

Eaton's Bussmann series
IEC High speed fuse links catalogue

BUSSMANN
SERIES

Leadership in fusible circuit protection

EATON

Powering Business Worldwide

170M - Sizes 1*, 3 and 23, Square body fuse links, 750 V d.c. (IEC), 50 A to 1600 A

Specifications

Description

Traction flush end square body high speed fuse links for superior protection of DC third rail applications up to 750 V d.c.

Technical data

- Rated voltage: 750 V d.c. (IEC)
- Rated current: 50 A to 1600 A
- Breaking capacity: see details in table below
- Operating class:
 - aR size 1*
 - gR: size 1* (at 900 V d.c.), 3 and 23

Standards / Agency information

IEC 60269



Catalogue numbers

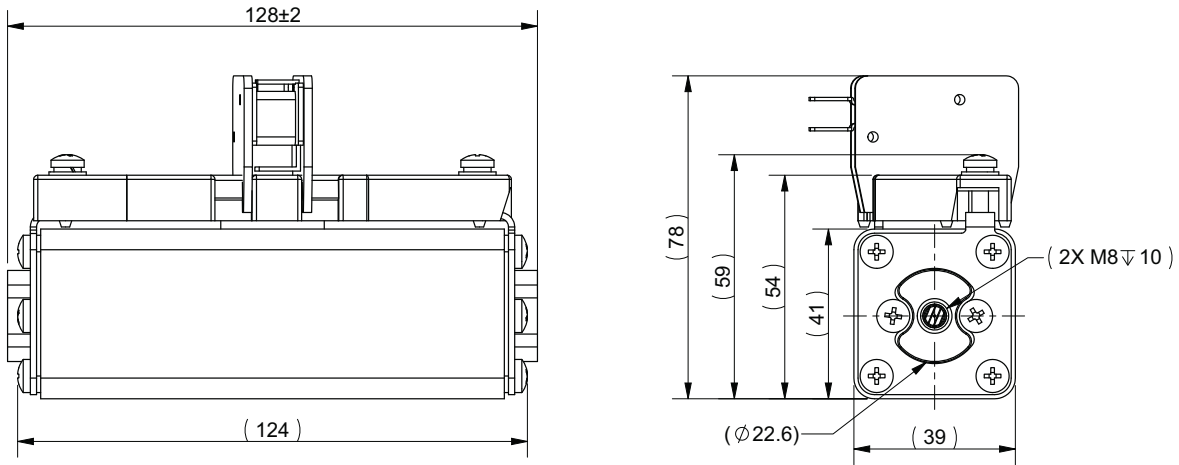
Fuse link type	Fuse link body size	Rated voltage	Rated current (Amps)	Breaking capacity	I ² t (A ² Sec)		Watts loss (W)		Catalogue numbers
					Pre-arcing	Clearing at 750 V d.c.	0.8 I _n	I _n	
Flush end	1*	750 V d.c. / 900 V d.c. (IEC)	50	80 kA at 750 V d.c. L/R 65 ms	390	1300	15	27	170M2000
			63		610	2050	18	35	170M2001
			80		670	2250	19	37	170M2002
			100		2450	8150	21	40	170M2003
			125		2950	9800	24	47	170M2004
			160		5500	18,250	29	56	170M2005
Flush end	3	750 V d.c. (IEC)	450	100 kA at 700 V d.c. L/R 100 ms	65,700	272,300	46	87	170M2010
			500		83,200	344,800	52	98	170M2011
			550		136,700	566,500	67	126	170M2012
			630		173,500	719,000	75	142	170M2013
			700		268,000	1,110,500	78	156	170M2014
			750		307,600	1,275,000	83	167	170M2015
Parallel	23	800 V d.c. (IEC/ UL)	800	100 kA at 800 V d.c., L/R 40 ms	349,900	1,450,000	89	178	170M2016
			1000		476,300	1,973,700	112	187	170M2017
			1250		694,000	2,875,800	134	224	170M2018
			1400		1,071,600	4,440,500	152	254	170M2019
			1500		1,230,200	5,097,700	165	275	170M2020
			1600		1,399,700	5,800,100	180	300	170M2021

Data sheets: 720140, size 1* 5785524, 3 5785521, 23 5785525

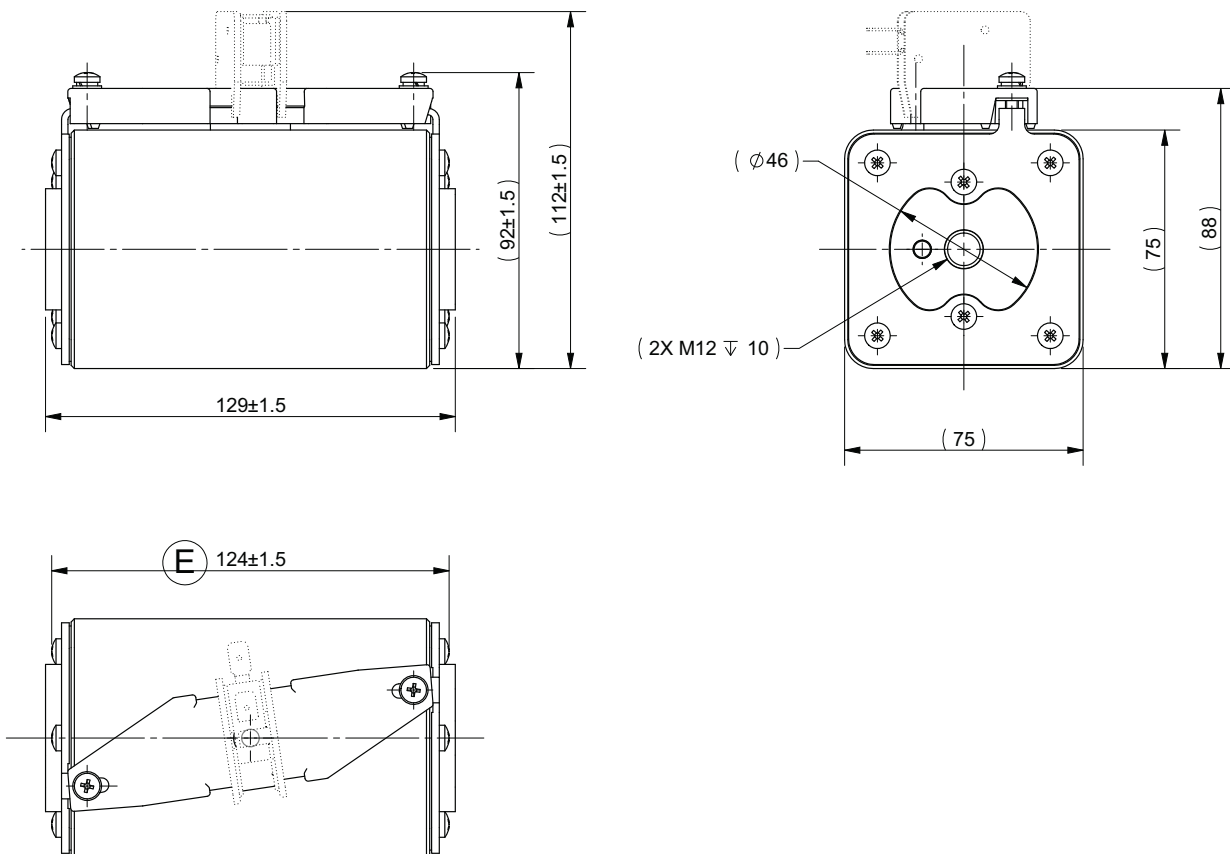
Traction fuse links

170M - Sizes 1*, 3 and 23, Square body fuse links, 750 V d.c. (IEC), 50 A to 1600 A

Dimensions (mm) - Size 1*, 170M2000 to 170M2005, Flush end



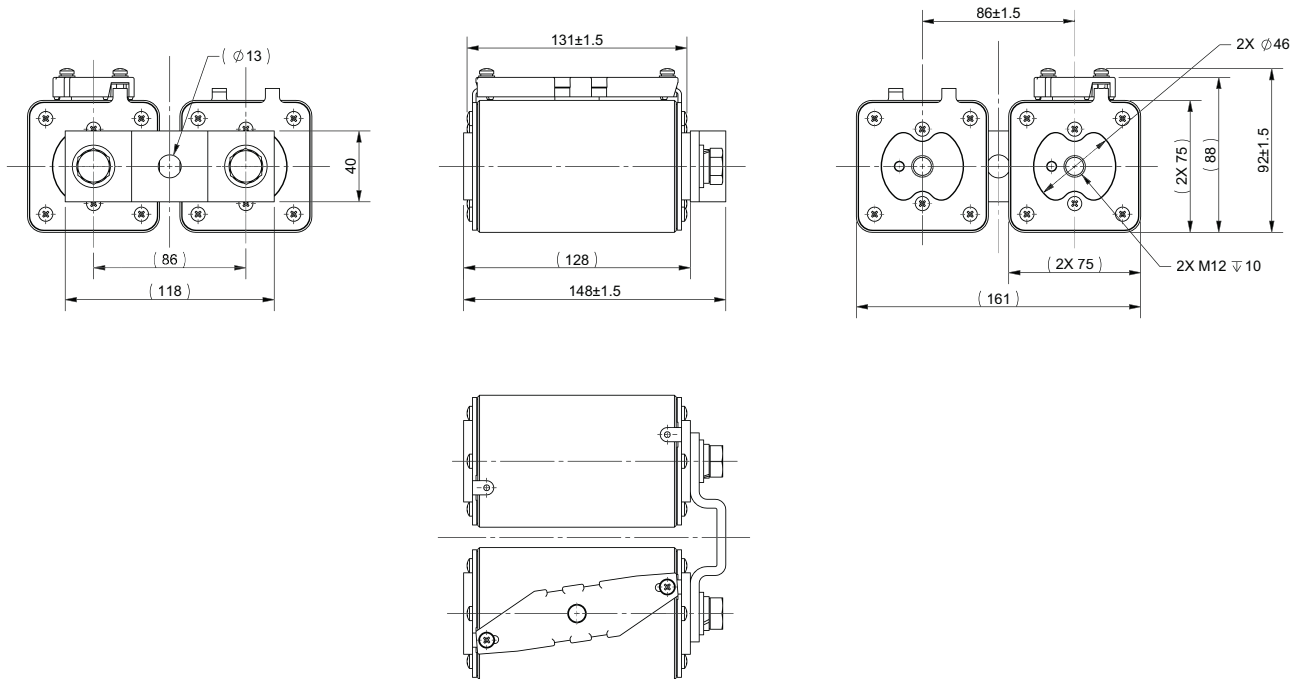
Dimensions (mm) - Size 3, 170M2010 to 170M2016, Flush end



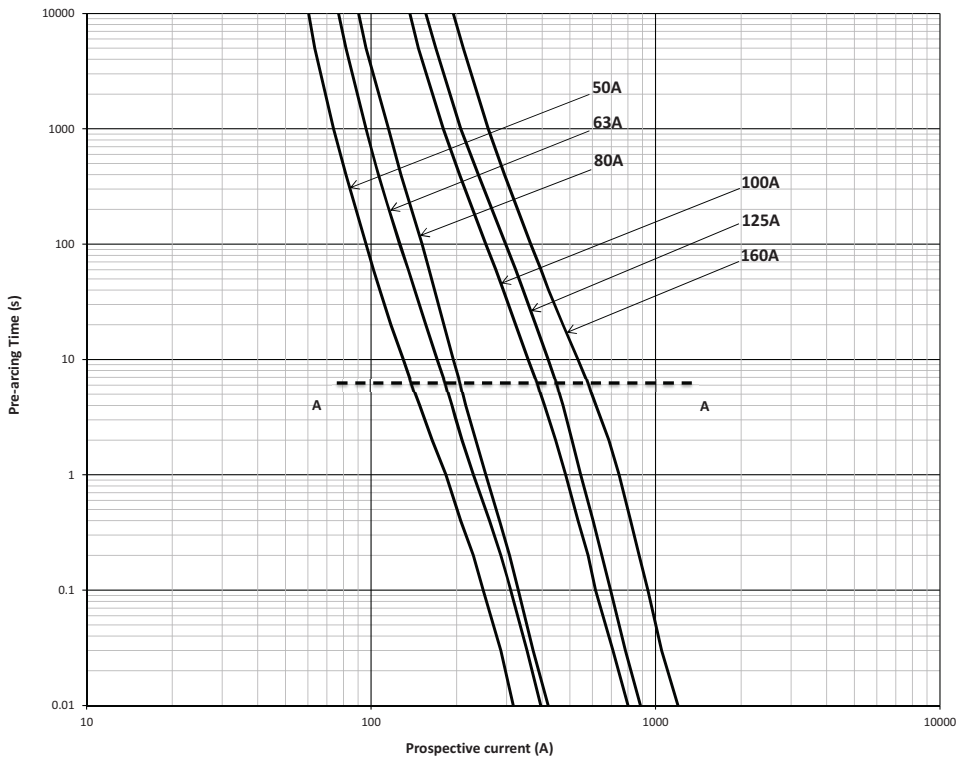
Data sheets: 720140, size 1* 5785524, 3 5785521, 23 5785525

170M - Sizes 1*, 3 and 23, Square body fuse links, 750 V d.c. (IEC), 50 A to 1600 A

Dimensions (mm) - Size 23, 170M2017 to 170M2021, Parallel



Time-current curve - 170M2000 to 170M2005, 50 A to 160 A

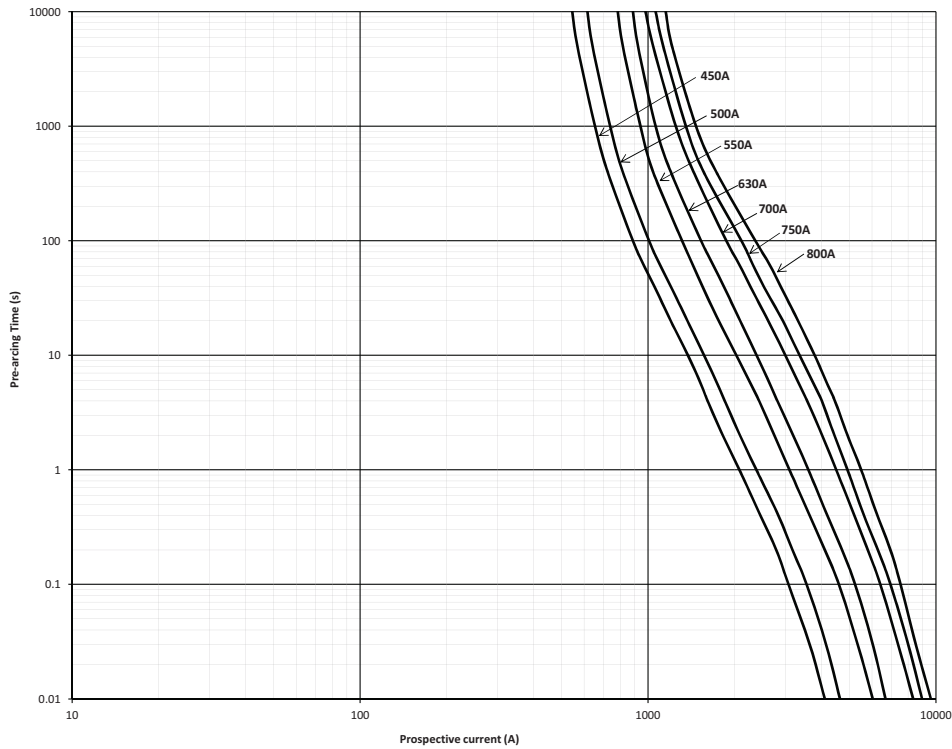


Data sheets: 720140, size 1* 5785524, 3 5785521, 23 5785525

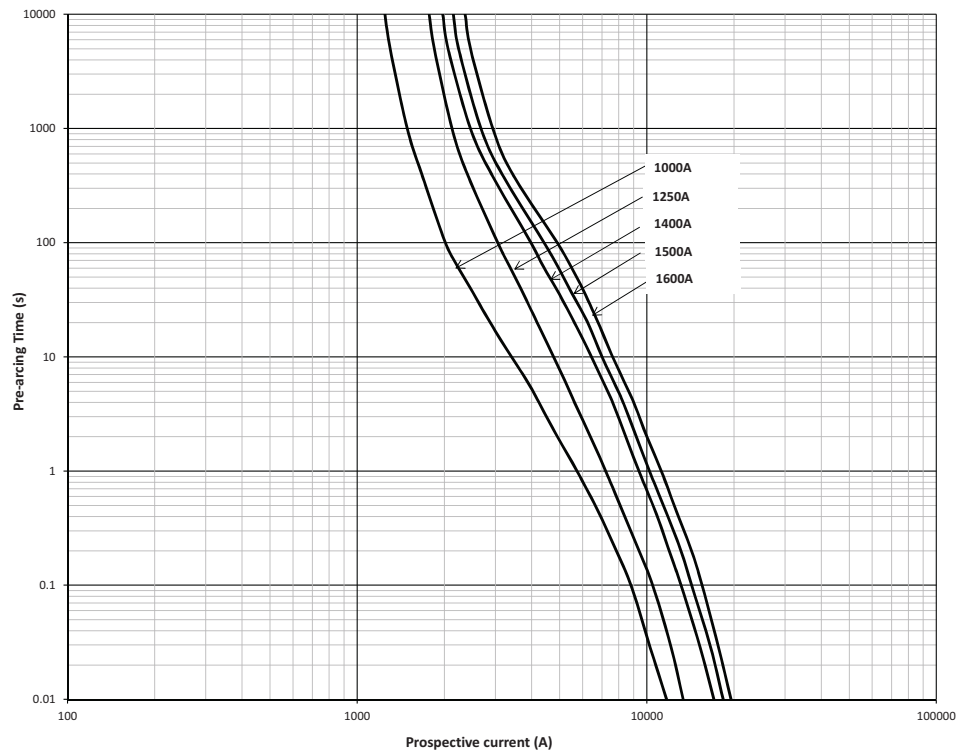
Traction fuse links

170M - Sizes 1*, 3 and 23, Square body fuse links, 750 V d.c. (IEC), 50 A to 1600 A

Time-current curve - 170M2010 to 170M2016, 450 A to 800 A



Time-current curve - 170M2017 to 170M2021, 1000 A to 1600 A



Data sheet: 720140

170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Specifications

Description

Traction flush end square body high speed fuse links for superior protection of DC third rail applications up to 750 V d.c..

Technical data

- Rated voltage: 750 V d.c. (IEC)
- Rated current: 63 A to 500 A
- Breaking capacity: see details below
- Operating class: gR

Standards / Agency information

Consult Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

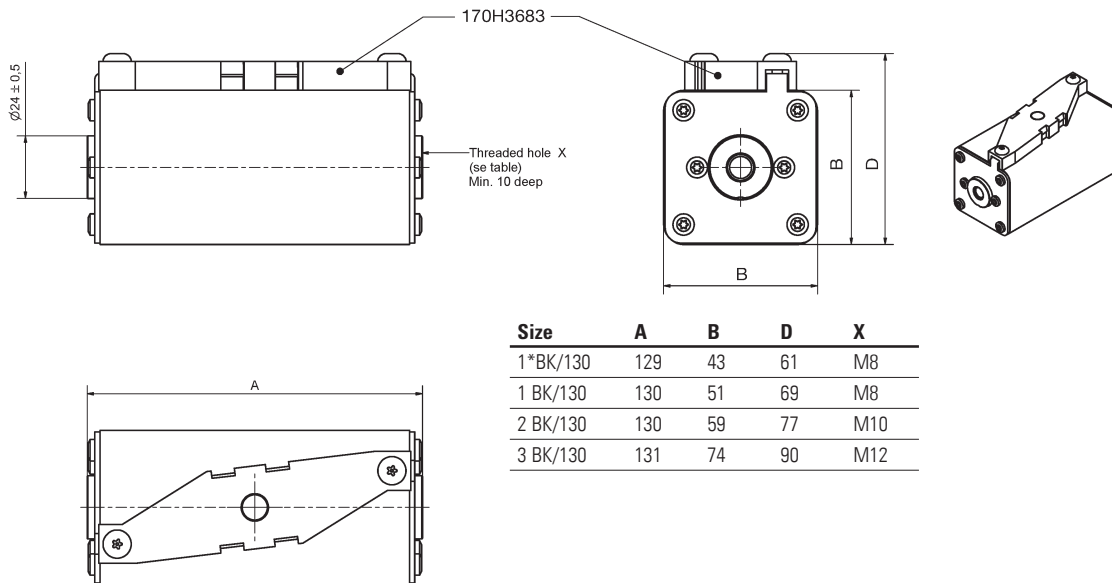
Fuse link body size	Rated voltage	Breaking capacity	Rated current (Amps)	I _t (A ² s) Pre-arcing	Watts loss (W)	Catalogue numbers		Fuse link type
						-BK flush end	-EK knife blade	
1*	750 V d.c. (IEC)	80 kA at 43ms	63	1100	10	170E3577	170E3583	
			80	1750	13	170E3578	170E3584	
			100	3000	16	170E3579	170E3585	EK/155
			125	4500	21	170E3580	170E3586	
			160	7700	26	170E3581	170E3587	
1	750 V d.c. (IEC)	50 kA at 15ms	200	11,000	37	170E5417	170E5420	EK/165
			250	18,000	46	170E5418	170E5421	
			250	17,000	47	170E8335	170E8345	
2	750 V d.c. (IEC)	100 kA at 15ms	315	28,000	57	170E8336	170E8346	EK/170
			400	55,000	73	170E8337	170E8347	
3	750 V d.c. (IEC)	50 kA at 15 ms	500	75,500	93	170E9681	170E9685	EK/170

Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

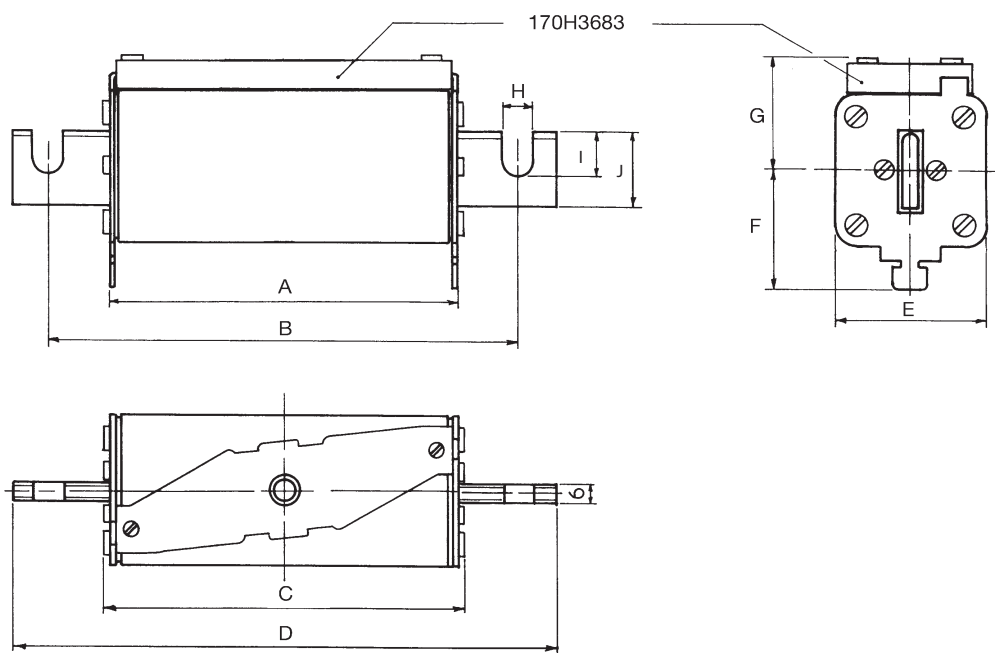
Traction fuse links

170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Dimensions (mm) - BK/130



Dimensions (mm) - EK/

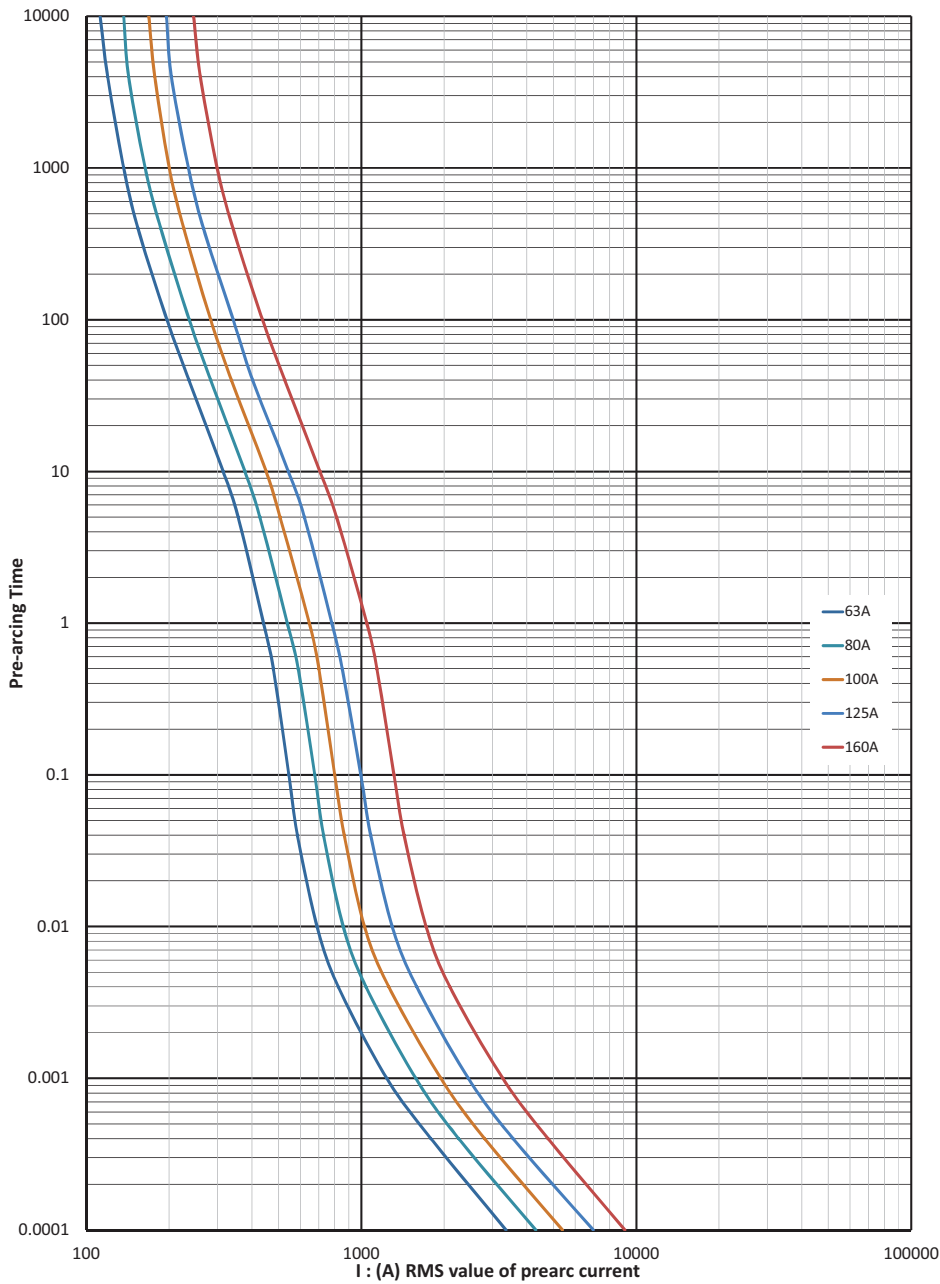


Size	A	B	C	D	E	F	G	H	I	J
1*EK/155	124	156	129	180	43	36	41	9	9	18
1 EK/165	124	166	129	191	51	37	41	11	14	25
2 EK/170	124	170	129	205	59	42	48	13	21	30
3 EK/170	125	170	130	206	74	51	56	13	20	36

Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Time-current curve - Size 1*, 63 A to 160 A

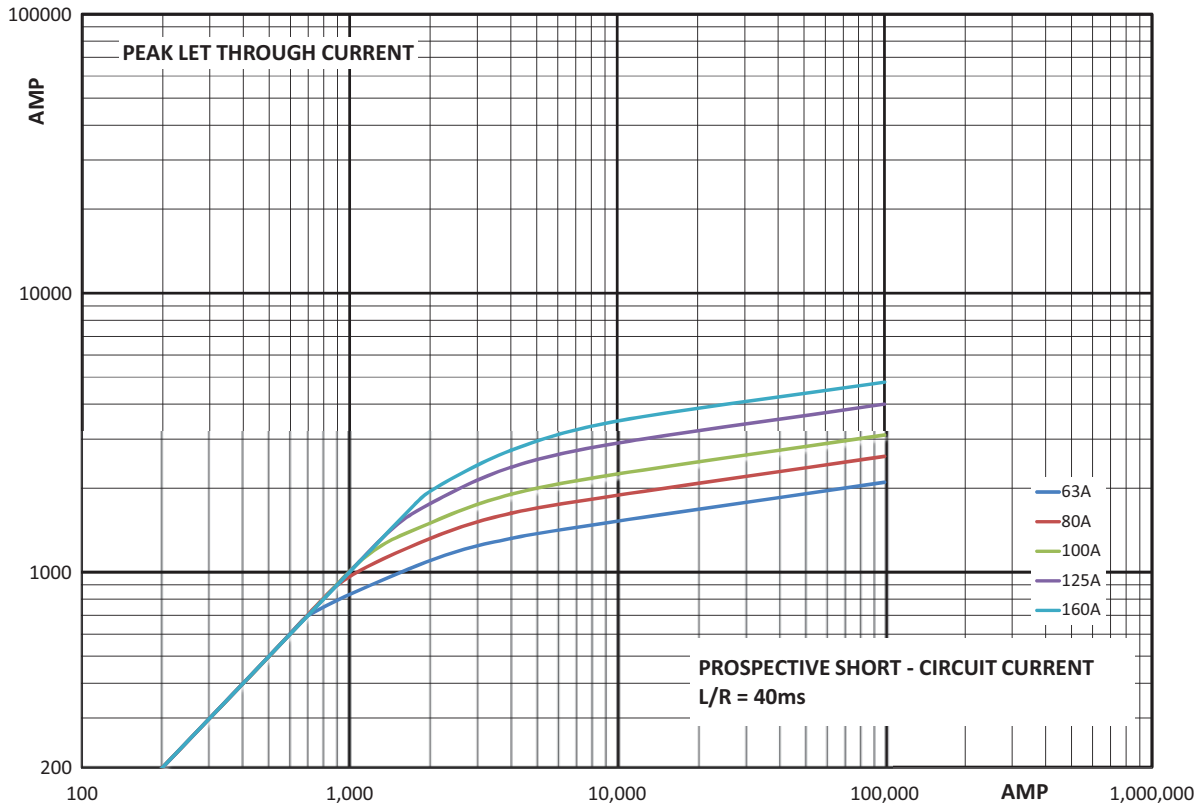


Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

Traction fuse links

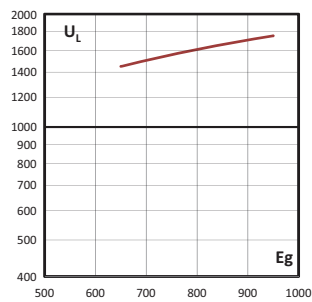
170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Cut-off curve - Size 1*, 63 A to 160 A



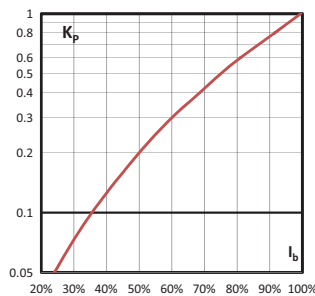
Arc voltage

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

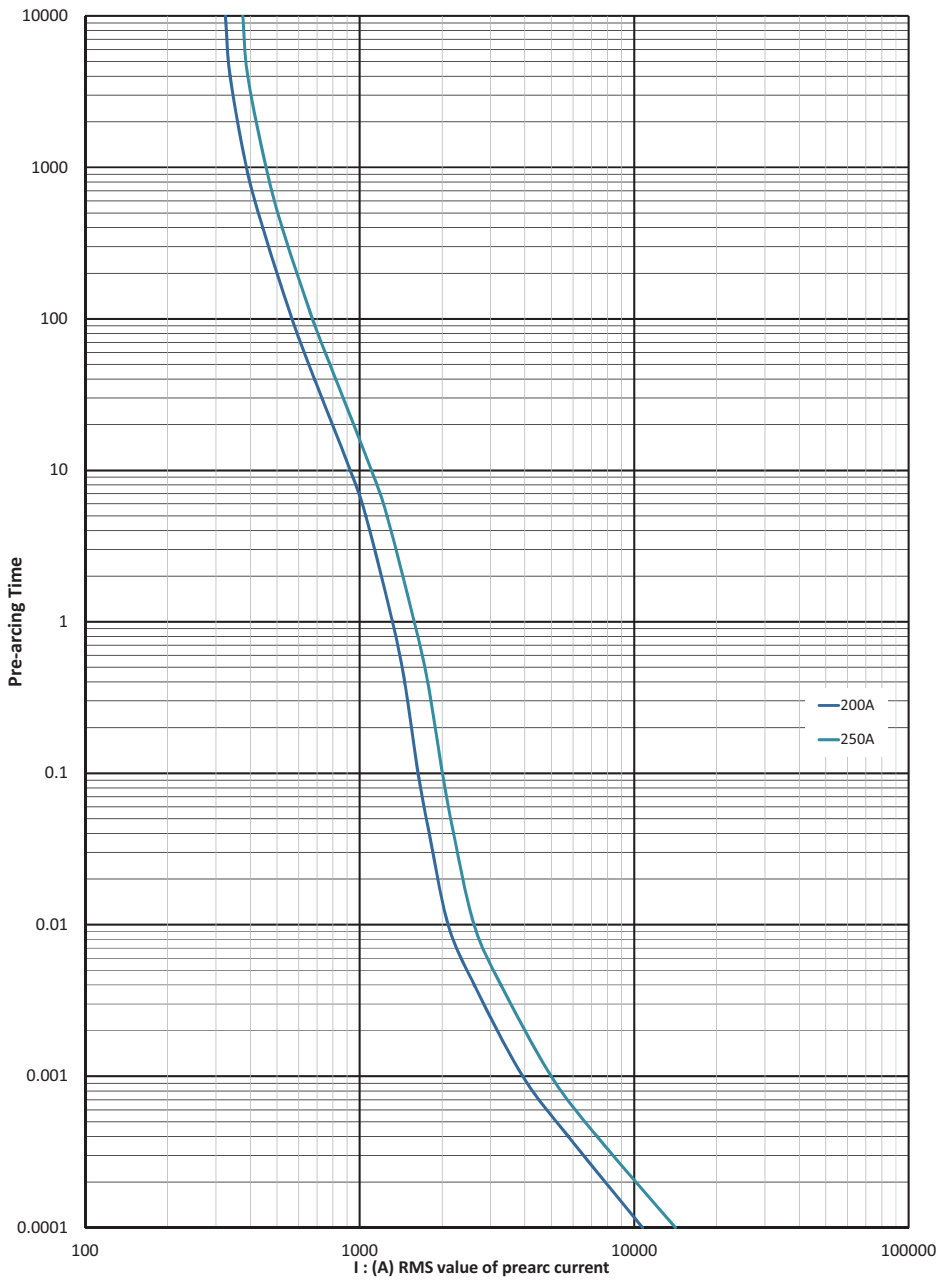
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, K_p , is given as a function of the RMS load current, I_b , in percent of the rated current.



Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Time-current curve - Size 1, 200 A and 250 A

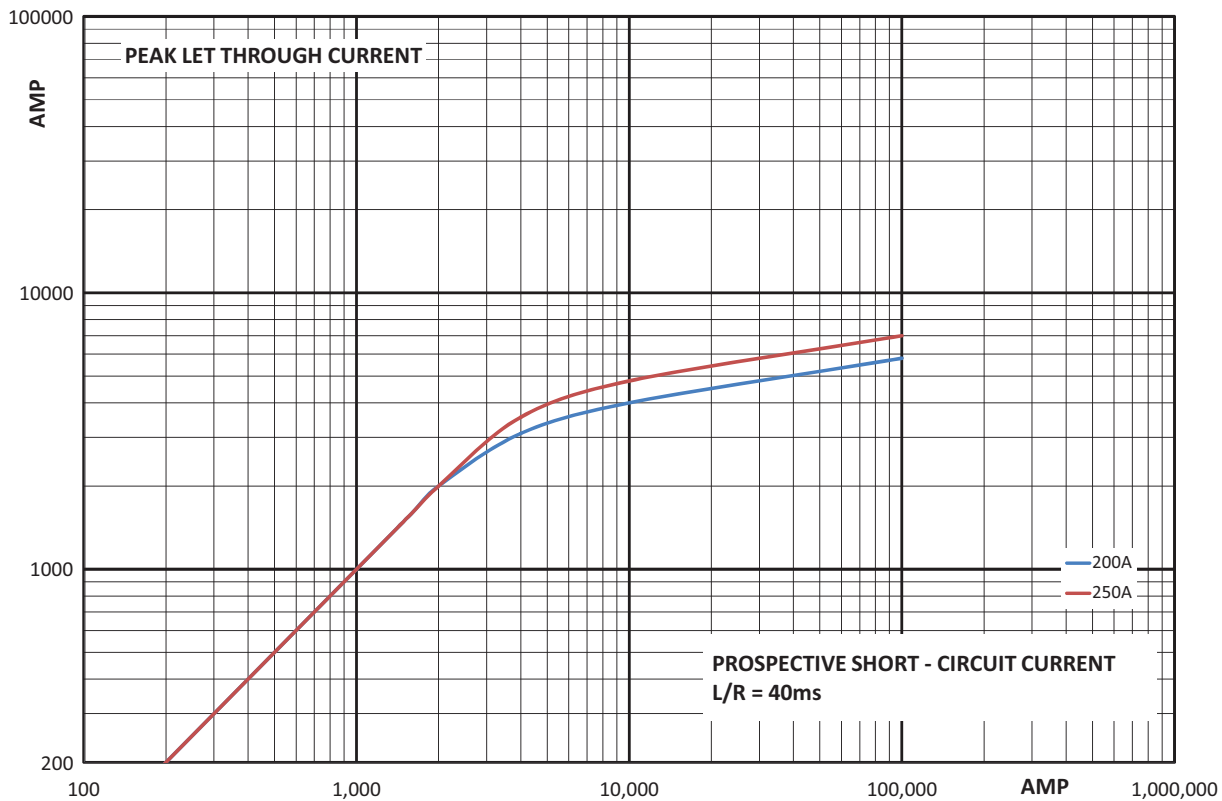


Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

Traction fuse links

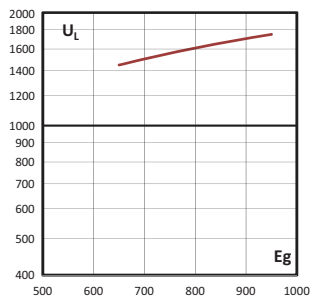
170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Cut-off curve - Size 1, 200 A and 250 A



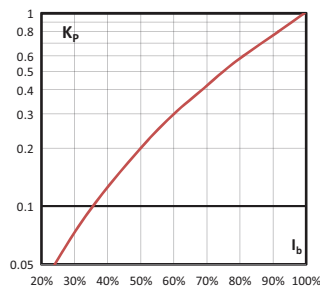
Arc voltage

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

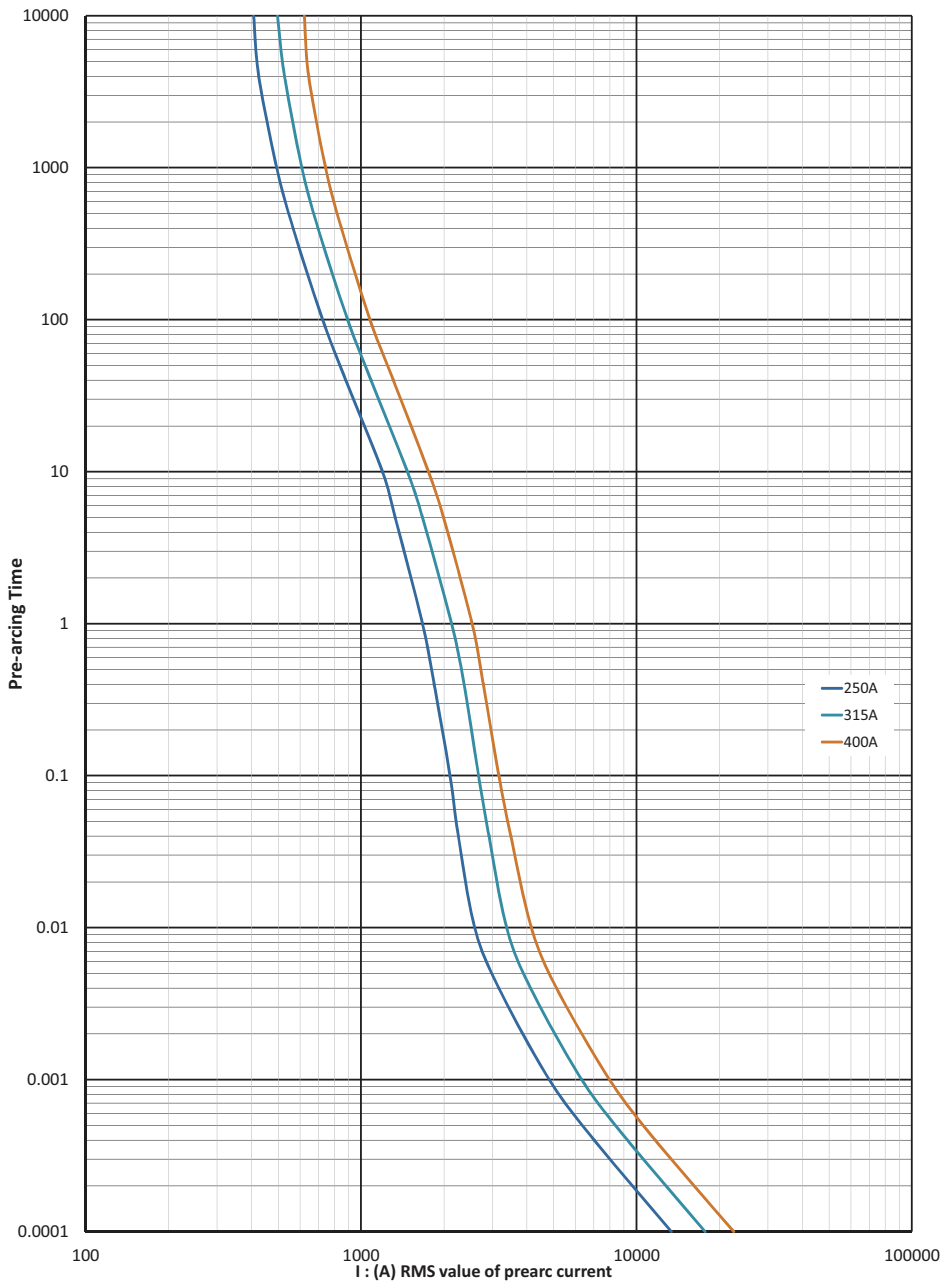
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, K_p , is given as a function of the RMS load current, I_b , in percent of the rated current.



Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Time-current curve - Size 2, 250 A to 400 A

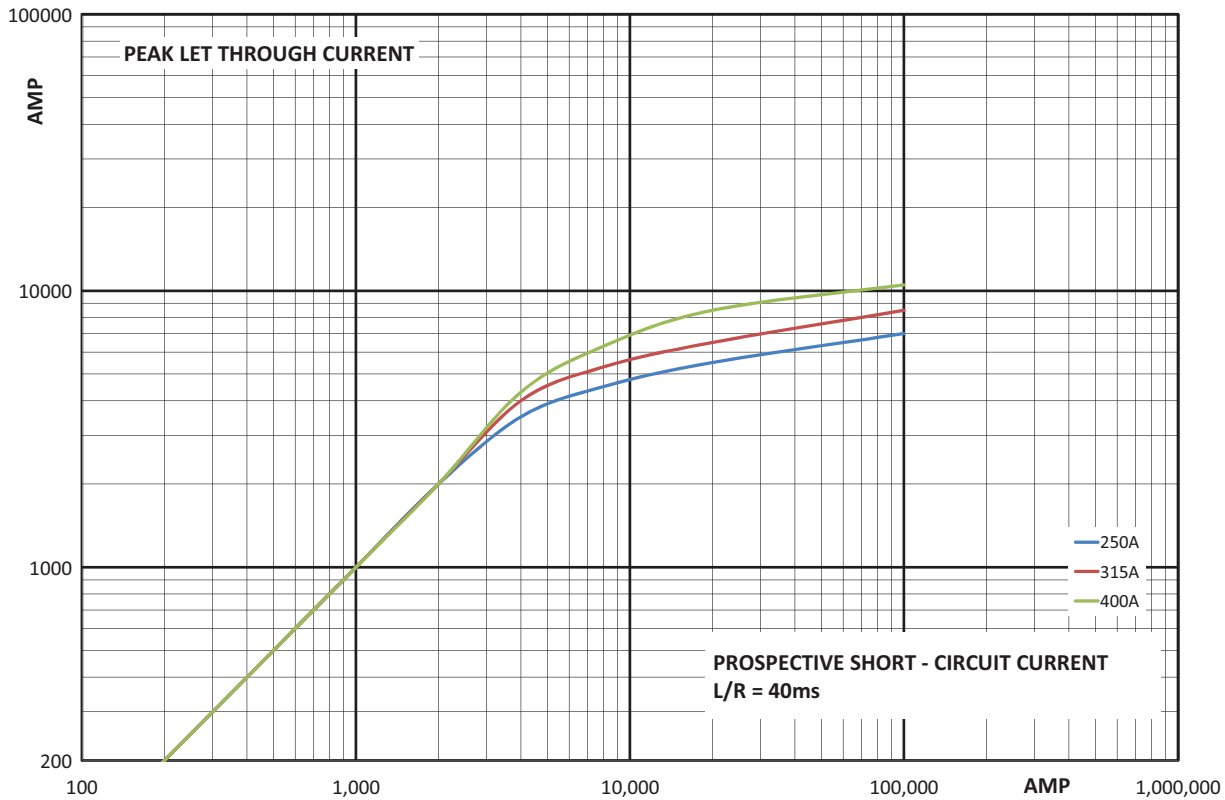


Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

Traction fuse links

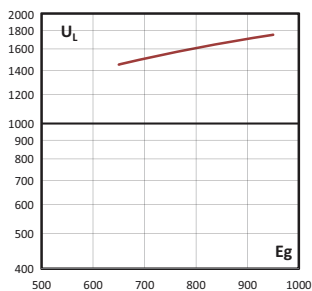
170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Cut-off curve - Size 2, 250 A to 400 A



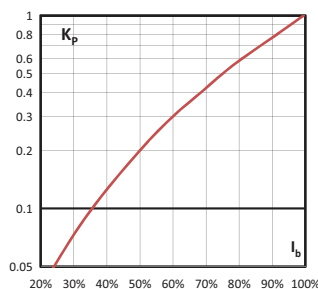
Arc voltage

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

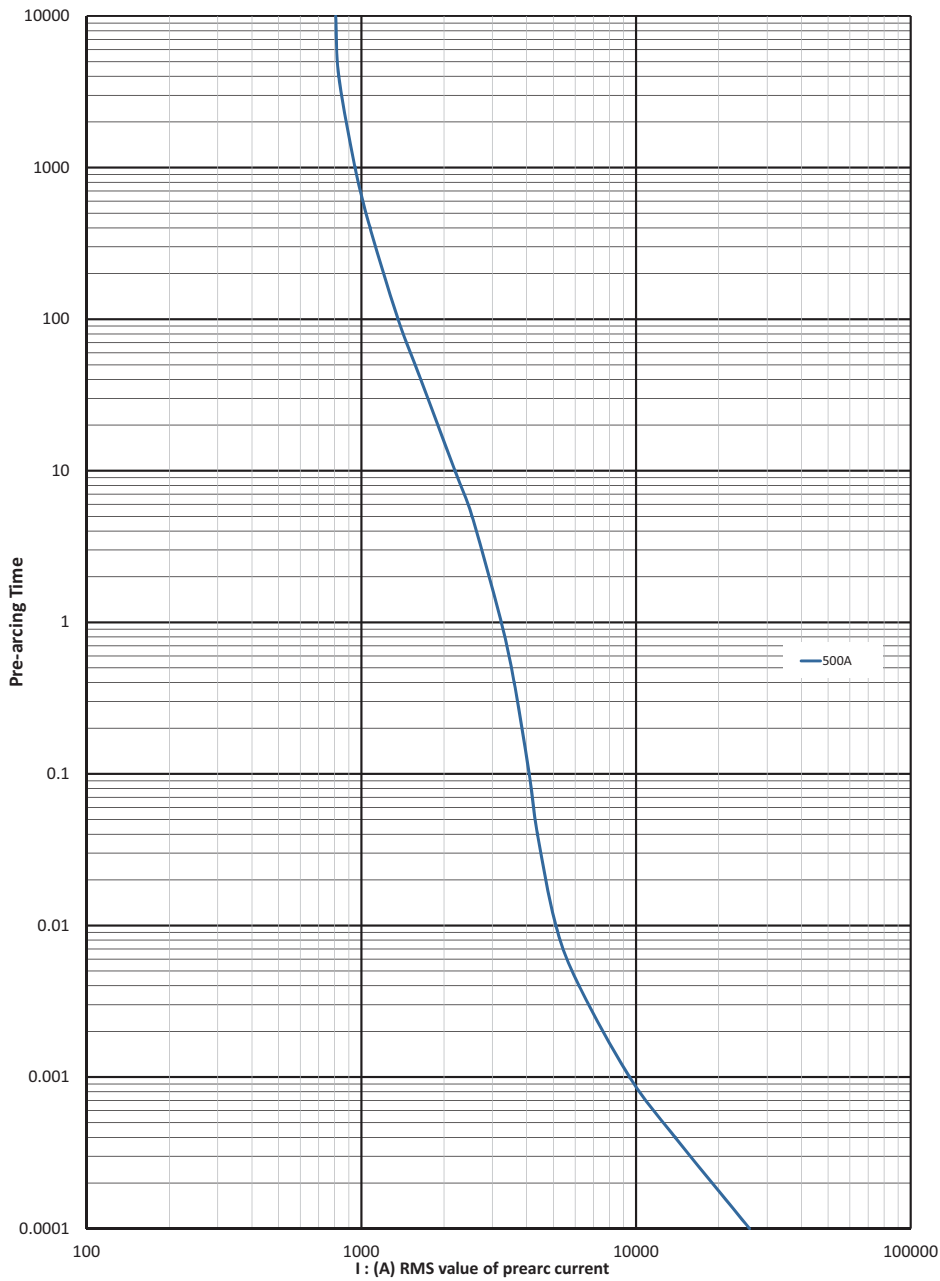
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, K_p , is given as a function of the RMS load current, I_b , in percent of the rated current.



Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Time-current curve - Size 3, 500 A

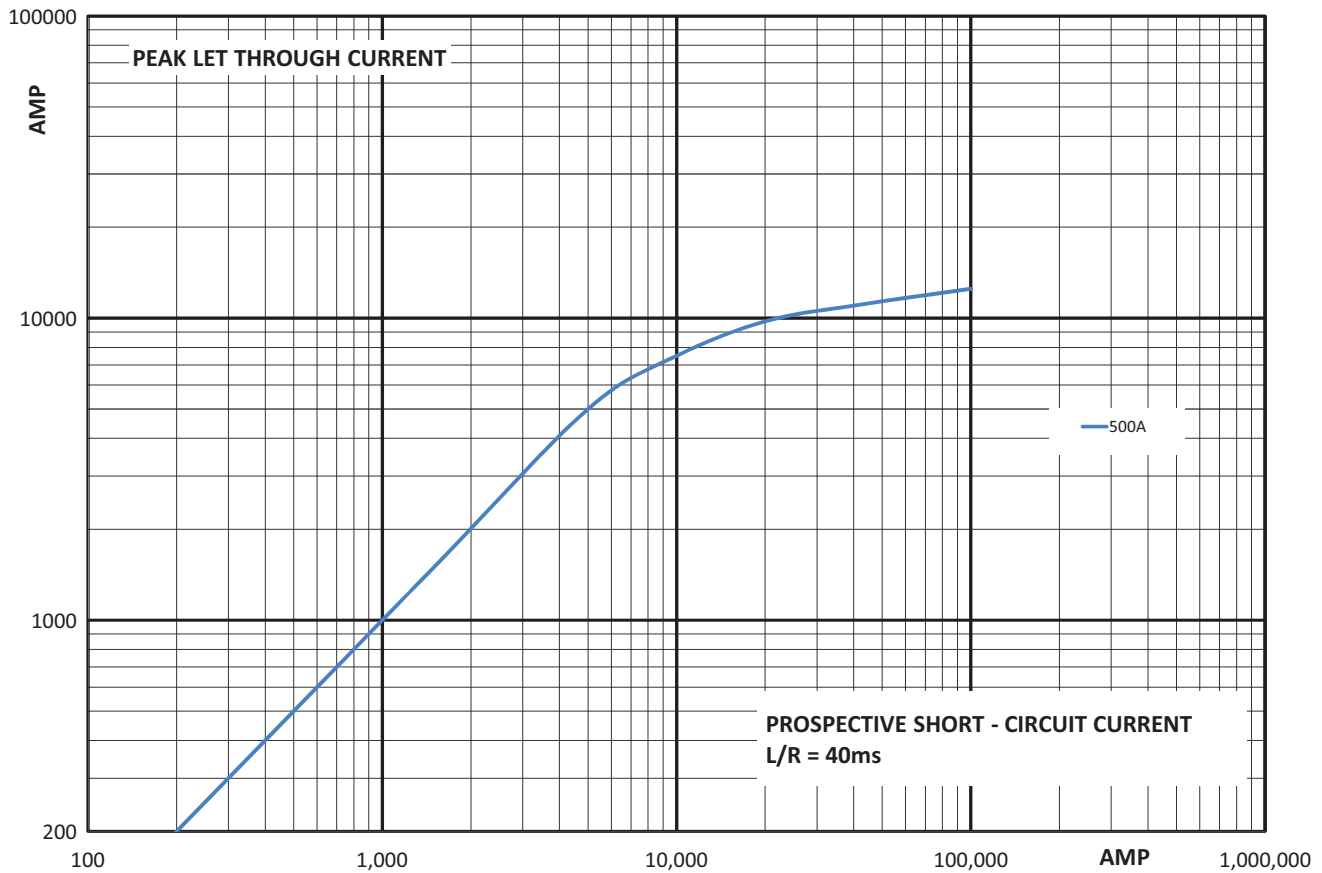


Data sheets: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

Traction fuse links

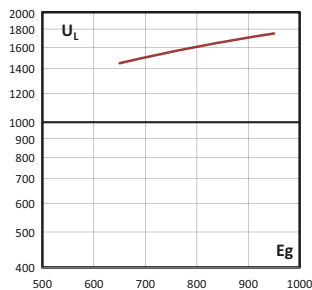
170E - Sizes 1*, 1, 2 and 3, Square body fuse links, 750 V d.c. (IEC), 63 A to 500 A

Cut-off curve - Size 2, 500 A



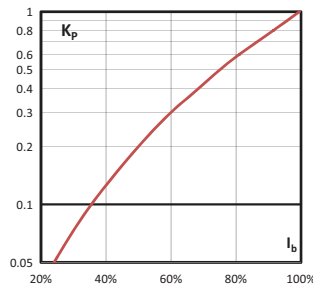
Arc voltage

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: 170K3620 (size 1*), 170k3622 (size 1), 170K3624 (size 2), 170K3626-A (size 3)

170M7217 - Size 4, Square body fuse links, 1250 V a.c. / 850 V d.c. (IEC), 1400 A

Specifications

Description

Traction flush end square body high speed fuse link suitable for use in third rail collector systems to protect high speed DC breakers in low time constant, high fault conditions. Suitable for 1250 V a.c. / 850 V d.c. systems.

Technical data

- Rated voltage: 1250 V a.c. / 850 V d.c. (IEC)
- Rated current: 1400 A
- Tested breaking capacity:
 - 100 kA at 1250 V a.c.
 - 80 kA at 850 V d.c., L/R 8ms
- Operating class: aR

Standards / Agency information

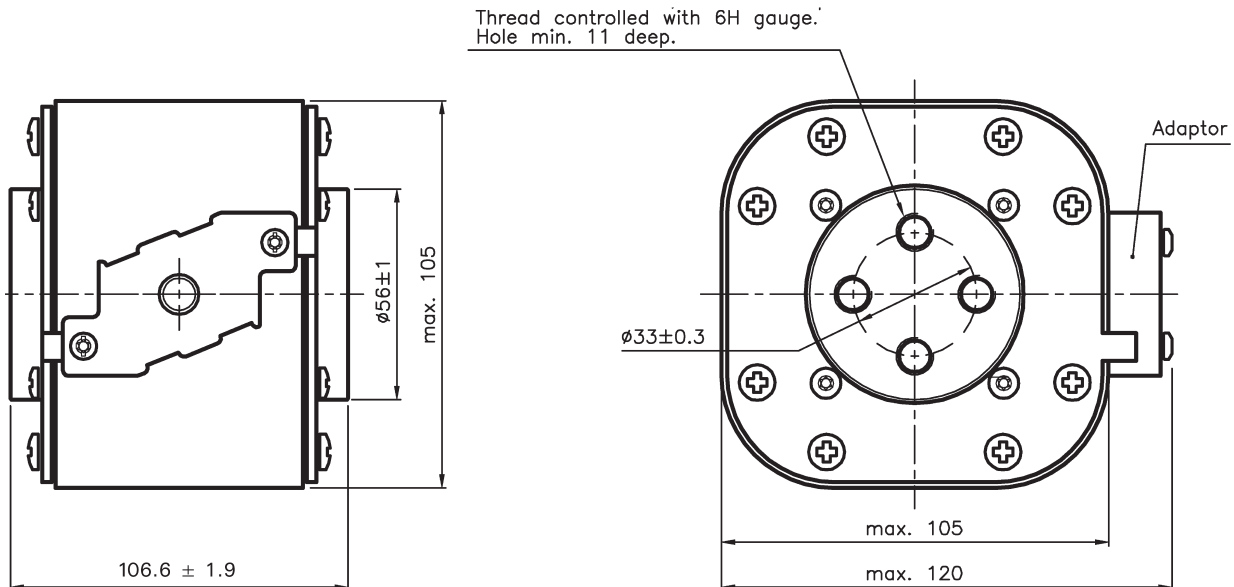
Consult Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

Fuse link body size	Rated voltage	Rated current (Amps)	I ² t (A ² Sec)			Catalogue numbers
			Pre-arcing	Clearing at 1250 V a.c.	Watts loss (W)	
4	850 V d.c./ 1250 V a.c. (IEC)	1400	800,000	5,000,000	195	170M7217
	1000 V d.c. 180 kA IR (UL)					
	1200 V d.c. 85 kA IR (UL)					

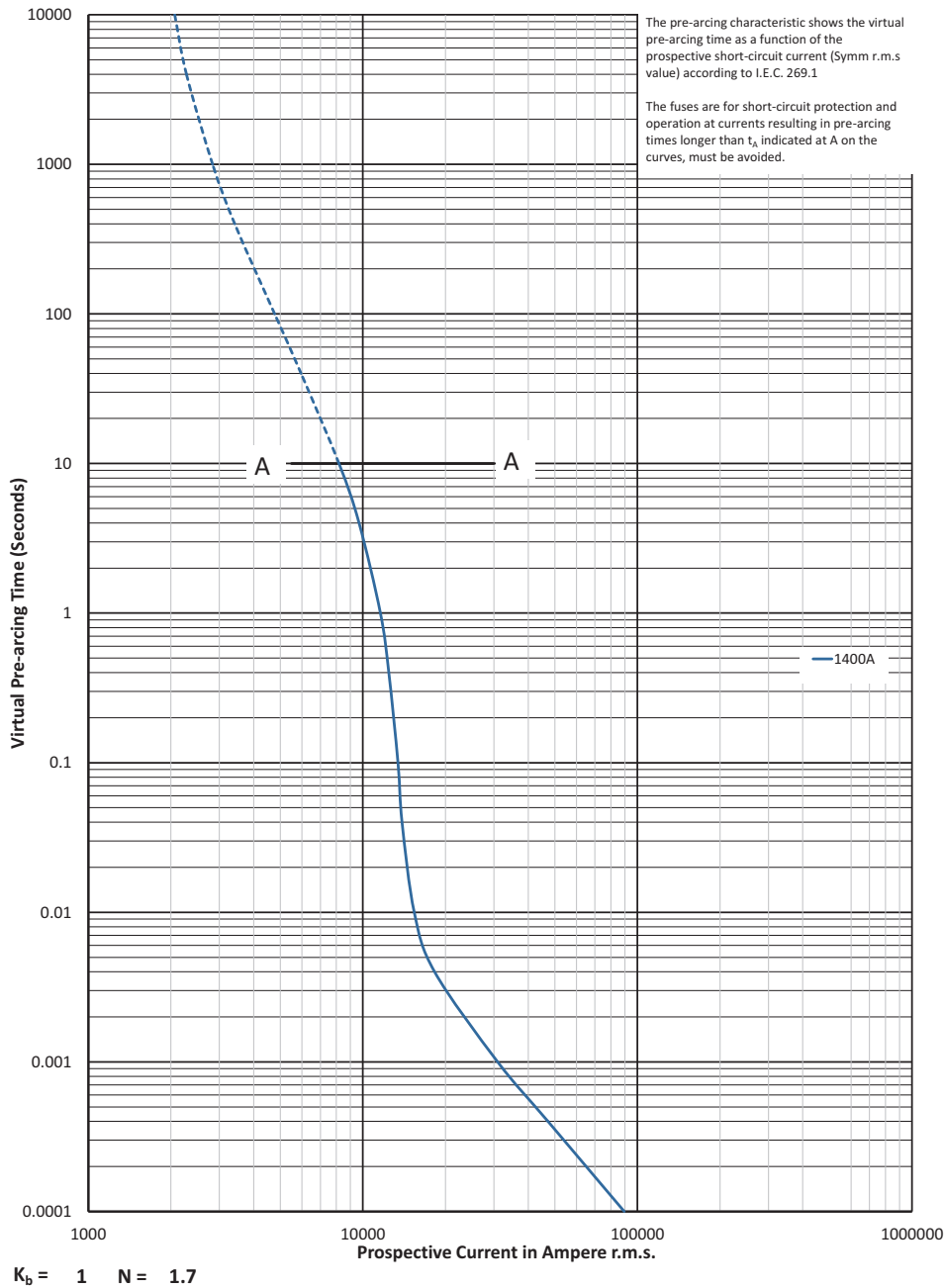
Dimensions (mm)



Traction fuse links

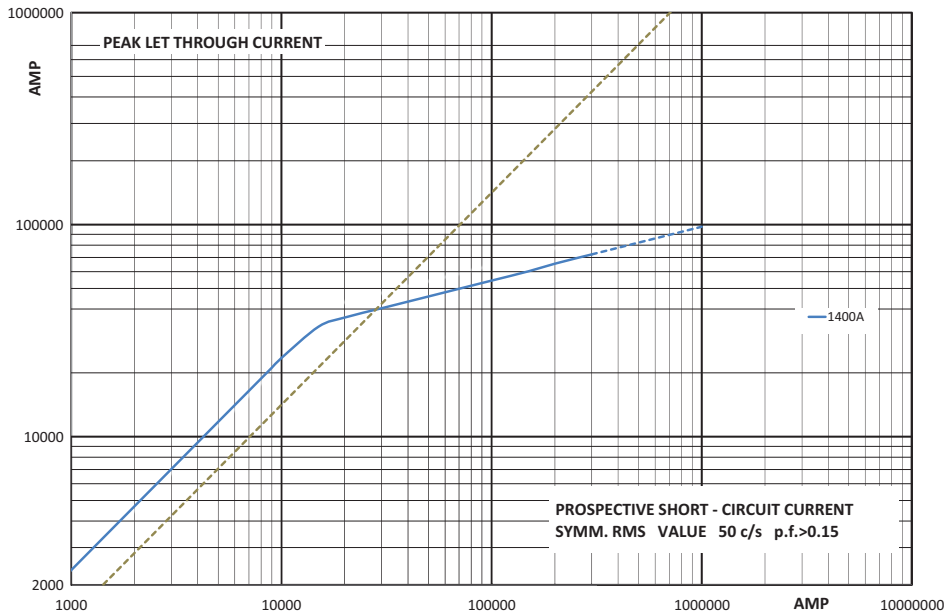
170M7217 - Size 4, Square body fuse links, 1250 V a.c. / 850 V d.c. (IEC), 1400 A

Time-current curve - 1400 A



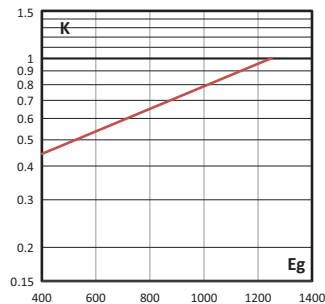
170M7217 - Size 4, Square body fuse links, 1250 V a.c. / 850 V d.c. (IEC), 1400 A

Cut-off curve - 1400 A



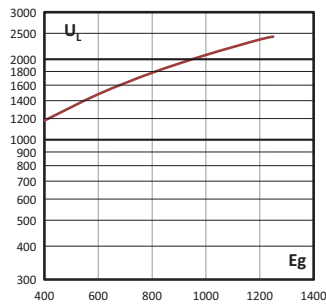
Total clearing I²t

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).



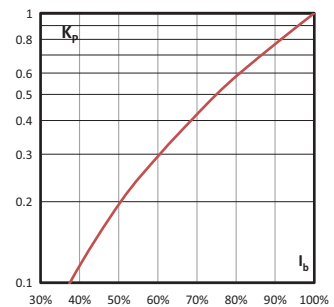
Arc voltage

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.



Traction fuse links

170M - Size 1*, Square body fuse links, 1200 V d.c. (IEC), 20 A to 215A

Specifications

Description

Traction bolted tags square body high speed fuse links for superior protection of DC third rail applications up to 1200 V d.c.

Technical data

- Rated voltage: 1200 V d.c. (IEC)
- Rated current: 20 A to 215 A
- Tested breaking capacity: 100 kA at 1200 V d.c., L/R 15ms
- Operating class: aR

Standards / Agency information

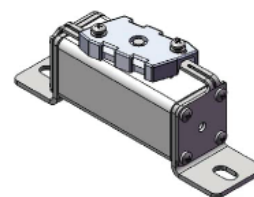
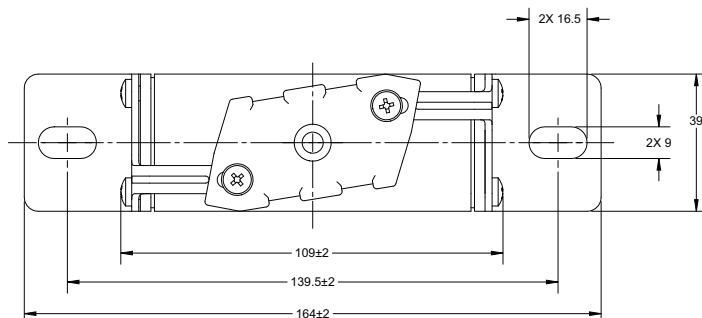
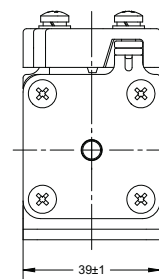
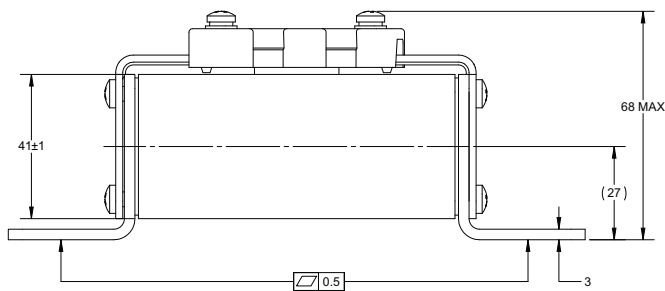
IEC 60269

Catalogue numbers



Fuse link type	Fuse link body size	Rated voltage	Rated current (Amps)	Pt (A ² Sec)		Watts loss (W)		Catalogue numbers
				Pre-arcing	Clearing at 1200 V d.c.	0.8 I _n	I _n	
Single slot tag	1*	1200 V d.c. (IEC)	20	82	249	1	2	170M2100
			25	173	526	4	8	170M2101
			32	327	994	5	9	170M2102
			40	550	1675	1	9	170M2103
			50	950	2890	7	13	170M2104
			63	1310	3990	5	9	170M2105
			80	1970	6000	13	23	170M2106
			100	3800	11,600	14	26	170M2107
			125	8550	26,025	13	24	170M2108
			160	8770	26,700	24	44	170M2109
			200	15,200	46,300	29	52	170M2110
			215	16,430	50,000	32	58	170M2111

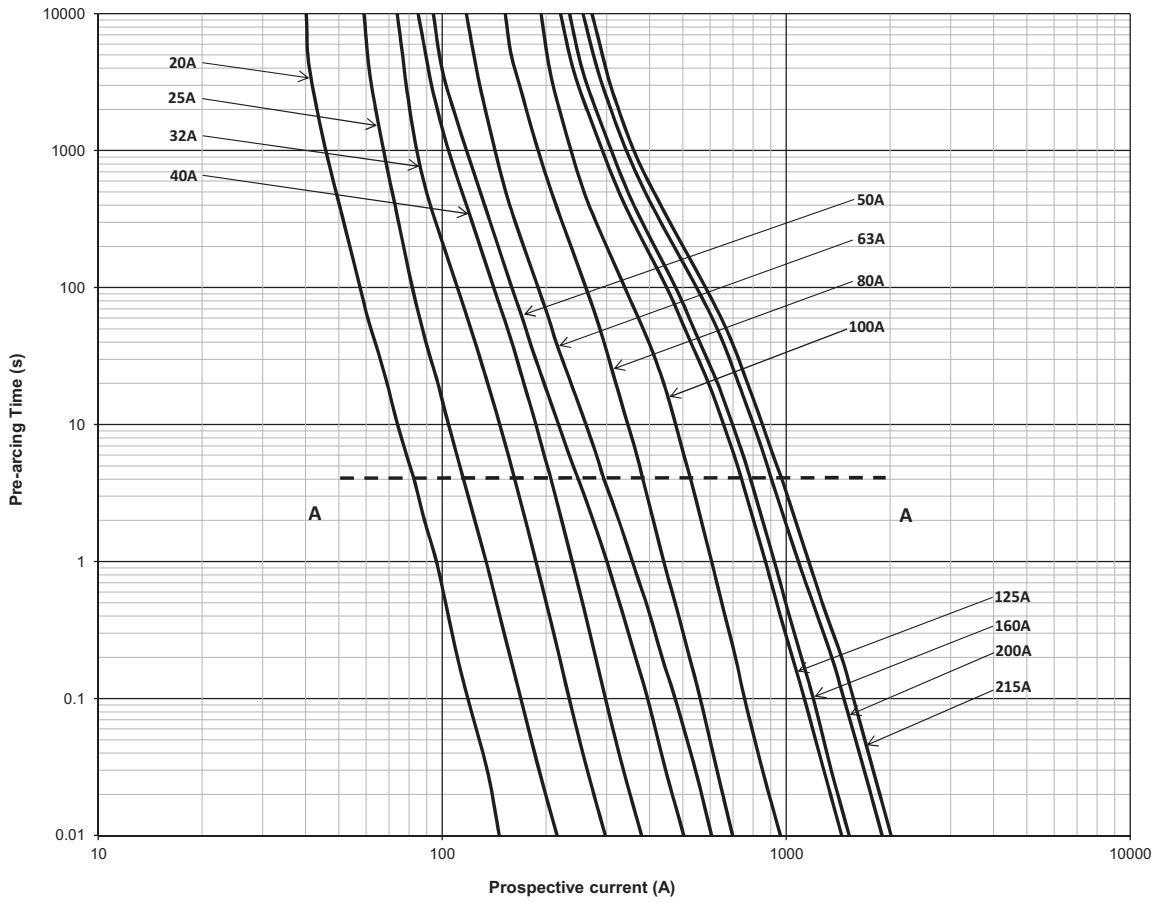
Dimensions (mm)



Data sheet: 5785523

170M - Size 1*, Square body fuse links, 1200 V d.c. (IEC), 20 A to 215A

Time-current curve - 20 A to 215 A



Traction fuse links

170F - Size 2, Square body fuse links, 1200 V d.c. (IEC), 160 A to 420 A

Specifications

Description

Traction bolted tags square body high speed fuse link for superior protection in DC traction applications up to 1200 V d.c.

Technical data

- Rated voltage:
 - 1200 V d.c. (IEC)
 - 1050 V d.c. (UL)
- Rated current: 160 A to 420 A
- Breaking capacity:
 - 100 kA at 1000 V d.c., L/R = 45ms
 - 100 kA at 1200 V d.c., L/R = 15ms
- Operating class: aR

Standards / Agency information

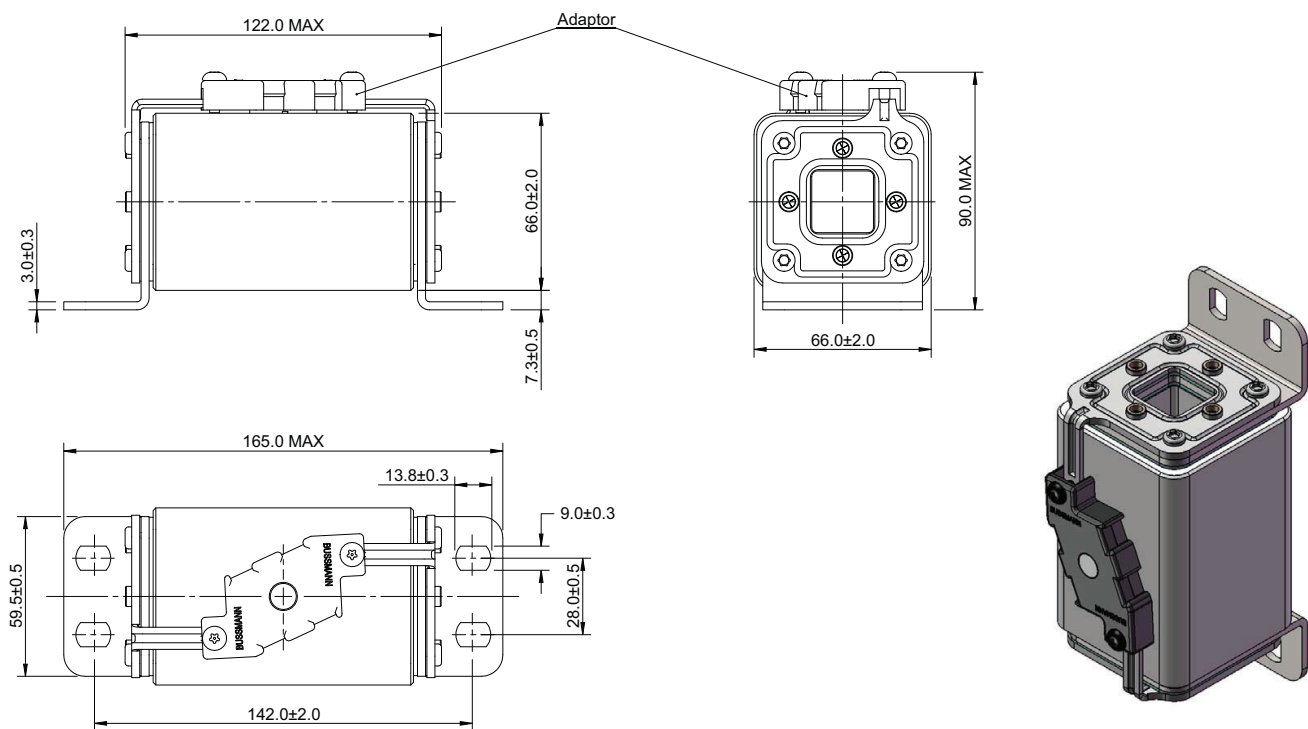
Contact Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

Fuse link type	Fuse link body size	Rated voltage	Rated current (Amps)	I ² t (A ² Sec)		Watts loss (W)	Catalogue numbers
				1000 V d.c. L/R 15ms	1000 V d.c. L/R 45ms		
Double slotted tag	2	1200 V d.c. (IEC) 1050 V d.c. (UL)	160	12,000	20,000	75	170F8230
			200	20,000	35,000	85	170F8231
			250	43,000	75,000	94	170F8232
			315	87,000	150,000	104	170F8233
			400	180,000	310,000	120	170F8234
			420	215,000	375,000	122	170F8235

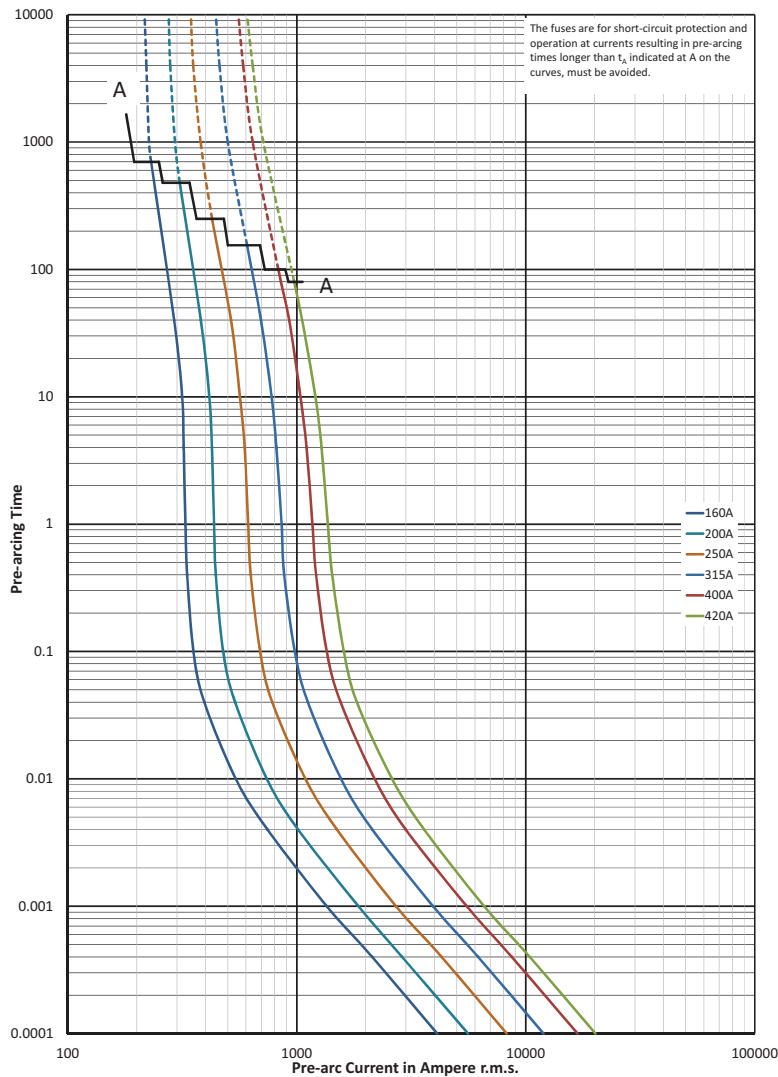
Dimensions (mm)



Data sheet: 170K5520

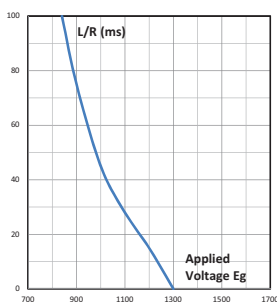
170F - Size 2, Square body fuse links, 1200 V d.c. (IEC), 160 A to 420 A

Time-current curve - 160 A to 420 A



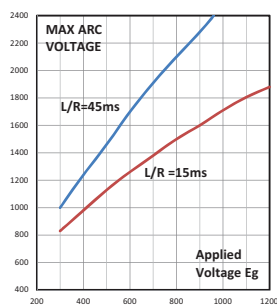
Total clearing I²t

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).



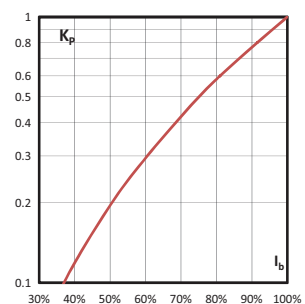
Arc voltage

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.



Traction fuse links

170E - Size 1*, Square body fuse links, 2000 V d.c. (IEC), 10 A to 80 A

Specifications

Description

Traction bolted tags square body high speed fuse link which provides superior protection in DC traction applications up to 2000 V d.c.

Technical data

- Rated voltage: 2000 V d.c. (IEC)
- Rated current: 10 A to 80 A
- Tested breaking capacity: 40 kA at 2000 V d.c., L/R 30ms
- Operating class: gR

Standards / Agency information

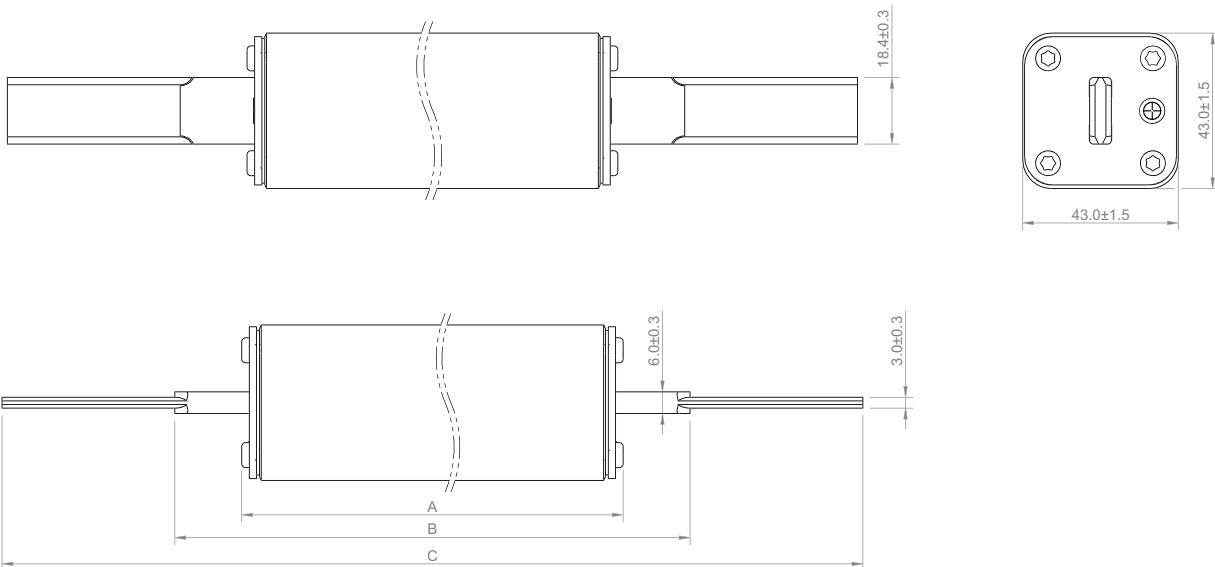
Contact Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

Fuse link type	Fuse link body size	Rated voltage	Rated current (Amps)	Watts loss (W)	Catalogue numbers
Knife blade style 1*	1*	2000 V d.c.(IEC)	10	7	170E3977
			12	8	170E3982
			16	11	170E3971
			20	13	170E3906
			25	17	170E3907
			32	22	170E3908
			40	27	170E3909
			50	34	170E3910
			63	43	170E3911
			80	50	170E3912

Dimensions (mm)

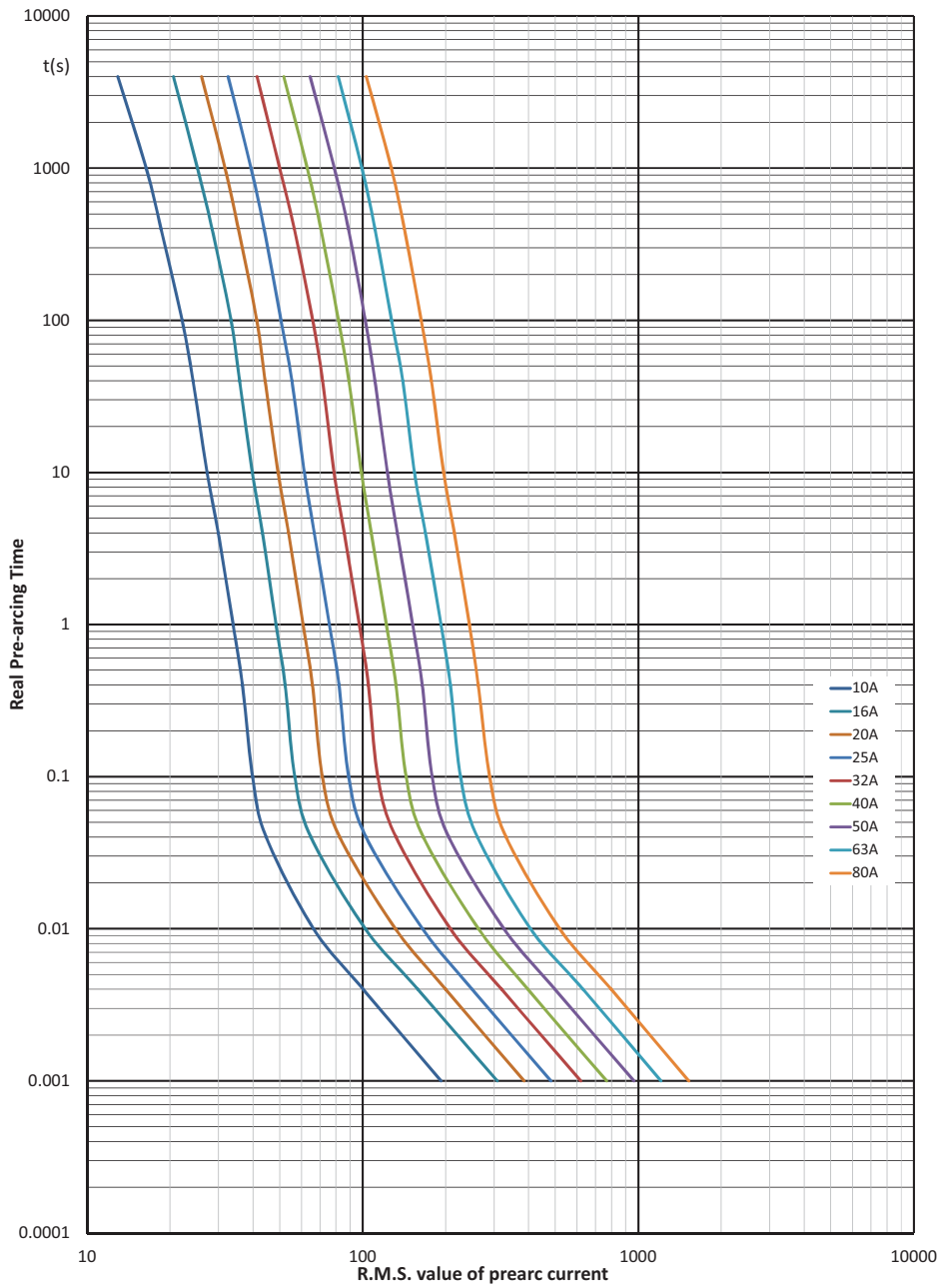


A	B	C
215 ± 2.5	250.5 ± 3.2	245.5 ± 3.5

Data sheet: 170K4538

170E - Size 1*, Square body fuse links, 2000 V d.c. (IEC), 10 A to 80 A

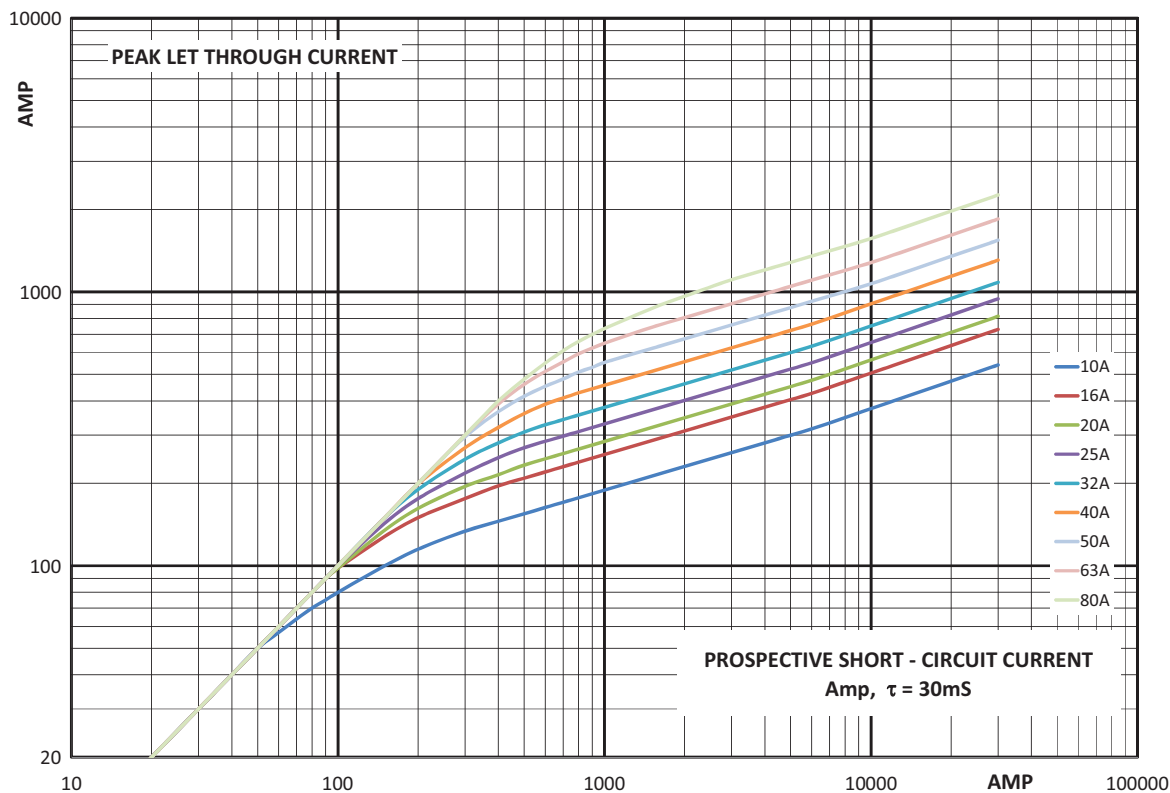
Time-current curve - 10 A to 80 A



Traction fuse links

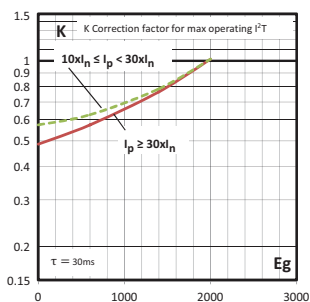
170E - Size 1*, Square body fuse links, 2000 V d.c. (IEC), 10 A to 80 A

Cut-off curve - 10 A to 80 A



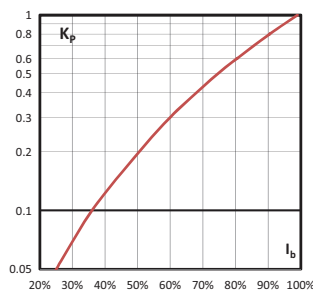
Total clearing I²t

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).



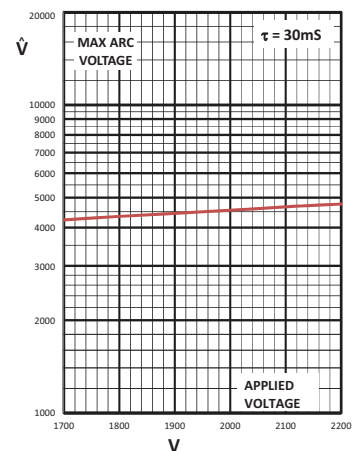
Arc voltage

This curve gives the peak arc voltage, U_a, 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.



170E - Size 1*, Square body fuse links, 2000 V d.c. (IEC), 10 A to 125 A

Specifications

Description

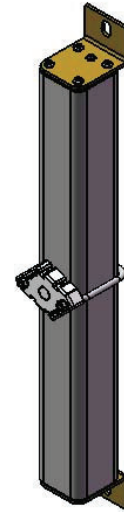
Traction bolted tags square body high speed fuse link which provides superior protection in DC traction applications up to 2000 V d.c..

Technical data

- Rated voltage: 2000 V d.c. (IEC)
- Rated current: 10 A to 125 A
- Tested breaking capacity: 40 kA at 2000 V d.c., L/R 20ms
- Operating class: aR

Standards / Agency information

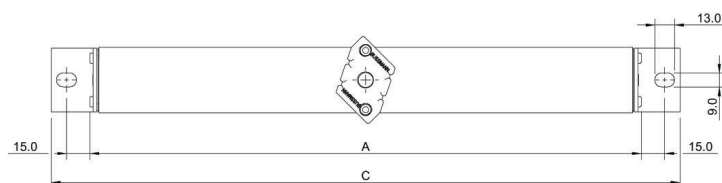
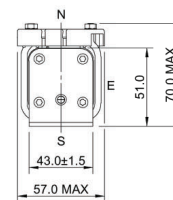
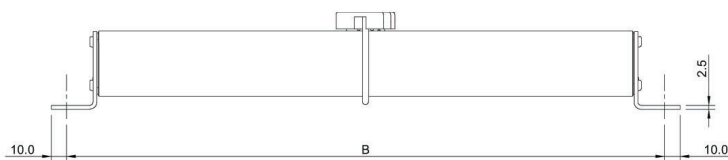
Contact Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

Fuse link type	Fuse link body size	Rated voltage	Rated current (Amps)	Watts loss (W)	Catalogue numbers
Bolted blade Style	1*	2000 V d.c. (IEC)	20	13	170E3937
			25	16	170E3938
			32	20	170E3939
			40	25	170E3940
			50	32	170E3941
			63	40	170E3942
			80	51	170E3943
			100	64	170E3944
			125	80	170E3945
			10	7	170E3976
			16	11	170E3970
			20	13	170E3950
			25	17	170E3951
			32	22	170E3952
			40	27	170E3953
			50	34	170E3954
			63	43	170E3955
			80	50	170E3956

Dimensions (mm)



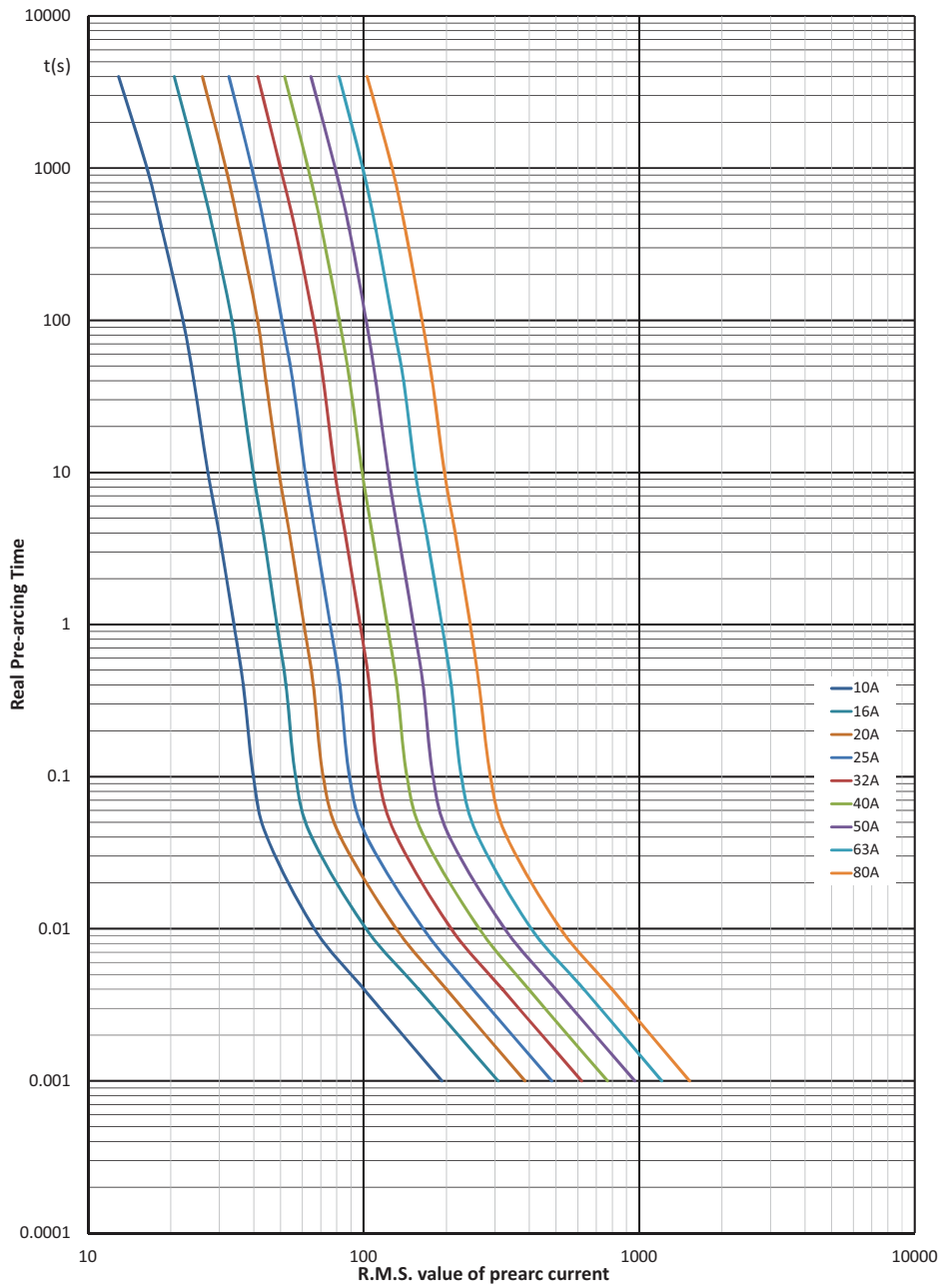
A	B	C
217	246	266

Data sheets: 170K4538 (10 A to 80 A), 170K4900 (20 A to 125 A)

Traction fuse links

170E - Size 1*, Square body fuse links, 2000 V d.c. (IEC), 10 A to 125 A

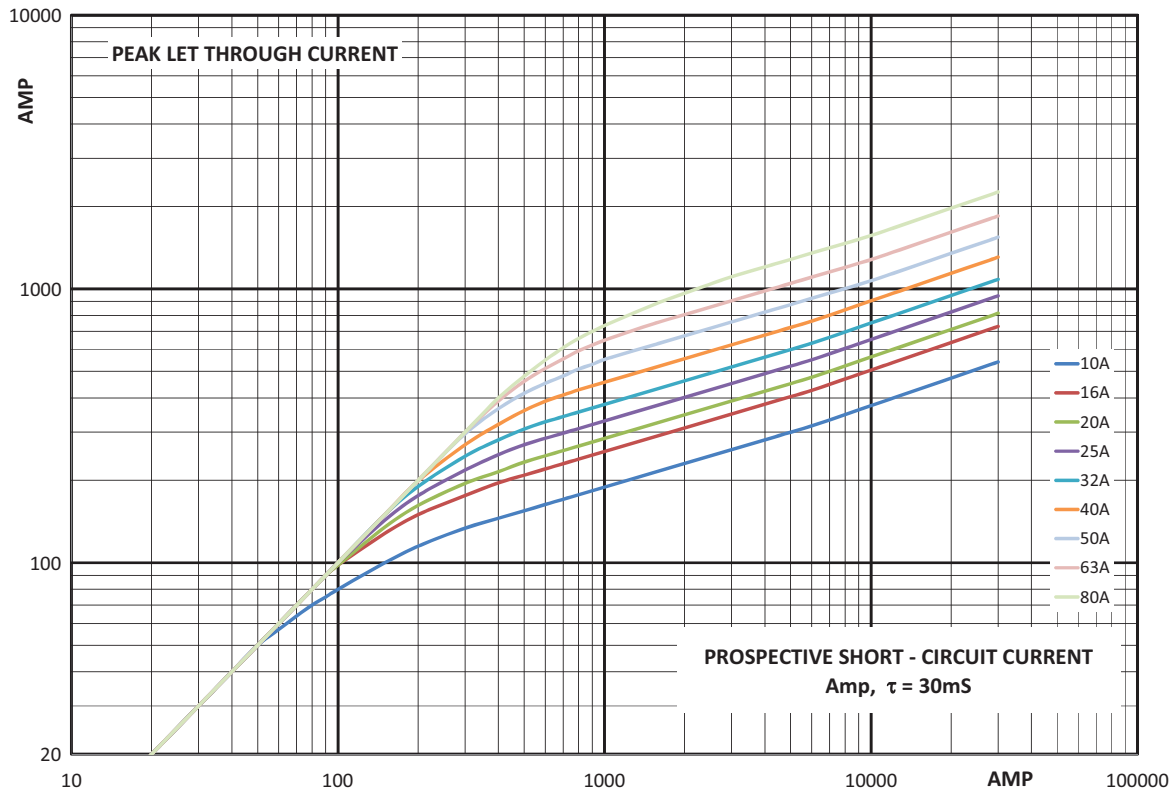
Time-current curve - 10 A to 80 A



Data sheets: 170K4538 (10 A to 80 A), 170K4900 (20 A to 125 A)

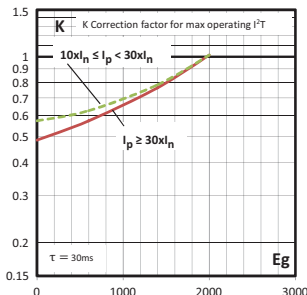
170E - Size 1*, Square body fuse links, 2000 V d.c. (IEC), 10 A to 125 A

Cut-off curve - 10 A to 80 A



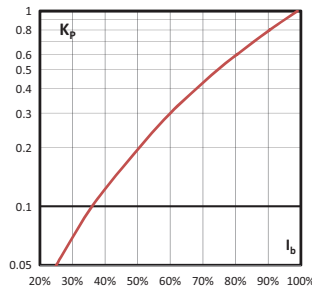
Total clearing I^2t

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).



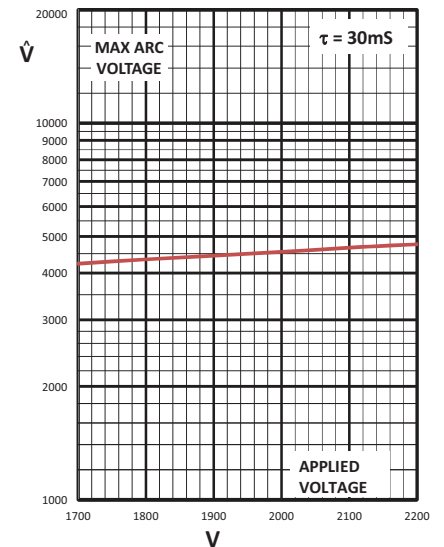
Arc voltage

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.

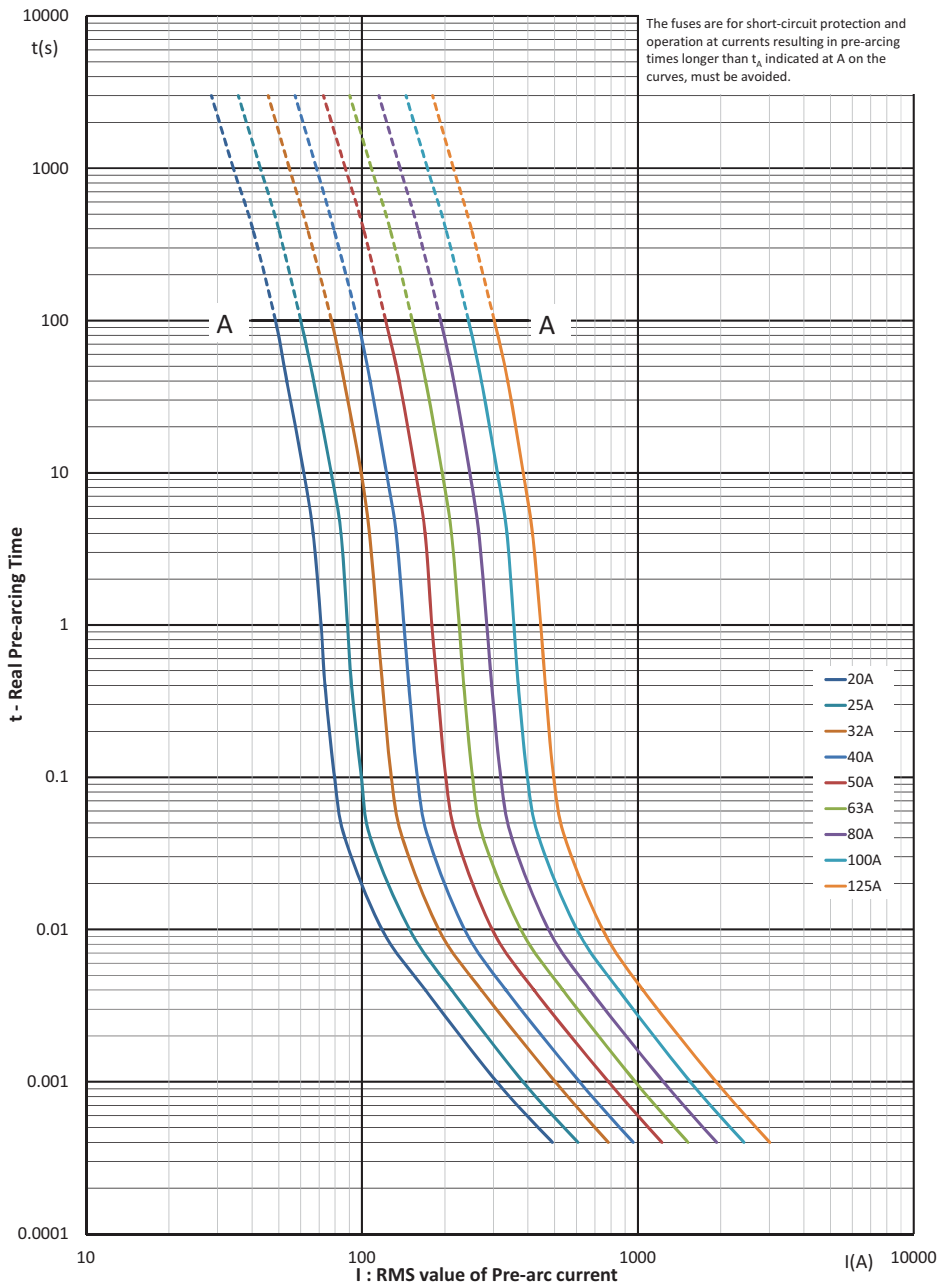


Data sheets: 170K4538 (10 A to 80 A), 170K4900 (20 A to 125 A)

Traction fuse links

170E - Size 1*, Square body fuse links, 2000 V d.c. (IEC), 10 A to 125 A

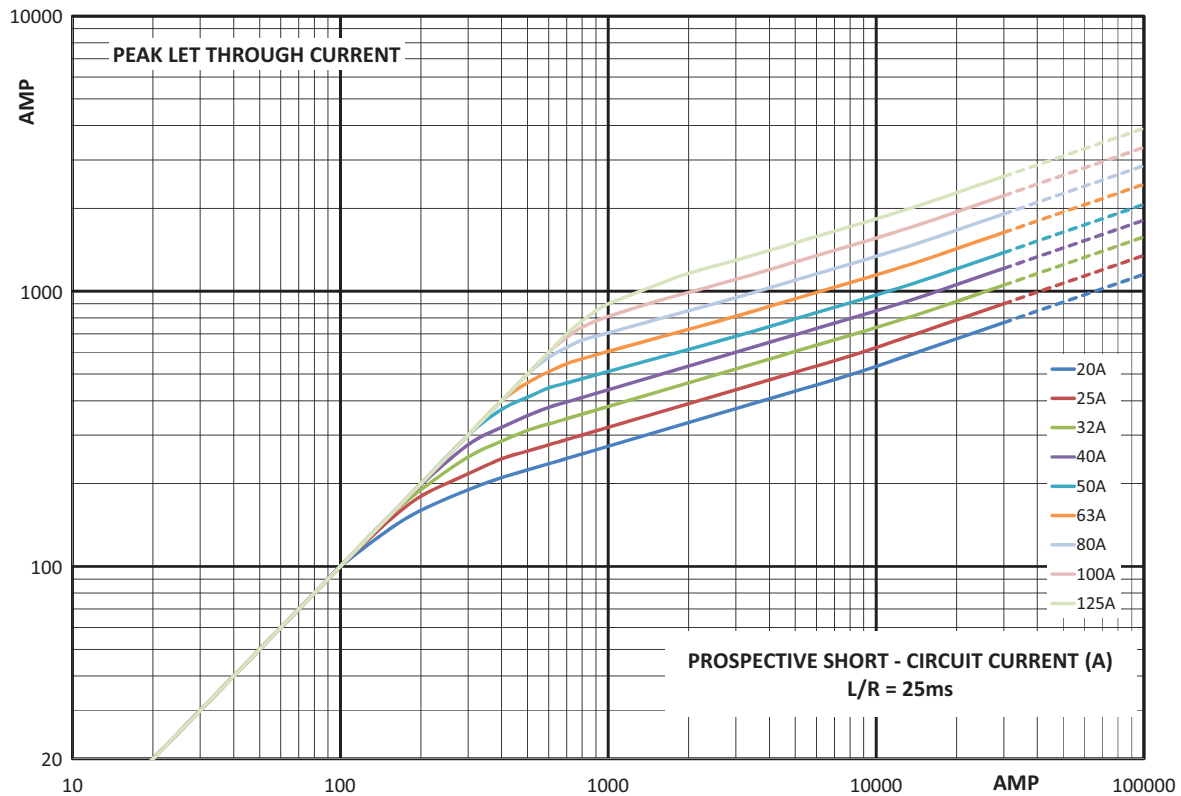
Time-current curve - 20 A to 125 A



Data sheets: 170K4538 (10 A to 80 A), 170K4900 (20 A to 125 A)

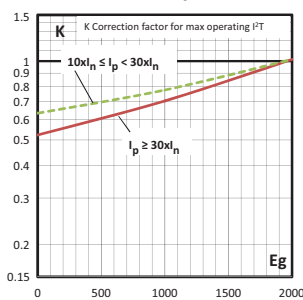
170E - Size 1*, Square body fuse links, 2000 V d.c. (IEC), 10 A to 125 A

Cut-off curve - 20 A to 125 A



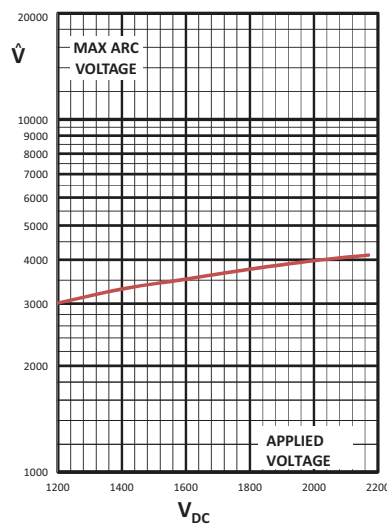
Total clearing I²t

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).



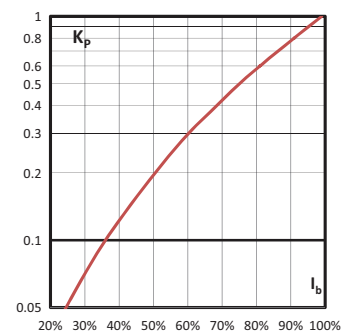
Arc voltage

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: 170K4538 (10 A to 80 A), 170K4900 (20 A to 125 A)

Traction fuse links

170M - Square body fuse links, 2000 V d.c. (IEC), 20 A to 600 A

Specifications

Description

Traction bolted tags square body high speed fuse links which provides superior protection for DC traction third rail applications up to 2000 V d.c.

Technical data

- Rated voltage: 2000 V d.c. (IEC)
- Rated current:
 - 20 A to 215 A Single slot tag
 - 160 A to 400 A Double slot tag
 - 500 A to 600 A Parallel double slot tag
- Breaking capacity:
 - 100 kA at 2000 V d.c., L/R <15ms
 - 100 kA at 1500 V d.c., L/R <45ms
- Operating class: aR

Standards / Agency information

Tested in line with IEC 60269



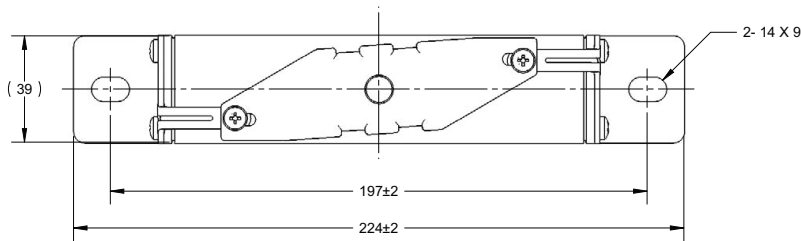
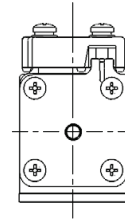
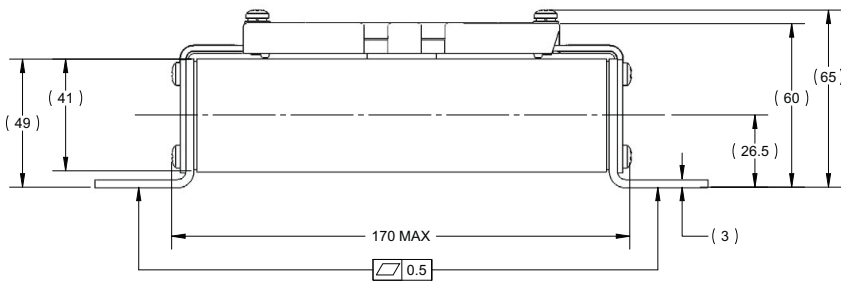
Catalogue numbers

Fuse link type	Rated voltage	Rated current (Amps)	I ² t (A ² Sec)		Watts loss (W)		Catalogue numbers
			Pre-arcing	Total at 2000 V d.c.	0.8 I _n	I _n	
Single slot tag	2000 V d.c. (IEC) 1500 V d.c. (UL)	20	85	240	9	12	170M2046
		25	130	390	9	16	170M2047
		32	220	645	11	18	170M2048
		40	390	1140	12	20	170M2049
		50	610	1780	17	33	170M2050
		63	1030	3000	20	39	170M2051
		80	1555	4550	28	53	170M2052
		100	2680	7840	33	63	170M2053
		125	4110	12,020	42	79	170M2054
		160	6620	19,360	45	87	170M2055
Double slot tag	2000 V d.c. (IEC)	200	10,720	31,360	50	95	170M2056
		215	21,870	64,000	51	97	170M2057
		160	7900	42,000	68	91	170M2039
		200	12,300	66,000	85	113	170M2040
		250	21,900	120,000	100	133	170M2041
Parallel double slot tag	2000 V d.c. (IEC)	315	38,900	210,000	119	158	170M2042
		400	65,700	350,000	148	176	170M2043
		500	105,851	163,010	109	230	170M2044
		600	188,179	289,796	153	305	170M2045

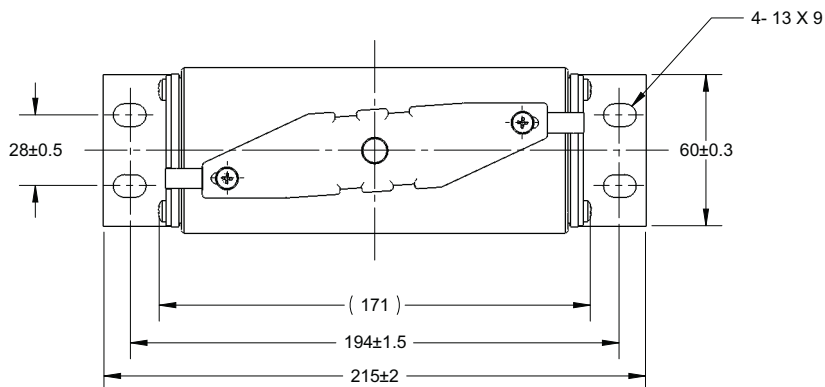
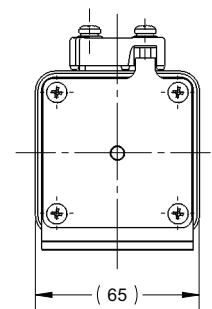
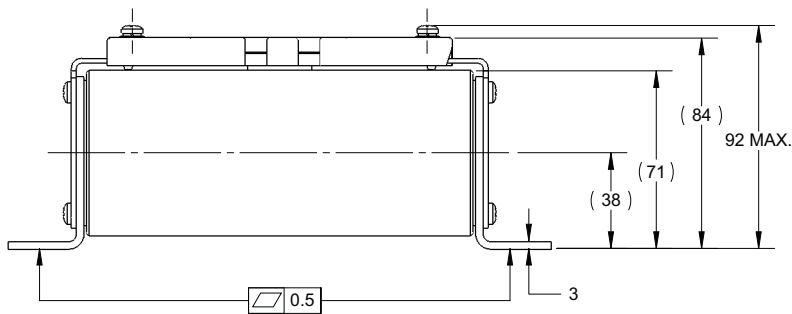
Data sheets: 720142, 5785522 (Single slot, 5785519 Double slot tag, 5785526 Parallel double slot tag)

170M - Square body fuse links, 2000 V d.c. (IEC), 20 A to 600 A

Dimensions (mm) - 170M2046 to 170M2057, Single slot tag



Dimensions (mm) - 170M2039 to 170M2043, Double slot tag

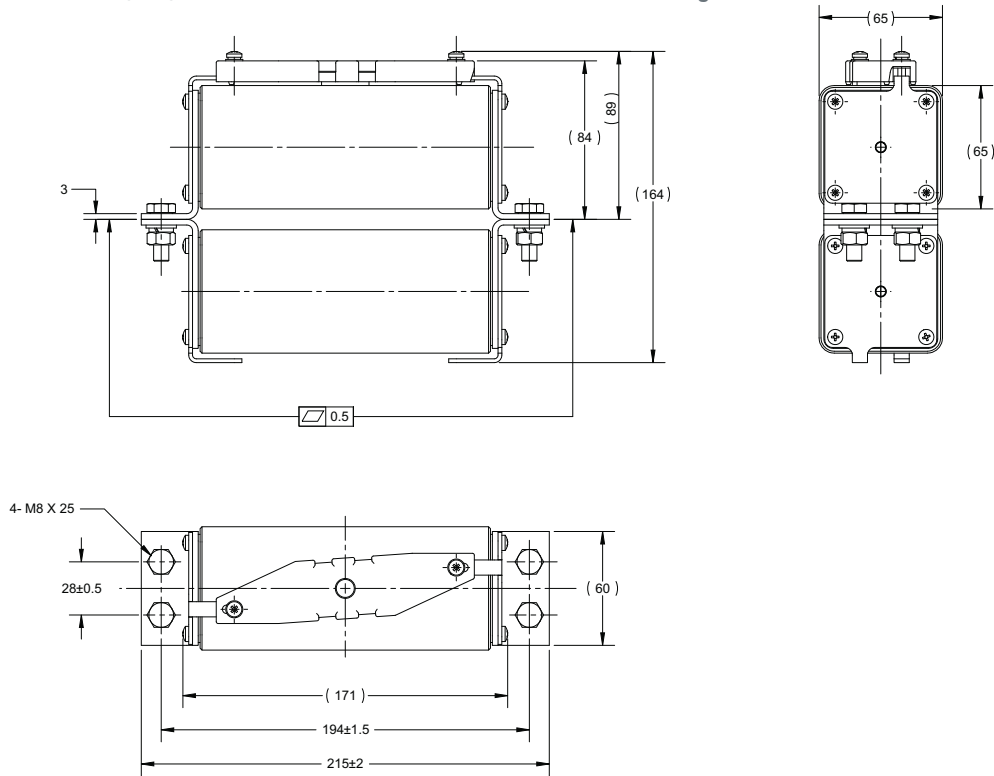


Data sheets: 720142, 5785522 (Single slot, 5785519 Double slot tag, 5785526 Parallel double slot tag)

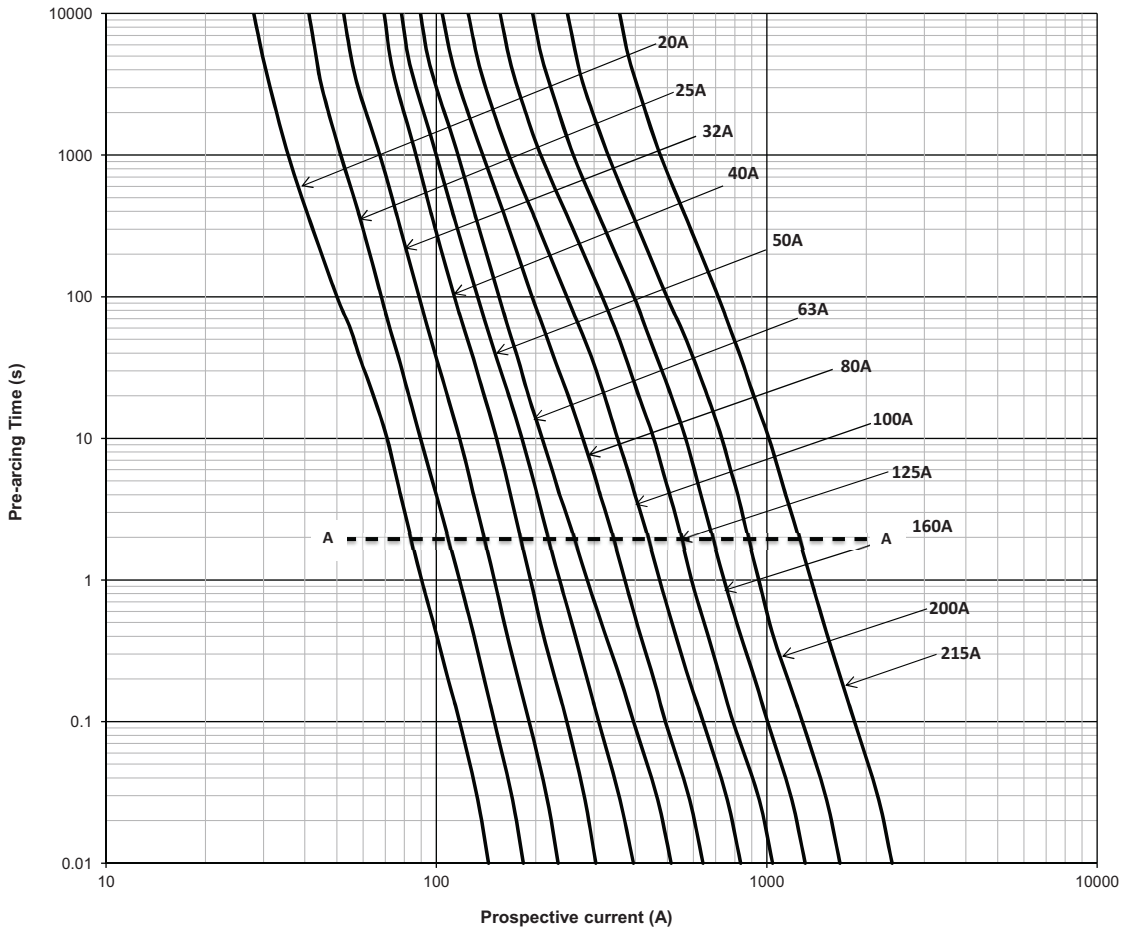
Traction fuse links

170M - Square body fuse links, 2000 V d.c. (IEC), 20 A to 600 A

Dimensions (mm) - 170M2044 and 170M2045, Parallel, double slot tag



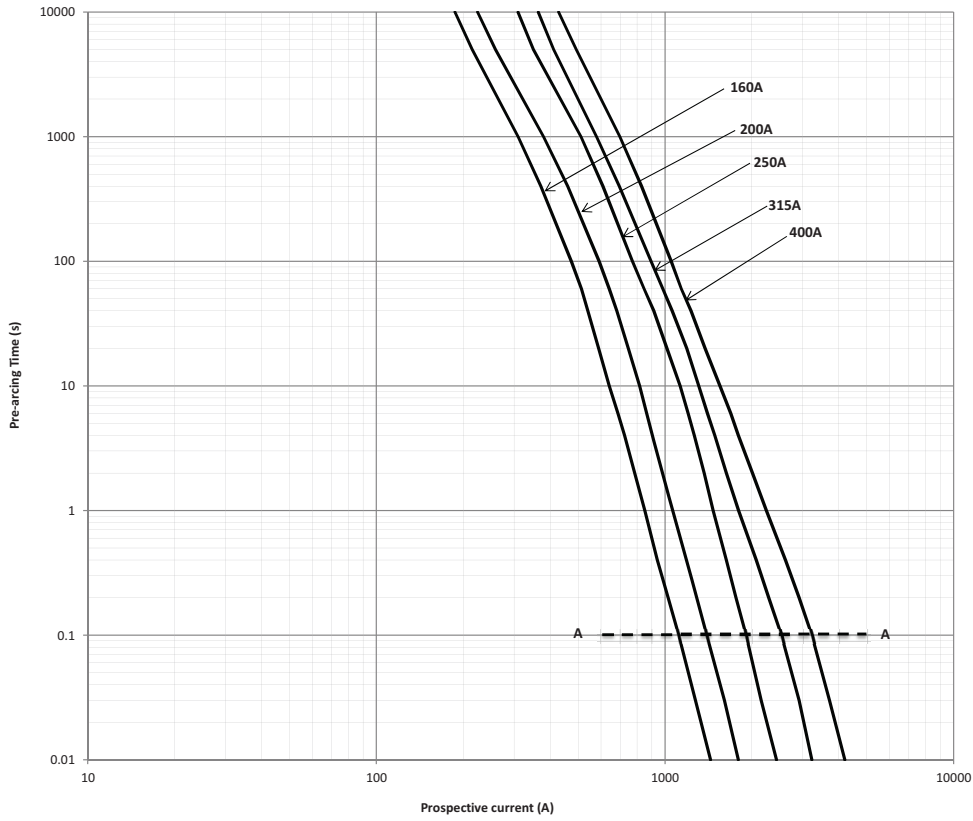
Time-current curve - 170M2046 to 170M2056, 20 A to 215 A



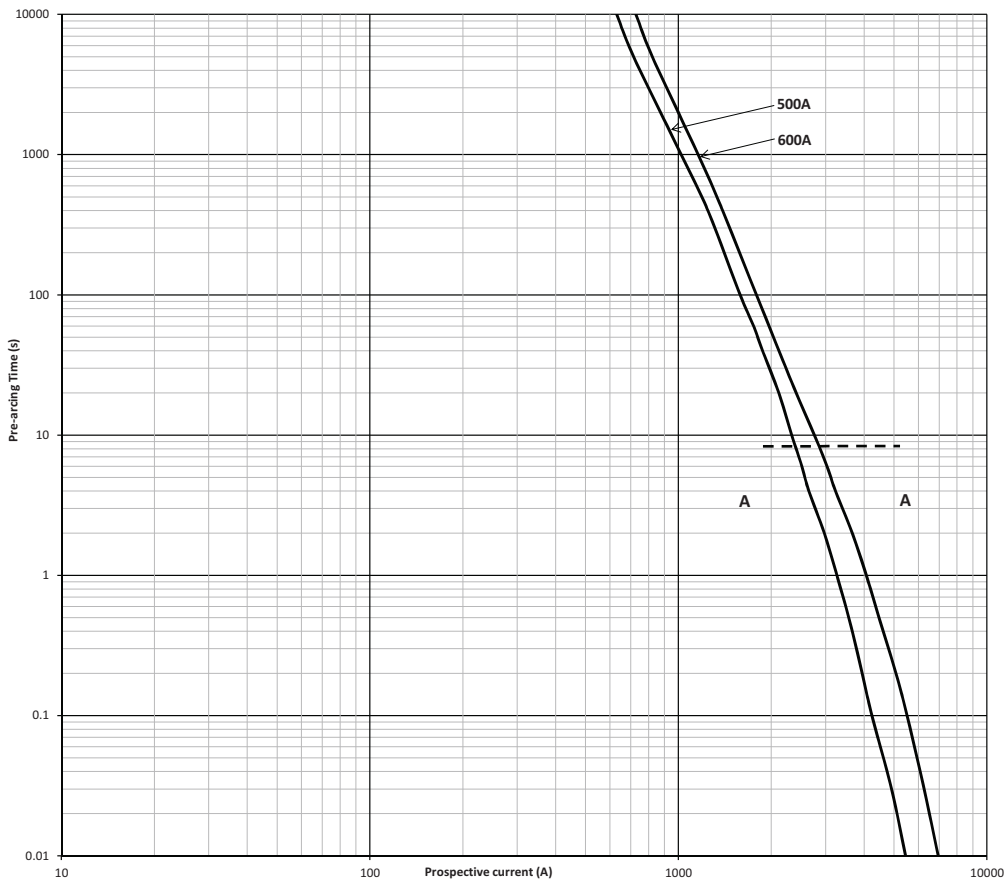
Data sheets: 720142, 5785522 (Single slot, 5785519 Double slot tag, 5785526 Parallel double slot tag)

170M - Square body fuse links, 2000 V d.c. (IEC), 20 A to 600 A

Time-current curve - 170M2039 to 170M2043, 160 A to 400 A



Time-current curve - 170M2044 to 170M2045, 500 A and 600 A



Data sheets: 720142, 5785522 (Single slot, 5785519 Double slot tag, 5785526 Parallel double slot tag)

Traction fuse links

170M - Size 3, Square body fuse links, 2400 V d.c. (IEC), 100 A to 400 A

Specifications

Description

Traction bolted tags square body high speed fuse links for superior protection of DC third rail applications up to 2400 V d.c.

Technical data

- Rated voltage: 2400 V d.c. (IEC)
- Rated current: 100 A to 400 A
- Tested breaking capacity:
 - 100 kA at 2400 V d.c., L/R < 15ms
 - 100 kA at 2000 V d.c., L/R < 45ms
- Operating class: aR



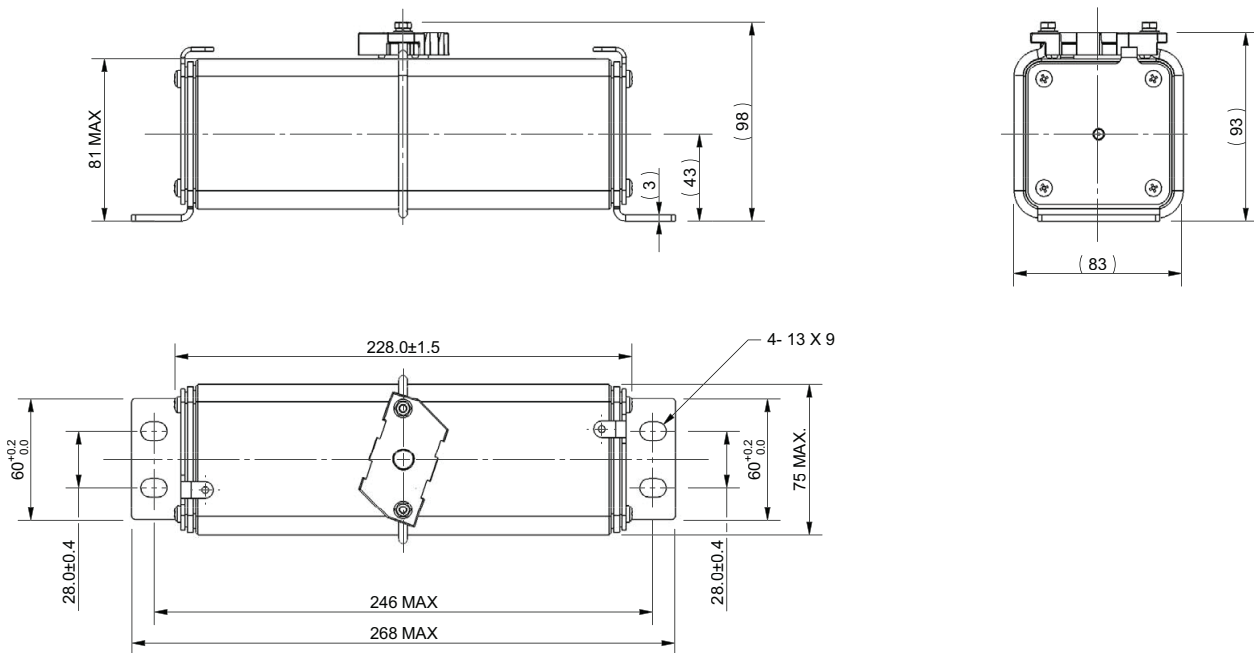
Standards / Agency information

Tested in line with IEC 60269

Catalogue numbers

Fuse link type	Fuse link body size	Rated voltage	Rated current (Amps)	I ² t (A ² Sec)		Watts loss (W)		Catalogue numbers
				Pre-arcing	Total at 2000 V d.c.	0.8 I _n	I _n	
Double slot tag	3	2400 V d.c. (IEC)	100	5468	15,457	20	39	170M2090
			160	16,427	46,439	43	84	170M2091
			200	25,667	72,561	53	97	170M2092
			250	36,960	104,488	60	103	170M2093
			315	66,977	189,346	82	162	170M2094
			350	87,480	247,309	89	175	170M2095
			400	110,717	313,000	103	203	170M2096

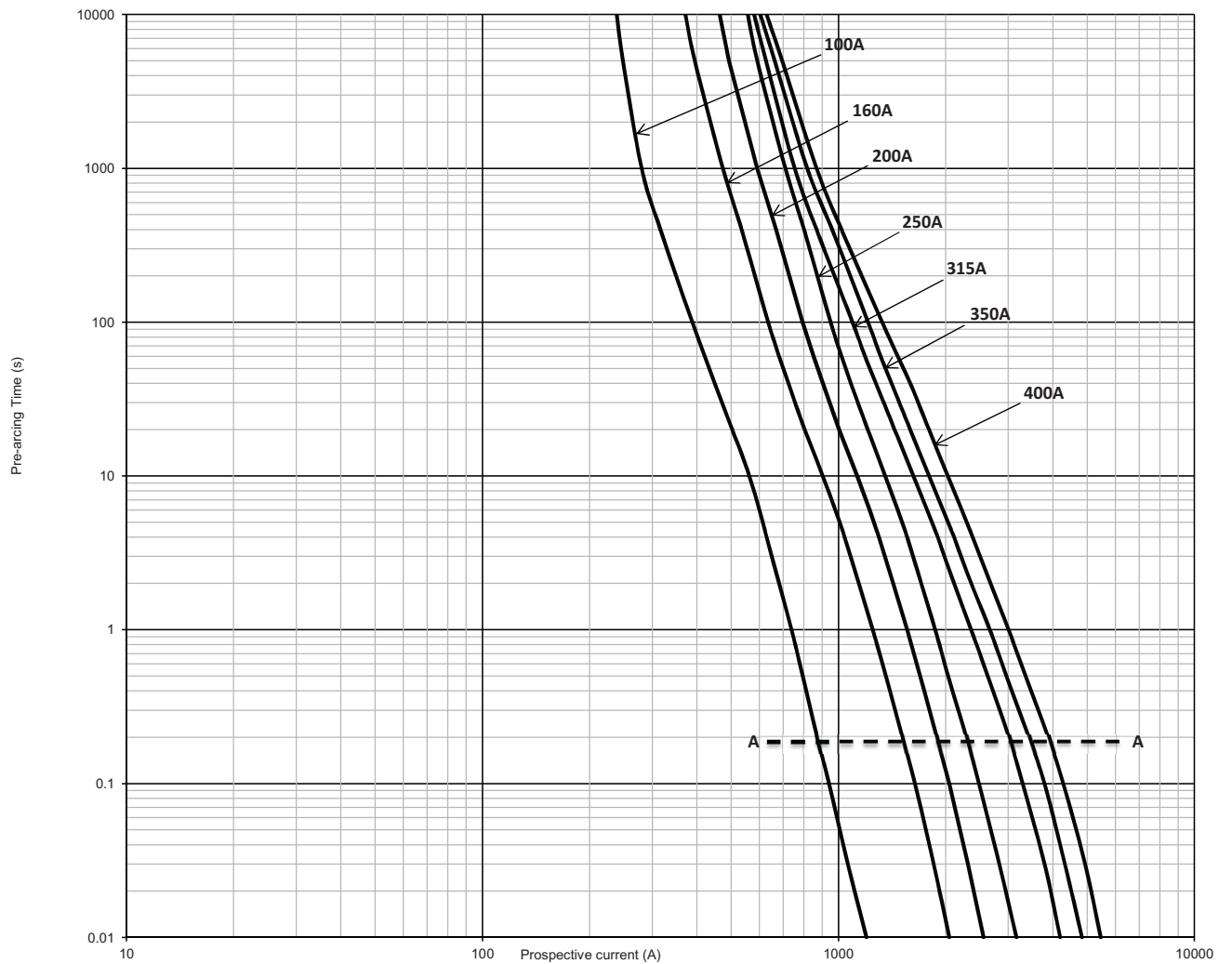
Dimensions (mm)



Data sheet: 720143, 5785520

170M - Size 3, Square body fuse links, 2400 V d.c. (IEC), 100 A to 400 A

Time-current curve - 100 A to 400 A



Traction fuse links

170E - Size 1*, Square body fuse links, 4000 V d.c. (IEC), 20 A to 125 A

Specifications

Description

Traction bolted tags square body high speed fuse link for superior protection in DC traction applications up to 4000 V d.c.

Technical data

- Rated voltage: 4000 V d.c. (IEC)
- Rated current: 20 A to 125 A
- Tested breaking capacity: 50 kA at 4000 V d.c., L/R 10ms
- Operating class: aR

Standards / Agency information

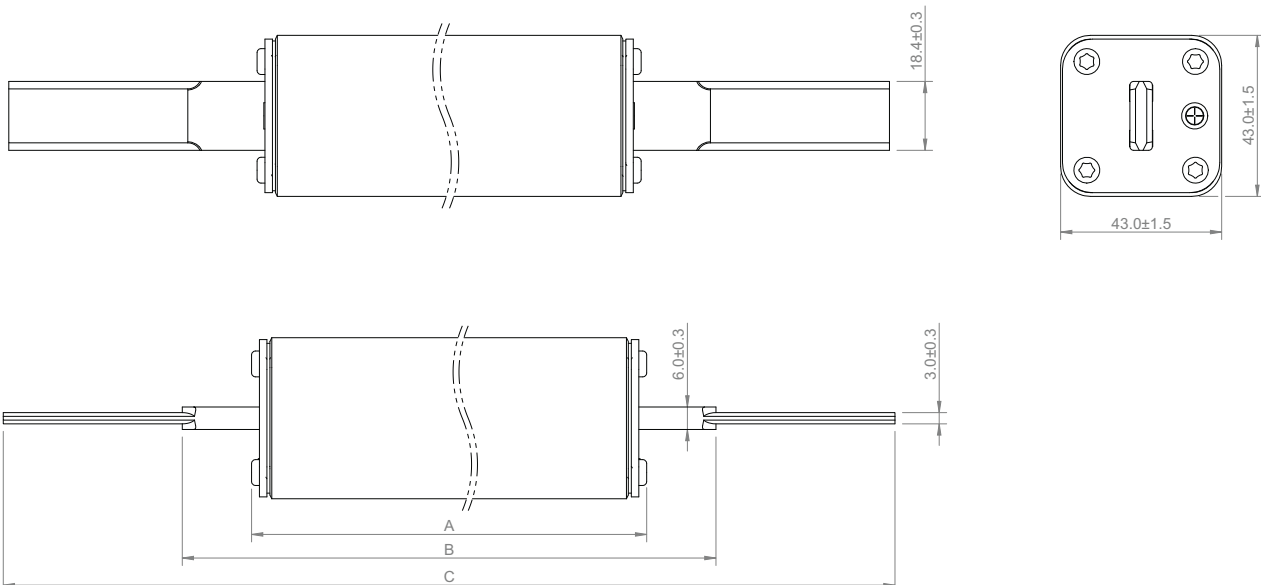
Consult Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

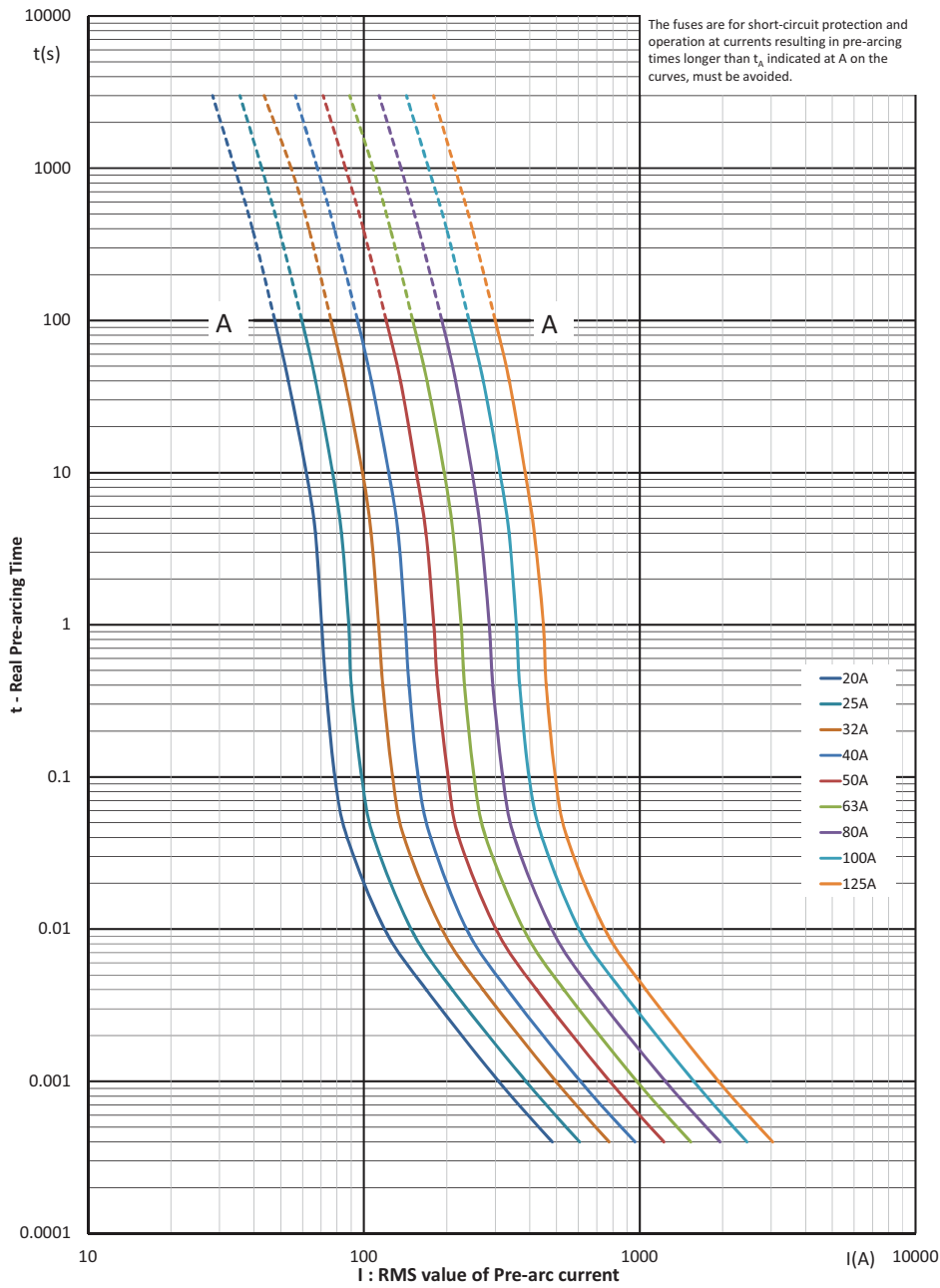
Fuse link body size	Rated voltage	Rated current (Amps)	Watts loss (W)	Catalogue numbers
1*	4000 V d.c. (IEC)	20	23	170E3924
		25	28	170E3925
		32	34	170E3926
		40	45	170E3927
		50	57	170E3928
		63	72	170E3929
		80	91	170E3930
		100	114	170E3931
		125	143	170E3932

Dimensions (mm)



170E - Size 1*, Square body fuse links, 4000 V d.c. (IEC), 20 A to 125 A

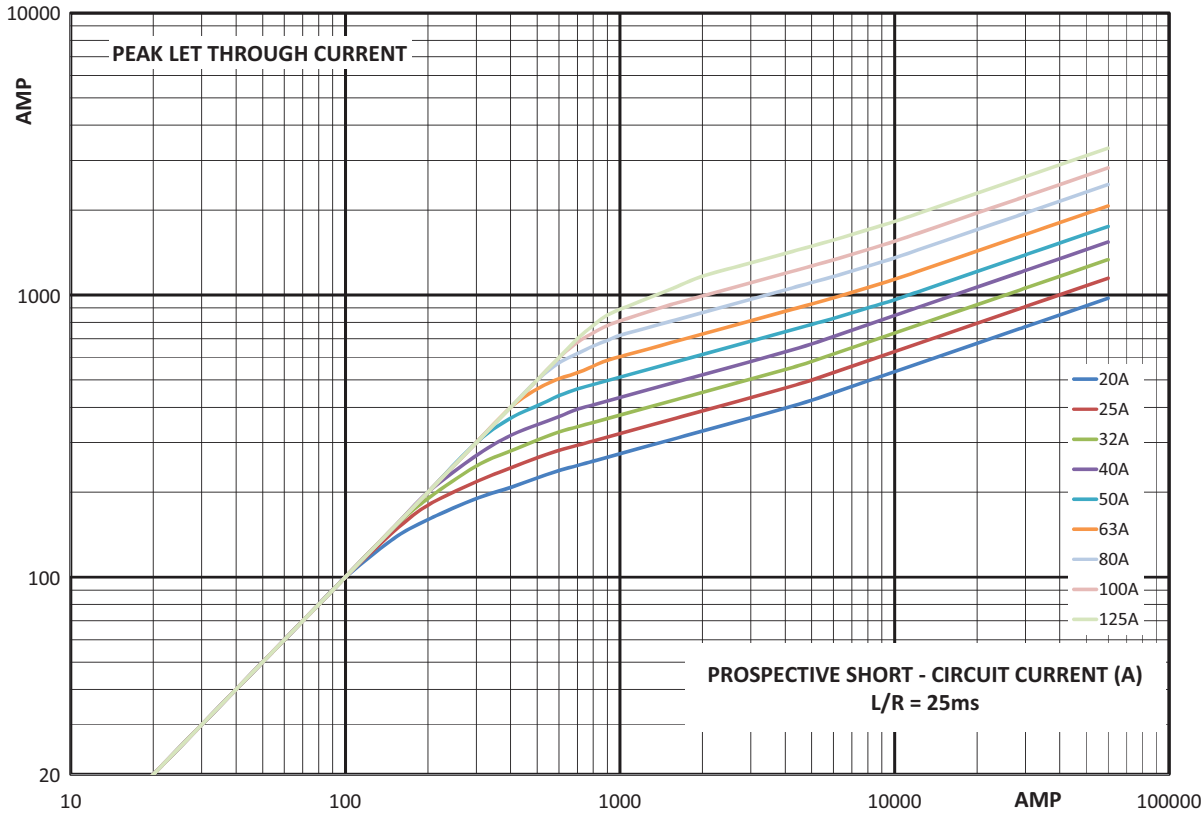
Time-current curve - 20 A to 125 A



Traction fuse links

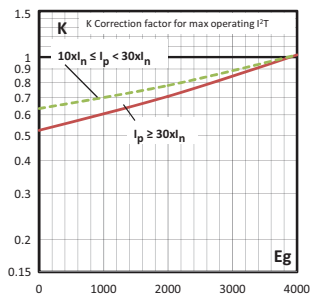
170E - Size 1*, Square body fuse links, 4000 V d.c. (IEC), 20 A to 125 A

Cut-off curve - 20 A to 125 A



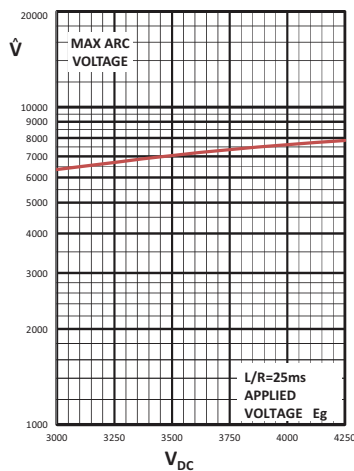
Total clearing I²t

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).



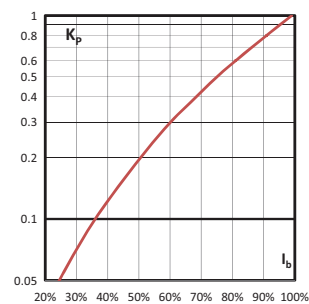
Arc voltage

This curve gives the peak arc voltage, U_a, 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.



170E - Sizes 1*, 2 and 2//2, Square body fuse links, 4000 V d.c. (IEC), 20 A to 450 A

Specifications

Description

Traction bolted tags square body high speed fuse link for superior protection in DC traction applications up to 4000 V d.c..

Technical data

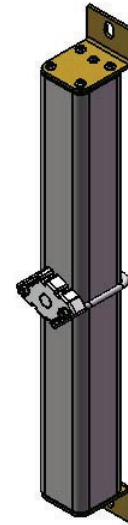
- Rated voltage: 4000 V d.c. (IEC)
- Rated current: 20 A to 500 A
- Breaking capacity: 60 kA at 4000 V d.c., L/R 25ms
- Operating class: aR

Standards / Agency information

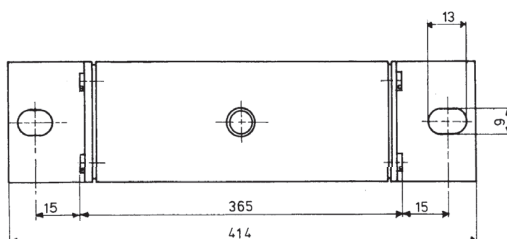
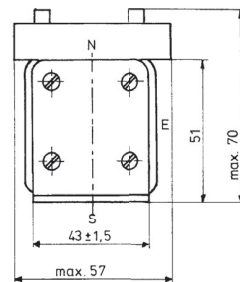
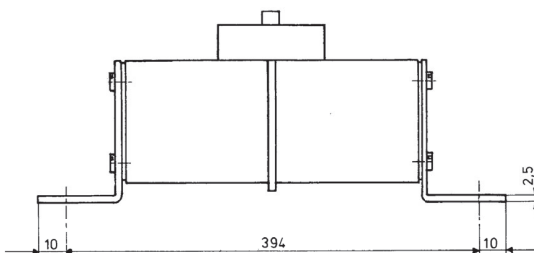
Contact Eaton bulehighspeedtechnical@eaton.com

Catalogue numbers

Fuse link body size	Rated voltage	Rated current (Amps)	Watts loss (W)	Catalogue numbers
1*	4000 V d.c. (IEC)	20	23	170E3914
		25	28	170E3915
		32	34	170E3916
		40	45	170E3917
		50	57	170E3918
		63	72	170E3919
		80	91	170E3984
		100	114	170E3933
		125	143	170E3922
2	4000 V d.c. (IEC)	160	182	170E8882
		200	228	170E8883
		250	285	170E8884
		315	360	170E8885
2//2	4000 V d.c. (IEC)	350	400	170E8886
		400	455	170E8887
		450	515	170E8888
		500	600	170E8889



Dimensions (mm) - Size 1*

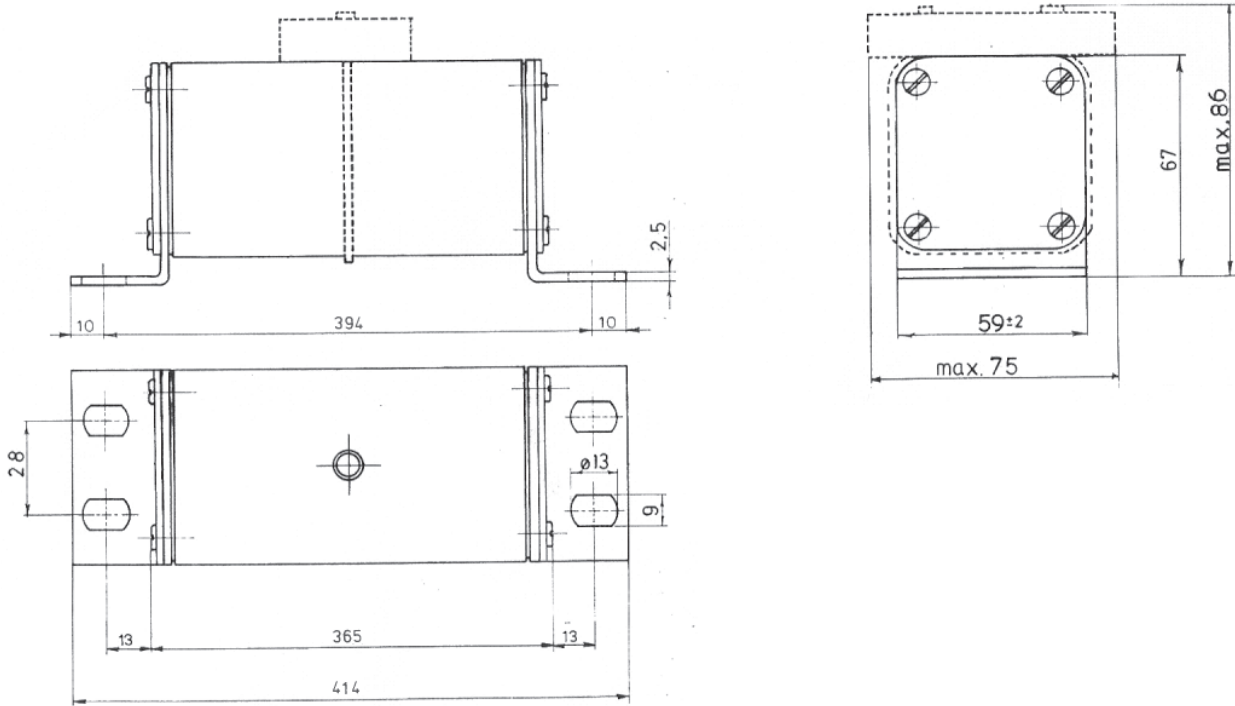


Data sheets: 1* 170K6600, 2 and 2//2 170K6604

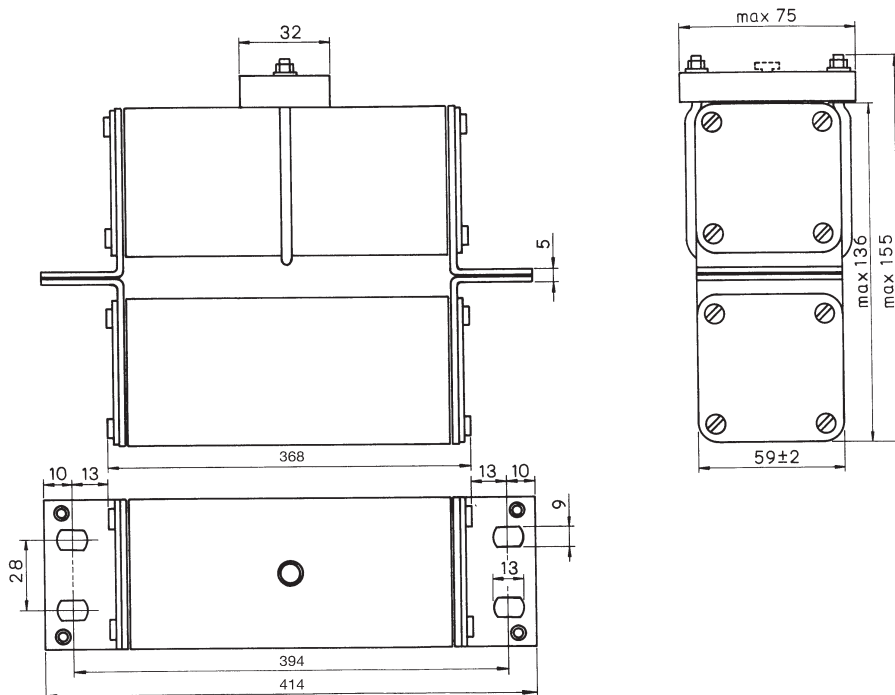
Traction fuse links

170E - Sizes 1*, 2 and 2//2, Square body fuse links, 4000 V d.c. (IEC), 20 A to 450 A

Dimensions (mm) - Size 2



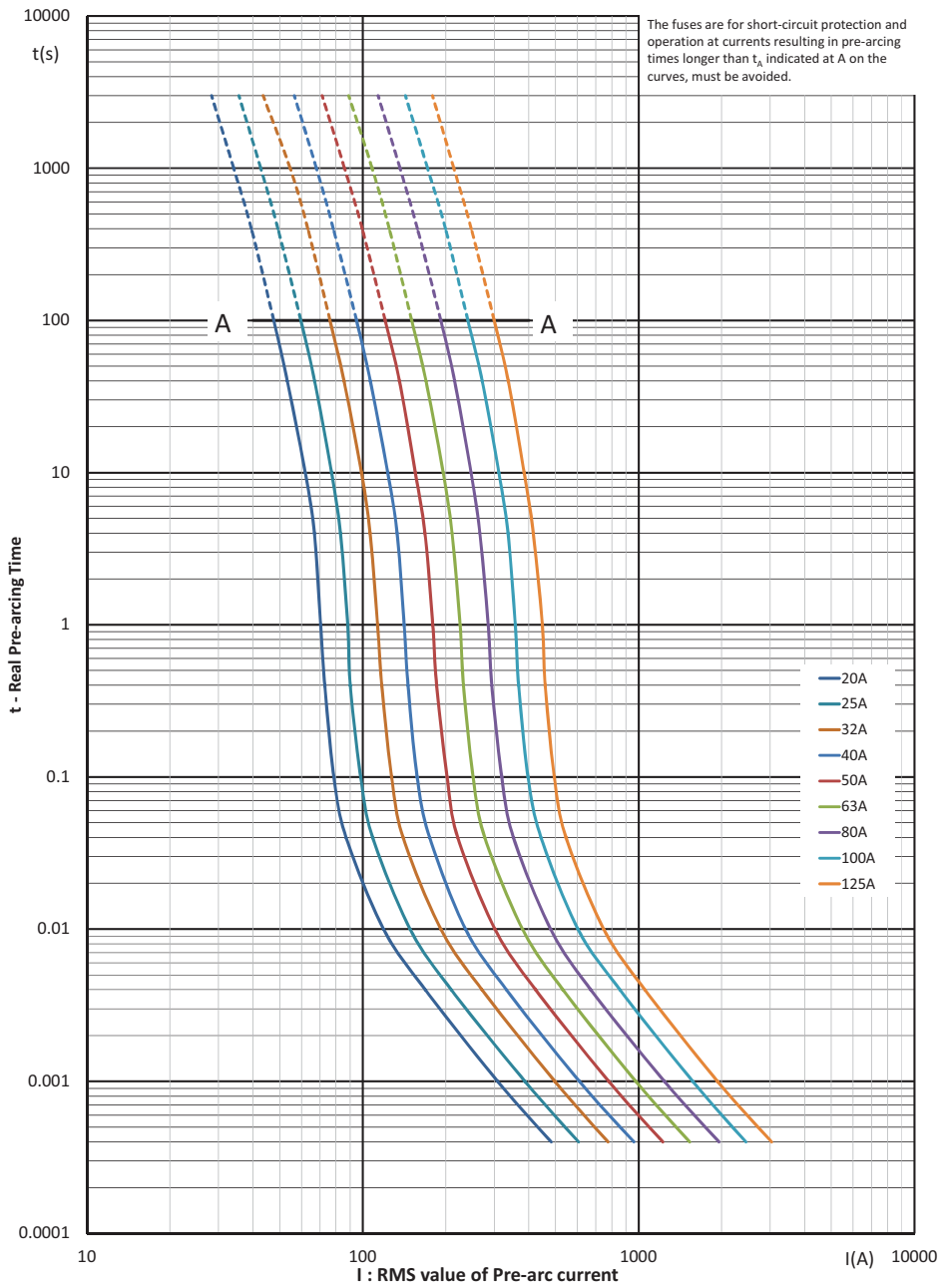
Dimensions (mm) - Size 2//2



Data sheets: 1* 170K6600, 2 and 2//2 170K6604

170E - Sizes 1*, 2 and 2//2, Square body fuse links, 4000 V d.c. (IEC), 20 A to 450 A

Time-current curve - Size 1*, 20 A to 125 A

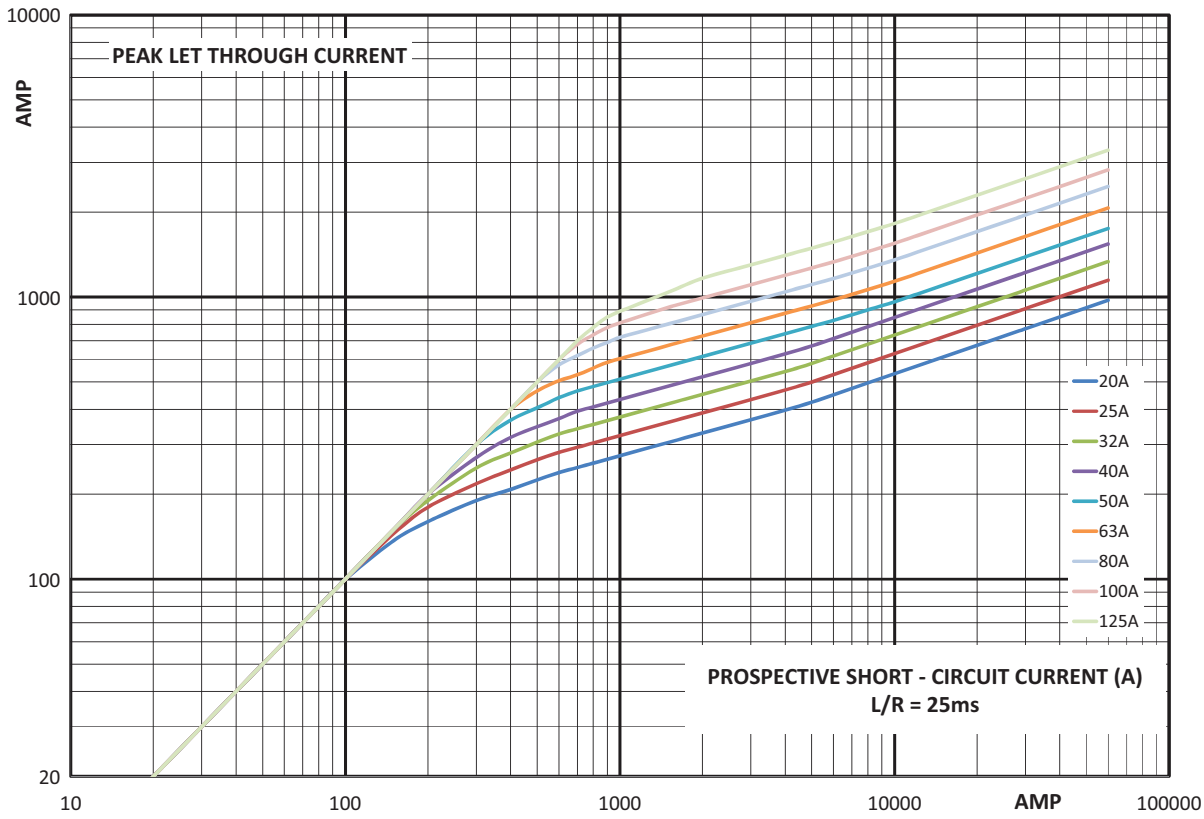


Data sheets: 1* 170K6600, 2 and 2//2 170K6604

Traction fuse links

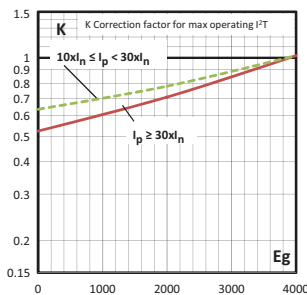
170E - Sizes 1*, 2 and 2//2, Square body fuse links, 4000 V d.c. (IEC), 20 A to 450 A

Cut-off curve - Size 1*, 20 A to 125 A



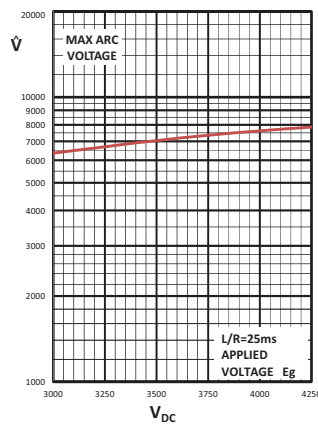
Total clearing I²t

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).



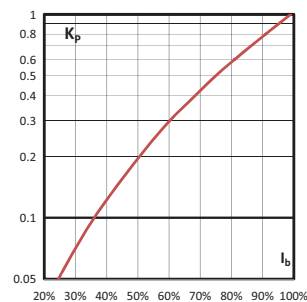
Arc voltage

This curve gives the peak arc voltage, U_a, 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

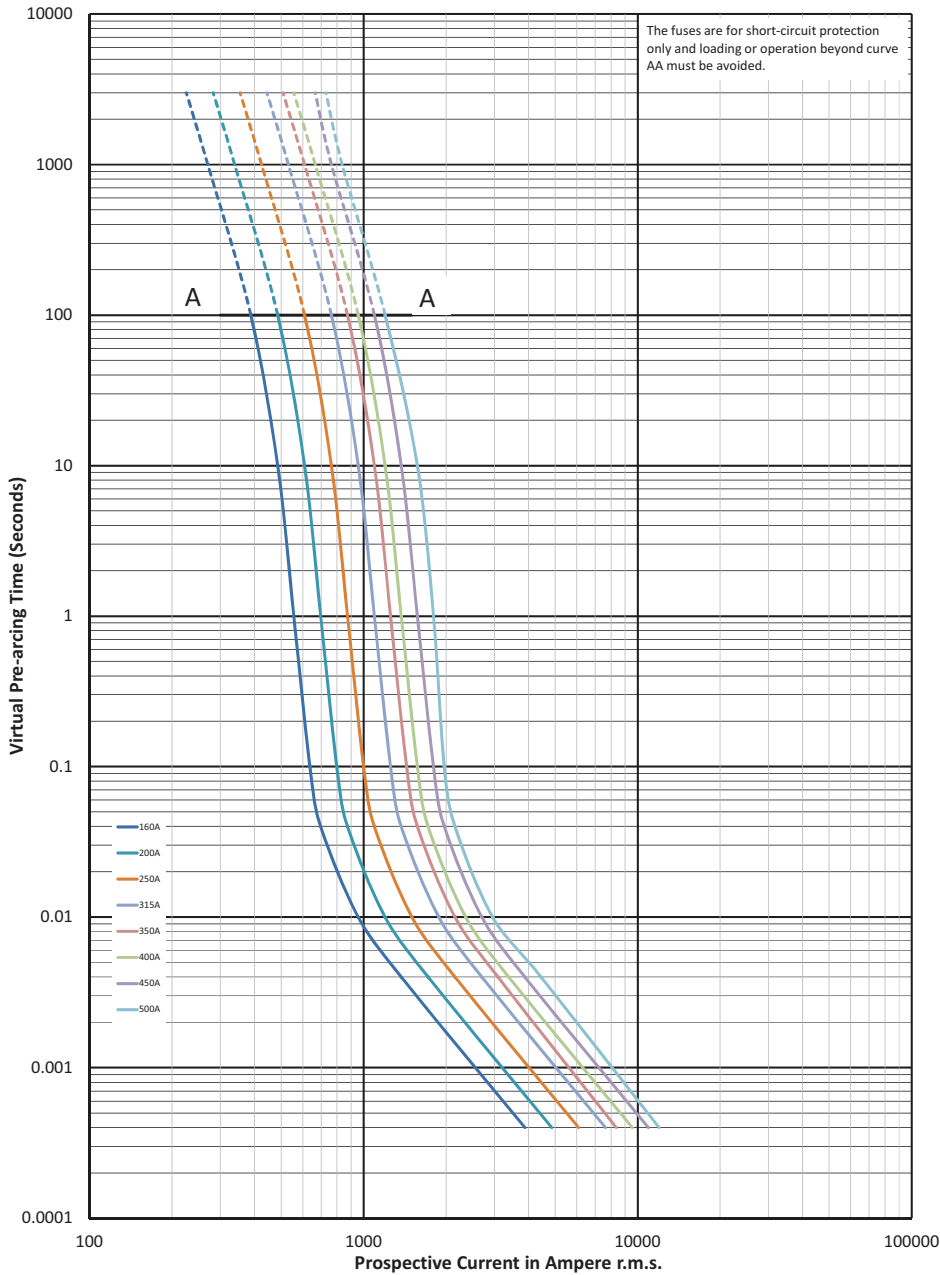
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, K_p, is given as a function of the RMS load current, I_b, in percent of the rated current.



Data sheets: 1* 170K6600, 2 and 2//2 170K6604

170E - Sizes 1*, 2 and 2//2, Square body fuse links, 4000 V d.c. (IEC), 20 A to 450 A

Time-current curve - Sizes 2 and 2//2, 160 A to 500 A

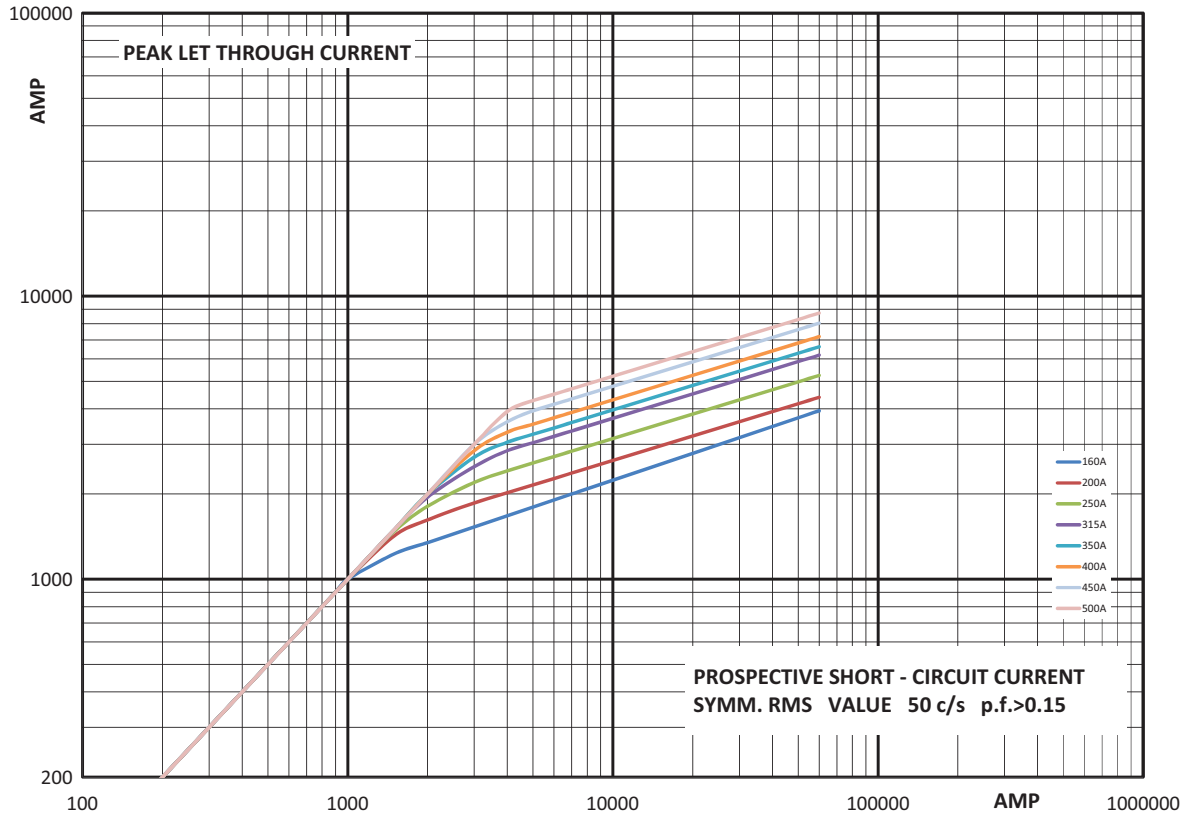


Data sheets: 1* 170K6600, 2 and 2//2 170K6604

Traction fuse links

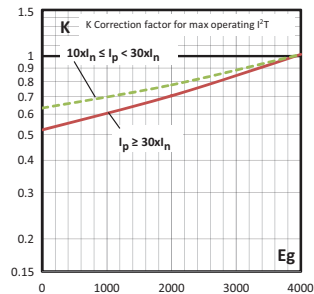
170E - Sizes 1*, 2 and 2//2, Square body fuse links, 4000 V d.c. (IEC), 20 A to 450 A

Cut-off curve - Sizes 2 and 2//2, 160 A to 500 A



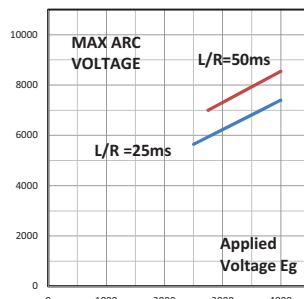
Total clearing I^2t

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).



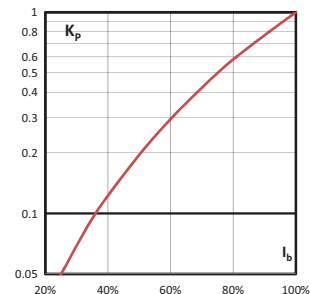
Arc voltage

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: 1* 170K6600, 2 and 2//2 170K6604

FWK - 20 x 127 and 25 x 146 mm, Ferrule fuse links, 750 V d.c. (IEC), 5 A to 60 A

Specifications

Description

Ferrule high speed fuse links for light rail applications in auxiliary power and distribution equipment.

Technical data

- Rated voltage: 750 V d.c. (IEC)
- Rated current:
 - 5 A to 30 A (20 x 127 mm)
 - 35 A to 60 A (25 x 146 mm)
- Breaking capacity: 50 kA at 750 V d.c., L/R 10-15ms
- Operating class: gG

Standards / Agency information

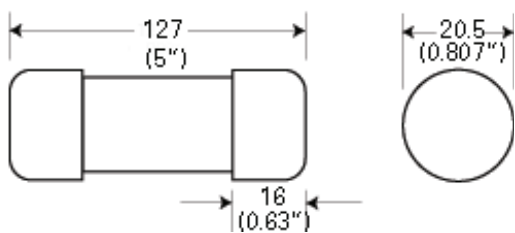
Tested in line with IEC 60269



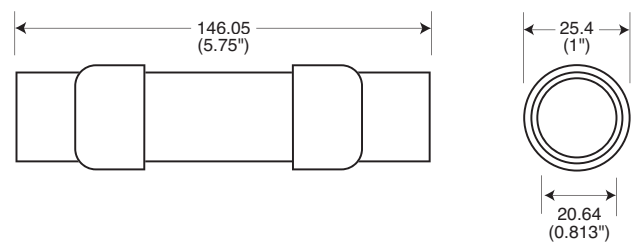
Catalogue numbers

Fuse link size	Rated voltage	Rated current (Amps)	I ² t (A ² Sec)		Watts loss (W)	Catalogue numbers
			Pre-arcing	Clearing at 750 V d.c.		
20 x 127 mm (13/16" x 5")	750 V d.c. (IEC)	5	8.5	16	6.7	FWK-5A20F
		8	50	100	8.8	FWK-8A20F
		10	95	200	8.5	FWK-10A20F
		15	100	240	5	FWK-15A20F
		20	125	315	7.8	FWK-20A20F
		25	400	1100	6.5	FWK-25A20F
		30	800	2600	6.5	FWK-30A20F
25 x 146 mm (1" x 5 3/4")	750 V d.c. (IEC)	35	1300	4300	6	FWK-35A25F
		40	1600	5300	6.8	FWK-40A25F
		50	3100	12000	7.3	FWK-50A25F
		60	5900	24000	7.7	FWK-60A25F

Dimensions mm (in) - 5 A to 30 A



Dimensions mm (in) - 35 A to 60 A



Traction fuse links

LRC750 - Ferrule fuse links, 750 V d.c. (IEC), 30 A to 50 A

Specifications

Description

Ferrule high speed fuse links for light rail applications in auxiliary power and distribution equipment. Also suitable for heavy rails applications in instrumentation and control circuits equipment.

Technical data

- Rated voltage: 750 V d.c. (IEC)
- Rated current: 30 A to 50 A
- Breaking capacity: 50 kA at 750 V d.c., L/R 15-20ms
- Operating class: gR

Standards / Agency information

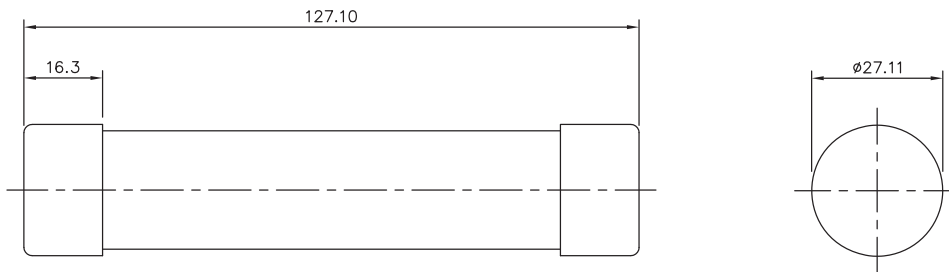
Tested in line with IEC 60269



Catalogue numbers

Fuse link type	Rated voltage	Rated current (Amps)	I ² t (A ² Sec)		Watts loss (W)	Catalogue numbers
			Pre-arcing	Clearing at 750 V d.c.		
LRC750	750 V d.c. (IEC)	30	700	2250	4.5	30LRC750
		40	1800	5300	5.8	40LRC750
		50	3100	12000	9.4	50LRC750

Dimensions (mm)



FWL and FWS - 20 x 127 mm, Ferrule fuse links, 1200-1400-2000 V a.c. (IEC), 1000 V d.c. (IEC), 2 A to 30 A

Specifications

Description

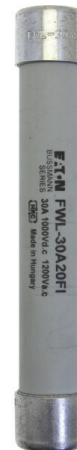
Ferrule high speed fuse links for light rail applications in auxiliary power and distribution equipment.

Technical data

- Rated voltage:
 - FWL: 1200 V a.c. (IEC) / 1000 V d.c.
 - FWS: 2000 V a.c. / 1000 V d.c. (IEC, 2 A to 8 A)
1400 V a.c. / 1000 V d.c. (IEC 10 A to 15 A)
- Rated current: 2 A to 30 A
- Breaking capacity: 50 kA at 1000 V d.c., L/R 15ms
- Operating class: gG

Standards / Agency information

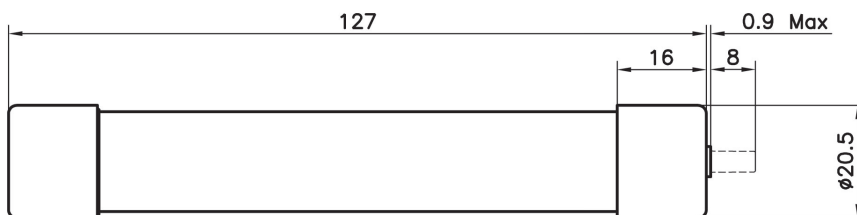
Consult Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

Fuse link size	Rated voltage	Rated current (Amps)	I ² t (A ² Sec)			Catalogue numbers	
			Pre-arcing	Clearing at 1000 V d.c.	Watts loss (W)	Without indicator	With indicator
20 x 127 mm (13/16" x 5)	2000 V a.c./ 1000 V d.c. (IEC)	2	0.8	2.4	4.4	FWS-2A20F	FWS-2A20FI
		6	27	81	6.7	FWS-6A20F	FWS-6A20FI
		8	64	192	7.6	FWS-8A20F	FWS-8A20FI
	1400 V a.c./ 1000 V d.c. (IEC)	10	118	277	3.0	FWS-10A20F	FWS-10A20FI
		12	170	380	3.4	FWS-12A20F	FWS-12A20FI
20 x 127 mm (13/16" x 5)	1200 V a.c./ 1000 V d.c. (IEC)	15	209	500	5.0	FWS-15A20F	FWS-15A20FI
		20	675	1550	5.9	FWL-20A20F	FWL-20A20FI
		25	1200	2760	6.5	FWL-25A20F	FWL-25A20FI
		30	1850	4300	7.5	FWL-30A20F	FWL-30A20FI

Dimensions (mm)



Traction fuse links

KC36 - Round body fuse links, 750 V d.c. (IEC), 5 A to 60 A

Specifications

Description

Ferrule high speed fuse links for light rail applications in auxiliary power and distribution equipment. Also suitable for heavy rails applications in instrumentation and control circuits equipment.

Technical data

- Rated voltage: 750 V d.c. (IEC)
- Rated current: 5 A to 60 A
- Breaking capacity: 50 kA at 750 V d.c., L/R 15-20ms
- Operating class: gR

Standards / Agency information

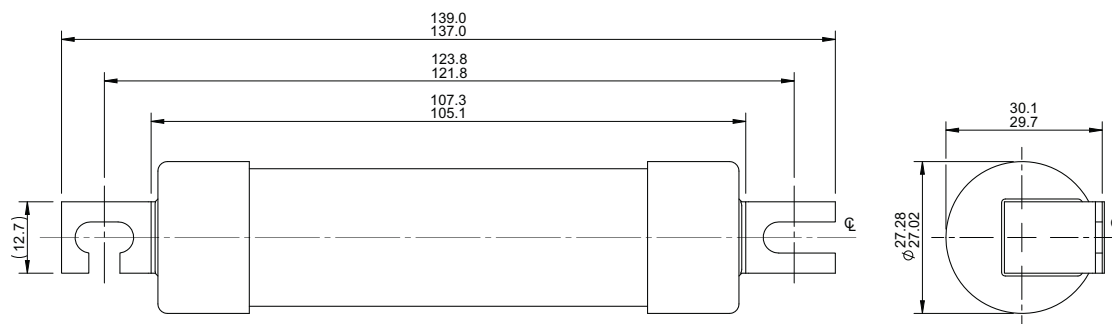
Tested in line with IEC 60269



Catalogue numbers

Fuse link type	Rated voltage	Rated current (Amps)	I ² t (A ² Sec)		Watts loss (W)	Catalogue numbers
			Pre-arcing	Clearing at 750 V d.c.		
KC36	750 V d.c. (IEC)	5	8.5	16	6.7	5KC36
		8	50	100	8.8	8KC36
		10	95	200	8.5	10KC36
		15	100	240	5	15KC36
		20	125	315	7.8	20KC36
		25	400	1100	6.5	25KC36
		30	800	2600	6.5	30KC36
		35	1300	4300	6	35KC36
		40	1600	5300	6.8	40KC36
		50	3100	12,000	7.3	50KC36
		60	5900	24,000	7.7	60KC36

Dimensions (mm)



RC - Round body fuse links, 750 V d.c. (IEC), 200 A to 400 A

Specifications

Description

Round bodied bolted tags high speed traction fuse links which provides protection for DC traction third rail applications.

Technical data

- Rated voltage: 750 V d.c. (IEC)
- Rated current: 200 A to 400 A
- Breaking capacity: Consult Eaton bulehighspeedtechnical@eaton.com
- Operating class: gG

Standards / Agency information

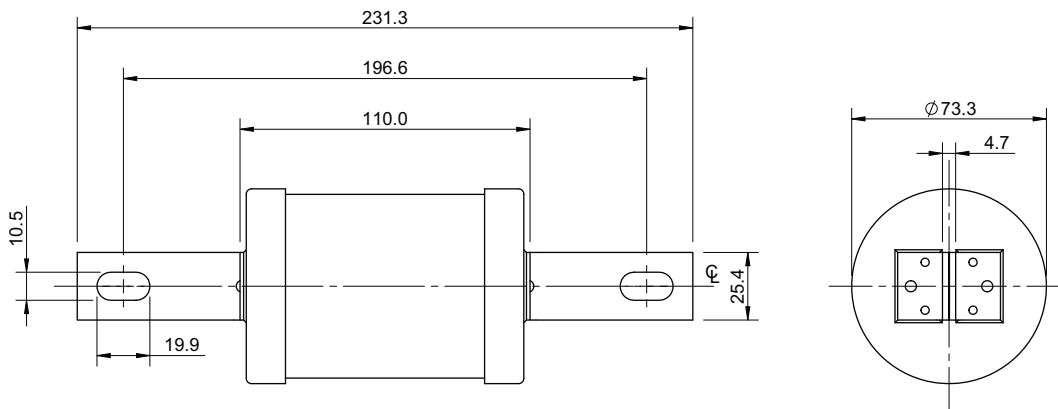
Consult Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

Rated voltage	Rated current (Amps)	I ² t (A ² s)	Watts loss (W)	Catalogue numbers
750 V d.c. (IEC)	200	85,000	31	200RC
	250	225,000	33	250RC
	300	340,000	37	300RC
	350	530,000	41	350RC
	400	765,000	48	400RC

Dimensions (mm)



Traction fuse links

NBC - Round body fuse links, 1500 V d.c. (IEC), 25 A to 200 A

Specifications

Description

A range of round body bolted tags high speed fuse links for heavy rail applications such as auxiliary and distribution equipment.

Technical data

- Rated voltage: 1500 V d.c. (IEC)
- Rated current: 25 A to 200 A
- Breaking capacity: Consult Eaton for interrupting rating and time constant capabilities.
- Operating class: gR

Standards / Agency information

Consult Eaton bulehighspeedtechnical@eaton.com



Catalogue numbers

Fuse link type	Rated voltage	Rated current (Amps)	Catalogue numbers
NBC	1500 V d.c. (IEC)	25	NBC-25
		60	NBC-60
		70	NBC-70
		100	NBC-100
		150	NBC-150
		200	NBC-200

Consult Eaton bulehighspeedtechnical@eaton.com for dimensions drawings:

25 and 60 Amps: BU-NBC-25-60

70 and 100 Amps: BU-NBC-70-100

150 and 200 Amps: BU-NBC-150 and 200