

# High Speed Fuses

## Square body US style — 1000V (IEC): 50-1400A

### 1000V (IEC) 50-1400A

#### Specifications

**Description:** Square body US style high speed fuses.

**Dimensions:** See dimensions illustration.

#### Ratings:

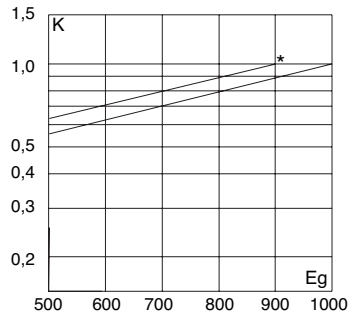
- Volts: — 1000Vac.
- Amps: — 50-1400A
- IR: — 150kA RMS Sym.

**Agency Information:** CE, Designed and tested to IEC 60269: Part 4, UL Recognized.

#### Electrical Characteristics

##### Total clearing $I^2t$

The total clearing  $I^2t$  at rated voltage and at power factor of 15% are given in the electrical characteristics. For other voltages, the clearing  $I^2t$  is found by multiplying by correction factor, K, given as a function of applied working voltage,  $E_g$ , (rms).

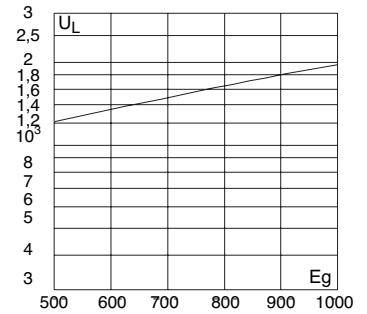


\*Rated voltage 900V



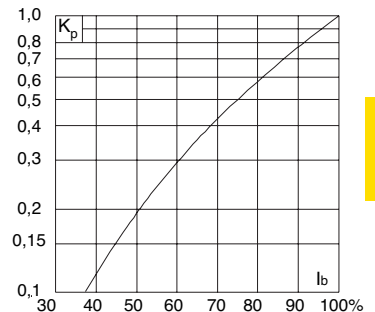
#### Arc Voltage

This curve gives the peak arc voltage,  $U_L$ , which may appear across the fuse during its operation as a function of the applied working voltage  $E_g$ , (rms) at a power factor of 15%.



#### Power Losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the power losses at load currents lower than the rated current. The correction factor,  $K_p$ , is given as a function of the RMS load current,  $I_b$ , in % of the rated current.



#### Features and Benefits

- Excellent dc performance
- Low arc voltage and low energy let-through ( $I^2t$ )
- Low watts loss
- Superior cycling capability

#### Typical Applications

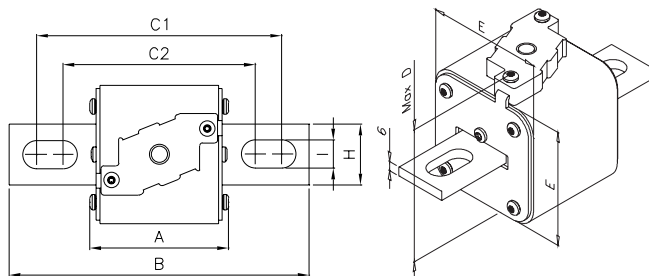
- DC common bus
- DC drives
- Power converters/rectifiers
- Reduced voltage starters

#### Dimensions (mm)

Type -FKE/115

Size	B	C1	C2	D	E	H	I
1*FKE/115	156	130	101	59	45	20	10
1FKE/115	160	127	102	69	53	25	14
2FKE/115	160	127	102	77	61	25	14
3FKE/115	159	128	101	92	76	36	16

1mm = 0.0394" / 1" = 25.4mm

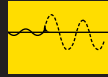


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Catalog Numbers

Catalog Numbers		Electrical Characteristics			
-FKE/115 Type K Indicator for Micro	Size	Rated Current RMS-Amps	I <sup>2</sup> t (A <sup>2</sup> Sec)		Watts Loss
			Pre-arc	Clearing at 1000V	
170M3531	1*	50	135	815	20
170M3532		63	215	1300	25
170M3533		80	460	2750	30
170M3534		100	860	5100	35
170M3535		125	1450	8600	40
170M3536		160	2850	17500	45
170M3537		200	4950	29500	48
170M3538		250	9550	57000	50
170M3539		315	21500	130000	60
170M3540		350	29000	175000	65
170M3541		400	42000	250000	70
170M4531	1	160	2200	13500	40
170M4532		200	4150	24500	45
170M4533		250	7750	46000	52
170M4534		315	16500	98500	60
170M4535		350	21500	130000	65
170M4536		400	31000	185000	70
170M4537		450	44500	265000	80
170M4538		500	63000	375000	85
170M4539		550	84500	500000	90
170M4540		630	125000	755000	98
170M5531	2	250	6750	40000	65
170M5532		315	13500	81500	75
170M5533		350	16500	99000	80
170M5534		400	26000	155000	85
170M5535		450	35500	210000	90
170M5536		500	49500	295000	95
170M5537		550	66000	390000	100
170M5538		630	93500	555000	110
170M5539		700	130000	770000	115
170M5540		800	195000	1200000	125
170M8531	3	315	9200	54500	90
170M8532		350	13000	77500	95
170M8533		400	19000	115000	105
170M8534		450	27000	160000	107
170M8535		500	37500	225000	110
170M8536		550	52000	310000	115
170M8537		630	82500	490000	120
170M8538		700	115000	700000	125
170M8539		800	170000	1050000	135
170M8540		900	250000	1500000	145
170M8541		1000	340000	2050000	150
170M8542		1100	460000	2750000	155
170M8543		1250	575000	3400000	175
170M8544*		1400	795000	4200000*	185

\* Rated voltage 900V.  
 • Watts loss provided at rated current.  
 • Microswitch ordered separately. See accessories on page 179-180.



Did You Know?

Cooper Bussmann Fuse Installation Enables Food Processor To Meet Manufacturing Demand



When one of America's largest retailers requested a special packaging size from Beech-Nut baby foods, the company developed a new packaging system with motors

and drives having state-of-the-art overcurrent protection.

The maintenance staff required a fuse system that was DIN-rail mountable for ease of installation with open fuse indication and a finger-safe design. And, the most important need was to use current-limiting overcurrent protection to minimize the arc-flash hazard to plant personnel in accordance with NFPA 70E guidance. The plant's associate electrical engineer chose the Cooper Bussmann CUBEFuse™ compact design because it would save time laying out and building the sub panel. He was looking for components that were easy to wire and would be part of a sub panel system that would be easy to maintain over time.

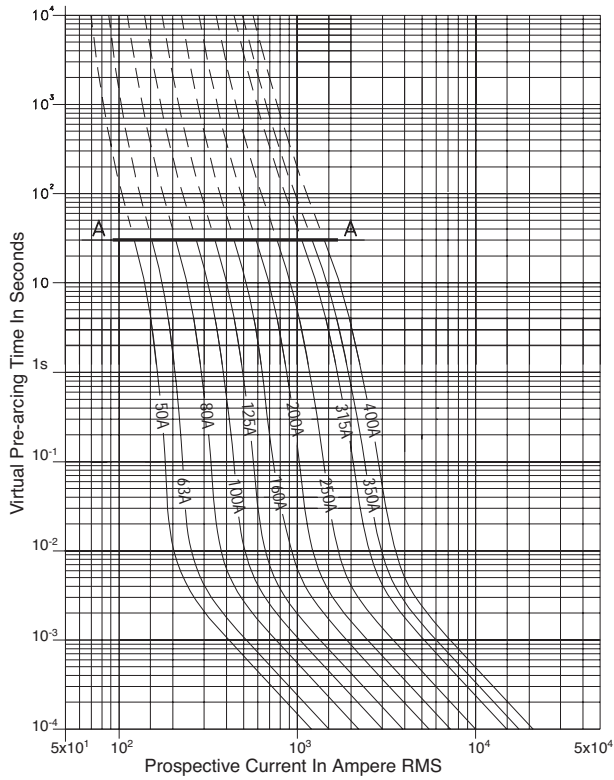
The fuse panel utilizes 39 three-pole, 10A CUBEFuse sets. The fuse holders snap onto an easy to install 35mm DIN rail versus time-consuming drilling and tapping mounting holes for all the fuse holders. The panel has a total of 117 fuse installations with expansion room up to 147 units.

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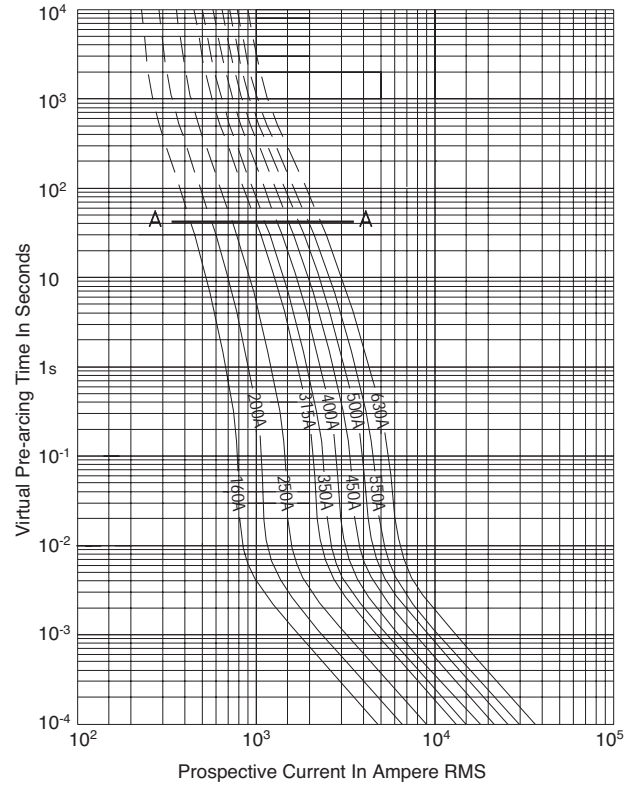
### Size 1\* — 50-400A: 1000V

Time-Current Curve



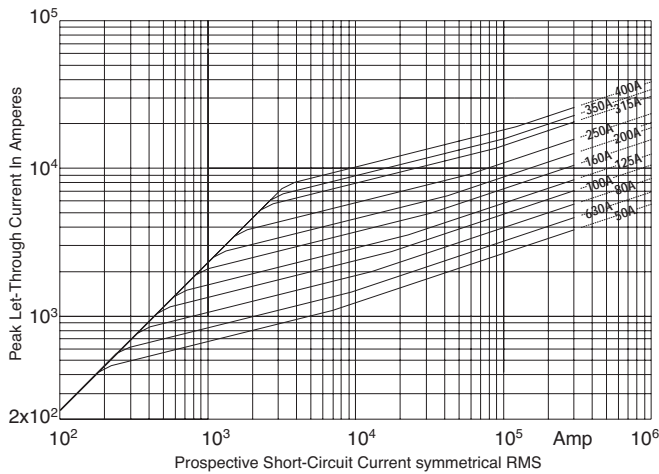
### Size 1 — 160-630A: 1000V

Time-Current Curve

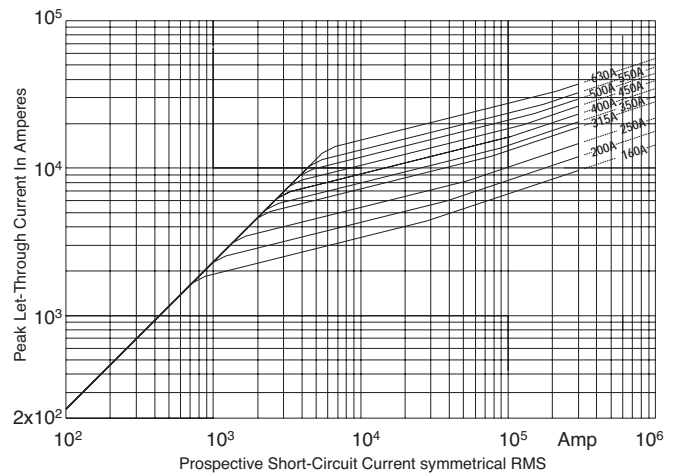


High Speed  
Fuses

### Peak Let-Through Curve



### Peak Let-Through Curve



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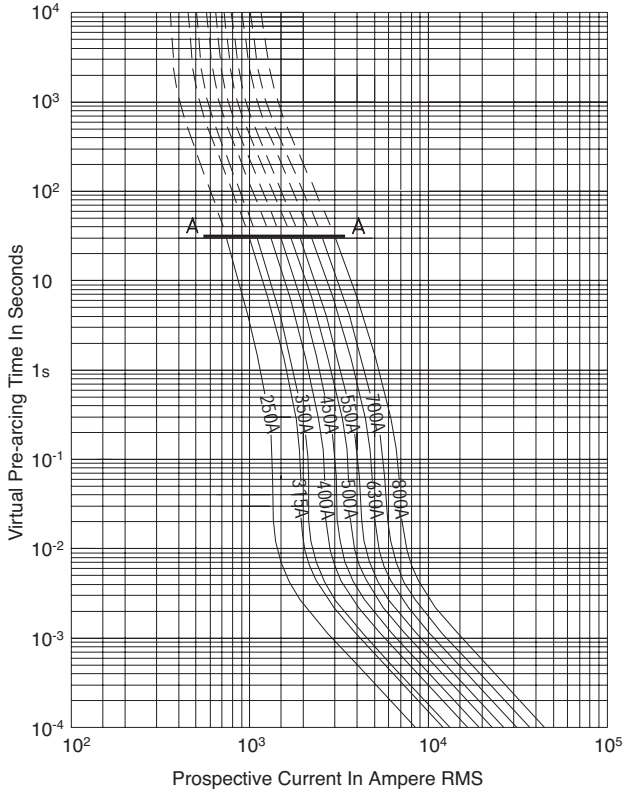
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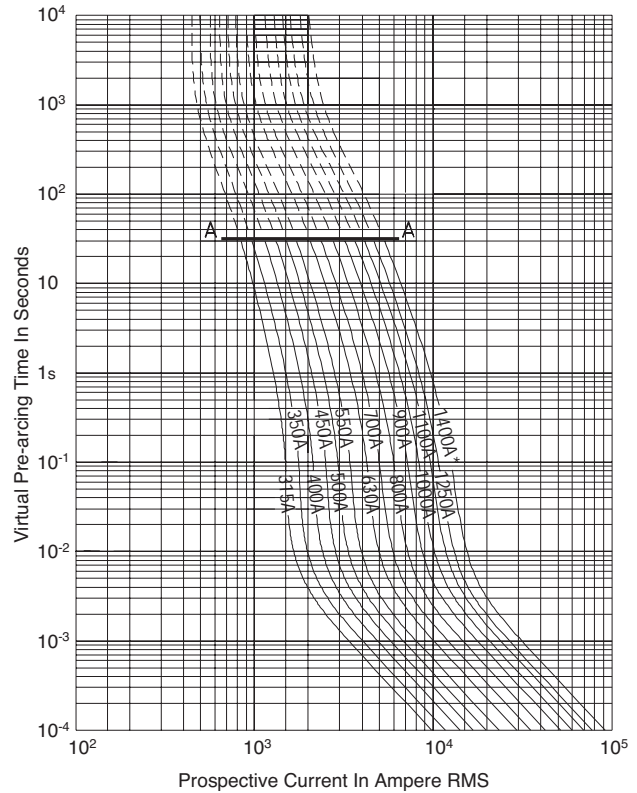
### Size 2 — 250-800A: 1000V

Time-Current Curve

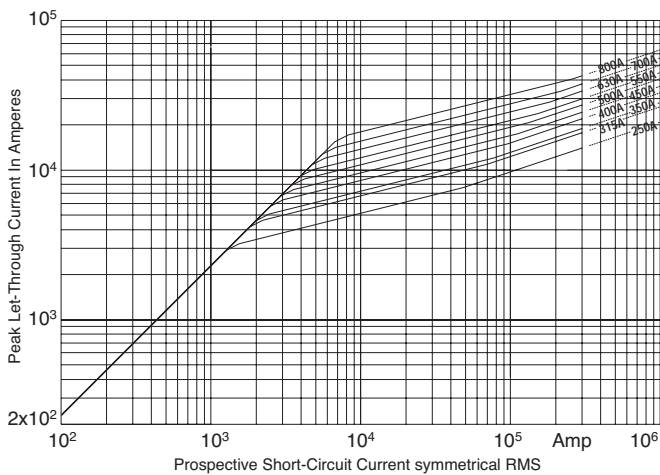


### Size 3 — 315-1400A: 1000V

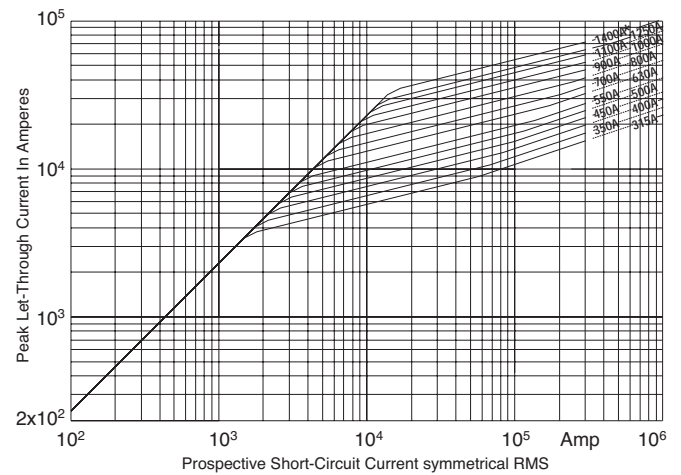
Time-Current Curve



### Peak Let-Through Curve



### Peak Let-Through Curve



\* 1400A fuses are derated to 900V

Data Sheet: 17058568

Data Sheet: 17058570