

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 and horsepower rated, and suitable for branch circuit disconnect and branch circuit protection
- IEC 10x38 version complies with IEC 60947-3 and suitable for branch circuit disconnect and branch circuit protection
- 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.
- IP20 finger-safe with 10 AWG (6mm²) 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 16mm²) single or dual rated, solid or stranded – 75°C or higher - Cu only
 - 4 AWG (25mm²) 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 (1-6mm²/3.4Nm)
 - 8-4 AWG 35 Lb-In (10-25mm²/5.8Nm)
- 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

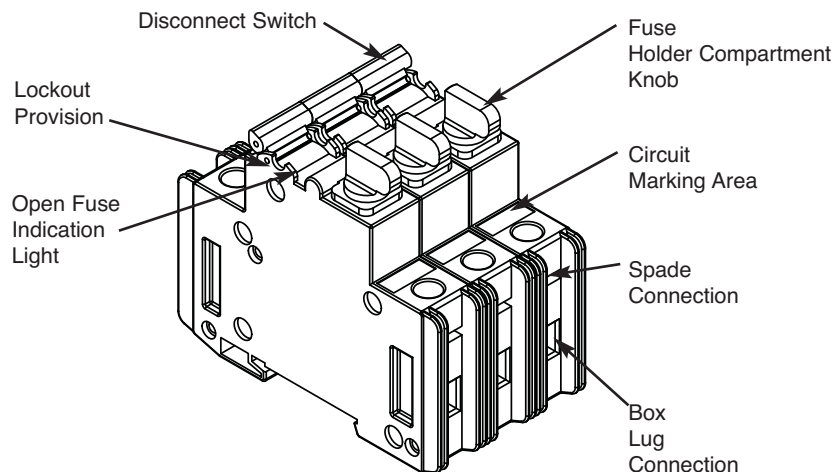
Environmental Data

- 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 Ampacity	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		
	BAF		

Recommended IEC Fuse Types

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

Compact Circuit Protector (CCP)

UL Class CC, Midget and IEC 10x38 fuses

Motor Sizing Chart

Voltage	Motor Size	Motor FLA	Fuse	Min	Code Max	Heavy Start
115 Vac - 1 Phase	0.167	4.4	LP-CC	9	15	15
	0.25	5.8		12	20	20
	0.33	7.2		15	25	25
	0.50	9.8		30	30	30
230 Vac - 1 Phase	0.17	2.2	LP-CC	4.5	10	10
	0.25	2.9		6	10	10
	0.33	3.6		7	15	15
	0.50	4.9		10	15	15
	0.75	6.9		15	25	25
	1	8		25	25	30
	1.5	10		30	30	30
200 Vac - 3 Phase	0.50	2.5	LP-CC	5	10	10
	0.75	3.7		7.5	15	15
	1	4.8		10	15	15
	1.5	6.9		15	25	25
	2	7.8		25	25	30
208 Vac - 3 Phase	0.50	2.4	LP-CC	5	10	10
	0.75	3.5		7	15	15
	1	4.6		10	15	15
	1.5	6.6		15	20	25
	2	7.5		15	25	30
230 Vac - 3 Phase	0.50	2.2	LP-CC	4.5	10	10
	0.75	3.2		7	10	12
	1	4.2		9	15	15
	1.5	6		12	20	20
	2	6.8		15	25	25
	3	9.6		30	30	30
460 Vac - 3 Phase	0.50	1.1	LP-CC	2.25	6	6
	0.75	1.6		3.2	6	6.25
	1	2.1		4.5	10	10
	1.5	3		6	10	12
	2	3.4		7	15	15
	3.00	4.8		10	15	15
	5.00	7.6		25	25	30
575 Vac - 3 Phase	0.50	0.9	LP-CC	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
	3.00	3.9		8	15	15
	5.00	6.1		15	20	20
	7.50	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®.

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 Class CF finger-safe Low-Peak® CUBEFuse® with Class J electrical 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 for 30A, 60A and 100A versions
- 125Vdc rated for 40A versions
- UL 98 Listed and suitable for branch circuit disconnect and branch circuit protection
- 1-, 2- and 3-pole versions are horsepower rated
- Complies with UL and CSA
- 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
- Additional open fuse indication can be provided by the CUBEFuse®
- IP20 finger-safe construction with 10 AWG (6mm²) 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 16mm²) single or dual rated, solid or stranded – 75°C or higher - Cu only
 - 4 AWG (25mm²) 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 (1-6mm²/3.4Nm)
 - 8-4 AWG 35 Lb-In (10-25mm²/5.8Nm)
- 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

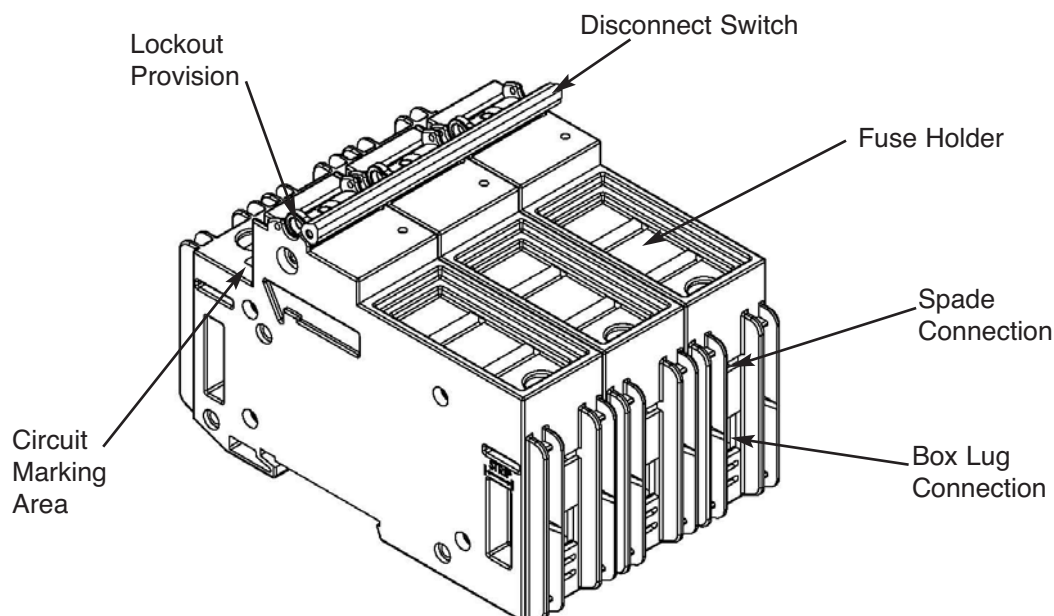
Environmental Data:

- 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 Ampacity	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
CCP-1-100CF	1	100	600Vac	CUBEFuse*	100A	200kA	UL 98 Listed cULus 22.2 No. 4-04	5.0Hp@120V
CCP-2-100CF	2	100	600Vac	CUBEFuse*	100A	200kA	UL 98 Listed cULus 22.2 No. 4-04	10.Hp@240V
CCP-3-100CF	3	100	600Vac	CUBEFuse*	100A	200kA	UL 98 Listed cULus 22.2 No. 4-04	20Hp@240V 50Hp@480V 50Hp@600V

*Class CF with 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
	5**	56	90	100	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
	10**	50	80	90	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
	20**	62.1	100	N/A	N/A
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
	20**	59.4	90	N/A	N/A

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
	20**	54	90	100	N/A
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
	50**	65	100	N/A	N/A
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
	50**	52	80	100	N/A

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 100 Amp device at specified voltage.

Compact Circuit Protector (CCP) Accessories

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

Recommended Lockout Devices

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

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 up to 60A	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 up to 60A	1 per CCP	24Vdc	100Vac	UL 98 Recognized cURus 22.2 No. 4-04



CCP-AUX



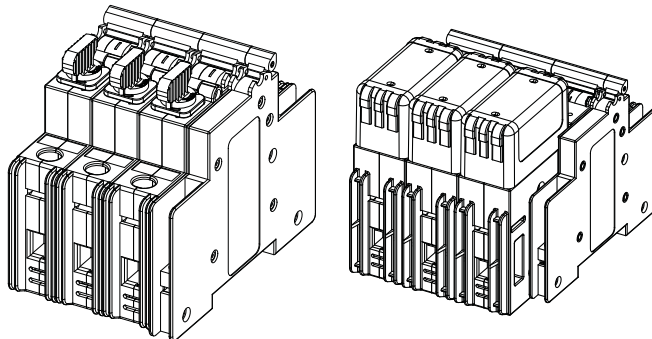
CCP-PLC-IND
(Includes spade terminals)

Auxiliary Contact – CCP-AUX

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



RoHS
2002/95/EC



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 Ampacity: 5A
- Rated Voltage: 240Vac
- NC/NO contacts are closed/open when the CCP switch is in the "ON" position (closed)
- Flammability Rating: UL 94V0
- For use with up to and including 60A CCP

Agency Information:

- UL 98 File E155130, Guide WHTY2
- cULus to CSA Standard 22.2 No. 4-04
- IEC 60947-5-1
- For use with up to and including 60A CCP

Wiring:

- 20-16 AWG (1 to 2.5mm²) wire
- Torque 5 Lb-In (0.68Nm)
- 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.

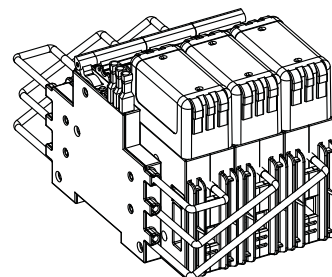
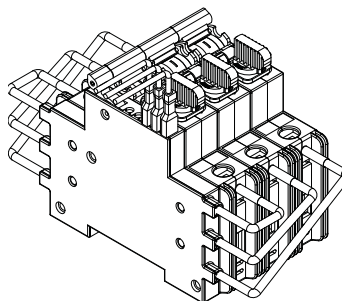
Remote Fuse Monitoring Accessory – CCP-PLC-IND

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



RoHS
2002/95/EC

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



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). Open fuse LED is resetable upon the replacement of the fuse and the actuation of the reset switch
- **Flammability Rating:** UL 94V0
- For use with up to and including 60A CCP

Wiring:

- For power, signal and ground connections use 22-24AWG (0.25mm²) 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

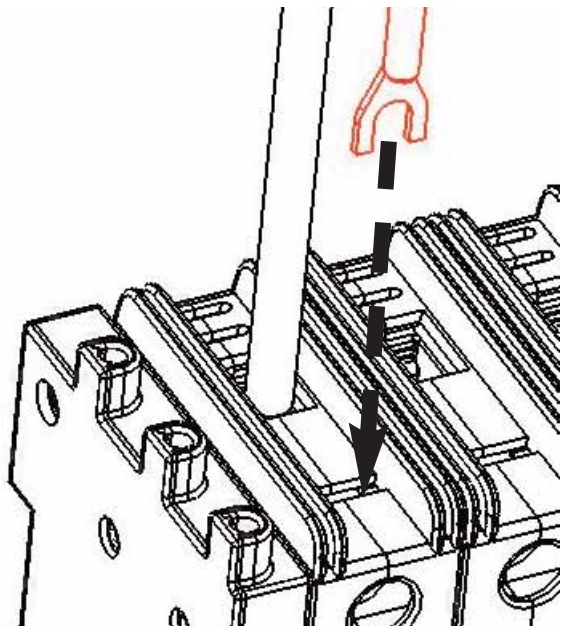
PLC Programming:

- The CCP-PLC-IND signal line is designed to provide a digital input to a PLC I/O card. In this case, a 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

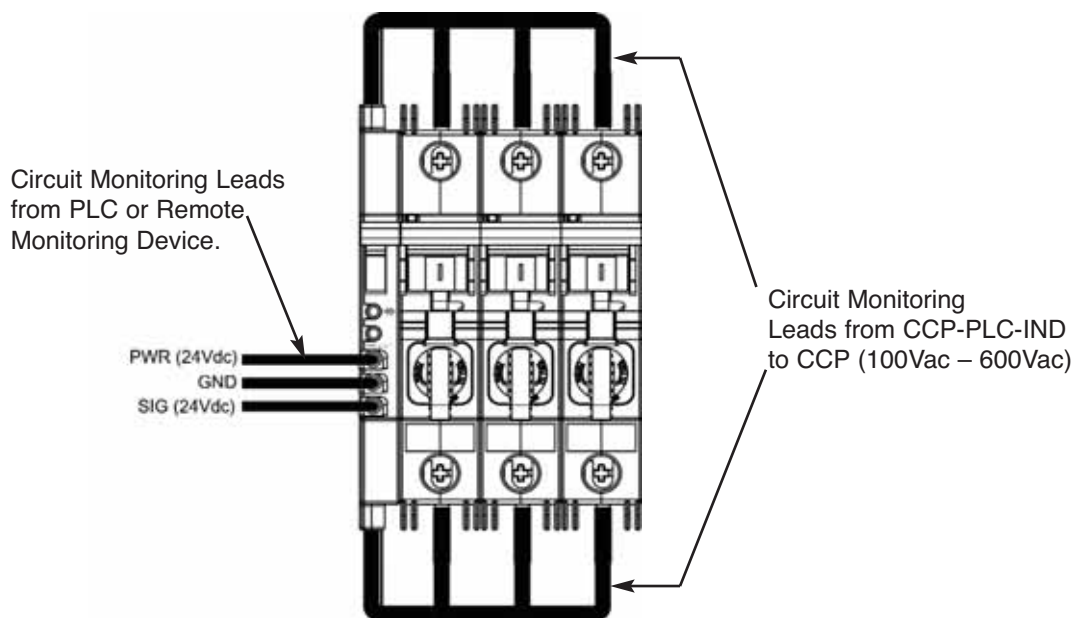
UL Class CC, Midget and IEC 10x38 fuses, and CUBEFuse®



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



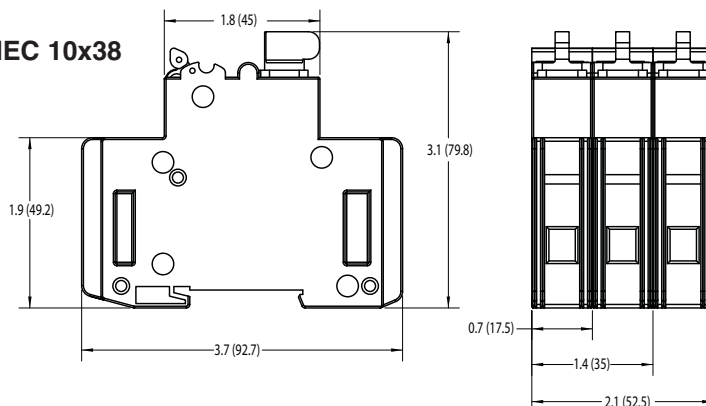
Connections for CCP-PLC-IND from a CCP-3 to a remote monitoring device

Compact Circuit Protector (CCP)

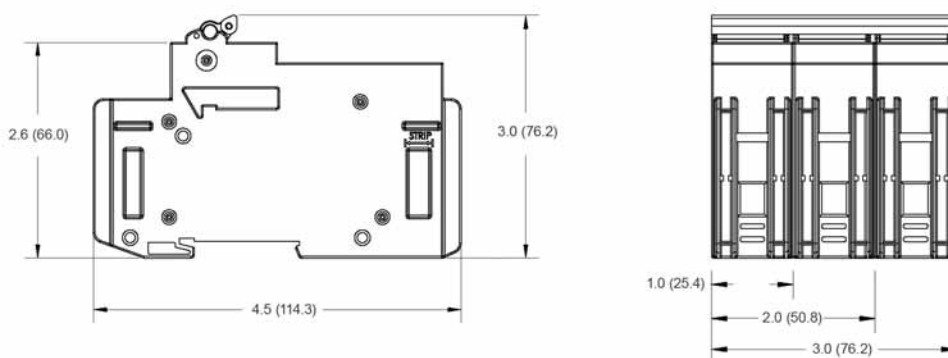
UL Class CC, Midget and IEC 10x38 fuses, and CUBEFuse®

Dimensions - in (mm)

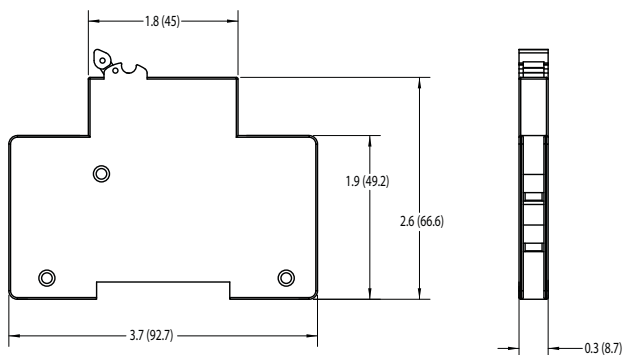
CCP for Class CC, Midget and IEC 10x38



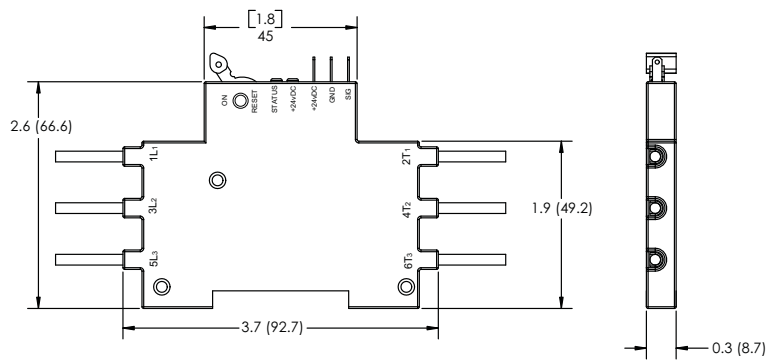
CCP with CUBEFuse®



CCP-AUX



CCP-PLC-IND



The only controlled copy of this Data Sheet is the electronic read-only version located on the Cooper Bussmann Network Drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9