Next generation Compact Circuit Protector (cat. no. CCP2)

For use with Class CC and Supplemental Fuses

RoHS 2011/65/EU



CCP2 switch

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CCP2 right front rotary switch



CCP2 left front rotary switch



CCP2 right side rotary switch



CCP2 left side rotary switch

EATON
Powering Business Worldwide

Catalog symbols

Symbol	Fuse type	Description
CCP2-(poles)-30CC	Class CC	Switch only
CCP2-(poles)-30M	UL supplemental	
CCP2-1-DCC	Class CC Vdc	1-pole switch only
CCP2-1-DCM	UL supplemental	
CCP2R-(pole)-30CC	Class CC	Right front rotary switch
CCP2R-(pole)-30M	UL supplemental	
CCP2RL-(pole)-30CC	Class CC	Left front rotary switch
CCP2RL-(pole)-30M	UL supplemental	
CCP2S-(pole)-30CC	Class CC	Right side rotary switch
CCP2S-(pole)-30M	UL supplemental	
CCP2SL-(pole)-30CC	Class CC	Left side rotary switch
CCP2SL-(pole)-30M	UL supplemental	

Description

The revolutionary next generation Bussmann™ series Compact Circuit Protector (cat. no. CCP2) fused disconnect switch is 3/5 the footprint of a traditional fusible switch and provides up to a high 200 kA Short-Circuit Current Rating (SCCR) to help improve panel and assembly SCCR.

The 35 mm DIN-Rail mount CCP is available in a variety of configurations to meet many application needs including rotary operation.

Application flexibility is extended with an optional multi-wire lug kit, with finger-safe shrouds, that provides three additional wire ports on each pole for power distribution applications.

Other accessories include NO/NC auxiliary contacts that easily integrate into many monitoring systems.

Front and side rotary operated versions are easily applied for through-the-door or through the left or right side operation to enhance safety.

Ratings

- Volts
  - 600 Vac (UL® Class CC)
  - 240 Vac (UL Supplemental)
- Amps
  - 30 A (UL)
- SCCR
  - 10 kA (UL Supplemental)
  - 20 kA (DC Class CC/UL)
  - 200kA (UL Class CC SCCR)

Poles

- 1-, 2- and 3-poles catalog number dependent

Agency information

- UL Class CC fuse versions
  - UL 98 Listed, Guide WHTY, File E302370
  - cULus to Canadian Standard 22.2 No. 4-04, UL Guide WHTY7, File 302370
- UL Supplemental
  - UL 508 Listed, Guide NRNT, File E320230
  - cULus Certified 22.2 No. 14-05
- DC voltage UL Class CC version (CCP2-1-DCC)
  - UL 508 Listed, cULus 22.2, No. 1405
- RoHS compliant

Conductors/terminals

- 75°C Cu/Al, see conductor tables for size, type and torque information
- Box lug, single/dual conductor
- Fork terminal suitable for line, load or accessory connection
- Multi-wire lug kit — see accessories for details

Storage and operating temperature

- - 20°C to 75°C (-4°F to 167°F)*

* For fuse performance under or above 25°C, consult fuse performance derating charts in the Bussmann Division publication no. 3002, titled Selecting Protective Devices (SPD)

Lockout/tagout provisions

- Switch only — 4 mm lock or Brady pin-out device part number 90850
- Switch with rotary operating mechanism — 1/4" lock

Minimum enclosure size

- 10" x 8" x 6" (254 x 203 x 152 mm)

Mounting

- 35 mm DIN-Rail

Local open fuse indication minimum voltage**

- 90 Vac for AC switches
- 12 Vdc for DC switches

** Open fuse indication requires an open fuse to be in the CCP2 and the switch in the ON position.

Accessories

- Multi-wire lug kit with terminal shrouds
- Selector and pistol handles for use with rotary operated switches
- 8 mm shafts for use with selector and pistol handles
- Auxiliary contacts

Carton quantity and shipping weight

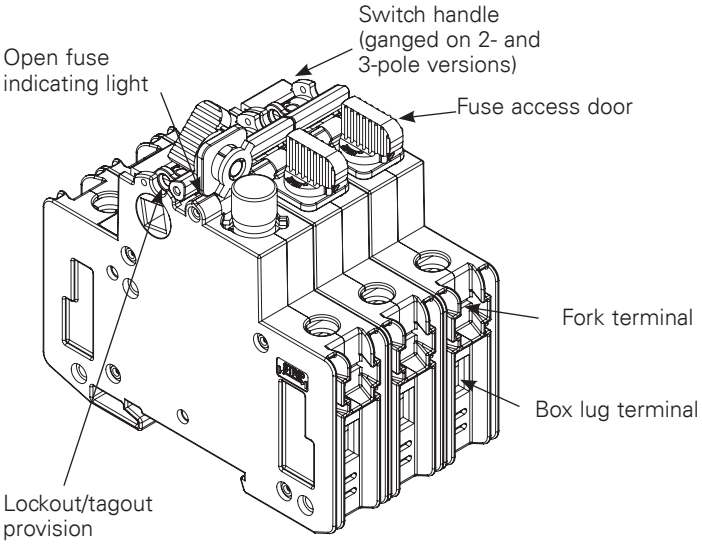
Item	Poles	Weight lbs (kg)
Switch only	12	2.84 (1.29)
Switch with side rotary mechanism	2	0.9 (0.404)
	3	1.12 (0.509)
Switch with front rotary mechanism	2	0.95 (0.431)
	3	1.18 (0.537)

Features

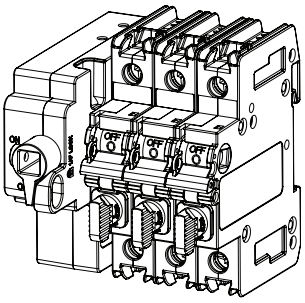
- Extremely compact (18 mm wide per pole) design
- High SCCR up to 200 kA (UL Class CC)
- Disconnect rated for load isolation
- Full voltage rated up to 600 Vac or 80 Vdc
- UL 98 Listed Class CC version is horsepower rated and suitable for branch circuit protection and disconnect
- Open fuse indication
  - Standard local open fuse indicating light for each pole
- IP20 finger-safe with 10 AWG (6 mm^2) or larger wire (box lug terminals only)
- Built-in switch interlock prohibits removing the fuse under load
- Padlockable handle for lockout/tagout
  - 4 mm lock for switch only
  - 1/4" lock for rotary operated switches
- Rotary operated versions provide for through-the-door and through-the-side operation flexibility and enhanced safety with:
  - Right front switch operation
  - Left front switch operation
  - Right side switch operation
  - Left side switch operation
- Optional selector, pistol and NFPA 79 compliant handles available for use with rotary operated versions
- Multi-wire lug kit with terminal shrouds allows for power distribution to multiple loads. Each lug has three ports rated for single and dual wires (see lug kit in accessories for conductor and torque details).



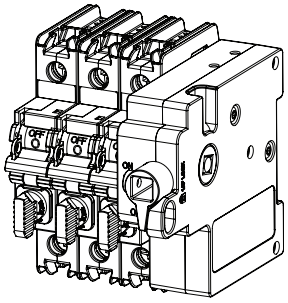
CCP2 right side rotary switch



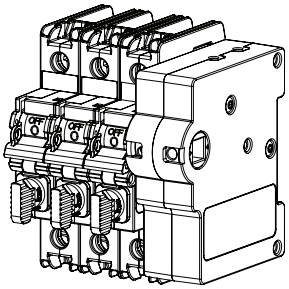
Rotary operating switch versions



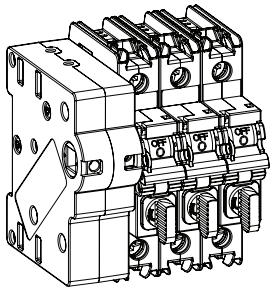
Left front rotary switch
Clockwise operating handles



Right front rotary switch
Clockwise operating handles



Right side rotary switch
Clockwise operating handles



Left side rotary switch
Counterclockwise operating handles

Catalog numbers

Catalog no.	Poles	Description	Amps	Volts	SCCR	Max horsepower rating (Vac) 120	240	480	600	Wire type/ size*
Class CC										
CCP2-1-30CC	1	Switch only	30 A	347 Vac	200 kA	1/2	—	—	—	75°C Cu/Al 18-4 AWG Fork terminal††
CCP2-2-30CC	2			600 Vac		—	2	—	—	
CCP2-3-30CC	3					3/4	3	5	7.5	
CCP2R-2-30CC	2	Switch with right front rotary operation		600 Vac		—	2			
CCP2R-3-30CC	3					3/4	3	5	7.5	
CCP2RL-2-30CC	2	Switch with left front rotary operation		600 Vac		—	2	—	—	
CCP2RL-3-30CC	3					3/4	3	5	7.5	
CCP2S-2-30CC	2	Switch with right side rotary operation		600 Vac		—	2	—	—	
CCP2S-3-30CC	3					3/4	3	5	7.5	
CCP2SL-2-30CC	2	Switch with left side rotary operation		600 Vac		—	2	—	—	
CCP2SL-3-30CC	3					3/4	3	5	7.5	
UL Supplemental										
CCP2-1-30M	1	Switch only	UL 30 A	UL 240 Vac†	UL 10 kA†	—	—	—	—	75°C Cu/Al 18-4 AWG Fork terminal††
CCP2-2-30M	2									
CCP2-3-30M	3									
CCP2R-2-30M	2	Switch with right front rotary operation								
CCP2R-3-30M	3									
CCP2RL-2-30M	2	Switch with left front rotary operation								
CCP2RL-3-30M	3									
CCP2S-2-30M	2	Switch with right side rotary operation								
CCP2S-3-30M	3									
CCP2SL-2-30M	2	Switch with left side rotary operation								
CCP2SL-3-30M	3									
Single-pole DC switches										
CCP2-1-DCC	1	UL Class CC	30 A	80 Vdc†	20 kA†	—	—	—	—	75°C Cu/Al 18-4 AWG Fork terminal††
CCP2-1-DCM	1	UL supplemental	30 A	80 Vdc†	10 kA†	—	—	—	—	

* See box lug terminal conductor data table for details.
† SCCR may be lower, refer to installed fuse data sheet for interrupting rating at applied voltage.
††Fork terminal with a 4.3 mm gap for a #8-32 stud, 30 A max, insulated flange, wire size 12-10 AWG.

Box lug terminal conductor data

Type	AWG range	Class	Quantity	Torque N•m (lb-in)
Cu	4-18	Stranded, Class B to K	Single	2.26 (20)
	6-8	Stranded, Class B/C	Dual	3.39 (30)
	6-8	Stranded, Class K	Dual	2.26 (20)
	10-18	Stranded, Class B to K		
	10-18	Solid	Single/dual	
	4-18	Stranded, UL ferrule, Class B/C	Single	3.39 (30)
	6-18		Twin†	
	4-18	Stranded, UL ferrule, Class K	Single	2.82 (25)
	6-18		Twin†	
Al	4-8	Stranded	Single	2.26 (20)
	6		Dual	2.82 (25)
	8			2.26 (20)

† Two stranded conductors placed in one UL Listed twin ferrule.

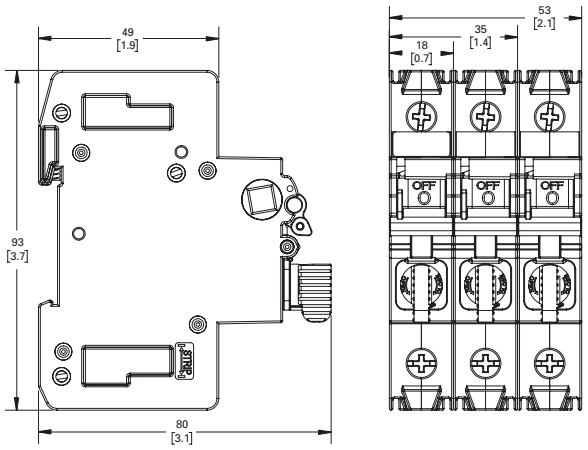
Available Bussmann series fuses

Fuse class	Type/description	Volts	Data sheet no.
CC	LP-CC time-delay	600 Vac/300 Vdc*	1023
	FNQ-R time-delay	600 Vac/300 Vdc	1014
	KTK-R fast-acting	600 Vac	1015
M	FNM time-delay	250 Vac	2028
	FNQ time-delay	500 Vac	1012
	KTK fast-acting	600 Vac	1011
	BAF fast-acting	250 Vac	2011
	KLM fast-acting	600 Vac/dc	2020

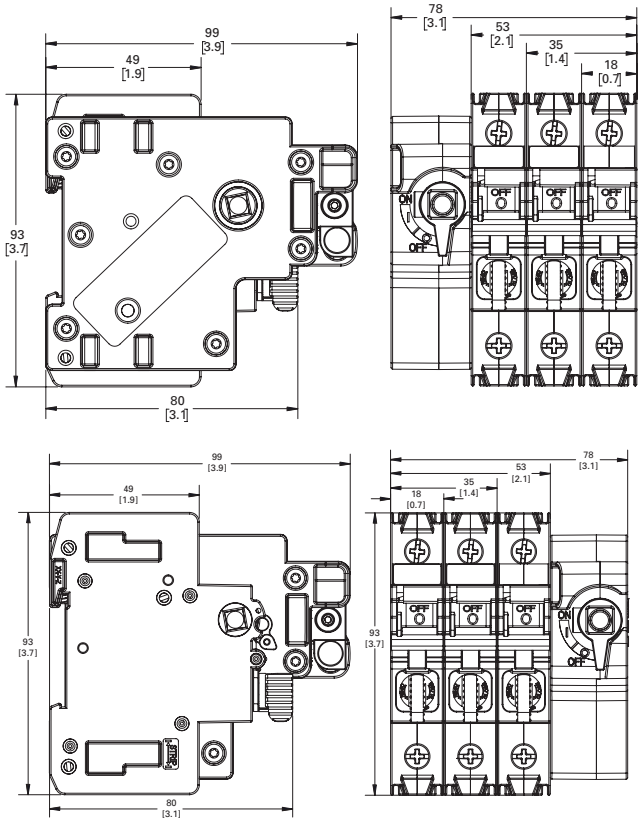
* 1/2 to 2-1/2 and 20 to 30 A are 300 Vdc, 2-8/10 to 15 A are 150 Vdc.

Dimensions – mm (in)

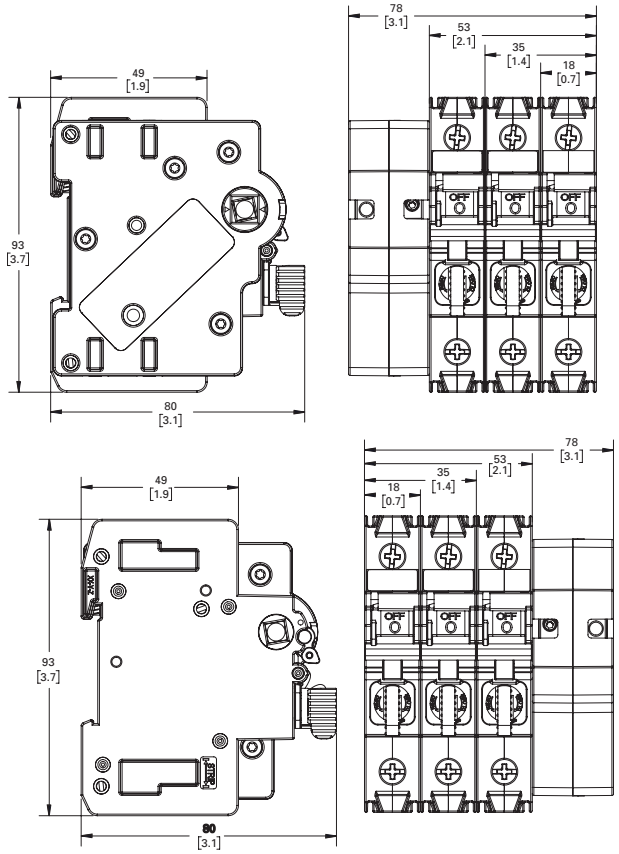
Switch



Left front and right front rotary switches



Left side and right side rotary switches



Multi-wire lug kit

Catalog number

- CCP2-MW1-3

Description

The multi-wire lug kit permits expanding each box lug terminal on the switch into a three-port terminal for power distribution applications.

Each multi-wire lug kit comes with three (3) three-port lugs and three terminal shrouds. Shrouds provide finger-safe protection when properly installed.

Lugs may be mounted on either the loadside or lineside to meet various application needs.

Ports on any one lug accept any conductor combination listed, e.g., one of the three ports may have dual 14 AWG wires and the other two ports single 10 AWG wires.

Ratings

- Volts 600 V
- Amps 60 A max
- SCCR 200 kA

Agency information

- UL Recognized (lug only)
- RoHS compliant

Storage and operating temperature

- - 20°C to 75°C (-4°F to 167°F)

Multi-wire lug conductor information

- 75°C Cu/AL
- AWG size and quantity per port - see table below

Type	AWG range	Class	Quantity	Torque N•m (lb-in)
Cu/Al	4-6	Stranded, Class B/C	Single	3.95 (35)
	8			2.82 (25)
Cu	10-14	Stranded, Class B/C	Single/dual*	2.26 (20)
	10-14	Solid	Single	2.26 (20)
	8	UL ferrule, Class B to K	Single/twin†	2.82 (25)
	10-14			2.26 (20)

* Dual wire to be same size and type.
† Two stranded conductors placed in one UL Listed twin ferrule.

CCP2 box lug torque for multi-wire lug

- 4.52 N•m (40 lb-in)

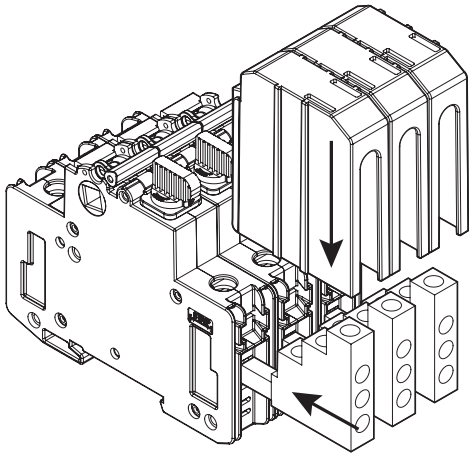
Terminal shroud accessory

Terminal shrouds are available without multi-wire terminals.

Catalog no.	Description
CCP2-TS1-3	Pack of three

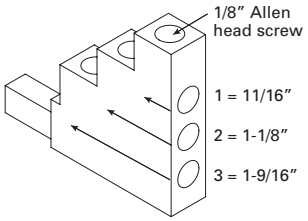


Installed on CCP2-3-xx



Multi-wire lugs mount in switch box lug terminals to provide three additional wire ports per pole. Lugs can be mounted on the switch lineside or loadside. Each multi-wire lug kit comes with three lugs and three shrouds.

Wire insulation strip lengths



Strip back wire insulation to the lengths as indicated in the illustration above and the table below.

Lug port	Strip wire insulation back (inch)
1	11/16
2	1-1/8
3	1-9/16



Wiring versatility is provided by single/dual rated box lug terminals on the switch, or by the three-port multi-wire lug kit that's also single/dual wire rated.

Selector and pistol handles

Catalog symbol

- CCP2-H4X-_

Description

Selector and pistol handles for use with any 2- and 3-pole CCP2 rotary operated switch. Both selector and pistol handles are available in black/grey and red/yellow colors and clockwise/counterclockwise operating modes. Applying clockwise and counterclockwise operation depends upon the CCP2 rotary switch configuration. Installation requires an 8 mm shaft (ordered separately).

Each handle is rated NEMA 4X and capable of accepting up to three (3) 1/4" diameter shank locks for lockout/tagout in the OFF position. They can also be field configured for lock-on.

In application, only the clockwise operating handles in combination with either the left front or right front rotary switches provide a door interlock means to ensure the enclosure door remains shut during lockout/tagout or lock-on. Both clockwise and counterclockwise operating handles when mounted on the enclosure's left or right side do NOT provide a door interlock means.

See the catalog number table below for applicable rotary switch, handle and shaft combinations.

Agency information

- UL Listed, Guide DIHS, File E140305
- NEMA 4X rating
- RoHS complaint
- CE

Storage and operating temperature

- -20°C to 75°C (-4°F to 167°F)

Packaging

- Each handle is packaged individually

Handle shafts

Catalog symbol

- CCP2-SH1-_

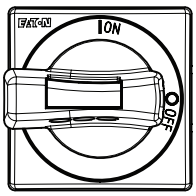
Description

Eight millimeter square shafts available in 290 and 490 millimeter (11.5 and 19.3 inch) lengths. Shafts are indexed to ensure handle/switch orientation for correct operation. Shafts are cut to length when installed.

Packaging

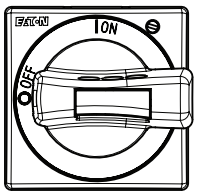
- Each shaft is packaged separately

Selector handles



Counterclockwise

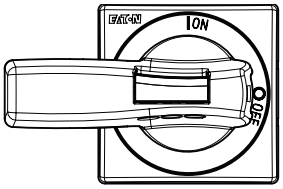
- CCP2-H4X-B1L
- CCP2-H4X-R1L



Clockwise

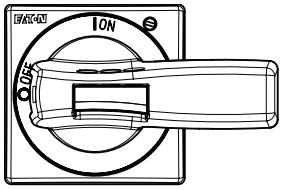
- CCP2-H4X-B1
- CCP2-H4X-R1

Pistol handles



Counterclockwise

- CCP2-H4X-B2L
- CCP2-H4X-R2L



Clockwise

- CCP2-H4X-B2
- CCP2-H4X-R2

Handle shafts



NFPA 79 compliant handles



Catalog number

- CCP2-NFPA-1

Description

NFPA 79 handle mounts on the shaft of front rotary operated switch installations and provides a lockout means independent of the door position.

Carton quantity

Catalog no.	Fits shaft size	Qty.
CCP2-NFPA-1	8 mm	1

For these switch catalog numbers	Description/operation	Order these handle catalog numbers (description)	Order either shaft catalog number
CCP2R-(pole)-30CC	Right front rotary, clockwise	• CCP2-H4X-B1 (selector, black/grey) • CCP2-H4X-R1(selector, red/yellow) • CCP2-H4X-B2 (pistol, black/grey) • CCP2-H4X-R2 (pistol, red/yellow)	• CCP2-SH1-290 (11.5"/290 mm) • CCP2-SH1-490 (19.3"/490 mm)
CCP2R-(pole)-30M			
CCP2RL-(pole)-30CC	Left front rotary, clockwise		
CCP2RL-(pole)-30M			
CCP2S-(pole)-30CC	Right side rotary, clockwise		
CCP2S-(pole)-30M			
CCP2SL-(pole)-30CC	Left side rotary, counterclockwise	• CCP2-H4X-B1L (selector, black/grey) • CCP2-H4X-R1L (selector, red/yellow) • CCP2-H4X-B2L (pistol, black/grey) • CCP2-H4X-R2L (pistol, red/yellow)	
CCP2SL-(pole)-30M			

Auxiliary contacts



Catalog number

- CCP2-AUX

Description

NO+NC contact output to indicate the switching mechanism status on the CCP2. A single unit can be mounted on any 1-, 2- or 3-pole CCP2 switch and the left front/left side rotary operated switches.

Ratings

- Amps up to 5 A
- Volts up to 240 Vac
- NC/NO contacts are closed/open when the CCP2 switch is in the "ON" position (closed)

Description	Max per CCP2*	Signal output
Auxiliary contacts NO+NC for switch status	1 per CCP2 (1-, 2- or 3-pole)	5 A / 240 Vac

* The CCP2-AUX CANNOT be mounted on the right front and right side rotary operated versions.
De-energize all circuits and follow all prevailing safety procedures before installing or removing the CCP2-AUX.

Agency information

- UL 98 Recognized, Guide WHTY2, File E155130
- cURus to Canadian Standard 22.2 No. 4-04
- IP20 finger-safe in installed state
- RoHS compliant
- CE

Wiring

- 75°C Cu, 20-16 AWG (0.5 to 1.5 mm^2) wire
- Torque 0.56 N•m (5 lb-in)

Packaging

- The CCP2-AUX is packaged individually

Installation technique

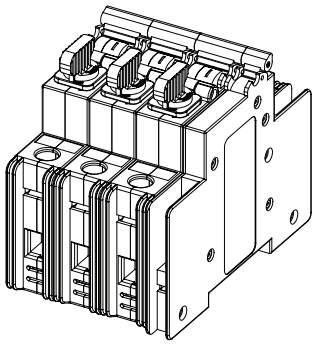
- Mounts on the CCP2's right side ONLY and mechanically interlocks with the CCP2 switch handle with provided hardware. The CCP2-AUX CANNOT be mounted on the right front and right side rotary operated versions.

Storage and operating temperature

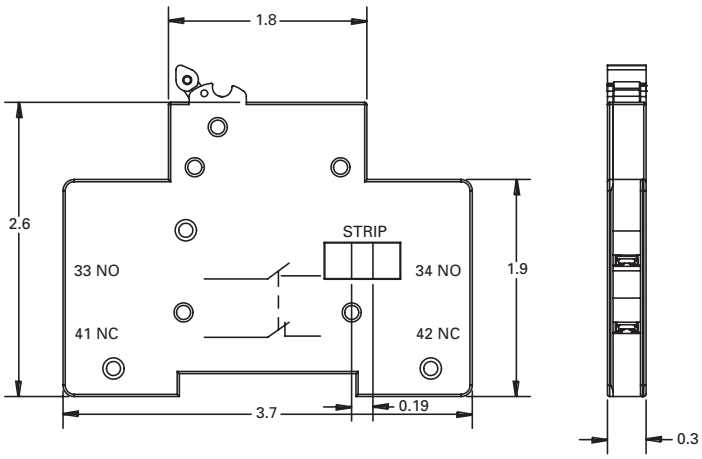
- -20°C to 75°C (-4°F to 167°F)

Installed on a CCP2-3-xx

Note: CCP2-AUX **CANNOT** be mounted on the right front and right side rotary operated versions.



Dimensions — in





CCP2-AUX auxiliary contacts mounted on a 3-pole CCP2 switch.

Class CC and UL Supplemental Switches

For a complete assembly, select from the following required and optional components, and accessories.

Required		**Catalog no.**		
		Switches	**Amps**	**Poles**
		Switch		
		CCP2-1-30CC	30	1
		CCP2-2-30CC		2
		CCP2-3-30CC		3
		CCP2-1-30M		1
		CCP2-2-30M		2
		CCP2-3-30M		3
And				
Optional		**Lug kits**	**Description**	
		CCP2-MW1-3	3-port multi-wire, 75°C Cu/Al, 6-14, includes terminal shrouds, pack of 3	
And				
Accessories		**Terminal shrouds**	**Description**	
		CCP2-TS1-3	Pack of 3	
		**Auxiliary contacts**	**Description**	
		CCP2-AUX	NO + NC, 5 A / 240 V	

Class CC and UL Supplemental clockwise rotary switches

For a complete assembly, select from the following required and optional components, and accessories.

Required		**Catalog no.**		
		Switches	**Amps**	**Poles**
		Right front rotary		
		CCP2R-2-30CC	30	2
		CCP2R-3-30CC		3
		CCP2R-2-30M		2
		CCP2R-3-30M		3
		**Left front rotary**		
		CCP2RL-2-30CC	30	2
		CCP2RL-3-30CC		3
		CCP2RL-2-30M		2
		CCP2RL-3-30M		3
		**Right side rotary**		
		CCP2S-2-30CC	30	2
		CCP2S-3-30CC		3
		CCP2S-2-30M		2
		CCP2S-3-30M		3
		**And**		
		Rotary handles	**Description**	**NEMA rating**
		CCP2-H4X-B1	Selector handle — black/grey	4X
		CCP2-H4X-R1	Selector handle — red/yellow	
		CCP2-H4X-B2	Pistol handle — black/grey	
		CCP2-H4X-R2	Pistol handle — red/yellow	
		**And**		
		Shafts (8 mm)	**Length**	
		CCP2-SH1-290	290 mm	
		CCP2-SH1-490	490 mm	
		**NFPA 79 compliant handle**	**Color**	
		CCP2-NFPA-1	Red	
		And		
Optional		**Lug kits**	**Description**	
		CCP2-MW1-3	3-port multi-wire, 75°C Cu/Al, 6-14, includes terminal shrouds, pack of 3	

And			
Accessories		**Terminal shrouds**	**Description**
		CCP2-TS1-3	Pack of 3
		**Auxiliary contacts**	**Description — cannot be used on right front or right side operated switches**
		CCP2-AUX	NO + NC, 5 A / 240 V

Class CC and UL Supplemental counterclockwise switches

For a complete assembly, select from the following required and optional components, and accessories.

Required		**Catalog no.**		
		Switches	**Amps**	**Poles**
		Left side rotary		
		CCP2SL-2-30CC	30	2
		CCP2SL-3-30CC		3
		CCP2SL-2-30M		2
		CCP2SL-2-30M		2
		**And**		
		Rotary handles	**Description**	**NEMA rating**
		CCP2-H4X-B1L	Selector handle — black/grey	4X
		CCP2-H4X-R1L	Selector handle — red/yellow	
		CCP2-H4X-B2L	Pistol handle — black/grey	
		CCP2-H4X-R2L	Pistol handle — red/yellow	
		**And**		
		Shafts (8 mm)	**Length**	
		CCP2-SH1-290	290 mm	
		CCP2-SH1-490	490 mm	
		And		
Optional		**Lug kits**	**Description**	
		CCP2-MW1-3	3-port multi-wire, 75°C Cu/Al, 6-14, includes terminal shrouds, pack of 3	
		And		
Accessories		**Terminal shrouds**	**Description**	
		CCP2-TS1-3	Pack of 3	
		**Auxiliary contacts**	**Description —mounts on right side**	
		CCP2-AUX	NO + NC, 5 A / 240 V	

Motor fuse sizing table:

LP-CC time-delay Class CC fuses

Voltage	Motor size (Hp)	Motor FLA (amps)	Min (amps)	Code max (amps)	Heavy start (amps)
115 Vac, 1-phase	1/6	4.4	9	15	15
	1/4	5.8	12	20	20
	1/3	7.2	15	25	25
	1/2	9.8	30	30	30
230 Vac, 1-phase	1/6	2.2	4.5	10	10
	1/4	2.9	6	10	10
	1/3	3.6	7	15	15
	1/2	4.9	10	15	15
	3/4	6.9	15	25	25
	1	8	25	25	30
	1-1/2	10	30	30	30
200 Vac, 3-phase	1/2	2.5	5	10	10
	3/4	3.7	7.5	15	15
	1	4.8	10	15	15
	1-1/2	6.9	15	25	25
	2	7.8	25	25	30
208 Vac, 3-phase	1/2	2.4	5	10	10
	3/4	3.5	7	15	15
	1	4.6	10	15	15
	1-1/2	6.6	15	20	25
	2	7.5	15	25	30
230 Vac, 3-phase	1/2	2.2	4.5	10	10
	3/4	3.2	7	10	12
	1	4.2	9	15	15
	1-1/2	6	12	20	20
	2	6.8	15	25	25
	3	9.6	30	30	30
460 Vac, 3-phase	1/2	1.1	2.25	6	6
	3/4	1.6	3.2	6	6.25
	1	2.1	4.5	10	10
	1-1/2	3	6	10	12
	2	3.4	7	15	15
	3	4.8	10	15	15
	5	7.6	25	25	30
575 Vac, 3-phase	1/2	0.9	1.8	3	3.5
	3/4	1.3	2.8	6	6
	1	1.7	3.5	6	6.25
	1-1/2	2.4	5	10	10
	2	2.7	5.6	10	10
	3	3.9	8	15	15
	5	6.1	15	20	20
	7-1/2	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.

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