

High Speed Fuses

Square body flush end contact — 1250V/1300V (IEC/UL): 50-1400A

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

Specifications

Description: Square body flush end contact high speed fuses.

Dimensions: See dimensions illustrations.

Ratings:

- Volts: — 1250Vac (IEC)
- 1300Vac (UL)

Amps: — 50-1400A

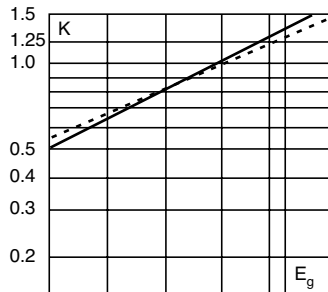
IR: — 100kA RMS Sym.

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:.

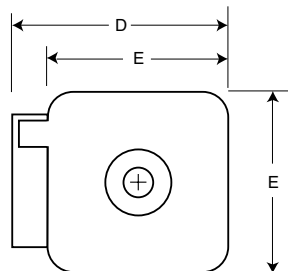
Size	Amps.
1*	400A
1	500-630A
2	630-1000A
3	800-1400A

Dimensions (mm)

Type -BKN/-, -GKN/-

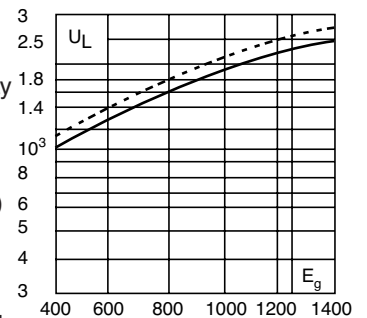
Size	Type	A	B	D	E	F	F** (in)	G	H
1*	BKN + GKN/75	74	75	59	45	M8	5/16" - 18 UNC-2B	5	Ø17
1*	BKN/80	80	81	59	45	M8		5	Ø17
1	BKN + GKN/75	74	75	69	53	M8	5/16" - 18 UNC-2B	8	Ø20
1	BKN/80	80	81	69	53	M8		8	Ø20
2	BKN + GKN/75	74	75	77	61	M10	3/8" - 16 UNC-2B	10	Ø24
2	BKN/80	80	81	77	61	M10		10	Ø24
2	BKN + GKN/90	80	91	77	61	M10	3/8" - 16 UNC-2B	10	Ø24
3	BKN + GKN/75	74	76	92	76	M12	1/2" - 13 UNC-2B	10	Ø30
3	BKN/80	81	83	92	76	M12		10	Ø30
3	BKN + GKN/90	81	91	92	76	M12	1/2" - 13 UNC-2B	10	Ø30

**Valid for fuses type -GKN/-.
1mm = 0.0394" / 1" = 25.4mm



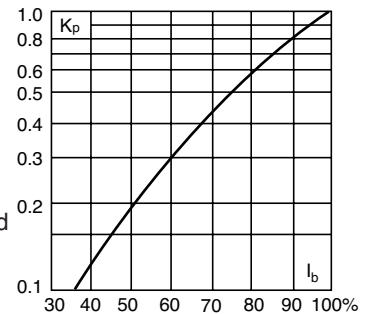
Arc Voltage

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.

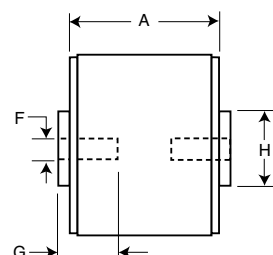
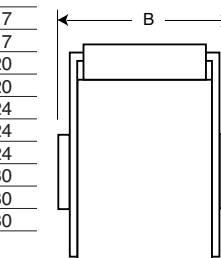


Features and Benefits

- 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



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50-1400A**

Catalog Numbers

Catalog Numbers					Electrical Characteristics					
-BKN/75 Type K Indicator for Micro	-BKN/80 Type K Indicator for Micro	-BKN/90 Type K Indicator for Micro	-GKN/75 Type K Indicator for Micro	-GKN/90 Type K Indicator for Micro	Size	Rated Current RMS- Amps	I ² t (A2 Sec)			Watts Loss
					Pre-arc		Clearing at 1000V	Clearing at 1250V		
170M3388	170M3438		170M3488		1*	50	135	815	1100	15
170M3389	170M3439		170M3489			63	215	1300	1750	20
170M3390	170M3440		170M3490			80	420	2500	3350	25
170M3391	170M3441		170M3491			100	750	4450	5950	30
170M3392	170M3442		170M3492			125	1450	9000	11500	35
170M3393	170M3443		170M3493			160	2600	16000	21000	40
170M3394	170M3444		170M3494			200	5150	31000	41000	45
170M3395	170M3445		170M3495			250	9200	54500	73000	55
170M3396	170M3446		170M3496			315	18500	115000	150000	60
170M3397	170M3447		170M3497			350	27000	165000	220000	65
	170M3448					400	53000	265000	335000	70
170M4388	170M4438		170M4488		1	160	1900	11500	15500	45
170M4389	170M4439		170M4489			200	3800	22500	30000	50
170M4390	170M4440		170M4490			250	7750	46000	61500	60
170M4391	170M4441		170M4491			315	15000	90000	120000	65
170M4392	170M4442		170M4492			350	20000	125000	165000	70
170M4393	170M4443		170M4493			400	29500	175000	235000	75
170M4394	170M4444		170M4494			450	42000	250000	335000	80
†170M4395	170M4445		†170M4495			500	69500	340000	435000	85
‡170M4396	170M4446		‡170M4496			550	95000	465000	590000	95
‡170M4397	†170M4447		‡170M4497			630	130000	660000		100
170M5388	170M5438		170M5588		2	250	6500	38500	51500	65
170M5389	170M5439		170M5589			280	9350	55500	74500	70
170M5390	170M5440		170M5590			315	13000	77500	105000	75
170M5391	170M5441		170M5591			350	16500	97500	135000	80
170M5392	170M5442		170M5592			400	23000	140000	180000	85
170M5393	170M5443		170M5593			450	34000	205000	270000	90
170M5394	170M5444	170M5494	170M5594	170M5644		500	48000	285000	380000	95
170M5395	170M5445	170M5495	170M5595	170M5645		550	62000	370000	495000	100
†170M5396	170M5446	170M5496	†170M5596	170M5646		630	115000	575000	730000	110
‡170M5397	†170M5447	170M5497	‡170M5597	170M5647		700	160000	795000	1050000	115
‡170M5398	‡170M5448	170M5498	‡170M5598	170M5648		800	245000	1200000	1550000	120
		170M5499		170M5649		†900	360000	1750000		125
		170M5500		170M5650		†1000	480000	2350000		135
170M6338	170M6538		170M6588		3	315	9500	58000	77500	85
170M6339	170M6539		170M6589			350	13500	81500	110000	90
170M6340	170M6540		170M6590			400	19500	120000	160000	95
170M6341	170M6541		170M6591			450	31000	185000	245000	100
170M6342	170M6542		170M6592			500	39000	235000	310000	105
170M6343	170M6543		170M6593			550	55000	325000	435000	110
170M6344	170M6544	170M6494	170M6594	170M6644		630	83500	495000	665000	115
170M6345	170M6545	170M6495	170M6595	170M6645		700	115000	705000	940000	120
†170M6346	170M6546	‡170M6496	†170M6596	‡170M6646		800	205000	995000	1300000	125
‡170M6347	†170M6547	‡170M6497	‡170M6597	‡170M6647		900	305000	1500000	1900000	130
‡170M6348	†170M6548	‡170M6498	‡170M6598	‡170M6648		1000	450000	2150000	2750000	135
‡170M6349	‡170M6549	‡170M6499	‡170M6599	‡170M6649		1100	575000	2800000	3600000	140
		170M6500		170M6650		†1250	810000	3950000		145
		170M6501		170M6651		†1400	1250000	6000000		150

†Rated voltage (IEC) 1100V.

‡Rated voltage (IEC) 1000V.

‡Rated voltage (IEC) 1250V.

• Watts loss provided at rated current.

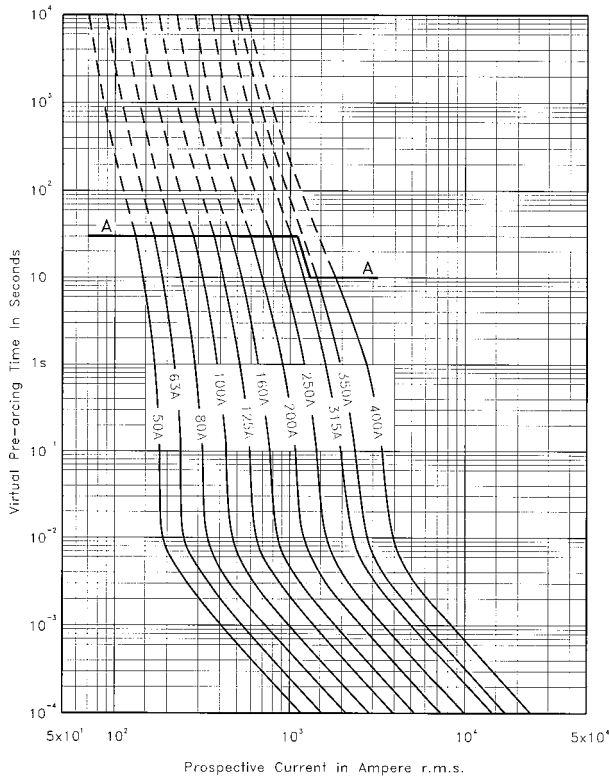
• Microswitch indicator ordered separately. See accessories on pages 179-180.

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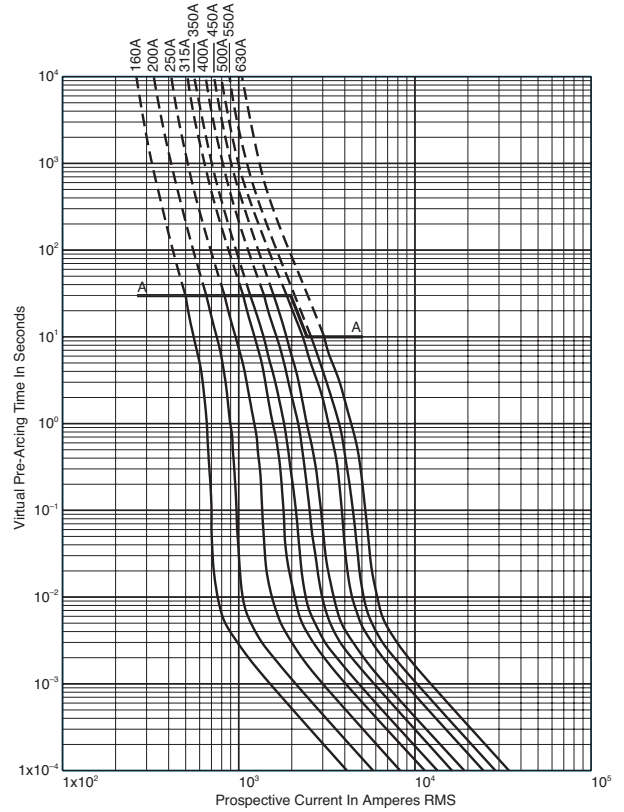
Size 1* — 50-400A:1250V

Time-Current Curve



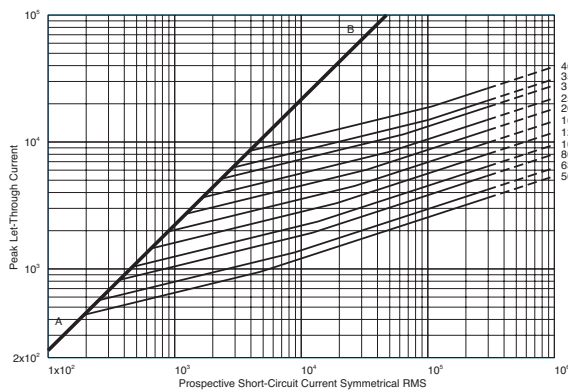
Size 1 — 160-630A: 1250V

Time-Current Curve

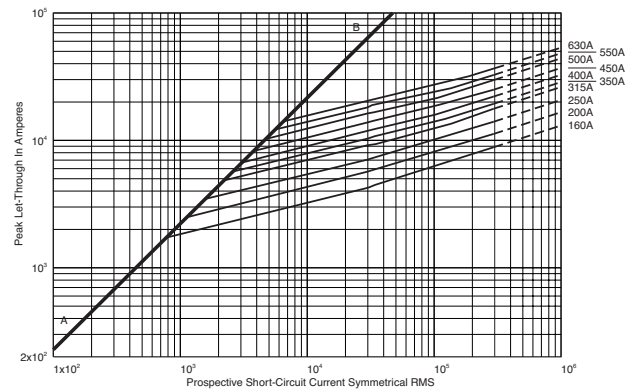


High Speed Fuses

Peak Let-Through Curve



Peak Let-Through Curve

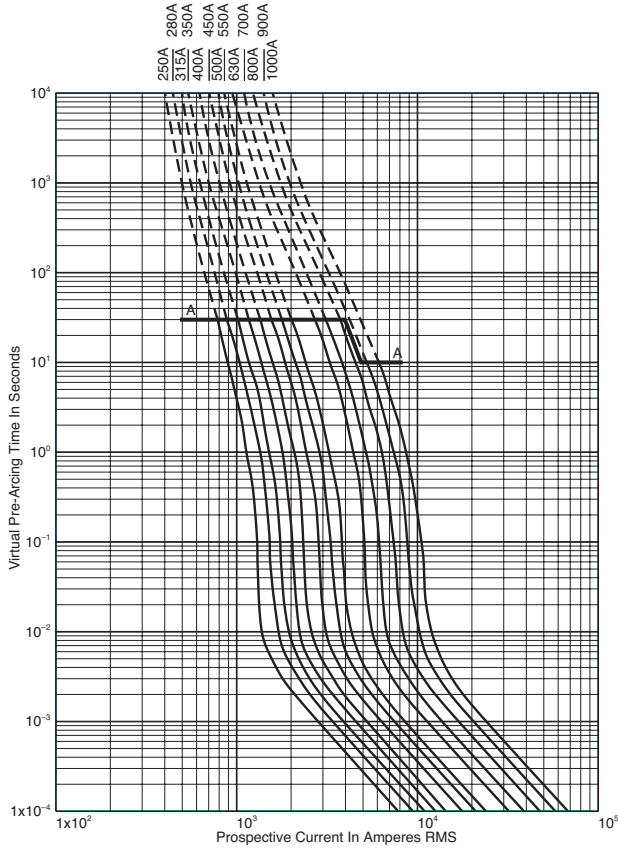


630A fuse is derated to 1100V (IEC).

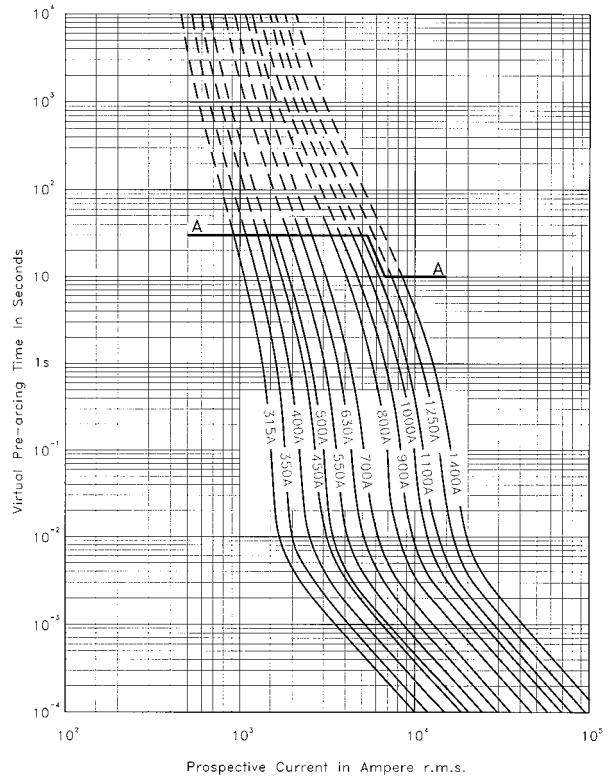
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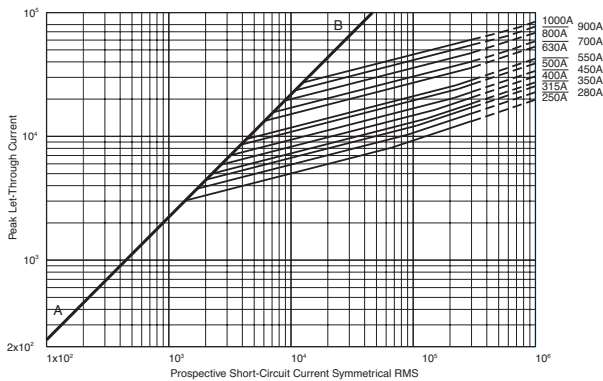
Size 2 — 250-1000A: 1250V
Time-Current Curve



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

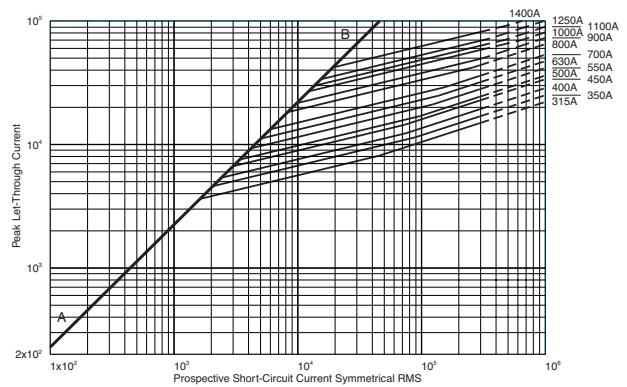


Peak Let-Through Curve



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

Peak Let-Through Curve



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