

UL Class CF branch circuit time-delay CUBEFuse



Up to 30 A 35 to 60 A 70 to 100 A

Catalog symbols

- TCF_ (indicating fuse, 6-100 A)
- TCF_RN (non-indicating fuse, 1-100 A)

Description

The Bussmann™ series Low-Peak™ CUBEFuse™ is a UL® Class CF current-limiting, dual-element, time-delay branch circuit fuse with Class J electrical performance. Available in indicating and non-indicating versions, this finger-safe fuse has a very compact, space-saving size and is easily applied using the CUBEFuse holder, UL 98 Compact Circuit Protector switch or Compact Circuit Protector Base (CCPB — used in the Quik-Spec™ Coordination Panelboard).

Ratings

- Volts
 - 600 Vac
 - 300 Vdc
- Amps
 - 6-100 A (indicating)
 - 1-100 A (non-indicating)
- Interrupting rating
 - 300 kA RMS Sym. (UL)
 - 200 kA RMS Sym. (CSA)
 - 100 kA DC (UL and CSA)

Electrical characteristics

- 10 seconds minimum operating time at 500% rated current

Agency information

- UL Listed Class CF fuse: Guide JDDZ, File E4273
- CSA® Certified fuse: Class 1422- 02, File 53787
- CE
- RoHS compliant

Watts loss at rated current

Fuse amps	Watts
30	3.99
60	6.23
100	9.51

Operating and storage temperature range

- -40 to 80°C (-40°F to 176°F)

Catalog numbers (amps)

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



The finger-safe CUBEFuse in the 35 mm DIN-Rail or panel-mount CUBEFuse holder (TCFH_N). Holders are available in 30, 60 and 100 A ratings that dovetail together to create the desired number of poles. Each holder will accept a CUBEFuse amp rating up to the holder's amp rating (e.g. a 60 A holder will accept any CUBEFuse up to 60 amps).

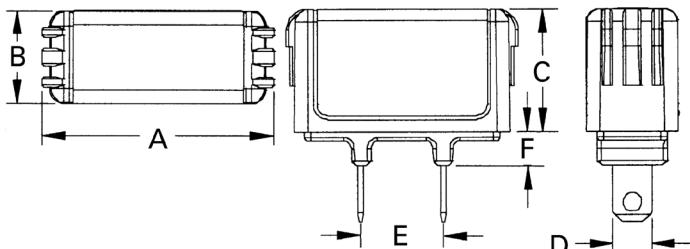
Features

- The world's first finger-safe power fuse system
- Smallest installed footprint of any UL Class J, RK or T fuse solution
- Class CF with Class J time-delay electrical performance
- Available in indicating and non-indicating versions
- The indicating version features local *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 10 seconds time-delay at 500% of rating
- Long time-delay minimizes nuisance openings caused by temporary overloads and transient surges
- High 300 kA interrupting rating safely interrupts virtually any fault
- 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 motor starters when properly sized
- Easy selective coordination with any other Bussmann series Low-Peak Class CC, J, L or RK1 fuse with simple 2:1 amp ratio between upstream and downstream fuses.

Carton quantity and weight

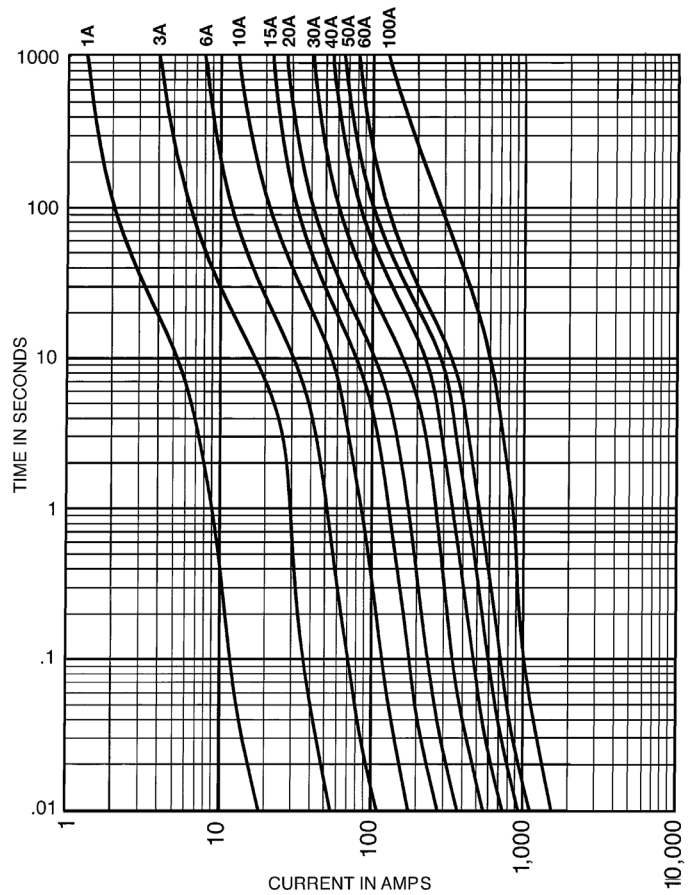
Amp range	Carton qty.	Weight per carton lbs (kg)
Up to 30	12	1.39 (0.63)
35-60	12	1.42 (0.64)
70-100	6	1.74 (0.79)

Dimensions – in (mm)

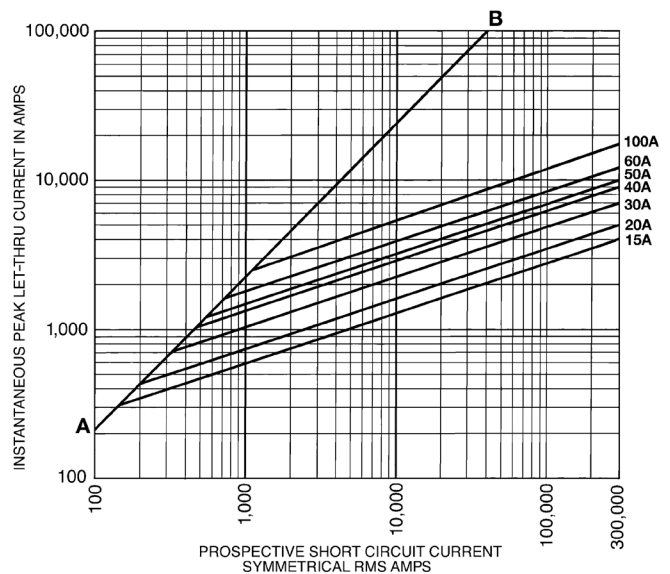


Fuse amps	A	B	C	D	E	F	G
Up to 15				0.23 (5.8)			
17-1/2	1.88 (47.7)	0.75 (19.0)	1.00 (25.4)	0.31 (7.9)			0.28 (7.1)
20					0.04 (1.0)	0.63 (15.9)	
25-30				0.36 (9.1)			
35-40	2.13 (54.1)						0.38 (9.6)
45-50	2.13 (54.1)		1.13 (28.6)	0.44			
60		1.00 (25.4)					
70				0.49 (12.4)			
80-90	3.01 (76.4)		1.26 (32.0)	0.06 (1.6)	0.58 (14.8)		0.38 (9.6)
100				0.57 (14.4)			

Time-current characteristics – average melt



Current limitation curves



CUBEFuse holders, UL 98 disconnect switches and fusible panelboards

The CUBEFuse is used in the following Bussmann series products:



CUBEFuse 30, 60 and 100 A 35 mm DIN-Rail or panel mounted holders can be dovetail together for the smallest footprint possible of any Class J fuse solution (see data sheet no 9007).



The DIN-Rail mounted 1-, 2- and 3-pole Compact Circuit Protector (CCP_CF) is a UL 98 horsepower rated disconnect switch available in 30, 60 and 100 A versions. Each CCP will accept a fuse amp rating equal to or less than its rating (e.g., a 60 A CCP will accept any CUBEFuse up to 60 A). Accessories include auxiliary contacts and PLC fuse monitor (see data sheet no. 1157).



30 amp CUBEFuse holder accepts any CUBEFuse up to 30 A.



60 amp CUBEFuse holder accepts any CUBEFuse up to 60 A.



100 amp CUBEFuse holder accepts any CUBEFuse up to 100 A.



The 1-, 2- and 3-pole Compact Circuit Protector Base (CCPB) is a UL 98 horsepower rated branch circuit disconnect switches. Primarily used in the Quik-Spec Coordination Panelboard, it's available in ratings up to 100 A. The CCPB has amp rejecting breaks at 15, 20, 30, 40, 50, 60, 70, 90 and 100 amps that coincide with standard conductor ampacities and helps prevent overfusing by rejecting any CUBEFuse amp rating greater than that of the switch.

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