

High Speed Fuses

Square body DIN 43 653 — 1250V/1300V (IEC/UL): 50-1400A

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

Specifications

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

Dimensions: See dimensions illustration.

Ratings:

Volts: — 1250Vac (IEC)
— 1300Vac (UL)

Amps: — 50-1400A

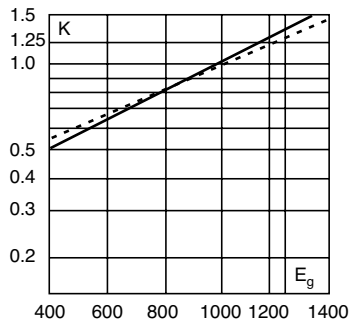
IR: — 100kA RMS Sym.

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).



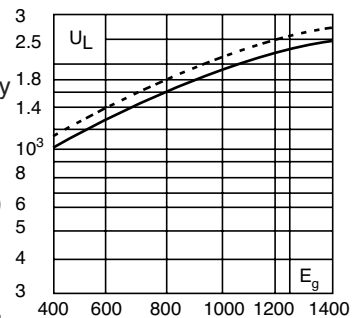
Dashed lines (-----) apply to the following amperages:..

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



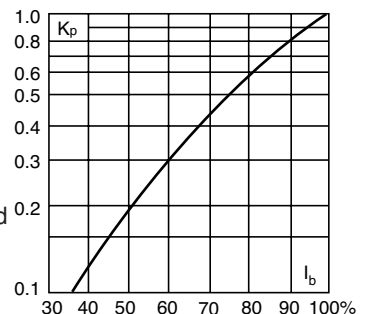
Arc Voltage

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

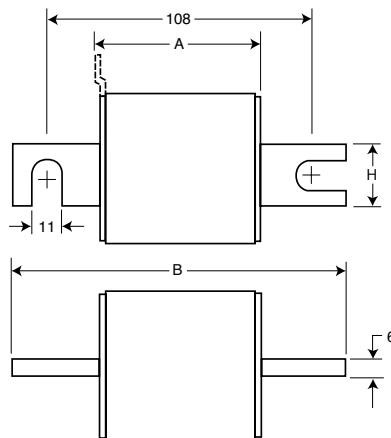
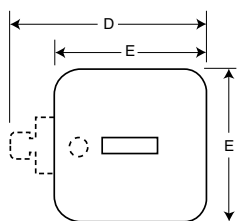
- DC common bus
- DC drives
- Power converters/rectifiers
- Reduced voltage starters

Dimensions (mm)

Type -/110, -TN/110

Size	A	B	D**	E	H
1*	80	138	58	45	20
1	80	138	66	53	25
2	80	138	75	61	25
3	81	139	90	76	30

**Microswitch.
1mm = 0.0394" / 1" = 25.4mm



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Catalog Numbers

Catalog Numbers		Electrical Characteristics					
-/110 Visual Indicator	-TN/110 Type T Indicator for Micro	Size	Rated Current RMS-Amps	I ² t (A ² Sec)		Watts Loss	
				Pre-arc	Clearing at 1000V		Clearing at 1250V
170M3138	170M3188	1*	50	135	815	1100	15
170M3139	170M3189		63	215	1300	1750	20
170M3140	170M3190		80	420	2500	3350	25
170M3141	170M3191		100	750	4450	5950	30
170M3142	170M3192		125	1450	9000	11500	35
170M3143	170M3193		160	2600	16000	21000	40
170M3144	170M3194		200	5150	31000	41000	45
170M3145	170M3195		250	9200	54500	73000	55
170M3146	170M3196		315	18500	115000	150000	60
170M3147	170M3197		350	27000	165000	220000	65
170M3148	170M3198	400	53000	265000	335000	70	
170M4138	170M4188	1	160	1900	11500	15500	45
170M4139	170M4189		200	3800	22500	30000	50
170M4140	170M4190		250	7750	46000	61500	60
170M4141	170M4191		315	15000	90000	120000	65
170M4142	170M4192		350	20000	125000	165000	70
170M4143	170M4193		400	29500	175000	235000	75
170M4144	170M4194		450	42000	250000	335000	80
170M4145	170M4195		500	69500	340000	435000	85
170M4146	170M4196		550	95000	465000	590000	95
170M4147	170M4197		†630	130000	660000		100
170M5138	170M5188	2	250	6500	38500	51500	65
170M5139	170M5189		280	9350	55500	74500	70
170M5140	170M5190		315	13000	77500	105000	75
170M5141	170M5191		350	16500	97500	135000	80
170M5142	170M5192		400	23000	140000	180000	85
170M5143	170M5193		450	34000	205000	270000	90
170M5144	170M5194		500	48000	285000	380000	95
170M5145	170M5195		550	62000	370000	495000	100
170M5146	170M5196		630	115000	575000	730000	110
170M5147	170M5197		700	160000	795000	1050000	115
170M5148	170M5198	800	245000	1200000	1550000	120	
170M5149	170M5199	†900	360000	1750000		125	
170M5150	170M5200	†1000	480000	2350000		135	
170M6138	170M6188	3	315	9500	58000	77500	85
170M6139	170M6189		350	13500	81500	110000	90
170M6140	170M6190		400	19500	120000	160000	95
170M6141	170M6191		450	31000	185000	245000	100
170M6142	170M6192		500	39000	235000	310000	105
170M6143	170M6193		550	55000	325000	435000	110
170M6144	170M6194		630	83500	495000	665000	115
170M6145	170M6195		700	115000	705000	940000	120
170M6146	170M6196		‡800	205000	995000	1300000	125
170M6147	170M6197		‡900	305000	1500000	1900000	130
170M6148	170M6198	‡1000	450000	2150000	2750000	135	
170M6149	170M6199	‡1100	575000	2800000	3600000	140	
170M6150	170M6200	†1250	810000	3950000		145	
170M6151	170M6201	†1400	1250000	6000000		150	

†Rated voltage (IEC) 1100V.

‡Rated voltage (IEC) 1250V.

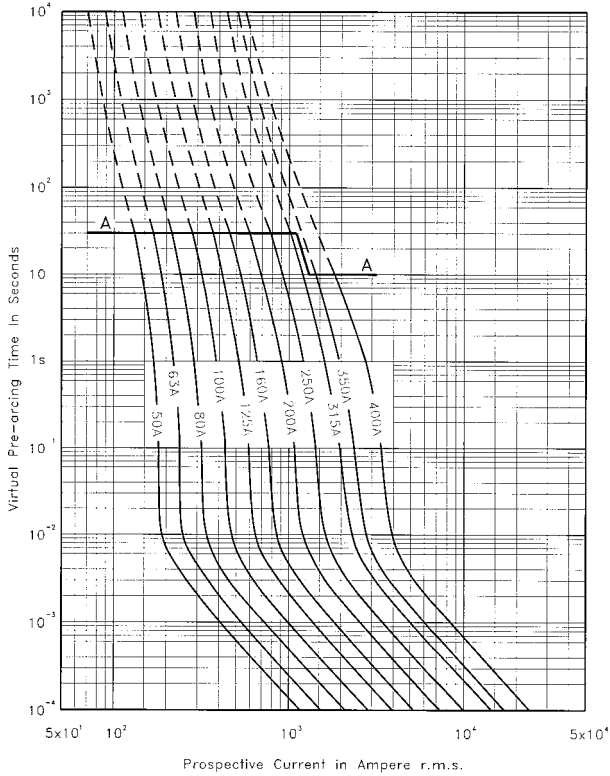
•Watts loss provided at rated current.

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

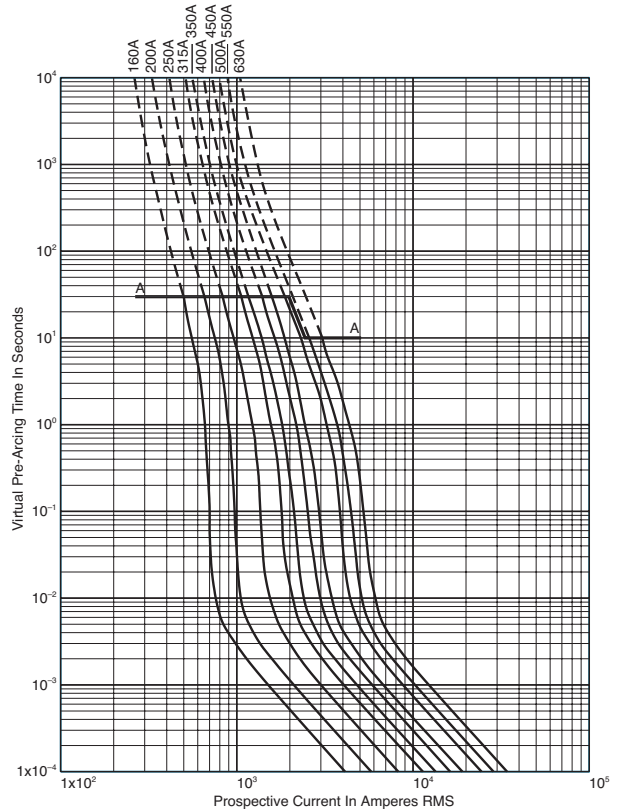
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50-1400A**

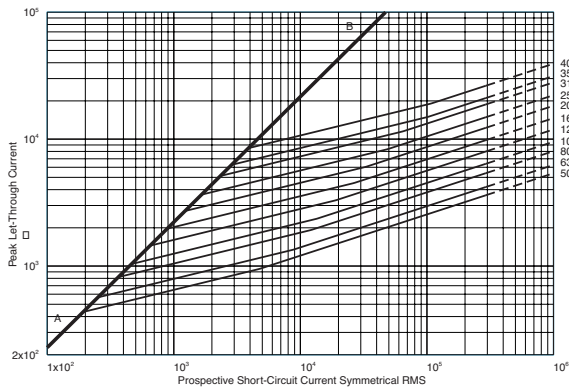
Size 1* — 50-400A:1250V
Time-Current Curve



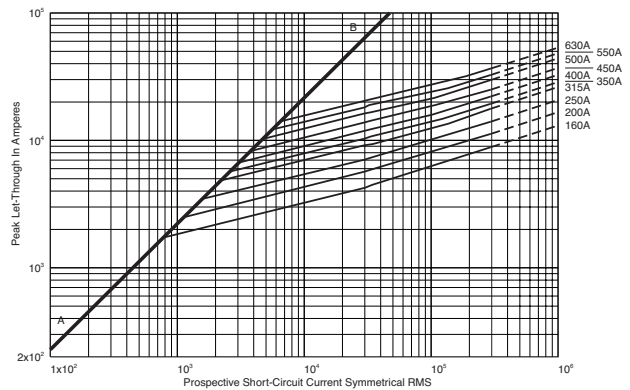
Size 1 — 160-630A: 1250V
Time-Current Curve



Peak Let-Through Curve



Peak Let-Through Curve

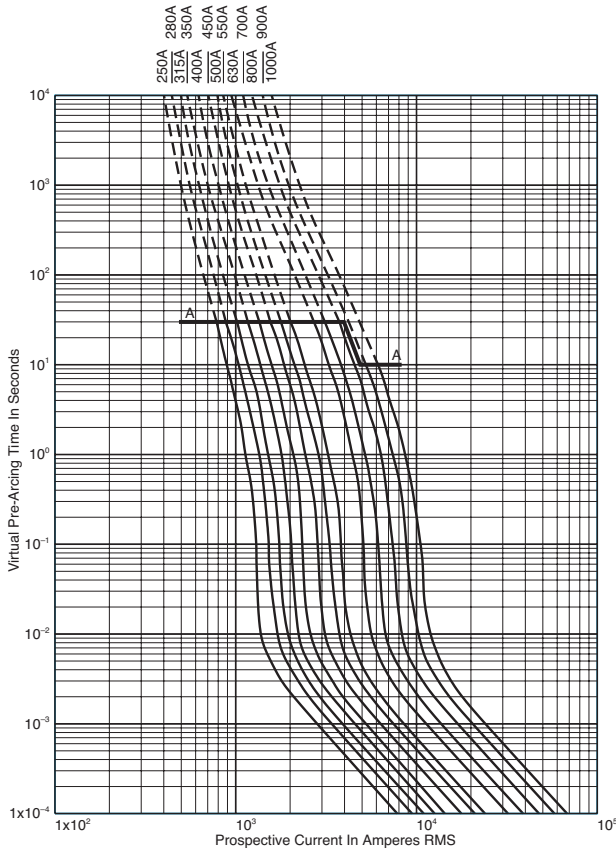


630A fuse is derated to 1100V (IEC).

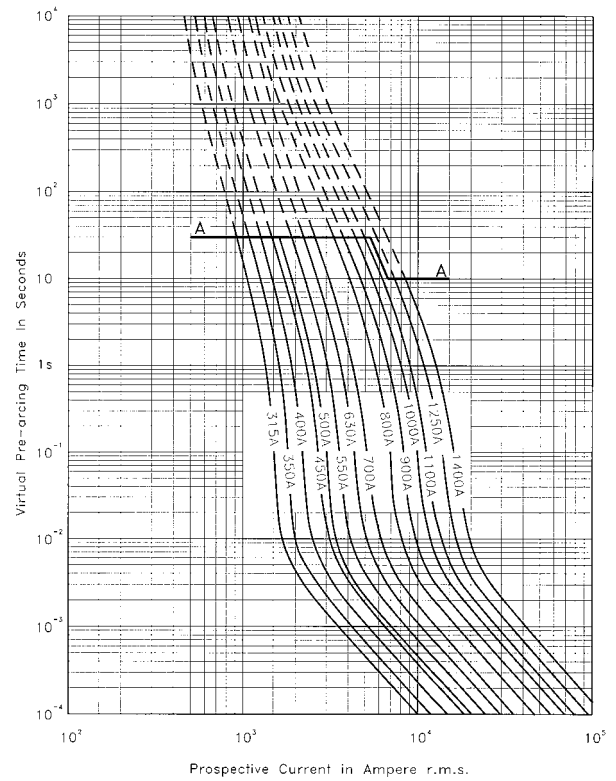
High Speed Fuses

Square body DIN 43 653 — 1250V/1300V (IEC/UL): 50-1400A

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

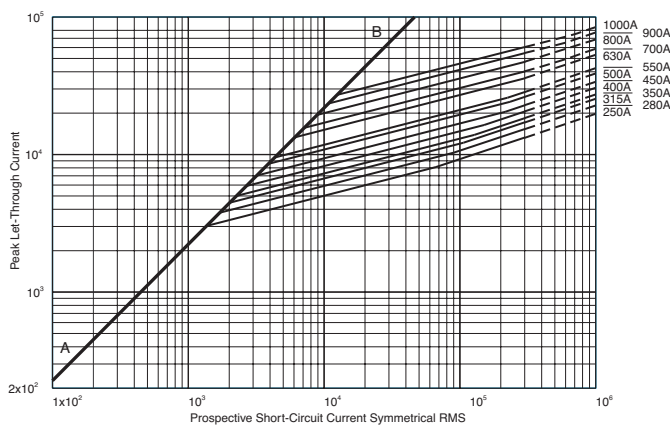


Size 3 — 315-1400A: 1250V
Time-Current Curve



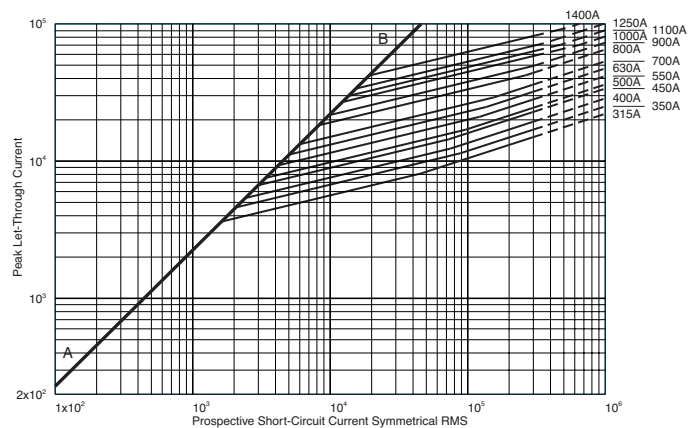
High Speed
Fuses

Peak Let-Through Curve



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

Peak Let-Through Curve



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

Data Sheet: 17056634

Data Sheet: 17056636