

# Low-Peak CUBEFuse

Finger-Safe, Dual-Element, Time-Delay Class CF Fuse, 1-100A, 600Vac/300Vdc



**Catalog Symbols:** TCF\_ Indicating fuse (6-100A)

TCF\_RN Non-indicating fuse (1-100A)

**Dual-Element, Time-Delay Fuse:** 10 Seconds Minimum Operating Time at 500% Rated Current

**Ratings:**

**Volts** –600Vac/300Vdc

**Amps** –1 to 100A

- IR –300kA RMS Sym. (UL)
- 200kA RMS Sym. (CSA)
- 100kA DC (UL & CSA)

**Agency Information:**

- UL Listed Fuse: Guide JFHR, File E4273
- CSA Certified Fuse: Class 1422- 02, File 53787
- CE compliance for the European Union low voltage directive
- RoHS Compliant

**Other Ratings/Specifications:**

**Watts Loss at rated current:** TCF30: 3.99W

TCF60: 6.23W

TCF100: 9.51W

**Operating and Storage Temperature Range:** -40 to 80°C

**Material Specifications:**

- Case: Glass filled PES (Polyethersulfone)
- Terminals: Copper alloy
- Terminal plating: Electroless tin
- Indicator lens: PES (Polyethersulfone) (indicating version only)
- Indicator: Energetic chemical

**Catalog Numbers (amp rating)**

Indicating CUBEFuse					
TCF6	TCF10	TCF15	TCF17-1/2	TCF20	TCF25
TCF30	TCF35	TCF40	TCF45	TCF50	TCF60
TCF70	TCF80	TCF90	TCF100		
Non-Indicating CUBEFuse					
TCF1RN	TCF3RN	TCF6RN	TCF10RN	TCF15RN	TCF17-1/2RN
TCF20RN	TCF25RN	TCF30RN	TCF35RN	TCF40RN	TCF45RN
TCF50RN	TCF60RN	TCF70RN	TCF80RN	TCF90RN	TCF100RN

**Carton Quantity and Weight**

Amp Rating	Carton Qty.	Weight Per Carton	
		lbs	kg
TCF1-30A	12	1.39	0.63
TCF35-60A	12	1.42	0.65
TCF70-100A	6	1.74	0.79

**Features and Product Benefits**

- The world's first finger-safe power fuse system.
- Smallest footprint of any class fuse including Class J, CC, T and RK.
- Meets Class CF and Class J time-delay electrical performance requirements.
- Available with and without open fuse indication.
- The indicating version features *easyID™* open fuse technology for faster troubleshooting and reduced downtime.
- Faster response to damaging faults to help reduce destructive thermal and magnetic forces.
- True dual-element fuse construction with a minimum of 10 seconds time-delay at 500% of rating.
- Long time-delay minimizes nuisance circuit openings due to temporary overloads and transient surges.
- High interrupting rating to safely interrupt faults up to 300kA.
- No venting of arc or molten metal and gases during opening.
- Robust cycling and inrush current withstand.
- Low let-through currents under fault conditions.
- Provides Type 2 “No Damage” protection for IEC motors starters when properly sized.
- Easy selective coordination with any other Cooper Bussmann Low-Peak Class CC, L, J and RK1 fuse with simple 2:1 amp ration between upstream and downstream fuses.

**CUBEFuse Holders, Disconnects and Panelboards**

The CUBEfuse is used in the following Cooper Bussmann products.



At 100, 60 & 30A CUBEFuse holders can be dovetail together for the smallest footprint possible of any Class J fuse solution. See CUBEFuse holder Data Sheet 9007

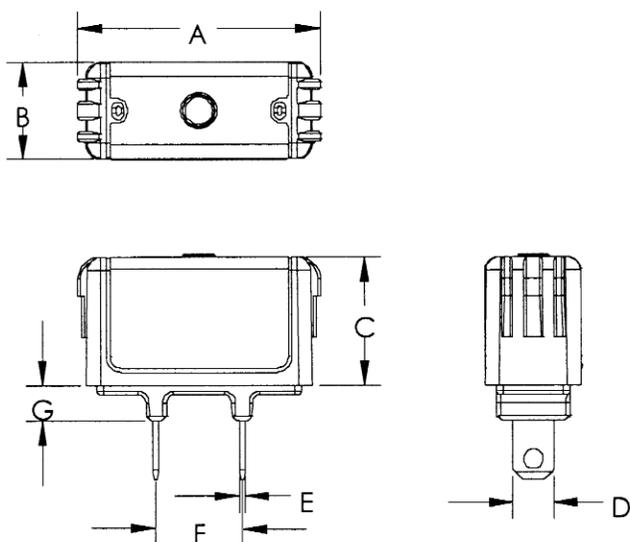


The DIN-Rail mounted 1-, 2- and 3-Pole CCP\_CF comes in 30, 60 and 100A versions. See Data Sheet 1157



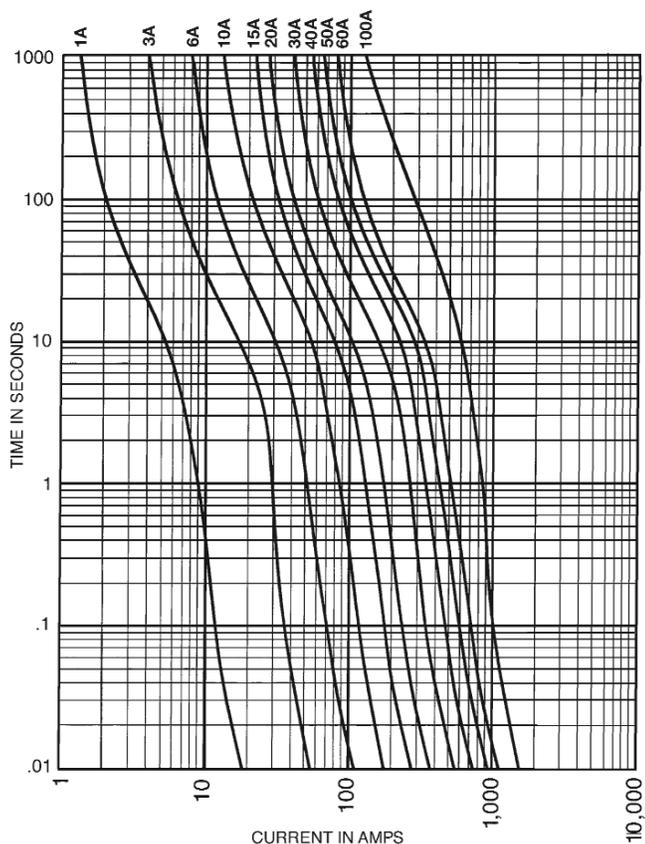
1-, 2- & 3-pole CCPB is an ampacity rejecting branch disconnect for the Quik-Spec™ Coordination Panelboard that uses the CUBEFuse up to 100A. See Data Sheet 1160

TCF\_ and TCF\_RN Dimensions – in (mm)

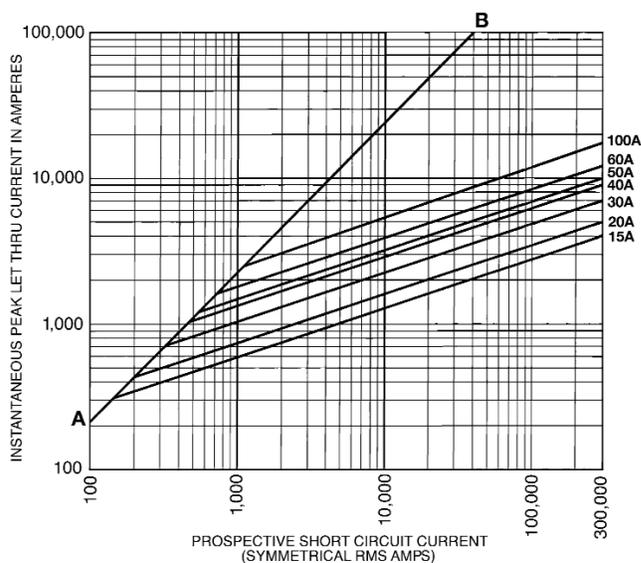


Fuse Amps	Dimensions - in (mm)						
	A	B	C	D	E	F	G
1-15	1.88 (47.75)	0.75 (19.05)	1.00 (25.40)	0.23 (5.84)	0.04 (1.02)	0.63 (15.93)	0.28 (7.11)
17 ½	1.88 (47.75)	0.75 (19.05)	1.00 (25.40)	0.31 (7.87)	0.04 (1.02)	0.63 (15.93)	0.28 (7.11)
20	1.88 (47.75)	0.75 (19.05)	1.00 (25.40)	0.31 (7.87)	0.04 (1.02)	0.63 (15.93)	0.28 (7.11)
25-30	1.88 (47.75)	0.75 (19.05)	1.00 (25.40)	0.31 (7.87)	0.04 (1.02)	0.63 (15.93)	0.28 (7.11)
35-40	2.13 (54.10)	1.00 (25.40)	1.13 (28.58)	0.36 (9.10)	0.04 (1.02)	0.63 (15.93)	0.38 (9.65)
45-50	2.13 (54.10)	1.00 (25.40)	1.13 (28.58)	0.44 (11.13)	0.04 (1.02)	0.63 (15.93)	0.38 (9.65)
60	2.13 (54.10)	1.00 (25.40)	1.13 (28.58)	0.44 (11.13)	0.04 (1.02)	0.63 (15.93)	0.38 (9.65)
70	3.01 (76.45)	1.00 (25.40)	1.26 (32.00)	0.49 (12.45)	0.06 (1.60)	0.58 (14.78)	0.38 (9.65)
80-90	3.01 (76.45)	1.00 (25.40)	1.26 (32.00)	0.49 (12.45)	0.06 (1.60)	0.58 (14.78)	0.38 (9.65)
100	3.01 (76.45)	1.00 (25.40)	1.26 (32.00)	0.57 (14.48)	0.06 (1.60)	0.58 (14.78)	0.38 (9.65)

Time-Current Characteristic Curves—Average Melt



Current Limitation Curves



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

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Eaton:](#)

[TCF10](#) [TCF6](#) [TCF45](#) [TCF50](#) [TCF70](#) [TCF80](#) [TCF40](#) [TCF30](#) [TCF1RN](#) [TCF3RN](#) [TCF20](#) [TCF90](#) [TCF17-1/2](#)  
[TCF60](#) [TCF100](#) [TCF25](#) [TCF15](#) [TCF35](#)