

CUBEFuse[™] Compact Circuit Protector Base (cat. no. CCP2B)







Description

The revolutionary Bussmann™ series Compact Circuit Protector Base (CCP2B) with CUBEFuse™ is a UL® 98 horsepower rated fused branch circuit disconnect. Primarily used in the Bussmann series Quik-Spec™ Coordination Panelboard, the CCP2B with CUBEFuse simplifies selective coordination for code compliance and features a lockout/tagout feature for isolating individual branch circuit loads to promote safe work practices.

Features

- Uses finger-safe, current-limiting Class CF CUBEFuse with Class J performance available in time-delay or fast-acting versions from 1 to 100 amps
- Patented amp rating rejection feature helps prevent overfusing
- · High 200 kA short-circuit current rating
- Disconnect rated to provide a means for load isolation
- 2- and 3-pole versions straight voltage rated at 600 Vac
- Up to 125 Vdc ratings
- · UL 98 Listed for branch circuit disconnect
- 1-, 2- and 3-pole versions are horsepower rated
- UL and cULus Listed
- Open fuse indication lamp per pole speeds troubleshooting
- Additional open fuse indication can be provided by using the time-delay indicating CUBEFuse in ratings from 6 to 100 amps
- Built-in switch/fuse interlock prevents removing or installing a fuse while energized
- Permanent lockout/tagout and lock-on provision using a 1/4" lock



Specifications:

Switch amp ratings and rejection breaks

• 15, 20, 30, 40, 50, 60, 70, 90 and 100 A

Poles

• 1-, 2- and 3-poles

Volts

- 347 Vac (1-pole switches)
- 600 Vac (2- and 3-pole switches)
- 125 Vdc*
- * 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, Guide WHTY7, File E302370
- · RoHS compliant
- CE

Lineside bolt-on bus connector and torque

- Bolt-mounted design fits into Quik-Spec Coordination Panelboard bus
- #10-32 UNC hex flange Phillips screw; 2.8 N•m (25 lb-in)

Loadside box lug terminal conductor data

• See conductor table for details

Loadside fork terminal

- Max. 30 A suitable for use with:
 - 10-24 screw for switches up to 60 A
 - 1/4-28 screw for switches from 70 to 100 A

Lockout/tagout

• 1/4" lock

Local open fuse indication light

• Light illumination requires closed circuit and minimum 90 volts

Carton quantity and shipping weight

| Item | Poles | lbs (kg) | |
|------------------------|-------|------------|--|
| up to 60 amp switches | 6 | 1.7 (0.77) | |
| 70 to 100 amp switches | 6 | 2.6 (1.18) | |

Environmental data

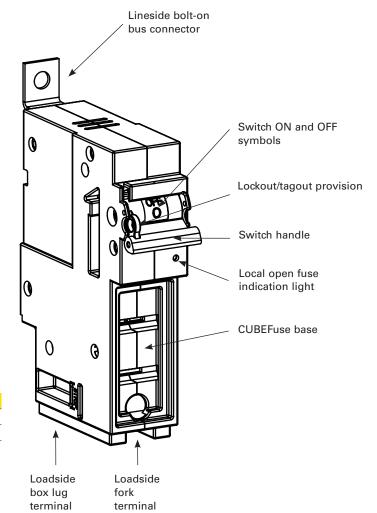
Storage and operating temperature -20°C to 75°C**

** For fuse performance under or above 25°C, consult fuse performance derating charts.

Available Bussmann series fuses

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





Catalog numbers and ratings

| | | | Accepts | Typical installed fuse amp range | | | Max. | | |
|--------------------|-------|-----------------------|--------------------|--|--------------------------|--|----------------|------------------------|--|
| Catalog numbers | Poles | Voltage ratings | CUBEFuse amp range | Time-delay non-indicating | Time-delay indicating† | Fast-acting non-indicating†† | fuse amp††† | SCCR | Hp ratings (Vac)†††† |
| CCP2B-1-15CF | 1 | 347 Vac, 125 Vdc | | TCE1DN | _ | ECE1 DNI | <u>-</u> | | 0.5 Hp @ 120 V |
| CCP2B-2-15CF | 2 | 600 Vac, 125 Vdc | 1 to 15 | TCF1RN, TCF3RN, TCF6RN, TCF10RN, TCF15RN | TCF6, TCF10, TCF15 | FCF1RN, FCF3RN, FCF6RN, FCF10RN, FCF15RN | 15 | | 1.5 Hp @ 240 V |
| CCP2B-3-15CF | 3 | 600 Vac | | | | | | | 3 Hp @ 240 V 5 Hp @ 480 V 7.5 Hp @ 600 V |
| CCP2B-1-20CF | 1 | 347 Vac, 125 Vdc | | TCF17-1/2RN, TCF20RN | TCF17-1/2, TCF20 | FCF20RN | 20 | | 0.75 Hp @ 120 V |
| CCP2B-2-20CF | 2 | 600 Vac, 125 Vdc | - 1 to 20 | | | | | | 2 Hp @ 240 V |
| CCP2B-3-20CF | 3 | 600 Vac | _ 1 10 20 | | | | | | 3 Hp @ 240 V 7.5 Hp @ 480 V 10 Hp @ 600 V |
| CCP2B-1-30CF | 1 | 347 Vac, 125 Vdc | | | | | | | 1.5 Hp @ 120 V |
| CCP2B-2-30CF | 2 | 600 Vac, 125 Vdc | - 1 to 30 | TCF25RN, | TCF25, | FCF25RN, | 30 | | 3 Hp @ 240 V |
| CCP2B-3-30CF | 3 | 600 Vac | _ 1 10 30 | TCF30RN | TCF30 | FCF30RN | 30 | | 5 Hp @ 240 V 15 Hp @ 480 V 10 Hp @ 600 V |
| CCP2B-1-40CF | 1 | 347 Vac, 125 Vdc | | | | | | | 2.0 Hp @ 120 V |
| CCP2B-2-40CF | 2 | 600 Vac, 125 Vdc | - 1 to 40 | TCF35RN, | TCF35, | FCF35RN, | 40 | | 3 Hp @ 240 V |
| CCP2B-3-40CF | 3 | 600 Vac | _ 1 to 40 | TCF40RN | TCF40 | FCF40RN | 40 | 200 kA AC 100 kA DC | 7.5 Hp @ 240 V 20 Hp @ 480 V 10 Hp @ 600 V |
| CCP2B-1-50CF | 1 | 347 Vac, 125 Vdc* | | 50 TCF45RN, TCF50RN | TCF45, TCF50 | FCF45RN, FCF50RN | 50 | | 3.0 Hp @ 120 V |
| CCP2B-2-50CF | 2 | 600 Vac, 125 Vdc* | - 1 to 50 | | | | | | 5 Hp @ 240 V |
| CCP2B-3-50CF | 3 | 600 Vac | _ 1 10 00 | | | | | | 7.5 Hp @ 240 V 20 Hp @ 480 V 10 Hp @ 600 V |
| CCP2B-1-60CF | 1 | 347 Vac, 125 Vdc* | | | TCF60 | FCF60RN | 60 | | 3.0 Hp @ 120 V |
| CCP2B-2-60CF | 2 | 600 Vac, 125 Vdc* | - 1 to 60 | TCF60RN | | | | | 7.5 Hp @ 240 V |
| CCP2B-3-60CF | 3 | 600 Vac | - | , 6, 66, | | | | | 7.5 Hp @ 240 V 20 Hp @ 480 V 10 Hp @ 600 V |
| CCP2B-1-70CF | 1 | 347 Vac, 125 Vdc | | | | | | | 3.0 Hp @ 120 V |
| CCP2B-2-70CF | 2 | 600 Vac, 125 Vdc | - 1 to 70 | TCF70RN | TCF70 | FCF70RN | 70 | | 7.5 Hp @ 240 V |
| CCP2B-3-70CF | 3 | 600 Vac | _ 1 10 70 | TCF/UNIN | | | | | 15 Hp @ 240 V 30 Hp @ 480 V 40 Hp @ 600 V |
| CCP2B-1-90CF | 1 | 347 Vac, 125 Vdc** | | | | | | | 5.0 Hp @ 120 V |
| CCP2B-2-90CF | 2 | 600 Vac, 125 Vdc** | 1 to 90 | TCF90RN | TCF90 | FCF80RN, FCF90RN | 90 | _ | 10 Hp @ 240 V |
| CCP2B-3-90CF | 3 | 600 Vac | | | | | | | 20 Hp @ 240 V 50 Hp @ 480 V 40 Hp @ 600 V |
| CCP2B-1-100CF | 1 | 347 Vac, 125 Vdc** | | | | | | | 5.0 Hp @ 120 V |
| CCP2B-2-100CF | 2 | 600 Vac, 125 Vdc** | - 1 to 100 | TCF100RN | TCF100 | FCF100RN | 100 | | 10 Hp @ 240 V |
| CCP2B-3-100CF | 3 | 600 Vac | | | - 100 | | | | 20 Hp @ 240 V 50 Hp @ 480 V 40 Hp @ 600 V |

¹ and 3 A indicating CUBEFuse not available. Correct fit with CCP2B disconnect requires indicating CUBEFuse with date code R38 or later.

Not for use with motors.

Any amp rating less than or equal to the switch max fuse rating may be installed. E.g., TCF15 can be installed in the CCP2B-1-20CF.
Indicating or non-indicating time-delay CUBEFuse only.
125 Vdc for installed fuse amp ratings up to 40 A. 24 Vdc for installed fuse amp ratings from 45 to 60 A.

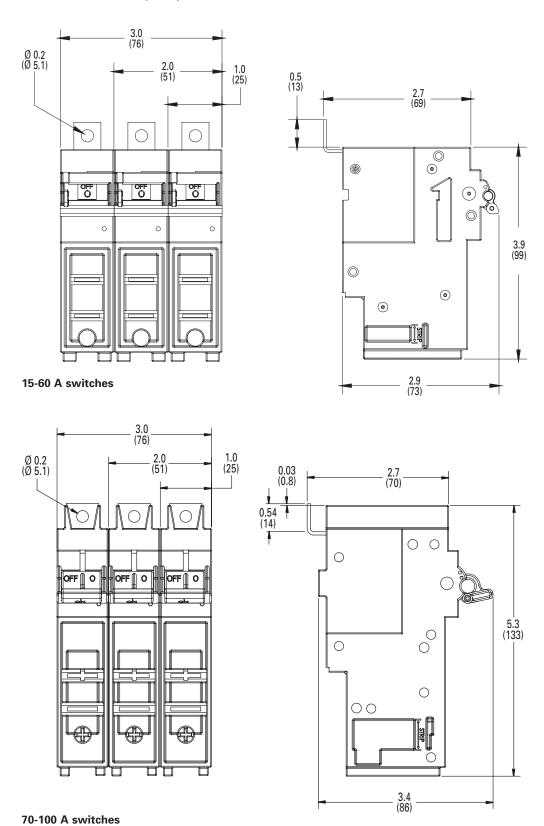
¹²⁵ Vdc for installed fuse amp ratings up to 80 A, 24 Vdc for installed fuse amp ratings from 90 to 100 A.

Box lug conductor data

| Wire type | AWG range | Class | Quantity | Torque N∙m (lb-in) |
|-------------|-----------|-----------------------------------|-------------------|-----------------------|
| 15 to 60 A | switches | | | |
| | 4-6 | — Stranded, Class B to K | Single | 3.95 (35) |
| | 8-18 | — Stranded, Class B to K | Sirigle | 2.26 (20) |
| | 6-8 | Stranded, Class B/C | _ Dual | 3.39 (30) |
| | 0-0 | Stranded, Class K | | 2.26 (20) |
| 75°C Cu | 10-18 | Stranded, Class B to K | | 2.20 (20) |
| 75 C Cu | 10-18 | Solid | Single/dual | 2.26 (20) |
| | 4-18 | Strandad III farmila Class B/C | Single | 2 20 /20) |
| | 6-18 | — Stranded, UL ferrule, Class B/C | Twin [†] | 3.39 (30) |
| | 4-18 | Stranded III formula Class K | Single | 2 02 /25) |
| | 6-18 | — Stranded, UL ferrule, Class K | Twin [†] | 2.82 (25) |
| 70 to 100 A | switches | | | |
| | 12-18 | | Single | 2.26 (20) |
| | 10 8 | Stranded, Class B to K | | 2.82 (25) |
| | 8 | | | 4.52 (40 |
| | 4-6 | _ | | 5.08 (45) |
| | 1-3 | _ | | 6.21 (55) |
| | 3-12 | Stranded, Class B to K | Dual | 3.95 (35) |
| | 12-18 | | | 2.26 (20) |
| | 10 | | Single | 3.95 (35) |
| | 1-8 | Stranded, UL ferrule, Class B/C | | 4.52 (40) |
| 75°C Cu | 10-18 | | Twin† | 2.26 (20) |
| | 6-8 | _ | | 2.82 (25) |
| | 10-18 | C-1:-I | Single | 2.26 (20) |
| | 10-18 | — Solid | Dual | 2.26 (20) |
| | 8-18 | | Cinala | 2.26 (20) |
| | 1-6 | Class K | Single | 3.39 (30) |
| | 3-10 | | Dual | 5.08 (45) |
| | 8-18 | | Single | 2.26 (20) |
| | 1-6 | Class K, UL ferrule | | 3.39 (30) |
| | 6-18 | | Twin | 2.26 (20) |

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

Dimensions — in (mm)



For details on the CCP2B and its use in the Quik-Spec Coordination Panelboard, see data sheet no. 1160.

Technical Data 1161

Effective August 2018

Motor sizing table:

Low-Peak™ TCF_ and TCF_RN time-delay Class CF fuses

| | Motor | DA | Optimal | Code | Heavy |
|------------------|--------------|------------------|----------------------|---------------|------------------|
| Voltage | size (Hp) | Motor FLA (amps) | protection (amps) | max (amps) | start* (amps) |
| Voitage | 0.167 | 4.4 | 10 | 10 | 10 |
| | 0.107 | 5.8 | 10 | 15 | 15 |
| | 0.333 | 7.2 | 15 | 15 | 15 |
| | 0.5 | 9.8 | 15 | 20 | 20 |
| - | 0.75 | 13.8 | 25 | 25 | 30 |
| 115 Vac, 1-Phase | 1 | 16 | 25 | 30 | 35 |
| - | 1.5 | 20 | 30 | 35 | 45 |
| - | 2 | 24 | 40 | 45 | 50 |
| - | 3 | 34 | 50 | 60 | N/A |
| - | 5** | 56 | 90 | 100 | N/A |
| | 0.167 | 2.2 | 6 | 6 | 6 |
| - | 0.25 | 2.9 | 6 | 6 | 6 |
| - | 0.333 | 3.6 | 6 | 10 | 10 |
| - | 0.5 | 4.9 | 10 | 10 | 10 |
| - | 0.75 | 6.9 | 15 | 15 | 15 |
| - | 1 | 8 | 15 | 15 | 17.5 |
| 230 Vac,1-Phase | 1.5 | 10 | 15 | 20 | 20 |
| - | 2 | 12 | 20 | 25 | 25 |
| - | 3 | 17 | 25 | 30 | 35 |
| - | 5 | 28 | 45 | 50 | 60 |
| - | 7.5 | 40 | 60 | N/A | N/A |
| - | 10** | 50 | 80 | 90 | N/A |
| | 0.5 | 2.5 | 6 | 6 | 6 |
| - | 0.75 | 3.7 | 6 | 10 | 10 |
| | 1 | 4.8 | 10 | 10 | 10 |
| • | 1.5 | 6.9 | 15 | 15 | 15 |
| 200 Vac, 3-Phase | 2 | 7.8 | 15 | 15 | 17.5 |
| - | 3 | 11 | 17.5 | 20 | 20 |
| - | 5 | 17.5 | 30 | 35 | 35 |
| | 7.5 | 25.3 | 40 | 45 | 50 |
| - | 20** | 62.1 | 100 | N/A | N/A |
| | 0.5 | 2.4 | 6 | 6 | 6 |
| _ | 0.75 | 3.5 | 6 | 10 | 10 |
| | 1 | 4.6 | 10 | 10 | 10 |
| _ | 1.5 | 6.6 | 10 | 15 | 15 |
| 208 Vac, 3-Phase | 2 | 7.5 | 15 | 15 | 15 |
| _ | 3 | 10.6 | 17.5 | 20 | 20 |
| _ | 5 | 16.7 | 25 | 30 | 35 |
| - | 7.5 | 24.2 | 40 | 45 | 50 |
| | 20** | 59.4 | 90 | N/A | N/A |

| Voltage | Motor size (Hp) | Motor FLA (amps) | Optimal protection (amps) | Code max (amps) | Heavy start* (amps) |
|------------------|-----------------------|---------------------|---------------------------|-----------------------|---------------------------|
| | 0.5 | 2.2 | 6 | 6 | 6 |
| | 0.75 | 3.2 | 6 | 6 | 6 |
| - | 1 | 4.2 | 10 | 10 | 10 |
| - | 1.5 | 6 | 10 | 15 | 15 |
| 230 Vac, 3-Phase | 2 | 6.8 | 15 | 15 | 15 |
| • | 3 | 9.6 | 15 | 20 | 20 |
| - - | 5 | 15.2 | 25 | 30 | 30 |
| | 7.5 | 22 | 35 | 40 | 45 |
| - - | 20** | 54 | 90 | 100 | N/A |
| | 0.5 | 1.1 | 3 | 3 | 3 |
| - | 0.75 | 1.6 | 3 | 3 | 3 |
| - | 1 | 2.1 | 6 | 6 | 6 |
| - | 1.5 | 3 | 6 | 6 | 6 |
| - | 2 | 3.4 | 6 | 6 | 6 |
| | 3 | 4.8 | 10 | 10 | 10 |
| 460 Vac, 3-Phase | 5 | 7.6 | 15 | 15 | 15 |
| - | 7.5 | 11 | 17.5 | 20 | 20 |
| - | 10 | 14 | 25 | 25 | 30 |
| | 15 | 21 | 35 | 40 | 45 |
| - | 20 | 27 | 40 | 50 | 60 |
| - | 50** | 65 | 100 | N/A | N/A |
| | 0.5 | 0.9 | 3 | 3 | 3 |
| - | 0.75 | 1.3 | 3 | 3 | 3 |
| - | 1 | 1.7 | 3 | 3 | 3 |
| - | 1.5 | 2.4 | 6 | 6 | 6 |
| | 2 | 2.7 | 6 | 6 | 6 |
| 575 Vac, 3-Phase | 3 | 3.9 | 6 | 10 | 10 |
| | 5 | 6.1 | 10 | 15 | 15 |
| - | 7.5 | 9 | 15 | 20 | 20 |
| - | 10 | 11 | 17.5 | 20 | 20 |
| - | 40** | 41 | 70 | 80 | 80 |

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

- * Heavy Start permitted only if Code Max does not allow motor start-up.
- **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.

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

Eaton 1000 Eaton Boulevard Cleveland, OH 44122 Eaton.com

Bussmann Division 114 Old State Road Ellisville, MO 63021 United States Eaton.com/bussmannseries

© 2018 Eaton All Rights Reserved Printed in USA Publication No. 1161 - BU-SB18055 August 2018

Eaton, Bussmann, Quik-Spec and CUBEFuse are valuable trademarks of Eaton in the U.S. and other countries. You are not permitted to use the Eaton trademarks without prior written consent of Eaton.

CSA is a registered trademark of the Canadian Standards Group. NEC is a registered trademark of the National Fire Protection Association, Inc. UL is a registered trademark of the Underwriters Laboratories, Inc.

For Eaton's Bussmann series product information, call 1-855-287-7626 or visit: Eaton.com/bussmannseries

Follow us on social media to get the latest product and support information.











