690V/700V (IEC/UL) 10-400A

Specifications

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

Dimensions: See dimensions illustration.

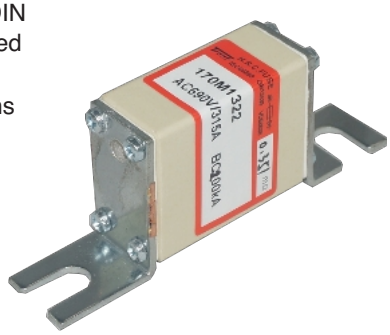
Ratings:

Volts: — 690Vac (IEC)
— 700Vac (UL)

Amps: — 10-400A

IR: — 200kA RMS Sym.

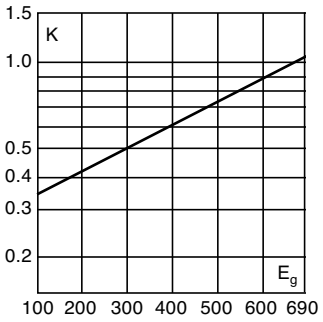
Agency information: CE, Designed and tested to IEC 60269: Part 4. UL Recognized E125085.JFHR2, CSA Certified: Class 53787, File 1422-30 on Size 000.



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).

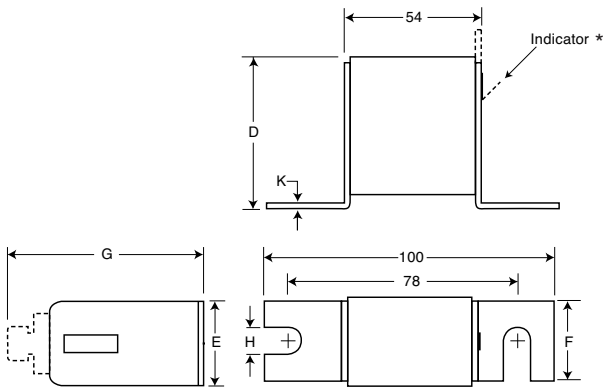


Dimensions - mm

Type -U/80, -/80, -TN/80

Size	D	E	F	G	H	K
000	40	21	20	51	8	2
00	51	30	28	67	10	2

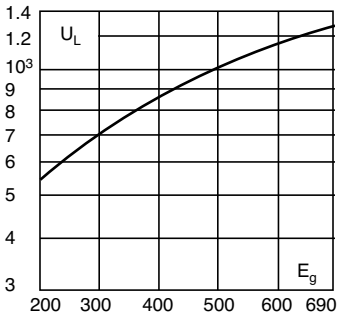
1mm = 0.0394" / 1" = 25.4mm



* Indication for Size 00 fuses is a red pin.

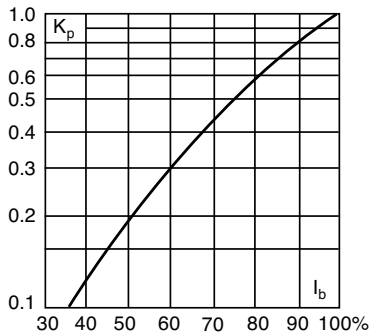
Arc voltage

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

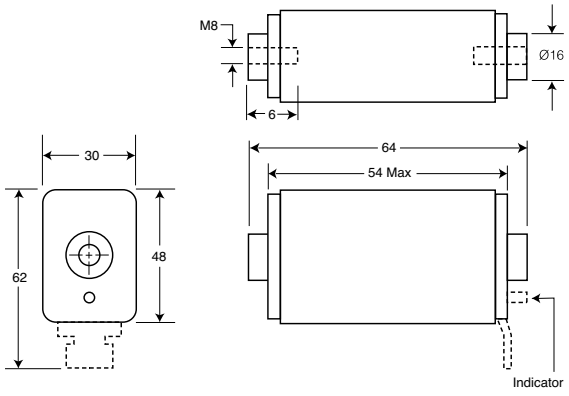
For other voltage ratings in this body style

• See page 6-53 (1000V)

Dimensions (mm)

Type 00B/60, 00BTN/60

1mm = 0.0394" / 1" = 25.4mm



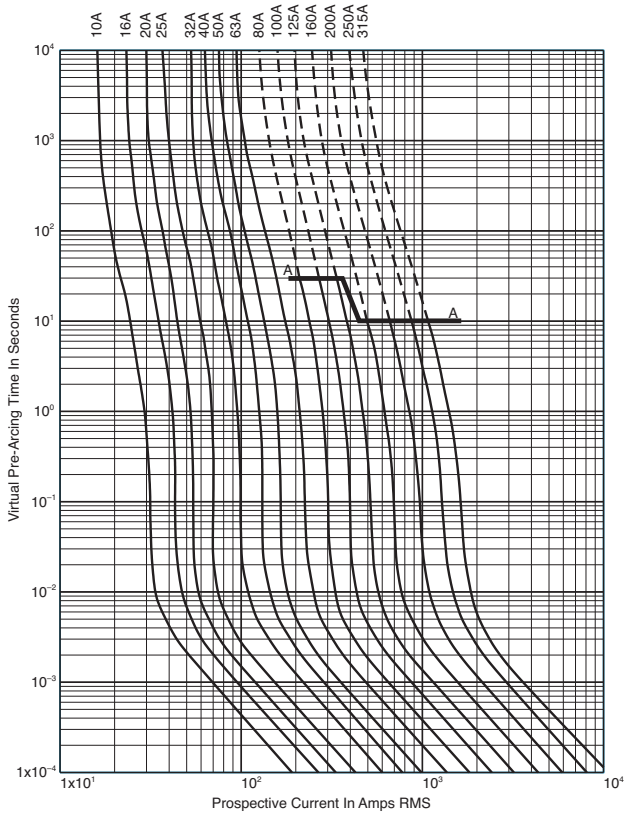
Catalog numbers

Catalog numbers					Size	Electrical characteristics			
-U/80 Without indicator	-/80 Visual indicator	-TN/80 Type T indicator for micro	00B/60 Visual indicator	00BTN/60 Type T indicator for micro		Rated current RMS-amps	I²t (A² Sec) Pre-arc	I²t (A² Sec) Clearing at 660V	Watts loss
170M1308	170M1358	170M1408				10	3.8	25.5	3.0
170M1309	170M1359	170M1409				16	7.2	48	5.5
170M1310	170M1360	170M1410				20	11.5	78	7
170M1311	170M1361	170M1411				25	19	130	9
170M1312	170M1362	170M1412				32	40	270	10
170M1313	170M1363	170M1413				40	69	460	12
170M1314	170M1364	170M1414				50	115	770	15
170M1315	170M1365	170M1415			000	63	215	1450	16
170M1316	170M1366	170M1416				80	380	2550	19
170M1317	170M1367	170M1417				100	695	4650	24
170M1318	170M1368	170M1418				125	1200	8500	28
170M1319	170M1369	170M1419				160	2300	16000	32
170M1320	170M1370	170M1420				200	4200	28000	37
170M1321	170M1371	170M1421				250	7750	51500	42
170M1322	170M1372	170M1422				315	12000	80500	52
	170M2608	170M2658	170M2708	170M2758		25	19	130	6
	170M2609	170M2659	170M2709	170M2759		32	28.5	195	7
	170M2610	170M2660	170M2710	170M2760		40	50	360	9
	170M2611	170M2661	170M2711	170M2761		50	95	640	10
	170M2612	170M2662	170M2712	170M2762		63	170	1200	12
	170M2613	170M2663	170M2713	170M2763		80	310	2100	15
	170M2614	170M2664	170M2714	170M2764	00	100	620	4150	20
	170M2615	170M2665	170M2715	170M2765		125	1000	6950	25
	170M2616	170M2666	170M2716	170M2766		160	1900	13000	30
	170M2617	170M2667	170M2717	170M2767		200	3400	23000	35
	170M2618	170M2668	170M2718	170M2768		250	6250	42000	45
	170M2619	170M2669	170M2719	170M2769		315	10000	68500	55
	170M2620	170M2670	170M2720	170M2770		350	13500	91500	60
	170M2621	170M2671	170M2721	170M2771		400	18000	125000	70

- Watts loss provided at rated current.
- Microswitch indicator ordered separately.
- See accessories on pages 6-92 and 6-93.
- For fuse curves see page 6-27.

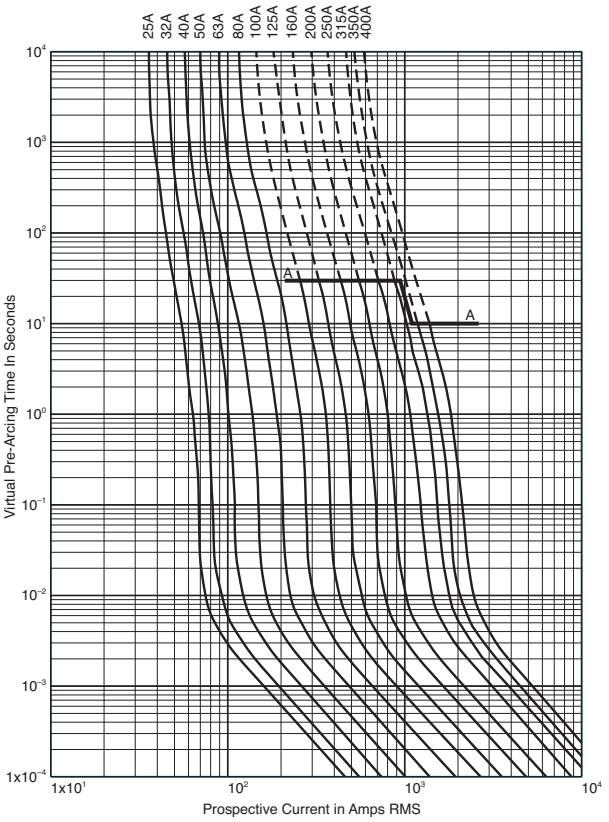
Size 000 — 10-315A: 690V

Time-current curve

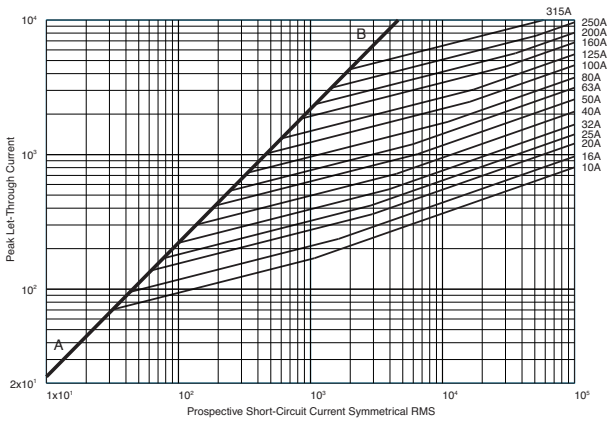


Size 00 — 25-400A: 690V

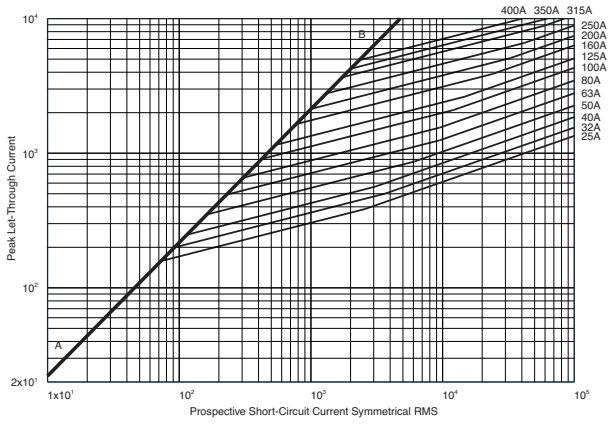
Time-current curve



Peak let-through curve



Peak let-through curve



Catalog numbers

Catalog numbers DIN Type T indicator for micro	Size	Electrical characteristics			
		Rated current RMS-amps	I²t (A² sec)		Watts loss
			Pre-arc	Clearing at 660V	
170M1558D*		10	4	27	2.5
170M1559D*		16	7	51	4
170M1560D*		20	11.5	82.5	5
170M1561D*		25	19	140	6
170M1562D*		32	40	285	7
170M1563D*		40	65	490	8.5
170M1564D*	000	50	115	815	9.5
170M1565D*		63	215	1550	11.5
170M1566D		80	380	2700	15
170M1567D		100	695	4950	16.5
170M1568D		125	1180	8250	21.5
170M1569D		160	2300	16500	25
170M1570D		200	4350	31000	29.5
170M1571D		250	7900	56000	35.5
170M1572D	00	315	12000	84500	45

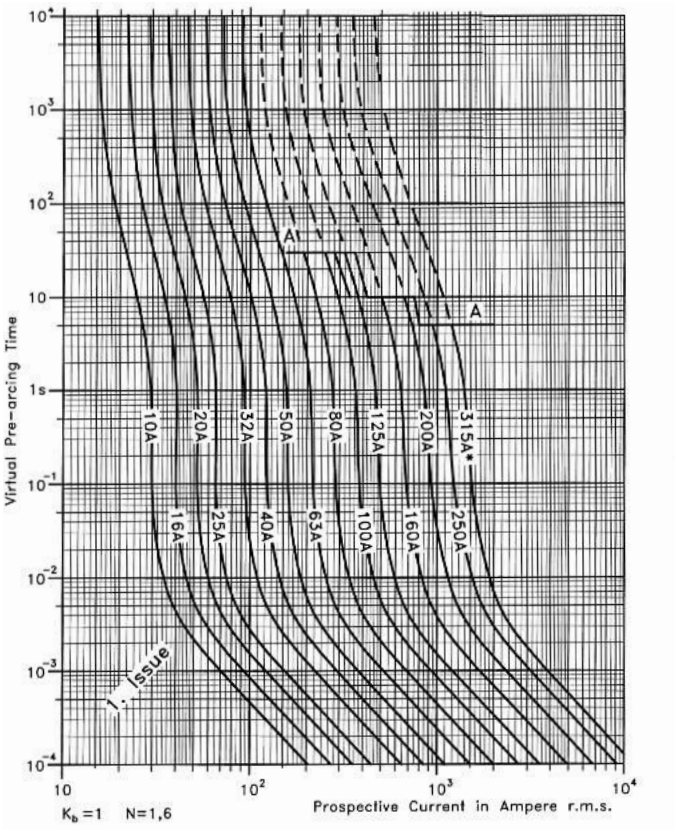
* 10-63A are gR tpye. All others are aR type.
– Watts loss provided at rated current.
– Microswitch indicator ordered separately. See accessories on pages 6-92 and 6-93.

Rated current

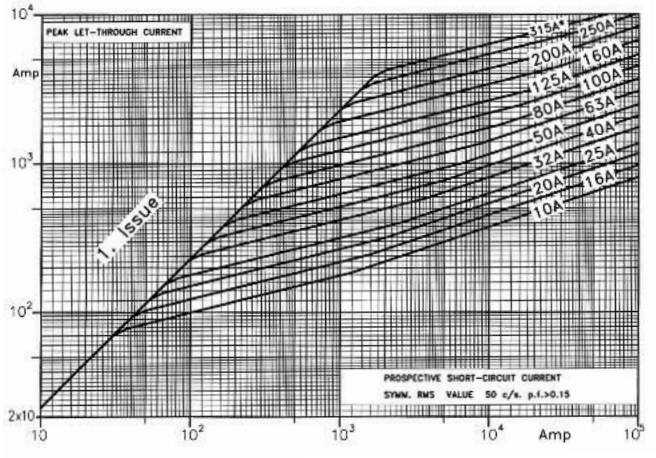
The rated current of this fuse range has been given with copper conductors that have a current density of 1.3A/mm² (IEC 60269-4). For conductor cross section according to IEC 60269-1, the fuses with a rated current higher than 125A must be derated. Please contact Eaton for application assistance.

Size 000 — 10-315A: 690V

Time-current curve



Peak let-through curve



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

Specifications

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

Dimensions: See dimensions illustration.

Ratings:

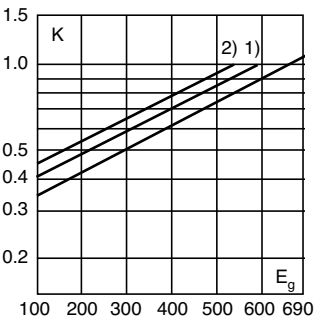
Volts: — 690Vac (IEC)
— 700Vac (UL)
Amps: — 40-2000A
IR: — 200kA RMS Sym.

Agency information: CE, Designed and tested to IEC 60269: Part 4. UL Recognized E125085.JFHR2, CSA Certified: Class 53787, File 1422-30.

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).



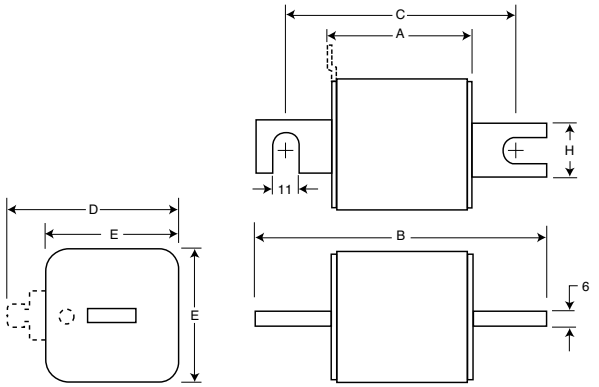
1) Rated voltage 600V
2) Rated voltage 550V

Dimensions - mm

Size	A	B	B**	C	C**	D***	E	H
1*	50	104	134	78	108	58	45	22
1	50	108	138	78	108	66	53	25
2	50	108	138	78	108	75	61	25
3	51	109	139	78	108	90	76	30

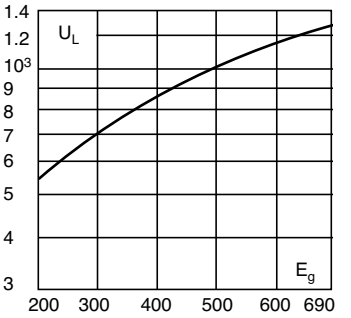
**Valid for fuses type -/110, -TN/110.
***Microswitch.
1mm = 0.0394" / 1" = 25.4mm

Type -/80, -TN/80, -/110, -TN/110.



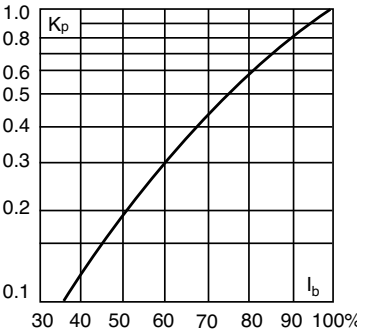
Arc voltage

This curve gives the peak arc voltage, U_L, which may appear across the fuse during its operation as a function of theapplied 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

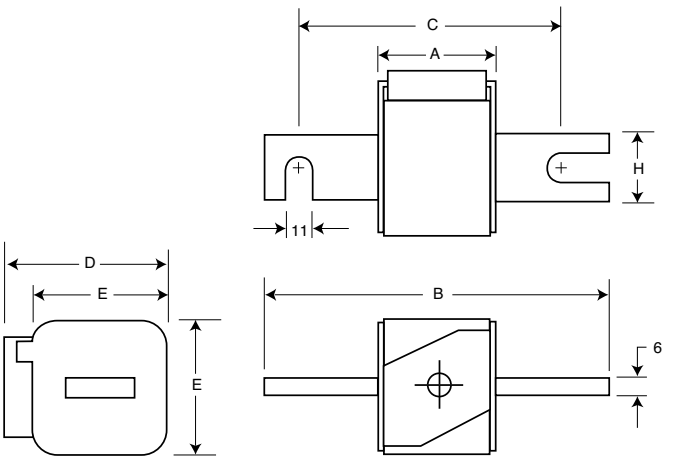
Typical applications

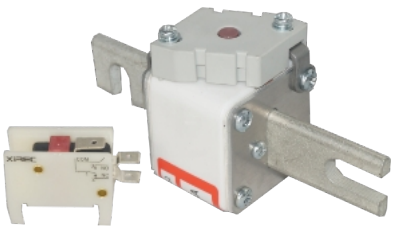
- DC Common bus
- DC Drives
- Power converters/rectifiers
- Reduced voltage starters

For other voltage ratings in this body style

• See pages 6-54 (1000V) and 6-67 (1250V/1300V)

Type -KN/80, -KN/110





78mm Catalogue Part Numbers	With Indicator	108mm Catalogue Part Numbers	With Indicator	Size	Rated RMS-Amps	I^2t(A^2 Sec) Current	at 660V
F170M3008	F170M3108	F170M3158	F170M3258	1*	40	40	270
F170M3009	F170M3109	F170M3159	F170M3259	1*	50	77	515
F170M3010	F170M3110	F170M3160	F170M3260	1*	63	115	770
F170M3011	F170M3111	F170M3161	F170M3262	1*	80	185	1250
F170M3012	F170M3112	F170M3162	F170M3262	1*	100	360	2450
F170M3013	F170M3113	F170M3163	F170M3263	1*	125	550	3700
F170M3014	F170M3114	F170M3164	F170M3264	1*	160	1100	7500
F170M3015	F170M3115	F170M3165	F170M3265	1*	200	2200	15000
F170M3016	F170M3116	F170M3166	F170M3266	1*	250	4200	28500
F170M3017	F170M3117	F170M3167	F170M3267	1*	315	7000	46500
F170M3018	F170M3118	F170M3168	F170M3268	1*	350	10000	68500
F170M3019	F170M3119	F170M3169	F170M3269	1*	400	15000	105000
F170M3020	F170M3120	F170M3170	F170M3270	1*	450	21000	140000
F170M3021	F170M3121	F170M3171	F170M3271	1*	500	27000	180000
F170M3022	F170M3122	F170M3172	F170M3272	1*	550	34000	230000
F170M3023	F170M3123	F170M3173	F170M3273	1*	630	48500	325000
F170M4008	F170M4108	F170M4158	F170M4258	1	200	1650	11500
F170M4009	F170M4109	F170M4159	F170M4259	1	250	3100	21000
F170M4010	F170M4110	F170M4160	F170M4260	1	315	6200	42000
F170M4011	F170M4111	F170M4161	F170M4262	1	350	8500	59000
F170M4012	F170M4112	F170M4162	F170M4262	1	400	13500	91500
F170M4013	F170M4113	F170M4163	F170M4263	1	450	17000	120000
F170M4014	F170M4114	F170M4164	F170M4264	1	500	25000	170000
F170M4015	F170M4115	F170M4165	F170M4265	1	550	34000	230000
F170M4016	F170M4116	F170M4166	F170M4266	1	630	52000	350000
F170M4017	F170M4117	F170M4167	F170M4267	1	700	69500	465000
F170M4018	F170M4118	F170M4168	F170M4268	1	800	105000	725000
F170M4019	F170M4119	F170M4169	F170M4269	1	900	155000	850000
F170M5008	F170M5108	F170M5158	F170M5258	2	400	1100	74000
F170M5009	F170M5109	F170M5159	F170M5259	2	450	15500	105000
F170M5010	F170M5110	F170M5160	F170M5260	2	500	21500	145000
F170M5011	F170M5111	F170M5161	F170M5262	2	550	28000	190000
F170M5012	F170M5112	F170M5162	F170M5262	2	630	41000	275000
F170M5013	F170M5113	F170M5163	F170M5263	2	700	60500	405000
F170M5014	F170M5114	F170M5164	F170M5264	2	800	86000	575000
F170M5015	F170M5115	F170M5165	F170M5265	2	900	125000	840000
F170M5016	F170M5116	F170M5166	F170M5266	2	1000	180000	1250000
F170M5017	F170M5117	F170M5167	F170M5267	2	1100	245000	1600000
F170M5018	F170M5118	F170M5168	F170M5268	2	1250	365000	2400000
F170M6008	F170M6108	F170M6158	F170M6258	3	500	14000	95000
F170M6009	F170M6109	F170M6159	F170M6259	3	550	195000	135000
F170M6010	F170M6110	F170M6160	F170M6260	3	630	31000	210000
F170M6011	F170M6111	F170M6161	F170M6262	3	700	44500	300000
F170M6012	F170M6112	F170M6162	F170M6262	3	800	69500	465000
F170M6013	F170M6113	F170M6163	F170M6263	3	900	100000	670000
F170M6014	F170M6114	F170M6164	F170M6264	3	1000	140000	945000
F170M6015	F170M6115	F170M6165	F170M6265	3	1100	190000	1300000
F170M6016	F170M6116	F170M6166	F170M6266	3	1250	290000	1950000

78mm Catalogue Part Numbers	Indicator & switch	108mm Catalogue Part Numbers	Indicator & Microswitch	Size	Rated RMS-Amps	I^2s(A^2 Sec) Current Pre-Arc	at 660V
F170M6017	F170M6117	F170M6167	F170M6267	3	1400	370000	2450000
F170M6018	F170M6118	F170M6168	F170M6268	3	1500	460000	3100000
F170M6019	F170M6119	F170M6169	F170M6269	3	1600	580000	3900000
F170M6020	F170M6120	F170M6170	F170M6270	3	1800	880000	5250000
F170M6021	F170M6121	F170M6171	F170M6271	3	2000	1150000	6350000

†Rated voltage (IEC) 600V.
‡Rated voltage (IEC) 550V.
• Watts loss provided at rated current.
• Microswitch indicator ordered separately.

Catalog numbers

Catalog numbers		Electrical characteristics			
DIN Type T indicator for micro	Size	Rated current RMS-amps	I²t (A²sec) Pre-arc	I²t (A²sec) Clearing at 660V	Watts loss
170M3808D		40	40	285	4
170M3809D		50	78	550	4.5
170M3810D		63	120	850	6.5
170M3811D		80	185	1350	8.5
170M3812D		100	360	2600	10
170M3813D		125	550	3900	11
170M3814D		160	1150	8250	12
170M3815D		200	2300	16500	12.5
170M3816D	1*	250	4350	31000	16
170M3817D		315	7300	52000	20
170M3818D		350	10000	73000	21.5
170M3819D		400	16000	115000	60
170M4863D		450	21500	155000	26.3
170M4864D		500	27000	190000	28.5
170M4865D		550	33500	240000	33
170M4866D		630	48500	345000	37.5
170M4867D†		700	69500	495000	39
170M5808D		400	11000	79000	29
170M5809D		450	16000	115000	32
170M5810D		500	21500	155000	34
170M5811D		550	29000	215000	36
170M5812D	2	630	41000	295000	42
170M5813D		700	60500	430000	43
170M5814D		800	86000	610000	48
170M5820D		900	125000	895000	52
170M5816D		1000	180000	1300000	53
170M5817D		1100	245000	1750000	56
170M6808D		500	14000	99500	43
170M6809D		550	19500	140000	44
170M6810D		630	31000	220000	45
170M6811D		700	45000	320000	46
170M6812D		800	69500	490000	48
170M6813D	3	900	100000	720000	50
170M6814D		1000	140000	985000	56
170M6892D		1100	190000	1400000	57
170M8554D		1250	300000	2150000	61
170M8555D		1400	380000	2700000	70
170M8556D		1500	470000	3350000	72
170M8557D		1600	585000	4150000	74

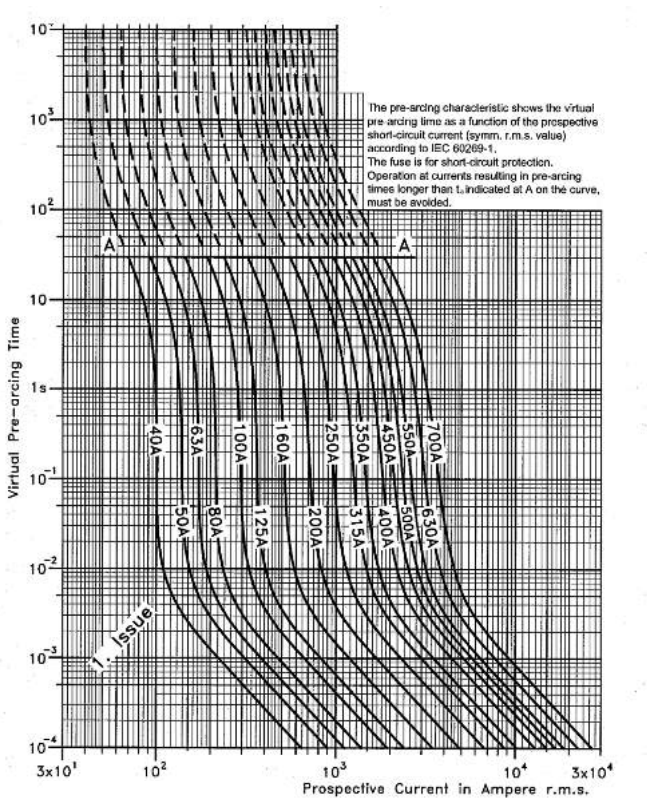
† Not CSA rated.
• Watts loss provided at rated current.
• Microswitch indicator ordered separately. See accessories on pages 6-92 and 6-93.
• For fuse curves see page 6-42.

Rated current

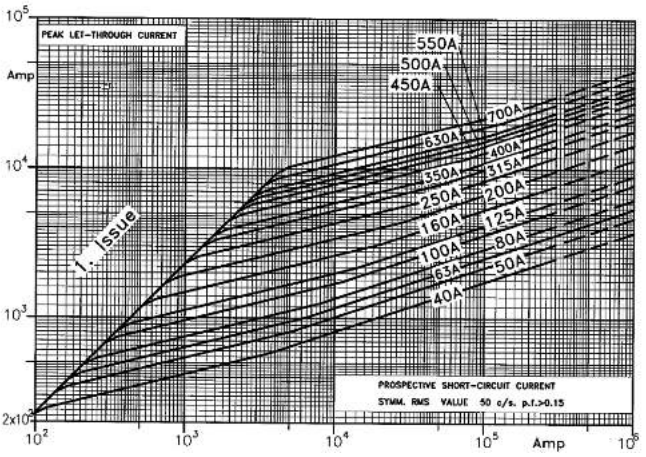
The rated current of this fuse range has been given with copper conductors that have a current density of 1.3A/mm² (IEC 60269-4). For conductor cross section according to IEC 60269-1, the fuses must be derated. Please contact Bussmann for application assistance.

Size 1* — 40-630A: 690V

Time-current curve

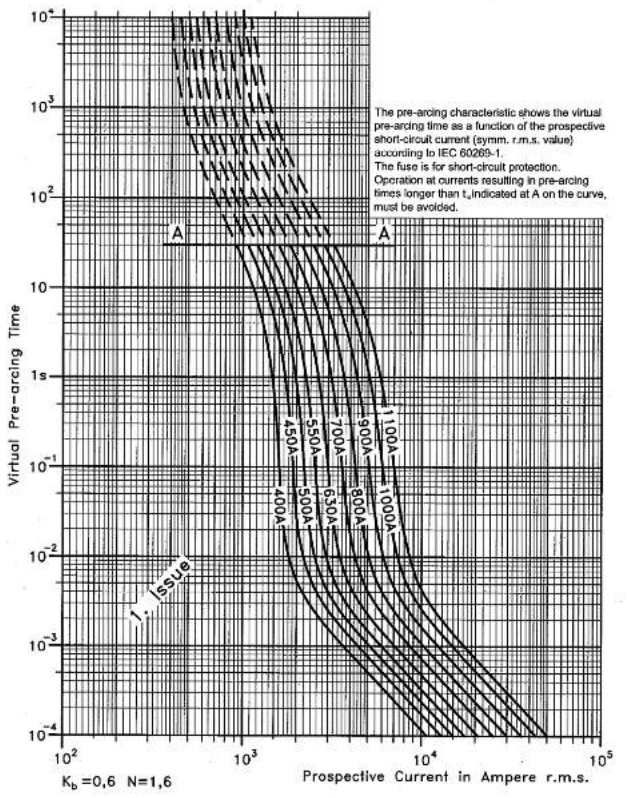


Peak let-through curve

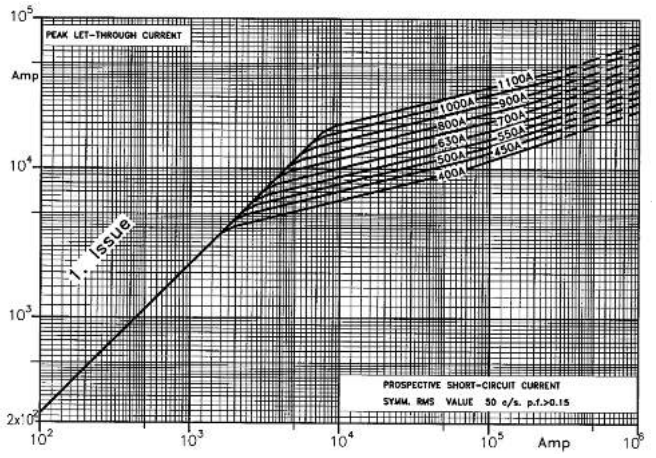


Size 2 — 400-1250A: 690V

Time-current curve

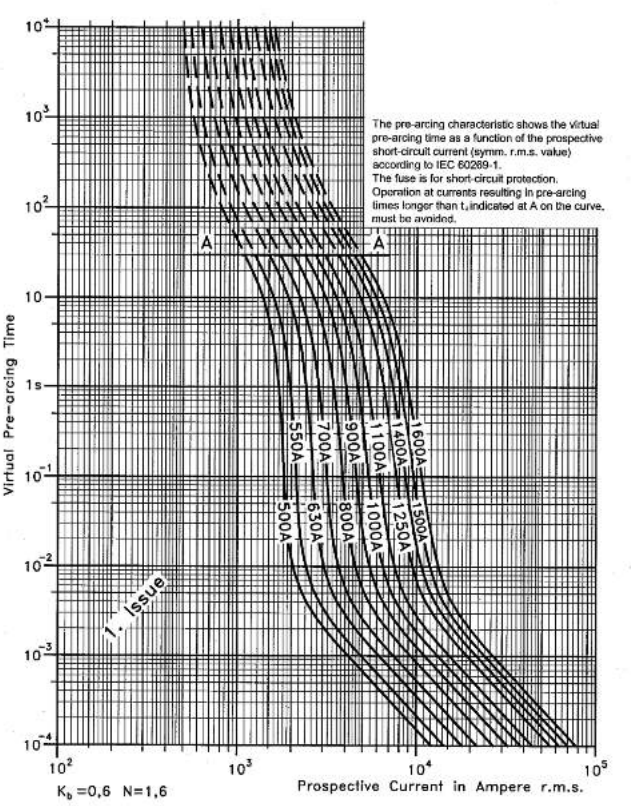


Peak let-through curve



Size 3 — 500-2000A: 690V

Time-current curve



Peak let-through curve