

High Speed Fuses

Square body US style — 1250V/1300V (IEC/UL): 50-1400A

1250V/1300V (IEC/UL) 50-1400A

Specifications

Description: Square body US style high speed fuses.

Dimensions: See dimensions illustration.

Ratings:

Volts: — 1250Vac (IEC)
— 1300Vac (UL)

Amps: — 50-1400A

IR: — 100kA RMS Sym.

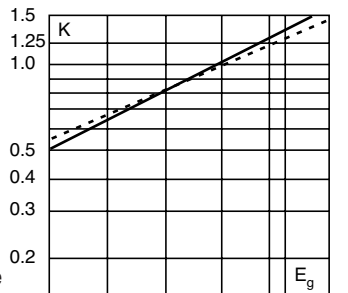
Agency Information: CE, Designed and tested to IEC 60269: Part 4, UL Recognized. Consult Cooper Bussmann for UL Recognition/CSA Component Acceptance status.



Electrical Characteristics

Total Clearing I²t

The total clearing I²t at rated voltage and at power factor of 15% are given in the electrical characteristics. For other voltages, the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltage, E_g, (rms).



Dashed lines (- - - -) apply to the following amperages:

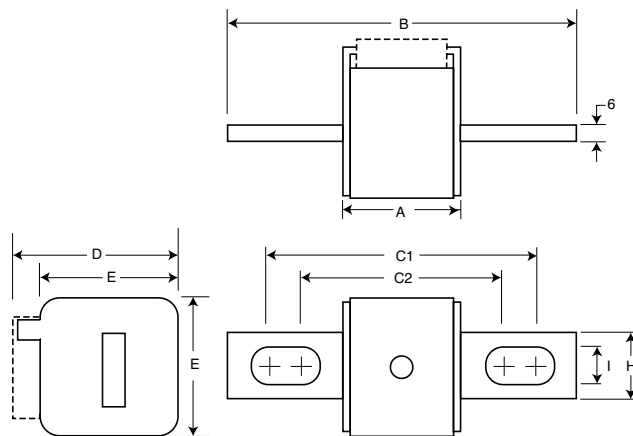
Size	Amps.
1*	400A
1	500-630A
2	630-1000A
3	800-1400A

Dimensions (mm)

Type -FU/115, -FKE/115

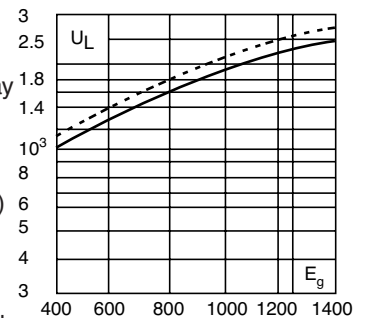
Size	B	C1	C2	D	E	H	I
1*	156	130	101	59	45	20	10
1	160	127	102	69	53	25	14
2	160	127	102	77	61	25	14
3	159	128	101	92	76	36	16

1mm = 0.0394" / 1" = 25.4mm



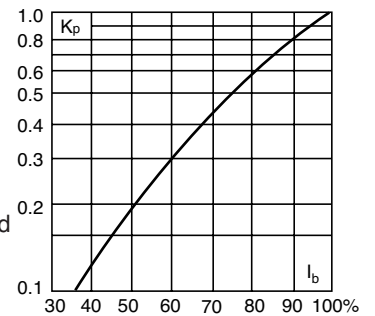
Arc Voltage

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 (I²t)
- Low watts loss
- Superior cycling capability

Typical Applications

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

High Speed Fuses

Square body US style — 1250V/1300V (IEC/UL): 50-1400A

Catalog Numbers

Catalog Numbers		Size	Electrical Characteristics				
-FU/115 Without Indicator	-FKE/115 Type K Indicator for Micro		Rated Current RMS-Amps	I ² t (A ² Sec)			Watts Loss
				Pre-arc	Clearing at 1000V	Clearing at 1250V	
170M3688	170M3738	1*	50	135	815	1100	15
170M3689	170M3739		63	215	1300	1750	20
170M3690	170M3740		80	420	2500	3350	25
170M3691	170M3741		100	750	4450	5950	30
170M3692	170M3742		125	1450	9000	11500	35
170M3693	170M3743		160	2600	16000	21000	40
170M3694	170M3744		200	5150	31000	41000	45
170M3695	170M3745		250	9200	54500	73000	55
170M3696	170M3746		315	18500	115000	150000	60
170M3697	170M3747		350	27000	165000	220000	65
170M4688	170M4738	1	160	1900	11500	15500	45
170M4689	170M4739		200	3800	22500	30000	50
170M4690	170M4740		250	7750	46000	61500	60
170M4691	170M4741		315	15000	90000	120000	65
170M4692	170M4742		350	20000	125000	165000	70
170M4693	170M4743		400	29500	175000	235000	75
170M4694	170M4744		450	42000	250000	335000	80
170M4695	170M4745		†500	69500	340000		85
170M4696	170M4746		†550	95000	465000		95
170M4697	170M4747		†630	130000	660000		100
170M5688	170M5738	2	250	6500	38500	51500	65
170M5689	170M5739		280	9350	55500	74500	70
170M5690	170M5740		315	13000	77500	105000	75
170M5691	170M5741		350	16500	97500	135000	80
170M5692	170M5742		400	23000	140000	180000	85
170M5693	170M5743		450	34000	205000	270000	90
170M5694	170M5744		500	48000	285000	380000	95
170M5695	170M5745		550	62000	370000	495000	100
170M5696	170M5746		630	115000	575000	730000	110
170M5697	170M5747		†700	160000	795000		115
170M5698	170M5748	†800	245000	1200000		120	
170M5699	170M5749	†900	360000	1750000		125	
170M5700	170M5750	†1000	480000	2350000		135	
170M6688	170M6738	3	315	9500	58000	77500	185
170M6689	170M6739		350	13500	81500	110000	90
170M6690	170M6740		400	19500	120000	160000	95
170M6691	170M6741		450	31000	185000	245000	100
170M6692	170M6742		500	39000	235000	310000	105
170M6693	170M6743		550	55000	325000	435000	110
170M6694	170M6744		630	83500	495000	665000	115
170M6695	170M6745		700	115000	705000	940000	120
170M6696	170M6746		800	205000	995000	1300000	125
170M6697	170M6747		900	305000	1500000	1900000	130
†170M6698	†170M6748	¥1000	450000	2150000		135	
†170M6699	†170M6749	¥1100	575000	2800000		140	
‡170M6700	‡170M6750	¥1250	810000	3950000		145	
‡170M6701	‡170M6751	¥1400	1250000	6000000		150	

†Rated voltage (IEC) 1100.

‡Rated voltage (IEC) 1000V.

¥ UL Recognition at 1000V.

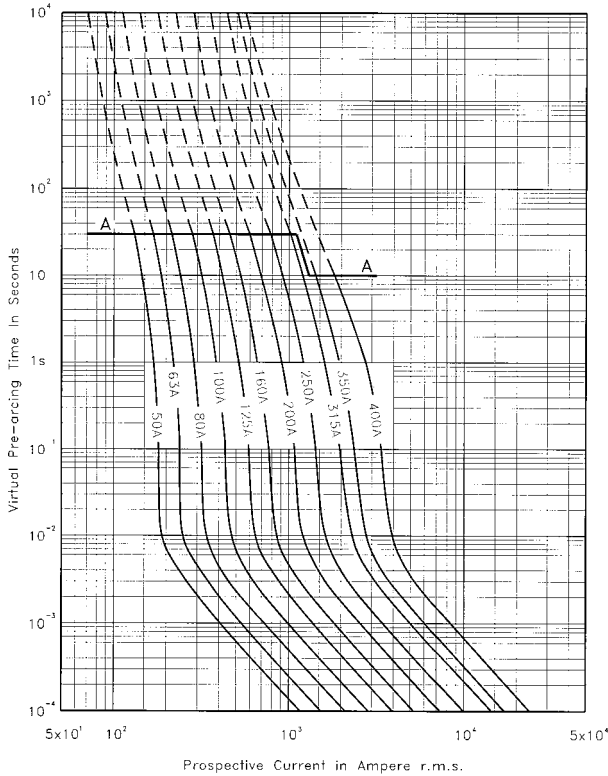
• Watts loss provided at rated current.

• Microswitch indicator ordered separately. See accessories on pages 179-180.

Square body US style — 1250V/1300V (IEC/UL): 0-1400A

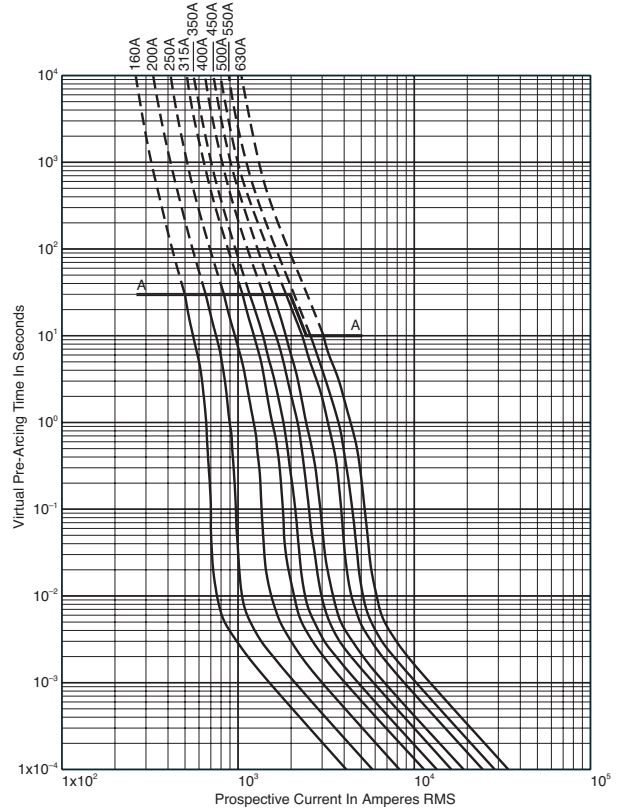
Size 1* — 50-400A:1250V

Time-Current Curve



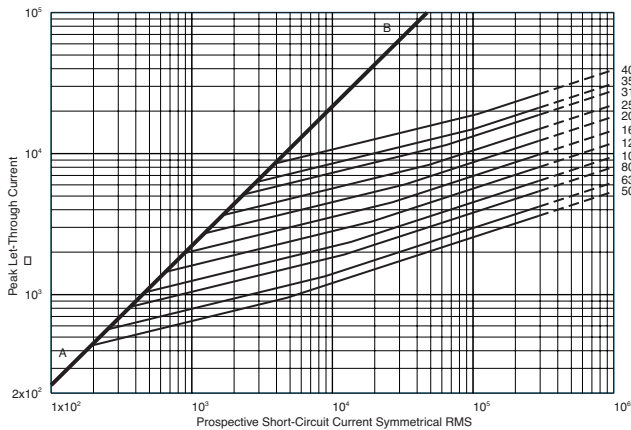
Size 1 — 160-630A: 1250V

Time-Current Curve

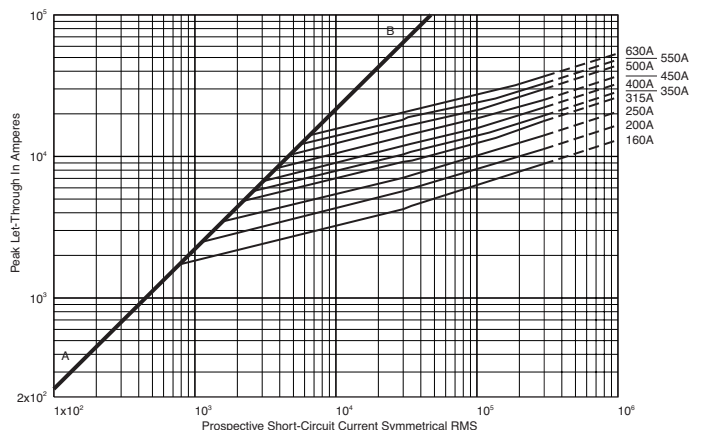


High Speed
Fuses

Peak Let-Through Curve



Peak Let-Through Curve



630A fuse is derated to 1100V (IEC).

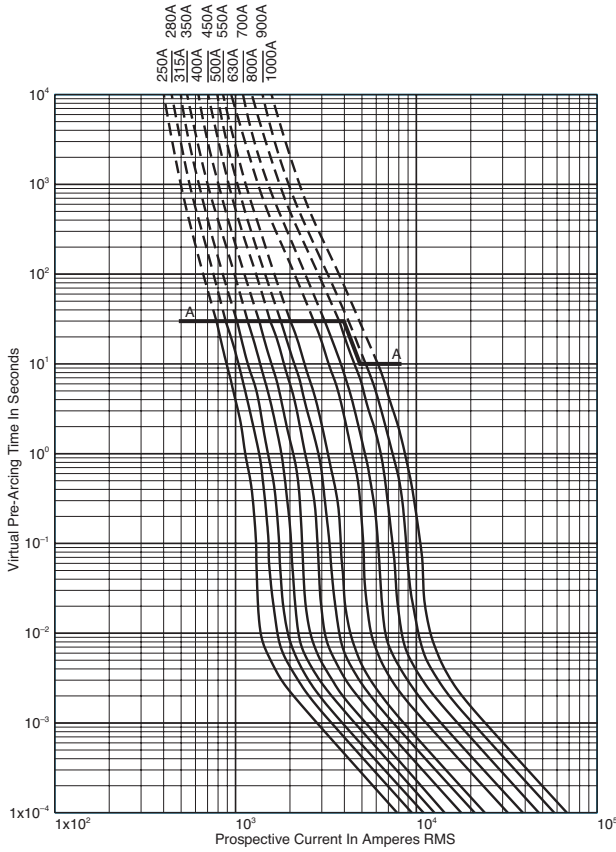
Data Sheet: 17056630

Data Sheet: 17056632

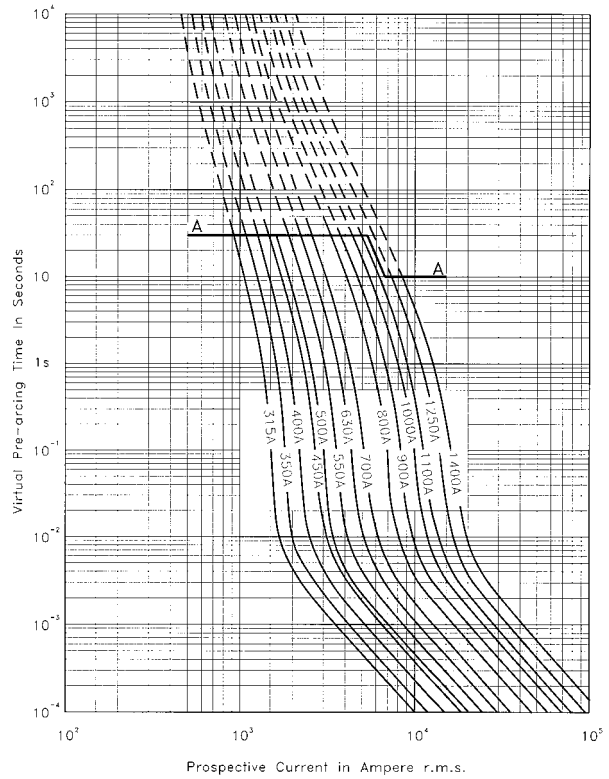
High Speed Fuses

Square body US style — 1250V/1300V (IEC/UL): 0-1400A

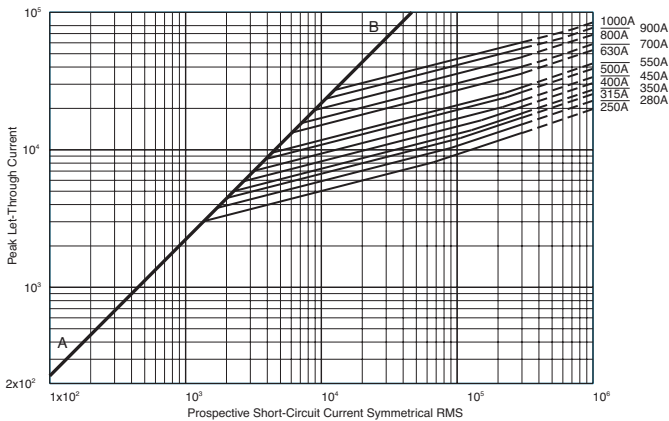
Size 2 — 250-1000A: 1250V
Time-Current Curve



Size 3 — 315-1400A: 1250V
Time-Current Curve

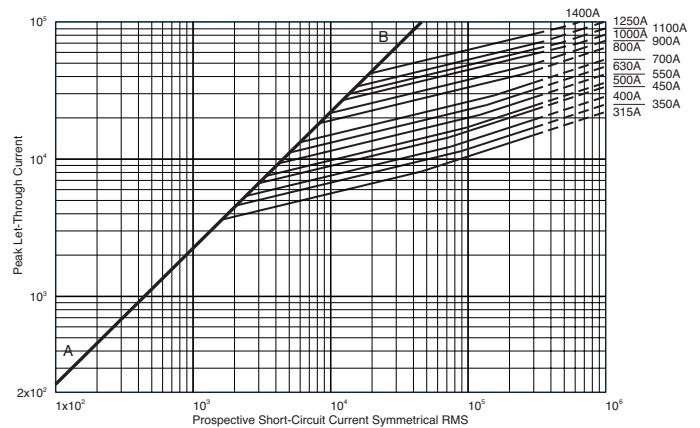


Peak Let-Through Curve



900-1000A fuses are derated to 1100V (IEC).

Peak Let-Through Curve



1250-1400A fuses are derated to 1100V (IEC).

Mouser Electronics

Authorized Distributor

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

Eaton:

<u>170M3688</u>	<u>170M3689</u>	<u>170M3690</u>	<u>170M3691</u>	<u>170M3692</u>	<u>170M3693</u>	<u>170M3694</u>	<u>170M3695</u>	<u>170M3696</u>	<u>170M3697</u>
<u>170M3738</u>	<u>170M3739</u>	<u>170M3740</u>	<u>170M3741</u>	<u>170M3742</u>	<u>170M3743</u>	<u>170M3744</u>	<u>170M3745</u>	<u>170M3746</u>	<u>170M3747</u>
<u>170M4688</u>	<u>170M4689</u>	<u>170M4690</u>	<u>170M4691</u>	<u>170M4692</u>	<u>170M4693</u>	<u>170M4694</u>	<u>170M4695</u>	<u>170M4696</u>	<u>170M4697</u>
<u>170M4738</u>	<u>170M4739</u>	<u>170M4740</u>	<u>170M4741</u>	<u>170M4742</u>	<u>170M4743</u>	<u>170M4744</u>	<u>170M4745</u>	<u>170M4746</u>	<u>170M4747</u>
<u>170M5688</u>	<u>170M5689</u>	<u>170M5690</u>	<u>170M5691</u>	<u>170M5692</u>	<u>170M5693</u>	<u>170M5694</u>	<u>170M5695</u>	<u>170M5696</u>	<u>170M5697</u>
<u>170M5698</u>	<u>170M5699</u>	<u>170M5700</u>	<u>170M5738</u>	<u>170M5739</u>	<u>170M5740</u>	<u>170M5741</u>	<u>170M5742</u>	<u>170M5743</u>	<u>170M5744</u>
<u>170M5745</u>	<u>170M5746</u>	<u>170M5747</u>	<u>170M5748</u>	<u>170M5749</u>	<u>170M5750</u>	<u>170M6688</u>	<u>170M6689</u>	<u>170M6690</u>	<u>170M6691</u>
<u>170M6693</u>	<u>170M6694</u>	<u>170M6695</u>	<u>170M6696</u>	<u>170M6697</u>	<u>170M6698</u>	<u>170M6699</u>	<u>170M6700</u>	<u>170M6701</u>	<u>170M6738</u>
<u>170M6739</u>	<u>170M6740</u>	<u>170M6741</u>	<u>170M6742</u>	<u>170M6743</u>	<u>170M6744</u>	<u>170M6745</u>	<u>170M6746</u>	<u>170M6747</u>	<u>170M6748</u>
<u>170M6749</u>	<u>170M6750</u>	<u>170M6751</u>							