

## High Speed Fuses

# Square body DIN 43 653 — 690V/700V (IEC/UL): 40-2000A

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

#### Specifications

Description: Square body DIN 43-653 stud-mount high speed fuses.

**Dimensions:** See dimensions illustration.

#### Ratings:

Volts: — 690Vac (IEC)  
— 700Vac (UL)

Amps: — 40-2000A

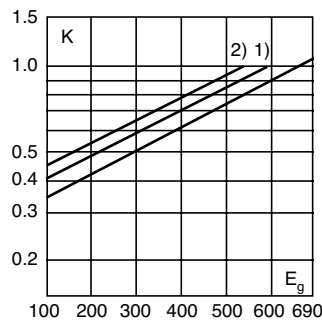
IR: — 200kA RMS Sym.

**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

#### Dimensions (mm)

Type -KN/80, -KN/110

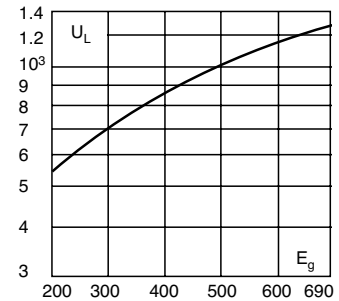
Size	A	B	B**	C	C**	D	E	H
1*	50	104	134	78	108	59	45	22
1	50	108	138	78	108	69	53	25
2	50	108	138	78	108	77	61	25
3	51	109	139	78	108	92	76	30

\*\*Valid for fuse type -KN/110.  
1mm = 0.0394" / 1" = 25.4mm



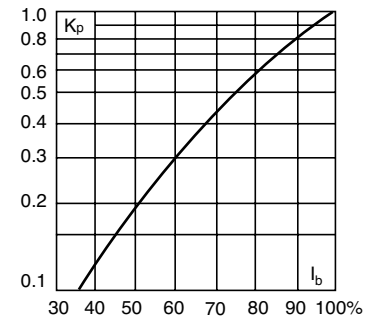
#### Arc Voltage

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.

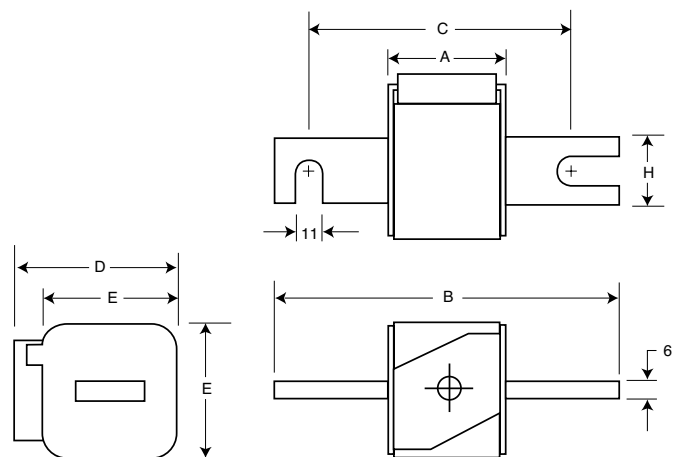


#### Features and Benefits

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

#### Typical Applications

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



**High Speed Fuses**

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**Catalog Numbers**

Catalog Numbers		Size	Electrical Characteristics			
-KN/80 Type K Indicator for Micro	-KN/110 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	
170M3108	170M3258	1*	40	40	270	9
170M3109	170M3259		50	77	515	11
170M3110	170M3260		63	115	770	14
170M3111	170M3261		80	185	1250	18
170M3112	170M3262		100	360	2450	21
170M3113	170M3263		125	550	3700	26
170M3114	170M3264		160	1100	7500	30
170M3115	170M3265		200	2200	15000	35
170M3116	170M3266		250	4200	28500	40
170M3117	170M3267		315	7000	46500	50
170M3118	170M3268		350	10000	68500	55
170M3119	170M3269		400	15000	105000	60
170M3120	170M3270		450	21000	140000	65
170M3121	170M3271	500	27000	180000	70	
170M3122	170M3272	550	34000	230000	75	
170M3123	170M3273	630	48500	325000	80	
170M4108	170M4258	1	200	1650	11500	45
170M4109	170M4259		250	3100	21000	55
170M4110	170M4260		315	6200	42000	58
170M4111	170M4261		350	8500	59000	60
170M4112	170M4262		400	13500	91500	65
170M4113	170M4263		450	17000	120000	70
170M4114	170M4264		500	25000	170000	72
170M4115	170M4265		550	34000	230000	75
170M4116	170M4266		630	52000	350000	80
170M4117	170M4267		700	69500	465000	85
170M4118	170M4268		800	105000	725000	95
170M4119	170M4269	±900	155000	±850000	100	
170M5108	170M5258	2	400	11000	74000	65
170M5109	170M5259		450	15500	105000	70
170M5110	170M5260		500	21500	145000	75
170M5111	170M5261		550	28000	190000	80
170M5112	170M5262		630	41000	275000	90
170M5113	170M5263		700	60500	405000	95
170M5114	170M5264		800	86000	575000	105
170M5115	170M5265		900	125000	840000	110
170M5116	170M5266		1000	180000	1250000	115
170M5117	170M5267		1100	245000	1600000	120
170M5118	170M5268	1250	365000	2400000	130	
170M6108	170M6258	3	500	14000	95000	95
170M6109	170M6259		550	19500	135000	100
170M6110	170M6260		630	31000	210000	105
170M6111	170M6261		700	44500	300000	110
170M6112	170M6262		800	69500	465000	115
170M6113	170M6263		900	100000	670000	120
170M6114	170M6264		1000	140000	945000	125
170M6115	170M6265		1100	190000	1300000	130
170M6116	170M6266		1250	290000	1950000	140
170M6117	170M6267		1400	370000	2450000	155
170M6118	170M6268		1500	460000	3100000	160
170M6119	170M6269		1600	580000	3900000	160
170M6120	170M6270		†1800	880000	†5250000	165
170M6121	170M6271		‡2000	1150000	‡6350000	175

†Rated voltage (IEC) 600V.

‡Rated voltage (IEC) 550V.

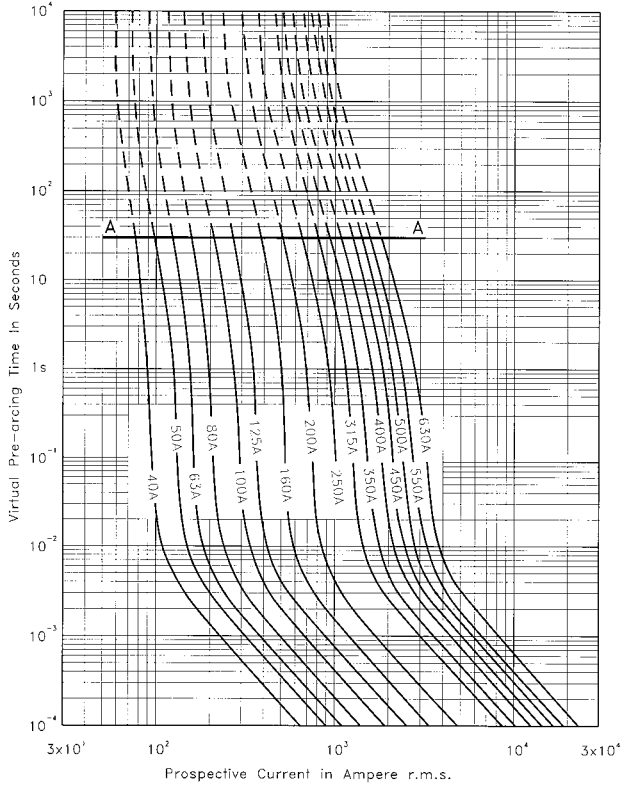
• Watts loss provided at rated current.

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

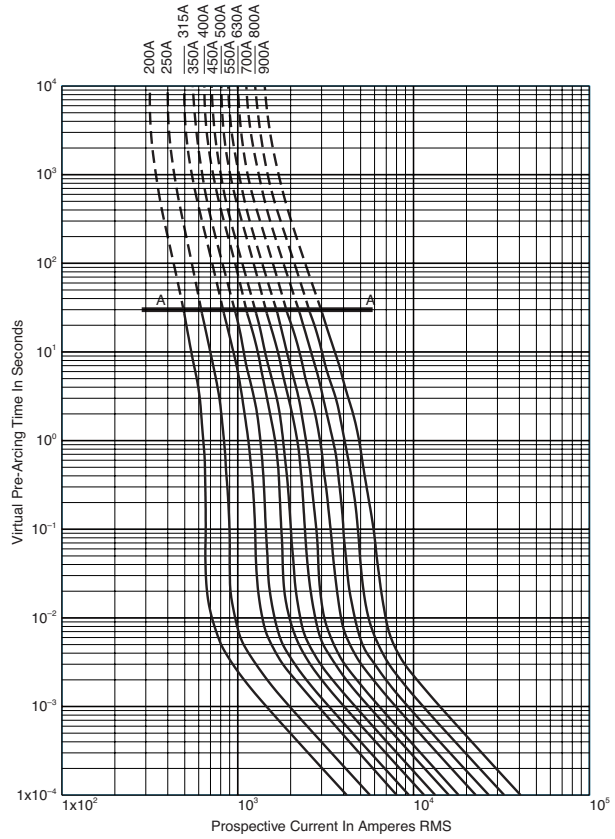
**High Speed Fuses**

**Square body DIN 43 653 — 690V/700V (IEC/UL):  
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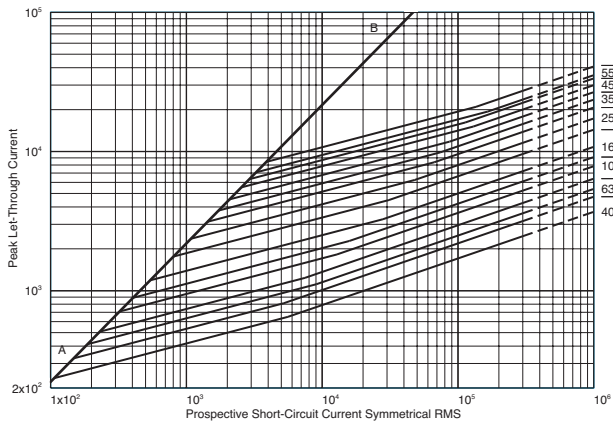
**Size 1\* — 40-630A: 690V**  
Time-Current Curve



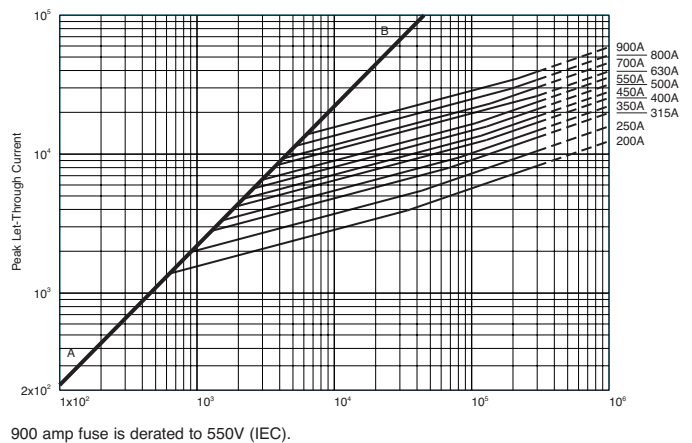
**Size 1 — 200-900A: 690V**  
Time-Current Curve



**Peak Let-Through Curve**



**Peak Let-Through Curve**

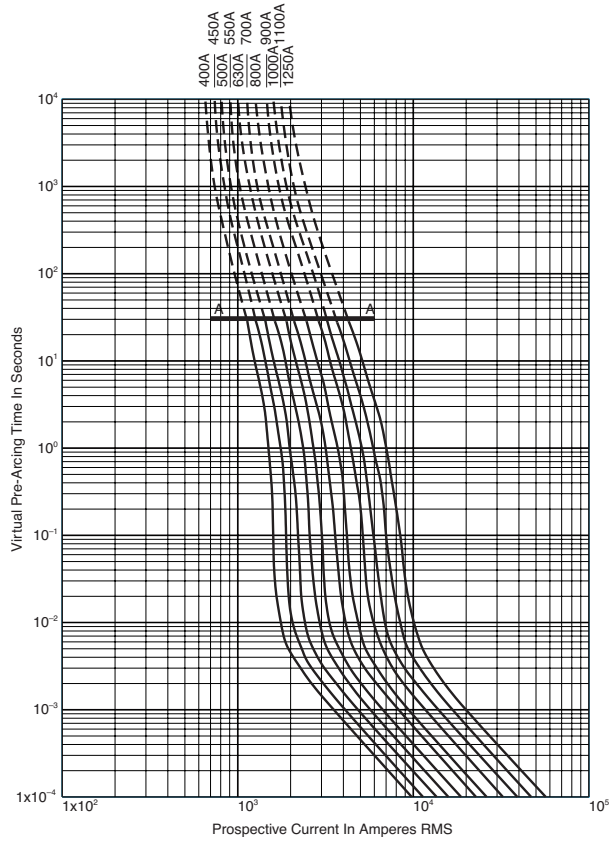


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## Square body DIN 43 653 — 690V/700V (IEC/UL): 40-2000A

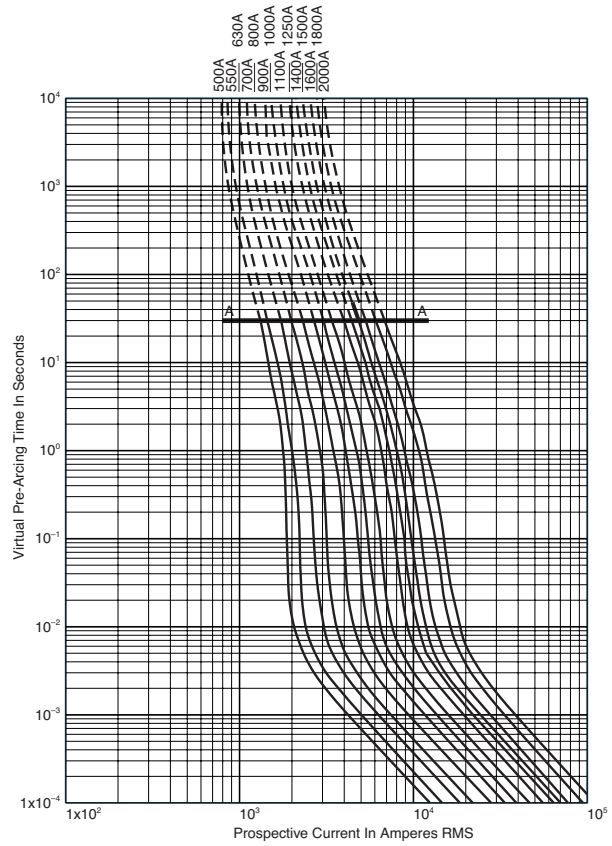
### Size 2 — 400-1250A: 690V

Time-Current Curve



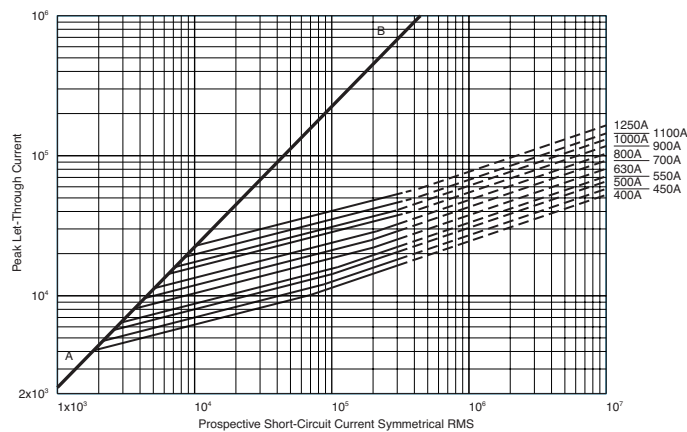
### Size 3 — 500-2000A: 690V

Time-Current Curve

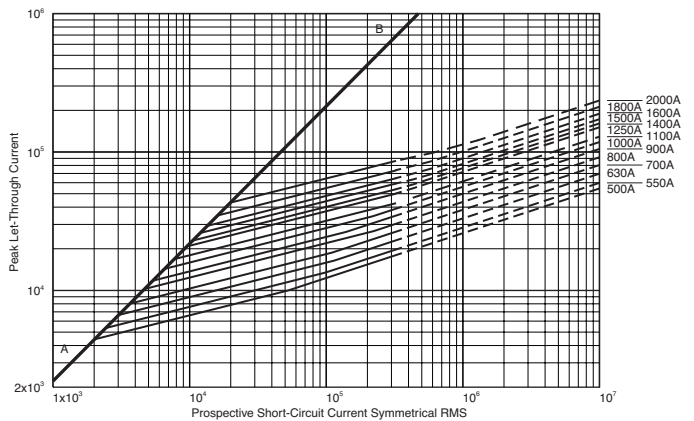


High Speed  
Fuses

### 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

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

## Eaton:

<a href="#"><u>170M3109</u></a>	<a href="#"><u>170M3110</u></a>	<a href="#"><u>170M3111</u></a>	<a href="#"><u>170M3112</u></a>	<a href="#"><u>170M3113</u></a>	<a href="#"><u>170M3114</u></a>	<a href="#"><u>170M3115</u></a>	<a href="#"><u>170M3116</u></a>	<a href="#"><u>170M3117</u></a>	<a href="#"><u>170M3118</u></a>
<a href="#"><u>170M3119</u></a>	<a href="#"><u>170M3120</u></a>	<a href="#"><u>170M3121</u></a>	<a href="#"><u>170M3122</u></a>	<a href="#"><u>170M3123</u></a>	<a href="#"><u>170M3258</u></a>	<a href="#"><u>170M3259</u></a>	<a href="#"><u>170M3260</u></a>	<a href="#"><u>170M3261</u></a>	<a href="#"><u>170M3262</u></a>
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<a href="#"><u>170M3273</u></a>	<a href="#"><u>170M4108</u></a>	<a href="#"><u>170M4109</u></a>	<a href="#"><u>170M4110</u></a>	<a href="#"><u>170M4111</u></a>	<a href="#"><u>170M4112</u></a>	<a href="#"><u>170M4113</u></a>	<a href="#"><u>170M4114</u></a>	<a href="#"><u>170M4115</u></a>	<a href="#"><u>170M4116</u></a>
<a href="#"><u>170M4117</u></a>	<a href="#"><u>170M4118</u></a>	<a href="#"><u>170M4119</u></a>	<a href="#"><u>170M4258</u></a>	<a href="#"><u>170M4259</u></a>	<a href="#"><u>170M4260</u></a>	<a href="#"><u>170M4261</u></a>	<a href="#"><u>170M4262</u></a>	<a href="#"><u>170M4263</u></a>	<a href="#"><u>170M4264</u></a>
<a href="#"><u>170M4265</u></a>	<a href="#"><u>170M4266</u></a>	<a href="#"><u>170M4267</u></a>	<a href="#"><u>170M4268</u></a>	<a href="#"><u>170M4269</u></a>	<a href="#"><u>170M5108</u></a>	<a href="#"><u>170M5109</u></a>	<a href="#"><u>170M5110</u></a>	<a href="#"><u>170M5111</u></a>	<a href="#"><u>170M5112</u></a>
<a href="#"><u>170M5113</u></a>	<a href="#"><u>170M5114</u></a>	<a href="#"><u>170M5115</u></a>	<a href="#"><u>170M5116</u></a>	<a href="#"><u>170M5117</u></a>	<a href="#"><u>170M5118</u></a>	<a href="#"><u>170M5258</u></a>	<a href="#"><u>170M5259</u></a>	<a href="#"><u>170M5260</u></a>	<a href="#"><u>170M5261</u></a>
<a href="#"><u>170M5262</u></a>	<a href="#"><u>170M5263</u></a>	<a href="#"><u>170M5264</u></a>	<a href="#"><u>170M5265</u></a>	<a href="#"><u>170M5266</u></a>	<a href="#"><u>170M5267</u></a>	<a href="#"><u>170M5268</u></a>	<a href="#"><u>170M6108</u></a>	<a href="#"><u>170M6109</u></a>	<a href="#"><u>170M6110</u></a>
<a href="#"><u>170M6111</u></a>	<a href="#"><u>170M6112</u></a>	<a href="#"><u>170M6113</u></a>	<a href="#"><u>170M6114</u></a>	<a href="#"><u>170M6115</u></a>	<a href="#"><u>170M6116</u></a>	<a href="#"><u>170M6117</u></a>	<a href="#"><u>170M6118</u></a>	<a href="#"><u>170M6119</u></a>	<a href="#"><u>170M6120</u></a>
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