170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Specifications

Description

Square body DIN 43620 blade high speed fuse links. Full range protection fuse links provide both overload and short-circuit protection.
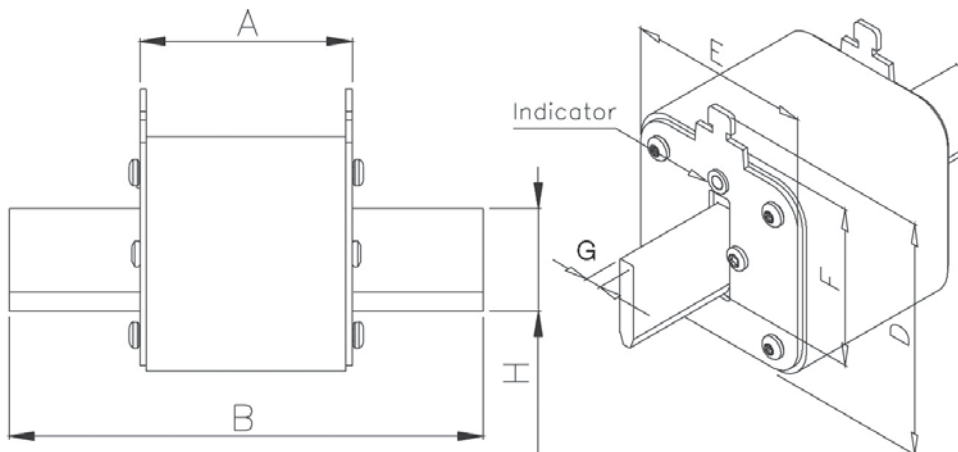
Technical data

- Rated voltage: 690 V a.c. (IEC)
- Rated current: 10 A to 800 A
- Breaking capacity: 200 kA RMS Sym
- Operating class: gR

Standards / Agency information

CE, Designed and tested to IEC 60269 Part 4

Dimensions (mm)

Size	A	B	D (max)	E (max)	F	G	H (min)
00	49	78.5	60	30	35	6	15
1	68	135	66	52	40	6	20
2	68	150	74	60	48	6	25
3	68	150	89	75	60	6	32

Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

Square body fuse links

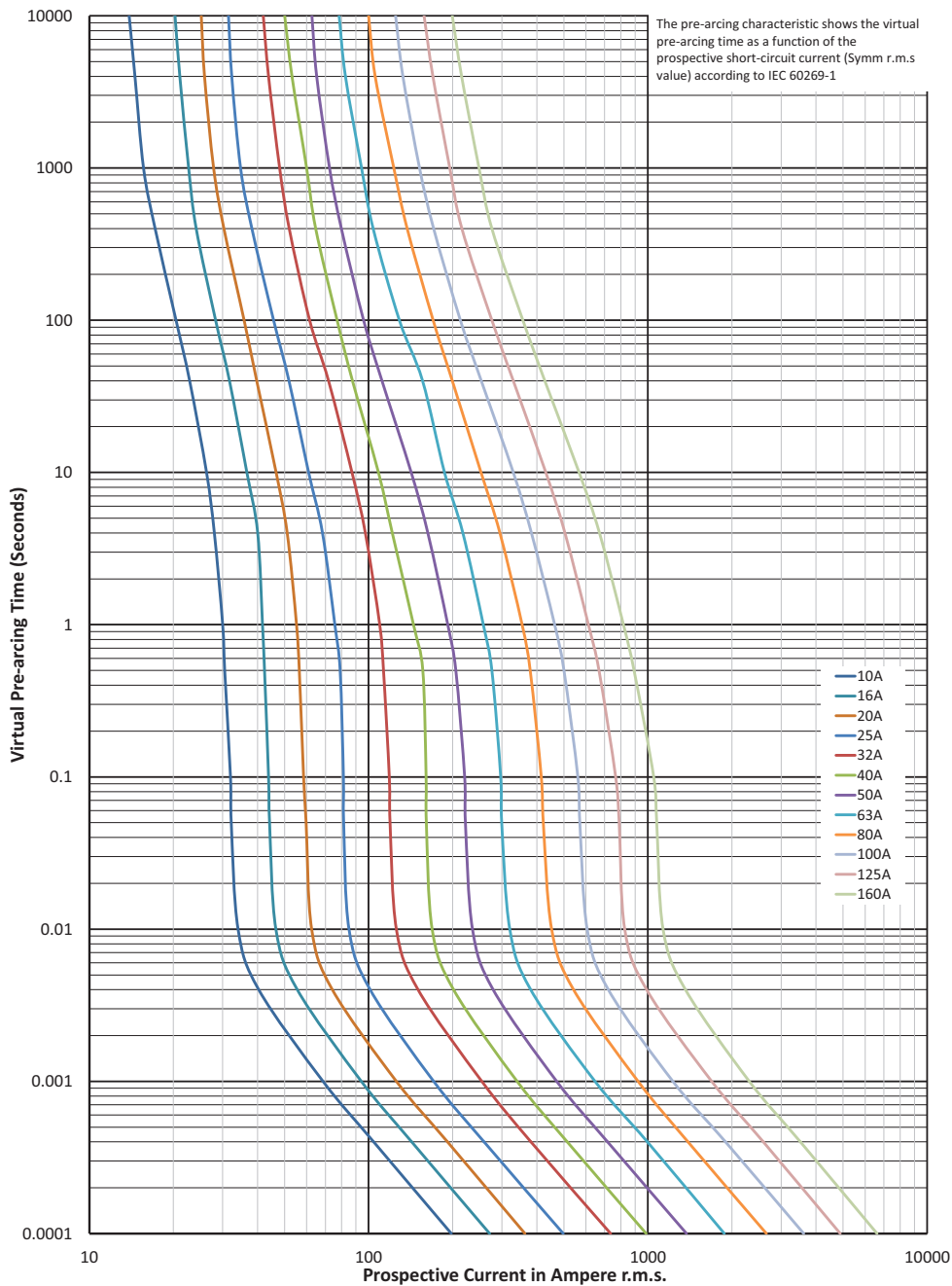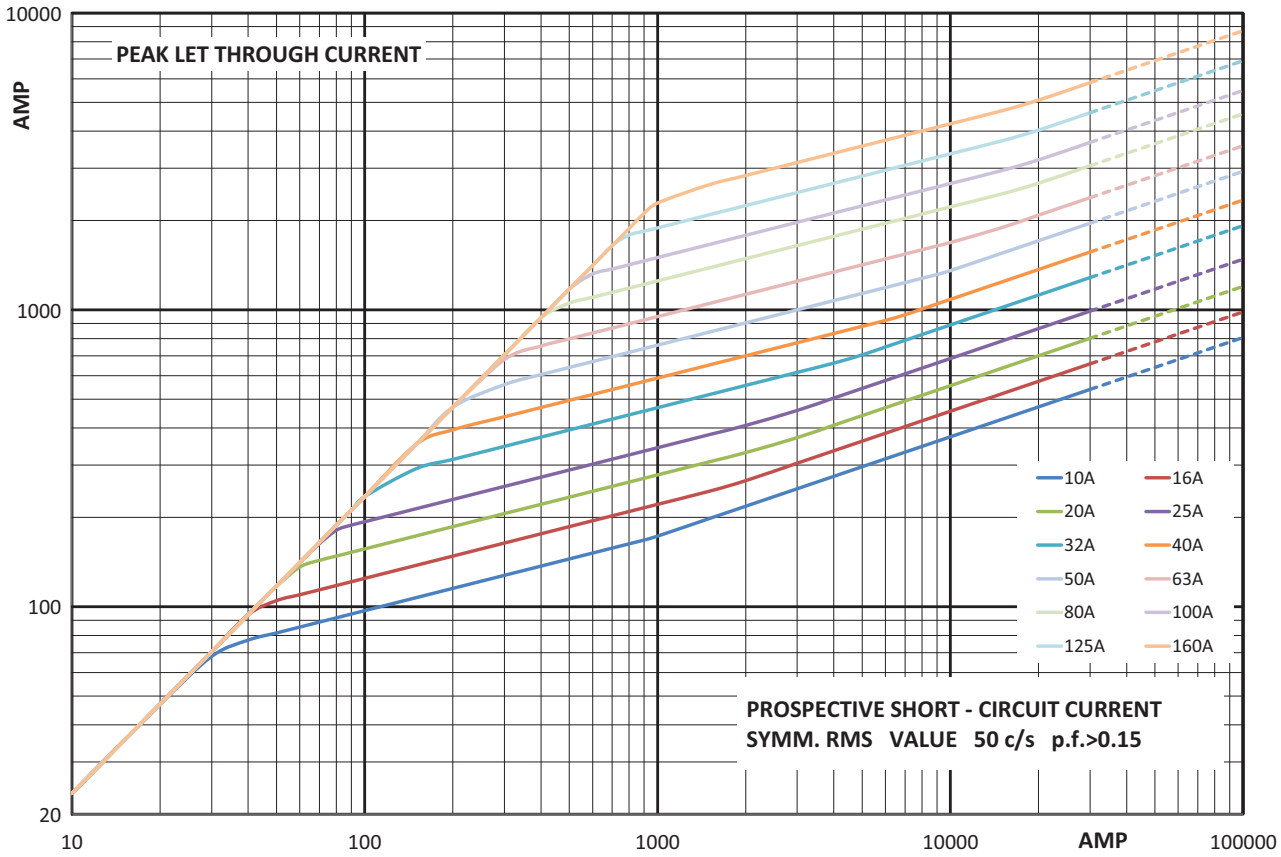## 170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Catalogue numbers

Fuse link body size	Rated voltage	Rated current (Amps)[1]	I²t (A² Sec) Pre-arcing	Clearing at 690 V a.c.	Watts loss (W)	Catalogue numbers Type T indicator for micro
00	690 V a.c. (IEC)	10	3.8	20	3.5	170M2691
		16	7.2	38	5.5	170M2692
		20	13	70	6	170M2693
		25	24	125	8	170M2694
		32	53	275	9	170M2695
		40	95	490	10	170M2696
		50	185	1000	11	170M2697
		63	345	1800	14	170M2698
		80	695	3600	16	170M2699
		100	1250	6650	19	170M2700
		125	2300	12,000	23	170M2701
		160	4350	22,500	29	170M2702
1	690 V a.c. (IEC)	50	135	705	12	170M4176
		63	245	1300	15	170M4177
		80	500	2600	17	170M4178
		100	950	4850	20	170M4179
		125	1850	9500	23	170M4180
		160	3450	18,000	28	170M4181
		200	6750	34,500	31	170M4182
		250	13,500	70,500	35	170M4183
		315	26,000	135,000	41	170M4184
		350	34,000	175,000	45	170M4185
		400	48,500	250,000	48	170M4186
2	690 V a.c. (IEC)	200	5650	29,000	33	170M5881
		250	10,000	52,500	40	170M5882
		315	19,500	105,000	46	170M5883
		350	26,000	135,000	50	170M5884
		400	39,500	205,000	53	170M5885
		450	55,500	290,000	59	170M5886
		500	73,000	375,000	66	170M5887
		550	100,000	515,000	70	170M5888
		630	150,000	770,000	79	170M5889
3	690 V a.c. (IEC)	350	23,000	120,000	55	170M6080
		400	34,000	175,000	59	170M6081
		450	48,500	250,000	62	170M6082
		500	64,000	330,000	67	170M6083
		550	84,500	435,000	70	170M6084
		630	125,000	645,000	85	170M6085
		700	160,000	840,000	93	170M6086
		800	245,000	1,300,000	99	170M6087

[1] The RMS Amp rating of this fuse links range is given with open fuse bases connected to copper conductors according to IEC 60269-1, table 17. When used in enclosed fuse bases/disconnects, derating factors have to be observed. Please contact Eaton for application assistance bulehighspeedtechnical@eaton.com.

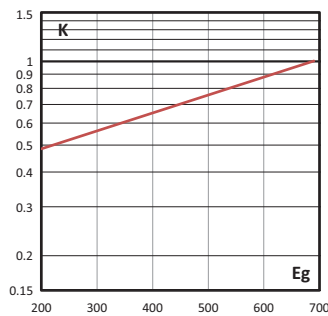Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Time-current curve - Size 00, 10 A to 160 A

The pre-arcing characteristic shows the virtual pre-arcing time as a function of the prospective short-circuit current (Symmn r.m.s value) according to IEC 60269-1

- 10A
- 16A
- 20A
- 25A
- 32A
- 40A
- 50A
- 63A
- 80A
- 100A
- 125A
- 160A

Virtual Pre-arcing Time (Seconds)

Prospective Current in Ampere r.m.s.

$K_b =$ 1 $N =$ 1.6

Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

Square body fuse links

170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Cut-off curve - Size 00, 10 A to 160 A

Legend:
- 10A
- 16A
- 20A
- 25A
- 32A
- 40A
- 50A
- 63A
- 80A
- 100A
- 125A
- 160A

PROSPECTIVE SHORT - CIRCUIT CURRENT
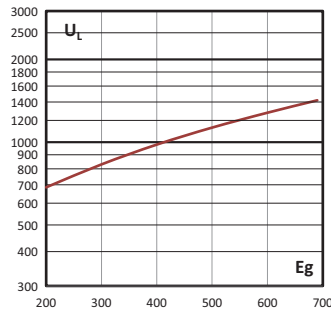SYMM. RMS   VALUE   50 c/s   p.f.>0.15

Total clearing I²t

The total clearing I^2t at rated voltage and at a power factor of 15 percent 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).
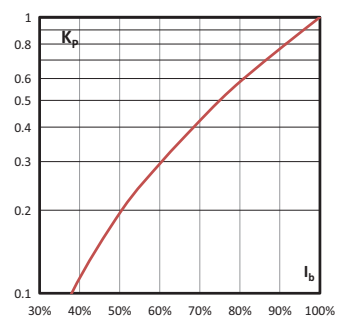

Arc voltage

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 percent.
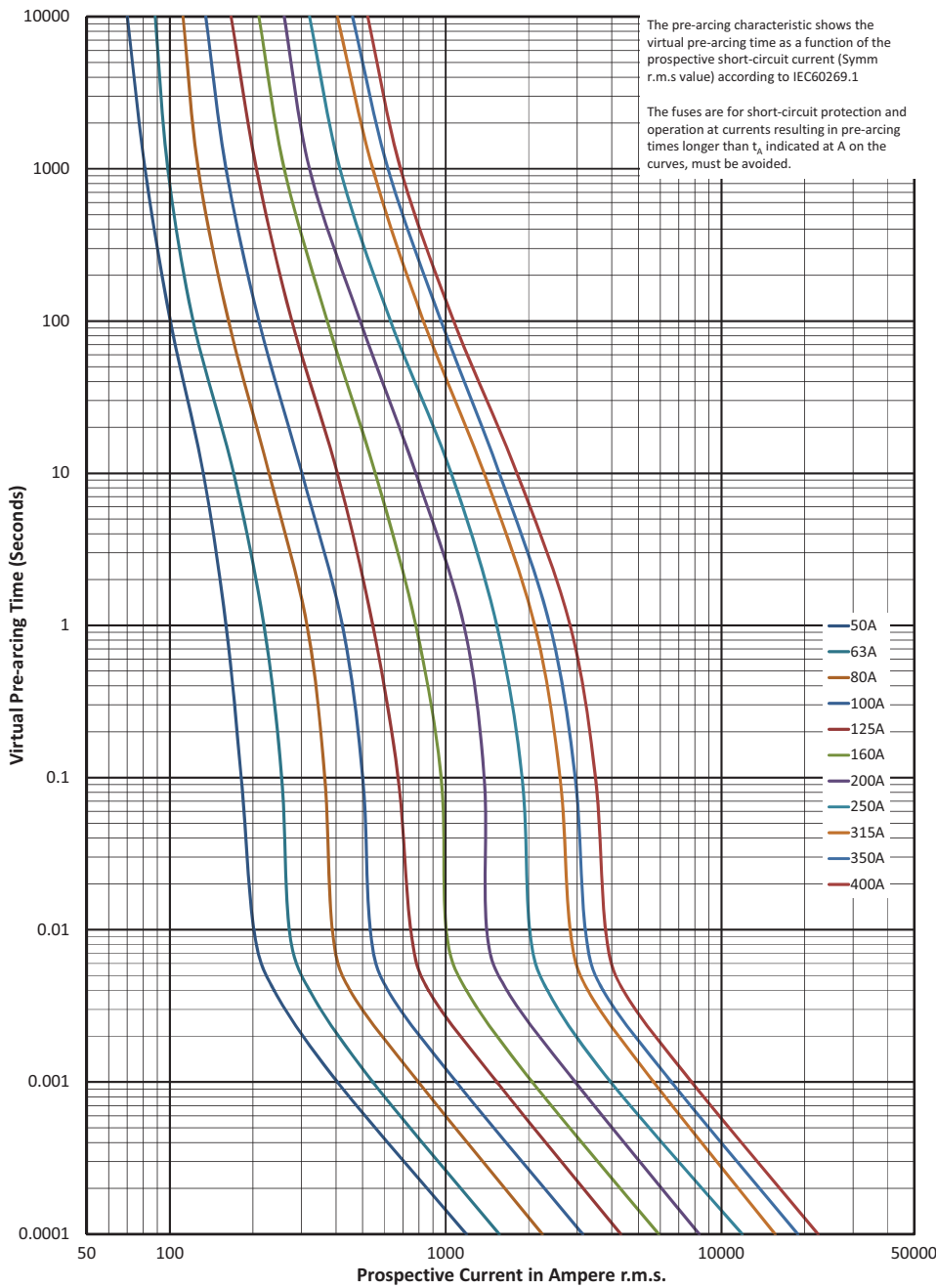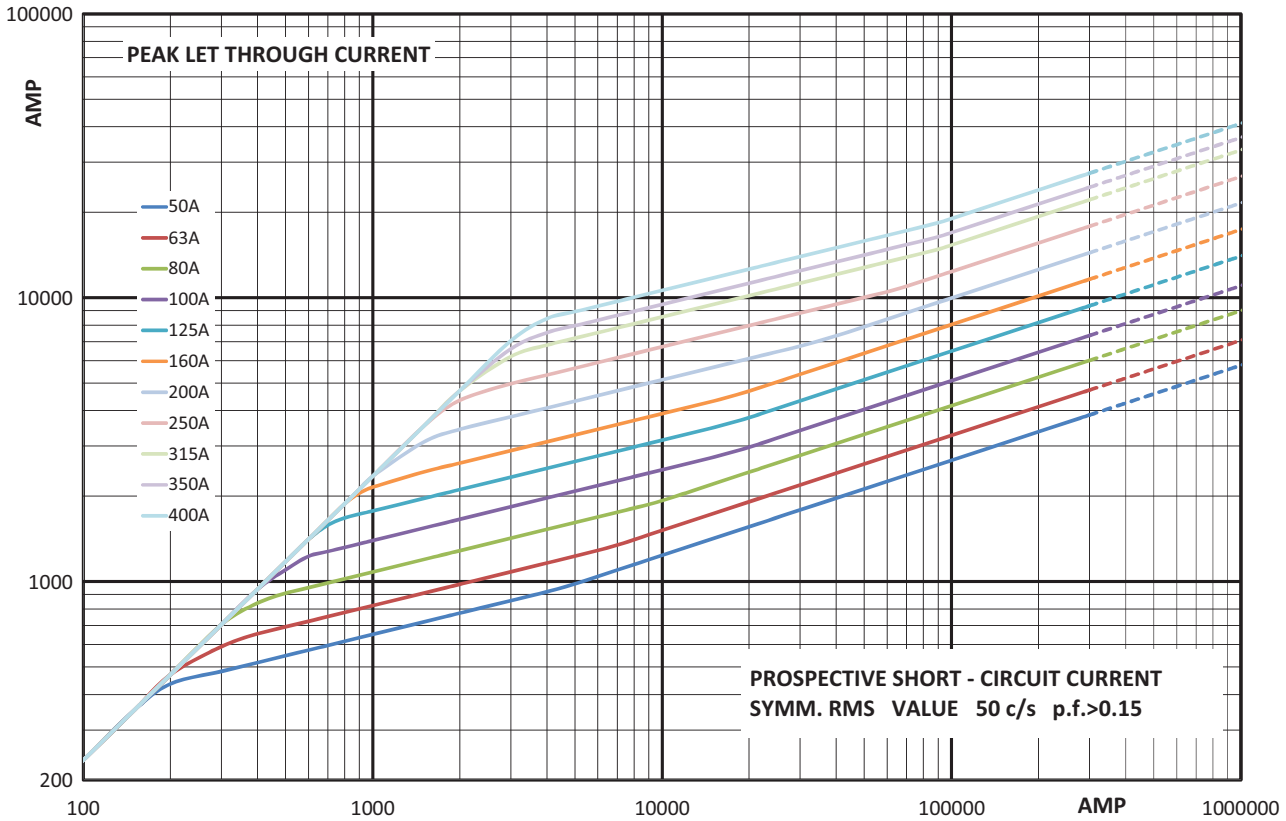

Watts losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts 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 percent of the rated current.

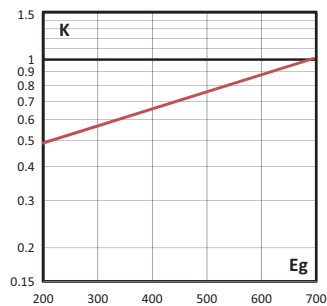Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Time-current curve - Size 1, 50 A to 400 A

The pre-arcing characteristic shows the virtual pre-arcing time as a function of the prospective short-circuit current (Symm r.m.s value) according to IEC60269.1

The fuses are for short-circuit protection and operation at currents resulting in pre-arcing times longer than t_A indicated at A on the curves, must be avoided.

Legend:
- 50A
- 63A
- 80A
- 100A
- 125A
- 160A
- 200A
- 250A
- 315A
- 350A
- 400A

Axis: Virtual Pre-arcing Time (Seconds) vs Prospective Current in Ampere r.m.s.

K_b = 1   N = 1,6

Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

Square body fuse links

170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Cut-off curve - Size 1, 50 A to 400 A

PEAK LET THROUGH CURRENT

AMP

50A
63A
80A
100A
125A
160A
200A
250A
315A
350A
400A

PROSPECTIVE SHORT - CIRCUIT CURRENT
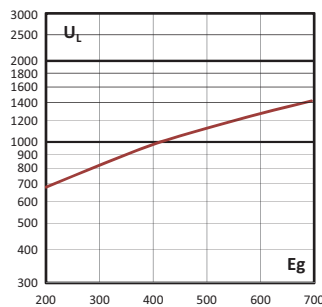SYMM. RMS   VALUE   50 c/s   p.f.>0.15

AMP

Total clearing I²t

The total clearing I²t at rated voltage and at a power factor of 15 percent 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).
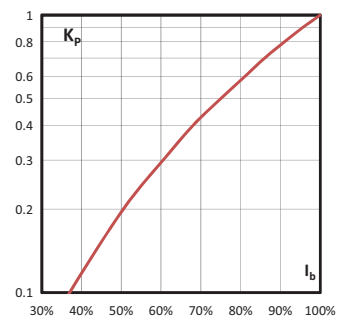

Arc voltage

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 percent.
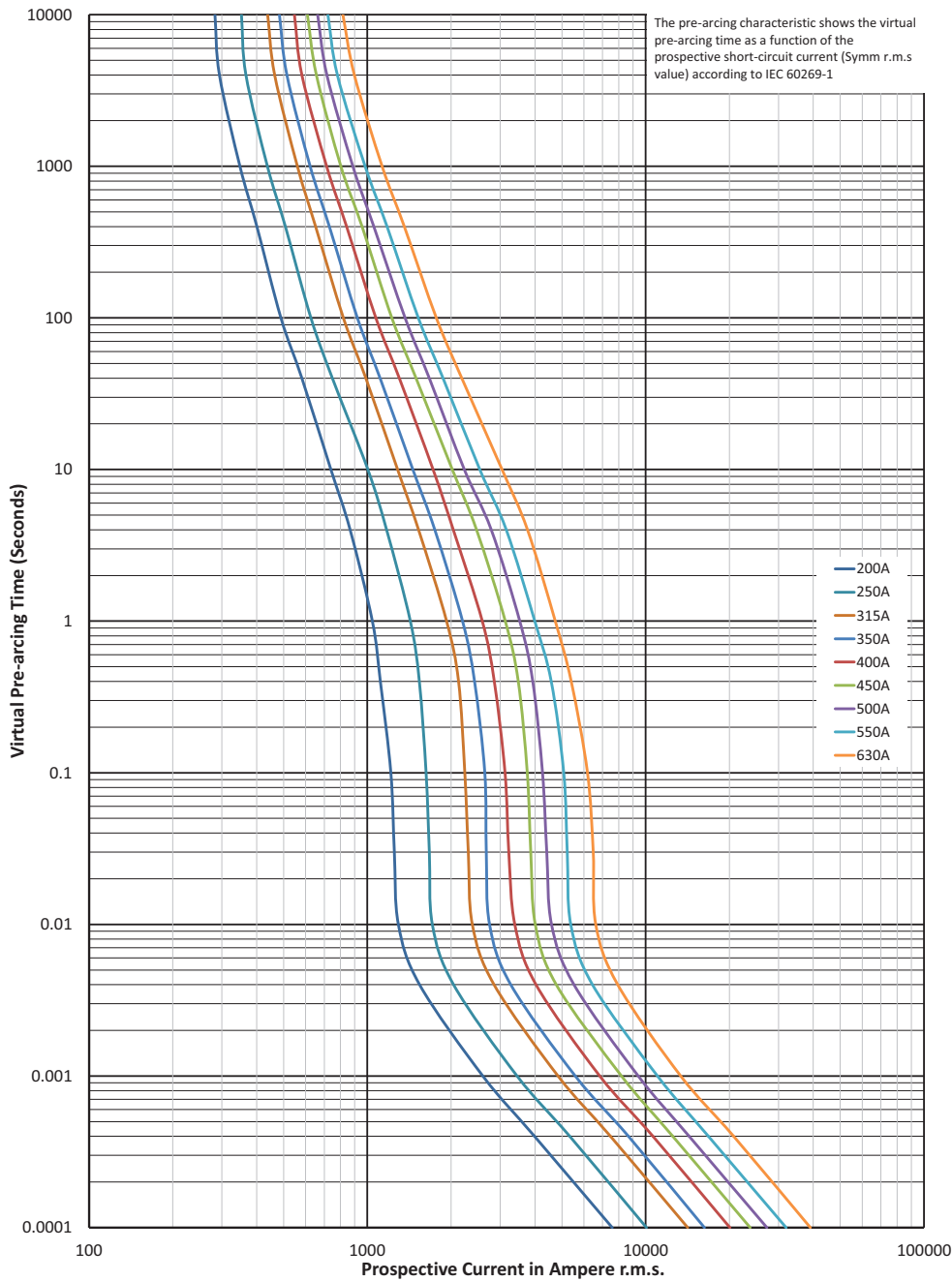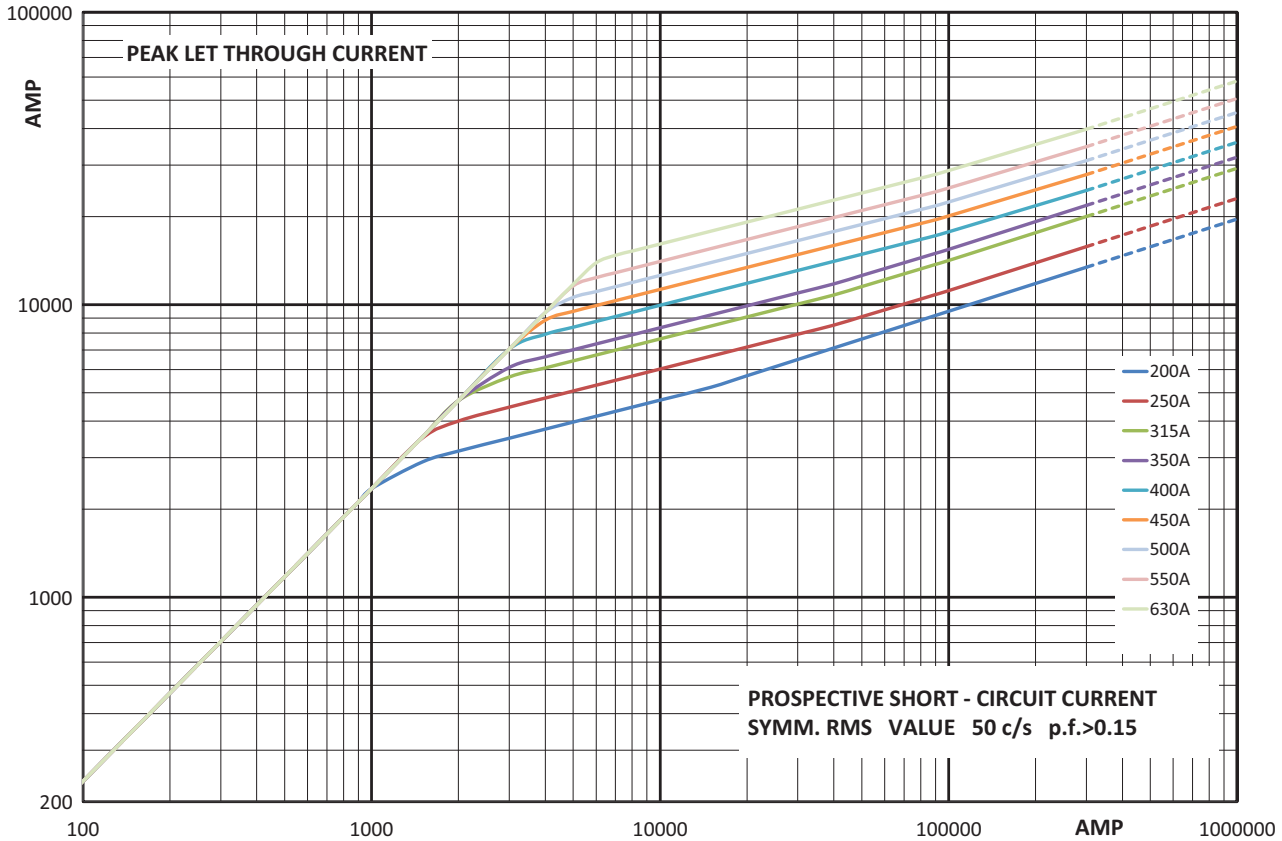

Watts losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts 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 percent of the rated current.

Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Time-current curve - Size 2, 200 A to 630 A

The pre-arcing characteristic shows the virtual pre-arcing time as a function of the prospective short-circuit current (Symm r.m.s value) according to IEC 60269-1

Legend:
- 200A
- 250A
- 315A
- 350A
- 400A
- 450A
- 500A
- 550A
- 630A

Axis labels:
- Y-axis: Virtual Pre-arcing Time (Seconds)
- X-axis: Prospective Current in Ampere r.m.s.

K_b = 1   N = 1.6

Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

Square body fuse links

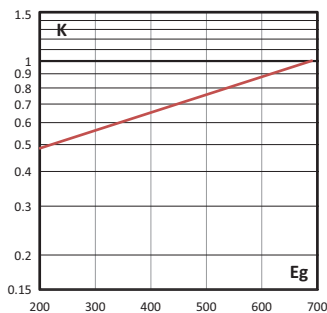## 170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A
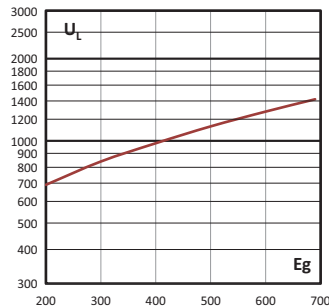
Cut-off curve - Size 2, 200 A to 630 A

PEAK LET THROUGH CURRENT

AMP

Legend:
- 200A
- 250A
- 315A
- 350A
- 400A
- 450A
- 500A
- 550A
- 630A

PROSPECTIVE SHORT - CIRCUIT CURRENT
SYMM. RMS VALUE 50 c/s p.f.>0.15

AMP

Total clearing I²t

The total clearing I²t at rated voltage and at a power factor of 15 percent 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).
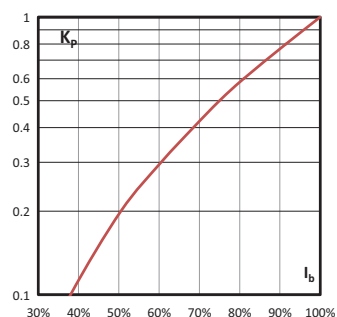

Arc voltage

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 percent.
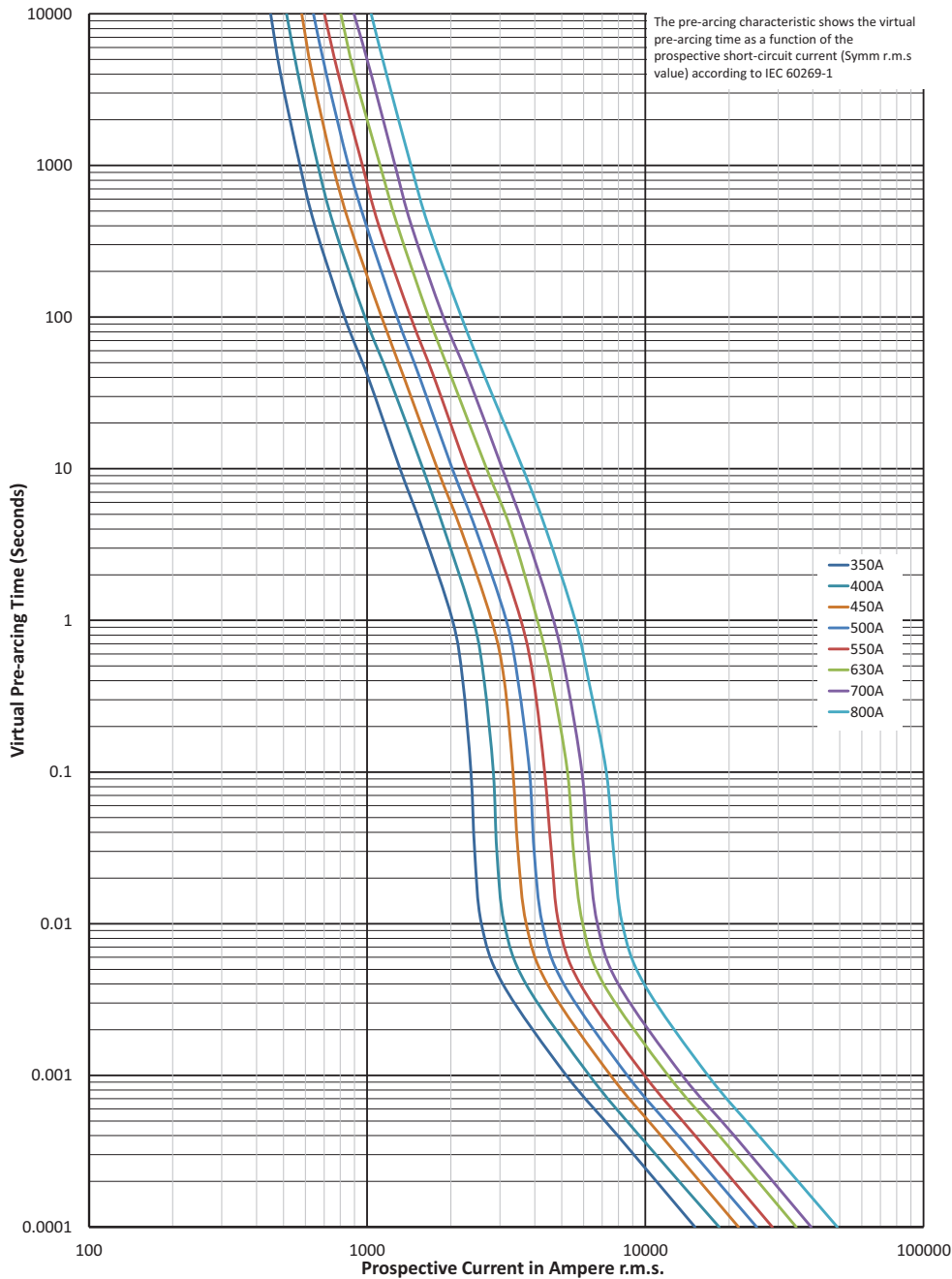

Watts losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts 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 percent of the rated current.

Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Time-current curve - Size 3, 350 A to 800 A

The pre-arcing characteristic shows the virtual pre-arcing time as a function of the prospective short-circuit current (Symm r.m.s value) according to IEC 60269-1

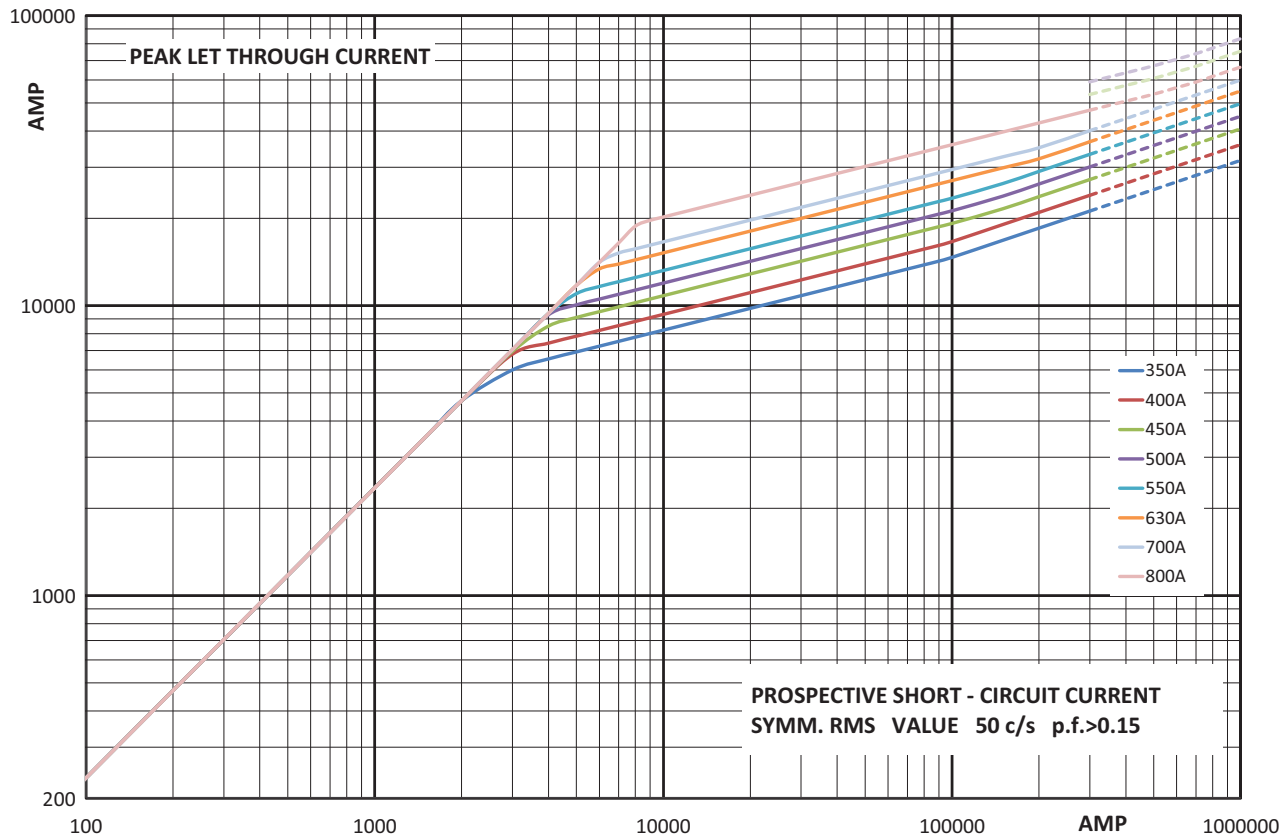Legend: 350A, 400A, 450A, 500A, 550A, 630A, 700A, 800A

$K_b = 1$ $N = 1.6$

Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)

Square body fuse links

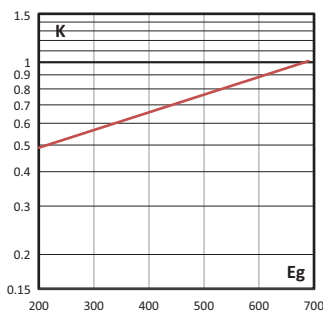## 170M - Sizes 00 to 3, DIN 43620, Full range (gR), 690 V a.c. (IEC), 10 A to 800 A

Cut-off curve - Size 3, 350 A to 1000 A

PEAK LET THROUGH CURRENT

AMP

Legend:
- 350A
- 400A
- 450A
- 500A
- 550A
- 630A
- 700A
- 800A

PROSPECTIVE SHORT - CIRCUIT CURRENT
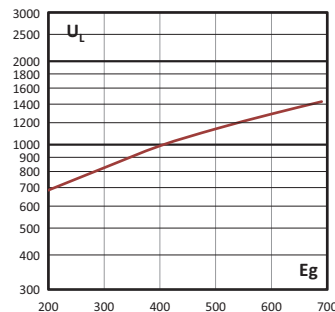SYMM. RMS   VALUE   50 c/s   p.f.>0.15

AMP

Total clearing I²t

The total clearing I²t at rated voltage and at a power factor of 15 percent 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).

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 percent.

Watts losses

Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts 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 percent of the rated current.

Data sheets: 170K6412 (Size 00), 170K6416 (Size 1), 170K6418 (Size 2), 170K6420 (Size 3)