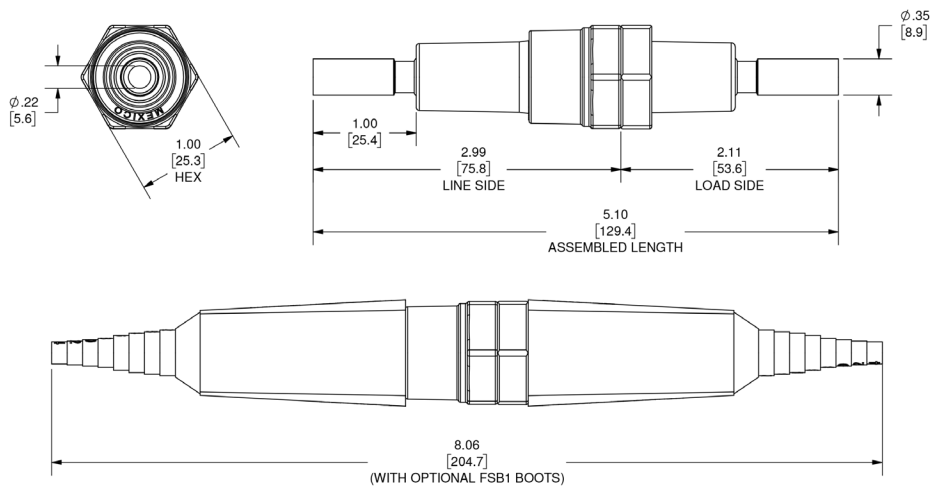
FEB AND FEC, NON-BREAKAWAY AND BREAKAWAY  
ASSEMBLY DRAWINGS



FEX AND FEY, NON-BREAKAWAY AND BREAKAWAY  
ASSEMBLY DRAWINGS



FEG NON-BREAKAWAY AND BREAKAWAY ASSEMBLY DRAWINGS



FB

# Modulostar® CUSCC

## FUSE HOLDERS, FUSE BASES AND SUPPORTS

### UL/CSA FUSE HOLDERS



Mersen’s innovative Modulostar CUSCC fuse holders are finger-safe under IEC standards to an IP20 grade of protection, including fuse changing (with the flick of a finger). Modulostar CUSCC fuse holders are available in 1, 2, 3 or 4 poles, with or without visual blown fuse indicator, in UL + IEC version. Multi-pole units can also be field assembled by ordering pin-ties assembly kit. Made of tough and durable thermoplastic or thermoset material. Recommended for use with Mersen Class CC fuse-links: ATDR, ATMR, and ATQR.

### TECHNICAL DATA OVERVIEW

UL ratings AC	600 VAC, 30 A, 200 kA
UL ratings DC	600 VDC, 30 A, 100 kA
Amper (A)	30 A
SCCR	200kAAC
Mounting	Installation on to DIN rails to EN 60715
Product Size	For Class CC fuses
Number of poles	1-pole, 2-poles, 3-poles, 4-poles, 1+N, 3+N

### FEATURES & BENEFITS

- Modular design
- Compact design for space saving
- DIN rail mounting
- Degree of protection: IP20
- Finger safe
- Easy access to the fuse
- Lockable without accessory
- Sealable in closed & open position
- Optional visual blown fuse indicator
- Multi-pole assembly kit available
- Plastic material UL94V2 mini
- Plastic material R22HL2 for railway application
- Flame retardant materials with glow wire flammability index to 960°C

### APPLICATIONS

- All circuits up to 600V for protection of motors, transformers, low voltage distribution, control circuits, drive protection
- Non-load operation

### STANDARDS

- UL listed UL4248
- CSA Certified C22.2
- RoHS, Reach compliant



## PRODUCT RANGE



CUSCC1

### Modulostar™ CUSCC without indicator

Catalog number	Item number	Number of poles/phases	Design	Package	Weight
CUSCC1	N1062796	1	CUSCC single pole	12	70 g
CUSCC1N	J1062792	1 + N	CUSCC single pole + neutral conductor	6	0.13 kg
CUSCC2	K1062793	2	CUSCC double pole	6	0.12 kg
CUSCC3	G1062790	3	CUSCC triple pole	4	0.2 kg
CUSCC3N	C1062786	3 + N	CUSCC triple pole + neutral conductor	3	0.25 kg
CUSCC4	D1062787	4	CUSCC quadruple pole	3	0.24 kg



CUSCC1I

### Modulostar™ CUSCC with standard indicator

Catalog number	Item number	Number of poles/phases	Design	Voltage limit for blown fuse indicator	Package	Weight
CUSCC1I	P1062797	1	CUSCC single pole	-	12	70 g
CUSCC1NI	L1062794	1 + N	CUSCC single pole + neutral conductor	-	6	0.13 kg
CUSCC2I	M1062795	2	CUSCC double pole	-	6	0.13 kg
CUSCC3I	H1062791	3	CUSCC triple pole	-	4	0.2 kg
CUSCC3NI	E1062788	3 + N	CUSCC triple pole + neutral conductor	-	3	0.25 kg
CUSCC4I	F1062789	4	CUSCC quadruple pole	-	3	0.24 kg
-	on demand	-	Version with special indicator	Standard: 220V-700V AC/DC Very low: 20V-50V AC/DC Low: 50V-250V AC/DC	-	-

## TECHNICAL DATA

	CUSCC without indicator	CUSCC with indicator
Size	Class CC fuse-links	Class CC fuse-links
Number of poles/phases	1, 1+N, 2, 3, 3+N, 4	1, 1+N, 2, 3, 3+N, 4
Conventional free air thermal current with fuse links $I_{th}$	30 A	30 A
Degree of protection	IP 20	IP 20
Voltage limit for blown fuse indicator	-	220 to 700V AC/DC
Indication System	without indicator	with indicator
Operating temperature	-40°C to 70°C with carrier operation -50°C to 90°C without carrier operation	
Storage temperature	-40°C to 70°C	-40°C to 70°C
Connection	Max. tightening torque: 2Nm (17.7lbs.-in) Rigid / Multistrand wire = 1-16mm <sup>2</sup> (16-6AWG) Max. 2x6mm <sup>2</sup> PZ2 or flat 5.5x1mm screw drivers recommended (max. diameter 6mm)	

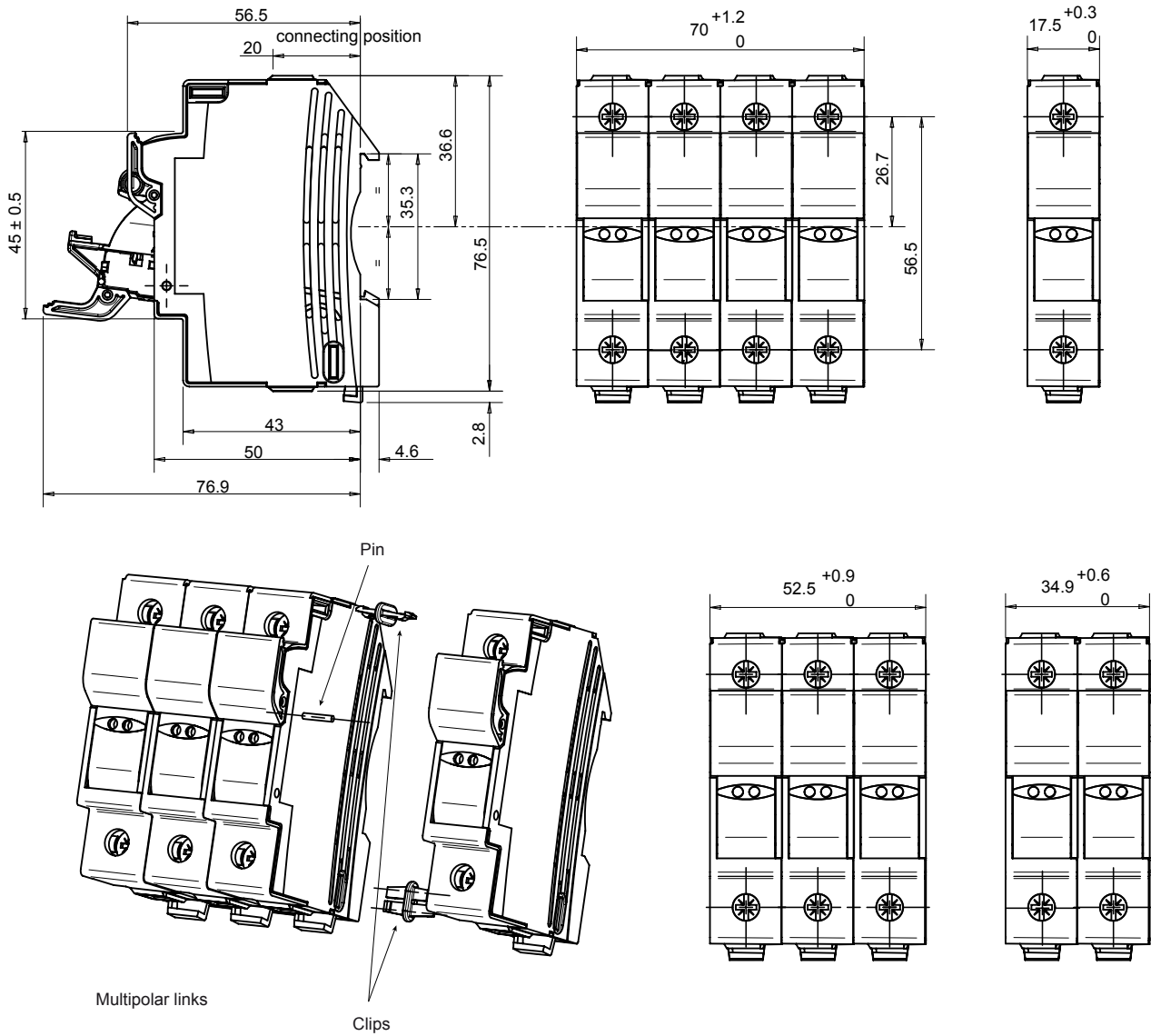
## SPECIFIC USAGE CONDITIONS

Ambient temperature	-40° to 20°C	30°C	40°C	50°C	60°C	70°C	80°C	90°C
Derating factor ( $I_e$ )	1	1	1	0.92	0.83	0.73	0.62	0.48
Humidity	95%	90%	80%	50%	-	-	-	-
Dampness derating	1	0.95	0.90	-	-	-	-	-

No of poles (side by side)	1 to 3	>= 4
Derating factor of current ( $I_{th}$ )	1	0.9

## DIMENSIONS

### MODULOSTAR® CUSCC fuse-holders for cylindrical fuse-links class 10x38mm



Dimensions in mm

## ACCESSORIES



CMS810PAK

### Kit for multi phase connection

Catalog number	Item number	Features	Package	Weight
CMS810PAK	Z233725	Links for connection of multipole units	12	0.5 g



## ACCESSORIES



LOCK

### Locking devices

Catalog number	Item number	Features	Package	Weight
LOCK	M223525	Padlock	1	0.48 kg

# USCC & USM

UltraSafe™ Fuse Holders

## FUSE BLOCKS & HOLDERS

### ULTRASAFE MODULAR FUSE HOLDERS FOR MIDGET AND CLASS CC FUSES



FB

Mersen UltraSafe Modular Fuse holders introduce a new level of safety for Class CC (USCC) and Midget 1-1/2" x 13/32" (USM) AC and DC-rated fuses up to 30 amperes. UltraSafe holders qualify as "Finger-safe" under IEC and DIN standards to an IP20 grade of protection, including fuse changing (with the flick of a finger). UltraSafe holders are available in 1, 2, 3 or 4 poles, with or without visual blown-fuse indicators in each pole. Multi-pole units can also be field assembled by ordering pin-tie handles.

UltraSafe holders save up to 15% mounting space and any combination can be snapped onto 35mm DIN-rail for extra savings in panel building time. UltraSafe holders with Class CC fuses chosen for Type "2" No Damage protection give one of the safest protection packages in the industry. UltraSafe body material is tough and durable polyamide, with exceptional insulating properties.

#### APPLICATIONS:

- All circuits up to 600 volts for motors, control circuits, transformers, etc...
- DC circuits up to 1000VDC including photovoltaic applications
- Non-load disconnect

#### RECOMMENDED FUSE USAGE:

- **USM use with:** ATQ, ATM\*, A6Y-2B, A25Z-2, TRM, OTM, A13X-2, A60Q-2, DCT\*, HP6M, HP10M
- **USCC use with:** ATDR, ATMR\*, ATQR

\* Recommended for DC applications

#### RATINGS:

##### USM (Midget 10x38mm Fuses)

- **Volts:** 800VAC Maximum, 1000VDC Maximum
- **Amps:** 30A Maximum
- **SCCR:** 200kA AC, 100kA DC

##### USCC (Class CC Fuses)

- **Volts:** 600VAC/DC Maximum
- **Amps:** 30A Maximum
- **SCCR:** 200kA

*Min. voltage to operate indicator light:  
90VAC, 115VDC [Less than 0.7 mA leakage  
current at 600V]*

*USM1HEL minimum indicator operating  
voltage: 350VDC*

#### HIGHLIGHTS:

- IP20 Finger-Safe (touch safe)
- Optional visual blown fuse Indicator lights
- DIN-rail mounting
- Compact footprint
- Quick, tool-free, easy fuse change outs

#### APPROVALS:

- UL Listed to Standard 4248-4 (class CC) and 4248-1 (midget), File E52283
- UL Listed to standard 4248-18 (photovoltaic), File E347822
- CSA Certified C22.2
- IEC 60269-2-1 and 60947-3 Compliant (USM only)



ADDITIONAL SPECIFICATIONS:

- **Terminal screws:** Phillips/slot head
- **Suggested screw torque:** 14.75 in-lbs.
- **Wire range:** #14 to 6 AWG (2.5 to 16mm<sup>2</sup>) single conductor; #14 to 10 AWG (2.5 to 5.0 mm<sup>2</sup>) dual conductor
- **Wire type:** 60/75/90°C solid/stranded copper
- **Connector type:** Pressure plate
- **Load-break disconnect:** No
- **Environmental:** RoHS compliant, lead free
- **Operating temperature:** -40° to 85°C
- **Watts loss:** 3W or less
- **Flammability rating:** UL 94-V0
- **Optional Blown Fuse Indicator Lens Color:** Red

CATALOG NUMBERS:

Fuse Type	Ampere Rating	Voltage Rating		Visual Indication	No. of Poles	Catalog Number
		AC	DC			
Class CC	30	600	600	No	1	USCC1
	30	600	600	No	2	USCC2
	30	600	600	No	3	USCC3
	30	600	600	No	4	USCC4
	30	600	600	No	3+N	USCC3N
	30	600	600	Yes	1	USCC1I
	30	600	600	Yes	2	USCC2I
	30	600	600	Yes	3	USCC3I
	30	600	600	Yes	4	USCC4I
	30	600	600	Yes	3+N	USCC3IN
	30	120	-	Yes	1	USCC1I-AC120
	30	300	-	Yes	1	USCC1I-AC300
	30	-	24	Yes	1	USCC1I-DC24
Midget (10 x 38mm) (1-1/2" x 13/32")	30	800	1000	No	1	USM1
	30	800	1000	No	2	USM2
	30	800	1000	No	3	USM3
	30	800	1000	No	4	USM4
	30	800	1000	No	3+N	USM3N
	30	600	600	Yes	1	USM1I
	30	600	600	Yes	2	USM2I
	30	600	600	Yes	3	USM3I
	30	600	600	Yes	4	USM4I
	30	600	600	Yes	3+N	USM3IN
	30	120	-	Yes	1	USM1I-AC120
	30	-	24	Yes	1	USM1I-DC24
	Photovoltaic Midget	32	-	1000	No	1
32		-	1000	Yes	1	USM1IHEL

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IEC Ratings for USM: 690VAC / 1000VDC, 32A, 50kA SCCR

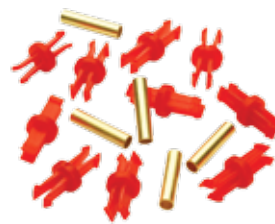
CSA Ratings for USM: 750VAC / 1000VDC, 30A

CATALOG NUMBERS—  
ACCESSORIES:

Accessories Catalog No.	Description
USN	1-Pole with Integral Neutral Link
USPTH	Pin-tie Accessory for 12-Poles

DIMENSIONS

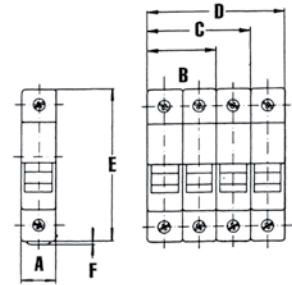
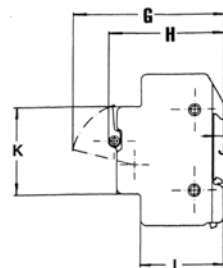
Dimension	mm	In	Dimension	mm	In
A	17.5	0.69	G	78.0	3.07
B	35.0	1.38	H	59.0	2.32
C	52.5	2.07	I	42.5	1.67
D	70.0	2.76	J	5.0	0.20
E	78.0	3.07	K	45.0	1.77
F	2.5	0.10			



USPTH Pin-Tie Accessory



USM1 with USPTH Pin-Ties



# USGCC & USGM

UltraSafe™ Fuse Holders

## FUSE BLOCKS & HOLDERS

INNOVATIVE ULTRASAFE CLASS CC AND MIDGET FUSE HOLDERS WITH SCREW-LESS, SPRING PRESSURE, WIRE TERMINATION TECHNOLOGY



Mersen's USGCC & USGM series fuse holders deliver the ultimate ease-of-use, time (labor) saving and reliable solution available in the marketplace. Mersen is the first manufacturer to offer screw-less, spring pressure, wire termination technology into a power fuse holder, delivering the best of both technologies to its customers. Now you can experience the combined benefits of safety, ease-of-use, labor savings and reliability of UltraSafe fuse holders and spring pressure technology.

### HIGHLIGHTS:

- Equipped with industry proven, patented WAGO CAGE CLAMP® technology (over 25 years of field experience and acceptance)
- Reduce wire installation time by up to 75%
- Highly reliable, maintenance free wire contact
- Secure, vibration proof, corrosion resistant, temperature cycling resistant, cost saving wire connection
- Quick, tool-free, easy fuse change-outs
- IP20 finger-safe protection
- Option visual blown fuse indicator
- DIN-rail mounting
- Compact footprint
- Environmentally conscious, RoHS compliant and lead free

### RECOMMENDED FUSE USAGE:

- **USGM** use with Midget Fuses: ATQ, ATM, TRM, OTM, A60Q-2, DCT-2
- **USGCC** use with Class CC Fuses: ATDR, ATQR, ATMR
- **USGM-HEL** use with Photovoltaic Fuses: HP6M, HP10M

### RATINGS:

#### USGM (Midget 10x38mm Fuses)

- **Volts:** 750VAC maximum  
: 1000VDC maximum
- **Amps:** 30A maximum
- **SCCR:** 200kA AC, 100kA DC

#### USGCC (Class CC Fuses)

- **Volts:** 600VAC/DC maximum
- **Amps:** 30A maximum
- **SCCR:** 200kA

*Min voltage to operate indicator light:  
90VAC, 115VDC [Less than 0.7 mA leakage  
current at 600V]*

*USGM1IHEL minimum indicator operating  
voltage: 350VDC*

### APPLICATIONS:

- All circuits up to 750VAC / 1000VDC for power control, power distribution and power electronics
- Non-load disconnect

### APPROVALS:

- UL Listed to Standard 4248-4 (Class CC) and 4248-1 (Midget), File E52283
- UL Listed to Standard 4248-18 (Photovoltaic), File E347822
- CSA Certified C22.2
- IEC Compliant (USGM only)



## ADDITIONAL SPECIFICATIONS:

- Screw-less, spring pressure terminals: WAGO CAGE CLAMP®
- Wire Range: #14 to 6 AWG (2.5 to 16mm<sup>2</sup>) Single Conductor; #14 to 10 AWG (2.5 to 5.0 mm<sup>2</sup>) Dual Conductor
- Wire Type: 60/75/90°C Solid/Stranded Copper; Can be used with wire ferrules
- Wire Strip Length: 12-13 mm (0.49 in)
- Load-Break Disconnect: No
- Environmental: RoHS compliant, Lead Free
- Operating Temperature: -40 to +85°C
- Watts Loss: 3W or less
- Flammability Rating: UL 94-V0
- Optional Blown Fuse Indicator Lens Color: Red

## CATALOG NUMBERS

Fuse Type	Ampere Rating	Voltage Rating		Visual Indication	No. of Poles	Catalog Number
		AC	DC			
Class CC	30	600	600	No	1	USGCC1
	30	600	600	No	2	USGCC2
	30	600	600	No	3	USGCC3
	30	600	600	No	4	USGCC4
	30	600	600	No	3 + N	USGCC3N
	30	600	600	Yes	1	USGCC1I
	30	600	600	Yes	2	USGCC2I
	30	600	600	Yes	3	USGCC3I
	30	600	600	Yes	4	USGCC4I
	30	600	600	Yes	3 + N	USGCC3IN
Midget (10 x 38mm) (1 1/2" x 1 3/32")	30	-	24	Yes	1	USGCC1I-DC24
	30	750	1000	No	1	USGM1
	30	750	1000	No	2	USGM2
	30	750	1000	No	3	USGM3
	30	750	1000	No	4	USGM4
	30	750	1000	No	3 + N	USGM3N
	30	600	600	Yes	1	USGM1I
	30	600	600	Yes	2	USGM2I
	30	600	600	Yes	3	USGM3I
	30	600	600	Yes	4	USGM4I
Photovoltaic Midget	32	-	1000	No	1	USGM1IHEL
	32	-	1000	Yes	1	USGM1IHEL



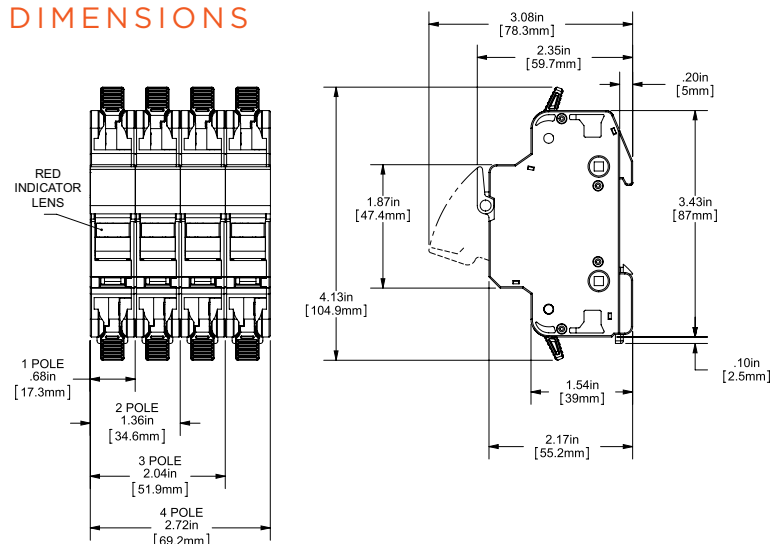
Continuous marking strip and adaptors



WMB Marker System

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## DIMENSIONS



## CATALOG NUMBERS - ACCESSORIES

Catalog No.	Description
USGN	1-Pole with Integral Neutral Link
USPTH	Pin-Tie Accessory for 12-Poles
USTP	Test Plug, 2 x 500mm [0.079 x 17.7 in], Red
USWMB0	WMB Markers, blank, 10 x 10 strips
USWMB1	WMB Markers, pre-marked 1-10, x10 strips
USCMA	Continuous Marking Strip Adapter [1 needed per pole]
USCM0*	Continuous Marking Strips, blank, 10 x 10 strips
USCM1*	Continuous Marking Strips, pre-marked 1-10, x10 strips

\* USCMA required for use with USCM0 and USCM1

Архангельск (8182)63-90-72  
Астана (7172)727-132  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06

Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16

Пермь (342)205-81-47  
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Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
Челябинск (351)202-03-61  
Череповец (8202)49-02-64  
Ярославль (4852)69-52-93

Киргизия (996)312-96-26-47

Россия (495)268-04-70

Казахстан (772)734-952-31