

# CUBEFuse<sup>™</sup> 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**

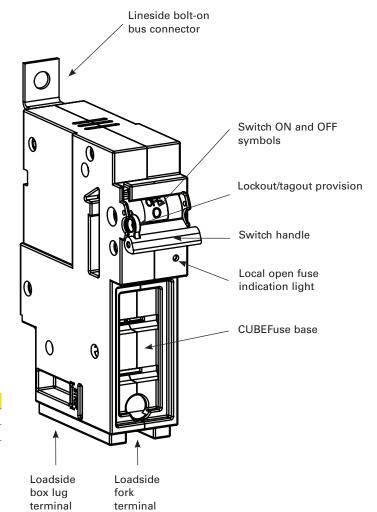
Storage and operating temperature -20°C to 75°C\*\*

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

#### Available Bussmann series fuses

CF Indicating time-delay, Low-Peak™ CUBEFuse (6-100 A)  Non-indicating time-delay, Low-Peak CUBEFuse (1-100 A)  Non-indicating fast-acting  Non-indicating fast-acting  Non-indicating fast-acting  Non-indicating fast-acting  Non-indicating fast-acting  Non-indicating fast-acting	UL fuse class	Type/description	Volts	Data sheet no.	
CF Non-indicating time-delay, 300 Vdc Low-Peak CUBEFuse (1-100 A)  Non-indicating fast-acting 600 Vac/dc 2147		7.	600 Vac/	0000	
0 600 /30/00 31/1/	CF	· , ,	300 Vdc	9000	
CUBEFuse (1-100 A)		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 TCF17-1/2, TCF20	FCF1RN, FCF3RN, FCF6RN, FCF10RN, FCF15RN	20		1.5 Hp @ 240 V
CCP2B-3-15CF	3	600 Vac	_ 1 10 13						3 Hp @ 240 V 5 Hp @ 480 V 7.5 Hp @ 600 V
CCP2B-1-20CF	1	347 Vac, 125 Vdc							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	. 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, TCF30 TCF35, TCF40	FCF25RN, FCF30RN	30		3 Hp @ 240 V
CCP2B-3-30CF	3	600 Vac	_ 1 10 00	TCF30RN			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,		FCF35RN, FCF40RN	40	200 kA AC 100 kA DC  60  70  90	3 Hp @ 240 V
CCP2B-3-40CF	3	600 Vac	_ 1 to 40	TCF40RN					7.5 Hp @ 240 V 20 Hp @ 480 V 10 Hp @ 600 V
CCP2B-1-50CF	1	347 Vac, 125 Vdc*	_ _ 1 to 50		TCF45, TCF50  TCF60  TCF70	FCF45RN, FCF50RN  FCF60RN  FCF70RN  FCF80RN, FCF90RN	50 60 70		3.0 Hp @ 120 V
CCP2B-2-50CF	2	600 Vac, 125 Vdc*		TCF45RN,					5 Hp @ 240 V
CCP2B-3-50CF	3	600 Vac		70 TCF70RN  TCF90RN					7.5 Hp @ 240 V 20 Hp @ 480 V 10 Hp @ 600 V
CCP2B-1-60CF	1	347 Vac, 125 Vdc*							3.0 Hp @ 120 V
CCP2B-2-60CF	2	600 Vac, 125 Vdc*	- 1 to 60						7.5 Hp @ 240 V
CCP2B-3-60CF	3	600 Vac	_ 1 to 60						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						7.5 Hp @ 240 V
CCP2B-3-70CF	3	600 Vac	1 to 70						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,	1 to 90 1 to 100						10 Hp @ 240 V
CCP2B-3-90CF	3	125 Vdc** 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**			TCF100		100		10 Hp @ 240 V
CCP2B-3-100CF	3	600 Vac		. 5. 7501114	10.100		100		20 Hp @ 240 V 50 Hp @ 480 V 40 Hp @ 600 V

<sup>1</sup> 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.

<sup>11</sup> Not for use with motions.

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.

111 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.

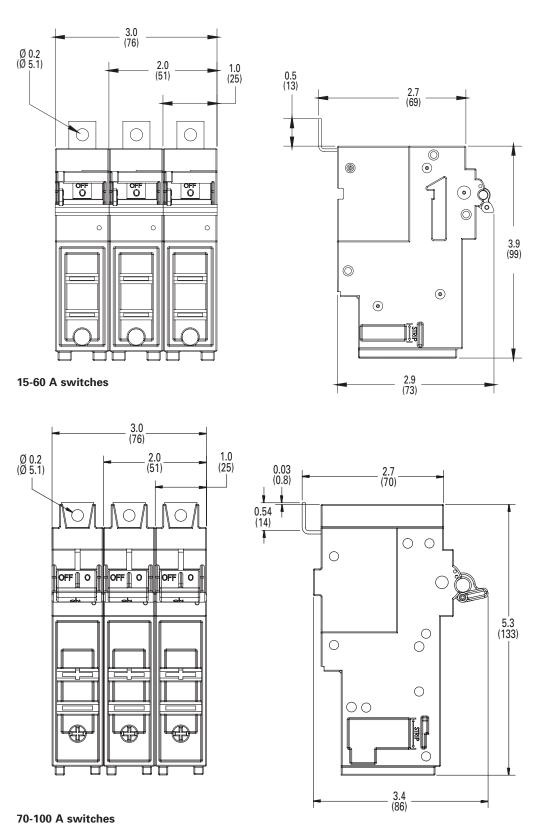
<sup>125</sup> Vdc for installed fuse amp ratings up to 80 A, 24 Vdc for installed fuse amp ratings from 90 to 100 A.

# 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	Single	2.26 (20)
	6-8	Stranded, Class B/C		3.39 (30)
		Stranded, Class K	Dual	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	— Stranded, UL ferrule, Class B/C	Single	— 3.39 (30)
	6-18	— Stranded, OL lendle, Class b/C	Twin <sup>†</sup>	
	4-18	— Stranded, UL ferrule, Class K	Single	— 2.82 (25)
	6-18	— Stranded, OL Terrule, Class K	Twin <sup>†</sup>	2.82 (25)
70 to 100 A	switches			
	12-18	_		2.26 (20)
	10	_ _ _ Stranded, Class B to K	Single	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		Single	2.26 (20)
	10			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		IVVIIII	2.82 (25)
	10-18	— Solid	Single	2.26 (20)
	10-18	— 3011u	Dual	2.26 (20)
	8-18		Single	2.26 (20)
	1-6	Class K	Sirigle	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)

 $<sup>\</sup>ensuremath{^{\dagger}}$  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		Optimal	Code	Heavy
	size	Motor FLA	protection	max	start*
Voltage	(Hp)	(amps)	(amps)	(amps)	(amps)
	0.167	4.4	10	10	10
	0.25	5.8	10	15	15
	0.333	7.2	15	15	15
	0.5	9.8	15	20	20
115 Vac, 1-Phase	0.75	13.8	25	25	30
115 vac, 1-riiase	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
208 Vac, 3-Phase	0.75	3.5	6	10	10
	1	4.6	10	10	10
	1.5	6.6	10	15	15
	2	7.5	15	15	15
	3	10.6	17.5	20	20
	5	16.7	25	30	35
	7.5	24.2	40	45	50
	20**	59.4	90	N/A	N/A
	-			,	···

Voltage	Motor size (Hp)	Motor FLA (amps)	Optimal protection (amps)	Code max (amps)	Heavy start* (amps
	0.5	2.2	6	6	6
-	0.75	3.2	6	6	6
<del>-</del>	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
<del>-</del>	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
<del>-</del>	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.

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Eaton 1000 Eaton Boulevard Cleveland, OH 44122 Eaton.com

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

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