

# Compact Circuit Protector (CCP)

UL Class CC, Midget and IEC 10x38 fuses



RoHS  
2002/95/EC

The revolutionary Cooper Bussmann® CCP is 1/3 the footprint of a molded case circuit breaker. The level of protection provided by the CCP is up to three times the Short-Circuit Current Rating (SCCR) at full voltage than a molded case circuit breaker while providing disconnecting means.

## Product Features and Benefits

- Extremely compact design at 17.5mm wide per pole
- High Short-Circuit Current Ratings up to 200kA (UL) and 120kA (IEC)
- Disconnect rated to provide means for load isolation
- Full voltage rated up to 600Vac or 80Vdc
- Class CC version is UL 98 Listed, horsepower rated and suitable for branch circuit disconnect and branch circuit protection
- IEC 10x38 version complies with IEC 60947-3
- Suitable for global installations, the units comply with UL, cULus, and IEC standards accepting UL Class CC, Midget or IEC aM and gG/gL fuses
- Open Fuse Indication
  - Local fuse indication lights\* are standard
  - Optional wired remote open fuse indication can be utilized to signal a PLC and open a contactor to de-energize all phases, if required
  - Cooper InVision™ wireless indication is also available (not available in Europe)
- IP20 finger-safe with 10 AWG (6mm<sup>2</sup>) or larger wire
- Built-in switch interlock capability prohibits removing the fuse under load
- Padlockable handle for lockout/tagout procedures
- Available in 1-, 2- and 3-pole versions

\*Circuit must be closed for indication light to illuminate

## Specifications:

- Box Lug and Spade Terminal suitable for line, load or accessory connection
- Box Lug Connection:
  - 18-6 AWG (1 to 16mm<sup>2</sup>) single or dual rated, solid or stranded – 75°C or higher - Cu only
  - 4 AWG (25mm<sup>2</sup>) single – 75°C or higher - Cu only
- Spade Terminal Connection:
  - Max. 30A suitable for use with #8-32 UNC (M4) screw
- Torque:
  - 18-10 AWG 20 Lb-In (1-6mm<sup>2</sup>/3.4N•m)
  - 8-4 AWG 35 Lb-In (10-25mm<sup>2</sup>/5.8N•m)
- Lockout/tagout: 4mm shank lock or standard pin-out devices
- 35mm DIN rail mount
- Dimensionally compliant to DIN 43880
- Local indication minimum operating voltage:
  - 90Vac for AC version
  - 12Vdc for DC version

## Agency Information:

### UL Class CC fuse version

- UL 98 Listed, File E302370, Guide WHTY
- cULus to CSA Standard 22.2 No. 4-04, File 302370, Guide WHTY7
- CE Compliant

### UL Midget fuse version

- UL 508 Listed
- cULus Certified 22.2 No. 14-05
- CE Compliant

### 10X38 IEC Class aM and gG/gL fuse version

- IEC 60947-3 AC23A
- IEC 60947-3 DC23A
- CE Compliant

## Shipping Weight:

- 2.84 lbs (1.29kg) per carton

## Carton Quantity:

- 12 poles

## Environmental Data

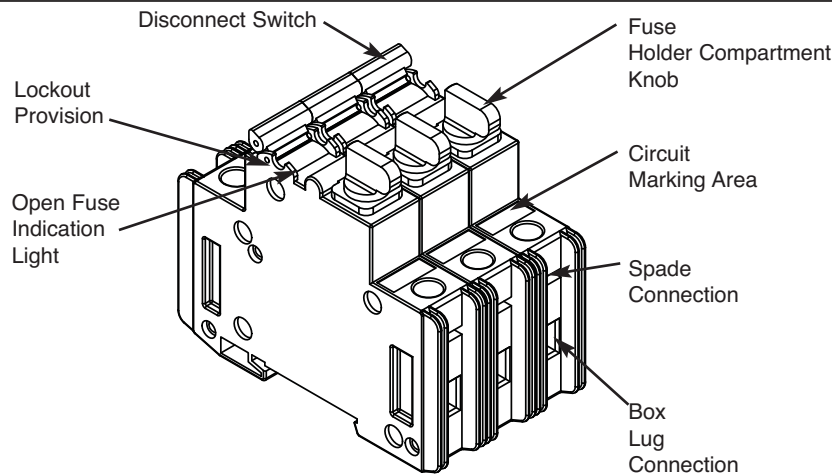
- Storage and operating temperature: -20°C to 75°C\*\*
- Flammability rating: UL 94V0

\*\* For fuse performance under or above 25°C, consult fuse performance derating charts in the Cooper Bussmann publication titled Selecting Protective Devices (SPD) reorder #3002.



# Compact Circuit Protector (CCP)

UL Class CC, Midget and IEC 10x38 fuses



## Technical Ratings

Catalog Number	Poles	Amp Rating	Voltage Rating	Fuse Type	Max. Fuse Amp Rating	SCCR	Agency Approvals	Hp ratings
CCP-1-30CC	1	30	600Vac	Class CC	30A	200kA	UL 98 Listed cULus 22.2 No. 4-04	0.5Hp@120V
CCP-2-30CC	2	30	600Vac	Class CC	30A	200kA	UL 98 Listed cULus 22.2 No. 4-04	2.0Hp@240V
CCP-3-30CC	3	30	600Vac	Class CC	30A	200kA	UL98 Listed cULus 22.2 No. 4-04	3Hp@240V 5Hp@480V 7.5Hp@600V
CCP-1-30M	1	30	240Vac* UL	UL Midget	30A	10kA*	UL 508 Listed cULus 22.2 No. 14-05	—
			400Vac* IEC	10x38 IEC	32A aM, 25A gG	120kA*	IEC 60947-3 AC23A	
CCP-2-30M	2	30	240Vac* UL	UL Midget	30A	10kA*	UL 508 Listed cULus 22.2 No. 14-05	—
			400Vac* IEC	10x38 IEC	32A aM, 25A gG	120kA*	IEC 60947-3 AC23A	
CCP-3-30M	3	30	240Vac* UL	UL Midget	30A	10kA*	UL 508 Listed cULus 22.2 No. 14-05	—
			400Vac* IEC	10x38 IEC	32A aM, 25A gG	120kA*	IEC 60947-3 AC23A	
CCP-1-DCC	1	30	80Vdc*	Class CC (DC rated)	30A	20kA*	UL 98 Listed CSA 22.2 No. 4-04	—
CCP-1-DCM	1	30	80Vdc*	UL Midget	30A	10kA*	UL 508 Listed cULus 22.2 No. 14-05	—
				10x38 IEC	32A aM, 25A gG		IEC 60947-3 DC23A	

\*Rating may be lower depending on installed fuse. Refer to fuse data sheet.

### Recommended UL Fuse Types

AC Voltage		DC Voltage	
Class CC	Midget	Class CC	Midget
LP-CC	KTK	LP-CC	KLM
KTK-R	FNM		DCM
FNQ-R	FNQ		
	BAN		
	BAF		

### Recommended IEC Fuse Types

10x38 IEC	
Part Number Family	IEC Class
C10G	gG/gL
C10M	aM



# Compact Circuit Protector (CCP)

UL Class CC, Midget and IEC 10x38 fuses

## Class CC Fuse Motor Sizing Table

Voltage	Motor Size (Hp)	Motor* FLA (Amps)	Low-Peak® LP-CC (Amp Rating)		
			Optimal Protection	Code Max	Heavy Start
115Vac, 1-Phase	0.167	4.4	9	15	15
	0.25	5.8	12	20	20
	0.33	7.2	15	25	25
	0.5	9.8	30	30	30
230Vac, 1-Phase	0.17	2.2	4.5	10	10
	0.25	2.9	6	10	10
	0.33	3.6	7	15	15
	0.5	4.9	10	15	15
	0.75	6.9	15	25	25
	1	8	25	25	30
200Vac, 3-Phase	1.5	10	30	30	30
	0.5	2.5	5	10	10
	0.75	3.7	7.5	15	15
	1	4.8	10	15	15
	1.5	6.9	15	25	25
208Vac, 3-Phase	2	7.8	25	25	30
	0.5	2.4	5	10	10
	0.75	3.5	7	15	15
	1	4.6	10	15	15
230Vac, 3-Phase	1.5	6.6	15	20	25
	2	7.5	15	25	30
	0.5	2.2	4.5	10	10
	0.75	3.2	7	10	12
	1	4.2	9	15	15
460Vac, 3-Phase	1.5	6	12	20	20
	2	6.8	15	25	25
	3	9.6	30	30	30
	0.5	1.1	2.25	6	6
	0.75	1.6	3.2	6	6.25
	1	2.1	4.5	10	10
575Vac, 3-Phase	1.5	3	6	10	12
	2	3.4	7	15	15
	3	4.8	10	15	15
	5	7.6	25	25	30
	0.5	0.9	1.8	3	3.5
	0.75	1.3	2.8	6	6
	1	1.7	3.5	6	6.25
	1.5	2.4	5	10	10
2	2.7	5.6	10	10	
575Vac, 3-Phase	3	3.9	8	15	15
	5	6.1	15	20	20
	7.5	9	30	30	30

**Note:** NEMA motors only (no IEC or Design B Energy Efficient). Minimum size if no more than 1 start/hour. Code max if low to moderate reverse/jog/plug applications. Heavy start permitted only if Code Max does not allow motor start-up. For high reverse/jog/plug applications or larger horsepower motors, Class J fuses are recommended. See CCP with CUBEFuse®.

\*Based on motor FLA from NEC® Tables 430.248 and 430.250

# Compact Circuit Protector (CCP)

CUBEFuse®



RoHS  
2002/95/EC

The revolutionary Cooper Bussmann® CCP is 1/3 the footprint of a circuit breaker. The level of protection provided by the CCP is up to three times the Short-Circuit Current Rating (SCCR) at full voltage than a molded case circuit breaker while providing disconnecting means.

## Product Features and Benefits

- Uses finger-safe IP20 Low-Peak® CUBEFuse® with Class J performance
- Extremely compact design at 25.4mm (1 inch) wide per pole
- High Short-Circuit Current Ratings at 200kA
- Disconnect rated to provide means for load isolation
- Full voltage rated at 600Vac
- UL 98 Listed, horsepower rated, and suitable for branch circuit disconnect and branch circuit protection
- 1-, 2- and 3-pole versions are horsepower rated
- Complies with UL and cULus
- Open Fuse Indication:
  - Local fuse indication lights\* are standard
  - Optional wired remote open fuse indication can be utilized to signal a PLC and open a contactor to de-energize all phases, if required
  - Cooper InVision™ Downtime Reduction System wireless indication is also available (not available in Europe)
- Additional open fuse indication can be provided by the CUBEFuse®
- IP20 finger-safe construction with 10 AWG (6mm<sup>2</sup>) wire or larger
- Built-in switch interlock capability prohibits removing the fuse under load
- Padlockable handle for lockout/tagout procedures

\*Circuit must be closed for indication light to illuminate

## Specifications:

- Box Lug and Spade Terminal suitable for line, load or accessory connection
- Box Lug Connection:
  - 18-6 AWG (1 to 16mm<sup>2</sup>) single or dual rated, solid or stranded – 75°C or higher - Cu only
  - 4 AWG (25mm<sup>2</sup>) single – 75°C or higher - Cu only
- Spade Terminal Connection: Max. 30A suitable for use with #8-32 UNC (M4) screw
- Torque:
  - 18-10 AWG 20 Lb-In (1-6mm<sup>2</sup>/3.4N·m)
  - 8-4 AWG 35 Lb-In (10-25mm<sup>2</sup>/5.8N·m)
- Lockout/tagout: 4mm shank lock or standard pin-out devices
- 35mm DIN rail mount
- Local indication minimum operating voltage:
  - 90Vac/115Vdc

## Agency Information:

- UL 98 Listed, File E302370, Guide WHTY
- cULus to CSA Standard 22.2 No. 4-04, File 302370, Guide WHTY7
- CE Compliant

## Shipping Weight:

- 2.03 lbs (0.92kg) per carton

## Carton Quantity:

- 6 poles

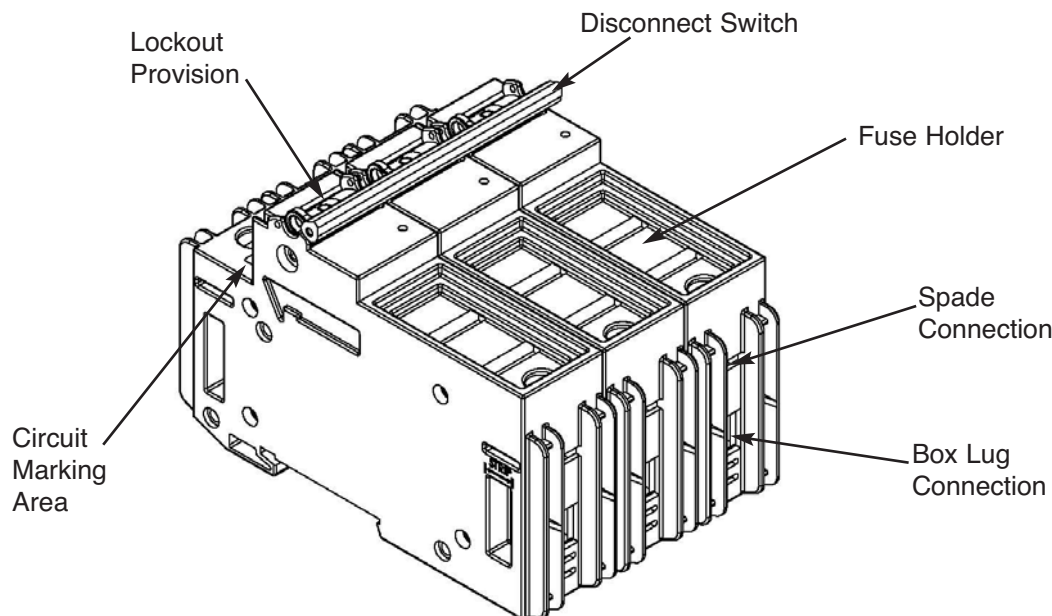
## Environmental Data:

- Storage and operating temperature: -20°C to 75°C\*\*
- Flammability rating: UL 94V0

\*\*For fuse performance under or above 25°C, consult fuse performance derating charts in the Cooper Bussmann publication "Selecting Protective Devices" (SPD) reorder #3002.

# Compact Circuit Protector (CCP)

CUBEFuse®



## Technical Ratings

Catalog Number	Poles	Amp Rating	Voltage Rating	Fuse Type	Max. Fuse Amp Rating	SCCR	Agency Approvals	Hp Ratings
CCP-1-30CF	1	30	600Vac	CUBEFuse*	30A	200kA	UL 98 Listed cULus 22.2 No. 4-04	1.5Hp@120V
CCP-2-30CF	2	30	600Vac	CUBEFuse*	30A	200kA	UL 98 Listed cULus 22.2 No. 4-04	3.0Hp@240V
CCP-3-30CF	3	30	600Vac	CUBEFuse*	30A	200kA	UL 98 Listed cULus 22.2 No. 4-04	5Hp@240V 15Hp@480V 10Hp@600V
CCP-1-60CF	1	60	600Vac	CUBEFuse*	60A	200kA	UL 98 Listed cULus 22.2 No. 4-04	3.0Hp@120V
CCP-2-60CF	2	60	600Vac	CUBEFuse*	60A	200kA	UL 98 Listed cULus 22.2 No. 4-04	7.5Hp@240V
CCP-3-60CF	3	60	600Vac	CUBEFuse*	60A	200kA	UL 98 Listed cULus 22.2 No. 4-04	7.5Hp@240V 20Hp@480V 10Hp@600V

\*Class J electrical performance

# Compact Circuit Protector (CCP)

CUBEFuse®

## CUBEFuse® Motor Sizing Table

Voltage	Motor Size (Hp)	Motor* FLA (Amps)	Low-Peak® CUBEFuse® (Amp Rating)		
			Optimal Protection	Code Max	Heavy Start
115Vac, 1-Phase	0.167	4.4	10	10	10
	0.25	5.8	10	15	15
	0.333	7.2	15	15	15
	0.5	9.8	15	20	20
	0.75	13.8	25	25	30
	1	16	25	30	35
	1.5	20	30	35	45
	2	24	40	45	50
	3**	34	50	60	N/A
230Vac, 1-Phase	0.167	2.2	6	6	6
	0.25	2.9	6	6	6
	0.333	3.6	6	10	10
	0.5	4.9	10	10	10
	0.75	6.9	15	15	15
	1	8	15	15	17.5
	1.5	10	15	20	20
	2	12	20	25	25
	3	17	25	30	35
	5	28	45	50	60
7.5**	40	60	N/A	N/A	
200Vac, 3-Phase	0.5	2.5	6	6	6
	0.75	3.7	6	10	10
	1	4.8	10	10	10
	1.5	6.9	15	15	15
	2	7.8	15	15	17.5
	3	11	17.5	20	20
	5	17.5	30	35	35
	7.5**	25.3	40	45	50
208Vac, 3-Phase	0.5	2.4	6	6	6
	0.75	3.5	6	10	10
	1	4.6	10	10	10
	1.5	6.6	10	15	15
	2	7.5	15	15	15
	3	10.6	17.5	20	20
	5	16.7	25	30	35
7.5**	24.2	40	45	50	

Voltage	Motor Size (Hp)	Motor* FLA (Amps)	Low-Peak® CUBEFuse® (Amp Rating)		
			Optimal Protection	Code Max	Heavy Start
230Vac, 3-Phase	0.5	2.2	6	6	6
	0.75	3.2	6	6	6
	1	4.2	10	10	10
	1.5	6	10	15	15
	2	6.8	15	15	15
	3	9.6	15	20	20
	5	15.2	25	30	30
	7.5**	22	35	40	45
460Vac, 3-Phase	0.5	1.1	3	3	3
	0.75	1.6	3	3	3
	1	2.1	6	6	6
	1.5	3	6	6	6
	2	3.4	6	6	6
	3	4.8	10	10	10
	5	7.6	15	15	15
	7.5	11	17.5	20	20
	10	14	25	25	30
	15	21	35	40	45
20**	27	40	50	60	
575Vac, 3-Phase	0.5	0.9	3	3	3
	0.75	1.3	3	3	3
	1	1.7	3	3	3
	1.5	2.4	6	6	6
	2	2.7	6	6	6
	3	3.9	6	10	10
	5	6.1	10	15	15
	7.5	9	15	20	20
	10**	11	17.5	20	20

**Note:** Use Code Max column for low to moderate reverse/jog/plug applications. Heavy Start permitted only if Code Max does not allow motor start-up.

\*Based on motor FLA from NEC® Tables 430.248 and 430.250

\*\*Max. Hp rating for the CCPB 60 Amp device at specified voltage



## Compact Circuit Protector (CCP) Accessories

UL Class CC, Midget, IEC 10x38 fuses, and CUBEFuse®

### Recommended Lockout Devices

CCP Version	Bradly Pin-Out P/N	Ideal P/N	Padlock
Class CC, Midget, IEC 10x38	90844	44-779	4mm shank
CUBEFuse®	90850	44-784	4mm shank

### Accessories for use with Class CC, Midget, IEC 10x38 and CUBEFuse® CCP

Catalog Number	Description	Configuration	Signal Output	Minimum Circuit Voltage	Agency Approvals
CCP-AUX	Auxiliary Contacts NO+NC for Switch Status	1 per CCP	5A/240Vac	–	UL 98 Recognized cURus 22.2 No. 4-04, IEC 60947-5-1 AC15
CCP-PLC-IND	Wired Remote Fuse Indication for PLC Applications	1 per CCP	24Vdc	100Vac	UL 98 Recognized cURus 22.2 No. 4-04
ICM-DIN*	Intelligent Circuit Monitor for Cooper InVision™ Downtime Reduction System	1 per pole	RF Signal	100Vac	UL 508 Listed CSA Certified

\*Refer to Data Sheet 1068, InVision Downtime Reduction System (not available in Europe)



CCP-AUX



CCP-PLC-IND  
(Includes spade terminals)

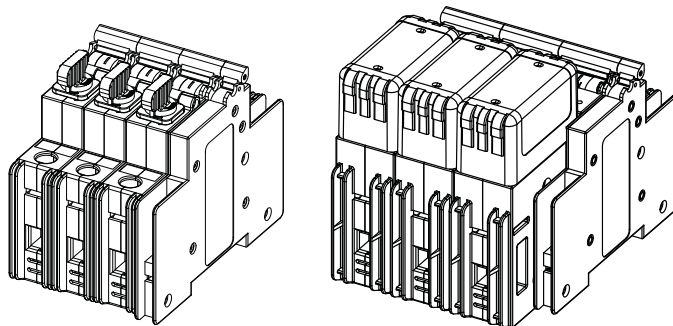


ICM-DIN



## Auxiliary Contact – CCP-AUX

UL Class CC, Midget, IEC 10x38 fuses, and CUBEFuse®



CCP-AUX installed on a CCP-3-xx

### Description

NO+NC contact output to indicate the status of the switching mechanism on the CCP

### Specifications:

- Rated Current: 5A
- Rated Voltage: 240Vac
- NC/NO contacts are closed/open when the CCP switch is in the "ON" position (closed)
- Flammability Rating: UL94V0

### Agency Information:

- UL 98 File E155130, Guide WHTY2
- cULus to CSA Standard 22.2 No. 4-04
- IEC 60947-5-1

### Wiring:

- 20-16 AWG (1 to 2.5mm<sup>2</sup>) wire
- Torque 5 Lb-In (0.68N·m)
- For use with only 75°C Cu wire

### Packaging:

- The CCP-AUX is packaged individually
- A single unit is capable of mounting to a 1-, 2-, or 3-pole CCP

### Installation Technique:

- Mounts on the right side of the CCP, and mechanically interlocks with the CCP switch handle with hardware provided

### IP20 Rating: Yes

### Environmental Data:

- Storage and Operating Temperature: -20°C to 75°C

*De-energize all circuits before installing or removing any CCP-AUX devices and follow all prescribed safety procedures.*



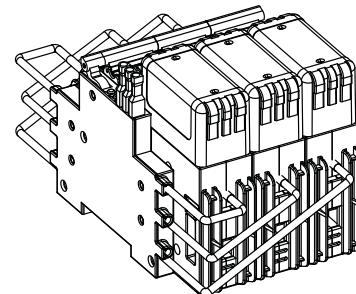
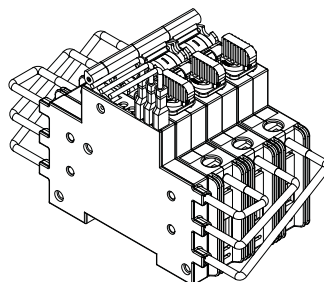
## Remote Fuse Monitoring Accessory – CCP-PLC-IND

UL Class CC, Midget, IEC 10x38 fuses, and CUBEFuse®

CCP-PLC-IND installed on a CCP-3-xx



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### Description

A resetable three-phase remote fuse monitor that integrates with a Programmable Logic Controller (PLC) or other monitoring and control equipment

### Specifications:

- **Power Input:** 24Vdc / 5mA
  - **Output Signals:** Digital 0Vdc (Low), 24Vdc (High)
    - 0Vdc Low – Fuse is good
    - 24Vdc High – Fuse has opened
- When the fuse opens, the output signal is sent high and will remain high until the unit is reset
- **Rated Impulse Voltage:** 8kV
  - **Local Indication:** Two distinct LEDs indicate unit power (green) and open fuse (red). Upon the replacement of the fuse, the actuation of the reset switch will reset the open fuse LED
  - **Flammability Rating:** UL 94V0

### Wiring:

- For power, signal and ground connections use 22-24AWG (0.25mm<sup>2</sup>) 300V rated wire

### Emissions and Immunity Testing:

- Electrostatic Discharge IEC 61000-4-2
- Electrical Fast Transient/Burst IEC 6100-4-4
- Surge Immunity IEC61000-4-5

### Packaging:

- The CCP-PLC-IND is packaged individually
- A single unit monitors up to three phases
- Package includes 0.110" (2.8mm) quick connects for power, signal and ground connections

### Minimum Circuit Voltage:

- Minimum circuit voltage required across the CCP is 100Vac for the remote indication device to operate

### Installation Technique:

- Mounts on the left side of the CCP and mechanically interlocks with the CCP switch handle with hardware provided

### IP20 Rating: Yes

### Environmental Data:

- Storage and Operating Temperature: -20°C to 75°C

### Agency Information:

- UL 98 File E155130, Guide WHTY2
- cULus to CSA Standard 22.2 No. 4-04

### PLC Programming:

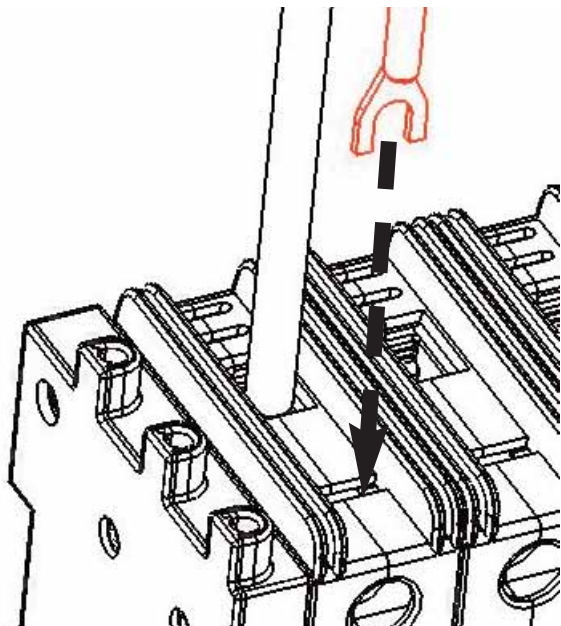
- The CCP-PLC-IND signal line is designed to provide a digital input to a PLC I/O card
- Programmable Logic Control program must be written to properly interpret the input signal to the PLC
- The PLC program should check for consecutive high signals before taking action on a critical process

*De-energize all circuits before installing or removing any CCP-PLC-IND devices and follow all prescribed safety procedures.*



## Remote Fuse Monitoring Accessory – CCP-PLC-IND

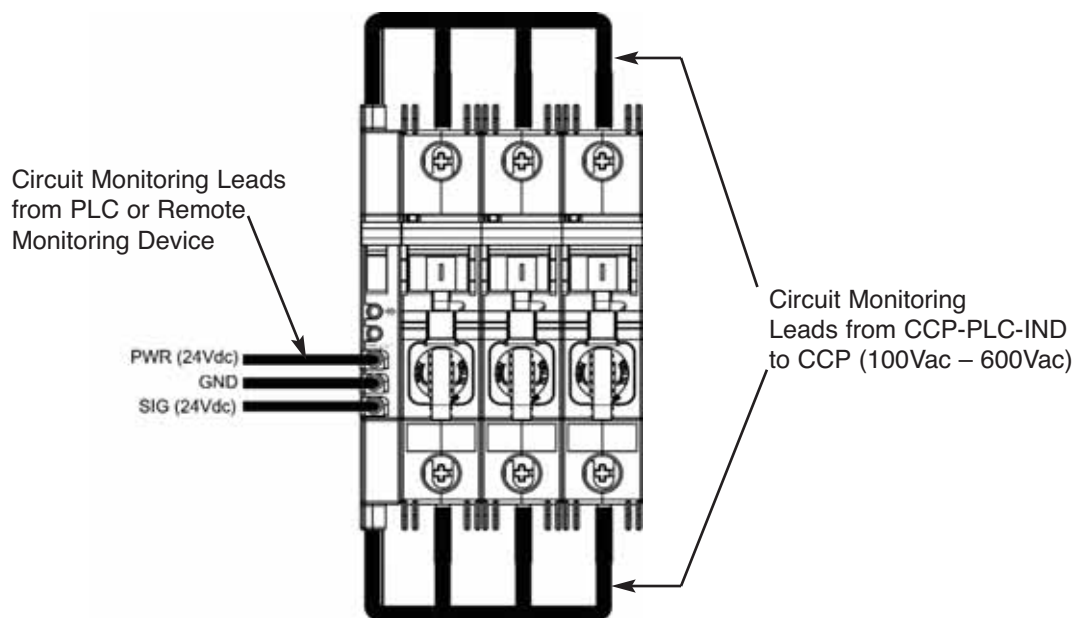
UL Class CC, Midget and IEC 10x38 fuses, and CUBEFuse®



Connect leads from CCP-PLC-IND to the terminals as shown. There is a dedicated terminal on the CCP to accept the spade connectors from the CCP-PLC-IND.

NOTE: When monitoring a 1-pole or 2-pole CCP, trim unused leads

Connection from CCP-PLC-IND to CCP



Connections for CCP-PLC-IND from a CCP-3 to a remote monitoring device

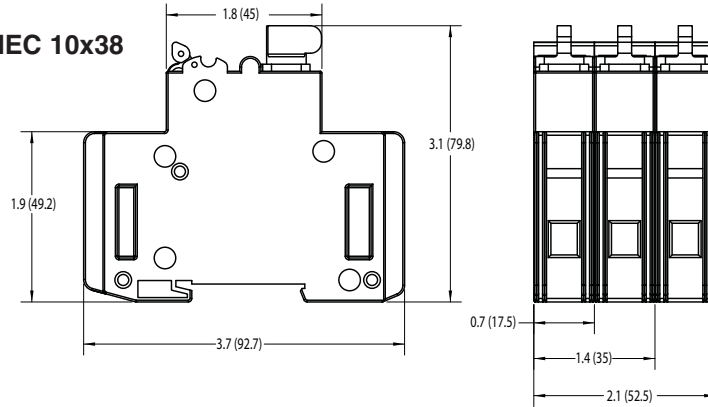


# Compact Circuit Protector (CCP)

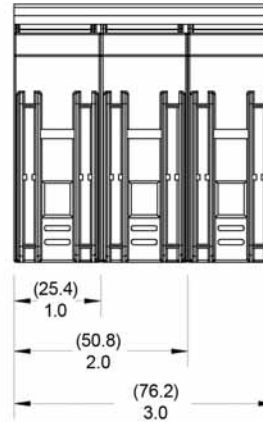
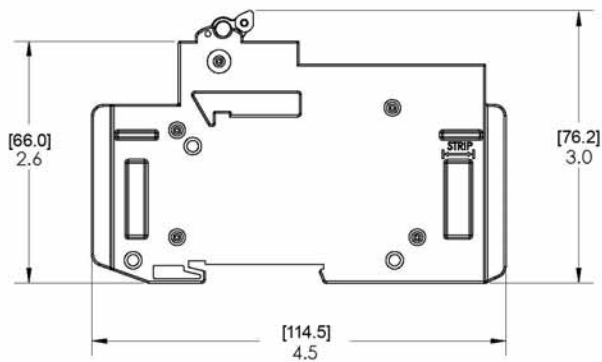
UL Class CC, Midget, IEC 10x38 fuses, and CUBEFuse®

## Dimensions - in (mm)

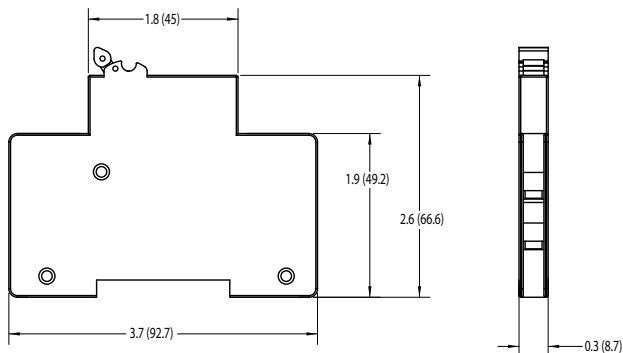
CCP for Class CC, Midget and IEC 10x38



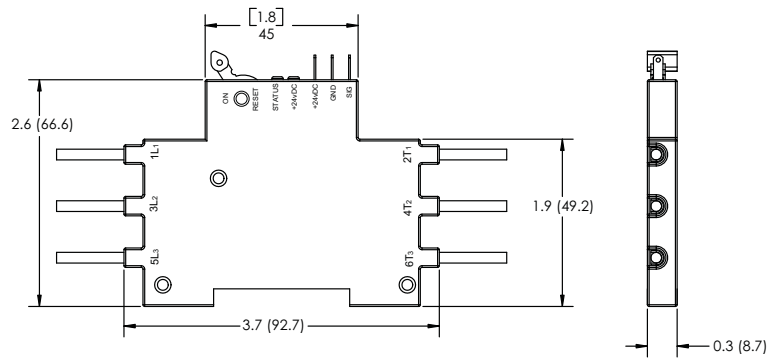
## CCP with CUBEFuse®



## CCP-AUX



## CCP-PLC-IND



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