Effective March 2019 Supersedes February 2019

Compact Circuit Protector

UL 98 Class CF disconnect switches up to 400 A (cat. no. CCP2)





CCP2 switch up to 100 A

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200 A CCP2 switch



BUSSMAN

400 A CCP2 switch

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Effective March 2019

Catalog symbols for 30, 60 and 100 A switches

| Symbol | Description |
|------------------------|--|
| CCP2-(pole)-(amps)CF | Switch only |
| CCP2R-(pole)-(amps)CF | Right front rotary, clockwise operated switch |
| CCP2RL-(pole)-(amps)CF | Left front rotary, clockwise operated switch |
| CCP2S-(pole)-(amps)CF | Right side rotary, clockwise operated switch |
| CCP2SL-(pole)-(amps)CF | Left side rotary, counterclockwise operated switch |

Description

The revolutionary, next generation Bussmann[™] series Compact Circuit Protector (cat. no. CCP2) is a fused UL[®] 98 branch circuit disconnect switch utilizing the UL Class CF time-delay or fast-acting CUBEFuse[™] with Class J electrical performance. With up to a 51 percent smaller footprint than a traditional fusible solution, these switches provide a high 200 kA SCCR to help improve panel and assembly SCCR.

The 35 mm DIN-Rail mount CCP2 is available in a variety of 30, 60 and 100 amp configurations to meet many application needs including rotary operation.

The switch-only versions of the 30, 60 and 100 A disconnects are direct, drop-in replacements for the earlier models (noted by a catalog number starting "CCP-"). The auxiliary contacts and PLC remote fuse indicator are backwards compatible. The multi-wire lug kits and terminal shrouds are not.

Application flexibility is extended with an optional multi-wire lug kit, featuring finger-safe shrouds, that provides three (30 and 60 A switches) and six (100 A switches) additional wire ports on each pole for power distribution applications.

Other accessories include a PLC fuse monitor for open fuse indication and NO/NC auxiliary contacts that easily integrate into various 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

- 347 Vac (1-pole switches)
- 600 Vac (2- and 3-pole switches)
- 125 Vdc*
- Amps
 - 30 A
 - 60 A
 - 100 A
- SCCR
 - 200 kA RMS Sym.
 - 100 kA DC

Poles

- 1-, 2- and 3-poles catalog number dependent
- * Switch amp rating and installed fuse amp rating dependent, see catalog number table for details.

Agency information

- UL 98 Listed, Guide WHTY, File E302370
- cULus to Canadian Standard 22.2 No. 4-04, Guide WHTY7, File E302370
- RoHS compliant
- CE

Compact Circuit Protector (CCP2) UL 98 Class CF disconnect switches up to 400 A

Conductors/terminals

- 75°C Cu, see conductor tables for size, type and torque information
- Box lug, single/dual conductor
- Fork terminal suitable for line, load or accessory connection, max. 30 A suitable for use with:
- 10-24 screw for 30 and 60 A switches
- 1/4-28 screw for 100 A switches
- Multi-wire lug kits 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

 1/4" lock, direct use on switches without rotary mechanisms requires a lock with a straight shank of sufficient length to engage all poles

Minimum enclosure size per UL 98*

- 30 and 60 A switch 10"x 8"x 6" (254 x 203 x 152 mm)
- 100 A switch, 12" x 10" x 6" (305 x 254 x 152 mm)
- * Smaller enclosures may be used at the discretion of the user, with adherence to NEC minimum wire bend radius requirements.

Mounting**

- 35 mm DIN-Rail
- **Switch is panel mount with flange handle cable operator.

Local open fuse indication minimum voltage

 90 Vac, requires an open fuse to be in the CCP2 and the switch in the ON position

Accessories

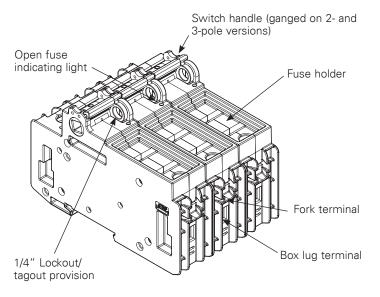
- · Multi-wire lug kits with terminal shrouds
- · Selector and pistol handles for use with rotary operated switches
- · 8 mm shafts for use with selector and pistol handles
- Auxiliary contacts
- PLC fuse monitor
- NFPA 79 compliant handle
- · Flange handle rod and cable operators

Carton quantity and shipping weight

| ltem | Poles | Qty. | Weight Ib (kg) | | | | | |
|--------------------------------------|--------|------|-------------------|--|--|--|--|--|
| 30 and 60 amp switches | | | | | | | | |
| Switch only | 1-pole | 12 | 3.8 (1.7) | | | | | |
| Switch with side rotary mechanism - | 2-pole | 1 | 1.3 (0.6) | | | | | |
| | 3-pole | 1 | 1.6 (0.7) | | | | | |
| Switch with front rotary prochaniam | 2-pole | 1 | 1.3 (0.6) | | | | | |
| Switch with front rotary mechanism - | 3-pole | 1 | 1.6 (0.7) | | | | | |
| 100 amp switches | | | | | | | | |
| Switch only | 1-pole | 6 | 3.1 (1.4) | | | | | |
| Switch with side retary mechanism | 2-pole | 1 | 1.7 (0.8) | | | | | |
| Switch with side rotary mechanism - | 3-pole | 1 | 2.3 (1.0) | | | | | |
| Switch with front rotary machaniam - | 2-pole | 1 | 1.7 (0.8) | | | | | |
| Switch with front rotary mechanism - | 3-pole | 1 | 2.3 (1.0) | | | | | |

Features

- Uses UL Class CF time-delay or fast-acting CUBEFuse with Class J electrical performance
- Extremely compact design at 25.4 mm (1 inch) wide per pole
- Amp rating rejection disconnects will not accept a CUBEFuse amp rating greater than switch rating
- High 200 kA short-circuit current rating
- · Disconnect rated to provide means for load isolation
- Full voltage rated at 347 Vac (1-pole switches) and 600 Vac (2- and 3-pole switches)
- 125 Vdc* rated to meet specialized applications
- UL 98 Listed and suitable for branch circuit disconnect and branch circuit protection with installed fuses
- · Horsepower rated
- Open fuse indication:
 - · Local open fuse indication light standard on each pole
 - Optional PLC fuse monitor for wired remote open fuse indication by signaling a PLC and opening a contactor to de-energize all phases, if required
- Additional open fuse indication can be provided by the indicating time-delay CUBEFuse (6 to 100 A)
- Finger-safe construction with 10 AWG (6 mm²) wire or larger
- Built-in switch interlock prohibits removing or installing the fuse while in the ON position
- Padlockable for lockout/tagout procedures with a 1/4" lock
- Rotary operated versions provide for through-the-door and through-the-side operation flexibility and enhanced safety with:
 - Right or left front operation
 - Right or left side operation
- Optional selector and pistol handles, and shafts available for use with rotary operated versions
- Multi-wire lug kits with terminal shrouds allow for power distribution to multiple loads. Each lug has three (30 and 60 A switches) or six (100 A switches) ports rated for single and dual wires (see lug kits in accessories for details).
- * Switch amp rating and installed fuse amp rating dependent, see catalog number table for details.





Right front rotary operated CCP2 switch with PLC fuse monitor.

Rotary operating versions



Left front

Uses clockwise handles

Right front Uses clockwise handles



Left side Uses counterclockwise handles



Right side Uses clockwise handles

30, 60 and 100 A switch catalog numbers

| | | | | | Ma | <mark>ax Hp r</mark> a | ating (\ | /ac) |
|------------------|-------|--|-------------------|---|-------|------------------------|----------|------|
| Catalog no. | Poles | Description/switch operation | Volts | SCCR | 120 | 240 | 480 | 600 |
| 30 amp switches | | | | | | | | |
| CCP2-1-30CF | 1 | _ | 347 Vac/125 Vdc | _ | 1-1/2 | — | — | |
| CCP2-2-30CF | 2 | Switch only | 600 Vac/125 Vdc | | — | 3 | — | — |
| CCP2-3-30CF | 3 | _ | 600 Vac | _ | — | 5 | 15 | 10 |
| CCP2R-2-30CF | 2 | - Right front rotary, clockwise | 600 Vac/125 Vdc | _ | _ | 3 | _ | |
| CCP2R-3-30CF | 3 | - Right Hoht fotaly, clockwise | 600 Vac | - 200 kA AC | — | 5 | 15 | 10 |
| CCP2RL-2-30CF | 2 | - Left front rotary, clockwise | 600 Vac/125 Vdc | - 100 kA DC | — | 3 | — | — |
| CCP2RL-3-30CF | 3 | - Leit from rotary, clockwise | 600 Vac | | — | 5 | 15 | 10 |
| CCP2S-2-30CF | 2 | – Right side rotary, clockwise | 600 Vac/125 Vdc | | — | 3 | — | — |
| CCP2S-3-30CF | 3 | - Right side rotary, clockwise | 600 Vac | | _ | 5 | 15 | 10 |
| CCP2SL-2-30CF | 2 | - Loft eide retery, equiptorelegiumies | 600 Vac/125 Vdc | _ | — | 3 | — | |
| CCP2SL-3-30CF | 3 | Left side rotary, counterclockwise | 600 Vac | _ | _ | 5 | 15 | 10 |
| 60 amp switches | | | | | | | | |
| CCP2-1-60CF | 1 | | 347 Vac/125 Vdc* | | 3 | _ | _ | _ |
| CCP2-2-60CF | 2 | Switch only | 600 Vac/125 Vdc* | - - - 200 kA AC - 100 kA DC - | _ | 7-1/2 | _ | _ |
| CCP2-3-60CF | 3 | _ | 600 Vac | | _ | 7-1/2 | 20 | 10 |
| CCP2R-2-60CF | 2 | Right front rotary, clockwise | 600 Vac/125 Vdc* | | _ | 7-1/2 | _ | _ |
| CCP2R-3-60CF | 3 | - Right Hoht fotaly, clockwise | 600 Vac | | _ | 7-1/2 | 20 | 10 |
| CCP2RL-2-60CF | 2 | Laft front rotany, algolywiga | 600 Vac/125 Vdc* | | — | 7-1/2 | — | _ |
| CCP2RL-3-60CF | 3 | - Left front rotary, clockwise | 600 Vac | | _ | 7-1/2 | 20 | 10 |
| CCP2S-2-60CF | 2 | Dight eide retery, electruise | 600 Vac/125 Vdc* | | _ | 7-1/2 | _ | _ |
| CCP2S-3-60CF | 3 | Right side rotary, clockwise | 600 Vac | | — | 7-1/2 | 20 | 10 |
| CCP2SL-2-60CF | 2 | Left side retery, sourtersleakuise | 600 Vac/125 Vdc* | | _ | 7-1/2 | _ | _ |
| CCP2SL-3-60CF | 3 | Left side rotary, counterclockwise | 600 Vac | - | _ | 7-1/2 | 20 | 10 |
| 100 amp switches | | | | | | | | |
| CCP2-1-100CF | 1 | | 347 Vac/125 Vdc** | | 5 | _ | _ | |
| CCP2-2-100CF | 2 | Switch only | 600 Vac/125 Vdc** | - | _ | 10 | _ | _ |
| CCP2-3-100CF | 3 | _ | 600 Vac | - | _ | 20 | 50 | 40 |
| CCP2R-2-100CF | 2 | Dight front rotory, aladyuiga | 600 Vac/125 Vdc** | - | _ | 10 | _ | _ |
| CCP2R-3-100CF | 3 | Right front rotary, clockwise | 600 Vac | - - 200 kA AC | _ | 20 | 50 | 40 |
| CCP2RL-2-100CF | 2 | Left front retery cleakwise | 600 Vac/125 Vdc** | | _ | 10 | _ | _ |
| CCP2RL-3-100CF | 3 | Left front rotary, clockwise | 600 Vac | - 100 kA DC | _ | 20 | 50 | 40 |
| CCP2S-2-100CF | 2 | Diskt side asterna slashuring | 600 Vac/125 Vdc** | - | _ | 10 | _ | _ |
| CCP2S-3-100CF | 3 | – Right side rotary, clockwise | 600 Vac | - | _ | 20 | 50 | 40 |
| CCP2SL-2-100CF | 2 | l off aide ratery, counterploaluuis - | 600 Vac/125 Vdc** | - | _ | 10 | _ | _ |
| CCP2SL-3-100CF | 3 | Left side rotary, counterclockwise | 600 Vac | - | _ | 20 | 50 | 40 |

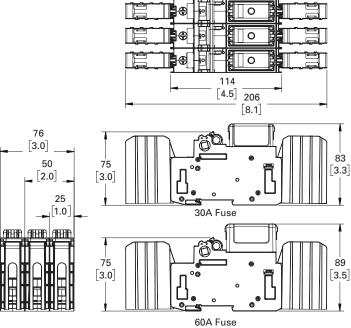
* 125 Vdc for installed fuse amp ratings up to 40 A. 24 Vdc for installed fuse amp ratings from 45 to 60 A.
**125 Vdc for installed fuse amp ratings up to 80 A, 24 Vdc for installed fuse amp ratings from 90 to 100 A.

Box lug terminal conductor data

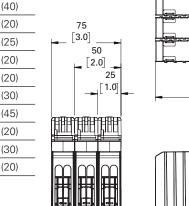
| Wire type | AWG range | Class | Quantity | Torque N∙m (lb-in) | |
|--------------|--------------|------------------------------------|-------------------|-----------------------|--|
| 30 and 6 | 0 A swit | ches | | | |
| | 4-6 | Stranded, Class B | Cinala | 3.95 (35) | |
| | 8-18 | to K | Single | 2.26 (20) | |
| | 6-8 | Stranded, Class B/C | | 3.39 (30) | |
| | 0-0 | Stranded, Class K | - Dual | | |
| 75°C Cu | 10-18 | Stranded, Class B to K | | 2.26 (20) | |
| | 10-18 | Solid | Single/dual | 2.26 (20) | |
| | 4-18 | Stranded, UL ferrule, | Single | 2 20 (20) | |
| | 6-18 | Class B/C | Twin [†] | 3.39 (30) | |
| | 4-18 | _ Stranded, UL ferrule, | Single | 2.82 (25) | |
| | 6-18 | Class K | Twin [†] | 2.02 (20) | |
| 100 A sv | vitches | | | | |
| | 12-18 | _ | | 2.26 (20) | |
| | 10 | _ | | 2.82 (25) | |
| | 8 | - Stranded, Class B/C | Single | 4.52 (40 | |
| | 4-6 | | | 5.08 (45) | |
| | 1-3 | _ | | 6.21 (55) | |
| | 4-12 | _ | Dual | 5.08 (45) | |
| | 12-18 | _ | | 2.26 (20) | |
| | 10 | | Single | 3.95 (35) | |
| 75°C Cu | 1-8 | Stranded, UL ferrule, Class B/C | | 4.52 (40) | |
| 75°C Cu | 10-18 | , , _ | Twint | 2.26 (20) | |
| | 6-9 | | IVVIIII | 2.82 (25) | |
| | 10-18 | Solid | Single/Dual | 2.26 (20) | |
| | 8-18 | | Single | 2.26 (20) | |
| | 1-7 | Class K | Single | 3.39 (30) | |
| | 3-10 | | Dual | 5.08 (45) | |
| | 8-18 | _ | Single | 2.26 (20) | |
| | 1-7 | Class K, UL ferrule | Single | 3.39 (30) | |
| | 6-18 | _ | Twin | 2.26 (20) | |

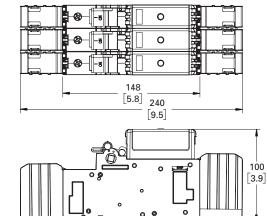
Dimensions – mm (in)

Switch (shown with optional terminal shrouds)



30 and 60 amp switches





Lineside and loadside fork terminal

- Fork terminal suitable for line, load or accessory connection, max. 30 A suitable for use with:
 - 10-24 screw for 30 and 60 A switches
 - 1/4-28 screw for 100 A switches

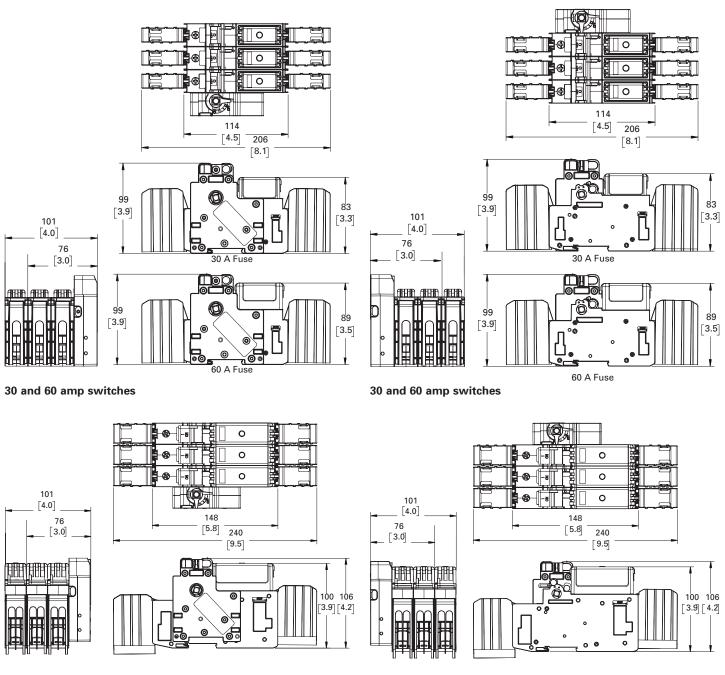
Available Bussmann series fuses

| UL fuse class | Type/description | Volts | Data sheet no. |
|------------------|---|------------|----------------------|
| | Indicating time-delay, Low-Peak™ CUBEFuse (6-100 A) | 600 Vac/ | 0000 |
| CF | Non-indicating time-delay, Low-Peak CUBEFuse (1-100 A) | 300 Vdc | 9000 |
| | Non-indicating fast-acting CUBEFuse (1-100 A) | 600 Vac/dc | 2147 |

100 amp switches

Left front rotary switches (shown with optional terminal shrouds)

Right front rotary switches (shown with optional terminal shrouds)

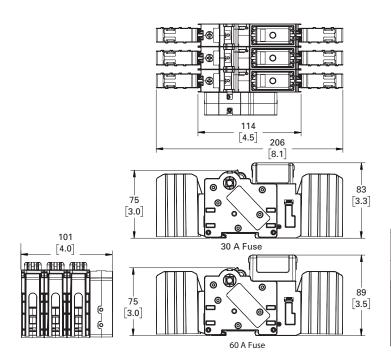


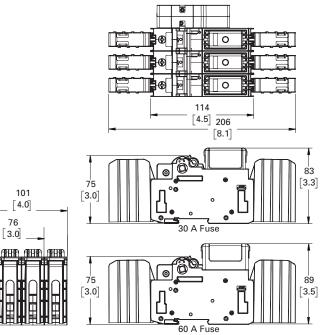
100 amp switches

100 amp switches

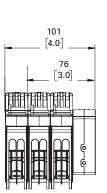
Left side rotary switches (shown with optional terminal shrouds)

Right side rotary switches (shown with optional terminal shrouds)

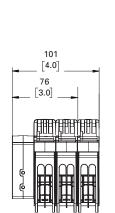


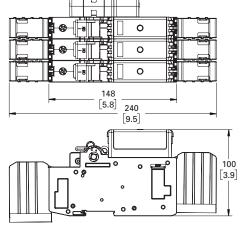


30 and 60 amp switches



0 0 弦 0 8 0 148 [5.8] 240 9.5 60 0 6 1'00 3.9 0





100 amp switches

30 and 60 amp switches

¹⁰⁰ amp switches

200 and 400 A switches





200 A switch



400 A switch

With front rotary accessory

With side rotary accessory

| Catalog no. | Poles | Amps | Description | | | |
|--------------|-------|------|---------------------------------|--|--|--|
| CCP2-1-200CF | 1 | | | | | |
| CCP2-2-200CF | 2 | 200 | | | | |
| CCP2-3-200CF | 3 | _ | Cuvitab and | | | |
| CCP2-1-400CF | 1 | | Switch only | | | |
| CCP2-2-400CF | 2 | 400 | | | | |
| CCP2-3-400CF | 3 | - | | | | |

Description

The Bussmann series 200 and 400 A Compact Circuit Protector (CCP2) fused disconnect switches utilize the finger-safe UL Class CF time-delay CUBEFuse with Class J electrical performance. With up to a 69 percent smaller footprint than a traditional fusible solution, these switches provide a high 200 kA SCCR to help improve panel and assembly SCCR.

The panel mount 200 and 400 A CCP2 switches are available with a variety of accessories to meet many application needs including rotary and flange handle operation.

Rotary operators are available for front or side (right or left) operation. Front rotary operators are for three-pole switches only while the side operator may be applied to the right or left side of 1-, 2- and 3-pole units.

Other accessories include lugs, terminal shrouds, rotary pistol handles, flange rod and cable operating mechanisms, NO/NC auxiliary contacts that easily integrate into various monitoring systems and a handle extension.

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
 - 347 Vac (1-pole) 600 Vac (2- and 3-pole)
- Amps
 - 200 A
 - 400 A
- SCCR
 - 200 kA RMS Sym.

Compact Circuit Protector (CCP2) UL 98 Class CF disconnect switches up to 400 A

Poles

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

Agency information

- UL 98 Listed, Guide WHTY, File E302370
- cULus to Canadian Standard 22.2 No. 4-04, Guide WHTY7, File E302370
- RoHS compliant

Conductors/terminals

· See available lug table for size, type and torque information

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 using 1/4" lock

- · Integral with switch handle
- Front rotary operating mechanism
- · Rotary pistol handles
- Flange rod and cable operators

Minimum enclosure size

- 200 A switch 16 x 12 x 6" (405 x 305 x 150 mm)
- 400 A switch 24 x 16 x 8 (610 x 405 x 200 mm)

Mounting

Panel mount

Local open fuse indication minimum voltage

 90 Vac, requires an open fuse to be in the CCP2 and the switch in the ON position

Accessories

- · Lugs and lug kits with terminal shrouds
- · Pistol handles for use with rotary operated switches
- NFPA 79 compliant handle
- · 12 mm shafts for use with selector and pistol handles
- · Auxiliary contacts
- · Flange handle rod and cable operators

Carton quantity

| Item | Poles | Qty. |
|------------------|-------|------|
| | 1 | 1 |
| 200 amp switches | 2 | 1 |
| | 3 | 1 |
| | 1 | 1 |
| 400 amp switches | 2 | 1 |
| | 3 | 1 |

Features

- Uses UL Class CF time-delay CUBEFuse with Class J electrical performance
- Amp rating rejection feature will not accept a CUBEFuse amp ratings greater than switch rating
- High 200 kA short-circuit current rating
- Disconnect rated to provide means for load isolation
- Full voltage rated at 600 Vac
- UL 98 Listed and suitable for branch circuit disconnect and branch circuit protection with installed fuses
- Horsepower rated (see table below)

Catalog numbers and horsepower ratings

- Standard local open fuse indication light on each pole speeds troubleshooting
- Built-in switch interlock prevents inserting or removing fuse while in the ON position
- Padlockable for lockout/tagout procedures with a 1/4" lock
- Front and side rotary operator accessories provide for throughthe-door and through-the-side operation flexibility and enhanced safety
- Optional pistol handles and shafts available for use with rotary operator accessories
- Multi-wire lug kits with terminal shrouds allow for power distribution to multiple loads.

| | | Max Hp rating (Vac) | | | | c) | | |
|------------------|-------|---------------------|--------------------|--------|--------|-----|-----|--|
| Catalog no. | Poles | Description | Volts AC | SCCR | 240 | 480 | 600 | |
| 200 amp switches | | | | | | | | |
| CCP2-1-200CF | 1 | | 347 | | — | — | | |
| CCP2-2-200CF | 2 | Switch only | 600 | 200 kA | 200 kA | 10 | — | |
| CCP2-3-200CF | 3 | | 600 | - | 50 | 100 | 150 | |
| 400 amp switches | | | | | | | | |
| CCP2-1-400CF | 1 | | 347 | | — | — | — | |
| CCP2-2-400CF | 2 | Switch only | witch only 600 200 | 200 kA | | _ | _ | |
| CCP2-3-400CF | 3 | | | - | 100 | 200 | 250 | |
| | | | | | | | | |

Available lugs, conductor ratings and terminal torques

| 0.11 | | Lugs per | Wire range | Wire type/ | Conductor torque | <u> </u> |
|-------------------|--|----------------|------------------------|----------------|------------------|--------------------|
| Catalog no. | Description | cat. no. | AWG (mm ²) | temp. | N•m (lb-in) | torque N•m (lb-in) |
| 200 A switche | S | | | | | |
| CCP2-L2-1 | Stainless steel lug | 1 | 350-4 (185-25) | Cu 75°C | 20.3 (180) | 0.9 (8) |
| CCP2-L2-1A | Aluminum lug* | 1 | 350-4 (185-25) | Cu/Al 75°C | 28.2 (250) | 13.5 (120) |
| CCP2-MW2-3 | 3-port multi-wire terminal with shroud* | 3 | 2-14 (35-2.5) | Cu/Al 75°C | 7.9 (70) | 10.8 (95) |
| CCP2-MW2-6 | 6-port multi-wire terminal with shroud* | 3 | 6-14 (16-2.5) | Cu/Al 75°C | 2.8 (25) | 10.8 (95) |
| * These lugs also | accept 1/4" quick connect control wire terminals | . Order catalo | g number CCP2-CWK2 | (package of 12 | terminals). | |
| 400 A Switche | 95 | | | | | |
| CCP2-L4-1 | Stainless steel lug | 1 | 500-3 (240-35) | Cu 75°C | 42.0 (375) | |
| CCP2-L4-1A | Aluminum lug | 1 | 500-3 (240-35) | Cu/Al 75°C | 42.0 (375) | |
| CCP2-L4B-3 | Stainless steel lug kit with shroud | 3 | 750-500 (400-240) | Cu 75°C | 57.0 (500) | |
| CCP2-L4B-3A | Aluminum lug kit with shroud | 3 | 750-500 (400-240) | Cu/Al 75°C | 62.0 (550) | |
| CCP2-L6-3 | 2-port stainless steel lug kit with shroud | 3 | (2) 500-2 (240-35) | Cu 75°C | 42.0 (375) | |
| CCP2-L6-3A | 2-port aluminum lug kit with shroud | 3 | (2) 500-2 (240-25) | Cu/Al 75°C | 42.0 (375) | 22.0 (200) |
| | | | | | 10-14 = 3.9 (35) | - |
| CCP2-MW6-6 | 6-port multi-wire terminal with shroud | 3 | 1/0-14 (50-2.5) | Cu/Al 75°C | 8 = 4.5 (40) | |
| CCF 2-101000-0 | o-port multi-wire terminal with shroud | | 1/0-14 (00-2.0) | Cu/AI 75 C | 4-6 = 5.0 (45 | |
| | | | | | 1/0-2 = 5.6 (50) | |

Carton quantity

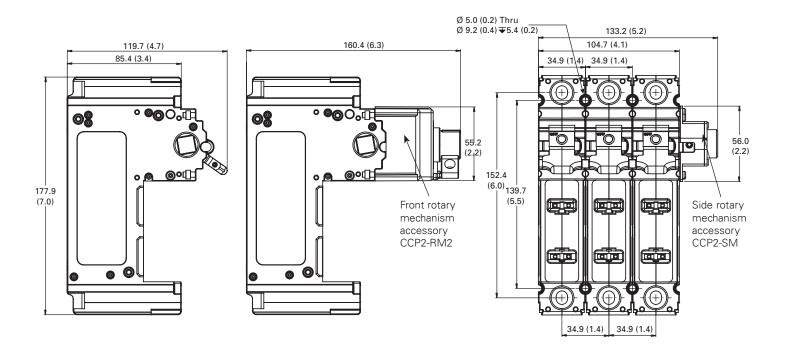
| Catalog no. | Description | Qty. |
|-------------|--|------|
| CCP2-L2-1 | Stainless steel lug | 1 |
| CCP2-L2-1A | Aluminum lug | 1 |
| CCP2-MW2-3 | 3-port multi-wire terminal with shroud | 3 |
| CCP2-MW2-6 | 6-port multi-wire terminal with shroud | 3 |
| CCP2-CWK2 | 1/4" quick connect control wire terminals | 12 |
| CCP2-L4-1 | Stainless steel lug | 1 |
| CCP2-L4-1A | Aluminum lug | 1 |
| CCP2-L4B-3 | Stainless steel lug kit with shroud | 3 |
| CCP2-L4B-3A | Aluminum lug kit with shroud | 3 |
| CCP2-L6-3 | 2-port stainless steek lug kit with shroud | 3 |
| CCP2-L6-3A | 2-port aluminum lug kit with shroud | 3 |
| CCP2-MW6-6 | 6-port multi-wire terminal with shroud | 3 |

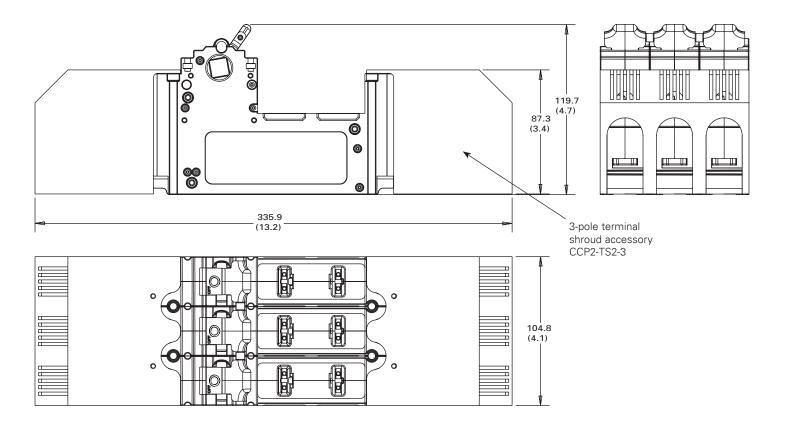
Accessories

| Catalog no. | Switch amps | Description |
|-------------|----------------|---|
| CCP2-TS2-3 | | 3-pole terminal shroud |
| CCP2-PB2 | 200 | Phase barriers (pack of 2) |
| CCP2-RM2 | | Front rotary operator* (3-pole switch only) |
| CCP2-TS6-3 | | 3-pole terminal shroud |
| CCP2-PB6 | 400 | Phase barriers (pack of 2) |
| CCP2-RM4 | | Front rotary operator* (3-pole switch only) |
| CCP2-SM | 200/400 | Side rotary operator* (1-, 2- or 3-pole switches) |

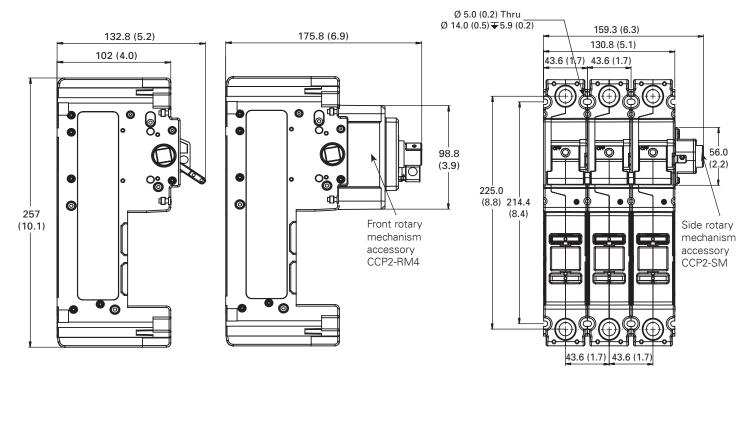
* Complete installation requires pistol handle and shaft, order separately.

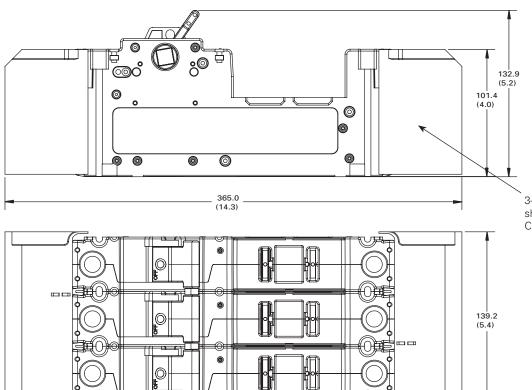
200 amp switch dimensions - mm (in)

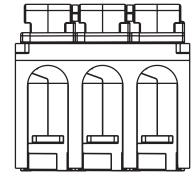




400 amp switch dimensions - mm (in)







3-pole terminal shroud accessory CCP2-TS6-3

30, 60 and 100 A switch multi-wire lug kits

Catalog numbers

- CCP2-MW1-3 (30 and 60 A switches only)
- CCP2-MW1-6 (100 A switches only)

Description

The multi-wire lug kits permit expanding each box lug terminal on the switch into a three-port (30 and 60 A switches) or six-port (100 A switches) terminal for power distribution applications.

Each multi-wire lug kit comes with three 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 ports may have dual 14 AWG wires and the other two ports single 10 AWG wires.

Ratings

- Volts 600 V
- Amps
 - 60 A max (CCP2-MW1-3)
 - 100 A max (CCP2-MW1-6)
- SCCR 200 kA

Agency information

- UL Recognized, Guide WHTY2, File E302370
- 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

| Туре | AWG range | Class | Quantity | Torque N•m (Ib-in) |
|---------|--------------|----------------------------|--------------------------|-----------------------|
| 4-6 | | - Stranded, Class B/C | Single | 3.95 (35) |
| Cu/Al — | 8 | | Sirigie | 2.82 (25) |
| | 10-14 | Stranded, Class B/C | Single/dual* | 2.26 (20) |
| 0 | 10-14 | Solid | Single | 2.26 (20) |
| Cu · | 8 | - UL ferrule, Class B to K | Single/twin [†] | 2.82 (25) |
| | 10-14 | OL IEITUIE, CIASS D LO K | Single/twin | 2.26 (20) |

* Dual wire to be same size and type.

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

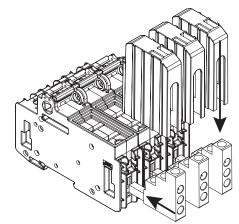
CCP2 box lug torque for multi-wire lugs

- 30/60 A switch lug, 4.52 N•m (40 lb-in)
- 100 A switch lug, 5.09 N•m (45 lb-in)

Carton quantity

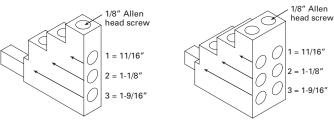
| Catalog no. | Application | Qty. |
|-------------|---------------------------|--------------|
| CCP2-MW1-3 | For 30/60 A switches only | 3 lugs and 3 |
| CCP2-MW1-6 | For 100 A switches only | shrouds |

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 or six-port multi-wire lug kits that are also single/dual wire rated.

200 and 400 A switch multi-wire lug kits

Catalog numbers

- CCP2-MW2-3 (3-port, 200 A switches only)
- CCP2-MW2-6 (6-port, 200 A switches only)
- CCP2-MW6-6 (6-port, 400 A switches only)

Description

The multi-wire lug kits permit expanding the terminal on the switch into a three-port (200 A switches) or six-port (200 and 400 A switches) terminal for power distribution applications.

Each multi-wire lug kit comes with three lugs and a 3-pole terminal shroud. The shroud provides finger-safe protection when properly installed.

Lugs can only be mounted on loadside to meet application needs.

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

Ratings

- Volts 600 V
- Amps
 - 225 A max (CCP2-MW2-3 and CCP2-MW2-6)
 - 600 A max (CCP2-MW6-6)
- SCCR 200 kA

Agency information

- UL Recognized, Guide WHTY2, File E302370
- 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

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

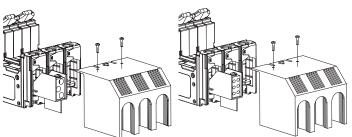
* Dual wire to be same size and type.

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

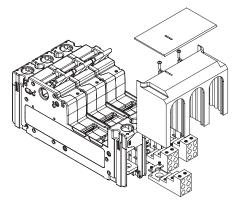
Carton quantity

| Catalog no. | Application | Qty. |
|-------------|---|-------------------------------|
| CCP2-MW2-3 | | |
| CCP2-MW2-6 | For 200 A switches only | 3 lugs and 1 3-pole shroud |
| CCP2-MW6-6 | For 400 A switches only | _ |

Installed on CCP2-3-xx



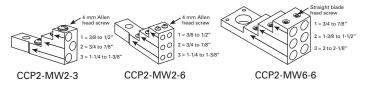
3- and 6-port multi-wire lugs mounted on 200 A switches



6-port multi-wire lugs mounted on 400 A switches

Multi-wire lugs mount on the switch terminals to provide three or six additional wire ports per pole. Lugs to be mounted only on the loadside. Each multi-wire lug kit comes with three lugs, a shroud and mounting hardware.

Wire insulation strip lengths



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

| | Wire insulation strip length (inch) | | | | |
|------------|-------------------------------------|----------------|------------------|--|--|
| Lug kit | Lug port 1 | Lug port 2 | Lug port 3 | | |
| CCP2-MW2-3 | 2/0 to 1/2 | 2/4 to $7/9$ | 1.1/4 to $1.2/9$ | | |
| CCP2-MW2-6 | - 3/8 to 1/2 | 3/4 to 7/8 | 1-1/4 to 1-3/8 | | |
| CCP2-MW6-6 | 3/4 to 7/8 | 1-3/8 to 1-1/2 | 2 to 2-1/8 | | |

Selector and pistol handles

Catalog symbol

- CCP2-H4X-_1 (selector handle for 30, 60 and 100 A switches)
- CCP2-H4X-_2 (pistol handle for 30, 60 and 100 A switches)
- CCP2-H4X-_3 (short pistol handle for 200 and 400 A switches)
- CCP2-H4X-_4 (long pistol handle for 200 and 400 A switches)

Description

Selector and pistol handles are used with rotary operated switches. Pistol handles for 200 and 400 A switches come in short and long versions. All handles are available in black/gray and red/yellow colors, and clockwise/counterclockwise operating modes. Front and right side operated switches use clockwise handles while left side operated switches use counterclockwise handles.

Installation requires an 8 mm shaft for 30, 60 and 100 A switches and a 12 mm shaft for 200 and 400 A switches (ordered separately).

Each handle is rated Type 1, 4X and 12, and accepts 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 and are defeatable.

Only the clockwise operating handles in combination with front rotary operating switches provide a door interlock means to ensure the enclosure door remains shut during lockout/tagout or lock-on. Rotary handles 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.

Handles and shafts for 30, 60 and 100 A switches



Pistol handles —short and long



Agency information

- UL Listed, Guide DIHS/DIHS7, File E140305
- Type 1, 4X and 12
- RoHS compliant
- CE

Storage and operating temperature

-20°C to 75°C (-4°F to 167°F)

Carton quantity

| Catalog no. | Description | Qty. |
|-------------|--------------------------------|------|
| CCP2-H4X1 | 30/60/100 A selector handles | 1 |
| CCP2-H4X2 | 30/60/100 A pistol handles | 1 |
| CCP2-H4X3 | 200/400 A short pistol handles | 1 |
| CCP2-H4X4 | 200/400 A long pistol handles | 1 |

| For catalog no. | Description/operation | Order handle cat. no. | Order either 8 mm shaft cat. no. |
|---------------------|-------------------------------|--------------------------------------|--|
| CCP2R-(pole)-30CF | | | |
| CCP2R-(pole)-60CF | Right front rotary, clockwise | | |
| CCP2R-(pole)-100CF | | — CCP2-H4X-B1 (selector, black/grey) | |
| CCP2RL-(pole)-30CF | | CCP2-H4X-R1(selector, red/yellow) | |
| CCP2RL-(pole)-60CF | Left front rotary, clockwise | | |
| CCP2RL-(pole)-100CF | | CCP2-H4X-B2 (pistol, black/grey) | CCP2-SH1-290 (11.5"/290 mm) CCP2-SH1-490 (19.3"/490 mm) |
| CCP2S-(pole)-30CF | | — CCP2-H4X-R2 (pistol, red/yellow) | |
| CCP2S-(pole)-60CF | Right side rotary, clockwise | | |
| CCP2S-(pole)-100CF | | | |
| CCP2SL-(pole)-30CF | | CCP2-H4X-B1L (selector, black/grey) | |
| CCP2SL-(pole)-60CF | Left side rotary, | CCP2-H4X-R1L (selector, red/yellow) | |
| | counterclockwise | CCP2-H4X-B2L (pistol, black/grey) | |
| CCP2SL-(pole)-100CF | | CCP2-H4X-R2L (pistol, red/yellow) | |

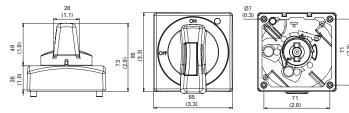
Handles and shafts for 200 and 400 A switches

| For catalog no. | Order front rotary mechanism cat. no. | Order right/ left side rotary mechanism cat. no. | Order front/right side clockwise handle cat. no. | Order left side counterclockwise handles (use only with CCP2-SM) cat. no. | Order either 12 mm shaft cat. no. |
|--------------------|--|---|--|---|---|
| CCP2-(poles)-200CF | CCP2-RM2* | | CCP2-H4X-B3 (short - black/grey) CCP2-H4X-R3 (short - red/yellow) | CCP2-H4X-B3L (short - black/grey) CCP2-H4X-R3L (short - red/yellow) | CCP2-SH2-225 (8.9"/225 mm) |
| CCP2-(poles)-400CF | CCP2-RM4* | - CCP2-SM | CCP2-H4X-B4 (long - black/grey) CCP2-H4X-R4 (long - red/yellow) | CCP2-H4X-B4L (long - black/grey) CCP2-H4X-R4L (long - red/yellow) | CCP2-SH2-425 (16.7"/425 mm) |

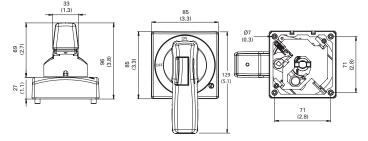
* For three-pole switches only.

Handle dimensions - mm (in)

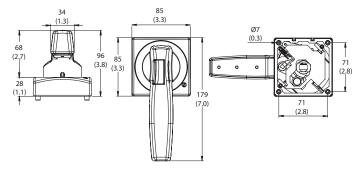
Selector for 8 mm shafts



Short pistol for 8 mm and 12 mm shafts



Long pistol for 12 mm shafts



NFPA 79 compliant handles

Catalog numbers

CCP2-NFPA-1
 (8 mm shafts for 30-100 A switches)

CCP2-NFPA-2
 (12 mm shafts for 200 and 400 A switches)

Description

NFPA 79 handles mount on the shaft of front rotary operated switch installations and provide a lockout means independent of the door position.

Carton quantity

| Catalog no. | Fits shaft size | Qty. |
|-------------|-----------------|------|
| CCP2-NFPA-1 | 8 mm | 1 |
| CCP2-NFPA-2 | 12 mm | 1 |

Handle shafts

8 mm shafts



12 mm shafts



Catalog numbers

- CCP2-SH1-290 (8 mm, 290 mm long)
- CCP2-SH1-490 (8 mm, 490 mm long)
- CCP2-SH2-225 (12 mm, 225 mm long)
- CCP2-SH2-425 (12 mm, 425 mm long)

Description

Square shafts available in:

- 8 mm square by 290 and 490 mm lengths for 30, 60 and 100 A switches
- 12 mm square by 225 and 425 mm lengths for 200 and 400 A switches

All shafts are indexed to ensure handle/switch orientation for correct operation. Shafts are to be cut to length when installed.

Carton quantity

| Catalog no. | Size | Length | Qty. |
|--------------|---------|--------|------|
| CCP2-SH1-290 | - 8 mm | 290 mm | 1 |
| CCP2-SH1-490 | 8 11111 | 490 mm | 1 |
| CCP2-SH2-225 | - 12 mm | 225 mm | 1 |
| CCP2-SH2-425 | - 12 mm | 425 mm | 1 |



Flange handle rod and cable operators

| Catalog no. | Description | Rating |
|-------------------|----------------------------------|----------------|
| 30, 60 and 100 ar | np switches | |
| CCP2-FLR1* | Rod operator with painted handle | Type 1, 3R, 12 |
| CCP2-FLR1X* | Rod operator with chrome handle | Type 4X |
| CCP2-FLC1-36 | 36" Cable with painted handle | Type 1, 3R, 12 |
| CCP2-FLC1-36X | 36" Cable with chrome handle | Type 4X |
| CCP2-FLC1-60 | 60" Cable with painted handle | Type 1, 3R, 12 |
| CCP2-FLC1-60X | 60" Cable with chrome handle | Type 4X |
| CCP2-FLC1-120 | 120" Cable with painted handle | Type 1, 3R, 12 |
| CCP2-FLC1-120X | 120" Cable with chrome handle | Type 4X |
| 200 and 400 amp | switches | |
| CCP2-FLR2 | Rod operator with painted handle | Type 1, 3R, 12 |
| CCP2-FLR2X | Rod operator with chrome handle | Type 4X |
| CCP2-FLC2-36 | 36" Cable with painted handle | Type 1, 3R, 12 |
| CCP2-FLC2-36X | 36" Cable with chrome handle | Type 4X |
| CCP2-FLC2-60 | 60" Cable with painted handle | 1, 3R, 12 |
| CCP2-FLC2-60X | 60" Cable with chrome handle | Type 4X |
| CCP2-FLC2-120 | 120" Cable with painted handle | Type 1, 3R, 12 |
| CCP2-FLC2-120X | 120" Cable with chrome handle | Type 4X |

* Installing these flange handle rod operators prohibits also installing a PLC fuse monitor or auxiliary contact.

Description

Flange rod and cable operators for use on 2- and 3-pole CCP2 switches (cannot be used with 2- or 3-pole 30, 60 or 100 amp switches already having a front or side rotary operating mechanism).

Handles are available in painted versions with Type 1, 3R and 12 ratings or chrome versions with a Type 4X rating.

Cable operators are available with 36, 60 and 120 inch cable lengths.

Agency information

- Type 1, 4X and 12
- RoHS compliant

Storage and operating temperature

• -20°C to 75°C (-4°F to 167°F)

Packaging

• Each handle is packaged individually as a kit

Carton quantities

| Catalog no. | Switch amps/description | Qty. |
|----------------|---------------------------------|------|
| CCP2-FLR1_ | 30/60/100 A rod operator | 1 |
| CCP2-FLR2_ | 200/400 A rod operator | 1 |
| CCP2-FLC1-36_ | 30/60/100 A 36" cable operator | 1 |
| CCP2-FLC2-36_ | 200/400 A 36" cable operator | 1 |
| CCP2-FLC1-60_ | 30/60/100 A 60" cable operator | 1 |
| CCP2-FLC2-60_ | 200/400 A 60" cable operator | 1 |
| CCP2-FLC1-120_ | 30/60/100 A 120" cable operator | 1 |
| CCP2-FLC2-120_ | 200/400 A 120" cable operator | 1 |



Flange rod operator kit for 30, 60 and 100 A switches.



Flange rod operator kit for 200 and 400 A switches.



Flange cable operator kit for 30, 60 and 100 A switches.



Flange cable operator kit for 200 and 400 A switches.

Front rotary mechanisms for 200 and 400 A switches





Catalog numbers

- CCP2-RM2 (3-pole 200 A switches)
- CCP2-RM4 (3-pole 400 A switches)

Description

Front rotary mechanisms for through-the-door operation and install on the front of 3-pole switches only. These units provide at-switch lockout/tagout capability for enhanced safety. Complete installation requires installing pistol handle (short or long) and 12 mm shaft.

Packaged individually.

Side rotary mechanism for 200 and 400 A switches



Catalog number

CCP2-SM

(1-, 2- or 3-pole 200 and 400 A switches)

Description

Side rotary mechanism for through-the-side operation and installs on the left or right side (right side installation recommended) of any 1-, 2- or 3-pole 200 and 400 A switch. The side rotary mechanism does not provide for door interlock nor local lockout/tagout capability. Complete installation requires installing pistol handle (short or long) and 12 mm shaft.

Packaged individually.

Terminal shrouds

Catalog numbers

- CCP2-TS2-3
 (3-pole 200 A switches)
- CCP2-TS6-3
 (3-pole 400 A switches)

Description

3-pole shroud kit with shields for isolating the lugs on 3-pole 200 and 400 A switches.

Packaged individually.



Phase barriers

Catalog numbers

- CCP2-PB2 (3-pole 200 A switches)
- CCP2-PB6 (3-pole 400 A switches)

Description

Phase barrier kit with two phase barriers for isolation between the lugs on 3-pole 200 and 400 A switches.

Packaged individually.

Handle extension



Catalog number

 CCP2-HEX (1-, 2- and 3-pole 200 and 400 A switches)

Description

A handle extension to provide additional leverage for operating the switch in installations that do not have rotary mechanisms or flange operators installed. Does not mount on switch, provision for tether provided.

Packaged individually.



Auxiliary contacts for 30, 60 and 100 A switches

Catalog numbers

- CCP2-AUX (30 and 60 A switches)
- CCP2-AUX-100 (100 A switches)

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 CUBEFuse CCP2 switch and the left front/left side rotary operated switches.

Ratings

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

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| Catalog no. | Switch | Description | Max per CCP2* | Ratings |
|--------------|-----------------|---|--------------------|---------------|
| CCP2-AUX | 30/60 A only | Auxiliary contacts - N/NC for switch | 1 per CCP2 | 5 A / 240 Vac |
| CCP2-AUX-100 | 100 A only | status | (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, nor installed with the flange handle rod or cable operator. De-energize all circuits and follow all prescribed safety procedures before installing or removing the auxiliary contact device.

Agency information

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

Wiring

- 16-20 AWG (1.5 to 0.5 mm²) single and dual stranded wire
- 20 AWG (1.5 mm²) single and dual solid wire
- Torque 0.56 N•m (5 lb-in)
- Use only 75°C Cu wire

Packaging

• CCP2-AUX and CCP2-AUX-100 are 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 and CCP2-AUX-100 CANNOT be mounted on the right front and right side rotary operated versions, or installed with the flange handle rod or cable operator.

Storage and operating temperature

-20°C to 75°C (-4°F to 167°F)

Carton quantity and shipping weight

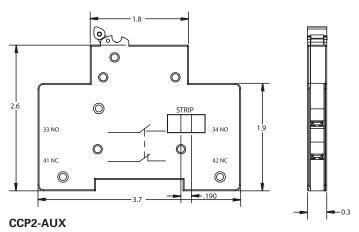
| Catalog no. | Application | Qty. | Weight Ib (kg) |
|--------------|-------------------------------|------|-------------------|
| CCP2-AUX | For 30 and 60 A switches only | 1 | 0.14 (0.063) |
| CCP2-AUX-100 | For 100 A switches only | I | 0.14 (0.003) |

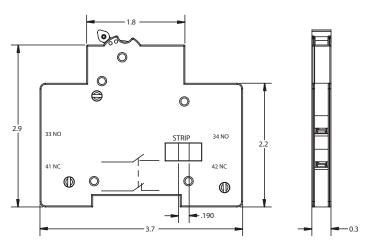
Installed on a CCP2-3-xx

Note: CCP2-AUX and CCP2-AUX-100 **CANNOT** be mounted on the right front and right side rotary operated versions, nor if a flange handle rod or cable operator is installed.











Auxiliary contacts for 200 and 400 A switches

Catalog number

CCP2-AUX-S (200 and 400 A switches)

Description

NO+NC contact output to indicate the switching mechanism status on the CCP2. A single unit can be mounted on either side of any 1-, 2- or 3-pole switch (cannot be mounted on the same side as the CCP2-SM side rotary mechanism or the right side if a flange handle rod or cable operator is installed).

Ratings

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

| Catalog no. | Switch | Description | Max per CCP2* | Ratings |
|-------------|------------------|--|----------------------------------|---------------|
| CCP2-AUX-S | 200 and 400 A | Auxiliary contacts NO+NC for switch status | 1 per CCP2 (1-, 2- or 3-pole) | 5 A / 240 Vac |

 The CCP2-AUX-S CANNOT be mounted on the same side where the side rotary mechanism (CCP2-SM) is installed.
 De-energize all circuits and follow all prescribed safety procedures before installing or removing the auxiliary contact device.

Agency information

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

Wiring

- 16-20 AWG (1.5 to 0.5 mm²) single and dual stranded wire
- 20 AWG (1.5 mm²) single and dual solid wire
- Torque 0.56 N•m (5 lb-in)
- Use only 75°C Cu wire

Installation technique

 Mounts on either side of the 200 and 400 A switches and mechanically interlocks with the switch's handle with provided hardware. The CCP2-AUX-S CANNOT be mounted on the same side with an installed CCP2-SM side rotary mechanism, or the flange cable/rod operating mechanisms.

Storage and operating temperature

• -20°C to 75°C (-4°F to 167°F)

Packaging

• Packaged individually.



Installed on a CCP2-3-xx

Note: CCP2-AUX-S **CANNOT** be mounted on the same side as the side rotary mechanism CCP2-SM or the right side if a flange handle rod or cable operator is installed.



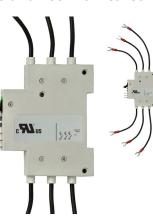
PLC fuse monitor for 30, 60 and 100 A switches

Catalog numbers

- CCP2-PLC-IND (30/60 A switches)
- CCP2-PLC-100
 (100 A switches)

Description

A resettable three-phase fuse monitor that integrates with the I/O card in a Programmable Logic Controller (PLC). A single unit can be mounted on any 1-, 2- or 3-pole CUBEFuse CCP2 switch up to 100 A and the left front/ left side rotary operated switches.



A single unit monitors up to three phases. When used on 1- and 2-pole switches unused conductor(s) are removed after installation. The CCP2-PLC-IND and CCP2-PLC-100 **CANNOT** be mounted on the left front/left side rotary operated versions or if a multi-wire lug kit is installed, or if the flange handle rod operator is installed.

Ratings

- Signal output to PLC*
- +24 Vdc, 10 mA max
- Output signals
 - Digital 0 Vdc (low), 24 Vdc max (high)
 - 0 Vdc Low fuse is good
 - 24 Vdc High fuse has opened
- * When the fuse opens, the output signal is sent high and will remain high until the unit is reset.

Emissions and immunity testing

- IEC 60947-1: Voltage Switchgear and Control Gear
- IEC 61000-6-2: Electromagnetic Compatibility (EMC)
 - IEC 61000-4-2: Electrostatic Discharge Immunity Test at level 3 (6 kV-Contact Discharge) and level 2 (4 kV-Air Discharge)
 - IEC 61000-4-3: Electromagnetic Compatibility Radiated, Radiofrequency, Electromagnetic Field Immunity test at level x (20 V/m)
 - IEC 61000-4-4: Electromagnetic Compatibility Testing and Measurement Techniques at level 3 (± 2kV - Power Port and ±1 kV - I/O Ports)
 - + IEC 61000-4-5: Electromagnetic Compatibility Surge Immunity test at level 4 (±4 kV)
 - IEC 61000-4-6: Immunity to Conducted Disturbances at level 3 (10 V)

| Catalog no. | Switch | Description | Max per CCP2** | Signal output to PLC | Min. circuit volts |
|--------------|-----------------|------------------------------------|-------------------------|----------------------------|--------------------------|
| CCP2-PLC-IND | 30/60 A only | Wired remote fuse indication | 1 per CCP2 (1, 2- or | 24 Vdc/ 10 mA | 100 Vac |
| CCP2-PLC-100 | 100 A only | for PLC applications | 3-pole) | IU IIIA | |

**The CCP2-PLC-IND and CCP2-PLC-100 CANNOT be mounted on the left front/ left side rotary operated versions, or if a multi-wire lug kit is installed or if the flange handle rod operator is installed.

De-energize all circuits and follow all prescribed safety procedures before installing or removing the CCP2-PLC-IND or CCP2-PLC-100.

Agency information

- UL 98 Recognized, Guide WHTY2, File E155130
- cURus to Canadian Standard 22.2 No. 4-04

Local indication

 Two distinct LEDs indicate unit power (green) and open fuse (red). Open fuse LED is resettable upon fuse replacement and the actuating the reset switch

Wiring

 For power, signal and ground connections use shielded twisted pair 22-24 AWG (0.34-0.25 mm²) 300 V rated wire

Carton quantity and shipping weight

| Catalog no.* Application | | Qty. | Weight Ib (kg) |
|--------------------------|---------------------------|------|----------------|
| CCP2-PLC-IND | 30 and 60 A switches only | 1 | 0.17 (0.077) |
| CCP2-PLC-100 | 100 A switches only | I | 0.17 (0.077) |

Includes 0.110" (2.8 mm) quick connects for power, signal and ground connections.

Installation technique

 Mounts on the left side ONLY of the CCP2 and mechanically interlocks with the CCP2 switch handle with hardware provided. The CCP2-PLC-IND and CCP2-PLC-100 CANNOT be mounted on the left front/left side rotary operated versions, or if a multi-wire lug kit is installed or if the flange handle rod operator is installed.

IP20 rating – yes

Storage and operating temperature

• -20°C to 75°C (-4°F to 167°F)

PLC programming

 The CCP2-PLC-IND or CCP2-PLC-100 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.

Installed on a CCP2-3-xx

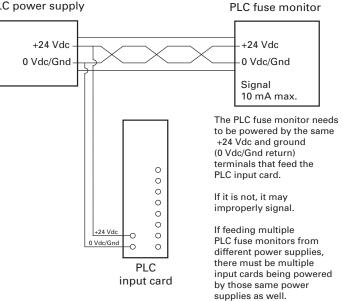


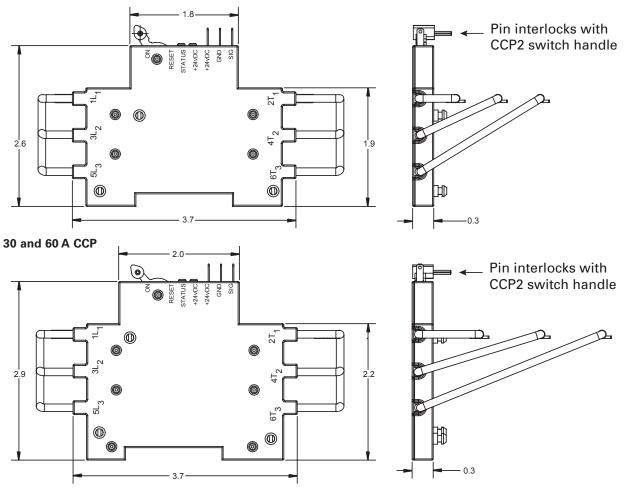
CCP2-PLC-IND mounted on a 3-pole switch and using the fork terminals. When mounted on a 2- or 1-pole switch, remove unused leads.

Note: the CCP2-PLC-IND **CANNOT** be mounted on the left front/left side rotary operated versions or if the multi-wire lug kit is installed or if the flange handle rod operator is installed.

Dimensions - in

PLC wiring schematic PLC power supply





30 and 60 A CCP2 clockwise rotary switches

| | | Catalog no. | | |
|----------|--|--------------------------|---|---------------------------------|
| | | Switches | Amps | Poles |
| | | Right front rotary | · | |
| | | CCP2R-2-30CF | | 2 |
| | | CCP2R-3-30CF | 30 | 3 |
| | | CCP2R-2-60CF | | 2 |
| | | CCP2R-3-60CF | 60 | 3 |
| | and a state of the | Left front rotary | I | |
| | | CCP2RL-2-30CF | | 2 |
| | | CCP2RL-3-30CF | 30 | 3 |
| | | CCP2RL-2-60CF | <u></u> | 2 |
| | 44 Q Q Q | CCP2RL-3-60CF | 60 | 3 |
| | A CONTRACT | Right side rotary | | |
| | | CCP2S-2-30CF | 30 | 2 |
| | | CCP2S-3-30CF | | 3 |
| | | CCP2S-2-60CF | 60 | 2 |
| red | | CCP2S-3-60CF | | 3 |
| Required | F.T.H | | And | |
| Re | | Rotary handles | Description | Rating |
| | | CCP2-H4X-B1 | Selector handle — black/grey | |
| | | CCP2-H4X-R1 | Selector handle — red/yellow | Туре 1, 4Х, 12 |
| | | CCP2-H4X-B2 | Pistol handle — black/grey | 1, 17, 12 |
| | | 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 | |
| | Ŭ | CCP2-NFPA-1 | Red | |
| | | | And | |
| | | Multi-wire lug kits | Description | |
| Optional | | CCP2-MW1-3 | 3-port multi-wire, 75°C Cu/Al, 6-14, includ | les terminal shrouds, pack of 3 |
| | | 1 | | |

| | And | | | | | |
|-------------|---------------------------------------|--------------------|---|--|--|--|
| | | Terminal shrouds | Description | | | |
| Accessories | | CCP2-TS1-3 | Pack of 3 | | | |
| | | Auxiliary contacts | Description — use with CCP2RL-(poles)-30/60CF switches | | | |
| | | CCP2-AUX | NO/NC, 5 A / 240 V | | | |
| | | PLC fuse monitor | Description — use with CCP2R-(poles)-30/60CF and CCP2S-(poles)-30/60CF switches | | | |
| | * * * * * * * * * * * * * * * * * * * | CCP2-PLC-IND | Signal output 24 Vdc / 10 mA | | | |

30 and 60 A CCP2 switches

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

| | | Catalog no. | | | | |
|----------|-----|--|------|-------|--|--|
| 77 | | Switches | Amps | Poles | | |
| Required | | Switch (used alone or with flange cable or flange rod handles) | | | | |
| lequ | | CCP2-1-30CF | | 1 | | |
| | | CCP2-2-30CF | 30 | 2 | | |
| | | CCP2-3-30CF | | 3 | | |
| | | CCP2-1-60CF | | 1 | | |
| | | CCP2-2-60CF | 60 | 2 | | |
| | | CCP2-3-60CF | | 3 | | |
| | And | | | | | |

| | Flange handle rod operator | Description — 3-pole switches only | Rating |
|--|-------------------------------|------------------------------------|--------------|
| | CCP2-FLR1-21 | Red/black painted handle | 1, 3R and 12 |
| | CCP2-FLR1-21X | Chrome handle | 4X |

0

| | 61 | |
|------------------------------|---|----------------|
| Flange handle cable operator | Description - 3-pole switches only, cannot be used with side or front rotary mechanisms | Rating |
| CCP2-FLC1-36 | 36" cable, red/black painted handle | Type 1, 3R, 12 |
| CCP2-FLC1-36X | 36" cable, chrome handle | Type 4X |
| CCP2-FLC1-60 | 60" cable, red/black painted handle | Type 1, 3R, 12 |
| CCP2-FLC1-60X | 60" cable, chrome handle | Type 4X |
| CCP2-FLC1-120 | 120" cable, red/black painted handle | Type 1, 3R, 12 |
| CCP2-FLC1-120X | 120" cable, chrome handle | Type 4X |

Description

Multi-wire lug kits

Optional

| | | CCP2-MW1-3 | 3-port multi-wire, 75°C Cu/Al, 6-14, includes terminal shrouds, pack of 3 |
|-------------|-----------|--------------------|---|
| | | | And |
| | | Terminal shrouds | Description |
| | | CCP2-TS1-3 | Pack of 3 |
| ies | • | Auxiliary contacts | Description — mounts on right side, cannot be used with flange handle rod or cable operator |
| Accessories | | CCP2-AUX | NO/NC, 5 A / 240 V |
| |)]] | PLC fuse monitor | Description — mounts on left side, cannot be used with flange handle rod operator |
| | • • • • • | CCP2-PLC-IND | Signal output 24 Vdc / 10 mA |

30 and 60 A CCP2 counterclockwise switches

| | | Catalog no. | | | |
|-----------------------|-----------------------|--------------------------------|---|------------------|--|
| | | Switches | Amps | Poles | |
| | | Left side rotary | | | |
| | | CCP2SL-2-30CF | 20 | 2 | |
| | | CCP2SL-3-30CF | - 30 | 3 | |
| | | CCP2SL-2-60CF | | 2 | |
| | 44 . CI . | CCP2SL-3-60CF | - 60 | 3 | |
| | | | And | | |
| | | Rotary handles | Description | Rating | |
| p | | CCP2-H4X-B1L | Selector handle — black/grey | | |
| <mark>Required</mark> | | CCP2-H4X-R1L | Selector handle — red/yellow | - Type 1, 4X, 12 | |
| | | CCP2-H4X-B2L | Pistol handle — black/grey | - | |
| | | CCP2-H4X-R2L | Pistol handle — red/yellow | | |
| | and the second second | | And | | |
| | | Shafts (8 mm) | Length | | |
| | | CCP2-SH1-290 | 290 mm | | |
| | | CCP2-SH1-490 NFPA 79 compliant | 490 mm | | |
| | | handle | Color | | |
| | | CCP2-NFPA-1 | Red | | |
| | | | And | | |
| | | Multi-wire lug kits | Description | | |
| Optional | | CCP2-MW1-3 | 3-port multi-wire, 75°C Cu/Al, 6-14, includes terminal shro | ouds, pack of 3 | |
| | | | And | | |
| | | Terminal shrouds | Description | | |
| Accessories | | CCP2-TS1-3 | Pack of 3 | | |
| esso | | Auxiliary contacts | Description —mounts on right side | | |
| Acc | CCP2-AUX | | NO/NC, 5 A / 240 V | | |

100 A CCP2 clockwise rotary switches

| | | Catalog no. | | | | | |
|----------|--|--------------------------|---|---------------------------------|--|--|--|
| | | Switches | Amps | Poles | | | |
| | | Right front rotary | | | | | |
| | | CCP2R-2-100CF | 100 | 2 | | | |
| | | CCP2R-3-100CF | | 3 | | | |
| | and a second and a second as a second a | Left front rotary | | | | | |
| | | CCP2RL-2-100CF | 100 | 2 | | | |
| | | CCP2RL-3-100CF | | 3 | | | |
| | No and a state of the state of | Right side rotary | | | | | |
| | | CCP2S-2-100CF | 100 | 2 | | | |
| red | | CCP2S-3-100CF | | 3 | | | |
| Required | | And | | | | | |
| Re | F.1.4 | Rotary handles | Description | Rating | | | |
| | | CCP2-H4X-B1 | Selector handle — black/grey | | | | |
| | | CCP2-H4X-R1 | Selector handle — red/yellow | Туре 1, 4Х, 12 | | | |
| | | CCP2-H4X-B2 | Pistol handle — black/grey | | | | |
| | | CCP2-H4X-R2 | Pistol handle — red/yellow | | | | |
| | and the second s | | 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 | | | | |
| | | Multi-wire lug kits | Description | | | | |
| Optional | | CCP2-MW1-6 | 6-port multi-wire, 75°C Cu/Al, 6-14, includ | les terminal shrouds, pack of 3 | | | |

| | And | | | | |
|-------------|-----|--------------------|---|--|--|
| | | Terminal shrouds | Description | | |
| Accessories | | CCP2-TS1-6 | Pack of 3 | | |
| CCe | | Auxiliary contacts | Description — cannot be used on right front or right side operated switches | | |
| 4 | | CCP2-AUX-100 | NO/NC, 5 A / 240 V | | |
| | 711 | PLC fuse monitor | Description — Cannot be used on left front or left side operated switches | | |
| | © © | CCP2-PLC-100 | Signal output 24 Vdc / 10 mA | | |

100 A CCP2 switches

| | | Catalog no. | | |
|-------------|---------------------------------------|-------------------------------|--|------------------|
| | | Switches | Amps | Poles |
| - | | Switch (used alone of | or with flange cable or flange rod handles) | |
| Required | | CCP2-1-100CF | | 1 |
| Re | | CCP2-2-100CF | 100 | 2 |
| | | CCP2-3-100CF | | 3 |
| | | | And | |
| | d I | Flange handle rod operator | Description — 3-pole switches only | Rating |
| | 7.1X (2010) | CCP2-FLR1-21 | Red/black painted handle | 1, 3R and 12 |
| | | CCP2-FLR1-21X | Chrome handle | 4X |
| | | | Or | |
| | | Flange handle cable operator | Description - 3-pole switches only, cannot be used with side or front rotary mechanisms | Rating |
| | | CCP2-FLC1-36 | 36" cable, red/black painted handle | Type 1, 3R, 12 |
| Optional | | CCP2-FLC1-36X | 36" cable, chrome handle | Type 4X |
| otio | | CCP2-FLC1-60 | 60" cable, red/black painted handle | Type 1, 3R, 12 |
| Ő | | CCP2-FLC1-60X | 60" cable, chrome handle | Type 4X |
| | | CCP2-FLC1-120 | 120" cable, red/black painted handle | Type 1, 3R, 12 |
| | | CCP2-FLC1-120X | 120" cable, chrome handle | Type 4X |
| | | 1 | | |
| | | Multi-wire lug kits | Description | |
| | | CCP2-MW1-6 | 6-port multi-wire, 75°C Cu/Al, 6-14, includes terminal shrouds, pac | k of 3 |
| | 1 | | And | |
| | | Terminal shrouds | Description | |
| | | CCP2-TS1-6 | Pack of 3 | |
| | | Auxiliary contacts | Description — mounts on right side, cannot be used with flan cable operator | ge handle rod or |
| Accessories | | CCP2-AUX-100 | NO/NC, 5 A / 240 V | |
| | 111 | PLC fuse monitor | Description — mounts on left side, cannot be used with flang operator | e handle rod |
| | • • • • • • • • • • • • • • • • • • • | CCP2-PLC-100 | Signal output 24 Vdc / 10 mA | |

100 A CCP2 counterclockwise switches

| | | Catalog no. | | | |
|-----------------------|------------|--------------------------|---|--------------------------------|--|
| | | Switches | Amps | Poles | |
| | | Left side rotary | · | | |
| | | CCP2SL-2-100CF | 100 | 2 | |
| | | CCP2SL-3-100CF | | 3 | |
| | MATE AND A | | And | | |
| | | Rotary handles | Description | Rating | |
| | | CCP2-H4X-B1L | Selector handle — black/grey | | |
| <mark>Required</mark> | | CCP2-H4X-R1L | Selector handle — red/yellow | Туре 1, 4Х, 12 | |
| æ | | CCP2-H4X-B2L | Pistol handle — black/grey | 1900 1, 1 7, 12 | |
| | | CCP2-H4X-R2L | Pistol handle — red/yellow | | |
| | - | | And | | |
| | | Shafts (8 mm) | Length | | |
| | | CCP2-SH1-290 | 290 mm | | |
| | | CCP2-SH1-490 | 490 mm | | |
| | | NFPA 79 compliant handle | Color | | |
| | Ŭ | CCP2-NFPA-1 | Red | | |
| | | | And | | |
| | | Multi-wire lug kits | Description | | |
| Optional | | CCP2-MW1-6 | 6-port multi-wire, 75°C Cu/Al, 6-14, includ | es terminal shrouds, pack of 3 | |
| | | - | And | | |
| | | Terminal shrouds | Description | | |
| Accessories | | CCP2-TS1-6 | Pack of 3 | | |
| cess | | Auxiliary contacts | Description — mounts on right side | | |
| Act | | CCP2-AUX-100 | NO/NC, 5 A / 240 V | | |

200 A CCP2 switches

| | | Catalog no. | | | | | |
|-----------------------|--------------|-----------------------------|--|---|----------------------|--|--|
| | | Switches | Amps | Poles | | | |
| | 0.0.0 | CCP2-1-200CF | | 1 | | | |
| | | CCP2-2-200CF | 200 | 2 | | | |
| ed | | CCP2-3-200CF | | 3 | | | |
| <mark>Required</mark> | | | And | | | | |
| Rec | | Lug kits | Description | | | | |
| | | CCP2-L2-1 | Stainless steel lug, 75° Cu only, 350 kg | cmil-4, 1 per pack | | | |
| | | CCP2-L2-1A | Aluminum lug, 75°C Cu/Al, 350 kcmil-4 | 1, 1 per pack | | | |
| | | CCP2-MW2-3 | 3-port multi-wire lug, 75°C Cu/Al, 2-14, | 3 per pack, includes termina | l shroud | | |
| | i | CCP2-MW2-6 | 6-port multi-wire lug, 75°C Cu/Al, 6-14, | | | | |
| | | 1 | And | | | | |
| | | Rotary | | | | | |
| | - 6 | mechanisms | Description | | | | |
| | - | CCP2-SM | Side rotary mechanism - mounts on le | ft or right side of 1-, 2- and 3- | pole switches | | |
| | EI-M CO | CCP2-RM2 | Front rotary mechanism - mounts only on 3-pole switches, requires clo rotating handle | | | | |
| | | And | | | | | |
| | | Rotary handles | Description | Rotation - must match switch rotation | Rating | | |
| | | CCP2-H4X-B3 | Short pistol handle — black/grey | Clockwise | | | |
| | | CCP2-H4X-R3 | Short pistol handle — red/yellow | For use with front rotary | | | |
| Optional | | CCP2-H4X-B4 | Long pistol handle — black/grey | mechanism or side rotary mechanism CCP2-SM on | | | |
| ptic | | CCP2-H4X-R4 | Long pistol handle — red/yellow | the switch's right side | Tupe 1 4×12 | | |
| 0 | | CCP2-H4X-B3L | Short pistol handle — black/grey | Counterclockwise | Type 1, 4X, 12 | | |
| | | CCP2-H4X-R3L | Short pistol handle — red/yellow | Use only if installing side | | | |
| | | CCP2-H4X-B4L | Long pistol handle — black/grey | rotary mechanism CCP2- SM on the switch's left | | | |
| | | CCP2-H4X-R4L | Long pistol handle — red/yellow | side | | | |
| | | | And | | | | |
| | and a second | Shafts (12 mm) | Length | | | | |
| | | CCP2-SH2-225 | 225 mm | | | | |
| | | CCP2-SH2-425 | 425 mm | | | | |
| | | NFPA 79 compliant handle | Color | | | | |
| | Ţ | CCP2-NFPA-2 | Red | | | | |

| | | | Or | | | | |
|-------------|------------------------|-------------------------------|--|---|--|--|--|
| | | Flange handle rod operator | Description — 3-pole switches only, cannot be used with side or front rotary mechanisms | Rating | | | |
| | | CCP2-FLR2-21 | Red/black, painted handle | Type 1, 3R and 12 | | | |
| | | CCP2-FLR2-21X | Chrome handle | Type 4X | | | |
| - | | | Or | | | | |
| Optional | | Flange handle cable operator | Description - 3-pole switches only, cannot be used with side or front rotary mechanisms | Rating | | | |
| | | CCP2-FLC2-36 | 36" cable, red/black painted handle | Type 1, 3R and 12 | | | |
| | | CCP2-FLC2-36X | 36" cable, chrome handle | Type 4X | | | |
| | | CCP2-FLC2-60 | 60" cable, red/black painted handle | Type 1, 3R and 12 | | | |
| | | CCP2-FLC2-60X | 60" cable, chrome handle | Type 4X | | | |
| | | CCP2-FLC2-120 | 120" cable, red/black painted handle | Type 1, 3R and 12 | | | |
| | | CCP2-FLC2-120X | 120" cable, chrome handle | Type 4X | | | |
| | | | And | | | | |
| | | Terminal shrouds | | scription | | | |
| | | CCP2-TS2-3 | 3-pole terminal shroud with phase shields, 1 per pack | | | | |
| | | Phase barriers | Description | | | | |
| | | CCP2-PB2 | Phase barriers, 2 per pack | | | | |
| | And | | | | | | |
| | Control wire terminals | | Description | | | | |
| Accessories | | CCP2-CWK2 | 1/4" quick-connect control wire termina with lug CCP2-L2-1), 12 per pack | als - mounts on installed lug (cannot be used | | | |
| Acc | | Auxiliary contacts | Description | | | | |
| | | CCP2-AUX-S | NO/NC, 5 A, 240 V - Can be mounted o | n right or left side | | | |
| | | Handle extension | Description | | | | |
| | | CCP2-HEX | Handle extension to facilitate operating 1-, 2 and 3-pole switches. Cannot be used when side or front rotary mechanisms or flange handle rod or cable operators are installed. | | | | |

400 A CCP2 switches

| | | Catalog no. | | | |
|----------|-------|--|---|---|----------------|
| | | Switches | Amps | Poles | |
| | 0.0.0 | CCP2-1-400CF | | 1 | |
| | | CCP2-2-400CF | 400 | 2 | |
| | | CCP2-3-400CF | - | 3 | |
| | | | And | | |
| Required | 0 0 5 | Lug kits | Description | | |
| inb | | CCP2-L4-1 | Stainless steel lug, 75° Cu only, 500 kcr | mil 2 1 por pock | |
| Re | | CCP2-L4-1 CCP2-L4-1A | Aluminum lug, 75° Cu only, 500 kcmil-3 | | |
| | | CCP2-L4-TA | Stainless steel lug, 75° Cu only, 750-500 | | minal chroud |
| | | CCP2-L4B-3A | Aluminum lug, 75°C Cu/Al, 750-500 kcn | | |
| | | CCP2-L4B-SA | 6-port multi-wire lug, 75°C Cu/Al, 1/0-14 | | |
| | | CCP2-L6-3 | | | |
| | | CCP2-L6-3A | 2-port stainless steel lug, 75° Cu only, 5 2-port aluminum lug kit, 75° Cu/Al only, | | |
| | | CCF2-L0-3A | And | | |
| | | Deterry | And | | |
| | | Rotary mechanisms | Description | | |
| | | CCP2-SM | Side rotary mechanism - mounts on l | eft or right side of 1-, 2- and 3 | -pole switches |
| | | | | | |
| | | CCP2-RM4 | Front rotary mechanism - mounts only rotating handle | y on 3-pole switches, requires | s clockwise |
| | | | | | s clockwise |
| | | CCP2-RM4 | rotating handle And | y on 3-pole switches, requires | clockwise |
| | | | rotating handle And Description | Rotation - must match | |
| lal | | CCP2-RM4 Rotary handles CCP2-H4X-B3 | rotating handle And Description Short pistol handle — black/grey | Rotation - must match switch rotation | |
| tional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 | rotating handle And Description Short pistol handle — black/grey Short pistol handle — red/yellow | Rotation - must match switch rotation Clockwise For use with front rotary mechanism or side rotary | |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-B4 | rotating handle And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — black/grey | Rotation - must match switch rotation Clockwise For use with front rotary mechanism or side rotary mechanism CCP2-SM on | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 | rotating handle And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Long pistol handle — red/yellow | Rotation - must match switch rotation Clockwise For use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right side | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-R4 | rotating handle And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Short pistol handle — red/yellow Short pistol handle — red/yellow Short pistol handle — black/grey | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwise | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-B3L CCP2-H4X-R3L | rotating handle And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — black/grey Long pistol handle — red/yellow Short pistol handle — black/grey Short pistol handle — black/grey Short pistol handle — red/yellow | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwiseUse only if installing side rotary mechanism CCP2- | |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R3L CCP2-H4X-R3L | rotating handle Pescription And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Short pistol handle — red/yellow Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Long pistol handle — black/grey | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwiseUse only if installing side rotary mechanism CCP2- SM on the switch's left | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-B3L CCP2-H4X-R3L | rotating handle Pescription And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Short pistol handle — black/grey Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Long pistol handle — red/yellow | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwiseUse only if installing side rotary mechanism CCP2- | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R3L | rotating handle Pescription And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Short pistol handle — red/yellow Short pistol handle — red/yellow Long pistol handle — red/yellow Long pistol handle — red/yellow And | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwiseUse only if installing side rotary mechanism CCP2- SM on the switch's left | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-B4L CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R4L Shafts (12 mm) | rotating handle Pescription And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Short pistol handle — red/yellow Short pistol handle — red/yellow Long pistol handle — red/yellow | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwiseUse only if installing side rotary mechanism CCP2- SM on the switch's left | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R3L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L | rotating handle Totating handle And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Short pistol handle — red/yellow Short pistol handle — red/yellow Long pistol handle — red/yellow Rot = Rot = | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwiseUse only if installing side rotary mechanism CCP2- SM on the switch's left | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L Shafts (12 mm) CCP2-SH2-225 CCP2-SH2-425 NFPA 79 | rotating handle Pescription Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Short pistol handle — red/yellow Short pistol handle — red/yellow Long pistol handle — red/yellow | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwiseUse only if installing side rotary mechanism CCP2- SM on the switch's left | Rating |
| Optional | | CCP2-RM4 Rotary handles CCP2-H4X-B3 CCP2-H4X-R3 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4 CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L CCP2-H4X-R4L | rotating handle Totating handle And Description Short pistol handle — black/grey Short pistol handle — red/yellow Long pistol handle — red/yellow Short pistol handle — red/yellow Short pistol handle — red/yellow Long pistol handle — red/yellow Rot = Rot = | Rotation - must match switch rotationClockwiseFor use with front rotary mechanism or side rotary mechanism CCP2-SM on the switch's right sideCounterclockwiseUse only if installing side rotary mechanism CCP2- SM on the switch's left | Rating |

| | | | Or | | | |
|-------------|--|---------------------------------|--|----------------|--|--|
| | | Flange handle rod operator | Description - 3-pole switches only, cannot be used with side or front rotary mechanisms | Rating | | |
| | | CCP2-FLR2-21 | Red/black, painted handle | Type 1, 3R, 12 | | |
| | | CCP2-FLR2-21X | Chrome handle | Type 4X | | |
| - | | | Or | | | |
| Optional | | Flange handle cable operator | Description - 3-pole switches only, cannot be used with side or front rotary mechanisms | Rating | | |
| 0 | | CCP2-FLC2-36 | 36" cable, red/black painted handle | Type 1, 3R, 12 | | |
| | | CCP2-FLC2-36x | 36" cable, chrome handle | Type 4X | | |
| | and the second s | CCP2-FLC2-60 | 60" cable, red/black painted handle | Type 1, 3R, 12 | | |
| | | CCP2-FLC2-60x | 60" cable, chrome handle | Type 4X | | |
| | | CCP2-FLC2-120 | 120" cable, red/black painted handle | Type 1, 3R, 12 | | |
| | | CCP2-FLC2-120x | 120" cable, chrome handle | Type 4X | | |
| | | | And | | | |
| | | Terminal shrouds | Description | | | |
| | | CCP2-TS6-3 | 3-pole terminal shroud with phase shields, 1 per pack | | | |
| | | Phase barriers | Description | | | |
| | | CCP2-PB6 | Phase barriers, 2 per pack | | | |
| | | And | | | | |
| es | | Auxiliary contacts | Description | | | |
| Accessories | | CCP2-AUX-S | NO/NC, 5 A, 240 V - Can be mounted on right or left side | | | |
| | | Handle extension | Description | | | |
| | | CCP2-HEX | Handle extension to facilitate operating 1-, 2 and 3-pole switches. (when side or front rotary mechanisms, or flange handle rod and ca are installed. | | | |

Min

(amps)

17.5

NEC

code max

(amps)

Heavy

start*

(amps)

Motor sizing table (from NEC Tables 430.248 and 430.250)

Bussmann series TCF Low-Peak time-delay Class CF fuses

| Voltage | Motor size (Hp) | Motor FLA (amps) | Min (amps) | NEC code max (amps) | Heavy start* (amps) | Voltage | Motor size (Hp) | Motor FL (amps) |
|------------|--------------------|---------------------|---------------|---------------------------|---------------------------|---------------------|--------------------|--------------------|
| | 1/6 | 4.4 | 10 | 10 | 10 | | 1/2 | 2.4 |
| | 1/4 | 5.8 | 10 | 15 | 15 | | 3/4 | 3.5 |
| | 1/3 | 7.2 | 15 | 15 | 15 | | 1 | 4.6 |
| | 1/2 | 9.8 | 15 | 20 | 20 | | 1-1/2 | 6.6 |
| | 3/4 | 13.8 | 25 | 25 | 30 | | 2 | 7.5 |
| 115 Vac, | 1 | 16 | 25 | 30 | 35 | | 3 | 10.6 |
| 1-phase | 1-1/2 | 20 | 30 | 35 | 45 | 208 Vac, | 5 | 16.7 |
| | 2 | 24 | 40 | 45 | 50 | 3-phase | 7-1/2 | 24.2 |
| | 3 | 34 | 50 | 60 | 70 | | 20** | 59.4 |
| | 5** | 56 | 90 | 100 | 125 | | 25 | 74.8 |
| | 7-1/2 | 80 | 125 | 150 | 175 | | 30 | 88 |
| | 10 | 100 | 150 | 175 | 225 | | 40 | 114 |
| | 1/6 | 2.2 | 6 | 6 | 6 | | 50 | 143 |
| | 1/4 | 2.9 | 6 | 6 | 6 | | 60 | 169 |
| | 1/3 | 3.6 | 6 | 10 | 10 | - | 1/2 | 2.2 |
| | 1/2 | 4.9 | 10 | 10 | 10 | | 3/4 | 3.2 |
| | 3/4 | 6.9 | 15 | 15 | 15 | | 1 | 4.2 |
| 230 Vac, | 1 | 8 | 15 | 15 | 17.5 | | 1-1/2 | 6 |
| 1-phase | 1-1/2 | 10 | 15 | 20 | 20 | | 2 | 6.8 |
| | 2 | 12 | 20 | 25 | 25 | | 3 | 9.6 |
| | 3 | 17 | 25 | 30 | 35 | | 5 | 15.2 |
| | 5 | 28 | 45 | 50 | 60 | 230 Vac, 3-phase | 7-1/2 | 22 |
| | 7-1/2 | 40 | 60 | 70 | 90 | | 20** | 54 |
| | 10** | 50 | 80 | 90 | 110 | | 25 | 68 |
| | 1/2 | 2.5 | 6 | 6 | 6 | | 30 | 80 |
| | 3/4 | 3.7 | 6 | 10 | 10 | | 40 | 104 |
| | 1 | 4.8 | 10 | 10 | 10 | | 50 | 130 |
| | 1-1/2 | 6.9 | 15 | 15 | 15 | | 60 | 154 |
| | 2 | 7.8 | 15 | 15 | 17.5 | | 75 | 192 |
| | 3 | 11 | 17.5 | 20 | 20 | | 1/2 | 1.1 |
| 200 Vac, | 5 | 17.5 | 30 | 35 | 35 | | 3/4 | 1.6 |
| 3-phase | 7-1/2 | 25.3 | 40 | 45 | 50 | | 1 | 2.1 |
| | 20** | 62.1 | 100 | 110 | 125 | | 1-1/2 | 3 |
| | 25 | 78.2 | 125 | 150 | 175 | | 2 | 3.4 |
| | 30 | 92 | 150 | 175 | 200 | | 3 | 4.8 |
| | 40 | 120 | 200 | 225 | 250 | | 5 | 7.6 |
| | 50 | 150 | 225 | 300 | 300 | | 7-1/2 | 11 |
| | 60 | 177 | 300 | 350 | 350 | 460 Vac, | 10 | 14 |
| lote: so | | | | moderate rev | | 3-phase | 15 | 21 |

plug applications.

Heavy Start permitted only if NEC code max does not allow motor start-up.
 **If equipment terminations are rated for 60°C conductors only, the 60°C conductor ampacities must be utilized and therefore larger conductor sizes or conduit sizes may be required.

| 40 114 175 200 250 50 143 225 300 300 60 169 300 300 350 1/2 2.2 6 6 6 3/4 3.2 6 6 6 1 4.2 10 10 10 1-1/2 6 10 15 15 2 6.8 15 15 15 3 9.6 15 20 20 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 30 | | 50 | 00 | 150 | 175 | 175 |
|---|----------|-------|------|------|-----|-----|
| 60 169 300 300 350 1/2 2.2 6 6 6 3/4 3.2 6 6 6 1 4.2 10 10 10 1-1/2 6 10 15 15 2 6.8 15 15 15 3 9.6 15 20 20 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 <td></td> <td>40</td> <td>114</td> <td>175</td> <td>200</td> <td>250</td> | | 40 | 114 | 175 | 200 | 250 |
| 1/2 2.2 6 6 6 3/4 3.2 6 6 6 1 4.2 10 10 10 1-1/2 6 10 15 15 2 6.8 15 15 15 3 9.6 15 20 20 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 1 2.1 6 6 6 < | | 50 | 143 | 225 | 300 | 300 |
| 3/4 3.2 6 6 6 1 4.2 10 10 10 1-1/2 6 10 15 15 2 6.8 15 15 15 3 9.6 15 20 20 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 1 2.1 6 6 6 1-1/2 3 6 6 6 < | | 60 | 169 | 300 | 300 | 350 |
| Vac, hase 1 4.2 10 10 10 1-1/2 6 10 15 15 2 6.8 15 15 15 3 9.6 15 20 20 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 1 2.1 6 6 6 1-1/2 3 6 6 6 2 3.4 6 6 | | 1/2 | 2.2 | 6 | 6 | 6 |
| Vac, hase 1-1/2 6 10 15 15 2 6.8 15 15 15 15 3 9.6 15 20 20 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 1 2.1 6 6 6 2 3.4 6 6 6 2 3.4 6 6 6 2 3.4 6 | | 3/4 | 3.2 | 6 | 6 | 6 |
| Vac, hase 2 6.8 15 15 15 3 9.6 15 20 20 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 1 2.1 6 6 6 1.1/2 3 6 6 6 2 3.4 6 6 6 2 3.4 6 6 6 2 3.4 6 6 | | 1 | 4.2 | 10 | 10 | 10 |
| Nac, hase 3 9.6 15 20 20 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 1/2 1.1 3 3 3 1/2 1.1 3 3 3 1/2 1.1 16 6 6 2 3.4 6 6 6 2 3.4 6 6 6 3 4.8 10 10 | | 1-1/2 | 6 | 10 | 15 | 15 |
| Vac, hase 5 15.2 25 30 30 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 2 3.4 6 6 6 1 1.1 1.75 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 | | 2 | 6.8 | 15 | 15 | 15 |
| Vac, hase 7-1/2 22 35 40 45 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 1-1/2 3 6 6 6 1 1.1 1.75 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50** 65 100 125< | | 3 | 9.6 | 15 | 20 | 20 |
| hase $7/1/2$ 22 33 40 43 20^{**} 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 75 192 300 350 400 $1/2$ 1.1 3 3 3 $1/2$ 1.1 3 3 3 $1/2$ 1.1 6 6 6 $1/2$ 1.6 3 3 3 $1/2$ 1.1 1.5 15 5 $1/2$ 3.4 6 6 6 2 3.4 | | 5 | 15.2 | 25 | 30 | 30 |
| 20** 54 90 100 110 25 68 110 125 150 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 1-1/2 3 6 6 6 1.1/2 3 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 | | 7-1/2 | 22 | 35 | 40 | 45 |
| 30 80 125 150 175 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 1-1/2 3 6 6 6 2 3.4 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 | nase | 20** | 54 | 90 | 100 | 110 |
| 40 104 175 200 225 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 1-1/2 3 6 6 6 1 2.1 5 6 6 1.1/2 3 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 | | 25 | 68 | 110 | 125 | 150 |
| 50 130 200 250 250 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 1.1/2 3 6 6 6 1 2.1 6 6 6 1.1/2 3 6 6 6 2 3.4 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 7.1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 <td< td=""><td></td><td>30</td><td>80</td><td>125</td><td>150</td><td>175</td></td<> | | 30 | 80 | 125 | 150 | 175 |
| 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 1 2.1 6 6 6 1 2.1 6 6 6 1 2.1 6 6 6 1 2.1 6 6 6 1 2.1 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50** 65 100 125 125 60 77 125 150 150 | | 40 | 104 | 175 | 200 | 225 |
| 60 154 250 300 300 75 192 300 350 400 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 1 2.1 6 6 6 1 2.1 6 6 6 1.1/2 3 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50** 65 100 125 125 60 77 125 150 150 | | 50 | 130 | 200 | 250 | 250 |
| 1/2 1.1 3 3 3 3/4 1.6 3 3 3 1 2.1 6 6 6 1 2.1 6 6 6 1.1/2 3 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50** 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 <tr< td=""><td></td><td>60</td><td></td><td></td><td></td><td></td></tr<> | | 60 | | | | |
| $3/4$ 1.6 3 3 3 1 2.1 6 6 6 $1-1/2$ 3 6 6 6 2 3.4 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 $7-1/2$ 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50^{**} 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 </td <td></td> <td>75</td> <td>192</td> <td>300</td> <td>350</td> <td>400</td> | | 75 | 192 | 300 | 350 | 400 |
| $3/4$ 1.6 3 3 3 1 2.1 6 6 6 $1-1/2$ 3 6 6 6 2 3.4 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 $7-1/2$ 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50^{**} 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 </td <td></td> <td>1/2</td> <td>1.1</td> <td>3</td> <td>3</td> <td>3</td> | | 1/2 | 1.1 | 3 | 3 | 3 |
| $1-1/2$ 3 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50^{**} 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 150 180 300 350 400 | | 3/4 | 1.6 | 3 | 3 | 3 |
| $1-1/2$ 3 6 6 6 2 3.4 6 6 6 3 4.8 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50^{**} 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 150 180 300 350 400 | | 1 | 2.1 | 6 | 6 | 6 |
| 3 4.8 10 10 10 5 7.6 15 15 15 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50** 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 150 180 300 350 400 | | 1-1/2 | | 6 | | 6 |
| 3 4.8 10 10 10 5 7.6 15 15 15 $7.1/2$ 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50^{**} 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 150 180 300 350 400 | | 2 | 3.4 | 6 | 6 | 6 |
| 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50** 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 150 180 300 350 400 | | 3 | | 10 | 10 | 10 |
| 7-1/2 11 17.5 20 20 10 14 25 25 30 15 21 35 40 45 20 27 40 50 60 50** 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 150 180 300 350 400 | | 5 | 7.6 | 15 | 15 | 15 |
| hase 10 14 23 25 30 15 21 35 40 45 20 27 40 50 60 50^{**} 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 150 180 300 350 400 | | | | 17.5 | | 20 |
| 15 21 35 40 45 20 27 40 50 60 50** 65 100 125 125 60 77 125 150 150 75 96 150 175 200 100 124 200 225 250 125 156 250 300 350 150 180 300 350 400 | | 10 | 14 | 25 | 25 | 30 |
| 202740506050**6510012512560771251501507596150175200100124200225250125156250300350150180300350400 | nase | 15 | 21 | | | 45 |
| 60771251501507596150175200100124200225250125156250300350150180300350400 | | 20 | 27 | | | 60 |
| 60771251501507596150175200100124200225250125156250300350150180300350400 | | 50** | 65 | 100 | 125 | 125 |
| 7596150175200100124200225250125156250300350150180300350400 | | 60 | | | | |
| 100124200225250125156250300350150180300350400 | | | | | | |
| 125156250300350150180300350400 | | | | | | |
| 150 180 300 350 400 | | | | | | |
| | | | | | | |
| | e: Use I | | | | | |

Note: Use NEC code max column for low to moderate reverse/jog/ plug applications.

* Heavy Start permitted only if NEC code max does not allow motor start-up.

**If equipment terminations are rated for 60°C conductors only, the 60°C conductor ampacities must be utilized and therefore larger conductor sizes or conduit sizes may be required.

Motor sizing table (from NEC Tables 430.248 and 430.250)

Bussmann series TCF Low-Peak time-delay Class CF fuses

| Voltage | Motor size (Hp) | Motor FLA (amps) | Min (amps) | NEC code max (amps) | Heavy start* (amps) |
|---------------------|--------------------|---------------------|---------------|---------------------------|---------------------------|
| 575 Vac, 3-phase | 1/2 | 0.9 | 3 | 3 | 3 |
| | 3/4 | 1.3 | 3 | 3 | 3 |
| | 1 | 1.7 | 3 | 3 | 3 |
| | 1-1/2 | 2.4 | 6 | 6 | 6 |
| | 2 | 2.7 | 6 | 6 | 6 |
| | 3 | 3.9 | 6 | 10 | 10 |
| | 5 | 6.1 | 10 | 15 | 15 |
| | 7-1/2 | 9 | 15 | 20 | 20 |
| | 10 | 11 | 17.5 | 20 | 20 |
| | 40** | 41 | 70 | 80 | 80 |
| | 50 | 52 | 80 | 100 | 110 |
| | 60 | 62 | 100 | 110 | 125 |
| | 75 | 77 | 125 | 150 | 150 |
| | 100 | 99 | 150 | 175 | 200 |
| | 125 | 125 | 200 | 225 | 250 |
| | 150 | 144 | 225 | 300 | 300 |
| | 200 | 192 | 300 | 350 | 400 |

Note: Use NEC code max column for low to moderate reverse/jog/ plug applications.

* Heavy Start permitted only if NEC code max does not allow motor start-up.
**If equipment terminations are rated for 60°C conductors only, the 60°C conductor ampacities must be utilized and therefore larger conductor sizes or conduit sizes may be required.

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