

## High Speed Fuses

# Square body flush end contact — 690V/700V (IEC/UL): 40-2000A

### 690V/700V (IEC/UL) 40-2000A

#### Specifications

**Description:** Square body flush end contact high speed fuses.

**Dimensions:** See dimensions illustrations.

#### Ratings:

Volts: — 690Vac (IEC)  
— 700Vac (UL)

Amps: — 40-2000A

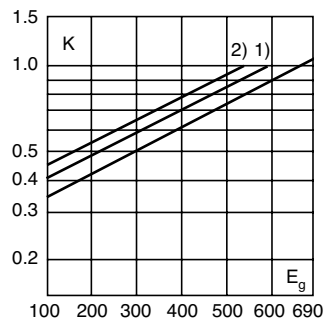
IR: — 200kA RMS Sym.

**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 $I^2t$

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).

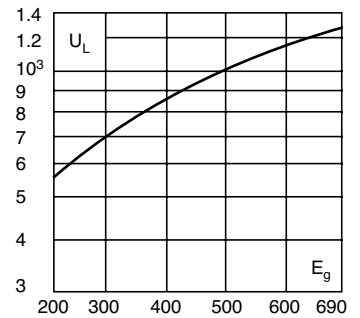


1) Rated voltage 600V.  
2) Rated voltage 550V



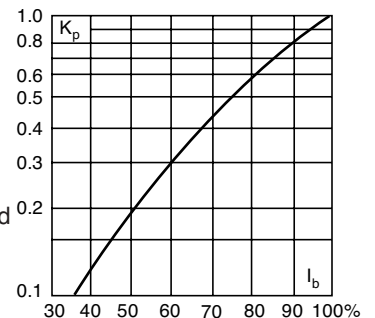
#### Arc Voltage

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)

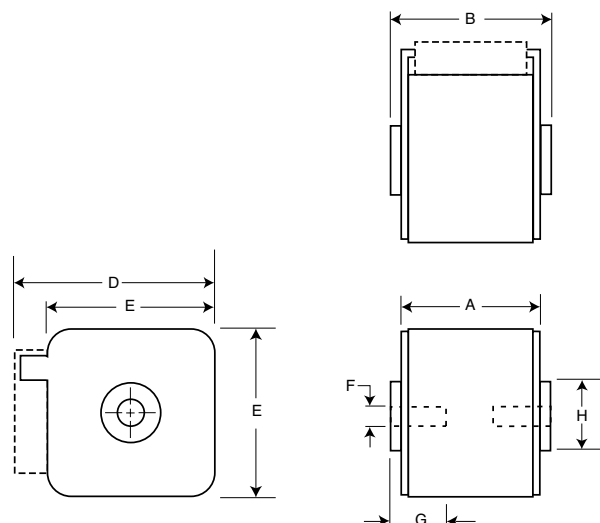
Type -B/-, -BKN/-, -G/-, -GKN/-

Size	A	B	D	E	F	F** (in)	G	H
1*	50	51	59	45	M8	5/16" - 18 UNC-2B	5	ø17
1	50	51	69	53	M8	5/16" - 18 UNC-2B	8	ø20
2	50	51	77	61	M10	3/8" - 16 UNC-2B	10	ø24
3	51	53	92	76	M12	1/2" - 13 UNC-2B	10	ø30

\*\*Valid for fuses type -G/- & -GKN/-.

NB: B = 65 for: Size 2, 1100-1250A  
Size 3, 1600-2000A

1mm = 0.0394" / 1" = 25.4mm



**High Speed Fuses**

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40-2000A**

**Catalog Numbers**

Catalog Numbers				Size	Electrical Characteristics			
-B/- Visual Indicator	-BKN/ Type K Indicator for Micro	-G/ Visual Indicator	-GKN/ Type K Indicator for Micro		Rated Current RMS-Amps	I <sup>2</sup> t (A <sup>2</sup> Sec)		Watts Loss
						Pre-arc	Clearing at 660V	
170M3408	170M3458	170M3508	170M3558	1*	40	40	270	9
170M3409	170M3459	170M3509	170M3559		50	77	515	11
170M3410	170M3460	170M3510	170M3560		63	115	770	14
170M3411	170M3461	170M3511	170M3561		80	185	1250	18
170M3412	170M3462	170M3512	170M3562		100	360	2450	21
170M3413	170M3463	170M3513	170M3563		125	550	3700	26
170M3414	170M3464	170M3514	170M3564		160	1100	7500	30
170M3415	170M3465	170M3515	170M3565		200	2200	15000	35
170M3416	170M3466	170M3516	170M3566		250	4200	28500	40
170M3417	170M3467	170M3517	170M3567		315	7000	46500	50
170M3418	170M3468	170M3518	170M3568		350	10000	68500	55
170M3419	170M3469	170M3519	170M3569		400	15000	105000	60
170M3420	170M3470	170M3520	170M3570		450	21000	140000	65
170M3421	170M3471	170M3521	170M3571		500	27000	180000	70
170M3422	170M3472	170M3522	170M3572		550	34000	230000	75
170M3423	170M3473	170M3523	170M3573		630	48500	325000	80
170M4408	170M4458	170M4508	170M4558	1	200	1650	11500	45
170M4409	170M4459	170M4509	170M4559		250	3100	21000	55
170M4410	170M4460	170M4510	170M4560		315	6200	42000	58
170M4411	170M4461	170M4511	170M4561		350	8500	59000	60
170M4412	170M4462	170M4512	170M4562		400	13500	91500	65
170M4413	170M4463	170M4513	170M4563		450	17000	120000	70
170M4414	170M4464	170M4514	170M4564		500	25000	170000	72
170M4415	170M4465	170M4515	170M4565		550	34000	230000	75
170M4416	170M4466	170M4516	170M4566		630	52000	350000	80
170M4417	170M4467	170M4517	170M4567		700	69500	465000	85
170M4418	170M4468	170M4518	170M4568		800	105000	725000	95
170M4419	170M4469	170M4519	170M4569		±900	155000	±850000	100
170M5408	170M5458	170M5508	170M5558	2	400	11000	74000	65
170M5409	170M5459	170M5509	170M5559		450	15500	105000	70
170M5410	170M5460	170M5510	170M5560		500	21500	145000	75
170M5411	170M5461	170M5511	170M5561		550	28000	190000	80
170M5412	170M5462	170M5512	170M5562		630	41000	275000	90
170M5413	170M5463	170M5513	170M5563		700	60500	405000	95
170M5414	170M5464	170M5514	170M5564		800	86000	575000	105
170M5415	170M5465	170M5515	170M5565		900	125000	840000	110
170M5416	170M5466	170M5516	170M5566		1000	180000	1250000	115
170M5417	170M5467	170M5517	170M5567		1100	245000	1600000	120
170M5418	170M5468	170M5518	170M5568		1250	365000	2400000	130
170M6408	170M6458	170M6508	170M6558	3	500	14000	95000	95
170M6409	170M6459	170M6509	170M6559		550	19500	135000	100
170M6410	170M6460	170M6510	170M6560		630	31000	210000	105
170M6411	170M6461	170M6511	170M6561		700	44500	300000	110
170M6412	170M6462	170M6512	170M6562		800	69500	465000	115
170M6413	170M6463	170M6513	170M6563		900	100000	670000	120
170M6414	170M6464	170M6514	170M6564		1000	140000	945000	125
170M6415	170M6465	170M6515	170M6565		1100	190000	1300000	130
170M6416	170M6466	170M6516	170M6566		1250	290000	1950000	140
170M6417	170M6467	170M6517	170M6567		1400	370000	2450000	155
170M6418	170M6468	170M6518	170M6568		1500	460000	3100000	160
170M6419	170M6469	170M6519	170M6569		1600	580000	3900000	160
170M6420	170M6470	170M6520	170M6570		†1800	880000	†5250000	165
170M6421	170M6471	170M6521	170M6571		‡2000	1150000	‡6350000	175

†Rated voltage (IEC) 600V.

‡Rated voltage (IEC) 550V.

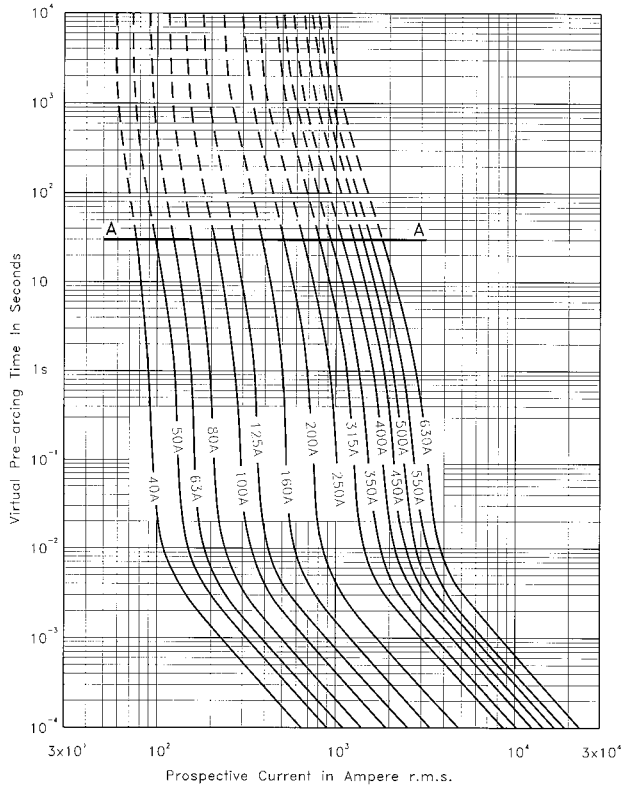
• Watts loss provided at rated current.

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

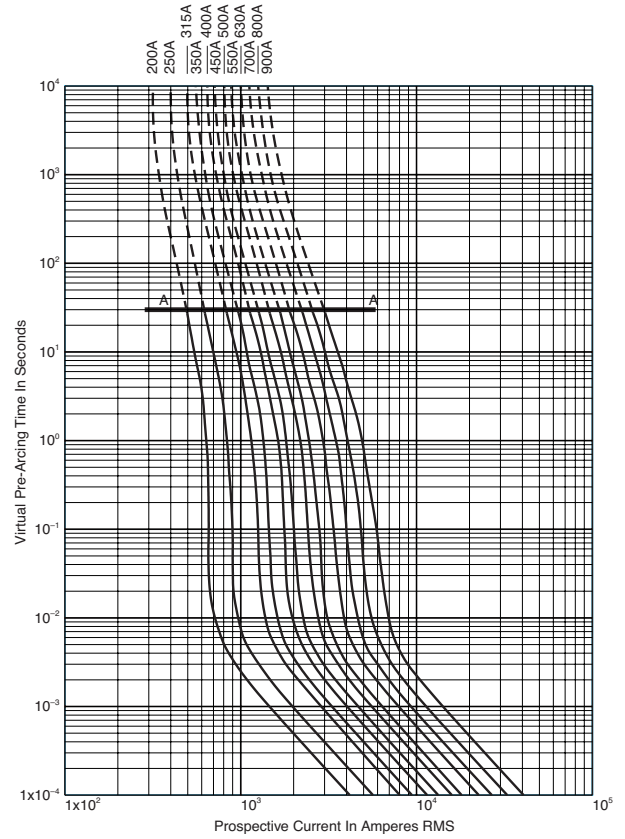
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**Square body flush end contact — 690V/700V (IEC/UL):  
40-2000A**

**Size 1\* — 40-630A: 690V**  
Time-Current Curve

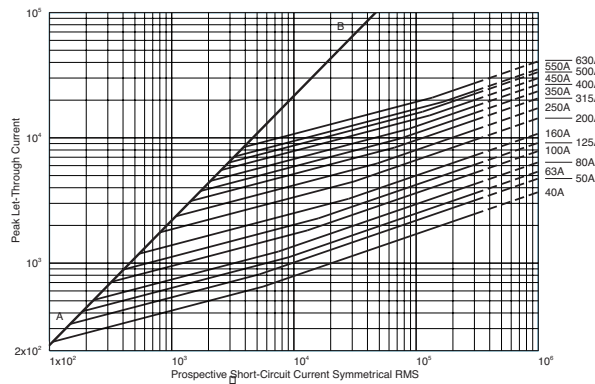


**Size 1 — 200-900A: 690V**  
Time-Current Curve

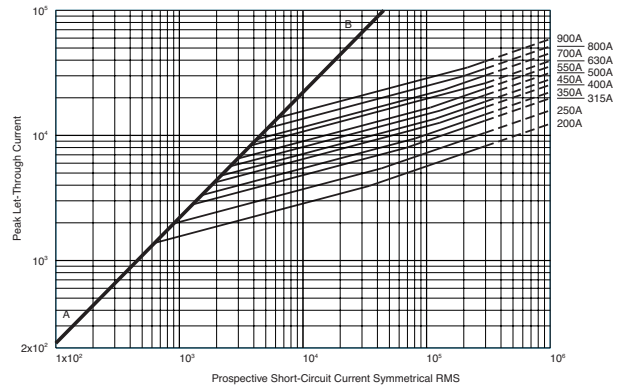


High Speed  
Fuses

**Peak Let-Through Curve**



**Peak Let-Through Curve**



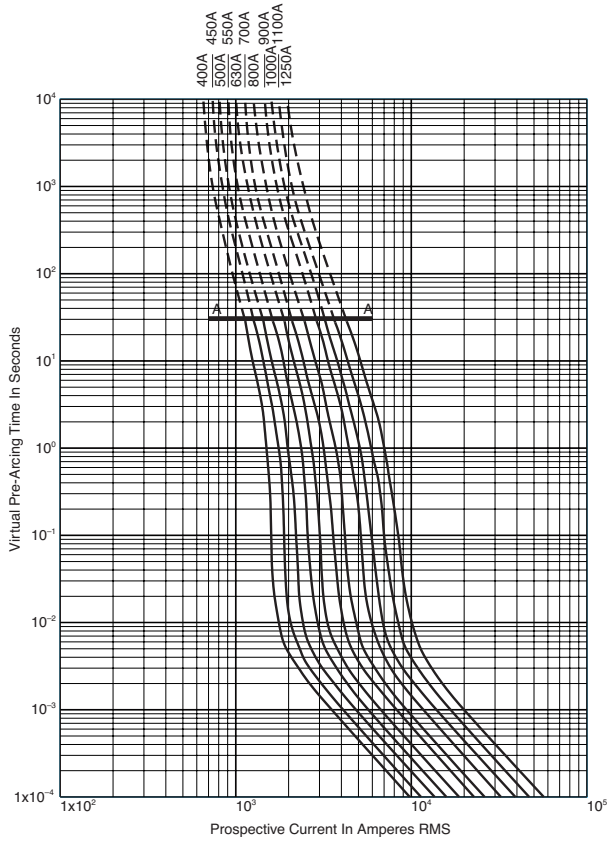
900 amp fuse is derated to 550V (IEC).

**High Speed Fuses**

**Square body flush end contact — 690V/700V (IEC/UL):  
40-2000A**

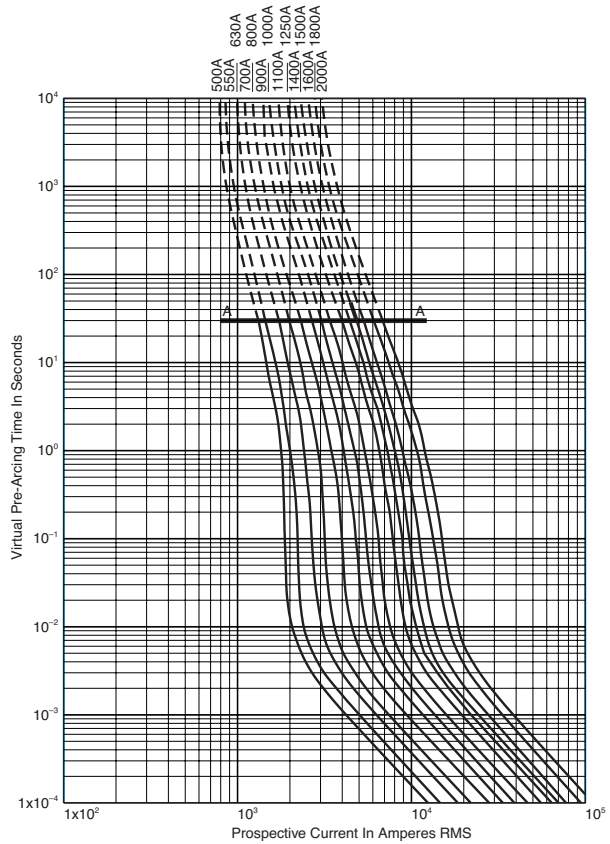
**Size 2 — 400-1250A: 690V**

**Time-Current Curve**

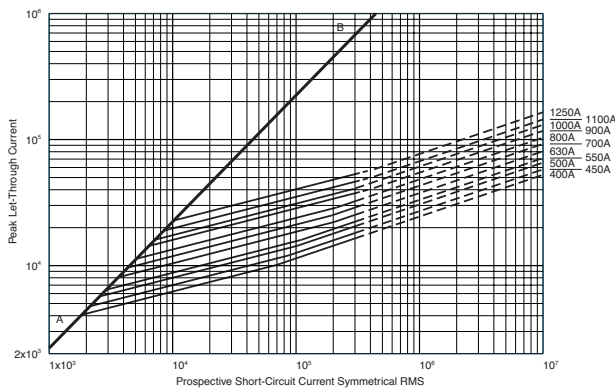


**Size 3 — 500-2000A: 690V**

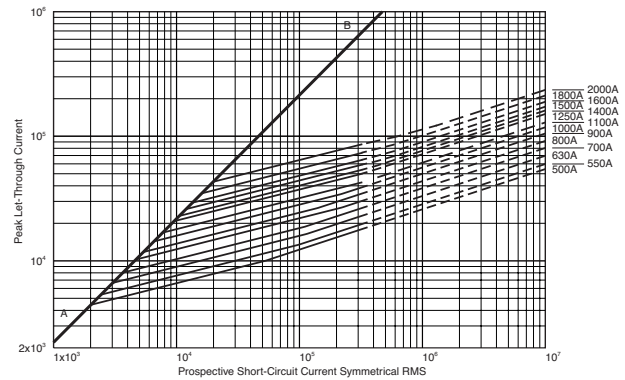
**Time-Current Curve**



**Peak Let-Through Curve**



**Peak Let-Through Curve**



1800A fuse is derated to 600V (IEC).  
2000A fuse is derated to 550V (IEC).

**Data Sheet: 17056318**

**Data Sheet: 17056320**

# Mouser Electronics

Authorized Distributor

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## Eaton:

<a href="#"><u>170M6419</u></a>	<a href="#"><u>170M4460</u></a>	<a href="#"><u>170M3408</u></a>	<a href="#"><u>170M3409</u></a>	<a href="#"><u>170M3410</u></a>	<a href="#"><u>170M3411</u></a>	<a href="#"><u>170M3412</u></a>	<a href="#"><u>170M3413</u></a>	<a href="#"><u>170M3414</u></a>	<a href="#"><u>170M3415</u></a>
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<a href="#"><u>170M3460</u></a>	<a href="#"><u>170M3461</u></a>	<a href="#"><u>170M3462</u></a>	<a href="#"><u>170M3463</u></a>	<a href="#"><u>170M3464</u></a>	<a href="#"><u>170M3465</u></a>	<a href="#"><u>170M3466</u></a>	<a href="#"><u>170M3467</u></a>	<a href="#"><u>170M3468</u></a>	<a href="#"><u>170M3469</u></a>
<a href="#"><u>170M3470</u></a>	<a href="#"><u>170M3471</u></a>	<a href="#"><u>170M3472</u></a>	<a href="#"><u>170M3473</u></a>	<a href="#"><u>170M3510</u></a>	<a href="#"><u>170M3511</u></a>	<a href="#"><u>170M3512</u></a>	<a href="#"><u>170M3513</u></a>	<a href="#"><u>170M3514</u></a>	<a href="#"><u>170M3515</u></a>
<a href="#"><u>170M3516</u></a>	<a href="#"><u>170M3518</u></a>	<a href="#"><u>170M3519</u></a>	<a href="#"><u>170M3521</u></a>	<a href="#"><u>170M3522</u></a>	<a href="#"><u>170M3560</u></a>	<a href="#"><u>170M3561</u></a>	<a href="#"><u>170M3562</u></a>	<a href="#"><u>170M3563</u></a>	<a href="#"><u>170M3564</u></a>
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<a href="#"><u>170M4410</u></a>	<a href="#"><u>170M4411</u></a>	<a href="#"><u>170M4412</u></a>	<a href="#"><u>170M4413</u></a>	<a href="#"><u>170M4414</u></a>	<a href="#"><u>170M4415</u></a>	<a href="#"><u>170M4416</u></a>	<a href="#"><u>170M4417</u></a>	<a href="#"><u>170M4418</u></a>	<a href="#"><u>170M4419</u></a>
<a href="#"><u>170M4458</u></a>	<a href="#"><u>170M4459</u></a>	<a href="#"><u>170M4462</u></a>	<a href="#"><u>170M4463</u></a>	<a href="#"><u>170M4464</u></a>	<a href="#"><u>170M4465</u></a>	<a href="#"><u>170M4466</u></a>	<a href="#"><u>170M4467</u></a>	<a href="#"><u>170M4468</u></a>	<a href="#"><u>170M4469</u></a>
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