Eaton's Bussmann series
IEC High speed fuse links catalogue

BUSSMANN SERIES

# Leadership in fusible circuit protection

Powering Business Worldwide




* At Eaton, we believe that power is a fundamental part of just about everything people do. That's why we're dedicated to helping our customers find new ways to manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. To improve people's lives, the communities where we live and work, and the planet our future generations depend upon. Because this is what really matters. And we're here to make sure it works.

**To learn more go to: Eaton.com/whatmatters**

EATON
*Powering Business Worldwide*

We make what matters work.

**Eaton is the leading source of fusible circuit protection solutions in the global market-place. Eaton's Bussmann series products are approved for use around the world and meet agency requirements and international standards: IEC, VDE, DIN,UL, CSA, BS and others.**

The headquarters for Eaton's Bussmann series product line is located in Burton-on-the-Wolds, Leicestershire (UK) and is part of Eaton's Industrial Control and Protection EMEA division.

Eaton manufactures over 50,000 Bussmann series part numbers, covering extensive fusible circuit protection solutions for a wide range of applications: residential, industrial, motor protection, power conversion and distribution.

Eaton has been a leading exponent in the design, development and manufacture of fuse links and their associated accessories for more than 100 years and has supplied fuse links to more than 90 countries worldwide.

Eaton's team of specialist Engineers and Field Applications Engineers plays a leading role in international standardisation of fuse links offering comprehensive advice on selection and applications.

With a continual commitment to meet our customers' needs with innovative high quality ~products with ISO 9001 'approval systems', Eaton is the supplier of choice for circuit protection solutions.

# Table content


## North American fuse links 7

130 V a.c. / V d.c. (UL) - 1000 A to 4000 A - FWA . . . 7

150 V a.c. / V d.c. (UL) - 70 A to 1000 A - FWA . . . 10

250 V a.c. (UL) - 35 A to 2500 A- FWX . . . 14

500 V a.c. / V d.c. (UL), 50 A to 400 A - CHSF . . . 17

500 V a.c. / V d.c. (UL) - 35 A to 1600 A - FWH . . . 21

600 V a.c. (UL) - 1 A to 1000 A - KAC . . . 24

700 V a.c. / V d.c.(UL) - 5 A to 1200 A - FWP . . . 26

1000 V a.c. / 800 V d.c. (UL) - 35 A to 2000 A - FWJ . . . 32

1000 V d.c. (IEC/UL) - 70 A to 600 A - FWE . . . 35

## British standard BS88 fuse links 41

240 V a.c. / 150 V d.c. (IEC), 250-280 V a.c. / 150 V d.c. (UL) - 6 A to 180 A - LCT, LET . . . 41

240 V a.c. / 150 V d.c. (IEC), 250 V a.c. / 150 V d.c. (UL) - 160 A to 900 A - LMT, LMMT . . . 45

690 V a.c. / 500 V d.c. (IEC), 700 V a.c ./ 500 V d.c. (UL) - 6 A to 200 A - CT, ET, FE, EET, FEE . . . 48

690 V a.c. / 350-450 V d.c. (IEC), 700 V a.c. / 500 V d.c. (UL) - 160 A to 710 A - FM, FMM, MT, MMT . . . 53

## Ferrule fuse links 59

150 V a.c. / V d.c. (UL) - 5 A to 60 A - 10 x 38 mm and 21 x 51 mm - FWA . . . 59

250 V a.c. / V d.c. (UL) - 1 A to 50 A - 14 x 51 mm - FWX . . . 62

500 V a.c. (UL) - 0.25 A to 30 A - 6 x 32 mm - FWH . . . 65

500 V a.c. / V d.c. (UL) - 1 A to 30 A - 14 x 51 mm - FWH. . . . 67

600-700 V a.c. / 700 V d.c. (UL) - 1 A to 32A - 10 x 38 mm - FWC . . . 69

690 V a.c. (IEC) - 4 A to 32 A - 10 x 38 mm - gR - FWP . . . 71

690 V a.c. (IEC) - 4 A to 50 A - 14 x 51 mm - gR - FWP . . . 74

690 V a.c. (IEC) - 20 A to 100 A - 22 x 58 mm - gR - FWP . . . 77

690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 1 A to 63 A - 14 x 51 mm - FWP . . . 80

700 V a.c. / V d.c. (UL), 500 V d.c. (UL)- 20 A to 100 A - 22 x 58 mm - FWP . . . 83

750 V d.c. (IEC) - 5 A to 30 A - 20 x 127 mm - FWK . . . 85

1000 V a.c. / 800 V d.c. (UL) - 20 A to 30 A - 14 x 67 mm - FWJ . . . 86

1200 V a.c. / 1000 V d.c. (IEC) - 20 A to 30 A - 20 x 127 mm - FWL . . . 88

1400 - 2000 V a.c. / 1000 V d.c. (IEC) - 2 A to 15 A - 20 x 127 mm - FWS . . . 90

## Square body fuse links 92

### DIN 43653 . . . 92

690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 10 A to 400 A - Sizes 000 and 00 - DIN 43653 - 170M . . . 92

690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M . . . 98

1000 V a.c. (IEC and UL) - 20 A to 315A - Size 00 - DIN 43653 - 170M . . . 108

1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M . . . 111

1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M . . . 121

### DIN 43620 . . . 131

690 V a.c. (IEC) - 10 A to 800 A - Sizes 00 to 3 - DIN 43620 Full range (gR) - 170M . . . 131

1000 V a.c. (IEC and UL) - 20 A to 225 A - Size 00 - DIN 43620 - 170M . . . 151

### French style . . . 154

690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M . . . 154

# Table of content


**US Style** . . . . . 164

690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M. . . . . 164

1000 V a.c. (IEC) - 50 A to 1400 A - Sizes 1* to 3 - US Style - 170M . . . . . 174

1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M . . . . . 184

**Flush end contact** . . . . . 194

690 V a.c., 25 A to 400 A - Size 00 - Flush end contact - 170M . . . . . 194

690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M . . . . . 197

1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M . . . . . 207

1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M . . . . . 217

690 V a.c. (IEC), 700 V a.c. (UL) - 1000 A to 4000 A - Size 4 - Flush end contact - 170M . . . . . 227

1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M . . . . . 230

1250 V a.c. (IEC) - 800 A to 2500 A - Size 4 - Flush end contact - 170M . . . . . 238

660 V a.c. (IEC) - 1000 A to 4000 A - Size 23 - Flush end contact - 170M . . . . . 244

1250 V a.c. (IEC) - 630 A to 2800 A - Size 23 - Flush end contact - 170M . . . . . 248

690 V a.c. (IEC), 700 V a.c. (UL) - 2000 A to 6500 A - Size 24 - Flush end contact - 170M . . . . . 251

1000 V a.c. (IEC and UL) - 2000 A to 5000 A - Size 24 - Flush end contact - 170M. . . . . 254

1100-2000 V a.c. (IEC), 1800 A to 5500 A - Size 5 - Flush end contact - 170M . . . . . 257

**Drive - DFJ** . . . . . 258

600 V a.c. / 450 V d.c. (UL) - 1 A to 600 A - DFJ Drive fuse links . . . . . 258

**IGBT** . . . . . 261

750 V d.c. (IEC), 800 V d.c. (UL) - 25 A to 630 A - Sizes 000 and 230 - IGBT fuse links - 170M. . . . . 261

1000 V d.c. (IEC and UL) - 25 A to 500 A - Sizes 000 and 230 - IGBT fuse links - 170M. . . . . 267

**Traction fuse links** 273

**Square body** . . . . . 273

750 V d.c. (IEC) - 50 A to 1600 A - Sizes 1*, 3 and 23 - Square body fuse links - 170M . . . . . 273

750 V d.c. (IEC) - 63 A to 500 A - Sizes 1*, 1, 2 and 3 - Square body fuse links - 170E . . . . . 277

1250 V a.c. / 850 V d.c. (IEC) - 1400 A - Size 4 - Square body fuse link - 170M7217. . . . . 287

1200 V d.c. (IEC) - 20 A to 215A - Size 1* - Square body fuse links - 170M. . . . . 290

1200 V d.c. (IEC), 160 A to 420 A - Size 2 - Square body fuse links - 170F . . . . . 292

2000 V d.c. (IEC) - 10 A to 80 A - Size 1*- Square body fuse links - 170E . . . . . 294

2000 V d.c. (IEC) - 10 A to 125 A - Size 1* - Square body fuse links - 170E . . . . . 297

2000 V d.c. (IEC) - 20 A to 600 A - Square body fuse links - 170M . . . . . 302

2400 V d.c. (IEC), 100 A to 400 A - Size 3 - Square body fuse links - 170M. . . . . 306

4000 V d.c. (IEC) - 20 A to 125 A - Size 1* - Square body fuse links - 170E . . . . . 308

4000 V d.c. (IEC) - 20 A to 450 A - Sizes 1*, 2 and 2//2 - Square body fuse links - 170E . . . . . 311

**Ferrule** . . . . . 317

750 V d.c. (IEC), 5 A to 60 A - 20 x 127 and 25 x 146 mm - Ferrule fuse links - FWK . . . . . 317

750 V d.c. (IEC) - 30 A to 50 A - LRC750 - Ferrule fuse links . . . . . 318

1200-1400-2000 V a.c. (IEC), 1000 V d.c. (IEC) - 2 A to 30 A - 20 x 127 mm - Ferrule fuse links -FWL and FWS . . . . . 319

# Table of content


**Round body** . . . . . **320**

750 V d.c. (IEC) - 5 A to 60 A - Round body fuse links - KC36 . . . . . 320

750 V d.c. (IEC) - 200 A to 400 A - Round body fuse links - RC . . . . . 321

1500 V d.c. (IEC) - 25 A to 200 A - Round body fuse links - NBC . . . . . 322

**Photovoltaic fuse links, fuse bases and holders** **323**

600 V d.c. (UL) - 4 A to 30 A - 10 x 38 mm - PVM . . . . . 323

1000 V d.c. (IEC/UL) - 1 A to 20 A - 10 x 38 MM - PV-A10 . . . . . 325

1000 V d.c. (IEC/UL) - 32 A (IEC), 30 A (UL) - Modular fuse holder for 10 x 38 mm PV fuse links . . . . . 328

1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH . . . . . 329

1000 V d.c. (IEC/UL) - 160 A to 400 A - Flush end - PV-AF . . . . . 337

1000 and 1100 V d.c. (IEC/UL) - 15 A to 32 A - 14 x 51 mm - PV-14F . . . . . 340

1500 V d.c. (IEC/UL) - 2.25 A to 30 A - 10 x 85 mm - PV-A10F85L . . . . . 342

1500 V d.c. - 32 A (IEC/UL) - Fuse holder for 10 x 85 mm fuse links - CHPV15H85 . . . . . 344

1500 V d.c. - 50 A - Modular fuse holders for 14 x 51 mm PV Fuse links - CHPV14 . . . . . 345

1300-1500 V d.c. (IEC and UL) - 2.25 A to 32 A - 14 x 65 mm - PV-14L . . . . . 346

1500 V d.c. (IEC and UL) - 32 A to 50 A - 22 x 65 mm - PV-22F65L . . . . . 349

1500 V d.c. (IEC) - 80 A - Fuse holder for 22 x 65 mm fuse links - CHPV22-65 . . . . . 351

1500 V d.c. (IEC), 1000 V d.c. (UL/CSA) - 250 A to 630 A - sizes 1 to 3 - NH fuse bases - SD-D-PV . . . . . 352

1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L . . . . . 354

1500 V d.c. (IEC) - 200 A to 500 A - sizes 1 to 3 - XL fuse bases - SD-S-PV . . . . . 368

800 V a.c. (IEC/UL) - 32 A to 400 A - NH 170M . . . . . 369

**Battery storage fuse links** **376**

250 V d.c. (IEC/UL) - 80 A to 315 A - Round body fuses - BSF-DD25 . . . . . 376

1000 V d.c. (IEC/UL), 63 A to 400 A - NH Style - BSF-NH . . . . . 379

1500 V d.c. (IEC/UL) - 250 A to 500 A - XL Style - BSF-3XL . . . . . 385

**Accessories** **388**

Modular style fuse bases for North American, British and square body fuse links . . . . . 388

Fixed center fuse bases for DIN 43653 square body fuse links . . . . . 389

Fuse bases for ferrule fuse links, 600 V a.c. (UL) - 30 A - BMM . . . . . 392

Fuse bases for ferrule fuse links, 700 V a.c. (UL) - 100 A - JM70100 . . . . . 394

Modular knifeblade fuse blocks - 600 V a.c. (UL)- 70 A to 600 A - JM60 . . . . . 395

Modular fuse holders for 10 x 38 mm fuse links - CHM . . . . . 398

Modular fuse holders for 14 x 51 mm fuse links - 690 V a.c. / 750 and 1500V d.c. - 50 A - CHPV14 . . . . . 400

Modular fuse holders for 22 x 58 mm fuse links - 690 V a.c./1000 V d.c. - 125 A - CH22 . . . . . 402

Microswitches for square body fuse links - indicator systems - 170H . . . . . 404

Microswitches for British Standard BS88-4 fuse links - Trip indicator/Microswitches . . . . . 406

FW14-PCB Mountable fuse clip . . . . . 407

**Index** **408**

# North American fuse links

## 130 V a.c. / V d.c. (UL) - 1000 A to 4000 A - FWA

### Description

North American style flush end high speed fuse links for the protection of DC common bus, DC drives, power converters/ rectifiers and reduced rated voltage starters.




### Technical data

- Rated voltage: 130 V a.c. / V d.c. (UL)
- Rated current: 1000 A to 4000 A
- Breaking capacity:
  - 200 kA RMS Sym at 130 V a.c.
  - 50 kA at 130 V d.c.

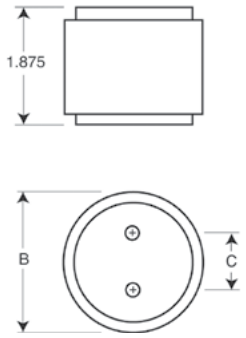
### Standards / Agency information

CE, UL Recognised JFHR2.E91958 on 1000 A to 2000 A fuse links

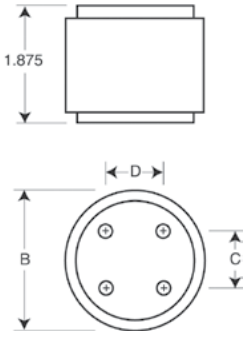
### Catalogue numbers

| | | $I^2t$ ($A^2$ Sec) | | | |
|---|---|---|---|---|---|
| **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 130 V a.c.** | **Watts loss (W)** | **Catalogue numbers** |
| 130 V a.c. / V d.c. (UL) | 1000 | 170,000 | 460,000 | 60 | FWA-1000AH |
| 130 V a.c. / V d.c. (UL) | 1200 | 270,000 | 730,000 | 70 | FWA-1200AH |
| 130 V a.c. / V d.c. (UL) | 1500 | 520,000 | 1,400,000 | 78 | FWA-1500AH |
| 130 V a.c. / V d.c. (UL) | 2000 | 860,000 | 2,400,000 | 108 | FWA-2000AH |
| 130 V a.c. / V d.c. (UL) | 2500 | 1,500,000 | 4,100,000 | 130 | FWA-2500AH |
| 130 V a.c. / V d.c. (UL) | 3000 | 2,100,000 | 5,700,000 | 150 | FWA-3000AH |
| 130 V a.c. / V d.c. (UL) | 4000 | 3,400,000 | 9,200,000 | 257 | FWA-4000AH |

### Dimensions (in) - 1000 A to 3000 A




### Dimensions (in) - 4000 A




| **Rated current (Amps)** | **B** | **C** | **D** | **Thread depth** |
|---|---|---|---|---|
| 1000 to 2000 | 2 | 1 | - | Tapped 3/8"-24 x 1/2" UNF |
| 2500 to 3000 | 3 | 1.5 | - | Tapped 1/2"-20 x 1/2" UNF |
| 4000 | 3.5 | 1.5 | 1.5 | Tapped 1/2"-20 x 1/2" UNF |

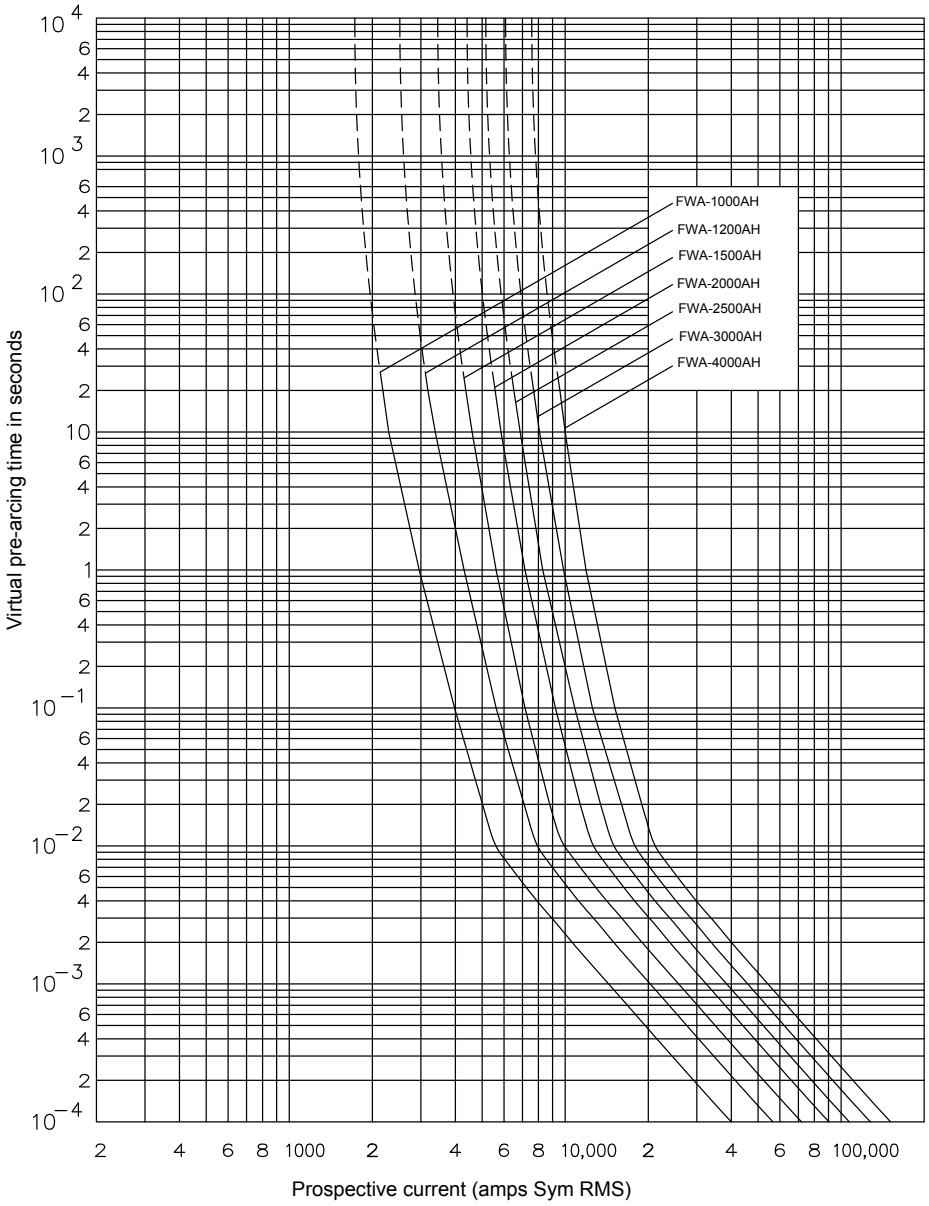
1" = 25.4mm

Data sheets: 720001, 5785301

# North American fuse links

## 130 V a.c. / V d.c. (UL) - 1000 A to 4000 A - FWA

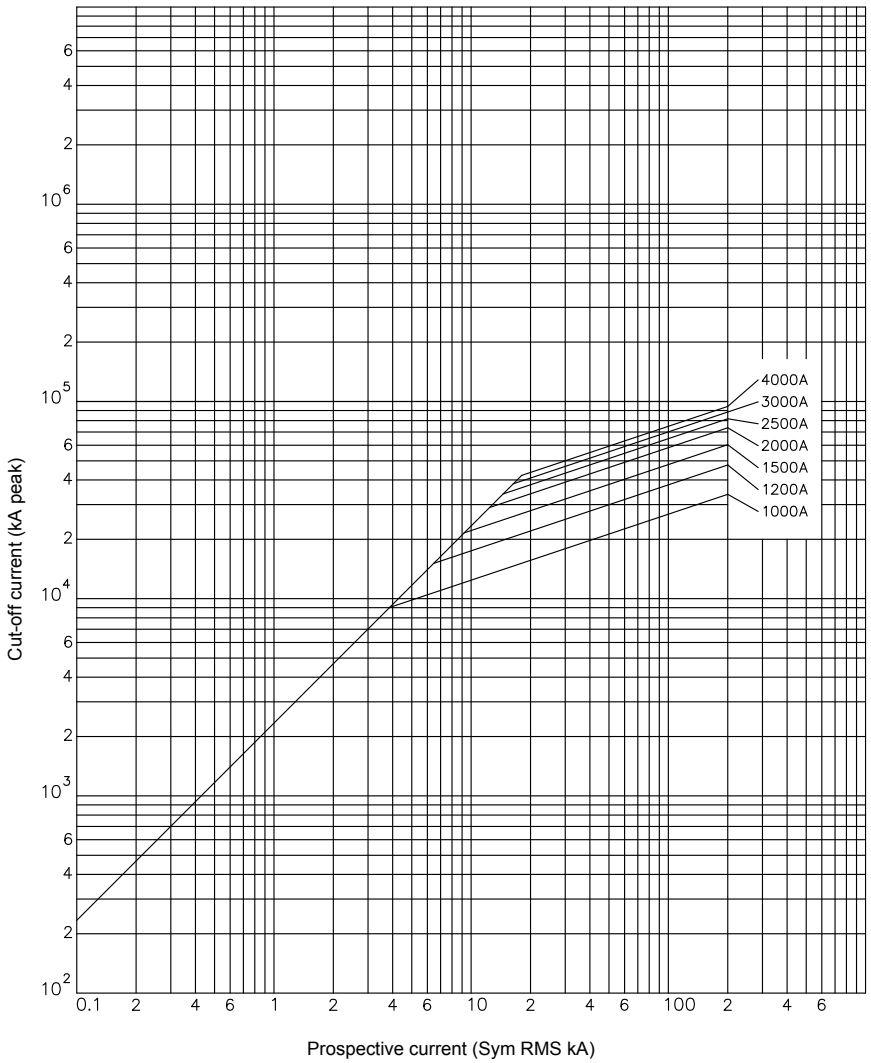
### Time-current curve - 1000 A to 4000 A




Data sheets: 720001, 5785301

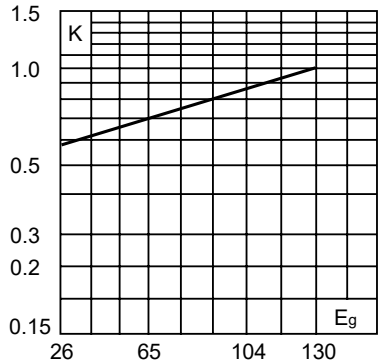
# 130 V a.c. / V d.c. (UL) - 1000 A to 4000 A - FWA

## Cut-off curve - 1000 A to 4000 A



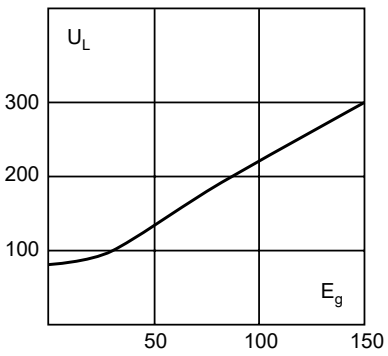

### Total clearing $I^2t$

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).



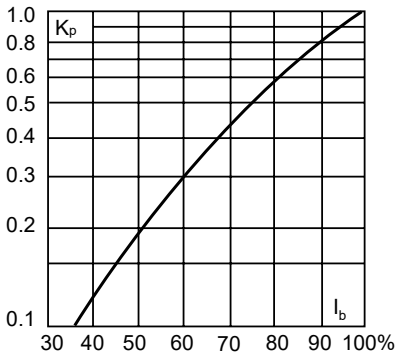

### Arc voltage

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: 720001, 5785301

# North American fuse links

## 150 V a.c. / V d.c. (UL) - 70 A to 1000 A - FWA

### Description

North American style bolted tag high speed fuse links used for the protection of DC common bus, DC drives, power converters/ rectifiers and reduced rated voltage starters.




### Technical Data

- Rated voltage:
  - 150 V a.c. / V d.c. (UL)
  - 80 V d.c.
- Rated current: 70 A to 1000 A
- Breaking capacity:
  - 100 kA RMS Sym. (70 A to 400 A) at 150 V a.c.
  - 200 kA RMS Sym. (500 A to 1000 A) at 150 V a.c.
  - 20 kA at 150 V a.c. / V d.c. (70 A to 800 A)
  - 100 kA at 80 V d.c. (70 A to 1000 A)

### Standards / Agency information

CE, UL Recognised JFHR2.E91958

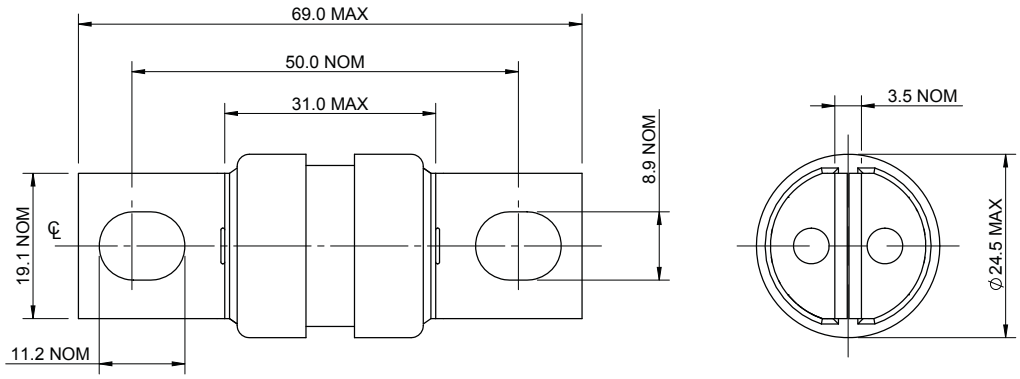
### Catalogue numbers

| Rated voltage / Breaking capacity | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 150 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|
| 150 V a.c./ 100 kA<br>80 V d.c. / 100 kA<br>150 V d.c./ 20 kA | 70 | 470 | 4000 | 6.9 | FWA-70B |
| | 80 | 670 | 6000 | 7.7 | FWA-80B |
| | 100 | 1200 | 12,000 | 9 | FWA-100B |
| | 125 | 1870 | 18,000 | 11.2 | FWA-125B |
| | 150 | 2700 | 26,000 | 13.5 | FWA-150B |
| | 200 | 4780 | 45,000 | 17.6 | FWA-200B |
| | 250 | 7470 | 70,000 | 22.5 | FWA-250B |
| | 300 | 10,760 | 100,000 | 27 | FWA-300B |
| | 350 | 15,700 | 140,000 | 30.6 | FWA-350B |
| | 400 | 20,300 | 180,000 | 35.2 | FWA-400B |
| 150 V a.c. / 200 kA<br>80 V d.c. / 100 kA<br>150 V d.c. / 20 kA | 500 | 39,000 | 120,000 | 35 | FWA-500A |
| | 600 | 46,000 | 140,000 | 47 | FWA-600A |
| | 700 | 75,000 | 220,000 | 49 | FWA-700A |
| | 800 | 92,000 | 280,000 | 58 | FWA-800A |
| 150 V a.c. / 200 kA<br>80 V d.c. / 100 kA | 1000 | 170,000 | 510,000 | 60 | FWA-1000A |

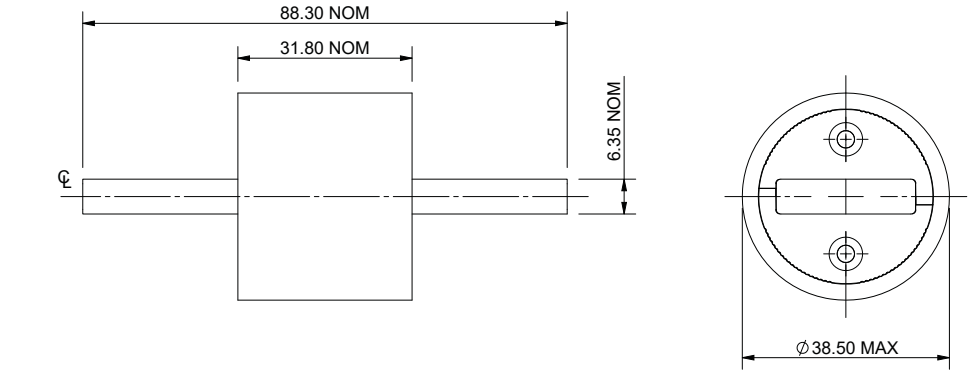
Data sheets: 720002, 5785310

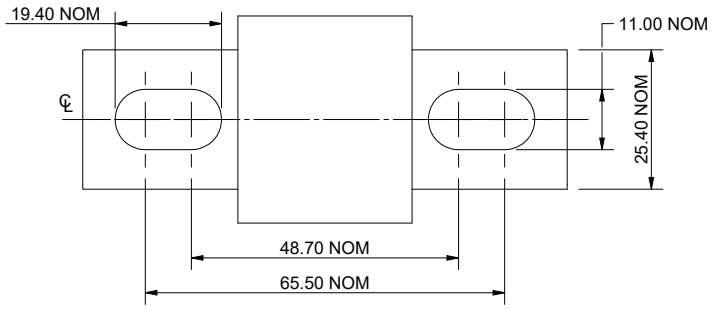
# 150 V a.c. / V d.c. (UL) - 70 A to 1000 A - FWA

## Dimensions (mm) - 70 A to 400 A




## Dimensions (mm) - 500 A to 1000 A



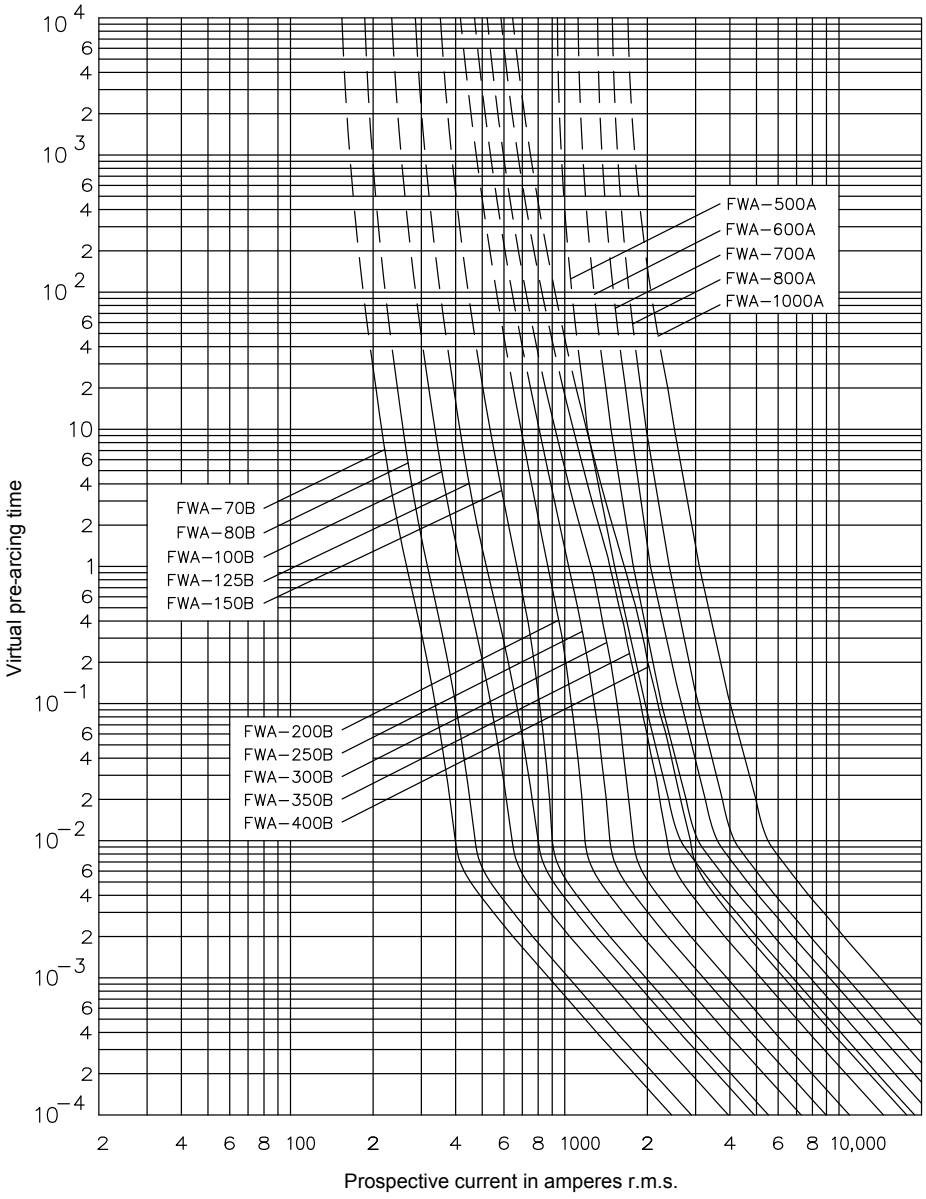




Data sheets: 720002, 5785310

# North American fuse links

## 150 V a.c. / V d.c. (UL), 70 A to 1000 A - FWA

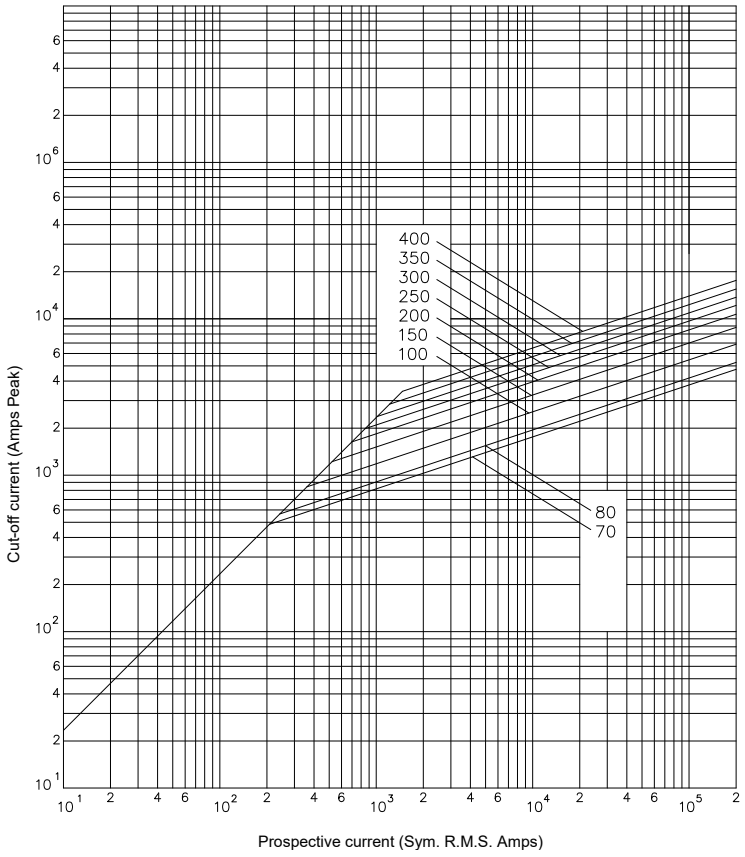
### Time-current curve - 70 A to 1000 A



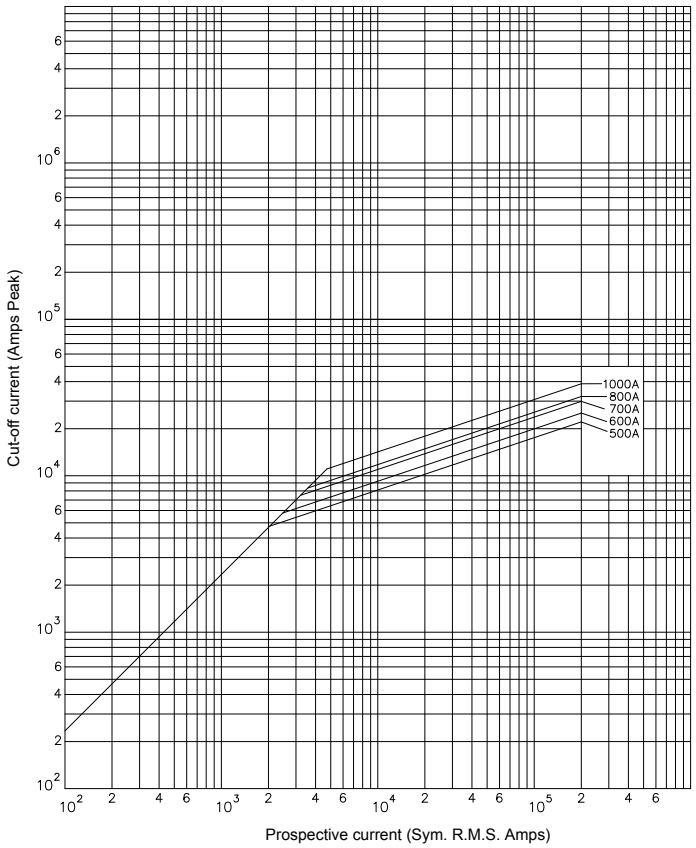

Data sheets: 720002, 5785310

# 150 V a.c. / V d.c. (UL), 70 A to 1000 A - FWA

## Cut-off curve - 70 A to 400 A

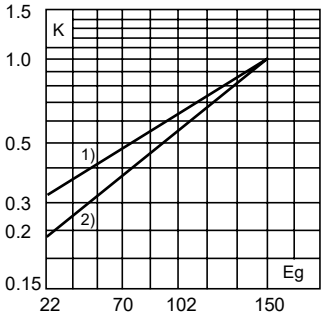



## Cut-off curve - 500 A to 1000 A




## 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).

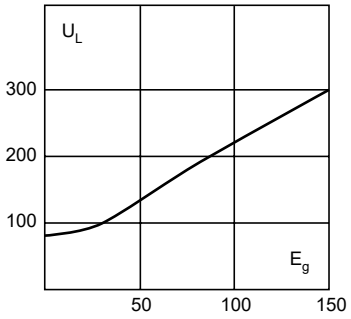



1) 500 - 1000 A

2) 70 - 400 A

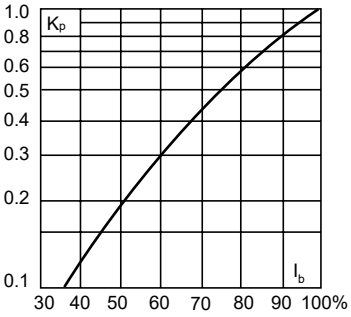
## Arc voltage

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: 720002, 5785310

# North American fuse links

## 250 V a.c. /V d.c. (UL) - 35 A to 2500 A- FWX




### Description

North American style bolted tags and flush end high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

### Technical Data

- Rated voltage:
  - 250 V a.c./V d.c.(UL) up to 800 A
  - 250 V a.c. (UL) from 1000 A to 2500 A
- Rated current: 35 A to 2500 A
- Breaking capacity:
  - 200 kA RMS Sym.at 250 V a.c.

### Standards / Agency information

CE, UL Recognised file JFHR2.E56412 and CSA component acceptance

### Catalogue numbers

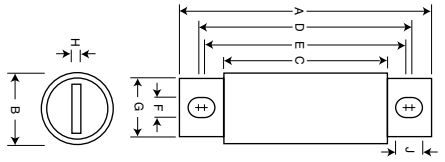
| Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 250 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|
| 250 V a.c / Vd.c. (UL) | 35 | 50 | 230 | 4.2 | FWX-35A |
| 250 V a.c / Vd.c. (UL) | 40 | 60 | 310 | 5.2 | FWX-40A |
| 250 V a.c / Vd.c. (UL) | 45 | 80 | 390 | 5.7 | FWX-45A |
| 250 V a.c / Vd.c. (UL) | 50 | 100 | 520 | 6 | FWX-50A |
| 250 V a.c / Vd.c. (UL) | 60 | 140 | 740 | 8.1 | FWX-60A |
| 250 V a.c / Vd.c. (UL) | 70 | 330 | 1400 | 7.2 | FWX-70A |
| 250 V a.c / Vd.c. (UL) | 80 | 430 | 1850 | 8.1 | FWX-80A |
| 250 V a.c / Vd.c. (UL) | 90 | 570 | 2450 | 9 | FWX-90A |
| 250 V a.c / Vd.c. (UL) | 100 | 740 | 3150 | 10 | FWX-100A |
| 250 V a.c / Vd.c. (UL) | 125 | 1130 | 4850 | 12.5 | FWX-125A |
| 250 V a.c / Vd.c. (UL) | 150 | 1620 | 6950 | 15.7 | FWX-150A |
| 250 V a.c / Vd.c. (UL) | 175 | 2170 | 9300 | 18.5 | FWX-175A |
| 250 V a.c / Vd.c. (UL) | 200 | 2790 | 12,000 | 22 | FWX-200A |
| 250 V a.c / Vd.c. (UL) | 225 | 3210 | 14,700 | 24 | FWX-225A |
| 250 V a.c / Vd.c. (UL) | 250 | 3960 | 18,100 | 27 | FWX-250A |
| 250 V a.c / Vd.c. (UL) | 275 | 4720 | 21,600 | 31 | FWX-275A |
| 250 V a.c / Vd.c. (UL) | 300 | 6000 | 27,300 | 32 | FWX-300A |
| 250 V a.c / Vd.c. (UL) | 350 | 10,600 | 48,600 | 39 | FWX-350A |
| 250 V a.c / Vd.c. (UL) | 400 | 14,500 | 66,100 | 44 | FWX-400A |
| 250 V a.c / Vd.c. (UL) | 450 | 22,100 | 101,000 | 49 | FWX-450A |
| 250 V a.c / Vd.c. (UL) | 500 | 28,000 | 128,000 | 54 | FWX-500A |
| 250 V a.c / Vd.c. (UL) | 600 | 41,100 | 188,000 | 62 | FWX-600A |
| 250 V a.c / Vd.c. (UL) | 700 | 48,800 | 190,000 | 72 | FWX-700A |
| 250 V a.c / Vd.c. (UL) | 800 | 59,000 | 230,000 | 84 | FWX-800A |
| 250 V a.c. (UL) | 1000 | 44,000 | 360,000 | 100 | FWX-1000AH |
| 250 V a.c. (UL | 1200 | 92,000 | 750,000 | 103 | FWX-1200AH |
| 250 V a.c. (UL | 1500 | 120,000 | 880,000 | 140 | FWX-1500AH |
| 250 V a.c. (UL | 1600 | 160,000 | 1,200,000 | 140 | FWX-1600AH |
| 250 V a.c. (UL | 2000 | 320,000 | 2,300,000 | 151 | FWX-2000AH |
| 250 V a.c. (UL | 2500 | 670,000 | 4,700,000 | 163 | FWX-2500AH |

Data sheets: 720005, 359 (35-800 A), 5785299 (100-2500 A)

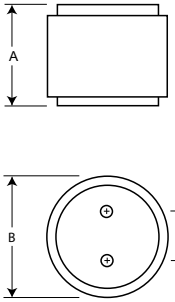
# 250 V a.c./V d.c. (UL) - 35 A to 2500 A- FWX

## Dimensions (in)

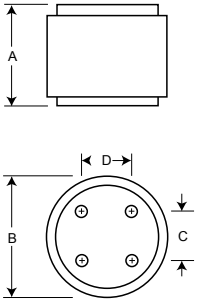
**35 A to 800 A**




**1000 A to 1200 A**



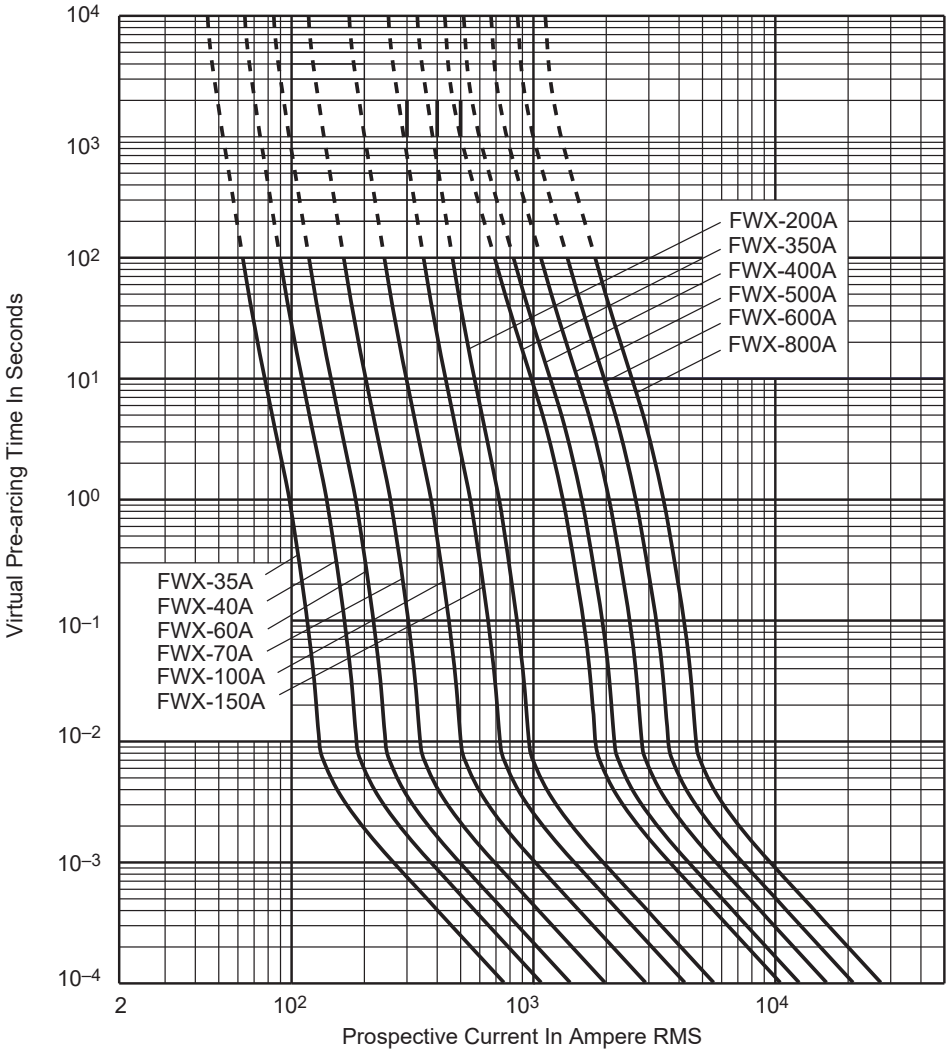

**1500 A to 2500 A**




| Amp range | A | B | C | D | E | F | G | H | J | Tapped thread depth |
|---|---|---|---|---|---|---|---|---|---|---|
| 35-60 | 3.19 | 0.81 | 1.59 | 2.59 | 2.25 | 0.34 | 0.63 | 0.13 | 0.52 | - |
| 70-200 | 3.13 | 1.22 | 1.59 | 2.44 | 2.19 | 0.34 | 1 | 0.19 | 0.47 | - |
| 225-600 | 3.84 | 1.5 | 1.59 | 2.94 | 2.25 | 0.41 | 1 | 0.25 | 0.75 | - |
| 700-800 | 3.84 | 2 | 1.59 | 3.03 | 2.28 | 0.41 | 1.5 | 0.25 | 0.78 | - |
| 1000-1200 | 2.59 | 3 | 1.5 | - | - | - | - | - | - | 3/8"-24 x 1/2" UNF |
| 1500-2500 | 2.59 | 3.5 | 1.5 | 1.5 | - | - | - | - | - | |

1" = 25.4mm

## Time-current curve - 35 A to 800 A



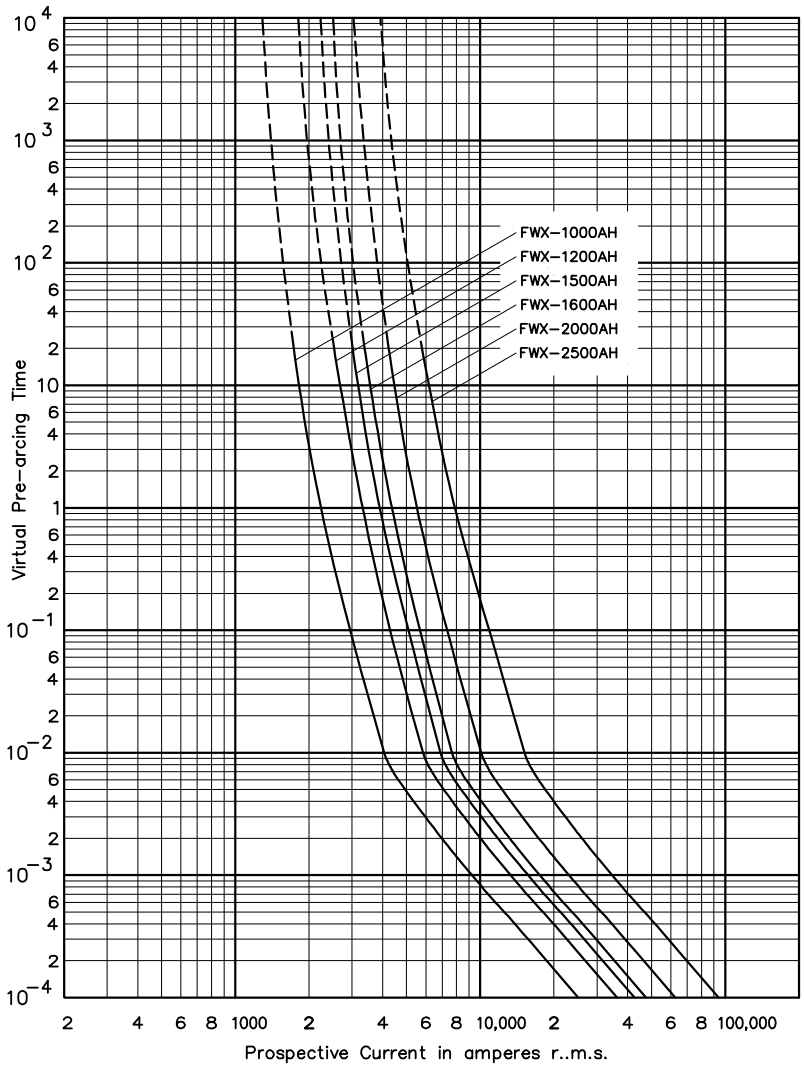

Contact FUSETECH@eaton.com for the time current curves for the following ratings: 45, 50, 80, 90, 125, 175, 225, 250, 275, 300, 450 and 700 A

Data sheets: 720005, 359 (35-800 A), 5785299 (100-2500 A)

# North American fuse links

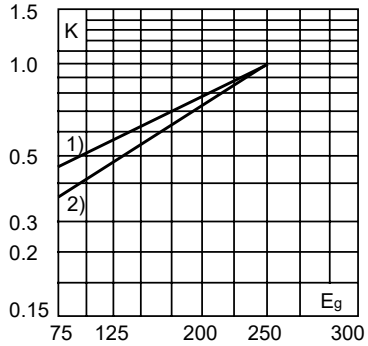
## 250 V a.c./V d.c. (UL) - 35 A to 2500 A- FWX

### Time-current curve - 1000 A to 2500 A




### Total clearing $I^2t$

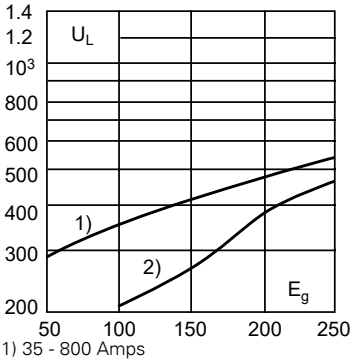
The total clearing $I^2t$ at rated voltage and at a power factor of 15 percent are given in the electrical characteristics. For other voltages, the clearing $I^2t$ is found by multiplying by correction factor, K, given as a function of applied working voltage, $E_g$, (RMS).




1) 35 - 800 Amps
2) 1000 - 2500 Amps

### Arc voltage

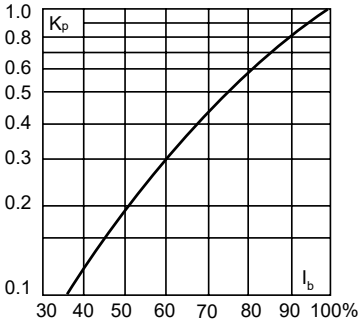
This curve gives the peak arc voltage, $U_L$, which may appear across the fuse during its operation as a function of the applied working voltage, $E_g$, (RMS) at a power factor of 15 percent.




1) 35 - 800 Amps
2) 1000 - 2500 Amps

### 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: 720005, 359 (35-800 A), 5785299 (100-2500 A)

# 500 V a.c. / V d.c. (UL), 50 A to 400 A - CHSF




## Description

Eaton's Bussmann series compact high speed fuses feature space-saving case sizes for protecting semiconductor devices up to 500 V a.c./V d.c. in ratings from 50 to 400 Amps

## Technical Data

- Rated voltage: 500 V a.c. / V d.c. (UL)
- Rated current: 50 A to 400 A
- Breaking capacity:
  - Maximum AC: 200 kA / Minimum AC 400%
  - Maximum DC: 50 kA / Minimum DC 800%
- Conforms to IEC aR specifications for short-circuit protection

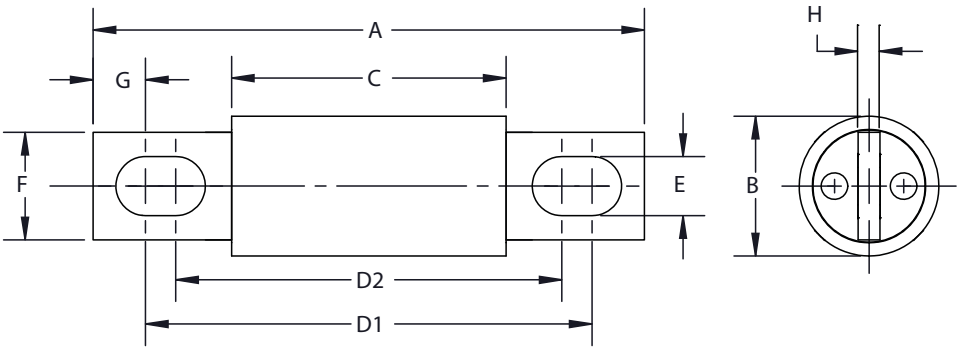
## Standards / Agency information

UL Recognised, File E56412, guide JFHR2, CSA Component Acceptance, Class 1422-30, File 53787, IEC aR (self-certified), CE, RoHS compliant, REACH declaration available upon request

## Catalogue numbers

| Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) AC/DC Pre-arcing | AC clearing at 200 kA/500 V a.c. | DC clearing at 50 kA/500 V d.c. | Watts loss (W) at 80% | Catalogue numbers |
|---|---|---|---|---|---|---|
| 500 V a.c./ V d.c.(UL) | 50 | 304 | 1875 | 935 | 3.8 | CHSF-50 |
| 500 V a.c./ V d.c.(UL) | 60 | 438 | 2700 | 1346 | 4.5 | CHSF-60 |
| 500 V a.c./ V d.c.(UL) | 70 | 596 | 3675 | 1833 | 5.3 | CHSF-70 |
| 500 V a.c./ V d.c.(UL) | 80 | 778 | 4800 | 2394 | 6.1 | CHSF-80 |
| 500 V a.c./ V d.c.(UL) | 100 | 1216 | 7500 | 3740 | 7.6 | CHSF-100 |
| 500 V a.c./ V d.c.(UL) | 125 | 2042 | 12721 | 6465 | 12 | CHSF-125 |
| 500 V a.c./ V d.c.(UL) | 150 | 2941 | 18318 | 9309 | 14.3 | CHSF-150 |
| 500 V a.c./ V d.c.(UL) | 175 | 4003 | 24933 | 12671 | 16.7 | CHSF-175 |
| 500 V a.c./ V d.c.(UL) | 200 | 5228 | 32566 | 16550 | 19.1 | CHSF-200 |
| 500 V a.c./ V d.c.(UL) | 225 | 6835 | 48028 | 21278 | 26.1 | CHSF-225 |
| 500 V a.c./ V d.c.(UL) | 250 | 8438 | 59293 | 26270 | 29 | CHSF-250 |
| 500 V a.c./ V d.c.(UL) | 300 | 12151 | 85382 | 37828 | 34.8 | CHSF-300 |
| 500 V a.c./ V d.c.(UL) | 350 | 16539 | 116215 | 51488 | 40.6 | CHSF-350 |
| 500 V a.c./ V d.c.(UL) | 400 | 21603 | 151791 | 67250 | 46.4 | CHSF-400 |

## Dimensions (mm) - 50 A to 400 A



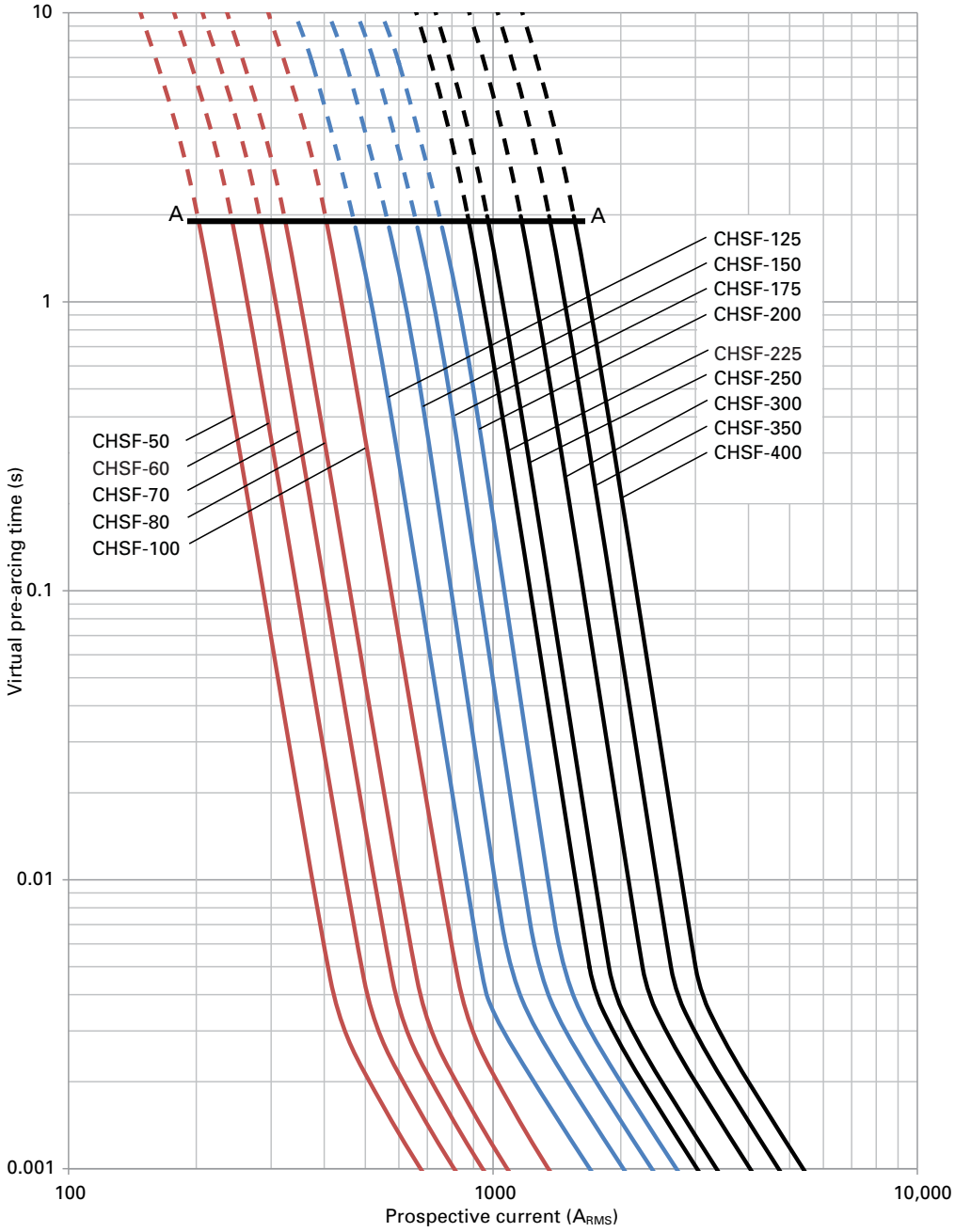

| Amps | A | B | C | D1 | D2 | E | F | G | H |
|---|---|---|---|---|---|---|---|---|---|
| 50-100 | 81 | 20 | 40 | 61 | 58 | 8.7 | 16 | 7.7 | 3.2 |
| 125-200 | 92 | 25 | 53 | 77 | 68 | 8.7 | 19 | 7.8 | 3.2 |
| 225-400 | 92 | 30 | 53 | 74 | 68 | 8.7 | 25 | 9 | 4.8 |

Data sheet: 10414

# North American fuse links

## 500 V a.c. / V d.c. (UL) - 50 A to 400 A - CHSF

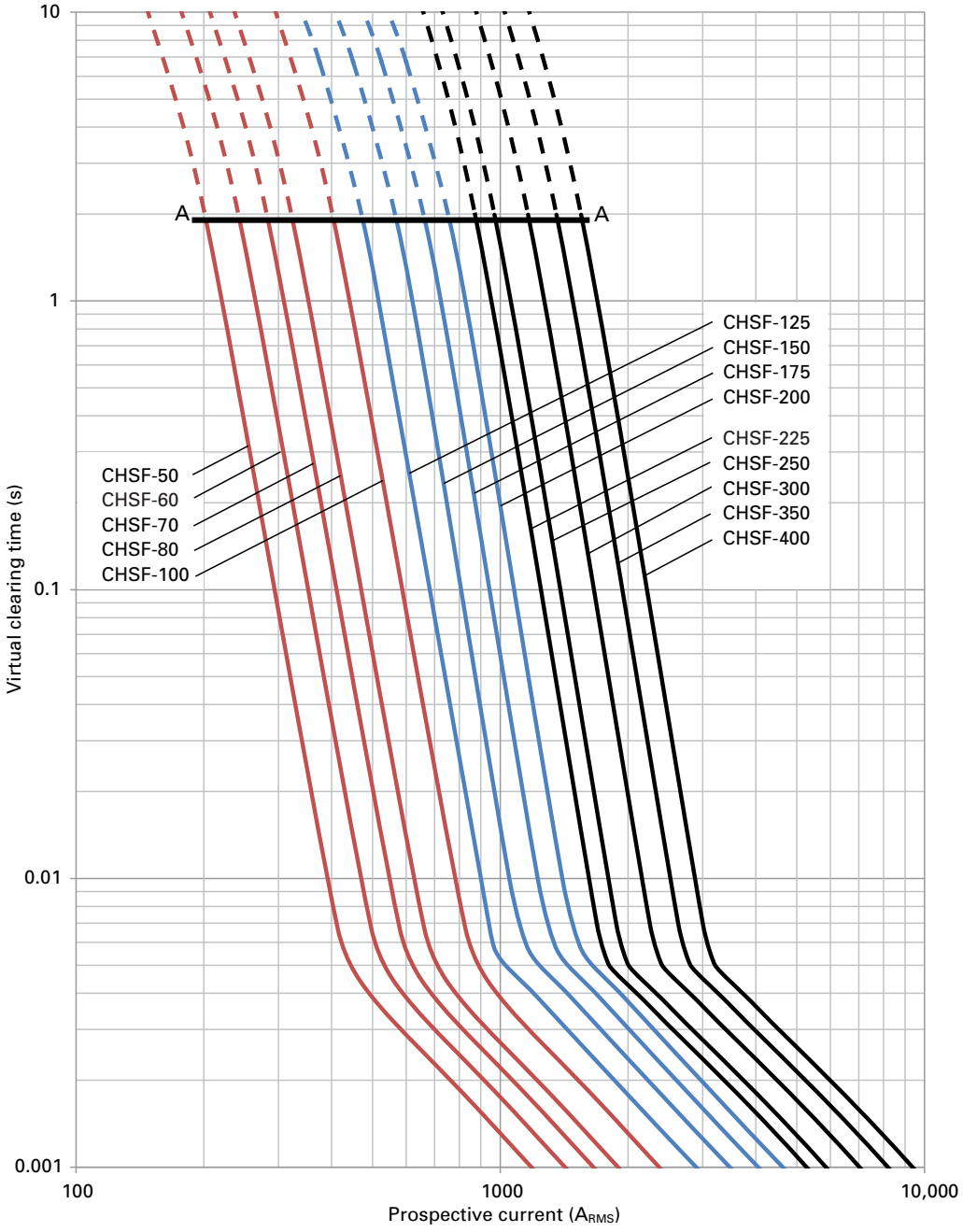
### AC Minimum melt curve - 50 A to 400 A




Data sheet: 10414

# 500 V a.c. / V d.c. (UL) - 50 A to 400 A - CHSF

## AC Time-current curve- 50 A to 400 A

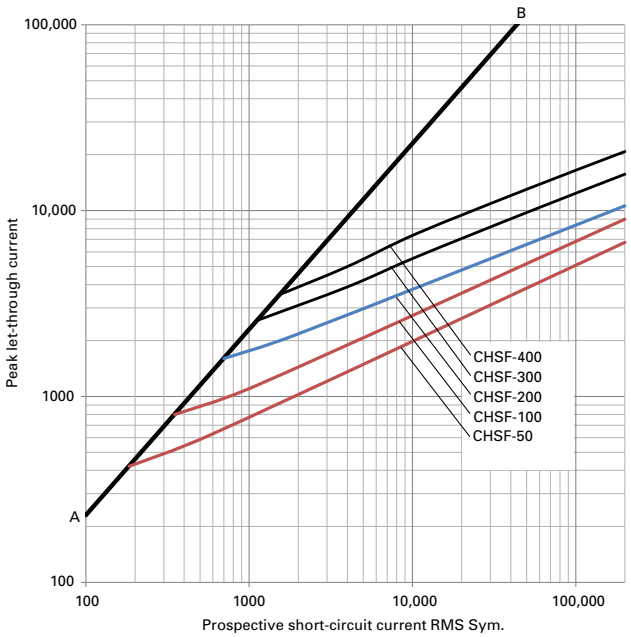



Data sheet: 10414

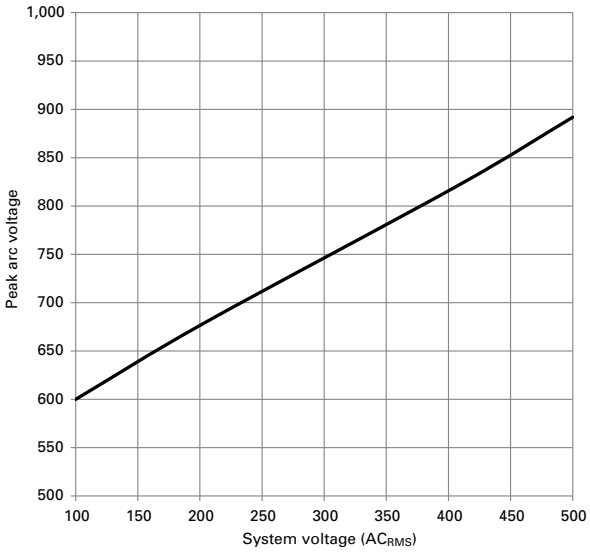
# North American fuse links

## 500 V a.c. / V d.c. (UL) - 50 A to 400 A - CHSF

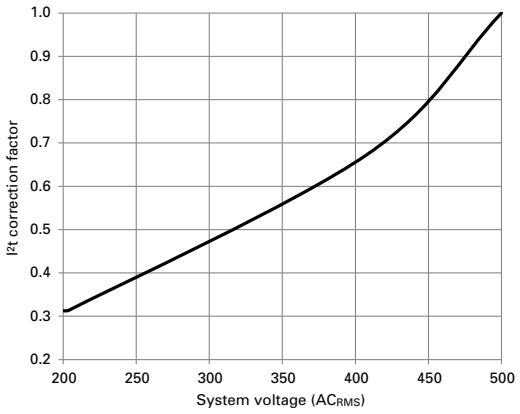
### AC Cut-off curve - 50 A to 400 A



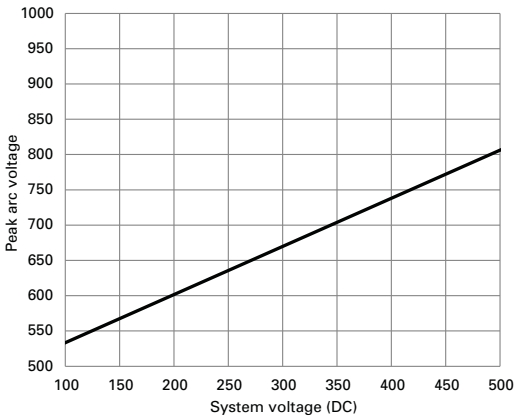

### AC Arc Voltage



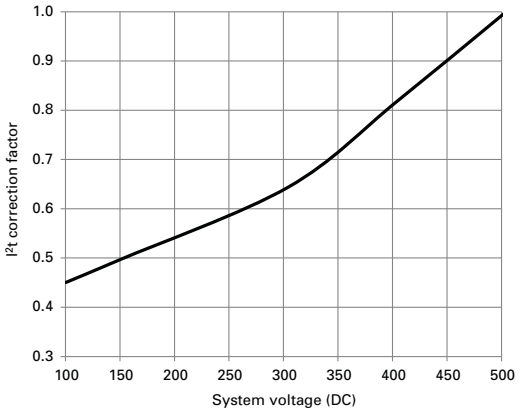

### AC clearing I²t voltage correction factor



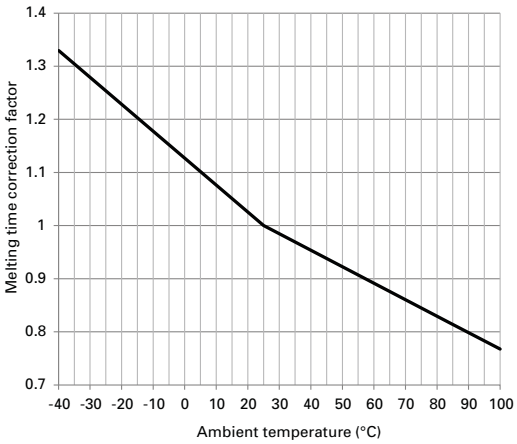

### DC Arc voltage




### DC clearing I²t voltage correction factor




### Temperature derating




Data sheet: 10414

# 500 V a.c. / V d.c. (UL) - 35 A to 1600 A - FWH




## Description

North American style bolted tags high speed fuse links, for the protection of DC common bus, power converters/rectifiers and reduced rated voltage starters.

## Technical data

- Rated voltage:
  - 500 V a.c. (UL)
  - 500 V d.c. (35 A to 800 A only)
- Rated current: 35 A to 1600 A
- Breaking capacity:
  - 200 kA RMS Sym.
  - 50 kA at 500 V d.c.

## Standards / Agency information

CE, UL Recognition JFHR2.E91958 FWH-_B (35 A to 200 A), JFHR2.E56412 FWH-_A (225 A to 800 A), CSA Component Acceptance Class 1422-30, File 53787 (35 A to 1600 A)

## Catalogue numbers

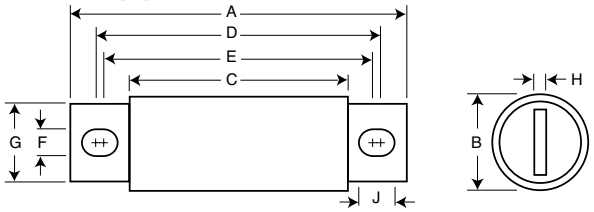
| Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 500 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|
| 500 V a.c./V d.c. (UL) | 35 | 34 | 150 | 8 | FWH-35B |
| 500 V a.c./V d.c. (UL) | 40 | 76 | 320 | 7.5 | FWH-40B |
| 500 V a.c./V d.c. (UL) | 45 | 105 | 450 | 7.5 | FWH-45B |
| 500 V a.c./V d.c. (UL) | 50 | 135 | 670 | 7.5 | FWH-50B |
| 500 V a.c./V d.c. (UL) | 60 | 210 | 900 | 9.9 | FWH-60B |
| 500 V a.c./V d.c. (UL) | 70 | 210 | 900 | 10.6 | FWH-70B |
| 500 V a.c./V d.c. (UL) | 80 | 305 | 1400 | 12.7 | FWH-80B |
| 500 V a.c./V d.c. (UL) | 90 | 360 | 1600 | 15 | FWH-90B |
| 500 V a.c./V d.c. (UL) | 100 | 475 | 2000 | 17 | FWH-100B |
| 500 V a.c./V d.c. (UL) | 125 | 800 | 3500 | 25 | FWH-125B |
| 500 V a.c./V d.c. (UL) | 150 | 1100 | 4600 | 30 | FWH-150B |
| 500 V a.c./V d.c. (UL) | 175 | 1450 | 6200 | 35 | FWH-175B |
| 500 V a.c./V d.c. (UL) | 200 | 1900 | 8500 | 40 | FWH-200B |
| 500 V a.c./V d.c. (UL) | 225 | 4600 | 23,300 | 39 | FWH-225A |
| 500 V a.c./V d.c. (UL) | 250 | 6300 | 32,200 | 41 | FWH-250A |
| 500 V a.c./V d.c. (UL) | 275 | 7900 | 40,300 | 46 | FWH-275A |
| 500 V a.c./V d.c. (UL) | 300 | 9800 | 49,800 | 51 | FWH-300A |
| 500 V a.c./V d.c. (UL) | 325 | 13,700 | 63,800 | 53 | FWH-325A |
| 500 V a.c./V d.c. (UL) | 350 | 14,500 | 72,900 | 58 | FWH-350A |
| 500 V a.c./V d.c. (UL) | 400 | 19,200 | 96,700 | 65 | FWH-400A |
| 500 V a.c./V d.c. (UL) | 450 | 24,700 | 127,000 | 74 | FWH-450A |
| 500 V a.c./V d.c. (UL) | 500 | 29,200 | 149,000 | 84 | FWH-500A |
| 500 V a.c./V d.c. (UL) | 600 | 41,300 | 206,000 | 108 | FWH-600A |
| 500 V a.c./V d.c. (UL) | 700 | 55,000 | 298,000 | 120 | FWH-700A |
| 500 V a.c./V d.c. (UL) | 800 | 76,200 | 409,000 | 129 | FWH-800A |
| 500 V a.c./V d.c. (UL) | 900 | 74,000 | 363,000 | 132 | FWH-900A |
| 500 V a.c. (UL) | 1000 | 92,000 | 530,000 | 145 | FWH-1000B |
| 500 V a.c. (UL) | 1200 | 122,000 | 700,000 | 180 | FWH-1200B |
| 500 V a.c. (UL) | 1400 | 200,000 | 1,000,000 | 210 | FWH-1400A |
| 500 V a.c. (UL) | 1600 | 290,000 | 1,400,000 | 230 | FWH-1600A |

Data sheets: 720007, 360 (350-800 A), 5785304 (35-200 A, 1000-1600 A)

# North American fuse links

## 500 V a.c. / V d.c. (UL) - 35 A to 1600 A - FWH

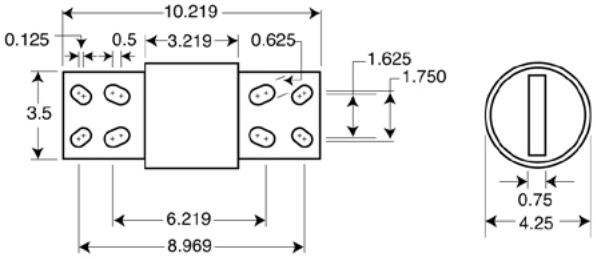
### Dimensions (in) - 35 A to 1200 A



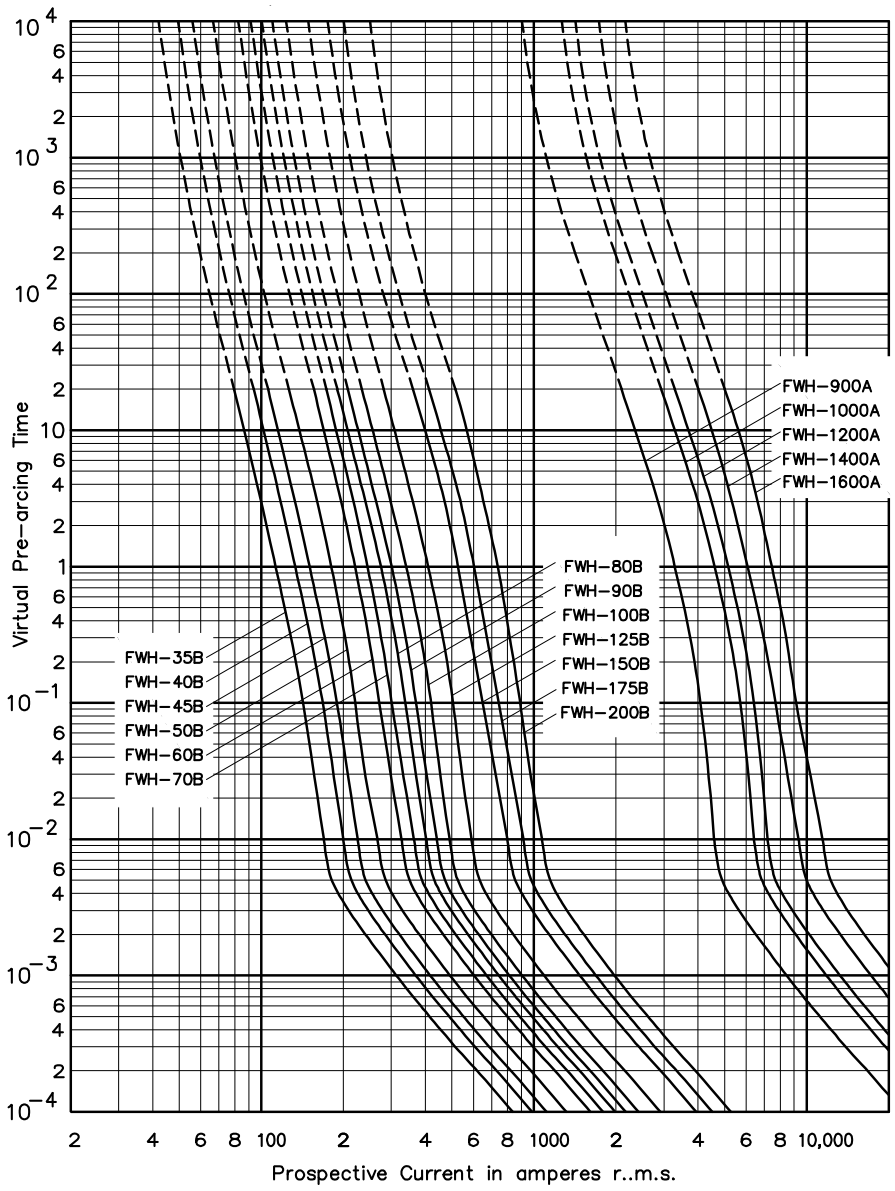

| Amp range | A | B | C | D | E | F | G | H | J |
|---|---|---|---|---|---|---|---|---|---|
| 35-60 | 3.19 | 0.81 | 1.59 | 2.54 | 2.19 | 0.34 | 0.72 | 0.13 | 0.52 |
| 70-100 | 3.62 | 0.95 | 1.74 | 2.85 | 2.81 | 0.35 | 0.75 | 0.13 | 0.38 |
| 125-200 | 3.62 | 1.16 | 1.84 | 2.89 | 2.77 | 0.34 | 1 | 0.19 | 0.41 |
| 225-400 | 4.34 | 1.5 | 2.09 | 3.44 | 2.75 | 0.41 | 1 | 0.25 | 0.75 |
| 450-600 | 4.34 | 2 | 2.09 | 3.53 | 2.78 | 0.41 | 1.5 | 0.25 | 0.78 |
| 700-800 | 6.34 | 2.5 | 2.09 | 4.97 | 3.44 | 0.53 | 2 | 0.38 | 1.30 |
| 1000-1200 | 6.97 | 3 | 3.22 | 5.47 | 4.48 | 0.62 | 2.38 | 0.44 | 1.12 |

1" = 25.4mm

### Dimensions (in) - 1400 A and 1600 A



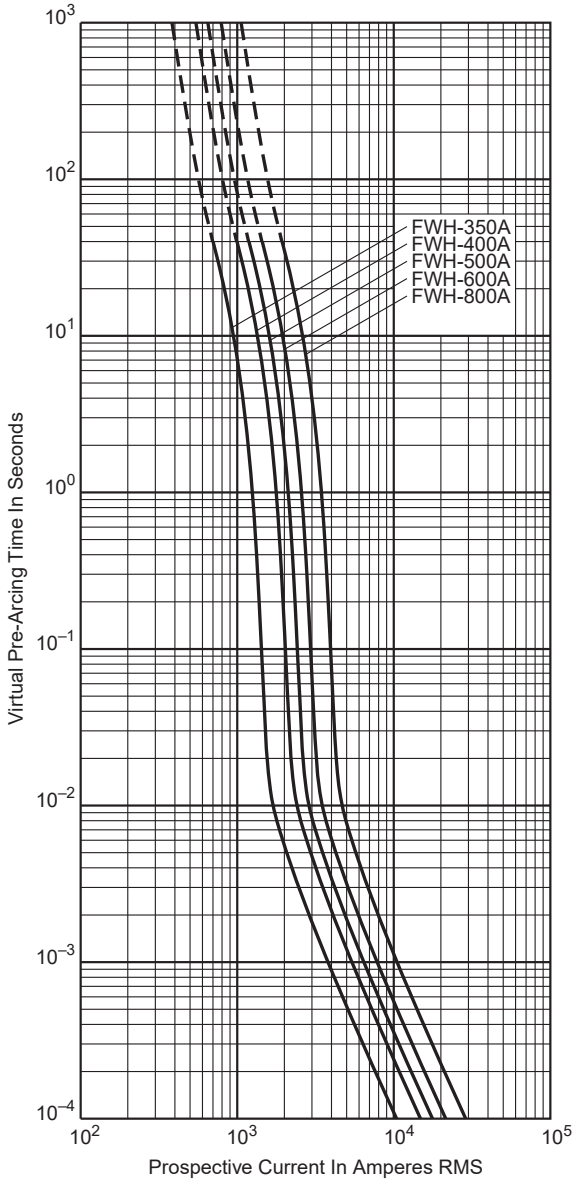

### Time-current curve - 35 A to 200 A and 900 A to 1600 A




Data sheets: 720007, 360 (350-800 A), 5785304 (35-200 A, 1000-1600 A)

# 500 V a.c. / V d.c. (UL) - 35 A to 1600 A - FWH

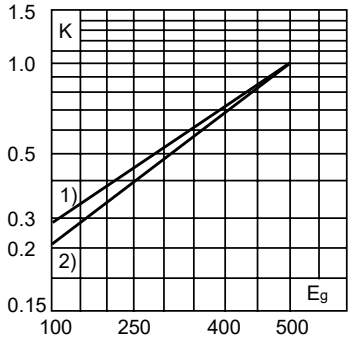
## Time-current curve - 350 A to 800 A




**Contact FUSETECH@eaton.com for the time current curves for the following ratings: 225 to 325 A, 450 A and 700 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).

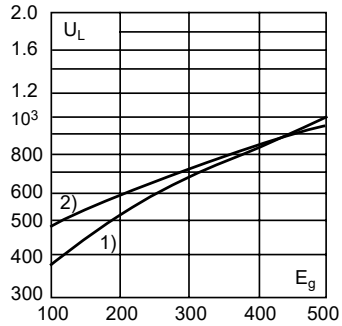



1) 35 - 800 A

2) 1000 - 1600 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.

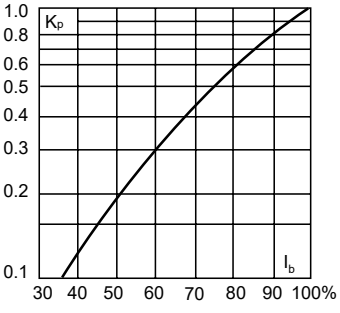



1) 35 - 200 A and 1000 - 1600 A

2) 225 - 800 A

## 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: 720007, 360 (350-800 A), 5785304 (35-200 A, 1000-1600 A)

# North American fuse links

## 600 V a.c. (UL) - 1 A to 1000 A - KAC

### Description

North American style bolted tags high speed fuse links. These fuse links are supplied as replacements only. For new installations, Eaton recommends the 700 V FWP fuse links.

### Technical Data

- Rated voltage: 600 V a.c. (UL)
- Rated curent: 1 A to 1000 A
- Breaking capacity: 200 kA RMS Sym.

### Standards / Agency information

CE, UL file JFHR2.E56413 (1 A to 600 A only)

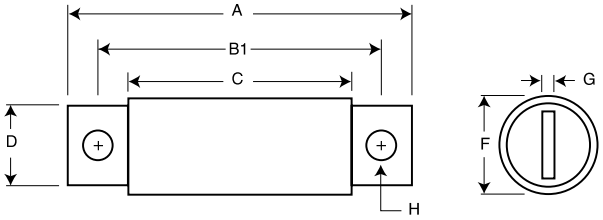



### Catalogue numbers

| Rated voltage | Rated current (Amps) | Catalogue numbers |
|---|---|---|
| 600 V a.c. (UL) | 1 | KAC-1 |
| 600 V a.c. (UL) | 2 | KAC-2 |
| 600 V a.c. (UL) | 3 | KAC-3 |
| 600 V a.c. (UL) | 4 | KAC-4 |
| 600 V a.c. (UL) | 5 | KAC-5 |
| 600 V a.c. (UL) | 6 | KAC-6 |
| 600 V a.c. (UL) | 7 | KAC-7 |
| 600 V a.c. (UL) | 8 | KAC-8 |
| 600 V a.c. (UL) | 9 | KAC-9 |
| 600 V a.c. (UL) | 10 | KAC-10 |
| 600 V a.c. (UL) | 12 | KAC-12 |
| 600 V a.c. (UL) | 15 | KAC-15 |
| 600 V a.c. (UL) | 17.5 | KAC-17.5 |
| 600 V a.c. (UL) | 20 | KAC-20 |
| 600 V a.c. (UL) | 25 | KAC-25 |
| 600 V a.c. (UL) | 30 | KAC-30 |
| 600 V a.c. (UL) | 35 | KAC-35 |
| 600 V a.c. (UL) | 40 | KAC-40 |
| 600 V a.c. (UL) | 45 | KAC-45 |
| 600 V a.c. (UL) | 50 | KAC-50 |
| 600 V a.c. (UL) | 60 | KAC-60 |
| 600 V a.c. (UL) | 70 | KAC-70 |
| 600 V a.c. (UL) | 80 | KAC-80 |
| 600 V a.c. (UL) | 90 | KAC-90 |
| 600 V a.c. (UL) | 100 | KAC-100 |
| 600 V a.c. (UL) | 110 | KAC-110 |
| 600 V a.c. (UL) | 125 | KAC-125 |
| 600 V a.c. (UL) | 150 | KAC-150 |
| 600 V a.c. (UL) | 175 | KAC-175 |
| 600 V a.c. (UL) | 200 | KAC-200 |
| 600 V a.c. (UL) | 225 | KAC-225 |
| 600 V a.c. (UL) | 250 | KAC-250 |
| 600 V a.c. (UL) | 300 | KAC-300 |
| 600 V a.c. (UL) | 350 | KAC-350 |
| 600 V a.c. (UL) | 400 | KAC-400 |
| 600 V a.c. (UL) | 450 | KAC-450 |
| 600 V a.c. (UL) | 500 | KAC-500 |
| 600 V a.c. (UL) | 600 | KAC-600 |
| 600 V a.c. (UL) | 700 | KAC-700 |
| 600 V a.c. (UL) | 800 | KAC-800 |
| 600 V a.c. (UL) | 1000 | KAC-1000 |

Data sheet: 720009

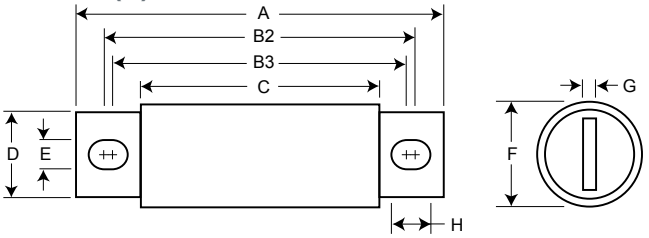
### Dimensions (in) - 1 A to 30 A and 450 A to 1000 A




| Rated current (Amps) | A | B1 | B2 | B3 | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-30 | 2.88 | 2.5 | - | - | 1.88 | 0.41 | - | 0.56 | 0.06 | 0.26 |
| 450-800 | 6.25 | 4.75 | - | | 3.06 | 2 | - | 2.5 | 0.25 | 0.56 |
| 1000 | 7.25 | 4.75 | - | | 3.06 | 2.75 | - | 3.5 | 0.38 | 0.56 |

1" = 25.4mm

### Dimensions (in) - 35 A to 400 A




| Rated current (Amps) | A | B1 | B2 | B3 | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|---|---|
| 35-60 | 4.38 | - | 3.75 | 3.50 | 2.75 | 0.63 | 0.34 | 0.81 | 0.09 | 0.47 |
| 70-100 | 5 | - | 4.06 | 3.66 | 2.75 | 0.75 | 0.41 | 1 | 0.13 | 0.61 |
| 110-200 | 5.14 | - | 4.39 | 3.77 | 2.91 | 1 | 0.41 | 1.5 | 0.19 | 0.72 |
| 225-400 | 6.18 | - | 4.82 | 4.57 | 3 | 1.63 | 0.56 | 2 | 0.25 | 0.69 |

1" = 25.4mm

# 600 V a.c. (UL) - 35 A to 800 A - KBC

## Description

North American style bolted tags and flush-end high speed fuse links. These fuse links are supplied as replacements only. For new installations, Eaton recommends the 700 V FWP fuse links.

## Technical data

- Rated voltage: 600 V a.c. (UL)
- Rated current: 35 A to 800 A
- Breaking capacity: 100 kA RMS Sym.

## Standards / Agency information

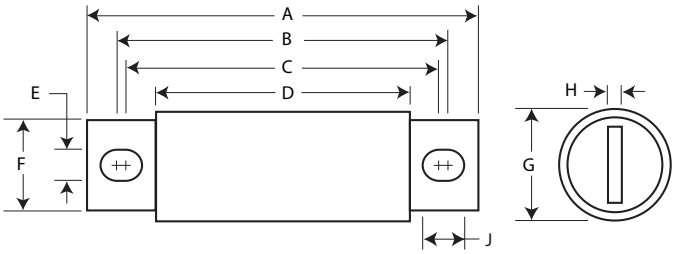
CE, UL file JFHR2.E56412 (35 A to 600 A only)




## Catalogue numbers

| Rated voltage | Rated current (Amps) | Catalogue numbers |
|---|---|---|
| 600 V a.c. (UL) | 35 | KBC-35 |
| 600 V a.c. (UL) | 40 | KBC-40 |
| 600 V a.c. (UL) | 45 | KBC-45 |
| 600 V a.c. (UL) | 50 | KBC-50 |
| 600 V a.c. (UL) | 60 | KBC-60 |
| 600 V a.c. (UL) | 70 | KBC-70 |
| 600 V a.c. (UL) | 80 | KBC-80 |
| 600 V a.c. (UL) | 90 | KBC-90 |
| 600 V a.c. (UL) | 100 | KBC-100 |
| 600 V a.c. (UL) | 110 | KBC-110 |
| 600 V a.c. (UL) | 125 | KBC-125 |
| 600 V a.c. (UL) | 150 | KBC-150 |
| 600 V a.c. (UL) | 175 | KBC-175 |
| 600 V a.c. (UL) | 200 | KBC-200 |
| 600 V a.c. (UL) | 225 | KBC-225 |
| 600 V a.c. (UL) | 250 | KBC-250 |
| 600 V a.c. (UL) | 300 | KBC-300 |
| 600 V a.c. (UL) | 350 | KBC-350 |
| 600 V a.c. (UL) | 400 | KBC-400 |
| 600 V a.c. (UL) | 450 | KBC-450 |
| 600 V a.c. (UL) | 500 | KBC-500 |
| 600 V a.c. (UL) | 600 | KBC-600 |
| 600 V a.c. (UL) | 800 | KBC-800 |

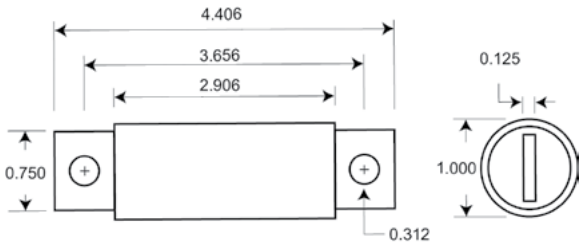
## Dimensions (in) - 35 A to 60 A and 110 A to 600 A



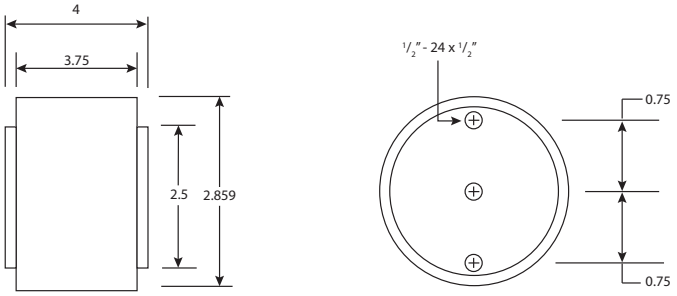

| Rated current (Amps) | A | B | C | D | E | F | G | H | J |
|---|---|---|---|---|---|---|---|---|---|
| 35-60 | 4.38 | 3.75 | 3.50 | 2.75 | 0.34 | 0.63 | 0.81 | 0.09 | 0.47 |
| 110-200 | 4.41 | 3.72 | 3.59 | 2.91 | 0.31 | 0.88 | 1.22 | 0.19 | 0.38 |
| 225-400 | 5.13 | 4.19 | 3.56 | 2.91 | 0.41 | 1 | 1.5 | 0.25 | 0.72 |
| 450-600 | 5.13 | 4.39 | 3.69 | 2.88 | 0.41 | 1.5 | 2 | 0.25 | 0.76 |

1" = 25.4mm

## Dimensions (in) - 70 A to 100 A




## Dimensions (in) - 800 A




Data sheet: 720010

# North American fuse links

## 700 V a.c. / V d.c.(UL) - 5 A to 1200 A - FWP

### Description

North American style bolted tags high speed fuse links for the protection of DC common bus, DC drives, power converters/ rectifiers, reduced rated voltage starters.

### Technical data

- Rated voltage: 700 V a.c. / V d.c. (UL)
- Rated current: 5 A to 1200 A
- Breaking capacity: see details in table below

### Standards / Agency information

CE, UL Recognition JFHR2.E91958 FWP-_B (5 A to 100 A, 700 A to 1200 A), JFHR2.E56412 FWP-_A (125 A to 600 A) and CSA Component Acceptance file class 1422-30, (53787) on 5 A to 800 A



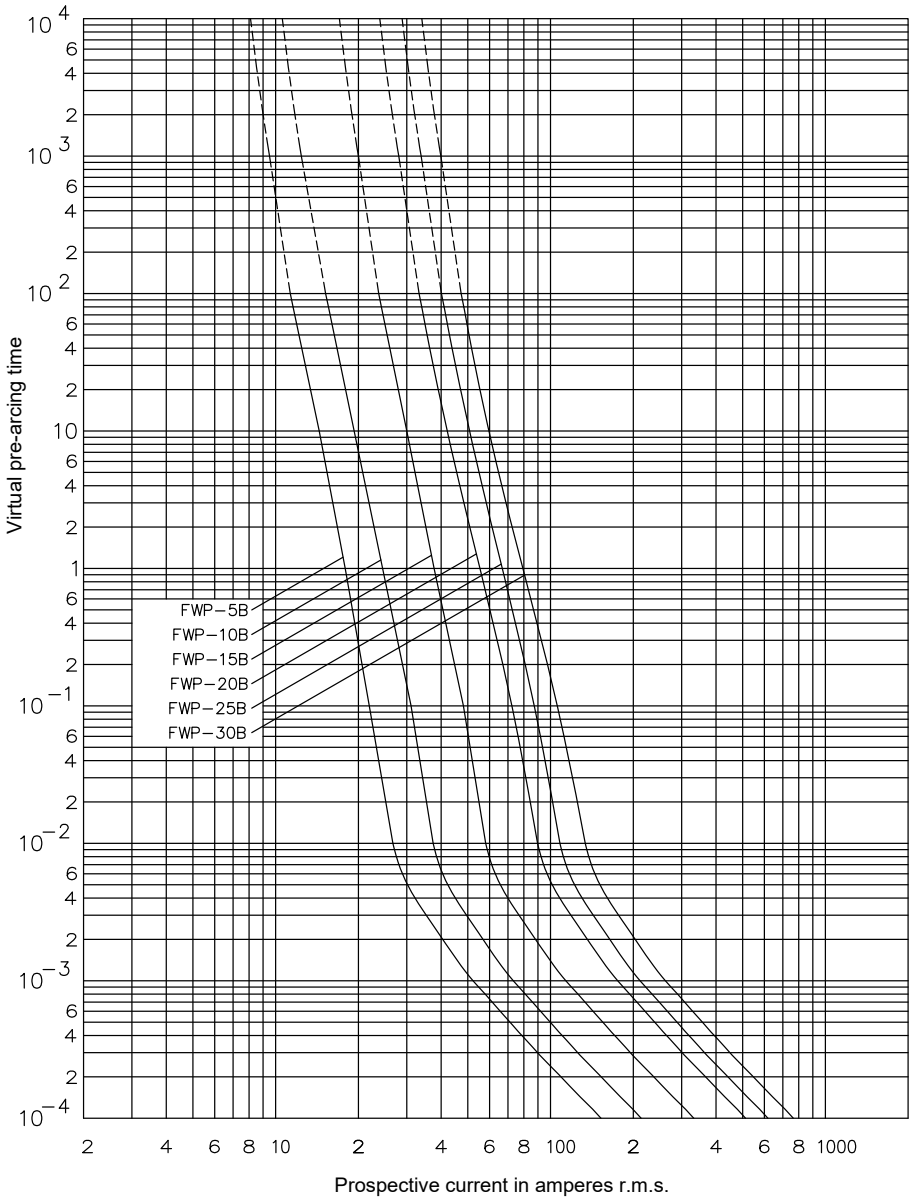

### Catalogue numbers

| AC | | DC | | | $I^2t$ ($A^2$ Sec) | | | |
|---|---|---|---|---|---|---|---|---|
| Rated voltage | Breaking capacity | Rated voltage | Breaking capacity | Rated current (Amps) | Pre-arcing | Clearing at 700 V a.c. | Watts loss (W) | Catalogue numbers |
| 700 V a.c. | 200 kA | 500 V d.c. (10 ms) | 50 kA | 5 | 1.6 | 11 | 1.5 | FWP-5B |
| 700 V a.c. | 200 kA | 500 V d.c. (10 ms) | 50 kA | 10 | 3.6 | 22 | 4 | FWP-10B |
| 700 V a.c. | 200 kA | 500 V d.c. (10 ms) | 50 kA | 15 | 10 | 70 | 5.5 | FWP-15B |
| 700 V a.c. | 200 kA | 500 V d.c. (10 ms) | 50 kA | 20 | 26 | 180 | 6 | FWP-20B |
| 700 V a.c. | 200 kA | 500 V d.c. (10 ms) | 50 kA | 25 | 44 | 320 | 7 | FWP-25B |
| 700 V a.c. | 200 kA | 500 V d.c. (10 ms) | 50 kA | 30 | 58 | 450 | 9 | FWP-30B |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 35 | 34 | 160 | 12 | FWP-35D |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 40 | 76 | 320 | 12 | FWP-40D |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 50 | 135 | 600 | 12 | FWP-50D |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 60 | 210 | 950 | 15.5 | FWP-60D |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 70 | 305 | 2000 | 18 | FWP-70B |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 80 | 360 | 2400 | 21 | FWP-80B |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 90 | 415 | 2700 | 25 | FWP-90B |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 100 | 540 | 3500 | 27 | FWP-100B |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 125 | 1800 | 7300 | 28 | FWP-125A |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 150 | 2900 | 11,700 | 32 | FWP-150A |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 175 | 4200 | 16,700 | 35 | FWP-175A |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 200 | 5500 | 22,000 | 43 | FWP-200A |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 225 | 7700 | 31,300 | 45 | FWP-225A |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 250 | 10,500 | 42,500 | 48 | FWP-250A |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 300 | 17,600 | 71,200 | 58 | FWP-300A |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 350 | 23,700 | 95,600 | 65 | FWP-350A |
| 700 V a.c. | 200 kA | 700 V d.c. | 10 kA | 400 | 31,000 | 125,000 | 78 | FWP-400A |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 450 | 36,400 | 137,000 | 94 | FWP-450A |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 500 | 45,200 | 170,000 | 107 | FWP-500A |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 600 | 66,700 | 250,000 | 122 | FWP-600A |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 700 | 54,000 | 300,000 | 125 | FWP-700A |
| 700 V a.c. | 200 kA | 700 V d.c. | 50 kA | 800 | 78,000 | 450,000 | 140 | FWP-800A |
| 700 V a.c. | 200 kA | N/A | N/A | 900 | 91,500 | 530,000 | 150 | FWP-900A |
| 700 V a.c. | 200 kA | N/A | N/A | 1000 | 120,000 | 600,000 | 170 | FWP-1000A |
| 700 V a.c. | 200 kA | N/A | N/A | 1200 | 195,000 | 1,100,000 | 190 | FWP-1200A |

Data sheets: 720012, 5785316 (5-30 A), 361 (150-600 A), 5785308 (35-100 A, 700-1200 A)

# 700 V a.c. / V d.c.(UL) - 5 A to 1200 A - FWP

## Time-current curve - 5 A to 30 A

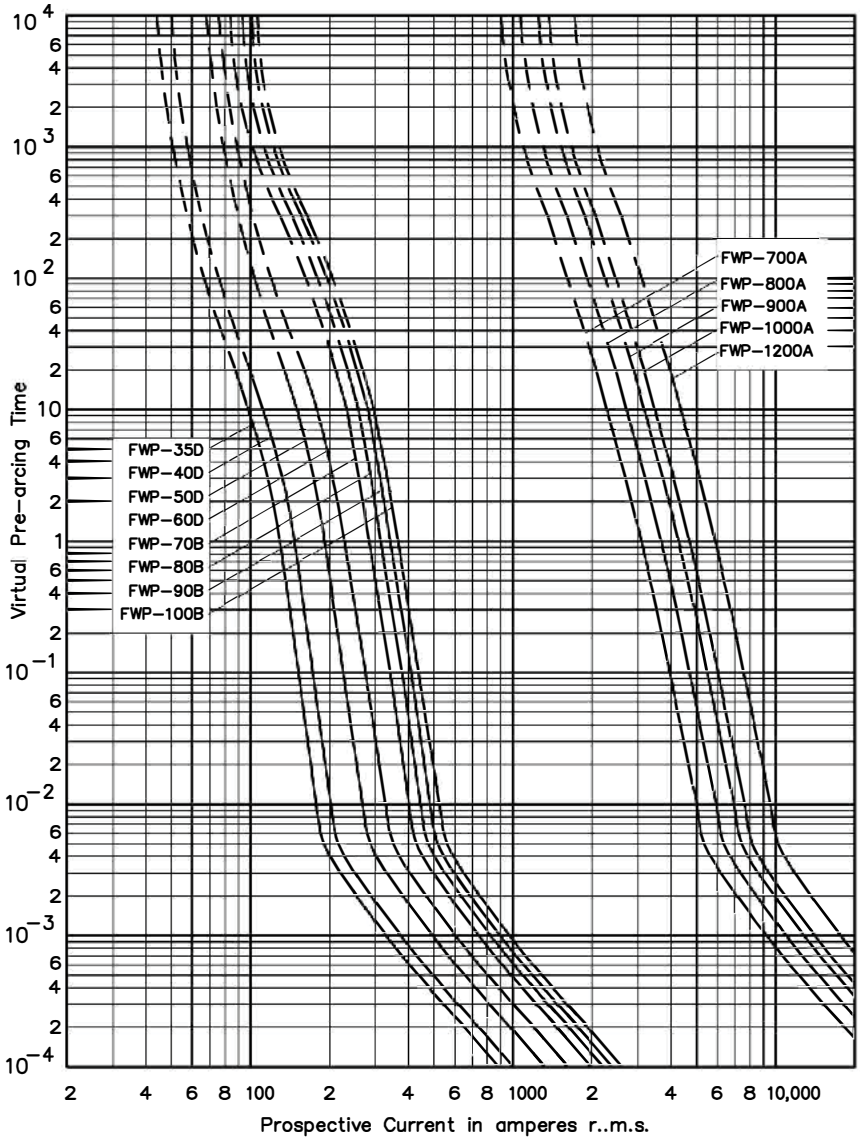



Data sheets: 720012, 5785316 (5-30 A), 361 (150-600 A), 5785308 (35-100 A, 700-1200 A)

# North American fuse links

## 700 V a.c. / V d.c.(UL) - 5 A to 1200 A - FWP

### Time-current curve - 35 A to 1200 A

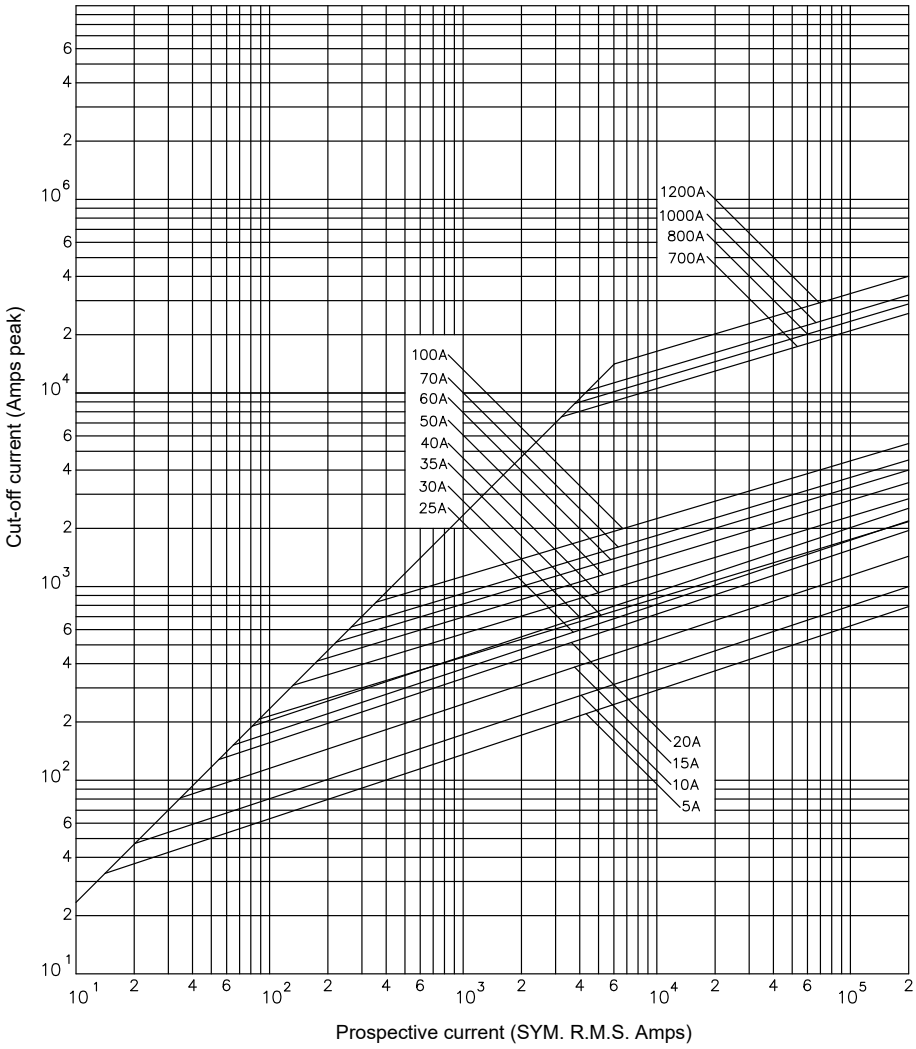



**Contact FUSETECH@eaton.com for the time current curves for the following ratings: 125 A to 600 A**

Data sheets: 720012, 5785316 (5-30 A), 361 (150-600 A), 5785308 (35-100 A, 700-1200 A)

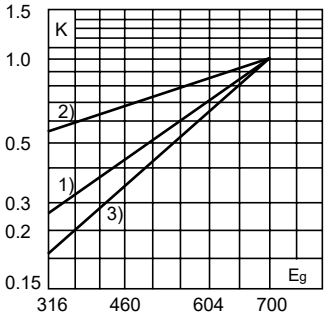
# 700 V a.c. / V d.c.(UL) - 5 A to 1200 A - FWP

## Cut-off curve - 5 A to 1200 A




### Total clearing I²t

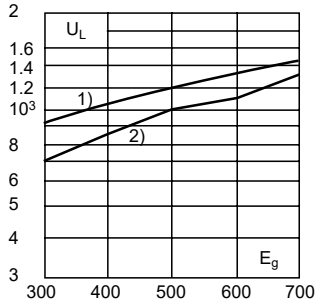
The total clearing I²t at rated voltage and at a power factor of 15 percent are given in the electrical characteristics. For other voltages, the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltage, $E_g$, (RMS).




1) 35 - 100 A
2) 125 - 600 A
3) 700 to 1200 A

### Arc voltage

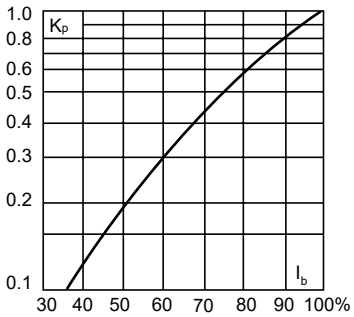
This curve gives the peak arc voltage, $U_L$, which may appear across the fuse during its operation as a function of the applied working voltage, $E_g$, (RMS) at a power factor of 15 percent.




1) 125 - 600 A
2 ) 35 - 100 and 700 - 1200 A

### 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.

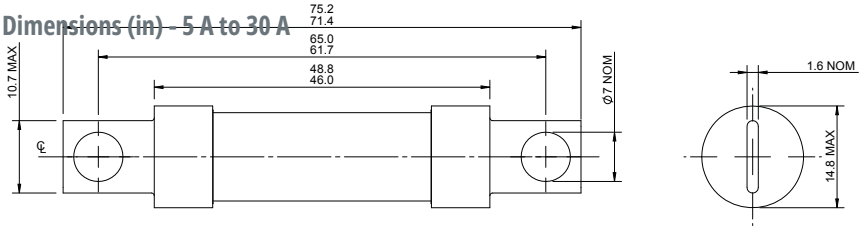



Data sheets: 720012, 5785316 (5-30 A), 361 (150-600 A), 5785308 (35-100 A, 700-1200 A)

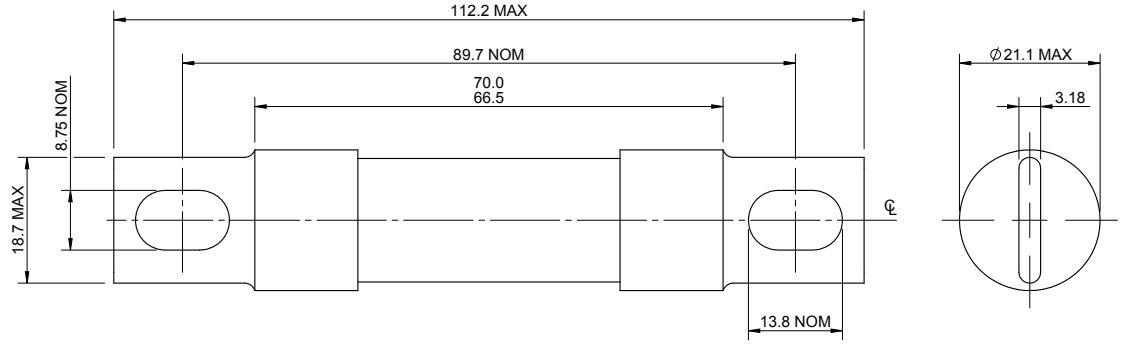
# North American fuse links

## 700 V a.c. / V d.c.(UL) - 5 A to 1200 A - FWP

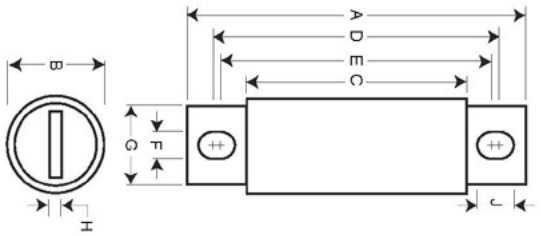
### Dimensions (in) - 5 A to 30 A




### Dimensions (in) - 35 A to 60 A




### Dimensions (in) - 70 A to 600 A



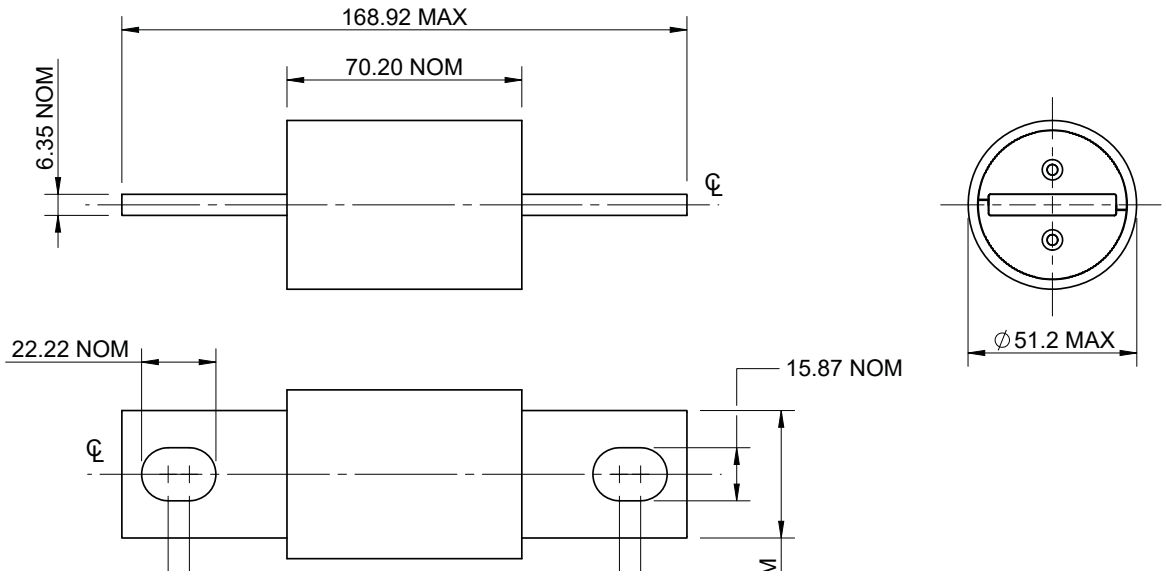

| Amp range | A | B | C | D | E | F | G | H | J |
|---|---|---|---|---|---|---|---|---|---|
| 70-100 | 4.41 | 0.95 | 2.59 | 3.63 | 3.56 | 0.34 | 0.75 | 0.13 | 0.38 |
| 125-200 | 5.09 | 1.5 | 2.84 | 4.19 | 3.5 | 0.41 | 1 | 0.25 | 0.75 |
| 225-400 | 5.09 | 2 | 2.84 | 4.28 | 3.53 | 0.41 | 1.5 | 0.25 | 0.78 |
| 450-600 | 7.09 | 2.5 | 2.84 | 5.72 | 4.19 | 0.53 | 2 | 0.38 | 1.3 |

1" = 25.4mm

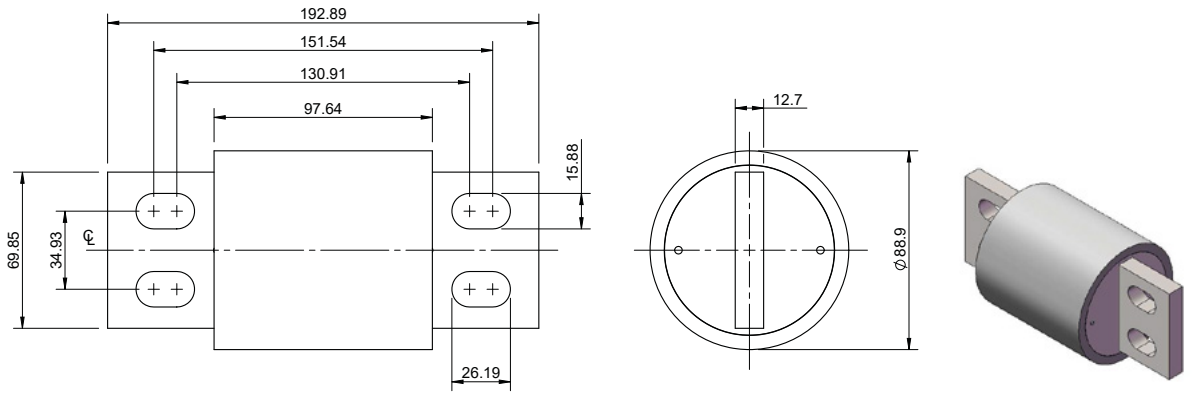
Data sheets: 720012, 5785316 (5-30 A), 361 (150-600 A), 5785308 (35-100 A, 700-1200 A)

# 700 V a.c. / V d.c.(UL) - 5 A to 1200 A - FWP

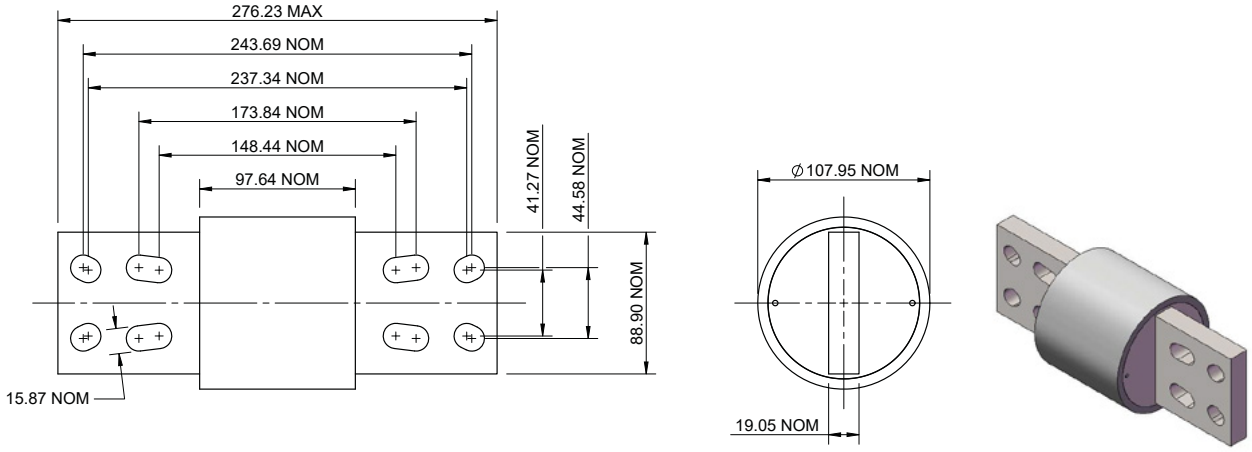
## Dimensions (in) - 700 A and 800 A




## Dimensions (in) - 900 A and 1000 A



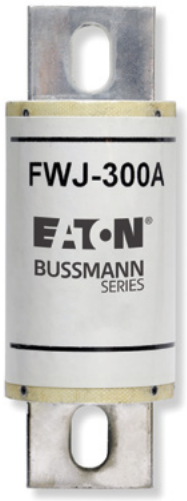

## Dimensions (mm) - 1200 A




Data sheets: 720012, 5785316 (5-30 A), 361 (150-600 A), 5785308 (35-100 A, 700-1200 A)

# North American fuse links

## 1000 V a.c. / 800 V d.c. (UL) - 35 A to 2000 A - FWJ




### Description

North American style bolted tags high speed fuse links for the protection of DC common bus, DC drives power converters/ rectifiers, reduced rated voltage starters.

### Technical data

- Rated voltage:
  - 1000 V a.c. (UL)
  - 800 V d.c. (UL)
- Rated current: 35 A to 2000 A
- Breaking capacity:
  - 25kA RMS Sym. (35 A to 200 A)
  - 100 kA RMS Sym. (250 A to 2000 A)
  - 50 kA at 800 V d.c. (35 A to 200 A and 450 A to 600 A)

### Standards / Agency information

CE, UL Recognition JFHR8.E91958 on 50 A to 600 A only

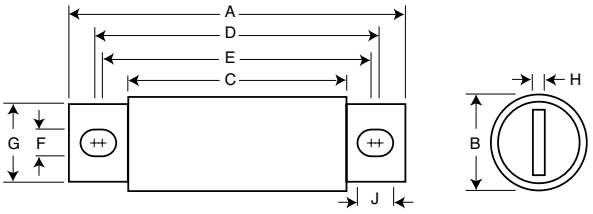
### Catalogue numbers

| AC | | DC | | Rated current (Amps) | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|---|---|
| Rated voltage | Breaking capacity | Rated voltage | Breaking capacity | | Pre-arcing | Clearing at 1000 V a.c. | | |
| 1000 V a.c. | 25 kA | 800 V d.c. | 50 kA | 35 | 210 | 2000 | 7 | FWJ-35A |
| | | | | 40 | 300 | 2500 | 8 | FWJ-40A |
| | | | | 50 | 470 | 3500 | 10 | FWJ-50A |
| | | | | 60 | 670 | 5000 | 11 | FWJ-60A |
| | | | | 70 | 1100 | 6900 | 12 | FWJ-70A |
| | | | | 80 | 1550 | 9700 | 13 | FWJ-80A |
| | | | | 90 | 1900 | 12,000 | 14 | FWJ-90A |
| | | | | 100 | 2800 | 17,500 | 15 | FWJ-100A |
| | | | | 125 | 4800 | 35,000 | 16 | FWJ-125A |
| | | | | 150 | 6300 | 45,000 | 25 | FWJ-150A |
| | | | | 175 | 7500 | 65,000 | 30 | FWJ-175A |
| | | | | 200 | 11,700 | 80,000 | 32 | FWJ-200A |
| 1000 V a.c. | 100 kA | N/A | N/A | 250 | 16,000 | 112,000 | 50 | FWJ-250A |
| | | | | 300 | 23,500 | 164,000 | 56 | FWJ-300A |
| | | | | 350 | 33,000 | 231,000 | 62 | FWJ-350A |
| | | | | 400 | 47,000 | 330,000 | 67 | FWJ-400A |
| 1000 V a.c. | 100 kA | 800 V d.c. | 50 kA | 500 | 39,500 | 329,000 | 95 | FWJ-500A |
| | | | | 600 | 61,000 | 520,000 | 105 | FWJ-600A |
| | | | | 800 | 87,000 | 500,000 | 182 | FWJ-800A |
| | | | | 1000 | 190,000 | 1,100,000 | 206 | FWJ-1000A |
| | | | | 1200 | 370,000 | 2,100,000 | 240 | FWJ-1200A |
| | | | | 1400 | 470,000 | 2,700,000 | 248 | FWJ-1400A |
| | | | | 1600 | 700,000 | 4,000,000 | 267 | FWJ-1600A |
| | | | | 1800 | 925,000 | 5,300,000 | 239 | FWJ-1800A |
| | | | | 2000 | 1,330,000 | 7,600,000 | 244 | FWJ-2000A |

Data sheets: 720027, 5785303 (35-600 A), 5785309 (800-2000 A), E5785173

# 1000 V a.c. / 800 V d.c. (UL) - 35 A to 2000 A - FWJ

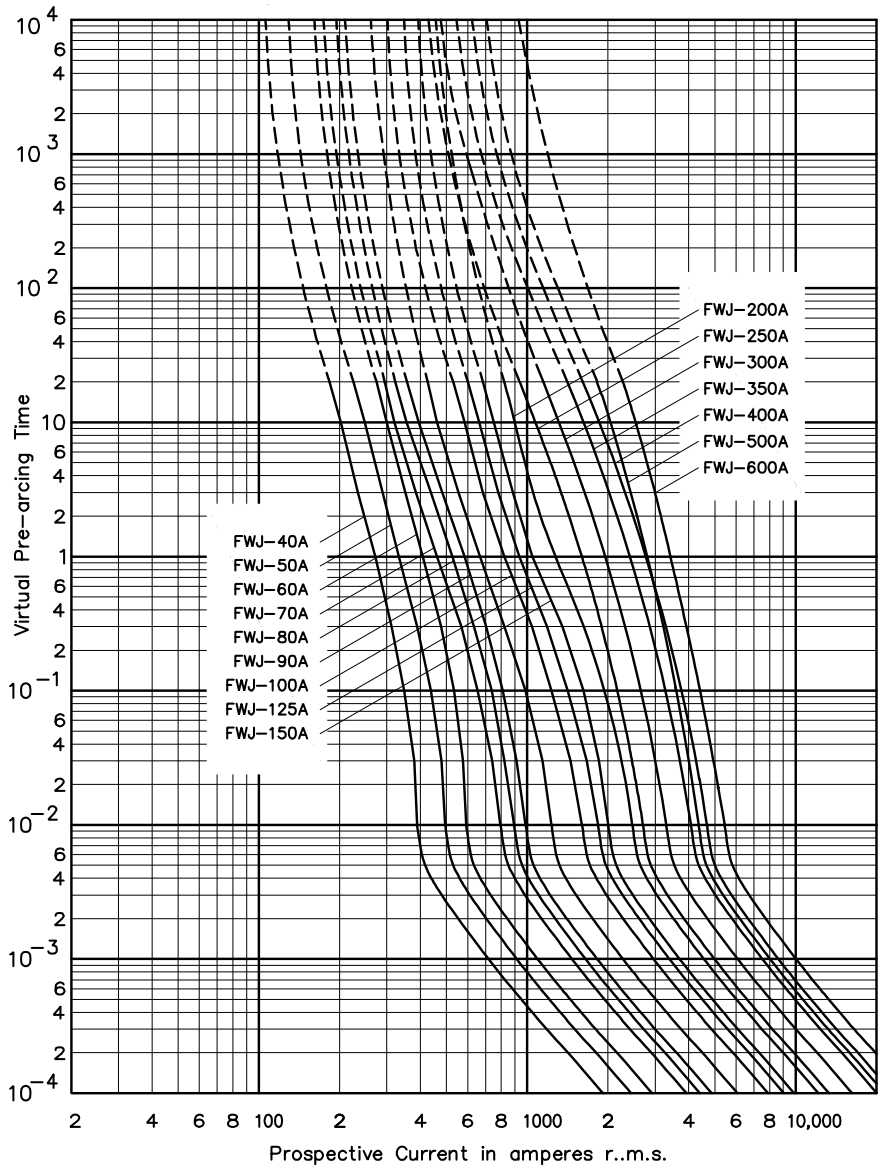
## Dimensions (in) - 35 A to 2000 A




| Amp range | A | B | C | D | E | F | G | H | J |
|---|---|---|---|---|---|---|---|---|---|
| 35-60 | 5 | 0.94 | 3.11 | 4.24 | 4.18 | 0.35 | 0.75 | 0.13 | 0.38 |
| 70-100 | 4.93 | 1.13 | 3.09 | 4.27 | 4.16 | 0.35 | 1 | 0.19 | 0.41 |
| 125-200 | 5.69 | 1.53 | 3.26 | 4.80 | 4.06 | 0.45 | 1 | 0.25 | 0.82 |
| 250-400 | 5.77 | 2 | 3.5 | 4.81 | 4.15 | 0.43 | 1.5 | 0.25 | 0.76 |
| 500-600 | 7.20 | 2.5 | 3.47 | 5.98 | 4.71 | 0.56 | 2 | 0.38 | 1.2 |
| 800-2000 | 6.81 | 3.5 | 3.31 | 5.47 | 4.96 | 0.63 | 2.75 | 0.5 | 0.88 |

1" = 25.4mm

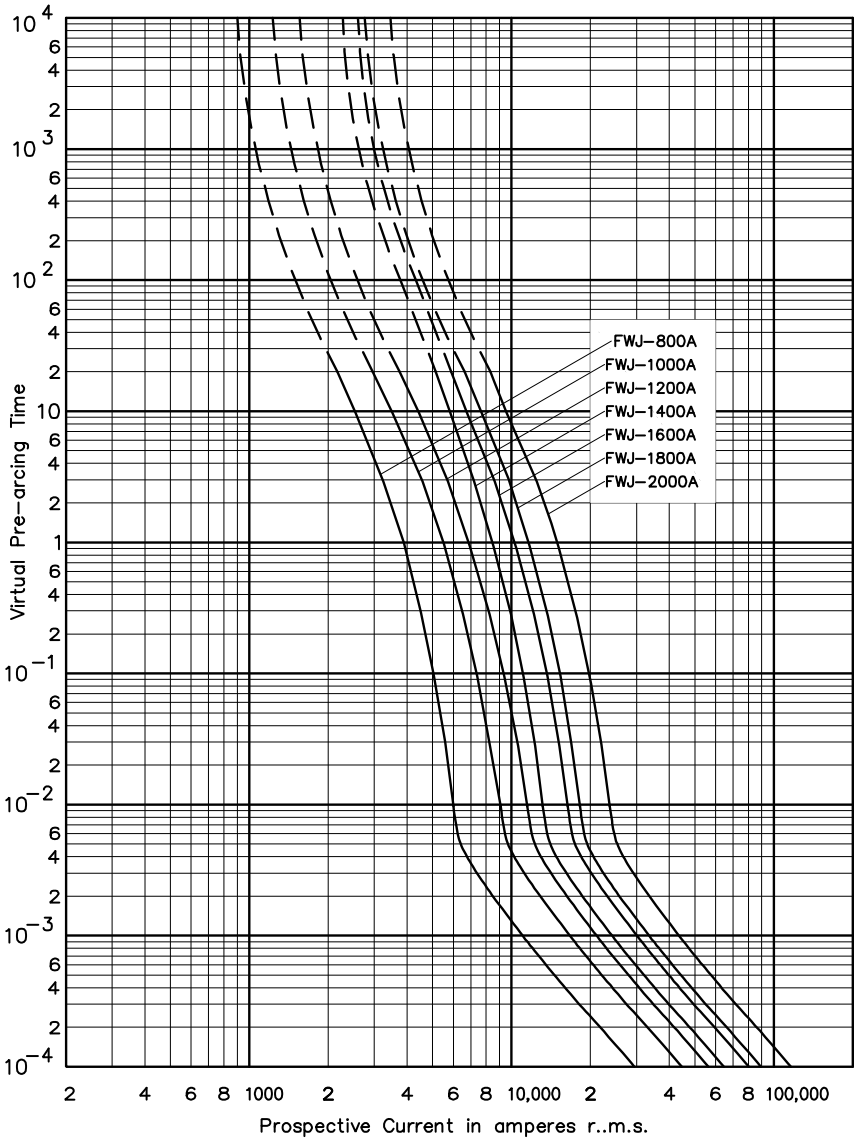
## Time-current curve - 35 A to 600 A




Data sheets: 720027, 5785303 (35-600 A), 5785309 (800-2000 A), E5785173

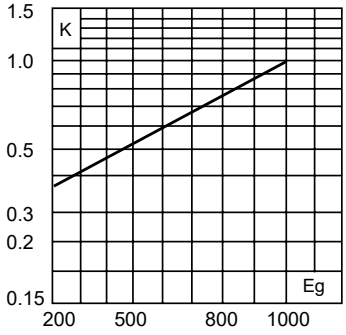
# 1000 V a.c. / 800 V d.c. (UL) - 35 A to 2000 A - FWJ

### Time-current curve - 800 A to 2000 A



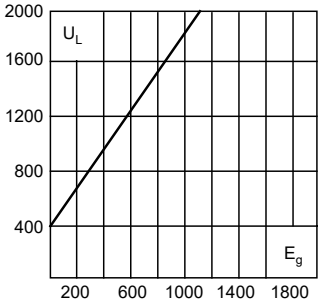

### Total clearing I²t

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).



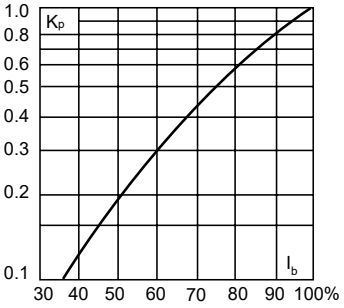

### Arc voltage

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: 720027, 5785303 (35-600 A), 5785309 (800-2000 A), E5785173

# 1000 V d.c. (IEC/UL) - 70 A to 600 A - FWE

North American style bolted tags high speed fuse links designed for the protection of DC charging stations, specialist vehicle onboard applications and general DC power conversion equipment and battery systems voltage starters.




Technical data

- Rated voltage: 1000 V d.c. (IEC/UL)
- Rated current: 70 A to 600 A
- Breaking capacity: 100 kA
- Operating class: aR

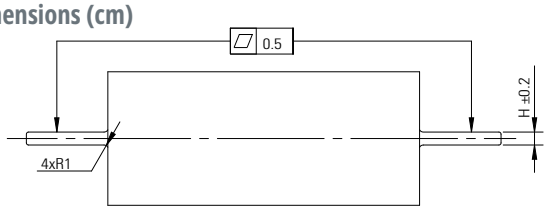
## Standards / Agency information

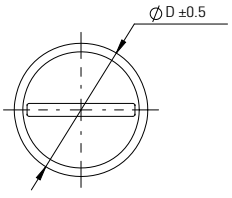
CE, IEC 60269-4 and UL 248-13 Recognised

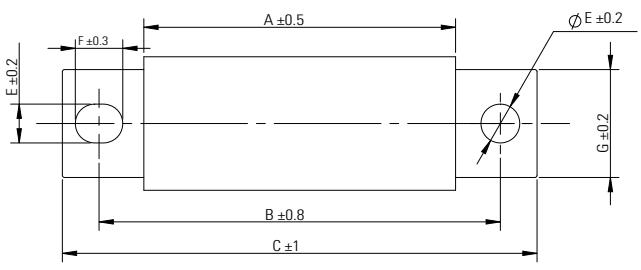
## Catalogue numbers

| Rated voltage | Rated current | Watts loss (50% rated current) | Watts loss (100% rated current) | Pre-arcing I²t (A² Sec) | Clearing I²t | Breaking capacity | Operating class | Catalogue number |
|---|---|---|---|---|---|---|---|---|
| 1000 V d.c. (IEC/UL) | 70 | 3.8 | 21 | 680 | 5060 | 100 kA | aR | FWE-70A |
| | 80 | 4.2 | 24 | 1020 | 7240 | 100 kA | aR | FWE-80A |
| | 90 | 4.6 | 27 | 1400 | 9400 | 100 kA | aR | FWE-90A |
| | 100 | 5 | 30 | 1820 | 12300 | 100 kA | aR | FWE-100A |
| | 125 | 6 | 43 | 1830 | 8400 | 100 kA | aR | FWE-125A |
| | 150 | 7 | 49 | 2670 | 12900 | 100 kA | aR | FWE-150A |
| | 175 | 8 | 52 | 4670 | 22300 | 100 kA | aR | FWE-175A |
| | 200 | 9 | 56 | 6900 | 31600 | 100 kA | aR | FWE-200A |
| | 225 | 10 | 69 | 7880 | 34600 | 100 kA | aR | FWE-225A |
| | 250 | 11 | 79 | 9940 | 46700 | 100 kA | aR | FWE-250A |
| | 275 | 12 | 83 | 13000 | 57000 | 100 kA | aR | FWE-275A |
| | 300 | 13 | 87 | 16800 | 73900 | 100 kA | aR | FWE-300A |
| | 350 | 15 | 100 | 21100 | 132000 | 100 kA | aR | FWE-350A |
| | 400 | 16 | 110 | 31500 | 186000 | 100 kA | aR | FWE-400A |
| | 450 | 19 | 139 | 35300 | 161000 | 100 kA | aR | FWE-450A |
| | 500 | 21 | 155 | 49300 | 197000 | 100 kA | aR | FWE-500A |
| | 550 | 23 | 167 | 58600 | 312000 | 100 kA | aR | FWE-550A |
| | 600 | 25 | 180 | 74700 | 335000 | 100 kA | aR | FWE-600A |

## Dimensions (cm)



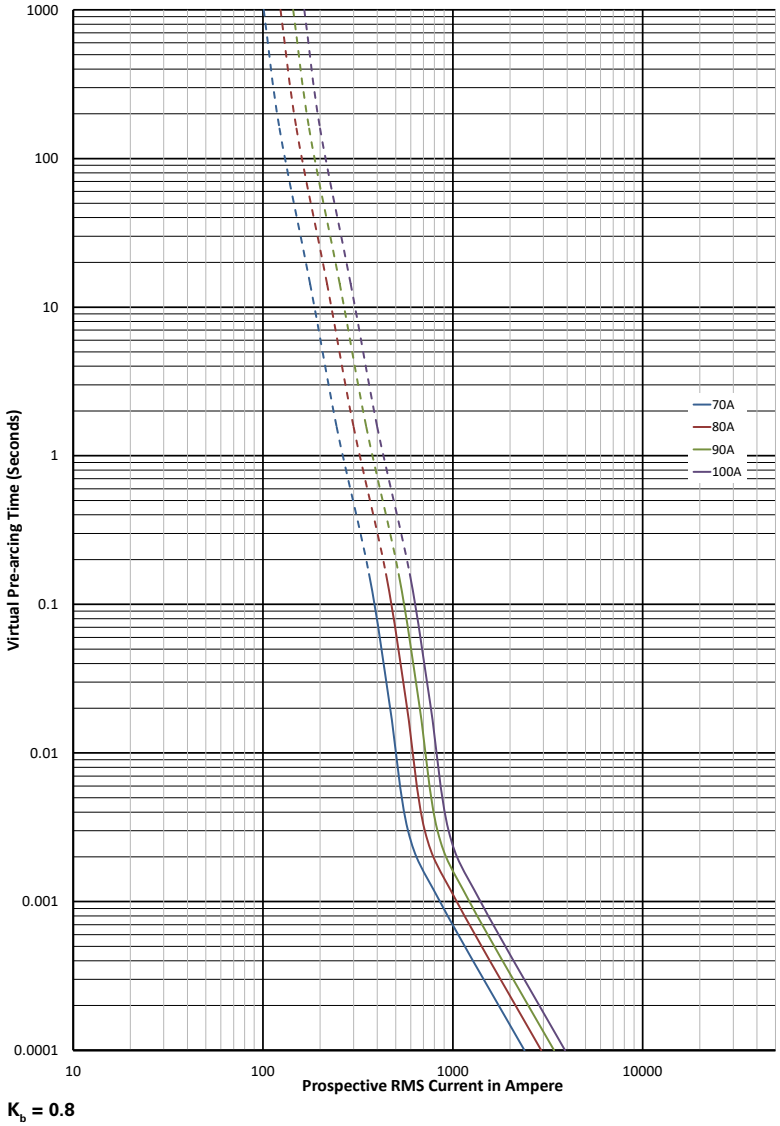

| Catalogue number | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| 70A to 100A | 72.2 | 93 | 110 | 25.4 | 9 | 11 | 19 | 2.2 |
| 125A to 200A | 72.2 | 93 | 110 | 31 | 9 | 11 | 25 | 3 |
| 225A to 300A | 72.2 | 100 | 122 | 38.1 | 11 | 13 | 28 | 3.5 |
| 350A to 400A | 72.2 | 100 | 122 | 50.8 | 11 | 13 | 28 | 5 |
| 450A to 600A | 72.2 | 100 | 122 | 63.5 | 11 | 13 | 40 | 6 |

Data sheet: TD135012

# North American fuse links

## 1000 V d.c. (IEC/UL) - 70 A to 600 A - FWE

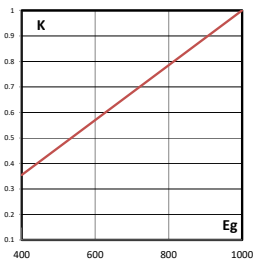
### Time-current curve - 70 A to 100 A - 25 mm fuse links




$K_b = 0.8$

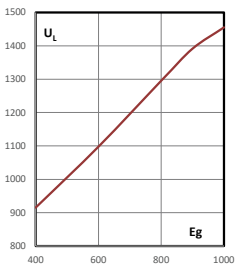
### Total clearing I²t

The total clearing I²t at rated voltage and tested DC time constant are given in electrical characteristics. For other voltages the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltages, $E_g$.



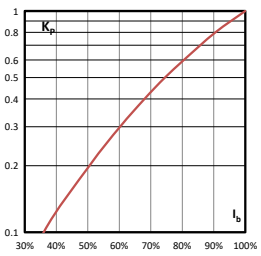

### Arc voltage

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, $E_g$, at a time constant of 10ms.




### Watts losses

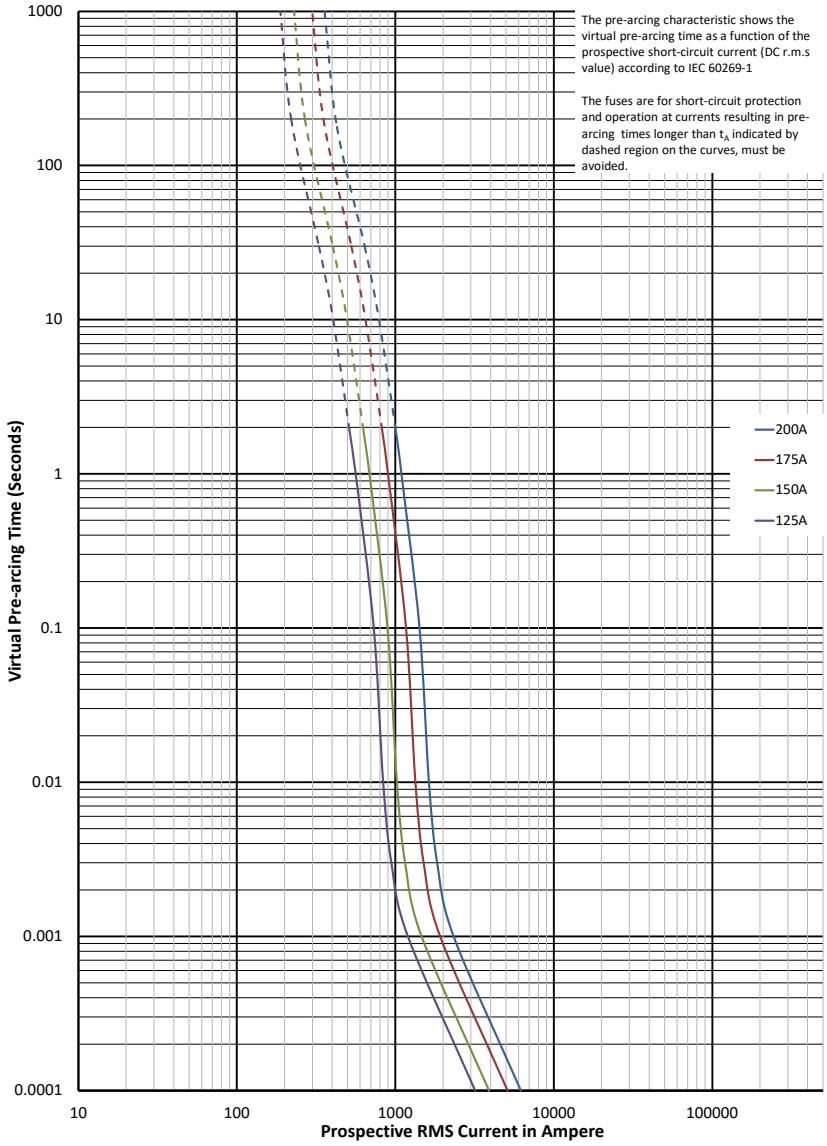
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheet: TD135012

# 1000 V d.c. (IEC/UL) - 70 A to 600 A - FWE

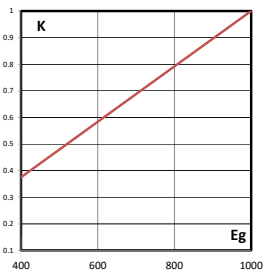
## Time-current curve - 125 A to 200 A - 30 mm fuse links




$K_b = 0.8$

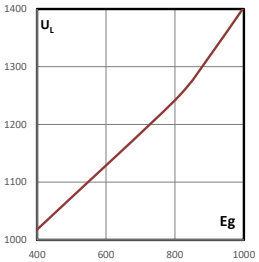
### Total clearing $I^2t$

The total clearing $I^2t$ at rated voltage and tested DC time constant are given in electrical characteristics. For other voltages the clearing $I^2t$ is found by multiplying by correction factor, K, given as a function of applied working voltages, $E_g$.



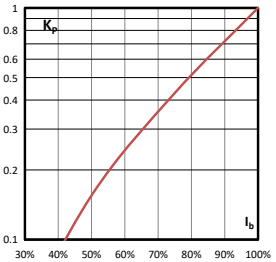

### Arc voltage

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, $E_g$, at a time constant of 10ms.




### Watts losses

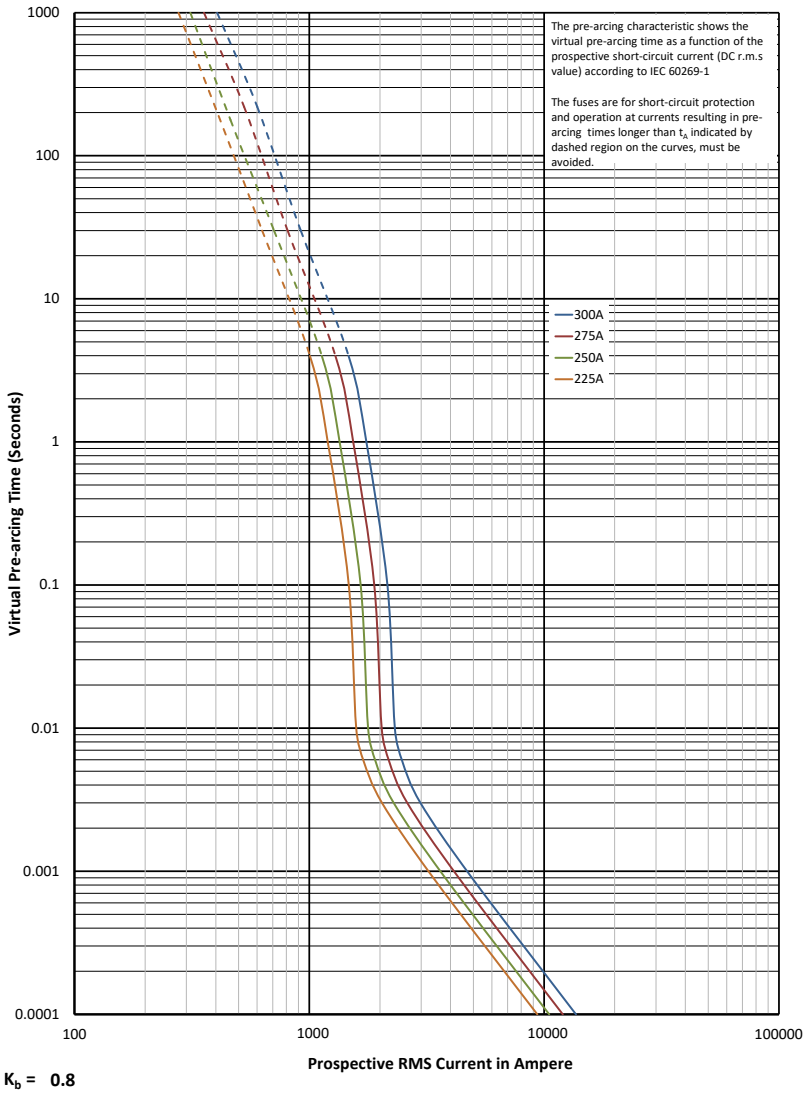
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheet: TD135012

# 1000 V d.c. (IEC/UL) - 70 A to 600 A - FWE

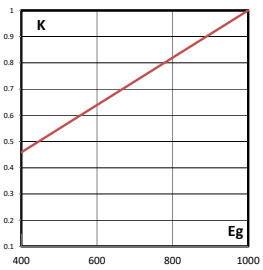
## Time-current curve - 225 A to 300 A - 40 mm fuse links




$K_b$ = 0.8

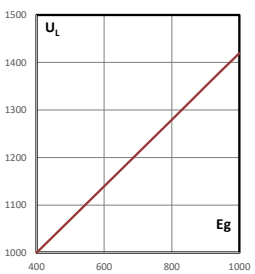
### Total clearing I²t

The total clearing I²t at rated voltage and tested DC time constant are given in electrical characteristics. For other voltages the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltages, $E_g$.



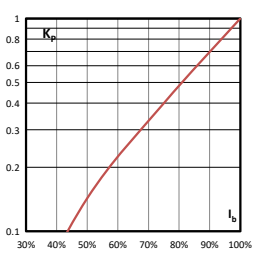

### Arc voltage

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, $E_g$, at a time constant of 10ms.




### Watts losses

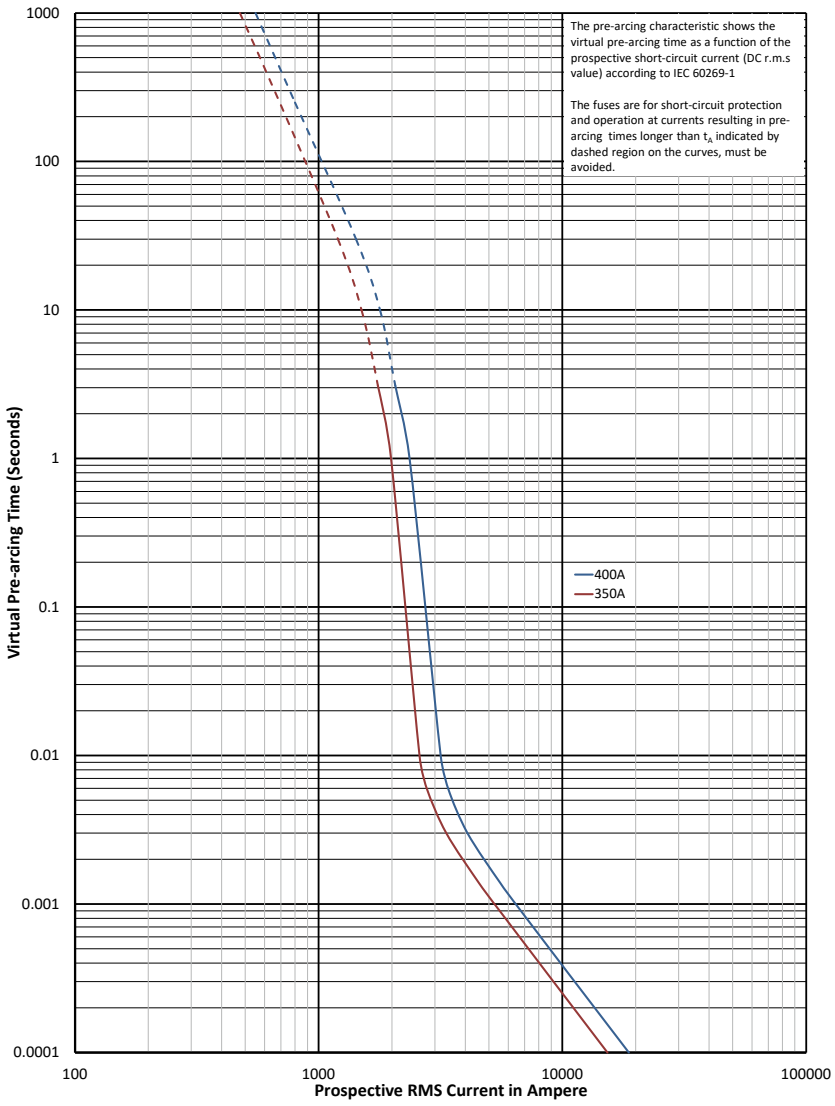
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheet: TD135012

# 1000 V d.c. (IEC/UL) - 70 A to 600 A - FWE

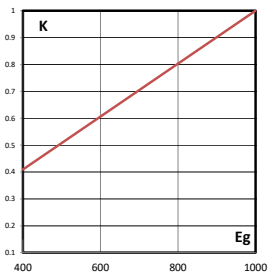
## Time-current curve - 350 A and 400 A - 50 mm fuse links




$K_b$ = **0.8**

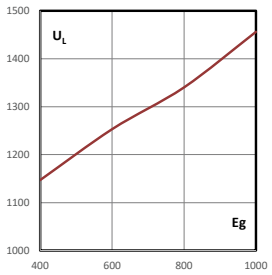
### Total clearing I²t

The total clearing I²t at rated voltage and tested DC time constant are given in electrical characteristics. For other voltages the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltages, $E_g$.



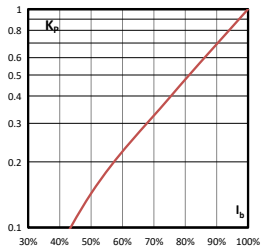

### Arc voltage

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, $E_g$, at a time constant of 10ms.




### 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.

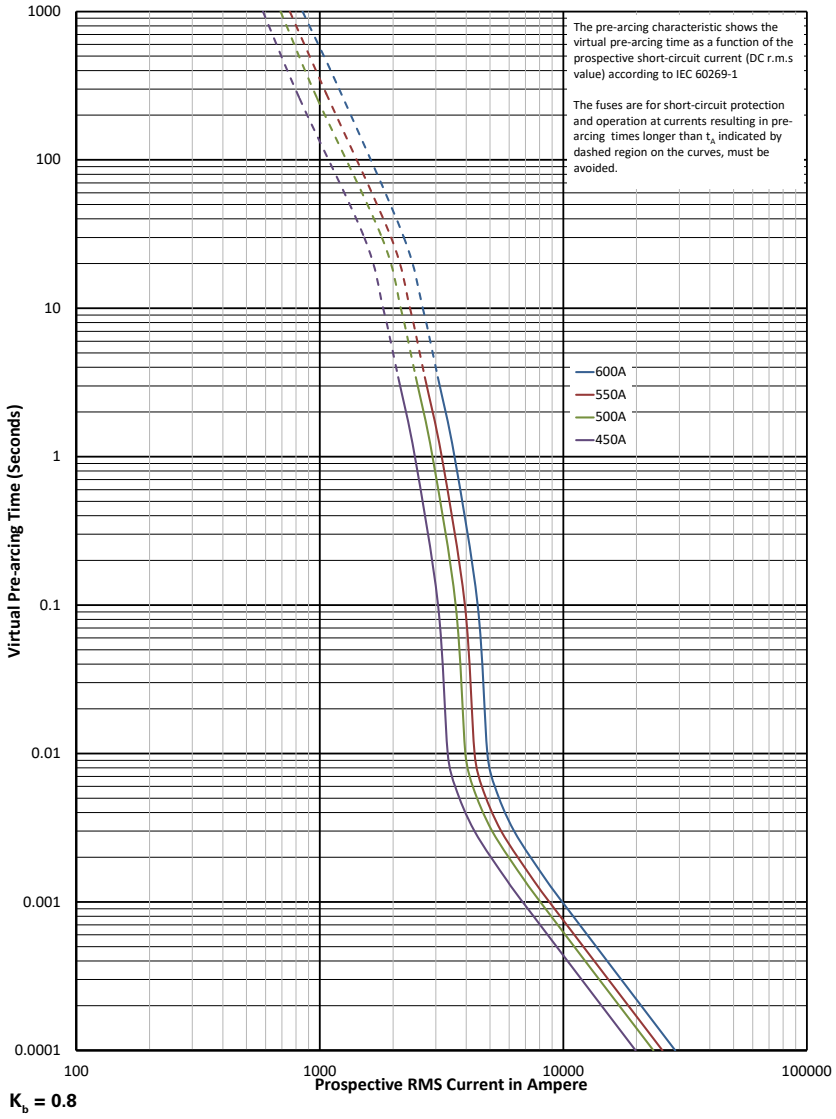



Data sheet: TD135012

# North American fuse links

## 1000 V d.c. (IEC/UL) - 70 A to 600 A - FWE

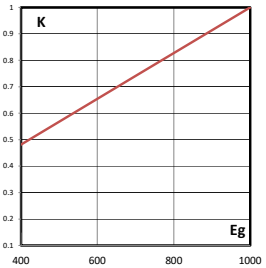
### Time-current curve - 450 A to 600 A - 60 mm fuse links




$K_b = 0.8$

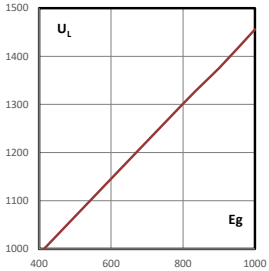
### Total clearing I²t

The total clearing I²t at rated voltage and tested DC time constant are given in electrical characteristics. For other voltages the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltages, $E_g$.



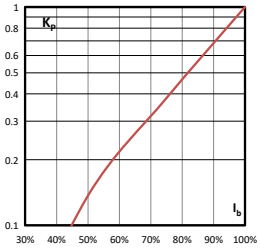

### Arc voltage

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, $E_g$, at a time constant of 10ms.




### 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 sheet: TD135012

# British standard BS88 fuse links

## 240 V a.c. / 150 V d.c. (IEC), 250-280 V a.c. / 150 V d.c. (UL) - 6 A to 180 A - LCT, LET

### Description

BS88 style bolted tags fuse high speed links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Low Watts loss in a compact size.




### Technical Data

- Rated voltage:
  - LCT 240 V a.c. / 150 V d.c. (IEC)

    250 V a.c. / 150 V d.c. (UL)
  - LET 280 V a.c. / 150 V d.c. (UL, 25 A to 160 A)

    250 V a.c. / 150 V d.c. (UL 180 A)
- Rated current: 6 A to 180 A
- Breaking capacity:
  - 200 kA RMS Sym.
  - 50 kA DC at 150 V d.c.
- Operating Class: aR

### Compatible trip indicator and microswitch for LET fuse links

- See details page 395

### Standards / Agency information

CE, designed and tested to BS88 part 4, IEC 60269 Part 4, UL Recognised and CCC (LCT only). All fuse links have been tested at 318V a.c..Consult Eaton for specific UL recognition status.

### Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | |
|---|---|---|---|---|---|---|
| **Fuse link type** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 240 V a.c.** | **Watts loss (W)** | **Catalogue numbers** |
| LCT | 240 V a.c. / 150 V d.c. (IEC)<br>250 V a.c. / 150 V d.c. (UL) | 6 | 2 | 9 | 1 | 6LCT |
| | | 10 | 3.8 | 22 | 2.5 | 10LCT |
| | | 12 | 7 | 32 | 2.5 | 12LCT |
| | | 16 | 20 | 100 | 2.5 | 16LCT |
| | | 20 | 25 | 160 | 4 | 20LCT |
| LET | 280 V a.c. / 150 V d.c. (UL) | 25 | 18 | 250 | 4 | 25LET |
| | | 32 | 32 | 450 | 5 | 32LET |
| | | 35 | 50 | 600 | 5 | 35LET |
| | | 50 | 100 | 1400 | 7 | 50LET |
| | | 63 | 180 | 2200 | 9 | 63LET |
| | | 80 | 300 | 3800 | 10 | 80LET |
| | | 100 | 600 | 7500 | 10 | 100LET |
| | | 125 | 600 | 7500 | 16 | 125LET |
| | | 160 | 1100 | 16,000 | 20 | 160LET |
| | 250 V a.c. / 150 V d.c. (UL) | 180 | 1600 | 29,000 | 21 | 180LET |

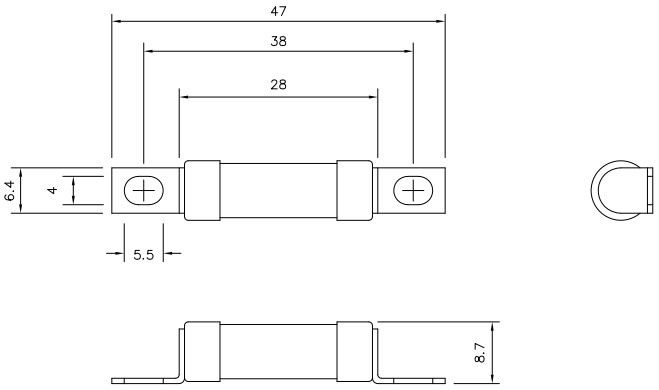
Note: 7LET, 10LET, 12LET and 16LET are available for replacement purposes on existing equipment.

Data sheets: 720004, 5785296 (LCT), 5785293 (LET)

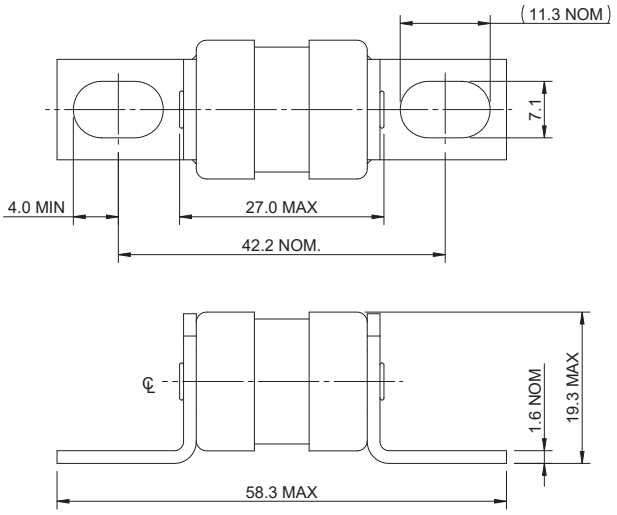
# British standard BS88 fuse links

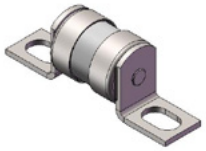
## 240 V a.c. / 150 V d.c. (IEC), 250-280 V a.c. / 150 V d.c. (UL) - 6 A to 180 A - LCT, LET

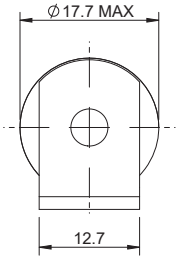
### Dimensions (mm) - LCT



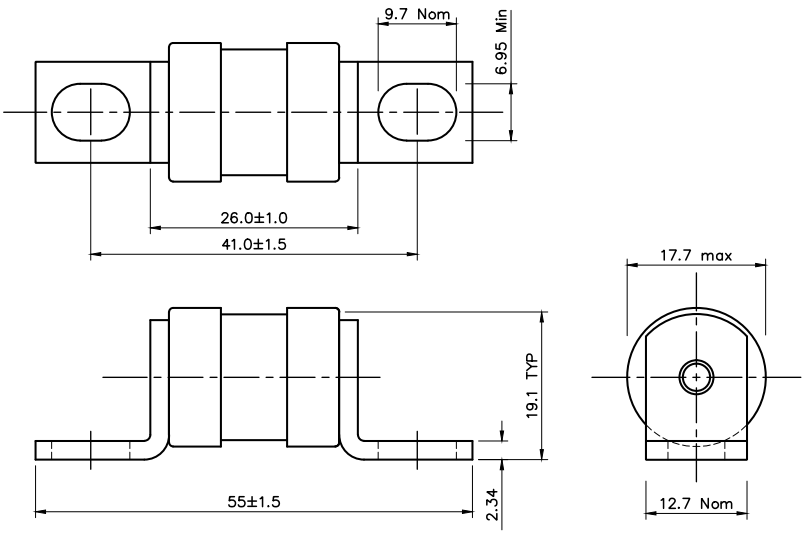

### Dimensions (mm) - LET, up to 63 A






### Dimensions (mm) - LET, greater than 63 A





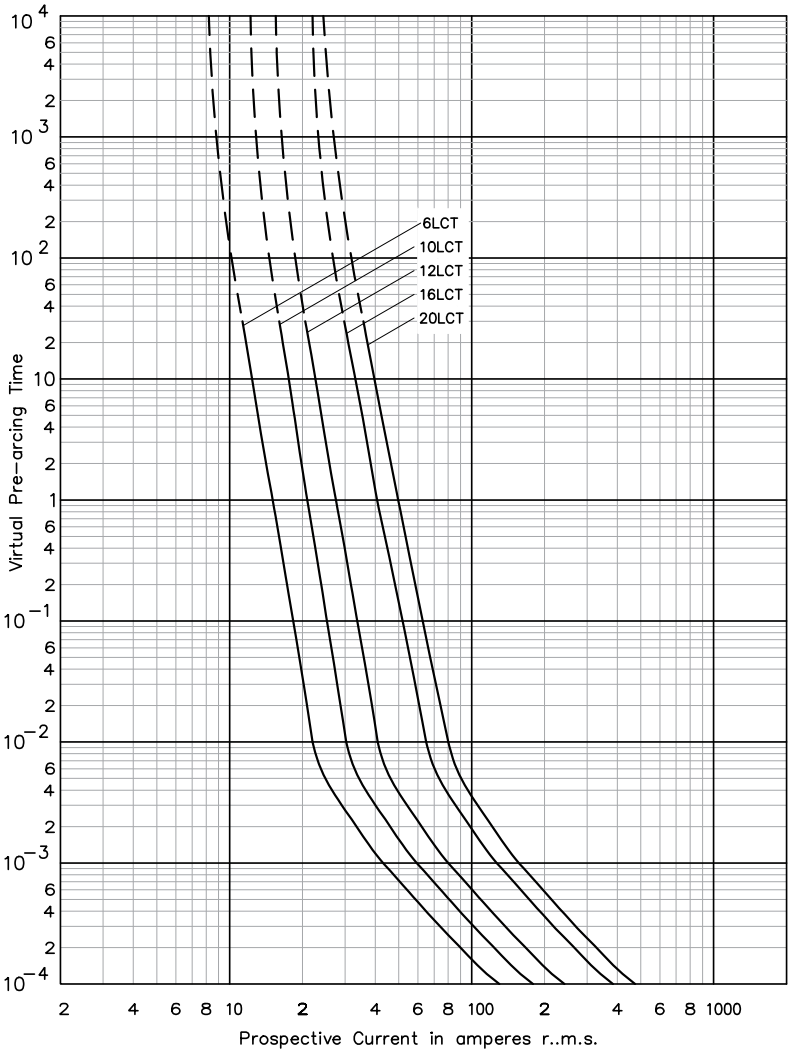


Indicator (optional).

Data sheets: 720004, 5785296 (LCT), 5785293 (LET)

# 240 V a.c. / 150 V d.c. (IEC), 250-280 V a.c. / 150 V d.c. (UL) - 6 A to 180 A - LCT, LET

## Time-current curve - LCT, 6 A to 20 A

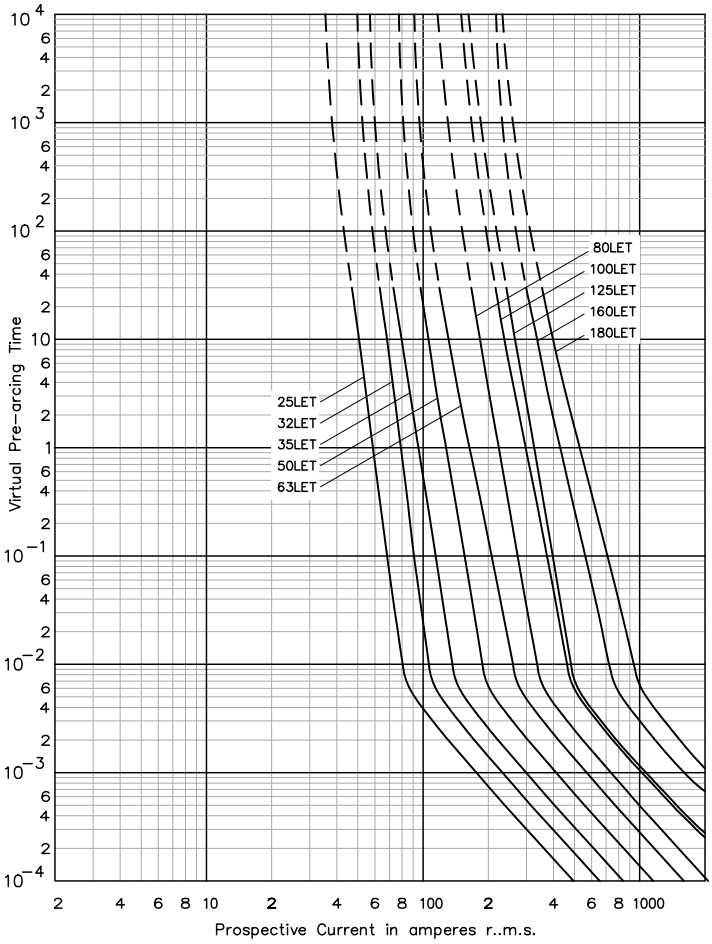



Data sheets: 720004, 5785296 (LCT), 5785293 (LET)

# British standard BS88 fuse links

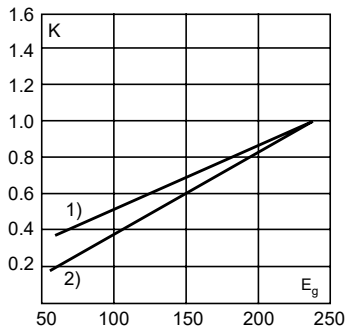
## 240 V a.c. / 150 V d.c. (IEC), 250-280 V a.c. / 150 V d.c. (UL) - 6 A to 180 A - LCT, LET

### Time-current curve - LET, 25 A to 180 A




### Total clearing I²t

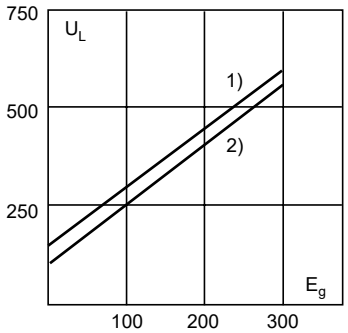
The total clearing I²t at rated voltage and at a power factor of 15 percent are given in the electrical characteristics. For other voltages, the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltage, $E_g$, (RMS).




1) LCT
2) LET

### Arc voltage

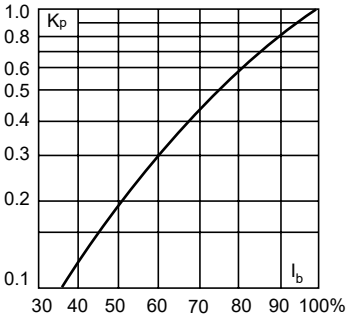
This curve gives the peak arc voltage, $U_L$, which may appear across the fuse during its operation as a function of the applied working voltage, $E_g$, (RMS) at a power factor of 15 percent.




1) LCT
2) LET

### 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: 720004, 5785296 (LCT), 5785293 (LET)

# 240 V a.c. / 150 V d.c. (IEC), 250 V a.c. / 150 V d.c. (UL) - 160 A to 900 A - LMT, LMMT

## Description

BS88 style bolted tags high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rate voltage starters. Low watts loss in a compact size.




## Technical Data

- Rated voltage:
  - 240 V a.c. / 150 V d.c. (IEC)
  - 250 V a.c. / 150 V d.c. (UL)
- Rated current: 160 A to 900 A
- Breaking capacity:
  - 200 kA RMS Sym., 40 kA at 150 V d.c. (IEC)
  - 200 kA RMS Sym., 50 kA at 150 V d.c. (UL)
- Operating Class: aR

## Compatible trip indicator and microswitch

- See details page 395

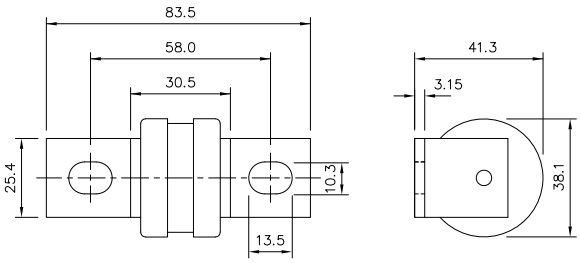
## Standards / Agency information

CE, designed and tested to BS88 part 4, IEC 60269 Part 4, UL recognised and CCC. All fuse links have been tested at 318V a.c. Consult Eaton for specific UL recognition status.

## Catalogue numbers

| Fuse link type | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 120 V a.c. | $I^2t$ ($A^2$ Sec) Clearing at 240 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|---|
| LMT Single barrel | 240 V a.c. / 150 V d.c. (IEC) 250 V a.c. / 150 V d.c. (UL) | 160 | 1100 | 7000 | 16,000 | 17 | 160LMT |
| | | 200 | 1500 | 10,000 | 20,000 | 28 | 200LMT |
| | | 250 | 3200 | 20,000 | 40,000 | 28 | 250LMT |
| | | 315 | 6000 | 35,000 | 75,000 | 35 | 315LMT |
| | | 355 | 8000 | 50,000 | 100,000 | 35 | 355LMT |
| | | 400 | 14,000 | 70,000 | 160,000 | 40 | 400LMT |
| | | 450 | 18,000 | 100,000 | 220,000 | 42 | 450LMT |
| LMMT Double barrel | 240 V a.c. / 150 V d.c. (IEC) 250 V a.c. / 150 V d.c. (UL) | 400 | 6000 | 35,000 | 80,000 | 60 | 400LMMT |
| | | 500 | 14,000 | 80,000 | 170,000 | 64 | 500LMMT |
| | | 630 | 24,000 | 150,000 | 300,000 | 75 | 630LMMT |
| | | 710 | 32,000 | 200,000 | 460,000 | 77 | 710LMMT |
| | | 800 | 52,000 | 300,000 | 600,000 | 82 | 800LMMT |
| | | 900 | 75,000 | 400,000 | 800,000 | 97 | 900LMMT |

## Dimensions (mm) - LMT (indicator optional)

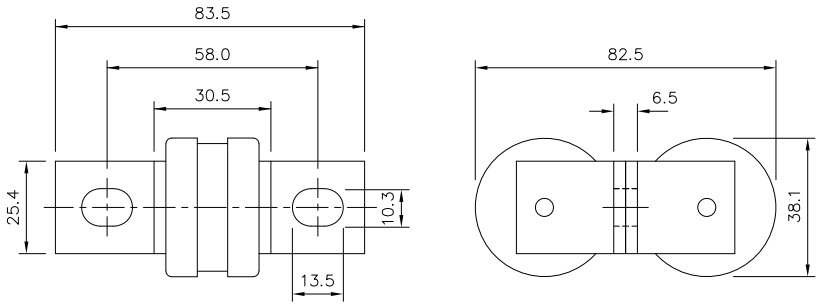



Data sheets: 720004, 5785296 (LCT), 5785293 (LET)

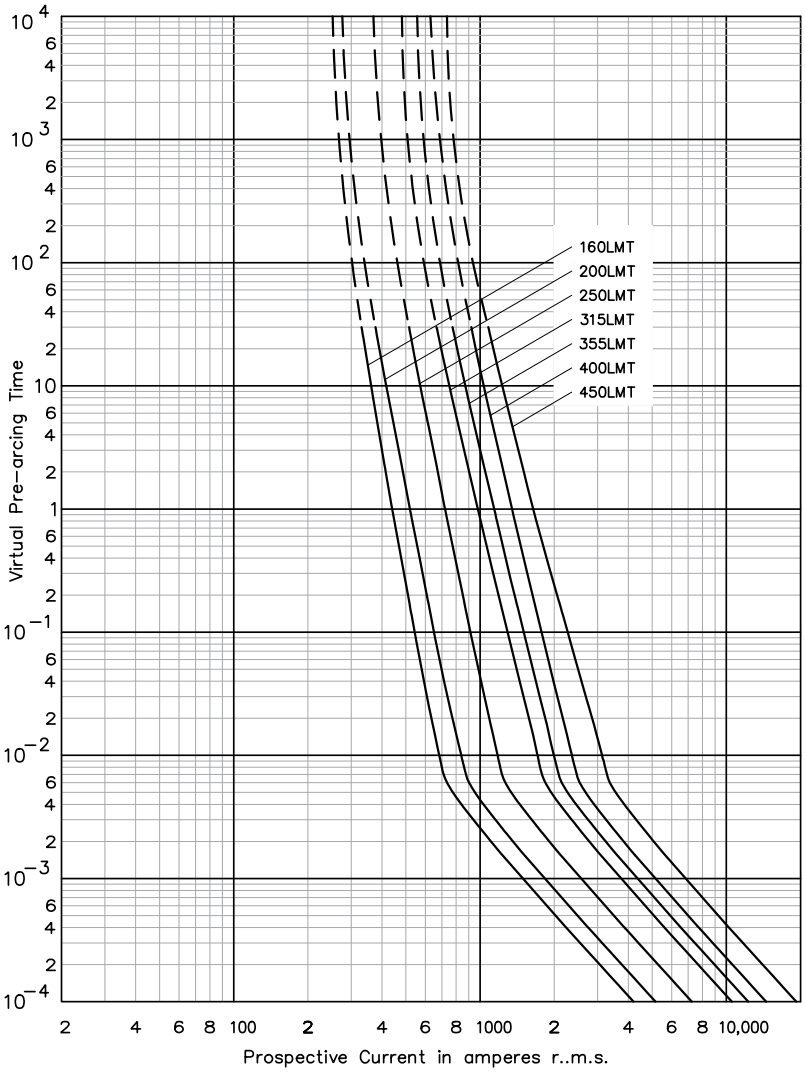
# British standard BS88 fuse links

## 240 V a.c. / 150 V d.c. (IEC), 250 V a.c. / 150 V d.c. (UL) - 160 A to 900 A - LMT, LMMT

### Dimensions (mm) - LMMT (indicator optional)



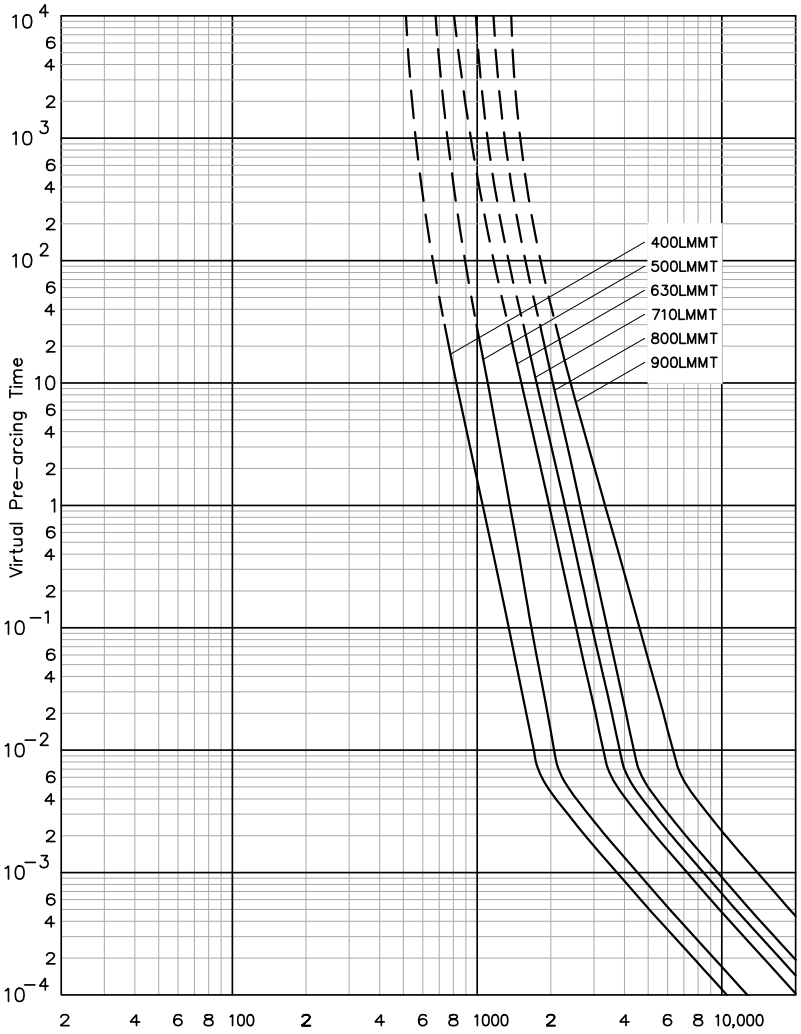

### Time-current curve - LMT, 160 A to 450 A




Data sheets: 720004, 5785296 (LCT), 5785293 (LET)

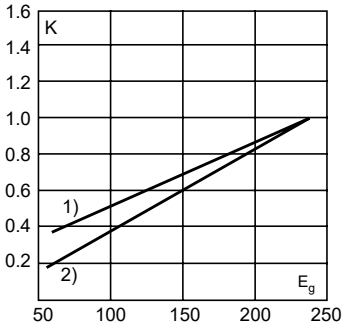
# 240 V a.c. / 150 V d.c. (IEC), 250 V a.c. / 150 V d.c. (UL) - 160 A to 900 A - LMT, LMMT

### Time-current curve - LMMT, 400 A to 900 A




### Total clearing $I^2t$

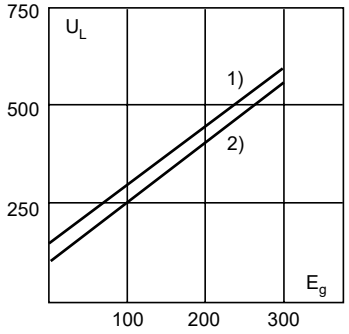
The total clearing $I^2t$ at rated voltage and at a power factor of 15 percent are given in the electrical characteristics. For other voltages, the clearing $I^2t$ is found by multiplying by correction factor, K, given as a function of applied working voltage, $E_g$, (RMS).




2) LMT, LMMT

### Arc voltage

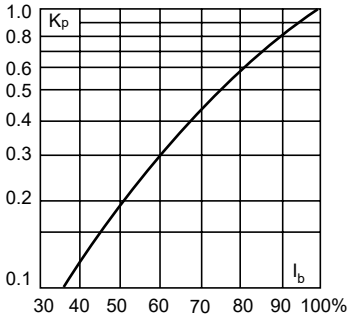
This curve gives the peak arc voltage, $U_L$, which may appear across the fuse during its operation as a function of the applied working voltage, $E_g$, (RMS) at a power factor of 15 percent.




2) LMT, LMMT

### 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: 720004, 5785296 (LCT), 5785293 (LET)

# British standard BS88 fuse links

## 690 V a.c. / 500 V d.c. (IEC), 700 V a.c ./ 500 V d.c. (UL) - 6 A to 200 A - CT, ET, FE, EET, FEE

### Description

BS88 style bolted tags high speed fuse links for the protection of DC common bus, DC drives, power converters / rectifiers and reduced rated voltage starters.




### Technical data

- Rated voltage:
  - 690 V a.c. / 500 V d.c. (IEC)
  - 700 V a.c. / 500 V d.c. (UL)
- Rated current: 6 A to 200 A
- Breaking capacity:
  - CT: 90 kA RMS Sym., 40 kA at 500 V d.c. (IEC)
  - 200 kA RMS Sym., 50 kA at 500 V d.c. (UL)
  - ET, EET, FE and FEE: 200 kA RMS Sym.,50 kA at 500 V d.c.
- Operating Class: aR.

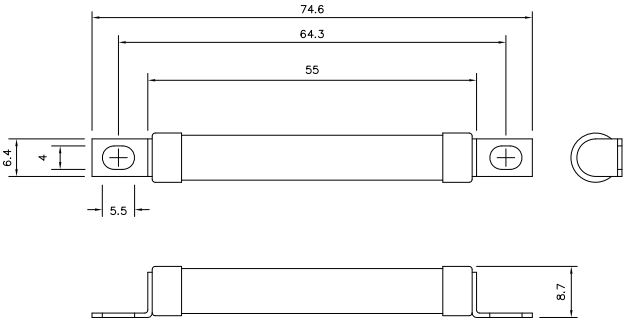
### Compatible trip indicator and microswitch

- See details page 395

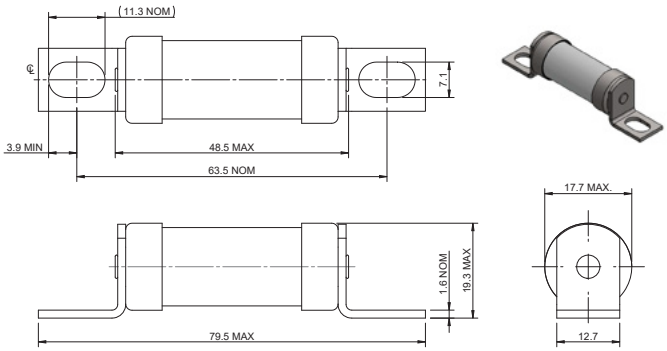
### Standards / Agency information

CE, designed and tested to BS88 part 4, IEC 60269 Part 4, Consult Eaton for specific UL Recognition status. CCC for ET, FE, EET, FEE.

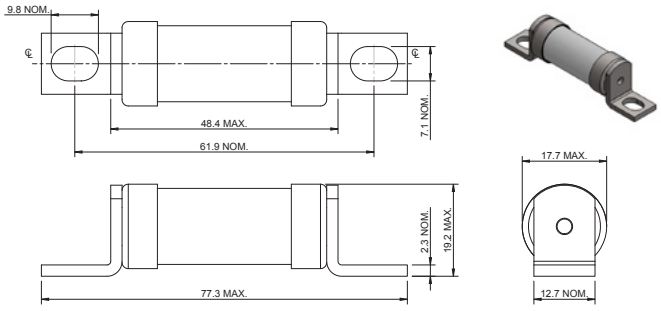
### Dimensions (mm) - CT



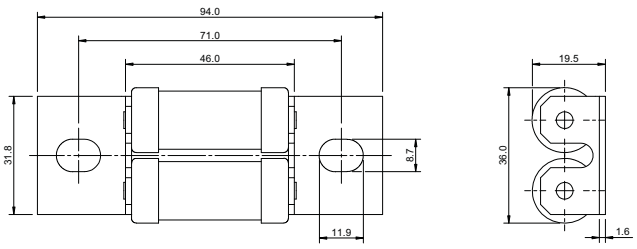

### Dimensions (mm) - ET, FE up to 63 A




### Dimensions (mm) - ET, FE greater than 63 A




### Dimensions (mm) - EET and FEE




Data sheets: 720024, 5785312 (CT, ET), 5785314 (FE), 5785313 (EET), 5785292 (FEE)

# 690 V a.c. / 500 V d.c. (IEC), 700 V a.c ./ 500 V d.c. (UL) - 6 A to 200 A - CT, ET, FE, EET, FEE

## Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | | |
|---|---|---|---|---|---|---|---|
| **Fuse link type** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 415V a.c.** | **Clearing at 660 V a.c.** | **Watts loss (W)** | **Catalogue numbers** |
| CT | 690 V a.c. / 500 V d.c. (IEC)<br>700 V a.c. / 500 V d.c. (UL) | 6 | 1.8 | 8.5 | 12 | 2 | 6CT |
| | | 10 | 7 | 30 | 48 | 3 | 10CT |
| | | 12 | 10 | 40 | 65 | 3 | 12CT |
| | | 16 | 16 | 66 | 110 | 7 | 16CT |
| | | 20 | 32 | 150 | 220 | 7 | 20CT |
| ET | 690 V a.c. / 500 V d.c. (IEC)<br>700 V a.c. / 500 V d.c. (UL) | 25 | 25 | 150 | 250 | 7 | 25ET |
| | | 32 | 32 | 190 | 350 | 11 | 32ET |
| | | 35 | 52 | 310 | 500 | 11 | 35ET |
| | | 40 | 103 | 600 | 900 | 9 | 40ET |
| | | 45 | 103 | 680 | 1100 | 11 | 45ET |
| | | 56 | 135 | 950 | 1500 | 14 | 56ET |
| | | 63 | 171 | 1200 | 2000 | 16 | 63ET |
| | | 80 | 360 | 2500 | 4000 | 18 | 80ET |
| FE | 690 V a.c. / 500 V d.c. (IEC)<br>700 V a.c. / 500 V d.c. (UL) | 35 | 33 | 130 | 200 | 9 | 35FE |
| | | 40 | 52 | 180 | 300 | 9 | 40FE |
| | | 45 | 76 | 270 | 450 | 11 | 45FE |
| | | 50 | 103 | 380 | 600 | 11 | 50FE |
| | | 63 | 135 | 480 | 750 | 12 | 63FE |
| | | 71 | 210 | 600 | 950 | 17 | 71FE |
| | | 80 | 250 | 900 | 1500 | 20 | 80FE |
| | | 90 | 360 | 1300 | 2100 | 20 | 90FE |
| | | 100 | 470 | 1800 | 2800 | 23 | 100FE |
| EET | 690 V a.c. / 500 V d.c. (IEC)<br>700 V a.c. / 700 V d.c. (UL) | 90 | 490 | 3000 | 4500 | 19 | 90EET |
| | | 110 | 600 | 4000 | 6500 | 27 | 110EET |
| | | 140 | 1050 | 7000 | 12,000 | 35 | 140EET |
| | | 160 | 1500 | 10,000 | 17,000 | 39 | 160EET |
| FEE | 690 V a.c. / 500 V d.c. (IEC)<br>700 V a.c. / 500 V d.c. (UL) | 100 | 400 | 1600 | 2400 | 24 | 100FEE |
| | | 120 | 540 | 1900 | 3100 | 32 | 120FEE |
| | | 140 | 850 | 2500 | 3800 | 36 | 140FEE |
| | | 160 | 1000 | 3700 | 5700 | 46 | 160FEE |
| | | 180 | 1400 | 5300 | 8400 | 46 | 180FEE |
| | | 200 | 1900 | 7100 | 11,400 | 52 | 200FEE |

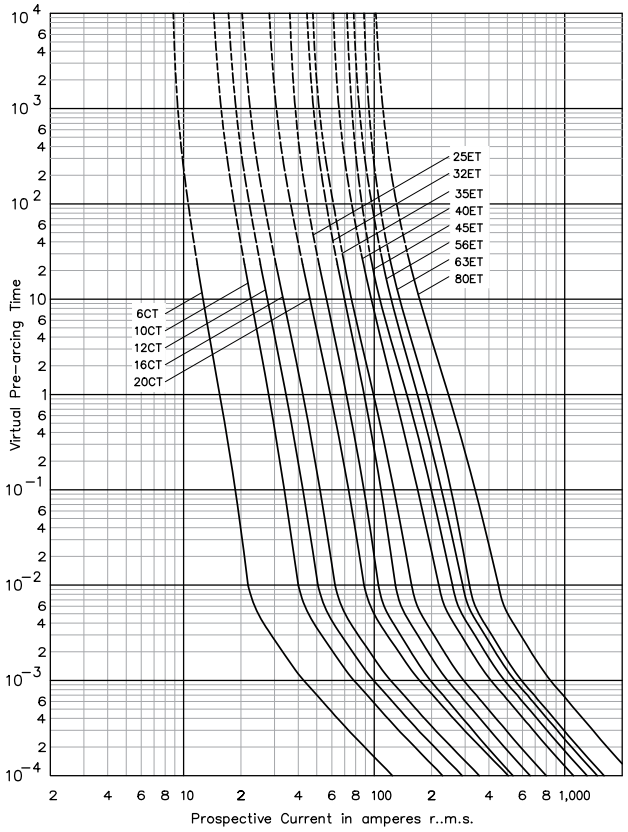
Note: FC, 8ET, 12ET, 15ET, 20ET, 65EET and 75EET are available for replacement purposes on existings equipment.

Data sheets: 720024, 5785312 (CT, ET), 5785314 (FE), 5785313 (EET), 5785292 (FEE)

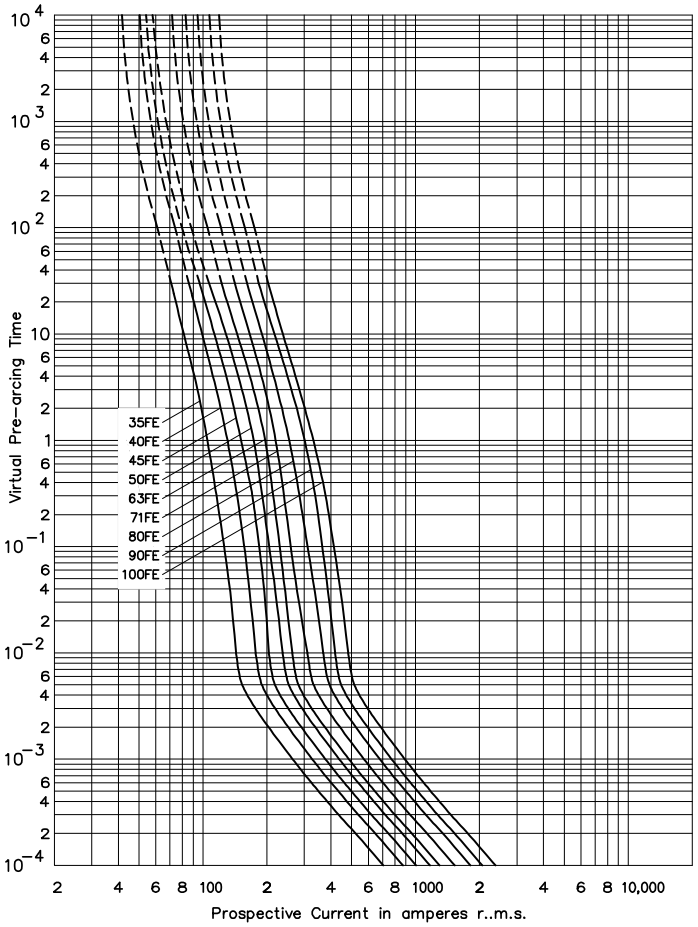
# British standard BS88 fuse links

## 690 V a.c. / 500 V d.c. (IEC), 700 V a.c ./ 500 V d.c. (UL) - 6 A to 200 A - CT, ET, FE, EET, FEE

### Time-current curve - CT, 6 A to 20 A and ET 25 A to 80 A



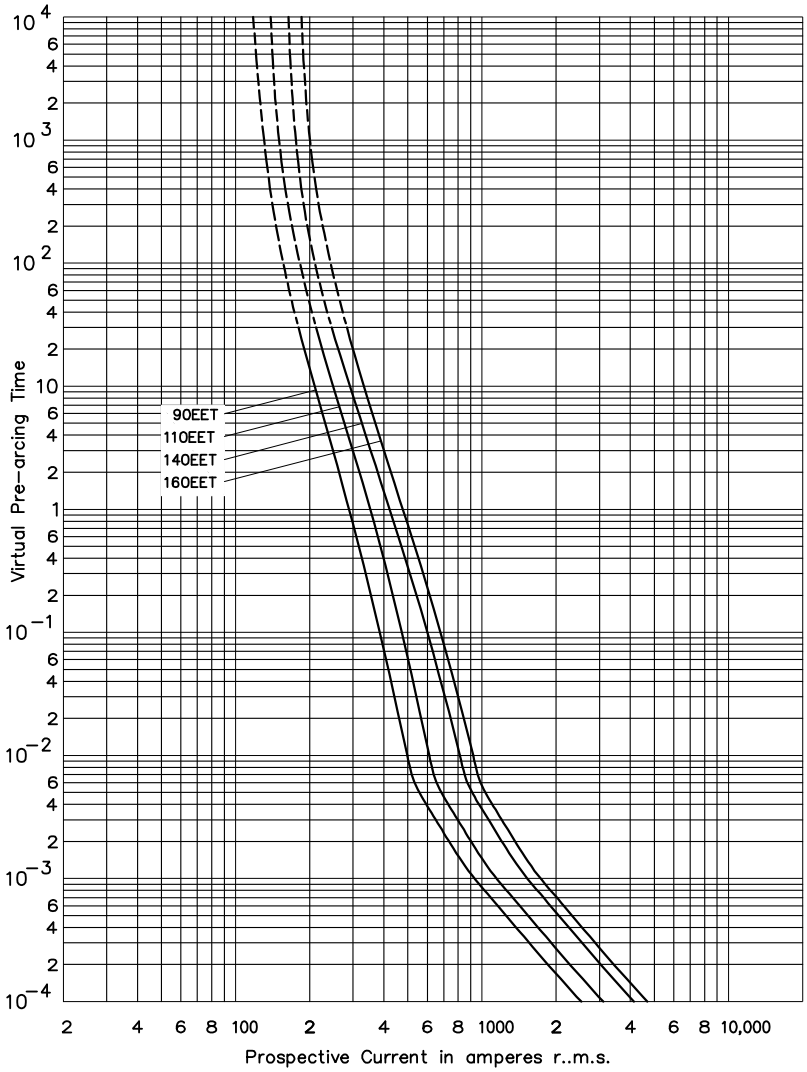

### Time-current curve - FE, 35 A to 100 A




Data sheets: 720024, 5785312 (CT, ET), 5785314 (FE), 5785313 (EET), 5785292 (FEE)

# 690 V a.c. / 500 V d.c. (IEC), 700 V a.c ./ 500 V d.c. (UL) - 6 A to 200 A - CT, ET, FE, EET, FEE

## Time-current curve - EET, 90 A to 160 A

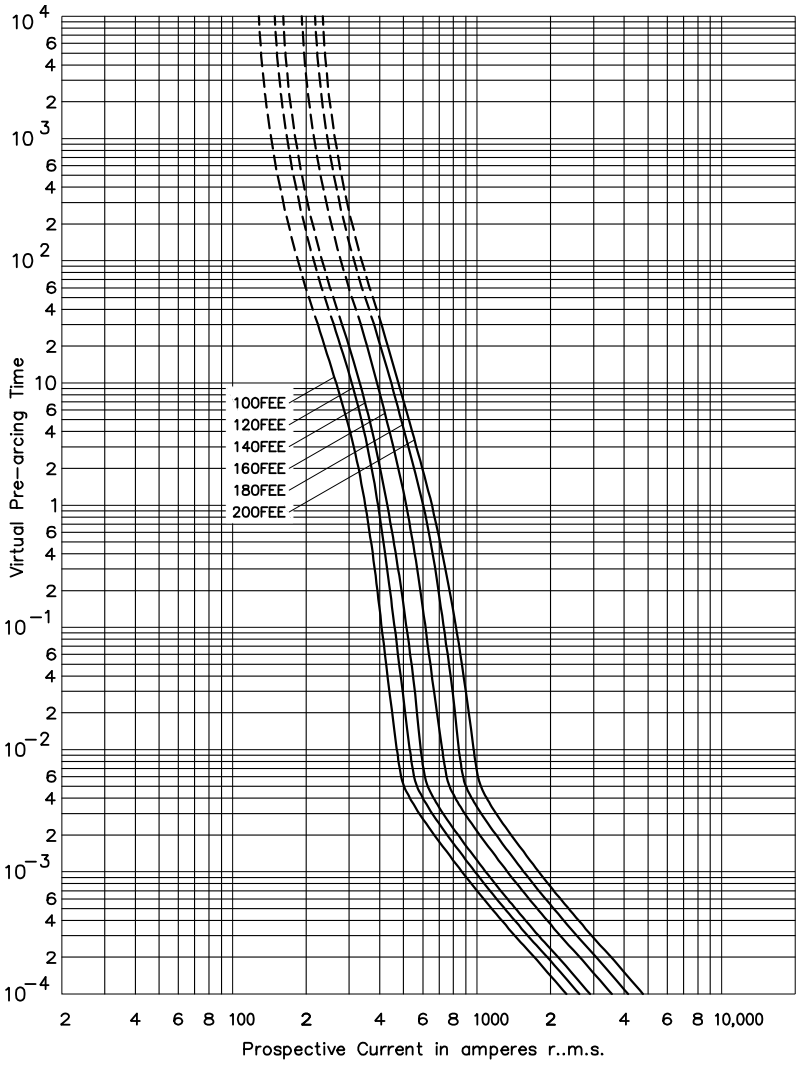



Data sheets: 720024, 5785312 (CT, ET), 5785314 (FE), 5785313 (EET), 5785292 (FEE)

# British standard BS88 fuse links

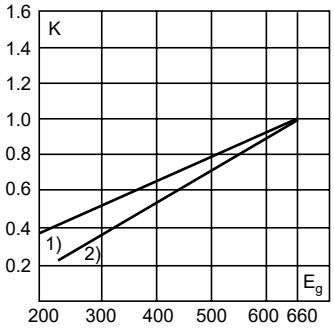
## 690 V a.c. / 500 V d.c. (IEC), 700 V a.c ./ 500 V d.c. (UL) - 6 A to 200 A - CT, ET, FE, EET, FEE

### Time-current curve - FEE, 100 A to 200 A




### Total clearing I²t

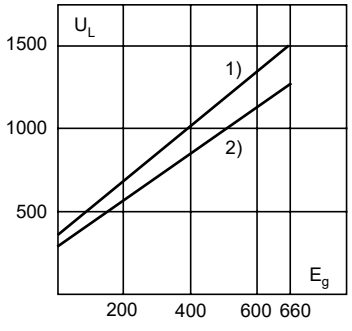
The total clearing I²t at rated voltage and at a power factor of 15 percent are given in the electrical characteristics. For other voltages, the clearing I²t is found by multiplying by correction factor, K, given as a function of applied working voltage, $E_g$, (RMS).




1) CT, ET, FE, FEE

### Arc voltage

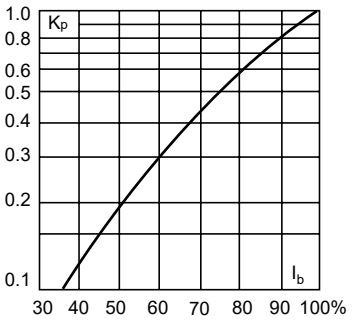
This curve gives the peak arc voltage, $U_L$, which may appear across the fuse during its operation as a function of the applied working voltage, $E_g$, (RMS) at a power factor of 15 percent.




1) CT, ET, FE, FEE

### 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: 720024, 5785312 (CT, ET), 5785314 (FE), 5785313 (EET), 5785292 (FEE)

# 690 V a.c. / 350-450 V d.c. (IEC), 700 V a.c. / 500 V d.c. (UL) - 160 A to 710 A - FM, FMM, MT, MMT

## Description

BS88 style bolted tags high speed fuse links for the protection of DC common bus, DC drives, power converters / rectifiers and reduced rated voltage starters.




## Technical data

- Rated voltage:
  - FM: 690 V a.c. / 450 V d.c. (IEC); 700 V a.c./500 V d.c. (UL)
  - FMM: 690 V a.c. / 450 V d.c. (IEC)
  - MT and MMT: 690 V a.c. / 350 V d.c. (IEC); 700 V a.c. (UL)
- Rated current: 160 A to 710 A
- Breaking capacity:
  - FM: 200 kA RMS Sym. (IEC/UL), 40 kA at 450 V d.c. (IEC), 50 kA at 500 V d.c. (UL)
  - FMM: 200 kA RMS Sym. (IEC/UL), 40 kA at 450 V d.c. (IEC)
  - MT & MMT: 200 kA RMS Sym. (IEC/UL), 40 kA at 350 V d.c. (IEC)
- Operating Class: aR

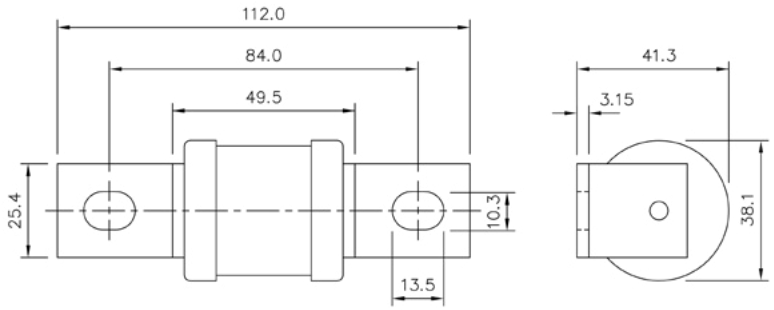
## Compatible trip indicator and microswitch

- See details page 395

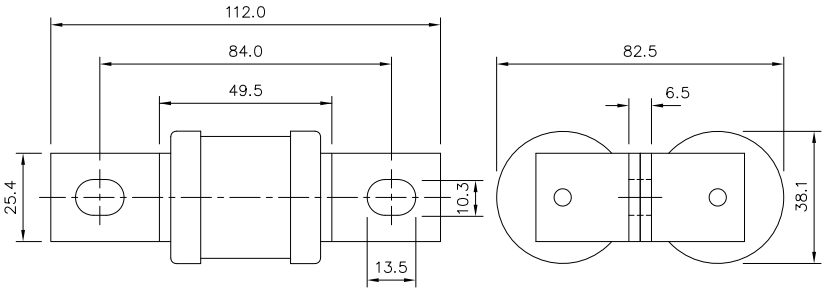
## Standards / Agency information

CE, designed and tested to BS88 part 4, IEC 60269 Part 4, UL Recognised. MT and MMT 350 V d.c. (IEC) rating. Consult Eaton for specific UL Recognition status. CCC for FM and FMM.

## Dimensions (mm) - FM and MT (indicator optional)




## Dimensions (mm) - FMM and MMT (indicator optional)




Data sheets: 720024, 5785314 (FM), 5785313 (MT), 5785292 (FMM), 5785311 (MMT)

# British standard BS88 fuse links

## 690 V a.c. / 350-450 V d.c. (IEC), 700 V a.c. / 500 V d.c. (UL) - 160 A to 710 A - FM, FMM, MT, MMT

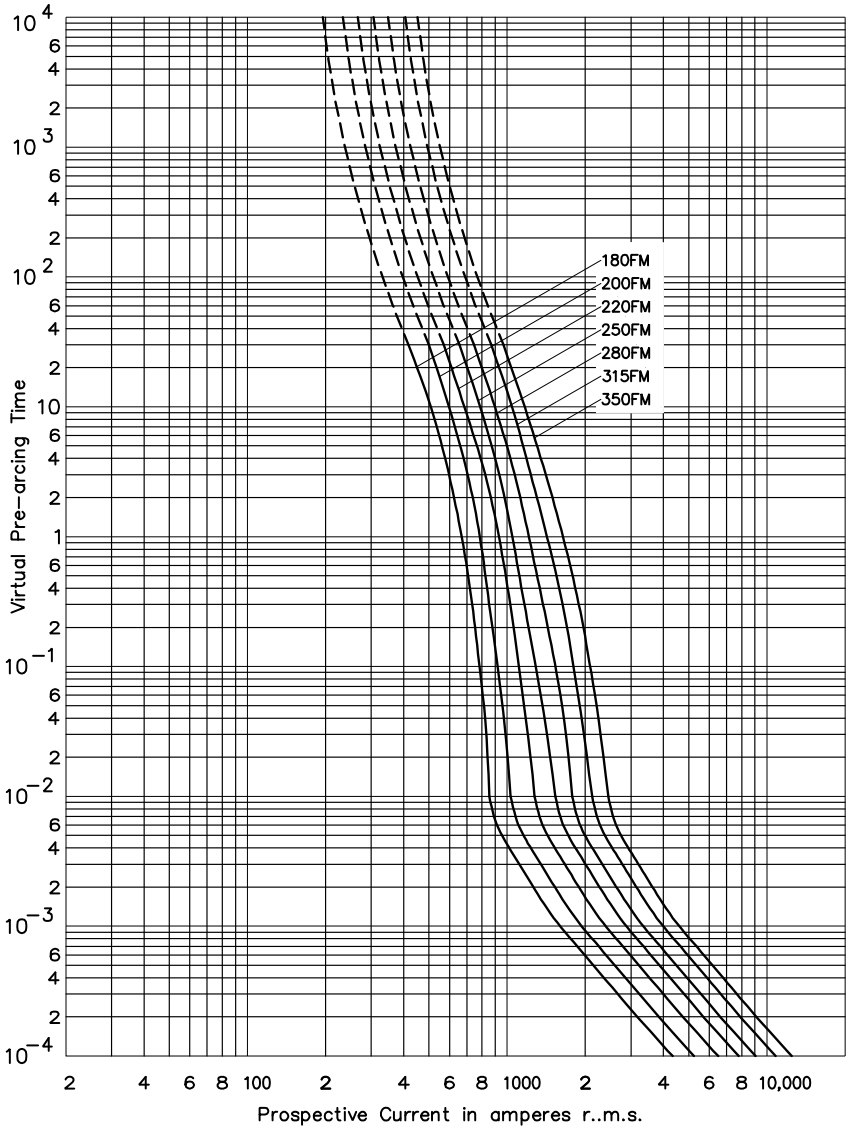
### Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | | |
|---|---|---|---|---|---|---|---|
| **Fuse link type** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 415V a.c.** | **Clearing at 660 V a.c.** | **Watts loss (W)** | **Catalogue numbers** |
| FM | 690 V a.c. / 450 V d.c. (IEC)<br>700 V a.c. / 500 V d.c. (UL) | 180 | 1400 | 7500 | 13,500 | 40 | 180FM |
| | | 200 | 2600 | 10,500 | 18,500 | 40 | 200FM |
| | | 225 | 3700 | 14,500 | 26,500 | 44 | 225FM |
| | | 250 | 5200 | 20,500 | 37,500 | 48 | 250FM |
| | | 280 | 7000 | 30,500 | 55,000 | 48 | 280FM |
| | | 315 | 10,000 | 40,000 | 77,000 | 55 | 315FM |
| | | 350 | 15,000 | 60,000 | 105,000 | 55 | 350FM |
| FMM | 690 V a.c. / 450 V d.c. (IEC) | 400 | 10,000 | 40,000 | 72,500 | 85 | 400FMM |
| | | 450 | 15,000 | 60,000 | 105,000 | 90 | 450FMM |
| | | 500 | 20,000 | 82,000 | 150,000 | 100 | 500FMM |
| | | 550 | 30,000 | 120,000 | 215,000 | 100 | 550FMM |
| | | 630 | 45,000 | 180,000 | 310,000 | 100 | 630FMM |
| | | 700 | 60,000 | 245,000 | 420,000 | 120 | 700FMM |
| MT | 690 V a.c. / 350 V d.c. (IEC)<br>700 V a.c. (UL) | 160 | 2400 | 15,000 | 25,000 | 26 | 160MT |
| | | 180 | 3800 | 25,000 | 38,000 | 26 | 180MT |
| | | 200 | 6000 | 40,000 | 58,000 | 27 | 200MT |
| | | 250 | 11,500 | 80,000 | 110,000 | 32 | 250MT |
| | | 280 | 16,500 | 100,000 | 150,000 | 35 | 280MT |
| | | 315 | 19,000 | 125,000 | 180,000 | 42 | 315MT |
| | | 355 | 22,000 | 160,000 | 200,000 | 51 | 355MT |
| MMT | 690 V a.c. / 350 V d.c. (IEC)<br>700 V a.c. (UL) | 180 | 1650 | 12,000 | 18,000 | 42 | 180MMT |
| | | 200 | 2200 | 16,000 | 23,000 | 42 | 200MMT |
| | | 225 | 3700 | 26,000 | 40,000 | 42 | 225MMT |
| | | 280 | 6600 | 47,000 | 70,000 | 47 | 280MMT |
| | | 315 | 8600 | 62,000 | 91,000 | 51 | 315MMT |
| | | 355 | 13,500 | 97,000 | 140,000 | 54 | 355MMT |
| | | 400 | 21,000 | 150,000 | 220,000 | 60 | 400MMT |
| | | 450 | 30,000 | 220,000 | 320,000 | 57 | 450MMT |
| | | 500 | 42,000 | 300,000 | 450,000 | 64 | 500MMT |
| | | 560 | 60,000 | 430,000 | 640,000 | 64 | 560MMT |
| | | 630 | 68,500 | 500,000 | 720,000 | 86 | 630MMT |
| | | 710 | 78,000 | 600,000 | 850,000 | 105 | 710MMT |

Data sheets: 720024, 5785314 (FM), 5785313 (MT), 5785292 (FMM), 5785311 (MMT)

# 690 V a.c. / 350-450 V d.c. (IEC), 700 V a.c. / 500 V d.c. (UL) - 160 A to 710 A - FM, FMM, MT, MMT

## Time-current curve - FM, 180 A to 350 A

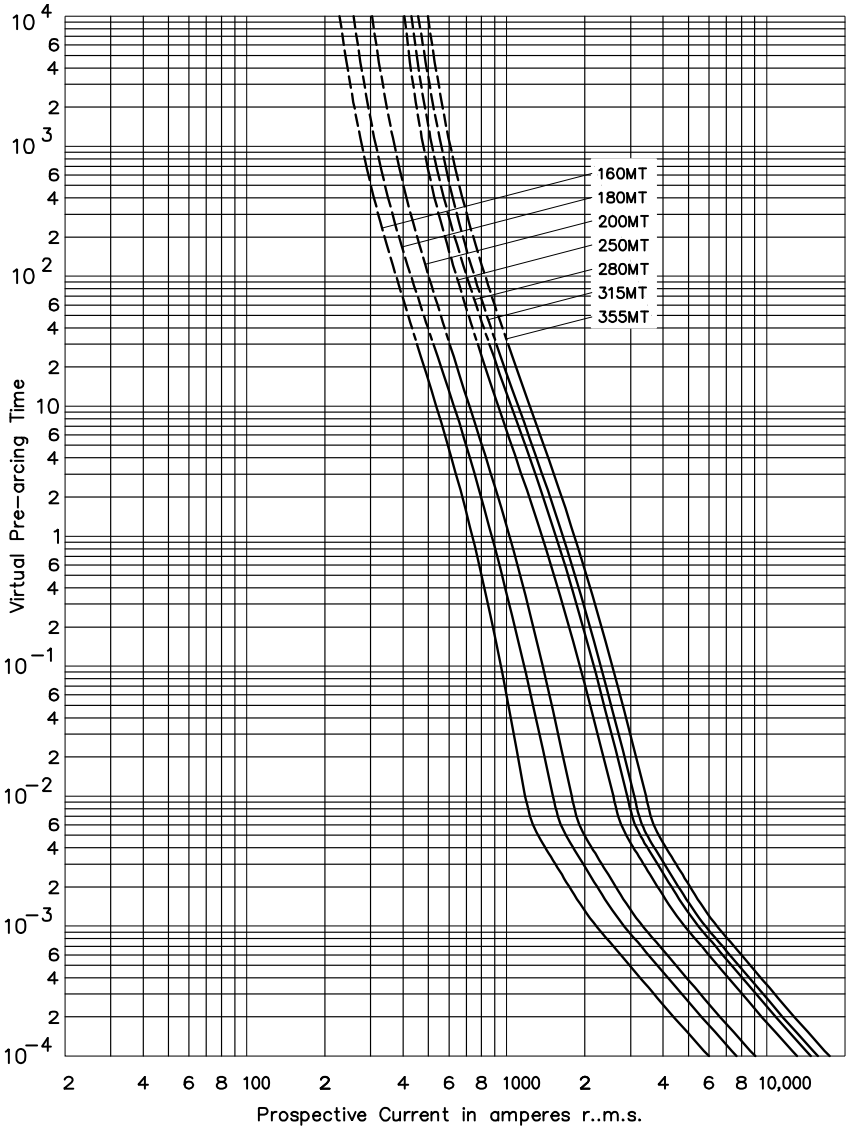



Data sheets: 720024, 5785314 (FM), 5785313 (MT), 5785292 (FMM), 5785311 (MMT)

# British standard BS88 fuse links

## 690 V a.c. / 350-450 V d.c. (IEC), 700 V a.c. / 500 V d.c. (UL) - 160 A to 710 A - FM, FMM, MT, MMT

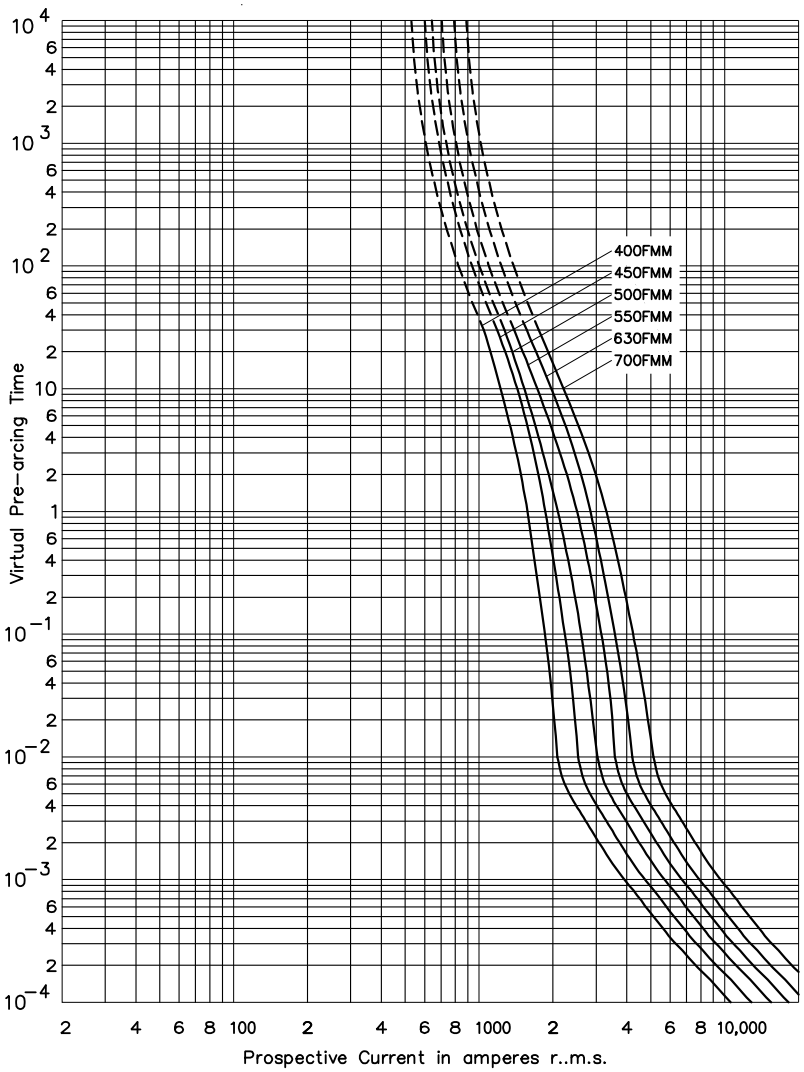
### Time-current curve - MT, 160 A to 355 A




Data sheets: 720024, 5785314 (FM), 5785313 (MT), 5785292 (FMM), 5785311 (MMT)

# 690 V a.c. / 350-450 V d.c. (IEC), 700 V a.c. / 500 V d.c. (UL) - 160 A to 710 A - FM, FMM, MT, MMT

## Time-current curve - FMM, 400 A to 700 A

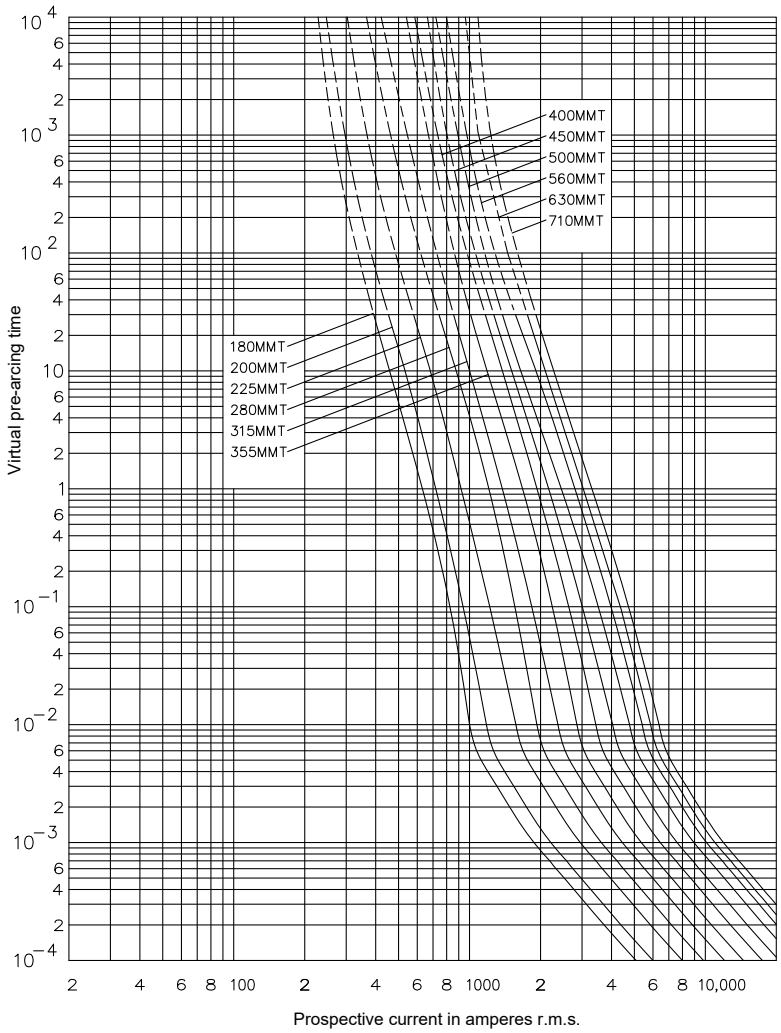



Data sheets: 720024, 5785314 (FM), 5785313 (MT), 5785292 (FMM), 5785311 (MMT)

# British standard BS88 fuse links

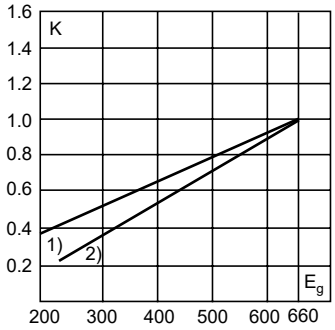
## 690 V a.c. / 350-450 V d.c. (IEC), 700 V a.c. / 500 V d.c. (UL) - 160 A to 710 A - FM, FMM, MT, MMT

### Time-current curve - MMT, 180 A to 710 A




### Total clearing $I^2t$

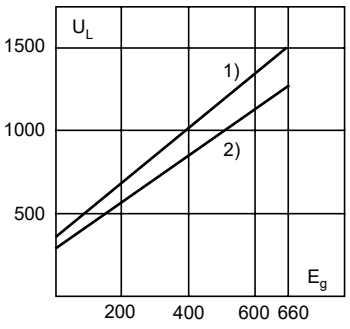
The total clearing $I^2t$ at rated voltage and at a power factor of 15 percent are given in the electrical characteristics. For other voltages, the clearing $I^2t$ is found by multiplying by correction factor, K, given as a function of applied working voltage, $E_g$, (RMS).




1) MT, MMT 2) FM, FMM

### Arc voltage

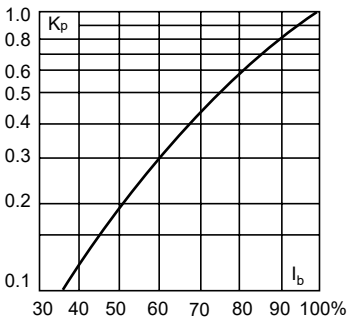
This curve gives the peak arc voltage, $U_L$, which may appear across the fuse during its operation as a function of the applied working voltage, $E_g$, (RMS) at a power factor of 15 percent.




1) MT, MMT 2) FM, FMM

### 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: 720024, 5785314 (FM), 5785313 (MT), 5785292 (FMM), 5785311 (MMT)

# Ferrule fuse links

## 150 V a.c. / V d.c. (UL) - 5 A to 60 A - 10 x 38 mm and 21 x 51 mm - FWA

### Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters / rectifiers and reduced rated voltage starters.




### Technical data

- Rated voltage: 150 V a.c. / V d.c. (UL)
- Rated current: 5 A to 60 A
- Breaking capacity:
  - 200 kA RMS Sym.
  - 50 kA DC at 150 V d.c.
- Operating class: aR

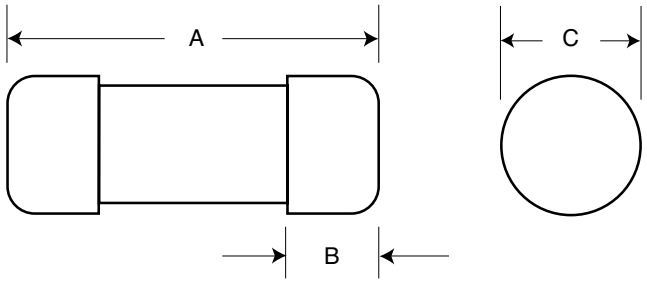
### Standards / Agency information

CE, UL recognised

### Catalogue numbers

| Fuse link size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 150 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|
| 10 x 38 mm (13/32" x 1½") | 150 V a.c. / V d.c. (UL) | 5 | 1.6 | 8 | 2 | FWA-5A10F |
| | | 10 | 3.6 | 16 | 2.7 | FWA-10A10F |
| | | 15 | 14 | 50 | 3.3 | FWA-15A10F |
| | | 20 | 33 | 130 | 3.8 | FWA-20A10F |
| | | 25 | 58 | 220 | 4.9 | FWA-25A10F |
| | | 30 | 100 | 400 | 4.9 | FWA-30A10F |
| 21 x 51 mm (13/16" x 2") | 150 V a.c. / V d.c. (UL) | 35 | 75 | 800 | 4.5 | FWA-35A21F |
| | | 40 | 100 | 1000 | 5.1 | FWA-40A21F |
| | | 45 | 130 | 1300 | 6 | FWA-45A21F |
| | | 50 | 170 | 1600 | 7.3 | FWA-50A21F |
| | | 60 | 250 | 2400 | 8 | FWA-60A21F |

### Dimensions - in (mm)



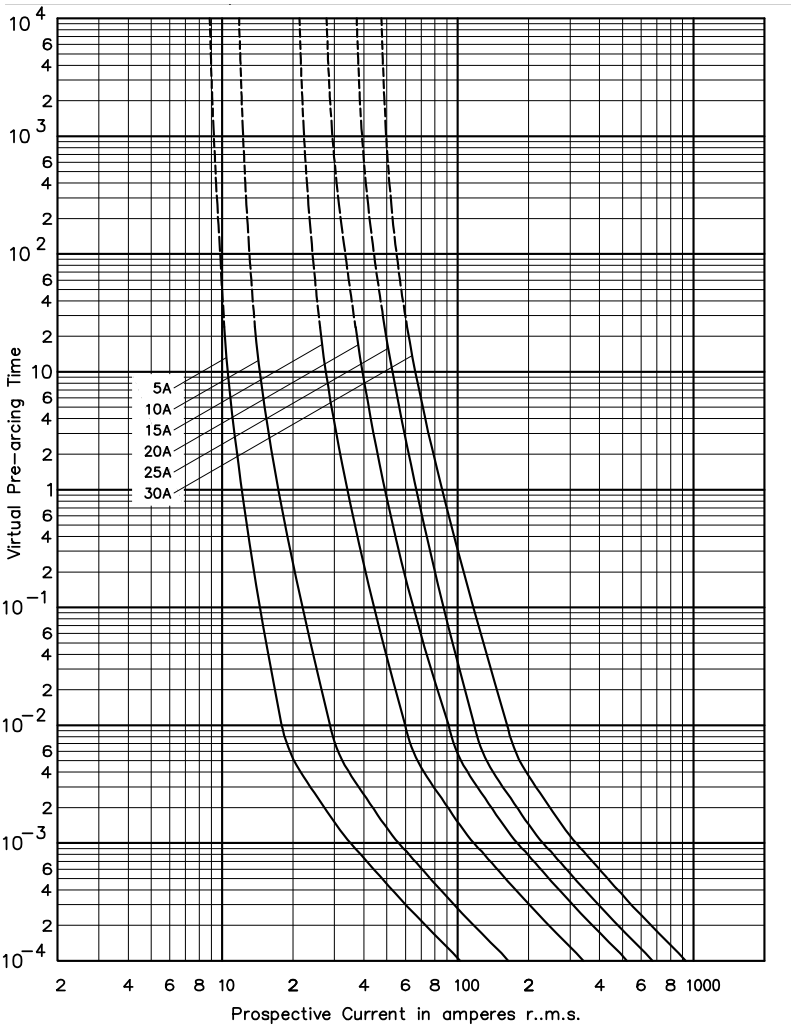

| Amp range | A | B | C |
|---|---|---|---|
| 5-30 | 1.5 (38.1) | 0.38 (9.5) | 0.41 (10.3) |
| 35-60 | 2 (50.8) | 0.63 (15.9) | 0.81 (20.6) |

Data sheets: 720003,5785317 (5-30 A), 5785305 (35-60 A)

# Ferrule fuse links

## 150 V a.c. / V d.c. (UL) - 5 A to 60 A - 10 x 38 mm and 21 x 51 mm - FWA

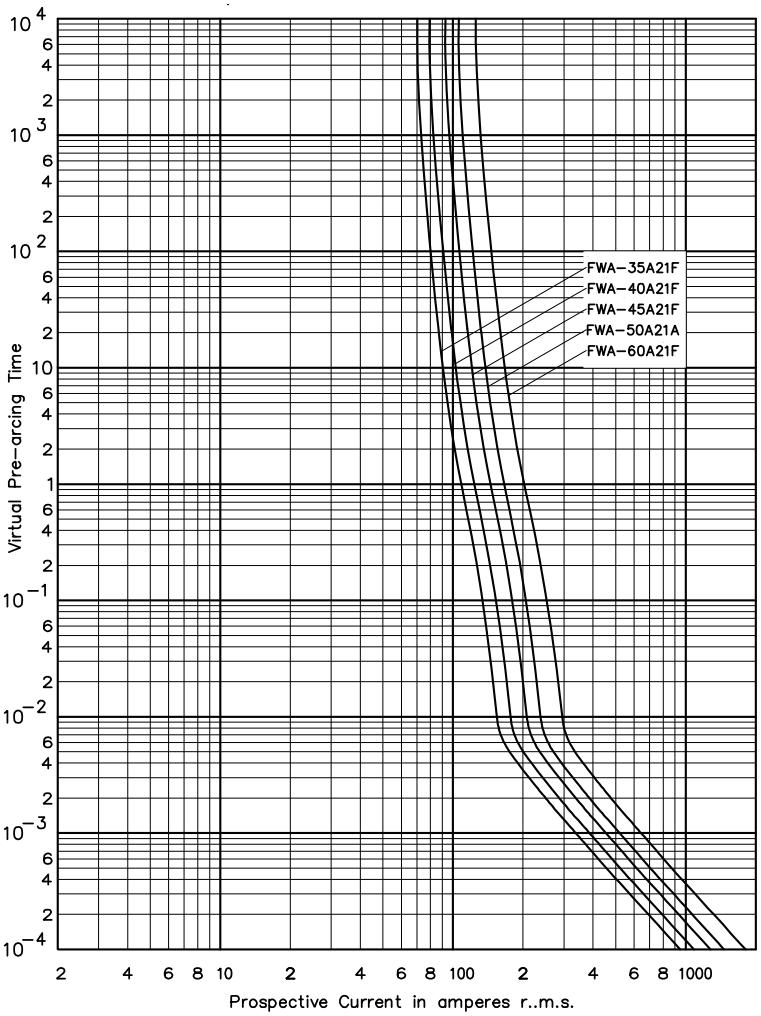
### Time-current curve - 5 A to 30 A




Data sheets: 720003,5785317 (5-30 A), 5785305 (35-60 A)

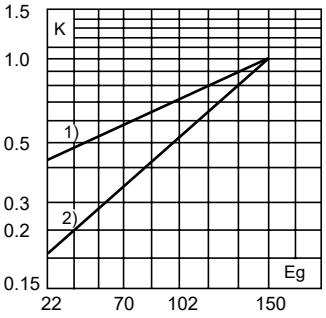
# 150 V a.c. / V d.c. (UL) - 5 A to 60 A - 10 x 38 mm and 21 x 51 mm - FWA

## Time-current curve - 35 A to 60 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).

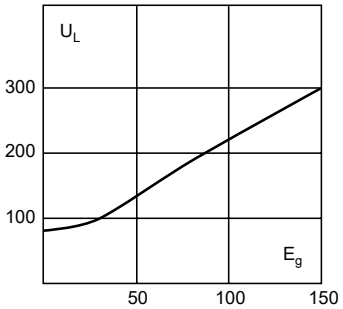



1) 5 - 30 A

2) 35 - 60 A

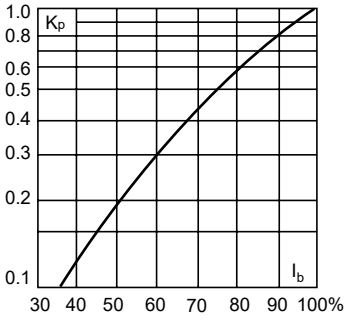
## Arc voltage

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: 720003,5785317 (5-30 A), 5785305 (35-60 A)

# Ferrule fuse links

## 250 V a.c. / V d.c. (UL) - 1 A to 50 A - 14 x 51 mm - FWX

### Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers rated voltage starters.




### Technical data

- Rated voltage: see details in table below
- Rated current: 1 A to 50 A
- Breaking capacity:
  - 200 kA RMS Sym. (UL, all ratings)
  - 50 kA at 250 V d.c. (UL, 5 A to 30 A only)
- Operating class: aR

### Compatible modular fuse holder

- CH14

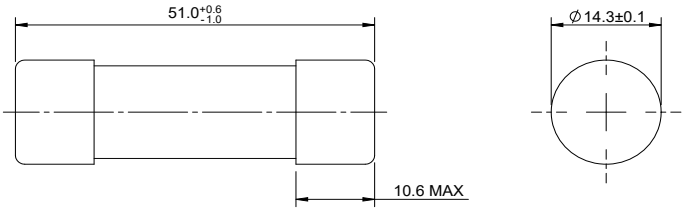
### Standards / Agency information

CE, UL recognised 1-50 A & CSA component acceptance: 5 A to 30 A

### Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | |
|---|---|---|---|---|---|---|
| **Fuse link size** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 250 V a.c.** | **Watts loss (W)** | **Catalogue numbers** |
| 14 x 51mm (9⁄16" x 2") | 250 V a.c. (UL) | 1 | 0.04 | 0.12 | 5.7 | FWX-1A14F |
| | | 2 | 0.08 | 0.28 | 8.7 | FWX-2A14F |
| | | 3 | 0.11 | 0.39 | 2.8 | FWX-3A14F |
| | | 4 | 0.1 | 0.35 | 3 | FWX-4A14F |
| | 250 V a.c. / 250 V d.c. (UL) | 5 | 1.6 | 13 | 1.3 | FWX-5A14F |
| | | 10 | 3.6 | 24 | 3.4 | FWX-10A14F |
| | | 15 | 14 | 83 | 3.8 | FWX-15A14F |
| | | 20 | 33 | 200 | 4.6 | FWX-20A14F |
| | | 25 | 58 | 300 | 5.3 | FWX-25A14F |
| | | 30 | 100 | 500 | 5.9 | FWX-30A14F |
| | 250 V a.c. (UL) | 50 | 200 | 1800 | 5.7 | FWX-50A14F |

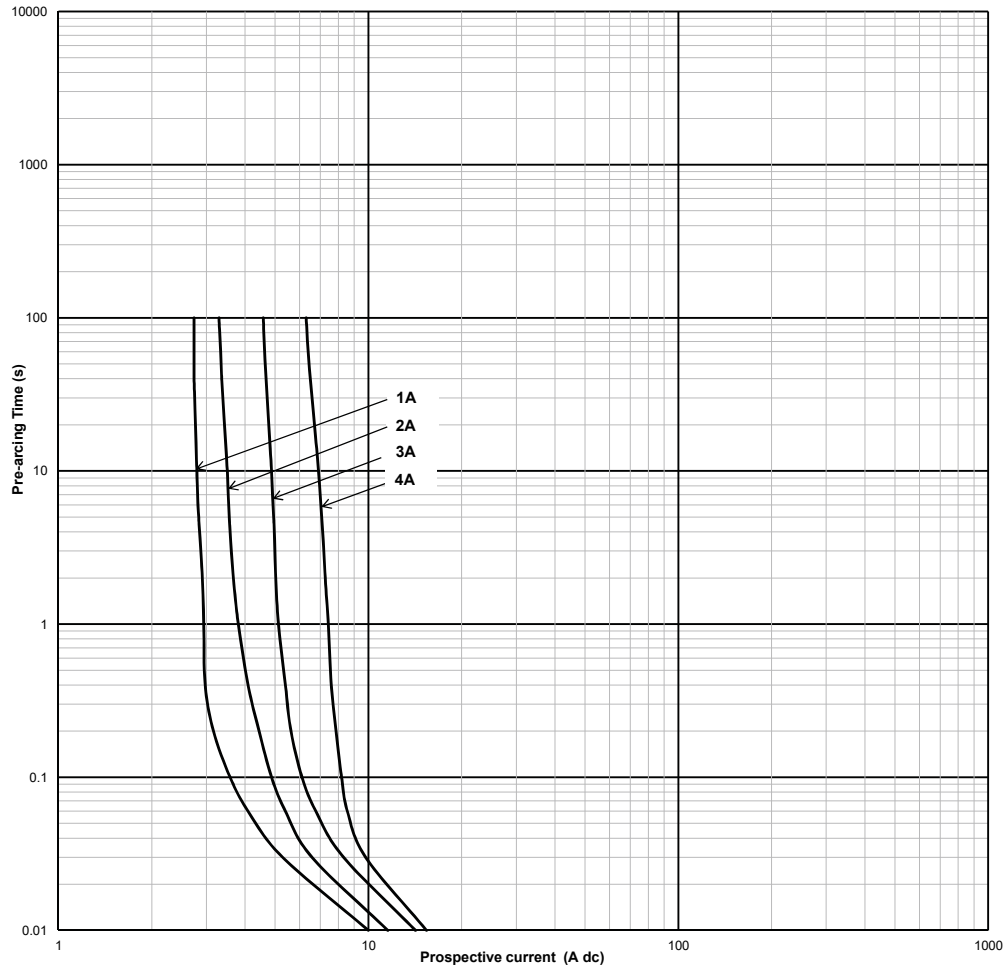
### Dimensions - mm




Data sheets: 720006, 5785580, 5785302

# 250 V a.c. / V d.c. (UL) - 1 A to 50 A - 14 x 51 mm - FWX

## Time-current curve - 1 A to 4 A

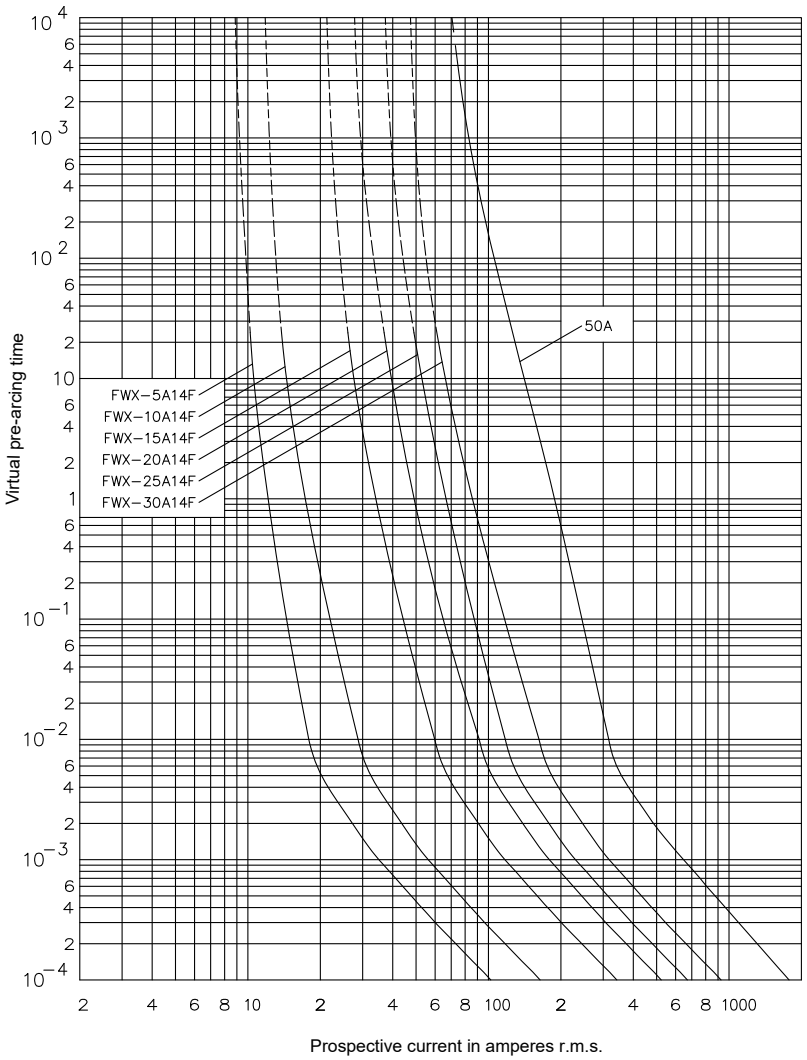



Data sheets: 720006, 5785580, 5785302

# Ferrule fuse links

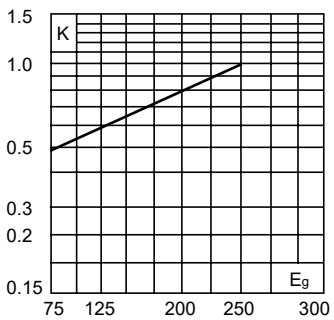
## 250 V a.c. / V d.c. (UL) - 1 A to 50 A - 14 x 51 mm - FWX

### Time-current curve - 5 A to 50 A



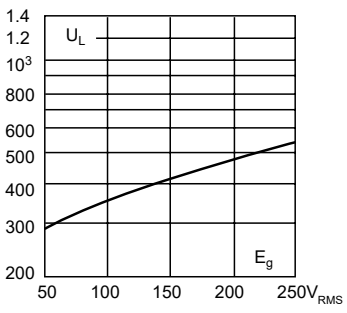

### Total clearing I²t

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).



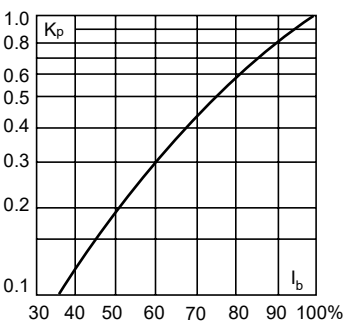

### Arc voltage

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: 720006, 5785580, 5785302

# 500 V a.c. (UL) - 0.25 A to 30 A - 6 x 32 mm - FWH




## Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

## Technical data

- Rated voltage:
  - 500 V a.c. (UL)
  - 1000 V a.c. (UL, 2 A only)
  - 600 V d.c. (UL, 4 A and 5 A only)
- Rated current: 0.25 A to 30 A
- Breaking capacity:
  - 50 kA (0.25 A to 20 A)
  - 20 kA (25 A to 30 A, tested at PF = 76%)
  - 50 kA at 600 V d.c. (UL 2 A and 5 A only)
- Operating class: aR

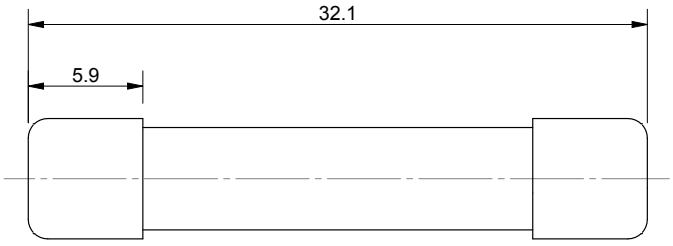
## Standards / Agency information

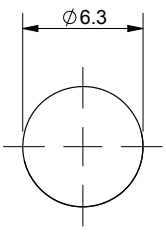
CE, UL recognised 0.25 A to 30 A including 2 A at 1000 V a.c.,
CSA component Acceptance: 0.25 A to 7 A

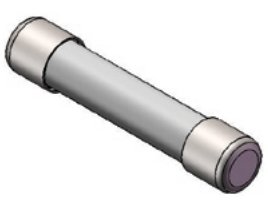
## Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | |
|---|---|---|---|---|---|---|
| **Fuse link size** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 500 V a.c.** | **Watts loss (W)** | **Catalogue numbers** |
| 6 x 32 mm (¼" x 1¼") | 500 V a.c. (UL) | 0.25 | 0.01 | 0.05 | 2.7 | FWH--250A6F |
| | | 0.5 | 0.05 | 0.25 | 1.2 | FWH--500A6F |
| | | 1 | 0.4 | 2 | 1.7 | FWH-001A6F |
| | 1000 V a.c. (UL) | 2 | 1.3 | 3.5 | 3.2 | FWH-002A6F |
| | 500 V a.c. (UL) | 3.15 | 3.1 | 7.7 | 2.9 | FWH-3-15A6F |
| | 500 V a.c. / 600 V d.c. (UL) | 4 | 8.4 | 22 | 2.4 | FWH-004A6F |
| | | 5 | 15 | 40 | 2.1 | FWH-005A6F |
| | 500 V a.c. (UL) | 6.3 | 36 | 90 | 2.3 | FWH-6-30A6F |
| | | 7 | 50 | 125 | 2.5 | FWH-007A6F |
| | | 10 | 9.9 | 139 | 2.86 | FWH5-010A6F |
| | | 12.5 | 20 | 60 | 3.53 | FWH5-12-5A6F |
| | | 15 | 44 | 146 | 3.08 | FWH5-015A6F |
| | | 16 | 48 | 177 | 4.48 | FWH5-016A6F |
| | | 20 | 75 | 259 | 4.26 | FWH5-020A6F |
| | | 25 | 126 | 345 | - | FWH-025A6F |
| | | 30 | 145 | 430 | - | FWH-030A6F |

## Dimensions mm (in)



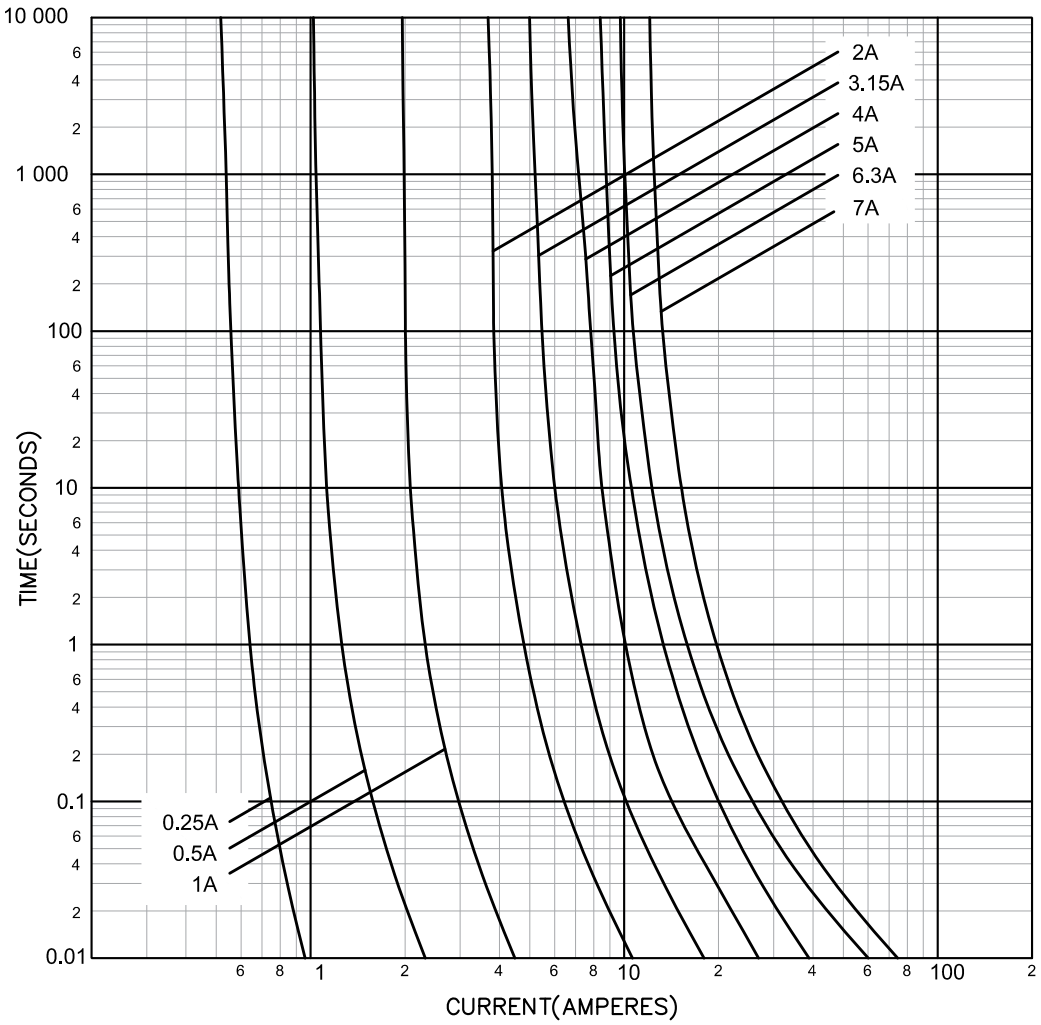



Data sheets: 720038, 5785256 (0.25-7A), 50955 (10-30 A)

# Ferrule fuse links

## 500 V a.c. (UL) - 0.25 A to 30 A - 6 x 32 mm - FWH

### Time-current curve - 0.25 A to 7 A




Data sheets: 720038, 5785256 (0.25-7A

# 500 V a.c. / V d.c. (UL) - 1 A to 30 A - 14 x 51 mm - FWH

## Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.




## Technical data

- Rated voltage:
  - 500 V a.c. (UL, all ratings)
  - 500 V d.c. (UL, 5 A to 30 A only)
- Rated current: 1 A to 30 A
- Breaking capacity:
  - 200 kA RMS Sym. all ratings
  - 50 kA at 500 V d.c. (5 A to 30 A only)
- Operating class: aR

## Compatible modular fuse holder

- CH14

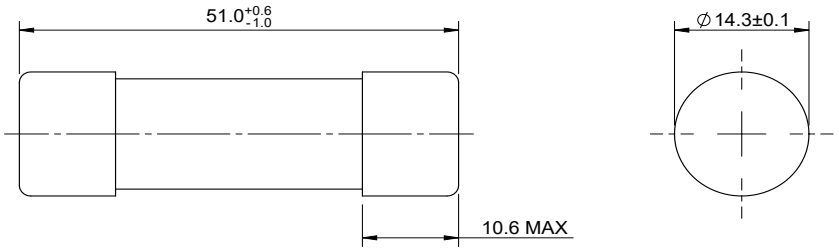
## Standards / Agency information

CE, UL Recognised 1 A to 30 A & CSA Component Acceptance: 5 A to 30 A

## Catalogue numbers

| Fuse link size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 500 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|
| 14 x 51 mm (9/16" x 2") | 500 V a.c.(UL) | 1 | 0.04 | 0.41 | 5.7 | FWH-1A14F |
| | | 2 | 0.08 | 0.11 | 8.7 | FWH-2A14F |
| | | 3 | 0.11 | 0.26 | 2.8 | FWH-3A14F |
| | | 4 | 0.1 | 0.23 | 3 | FWH-4A14F |
| | 500 V a.c. / V d.c. (UL) | 5 | 2 | 7 | 1.5 | FWH-5A14F |
| | | 6 | 2 | 7 | 1.5 | FWH-6A14F |
| | | 10 | 4 | 15 | 4 | FWH-10A14F |
| | | 12 | 7 | 25 | 4.3 | FWH-12A14F |
| | | 15 | 10 | 40 | 5.5 | FWH-15A14F |
| | | 20 | 26 | 100 | 6.5 | FWH-20A14F |
| | | 25 | 49 | 200 | 7 | FWH-25A14F |
| | | 30 | 58 | 240 | 9 | FWH-30A14F |

## Dimensions mm

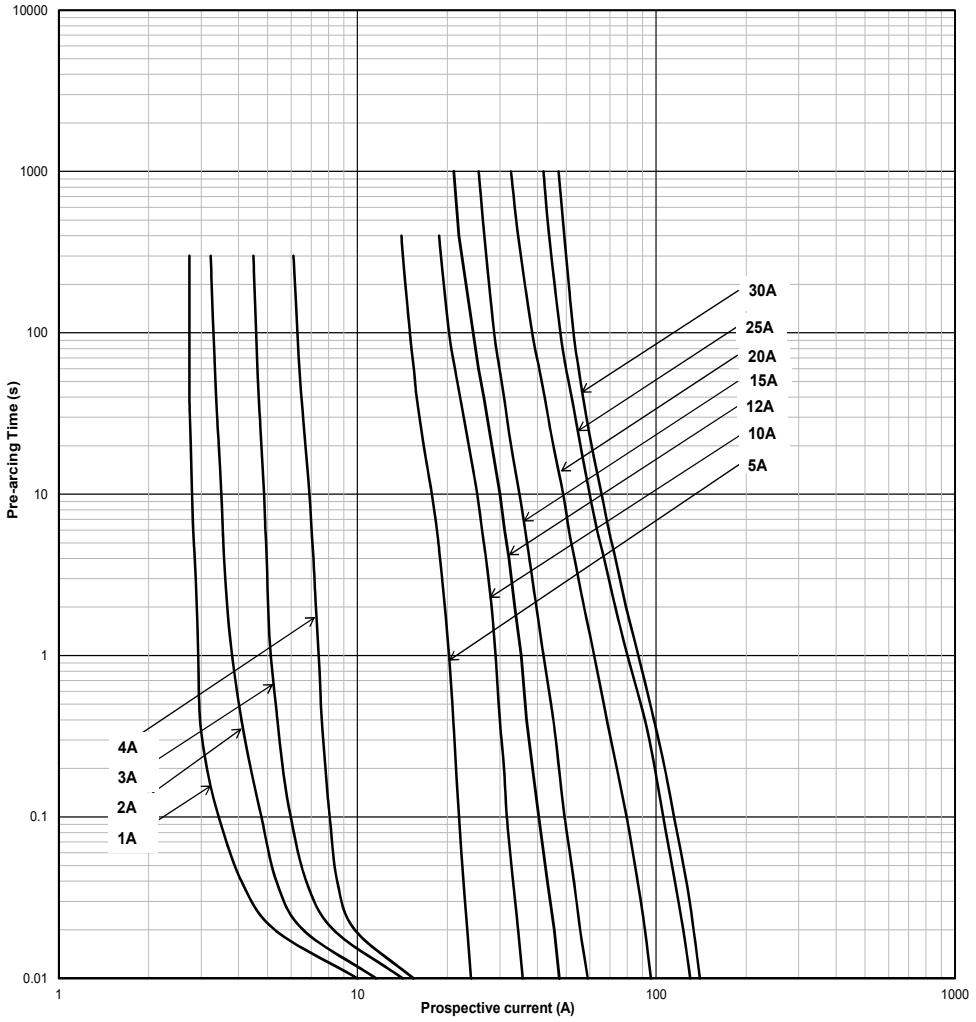



Data sheets: 720008, 5785298, 5785578

# Ferrule fuse links

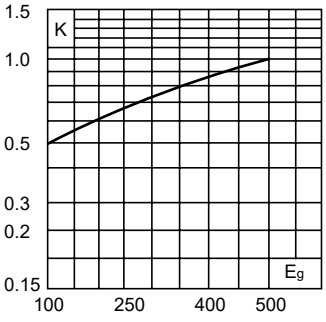
## 500 V a.c. / V d.c. (UL) - 1 A to 30 A - 14 x 51 mm - FWH

### Time-current curve - 1 A to 30 A



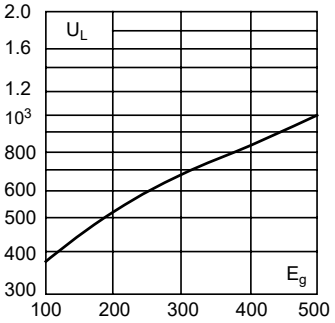

### Total clearing I²t

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).



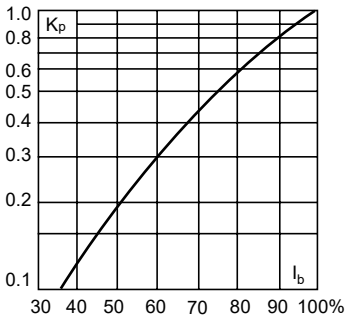

### Arc voltage

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: 720008, 5785298, 5785578

# 600-700 V a.c. / 700 V d.c. (UL) - 1 A to 32A - 10 x 38 mm - FWC




## Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

## Technical data

- Rated voltage:
  - 700 V a.c. / V d.c. (UL, 1 A to 4 A)
  - 600 V a.c. (UL, 6 A to 32 A), 700 V d.c. (UL, 6 A to 25 A)
- Rated current: 1 A to 32 A
- Breaking capacity:
  - 200 kA RMS Sym. at 600 V a.c. (6 A to 32 A)
  - 200 kA RMS Sym. at 700 V a.c. (1 A to 4 A)
  - 10 kA DC at 700 V d.c. (1 A to 25 A)
- Operating class: aR

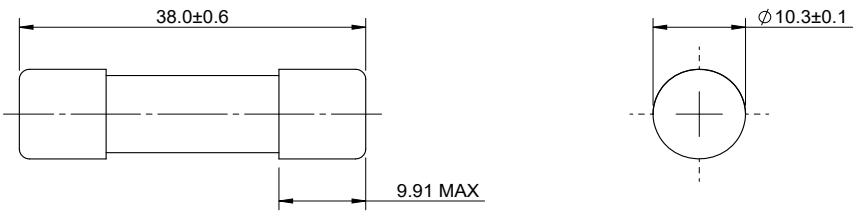
## Standards / Agency information

CE, UL Recognised: 6 A to 32 A

## Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | |
|---|---|---|---|---|---|---|
| **Fuse link size** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 600 V a.c.** | **Watts loss (W)** | **Catalogue numbers** |
| 10 x 38 mm (13/32" x 1½") | 700 V a.c. / V d.c. (UL) | 1 | 0.2 | 1.2 | 0.5 | FWC-1A10F |
| | | 2 | 0.5 | 3 | 1.2 | FWC-2A10F |
| | | 3 | 1.6 | 11 | 1.5 | FWC-3A10F |
| | | 4 | 5.2 | 32 | 1.5 | FWC-4A10F |
| | 600 V a.c./ 700 V d.c. (UL) | 6 | 4 | 30 | 1.5 | FWC-6A10F |
| | | 8 | 6 | 50 | 2 | FWC-8A10F |
| | | 10 | 9 | 70 | 2.5 | FWC-10A10F |
| | | 12 | 15 | 120 | 3 | FWC-12A10F |
| | | 16 | 25 | 150 | 3.5 | FWC-16A10F |
| | | 20 | 34 | 260 | 4.8 | FWC-20A10F |
| | | 25 | 60 | 390 | 6 | FWC-25A10F |
| | 600 V a.c. (UL) | 30 | 95 | 600 | 7.5 | FWC-30A10F |
| | | 32 | 95 | 600 | 7.5 | FWC-32A10F |

## Dimensions - mm

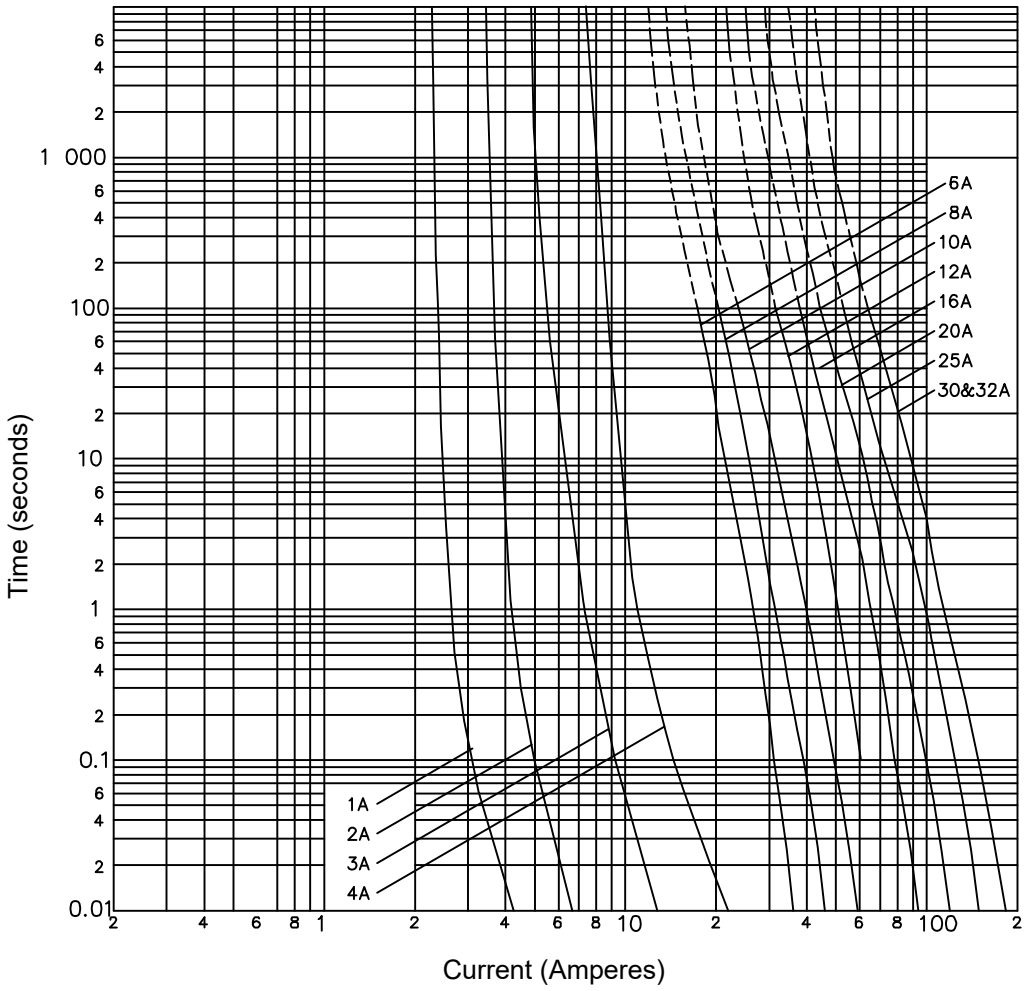



Data sheets: 720011, 5785306

# Ferrule fuse links

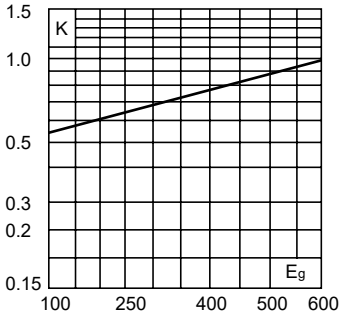
## 600-700 V a.c. / 700 V d.c. (UL) - 1 A to 32A - 10 x 38 mm - FWC

### Time-current curve - 1 A to 32 A



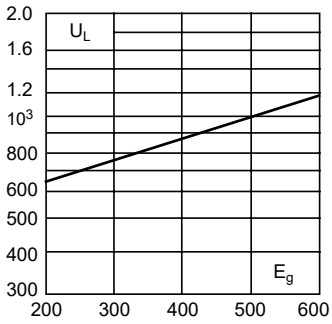

### Total clearing $I^2t$

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).



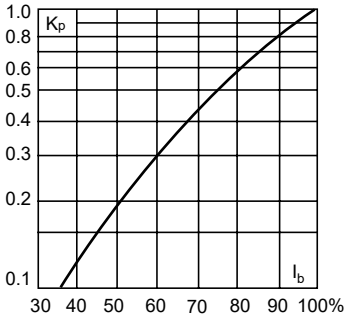

### Arc voltage

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: 720011, 5785306

# 690 V a.c. (IEC) - 4 A to 32 A - 10 x 38 mm - gR - FWP

## Description

The 10 x 38 mm cylindrical, class gR fuse links are used to protect AC/DC Drives and semi-conductors.




## Technical data

- Rated voltage: see details in table below
- Rated current: 4 A to 32 A
- Breaking capacity: 200 kA a.c.
- Operating class: gR

## Compatible fuse holder

CHM

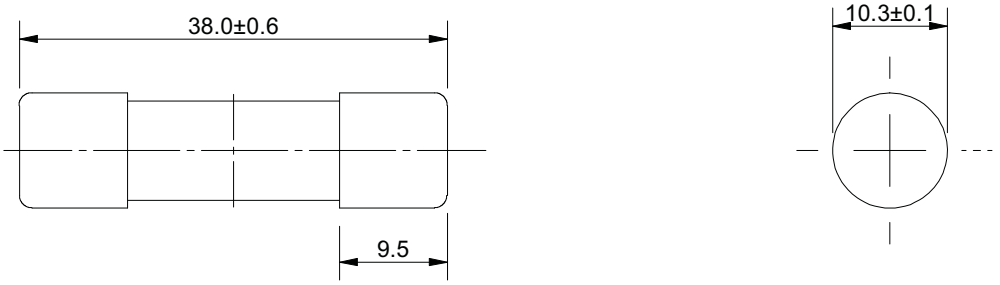
## Standards / Agency information

IEC 60269-4, UL 248-13

## Catalogue numbers

| Fuse link size | Type | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 690 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|---|
| 10 x 38 mm | Without indicator | 690 V a.c. (IEC)<br>500 V d.c.. (UL) | 4 | 5.6 | 17 | 2.05 | FWP-4G10F |
| | | | 6 | 16 | 48 | 3 | FWP-6G10F |
| | | 690 V a.c. (IEC)<br>700 V a.c. (UL) | 8 | 4.3 | 38 | 1.68 | FWP-8G10F |
| | | | 10 | 6.6 | 59 | 2.09 | FWP-10G10F |
| | | | 12 | 9.6 | 84 | 2.99 | FWP-12G10F |
| | | | 16 | 17 | 150 | 4.27 | FWP-16G10F |
| | | | 20 | 23.5 | 200 | 5.35 | FWP-20G10F |
| | | | 25 | 60.2 | 512 | 5.52 | FWP-25G10F |
| | | | 32 | 94 | 800 | 7.43 | FWP-32G10F |

## Dimensions (mm)

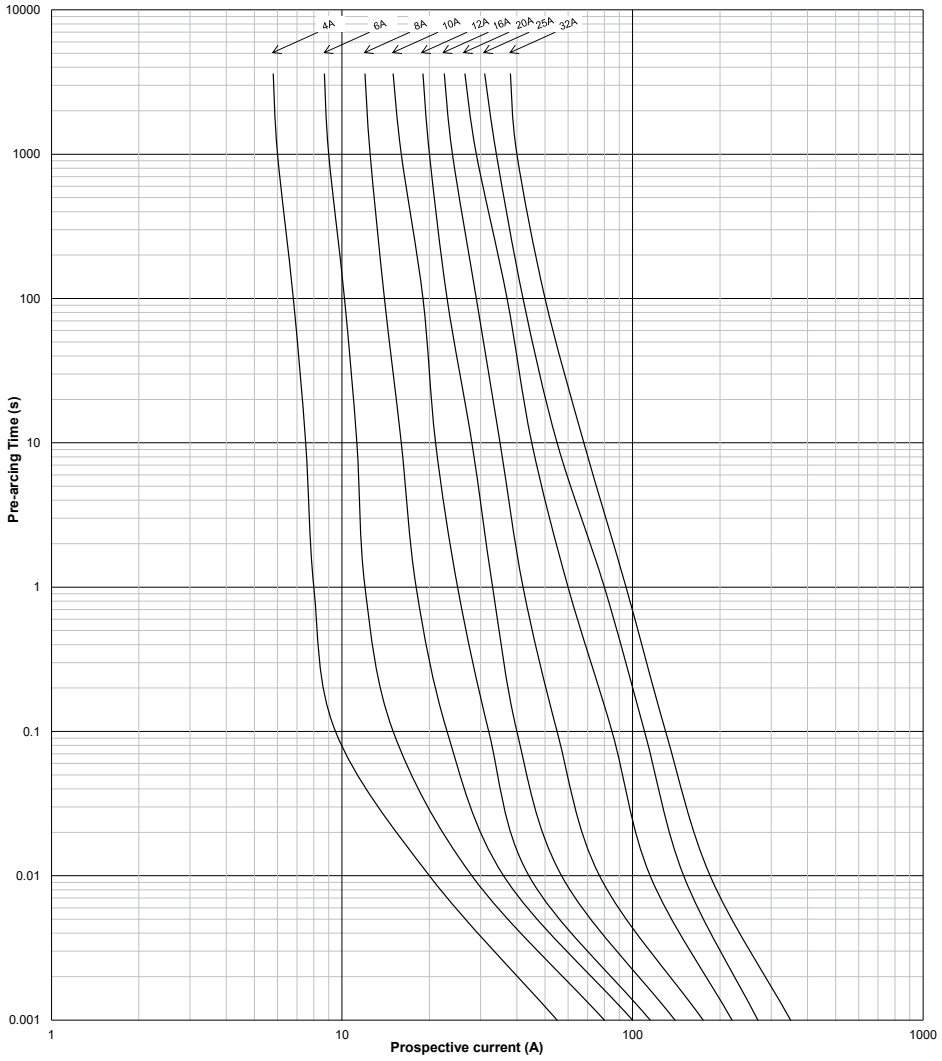



Data sheet: 10467

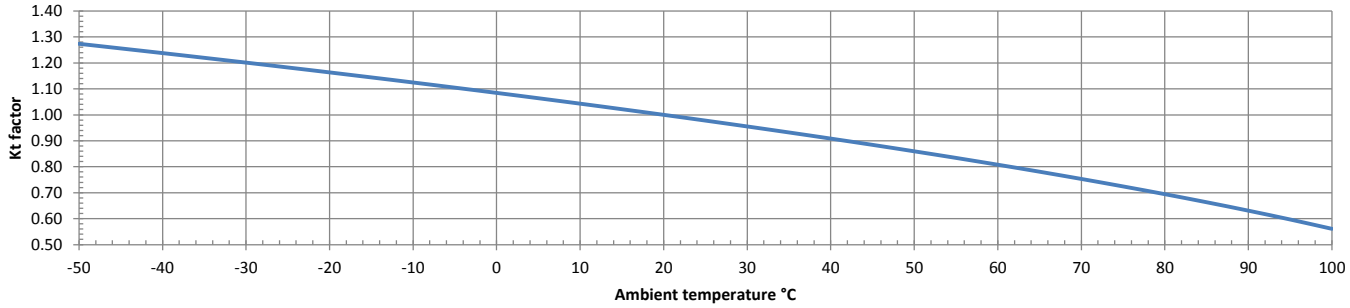
# Ferrule fuse links

## 690 V a.c. (IEC) - 4 A to 32 A - 10 x 38 mm - gR - FWP

### Time-current curve - 4 A to 32 A



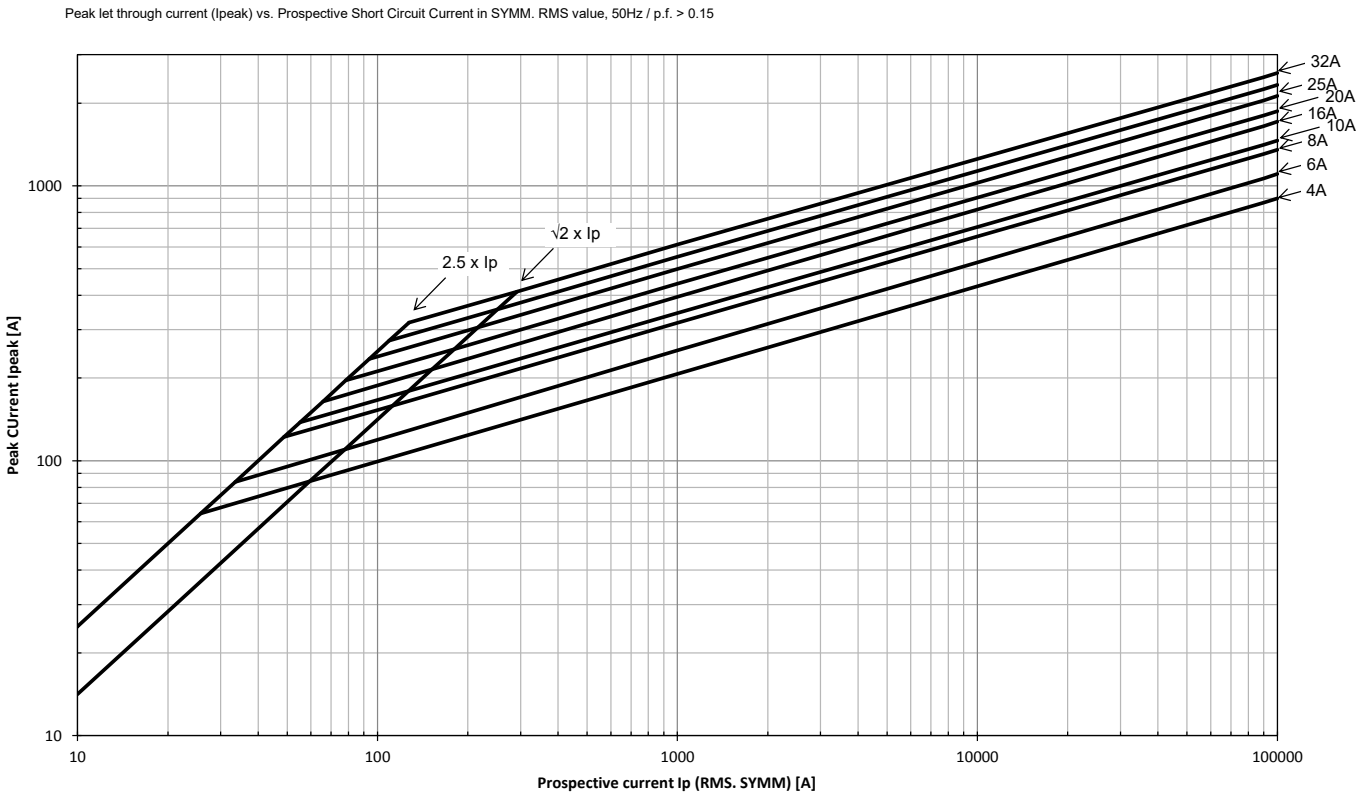

### Ambient temperature




Data sheet: 10467

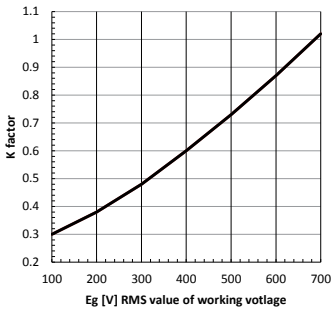
# 690 V a.c. (IEC) - 4 A to 32 A - 10 x 38 mm - gR - FWP

## Cut-off curve- 2 A to 32 A



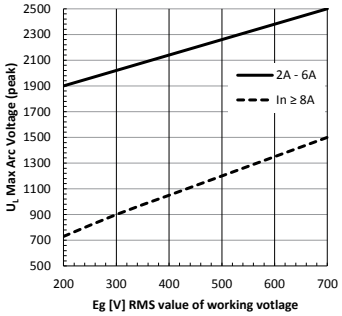

### Total clearing $I^2t$

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).



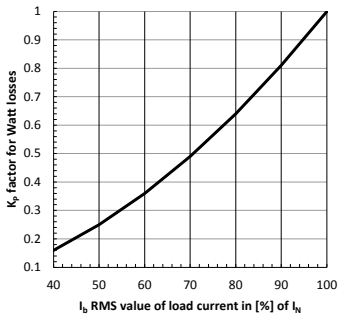

### Arc voltage

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 sheet: 10467

# Ferrule fuse links

## 690 V a.c. (IEC) - 4 A to 50 A - 14 x 51 mm - gR - FWP

### Description

The 14 x 51 mm cylindrical, class gR fuse links are used to protect AC/DC Drives and semi-conductors.




### Technical data

- Rated voltage: 690 V a.c. (IEC)
- Rated current: 4 A to 50 A
- Breaking capacity: 200 kA a.c.
- Operating class: gR

### Compatible modular fuse holder

- CH14

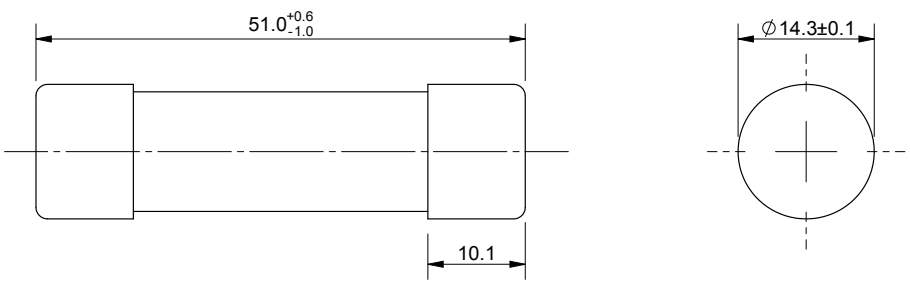
### Standards / Agency information

IEC 60269-4, UL 248-13

### Catalogue numbers

| Fuse link size | Type | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 690 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|---|
| 14 x 51 mm | Without indicator | 690 V a.c. (IEC) | 4 | 5.6 | 17 | 2.94 | FWP-4G14F |
| | | | 6 | 16 | 48 | 4.2 | FWP-6G14F |
| | | | 8 | 3.8 | 30 | 2 | FWP-8G14F |
| | | | 10 | 5.9 | 47 | 2.52 | FWP-10G14F |
| | | | 12 | 8.4 | 68 | 3.54 | FWP-12G14F |
| | | | 16 | 15 | 120 | 4.83 | FWP-16G14F |
| | | | 20 | 27 | 170 | 5.4 | FWP-20G14F |
| | | | 25 | 53 | 333 | 6 | FWP-25G14F |
| | | | 32 | 108 | 679 | 6.93 | FWP-32G14F |
| | | | 40 | 211 | 1331 | 7.52 | FWP-40G14F |
| | | | 50 | 350 | 2200 | 9.8 | FWP-50G14F |
| | With indicator | 690 V a.c. (IEC) | 8 | 3.8 | 30 | 2 | FWP-8G14FI |
| | | | 10 | 5.9 | 47 | 2.52 | FWP-10G14FI |
| | | | 12 | 8.4 | 68 | 3.54 | FWP-12G14FI |
| | | | 16 | 15 | 120 | 4.83 | FWP-16G14FI |
| | | | 20 | 27 | 170 | 5.4 | FWP-20G14FI |
| | | | 25 | 53 | 333 | 6 | FWP-25G14FI |
| | | | 32 | 108 | 679 | 6.93 | FWP-32G14FI |
| | | | 40 | 211 | 1331 | 7.52 | FWP-40G14FI |
| | | | 50 | 350 | 2200 | 9.8 | FWP-50G14FI |

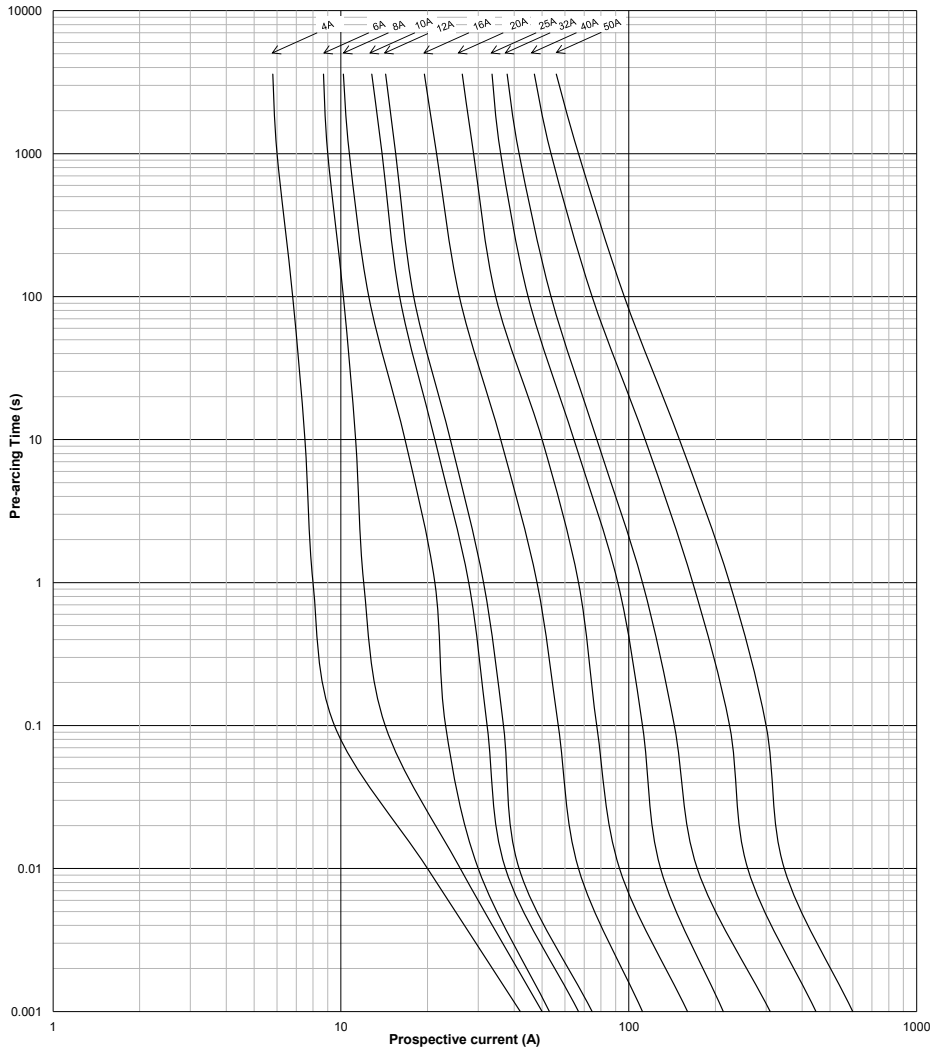
### Dimensions (mm)



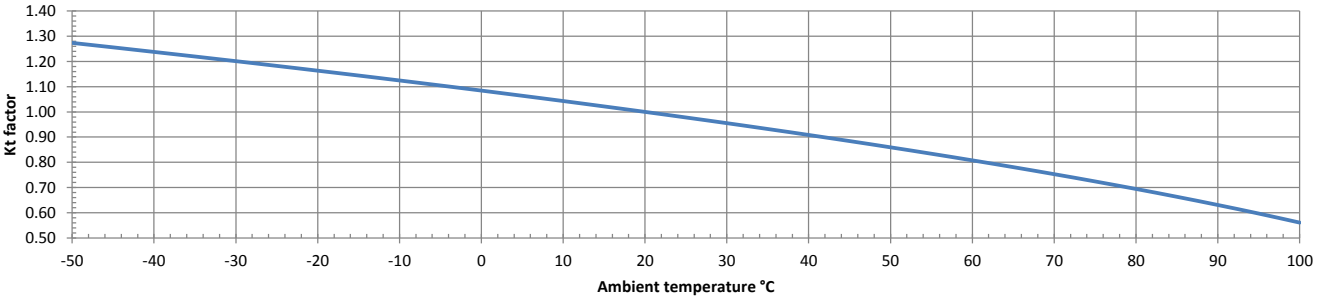

Data sheet: 10468

# 690 V a.c. (IEC) - 4 A to 50 A - 14 x 51 mm - gR - FWP

## Time-current curve - 4 A to 50 A




## Ambient temperature

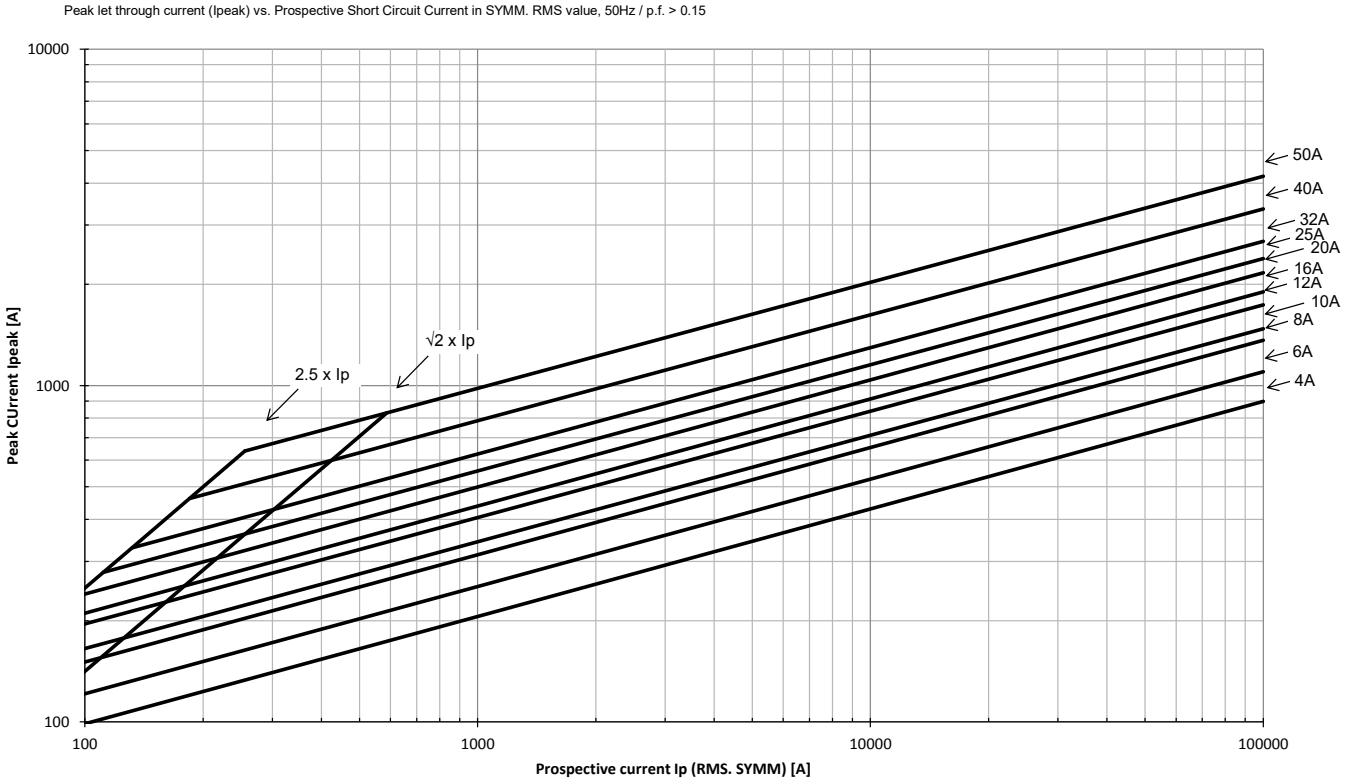



Data sheet: 10468

# Ferrule fuse links

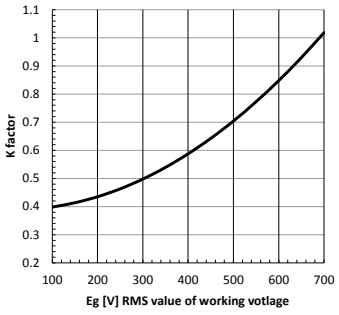
## 690 V a.c. (IEC) - 4 A to 50 A - 14 x 51 mm - gR - FWP

### Cut-off curve - 4 A to 50 A



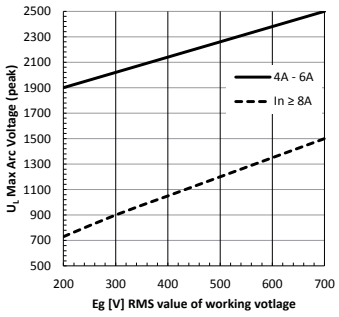

### Total clearing $I^2t$

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).



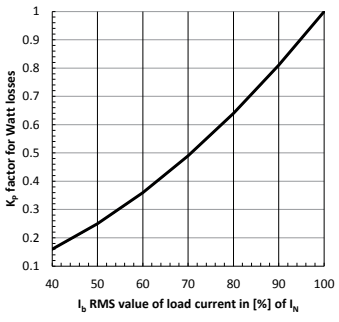

### Arc voltage

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 sheet: 10468

# 690 V a.c. (IEC) - 20 A to 100 A - 22 x 58 mm - gR - FWP

## Description

The 22 x 58 mm cylindrical, class gR fuse links are used to protect AC/DC Drives and semi-conductors.




## Technical data

- Rated voltage: 690 V a.c. (IEC)
- Rated current: 20 A to 100 A
- Breaking capacity: 200 kA a.c.
- Operating class: gR

## Compatible fuse holder

- CH22

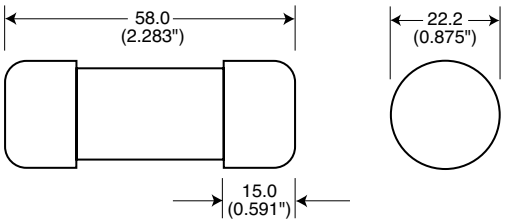
## Standards / Agency information

IEC 60269-4, UL 248-13

## Catalogue numbers

| Fuse link size | Type | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 690 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|---|
| 22 x 58 mm | Without indicator | 690 V a.c. (IEC) | 20 | 24 | 154 | 6.00 | FWP-20G22F |
| | | | 25 | 43 | 274 | 6.65 | FWP-25G22F |
| | | | 32 | 97 | 616 | 9.21 | FWP-32G22F |
| | | | 40 | 180 | 899 | 8.24 | FWP-40G22F |
| | | | 50 | 273 | 1362 | 11.85 | FWP-50G22F |
| | | | 63 | 516 | 2575 | 13.80 | FWP-63G22F |
| | | | 80 | 1092 | 5448 | 14.00 | FWP-80G22F |
| | | | 100 | 2065 | 10,300 | 17.70 | FWP-100G22F |
| | With indicator | 690 V a.c. (IEC) | 20 | 24 | 154 | 6.00 | FWP-20G22FI |
| | | | 25 | 43 | 274 | 6.65 | FWP-25G22FI |
| | | | 32 | 97 | 616 | 9.21 | FWP-32G22FI |
| | | | 40 | 180 | 899 | 8.24 | FWP-40G22FI |
| | | | 50 | 273 | 1362 | 11.85 | FWP-50G22FI |
| | | | 63 | 516 | 2575 | 13.80 | FWP-63G22FI |
| | | | 80 | 1092 | 5448 | 14.00 | FWP-80G22FI |
| | | | 100 | 2065 | 10,300 | 17.70 | FWP-100G22FI |

## Dimensions - mm (in)

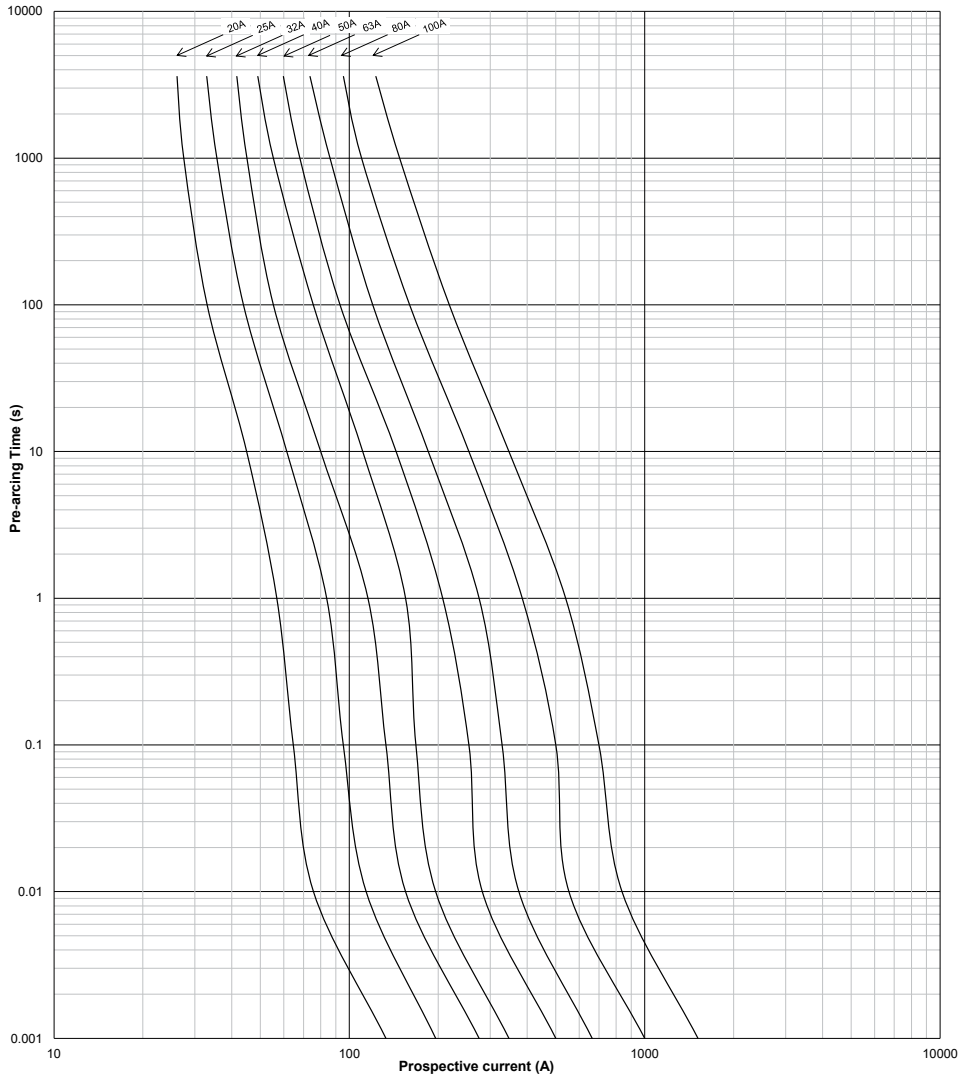



Data sheet: 10469

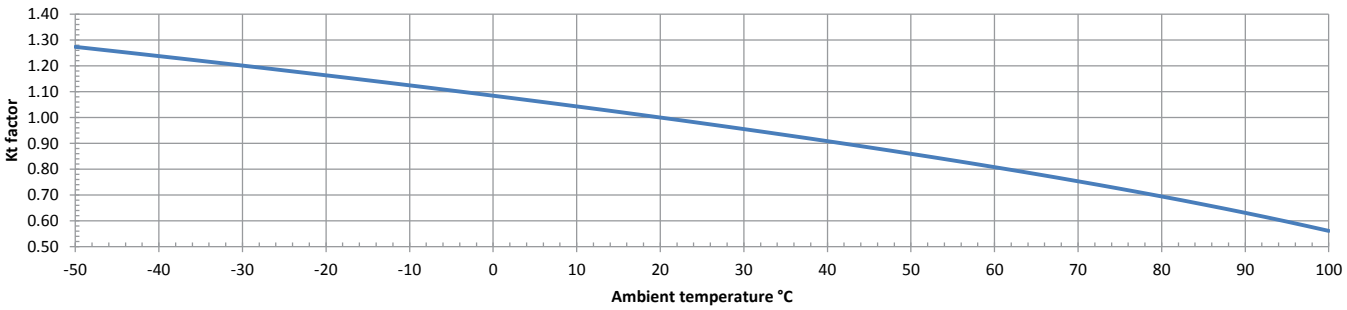
# Ferrule fuse links

## 690 V a.c. (IEC) - 20 A to 100 A - 22 x 58 mm - gR - FWP

### Time-current curve - 20 A to 100 A



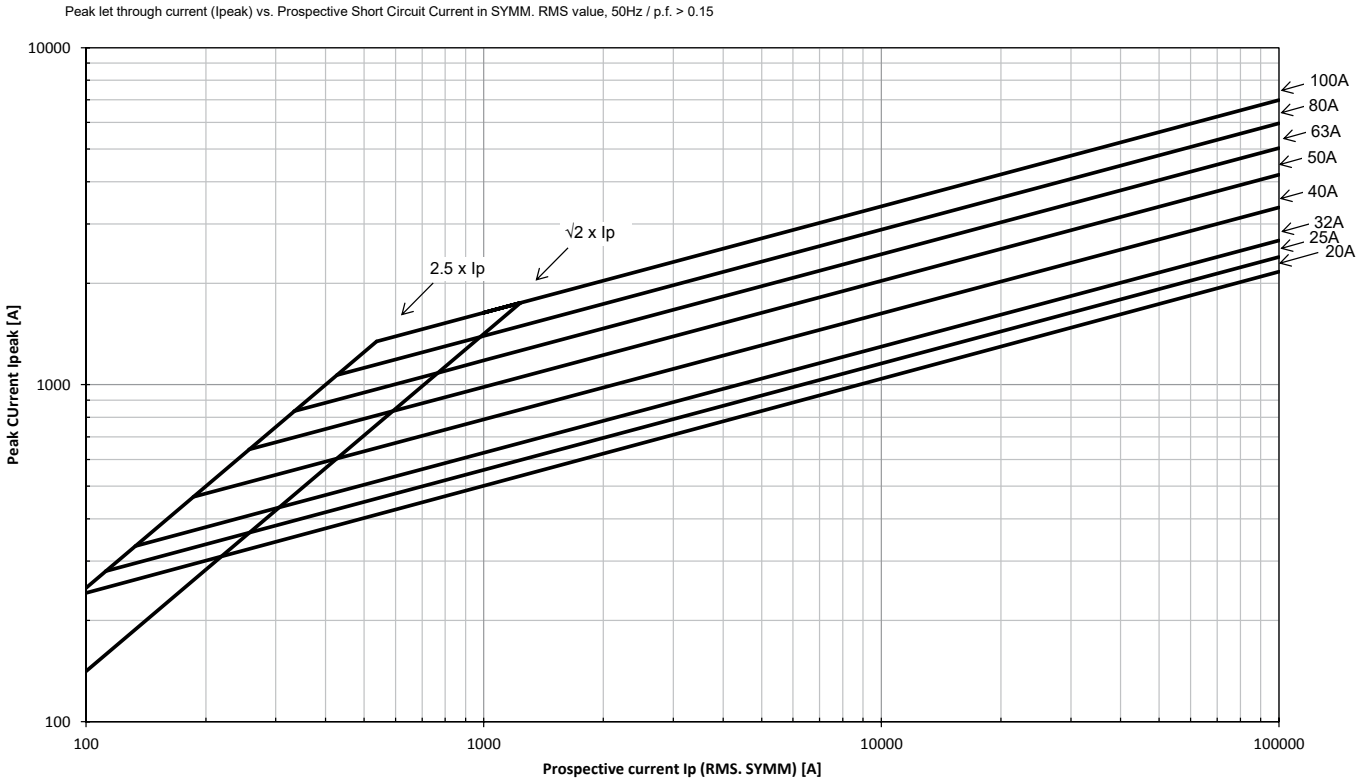

### Ambient temperature




Data sheet: 10469

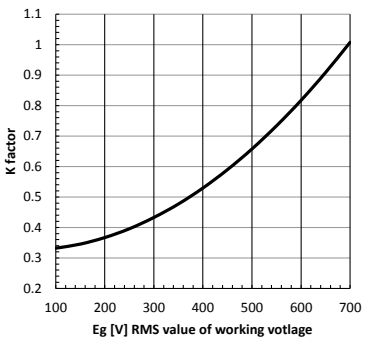
# 690 V a.c. (IEC) - 20 A to 100 A - 22 x 58 mm - gR - FWP

## Cut-off curve - 20 A to 100 A



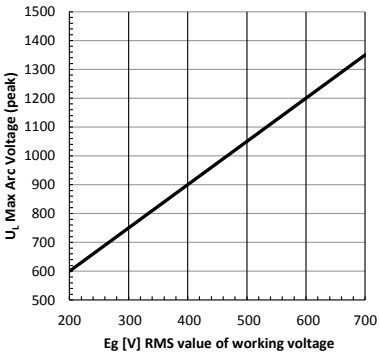

### Total clearing $I^2t$

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).



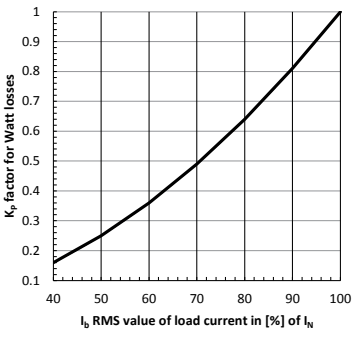

### Arc voltage

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 sheet: 10469

# Ferrule fuse links

## 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 1 A to 63 A - 14 x 51 mm - FWP

### Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with or without striker.




### Technical data

- Rated voltage:
  - Without striker: see table
  - With striker: 700 V a.c. / 600 V d.c. (UL)
- Rated current:
  - Without striker: 1 A to 63 A
  - With striker: 1 A to 50 A
- Breaking capacity:
  - 200 kA RMS Sym.
  - 50 kA at 700 V d.c. (5 A to 50 A non striker version)
  - 600 V d.c. for striker version
- Operating class: aR

### Compatible modular fuse holder

- CH14

### Standards / Agency information

CE, UL recognised & CSA component acceptance for versions without striker only, CCC certified 5 A to 50 A

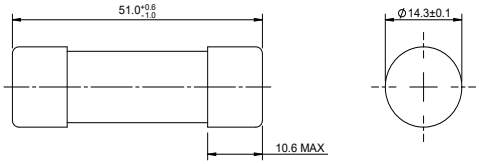
### Catalogue numbers

| | | | | $I^2t$ ($A^2$ Sec) | | | |
|---|---|---|---|---|---|---|---|
| **Fuse link type** | **Fuse link size** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 700 V a.c.** | **Watts loss (W)** | **Catalogue numbers** |
| Without striker | 14 x 51 mm (9/16" x 2") | 700 V a.c. (UL) | 1 | 0.04 | 0.41 | 5.7 | FWP-1A14F |
| | | | 2 | 0.08 | 0.11 | 8.7 | FWP-2A14F |
| | | | 3 | 0.11 | 0.26 | 2.8 | FWP-3A14F |
| | | | 4 | 0.1 | 0.23 | 3 | FWP-4A14F |
| | | 700 V a.c. / 700 V d.c. (UL) 690 V a.c. (IEC) | 5 | 2 | 11 | 1.5 | FWP-5A14F |
| | | | 6 | 2 | 11 | 1.5 | FWP-6A14F |
| | | | 10 | 4 | 22 | 4 | FWP-10A14F |
| | | | 15 | 10 | 70 | 5.5 | FWP-15A14F |
| | | | 20 | 26 | 180 | 6.5 | FWP-20A14F |
| | | | 25 | 49 | 320 | 7 | FWP-25A14F |
| | | | 30 | 58 | 400 | 9 | FWP-30A14F |
| | | | 32 | 68 | 600 | 8 | FWP-32A14F |
| | | | 40 | 84 | 750 | 8 | FWP-40A14F |
| | | | 50 | 200 | 1800 | 9 | FWP-50A14F |
| | | | 63 | 390 | 2516 | 10 | FWP-63A14F |
| With striker | 14 x 51 mm (9/16" x 2") | 700 V a.c. / 600 V d.c. (UL) | 10 | 4 | 32 | 2 | FWP-10A14FI |
| | | | 15 | 7 | 63 | 4 | FWP-15A14FI |
| | | | 20 | 26 | 234 | 4 | FWP-20A14FI |
| | | | 25 | 42 | 378 | 4 | FWP-25A14FI |
| | | | 30 | 52 | 468 | 6 | FWP-30A14FI |
| | | | 32 | 68 | 600 | 8 | FWP-32A14FI |
| | | | 40 | 84 | 750 | 8 | FWP-40A14FI |
| | | | 50 | 200 | 1800 | 9 | FWP-50A14FI |

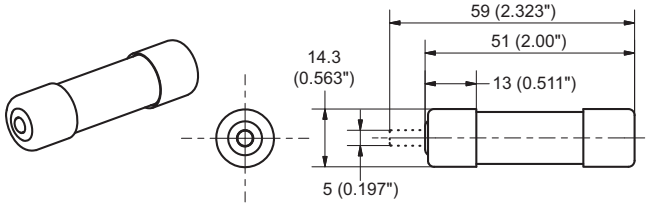
Data sheets: 720025, 5781724 fuses without striker; 5785566 fuses with striker, 5785626 (63 A)

# 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 1 A to 63 A - 14 x 51 mm - FWP

## Dimensions - mm (in)

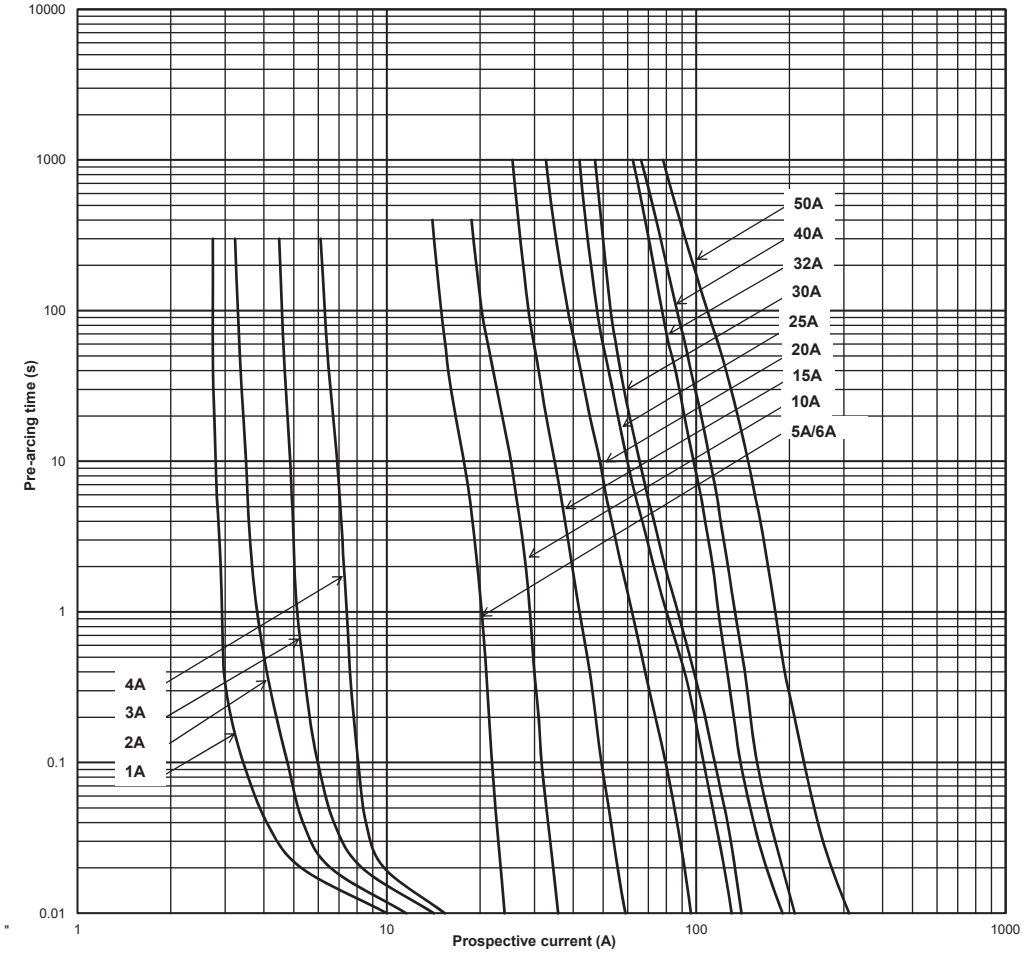



**Without striker**




**With striker**

## Time-current curve - 1 A to 50 A

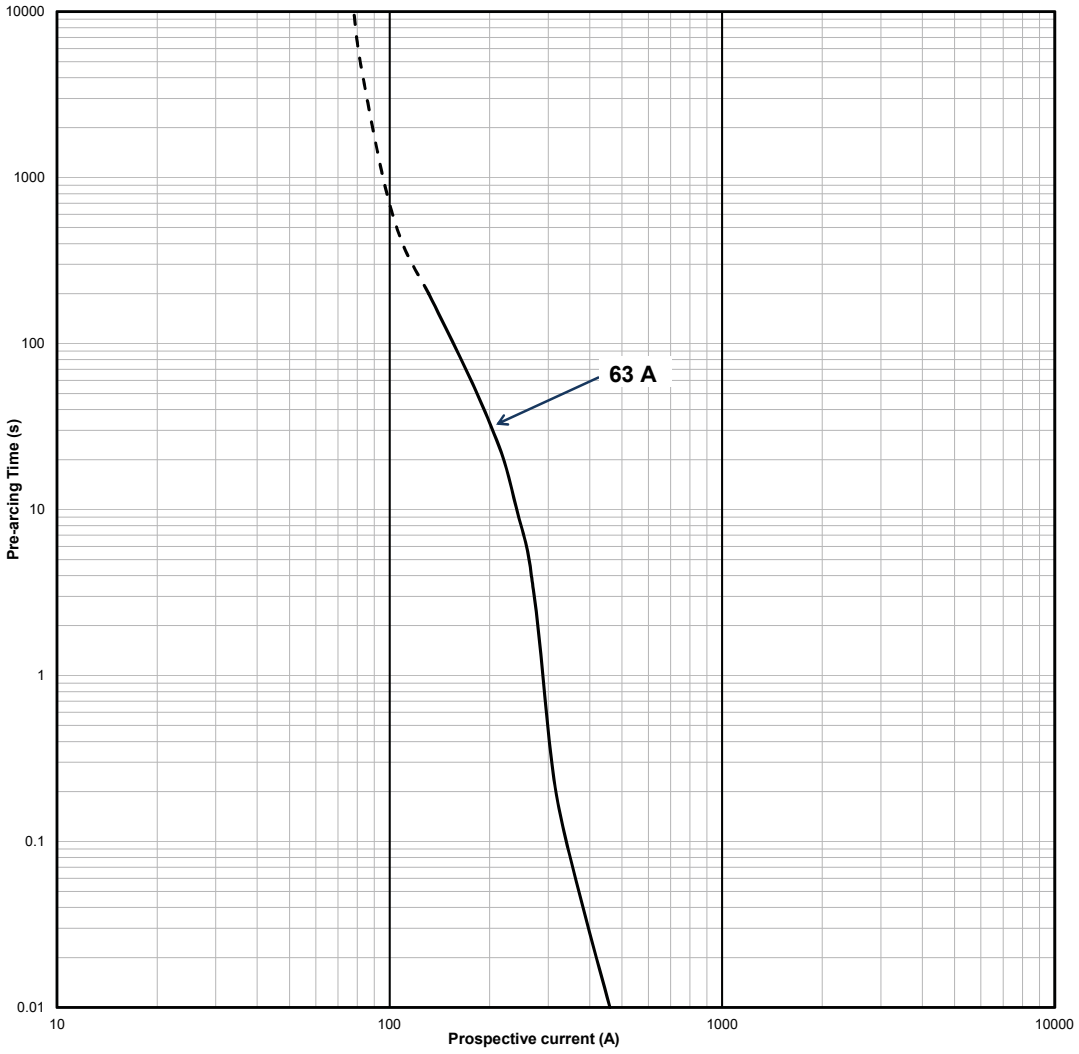



Data sheets: 720025, 5781724 fuses without striker; 5785566 fuses with striker, 5785626 (63 A)

# Ferrule fuse links

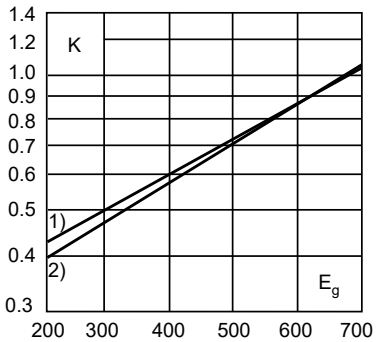
## 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 1 A to 63 A - 14 x 51 mm - FWP

### Time-current curve - 63 A



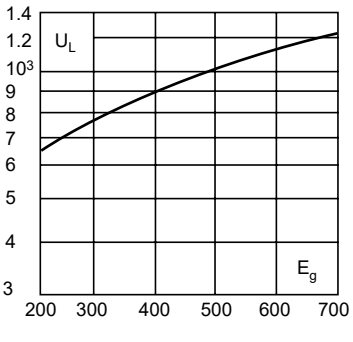

### Total clearing $I^2t$

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).



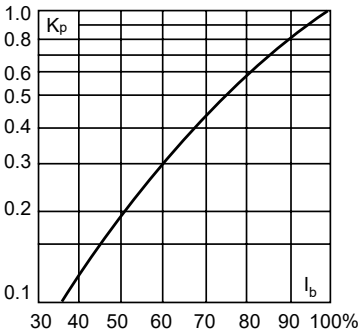

### Arc voltage

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: 720025, 5781724 fuses without striker; 5785566 fuses with striker, 5785626 (63 A)

# 700 V a.c. / V d.c. (UL) and 500 V d.c. (UL) - 20 A to 100 A - 22 x 58 mm - FWP

## Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with or without striker.




## Technical data

- Rated voltage: See details below
- Rated current: 20 A to 100 A
- Breaking capacity:
  - 200 kA RMS Sym.
  - 50 kA at 700 V d.c., t/c 5 ms
- Operating Class: aR

## Compatible modular fuse holder

- CH22

## Standards / Agency information

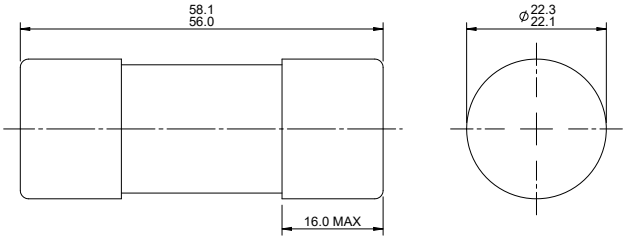
CE, UL Recognised, CSA Component Acceptance for versions without striker only,

CCC certified

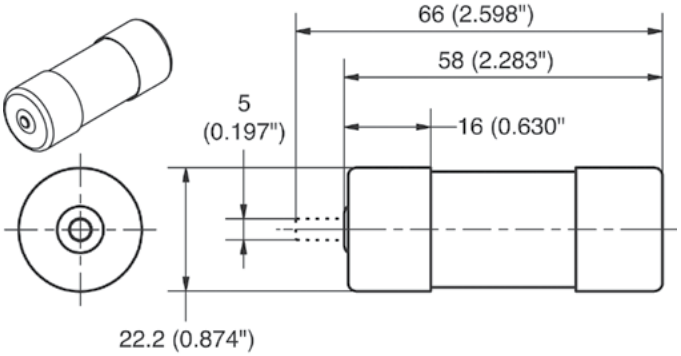
## Catalogue numbers

| Fuse link type | Fuse link size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 700 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|---|
| Without striker | 22 x 58 mm (7/8" x 2 9/32") | 700 V a.c./ 700 V d.c. (UL) | 20 | 23 | 330 | 5 | FWP-20A22F |
| | | | 25 | 37 | 530 | 6 | FWP-25A22F |
| | | | 32 | 55 | 780 | 8 | FWP-32A22F |
| | | | 40 | 68 | 960 | 12 | FWP-40A22F |
| | | | 50 | 155 | 2200 | 12.5 | FWP-50A22F |
| | | | 63 | 280 | 4000 | 15 | FWP-63A22F |
| | | | 80 | 550 | 7800 | 15 | FWP-80A22F |
| | | | 100 | 1100 | 15,600 | 16.5 | FWP-100A22F |
| With striker | 22 x 58 mm (7/8" x 2 9/32") | 700 V a.c./ 500 V d.c. (UL) | 20 | 19 | 260 | 5 | FWP-20A22FI |
| | | | 25 | 34 | 410 | 6 | FWP-25A22FI |
| | | | 32 | 53.5 | 605 | 8 | FWP-32A22FI |
| | | | 40 | 68 | 750 | 9 | FWP-40A22FI |
| | | | 50 | 135 | 1600 | 9.5 | FWP-50A22FI |
| | | | 63 | 280 | 3080 | 11 | FWP-63A22FI |
| | | | 80 | 600 | 6600 | 13.5 | FWP-80A22FI |
| | | | 100 | 1100 | 12,500 | 16 | FWP-100A22FI |

## Dimensions - mm, without striker




## Dimensions - mm (in), with striker

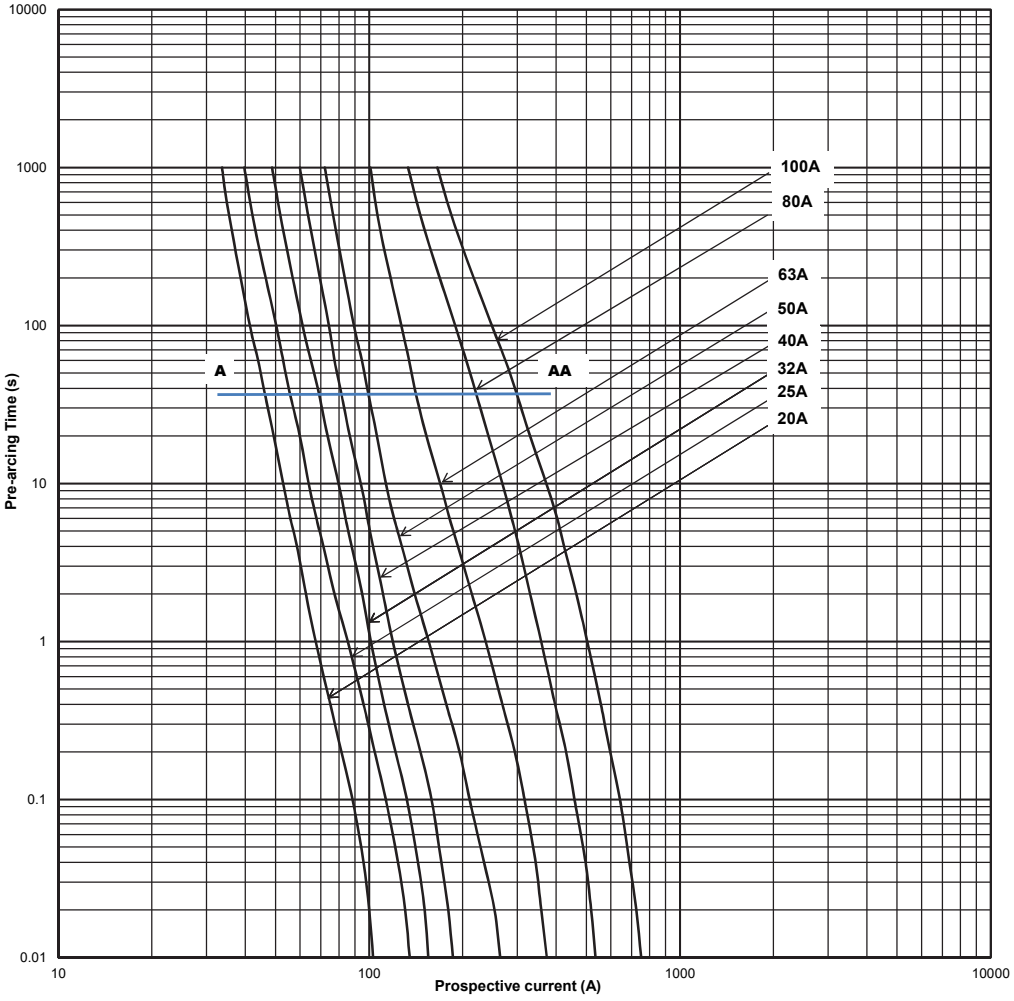



Data sheets: 720026, 5781723

# Ferrule fuse links

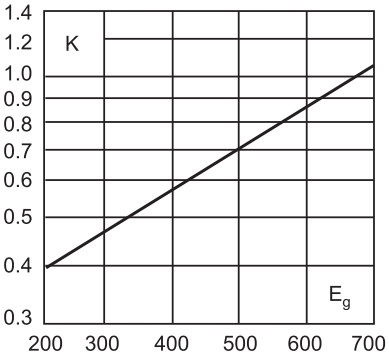
## 700 V a.c. / V d.c. (UL) and 500 V d.c. (UL) - 20 A to 100 A - 22 x 58 mm - FWP

### Time-current curve - 20 A to 100 A



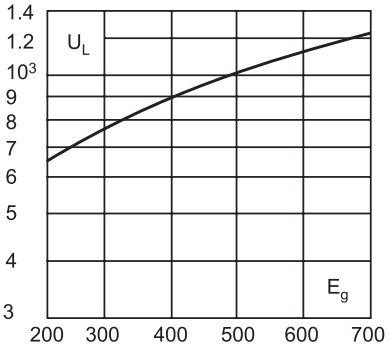

### Total clearing I²t

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).



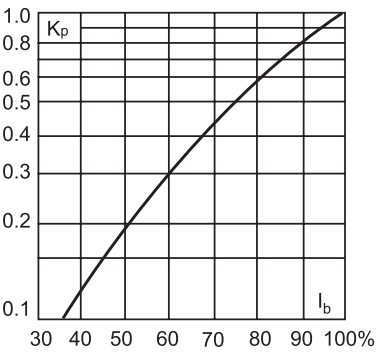

### Arc voltage

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: 720026, 5781723

# 750 V d.c. (IEC) - 5 A to 30 A - 20 x 127 mm - FWK

## Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.




## Technical Data

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

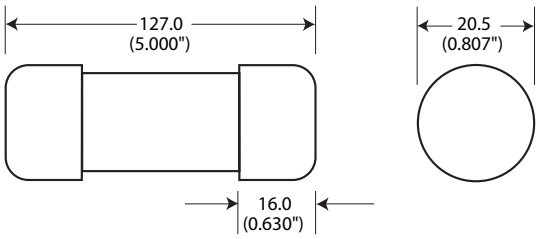
## Standards / Agency information:

CE

## Catalogue numbers

| Fuse link size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 750 V d.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|
| 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 |

## Dimensions - mm (in), 20 x 127 mm, 5 A to 30 A




Data sheets: 720039, 5785454

# Ferrule fuse links

## 1000 V a.c. / 800 V d.c. (UL) - 20 A to 30 A - 14 x 67 mm - FWJ

### Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.




### Technical data

- Rated voltage: 1000 V a.c. / 800 V d.c.
- Rated current: 20 A to 30 A
- Breaking capacity:
  - 25kA RMS Sym
  - 50 kA at 800 V d.c.
- Operating class: aR

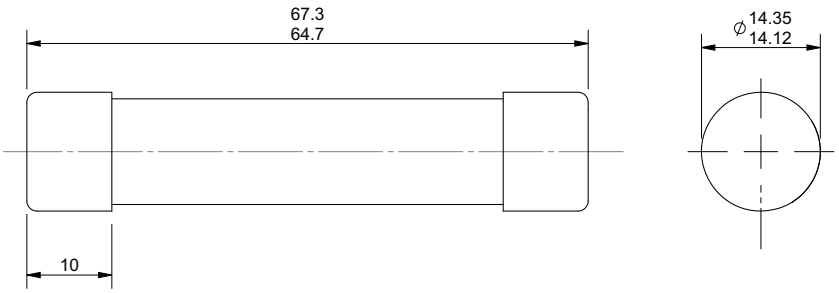
### Standards / Agency information

CE, UL Recognised

### Catalogue numbers

| Fuse link size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 1000 V a.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|
| 14 x 67 mm (9/16" x 2 5/8") | 1000 V a.c./ 800 V d.c. (UL) | 20 | 25 | 220 | 9 | FWJ-20A14F |
| | | 25 | 33 | 350 | 11 | FWJ-25A14F |
| | | 30 | 52 | 450 | 14 | FWJ-30A14F |

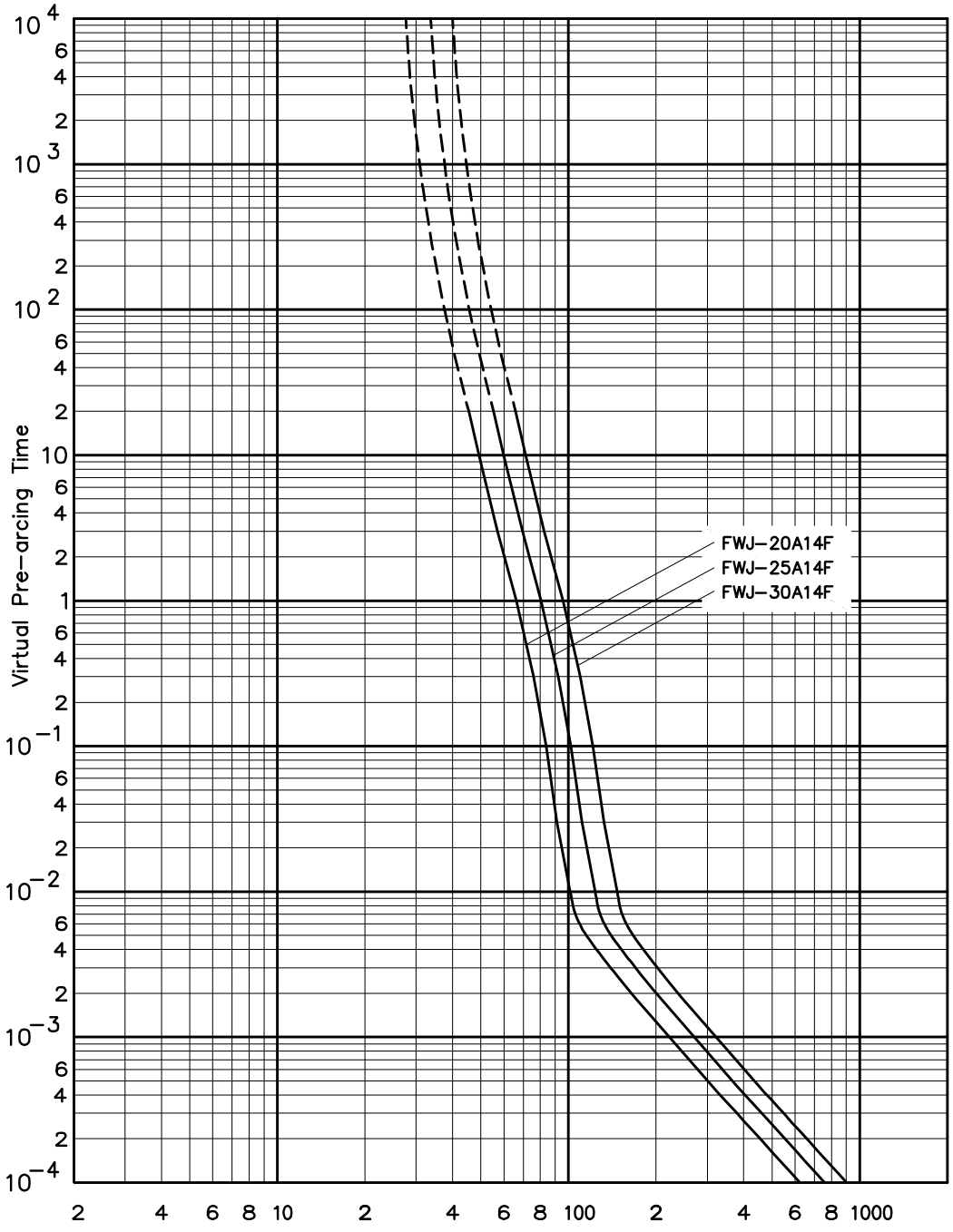
### Dimensions (mm)




Data sheets: 720028, 5785173, 5785315

## 1000 V a.c. / 800 V d.c. (UL) - 20 A to 30 A - 14 x 67 mm - FWJ

### Time-current curve - 20 A to 30 A




Data sheets: 720028, 5785173, 5785315

# Ferrule fuse links

## 1200 V a.c. / 1000 V d.c. (IEC) - 20 A to 30 A - 20 x 127 mm - FWL

### Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with indicator.




### Technical data

- Rated voltage: 1200 V a.c. / 1000 V d.c. (IEC)
- Rated current: 20 A, 25 A and 30 A
- Breaking capacity:
  - 50 kA RMS Sym
  - 50 kA at 1000 V d.c.
- Operating Class: gR

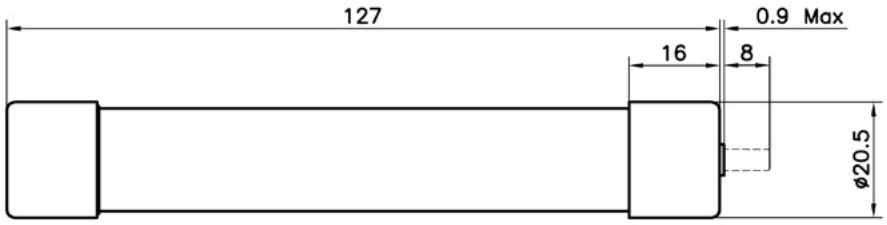
### Standards / Agency information

CE

### Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|
| **Fuse link size** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 1000 V a.c.** | **Watts loss (W)** | **Without indicator** | **With indicator** |
| 20 x 127 mm ($^{13}/_{16}$" x 5") | 1200 V a.c./ 1000 V d.c. (IEC) | 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 |

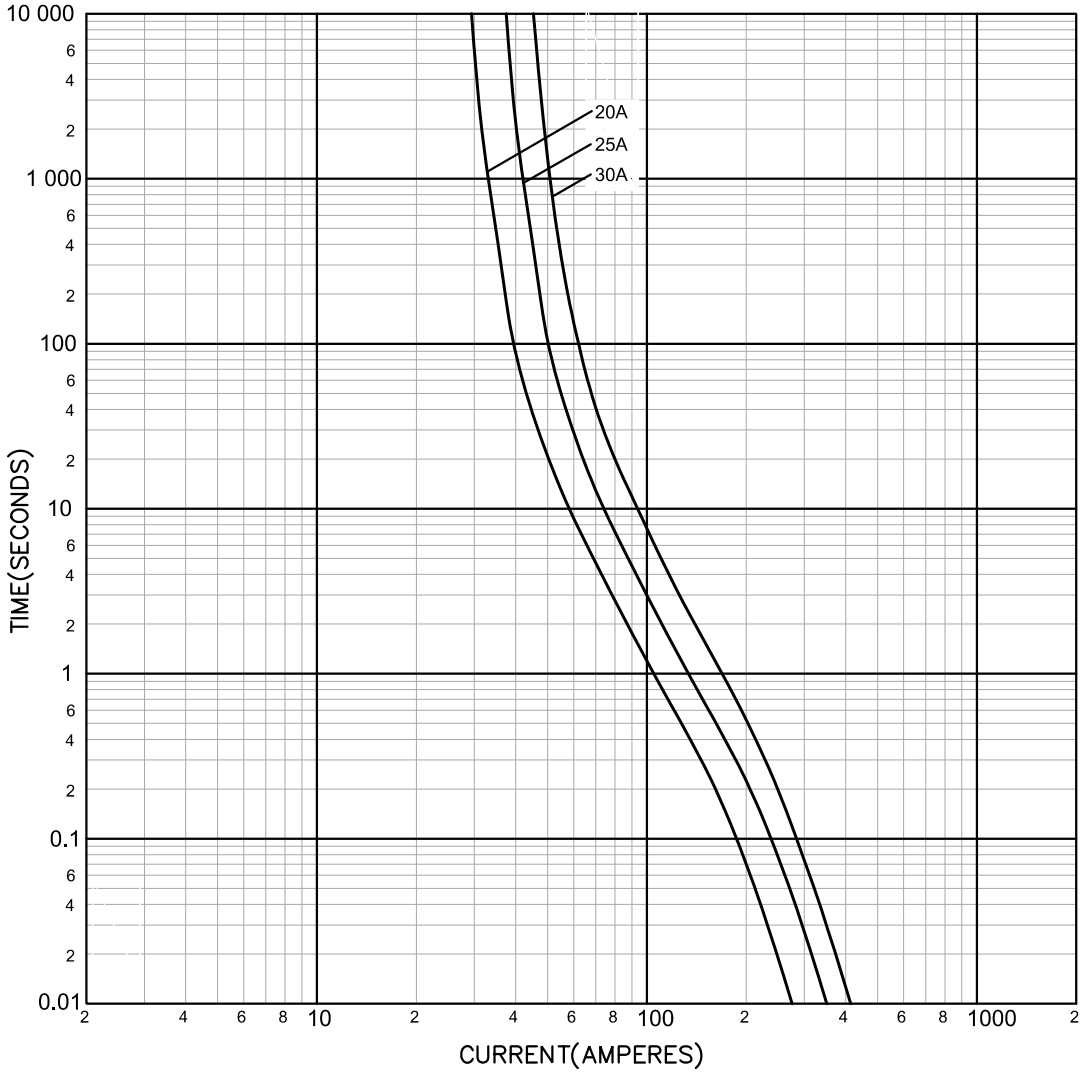
### Dimensions (mm)




Data sheet: 5785455

## 1200 V a.c. / 1000 V d.c. (IEC) - 20 A to 30 A - 20 x 127 mm - FWL

### Time-current curve - 20 A to 30 A




Data sheet: 5785455

# Ferrule fuse links

## 1400 - 2000 V a.c. / 1000 V d.c. (IEC) - 2 A to 15 A - 20 x 127 mm - FWS

### Description

Ferrule style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters. Available with indicator.




### Technical Data

- Rated voltage:
  - 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 15 A
- Breaking capacity:
  - 50 kA RMS Sym.
  - 50 kA at 1000 V d.c. (2 A to 10 A only)
- Operating class: gR

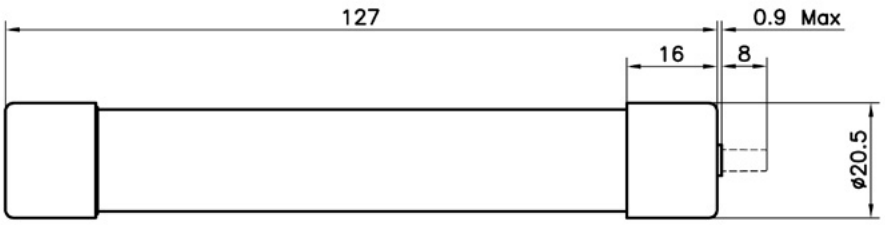
### Standards/Agency Information

CE

### Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|
| **Fuse link size** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 1000 V a.c.** | **Watts loss (W)** | **Without indicator** | **With indicator** |
| 20 x 127 mm ($^{13}/_{16}$" x 5") | 2000 V a.c./2000 V d.c.(IEC) | 2 | 0.8 | 2.4 | 4.4 | FWS-2A20F | FWS-2A20FI |
| | 2000 V a.c./1000 V d.c.(IEC) | 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 | FWS-10A20F | FWS-10A20FI |
| | | 12 | 170 | 380 | 3.4 | FWS-12A20F | FWS-12A20FI |
| | | 15 | 209 | 500 | 5 | FWS-15A20F | FWS-15A20FI |

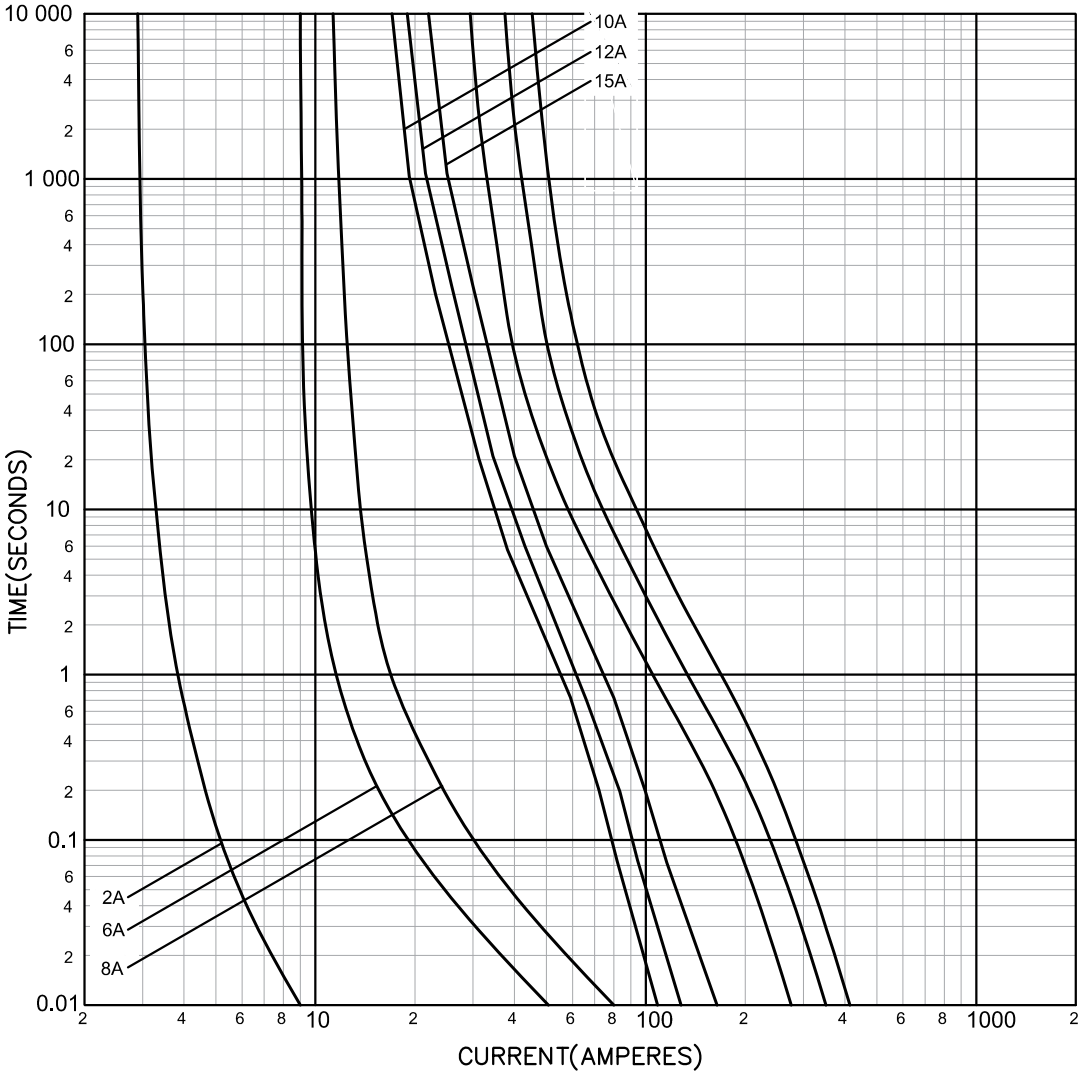
### Dimensions (mm)




Data sheets: 720040, 5785455

# 1400 - 2000 V a.c. / 1000 V d.c. (IEC) - 2 A to 15 A - 20 x 127 mm - FWS

## Time-current curve - 2 A to 15 A




Data sheets: 720040, 5785455

# Square body fuse links DIN 43653

## 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 10 A to 400 A - Sizes 000 and 00 - DIN 43653 - 170M

### Description

Square body DIN 43653 bolted tags high speed fuse links, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.



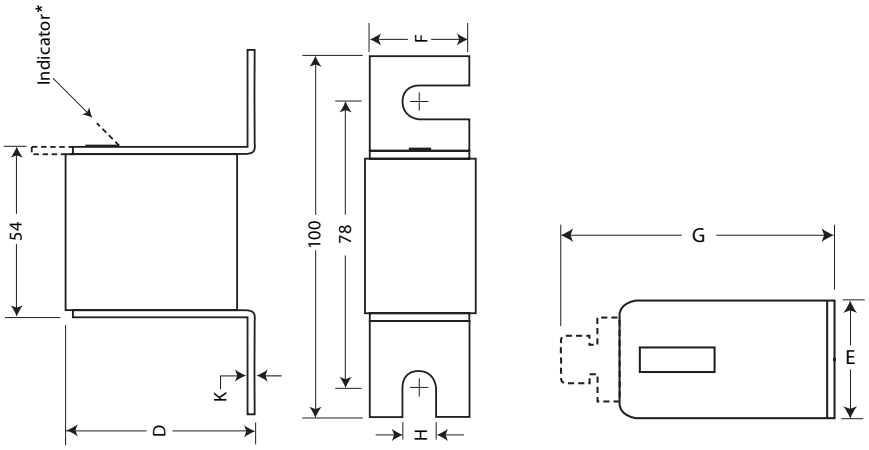

### Technical data

- Rated voltage:
  - 690 V a.c. (IEC)
  - 700 V a.c. (UL, size 000; size 00 100 A to 400 A)
  - 700 V d.c. (UL, size 000)
- Rated current: 10 A to 400 A
- Breaking capacity:
  - 200 kA RMS Sym
  - 50 kA at 700 V d.c. (size 000 only)
- Operating class
  - gR - size 000 (10 A to 63 A), size 00 (25 A to 80 A)
  - aR - size 000 (>63 A), size 00 (>80 A)

### Standards/Agency Information

CE, Designed and tested to IEC 60269 part 4. UL Recognised/CSA Component Acceptance on Size 000. CCC approved

### Dimensions (mm)




* Indication for Size 00 fuses is a red pin.

The dotted line illustrates the Type T indicator fuse link.

**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 |

Data sheets: 170K6310 (Size 000), 170K6312 (Size 00)

# 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 10 A to 400 A - Sizes 000 and 00 - DIN 43653 - 170M

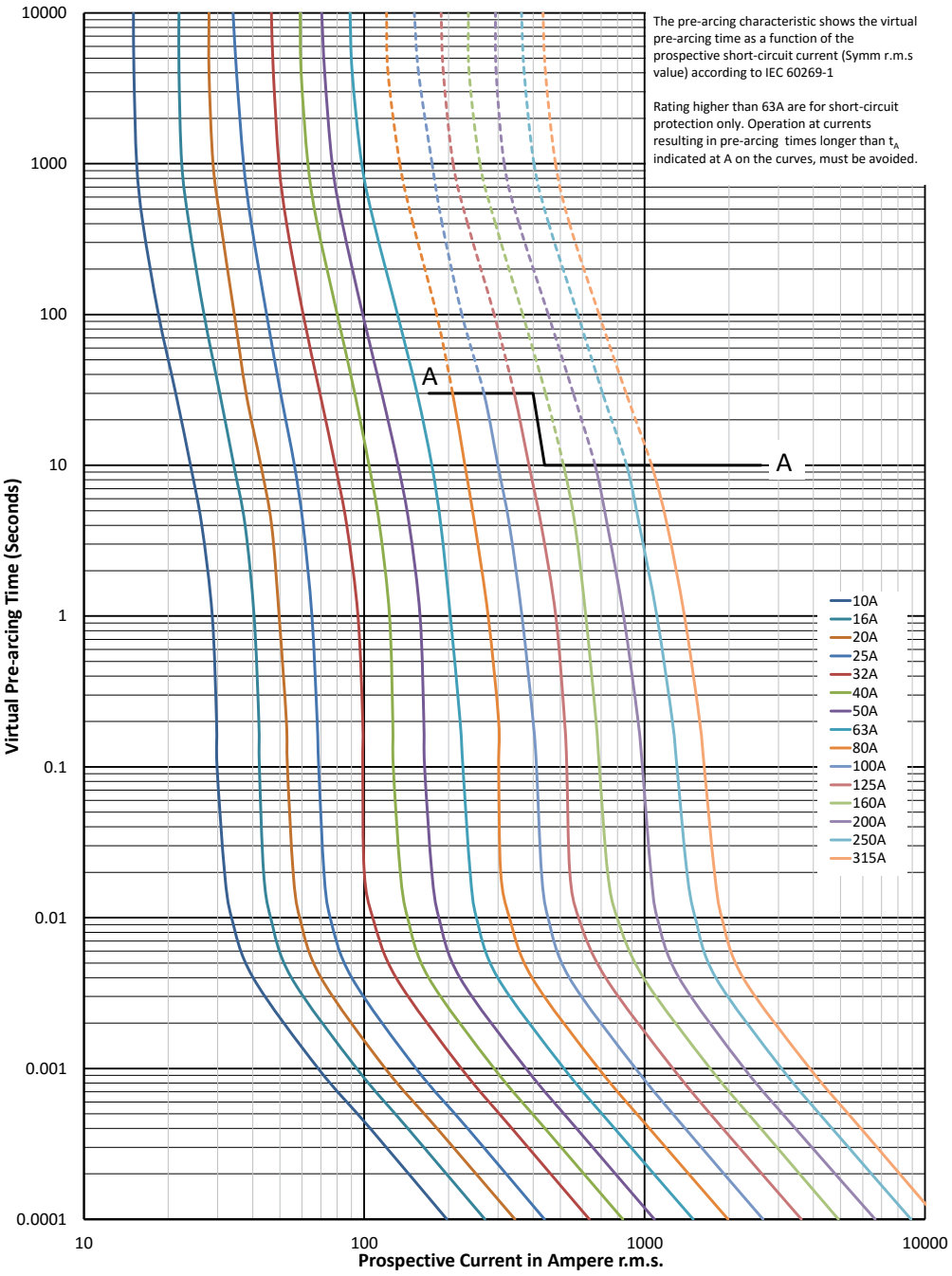
## Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | | Catalogue numbers | | |
|---|---|---|---|---|---|---|---|---|---|
| **Fuse link body size** | **Rated voltage** | **Rated current (Amps)** | **Pre-Arcing** | **Clearing at 660 V a.c.** | **Watts loss (W)** | **Operating class** | **-U/80 Without indicator** | **-/80 Visual indicator** | **-TN/80 Type T indicator for micro** |
| 000 | 690 V a.c. (IEC) 700 V a.c. / V d.c. (UL) | 10 | 3.8 | 25.5 | 3 | gR | 170M1308 | 170M1358 | 170M1408 |
| | | 16 | 7.2 | 48 | 5.5 | | 170M1309 | 170M1359 | 170M1409 |
| | | 20 | 11.5 | 78 | 7 | | 170M1310 | 170M1360 | 170M1410 |
| | | 25 | 19 | 130 | 9 | | 170M1311 | 170M1361 | 170M1411 |
| | | 32 | 40 | 270 | 10 | | 170M1312 | 170M1362 | 170M1412 |
| | | 40 | 69 | 460 | 12 | | 170M1313 | 170M1363 | 170M1413 |
| | | 50 | 115 | 770 | 15 | | 170M1314 | 170M1364 | 170M1414 |
| | | 63 | 215 | 1450 | 16 | | 170M1315 | 170M1365 | 170M1415 |
| | | 80 | 380 | 2550 | 19 | aR | 170M1316 | 170M1366 | 170M1416 |
| | | 100 | 695 | 4650 | 24 | | 170M1317 | 170M1367 | 170M1417 |
| | | 125 | 1250 | 8500 | 28 | | 170M1318 | 170M1368 | 170M1418 |
| | | 160 | 2350 | 16,000 | 32 | | 170M1319 | 170M1369 | 170M1419 |
| | | 200 | 4200 | 28,000 | 37 | | 170M1320 | 170M1370 | 170M1420 |
| | | 250 | 7750 | 51,500 | 42 | | 170M1321 | 170M1371 | 170M1421 |
| | | 315 | 12,000 | 80,500 | 53 | | 170M1322 | 170M1372 | 170M1422 |
| 00 | 690 V a.c. (IEC) | 25 | 19 | 130 | 6 | gR | | 170M2608 | 170M2658 |
| | | 32 | 28.5 | 195 | 7 | | | 170M2609 | 170M2659 |
| | | 40 | 50 | 360 | 9 | | | 170M2610 | 170M2660 |
| | | 50 | 95 | 640 | 10 | | | 170M2611 | 170M2661 |
| | | 63 | 170 | 1200 | 12 | | | 170M2612 | 170M2662 |
| | | 80 | 310 | 2100 | 15 | | | 170M2613 | 170M2663 |
| 00 | 690 V a.c. (IEC) 700 V a.c. (UL) | 100 | 620 | 4150 | 20 | aR | | 170M2614 | 170M2664 |
| | | 125 | 1000 | 6950 | 25 | | | 170M2615 | 170M2665 |
| | | 160 | 1900 | 13,000 | 30 | | | 170M2616 | 170M2666 |
| | | 200 | 3400 | 23,000 | 35 | | | 170M2617 | 170M2667 |
| | | 250 | 6250 | 42,000 | 45 | | | 170M2618 | 170M2668 |
| | | 315 | 10,000 | 68,500 | 55 | | | 170M2619 | 170M2669 |
| | | 350 | 13,500 | 91,500 | 60 | | | 170M2620 | 170M2670 |
| | | 400 | 18,000 | 125,000 | 70 | | | 170M2621 | 170M2671 |

Data sheets: 170K6310 (Size 000), 170K6312 (Size 00)

# 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 10 A to 400 A - Sizes 000 and 00 - DIN 43653 - 170M

## Time-current curve - Size 000 - 10 A to 315 A

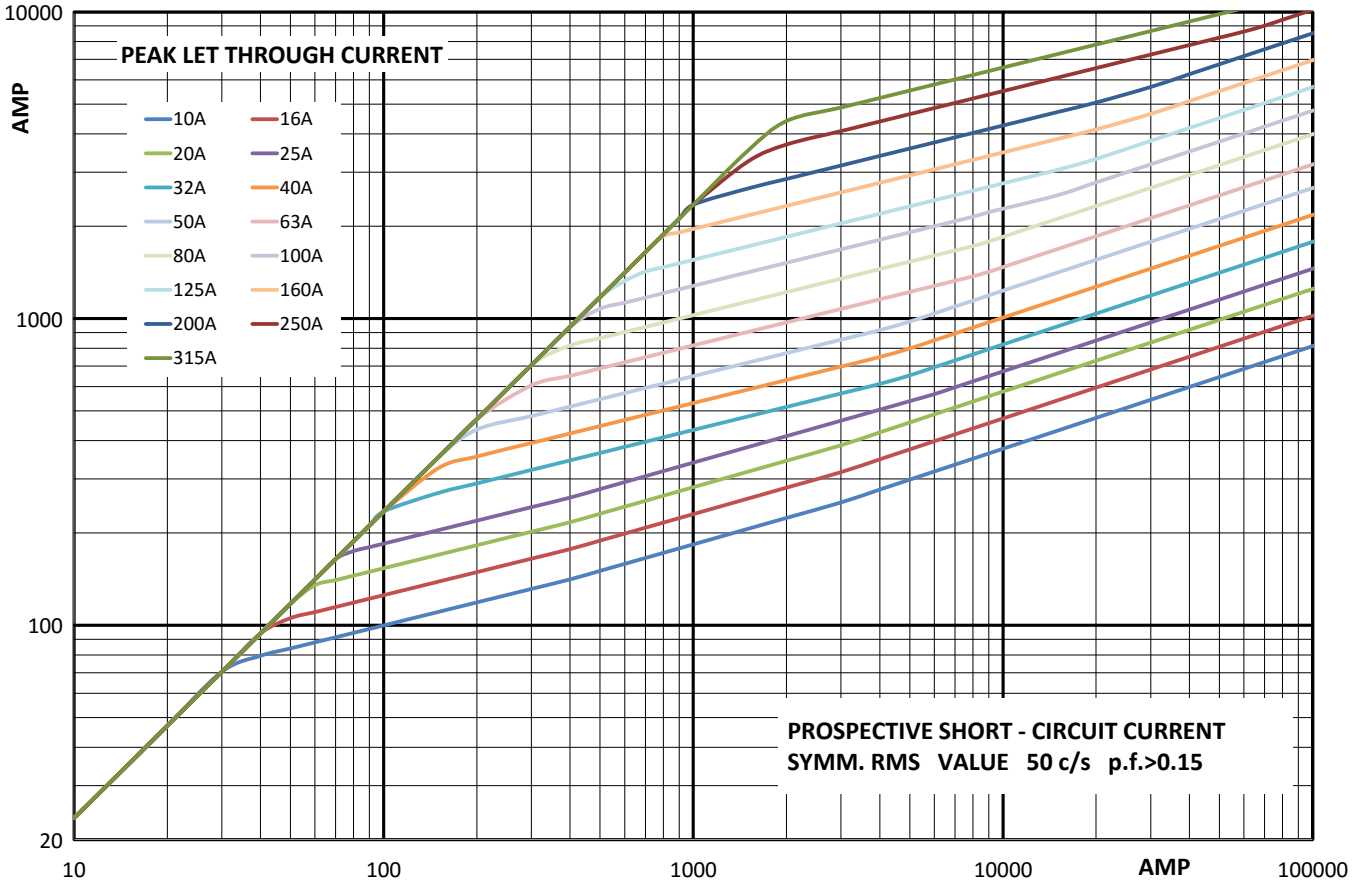



$K_b$ = 1 N = 1.6

Data sheets: 170K6310 (Size 000), 170K6312 (Size 00)

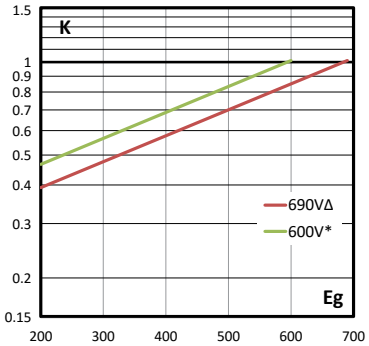
# 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 10 A to 400 A - Sizes 000 and 00 - DIN 43653 - 170M

## Cut-off curve - Size 000 - 10 A to 315 A



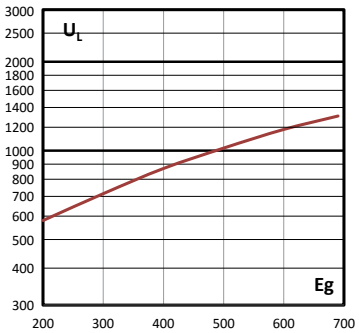

### Total clearing $I^2t$

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).



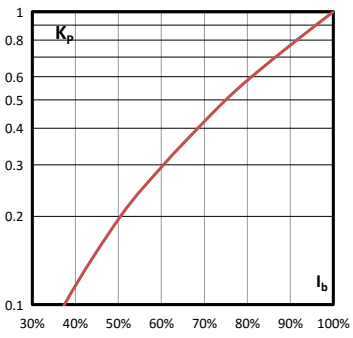

### Arc voltage

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

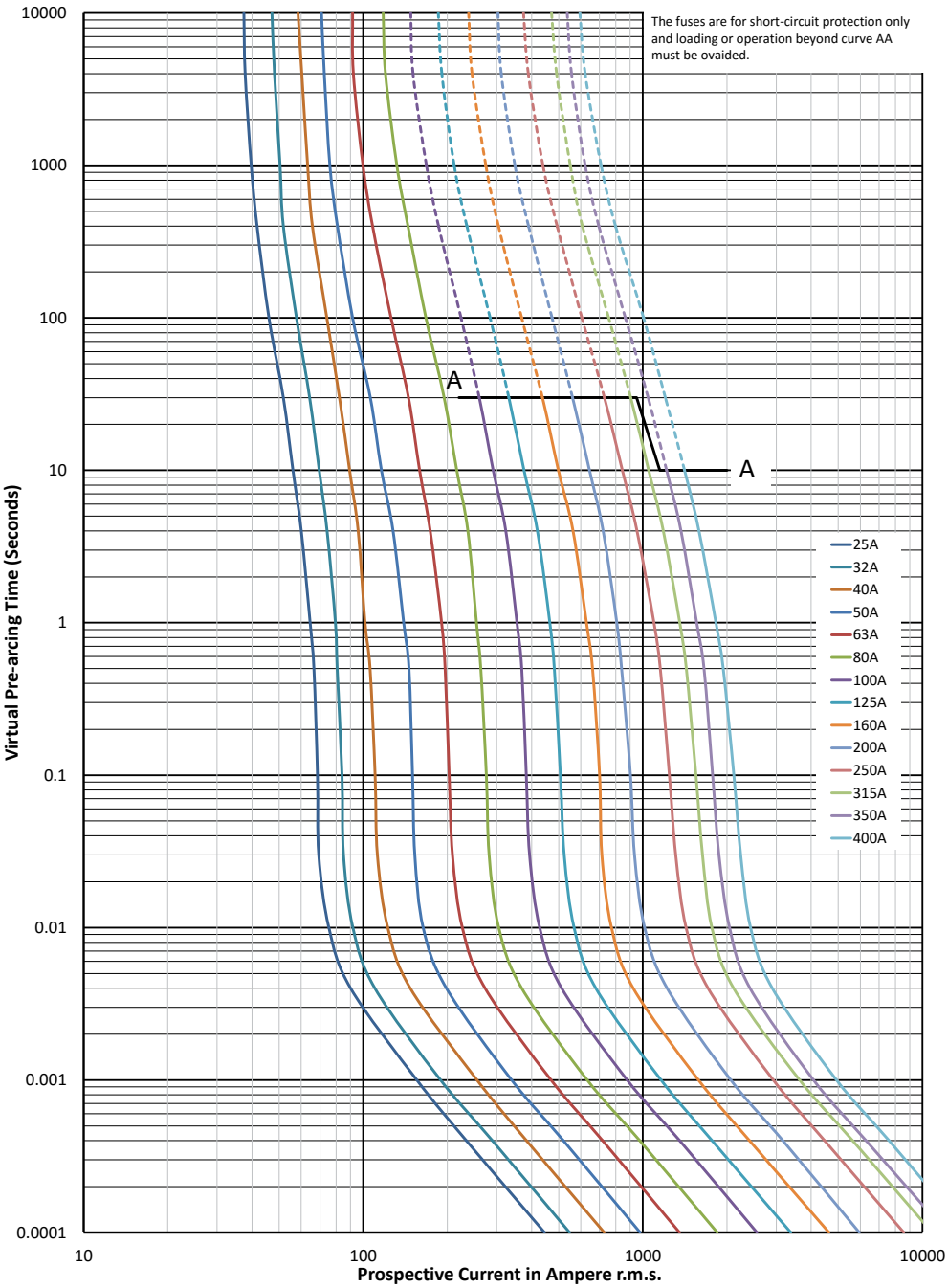
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6310 (Size 000), 170K6312 (Size 00)

## 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 10 A to 400 A - Sizes 000 and 00 - DIN 43653 - 170M

### Time-current curve - Size 00, 25 A to 400 A

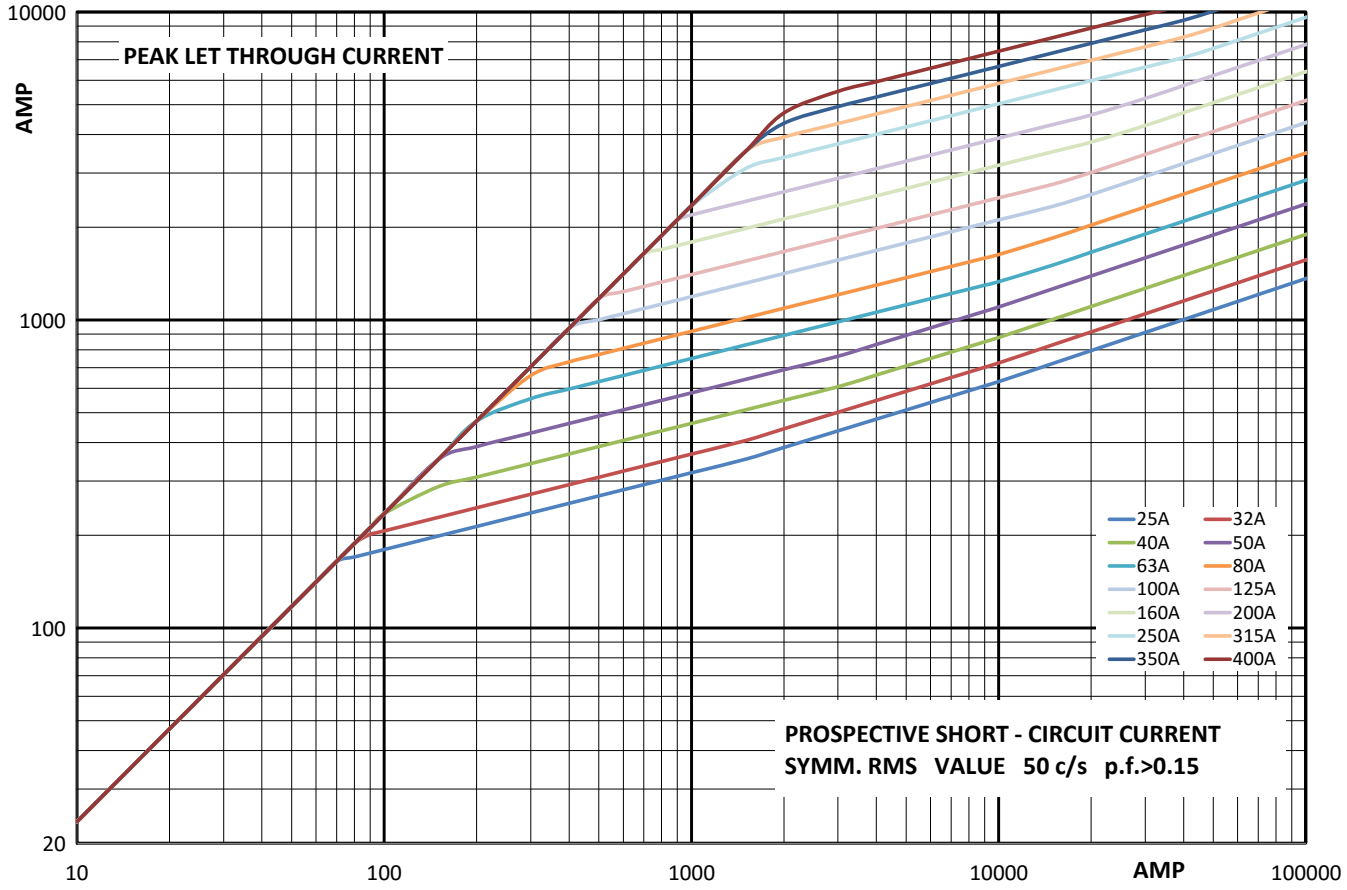



$K_b$ = 1 N = 1.5

Data sheets: 170K6310 (Size 000), 170K6312 (Size 00)

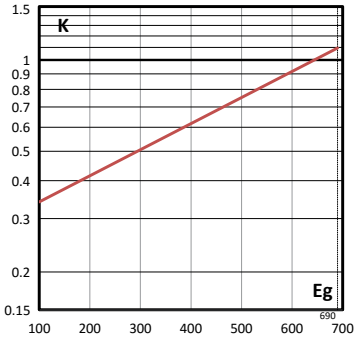
# 690 V a.c. (IEC), 700 V a.c. / V d.c. (UL) - 10 A to 400 A - Sizes 000 and 00 - DIN 43653 - 170M

## Cut-off curve- Size 00 , 25 A to 400 A



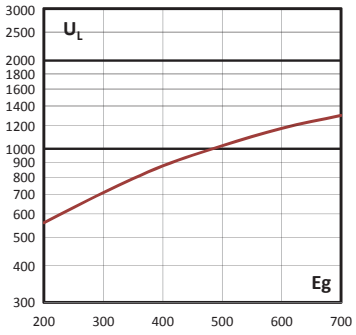

### Total clearing $I^2t$

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).



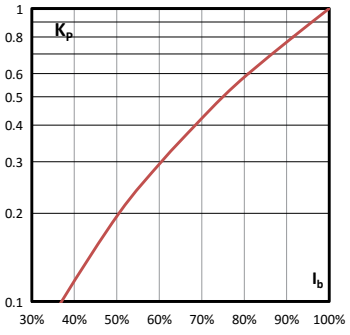

### Arc voltage

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: 170K6310 (Size 000), 170K6312 (Size 00)

# Square body fuse links DIN 43653

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

### Description

Square body DIN 43653 bolted tags high speed fuse links, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.



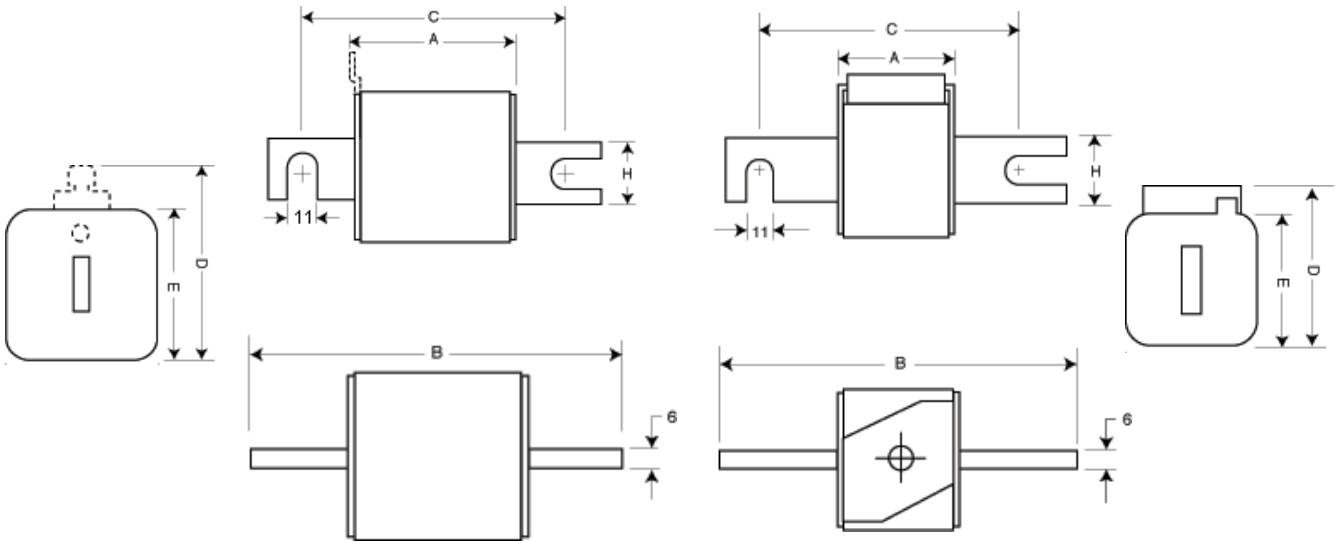

### Technical data

- Rated voltage:
  - 690 V a.c. (IEC)
  - 700 V a.c. (UL)
- Rated current: 40 A to 2000 A
- Breaking capacity: 200 kA RMS Sym
- Operating class: aR

### Standards / Agency information

CE, Designed and tested to IEC60269 Part 4. Consult Eaton for UL Recognition/CSA Component Acceptance status. CCC except where noted.

### Dimensions (mm)




**Type -/80, -TN/80, -/110, -TN/110**

| Size | A | B | B[1] | C | C[1] | D[2] | 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 |

**Type -KN/80, -KN/110**

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

[1] Valid for fuse links type -/110, -TN/110.
[2] Valid for Fuse type -TN/80 and -TN/110.

[3] Valid for fuse links type -KN/110.
1mm = 0.0394"

1mm = 0.0394"

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 660 V a.c. | Watts loss (W) | Catalogue numbers -/80 Visual indicator | -TN/80 Type T indicator for micro | -KN/80 Type K indicator for micro | -/110 Visual indicator | -TN/110 Type T indicator for micro | -KN/110 Type K indicator for micro |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1* | 690 V a.c. (IEC) 700 V a.c. (UL) | 40 | 40 | 270 | 9 | 170M3008 | 170M3058 | 170M3108 | 170M3158 | 170M3208 | 170M3258 |
| | | 50 | 77 | 515 | 11 | 170M3009 | 170M3059 | 170M3109 | 170M3159 | 170M3209 | 170M3259 |
| | | 63 | 115 | 770 | 14 | 170M3010 | 170M3060 | 170M3110 | 170M3160 | 170M3210 | 170M3260 |
| | | 80 | 185 | 1250 | 18 | 170M3011 | 170M3061 | 170M3111 | 170M3161 | 170M3211 | 170M3261 |
| | | 100 | 360 | 2450 | 21 | 170M3012 | 170M3062 | 170M3112 | 170M3162 | 170M3212 | 170M3262 |
| | | 125 | 550 | 3700 | 26 | 170M3013 | 170M3063 | 170M3113 | 170M3163 | 170M3213 | 170M3263 |
| | | 160 | 1100 | 7500 | 30 | 170M3014 | 170M3064 | 170M3114 | 170M3164 | 170M3214 | 170M3264 |
| | | 200 | 2200 | 15,000 | 35 | 170M3015 | 170M3065 | 170M3115 | 170M3165 | 170M3215 | 170M3265 |
| | | 250 | 4200 | 28,500 | 40 | 170M3016 | 170M3066 | 170M3116 | 170M3166 | 170M3216 | 170M3266 |
| | | 315 | 7000 | 46,500 | 50 | 170M3017 | 170M3067 | 170M3117 | 170M3167 | 170M3217 | 170M3267 |
| | | 350 | 10,000 | 68,500 | 55 | 170M3018 | 170M3068 | 170M3118 | 170M3168 | 170M3218 | 170M3268 |
| | | 400 | 15,000 | 105,000 | 60 | 170M3019 | 170M3069 | 170M3119 | 170M3169 | 170M3219 | 170M3269 |
| | | 450 | 21,000 | 140,000 | 65 | 170M3020 | 170M3070 | 170M3120 | 170M3170 | 170M3220 | 170M3270 |
| | | 500 | 27,000 | 180,000 | 70 | 170M3021 | 170M3071 | 170M3121 | 170M3171 | 170M3221 | 170M3271 |
| | | 550 | 34,000 | 230,000 | 75 | 170M3022 | 170M3072 | 170M3122 | 170M3172 | 170M3222 | 170M3272 |
| | | 630 | 48,500 | 325,000 | 80 | 170M3023 | 170M3073 | 170M3123 | 170M3173 | 170M3223 | 170M3273 |
| 1 | 690 V a.c. (IEC) 700 V a.c. (UL) | 200 | 1650 | 11,500 | 45 | 170M4008 | 170M4058 | 170M4108 | 170M4158 | 170M4208 | 170M4258 |
| | | 250 | 3100 | 21,000 | 55 | 170M4009 | 170M4059 | 170M4109 | 170M4159 | 170M4209 | 170M4259 |
| | | 315 | 6200 | 42,000 | 58 | 170M4010 | 170M4060 | 170M4110 | 170M4160 | 170M4210 | 170M4260 |
| | | 350 | 8500 | 59,000 | 60 | 170M4011 | 170M4061 | 170M4111 | 170M4161 | 170M4211 | 170M4261 |
| | | 400 | 13,500 | 91,500 | 65 | 170M4012 | 170M4062 | 170M4112 | 170M4162 | 170M4212 | 170M4262 |
| | | 450 | 17,000 | 120,000 | 70 | 170M4013 | 170M4063 | 170M4113 | 170M4163 | 170M4213 | 170M4263 |
| | | 500 | 25,000 | 170,000 | 72 | 170M4014 | 170M4064 | 170M4114 | 170M4164 | 170M4214 | 170M4264 |
| | | 550 | 34,000 | 230,000 | 75 | 170M4015 | 170M4065 | 170M4115 | 170M4165 | 170M4215 | 170M4265 |
| | | 630 | 52,000 | 350,000 | 80 | 170M4016 | 170M4066 | 170M4116 | 170M4166 | 170M4216 | 170M4266 |
| | | 700 | 69,500 | 465,000 | 85 | 170M4017 | 170M4067 | 170M4117 | 170M4167 | 170M4217 | 170M4267 |
| | | 800 | 105,000 | 725,000 | 95 | 170M4018 | 170M4068 | 170M4118 | 170M4168 | 170M4218 | 170M4268 |
| | 550 V a.c. IEC | 900 | 155,000 | 850,000 | 100 | 170M4019[1] | 170M4069[1] | 170M4119[1] | 170M4169[1] | 170M4219[1] | 170M4269[1] |
| 2 | 690 V a.c. (IEC) 700 V a.c. (UL) | 400 | 11,000 | 74,000 | 65 | 170M5008 | 170M5058 | 170M5108 | 170M5158 | 170M5208 | 170M5258 |
| | | 450 | 15,500 | 105,000 | 70 | 170M5009 | 170M5059 | 170M5109 | 170M5159 | 170M5209 | 170M5259 |
| | | 500 | 21,500 | 145,000 | 75 | 170M5010 | 170M5060 | 170M5110 | 170M5160 | 170M5210 | 170M5260 |
| | | 550 | 28,000 | 190,000 | 80 | 170M5011 | 170M5061 | 170M5111 | 170M5161 | 170M5211 | 170M5261 |
| | | 630 | 41,000 | 275,000 | 90 | 170M5012 | 170M5062 | 170M5112 | 170M5162 | 170M5212 | 170M5262 |
| | | 700 | 60,500 | 405,000 | 95 | 170M5013 | 170M5063 | 170M5113 | 170M5163 | 170M5213 | 170M5263 |
| | | 800 | 86,000 | 575,000 | 105 | 170M5014 | 170M5064 | 170M5114 | 170M5164 | 170M5214 | 170M5264 |
| | | 900 | 125,000 | 840,000 | 110 | 170M5015 | 170M5065 | 170M5115 | 170M5165 | 170M5215 | 170M5265 |
| | | 1000 | 180,000 | 1,250,000 | 115 | 170M5016 | 170M5066 | 170M5116 | 170M5166 | 170M5216 | 170M5266 |
| | 600 V a.c. (IEC) / 700 V a.c. UL | 1100 | 245,000 | 1,600,000 | 120 | 170M5017 | 170M5067 | 170M5117 | 170M5167 | 170M5217 | 170M5267 |
| | | 1250 | 365,000 | 2,400,000 | 130 | 170M5018 | 170M5068 | 170M5118 | 170M5168 | 170M5218 | 170M5268 |
| 3 | 690 V a.c. (IEC) 700 V a.c. (UL) | 500 | 14,000 | 95,000 | 95 | 170M6008 | 170M6058 | 170M6108 | 170M6158 | 170M6208 | 170M6258 |
| | | 550 | 19,500 | 135,000 | 100 | 170M6009 | 170M6059 | 170M6109 | 170M6159 | 170M6209 | 170M6259 |
| | | 630 | 31,000 | 210,000 | 105 | 170M6010 | 170M6060 | 170M6110 | 170M6160 | 170M6210 | 170M6260 |
| | | 700 | 44,500 | 300,000 | 110 | 170M6011 | 170M6061 | 170M6111 | 170M6161 | 170M6211 | 170M6261 |
| | | 800 | 69,500 | 465,000 | 115 | 170M6012 | 170M6062 | 170M6112 | 170M6162 | 170M6212 | 170M6262 |
| | | 900 | 100,000 | 670,000 | 120 | 170M6013 | 170M6063 | 170M6113 | 170M6163 | 170M6213 | 170M6263 |
| | | 1000 | 140,000 | 945,000 | 125 | 170M6014 | 170M6064 | 170M6114 | 170M6164 | 170M6214 | 170M6264 |
| | | 1100 | 190,000 | 1,300,000 | 130 | 170M6015 | 170M6065 | 170M6115 | 170M6165 | 170M6215 | 170M6265 |
| | | 1250 | 290,000 | 1,950,000 | 140 | 170M6016 | 170M6066 | 170M6116 | 170M6166 | 170M6216 | 170M6266 |
| | | 1400 | 370,000 | 2,450,000 | 155 | 170M6017 | 170M6067 | 170M6117 | 170M6167 | 170M6217 | 170M6267 |
| | | 1500 | 460,000 | 3,100,000 | 160 | 170M6018 | 170M6068 | 170M6118 | 170M6168 | 170M6218 | 170M6268 |
| | | 1600 | 580,000 | 3,900,000 | 160 | 170M6019 | 170M6069 | 170M6119 | 170M6169 | 170M6219 | 170M6269 |
| | 600 V a.c. IEC / 550 V a.c. UL | 1800 | 880,000 | 5,250,000 | 165 | 170M6020[2] | 170M6070[2] | 170M6120 | 170M6170[2] | 170M6220[2] | 170M6270 |
| | 550 V a.c. IEC/UL | 2000 | 1,150,000 | 6,350,000 | 175 | 170M6021 | 170M6071 | 170M6121 | 170M6171 | 170M6221 | 170M6271 |

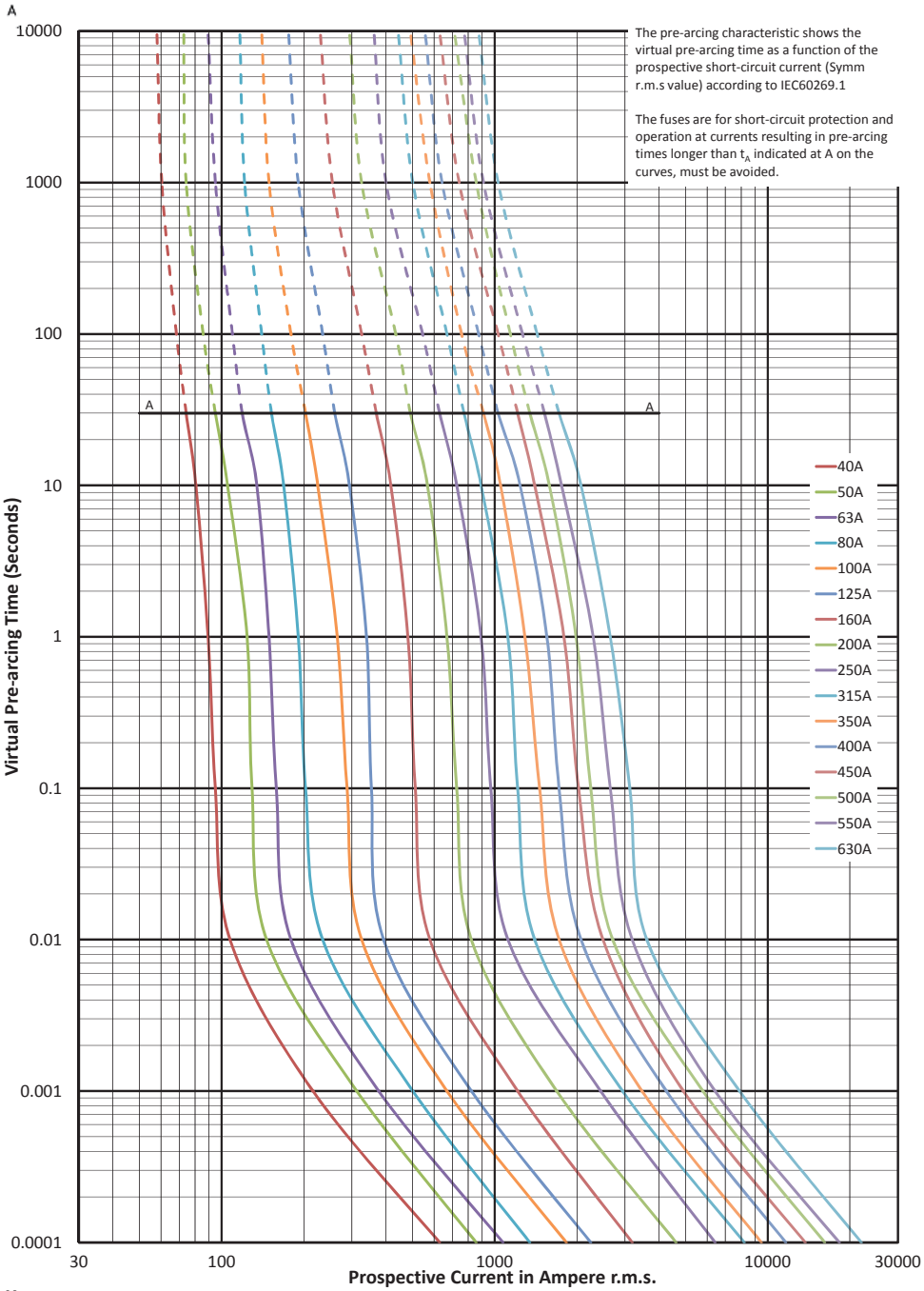
Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

[1] Not UL Approved IEC

[2] Rated at 750 V d.c. 12XIn 130 kA when two fuses connected in series

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 1*, 40 A to 630 A

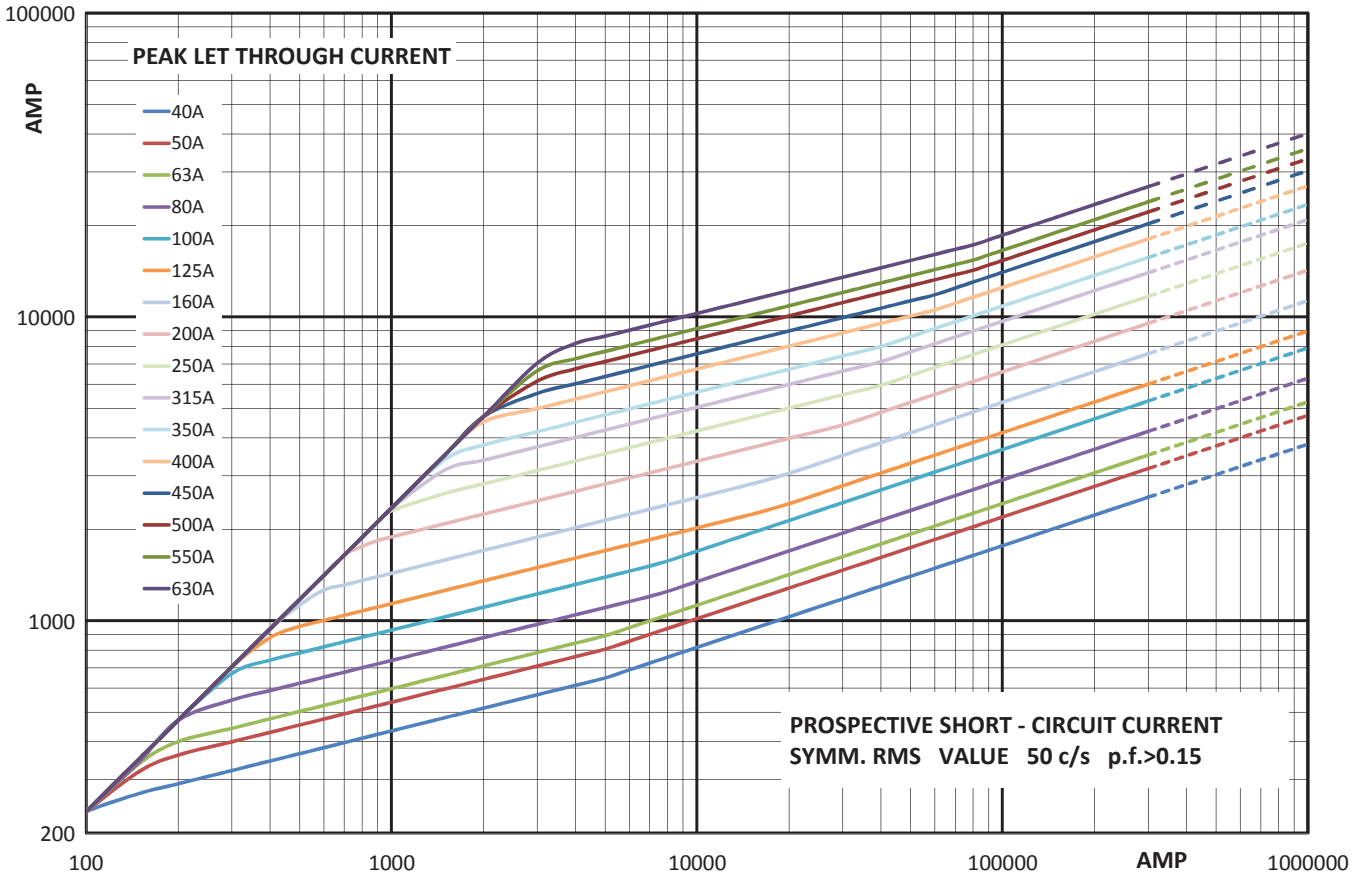



$K_b$ = 1 N = 1,5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

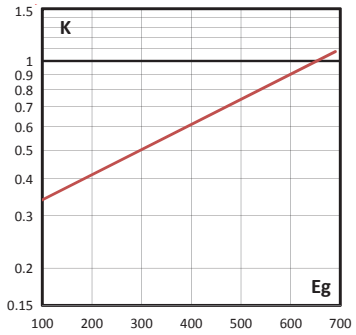
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 1*, 40 A to 630 A



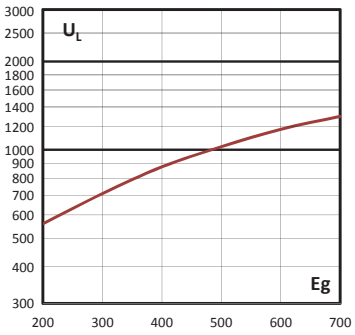

### Total clearing $I^2t$

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).



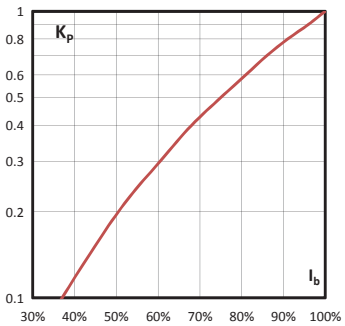

### Arc voltage

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

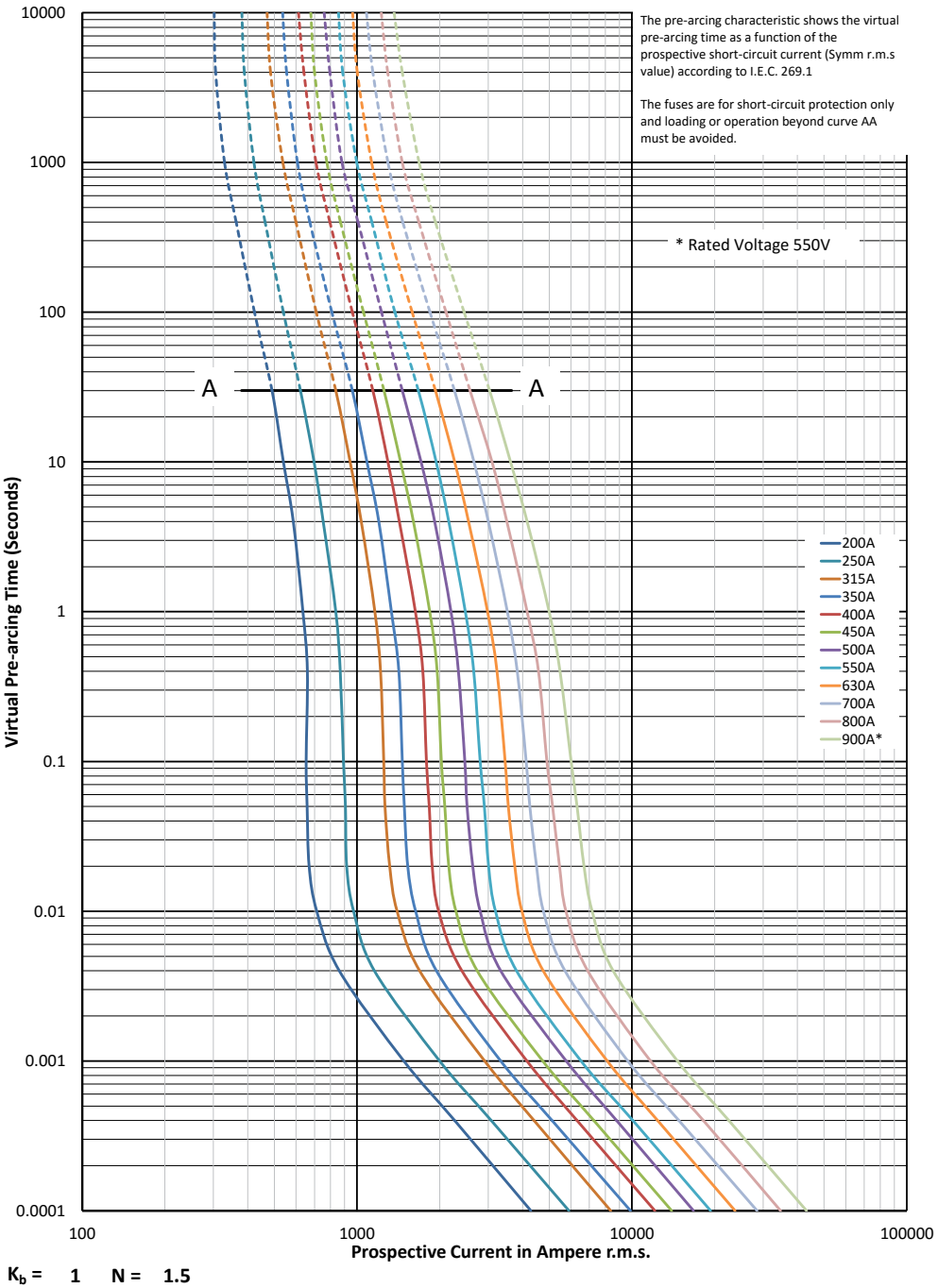
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 1, 200 A to 900 A

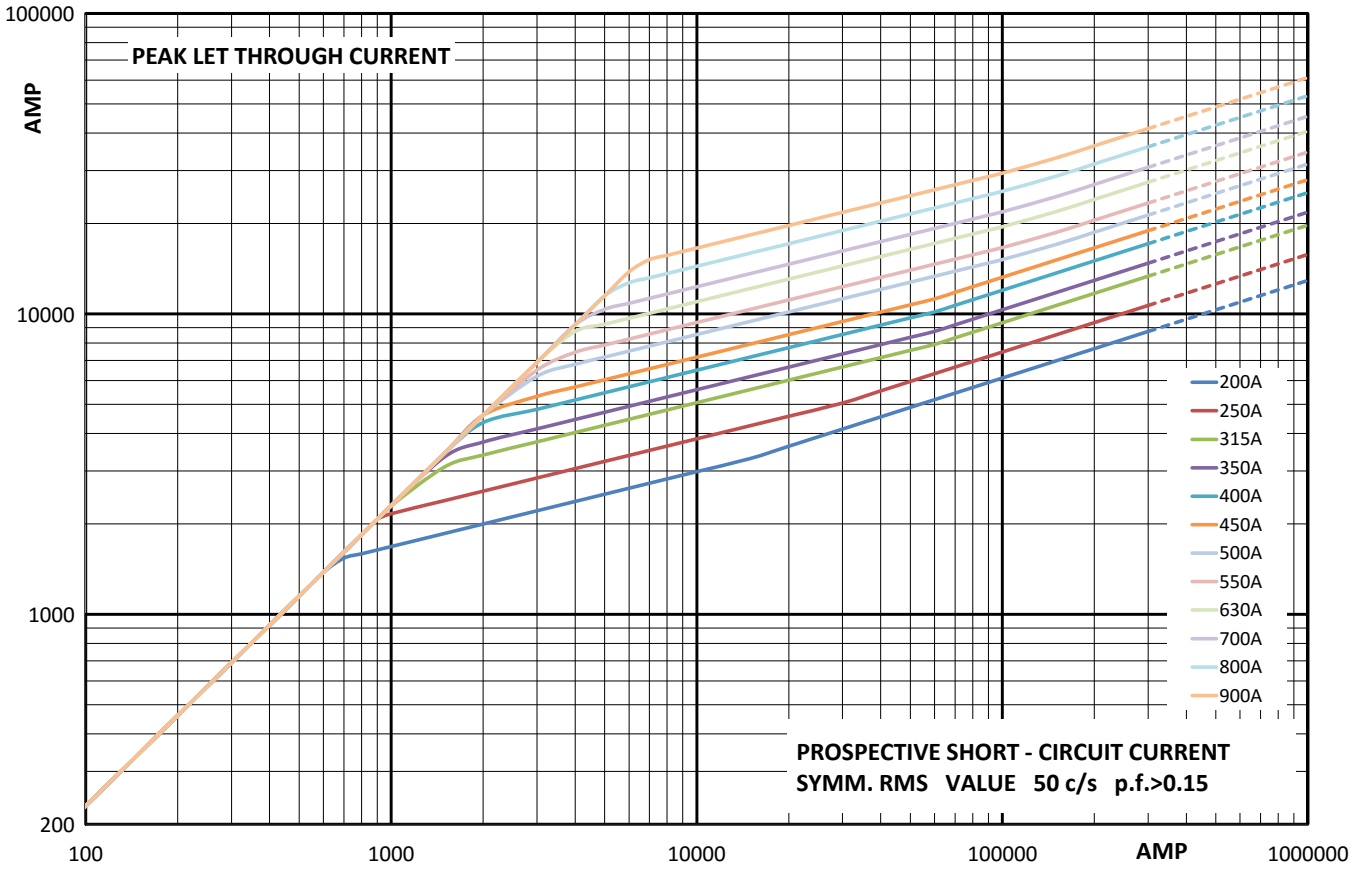



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

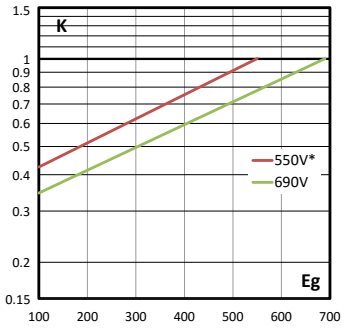
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 1, 200 A to 900 A



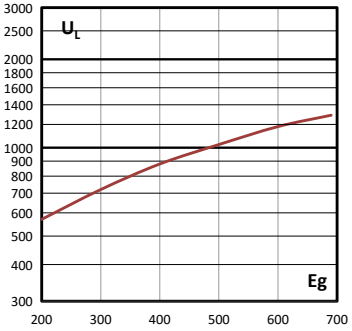

### Total clearing $I^2t$

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).



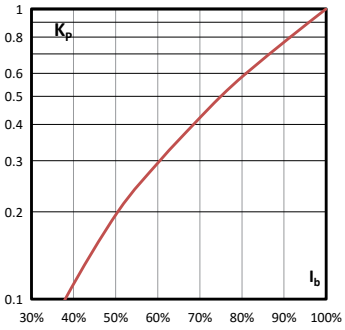

### Arc voltage

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

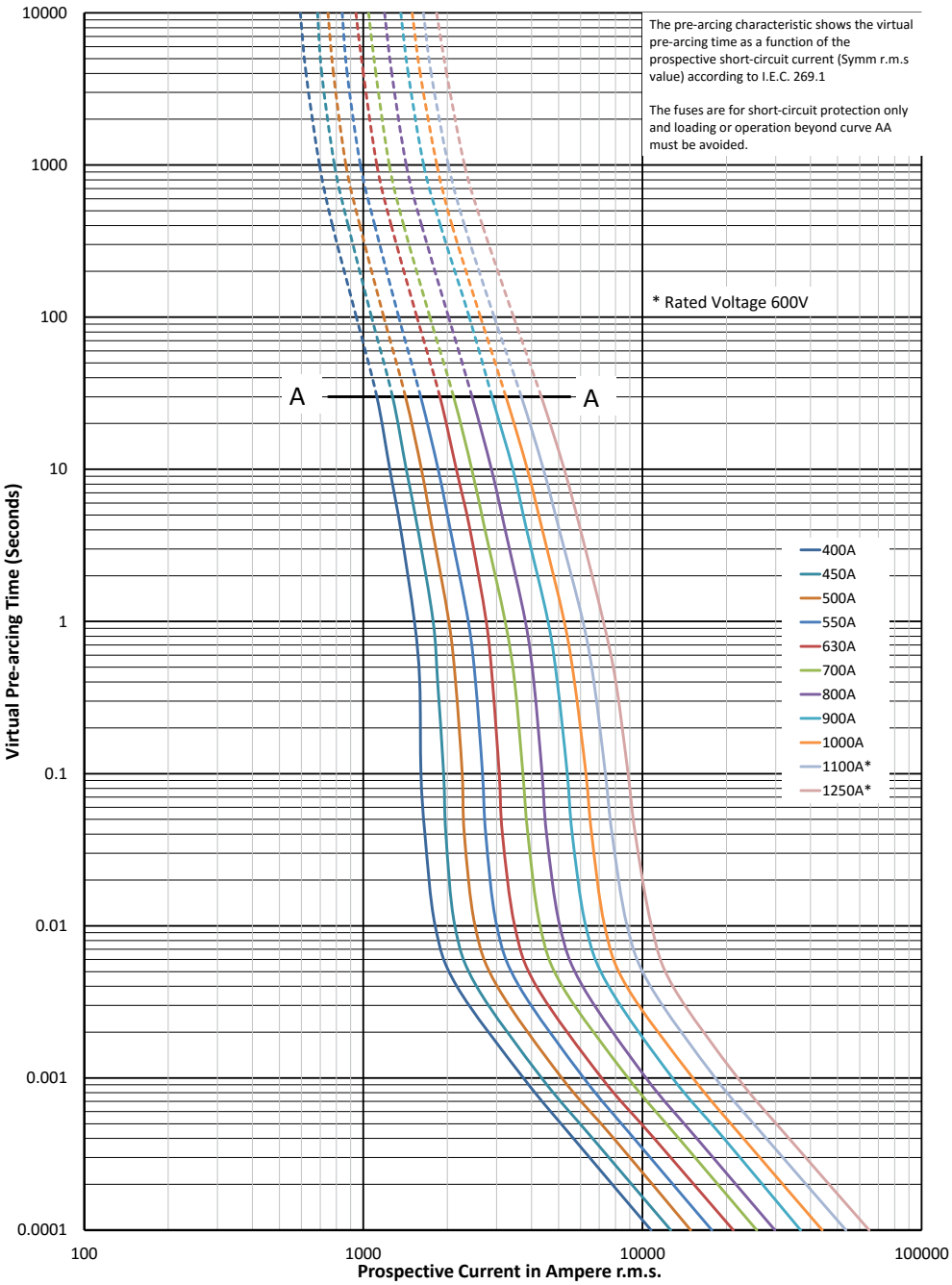
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 2, 400 A to 1250 A

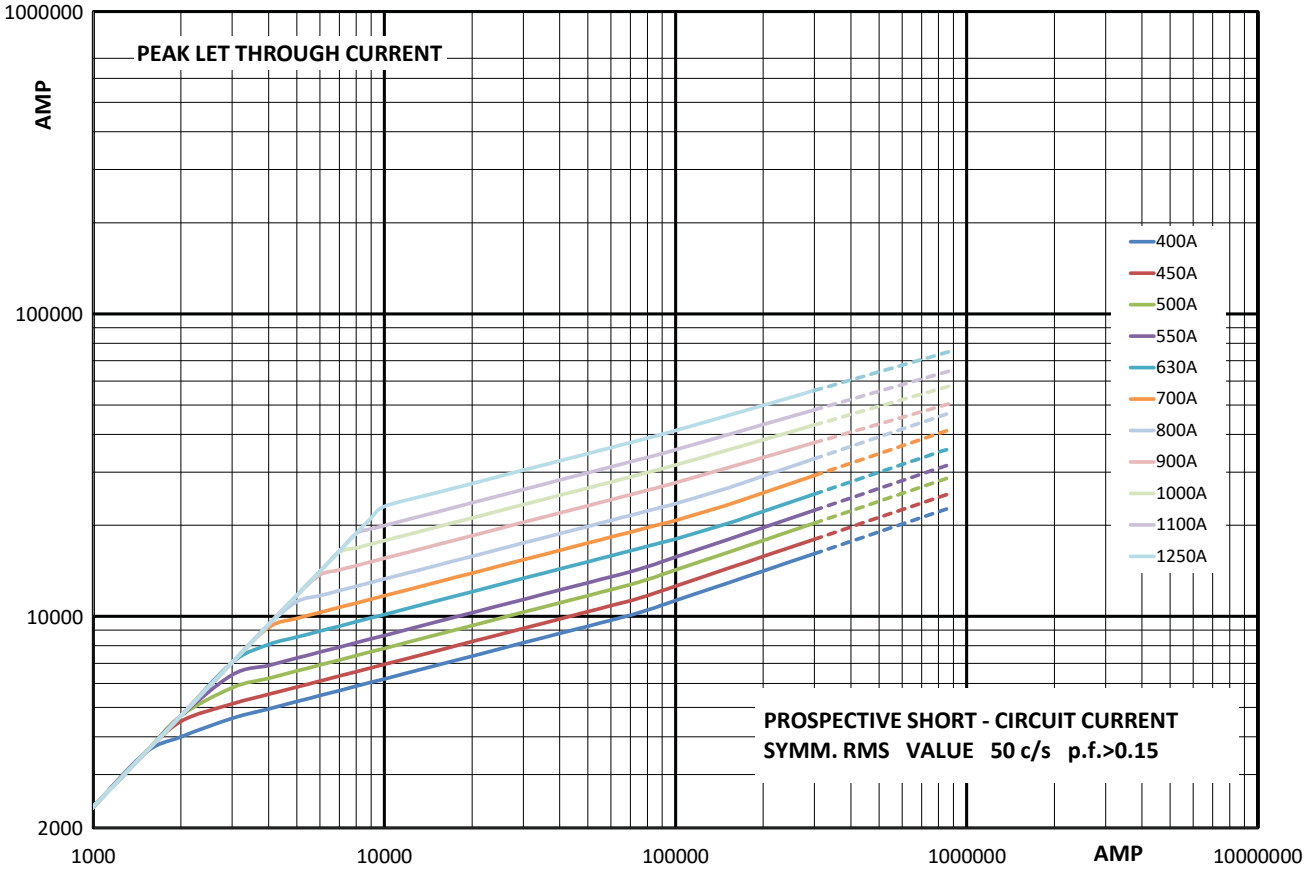



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

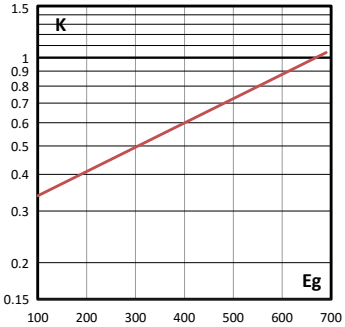
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 2, 400 A to 1250 A



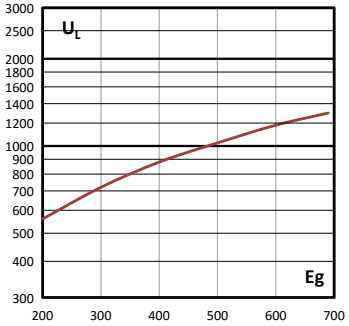

### Total clearing I²t

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).



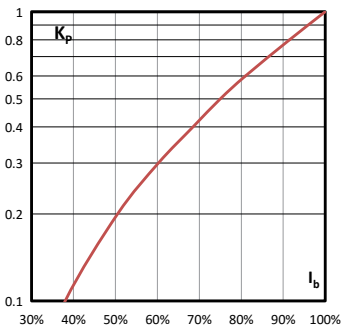

### Arc voltage

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

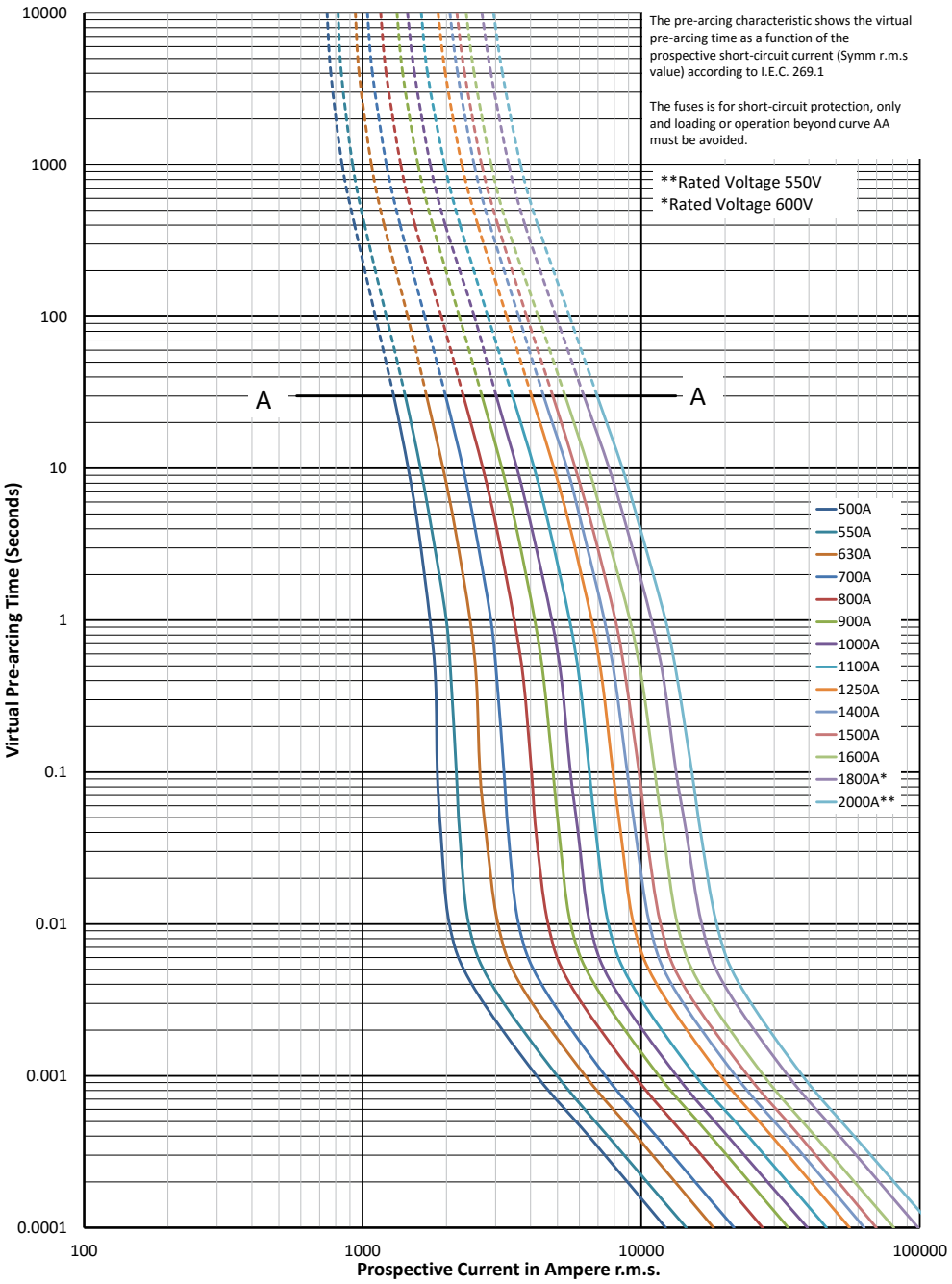
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

### Time-current curve -Size 3, 500 A to 2000 A

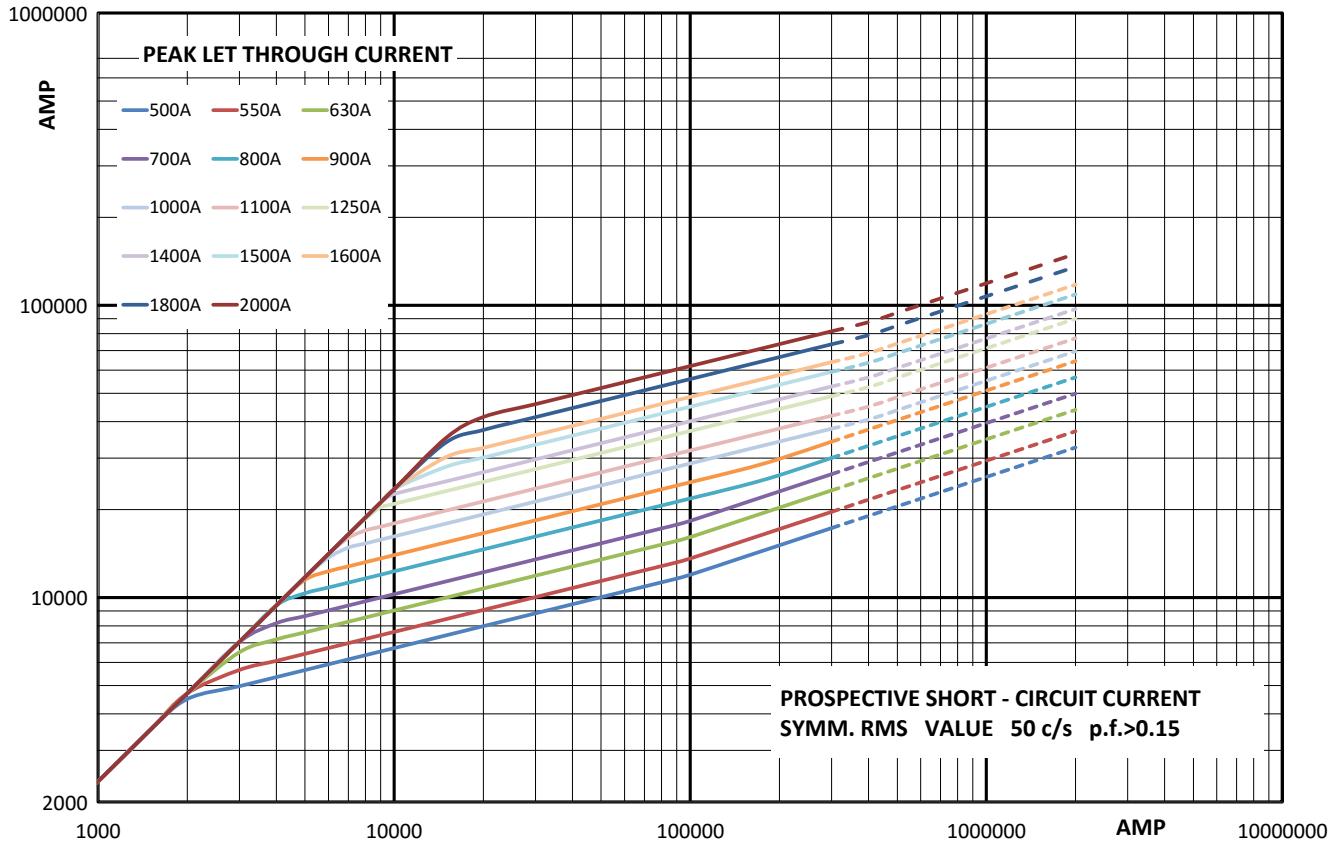



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

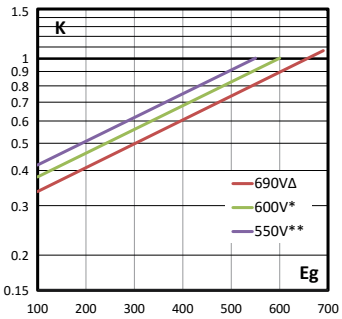
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 3, 500 A to 2000 A



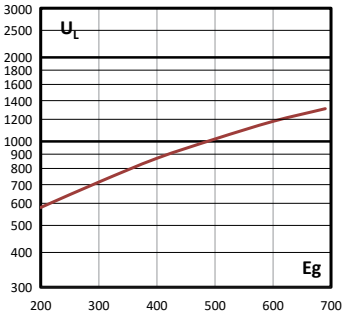

### Total clearing $I^2t$

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).



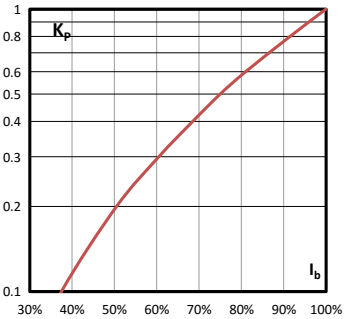

### Arc voltage

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: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# Square body fuse links DIN 43653

## 1000 V a.c. (IEC and UL) - 20 A to 315A - Size 00 - DIN 43653 - 170M

### Description

Square body DIN 43653 bolted tags high speed fuse links, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.




### Technical data

- Rated voltage:
  - 1000 V a.c. (IEC and UL 20 A to 250 A)
  - 900 V a.c. (IEC, 315 A)
- Rated current: 20 A to 315 A
- Breaking capacity: 125 kA RMS Sym
- Operating class: aR

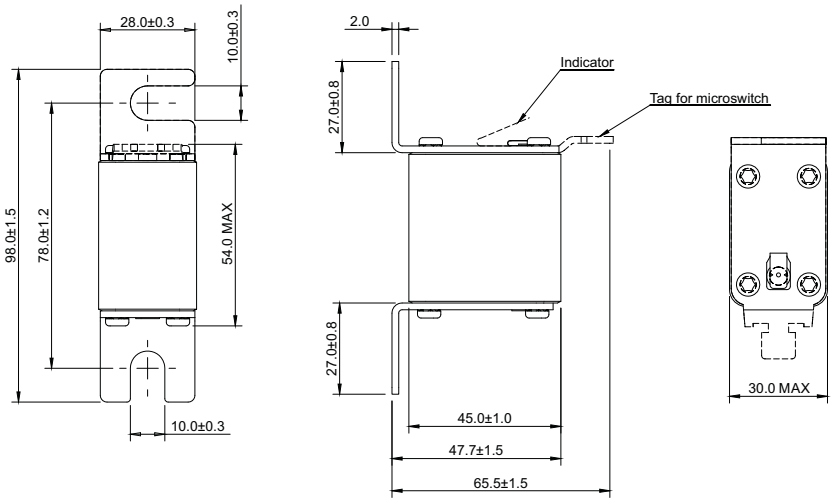
### Standards / Agency information

CE, Designed and tested to IEC60269 Part 4, UL Recognised/CSA component acceptance status (20-250 A)

### Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|
| **Fuse link body size** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at rated voltage** | **Watts loss (W)** | **00/80 Visual indicator** | **00TN/80 Type T indicator for micro** |
| 00 | 1000 V a.c. (IEC/UL) | 20 | 20 | 140 | 5 | 170M4802 | 170M4822 |
| | | 25 | 30 | 210 | 7 | 170M4803 | 170M4823 |
| | | 32 | 55 | 390 | 9 | 170M4804 | 170M4824 |
| | | 35 | 69 | 500 | 10 | 170M4805 | 170M4825 |
| | | 40 | 100 | 690 | 11 | 170M4806 | 170M4826 |
| | | 50 | 170 | 1200 | 13 | 170M4807 | 170M4827 |
| | | 63 | 280 | 2000 | 18 | 170M4808 | 170M4828 |
| | | 80 | 500 | 3500 | 22 | 170M4809 | 170M4829 |
| | | 100 | 950 | 6850 | 25 | 170M4810 | 170M4830 |
| | | 125 | 1500 | 11,500 | 33 | 170M4811 | 170M4831 |
| | | 160 | 3000 | 22,000 | 37 | 170M4812 | 170M4832 |
| | | 200 | 5600 | 40,500 | 40 | 170M4813 | 170M4833 |
| | | 250 | 10,000 | 74,000 | 48 | 170M4814 | 170M4834 |
| | 900 V a.c. (IEC) | 315 | 18,000 | 115,000 | 58 | 170M4815 | 170M4835 |

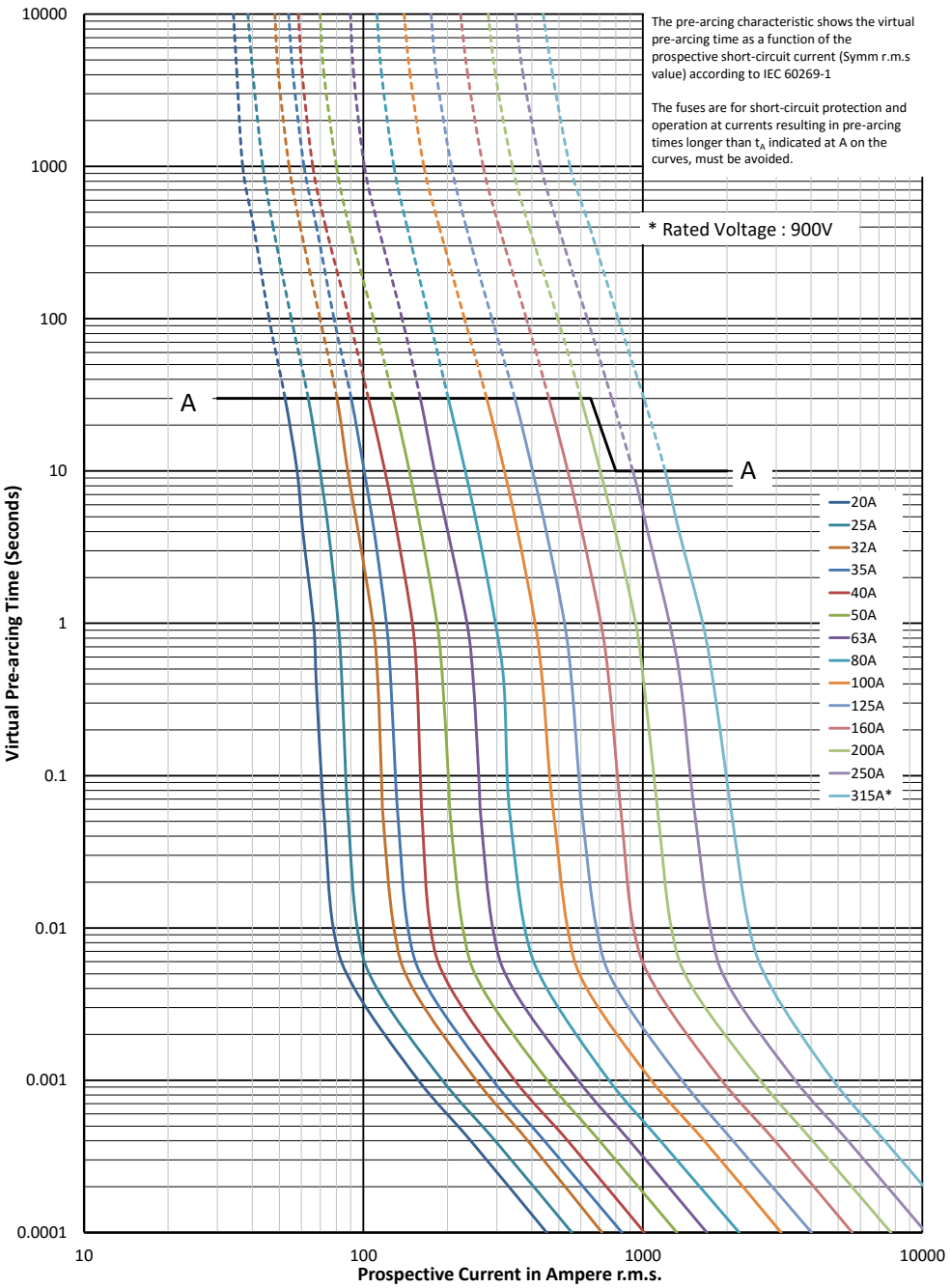
### Dimensions (mm)




Data sheet: 170K8504

# 1000 V a.c. (IEC and UL) - 20 A to 315A - Size 00 - DIN 43653 - 170M

## Time-current curve - 20 A to 315 A

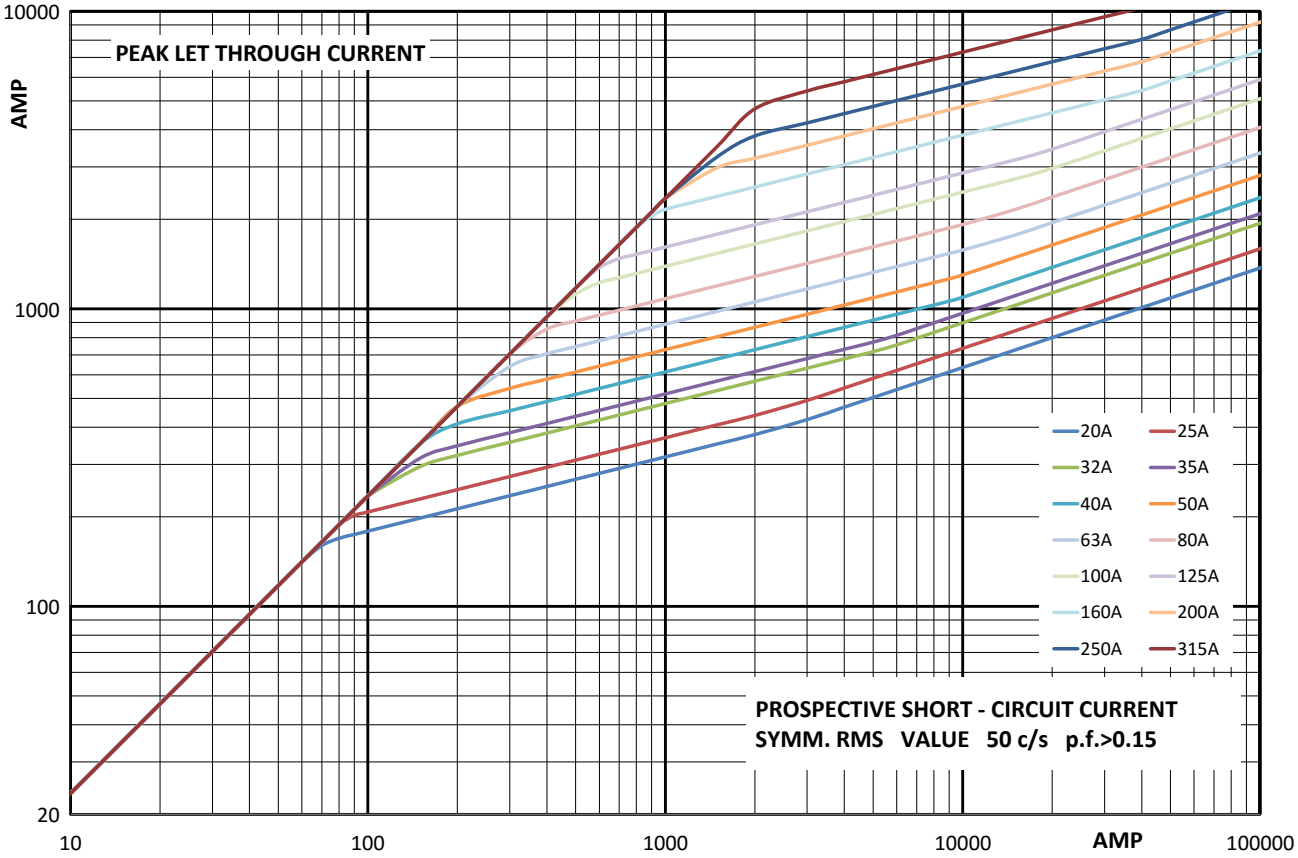



$K_b$ = 1 N = 1.6

Data sheet: 170K8504

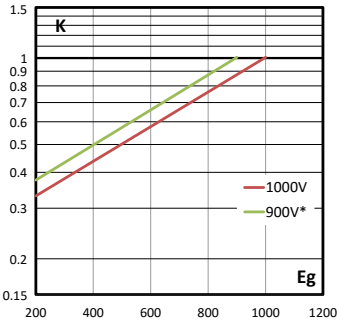
## 1000 V a.c. (IEC and UL) - 20 A to 315A - Size 00 - DIN 43653 - 170M

### Cut-off curve - 20 A to 315 A



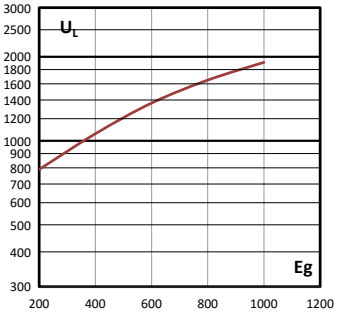

### Total clearing I²t

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).



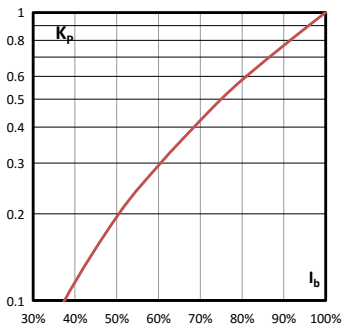

### Arc voltage

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 sheet: 170K8504

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Description

Square body DIN 43653 bolted tags high speed fuse links, for the protection of DC common bus, DC drives, power converters / rectifiers and reduced rated voltage starters.



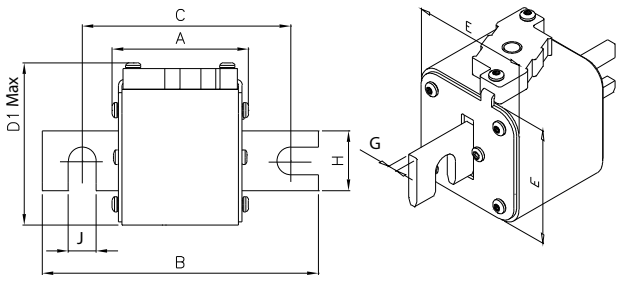

## Technical data

- Rated voltage:
  - 1000 V a.c. (IEC, 50 A to 1250 A), 900 V a.c. (IEC, 1400 A)
  - 1000 V a.c. (UL size 2, size 3, 315 A to 1100 A only)
- Rated current: 50 A to 1400 A
- Breaking Capacity:
  - 125kA RMS Sym. AC
  - Size 1: 50 kA for 750 V d.c.
- Operating Class: aR

## Standards/Agency Information

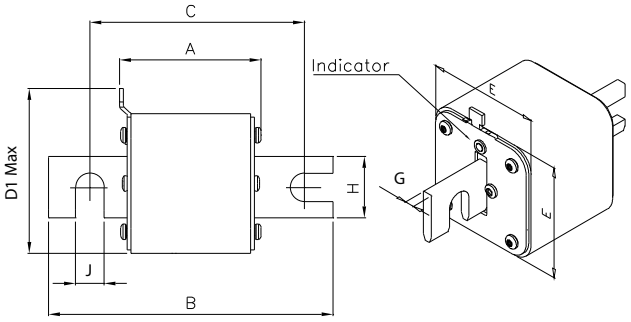
CE, Designed and tested to IEC60269 Part 4, UL Recognised (only sizes 2 and 3), CCC only size 3 (315 A to 1100 A)

## Dimensions (mm) -KN/110




| Size | A | B | C | D1 (max) | E | G | H | J |
|---|---|---|---|---|---|---|---|---|
| 1*KN/110 | 80 | 138 | 108 | 61 | 43 | 6 | 22 | 11 |
| 1KN/110 | 80 | 138 | 108 | 69 | 51 | 6 | 25 | 11 |
| 2KN/110 | 80 | 138 | 108 | 77 | 59 | 6 | 25 | 11 |
| 3KN/110 | 81 | 139 | 108 | 92 | 74 | 6 | 30 | 11 |

## Dimensions (mm) -TN/110




| Size | A | B | C | D1 (max) | E | G | H | J |
|---|---|---|---|---|---|---|---|---|
| 1*TN/110 | 80 | 138 | 108 | 61 | 43 | 6 | 22 | 11 |
| 1TN/110 | 80 | 138 | 108 | 69 | 51 | 6 | 25 | 11 |
| 2TN/110 | 80 | 138 | 108 | 75 | 59 | 6 | 25 | 11 |
| 3TN/110 | 81 | 139 | 108 | 90 | 74 | 6 | 30 | 11 |

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Catalogue numbers

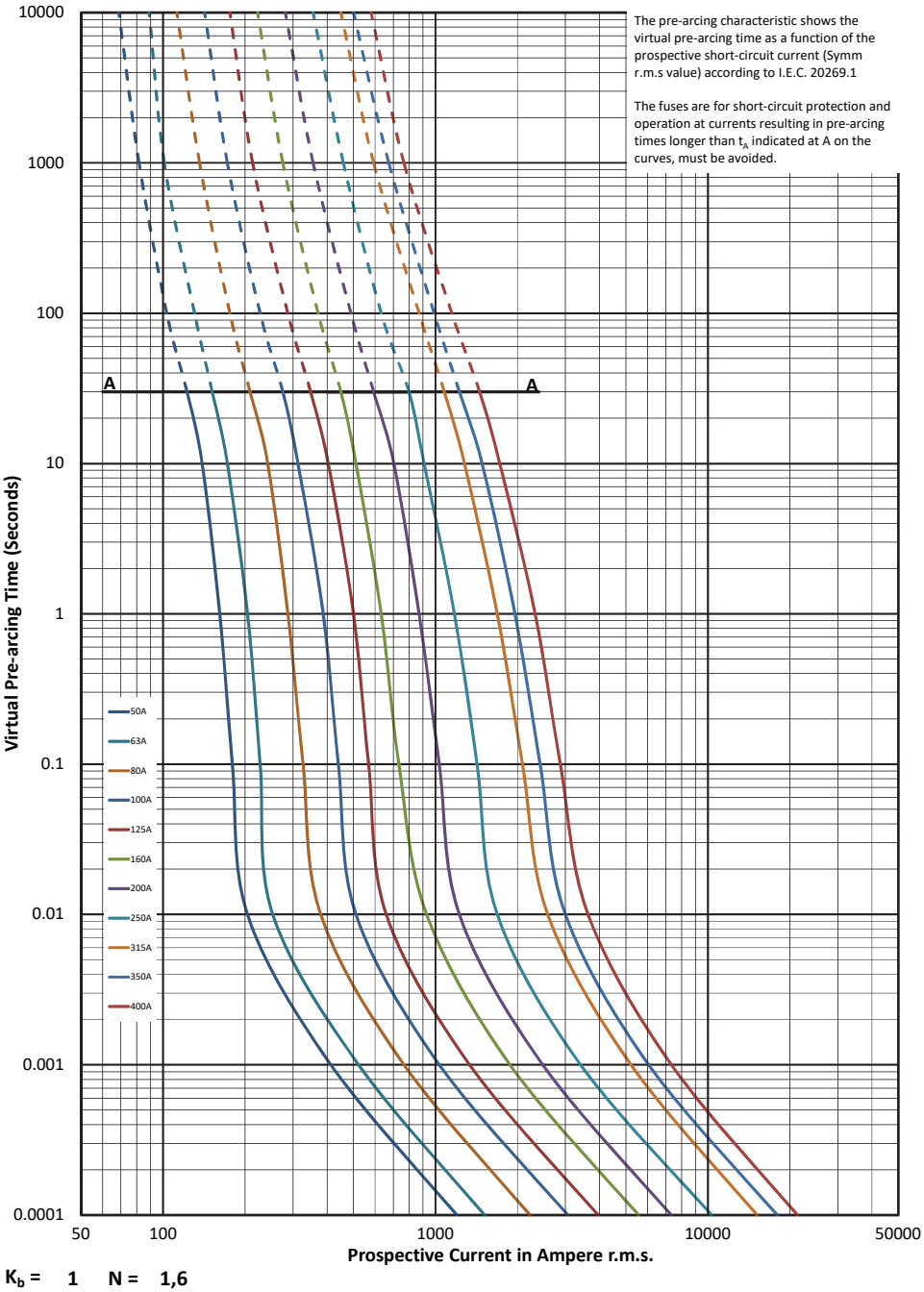
| Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at rated voltage | Watts loss (W) | Catalogue numbers -KN/110 Type K indicator for micro | Catalogue numbers -TN/110 Type T indicator for micro |
|---|---|---|---|---|---|---|---|
| 1* | 1000 V a.c. (IEC) | 50 | 135 | 815 | 20 | 170M3965 | 170M3981 |
| | | 63 | 215 | 1300 | 25 | 170M3966 | 170M3982 |
| | | 80 | 460 | 2750 | 30 | 170M3967 | 170M3983 |
| | | 100 | 860 | 5100 | 35 | 170M3968 | 170M3984 |
| | | 125 | 1450 | 8600 | 40 | 170M3969 | 170M3985 |
| | | 160 | 2850 | 17,500 | 45 | 170M3970 | 170M3986 |
| | | 200 | 4950 | 29,500 | 50 | 170M3971 | 170M3987 |
| | | 250 | 9550 | 57,000 | 55 | 170M3972 | 170M3988 |
| | | 315 | 21,500 | 130,000 | 65 | 170M3973 | 170M3989 |
| | | 350 | 29,000 | 175,000 | 70 | 170M3974 | 170M3990 |
| | | 400 | 42,000 | 250,000 | 75 | 170M3975 | 170M3991 |
| 1 | 1000 V a.c. (IEC)<br>1000 V a.c. / 750 V d.c. (UL) | 160 | 2200 | 13,500 | 40 | 170M4965 | 170M4980 |
| | | 200 | 4150 | 24,500 | 45 | 170M4966 | 170M4981 |
| | | 250 | 7750 | 46,000 | 52 | 170M4967 | 170M4982 |
| | | 315 | 16,500 | 98,500 | 60 | 170M4968 | 170M4983 |
| | | 350 | 21,500 | 130,000 | 65 | 170M4969 | 170M4984 |
| | | 400 | 31,000 | 185,000 | 70 | 170M4970 | 170M4985 |
| | | 450 | 44,500 | 265,000 | 80 | 170M4971 | 170M4986 |
| | | 500 | 63,000 | 375,000 | 85 | 170M4972 | 170M4987 |
| | | 550 | 84,500 | 500,000 | 90 | 170M4973 | 170M4988 |
| | | 630 | 125,000 | 755,000 | 98 | 170M4974 | 170M4989 |
| 2 | 1000 V a.c. (IEC and UL) | 250 | 6750 | 40,000 | 65 | 170M5966 | 170M5981 |
| | | 315 | 13,500 | 81,500 | 75 | 170M5967 | 170M5982 |
| | | 350 | 16,500 | 99,000 | 80 | 170M5968 | 170M5983 |
| | | 400 | 26,000 | 155,000 | 85 | 170M5969 | 170M5984 |
| | | 450 | 35,500 | 210,000 | 90 | 170M5970 | 170M5985 |
| | | 500 | 49,500 | 295,000 | 95 | 170M5971 | 170M5986 |
| | | 550 | 66,000 | 390,000 | 100 | 170M5972 | 170M5987 |
| | | 630 | 93,500 | 555,000 | 110 | 170M5973 | 170M5988 |
| | | 700 | 130,000 | 770,000 | 115 | 170M5974 | 170M5989 |
| | | 800 | 195,000 | 1,200,000 | 125 | 170M5975 | 170M5990 |
| 3 | 1000 V a.c. (IEC and UL) | 315 | 9200 | 54,500 | 90 | 170M8614 | 170M8629[1] |
| | | 350 | 13,000 | 77,500 | 95 | 170M8615 | 170M8630[1] |
| | | 400 | 19,000 | 115,000 | 105 | 170M8616 | 170M8631[1] |
| | | 450 | 27,000 | 160,000 | 107 | 170M8617 | 170M8632[1] |
| | | 500 | 37,500 | 225,000 | 110 | 170M8618 | 170M8633[1] |
| | | 550 | 52,000 | 310,000 | 115 | 170M8619 | 170M8634[1] |
| | | 630 | 82,500 | 490,000 | 120 | 170M8620 | 170M8635[1] |
| | | 700 | 115,000 | 700,000 | 125 | 170M8621 | 170M8636[1] |
| | | 800 | 170,000 | 1,050,000 | 135 | 170M8622 | 170M8637[1] |
| | | 900 | 250,000 | 1,500,000 | 145 | 170M8623 | 170M8638[1] |
| | | 1000 | 340,000 | 2,050,000 | 150 | 170M8624 | 170M8639[1] |
| | | 1100 | 460,000 | 2,750,000 | 155 | 170M8625 | 170M8640[1] |
| | 1000 V a.c. (IEC) | 1250 | 575,000 | 3,400,000 | 175 | 170M8626 | 170M8641 |
| | 900 V a.c. (IEC) | 1400 | 795,000 | 4,200,000 | 185 | 170M8627 | 170M8642 |

[1] Rated at 900 V d.c. 8XIn 90 kA

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 1* - 50 A to 400 A

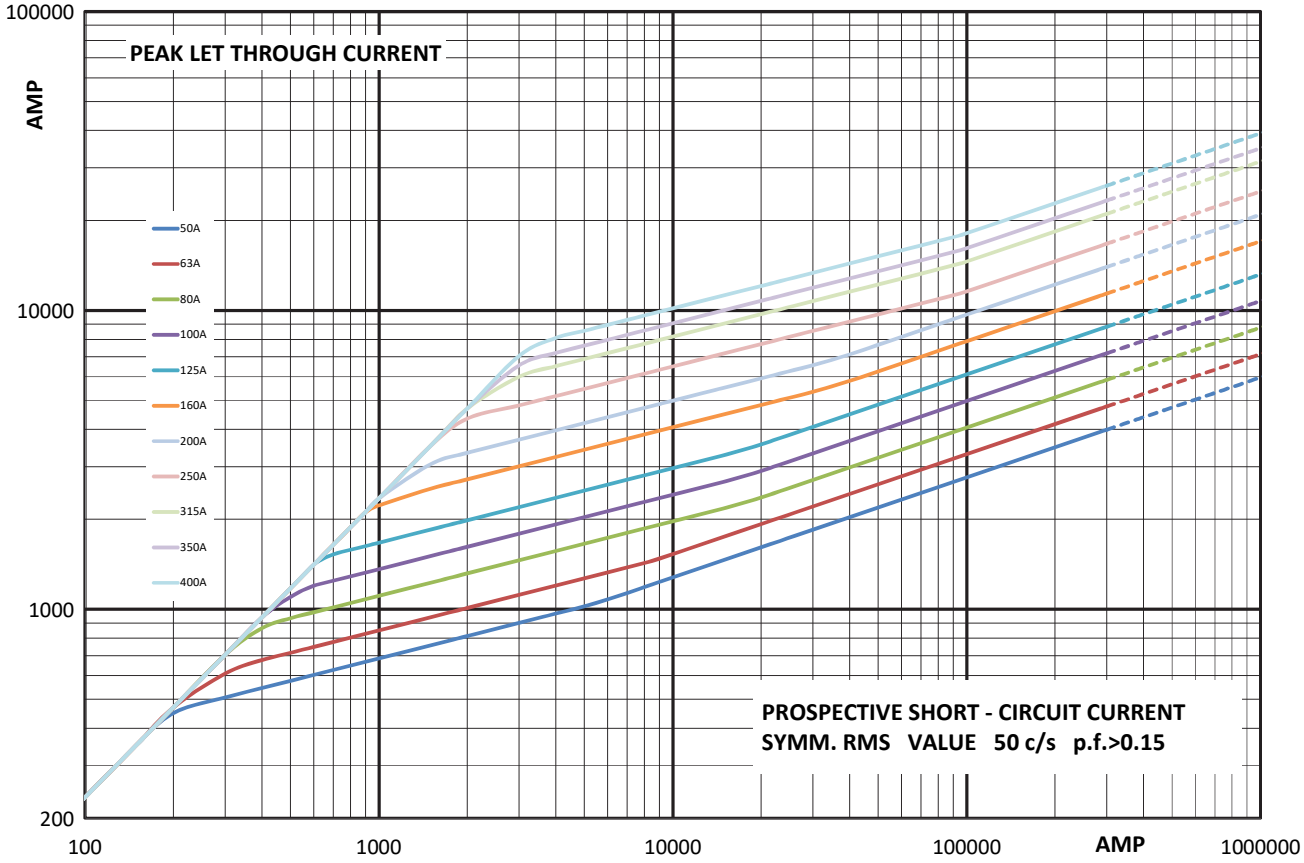



$K_b$ = 1 N = 1,6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

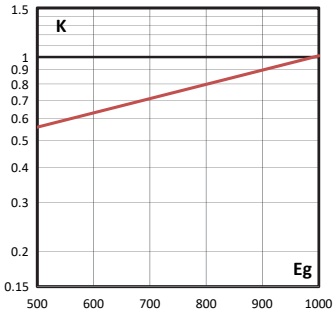
# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

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



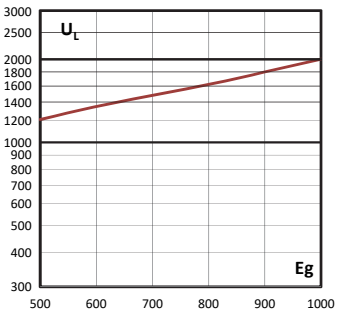

### Total clearing $I^2t$

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).



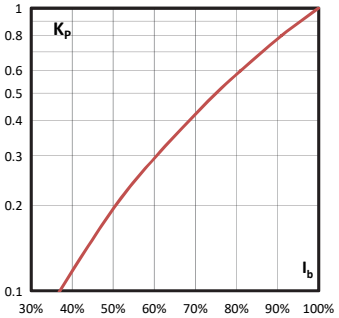

### Arc voltage

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

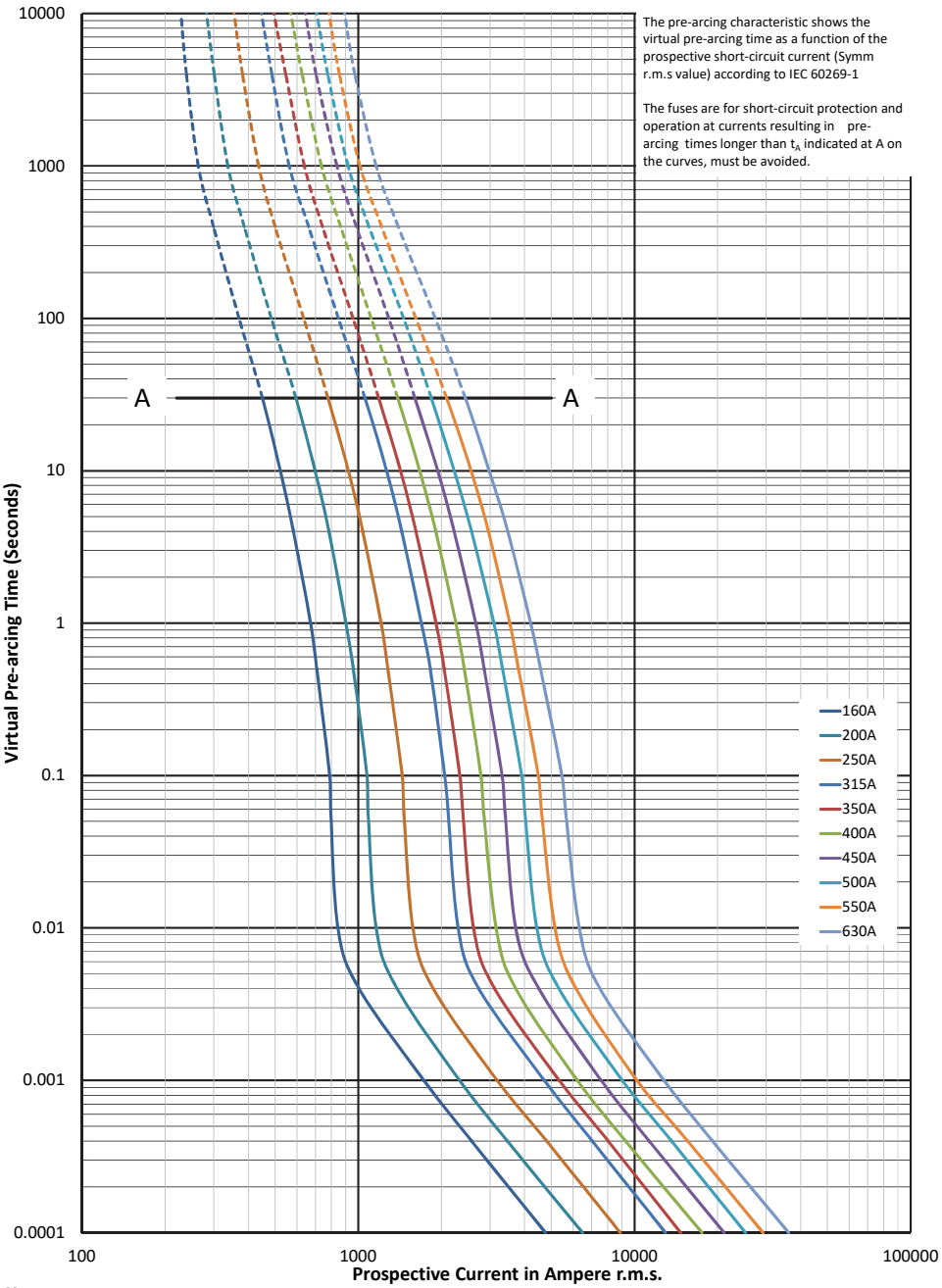
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 1, 160 A to 630 A

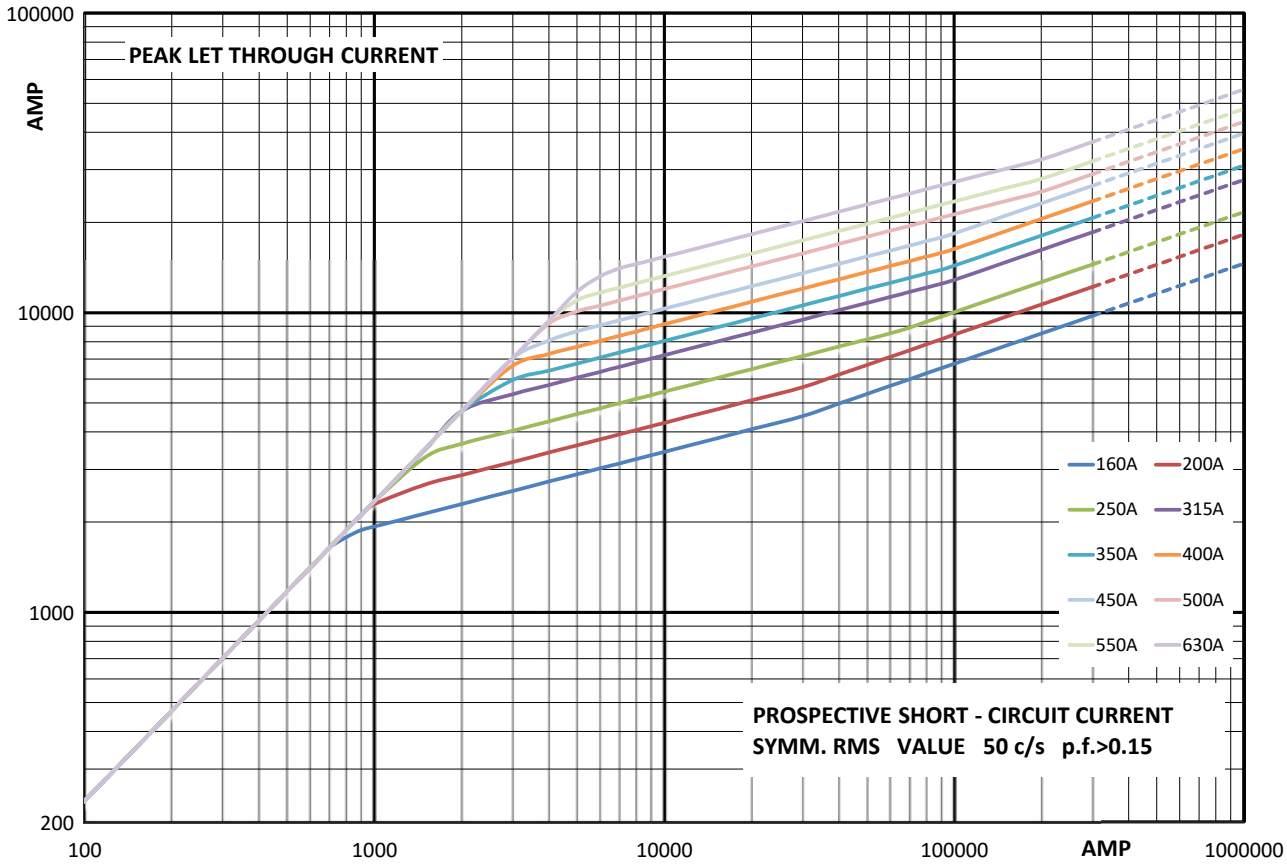



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

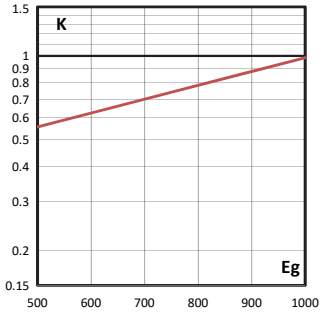
# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 1, 160 A to 630 A



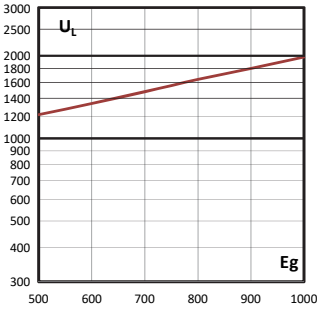

### Total clearing I²t

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).



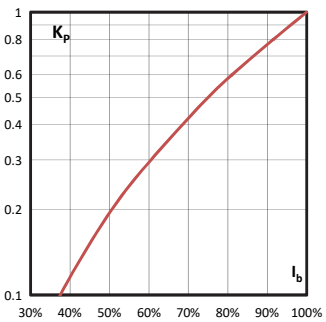

### Arc voltage

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

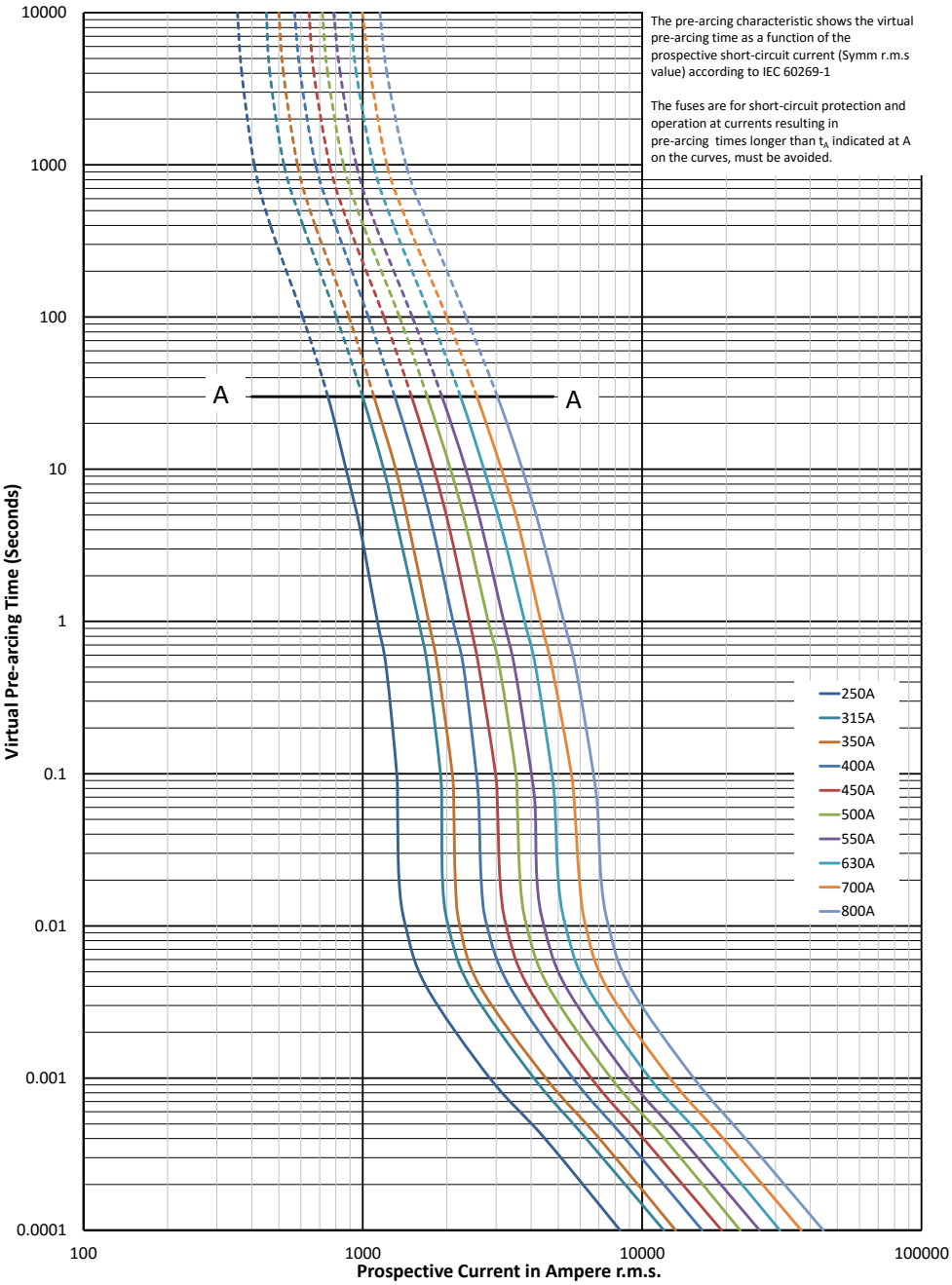
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 2, 250 A to 800 A

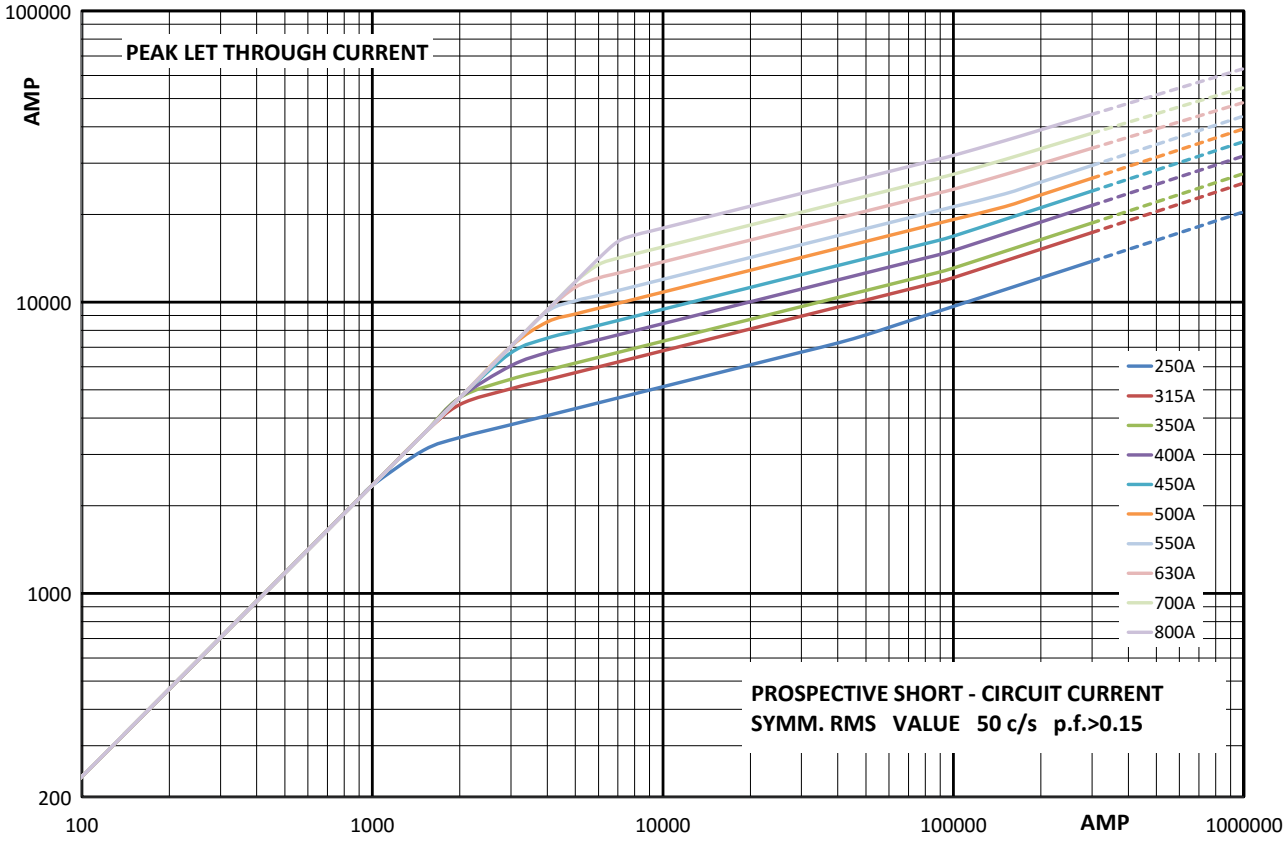



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

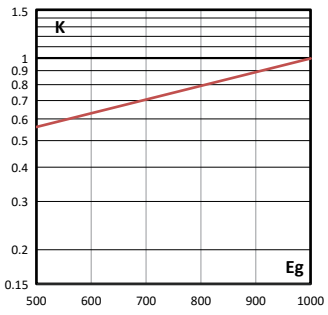
## 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

### Cut-off curve - Size 2, 250 A to 800 A



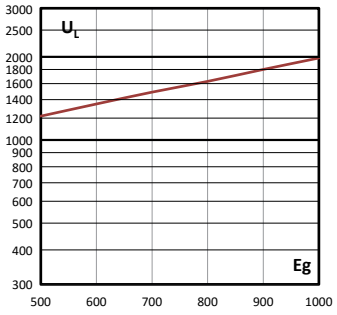

### Total clearing $I^2t$

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).



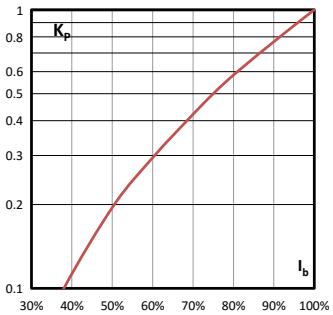

### Arc voltage

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

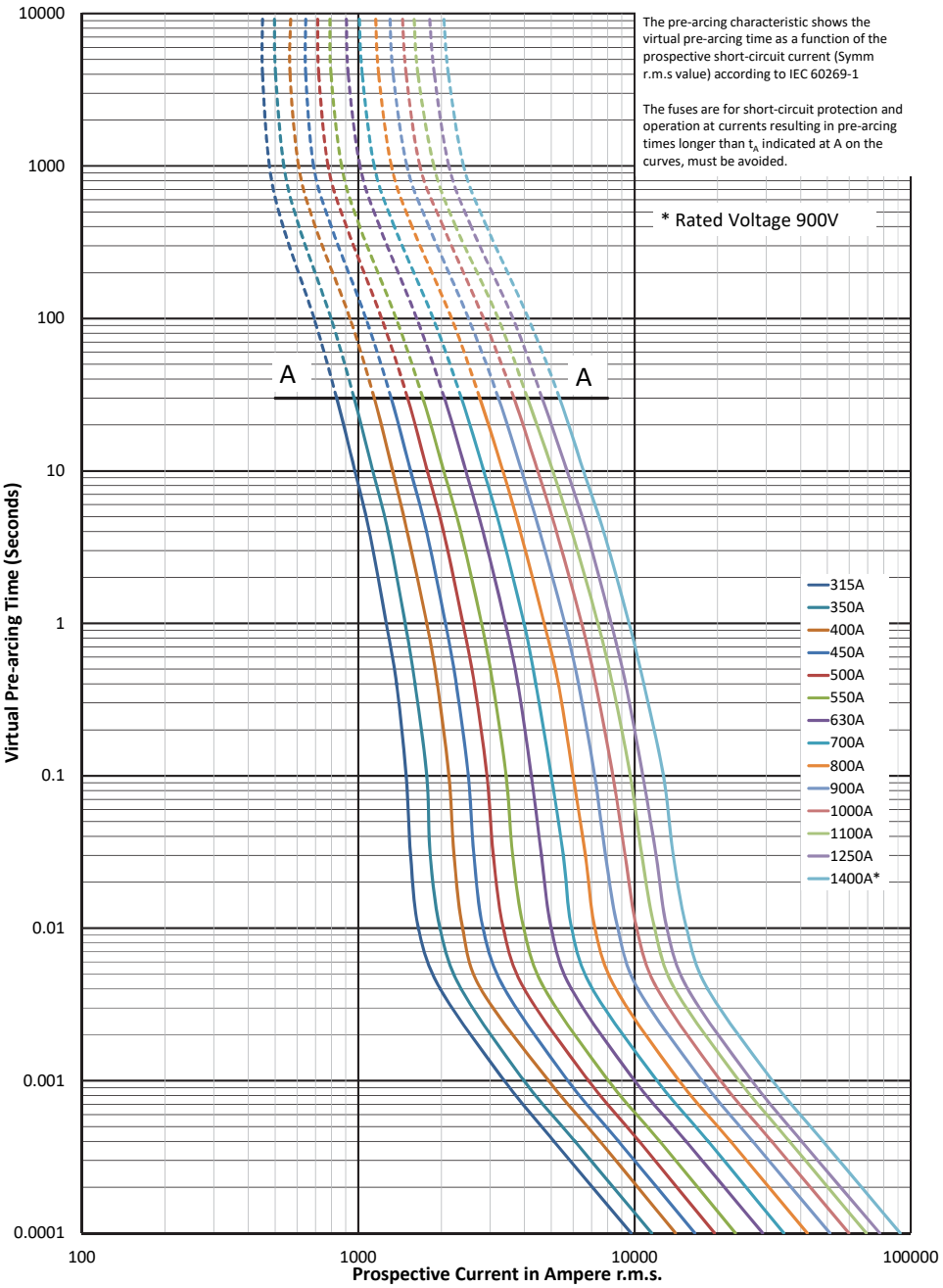
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 3, 315 A to 1400 A

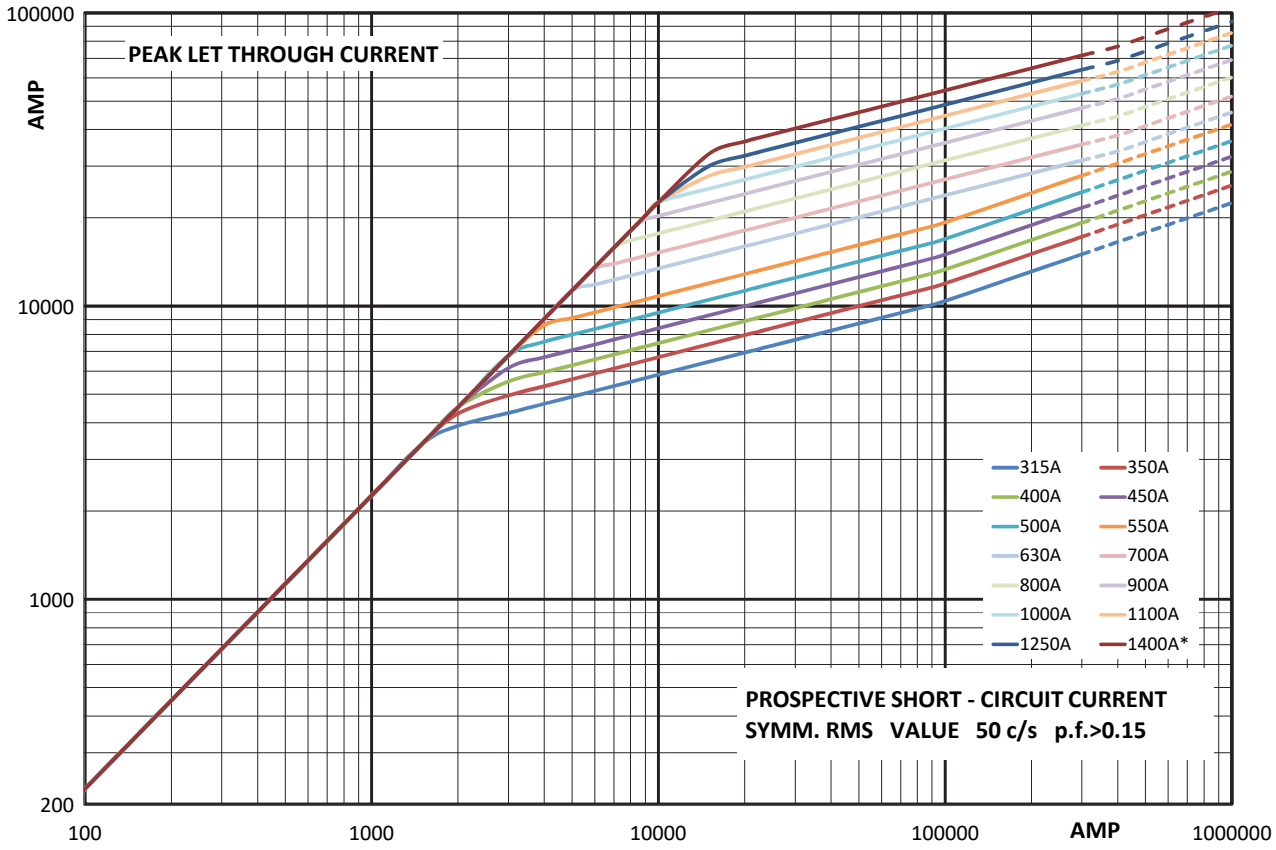



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

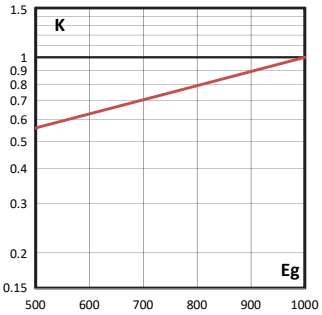
# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 3, 315 A to 1400 A



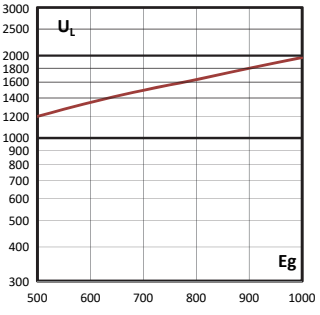

### Total clearing $I^2t$

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).



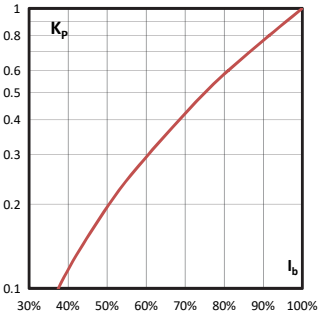

### Arc voltage

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: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Description

Square body DIN 43653 bolted tags high speed fuse links, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.

## Technical data

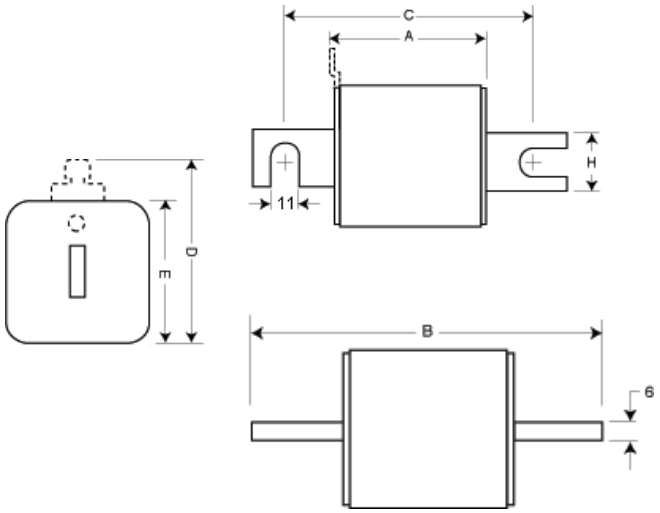
- Rated voltage: see table opposite page
- Rated current: 50 A to 1400 A
- Breaking capacity: 100 kA RMS Sym.
- Operating class: aR

## Standards / Agency information

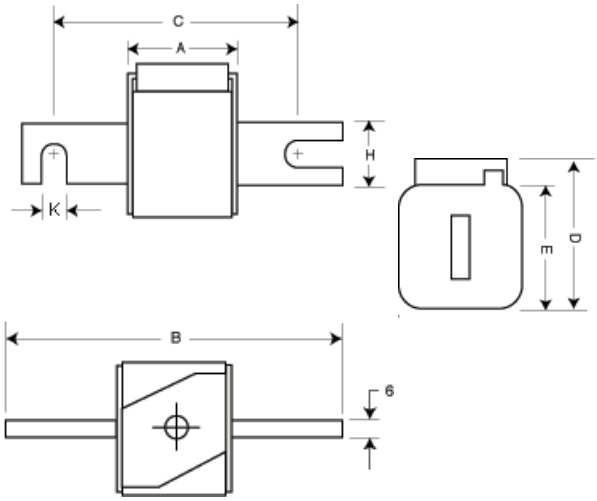
CE, Designed and tested to IEC60269 Part 4. Consult Eaton for UL Recognition/CSA Component Acceptance status.




## Dimensions (mm) -110 and TN/110




## Dimensions (mm) - KN/110




| Size | A | B | C | D[1] | E | H | K |
|---|---|---|---|---|---|---|---|
| 1* | 80 | 138 | 108 | 58 | 45 | 20 | 11 |
| 1 | 80 | 138 | 108 | 66 | 53 | 25 | 11 |
| 2 | 80 | 138 | 108 | 75 | 61 | 25 | 11 |
| 3 | 81 | 139 | 108 | 90 | 76 | 30 | 11 |

[1] Clip on Microswitch valid for fuse links -TN//110.
1mm = 0.0394"

| Size | A | B | C | D | E | H | K |
|---|---|---|---|---|---|---|---|
| 1* | 80 | 138 | 108 | 60 | 45 | 20 | 11 |
| 1 | 80 | 138 | 108 | 69 | 53 | 25 | 11 |
| 2 | 80 | 138 | 108 | 77 | 61 | 25 | 11 |
| 3 | 81 | 139 | 108 | 92 | 76 | 30 | 11 |

1mm = 0.0394"

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# Square body fuse links DIN 43653

## 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

### Catalogue numbers

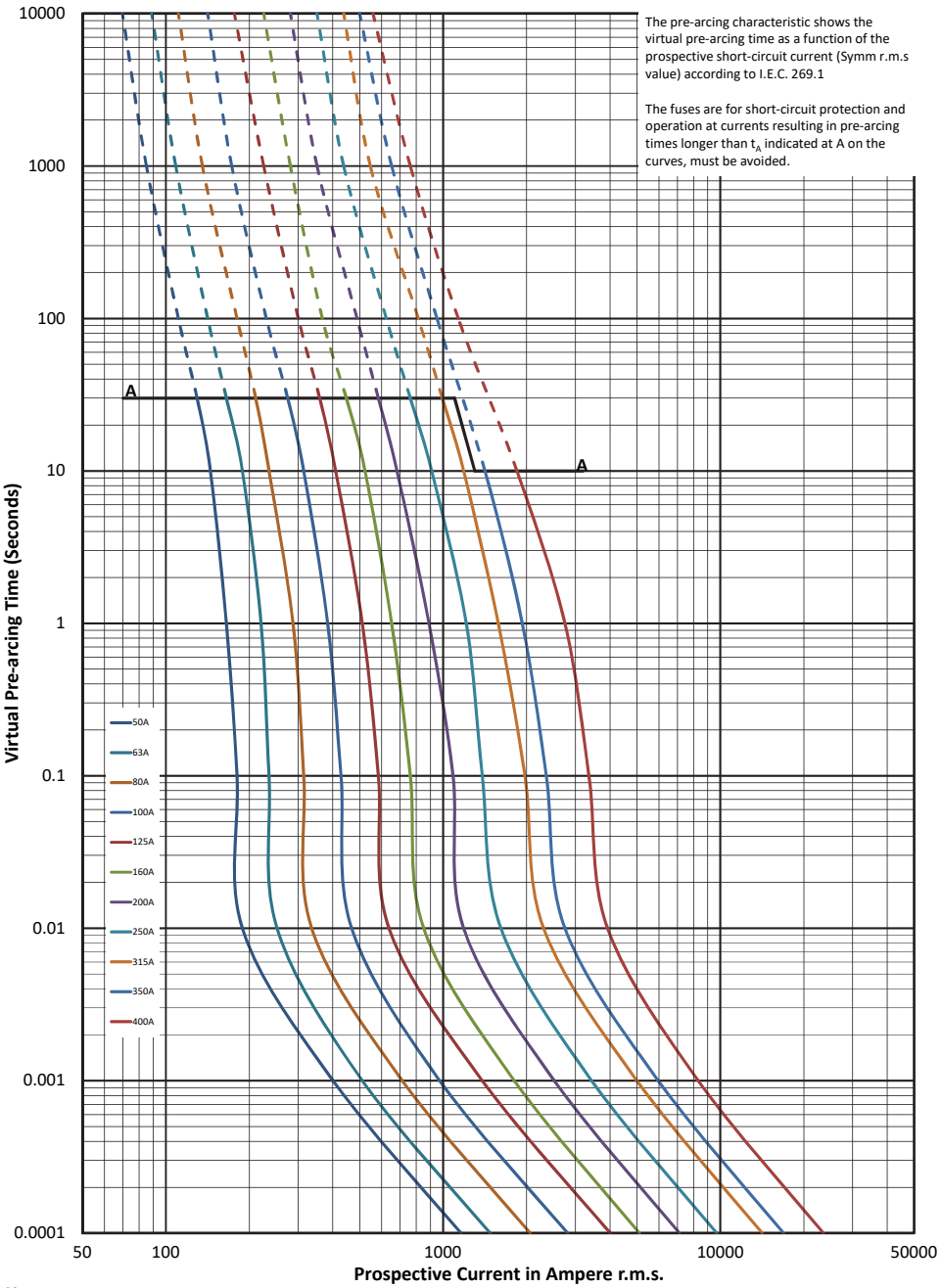
| | | | I²t (A² Sec) | | | | Catalogue numbers | | |
|---|---|---|---|---|---|---|---|---|---|
| Fuse link body size | Rated voltage | Rated current (Amps) | Pre-arcing | Clearing at 1000 V a.c. | Clearing at 1250 V a.c. | Watts loss (W) | -/110 Visual indicator | -TN/110 Type T indicator for micro | -KN/110 Type K indicator for micro |
| 1* | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 50 | 135 | 815 | 1100 | 15 | 170M3138 | 170M3188 | 170M3238 |
| | | 63 | 215 | 1300 | 1750 | 20 | 170M3139 | 170M3189 | 170M3239 |
| | | 80 | 420 | 2500 | 3350 | 25 | 170M3140 | 170M3190 | 170M3240 |
| | | 100 | 750 | 4450 | 5950 | 30 | 170M3141 | 170M3191 | 170M3241 |
| | | 125 | 1450 | 9000 | 11,500 | 35 | 170M3142 | 170M3192 | 170M3242 |
| | | 160 | 2600 | 16,000 | 21,000 | 40 | 170M3143 | 170M3193 | 170M3243 |
| | | 200 | 5150 | 31,000 | 41,000 | 45 | 170M3144 | 170M3194 | 170M3244 |
| | | 250 | 9200 | 54,500 | 73,000 | 55 | 170M3145 | 170M3195 | 170M3245 |
| | | 315 | 18,500 | 115,000 | 150,000 | 60 | 170M3146 | 170M3196 | 170M3246 |
| | | 350 | 27,000 | 165,000 | 220,000 | 65 | 170M3147 | 170M3197 | 170M3247 |
| | | 400 | 53,000 | 265,000 | 335,000 | 70 | 170M3148 | 170M3198 | 170M3248 |
| 1 | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 160 | 1900 | 11,500 | 15,500 | 45 | 170M4138[2] | 170M4188[2] | 170M4238[2] |
| | | 200 | 3800 | 22,500 | 30,000 | 50 | 170M4139[2] | 170M4189[2] | 170M4239[2] |
| | | 250 | 7750 | 46,000 | 61,500 | 60 | 170M4140[2] | 170M4190[2] | 170M4240[2] |
| | | 315 | 15,000 | 90,000 | 120,000 | 65 | 170M4141[2] | 170M4191[2] | 170M4241[2] |
| | | 350 | 20,000 | 125,000 | 165,000 | 70 | 170M4142[2] | 170M4192[2] | 170M4242[2] |
| | | 400 | 29,500 | 175,000 | 235,000 | 75 | 170M4143[2] | 170M4193[2] | 170M4243[2] |
| | | 450 | 42,000 | 250,000 | 335,000 | 80 | 170M4144[2] | 170M4194[2] | 170M4244[2] |
| | 800 V d.c. (UL) 85 kA IR | 500 | 69,500 | 340,000 | 435,000 | 85 | 170M4145 | 170M4195 | 170M4245 |
| | | 550 | 95,000 | 465,000 | 590,000 | 95 | 170M4146 | 170M4196 | 170M4246 |
| | 1100 V a.c. (IEC) | 630 | 130,000 | 660,000 | N/A | 100 | 170M4147[1] | 170M4197[1] | 170M4247[1] |
| 2 | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 250 | 6500 | 38,500 | 51,500 | 65 | 170M5138 | 170M5188 | 170M5238 |
| | | 280 | 9350 | 55,500 | 74,500 | 70 | 170M5139 | 170M5189 | 170M5239 |
| | | 315 | 13,000 | 77,500 | 105,000 | 75 | 170M5140 | 170M5190 | 170M5240 |
| | | 350 | 16,500 | 97,500 | 135,000 | 80 | 170M5141 | 170M5191 | 170M5241 |
| | | 400 | 23,000 | 140,000 | 180,000 | 85 | 170M5142 | 170M5192 | 170M5242 |
| | | 450 | 34,000 | 205,000 | 270,000 | 90 | 170M5143 | 170M5193 | 170M5243 |
| | | 500 | 48,000 | 285,000 | 380,000 | 95 | 170M5144 | 170M5194 | 170M5244 |
| | | 550 | 62,000 | 370,000 | 495,000 | 100 | 170M5145 | 170M5195 | 170M5245 |
| | | 630 | 115,000 | 575,000 | 730,000 | 120 | 170M5146[2] | 170M5196[2] | 170M5246 |
| | | 700 | 160,000 | 795,000 | 1,050,000 | 125 | 170M5147[2] | 170M5197[2] | 170M5247 |
| | | 800 | 245,000 | 1,200,000 | 1,550,000 | 130 | 170M5148[2] | 170M5198[2] | 170M5248 |
| | 1100 V a.c. (IEC & UL) | 900 | 360,000 | 1,750,000 | N/A | 135 | 170M5149[4] | 170M5199[4] | 170M5249[4] |
| | | 1000 | 480,000 | 2,350,000 | N/A | 145 | 170M5150[4] | 170M5200[4] | 170M5250[4] |
| 3 | 1300 V a.c. (UL) | 315 | 9500 | 58,000 | 77,500 | 85 | 170M6138[2] | 170M6188[2] | 170M6238[2] |
| | | 350 | 13,500 | 81,500 | 110,000 | 90 | 170M6139[2] | 170M6189[2] | 170M6239[2] |
| | | 400 | 19,500 | 120,000 | 160,000 | 95 | 170M6140[2] | 170M6190[2] | 170M6240[2] |
| | | 450 | 31,000 | 185,000 | 245,000 | 100 | 170M6141[2] | 170M6191[2] | 170M6241[2] |
| | | 500 | 39,000 | 235,000 | 310,000 | 105 | 170M6142[2] | 170M6192[2] | 170M6242[2] |
| | | 550 | 55,000 | 325,000 | 435,000 | 110 | 170M6143[2] | 170M6193[2] | 170M6243[2] |
| | | 630 | 83,500 | 495,000 | 665,000 | 115 | 170M6144[2] | 170M6194[2] | 170M6244[2] |
| | | 700 | 115,000 | 705,000 | 940,000 | 120 | 170M6145[2] | 170M6195[2] | 170M6245[2] |
| | | 800 | 205,000 | 995,000 | 1,300,000 | 125 | 170M6146[3] | 170M6196[3] | 170M6246[1] |
| | | 900 | 305,000 | 1,500,000 | 1,900,000 | 130 | 170M6147[3] | 170M6197[3] | 170M6247[1] |
| | | 1000 | 450,000 | 2,150,000 | 2,750,000 | 135 | 170M6148[3] | 170M6198[3] | 170M6248[1] |
| | | 1100 | 575,000 | 2,800,000 | 3,600,000 | 160 | 170M6149[3] | 170M6199[3] | 170M6249[1] |
| | 1100 V a.c. (IEC) | 1250 | 810,000 | 3,950,000 | N/A | 170 | 170M6150[5] | 170M6200[1] | 170M6250[1] |
| | | 1400 | 1,250,000 | 6,000,000 | N/A | 175 | 170M6151[5] | 170M6201[1] | 170M6251[1] |

[1] These fuse links are not UL recognised [2] 900 V d.c. 8XIn 90 kA [3] Rated at 1000 V d.c. 10XIn 91 kA [4] 900 V d.c. 9.5XIn 80 kA
[5] 900 V d.c. 12XIn 90 kA

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

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

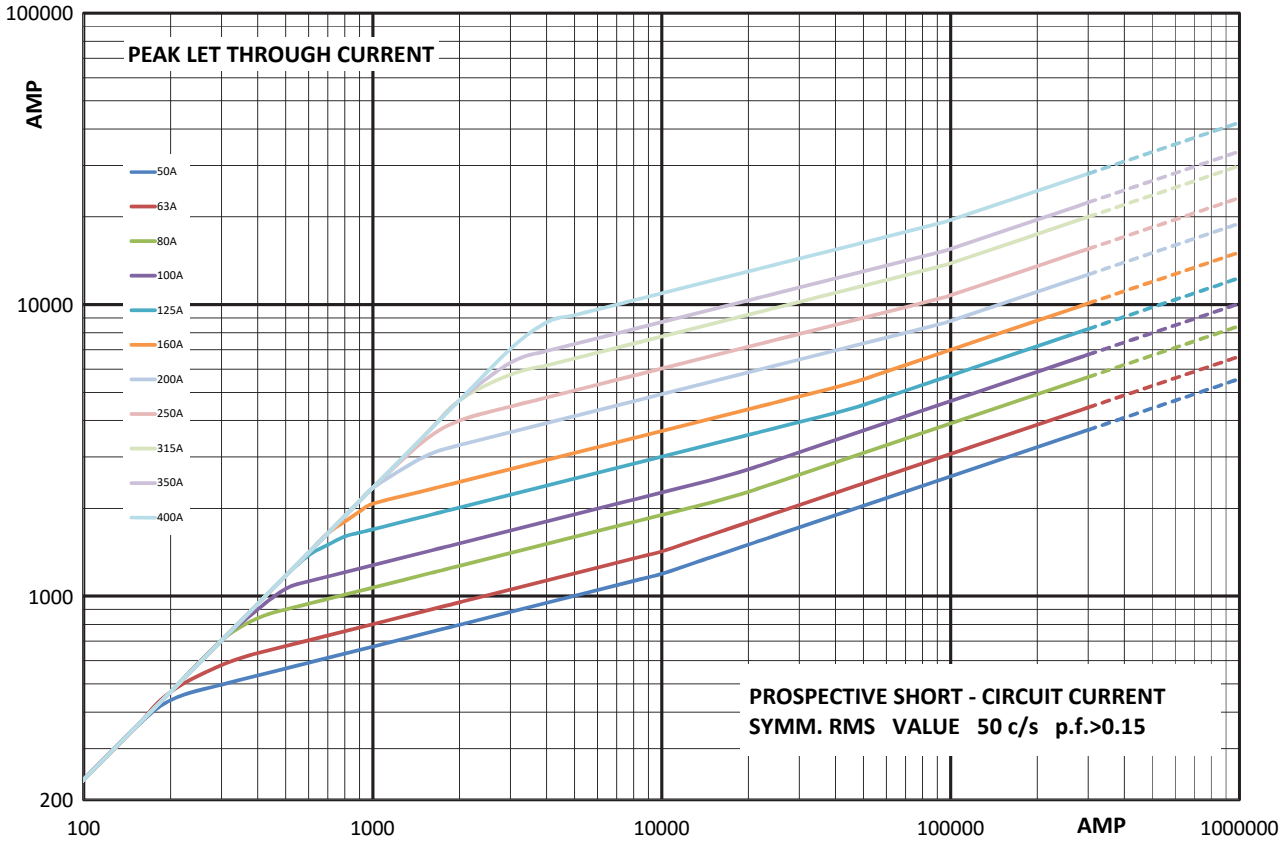



$K_b$ = 1 N = 1,6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

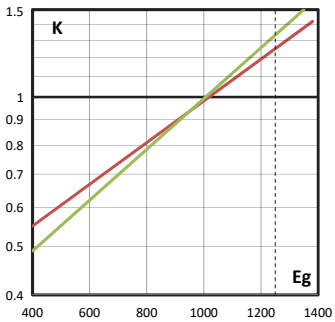
# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 1*, 50 A to 400 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).

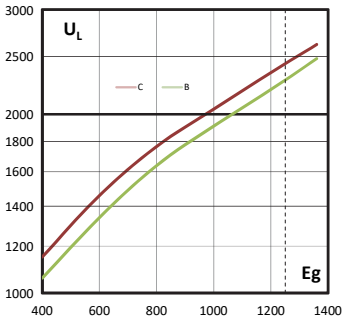



Green curve: fuses ≤ 350 A

Red curve: fuses ≥ 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.

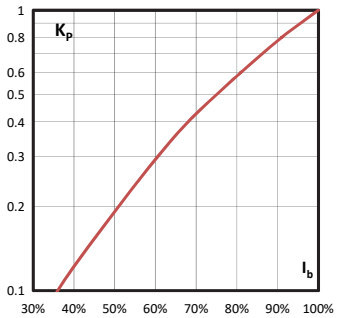



B: fuses ≤ 350 A

C: fuses ≥ 400 A

### Watts losses

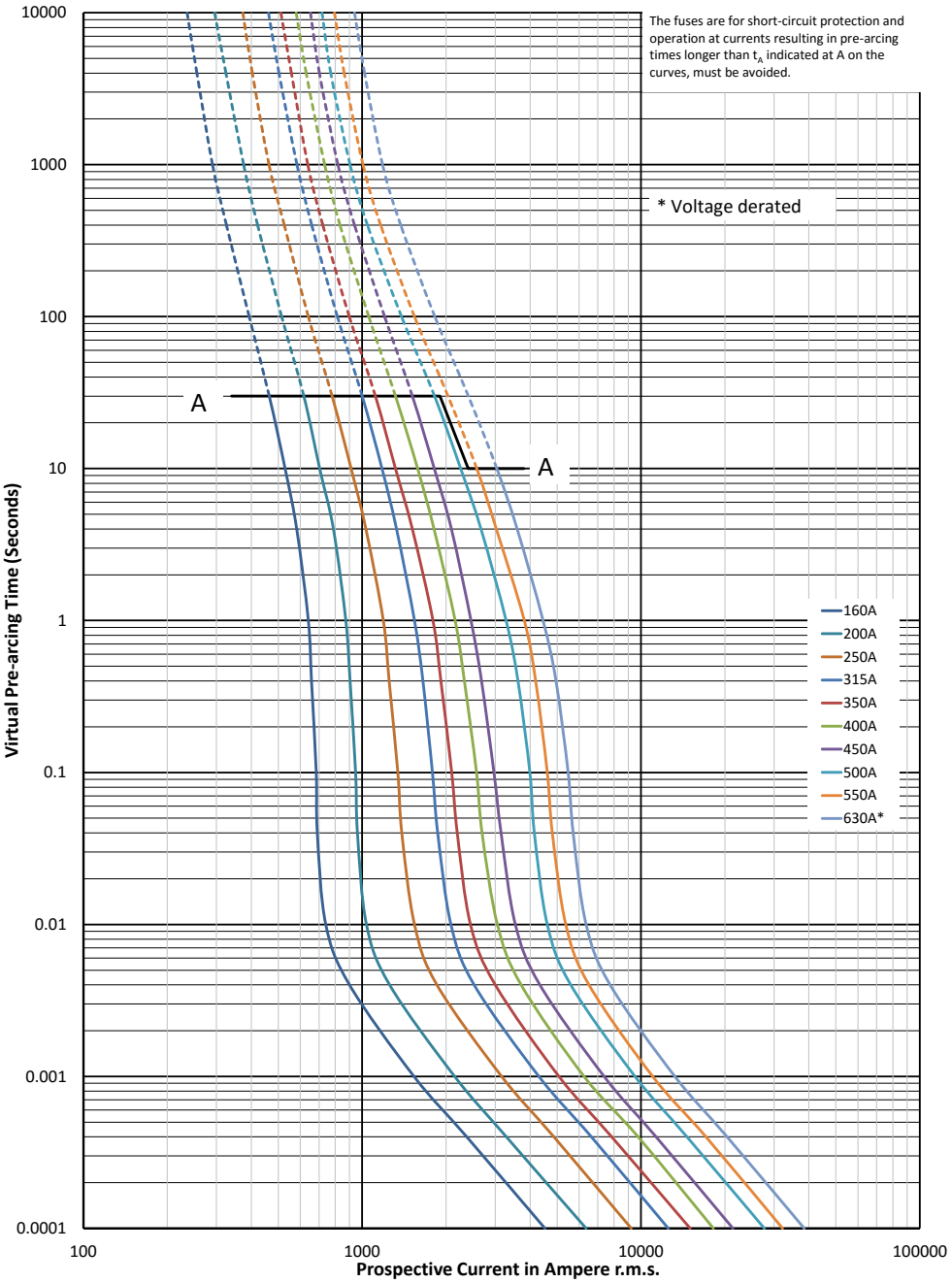
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 1, 160 A to 630 A

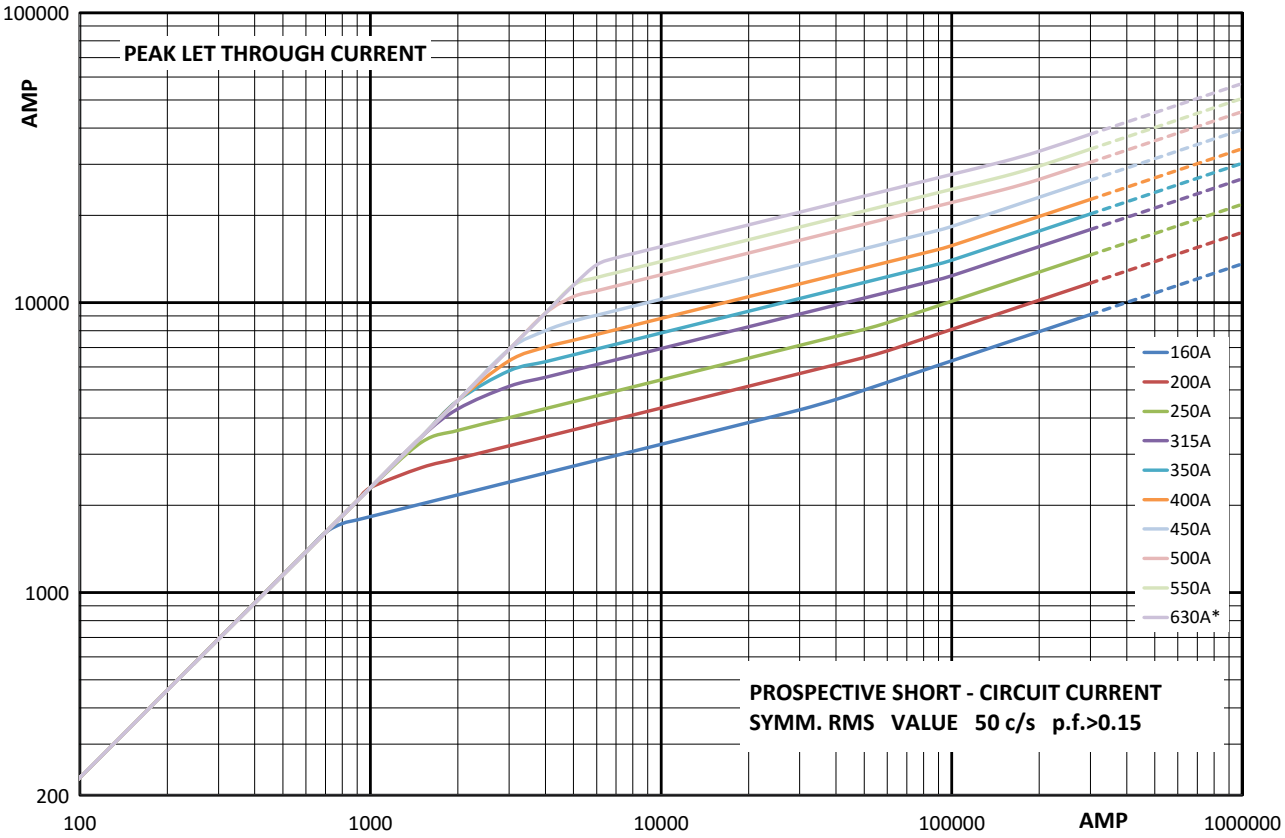



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

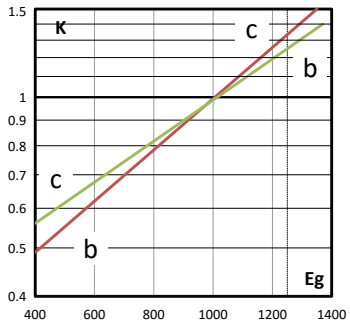
# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 1, 160 A to 630 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).

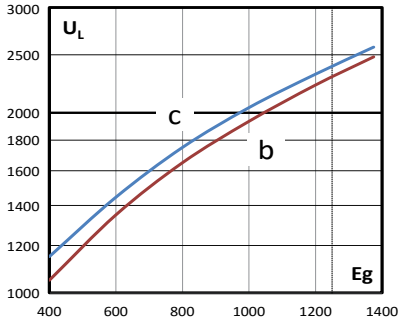



B: fuses ≤ 450 A

C: fuses ≥ 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.

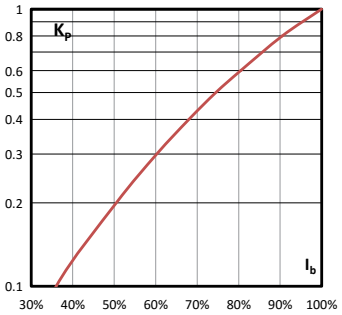



B: fuses ≤ 450 A

C: fuses ≥ 500 A

### Watts losses

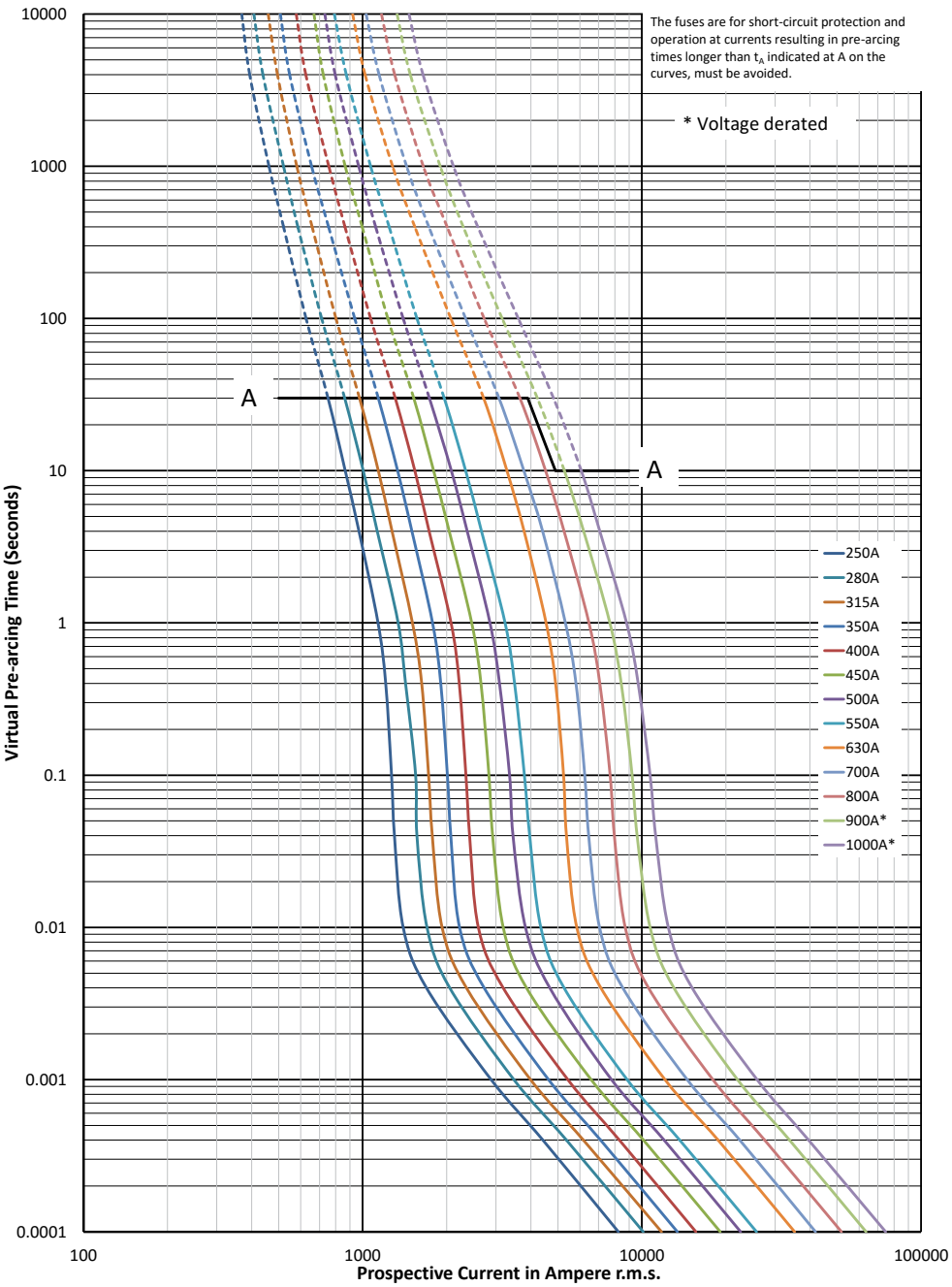
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 2, 250 A to 1000 A

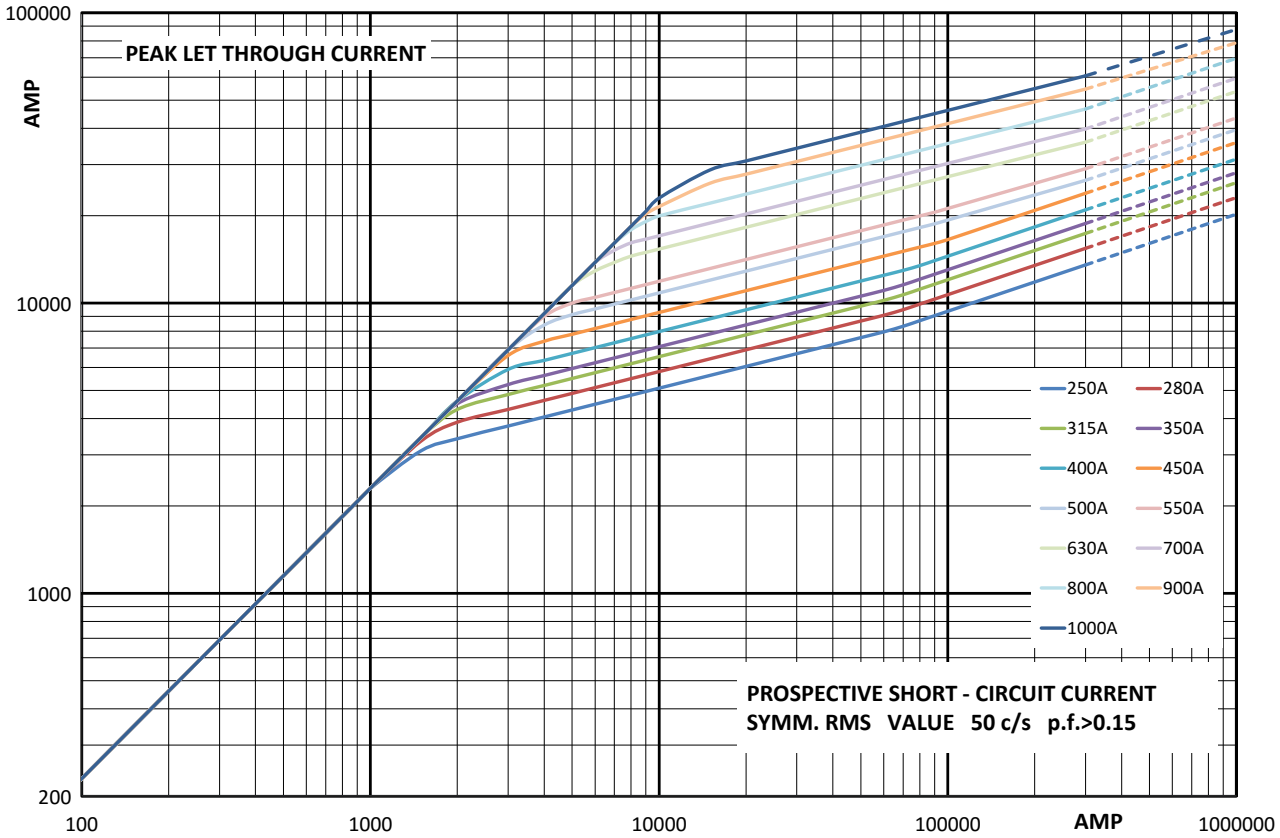



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

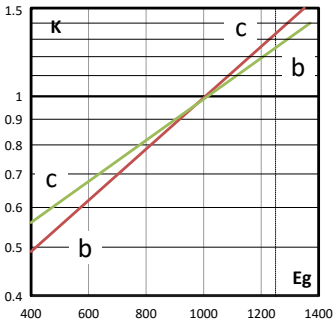
## 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

### Cut-off curve - Size 2, 250 A to 1000 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).

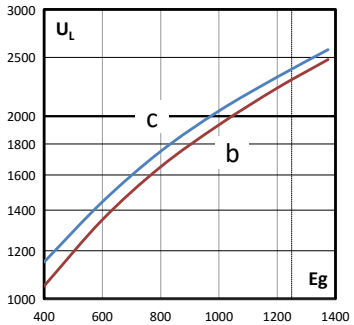



B: fuses ≤ 550 A

C: fuses ≥ 630 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.

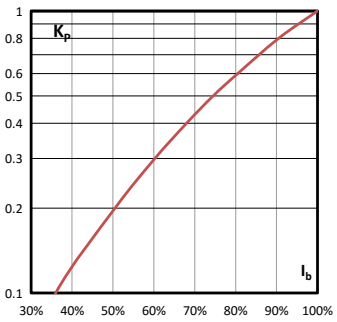



B: fuses ≤ 550 A

C: fuses ≥ 630 A

### Watts losses

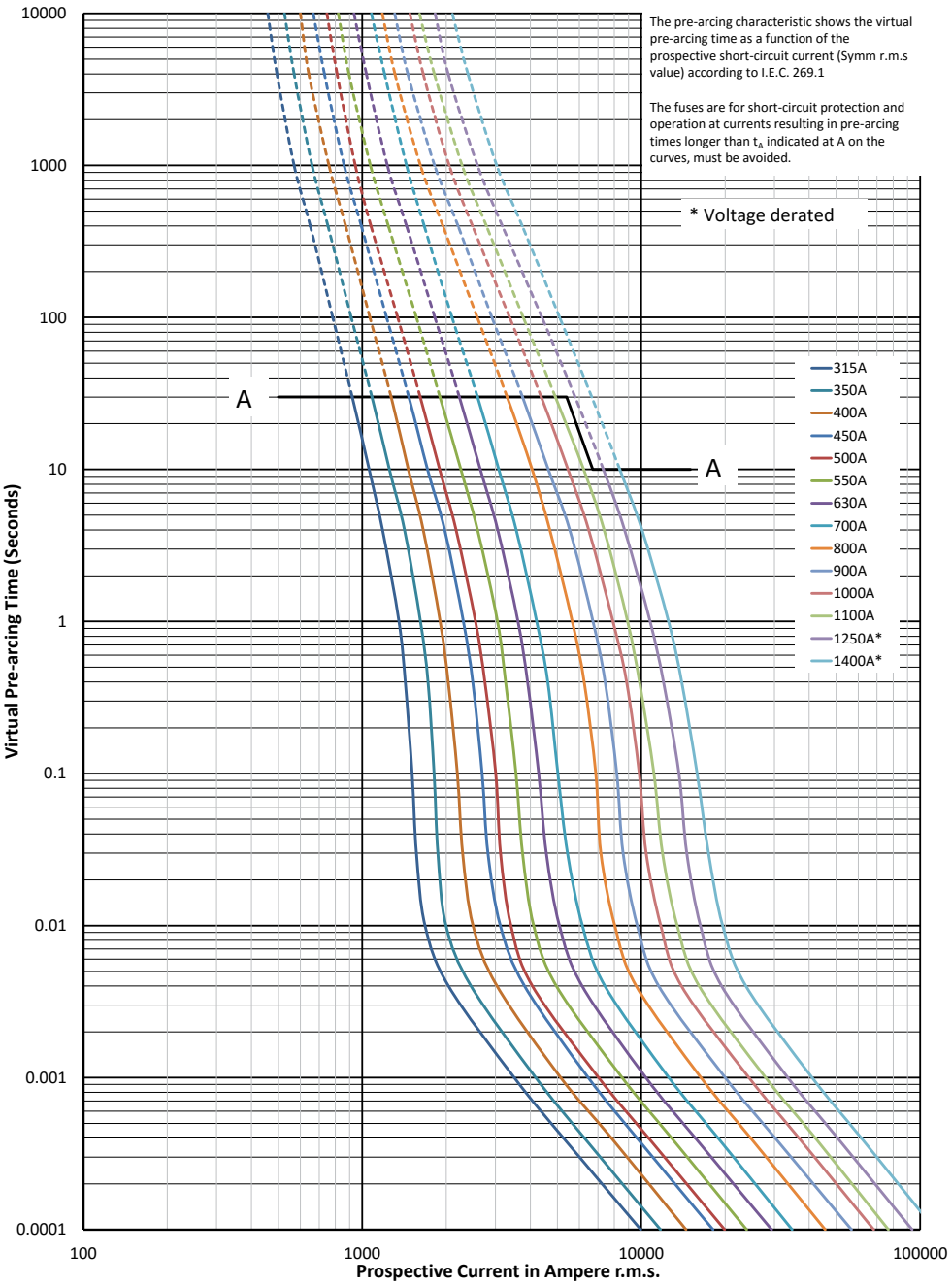
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Time-current curve - Size 3, 315 A to 1400 A

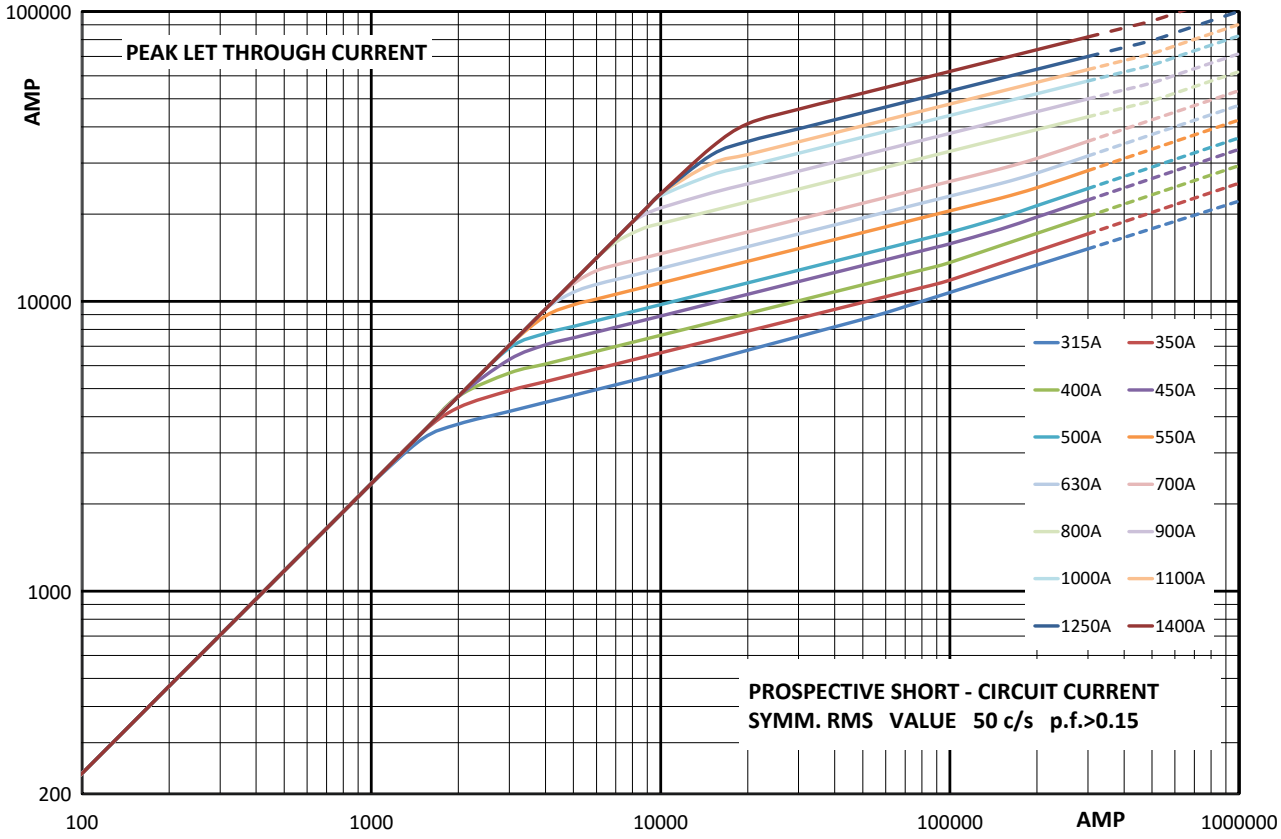



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

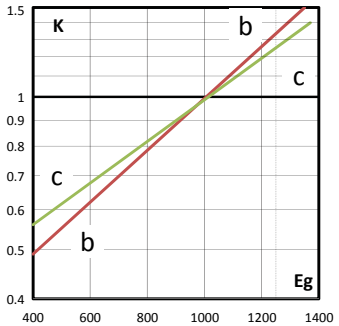
# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - DIN 43653 - 170M

## Cut-off curve - Size 3, 315 A to 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).

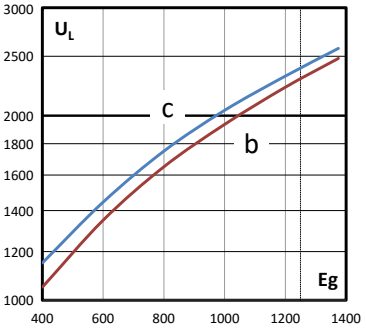



B: fuses ≤ 550 A

C: fuses ≥ 630 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.

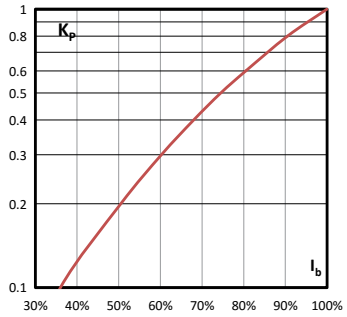



B: fuses ≤ 700 A

C: fuses ≥ 800 A

### 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: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

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

## Description

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



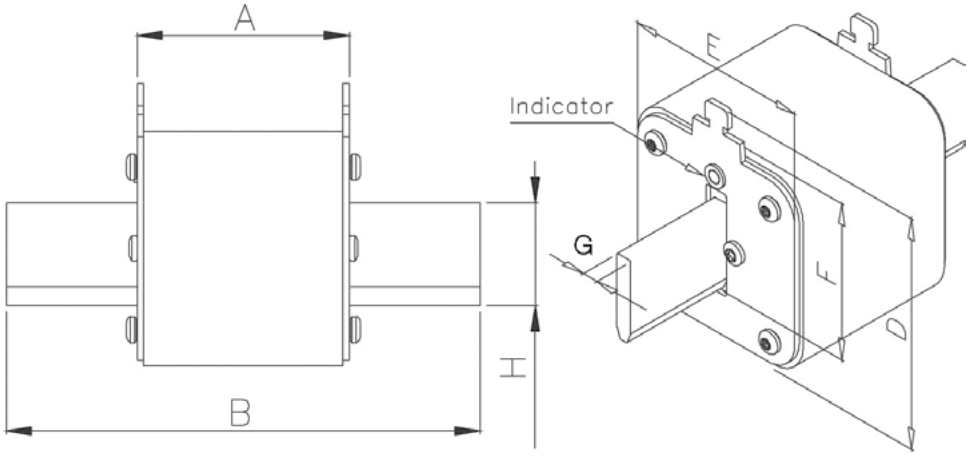

## Technical data

- 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)

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

## Catalogue numbers

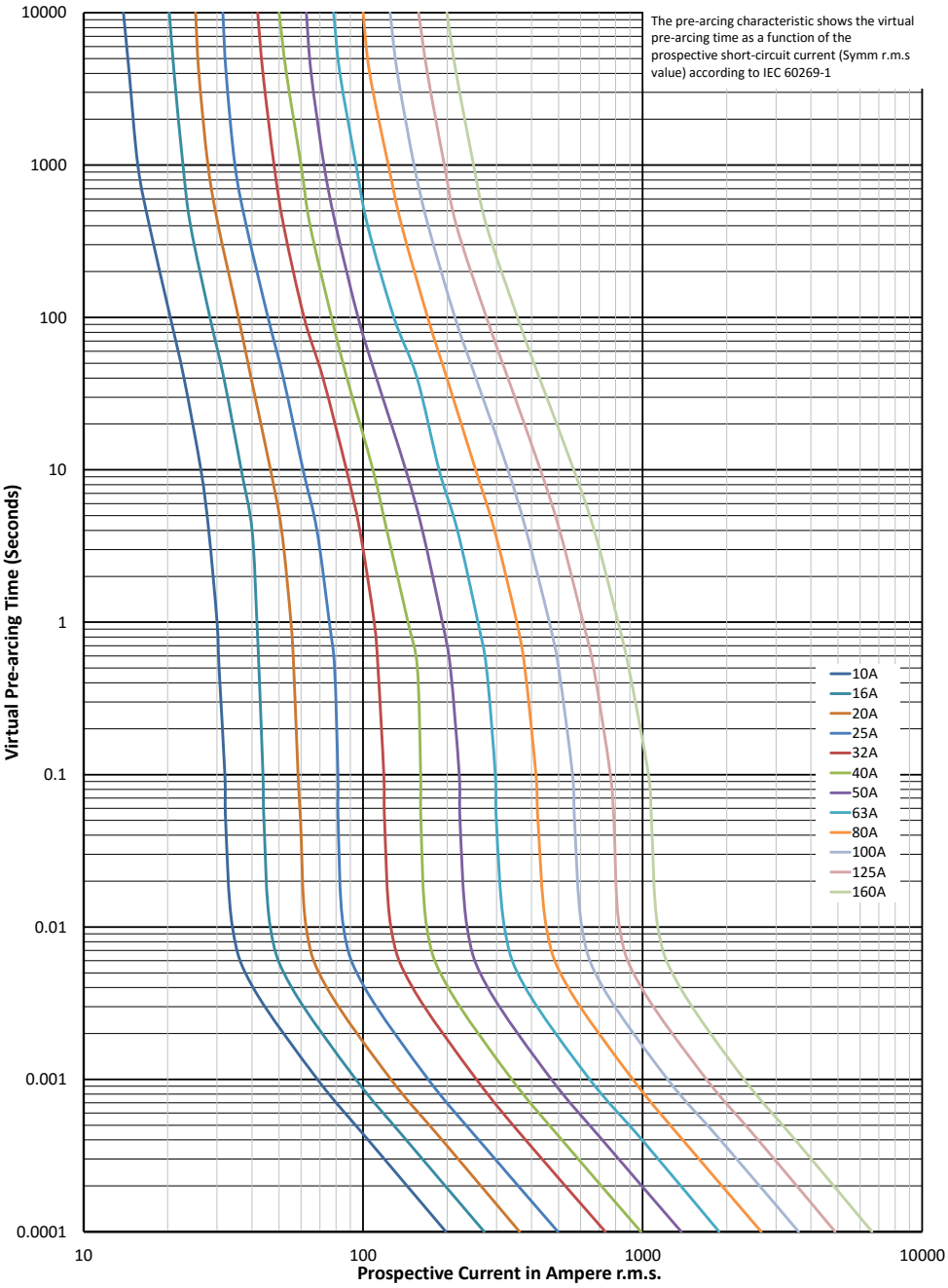
| Fuse link body size | Rated voltage | Rated current (Amps)[1] | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 690 V a.c. | Watts loss (W) | Catalogue numbers Type T indicator for micro |
|---|---|---|---|---|---|---|
| 00 | 690 V a.c. (IEC) | 10 | 3.8 | 20 | 3.5 | 170M2691 |
| | | 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)

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

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

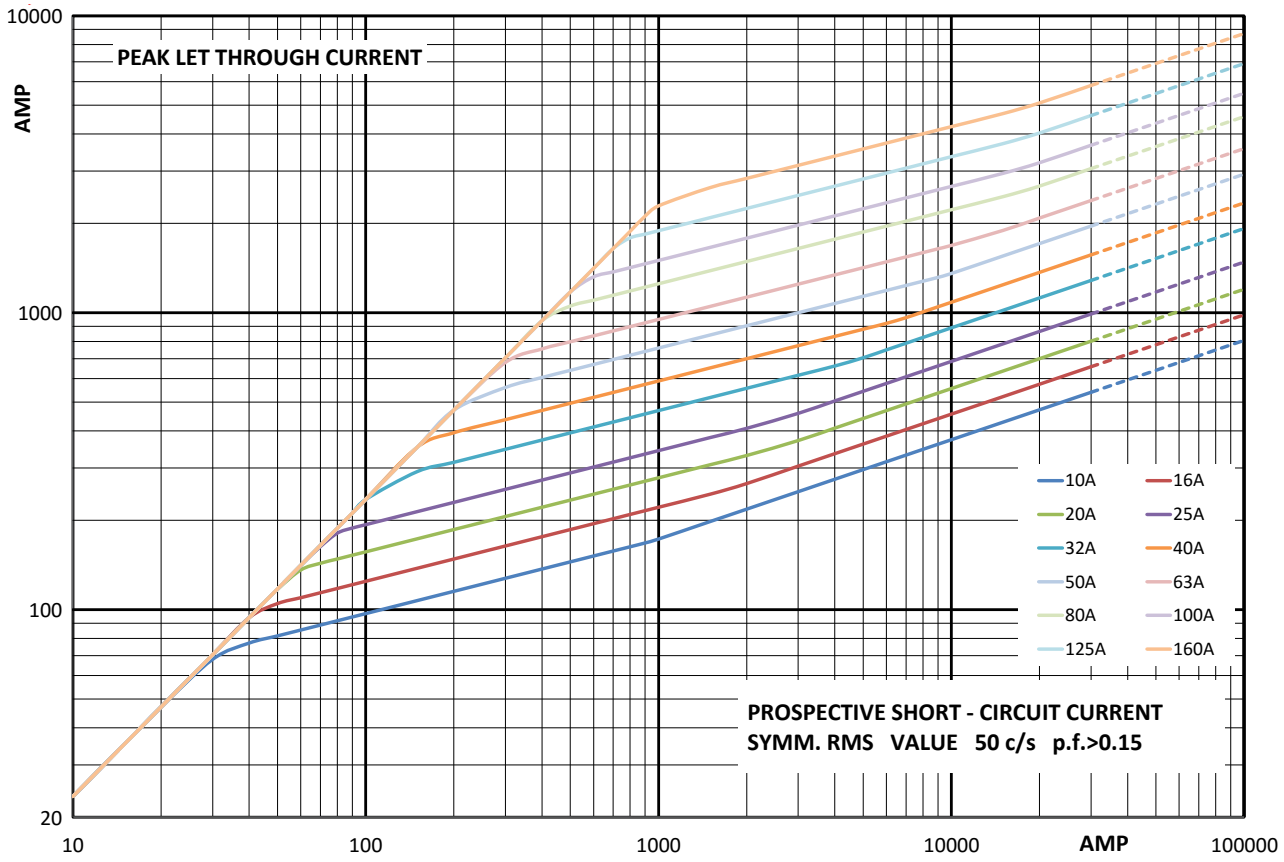



$K_b$ = 1 N = 1.6

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

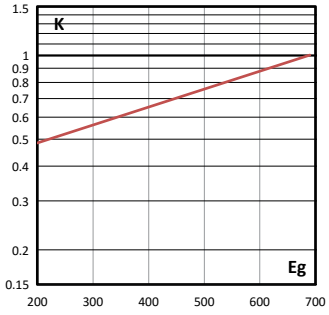
# 690 V a.c. (IEC) - 10 A to 800 A - Sizes 00 to 3 - DIN 43620 Full range (gR) - 170M

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



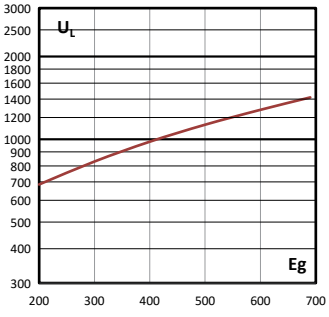

### Total clearing I²t

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).



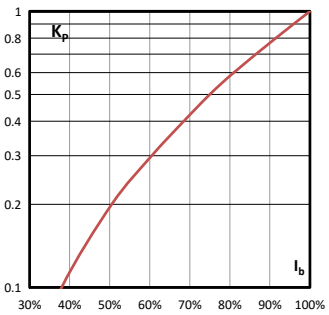

### Arc voltage

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

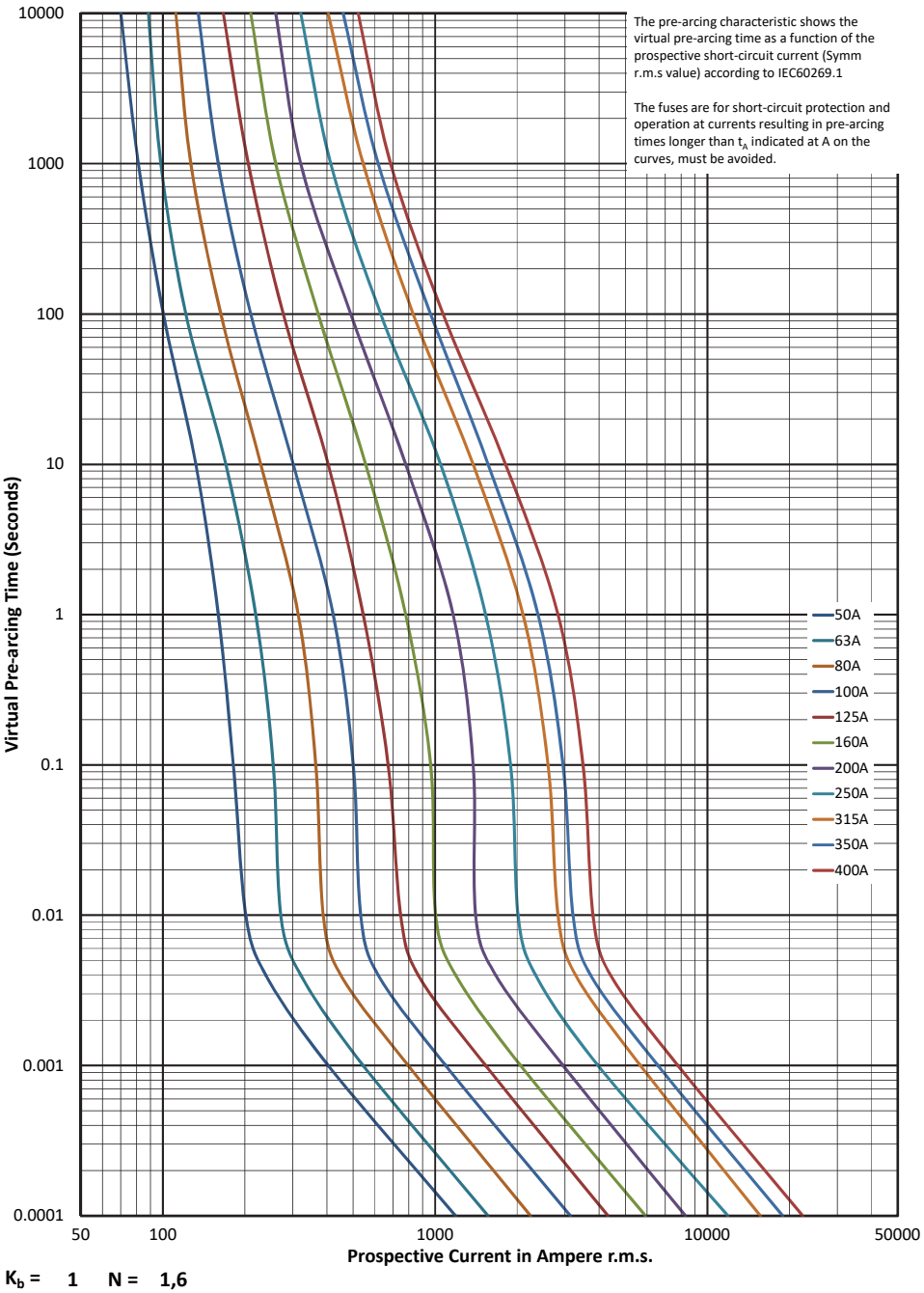
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




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

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

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

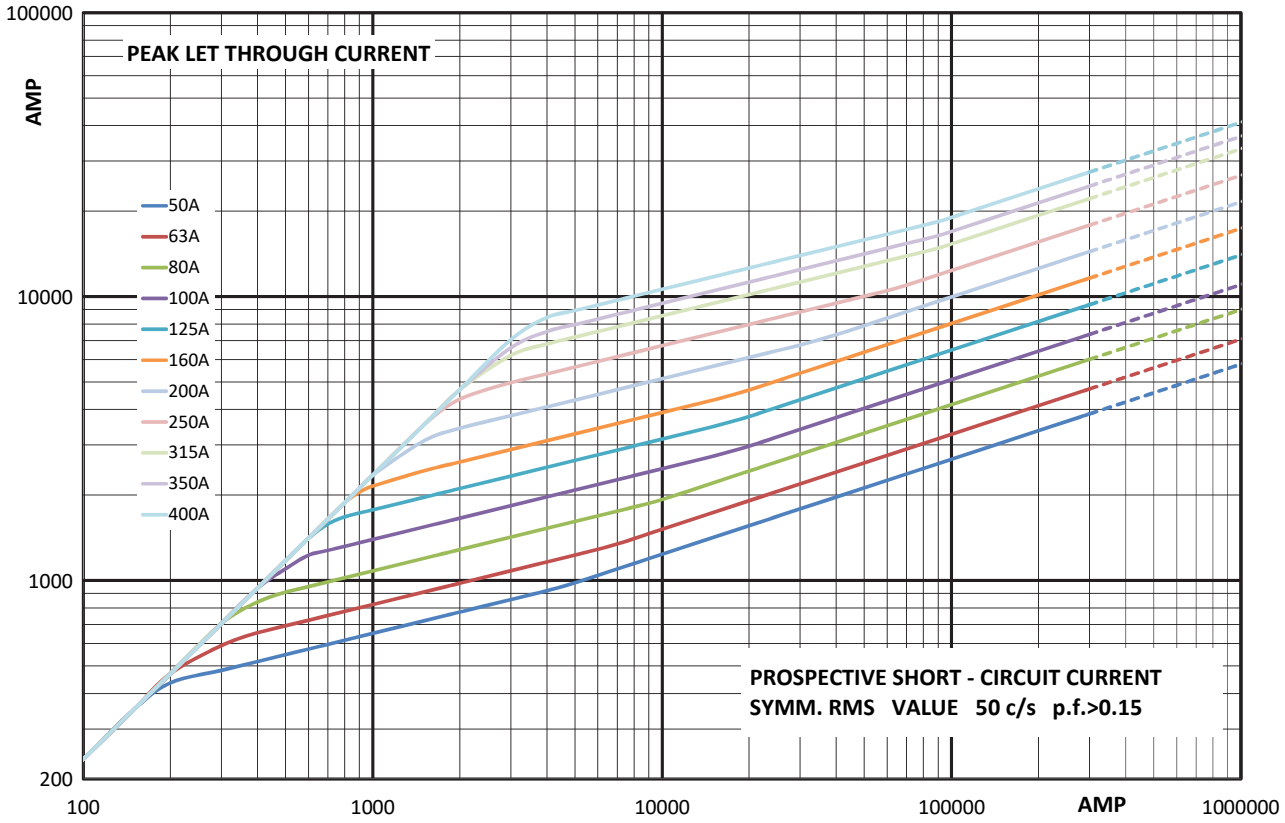



$K_b$ = 1 N = 1,6

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

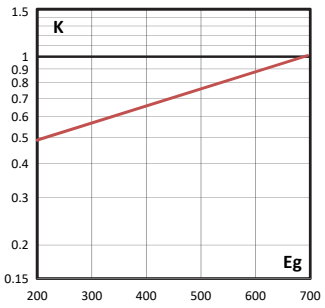
# 690 V a.c. (IEC) - 10 A to 800 A - Sizes 00 to 3 - DIN 43620 Full range (gR) - 170M

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



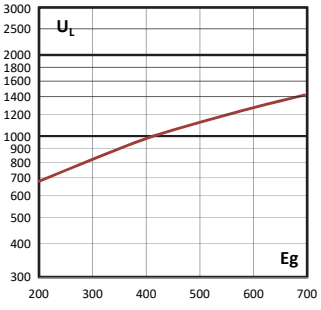

### Total clearing I²t

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).



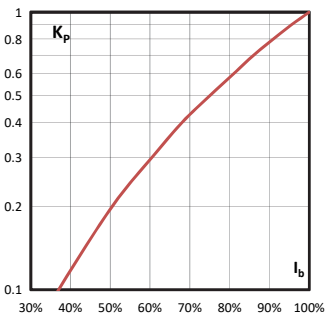

### Arc voltage

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

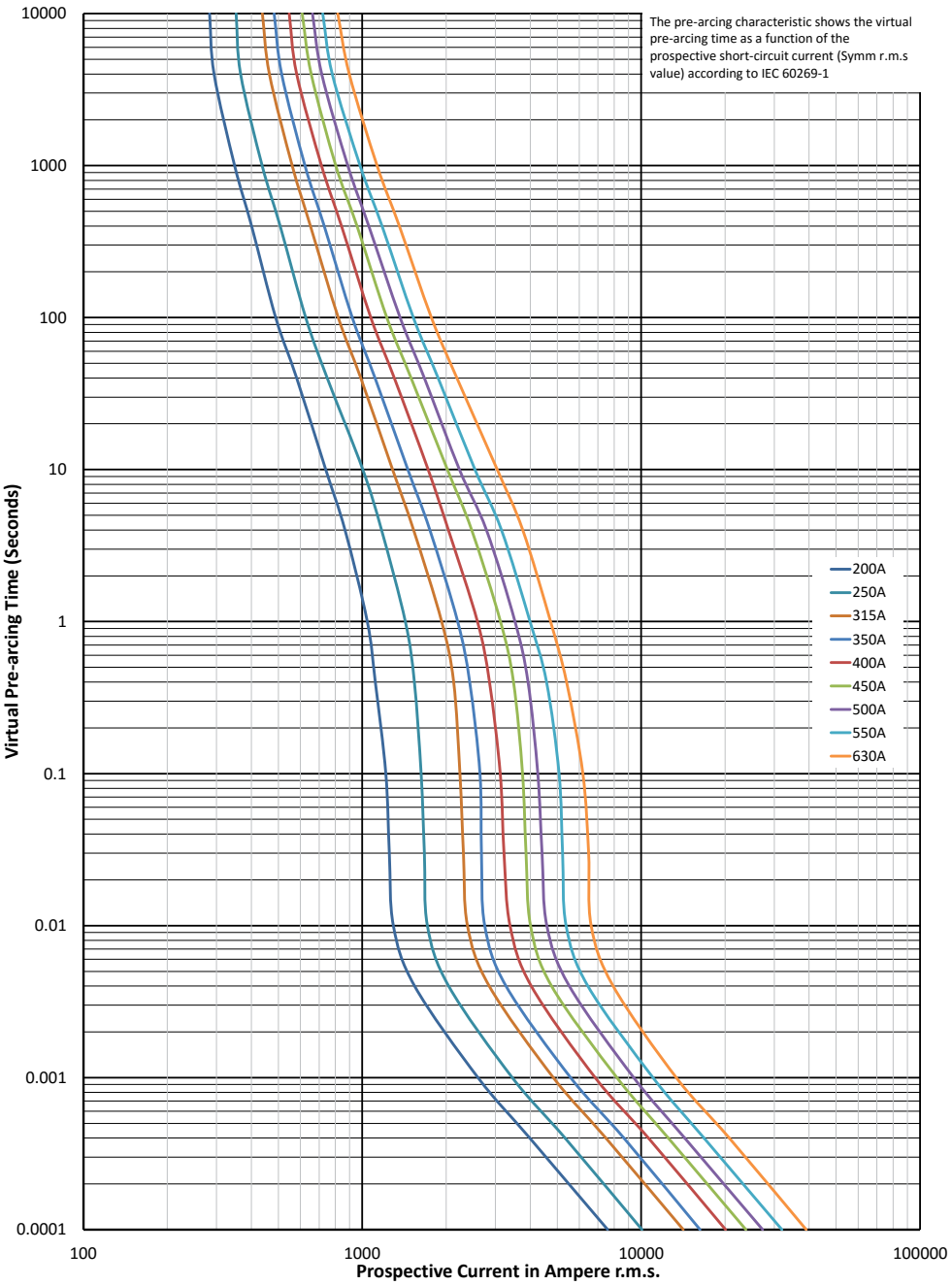
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




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

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

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

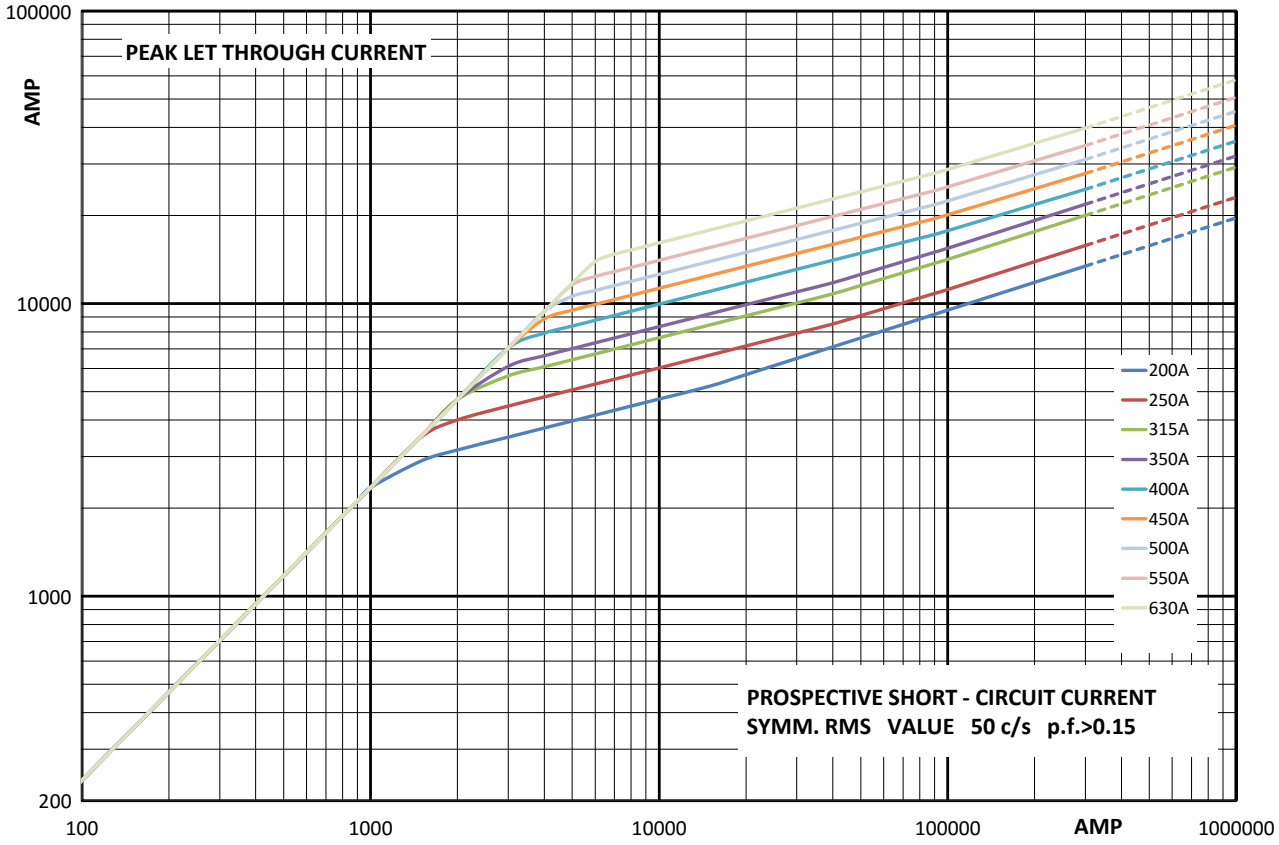



$K_b$ = 1 N = 1.6

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

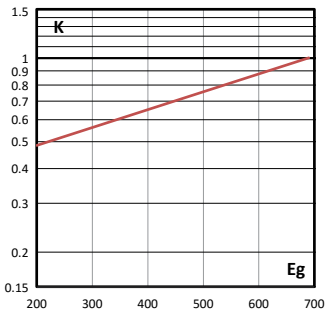
# 690 V a.c. (IEC) - 10 A to 800 A - Sizes 00 to 3 - DIN 43620 Full range (gR) - 170M

## Cut-off curve - Size 2, 200 A to 630 A



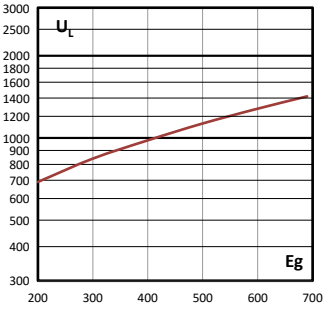

### Total clearing $I^2t$

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).



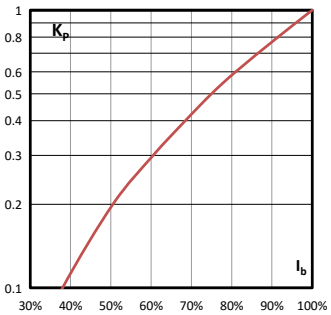

### Arc voltage

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

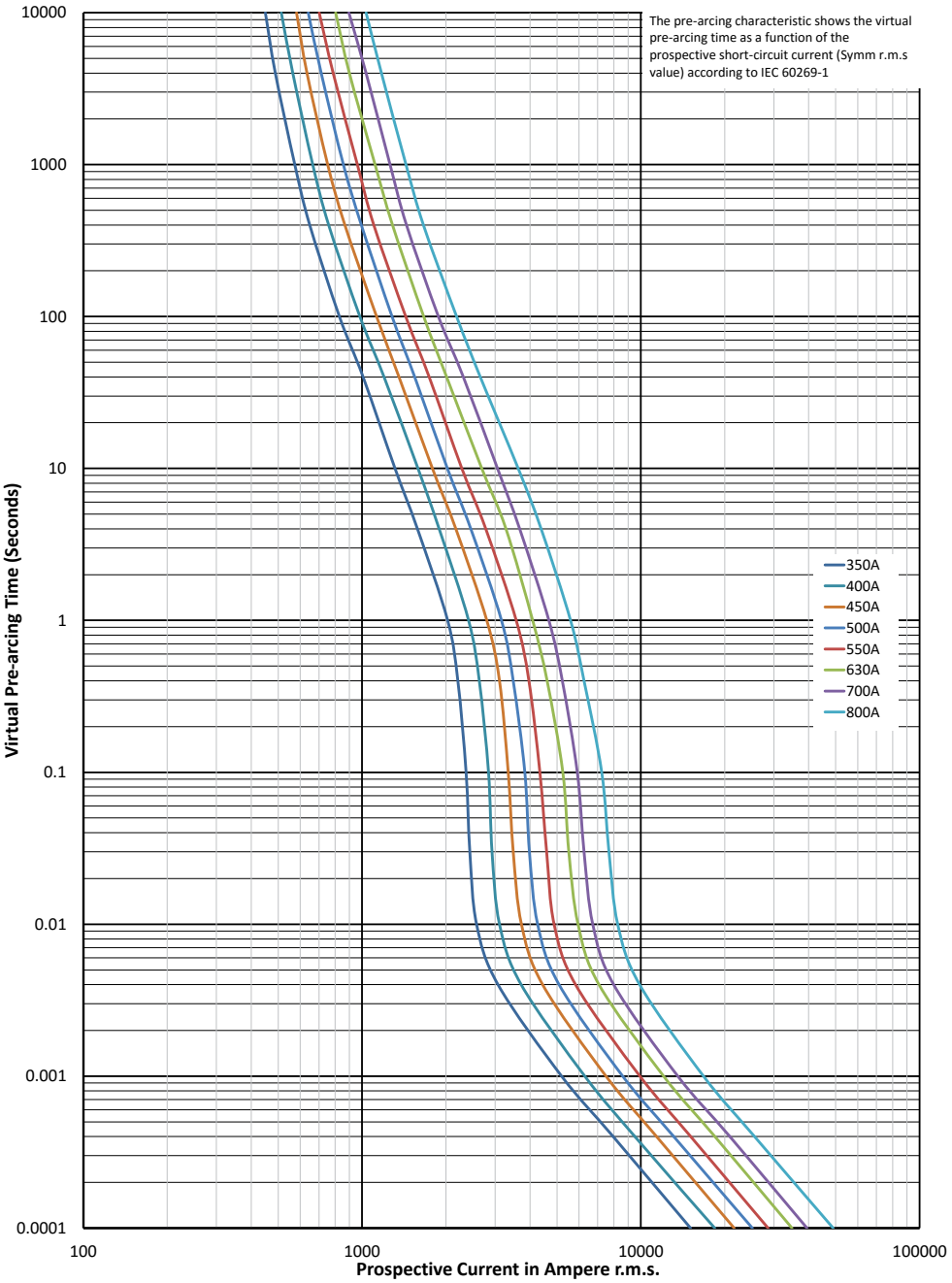
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




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

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

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

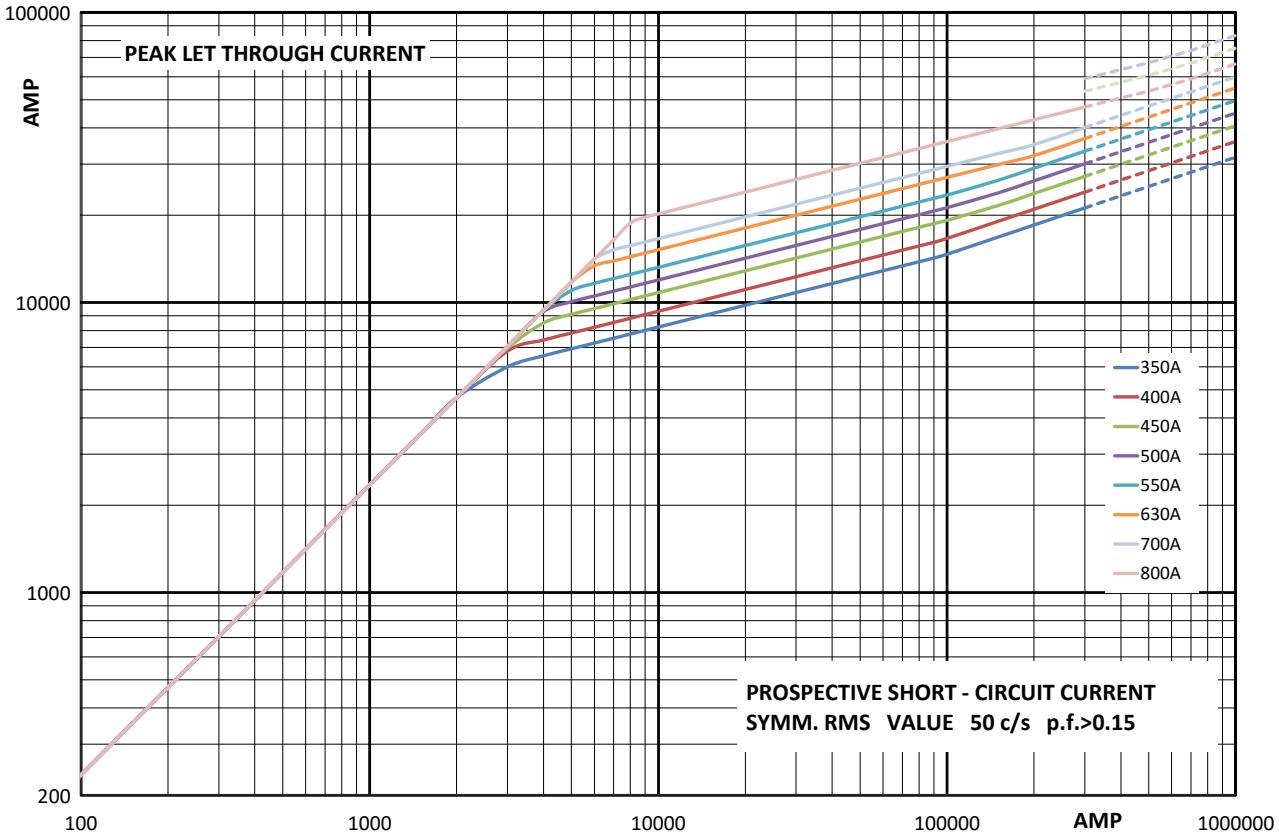



$K_b$ = 1 N = 1.6

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

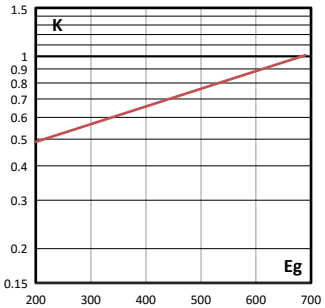
# 690 V a.c. (IEC) - 10 A to 800 A - Sizes 00 to 3 - DIN 43620 Full range (gR) - 170M

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



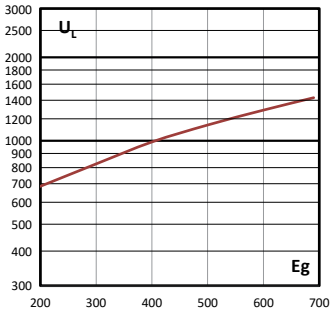

### Total clearing $I^2t$

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).



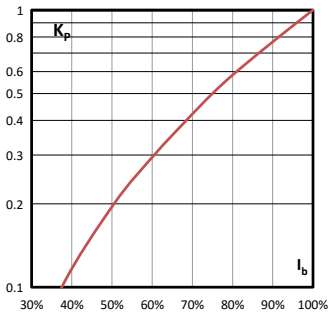

### Arc voltage

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

# 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

## Description

Square body DIN 43620 blade high speed fuse links with dual indicator system: one indicator in the fuse body and another one in the metallic end plate. Interchangeable with existing high speed DIN 43620 fuse links for the protection of UPS, soft starters, solid state relays, variable speed drives, rectifiers and inverters.



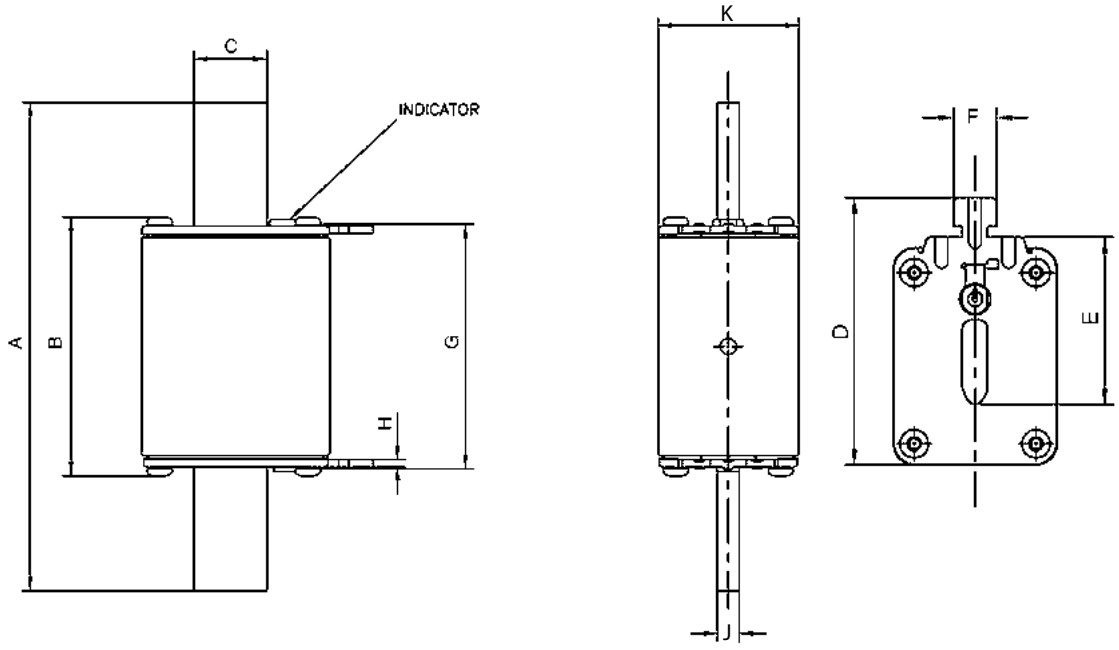

## Technical data

- Rated voltage:
  - 690 V a.c. (IEC)
  - 700 V a.c. (UL)
- Rated current: 10 A to 1600 A
- Breaking capacity: 200 kA RMS Sym
- Operating class: gR (size 000, 10 A to 63A), aR (others)

## Standards / Agency information

CE, IEC60269 Part 4, UL and CSA Recognised

## Dimensions (mm)




| Size | A | B | C | D | E | F | G | H | J | K |
|---|---|---|---|---|---|---|---|---|---|---|
| 000 | 78.5 | 53 | 15 | 52 | 35 | 10 | 49.7 | 1.5 | 6 | 20.5 |
| 00 | 78.5 | 53 | 15 | 59 | 35 | 10 | 49.7 | 2 | 6 | 30 |
| 1 | 135 | 71.4 | 20 | 64 | 40 | 10 | 67.5 | 2 | 6 | 40 |
| 2 | 150 | 71.4 | 25.1 | 72 | 48 | 10 | 67.5 | 2 | 6 | 54 |
| 3 | 150 | 72.4 | 32 | 87 | 60 | 10 | 68.5 | 2.5 | 6 | 71 |

Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

### Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | Max permissible load current | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 690 V a.c. | Watts loss (W)[2] | Catalogue numbers Dual indicator |
|---|---|---|---|---|---|---|---|
| 000 | 690 V a.c. (IEC) 700 V a.c. (UL) | 10 | 10 | 4 | 27 | 2.5 | 170M1558D |
| | | 16 | 16 | 7 | 51 | 4 | 170M1559D |
| | | 20 | 20 | 11.5 | 82.5 | 5 | 170M1560D |
| | | 25 | 25 | 19 | 140 | 6 | 170M1561D |
| | | 32 | 32 | 40 | 285 | 7 | 170M1562D |
| | | 40 | 40 | 65 | 490 | 8.5 | 170M1563D |
| | | 50 | 50 | 115 | 815 | 9.5 | 170M1564D |
| | | 63 | 63 | 215 | 1550 | 11.5 | 170M1565D |
| | | 80 | 80 | 380 | 2700 | 15 | 170M1566D |
| | | 100 | 100 | 695 | 4950 | 16.5 | 170M1567D |
| | | 125 | 125 | 1180 | 8250 | 21.5 | 170M1568D |
| | | 160 | 160 | 2300 | 16,500 | 25 | 170M1569D |
| | | 200 | 200 | 4350 | 31,000 | 29.5 | 170M1570D |
| | | 250 | 250 | 7900 | 56,000 | 35.5 | 170M1571D |
| 00 | 690 V a.c. (IEC) / 700 V a.c. (UL) | 315 | 315 | 12,000 | 84,500 | 45 | 170M1572D |
| 1 | 690 V a.c. (IEC) 700 V a.c. (UL) | 40 | 25 | 40 | 285 | 4 | 170M3808D |
| | | 50 | 30 | 78 | 550 | 4.5 | 170M3809D |
| | | 63 | 38 | 120 | 850 | 6.5 | 170M3810D |
| | | 80 | 50 | 185 | 1350 | 8.5 | 170M3811D |
| | | 100 | 60 | 360 | 2600 | 10 | 170M3812D |
| | | 125 | 75 | 550 | 3900 | 11 | 170M3813D |
| | | 160 | 95 | 1150 | 8250 | 12 | 170M3814D |
| | | 200 | 120 | 2300 | 16,500 | 12.5 | 170M3815D |
| | | 250 | 150 | 4350 | 31,000 | 16 | 170M3816D |
| | | 315 | 190 | 7300 | 52,000 | 20 | 170M3817D |
| | | 350 | 210 | 10,000 | 73,000 | 21.5 | 170M3818D |
| | | 400 | 240 | 16,000 | 115,000 | 23 | 170M3819D |
| | | 450 | 270 | 21,500 | 155,000 | 26.5 | 170M4863D |
| | | 500 | 300 | 27,000 | 190,000 | 28.5 | 170M4864D |
| | | 550 | 330 | 33,500 | 240,000 | 33 | 170M4865D |
| | | 630 | 380 | 48,500 | 345,000 | 37.5 | 170M4866D |
| | | 700 | 420 | 69,500 | 495,000 | 39 | 170M4867D[1] |
| 2 | 690 V a.c. (IEC) 700 V a.c. (UL) | 400 | 240 | 11,000 | 79,000 | 29 | 170M5808D |
| | | 450 | 270 | 16,000 | 115,000 | 32 | 170M5809D |
| | | 500 | 300 | 21,500 | 155,000 | 34 | 170M5810D |
| | | 550 | 330 | 29,000 | 215,000 | 36 | 170M5811D |
| | | 630 | 380 | 41,000 | 295,000 | 42 | 170M5812D |
| | | 700 | 420 | 60,500 | 430,000 | 43 | 170M5813D |
| | | 800 | 480 | 86,000 | 610,000 | 48 | 170M5814D |
| | | 900 | 540 | 125,000 | 895,000 | 52 | 170M5820D |
| | | 1000 | 600 | 180,000 | 1,300,000 | 53 | 170M5816D |
| | | 1100 | 660 | 245,000 | 1,750,000 | 56 | 170M5817D |
| 3 | 690 V a.c. (IEC) 700 V a.c. (UL) | 500 | 300 | 14,000 | 99,500 | 43 | 170M6808D |
| | | 550 | 330 | 19,500 | 140,000 | 44 | 170M6809D |
| | | 630 | 380 | 31,000 | 220,000 | 45 | 170M6810D |
| | | 700 | 420 | 45,000 | 320,000 | 46 | 170M6811D |
| | | 800 | 480 | 69,500 | 490,000 | 48 | 170M6812D |
| | | 900 | 540 | 100,000 | 720,000 | 50 | 170M6813D |
| | | 1000 | 600 | 140,000 | 985,000 | 56 | 170M6814D |
| | | 1100 | 660 | 190,000 | 1,400,000 | 57 | 170M6892D |
| | | 1250 | 750 | 300,000 | 2,150,000 | 61 | 170M8554D |
| | | 1400 | 840 | 380,000 | 2,700,000 | 70 | 170M8555D |
| | | 1500 | 900 | 470,000 | 3,350,000 | 72 | 170M8556D |
| | | 1600 | 960 | 585,000 | 4,150,000 | 74 | 170M8557D |

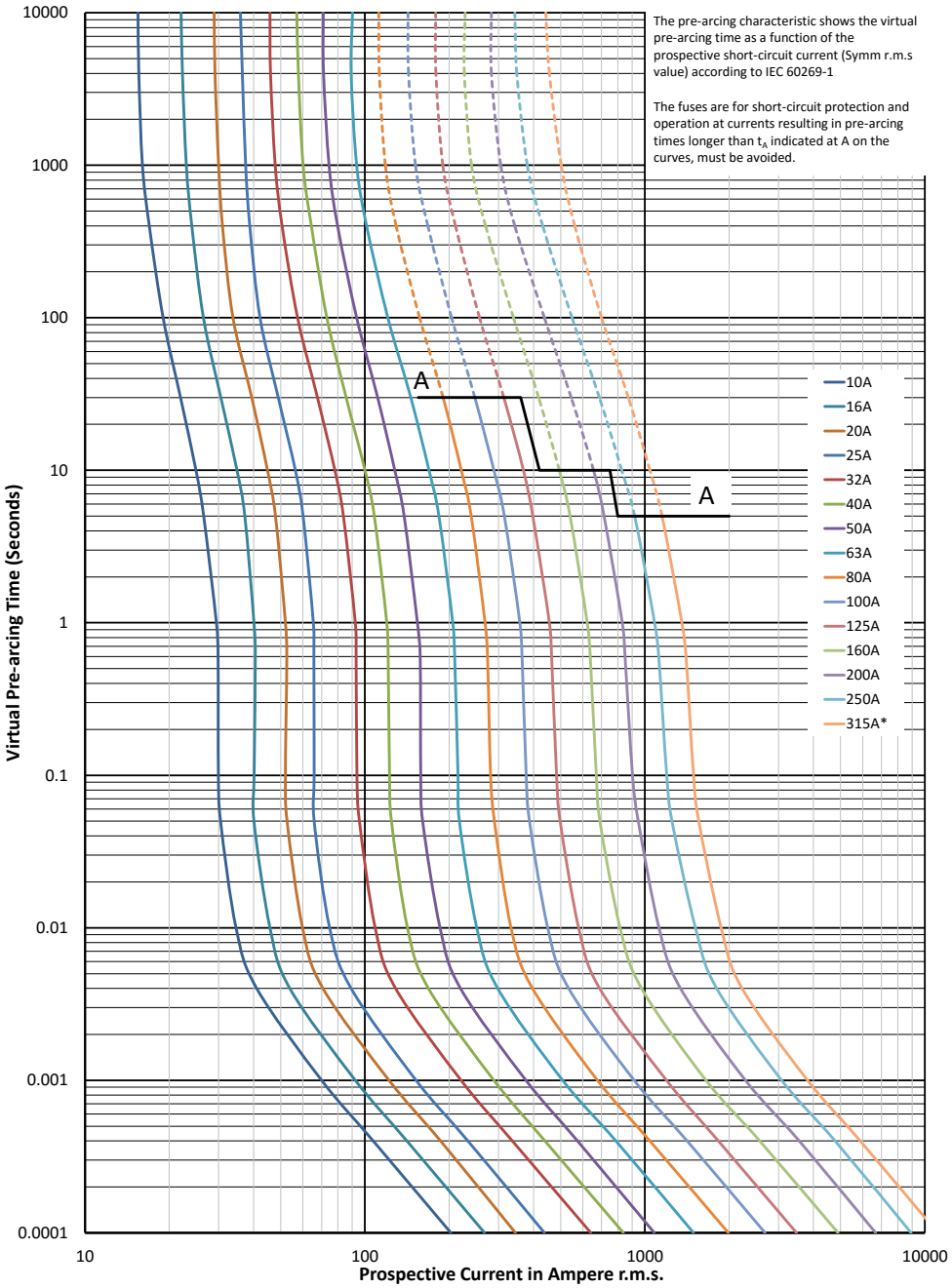
[1] 170M4867D is not UL recognised.

[2] Given at maximum load Rated current, please refer to data sheets for further details.

Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

## Time-current curve - Sizes 000 and 00, 10 A to 315 A

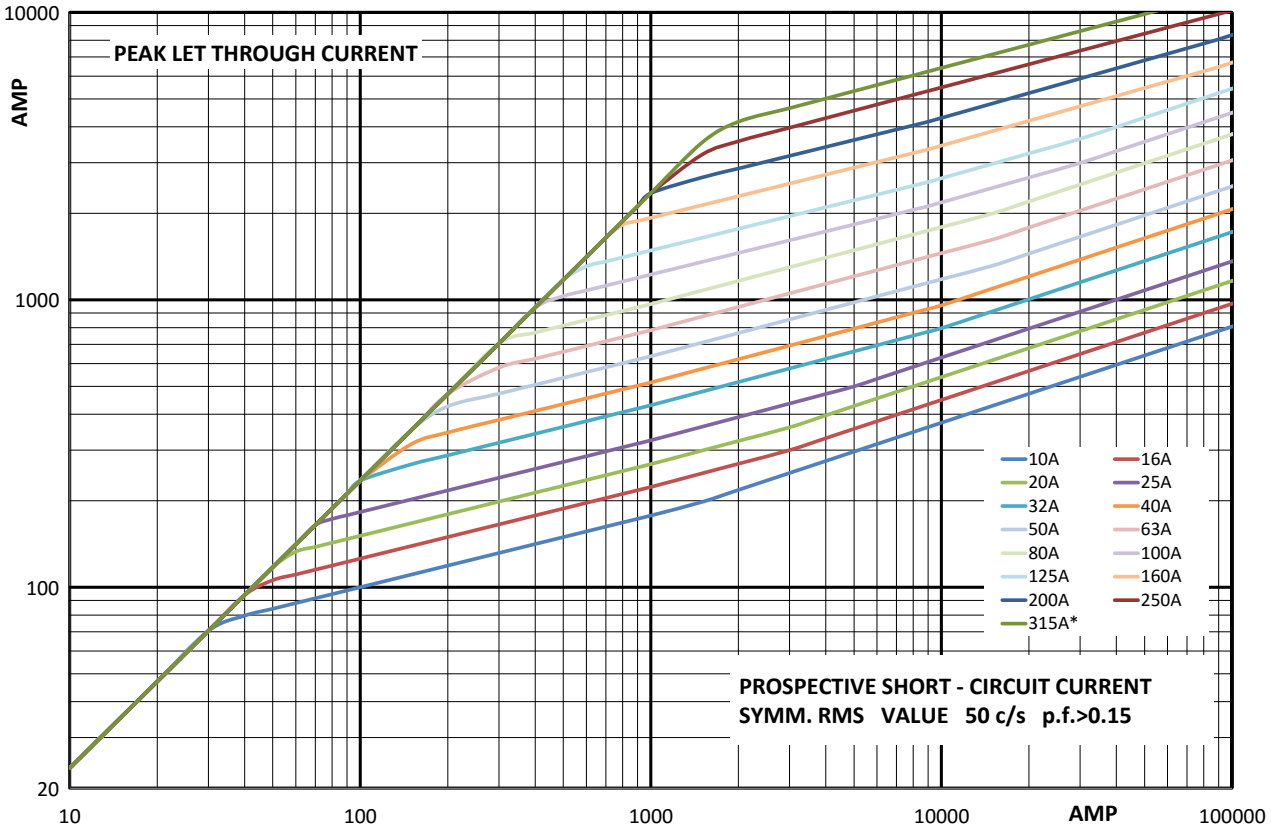



$K_b$ = 1 N = 1.6

Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

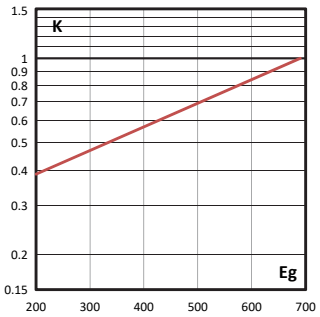
## 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

### Cut-off curve - Sizes 000 amd 00, 10 A to 315 A



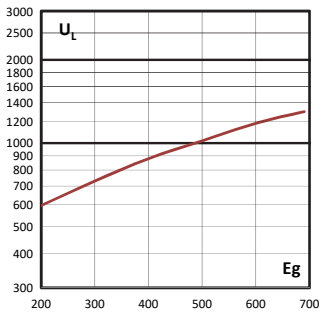

### Total clearing $I^2t$

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).



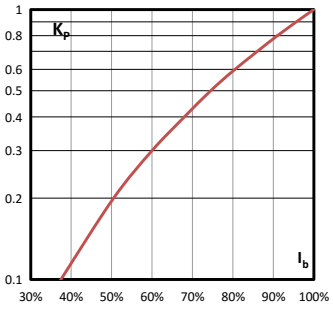

### Arc voltage

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

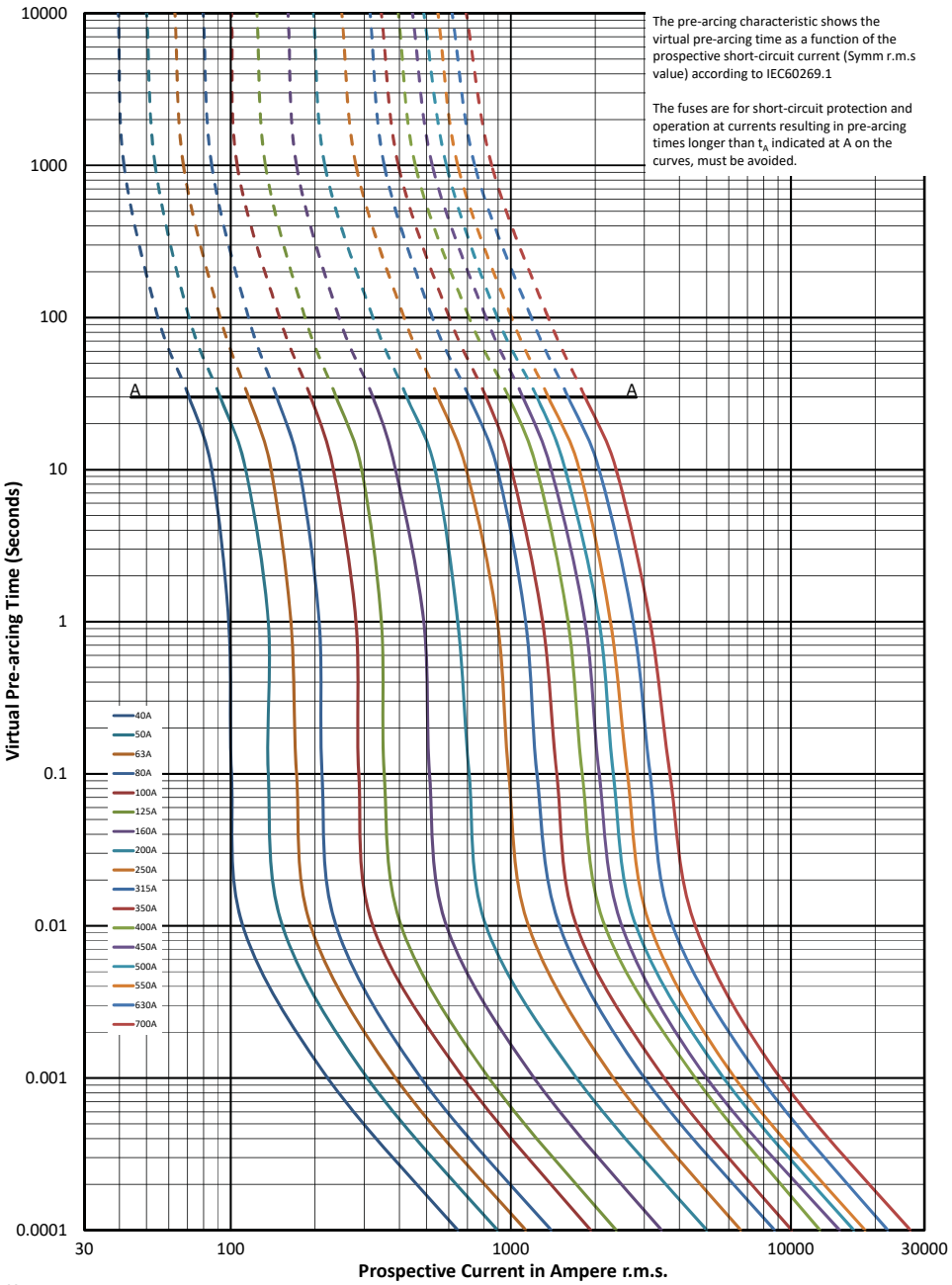
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

## Time-current curve - Size 1, 40 A to 700 A

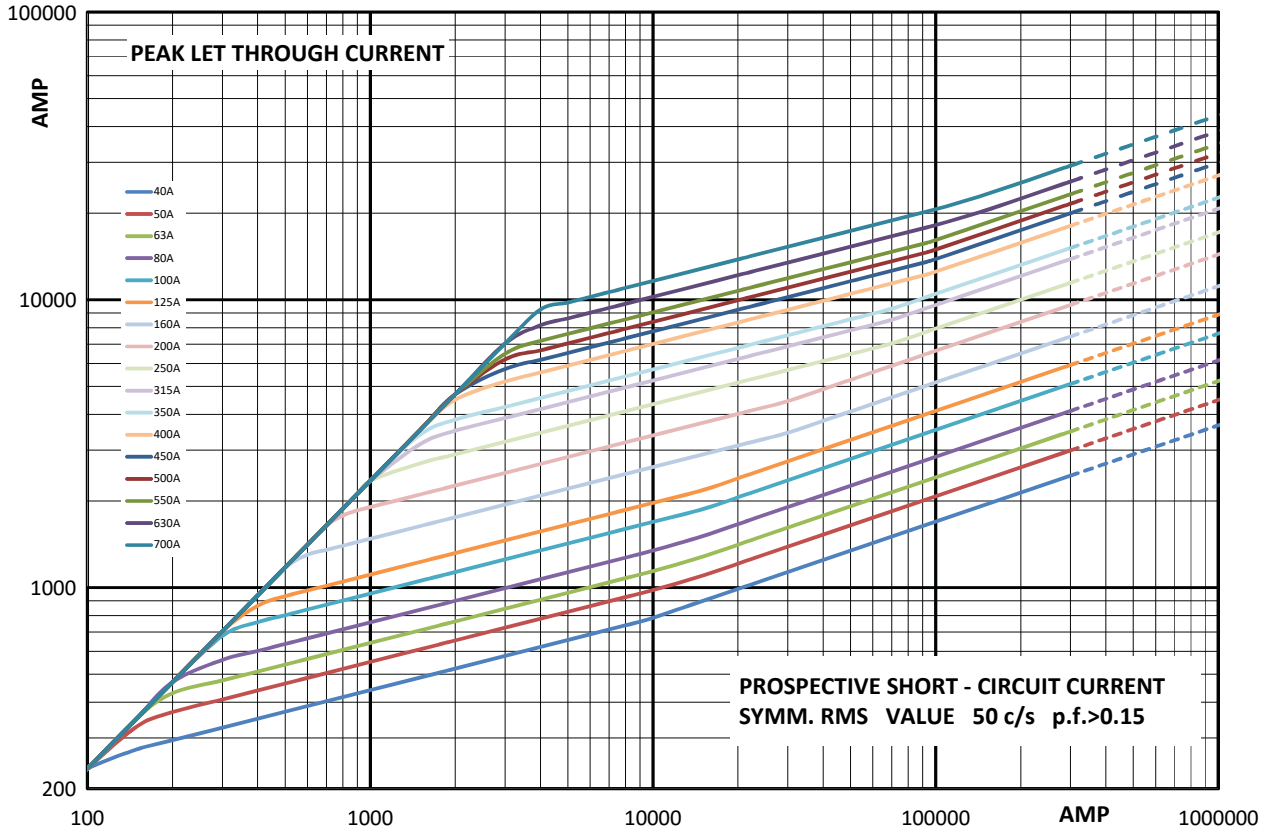



$K_b$ = 0,6 N = 1,6

Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

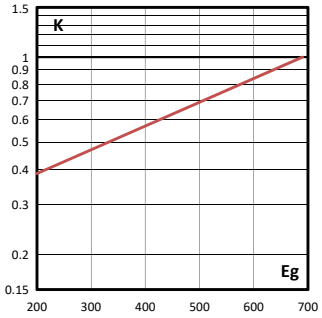
## 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

### Cut-off curve - Size 1, 40 A to 700 A



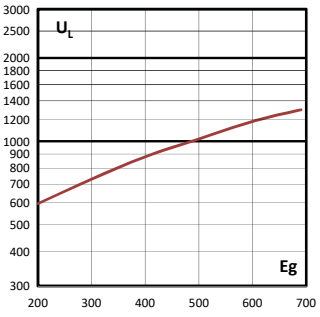

### Total clearing I²t

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).



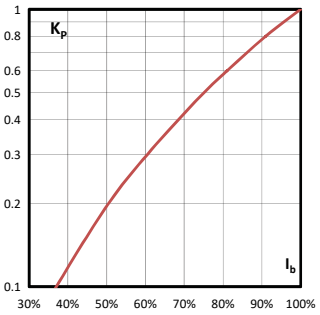

### Arc voltage

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

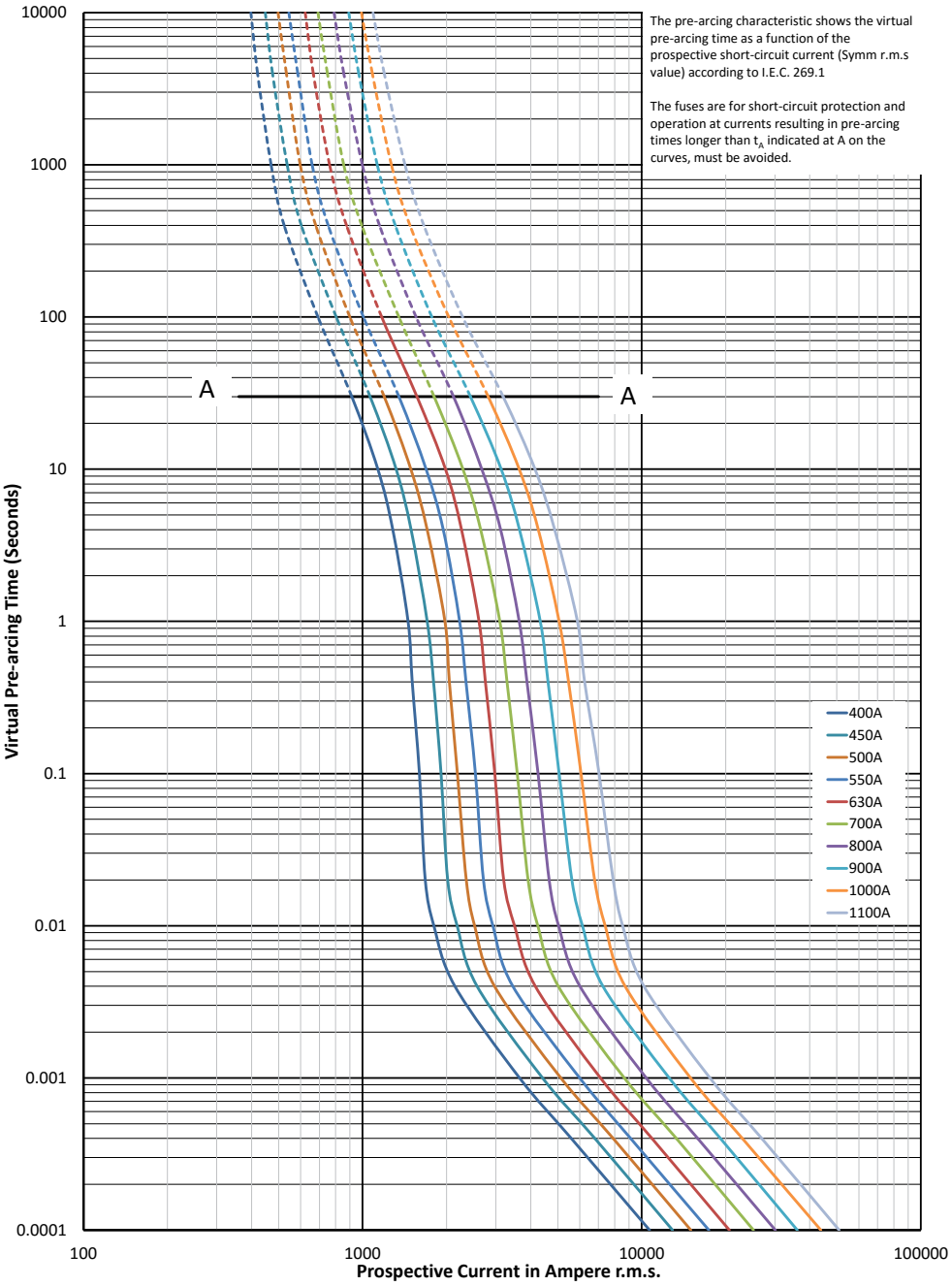
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

### Time-current curve - Size 2, 400 A to 1100 A

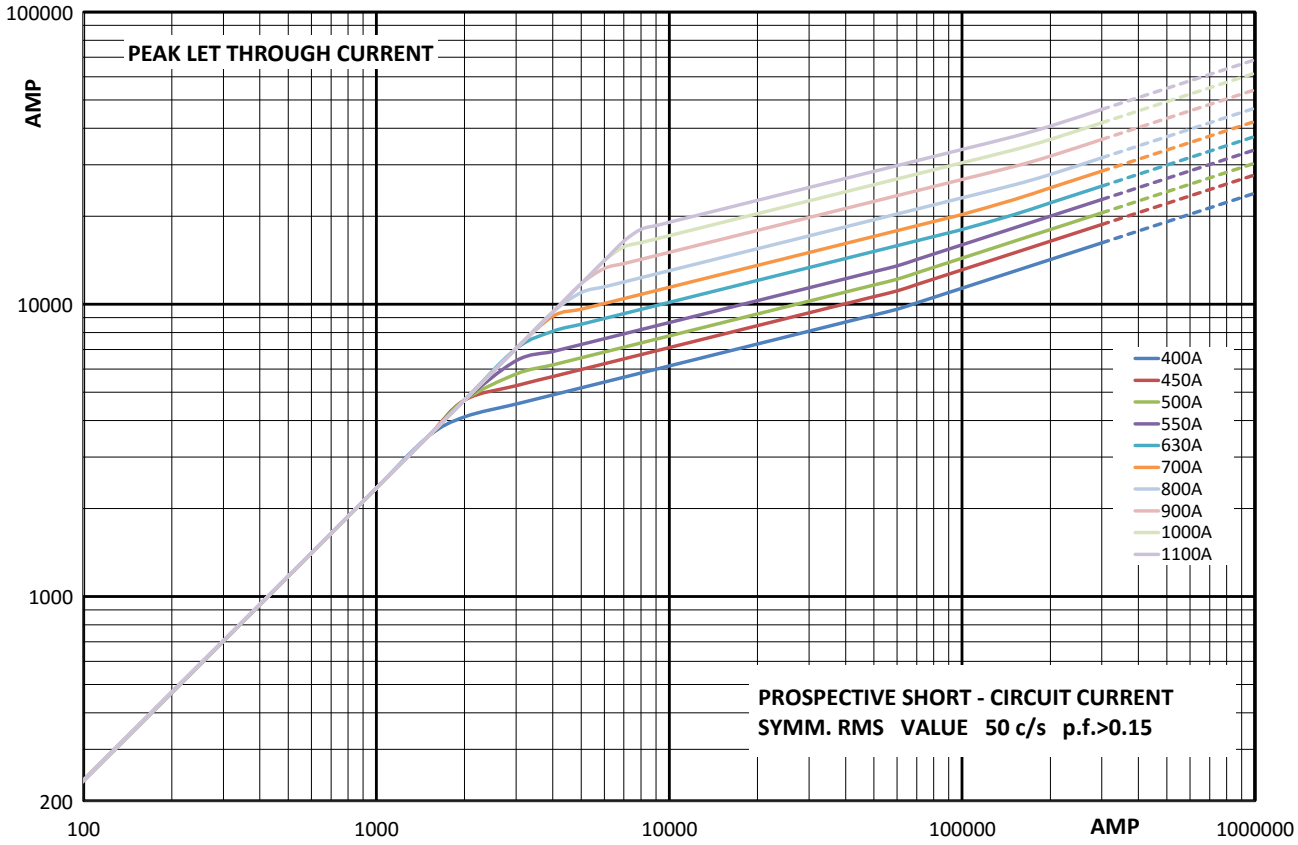



$K_b$ = 0.6 N = 1.6

Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

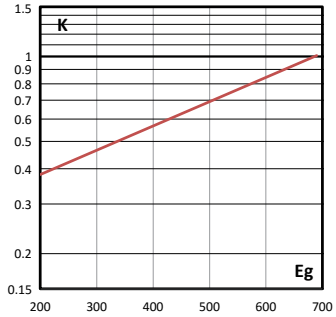
## 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

### Cut-off curve - Size 2, 400 A to 1100 A



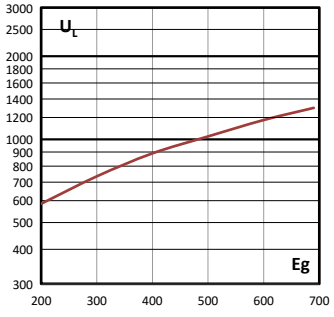

### Total clearing $I^2t$

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).



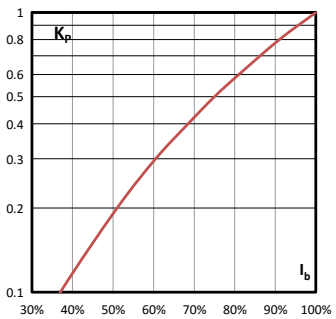

### Arc voltage

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

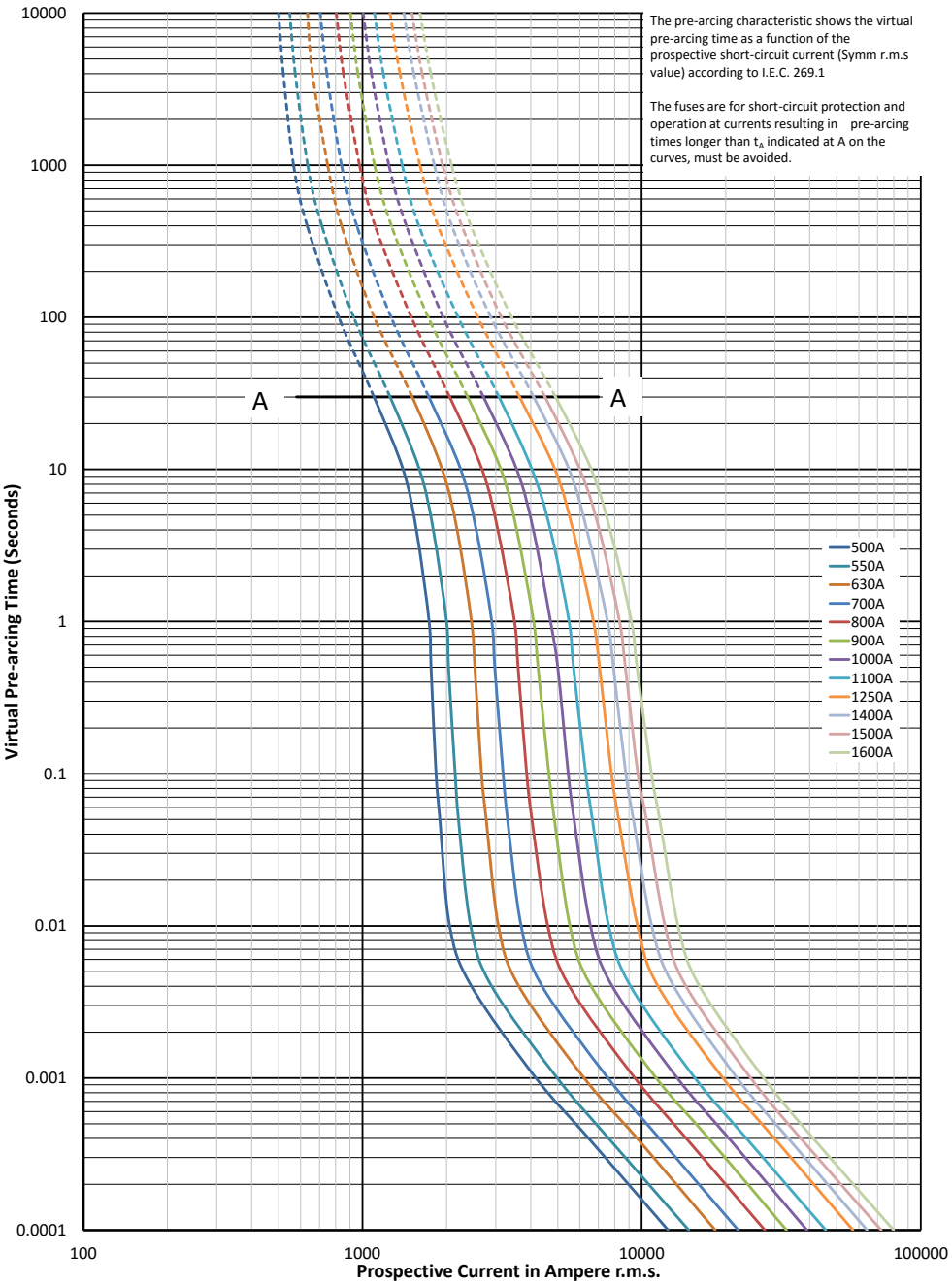
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

### Time-current curve - Size 3, 500 A to 1600 A

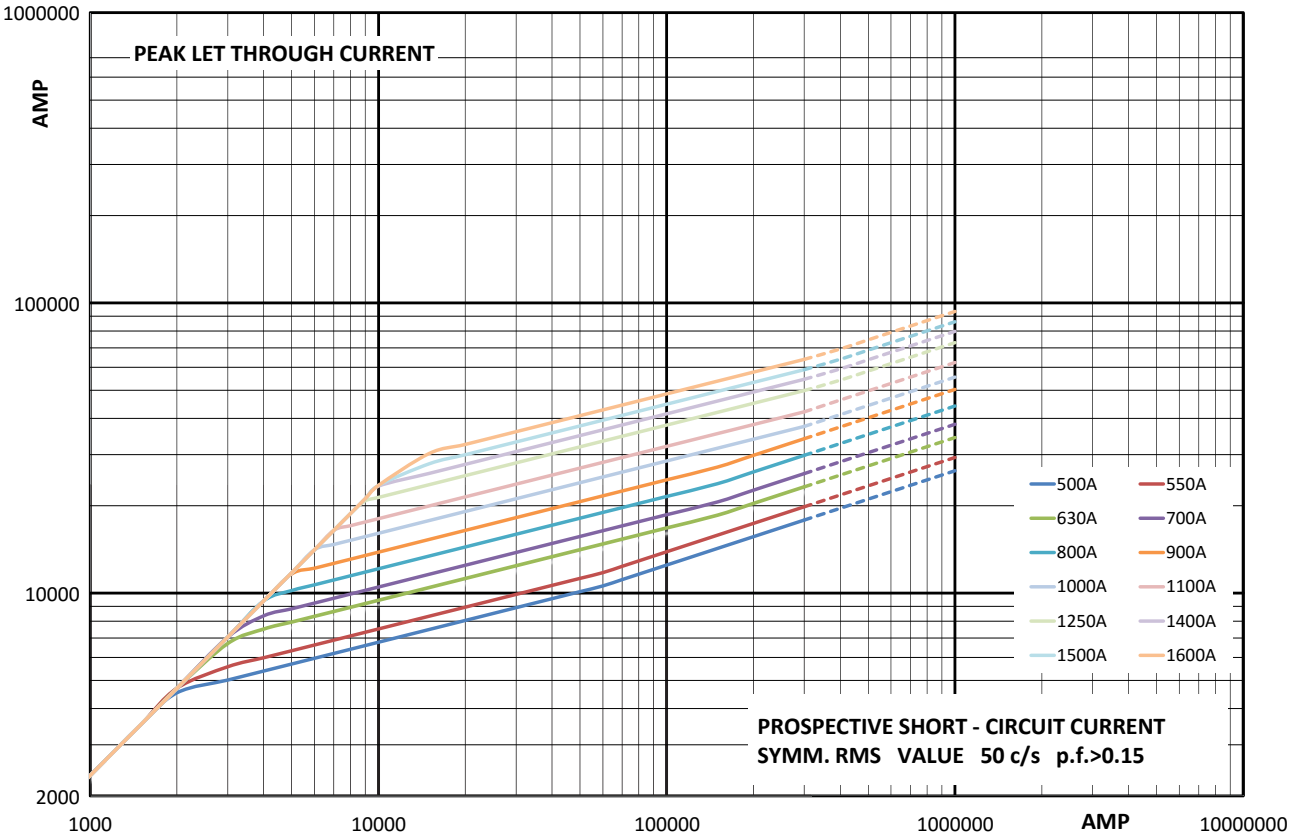



$K_b$ = 0.6 N = 1.6

Data sheets: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

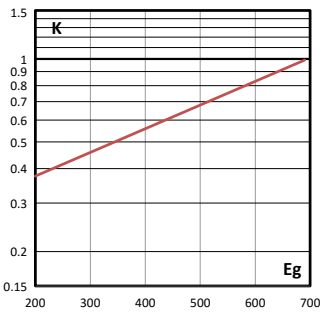
## 690 V a.c. (IEC), 700 V a.c. (UL) - 10 A to 1600 A - Sizes 000 to 3 - DIN 43620 - Dual indicator - 170M

### Cut-off curve - Size 3, 500 A to 1600 A



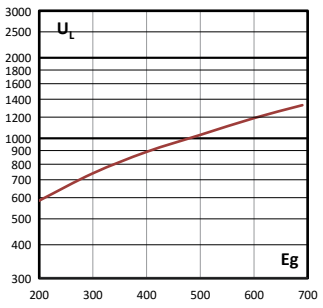

### Total clearing $I^2t$

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).



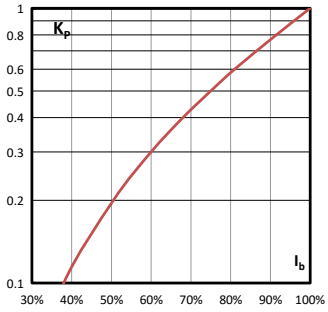

### Arc voltage

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: 170K6386 (Size 000 and 00), 170K6388 (Size 1), 170K6390 (Size 2), 170K6392 (Size 3)

# 1000 V a.c. (IEC and UL) - 20 A to 225 A - Size 00 - DIN 43620 - 170M

## Description

Square body DIN 43620 blade style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.




## Technical data

- Rated voltage:
  - 1000 V a.c. (IEC and UL)
  - 900 V a.c. (200 A and 225A)
- Rated current: 20 A to 225 A
- Breaking capacity: 125kA RMS Sym
- Operating class: aR

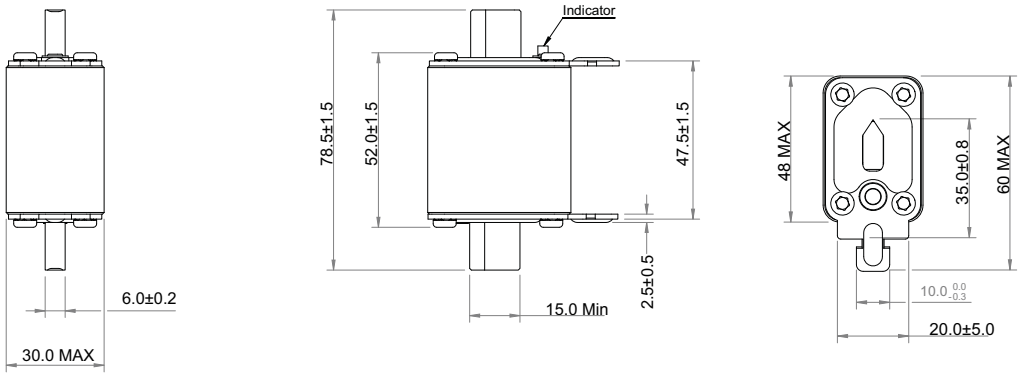
## Standards / Agency information

CE, Designed and tested to IEC60269 Part 4, UL Recognised/CSA Component Acceptance status (20 A to 160 A)

## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 1000 V a.c. | Watts loss (W) | Catalogue numbers Type T indicator for micro |
|---|---|---|---|---|---|---|
| 00 | 1000 V a.c. (IEC/UL) | 20 | 15 | 110 | 8.5 | 170M2673 |
| | | 25 | 28.5 | 210 | 9.5 | 170M2674 |
| | | 32 | 53 | 390 | 11 | 170M2675 |
| | | 35 | 69 | 500 | 12 | 170M2676 |
| | | 40 | 105 | 760 | 13 | 170M2677 |
| | | 50 | 215 | 1550 | 14 | 170M2678 |
| | | 63 | 380 | 2750 | 16 | 170M2679 |
| | | 80 | 815 | 5900 | 18 | 170M2680 |
| | | 100 | 1550 | 11,500 | 21 | 170M2681 |
| | | 125 | 3000 | 22,000 | 23 | 170M2682 |
| | | 160 | 6250 | 45,000 | 26 | 170M2683 |
| 00 | 900 V a.c. (IEC) | 200 | 12,000 | 86,500 | 31 | 170M2684 |
| | | 225 | 18,000 | 115,000 | 33 | 170M2685 |

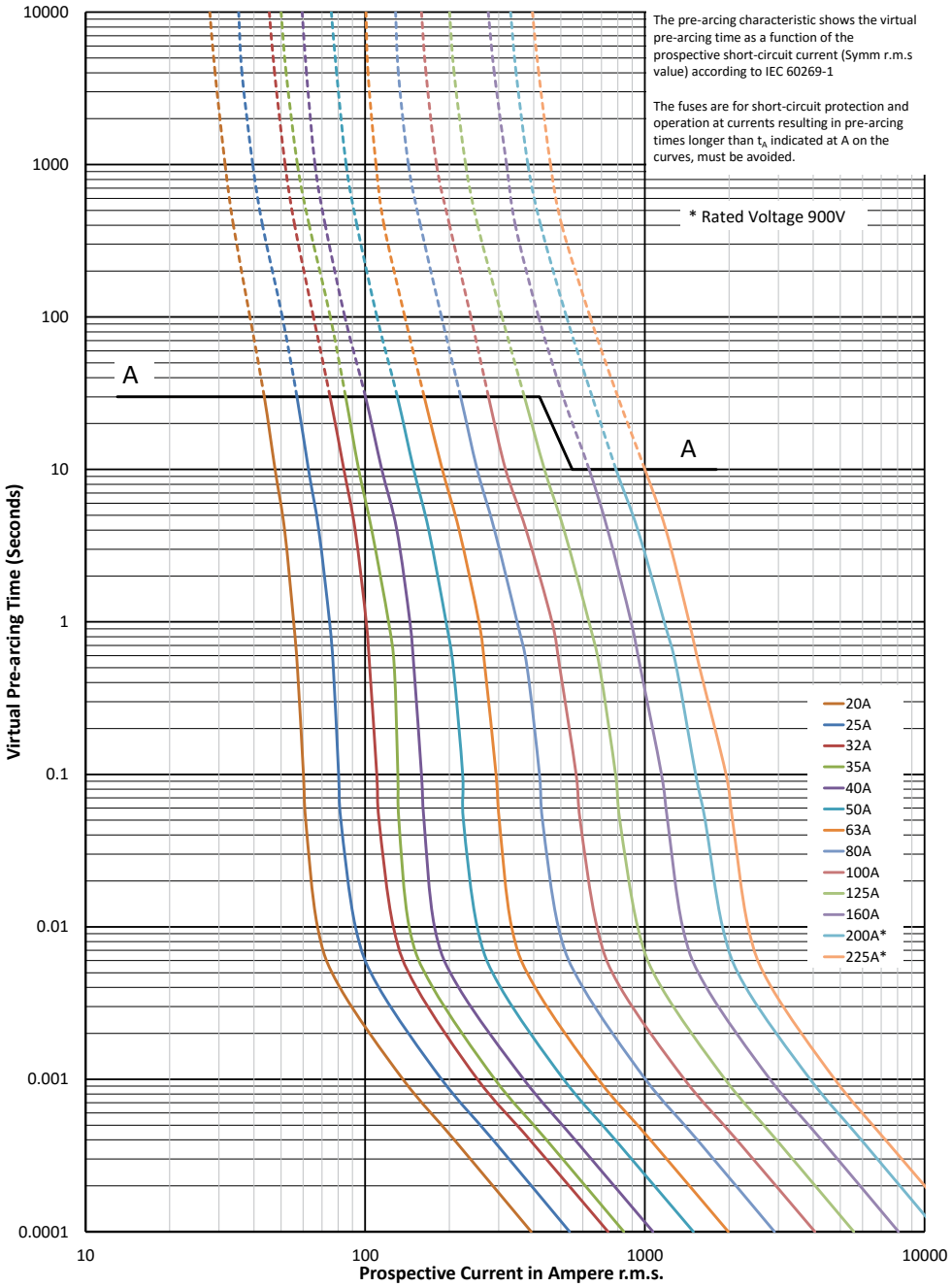
## Dimensions (mm)




Data sheet: 170K8506

# 1000 V a.c. (IEC and UL) - 20 A to 225 A - Size 00 - DIN 43620 - 170M

## Time-current curve - Size 00, 20 A to 225 A

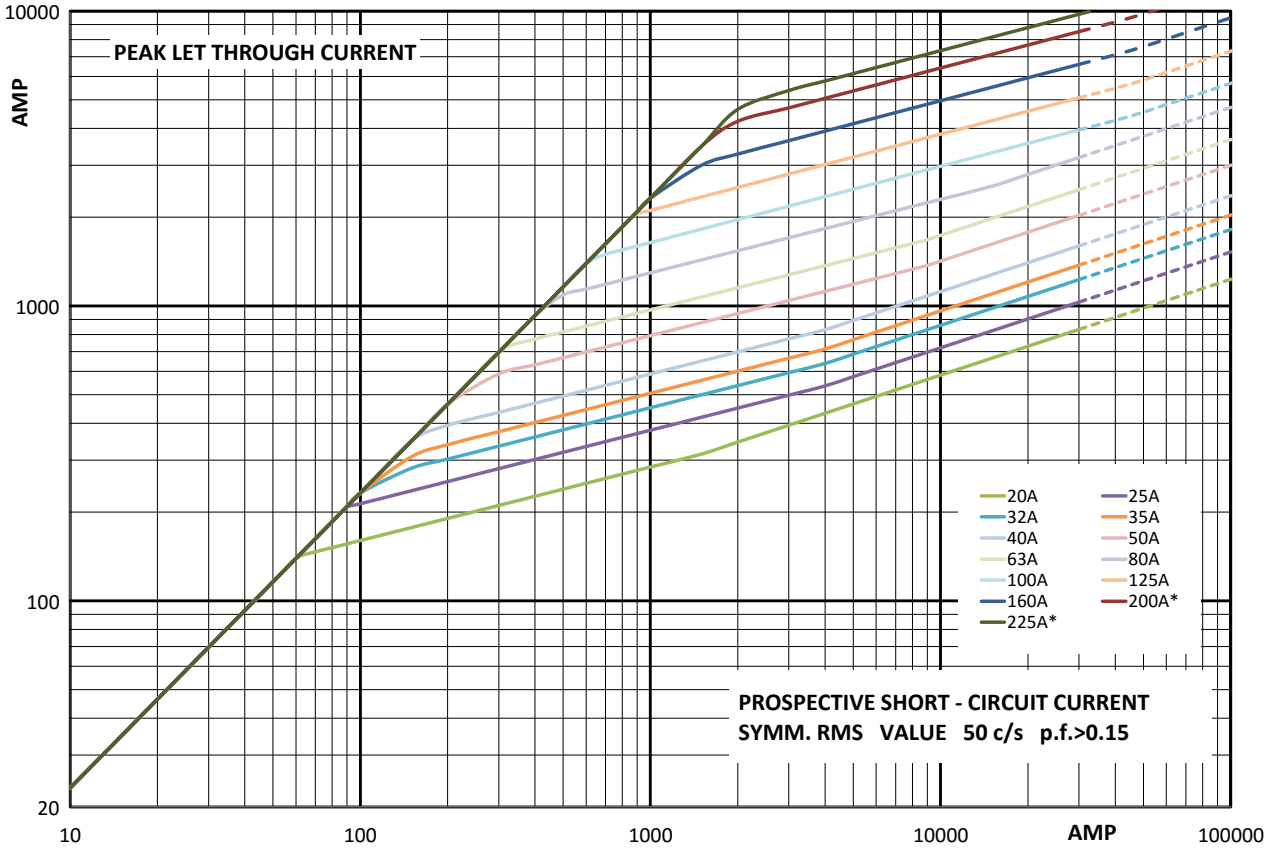



$K_b$ = 1 N = 1.6

Data sheet: 170K8506

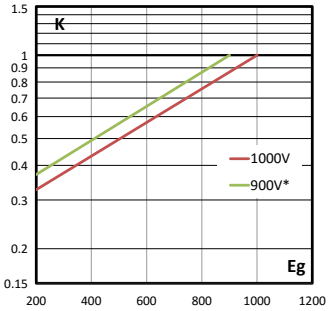
# 1000 V a.c. (IEC and UL) - 20 A to 225 A - Size 00 - DIN 43620 - 170M

## Cut-off curve - Size 00, 20 A to 225 A



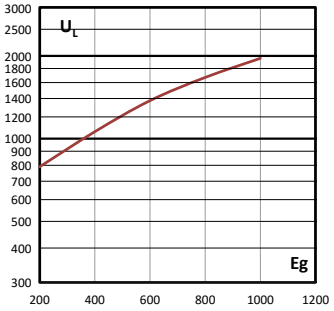

### Total clearing $I^2t$

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).



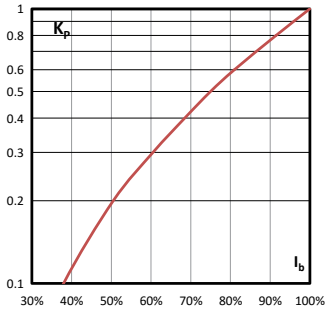

### Arc voltage

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 sheet: 170K8506

# Square body fuse links French style

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

### Description

Square body French style high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.



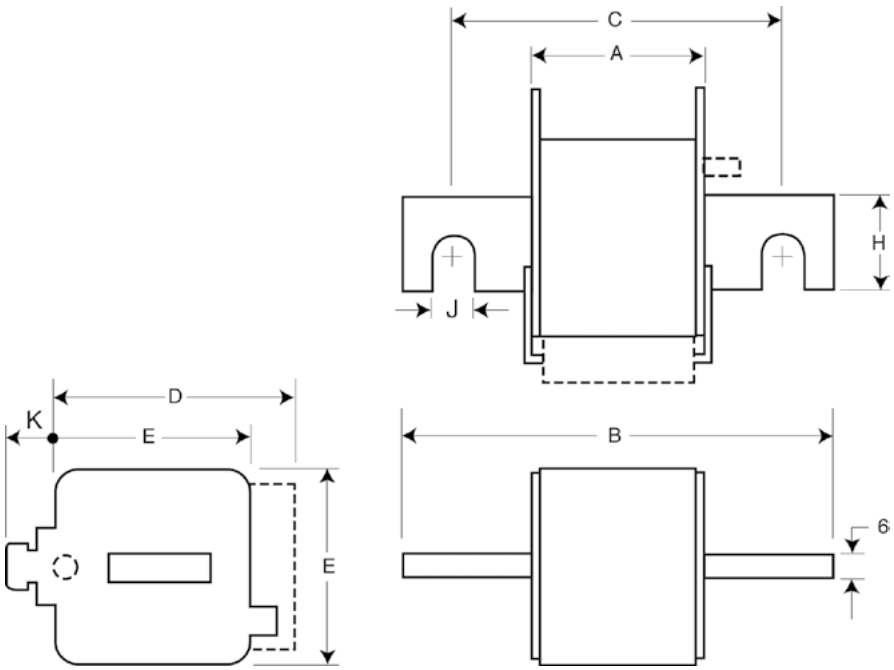

### Technical data

- Rated voltage:
  - 690 V a.c. (IEC)
  - 700 V a.c. (UL)
- Rated current: 40 A to 1600 A
- Breaking capacity: 200 kA RMS Sym
- Operating class: aR

### Standards / Agency information

CE, Designed and tested to IEC60269 Part 4, UL Recognised.
For CCC approval, please consult Eaton bulehighspeedtechnical@eaton.com

### Dimensions (mm)




| Size | A | B | C | D | E | H | J | K |
|---|---|---|---|---|---|---|---|---|
| 1* | 50 | 102 | 76 | 59 | 45 | 18 | 9 | 13 |
| 1 | 50 | 111 | 86 | 69 | 53 | 25 | 11 | 11 |
| 2 | 50 | 126 | 91 | 77 | 61 | 30 | 13 | 12 |
| 3 | 51 | 126 | 91 | 92 | 76 | 36 | 13 | 13 |

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

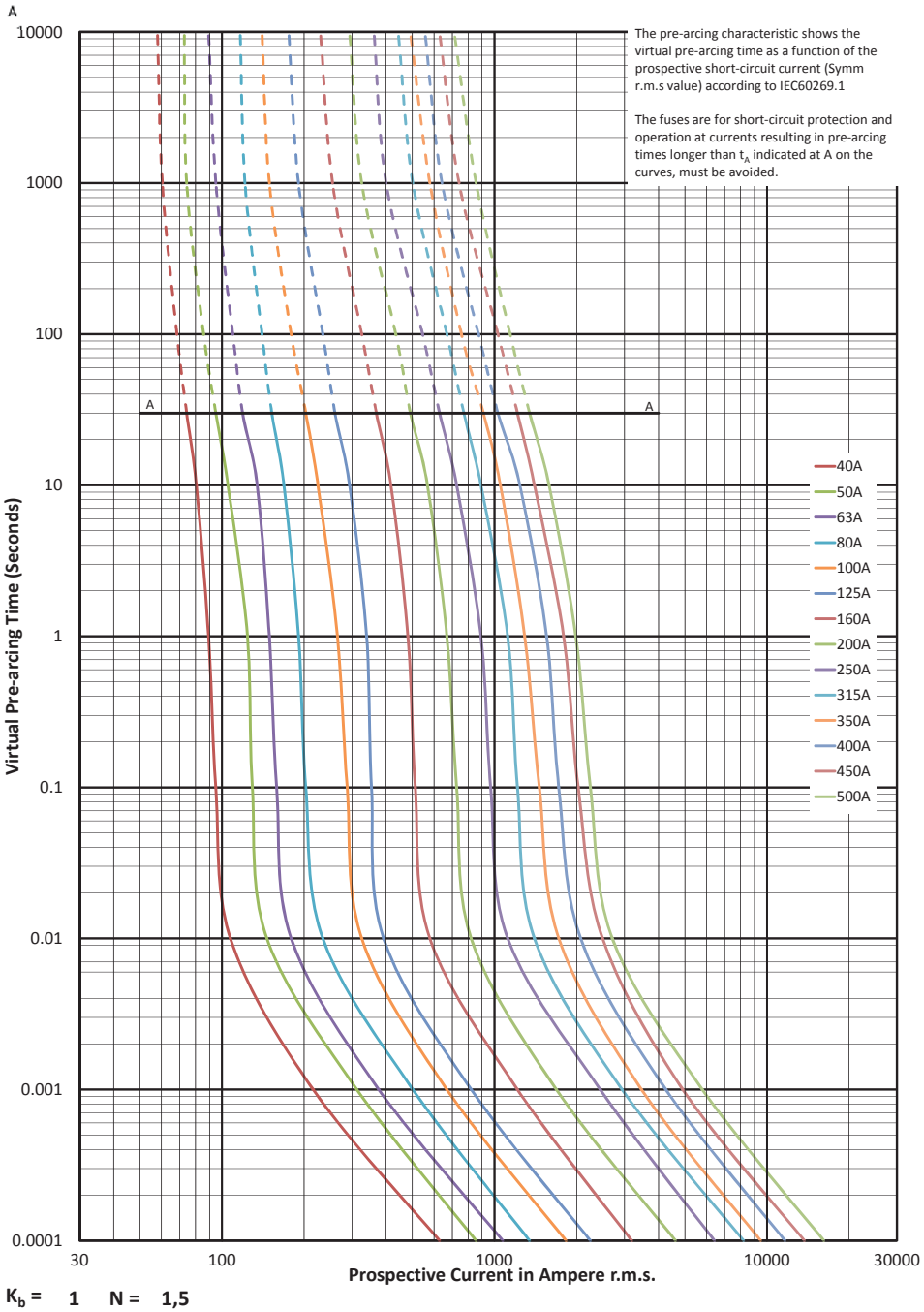
## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 660 V a.c. | Watts loss (W) | Catalogue numbers -E/- Type T indicator for micro | Catalogue numbers -EKN/- Type K indicator for micro |
|---|---|---|---|---|---|---|---|
| 1* | 690 V a.c. (IEC) 700 V a.c.(UL) | 40 | 40 | 270 | 9 | 170M3308 | 170M3358 |
| | | 50 | 77 | 515 | 11 | 170M3309 | 170M3359 |
| | | 63 | 115 | 770 | 14 | 170M3310 | 170M3360 |
| | | 80 | 185 | 1250 | 18 | 170M3311 | 170M3361 |
| | | 100 | 360 | 2450 | 21 | 170M3312 | 170M3362 |
| | | 125 | 550 | 3700 | 26 | 170M3313 | 170M3363 |
| | | 160 | 1100 | 7500 | 30 | 170M3314 | 170M3364 |
| | | 200 | 2200 | 15,000 | 35 | 170M3315 | 170M3365 |
| | | 250 | 4200 | 28,500 | 40 | 170M3316 | 170M3366 |
| | | 315 | 7000 | 46,500 | 50 | 170M3317 | 170M3367 |
| | | 350 | 10,000 | 68,500 | 55 | 170M3318 | 170M3368 |
| | | 400 | 15,000 | 105,000 | 60 | 170M3319 | 170M3369 |
| | | 450 | 21,000 | 140,000 | 65 | 170M3320 | 170M3370 |
| | | 500 | 27,000 | 180,000 | 70 | 170M3321 | 170M3371 |
| 1 | 690 V a.c. (IEC) 700 V a.c.(UL) | 200 | 1650 | 11,500 | 45 | 170M4308 | 170M4358 |
| | | 250 | 3100 | 21,000 | 55 | 170M4309 | 170M4359 |
| | | 315 | 6200 | 42,000 | 58 | 170M4310 | 170M4360 |
| | | 350 | 8500 | 59,000 | 60 | 170M4311 | 170M4361 |
| | | 400 | 13,500 | 91,500 | 65 | 170M4312 | 170M4362 |
| | | 450 | 17,000 | 120,000 | 70 | 170M4313 | 170M4363 |
| | | 500 | 25,000 | 170,000 | 72 | 170M4314 | 170M4364 |
| | | 550 | 34,000 | 230,000 | 75 | 170M4315 | 170M4365 |
| | | 630 | 52,000 | 350,000 | 80 | 170M4316 | 170M4366 |
| | | 700 | 69,500 | 465,000 | 85 | 170M4317 | 170M4367 |
| | | 800 | 105,000 | 725,000 | 95 | 170M4318 | 170M4368 |
| 2 | 690 V a.c. (IEC) 700 V a.c.(UL) | 400 | 11,000 | 74,000 | 65 | 170M5308 | 170M5358 |
| | | 450 | 15,500 | 105,000 | 70 | 170M5309 | 170M5359 |
| | | 500 | 21,500 | 145,000 | 75 | 170M5310 | 170M5360 |
| | | 550 | 28,000 | 190,000 | 80 | 170M5311 | 170M5361 |
| | | 630 | 41,000 | 275,000 | 90 | 170M5312 | 170M5362 |
| | | 700 | 60,500 | 405,000 | 95 | 170M5313 | 170M5363 |
| | | 800 | 86,000 | 575,000 | 105 | 170M5314 | 170M5364 |
| | | 900 | 125,000 | 840,000 | 110 | 170M5315 | 170M5365 |
| | | 1000 | 180,000 | 1,250,000 | 115 | 170M5316 | 170M5366 |
| 3 | 690 V a.c. (IEC) 700 V a.c.(UL) | 500 | 14,000 | 95,000 | 95 | 170M6308 | 170M6358 |
| | | 550 | 19,500 | 135,000 | 100 | 170M6309 | 170M6359 |
| | | 630 | 31,000 | 210,000 | 105 | 170M6310 | 170M6360 |
| | | 700 | 44,500 | 300,000 | 110 | 170M6311 | 170M6361 |
| | | 800 | 69,500 | 465,000 | 115 | 170M6312 | 170M6362 |
| | | 900 | 100,000 | 670,000 | 120 | 170M6313 | 170M6363 |
| | | 1000 | 140,000 | 945,000 | 125 | 170M6314 | 170M6364 |
| | | 1100 | 190,000 | 1,300,000 | 130 | 170M6315 | 170M6365 |
| | | 1250 | 290,000 | 1,950,000 | 140 | 170M6316 | 170M6366 |
| | | 1400 | 370,000 | 2,450,000 | 155 | 170M6317 | 170M6367 |
| | | 1500 | 460,000 | 3,100,000 | 160 | 170M6318 | 170M6368 |
| | | 1600 | 580,000 | 3,900,000 | 160 | 170M6319 | 170M6369 |

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

## Time-current curve - Size 1*, 40 A to 500 A

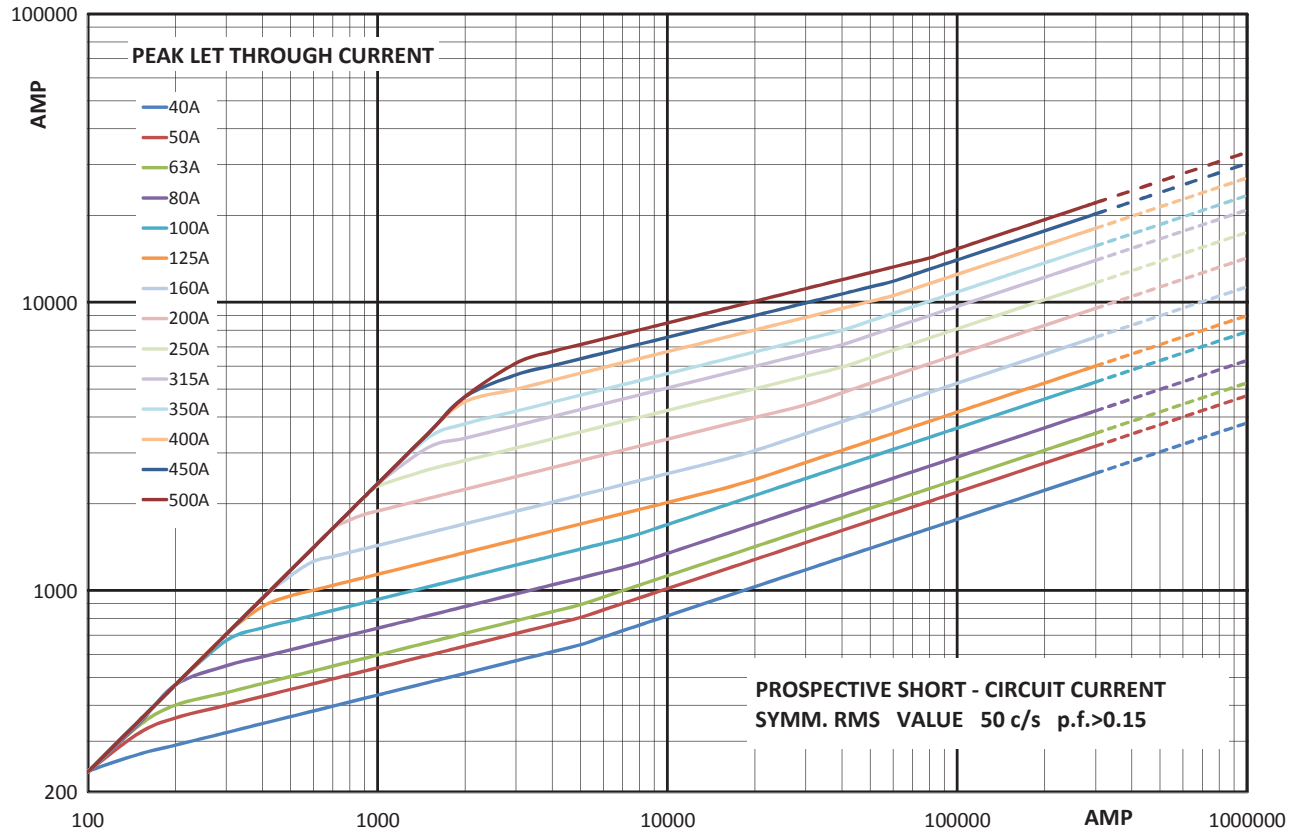



$K_b$ = 1 N = 1,5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

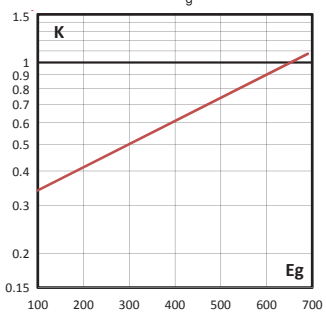
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

## Cut-off curve - Size 1*, 40 A to 500 A



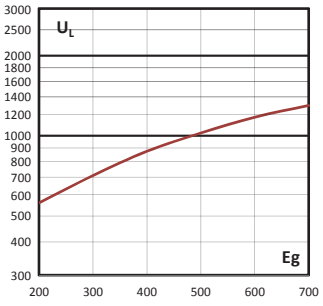

### Total clearing $I^2t$

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).



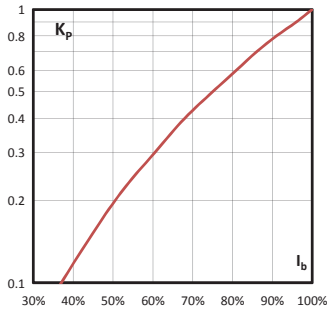

### Arc voltage

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

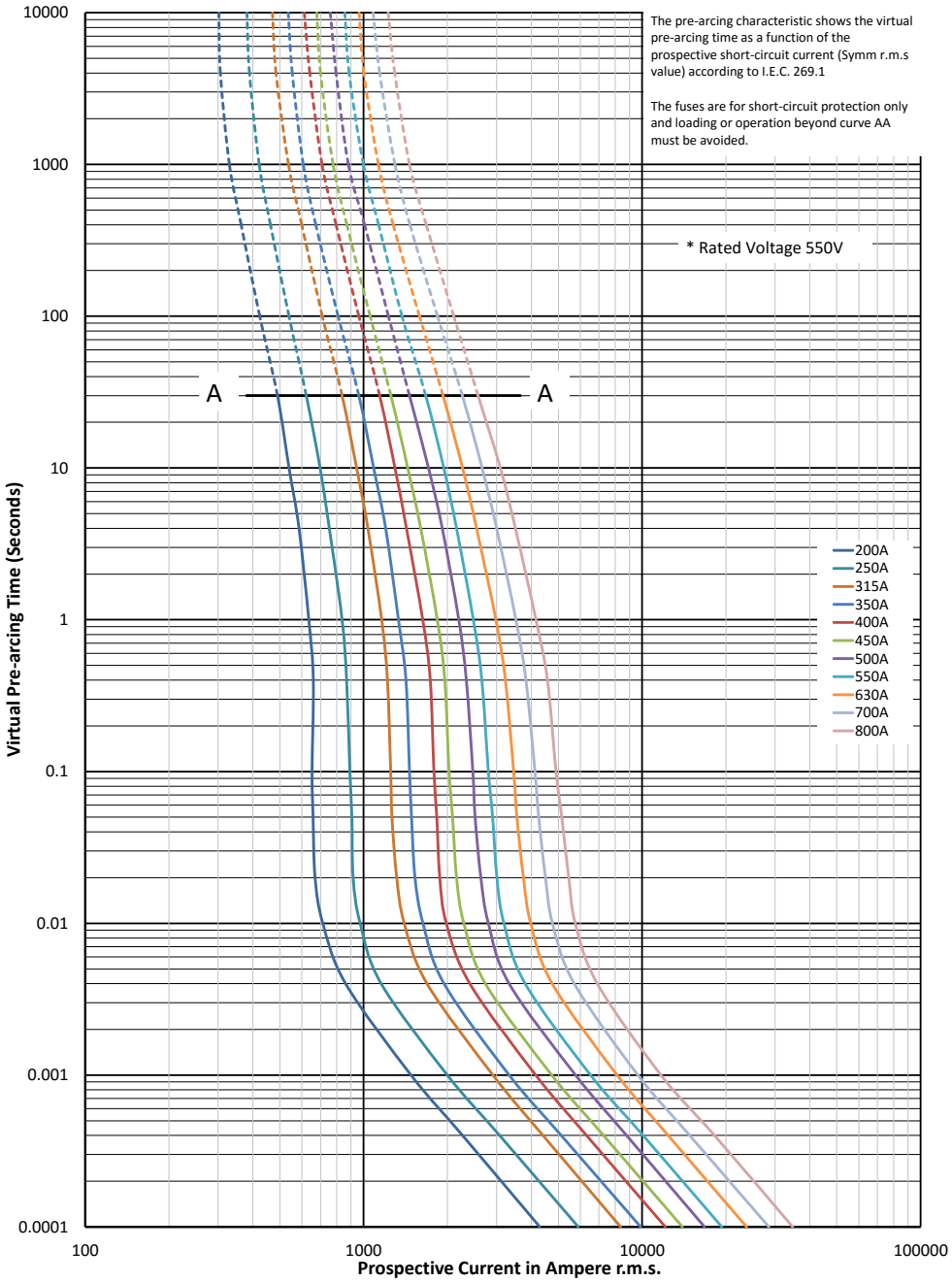
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

### Time-current curve - Size 1, 200 A to 800 A

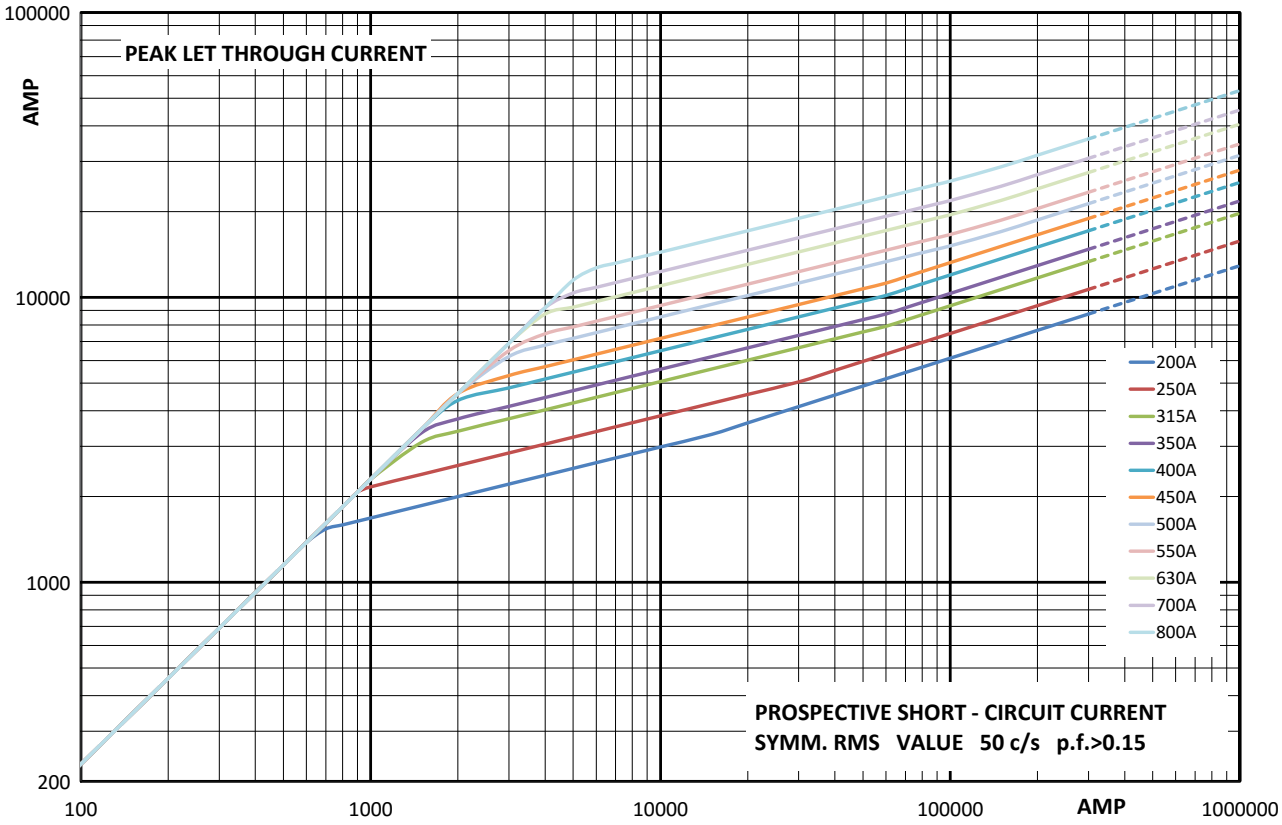



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

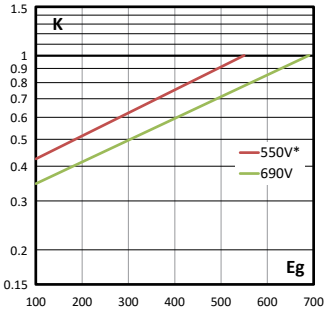
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

## Cut-off curve - Size 1, 200 A to 800 A



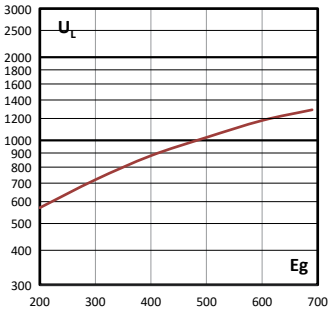

### Total clearing $I^2t$

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).



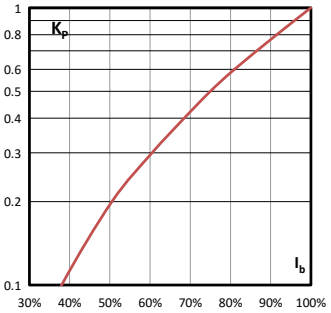

### Arc voltage

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

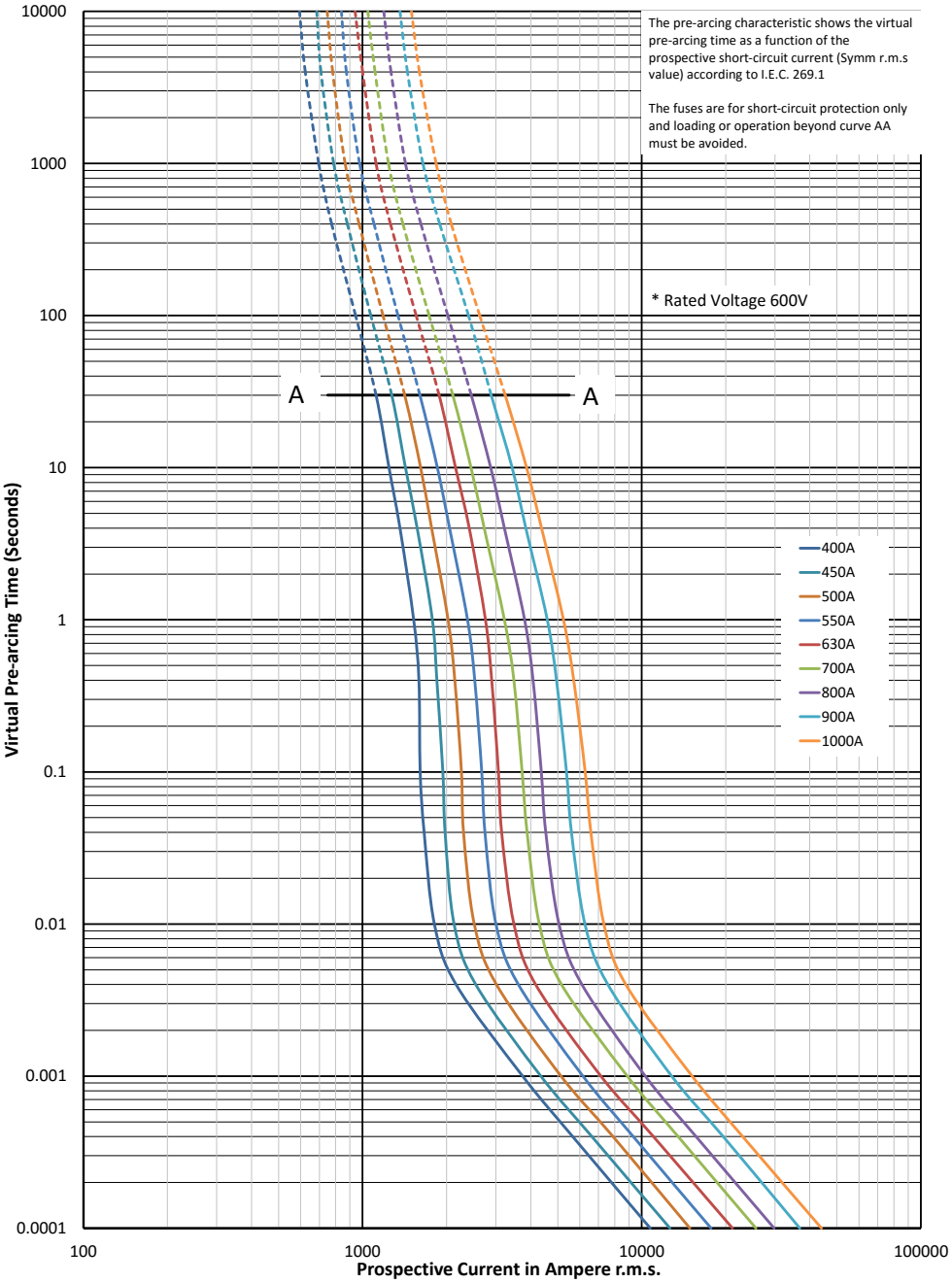
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

### Time-current curve - Size 2, 400 A to 1000 A

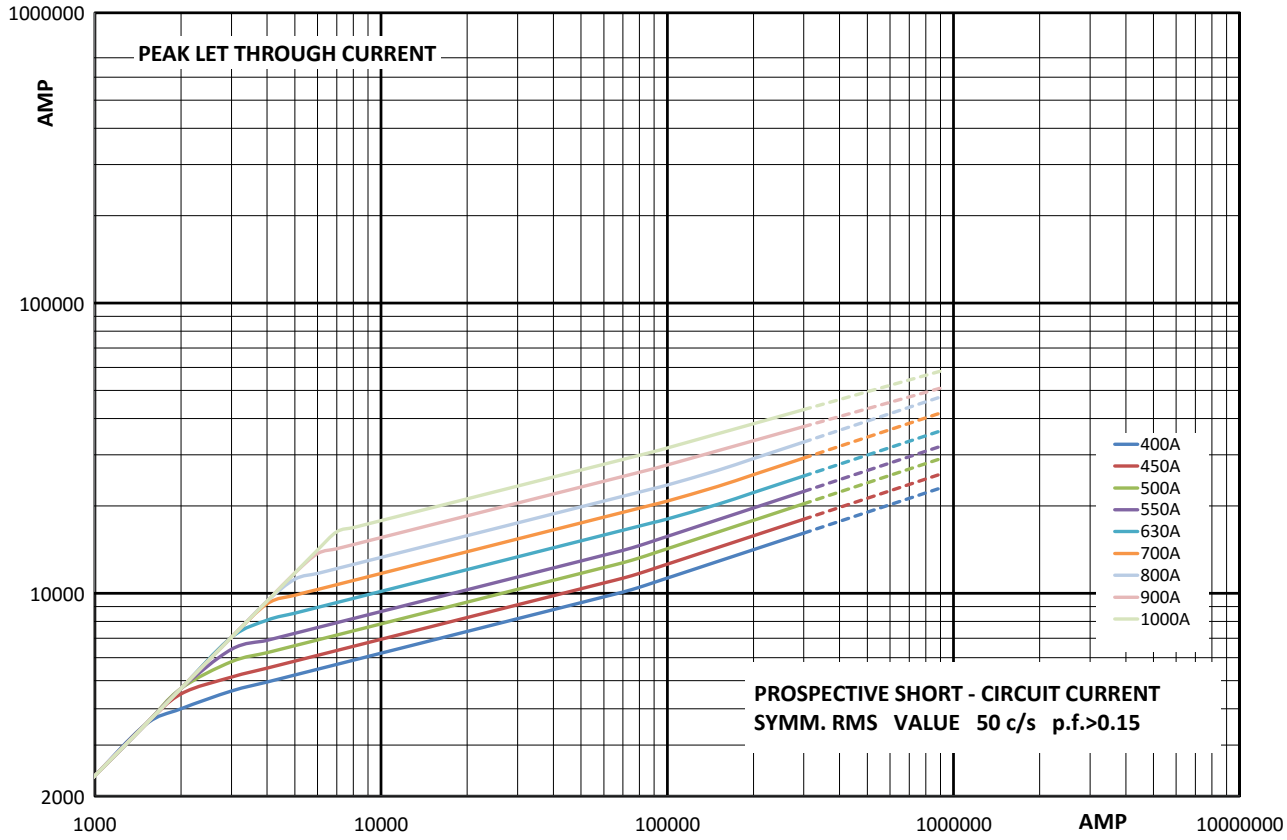



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

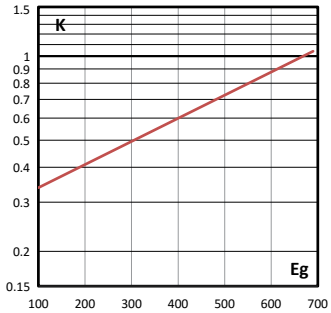
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

## Cut-off curve - Size 2, 400 A to 1000 A



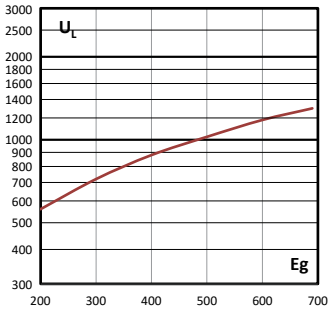

### Total clearing I²t

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).



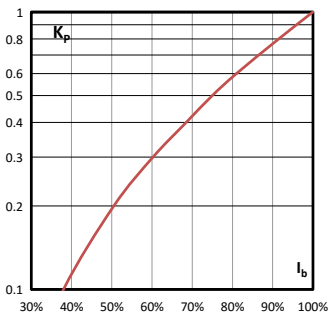

### Arc voltage

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

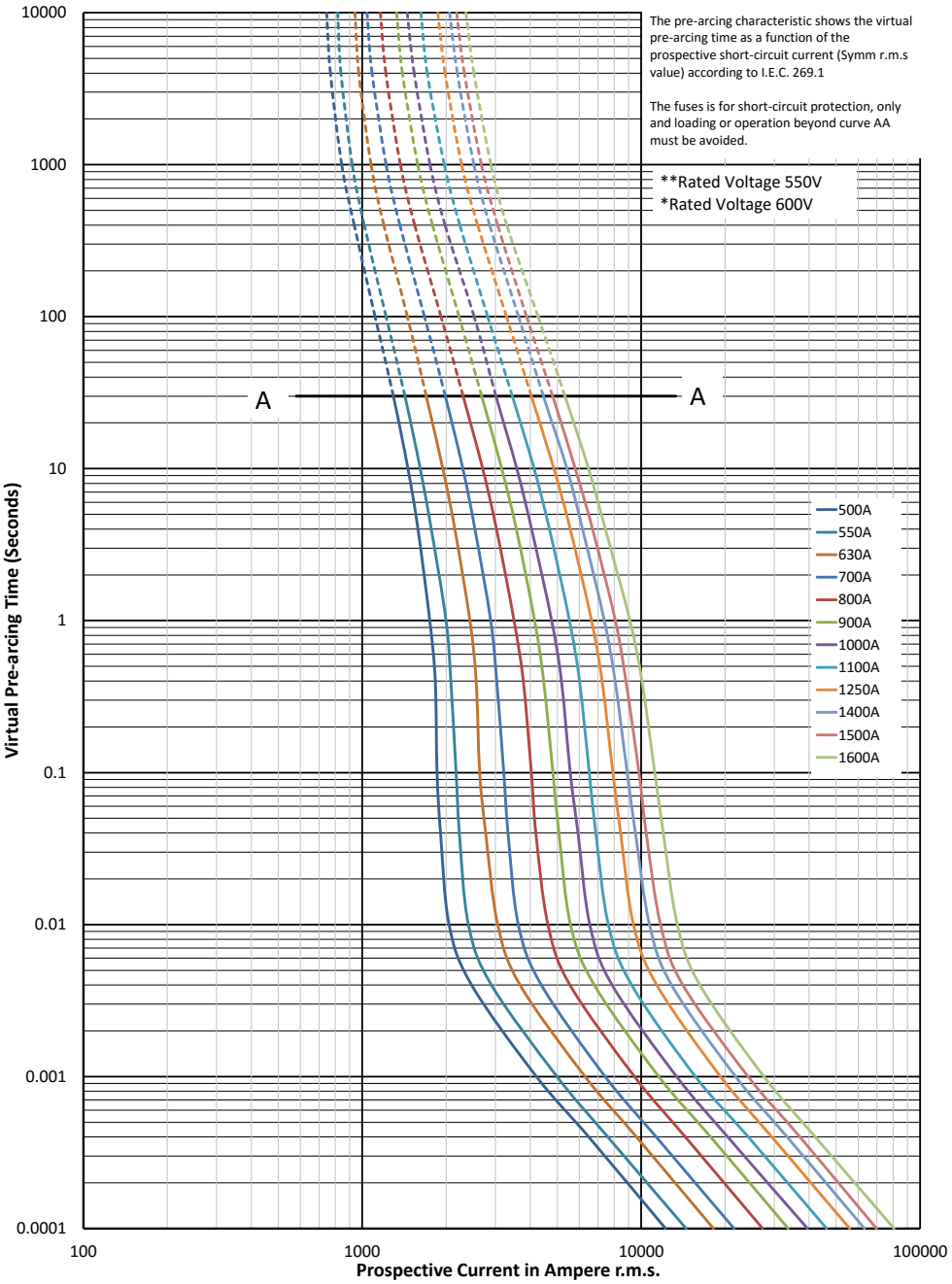
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

### Time-current curve - Size 3, 500 A to 1600 A

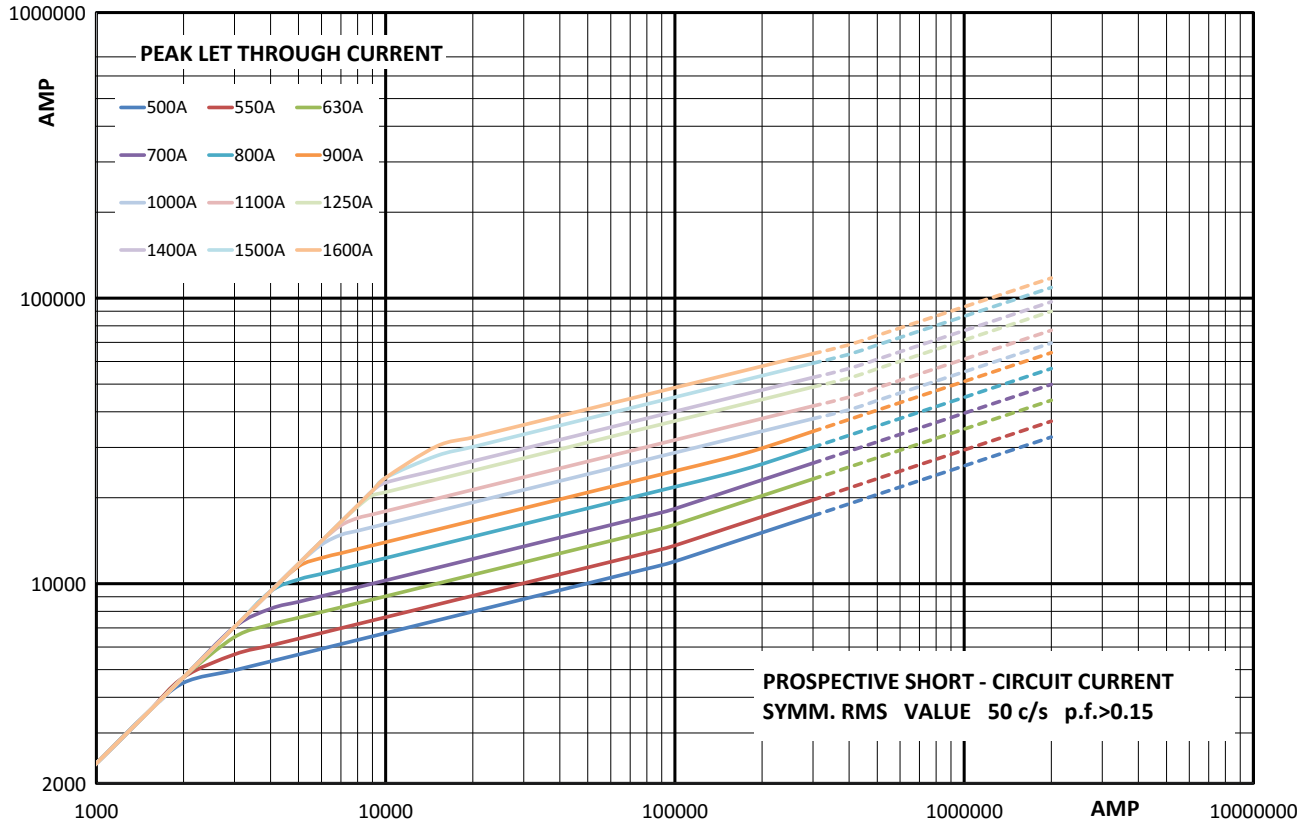



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

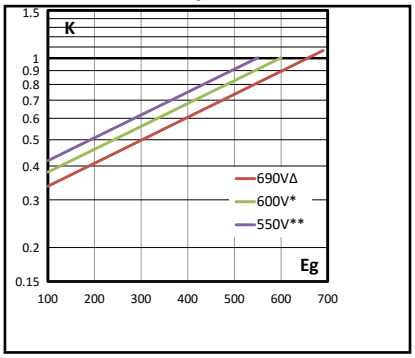
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 1600 A - Sizes 1* to 3 - French style - 170M

## Cut-off curve - Size 3, 500 A to 1600 A



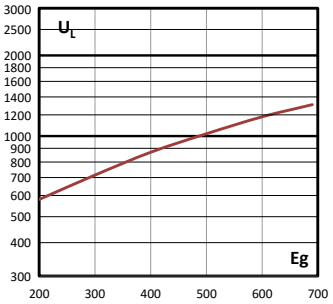

### Total clearing $I^2t$

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).



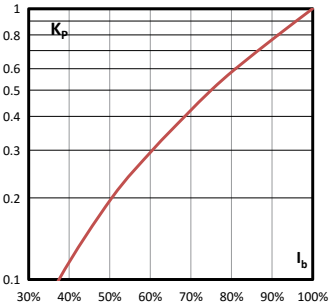

### Arc voltage

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: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# Square body fuse links US Style

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

### Description

Square body US style bolted tags high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.



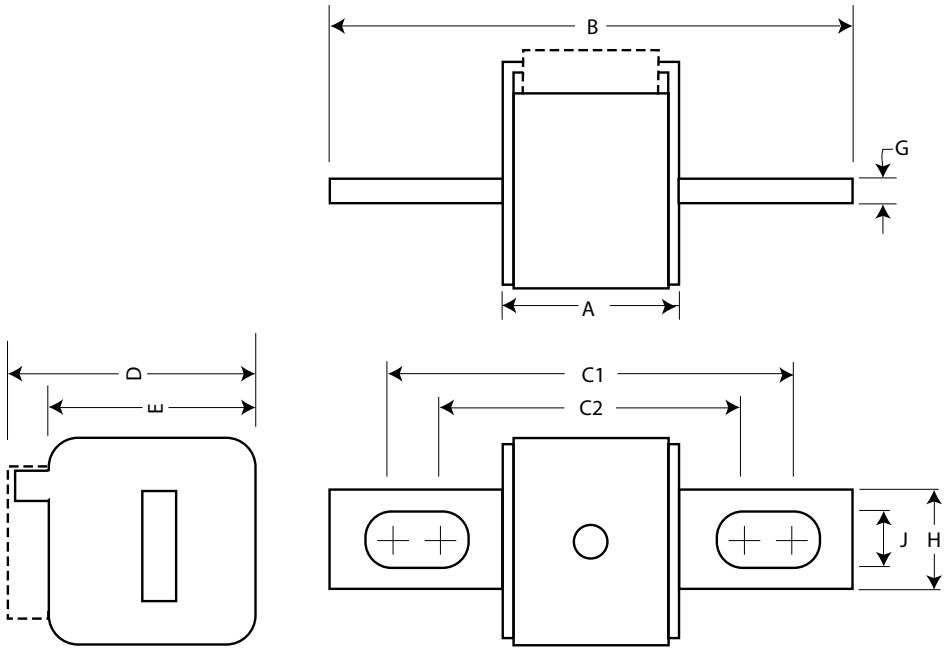

### Technical data

- Rated voltage: see table page 159
- Rated current: 40 A to 2000 A
- Breaking capacity: 200 kA RMS Sym
- Operating class: aR

### Standards / Agency information

CE, Designed and tested to IEC60269 Part 4. Consult Eaton for UL Recognition/CSA Component Acceptance status and CCC approvals

### Dimensions (mm)




| Size | A | B | B1 | C1 | C1[1] | C2 | C2[1] | D | E | G | H | J |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1* | 50 | 110 | 148 | 85 | 123 | 72 | 110 | 59 | 45 | 6 | 20 | 10 |
| 1 | 50 | 136 | 157 | 104 | 126 | 78 | 100 | 69 | 53 | 6 | 25 | 14 |
| 2 | 50 | 135 | 159 | 105 | 125 | 78 | 99 | 77 | 61 | 6 | 25 | 14 |
| 3 | 51 | 135 | 155 | 106 | 125 | 77 | 97 | 92 | 76 | 6 | 36 | 16 |

[1] Valid for fuse links type -FU/115 & -FKE/115.
1mm = 0.0394"

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

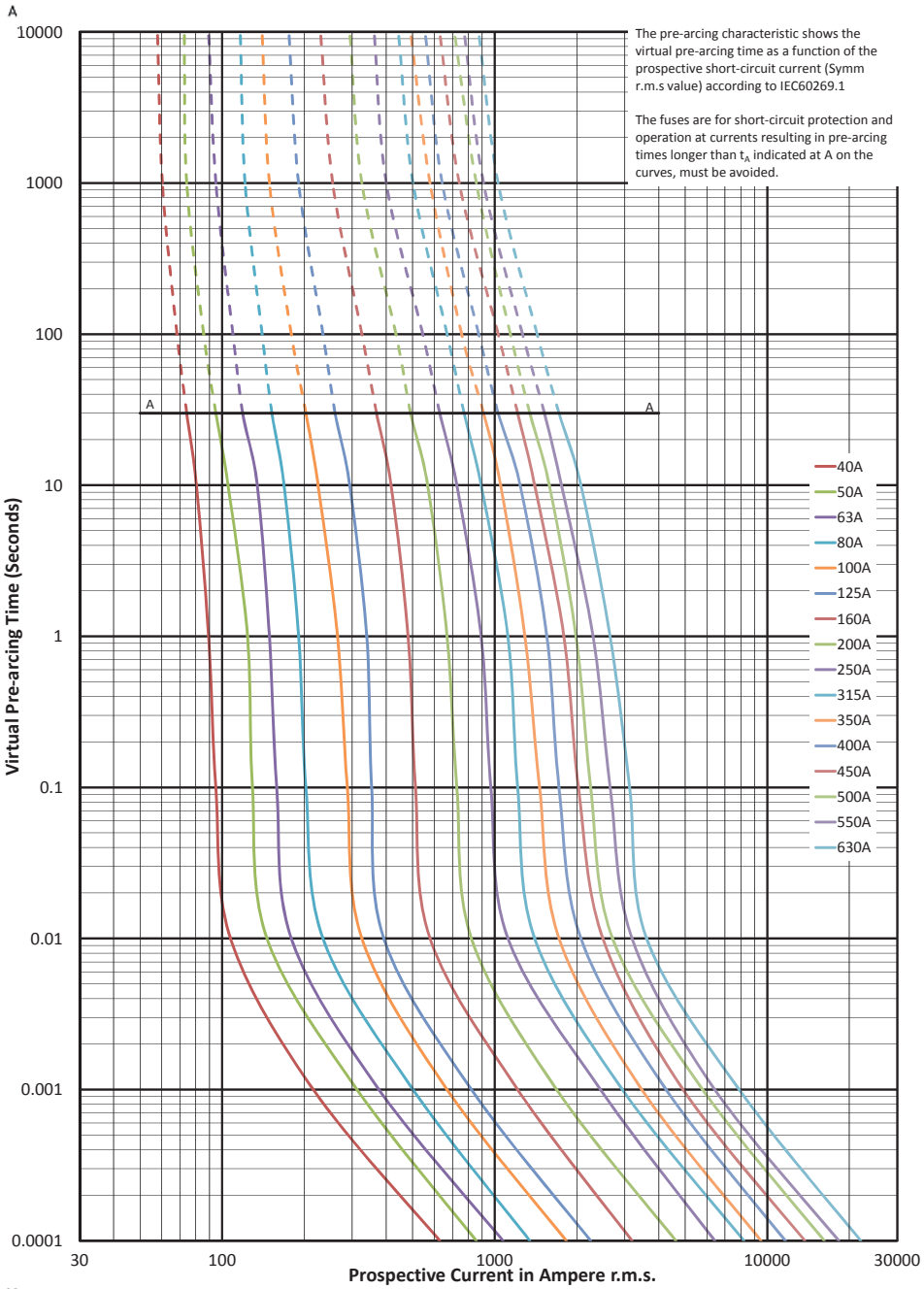
| Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 660 V a.c. | Watts loss (W) | Catalogue numbers -FU/- without indicator | -FKE/- Type K indicator for micro | -FU/115 without indicator | -FKE/115 Type K indicator for micro |
|---|---|---|---|---|---|---|---|---|---|
| 1* | 690 V a.c. (IEC) 700 V a.c. (UL) | 40 | 40 | 270 | 9 | 170M3608 | 170M3658 | 170M3708 | 170M3758 |
| | | 50 | 70 | 515 | 11 | 170M3609 | 170M3659 | 170M3709 | 170M3759 |
| | | 63 | 115 | 770 | 14 | 170M3610 | 170M3660 | 170M3710 | 170M3760 |
| | | 80 | 185 | 1250 | 18 | 170M3611 | 170M3661 | 170M3711 | 170M3761 |
| | | 100 | 360 | 2450 | 21 | 170M3612 | 170M3662 | 170M3712 | 170M3762 |
| | | 125 | 550 | 3700 | 26 | 170M3613 | 170M3663 | 170M3713 | 170M3763 |
| | | 160 | 1100 | 7500 | 30 | 170M3614 | 170M3664 | 170M3714 | 170M3764 |
| | | 200 | 2200 | 15,000 | 35 | 170M3615 | 170M3665 | 170M3715 | 170M3765 |
| | | 250 | 4200 | 28,500 | 40 | 170M3616 | 170M3666 | 170M3716 | 170M3766 |
| | | 315 | 7000 | 46,500 | 50 | 170M3617 | 170M3667 | 170M3717 | 170M3767 |
| | | 350 | 10,000 | 68,500 | 55 | 170M3618 | 170M3668 | 170M3718 | 170M3768 |
| | | 400 | 15,000 | 105,000 | 60 | 170M3619 | 170M3669 | 170M3719 | 170M3769 |
| | | 450 | 21,000 | 140,000 | 65 | 170M3620 | 170M3670 | 170M3720 | 170M3770 |
| | | 500 | 27,000 | 180,000 | 70 | 170M3621 | 170M3671 | 170M3721 | 170M3771 |
| | | 550 | 34,000 | 230,000 | 75 | 170M3622 | 170M3672 | 170M3722 | 170M3772 |
| | | 630 | 48,500 | 325,000 | 80 | 170M3623 | 170M3673 | 170M3723 | 170M3773 |
| 1 | 690 V a.c. (IEC) 700 V a.c. (UL) | 200 | 1650 | 11,500 | 45 | 170M4608 | 170M4658 | 170M4708 | 170M4758 |
| | | 250 | 3100 | 21,000 | 55 | 170M4609 | 170M4659 | 170M4709 | 170M4759 |
| | | 315 | 6200 | 42,000 | 58 | 170M4610 | 170M4660 | 170M4710 | 170M4760 |
| | | 350 | 8500 | 59,000 | 60 | 170M4611 | 170M4661 | 170M4711 | 170M4761 |
| | | 400 | 13,500 | 91,500 | 65 | 170M4612 | 170M4662 | 170M4712 | 170M4762 |
| | | 450 | 17,000 | 120,000 | 70 | 170M4613 | 170M4663 | 170M4713 | 170M4763 |
| | | 500 | 25,000 | 170,000 | 72 | 170M4614 | 170M4664 | 170M4714 | 170M4764 |
| | | 550 | 34,000 | 230,000 | 75 | 170M4615 | 170M4665 | 170M4715 | 170M4765 |
| | | 630 | 52,000 | 350,000 | 80 | 170M4616 | 170M4666 | 170M4716 | 170M4766 |
| | | 700 | 69,500 | 465,000 | 85 | 170M4617 | 170M4667 | 170M4717 | 170M4767 |
| | | 800 | 105,000 | 725,000 | 95 | 170M4618 | 170M4668 | 170M4718 | 170M4768 |
| | 550 V a.c. (IEC) | 900 | 155,000 | 850,000 | 100 | 170M4619 | 170M4669 | 170M4719 | 170M4769 |
| 2 | 690 V a.c. (IEC) 700 V a.c. (UL) | 400 | 11,000 | 74,000 | 65 | 170M5608 | 170M5658 | 170M5708 | 170M5758 |
| | | 450 | 15,500 | 105,000 | 70 | 170M5609 | 170M5659 | 170M5709 | 170M5759 |
| | | 500 | 21,500 | 145,000 | 75 | 170M5610 | 170M5660 | 170M5710 | 170M5760 |
| | | 550 | 28,000 | 190,000 | 80 | 170M5611 | 170M5661 | 170M5711 | 170M5761 |
| | | 630 | 41,000 | 275,000 | 90 | 170M5612 | 170M5662 | 170M5712 | 170M5762 |
| | | 700 | 60,500 | 405,000 | 95 | 170M5613 | 170M5663 | 170M5713 | 170M5763 |
| | | 800 | 86,000 | 575,000 | 105 | 170M5614 | 170M5664 | 170M5714 | 170M5764 |
| | | 900 | 125,000 | 840,000 | 110 | 170M5615 | 170M5665 | 170M5715 | 170M5765 |
| | | 1000 | 180,000 | 1,250,000 | 115 | 170M5616 | 170M5666 | 170M5716 | 170M5766 |
| | 600 V a.c. (IEC) 700 V a.c. (UL) | 1100 | 245,000 | 1,600,000 | 120 | 170M5617 | 170M5667 | 170M5717 | 170M5767 |
| | | 1250 | 365,000 | 2,400,000 | 130 | 170M5618 | 170M5668 | 170M5718 | 170M5768 |
| 3 | 690 V a.c. (IEC) 700 V a.c. (UL) | 500 | 14,000 | 95,000 | 95 | 170M6608 | 170M6658 | 170M6708 | 170M6758 |
| | | 550 | 19,500 | 135,000 | 100 | 170M6609 | 170M6659 | 170M6709 | 170M6759 |
| | | 630 | 31,000 | 210,000 | 105 | 170M6610 | 170M6660 | 170M6710 | 170M6760 |
| | | 700 | 44,500 | 300,000 | 110 | 170M6611 | 170M6661 | 170M6711 | 170M6761 |
| | | 800 | 69,500 | 465,000 | 115 | 170M6612 | 170M6662 | 170M6712 | 170M6762 |
| | | 900 | 100,000 | 670,000 | 120 | 170M6613 | 170M6663 | 170M6713 | 170M6763 |
| | | 1000 | 140,000 | 945,000 | 125 | 170M6614 | 170M6664 | 170M6714 | 170M6764 |
| | | 1100 | 190,000 | 1,300,000 | 130 | 170M6615 | 170M6665 | 170M6715 | 170M6765 |
| | | 1250 | 290,000 | 1,950,000 | 140 | 170M6616 | 170M6666 | 170M6716 | 170M6766 |
| | | 1400 | 370,000 | 2,450,000 | 155 | 170M6617 | 170M6667 | 170M6717 | 170M6767 |
| | | 1500 | 460,000 | 3,100,000 | 160 | 170M6618 | 170M6668 | 170M6718 | 170M6768 |
| | | 1600 | 580,000 | 3,900,000 | 160 | 170M6619 | 170M6669 | 170M6719 | 170M6769 |
| | 600 V a.c. (IEC) 550 V a.c. (UL) | 1800 | 880,000 | 5,250,000 | 165 | 170M6620[3] | 170M6670[1] | 170M6720[3] | 170M6770 |
| | 550 V a.c.(IEC) 500 V a.c. (UL) | 2000 | 1,150,000 | 6,350,000 | 175 | 170M6621 | 170M6671[2] | 170M6721 | 170M6771 |

[1] 170M6670 600 V a.c. (UL)/550 V a.c. (IEC) [2] 170M6671 550 V a.c. (IEC and UL) [3] Rated at 750 V d.c.12XIn 130 kA when two fuses are connected in series

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 1*, 40 A to 630 A

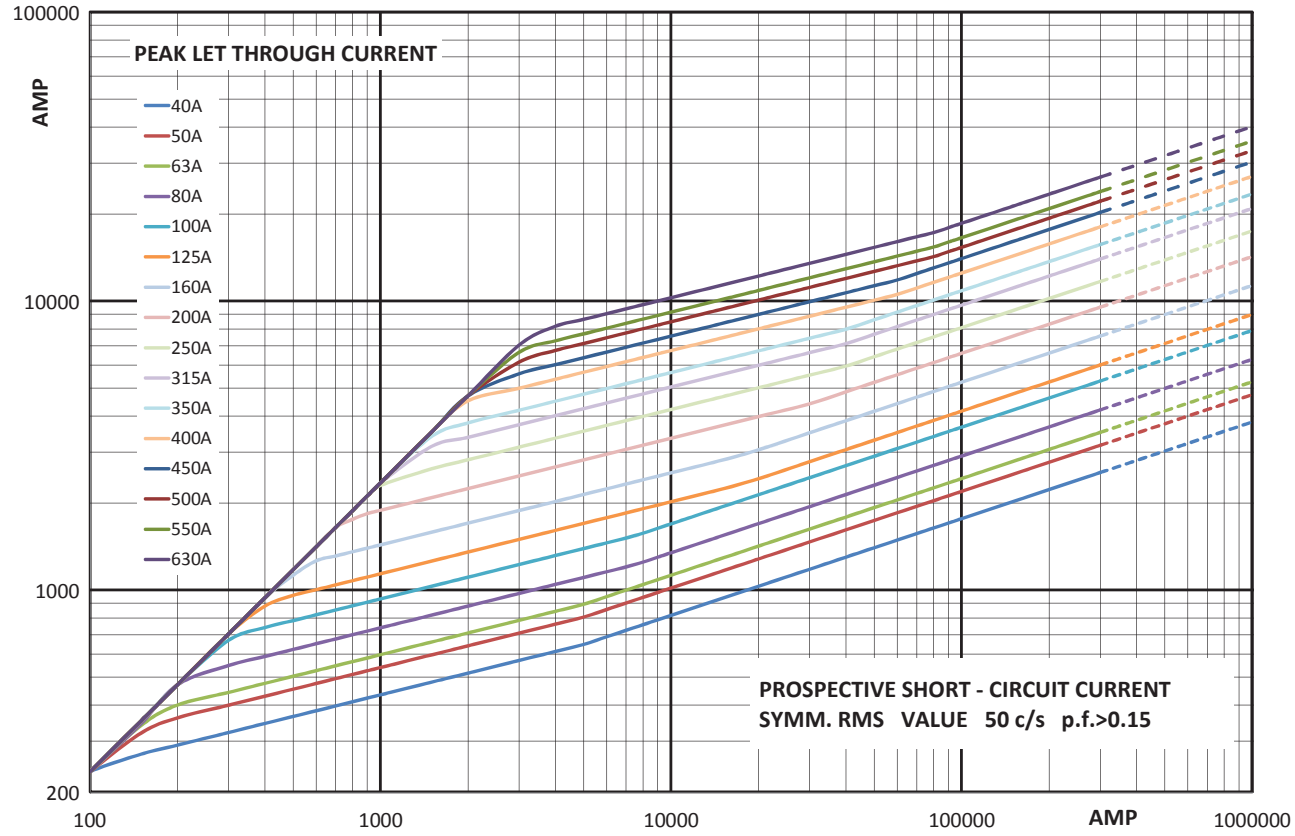



$K_b$ = 1 N = 1,5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

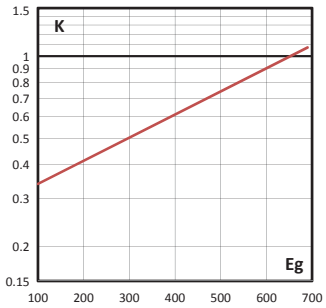
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 1*, 40 A to 630 A



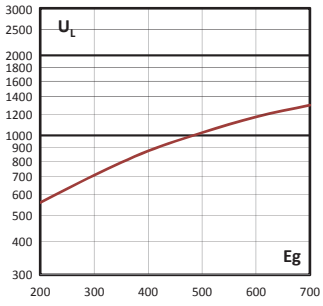

### Total clearing $I^2t$

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).



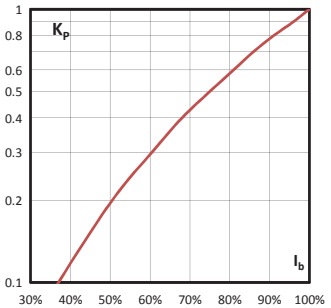

### Arc voltage

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

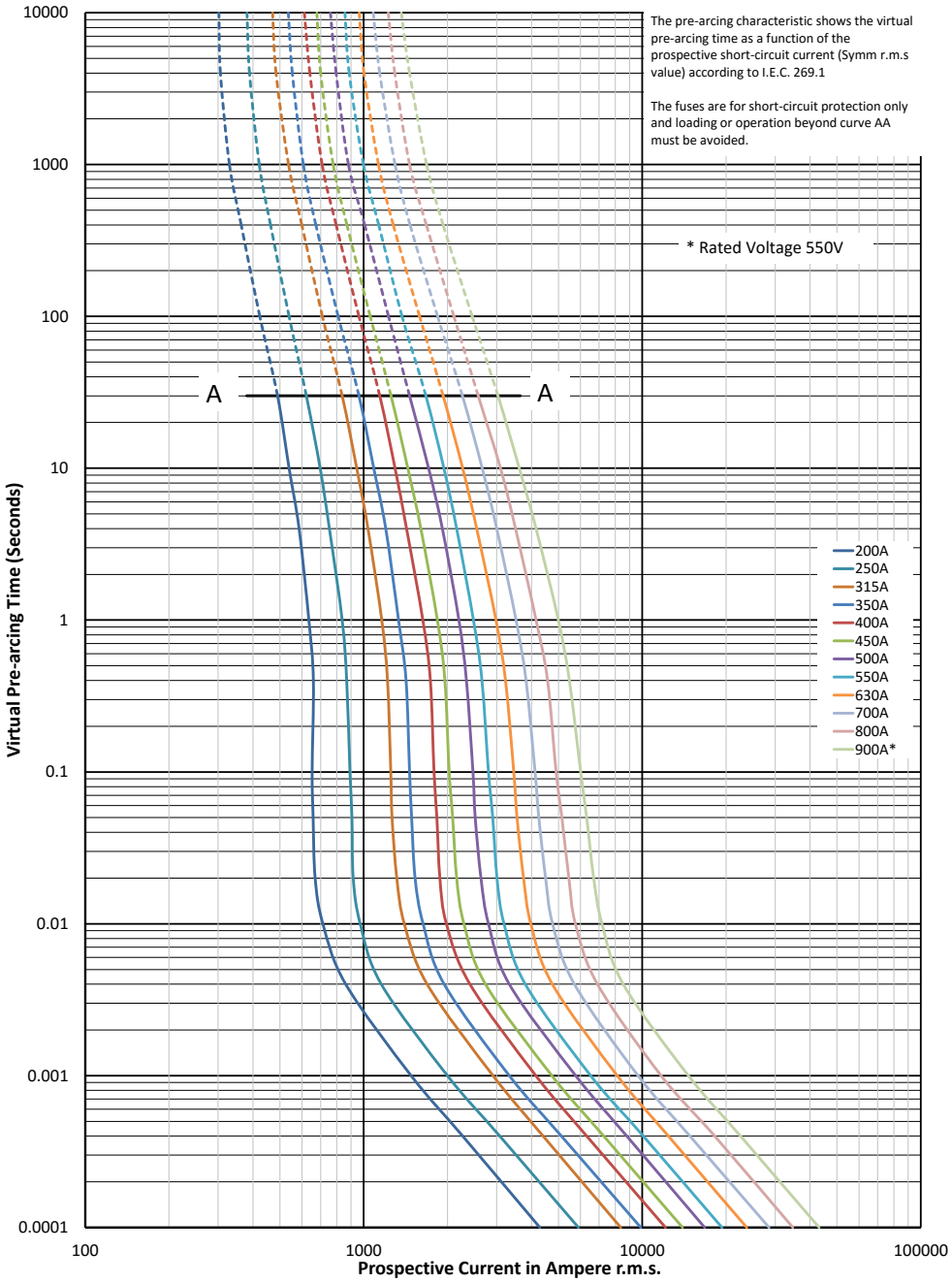
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

### Time-current curve - Size 1, 200 A to 900 A

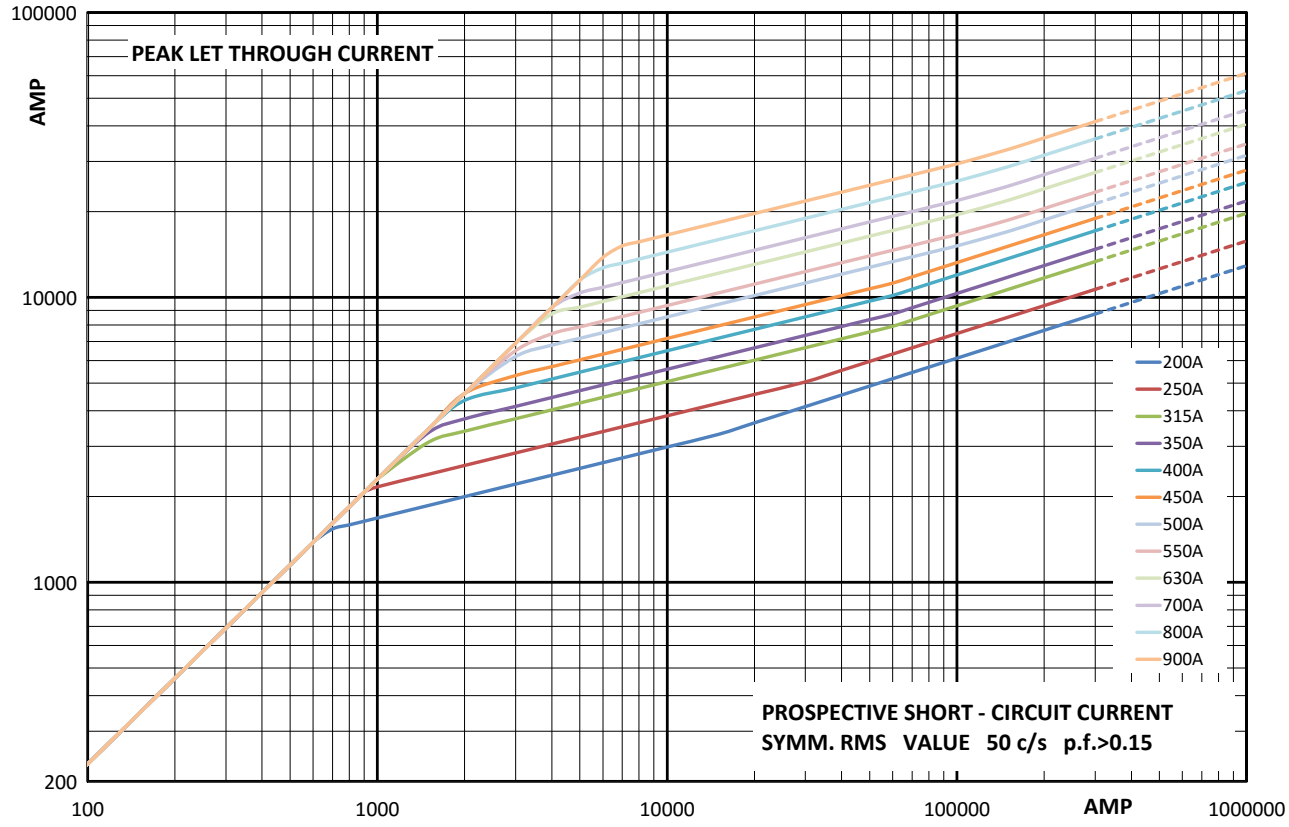



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

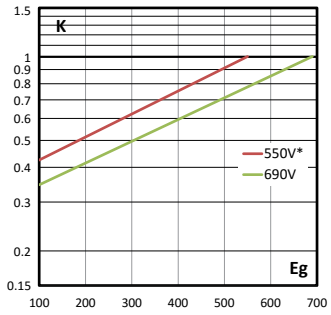
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 1, 200 A to 900 A



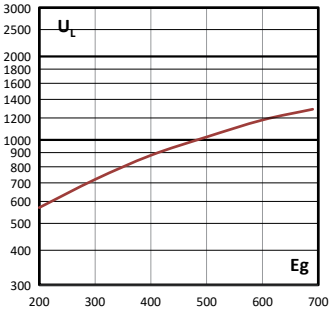

### Total clearing $I^2t$

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).



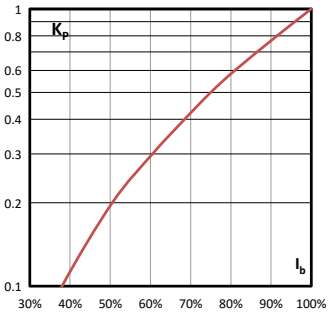

### Arc voltage

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

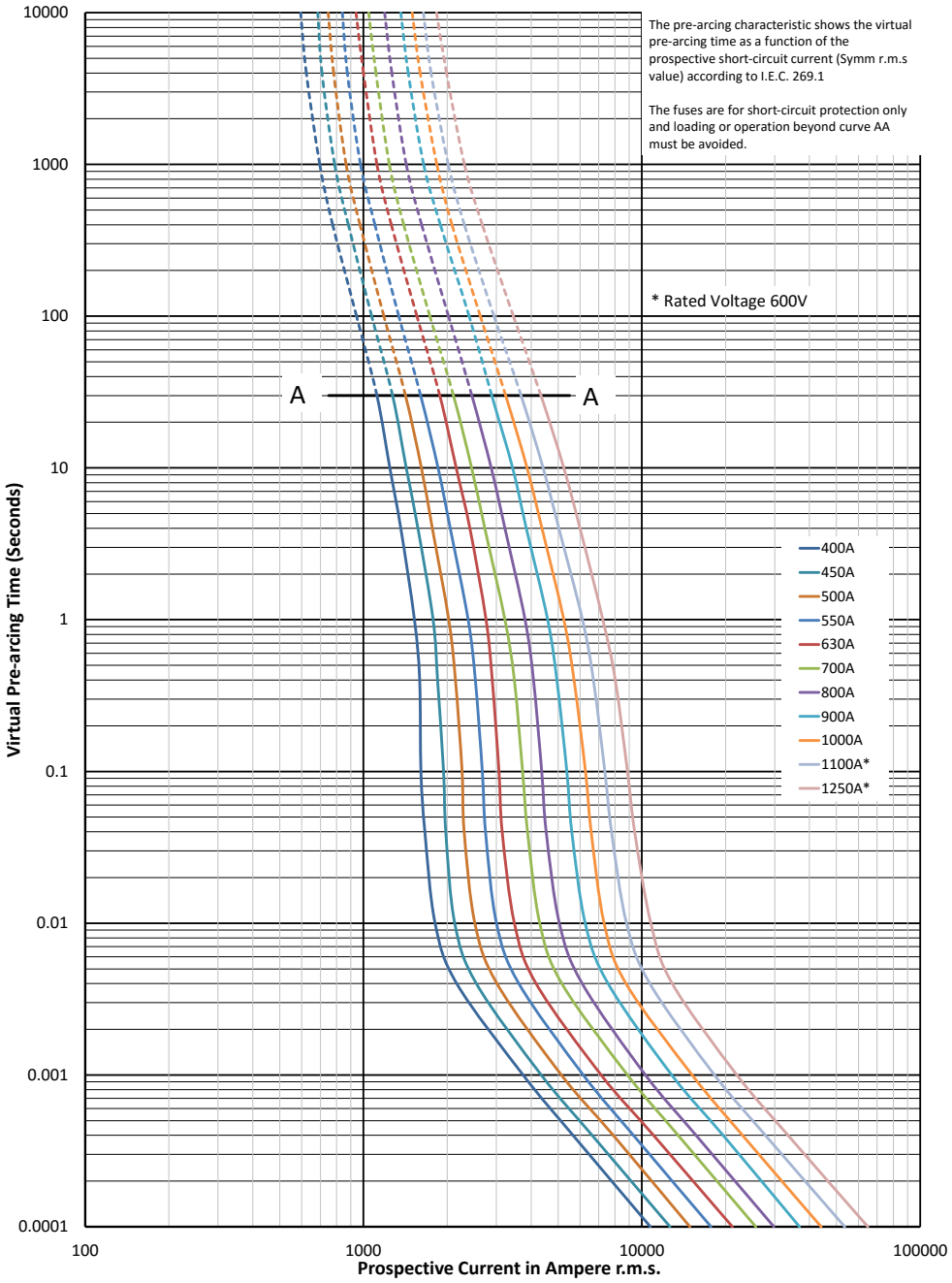
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 2, 400 A to 1250 A

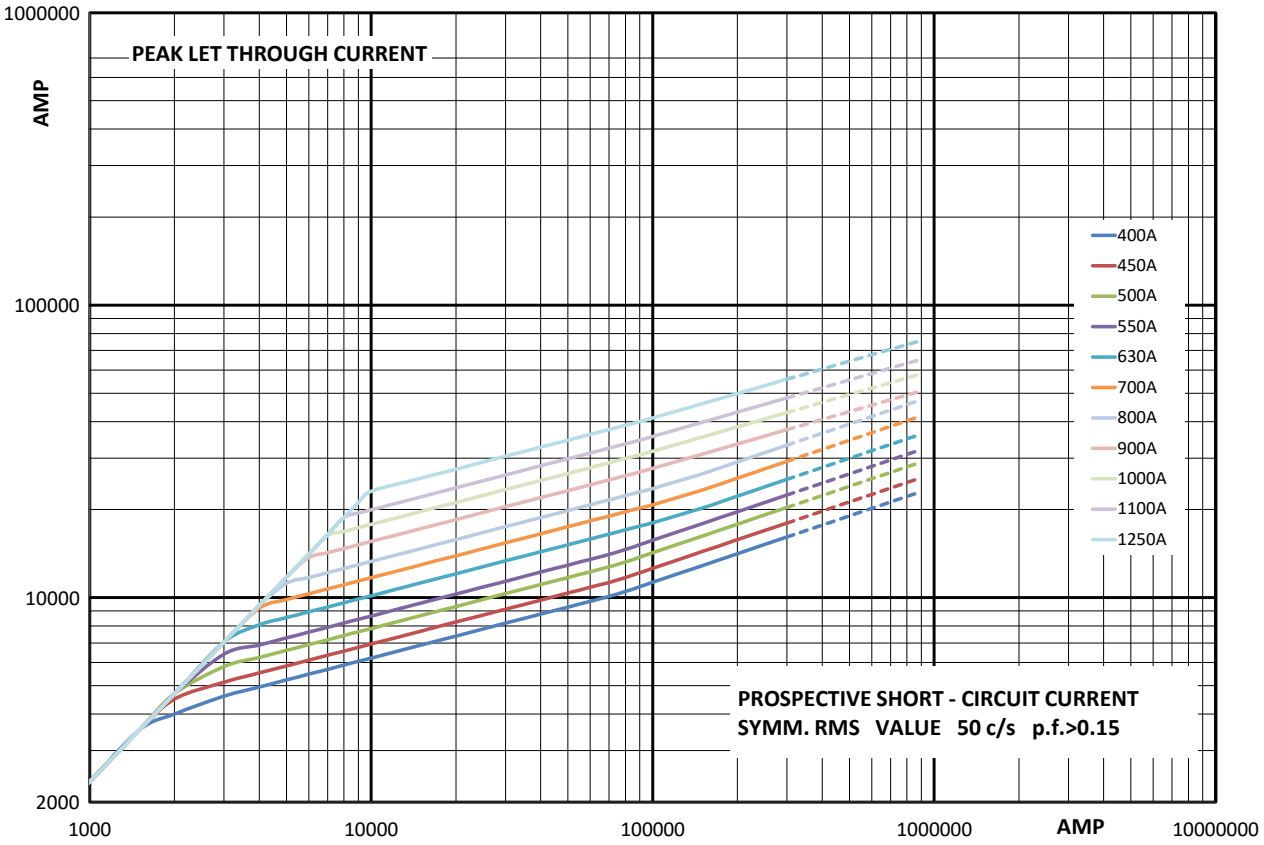



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

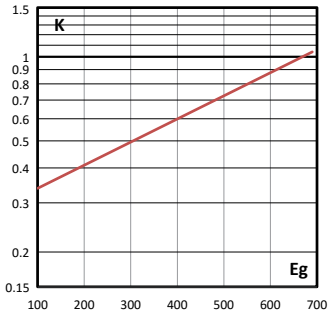
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 2, 400 A to 1250 A



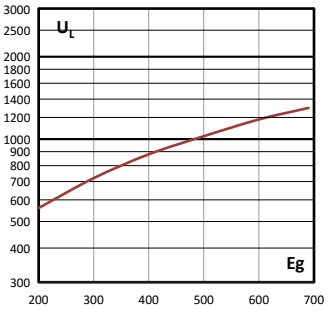

### Total clearing $I^2t$

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).



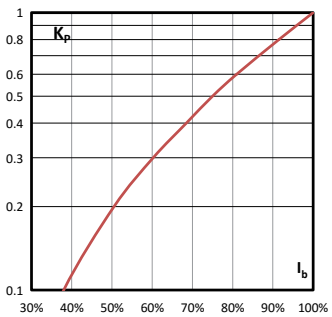

### Arc voltage

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

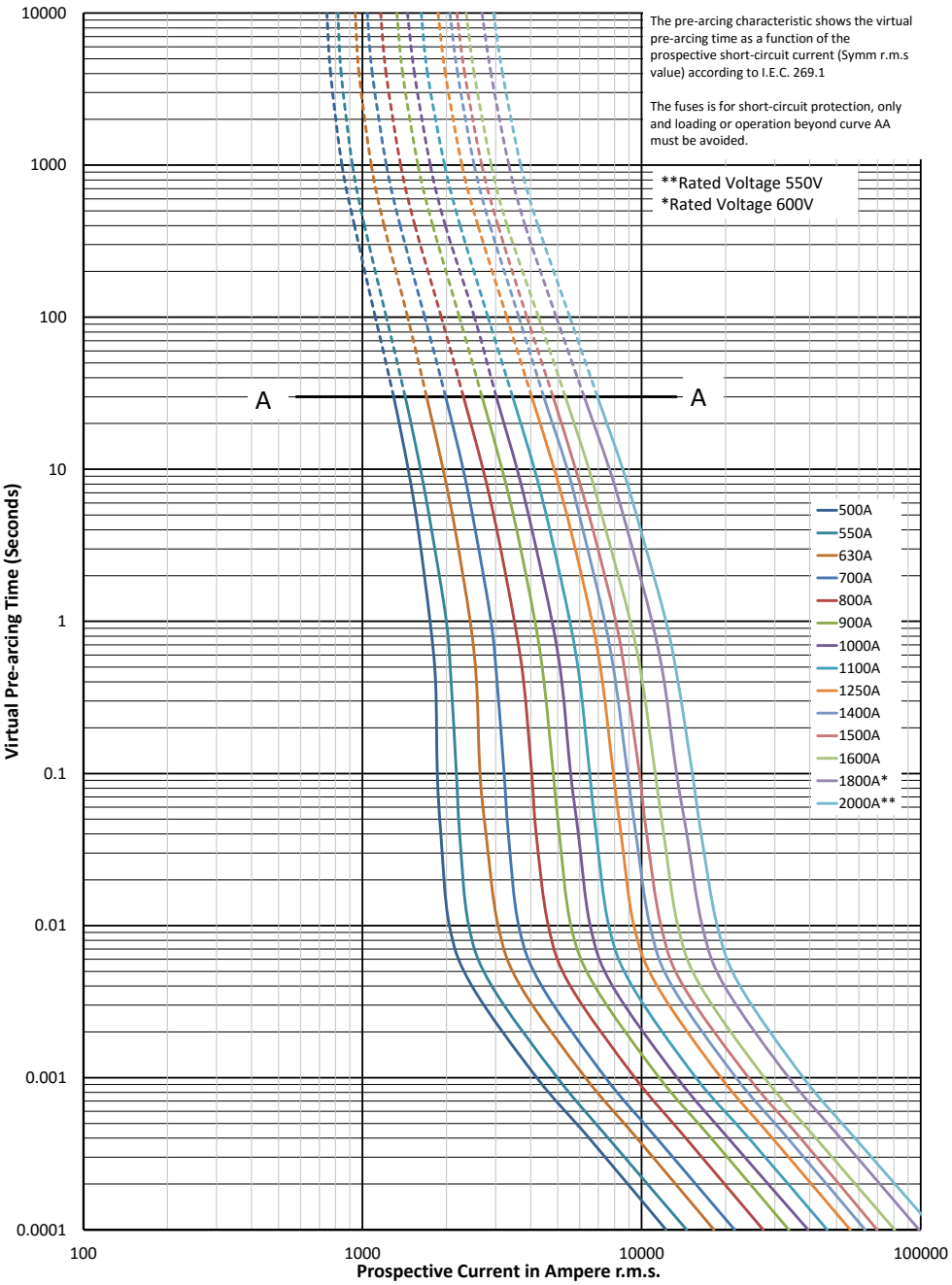
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 3, 500 A to 2000 A

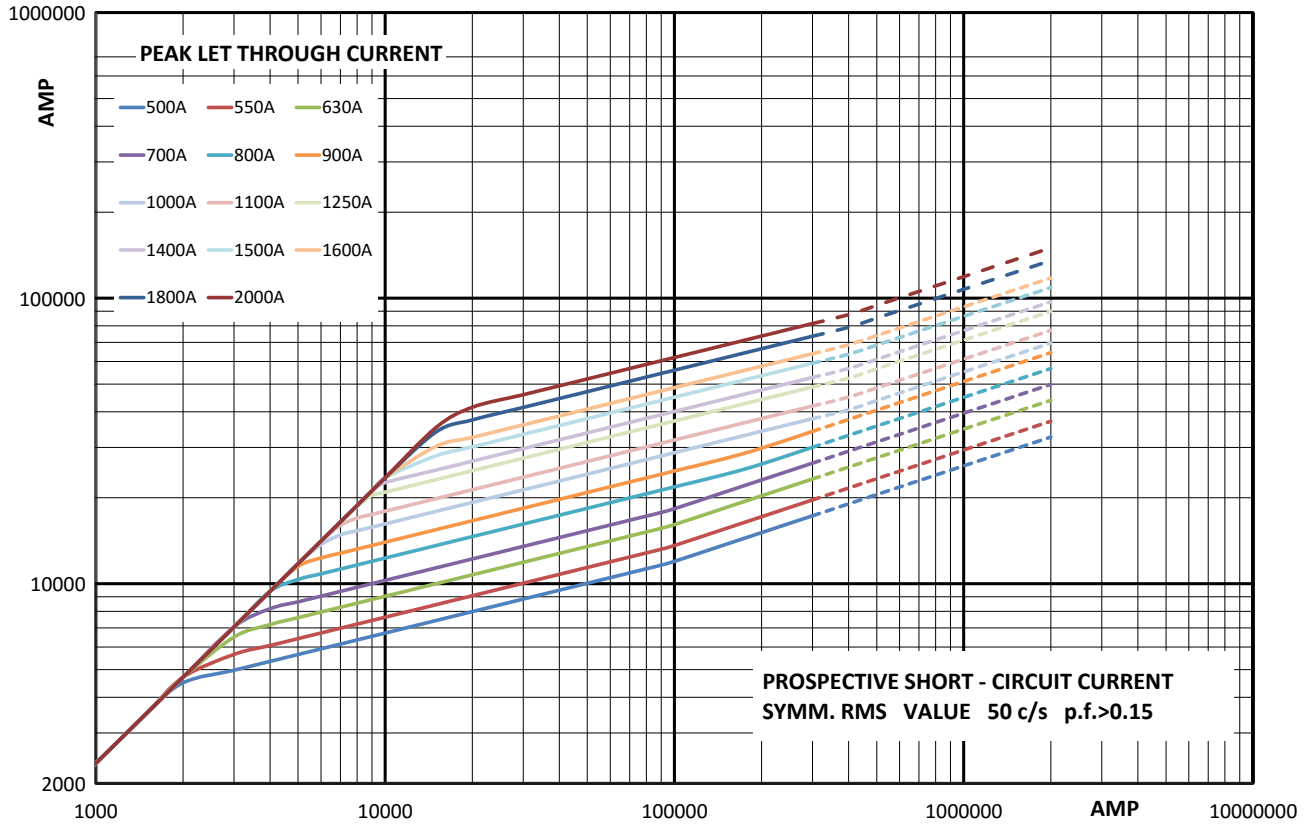



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

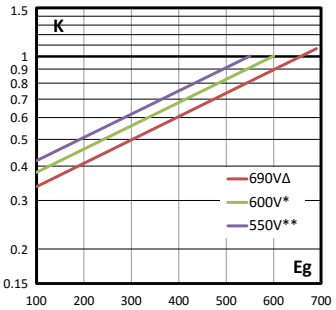
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 3, 500 A to 2000 A



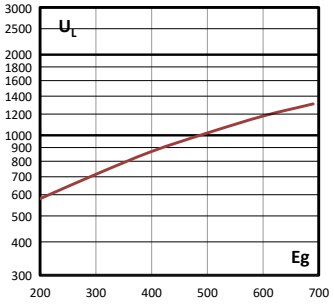

### Total clearing $I^2t$

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).



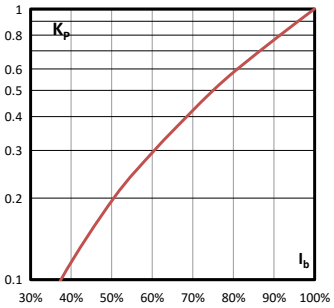

### Arc voltage

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: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 1000 V a.c. (IEC) - 50 A to 1400 A - Sizes 1* to 3 - US Style - 170M

## Description

Square body US style bolted tags high speed fuse links for the protection of DC common bus, DC drives, power converters/ rectifiers and reduced rated voltage starters.



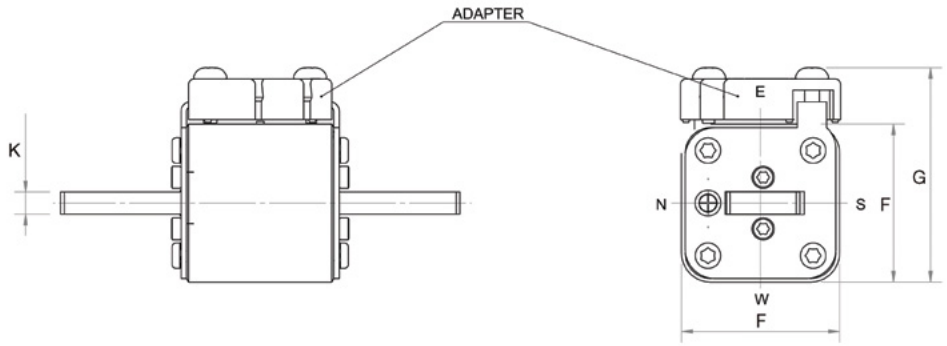

## Technical data

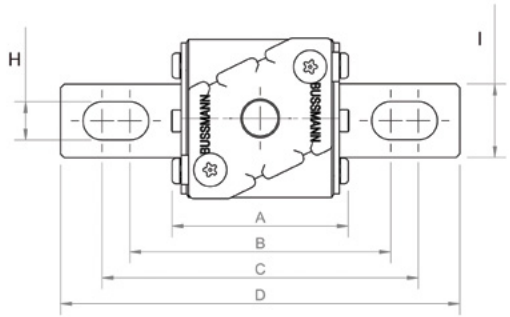
- Rated voltage: 1000 V a.c. (IEC)
- Rated current: 50 A to 1400 A
- Breaking capacity:
  - 125kA RMS Sym. A.C.
  - Size 1 750 V d.c. 50 kA IR
- Operating class: aR

## Standards / Agency information

CE, Designed and tested to IEC60269 Part 4. UL Recognised/CSA Component Acceptance status for size 2 and 3 (315 A to 1100 A) and CCC approval for size 2 only.

## Dimensions (mm)




| Size | A | B | C | D | F | G | H | I | K |
|---|---|---|---|---|---|---|---|---|---|
| 1*FKE/115 | 74 | 101 | 130 | 156 | 43 | 60 | 10.4 | 20 | 6 |
| 1FKE/115 | 76 | 102 | 128 | 160 | 51 | 68 | 14.3 | 25 | 6 |
| 2FKE/115 | 76 | 101.1 | 127.5 | 160 | 59 | 76 | 14.4 | 25 | 6 |
| 3FKE/115 | 76 | 101.1 | 127.5 | 158 | 74 | 91 | 16 | 36 | 6 |

1mm = 0.0394”

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC) - 50 A to 1400 A - Sizes 1* to 3 - US Style - 170M

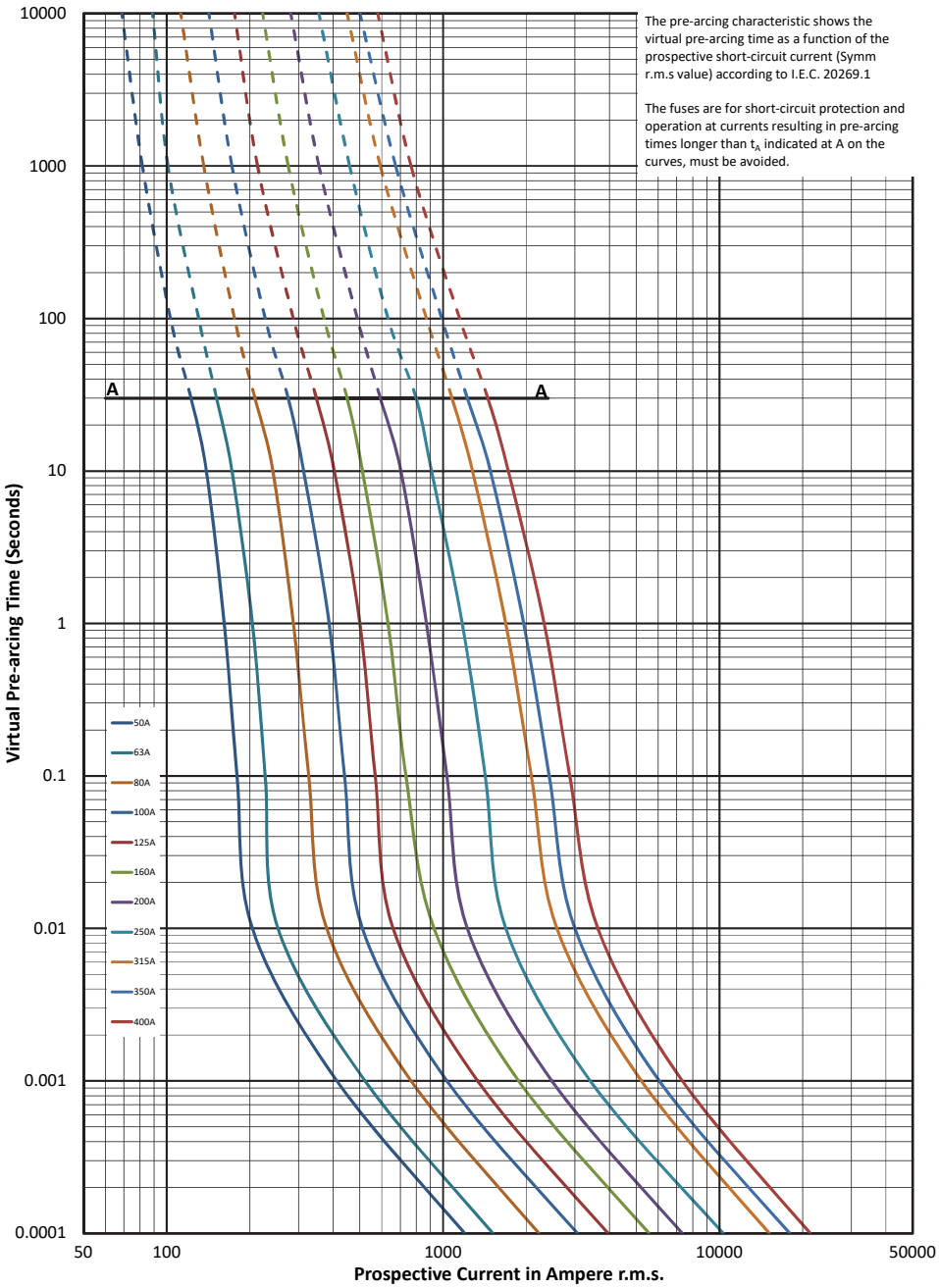
## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 1000 V a.c. | Watts loss (W) | Catalogue numbers -FKE/115 Type K indicator for micro |
|---|---|---|---|---|---|---|
| 1* | 1000 V a.c. (IEC) | 50 | 135 | 815 | 20 | 170M3531 |
| | | 63 | 215 | 1300 | 25 | 170M3532 |
| | | 80 | 460 | 2750 | 30 | 170M3533 |
| | | 100 | 860 | 5100 | 35 | 170M3534 |
| | | 125 | 1450 | 8600 | 40 | 170M3535 |
| | | 160 | 2850 | 17,500 | 45 | 170M3536 |
| | | 200 | 4950 | 29,500 | 50 | 170M3537 |
| | | 250 | 9550 | 57,000 | 55 | 170M3538 |
| | | 315 | 21,500 | 130,000 | 65 | 170M3539 |
| | | 350 | 29,000 | 175,000 | 70 | 170M3540 |
| | | 400 | 42,000 | 250,000 | 75 | 170M3541 |
| 1 | 1000 V a.c. (IEC)<br>1000 V a.c. / 750 V d.c. (UL) | 160 | 2200 | 13,500 | 40 | 170M4531 |
| | | 200 | 4150 | 24,500 | 50 | 170M4532 |
| | | 250 | 7750 | 46,000 | 55 | 170M4533 |
| | | 315 | 16,500 | 98,500 | 65 | 170M4534 |
| | | 350 | 21,500 | 130,000 | 70 | 170M4535 |
| | | 400 | 31,000 | 185,000 | 75 | 170M4536 |
| | | 450 | 44,500 | 265,000 | 80 | 170M4537 |
| | | 500 | 63,000 | 375,000 | 85 | 170M4538 |
| | | 550 | 84,500 | 500,000 | 90 | 170M4539 |
| | | 630 | 125,000 | 755,000 | 98 | 170M4540 |
| 2 | 1000 V a.c. (IEC/UL) | 250 | 6750 | 40,000 | 65 | 170M5531 |
| | | 315 | 13,500 | 81,500 | 75 | 170M5532 |
| | | 350 | 16,500 | 99,000 | 80 | 170M5533 |
| | | 400 | 26,000 | 155,000 | 85 | 170M5534 |
| | | 450 | 35,500 | 210,000 | 90 | 170M5535 |
| | | 500 | 49,500 | 295,000 | 95 | 170M5536 |
| | | 550 | 66,000 | 390,000 | 100 | 170M5337 |
| | | 630 | 93,500 | 555,000 | 110 | 170M5538 |
| | | 700 | 130,000 | 770,000 | 115 | 170M5539 |
| | | 800 | 195,000 | 1,200,000 | 125 | 170M5540 |
| 3 | 1000 V a.c. (IEC/UL) | 315 | 9200 | 54,500 | 90 | 170M8531 |
| | | 350 | 13,000 | 77,500 | 95 | 170M8532 |
| | | 400 | 19,000 | 115,000 | 105 | 170M8533 |
| | | 450 | 27,000 | 160,000 | 107 | 170M8534 |
| | | 500 | 37,500 | 225,000 | 110 | 170M8535 |
| | | 550 | 52,000 | 310,000 | 115 | 170M8536 |
| | | 630 | 82,500 | 490,000 | 120 | 170M8537 |
| | | 700 | 115,000 | 700,000 | 125 | 170M8538 |
| | | 800 | 170,000 | 1,050,000 | 135 | 170M8539 |
| | | 900 | 250,000 | 1,500,000 | 145 | 170M8540 |
| | | 1000 | 340,000 | 2,050,000 | 150 | 170M8541 |
| | | 1100 | 460,000 | 2,750,000 | 155 | 170M8542 |
| | 1000 V a.c. (IEC) | 1250 | 575,000 | 3,400,000 | 175 | 170M8543 |
| | 900 V a.c. (IEC) | 1400 | 795,000 | 4,200,000 | 185 | 170M8544 |

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC) - 50 A to 1400 A - Sizes 1* to 3 - US Style - 170M

## 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 I.E.C. 20269.1

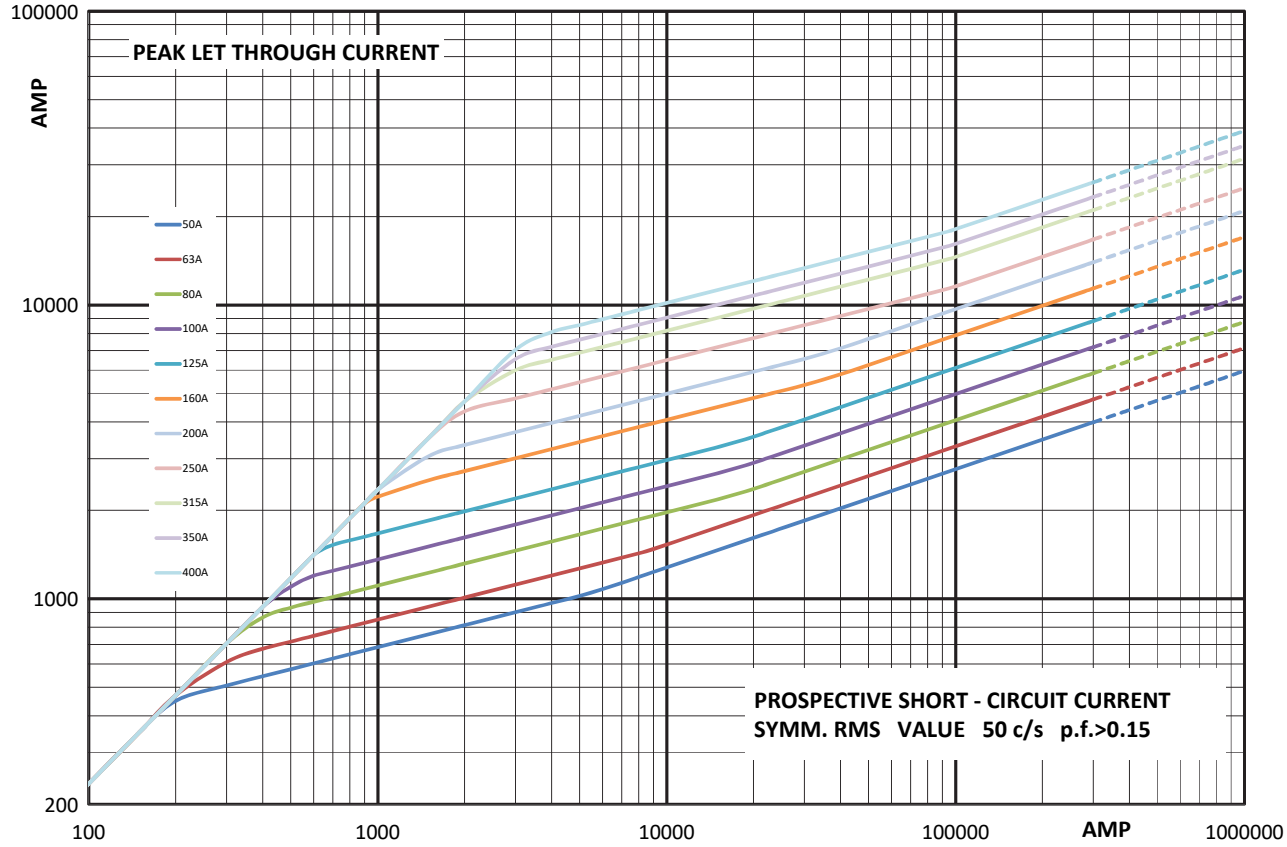
The fuses are for short-circuit protection and operation at currents resulting in pre-arcing times longer than $t_A$ indicated at A on the curves, must be avoided.

**$K_b$ = 1 N = 1,6**

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

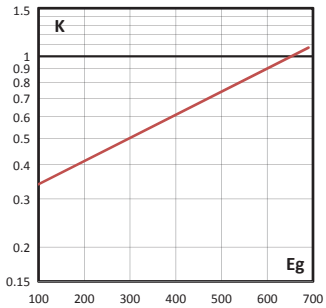
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

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



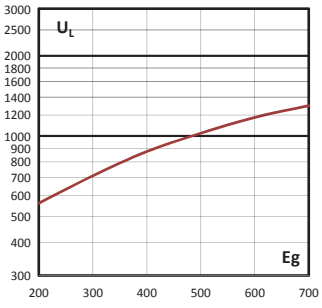

### Total clearing $I^2t$

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).



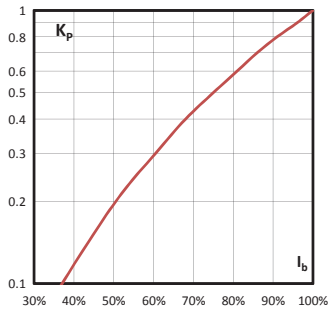

### Arc voltage

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

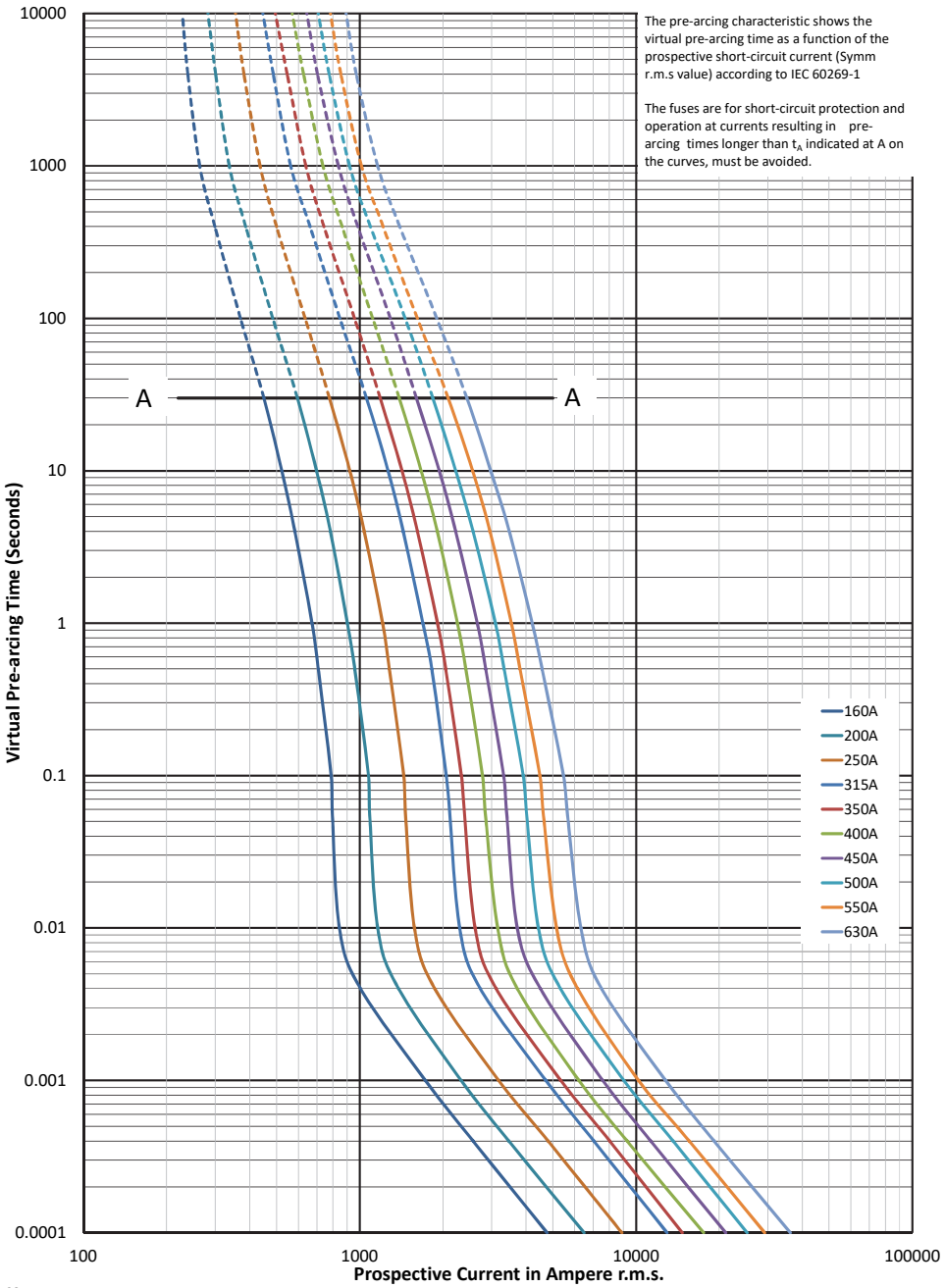
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 1, 160 A to 630 A

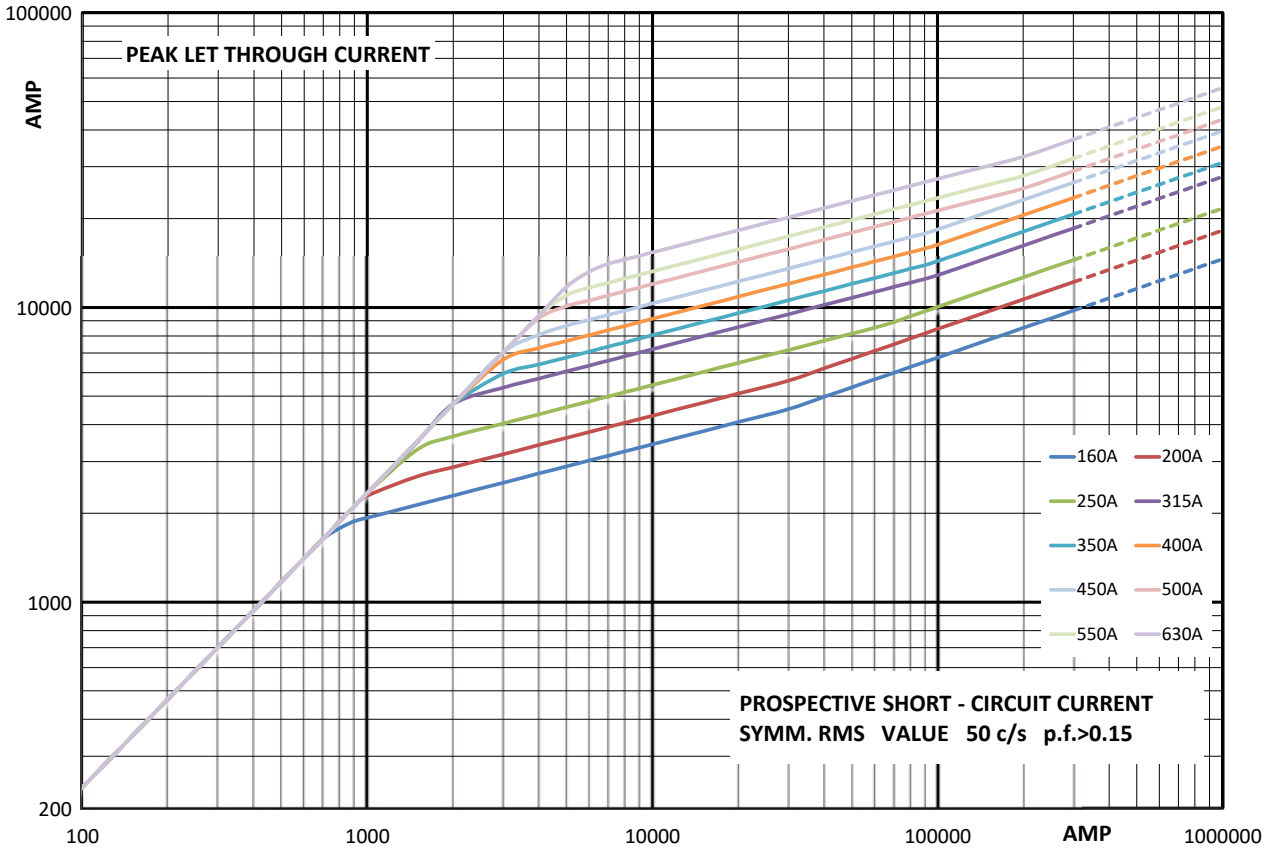



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

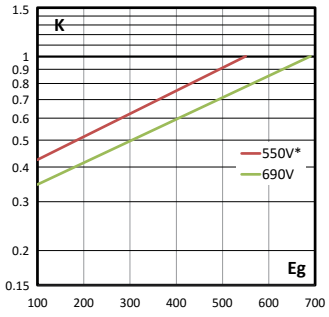
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 1, 160 A to 630 A



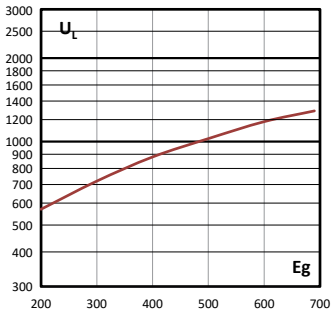

### Total clearing $I^2t$

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).



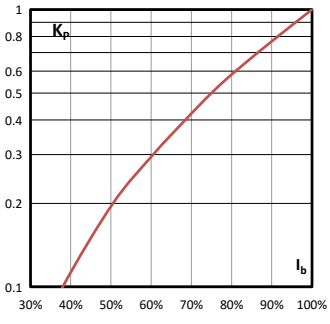

### Arc voltage

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

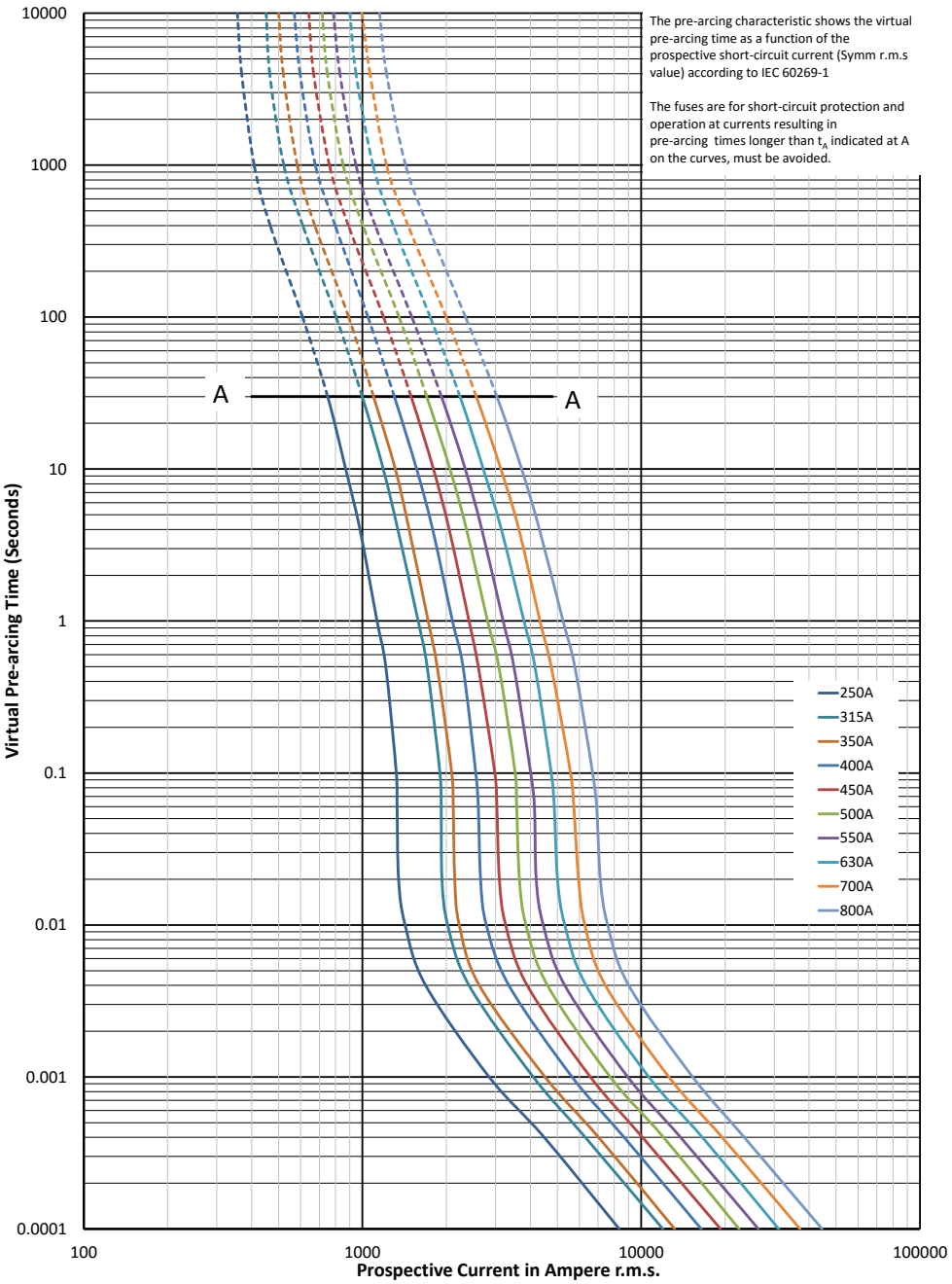
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 2, 250 A to 800 A

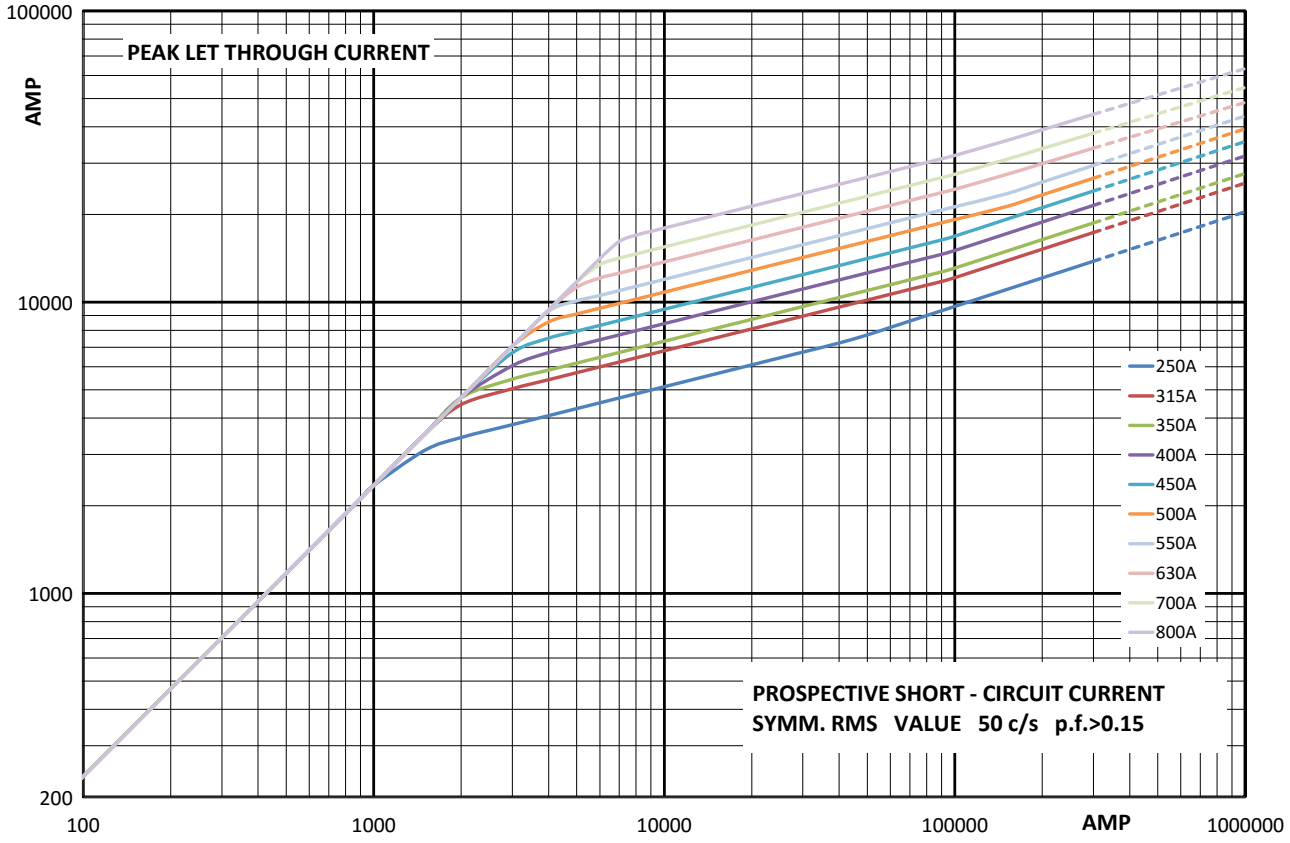



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

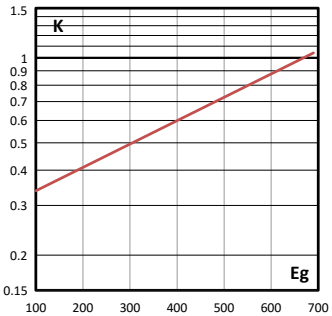
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 2, 250 A to 800 A



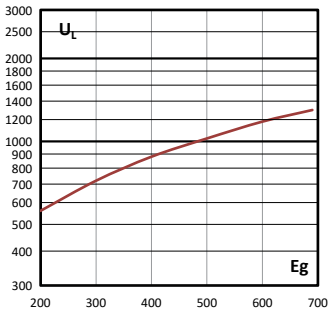

### Total clearing $I^2t$

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).



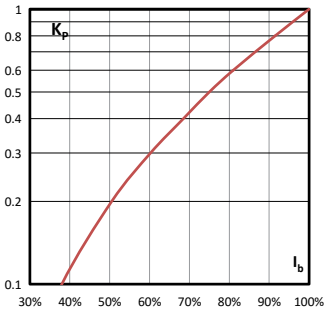

### Arc voltage

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

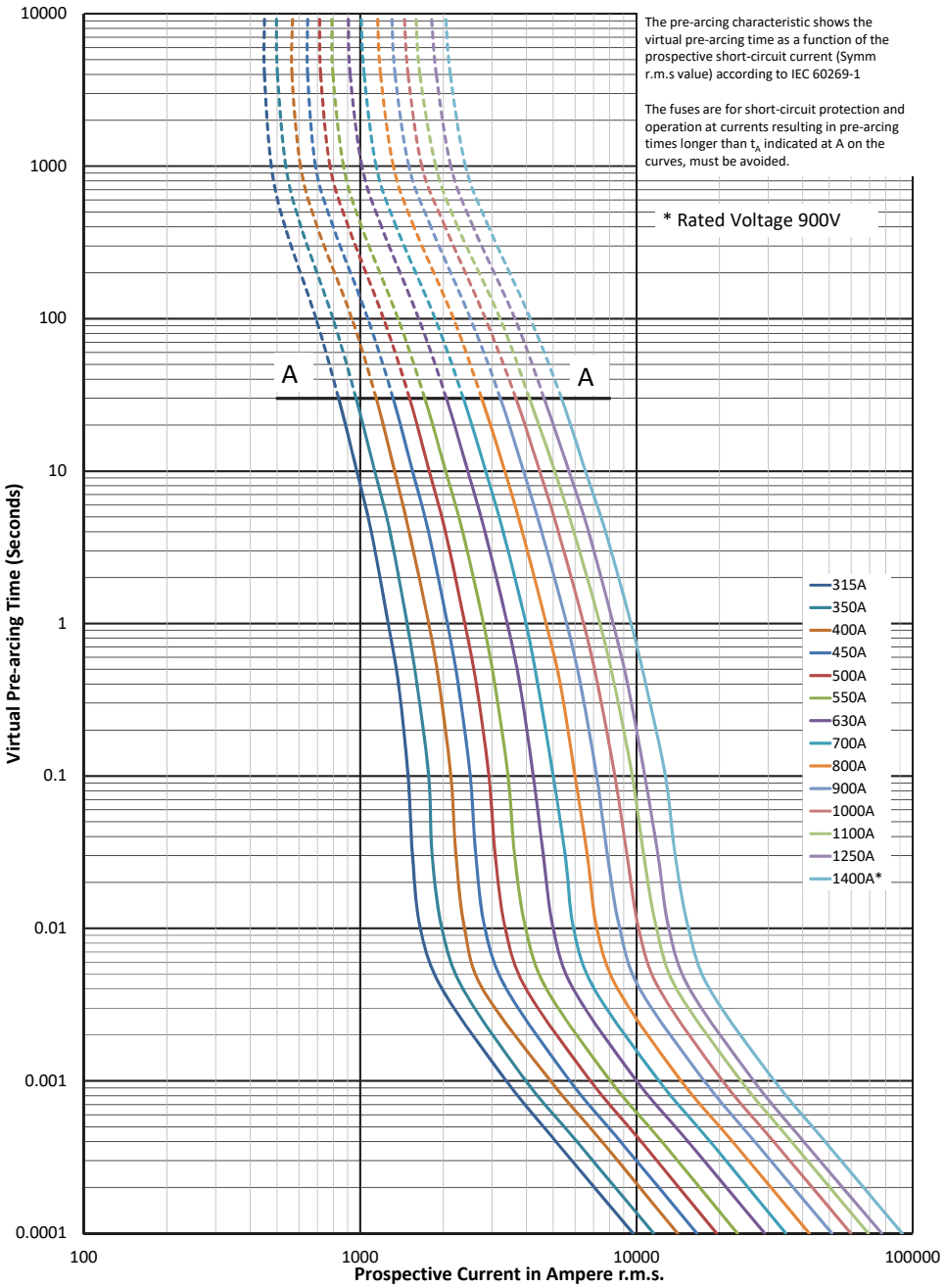
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 3, 315 A to 1400 A

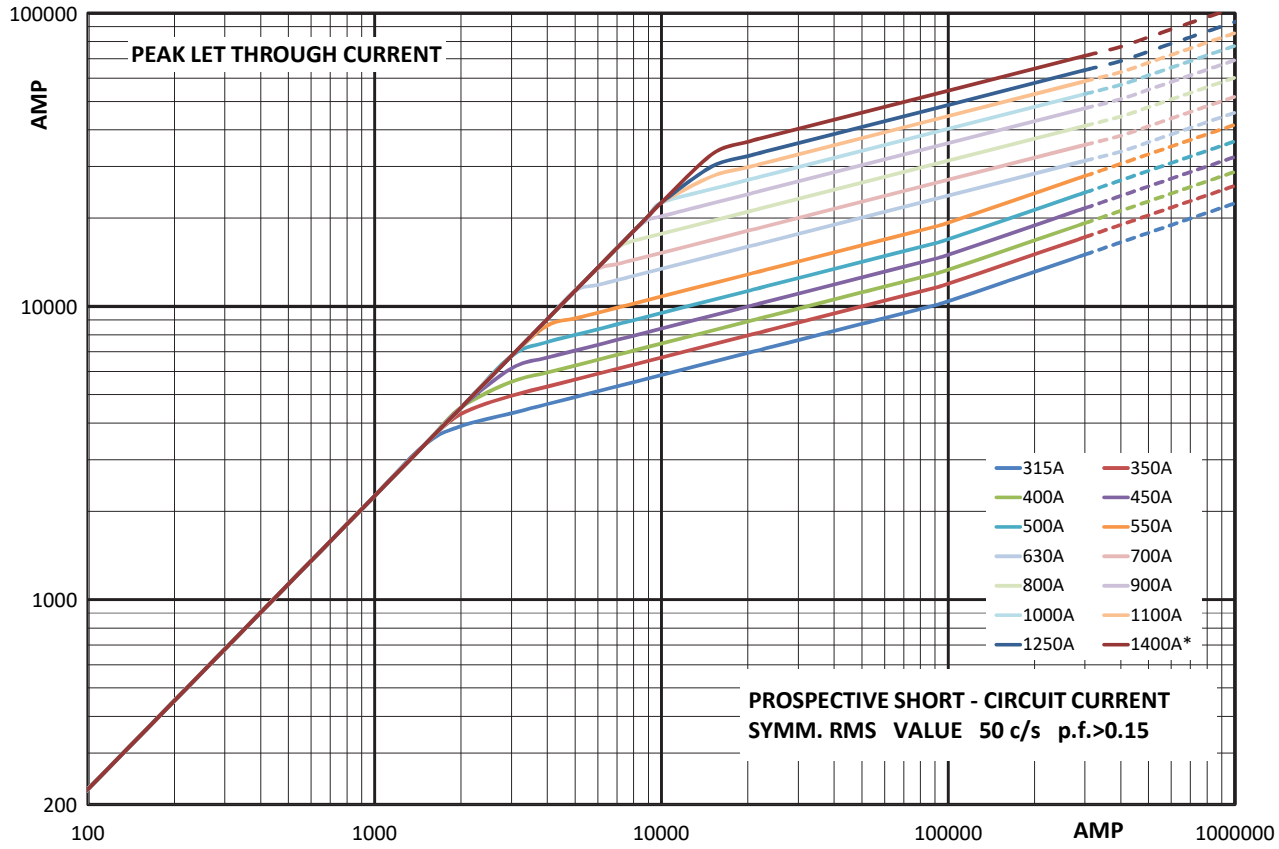



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

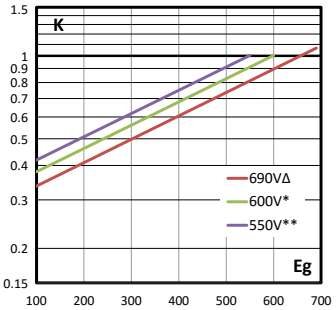
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 3, 315 A to 1400 A



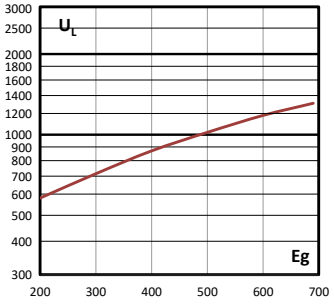

### Total clearing I²t

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).



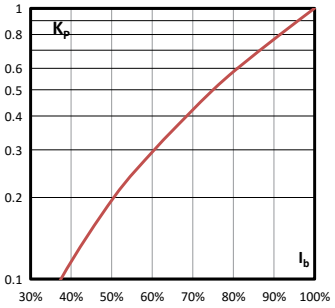

### Arc voltage

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.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# Square body fuse links US style

## 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

### Description

Square body US style bolted tags high speed fuse links for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.



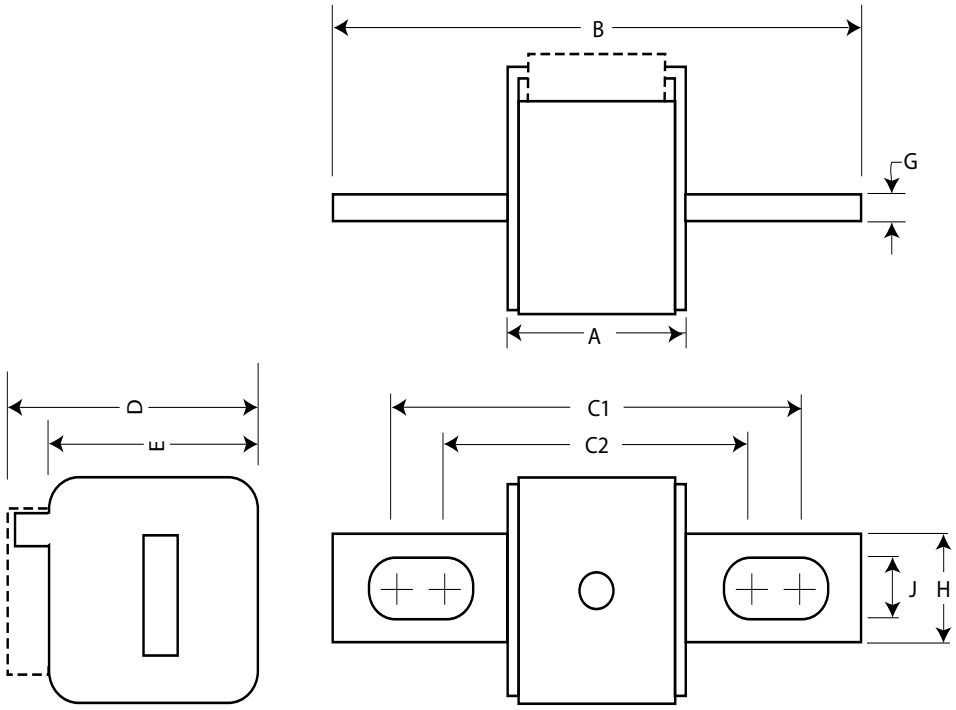

### Technical data

- Rated voltage: 1250 V a.c. (IEC), 1300 V a.c. (UL)
- Rated current: 50 A to 1400 A
- Breaking capacity:
  - 100 kA RMS Sym.A.C.
  - Size 1* 90 kA D.C.
- -Operating class: aR

### Standards / Agency information

CE, Designed and tested to IEC 60269 part 4. Consult Eaton for UL Recognition/CSA Component Acceptance status and CCC approvals

### Dimensions (mm)




| Size | A | B | C1 | C2 | D | E | G | H | J |
|---|---|---|---|---|---|---|---|---|---|
| 1* | 74 | 156 | 130 | 101 | 59 | 45 | 6 | 20 | 10 |
| 1 | 76 | 160 | 127 | 102 | 69 | 53 | 6 | 25 | 14 |
| 2 | 76 | 160 | 127 | 102 | 77 | 61 | 6 | 25 | 14 |
| 3 | 76 | 159 | 128 | 101 | 92 | 76 | 6 | 36 | 16 |

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

## Catalogue numbers

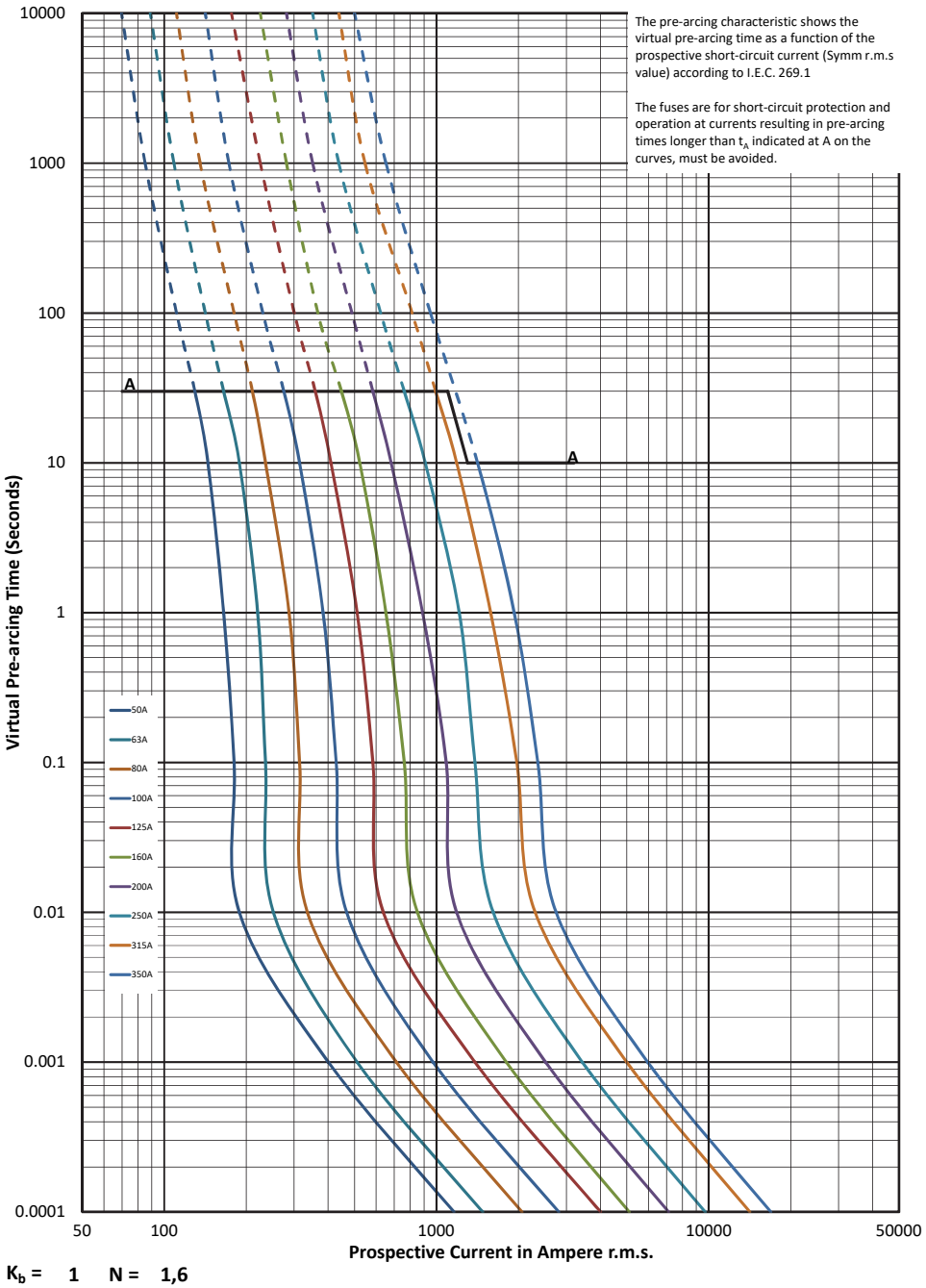
| | | | $I^2t$ ($A^2$ Sec) | | | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|---|
| Fuse link body size | Rated voltage | Rated current (Amps) | Pre-arcing | Clearing at 1000 V a.c. | Clearing at 1250 V a.c. | Watts loss (W) | -FU/115 without indicator | -FKE/115 Type K indicator for micro |
| 1* | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 50 | 135 | 815 | 1100 | 15 | 170M3688[1] | 170M3738[1] |
| | | 63 | 215 | 1300 | 1750 | 20 | 170M3689[1] | 170M3739[1] |
| | | 80 | 420 | 2500 | 3350 | 25 | 170M3690[1] | 170M3740[1] |
| | | 100 | 750 | 4450 | 5950 | 30 | 170M3691[1] | 170M3741[1] |
| | | 125 | 1450 | 9000 | 11,500 | 35 | 170M3692[1] | 170M3742[1] |
| | | 160 | 2600 | 16,000 | 21,000 | 40 | 170M3693[1] | 170M3743[1] |
| | | 200 | 5150 | 31,000 | 41,000 | 45 | 170M3694[1] | 170M3744[1] |
| | | 250 | 9200 | 54,500 | 73,000 | 55 | 170M3695[1] | 170M3745[1] |
| | | 315 | 18,500 | 115,000 | 150,000 | 60 | 170M3696[1] | 170M3746[1] |
| | | 350 | 27,000 | 165,000 | 220,000 | 65 | 170M3697[1] | 170M3747[1] |
| 1 | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 160 | 1900 | 11,500 | 15,500 | 45 | 170M4688 | 170M4738 |
| | | 200 | 3800 | 22,500 | 30,000 | 50 | 170M4689 | 170M4739 |
| | | 250 | 7750 | 46,000 | 61,500 | 60 | 170M4690 | 170M4740 |
| | | 315 | 15,000 | 90,000 | 120,000 | 65 | 170M4691 | 170M4741 |
| | | 350 | 20,000 | 125,000 | 165,000 | 70 | 170M4692 | 170M4742 |
| | | 400 | 29,500 | 175,000 | 235,000 | 75 | 170M4693 | 170M4743 |
| | | 450 | 42,000 | 250,000 | 335,000 | 80 | 170M4694 | 170M4744 |
| | 1100 V a.c. IEC | 500 | 69,500 | 340,000 | N/A | 85 | 170M4695 | 170M4745 |
| | | 550 | 95,000 | 465,000 | N/A | 95 | 170M4696 | 170M4746 |
| | 1000 V a.c. IEC | 630 | 130,000 | 660,000 | N/A | 100 | 170M4697 | 170M4747 |
| 2 | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 250 | 6500 | 38,500 | 51,500 | 65 | 170M5688 | 170M5738 |
| | | 280 | 9350 | 55,500 | 74,500 | 70 | 170M5689 | 170M5739 |
| | | 315 | 13,000 | 77,500 | 105,000 | 75 | 170M5690 | 170M5740 |
| | | 350 | 16,500 | 97,500 | 135,000 | 80 | 170M5691 | 170M5741 |
| | | 400 | 23,000 | 140,000 | 180,000 | 85 | 170M5692 | 170M5742 |
| | | 450 | 34,000 | 205,000 | 270,000 | 90 | 170M5693 | 170M5743 |
| | | 500 | 48,000 | 285,000 | 380,000 | 95 | 170M5694 | 170M5744 |
| | | 550 | 62,000 | 370,000 | 495,000 | 100 | 170M5695 | 170M5745 |
| | | 630 | 115,000 | 575,000 | 730,000 | 120 | 170M5696 | 170M5746 |
| | 1100 V a.c. IEC | 700 | 160,000 | 795,000 | N/A | 125 | 170M5697 | 170M5747 |
| | | 800 | 245,000 | 1,200,000 | N/A | 130 | 170M5698 | 170M5748 |
| | 1000 V a.c. IEC | 900 | 360,000 | 1,750,000 | N/A | 135 | 170M5699 | 170M5749 |
| | | 1000 | 480,000 | 2,350,000 | N/A | 145 | 170M5700 | 170M5750 |
| 3 | 1250 V a.c.(IEC) 1300 V a.c. (UL) | 315 | 9500 | 58,000 | 77,500 | 85 | 170M6688 | 170M6738 |
| | | 350 | 13,500 | 81,500 | 110,000 | 90 | 170M6689 | 170M6739 |
| | | 400 | 19,500 | 120,000 | 160,000 | 95 | 170M6690 | 170M6740 |
| | | 450 | 31,000 | 185,000 | 245,000 | 100 | 170M6691 | 170M6741 |
| | | 500 | 39,000 | 235,000 | 310,000 | 105 | 170M6692 | 170M6742 |
| | | 550 | 55,000 | 325,000 | 435,000 | 110 | 170M6693 | 170M6743 |
| | | 630 | 83,500 | 495,000 | 665,000 | 115 | 170M6694 | 170M6744 |
| | | 700 | 115,000 | 705,000 | 940,000 | 120 | 170M6695 | 170M6745 |
| | 1250 V a.c. (IEC) | 800 | 205,000 | 995,000 | 1,300,000 | 125 | 170M6696 | 170M6746 |
| | | 900 | 305,000 | 1,500,000 | 1,900,000 | 130 | 170M6697 | 170M6747 |
| | 1100 V a.c. (IEC) 1000 V a.c. (UL) | 1000 | 450,000 | 2,150,000 | N/A | 135 | 170M6698 | 170M6748 |
| | | 1100 | 575,000 | 2,800,000 | N/A | 160 | 170M6699 | 170M6749 |
| | 1000 V a.c. IEC & UL | 1250 | 810,000 | 3,950,000 | N/A | 170 | 170M6700 | 170M6750 |
| | | 1400 | 1,250,000 | 6,000,000 | N/A | 175 | 170M6701 | 170M6751 |

[1] Rated at 900 V d.c. 8XIn 90 kA

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 1*, 50 A to 350 A

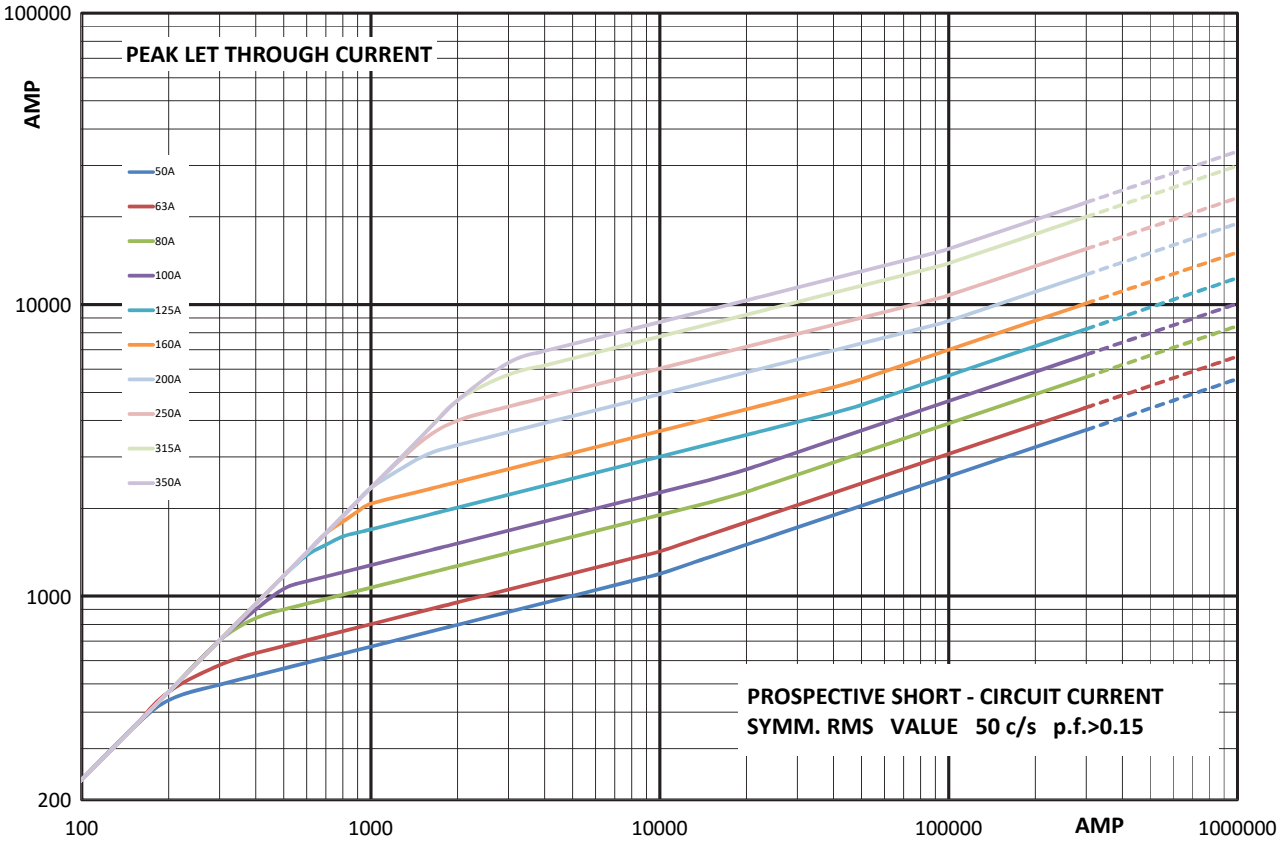



$K_b$ = 1 N = 1,6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

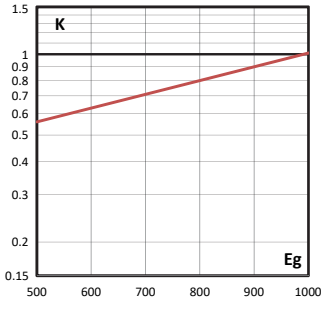
# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 1*, 50 A to 350 A



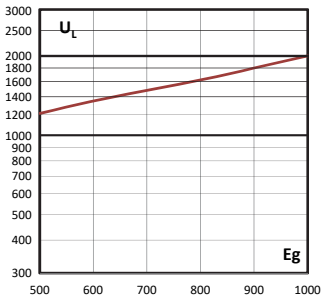

### Total clearing I²t

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).



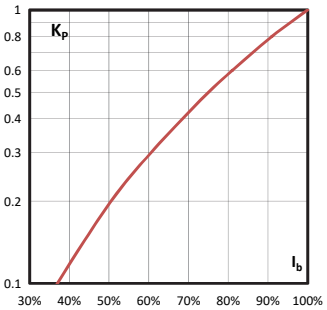

### Arc voltage

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

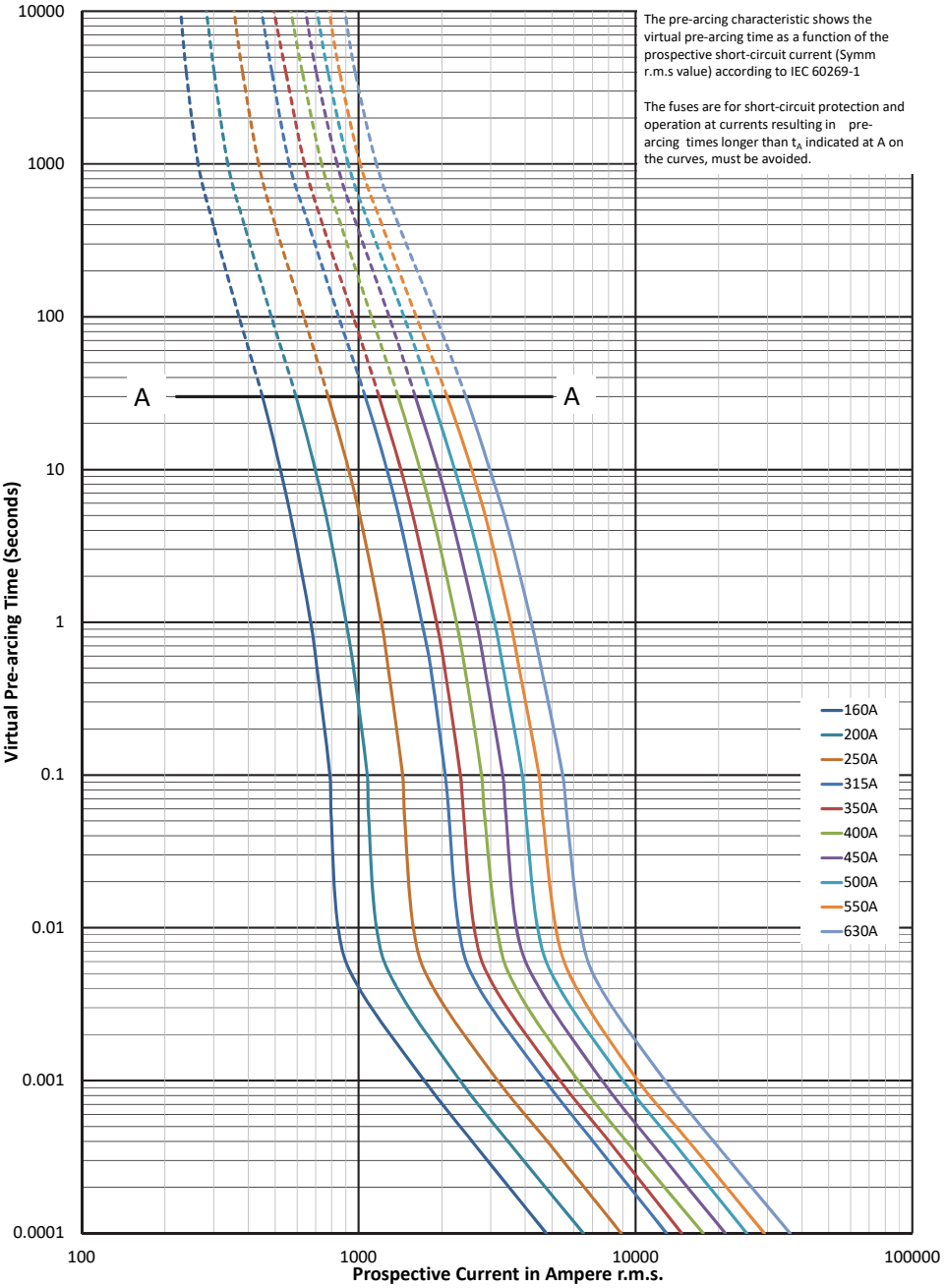
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 1, 160 A to 630 A

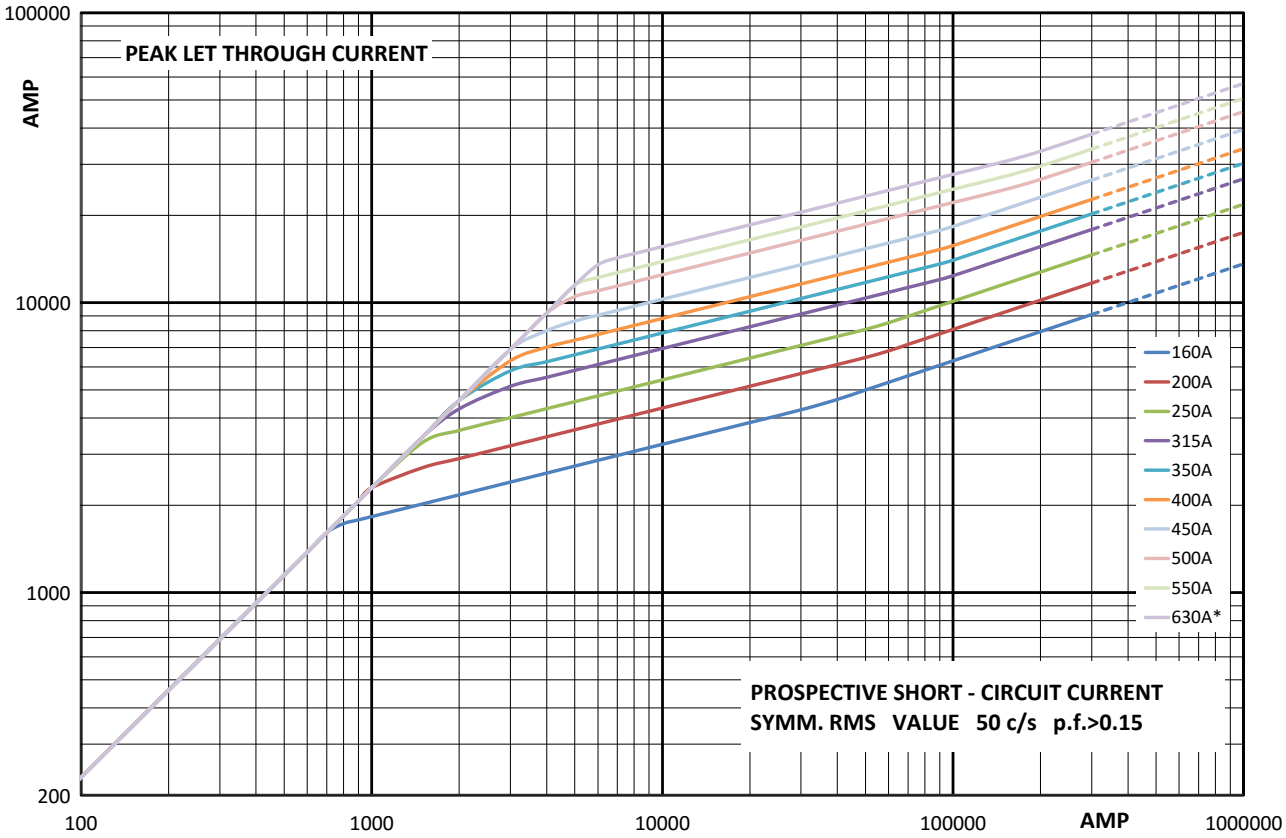



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

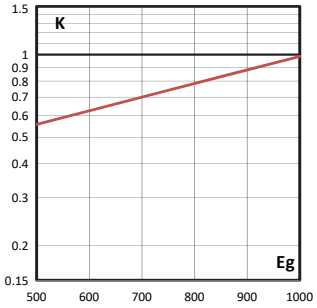
# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 1, 160 A to 630 A



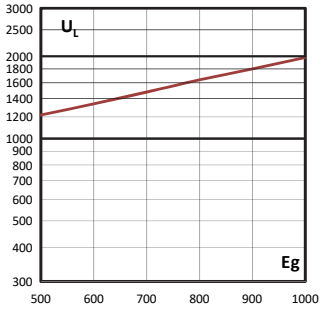

### Total clearing $I^2t$

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).



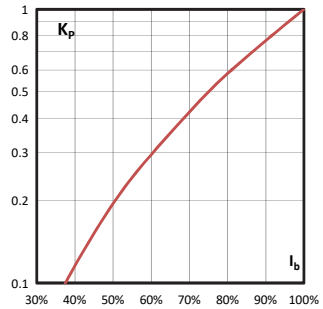

### Arc voltage

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

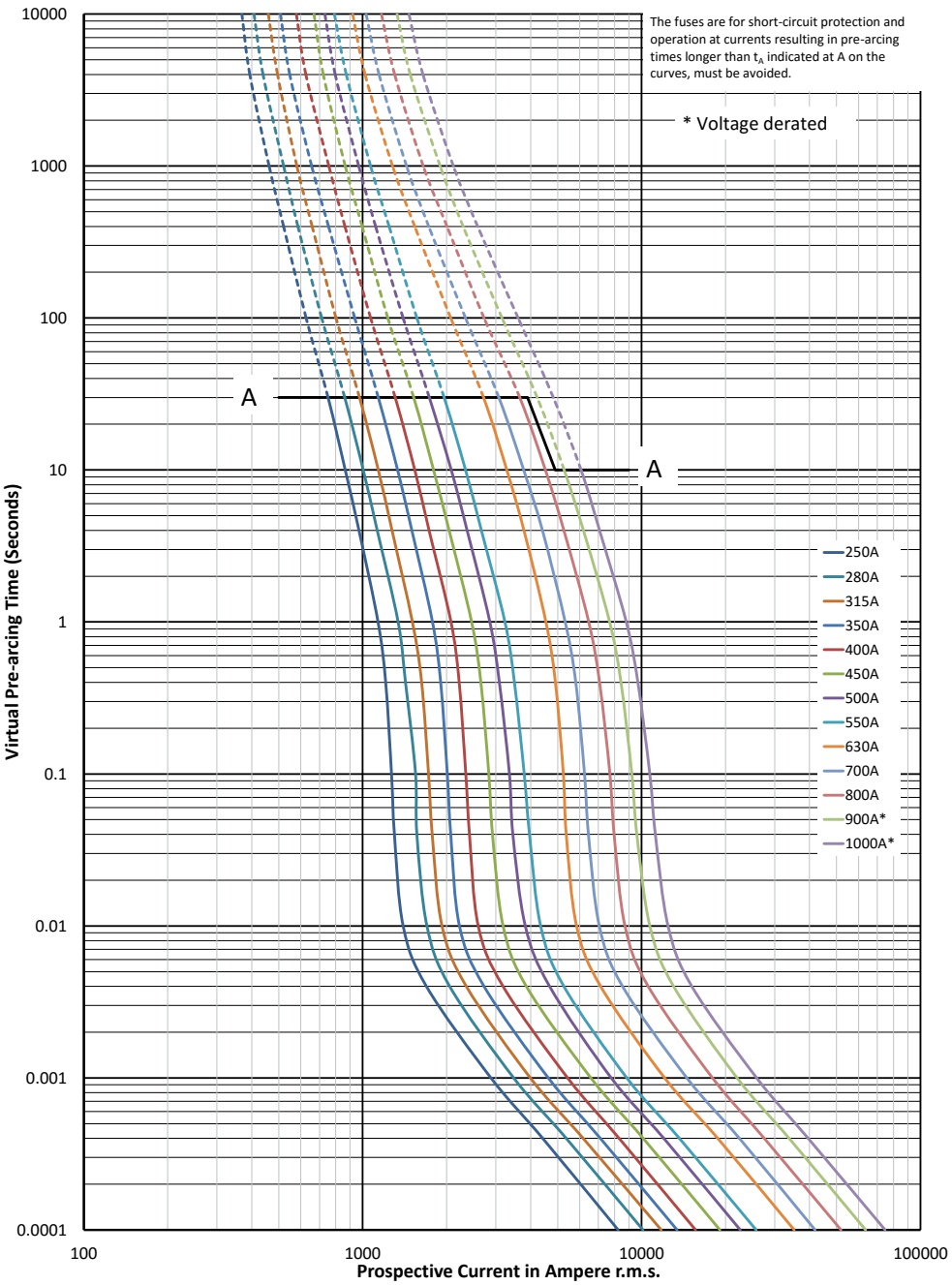
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

## 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

### Time-current curve - Size 2, 250 A to 1000 A

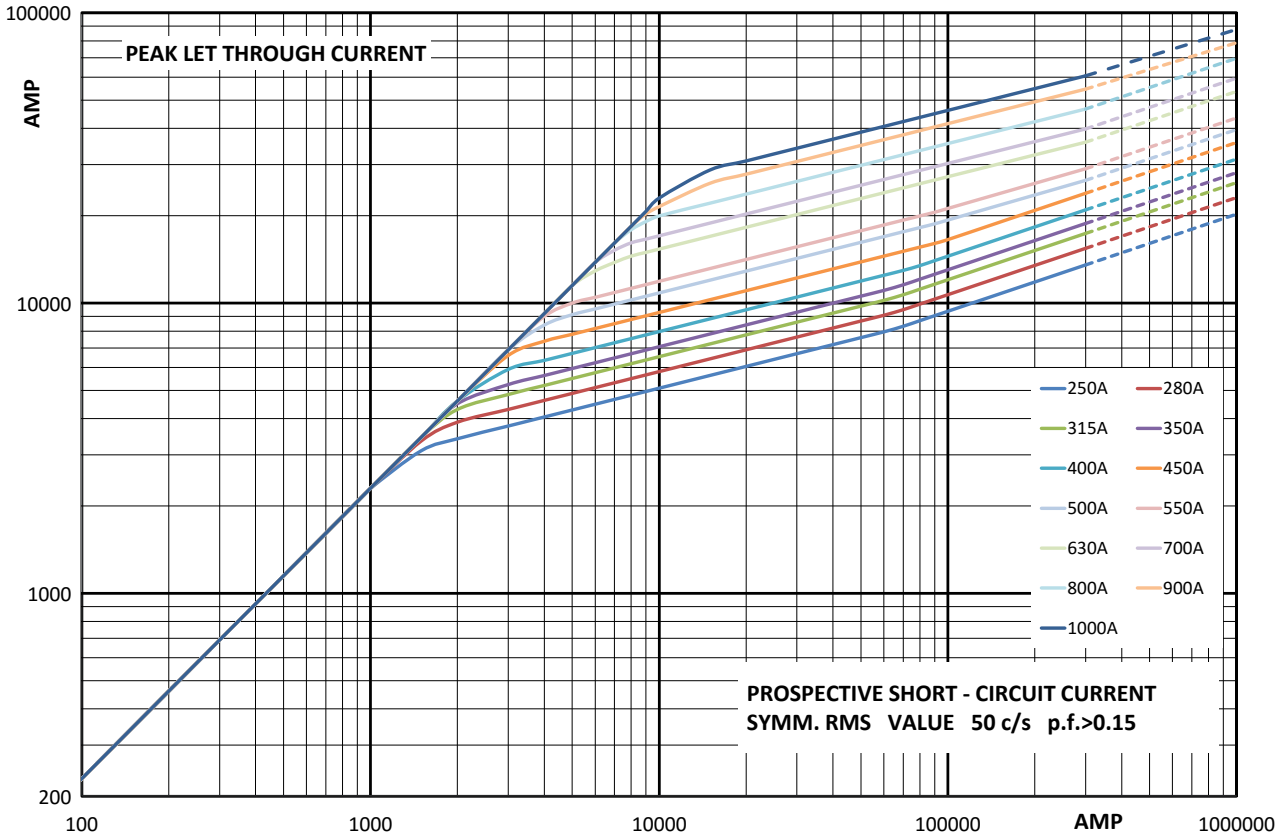



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

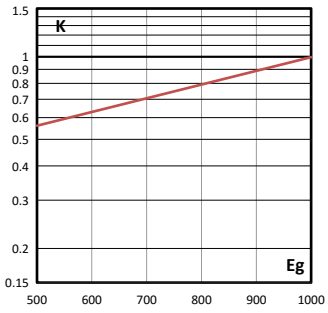
# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 2, 250 A to 1000 A



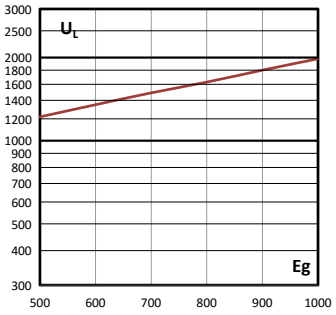

### Total clearing I²t

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).



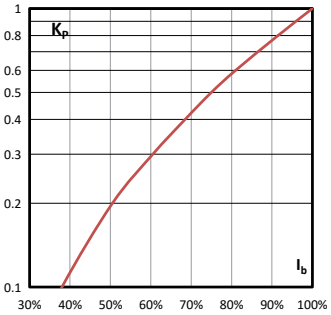

### Arc voltage

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

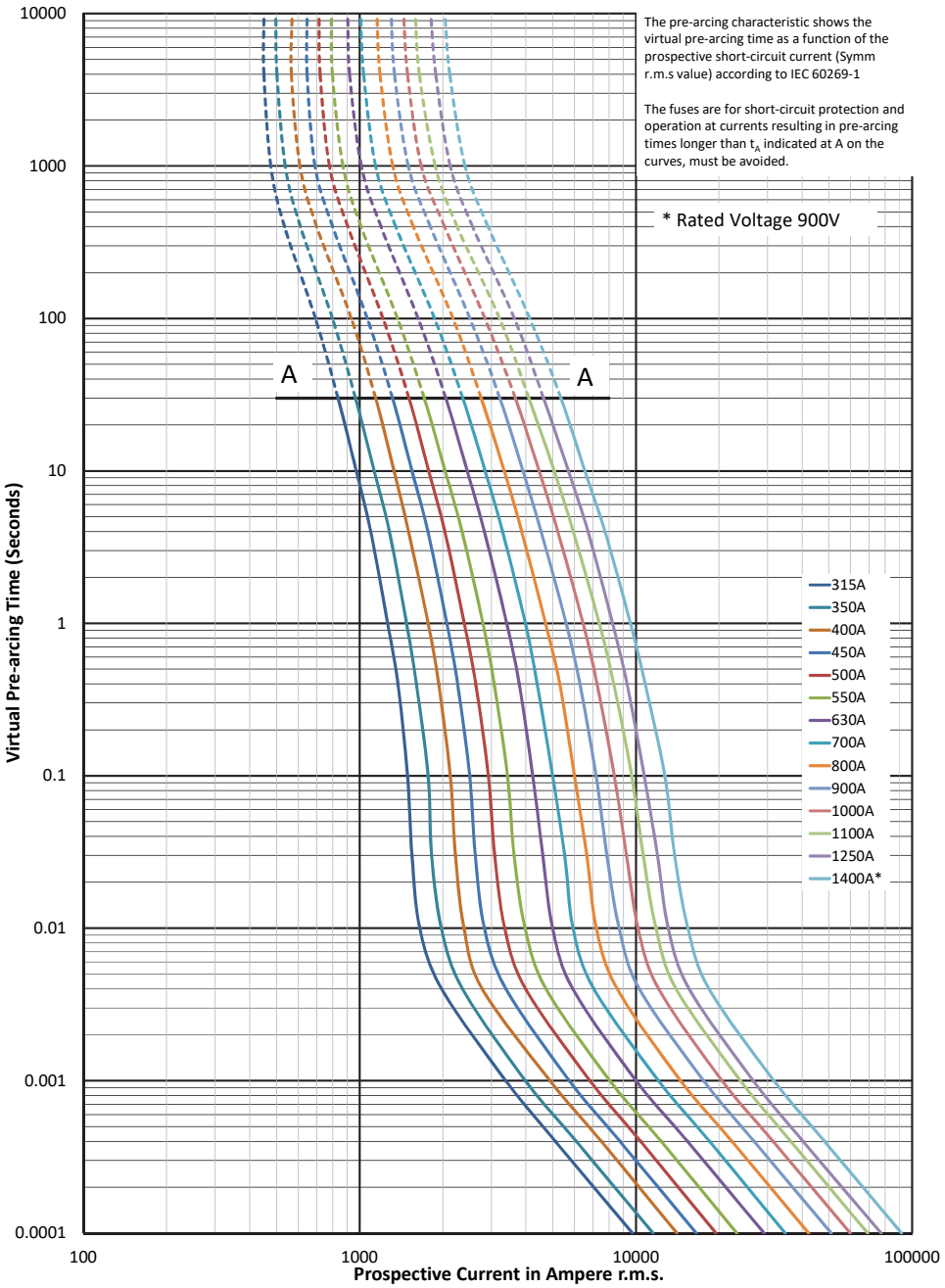
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

## Time-current curve - Size 3, 315 A to 1400 A

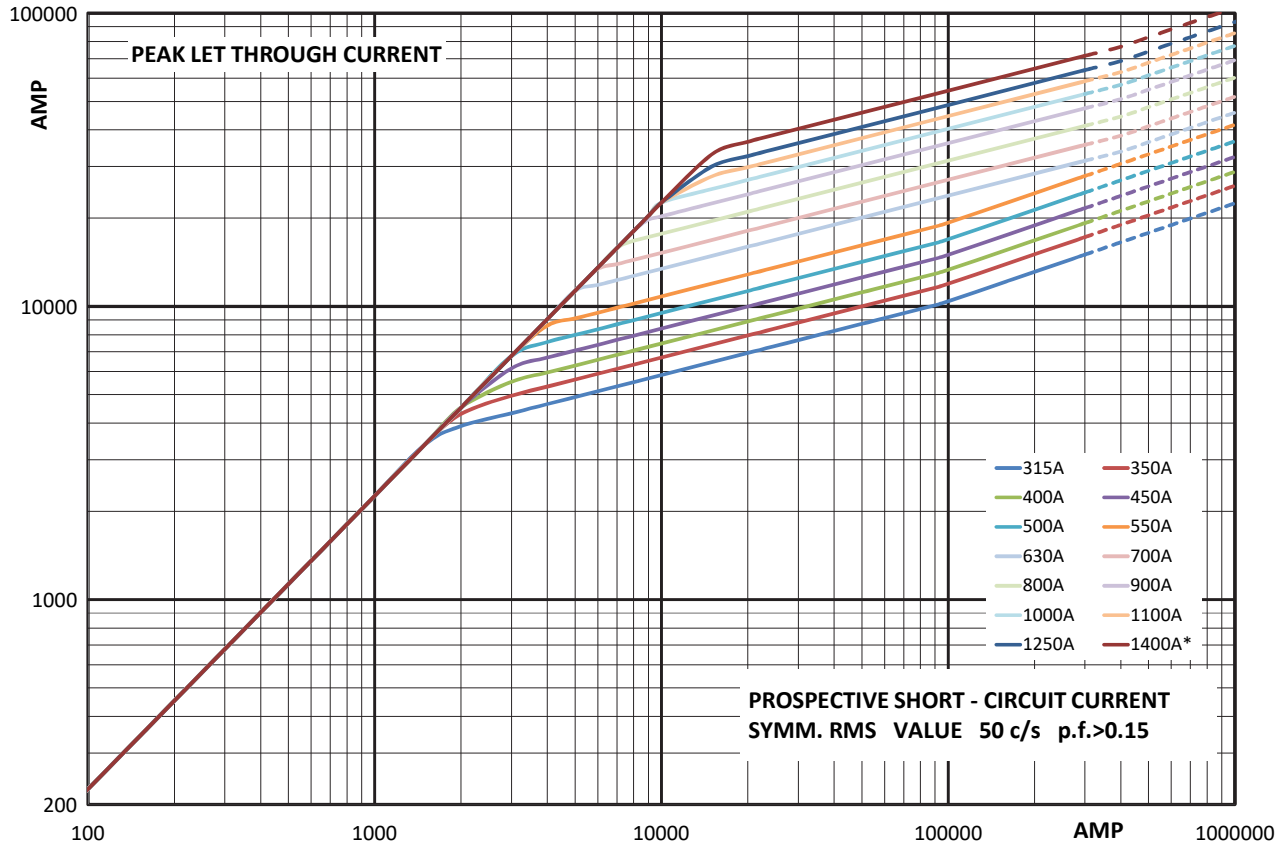



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

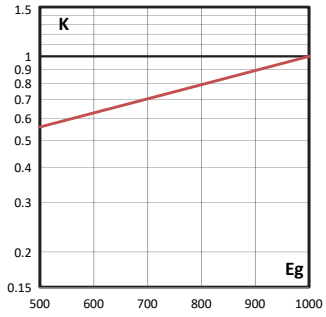
# 1250 V a.c. (IEC), 1300 V a.c. (UL) - 50 A to 1400 A - Sizes 1* to 3 - US style - 170M

## Cut-off curve - Size 3, 315 A to 1400 A



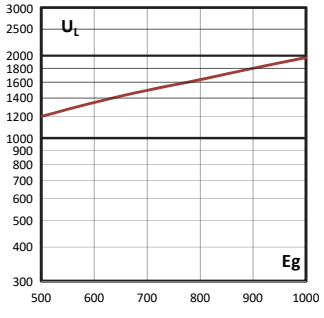

### Total clearing I²t

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).



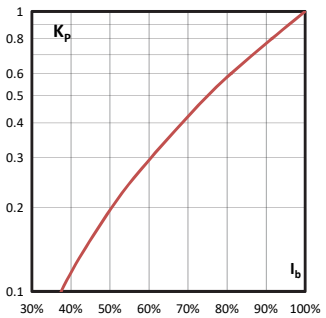

### Arc voltage

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.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 690 V a.c., 25 A to 400 A - Size 00 - Flush end contact - 170M

## Description

Square body flush end contact high speed fuse links, for the protection of DC common bus, DC drives, power converters/ rectifiers and reduced rated voltage starters.




## Technical data

- Rated voltage: 690 V a.c. (IEC)
- Rated current: 25 A to 400 A
- Breaking capacity: 200 kA RMS Sym
- Operating class:
  - gR (25 A to 80 A)
  - aR (100 A to 400 A)

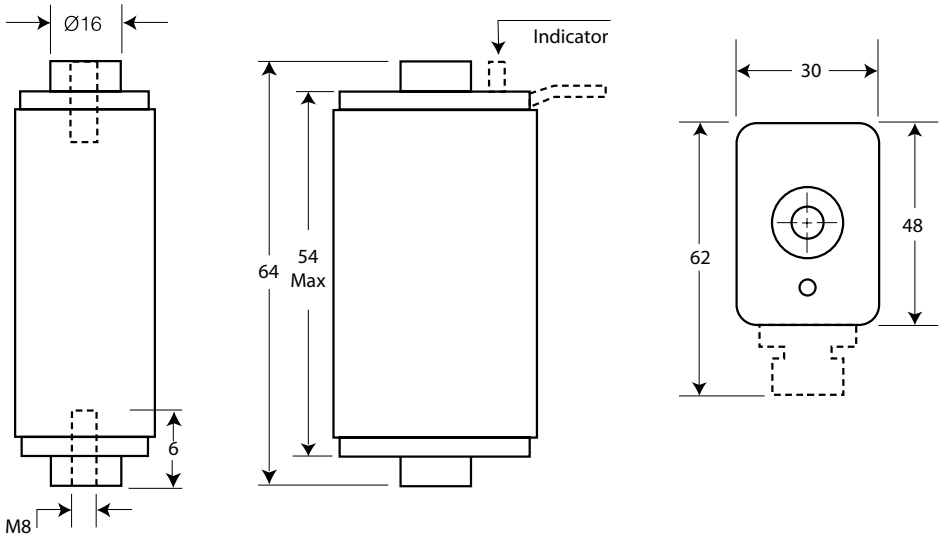
## Standards / Agency information

CE, Designed and tested to IEC 60269 Part 4

## Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|
| Fuse link body size | Rated voltage | Rated current (Amps) | Pre-arcing | Clearing at 660 V a.c. | Watts loss (W) | 00B/60 visual indicator | 00BTN/60 Type T indicator for micro |
| 00 | 690 V a.c. (IEC) | 25 | 19 | 130 | 6 | 170M2708 | 170M2758 |
| | | 32 | 28.5 | 195 | 7 | 170M2709 | 170M2759 |
| | | 40 | 50 | 360 | 9 | 170M2710 | 170M2760 |
| | | 50 | 95 | 640 | 10 | 170M2711 | 170M2761 |
| | | 63 | 170 | 1200 | 12 | 170M2712 | 170M2762 |
| | | 80 | 310 | 2100 | 15 | 170M2713 | 170M2763 |
| | | 100 | 620 | 4150 | 20 | 170M2714 | 170M2764 |
| | | 125 | 1000 | 6950 | 25 | 170M2715 | 170M2765 |
| | | 160 | 1900 | 13,000 | 30 | 170M2716 | 170M2766 |
| | | 200 | 3400 | 23,000 | 35 | 170M2717 | 170M2767 |
| | | 250 | 6250 | 42,000 | 45 | 170M2718 | 170M2768 |
| | | 315 | 10,000 | 68,500 | 55 | 170M2719 | 170M2769 |
| | | 350 | 13,500 | 91,500 | 60 | 170M2720 | 170M2770 |
| | | 400 | 18,000 | 125,000 | 70 | 170M2721 | 170M2771 |

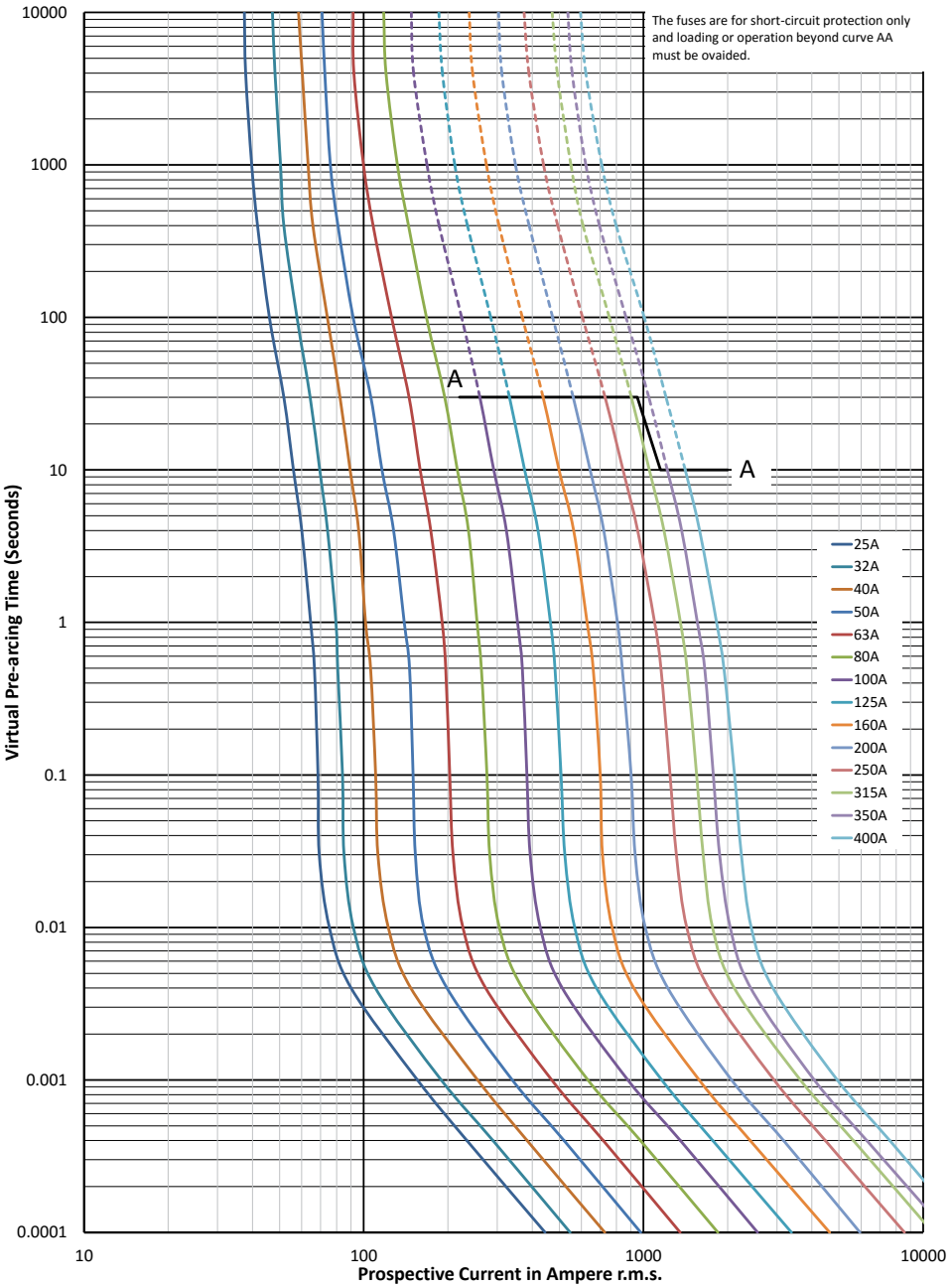
## Dimensions (mm)




Data sheet: 170K6312

# 690 V a.c., 25 A to 400 A - Size 00 - Flus end contact - 170M

## Time-current curve - Size 00, 25 A to 400 A

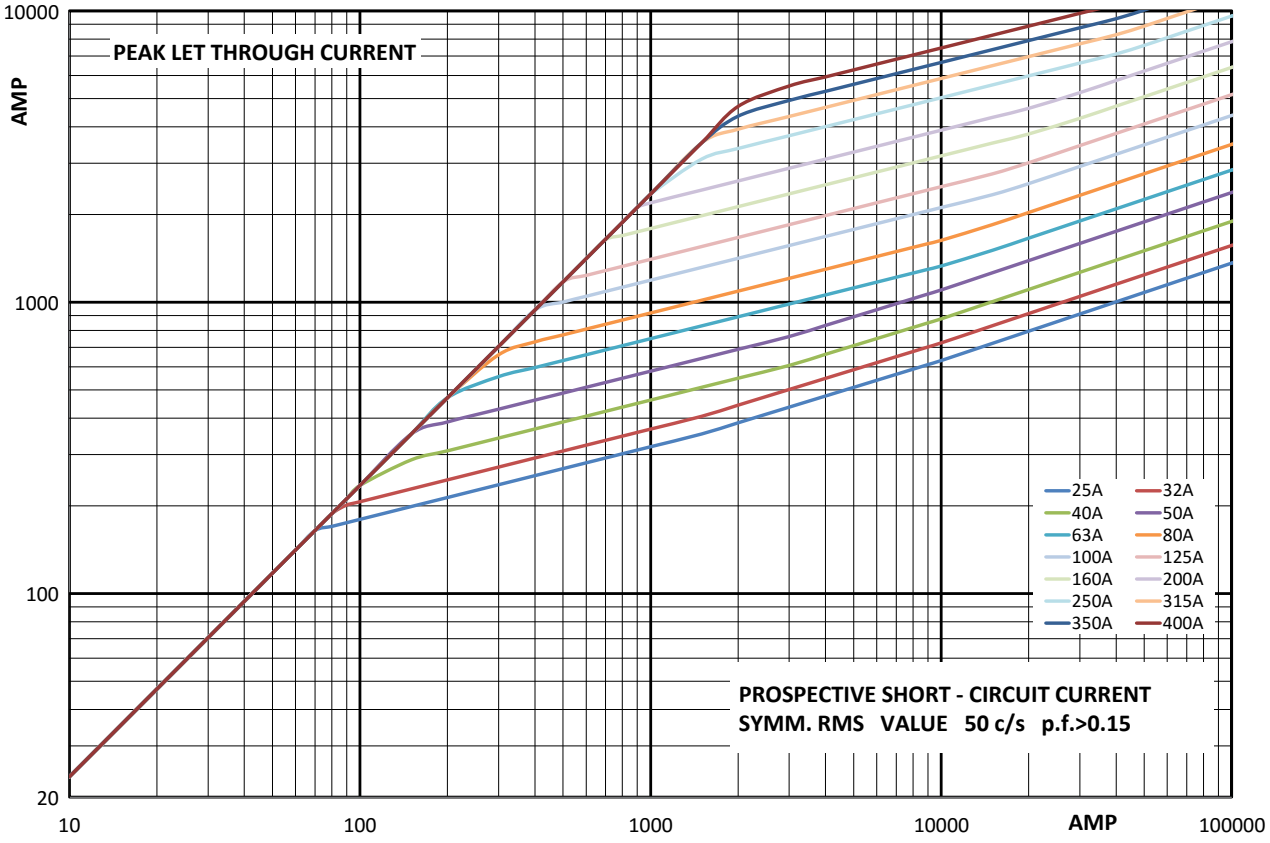



$K_b$ = 1 N = 1.5

Data sheet: 170K6312

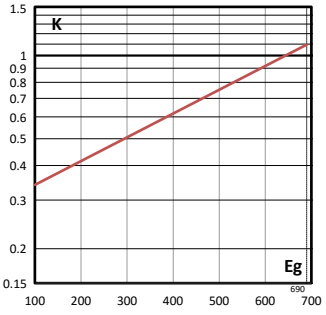
## 690 V a.c., 25 A to 400 A - Size 00 - Flus end contact - 170M

### Cut-off curve - Size 00, 25 A to 400 A



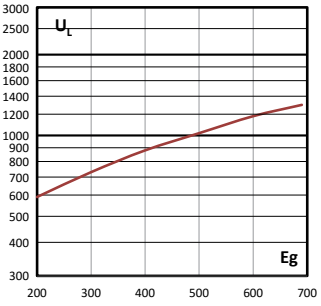

### Total clearing $I^2t$

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).



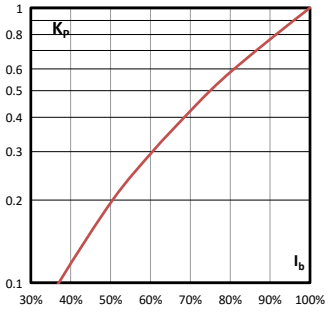

### Arc voltage

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.

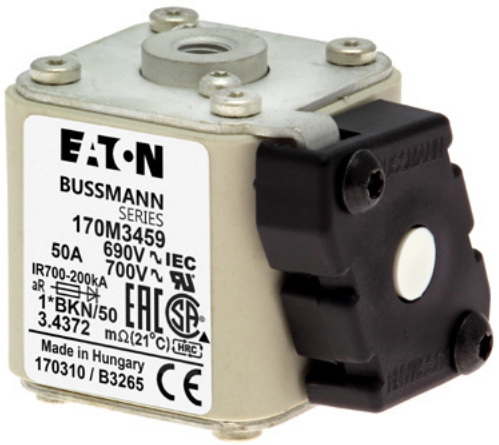



Data sheet: 170K6312

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

## Description

Square body flush end contact high speed fuse links, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.



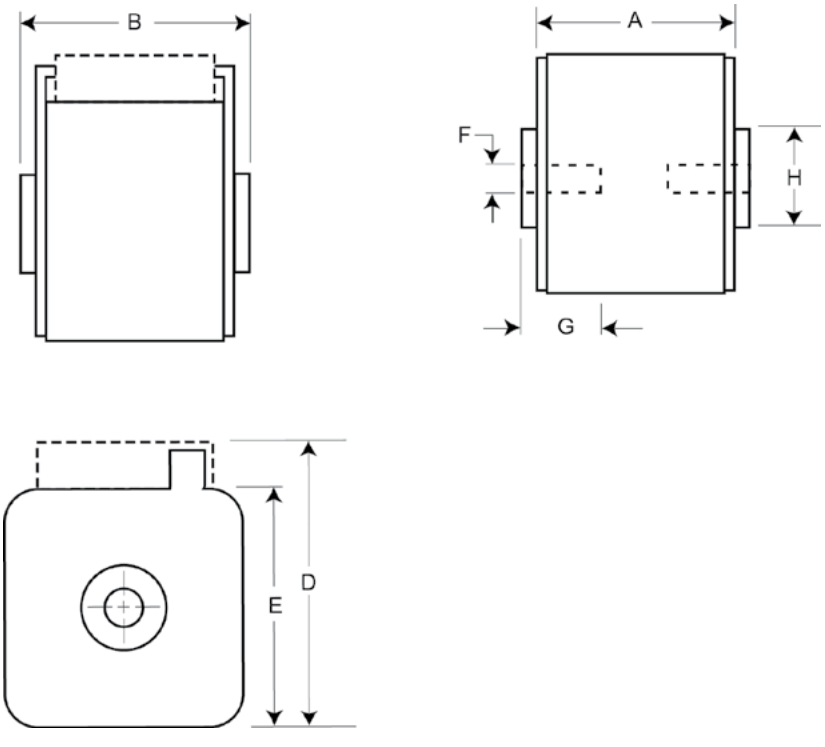

## Technical data

- Rated voltage: see table page 192
- Rated current: 40 A to 2000 A
- Breaking capacity: 200 kA RMS Sym
- Operating class: aR

## Standards / Agency information

CE, Designed and tested to IEC 60269 Part 4. Consult Eaton for UL Recognition, CSA Component Acceptance Status and CCC approvals

## Dimensions (mm)




| Size | A | B | D[3] | E | F | F[1] (in) | G min | H |
|---|---|---|---|---|---|---|---|---|
| 1* | 50 | 51 | 59 | 45 | M8 | 5/16" -18 UNC-2B | 5 | N17 |
| 1 | 50 | 51 | 69 | 53 | M8 | 5/16" -18 UNC-2B | 8 | N20 |
| 2 | 50 | 51 (400 - 1000 A)<br>65 (1100 and 1250 (A) | 77 | 61 | M10 | 3/8" -16 UNC-2B | 10 | N24 |
| 3 | 51 | 53 (500 - 1500 A)<br>65 (1600 - 2000 A) | 92 | 76 | M12 | 1/2" -13 UNC-2B | 10 | N30 |

[1] Valid for fuse links type -G- & -GKN/.
[3] Valid for fuse links type -BKN/ and -GKN/.

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

| | | | I²t (A² Sec) | | | Catalogue numbers | | | |
|---|---|---|---|---|---|---|---|---|---|
| Fuse link body size | Rated voltage | Rated current (Amps) | Pre-arcing | Clearing at 660 V a.c. | Watts loss (W) | -B/- visual indicator | -BKN/- Type K indicator for micro | -G/- visual indicator | -GKN/- Type K indicator for micro |
| 1* | 690 V a.c. (IEC) 700 V a.c. (UL) | 40 | 40 | 270 | 11 | 170M3408 | 170M3458 | 170M3508 | 170M3558 |
| | | 50 | 77 | 515 | 13 | 170M3409 | 170M3459 | 170M3509 | 170M3559 |
| | | 63 | 115 | 770 | 17 | 170M3410 | 170M3460 | 170M3510 | 170M3560 |
| | | 80 | 185 | 1250 | 21 | 170M3411 | 170M3461 | 170M3511 | 170M3561 |
| | | 100 | 360 | 2450 | 24 | 170M3412 | 170M3462 | 170M3512 | 170M3562 |
| | | 125 | 550 | 3700 | 30 | 170M3413 | 170M3463 | 170M3513 | 170M3563 |
| | | 160 | 1100 | 7500 | 34 | 170M3414 | 170M3464 | 170M3514 | 170M3564 |
| | | 200 | 2200 | 15,000 | 41 | 170M3415 | 170M3465 | 170M3515 | 170M3565 |
| | | 250 | 4200 | 28,500 | 47 | 170M3416 | 170M3466 | 170M3516 | 170M3566 |
| | | 315 | 7000 | 46,500 | 60 | 170M3417 | 170M3467 | 170M3517 | 170M3567 |
| | | 350 | 10,000 | 68,500 | 64 | 170M3418 | 170M3468 | 170M3518 | 170M3568 |
| | | 400 | 15,000 | 105,000 | 69 | 170M3419 | 170M3469 | 170M3519 | 170M3569 |
| | | 450 | 21,000 | 140,000 | 75 | 170M3420 | 170M3470 | 170M3520 | 170M3570 |
| | | 500 | 27,000 | 180,000 | 83 | 170M3421 | 170M3471 | 170M3521 | 170M3571 |
| | | 550 | 34,000 | 230,000 | 89 | 170M3422 | 170M3472 | 170M3522 | 170M3572 |
| | | 630 | 48,500 | 325,000 | 100 | 170M3423 | 170M3473 | 170M3523 | 170M3573 |
| 1 | 690 V a.c. (IEC) 700 V a.c. (UL) | 200 | 1650 | 11,500 | 45 | 170M4408 | 170M4458 | 170M4508 | 170M4558 |
| | | 250 | 3100 | 21,000 | 55 | 170M4409 | 170M4459 | 170M4509 | 170M4559 |
| | | 315 | 6200 | 42,000 | 58 | 170M4410 | 170M4460 | 170M4510 | 170M4560 |
| | | 350 | 8500 | 59,000 | 60 | 170M4411 | 170M4461 | 170M4511 | 170M4561 |
| | | 400 | 13,500 | 91,500 | 65 | 170M4412 | 170M4462 | 170M4512 | 170M4562 |
| | | 450 | 17,000 | 120,000 | 70 | 170M4413 | 170M4463 | 170M4513 | 170M4563 |
| | | 500 | 25,000 | 170,000 | 72 | 170M4414 | 170M4464 | 170M4514 | 170M4564 |
| | | 550 | 34,000 | 230,000 | 75 | 170M4415 | 170M4465 | 170M4515 | 170M4565 |
| | | 630 | 52,000 | 350,000 | 80 | 170M4416 | 170M4466 | 170M4516 | 170M4566 |
| | | 700 | 69,500 | 465,000 | 85 | 170M4417 | 170M4467 | 170M4517 | 170M4567 |
| | | 800 | 105,000 | 725,000 | 95 | 170M4418 | 170M4468 | 170M4518 | 170M4568 |
| | 550 V a.c. (IEC) | 900 | 155,000 | 850,000 | 100 | 170M4419 | 170M4469 | 170M4519 | 170M4569 |
| 2 | 690 V a.c. (IEC) 700 V a.c. (UL) | 400 | 11,000 | 74,000 | 65 | 170M5408 | 170M5458 | 170M5508 | 170M5558 |
| | | 450 | 15,500 | 105,000 | 70 | 170M5409 | 170M5459 | 170M5509 | 170M5559 |
| | | 500 | 21,500 | 145,000 | 75 | 170M5410 | 170M5460 | 170M5510 | 170M5560 |
| | | 550 | 28,000 | 190,000 | 80 | 170M5411 | 170M5461 | 170M5511 | 170M5561 |
| | | 630 | 41,000 | 275,000 | 90 | 170M5412 | 170M5462 | 170M5512 | 170M5562 |
| | | 700 | 60,500 | 405,000 | 95 | 170M5413 | 170M5463 | 170M5513 | 170M5563 |
| | | 800 | 86,000 | 575,000 | 105 | 170M5414 | 170M5464 | 170M5514 | 170M5564 |
| | | 900 | 125,000 | 840,000 | 110 | 170M5415 | 170M5465 | 170M5515 | 170M5565 |
| | | 1000 | 180,000 | 1,250,000 | 115 | 170M5416 | 170M5466 | 170M5516 | 170M5566 |
| | 600 V a.c. (IEC) 700 V a.c. (UL) | 1100 | 245,000 | 1,600,000 | 120 | 170M5417 | 170M5467 | 170M5517 | 170M5567 |
| | | 1250 | 365,000 | 2,400,000 | 130 | 170M5418 | 170M5468 | 170M5518 | 170M5568 |
| 3 | 690 V a.c. (IEC) 700 V a.c. (UL) | 500 | 14,000 | 95,000 | 95 | 170M6408 | 170M6458 | 170M6508 | 170M6558 |
| | | 550 | 19,500 | 135,000 | 100 | 170M6409 | 170M6459 | 170M6509 | 170M6559 |
| | | 630 | 31,000 | 210,000 | 105 | 170M6410 | 170M6460 | 170M6510 | 170M6560 |
| | | 700 | 44,500 | 300,000 | 110 | 170M6411 | 170M6461 | 170M6511 | 170M6561 |
| | | 800 | 69,500 | 465,000 | 115 | 170M6412 | 170M6462 | 170M6512 | 170M6562 |
| | | 900 | 100,000 | 670,000 | 120 | 170M6413 | 170M6463 | 170M6513 | 170M6563 |
| | | 1000 | 140,000 | 945,000 | 125 | 170M6414 | 170M6464 | 170M6514 | 170M6564 |
| | | 1100 | 190,000 | 1,300,000 | 130 | 170M6415 | 170M6465[1] | 170M6515 | 170M6565 |
| | | 1250 | 290,000 | 1,950,000 | 140 | 170M6416 | 170M6466 | 170M6516 | 170M6566 |
| | | 1400 | 370,000 | 2,450,000 | 155 | 170M6417 | 170M6467[1] | 170M6517 | 170M6567 |
| | | 1500 | 460,000 | 3,100,000 | 160 | 170M6418 | 170M6468 | 170M6518 | 170M6568 |
| | | 1600 | 580,000 | 3,900,000 | 160 | 170M6419 | 170M6469 | 170M6519 | 170M6569 |
| | 600 V a.c. (IEC) / 500 V a.c. (UL) | 1800 | 880,000 | 5,250,000 | 165 | 170M6420[2] | 170M6470 | 170M6520[2] | 170M6570 |
| | 550 V a.c. IEC) / 500 V a.c. (UL) | 2000 | 1,150,000 | 6,350,000 | 175 | 170M6421 | 170M6471 | 170M6521 | 170M6571 |

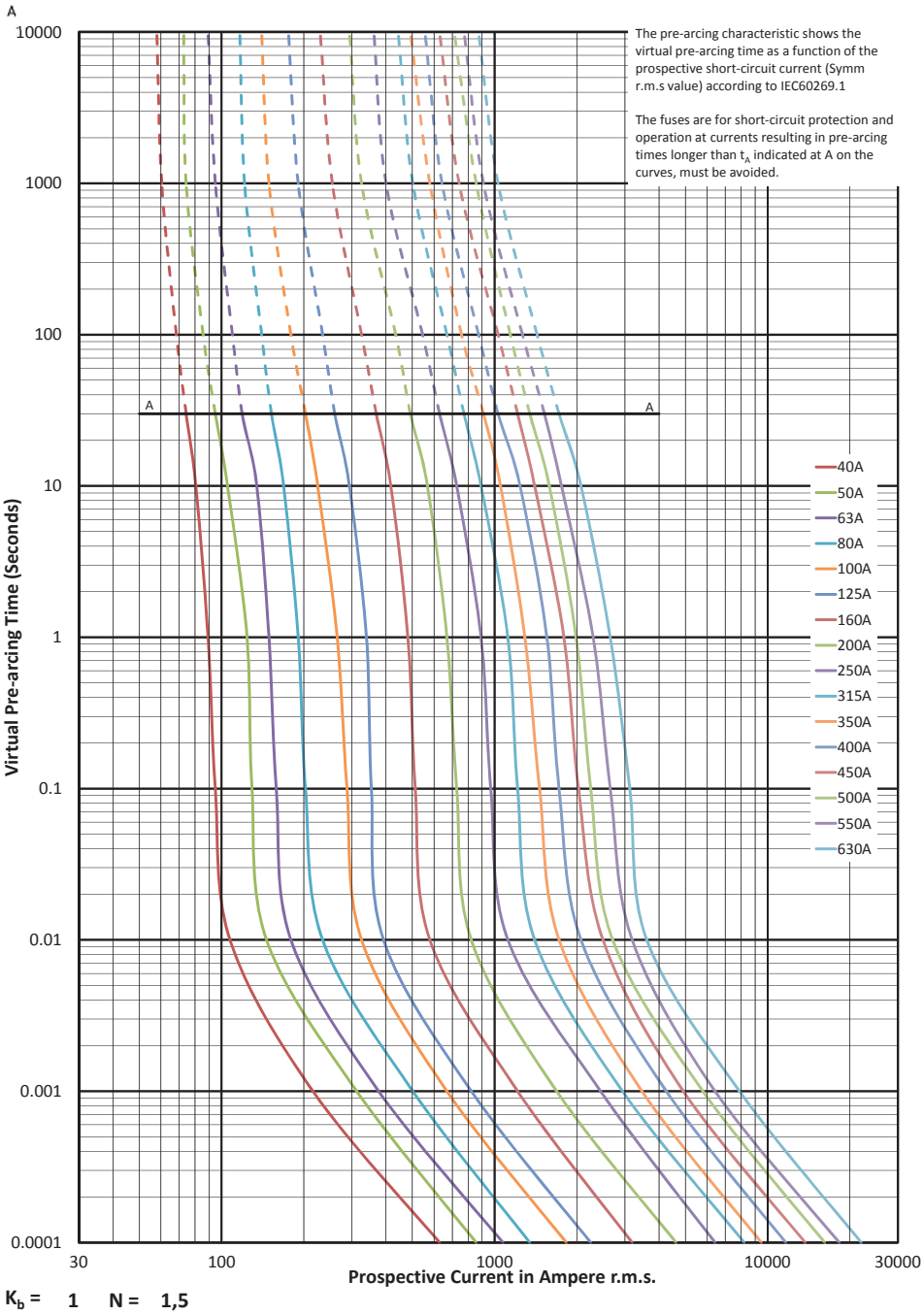
[1] 170M6465 and 170M6467 rated at 800 V d.c. UL 85kA 3ms TC when two fuses are connected in series

[2] 170M6420 and 170M6520 rated at 750 V d.c. 12XIn 130 kA when two fuses are connected in series

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

## Time-current curve - Size 1*, 40 A to 630 A

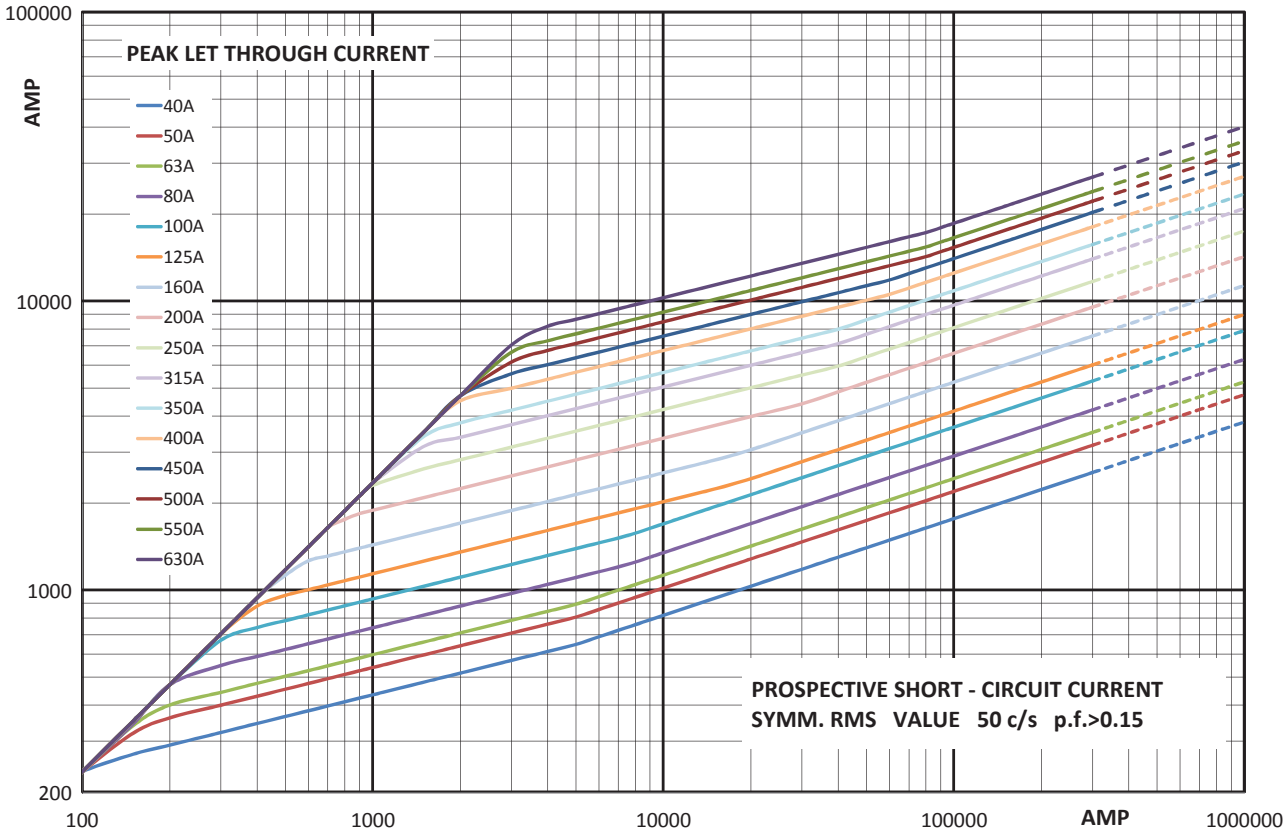



$K_b$ = 1 N = 1,5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

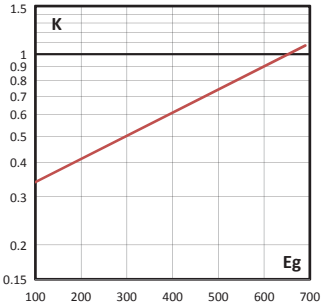
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

## Cut-off curve - Size 1*, 40 A to 630 A



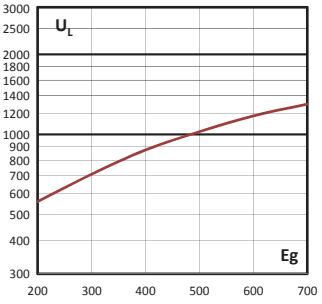

### Total clearing $I^2t$

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).



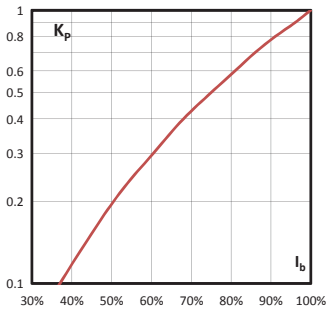

### Arc voltage

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

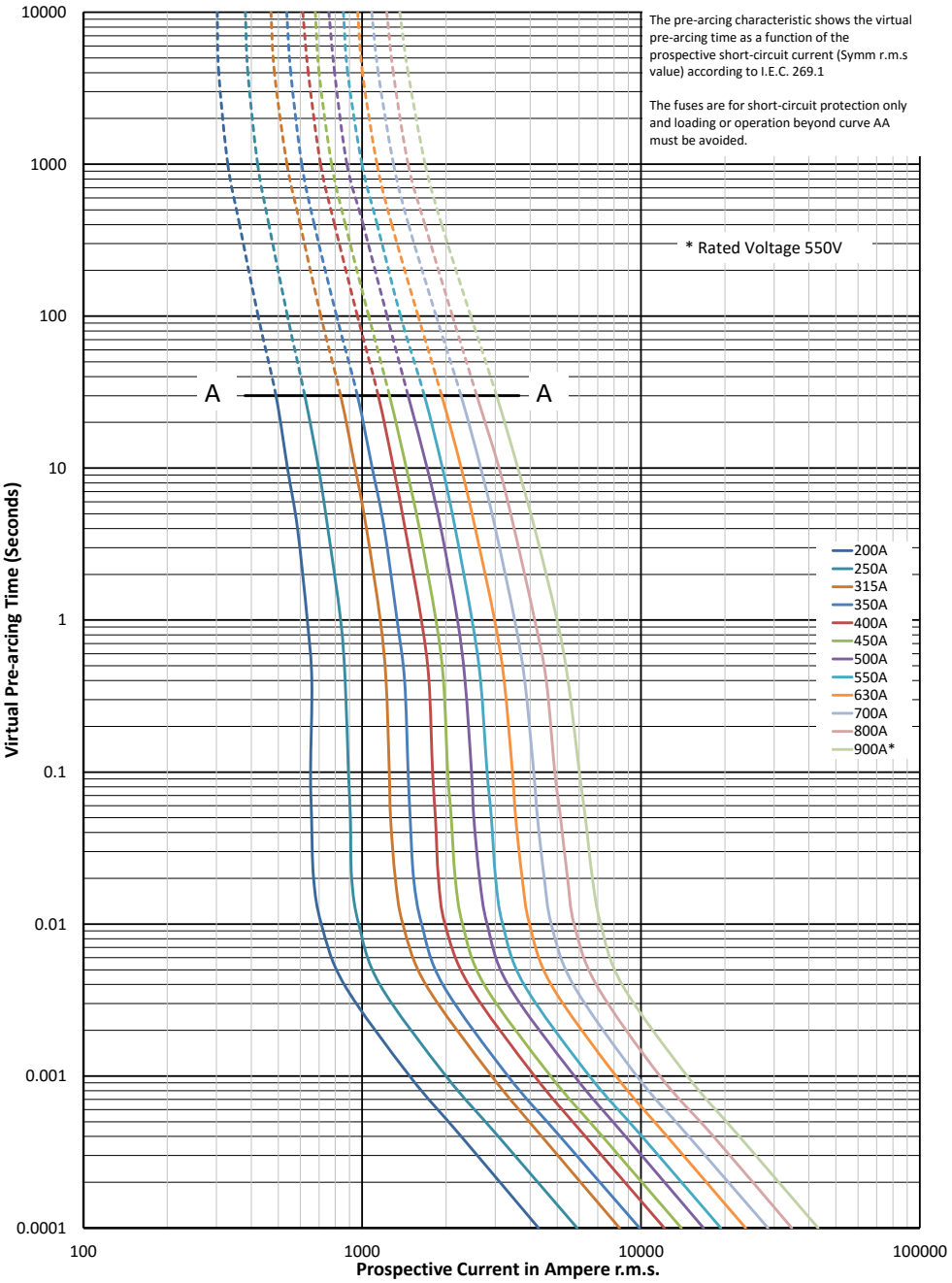
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

## Time-current curve - Size 1, 200 A to 900 A

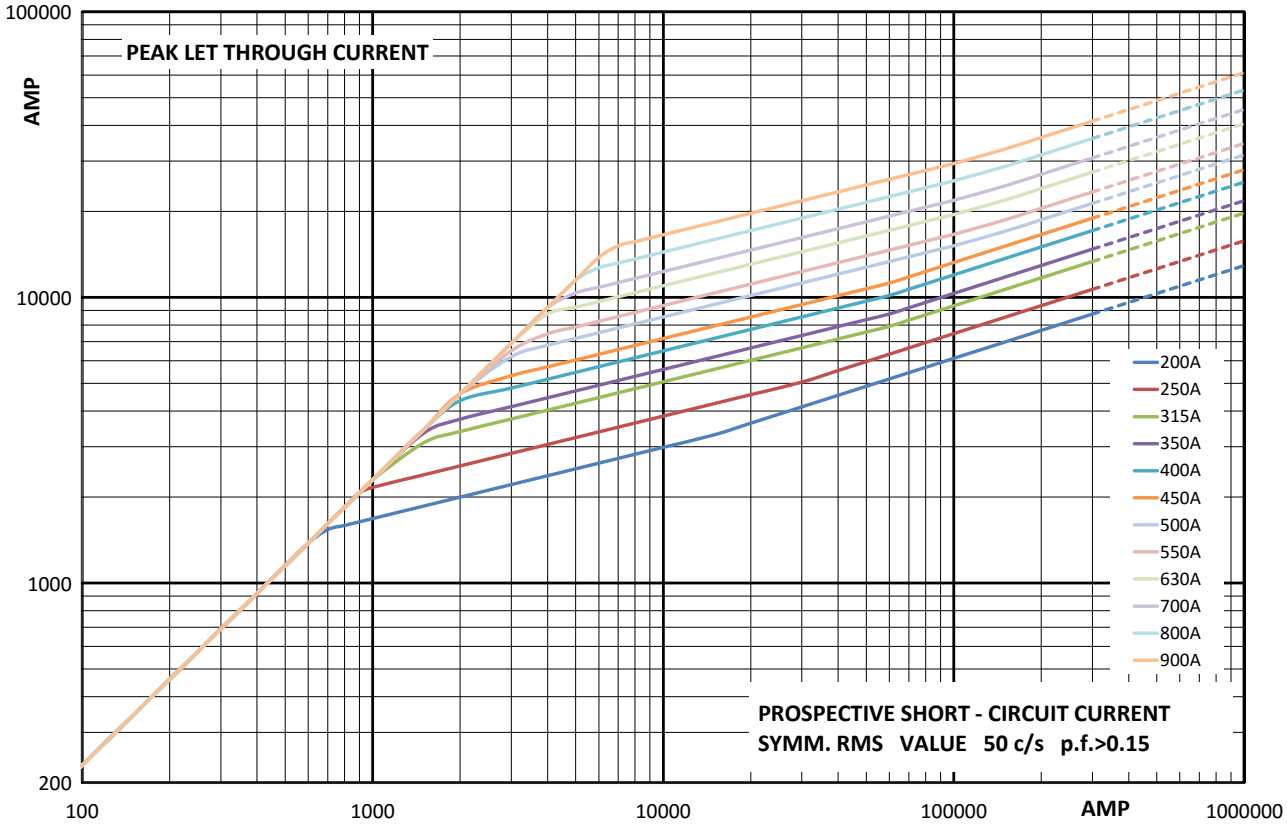



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

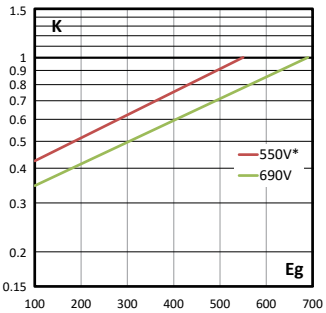
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

## Cut-off curve - Size 1, 200 A to 900 A



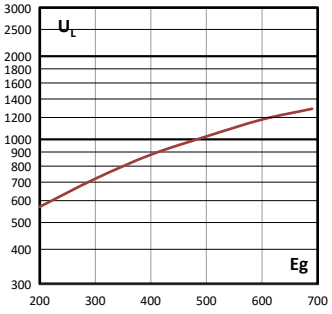

### Total clearing I²t

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).



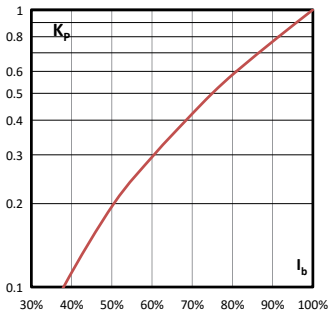

### Arc voltage

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

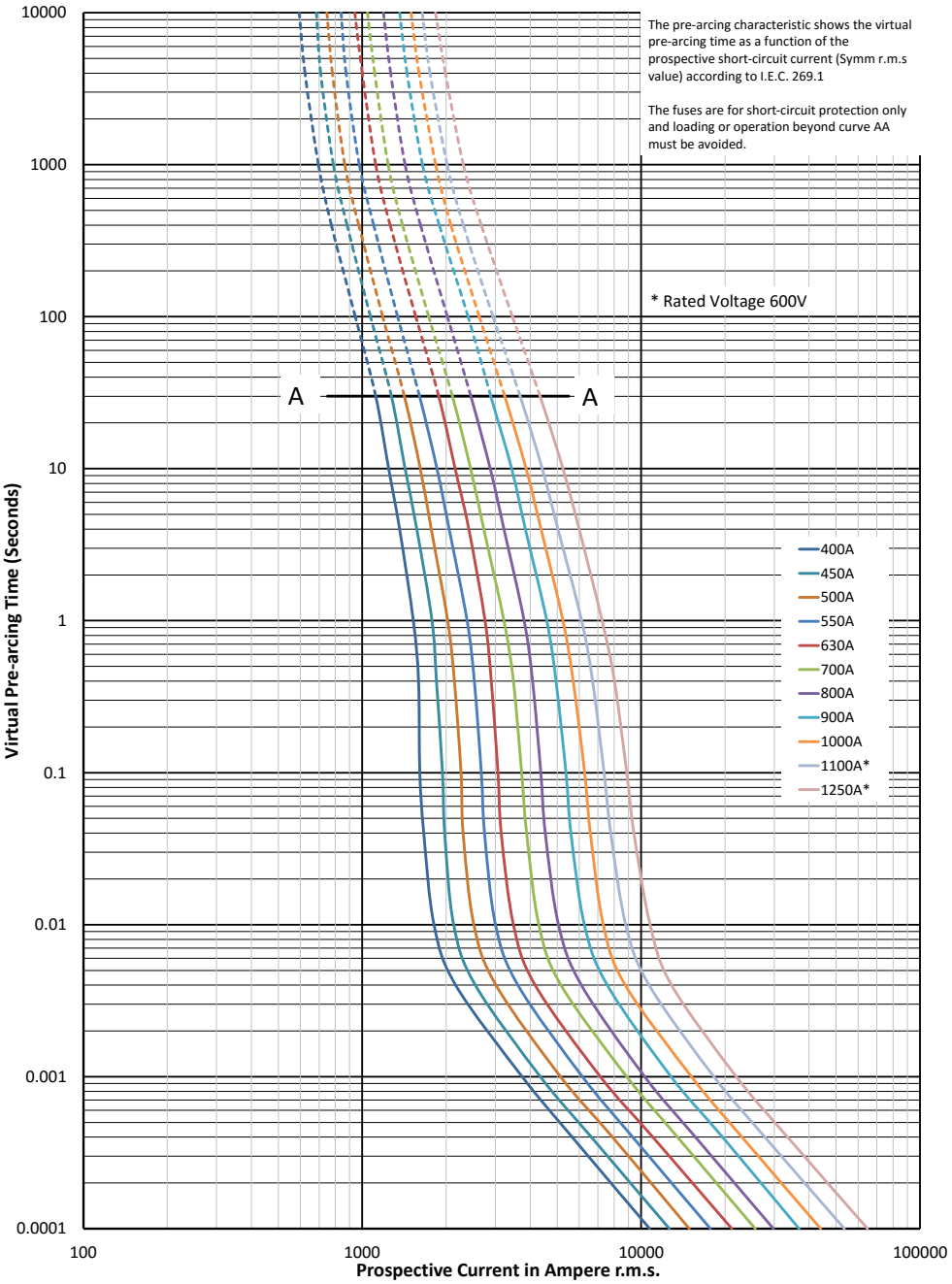
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

## Time-current curve - Size 2, 400 A to 1250 A

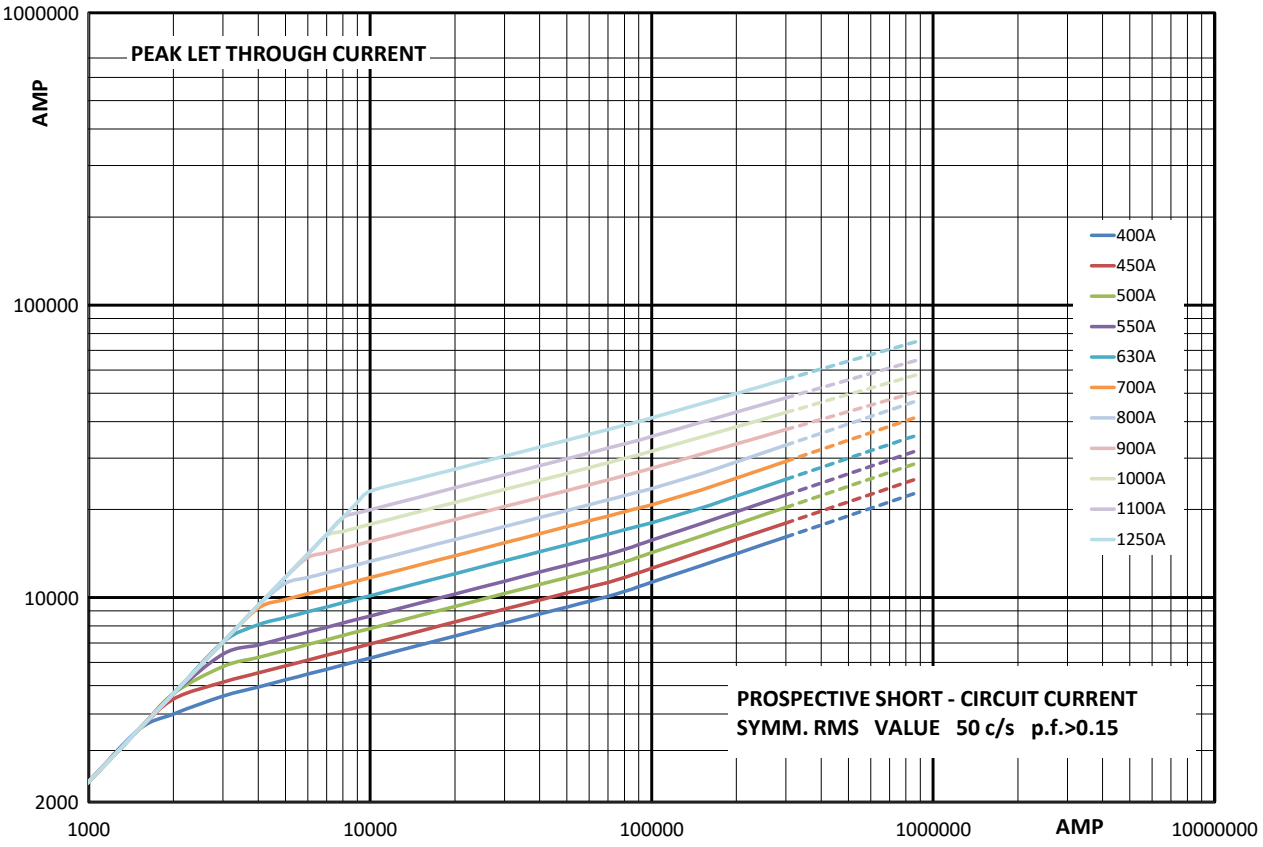



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

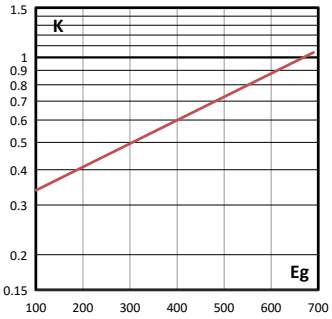
# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

## Cut-off curve - Size 2, 400 A to 1250 A



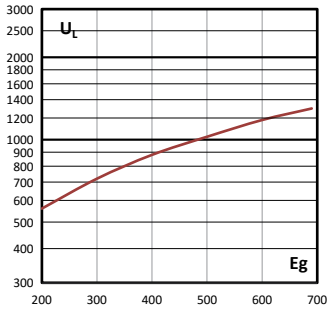

### Total clearing $I^2t$

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).



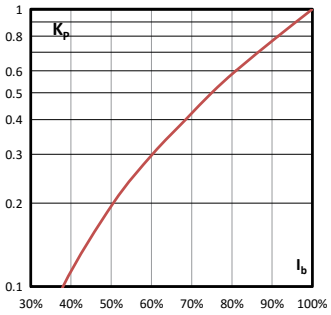

### Arc voltage

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

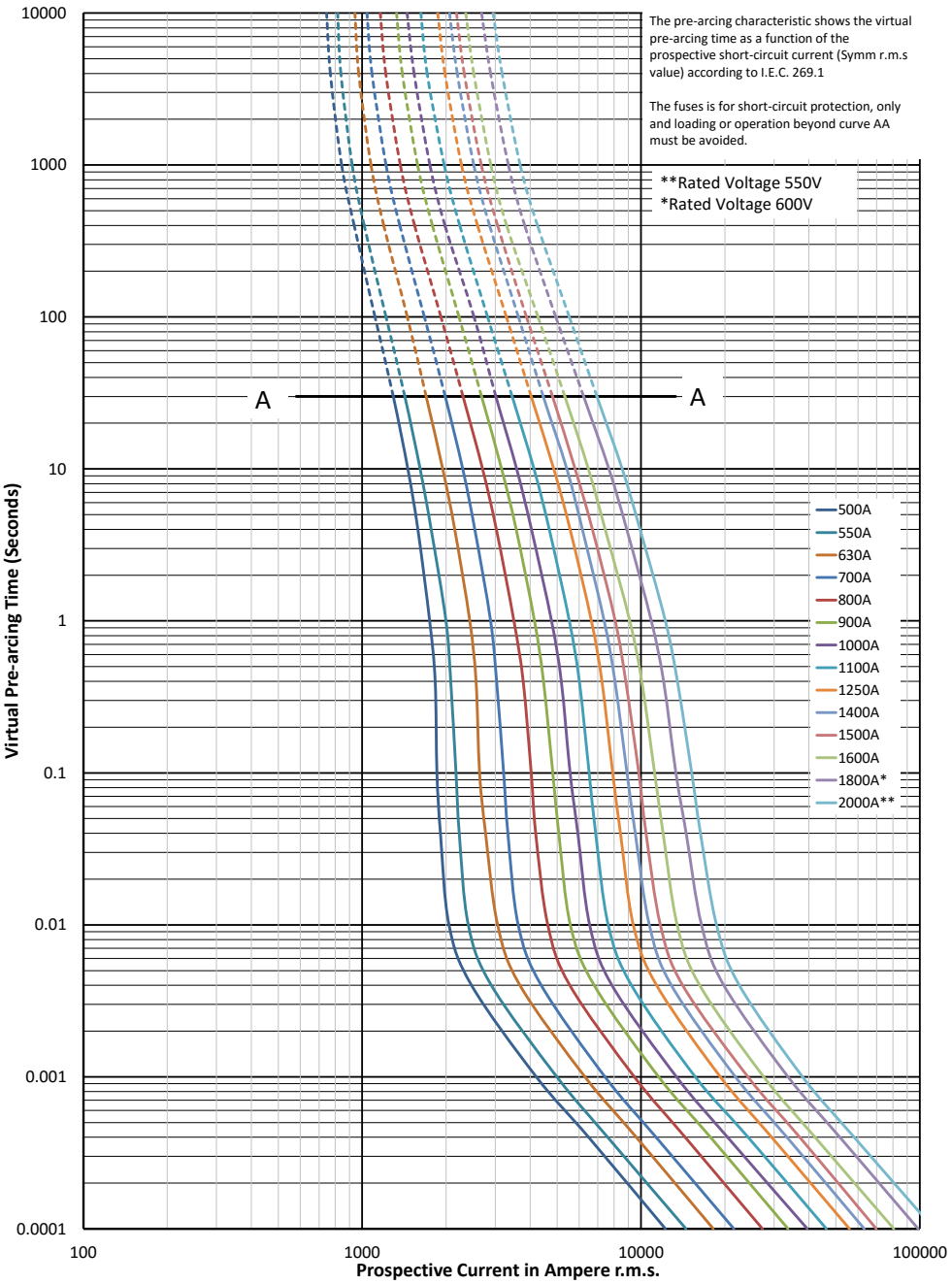
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

## Time-current curve - Size 3, 500 A to 2000 A

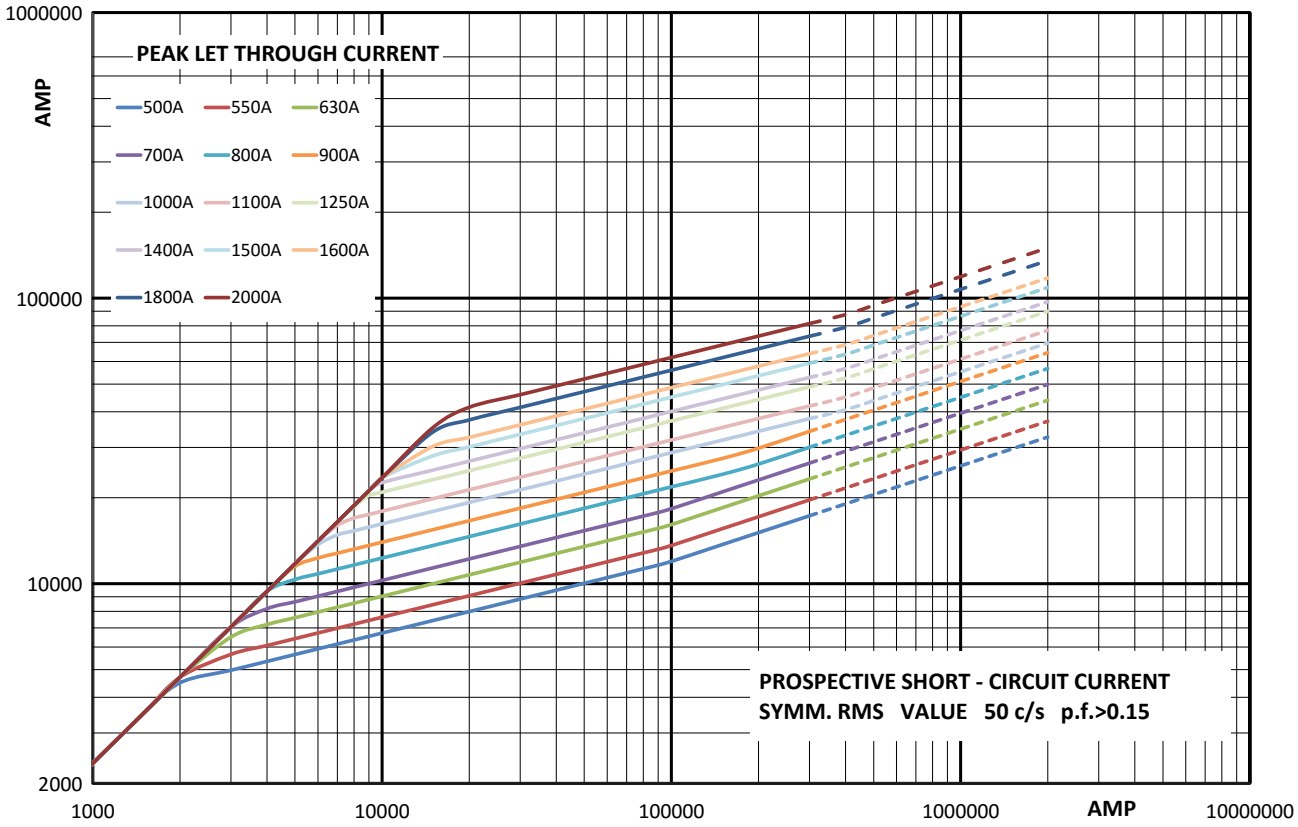



$K_b$ = 1 N = 1.5

Data sheets: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

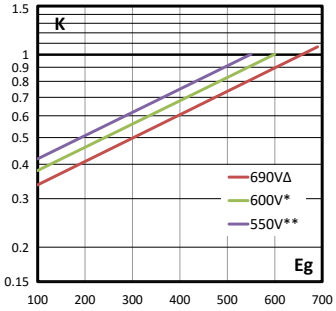
## 690 V a.c. (IEC), 700 V a.c. (UL) - 40 A to 2000 A - Sizes 1* to 3- Flush end contact - 170M

### Cut-off curve - Size 3, 500 A to 2000 A



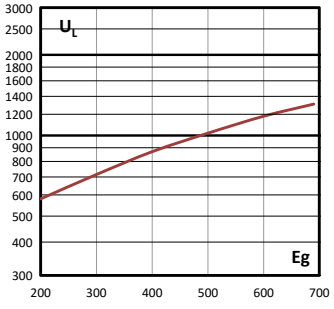

### Total clearing $I^2t$

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).



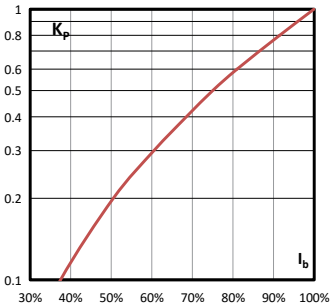

### Arc voltage

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: 170K6314 (Size 1*), 170K6316 (Size 1), 170K6318 (Size 2), 170K6320 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Description

Square body flush end contact high speed fuse links, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.



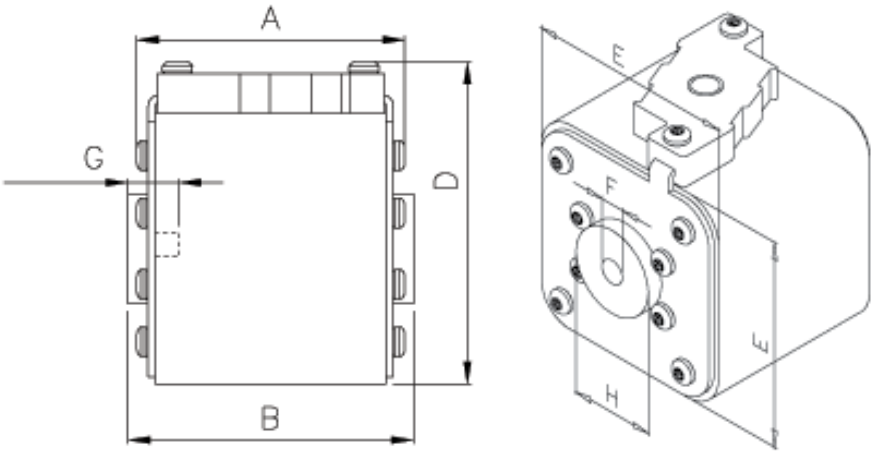

## Technical data

- Rated voltage:
  - 1000 V a.c. (IEC, 50 A to 1250 A)
  - 1000 V a.c. (UL, 250 A to 1100 A)
  - 900 V a.c. (IEC, 1400 A)
- Rated current: 50 A to 1400 A
- Breaking capacity:
  - 125kA RMS Sym. AC
  - Size 1 DC 750 V d.c. 50 kA IR
- Operating class: aR

## Standards / Agency information

CE, Designed and tested to IEC 60269 Part 4, UL Recognised for size 2 and 3 (only up to 1100 A)

## Dimensions (mm)




| Size | Type | A | B | D (max) | E | F | F[1] (in) | G (min) | H |
|---|---|---|---|---|---|---|---|---|---|
| 1* | BKN/75 + GKN/75 | 72.5 | 74 | 61 | 43 | M8 | 5/16"18 UNC-2B | 5 | 17.5 |
| 1 | BKN/75 + GKN/75 | 73.2 | 74 | 69 | 52 | M8 | 5/16" 18 UNC-2B | 8 | 20 |
| 2 | BKN/75 + GKN/75 | 73.2 | 74.4 | 77 | 59 | M10 | 3/8" 16 UNC-2B | 10 | 24.5 |
| 3 | BKN/75 + GKN/75 | 73.3 | 75.4 | 92 | 74 | M12 | ½" 13 UNC-2B | 10 | 30 |
| 3 | BKN/90 + GKN/90 | 80.3 | 91.4 | 92 | 74 | M12 | ½"13 UNC-2B | 10 | 30 |

[1] Valid for fuses type -GKN/-.

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Catalogue numbers

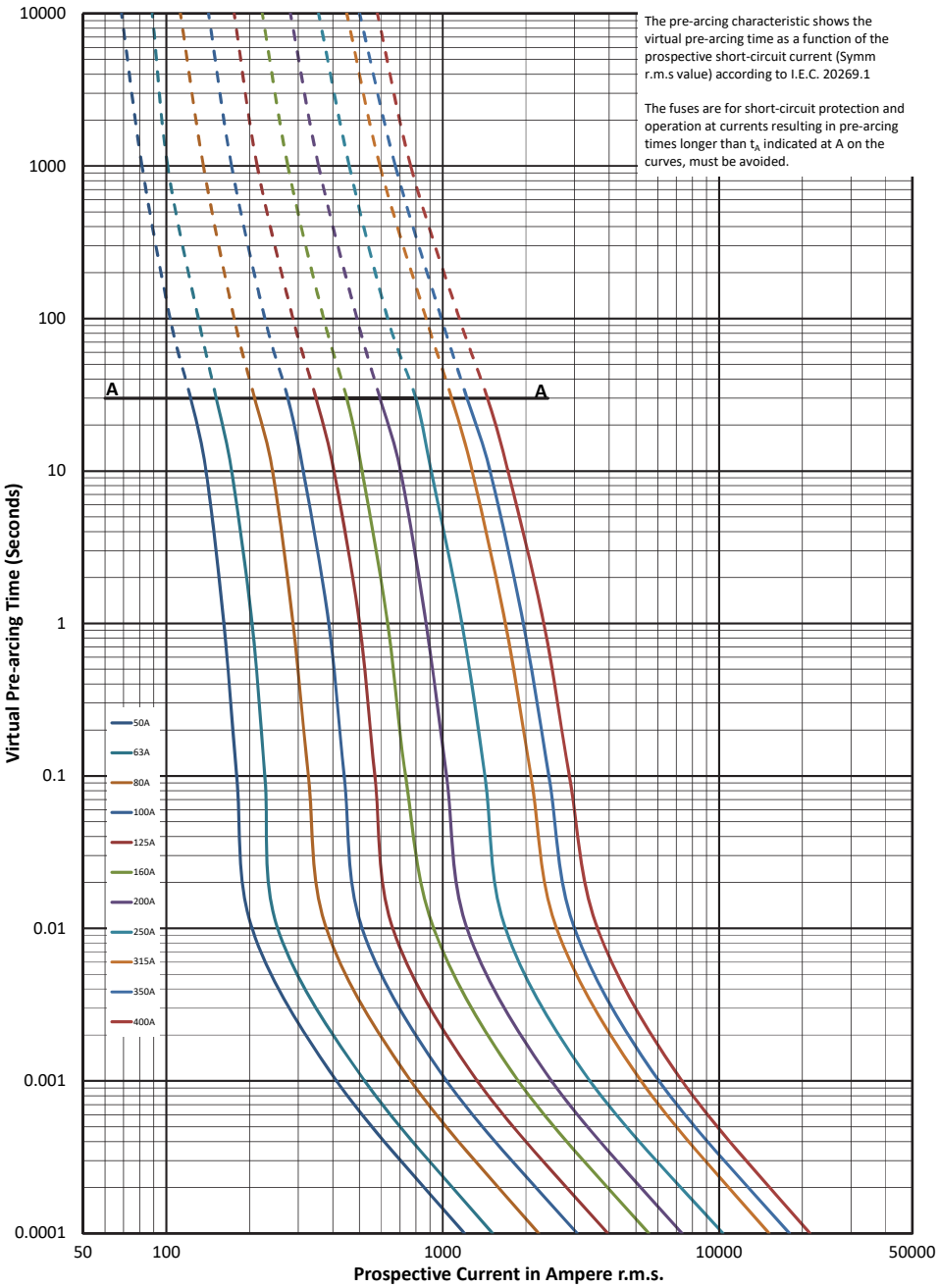
| Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at rated voltage | Watts loss (W) | Catalogue numbers -BKN/- Type K indicator for micro | Catalogue numbers -GKN/- Type K indicator for micro |
|---|---|---|---|---|---|---|---|
| 1* | 1000 V a.c. (IEC) | 50 | 135 | 815 | 20 | 170M3951 | 170M3921 |
| | | 63 | 215 | 1300 | 25 | 170M3952 | 170M3922 |
| | | 80 | 460 | 2750 | 30 | 170M3953 | 170M3923 |
| | | 100 | 860 | 5100 | 35 | 170M3954 | 170M3924 |
| | | 125 | 1450 | 8600 | 40 | 170M3955 | 170M3925 |
| | | 160 | 2850 | 17,500 | 45 | 170M3956 | 170M3926 |
| | | 200 | 4950 | 29,500 | 50 | 170M3957 | 170M3927 |
| | | 250 | 9550 | 57,000 | 55 | 170M3958 | 170M3928 |
| | | 315 | 21,500 | 130,000 | 65 | 170M3959 | 170M3929 |
| | | 350 | 29,000 | 175,000 | 70 | 170M3960 | 170M3930 |
| | | 400 | 42,000 | 250,000 | 75 | 170M3961 | 170M3931 |
| 1 | 1000 V a.c. (IEC)<br>1000 V a.c. / 750 V d.c. (UL) | 160 | 2200 | 13,500 | 40 | 170M4951 | 170M4921 |
| | | 200 | 4150 | 24,500 | 45 | 170M4952 | 170M4922 |
| | | 250 | 7750 | 46,000 | 52 | 170M4953 | 170M4923 |
| | | 315 | 16,500 | 98,500 | 60 | 170M4954 | 170M4924 |
| | | 350 | 21,500 | 130,000 | 65 | 170M4955 | 170M4925 |
| | | 400 | 31,000 | 185,000 | 70 | 170M4956 | 170M4926 |
| | | 450 | 44,500 | 265,000 | 80 | 170M4957 | 170M4927 |
| | | 500 | 63,000 | 375,000 | 85 | 170M4958 | 170M4928 |
| | | 550 | 84,500 | 500,000 | 90 | 170M4959 | 170M4929 |
| | | 630 | 125,000 | 755,000 | 98 | 170M4960 | 170M4930 |
| 2 | 1000 V a.c. (IEC/UL) | 250 | 6750 | 40,000 | 65 | 170M5952 | 170M5922 |
| | | 315 | 13,500 | 81,500 | 75 | 170M5953 | 170M5923 |
| | | 350 | 16,500 | 99,000 | 80 | 170M5954 | 170M5924 |
| | | 400 | 26,000 | 155,000 | 85 | 170M5955 | 170M5925 |
| | | 450 | 35,500 | 210,000 | 90 | 170M5956 | 170M5926 |
| | | 500 | 49,500 | 295,000 | 95 | 170M5957 | 170M5927 |
| | | 550 | 66,000 | 390,000 | 100 | 170M5958 | 170M5928 |
| | | 630 | 93,500 | 555,000 | 110 | 170M5959 | 170M5929 |
| | | 700 | 130,000 | 770,000 | 115 | 170M5960 | 170M5930 |
| | | 800 | 195,000 | 1,200,000 | 125 | 170M5961 | 170M5931 |
| 3 | 1000 V a.c. (IEC/UL) | 315 | 9200 | 54,500 | 90 | 170M8600 | 170M8500 |
| | | 350 | 13,000 | 77,500 | 95 | 170M8601 | 170M8501 |
| | | 400 | 19,000 | 115,000 | 105 | 170M8602 | 170M8502 |
| | | 450 | 27,000 | 160,000 | 107 | 170M8603 | 170M8503 |
| | | 500 | 37,500 | 225,000 | 110 | 170M8604 | 170M8504 |
| | | 550 | 52,000 | 310,000 | 115 | 170M8605 | 170M8505 |
| | | 630 | 82,500 | 490,000 | 120 | 170M8606 | 170M8506 |
| | | 700 | 115,000 | 700,000 | 125 | 170M8607 | 170M8507 |
| | | 800 | 170,000 | 1,050,000 | 135 | 170M8608 | 170M8508 |
| | | 900 | 250,000 | 1,500,000 | 145 | 170M8609 | 170M8509 |
| | | 1000 | 340,000 | 2,050,000 | 150 | 170M8610 | 170M8510 |
| | | 1100 | 460,000 | 2,750,000 | 155 | 170M8611 | 170M8511 |
| | 1000 V a.c. (IEC) | 1250 | 575,000 | 3,400,000 | 175 | 170M8612[1] | 170M8512[1] |
| | 900 V a.c. (IEC) | 1400 | 795,000 | 4,200,000 | 185 | 170M8613[1] | 170M8513[1] |

[1] Overall length is 90 mm, for all other fuse links the overall length is 75 mm.

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

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

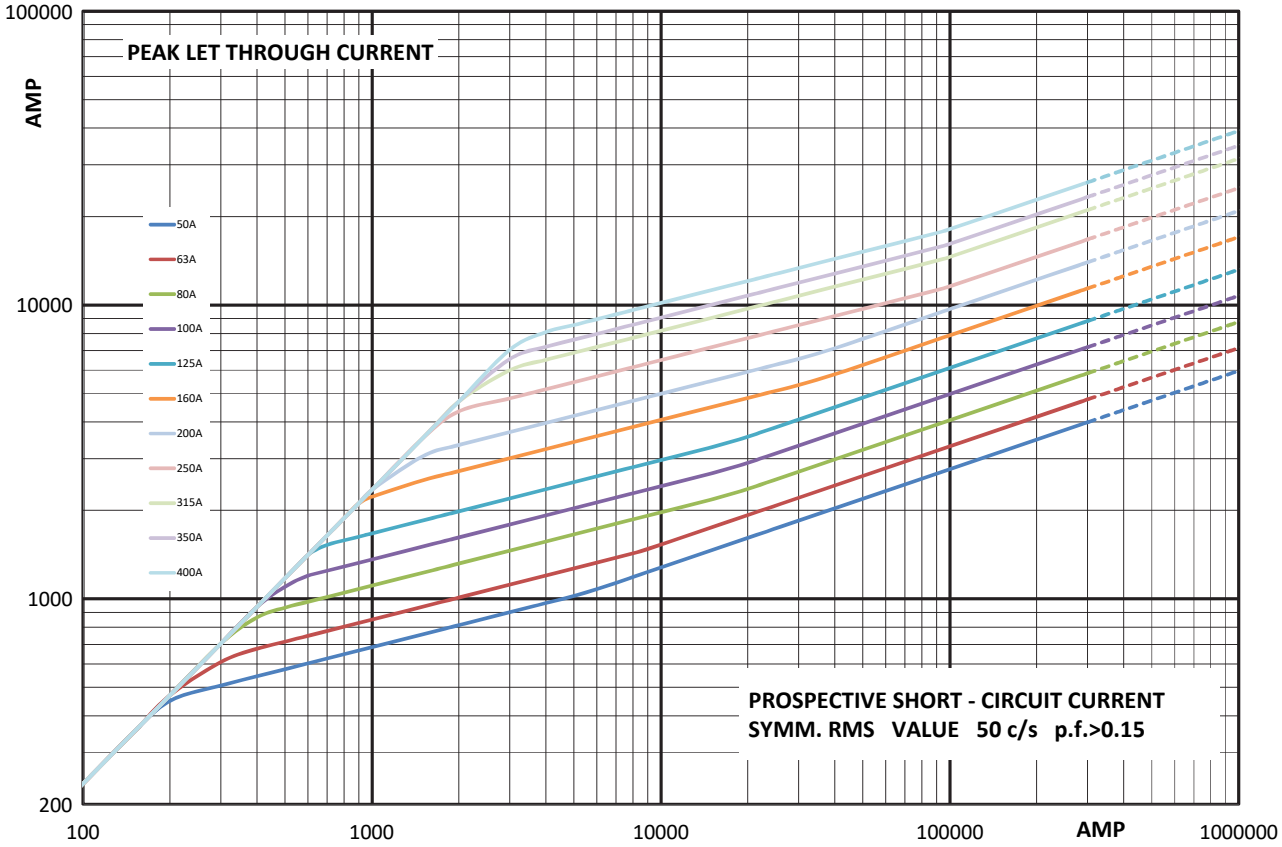



$K_b$ = 1 N = 1,6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

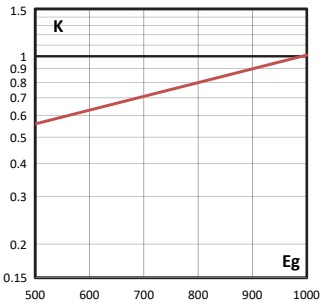
# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

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



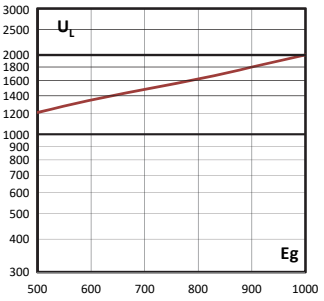

### Total clearing I²t

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).



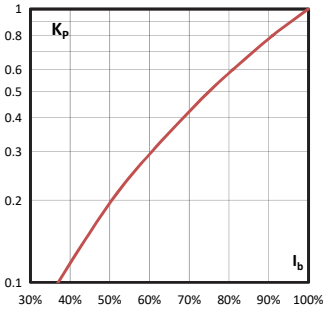

### Arc voltage

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

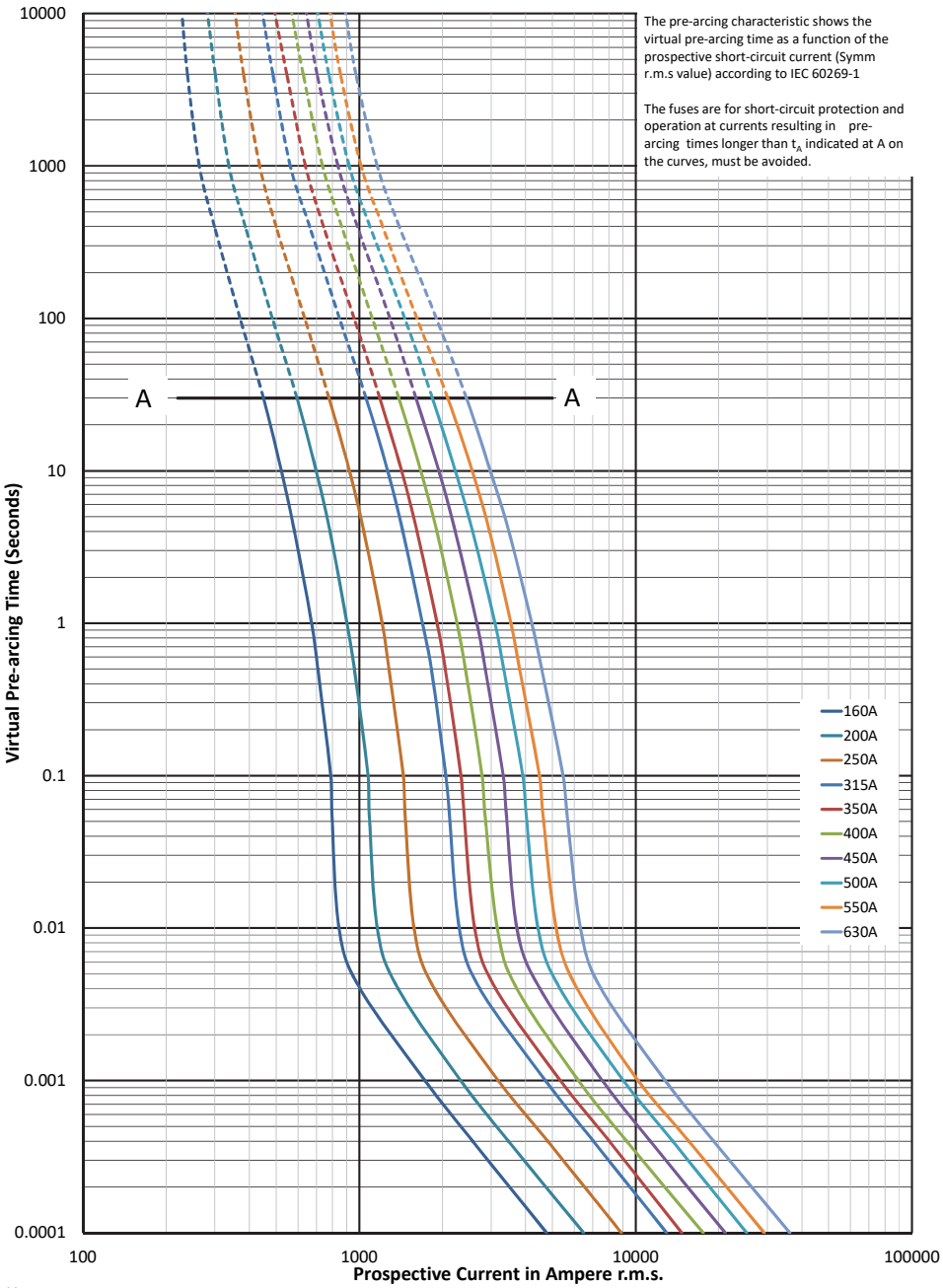
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Time-current curve - Size 1, 160 A to 630 A

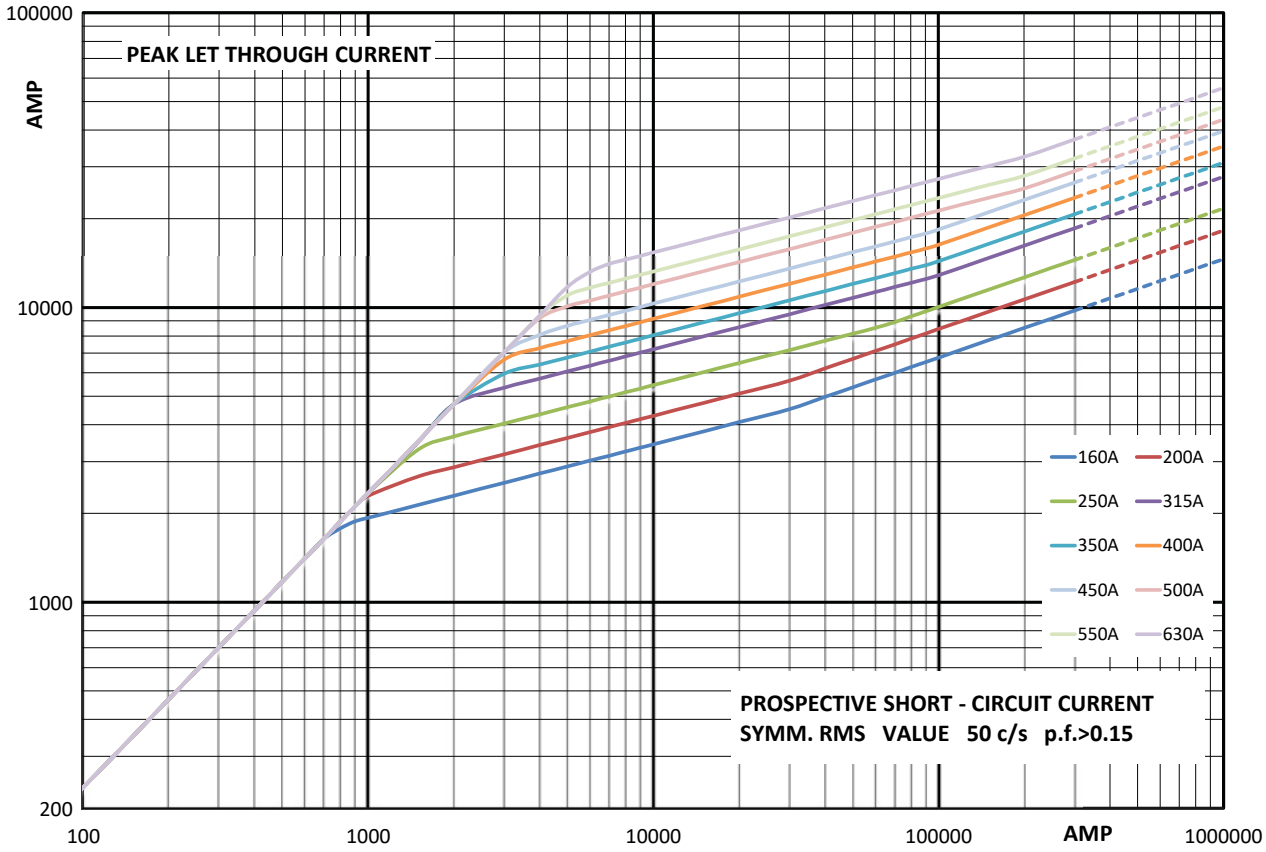



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

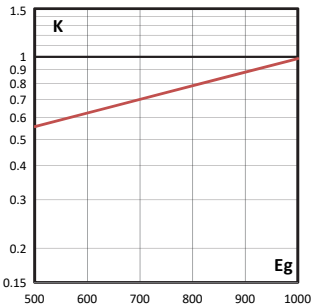
# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Cut-off curve - Size 1, 160 A to 630 A



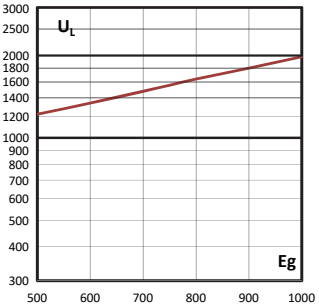

### Total clearing $I^2t$

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).



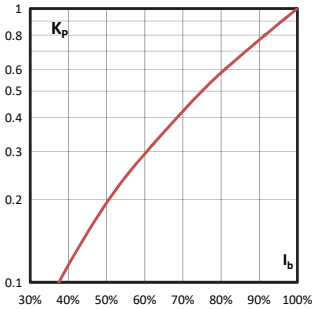

### Arc voltage

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

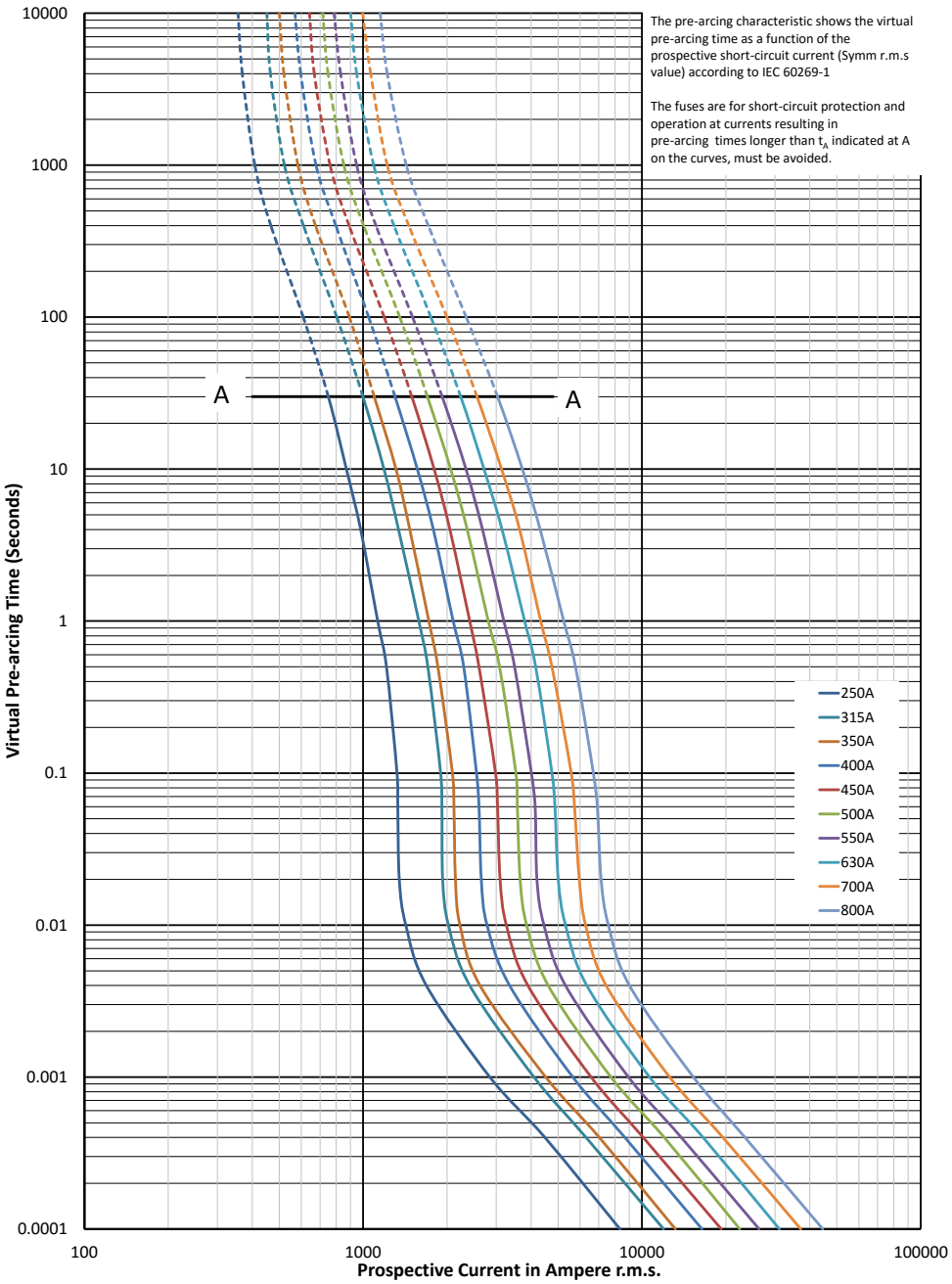
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Time-current curve - Size 2, 250 A to 800 A

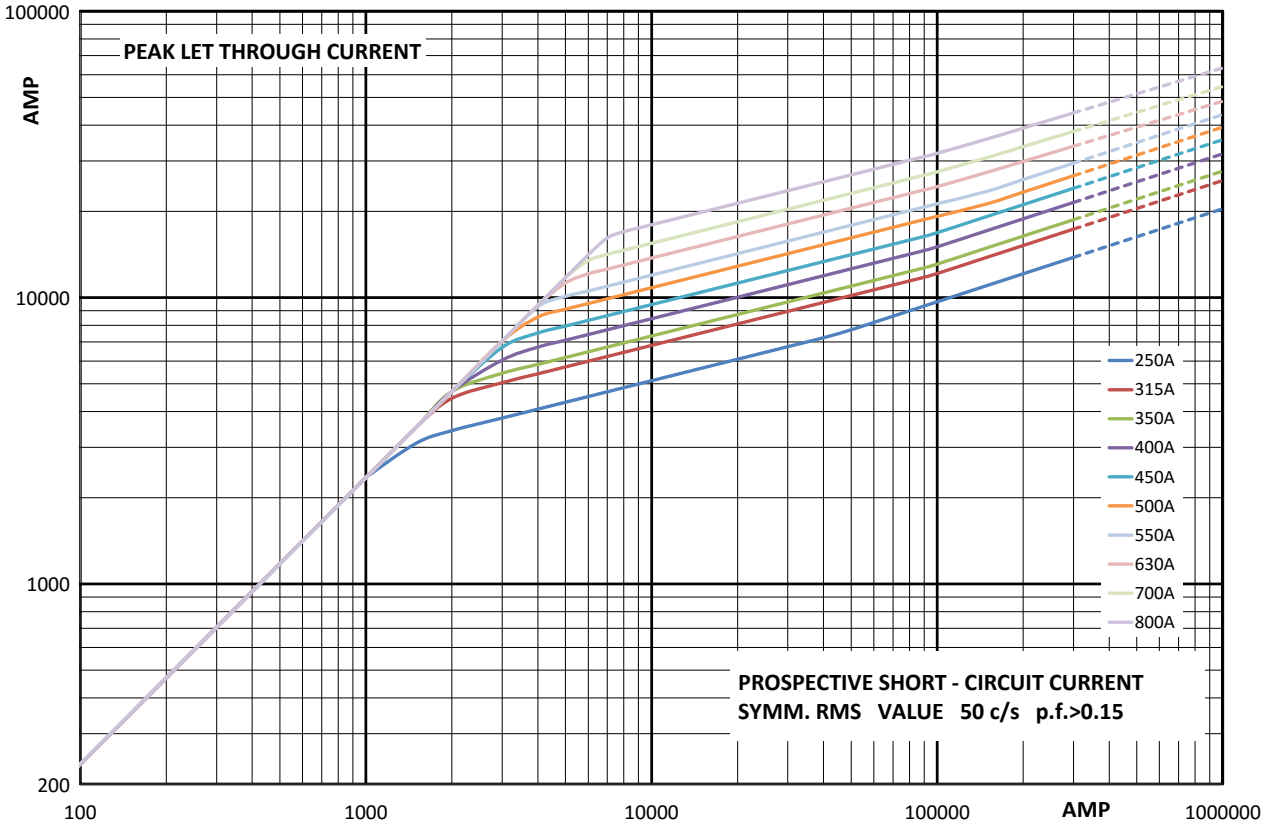



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

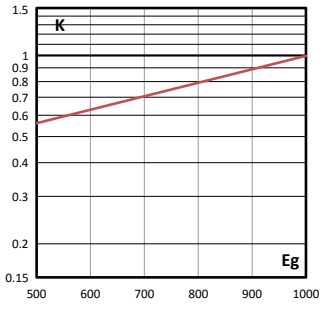
# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Cut-off curve - Size 2, 250 A to 800 A



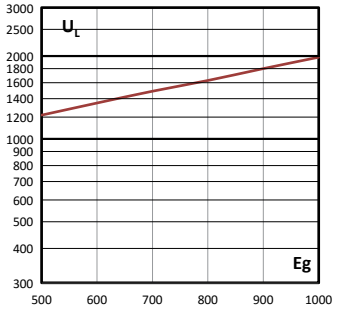

### Total clearing I²t

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).



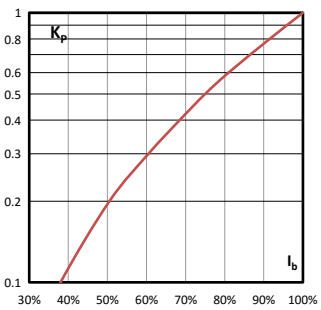

### Arc voltage

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

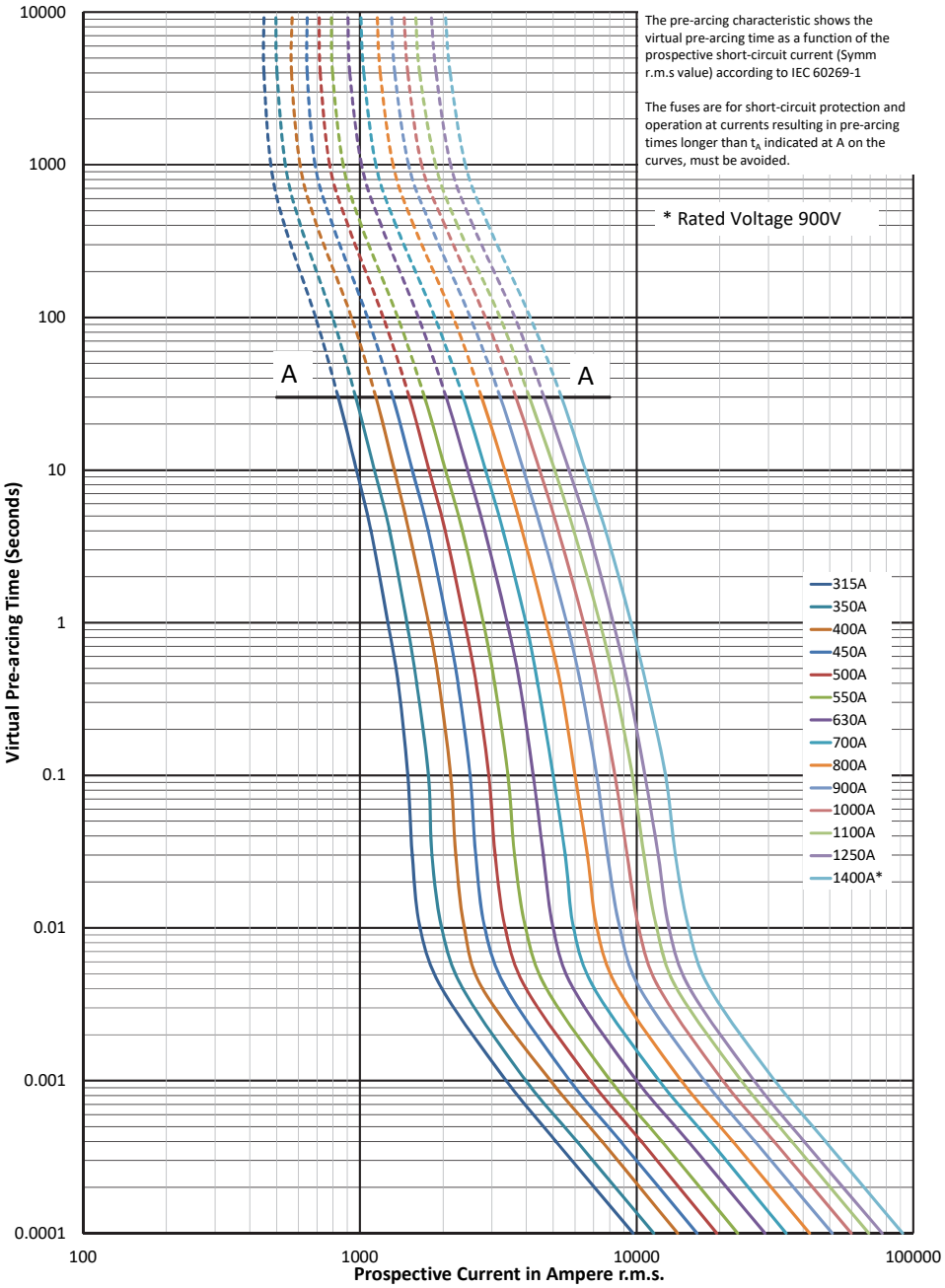
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Time-current curve - Size 3, 315 A to 1400 A

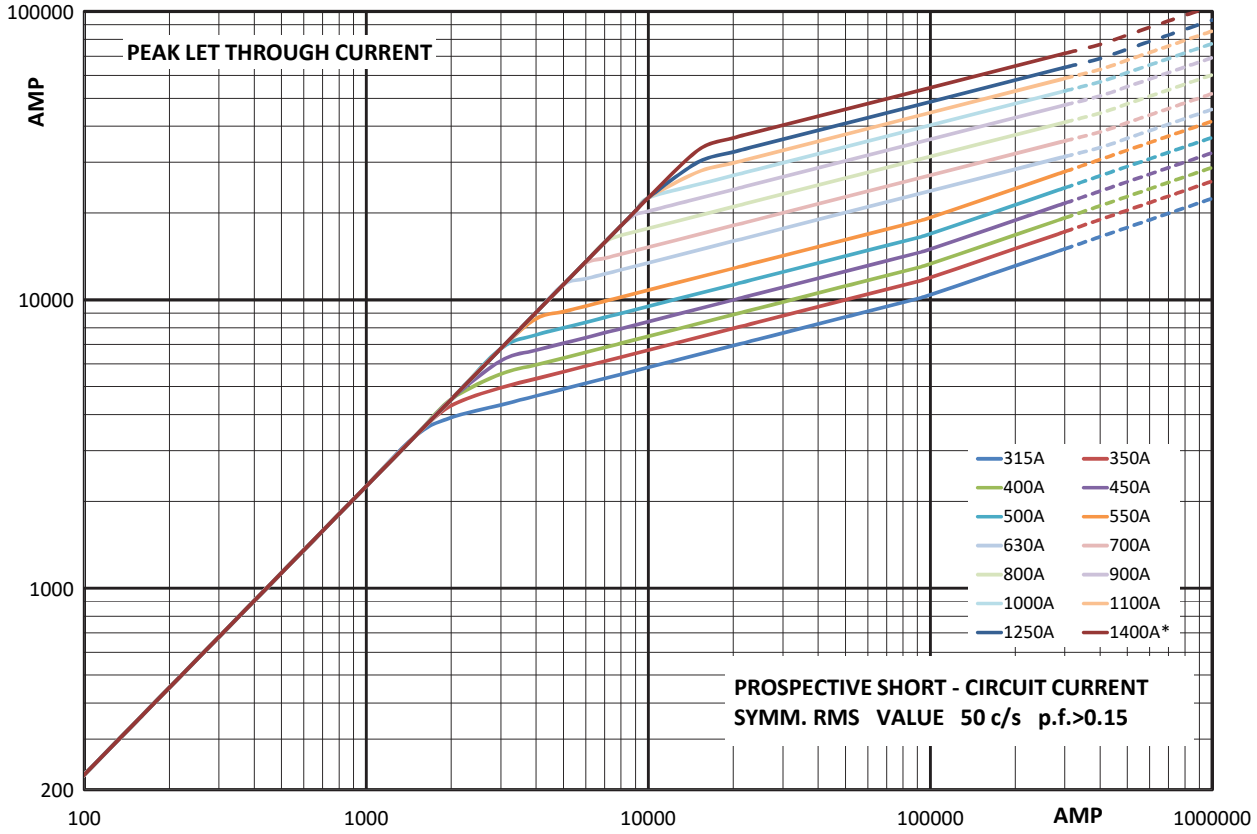



$K_b$ = 1 N = 1.6

Data sheets: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

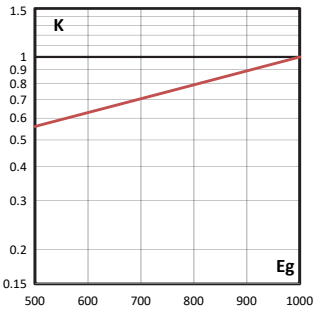
# 1000 V a.c. (IEC and UL) - 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Cut-off curve - Size 3, 315 A to 1400 A



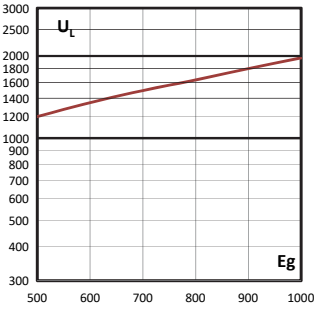

### Total clearing $I^2t$

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).



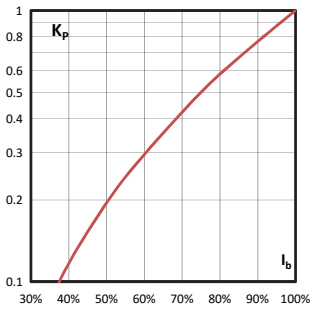

### Arc voltage

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: 170K8564 (Size 1*), 170K8566 (Size 1), 170K8568 (Size 2), 170K8570 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Description

Square body flush end contact high speed fuse links, for the protection of DC common bus, DC drives, power converters/rectifiers and reduced rated voltage starters.



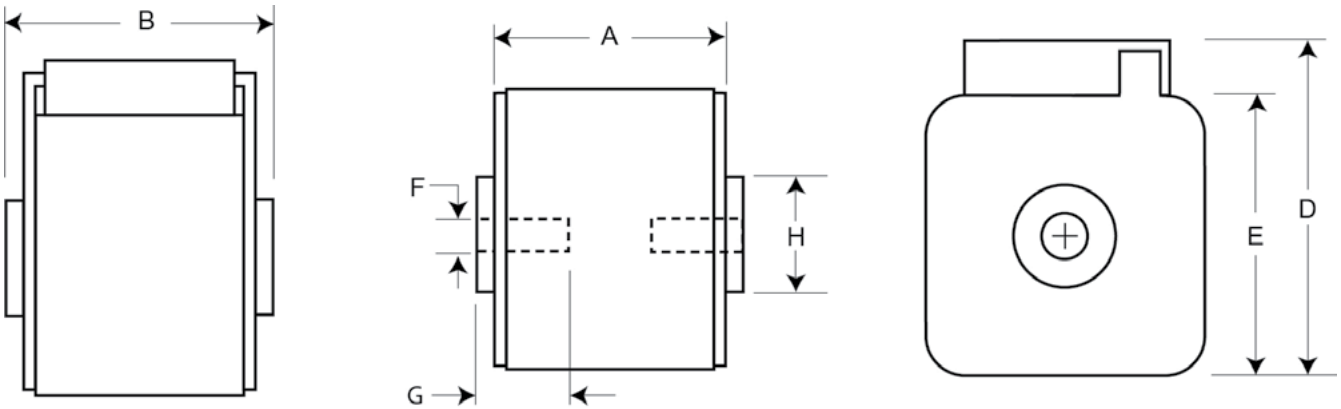

## Technical data

- Rated voltage:
  - 1250 V a.c. (IEC)
  - 1300 V a.c. (UL)
- Rated current: 50 A to 1400 A
- Breaking capacity: 100 kA RMS Sym
- Operating class: aR

## Standards / Agency information

CE, Designed and tested to IEC 60269 Part 4. Consult Eaton for UL Recognition/CSA Component Acceptance Status

## Dimensions (mm)




| Size | Type | A | B | D | E | F | F[1] (in) | Min G | H |
|---|---|---|---|---|---|---|---|---|---|
| 1* | BKN + GKN/75 | 74 | 75 | 59 | 45 | M8 | 5/16" -18 UNC-2B | 5 | Ø17 |
| 1* | BKN/80 | 80 | 81 | 59 | 45 | M8 | | 5 | Ø17 |
| 1 | BKN + GKN/75 | 74 | 75 | 69 | 53 | M8 | 5/16" -18 UNC-2B | 8 | Ø20 |
| 1 | BKN/80 | 80 | 81 | 69 | 53 | M8 | | 8 | Ø20 |
| 2 | BKN + GKN/75 | 74 | 75 | 77 | 61 | M10 | 3/8" -16 UNC-2B | 10 | Ø24 |
| 2 | BKN/80 | 80 | 81 | 77 | 61 | M10 | | 10 | Ø24 |
| 2 | BKN + GKN/90 | 80 | 91 | 77 | 61 | M10 | 3/8" -16 UNC-2B | 10 | Ø24 |
| 3 | BKN + GKN/75 | 74 | 76 | 92 | 76 | M12 | ½" -13 UNC-2B | 10 | Ø30 |
| 3 | BKN/80 | 81 | 83 | 92 | 76 | M12 | | 10 | Ø30 |
| 3 | BKN + GKN/90 | 81 | 91 | 92 | 76 | M12 | ½" -13 UNC-2B | 10 | Ø30 |

[1] Valid for fuses type -GKN/-.

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

## 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

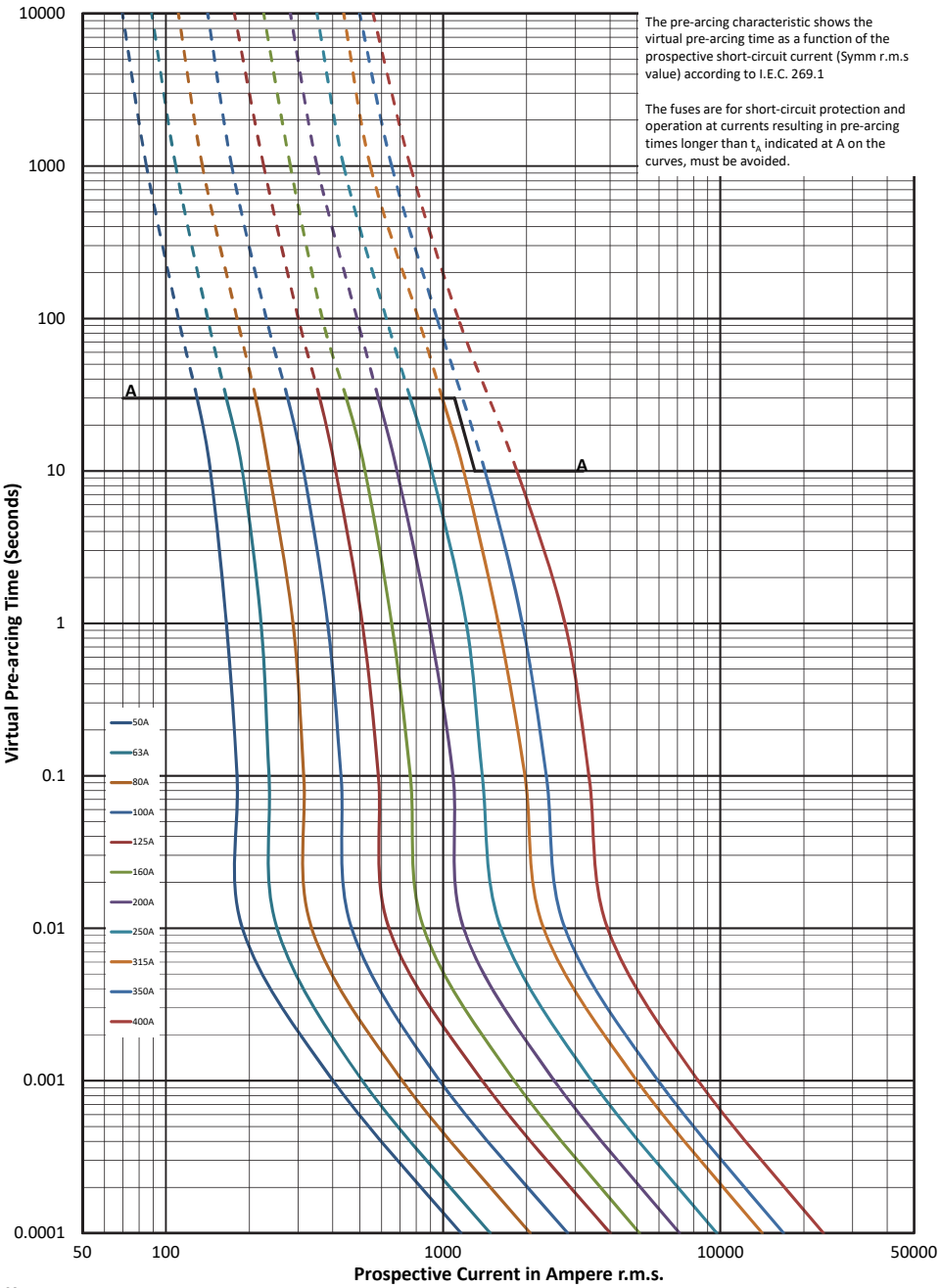
| Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 1000 V a.c. | I²t (A² Sec) Clearing at 1250 V a.c. | Watts loss (W) | Catalogue numbers -BKN/75 Type K indicator for micro | -BKN/80 Type K indicator for micro | -BKN/90 Type K Indicator for micro | -GKN/75 Type K Indicator for micro | -GKN/90 Type K Indicator for micro |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1* | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 50 | 135 | 815 | 1100 | 15 | 170M3388[6] | 170M3438 | | 170M3488[6] | |
| | | 63 | 215 | 1300 | 1750 | 20 | 170M3389[6] | 170M3439 | | 170M3489[6] | |
| | | 80 | 420 | 2500 | 3350 | 25 | 170M3390[6] | 170M3440 | | 170M3490[6] | |
| | | 100 | 750 | 4450 | 5950 | 30 | 170M3391[6] | 170M3441 | | 170M3491[6] | |
| | | 125 | 1450 | 9000 | 11,500 | 35 | 170M3392[6] | 170M3442 | | 170M3492[6] | |
| | | 160 | 2600 | 16,000 | 21,000 | 40 | 170M3393[6] | 170M3443 | | 170M3493[6] | |
| | | 200 | 5150 | 31,000 | 41,000 | 45 | 170M3394[6] | 170M3444 | | 170M3494[6] | |
| | | 250 | 9200 | 54,500 | 73,000 | 55 | 170M3395[6] | 170M3445 | | 170M3495[6] | |
| | | 315 | 18,500 | 115,000 | 150,000 | 60 | 170M3396[6] | 170M3446 | | 170M3496[6] | |
| | | 350 | 27,000 | 165,000 | 220,000 | 65 | 170M3397[6] | 170M3447 | | 170M3497[6] | |
| | | 400 | 53,000 | 265,000 | 335,000 | 70 | | 170M3448 | | | |
| 1 | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 160 | 1900 | 11,500 | 15,500 | 45 | 170M4388[6] | 170M4438[6] | | 170M4488[6] | |
| | | 200 | 3800 | 22,500 | 30,000 | 50 | 170M4389[6] | 170M4439[6] | | 170M4489[6] | |
| | | 250 | 7750 | 46,000 | 61,500 | 60 | 170M4390[6] | 170M4440[6] | | 170M4490[6] | |
| | | 315 | 15,000 | 90,000 | 120,000 | 65 | 170M4391[6] | 170M4441[6] | | 170M4491[6] | |
| | | 350 | 20,000 | 125,000 | 165,000 | 70 | 170M4392[6] | 170M4442[6] | | 170M4492[6] | |
| | | 400 | 29,500 | 175,000 | 235,000 | 75 | 170M4393[6] | 170M4443[6] | | 170M4493[6] | |
| | | 450 | 42,000 | 250,000 | 335,000 | 80 | 170M4394[6] | 170M4444[6] | | 170M4494[6] | |
| | | 500 | 69,500 | 340,000 | 435,000 | 85 | 170M4395[4] | 170M4445 | | 170M4495[4] | |
| | | 550 | 95,000 | 465,000 | 590,000 | 95 | 170M4396[5] | 170M4446 | | 170M4496[5] | |
| | | 630 | 130,000 | 660,000 | N/A | 110 | 170M4397[5] | 170M4447[4] | | 170M4497[5] | |
| 2 | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 250 | 6500 | 38,500 | 51,500 | 65 | 170M5388 | 170M5438 | | 170M5588 | |
| | | 280 | 9350 | 55,500 | 74,500 | 70 | 170M5389 | 170M5439 | | 170M5589 | |
| | | 315 | 13,000 | 77,500 | 105,000 | 75 | 170M5390 | 170M5440 | | 170M5590 | |
| | | 350 | 16,500 | 97,500 | 135,000 | 80 | 170M5391 | 170M5441 | | 170M5591 | |
| | | 400 | 23,000 | 140,000 | 180,000 | 85 | 170M5392 | 170M5442 | | 170M5592 | |
| | | 450 | 34,000 | 205,000 | 270,000 | 90 | 170M5393 | 170M5443 | | 170M5593 | |
| | | 500 | 48,000 | 285,000 | 380,000 | 95 | 170M5394 | 170M5444 | 170M5494 | 170M5594 | 170M5644 |
| | | 550 | 62,000 | 370,000 | 495,000 | 100 | 170M5395 | 170M5445 | 170M5495 | 170M5595 | 170M5645 |
| | | 630 | 115,000 | 575,000 | 730,000 | 120 | 170M5396[4] | 170M5446 | 170M5496 | 170M5596[4] | 170M5646 |
| | | 700 | 160,000 | 795,000 | 1,050,000 | 125 | 170M5397[5] | 170M5447[7] | 170M5497 | 170M5597[5] | 170M5647 |
| | | 800 | 245,000 | 1,200,000 | 1,550,000 | 130 | 170M5398[5] | 170M5448[8] | 170M5498 | 170M5598[5] | 170M5648 |
| | | 900 | 360,000 | 1,750,000 | N/A | 135 | | | 170M5499[9] | | 170M5649[9] |
| | | 1000 | 480,000 | 2,350,000 | N/A | 145 | | | 170M5500[9] | | 170M5650[9] |
| 3 | 1250 V a.c. (IEC) 1300 V a.c. (UL) | 315 | 9500 | 58,000 | 77,500 | 85 | 170M6338[6] | 170M6538[6] | | 170M6588 | |
| | | 350 | 13,500 | 81,500 | 110,000 | 90 | 170M6339[6] | 170M6539[6] | | 170M6589 | |
| | | 400 | 19,500 | 120,000 | 160,000 | 95 | 170M6340[6] | 170M6540[6] | | 170M6590 | |
| | | 450 | 31,000 | 185,000 | 245,000 | 100 | 170M6341[6] | 170M6541[6] | | 170M6591 | |
| | | 500 | 39,000 | 235,000 | 310,000 | 105 | 170M6342[6] | 170M6542[6] | | 170M6592 | |
| | | 550 | 55,000 | 325,000 | 435,000 | 110 | 170M6343[6] | 170M6543[6] | | 170M6593 | |
| | | 630 | 83,500 | 495,000 | 665,000 | 115 | 170M6344[6] | 170M6544[6] | 170M6494[6] | 170M6594 | 170M6644 |
| | | 700 | 115,000 | 705,000 | 940,000 | 120 | 170M6345 | 170M6545[6] | 170M6495[6] | 170M6595 | 170M6645[6] |
| | | 800 | 205,000 | 995,000 | 1,300,000 | 125 | 170M6346[4] | 170M6546[6] | 170M6496[12] | 170M6596[4] | 170M6646[12] |
| | | 900 | 305,000 | 1,500,000 | 1,900,000 | 130 | 170M6347[5] | 170M6547[10] | 170M6497[12] | 170M6597[5] | 170M6647[12] |
| | | 1000 | 450,000 | 2,150,000 | 2,750,000 | 135 | 170M6348[5] | 170M6548[10] | 170M6498[12] | 170M6598[5] | 170M6648[12] |
| | | 1100 | 575,000 | 2,800,000 | 3,600,000 | 160 | 170M6349[5] | 170M6549[11] | 170M6499[12] | 170M6599[5] | 170M6649[12] |
| | | 1250 | 810,000 | 3,950,000 | N/A | 170 | | | 170M6500[13] | | 170M6650[4] |
| | | 1400 | 1,250,000 | 6,000,000 | N/A | 175 | | | 170M6501[13] | | 170M6651[4] |

[1] Rated voltage 1100 V a.c. (IEC), 1000 V a.c. (UL).
[2] Rated voltage 1000 V a.c. (IEC and UL).
[3] Rated voltage 1100 V a.c. (IEC and UL).
[4] Rated voltage (IEC) 1100 V a.c.
[5] Rated voltage (IEC) 1000 V a.c.
[6] Rated voltage 900 V d.c. 8XIn 90 kA
[7] Rated voltage 1100 V a.c. (IEC), 1000 V a.c. (UL). and 1000 V d.c. 8XIn 70 kA
[8] Rated voltage 1000 V a.c. (IEC and UL). and 1000 V d.c. 8XIn 70 kA
[9] Rated voltage 1100 V a.c. (IEC and UL). and 900 V d.c. 9.5XIn 80 kA
[10] Rated voltage 1100 V a.c. (IEC), 1000 V a.c. (UL). and 900 V d.c. 8XIn 90 kA
[11] Rated voltage 1000 V a.c. (IEC and UL). and 900 V d.c. 8XIn 90 kA
[12] Rated voltage 1000 V d.c. 10XIn 91 kA
[13] Rated voltage 1100 V a.c. (IEC and UL). and 900 V d.c. 12XIn 90 kA

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

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

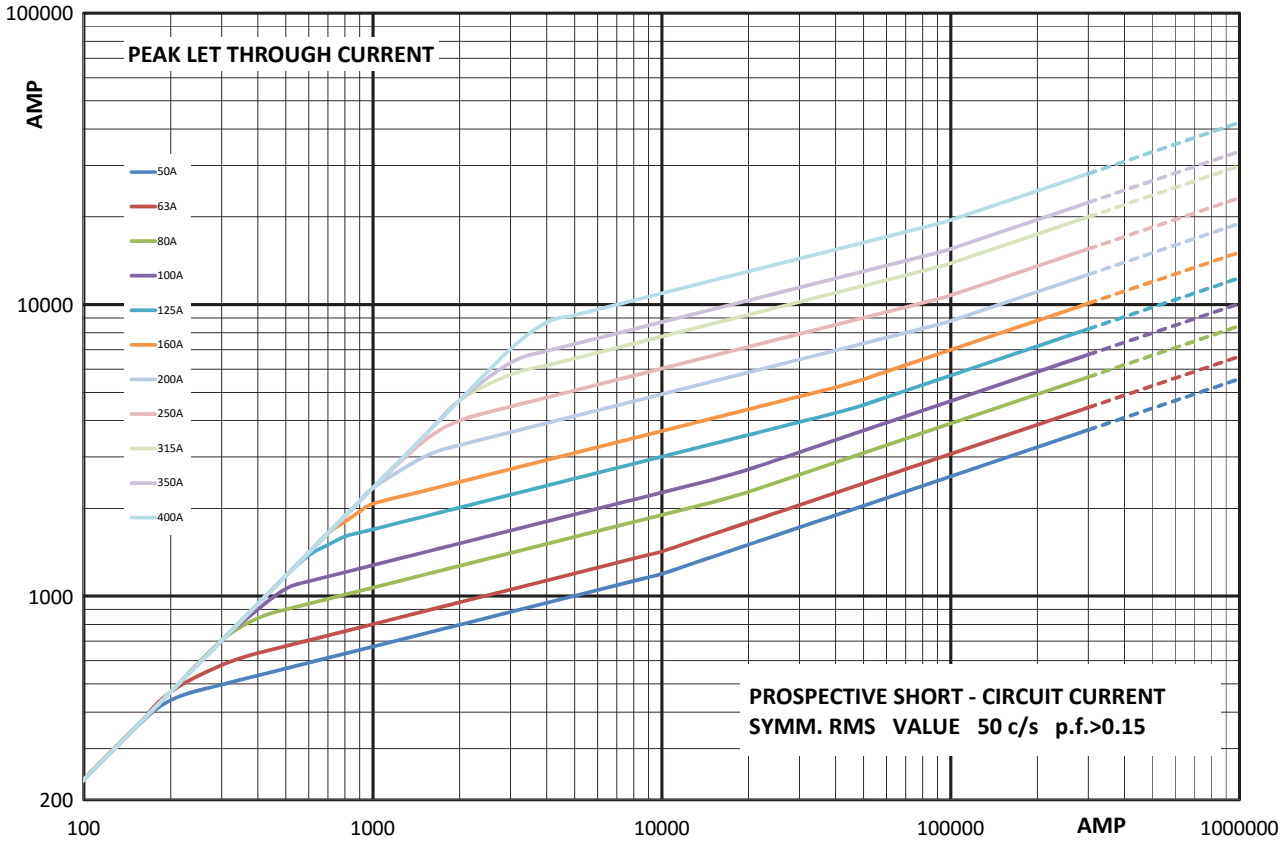



$K_b$ = 1 N = 1,6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

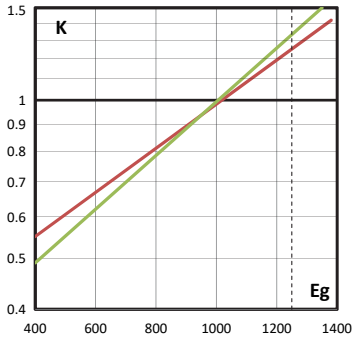
# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Cut-off curve - Size 1*, 50 A to 400 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).

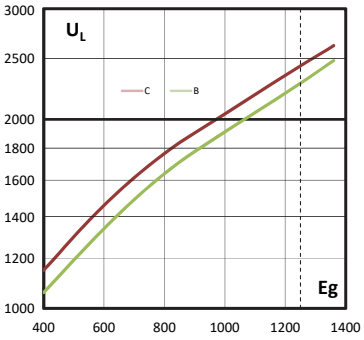



B: fuses ≤ 350 A

C: fuses ≥ 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.

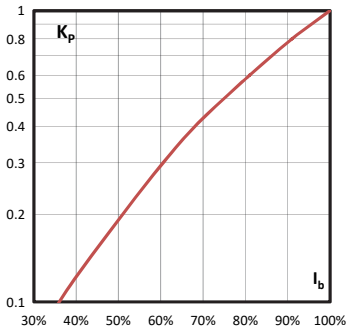



B: fuses ≤ 350 A

C: fuses ≥ 400 A

### Watts losses

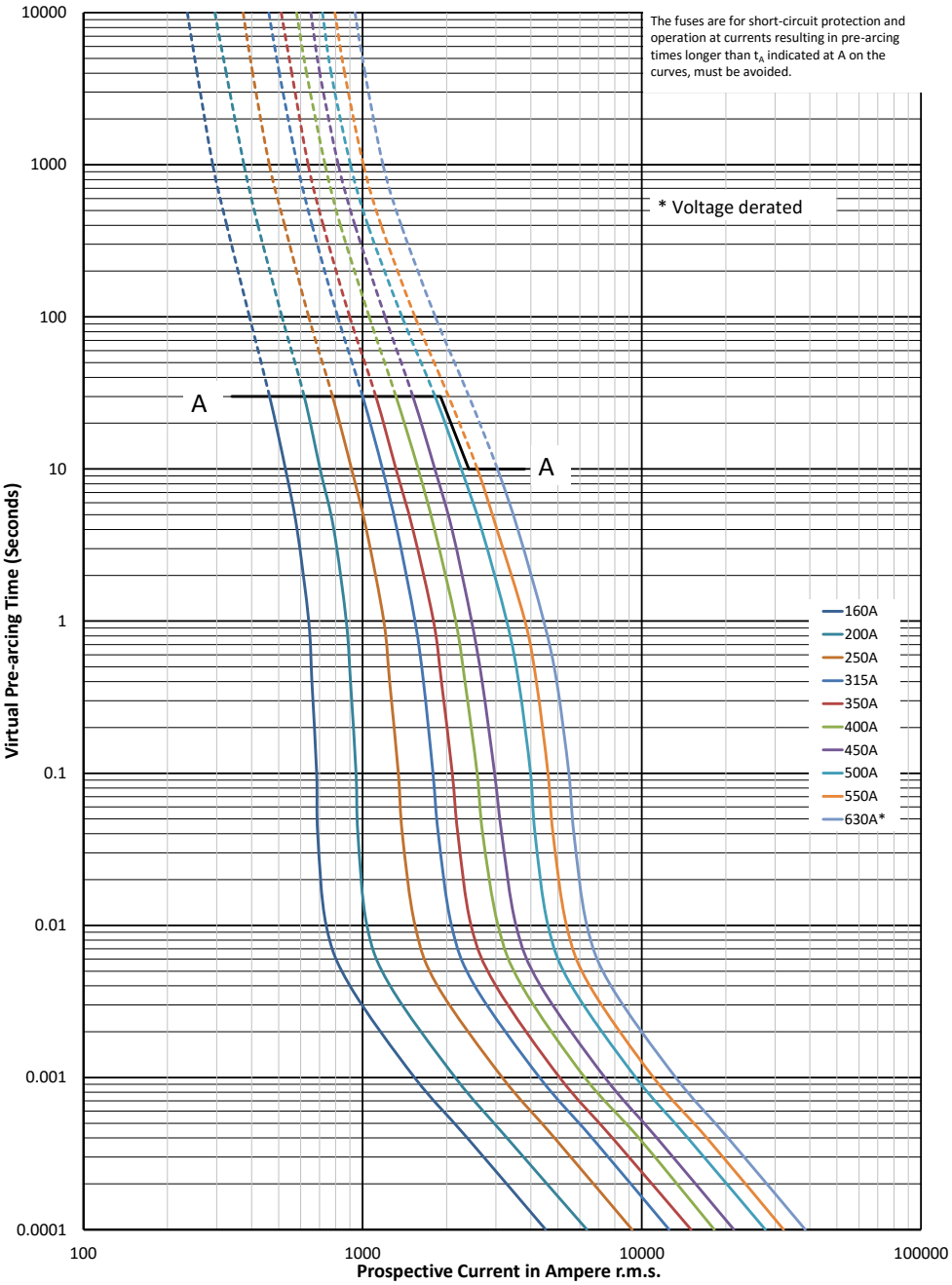
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Time-current curve - Size 1, 160 A to 630 A

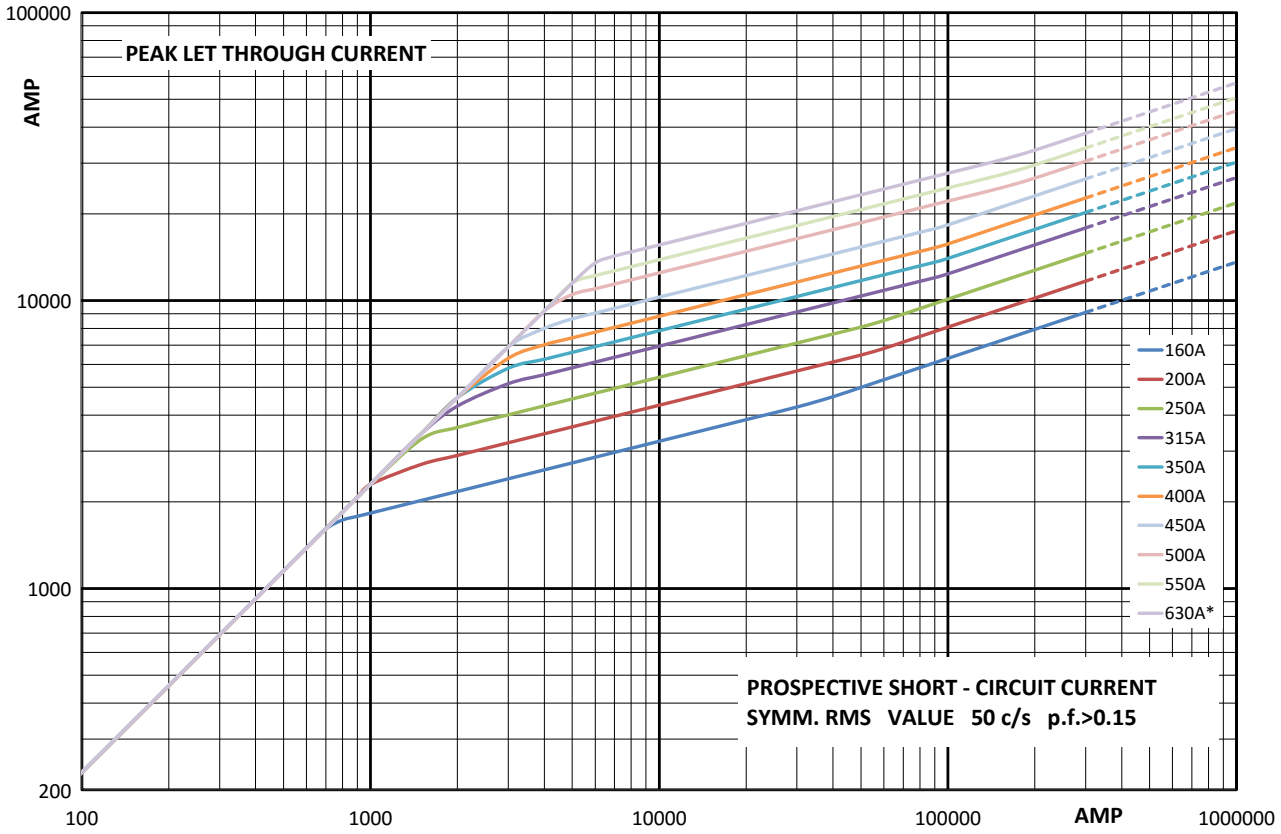



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

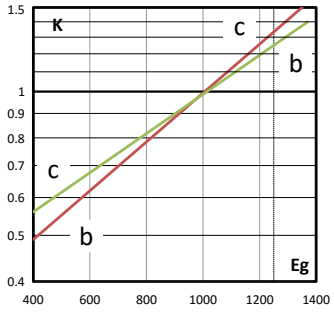
# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Cut-off curve - Size 1, 160 A to 630 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).

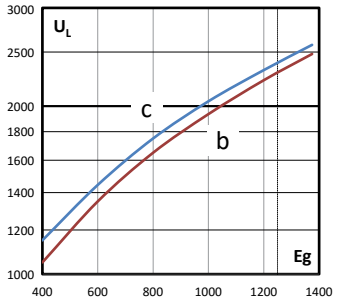



B: fuses ≤ 450 A

C: fuses ≥ 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.

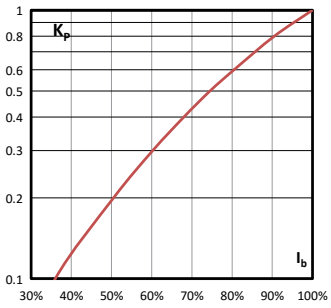



B: fuses ≤ 450 A

C: fuses ≥ 500 A

### Watts losses

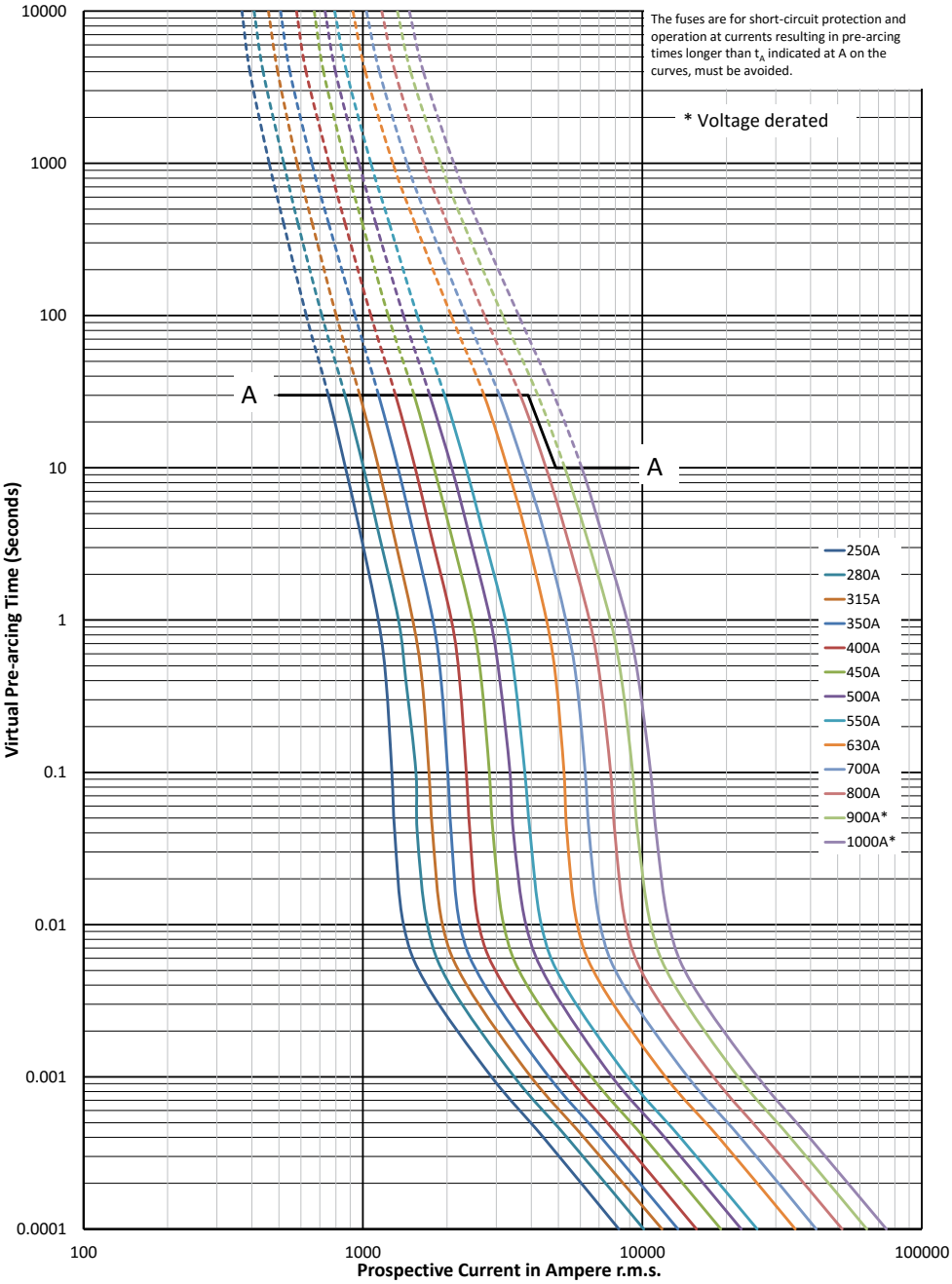
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Time-current curve - Size 2, 250 A to 1000 A

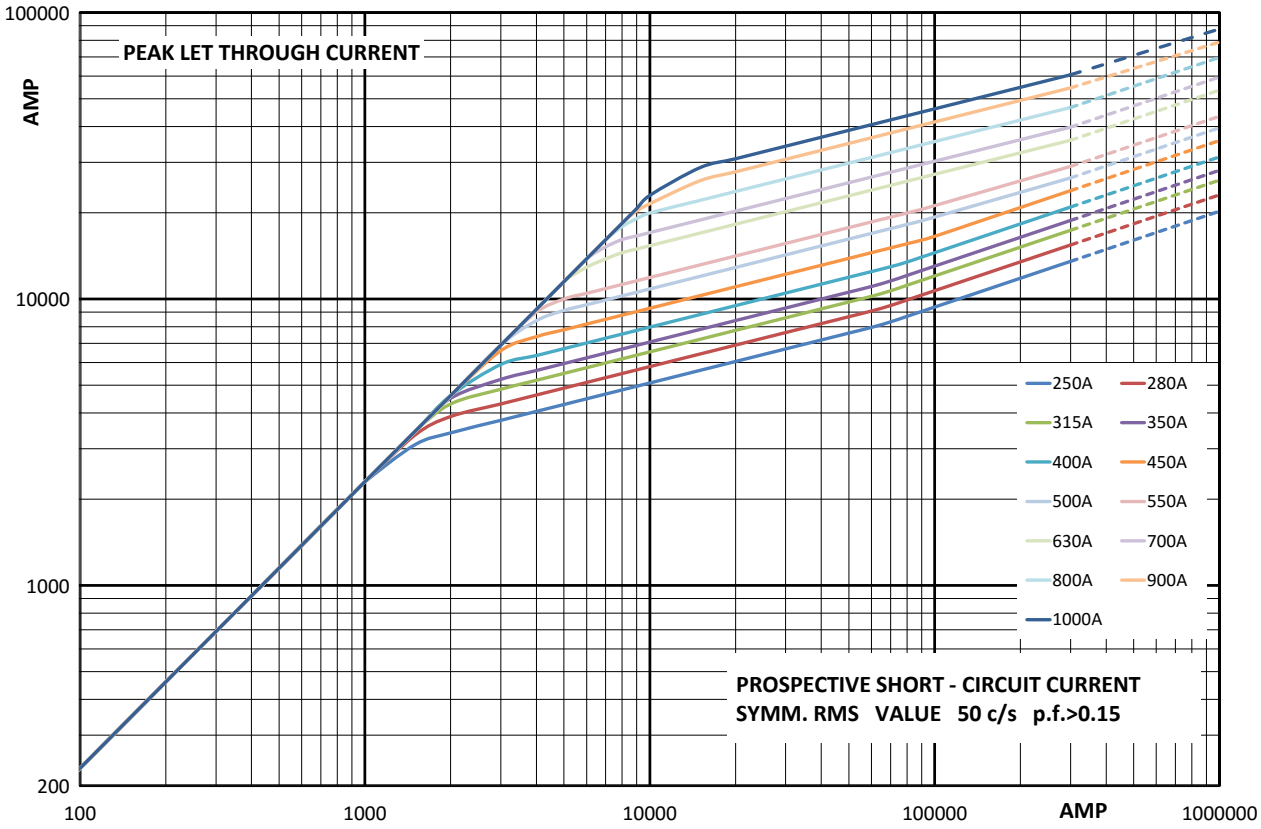



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

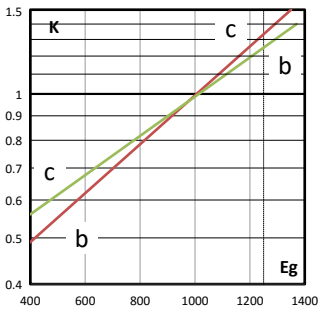
# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Cut-off curve - Size 2, 250 A to 1000 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).

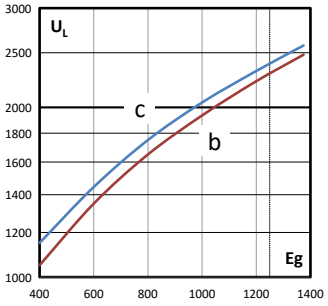



B: fuses ≤ 550 A

C: fuses ≥ 630 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.

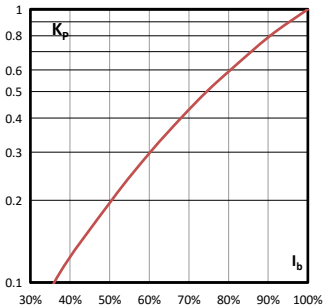



B: fuses ≤ 550 A

C: fuses ≥ 630 A

### Watts losses

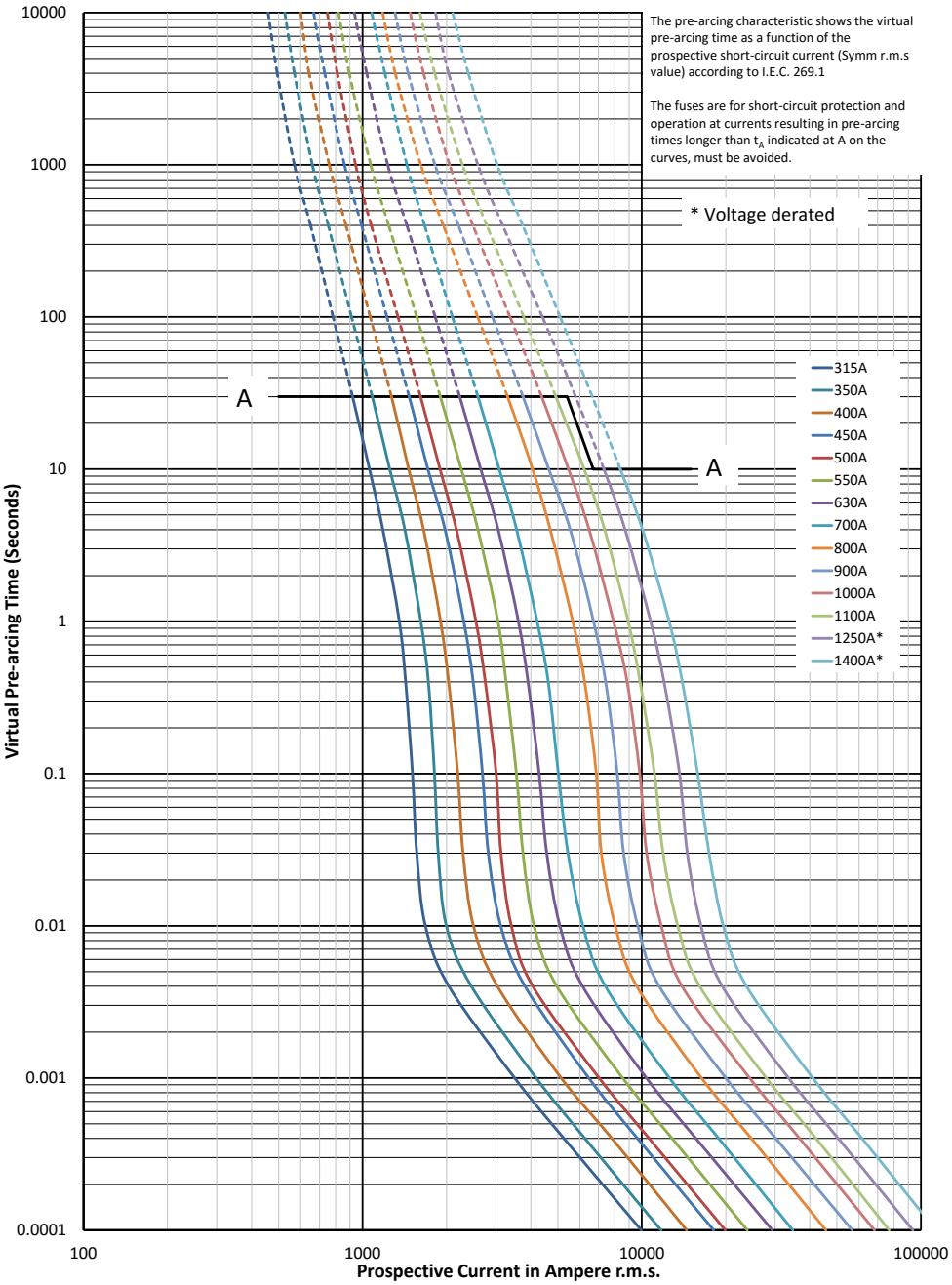
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Time-current curve - Size 3, 315 A to 1400 A

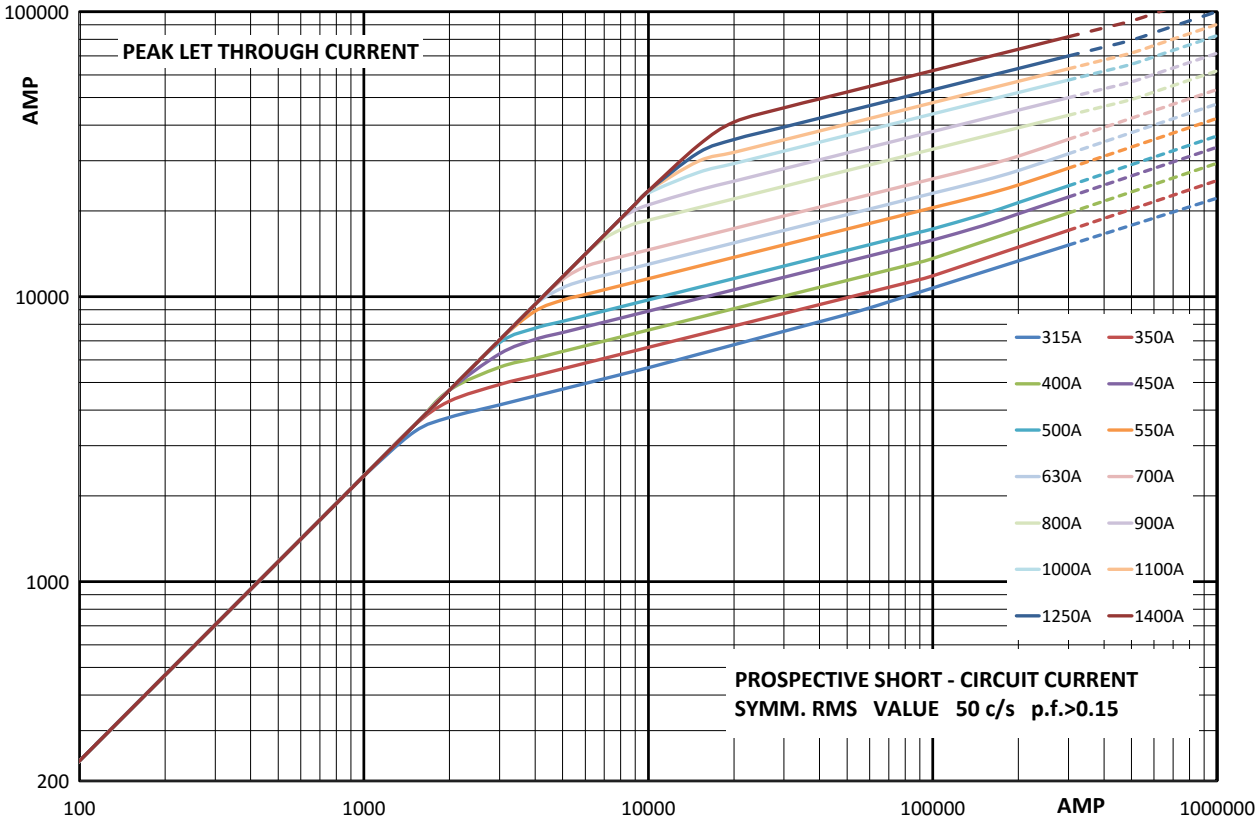



$K_b$ = 1 N = 1.6

Data sheets: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

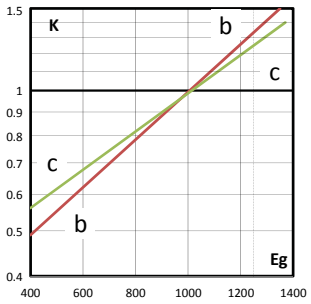
# 1250 V a.c. (IEC), 1300 V a.c. (UL), 50 A to 1400 A - Sizes 1* to 3 - Flush end contact - 170M

## Cut-off curve - Size 3, 315 A to 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).

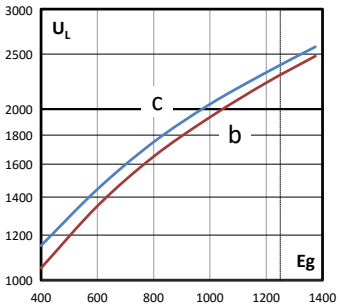



B: fuses ≤ 700 A

C: fuses ≥ 800 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.

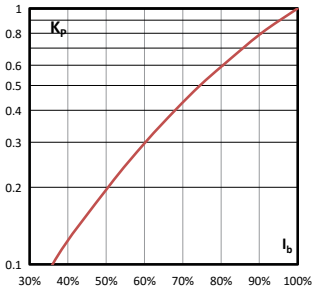



B: fuses ≤ 700 A

C: fuses ≥ 800 A

### 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: 170K6630 (Size 1*), 170K6632 (Size 1), 170K6634 (Size 2), 170K6636 (Size 3)

# 690 V a.c. (IEC), 700 V a.c. (UL) - 1000 A to 4000 A - Size 4 - Flush end contact - 170M

## Description

Square body, flush end contact, high speed fuse links, for the protection of power rectifiers.

## Technical data

- Rated voltage:
  - 690 V a.c. (IEC) / 700 V a.c. (UL) 1000 A to 3500 A
  - 600 V a.c. (IEC and UL, 4000 A)
- Rated current: 1000 A to 4000 A
- Breaking capacity: 200 kA RMS Sym
- Operating class: aR




## Standards / Agency information

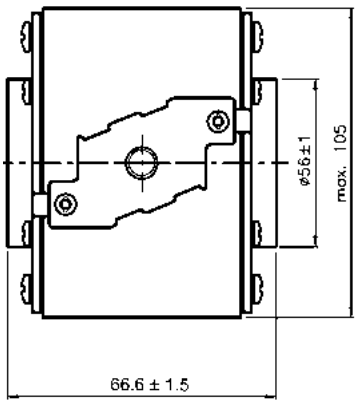
CE, Designed and tested to IEC 60269 Part 4, UL Recognised

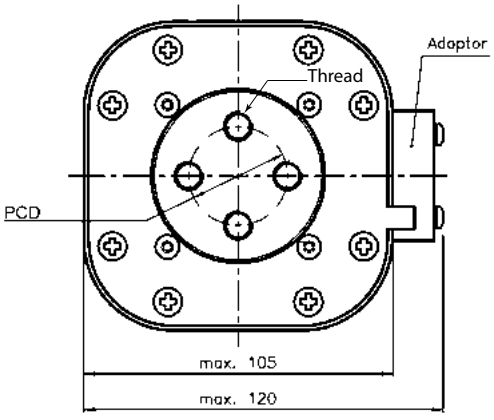
## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 660 V a.c. | Watts loss (W) | Catalogue numbers -B/65 visual indicator | -BKN/65 Type K indicator | -G/65 visual indicator | -GKN/65 Type K indicator |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 690 V a.c. (IEC) 700 V a.c. (UL) | 1000 | 76,000 | 505,000 | 175 | 170M7058 | 170M7078 | 170M7098 | 170M7118 |
| | | 1250 | 145,000 | 965,000 | 195 | 170M7059 | 170M7079 | 170M7099 | 170M7119 |
| | | 1400 | 205,000 | 1,400,000 | 205 | 170M7060 | 170M7080 | 170M7100 | 170M7120 |
| | | 1600 | 305,000 | 2,050,000 | 220 | 170M7061 | 170M7081 | 170M7101 | 170M7121 |
| | | 1800 | 436,600 | 3,067,000 | 260 | 170M7340 | - | - | - |
| | | 2000 | 600,000 | 3,950,000 | 245 | 170M7062 | 170M7082 | 170M7102 | 170M7122 |
| | | 2200 | 805,000 | 5,350,000 | 255 | 170M7116 | 170M7114 | 170M7171 | 170M7173 |
| | | 2500 | 1,200,000 | 7,800,000 | 275 | 170M7063 | 170M7083 | 170M7103 | 170M7123 |
| | | 3000 | 2,000,000 | 13,500,000 | 305 | 170M7064 | 170M7084 | 170M7104 | 170M7124 |
| | | 3500 | 3,250,000 | 22,000,000 | 325 | 170M7065 | 170M7085 | 170M7105 | 170M7125 |
| | 600 V a.c. (IEC & UL) | 4000 | 4,700,000 | 28,000,000[1] | 355 | 170M7066 | 170M7086 | 170M7106 | 170M7126 |

[1] Clearing at 600 V a.c.

## Dimensions (mm) -BKN/65 and -GKN/65



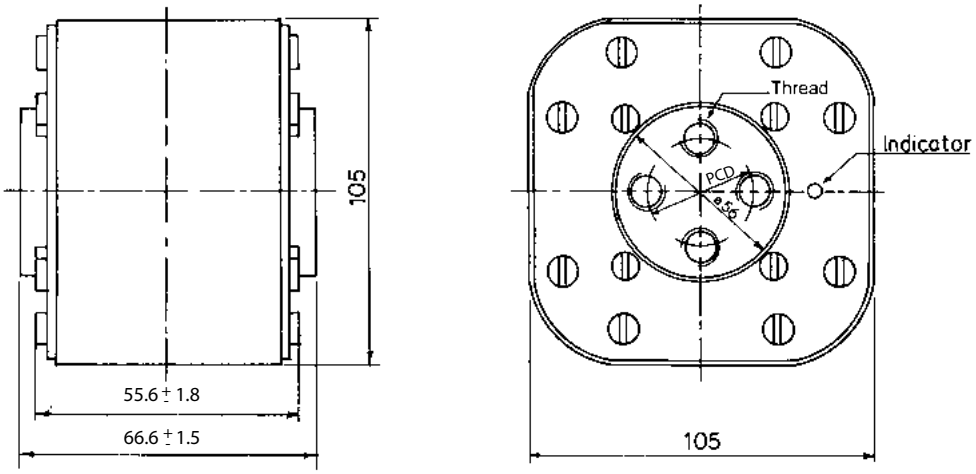




| Type | PCD | Thread |
|---|---|---|
| -GKN/65 | Ø 38.1 | UNC ½" - 13 |
| -BKN/65 | Ø 33 | M-10 |

Data sheet: 170K6328

# 690 V a.c. (IEC), 700 V a.c. (UL) - 1000 A to 4000 A - Size 4 - Flush end contact - 170M

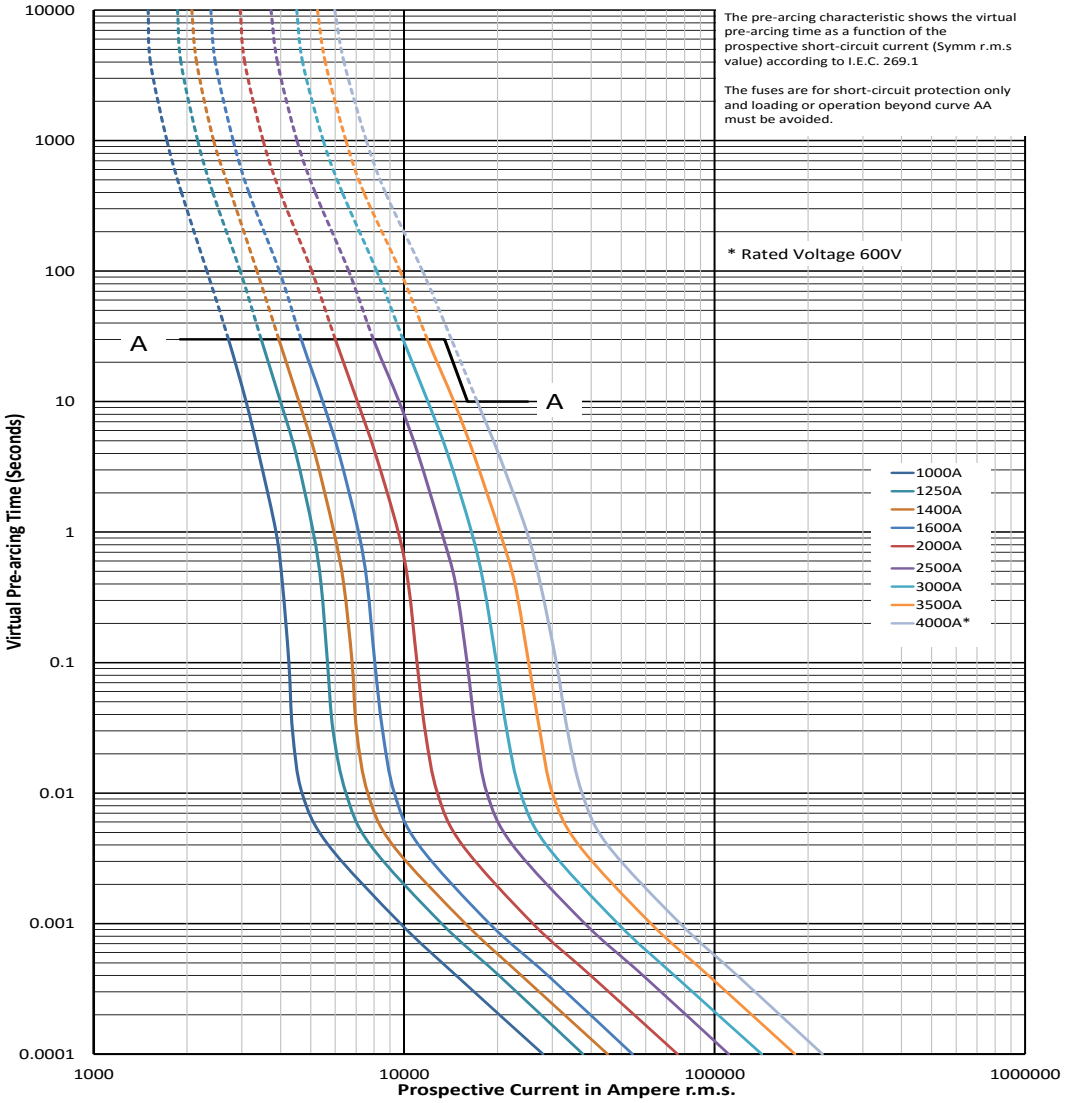
## Dimensions (mm) -B/65 and -G/65




**Type -B/65, -G/65**

| | PCD | Thread |
|---|---|---|
| -G/65 | Ø 38.1 | UNC ½" - 13 |
| -B/65 | Ø 33 | M-10 |

## Time-current curve - 1000 A to 4000 A

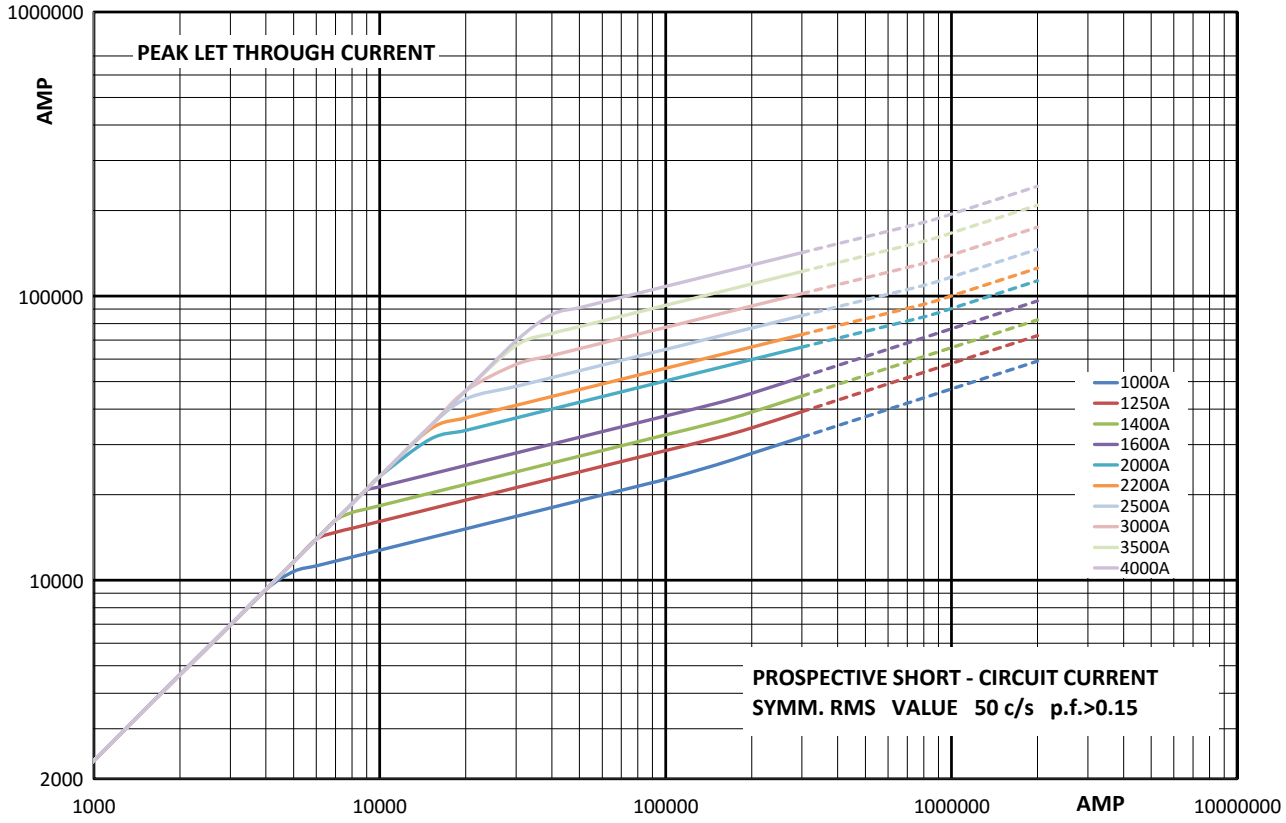



$K_b$ = 1 N = 1.5

Data sheet: 170K6328

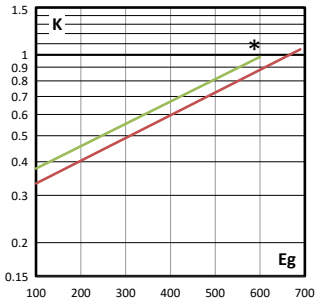
# 690 V a.c. (IEC), 700 V a.c. (UL) - 1000 A to 4000 A - Size 4 - Flush end contact - 170M

## Cut-off curve - 1000 A to 4000 A



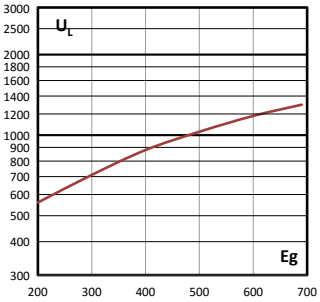

### Total clearing I²t

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).



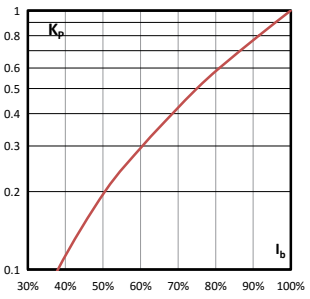

### Arc voltage

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 sheet: 170K6328

# 1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M

## Description

Square body, flush end contact, high speed fuse links, for the protection of power rectifiers.




## Technical data

- Rated voltage: 1000 V a.c. (IEC and IEC/UL)
- Rated current: 1000 A to 3000 A
- Breaking capacity:
  - IEC Certified catalogue numbers 200 kA RMS Sym
  - IEC and UL Certified catalogue numbers: 100 kA RMS Sym
- Operating class: aR

## Standards / Agency information

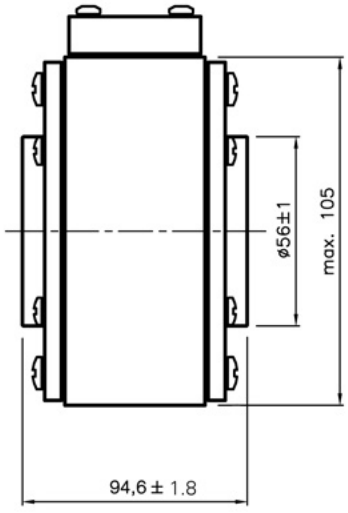
CE, Designed and tested to IEC 60269 Part 4

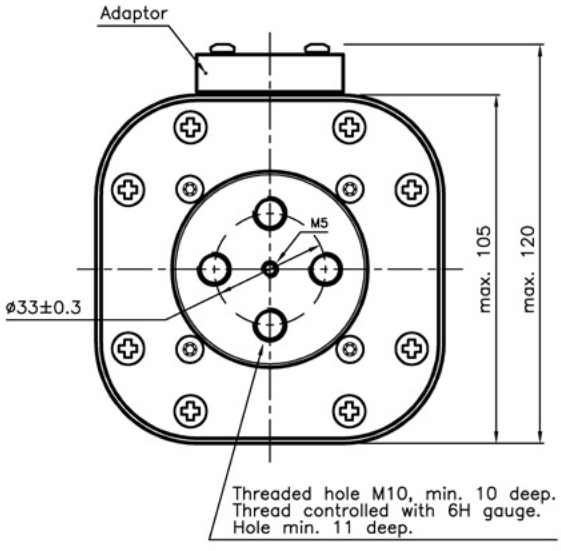
-UL catalogue numbers are IEC 60269 Part 4 and UL 248-13 certified

## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 1000 V a.c. | Watts loss (W) | Catalogue numbers -BKN/95 Type K indicator with IEC certification only | Catalogue numbers -BKN/95 Type K indicator with IEC and UL Certification | Catalogue numbers -SBKN/90 Type K indicator with IEC certification only | Catalogue numbers -SBKN/90 Type K indicator with IEC and UL Certication |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 1000 V a.c. | 1000 | 180,000 | 1,100,000 | 195 | | | 170M7542 | 170M7542-UL |
| | | 1100 | 250,000 | 1,500,000 | 200 | | | 170M7031 | 170M7031-UL |
| | | 1500 | 600,000 | 3,600,000 | 250 | 170M7636 | 170M7636-UL | 170M7548 | 170M7548-UL |
| | | 1700 | 850,000 | 5,000,000 | 260 | 170M7639 | 170M7639-UL | 170M7034 | 170M7034-UL |
| | | 1800 | 1,000,000 | 5,950,000 | 265 | 170M7661 | 170M7661-UL | 170M7053 | 170M7053-UL |
| | | 2000 | 1,450,000 | 8,600,000 | 270 | 170M7963 | 170M7963-UL | 170M7544 | 170M7544-UL |
| | | 2200 | 2,000,000 | 12,000,000 | 280 | 170M7090 | 170M7090-UL | 170M7035 | 170M7035-UL |
| | | 2500 | 3,000,000 | 18,000,000 | 295 | 170M7640 | 170M7640-UL | 170M7036 | 170M7036-UL |
| | | 2700 | 3,700,000 | 22,000,000 | 310 | 170M7658 | 170M7658-UL | 170M7037 | 170M7037-UL |
| | | 3000 | 4,700,000 | 28,000,000 | 380 | 170M7962 | 170M7962-UL | 170M7156 | 170M7156-UL |

## Dimensions (mm) - 4BKN/95

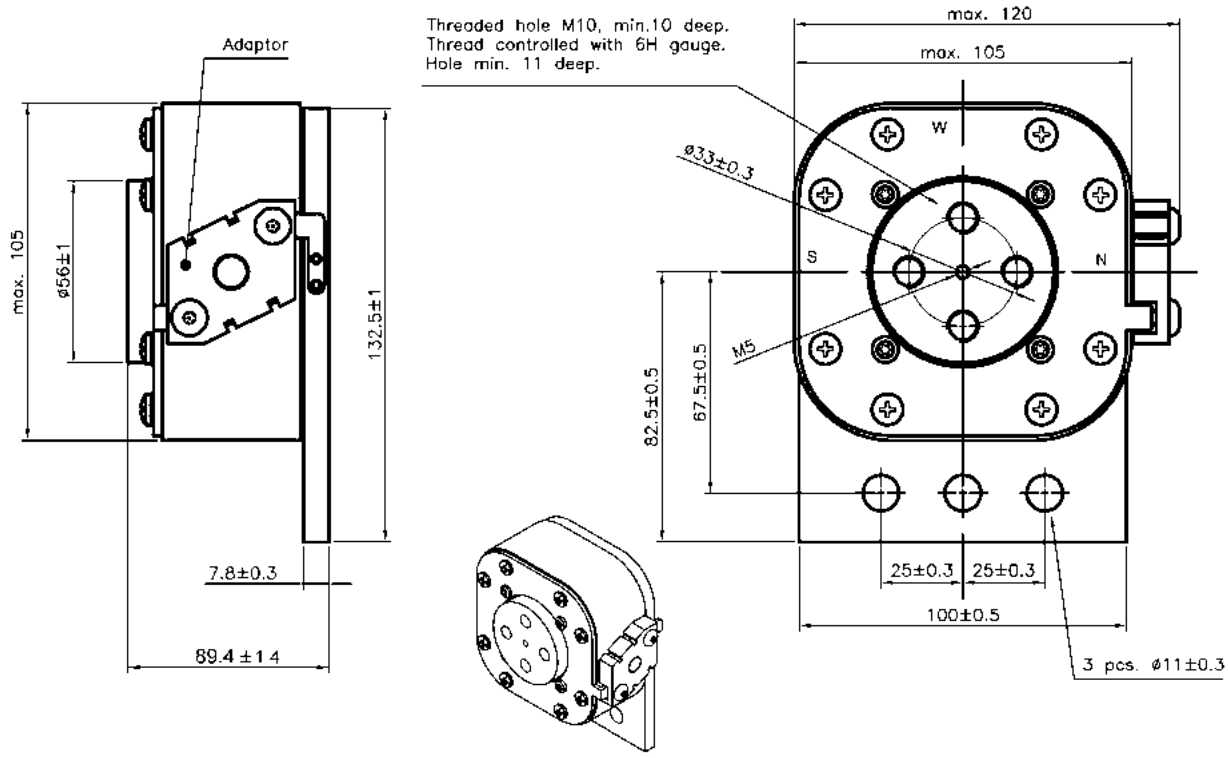



Data sheets: TD135021EN 170K8520 (1000 A to 1700 A, 2000 A to 2700 A, 170K8520-R (1800 and 3000 A), 170K7452 1000-3000A (IEC/UL)

## 1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M

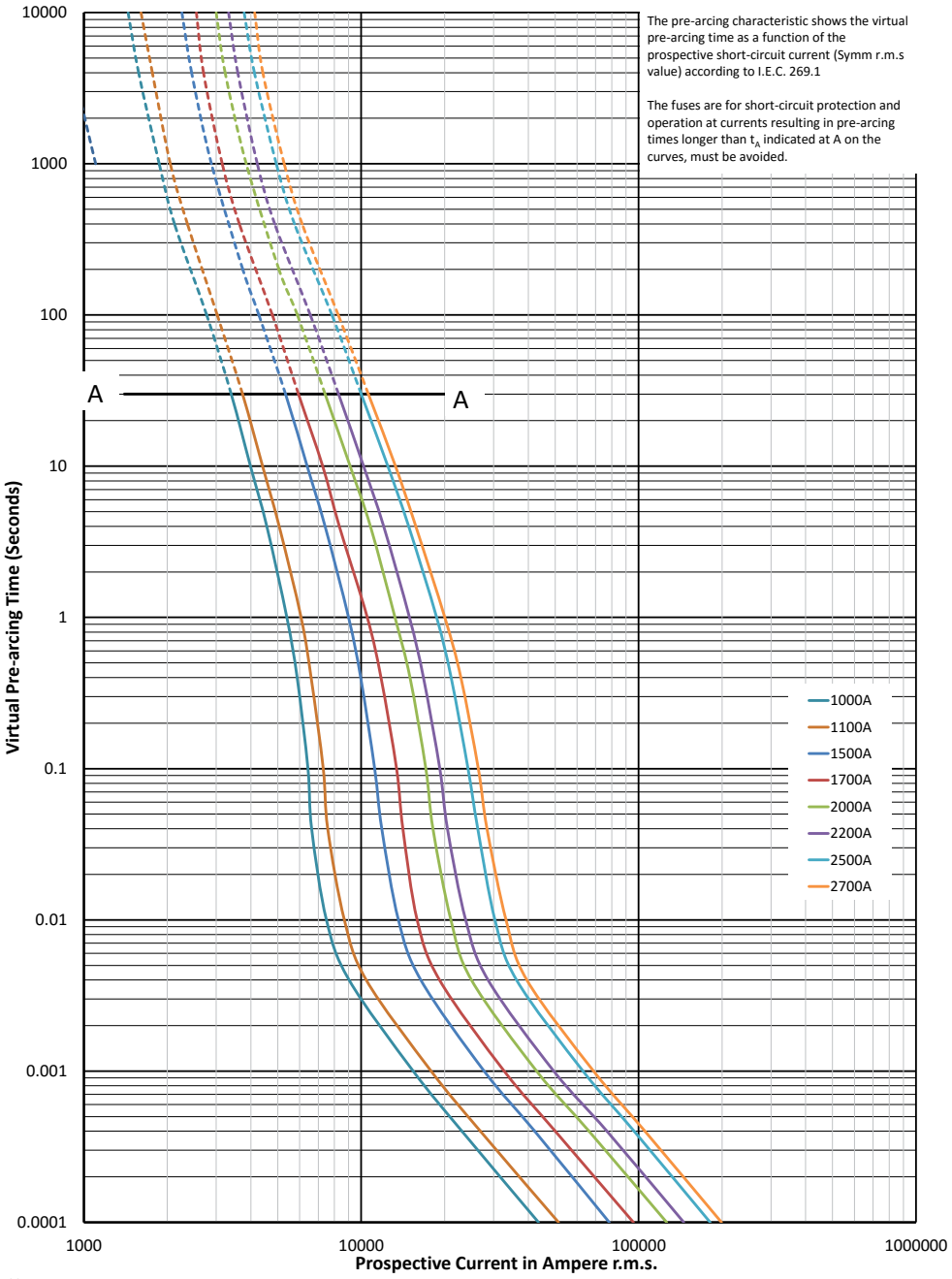
### Dimensions (mm) - 4SBKN/90




Data sheets: TD135021EN 170K8520 (1000 A to 1700 A, 2000 A to 2700 A, 170K8520-R (1800 and 3000 A), 170K7452 1000-3000A (IEC/UL)

# 1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M

## Time-current curve - IEC Certified fuses - 1000 A to 2700 A

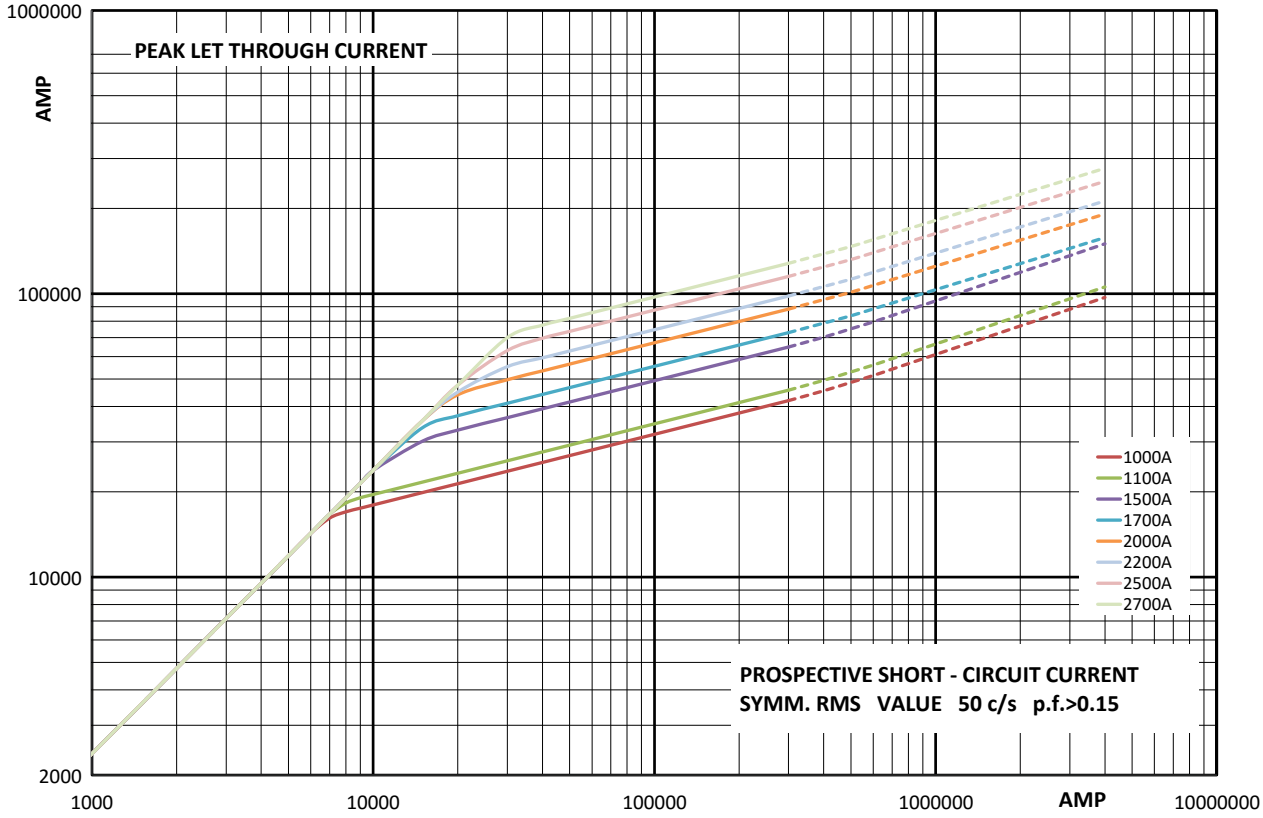



$K_b$ = 1 N = 1.6

Data sheets: TD135021EN 170K8520 (1000 A to 1700 A, 2000 A to 2700 A, 170K8520-R (1800 and 3000 A), 170K7452 1000-3000A (IEC/UL)

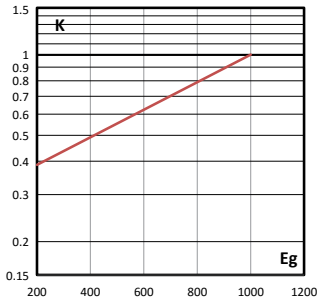
# 1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M

## Cut-off curve - IEC Certified fuses - 1000 A to 2700 A



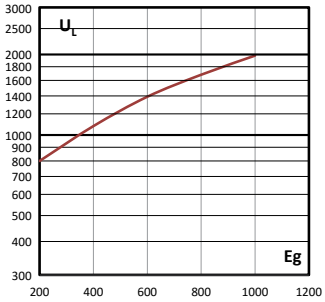

### Total clearing $I^2t$

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).



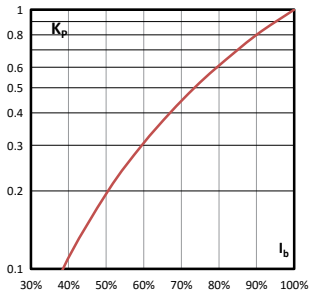

### Arc voltage

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

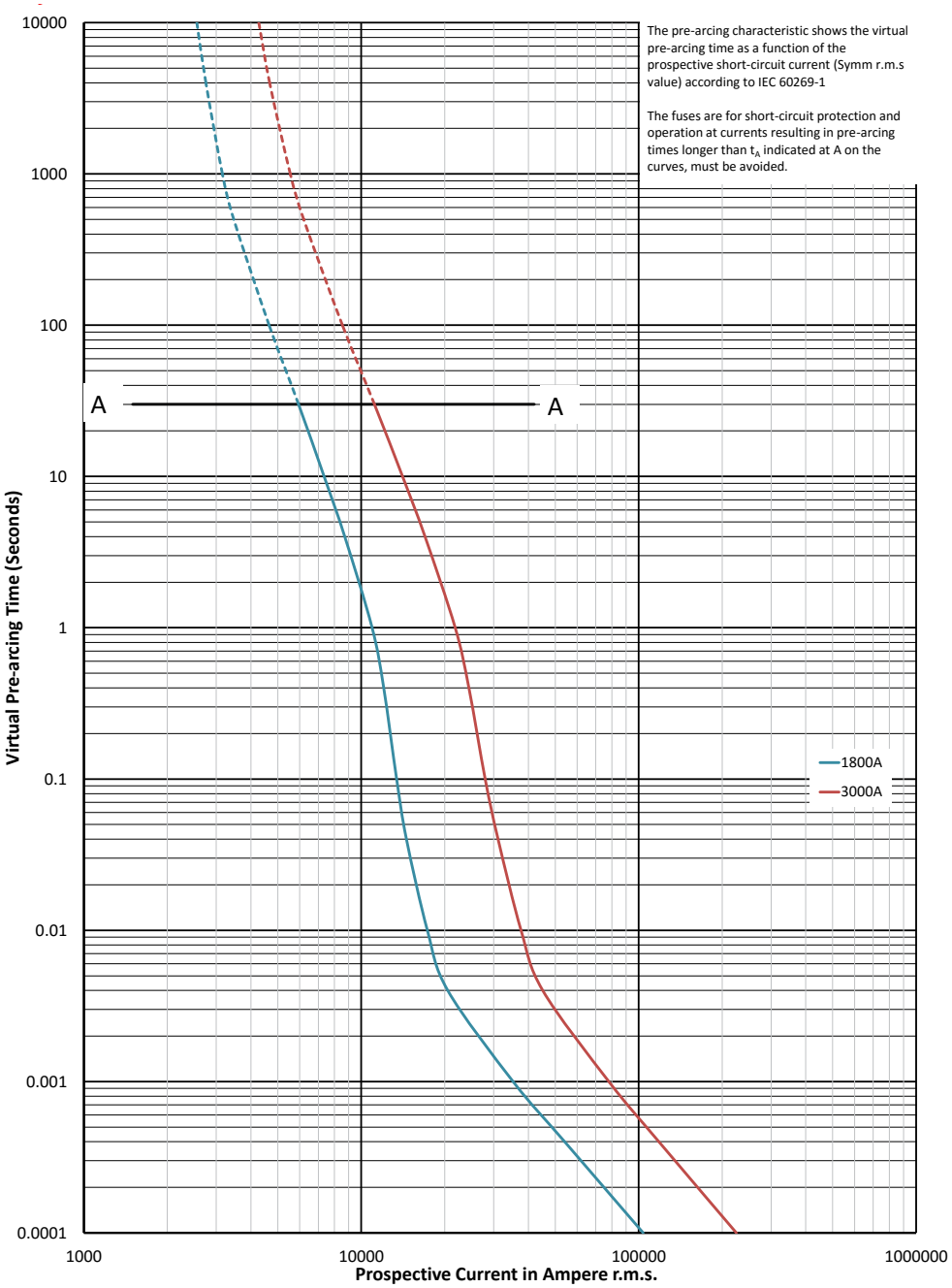
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: TD135021EN 170K8520 (1000 A to 1700 A, 2000 A to 2700 A, 170K8520-R (1800 and 3000 A), 170K7452 1000-3000A (IEC/UL)

# 1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M

## Time-current curve - IEC Certified fuses - 1800 A and 3000 A

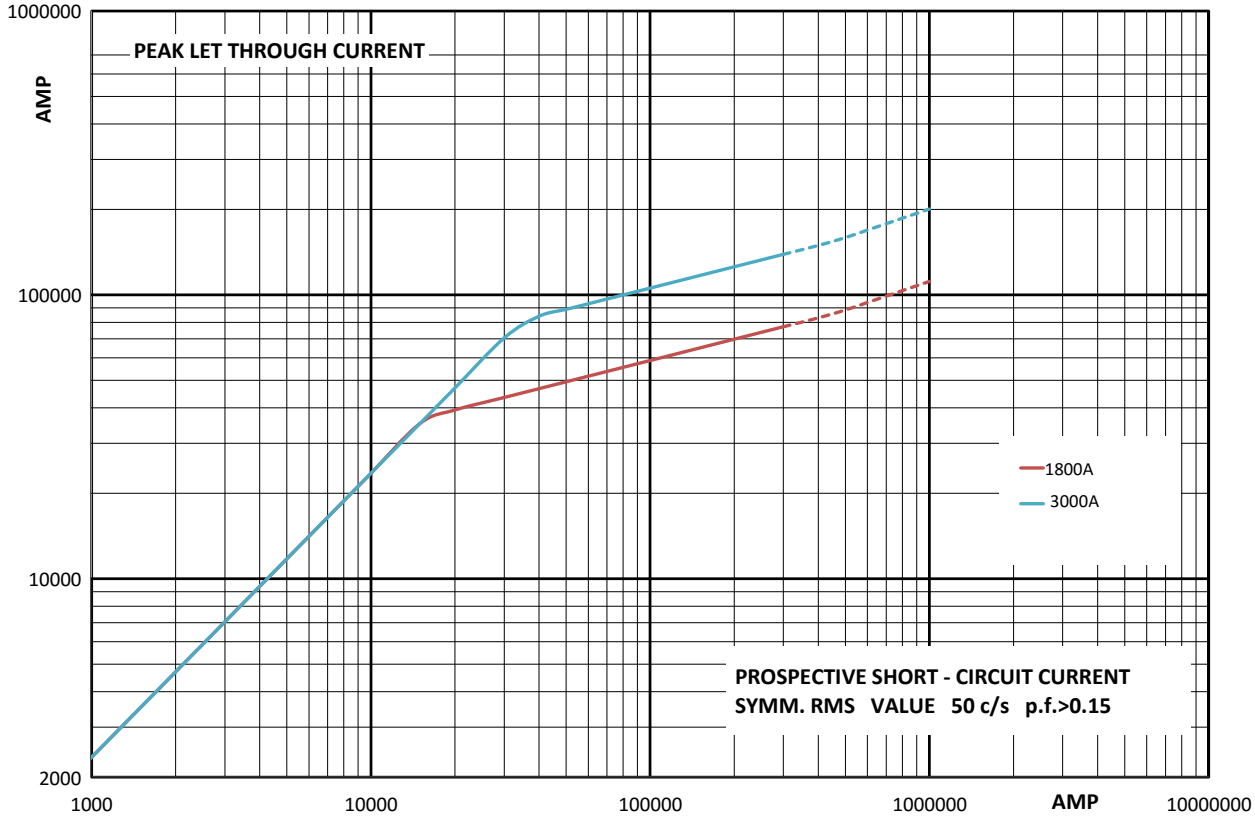



$K_b$ = 1 N = 1.6

Data sheets: TD135021EN 170K8520 (1000 A to 1700 A, 2000 A to 2700 A, 170K8520-R (1800 and 3000 A), 170K7452 1000-3000A (IEC/UL)

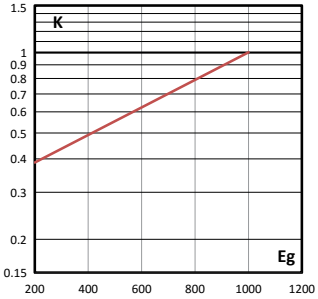
# 1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M

## Cut-off curve - IEC Certified fuses - 1800 A and 3000 A



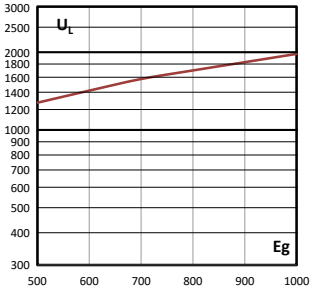

### Total clearing $I^2t$

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).



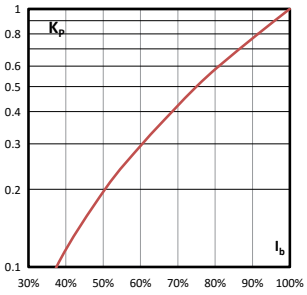

### Arc voltage

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

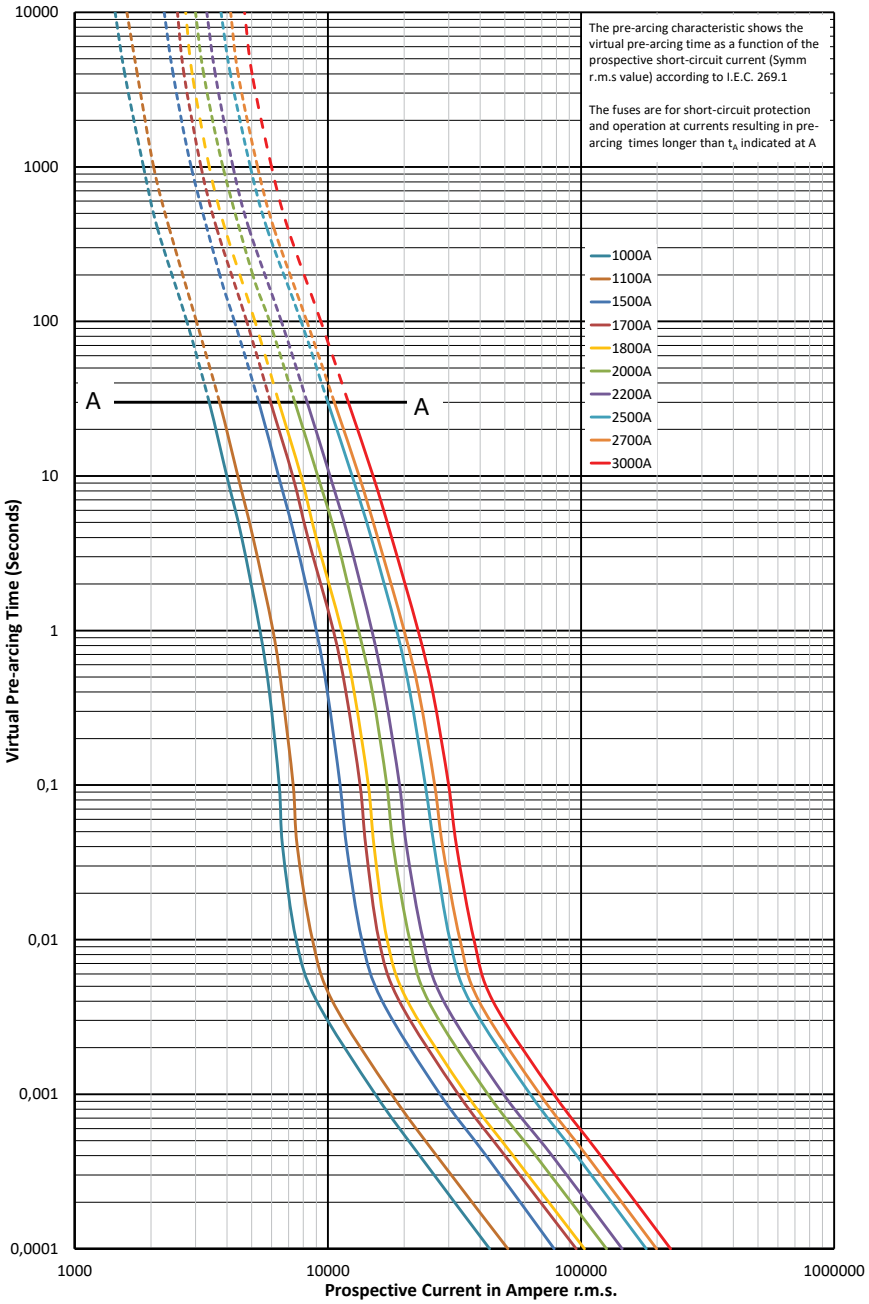
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: TD135021EN 170K8520 (1000 A to 1700 A, 2000 A to 2700 A, 170K8520-R (1800 and 3000 A), 170K7452 1000-3000A (IEC/UL)

# 1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M

## Time-current curve - IEC and UL Certified fuses - 1000 A to 3000 A

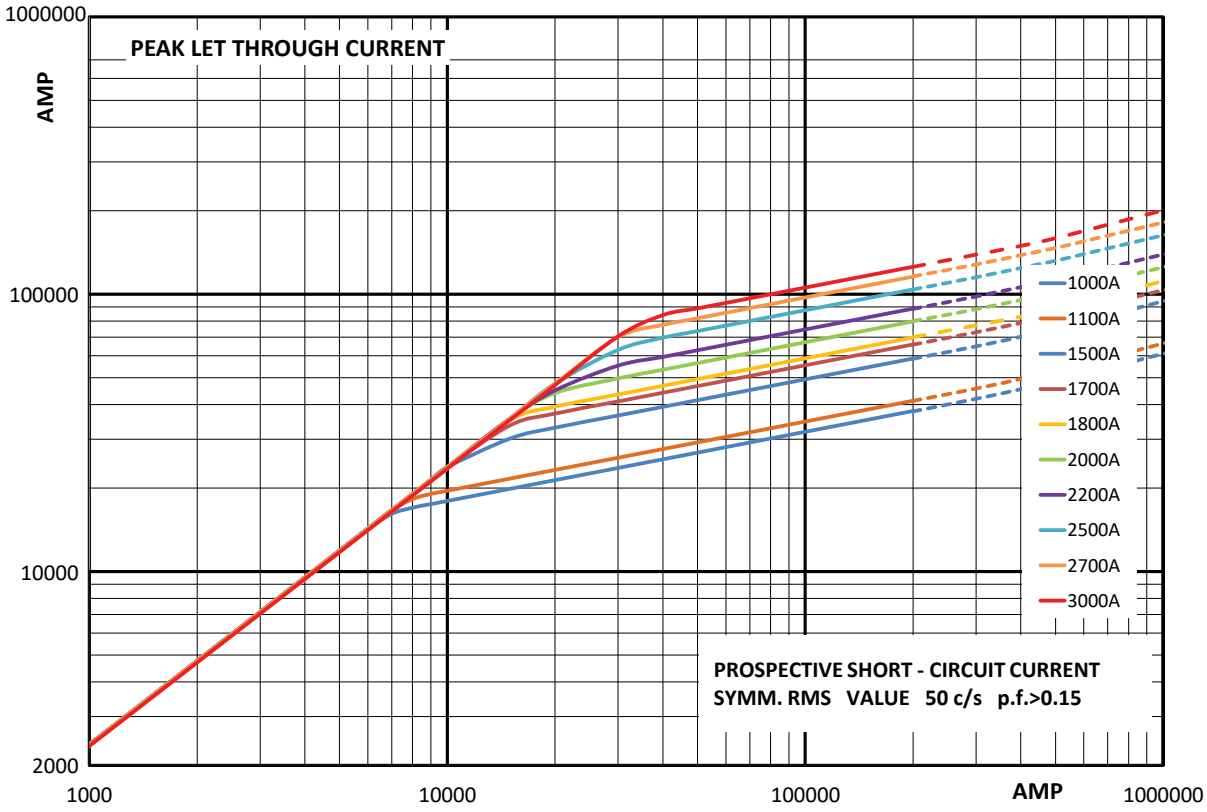



**$K_b$ = 1 N = 1,6**

Data sheets: TD135021EN 170K8520 (1000 A to 1700 A, 2000 A to 2700 A, 170K8520-R (1800 and 3000 A), 170K7452 1000-3000A (IEC/UL)

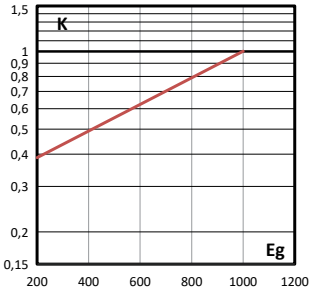
# 1000 V a.c. (IEC and IEC/UL) - 1000 A to 3000 A - - Size 4 - Flush end contact - 170M

## Cut-off curve - IEC and UL Certified fuses - 1000 A to 3000 A



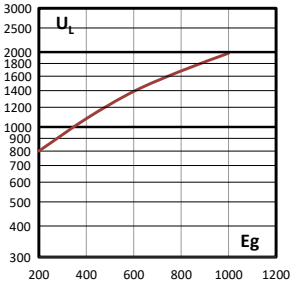

### Total clearing I²t

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).



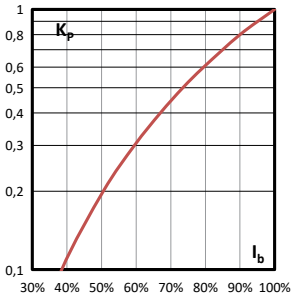

### Arc voltage

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: TD135021EN 170K8520 (1000 A to 1700 A, 2000 A to 2700 A, 170K8520-R (1800 and 3000 A), 170K7452 1000-3000A (IEC/UL)

# 1250 V a.c. (IEC) - 800 A to 2500 A - Size 4 - Flush end contact - 170M

## Description

Square body, flush end contact, high speed fuse links, for the protection of power rectifiers.




## Technical data

- Rated voltage:
  - 1250 V a.c. (IEC)
  - 1200 V d.c. (UL)
- Rated current: 800 A to 2500 A
- Operating class: aR

## Standards / Agency information

CE, Designed and tested to IEC 60269 Part 4, UL

## Catalogue numbers

| Fuse link body size | AC | | DC | | Rated current (Amps) | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | Catalogue numbers | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rated voltage | Breaking capacity | Rated voltage | Breaking capacity | | Pre-arcing | Clearing at 1250 V a.c. | | -BKN/110 Type K indicator | -SBKN/105 Type K indicator |
| 4 | 1250 V a.c. | 100 kA | 1000 V d.c.<br>1200 V d.c. | 180 kA IR UL<br>85 kA IR UL | 800 | 145,000 | 905,000 | 195 | 170M7802 | - |
| | | | | | 1000 | 275,000 | 1,750,000 | 220 | 170M7803 | - |
| | | | | | 1200 | 495,000 | 3,100,000 | 240 | 170M7804 | - |
| | | | | | 1400 | 800,000 | 5,000,000 | 250 | 170M7217[1] | 170M7512 |
| | | | | | 1500 | 1,000,000 | 6,200,000 | 260 | 170M7597 | 170M7510 |
| | | | | | 1700 | 1,400,000 | 8,700,000 | 275 | 170M7676 | 170M7511 |
| | | | | | 1800 | 1,700,000 | 11,000,000 | 280 | 170M7532 | 170M7976 |
| | | | | | 2000 | 2,300,000 | 14,500,000 | 305 | 170M7633 | 170M7513 |
| | | | | | 2200 | 3,100,000 | 19,500,000 | 315 | 170M7592 | 170M7546 |
| | | | | | 2400 | 4,000,000 | 25,000,000 | 330 | 170M7107 | 170M7516 |
| | | | | | 2500 | 4,500,000 | 28,000,000 | 340 | 170M7595[2] | 170M7978 |

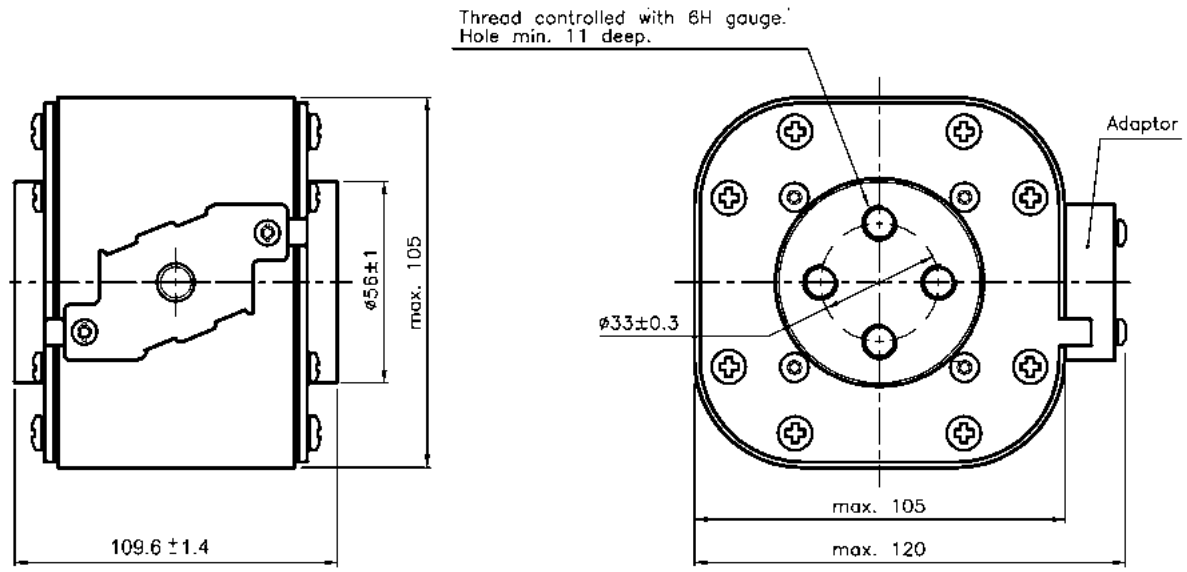
[1] 170M7217 rated 850 V d.c./1250 V a.c. (IEC), 1000 V d.c. 180 kA IR (UL), 1200 V d.c. 85 kA IR (UL)

[2] 170M7595 rated at 1200V d.c. 85kA only at 2ms time constant

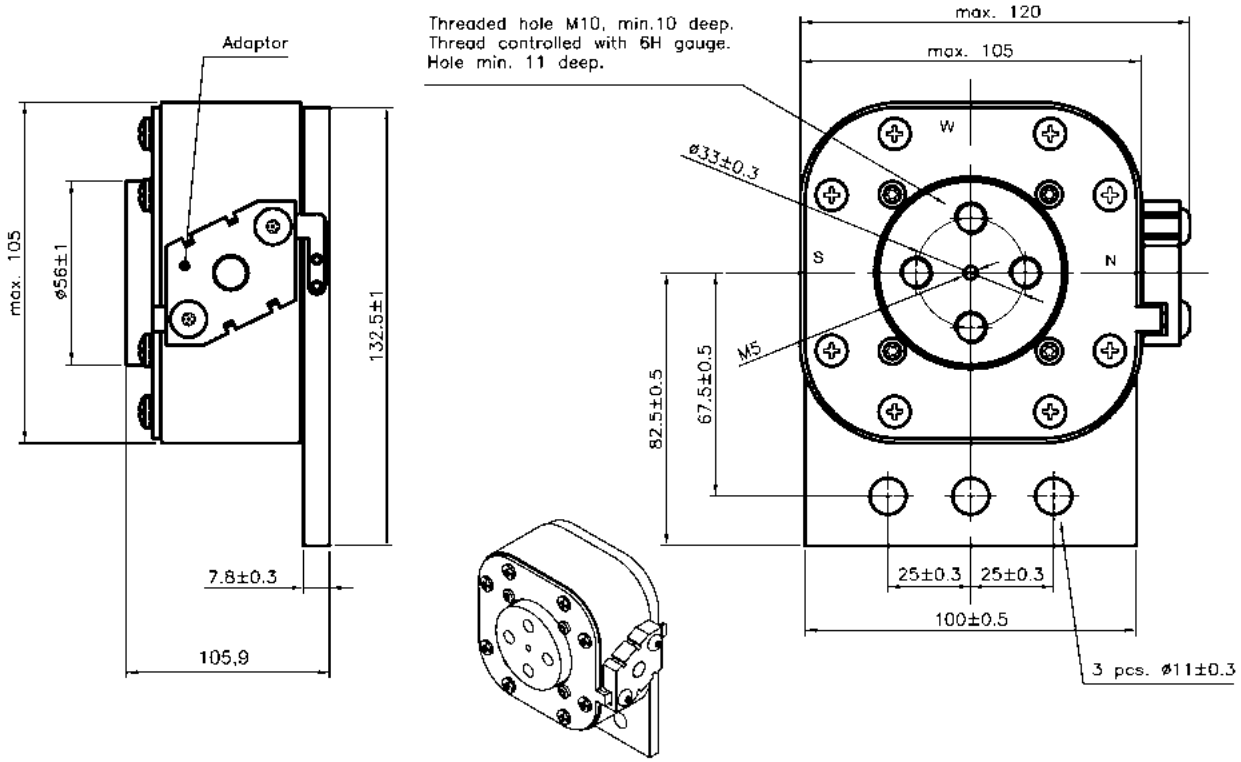
Data sheets: 170K6640 (1400 A to 2400 A), 170K6642 (800 A to 1200A and 2500 A)

## 1250 V a.c. (IEC) - 800 A to 2500 A - Size 4 - Flush end contact - 170M

### Dimensions (mm) - 4BKN/110



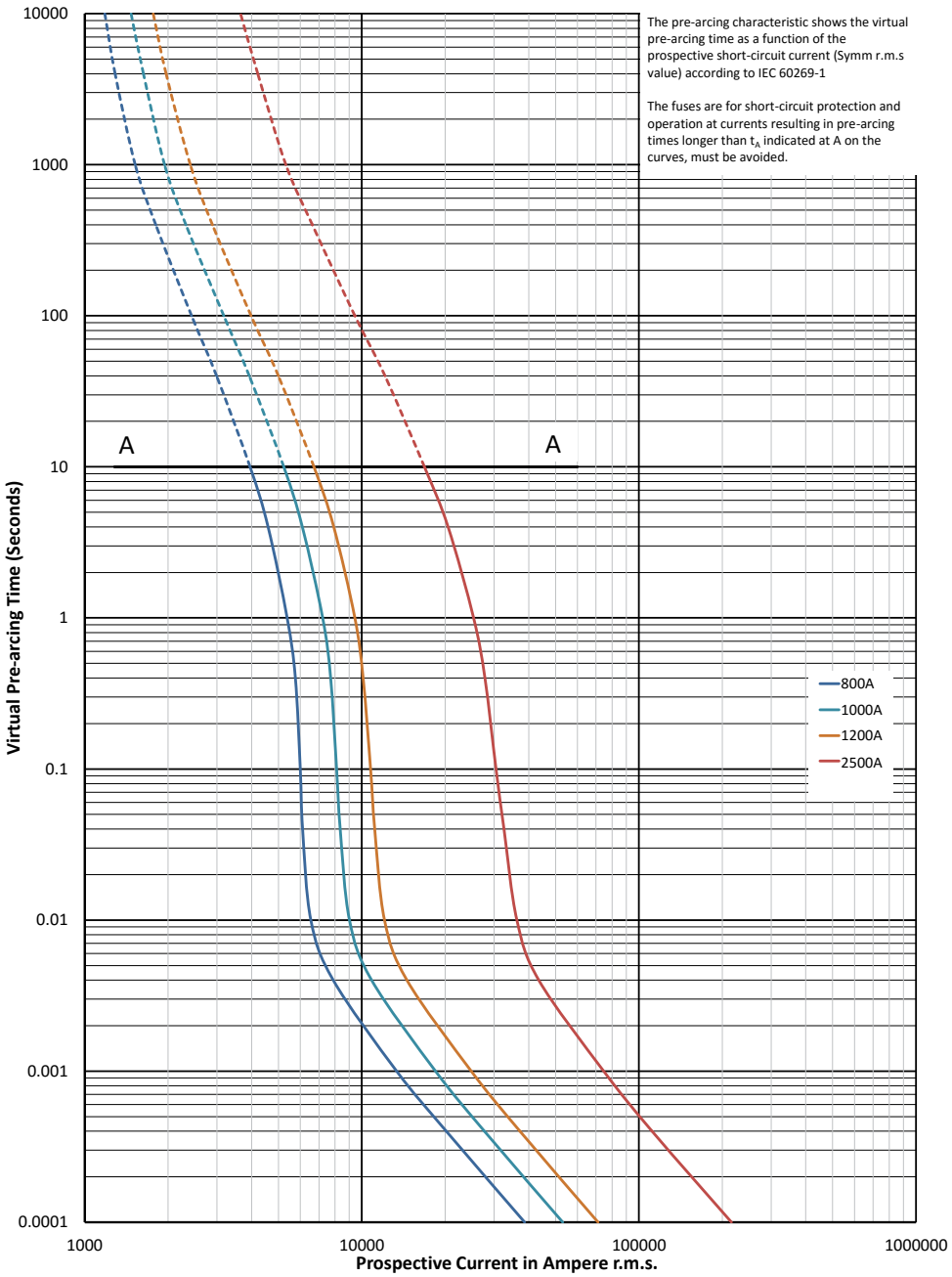

### Dimensions (mm) - 4SBKN/105




Data sheets: 170K6640 (1400 A to 2400 A), 170K6642 (800 A to 1200A and 2500 A)

# 1250 V a.c. (IEC) - 800 A to 2500 A - Size 4 - Flush end contact - 170M

## Time-current curve - 800 A to 2500 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

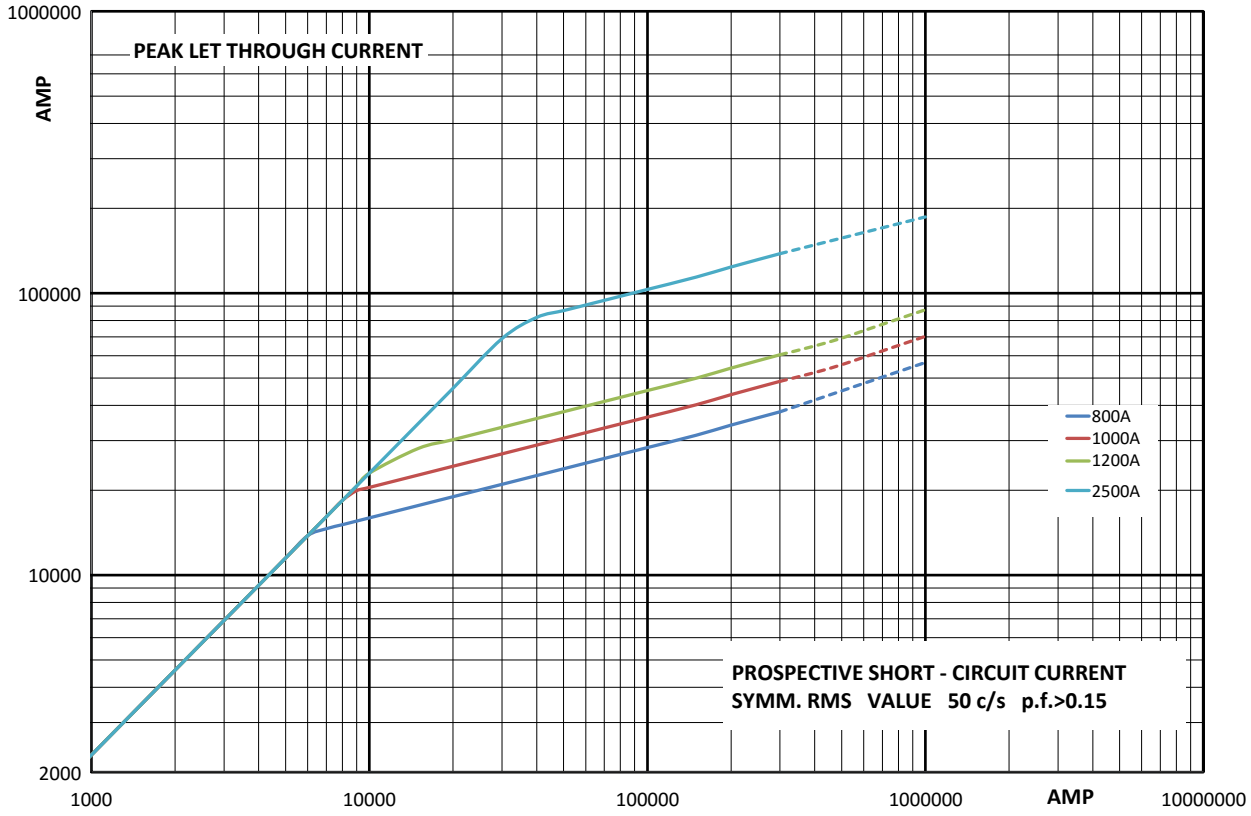
The fuses are for short-circuit protection and operation at currents resulting in pre-arcing times longer than $t_A$ indicated at A on the curves, must be avoided.

**$K_b$ = 1 N = 1.7**

Data sheets: 170K6640 (1400 A to 2400 A), 170K6642 (800 A to 1200A and 2500 A)

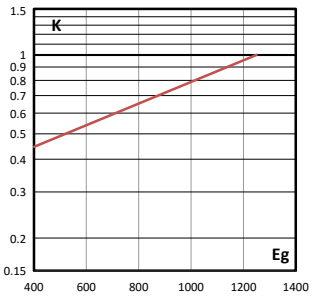
# 1250 V a.c. (IEC) - 800 A to 2500 A - Size 4 - Flush end contact - 170M

## Cut-off curve - 800 A to 2500 A



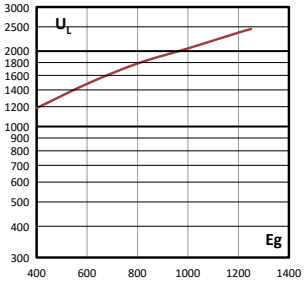

### Total clearing $I^2t$

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).



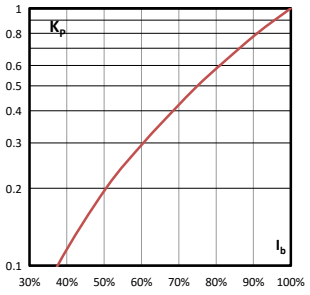

### Arc voltage

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

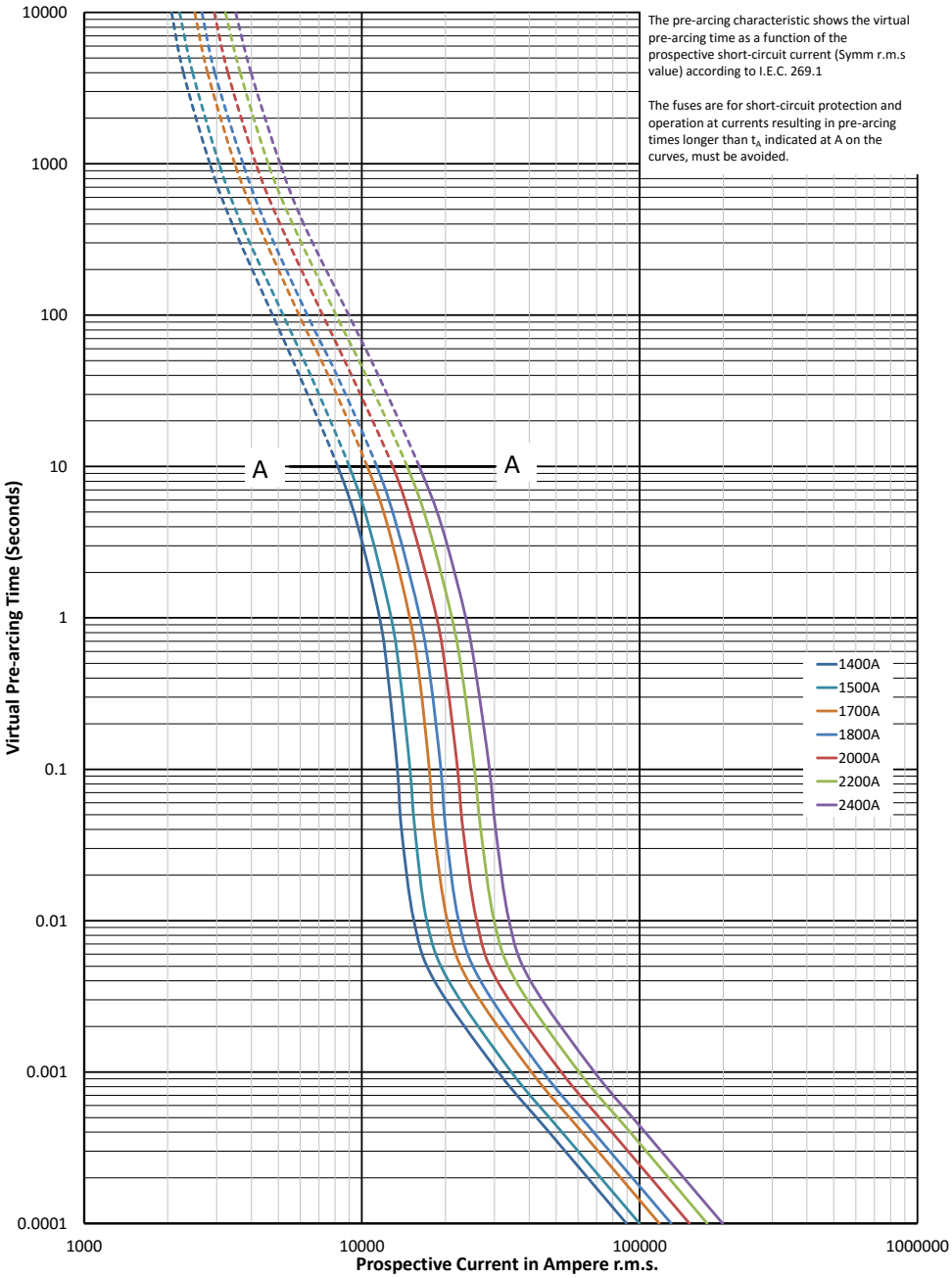
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6640 (1400 A to 2400 A), 170K6642 (800 A to 1200A and 2500 A)

# 1250 V a.c. (IEC) - 800 A to 2500 A - Size 4 - Flush end contact - 170M

## Time-current curve - 1400 A to 2400 A

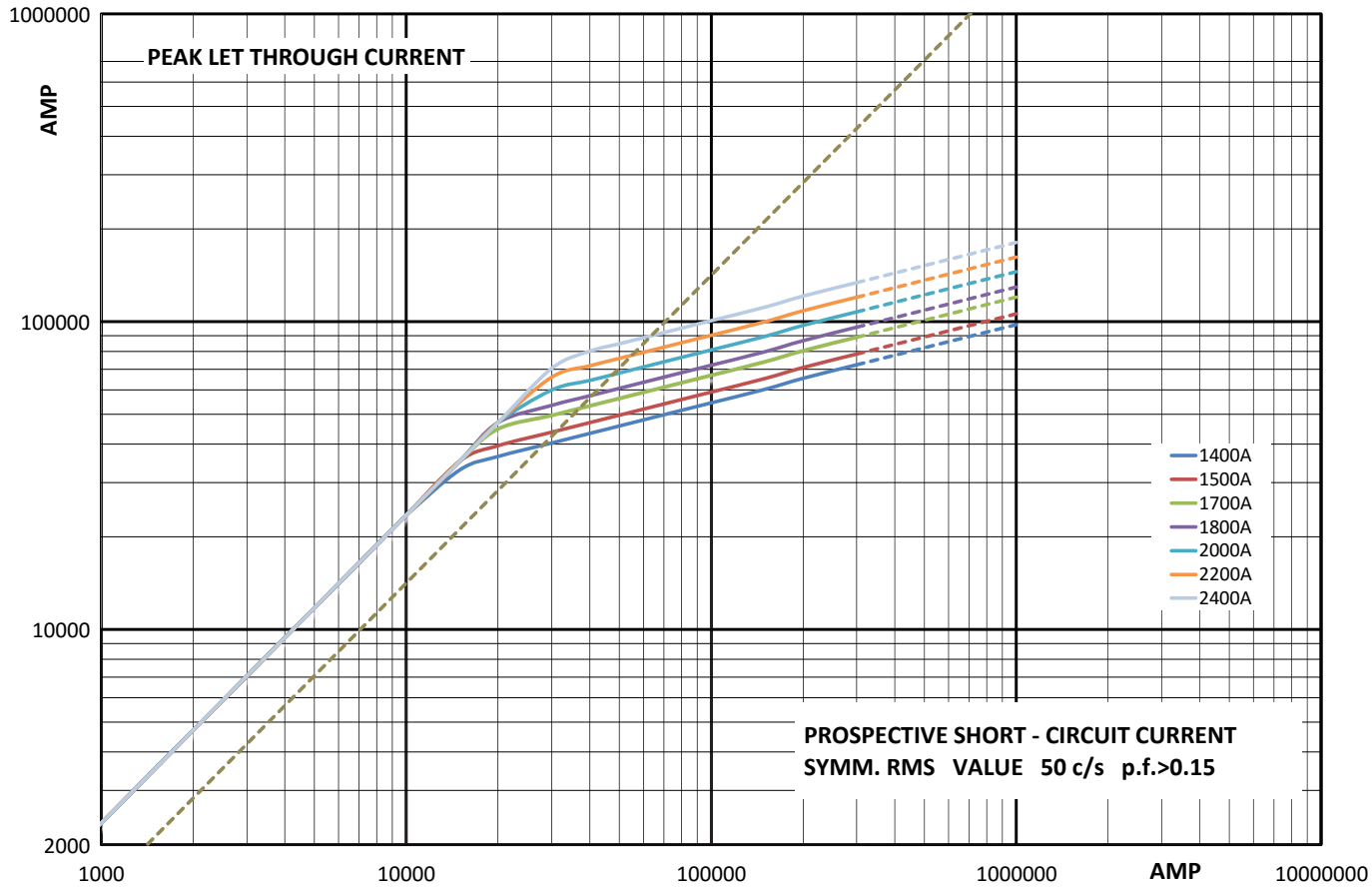



**$K_b$ = 1 N = 1.7**

Data sheets: 170K6640 (1400 A to 2400 A), 170K6642 (800 A to 1200A and 2500 A)

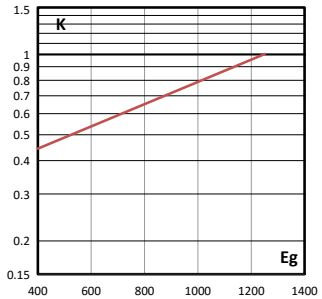
# 1250 V a.c. (IEC) - 800 A to 2500 A - Size 4 - Flush end contact - 170M

## Cut-off curve - 1400 A to 2400 A



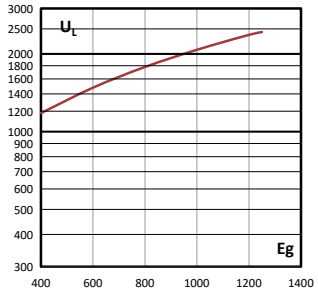

### Total clearing $I^2t$

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).



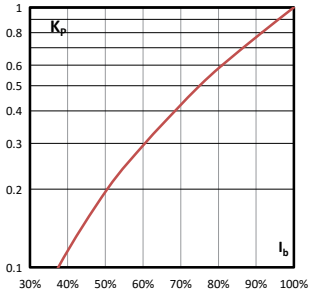

### Arc voltage

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: 170K6640 (1400 A to 2400 A), 170K6642 (800 A to 1200A and 2500 A)

# 660 V a.c. (IEC) - 1000 A to 4000 A - Size 23 - Flush end contact - 170M

## Description

Square body, flush end contact, high speed fuse links, for the protection of power rectifiers.




## Technical data

- Rated voltage:
  - 660 V a.c. (IEC, 1000 A to 3000 A)
  - 600 V a.c. (IEC, 3500 A)
  - 550 V a.c. (IEC, 4000 A)
- Rated current: 1000 A to 4000 A
- Breaking capacity: 100 kA RMS Sym
- Operating class: aR

## Standards / Agency information

CE, Designed and tested to IEC 60269 Part 4

## Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | Catalogue numbers | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fuse link body size | Rated voltage | Rated current (Amps) | Pre-arcing | Clearing at 660 V a.c. | Watts loss (W) | -BU/55 | -BKE/55 Type K indicator | -BKN/55 Type K indicator | -GU/55 | -GKE/55 Type K Indicator | -GKN/55 Type K Indicator |
| 23 | 660 V a.c. (IEC) | 1000 | 79,000 | 530,000 | 170 | 170M6858 | 170M6898 | 170M6878 | 170M6918 | 170M6958 | 170M6938 |
| | | 1100 | 95,000 | 635,000 | 185 | 170M6859 | 170M6899 | 170M6879 | 170M6919 | 170M6959 | 170M6939 |
| | | 1250 | 155,000 | 1,050,000 | 190 | 170M6860 | 170M6900 | 170M6880 | 170M6920 | 170M6960 | 170M6940 |
| | | 1400 | 200,000 | 1,350,000 | 210 | 170M6861 | 170M6901 | 170M6881 | 170M6921 | 170M6961 | 170M6941 |
| | | 1500 | 240,000 | 1,650,000 | 215 | 170M6862 | 170M6902 | 170M6882 | 170M6922 | 170M6962 | 170M6942 |
| | | 1600 | 315,000 | 2,150,000 | 220 | 170M6863 | 170M6903 | 170M6883 | 170M6923 | 170M6963 | 170M6943 |
| | | 1800 | 450,000 | 3,050,000 | 230 | 170M6864 | 170M6904 | 170M6884 | 170M6924 | 170M6964 | 170M6944 |
| | | 2000 | 625,000 | 4,200,000 | 240 | 170M6865 | 170M6905 | 170M6885 | 170M6925 | 170M6965 | 170M6945 |
| | | 2200 | 805,000 | 5,400,000 | 255 | 170M6866 | 170M6906 | 170M6886 | 170M6926 | 170M6966 | 170M6946 |
| | | 2500 | 1,250,000 | 8,350,000 | 265 | 170M6867 | 170M6907 | 170M6887 | 170M6927 | 170M6967 | 170M6947 |
| | | 3000 | 2,250,000 | 15,500,000 | 285 | 170M6868 | 170M6908 | 170M6888 | 170M6928 | 170M6968 | 170M6948 |
| | 600 V a.c. (IEC) | 3500 | 3,450,000 | 21,000,000[1] | 315 | 170M6869 | 170M6909 | 170M6889 | 170M6929 | 170M6969 | 170M6949 |
| | 550 V a.c. (IEC) | 4000 | 5,000,000 | 27,500,000[2] | 340 | 170M6870 | 170M6910 | 170M6890 | 170M6930 | 170M6970 | 170M6950 |

[1] Clearing at 600 V a.c.

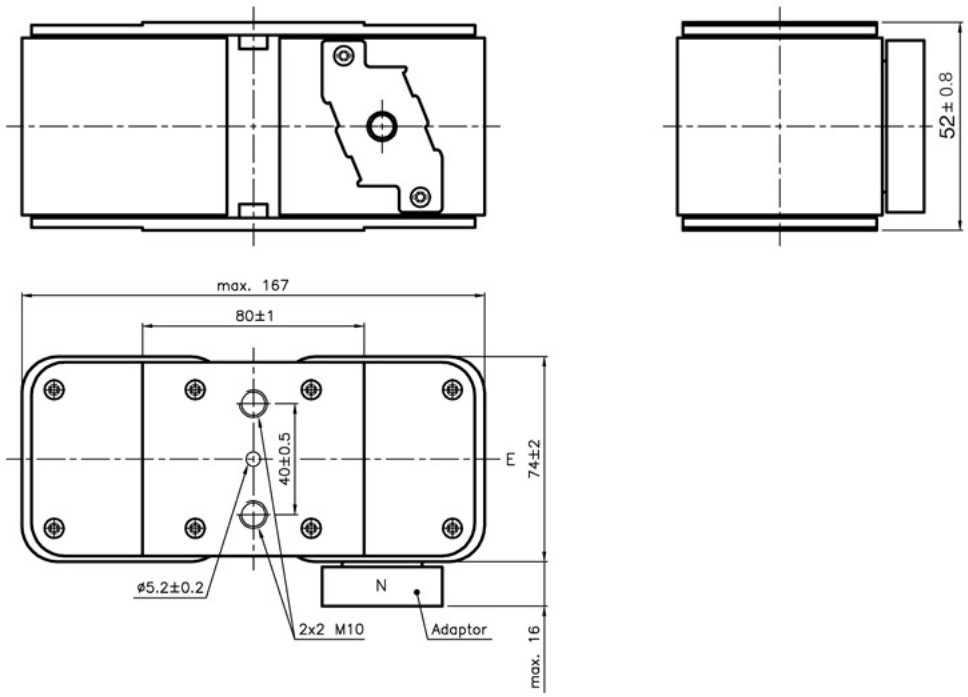
[2] Clearing at 550 V a.c.

When using these fuse links, please consult Eaton for application assistance at bulehighspeedtechnical@eaton.com.

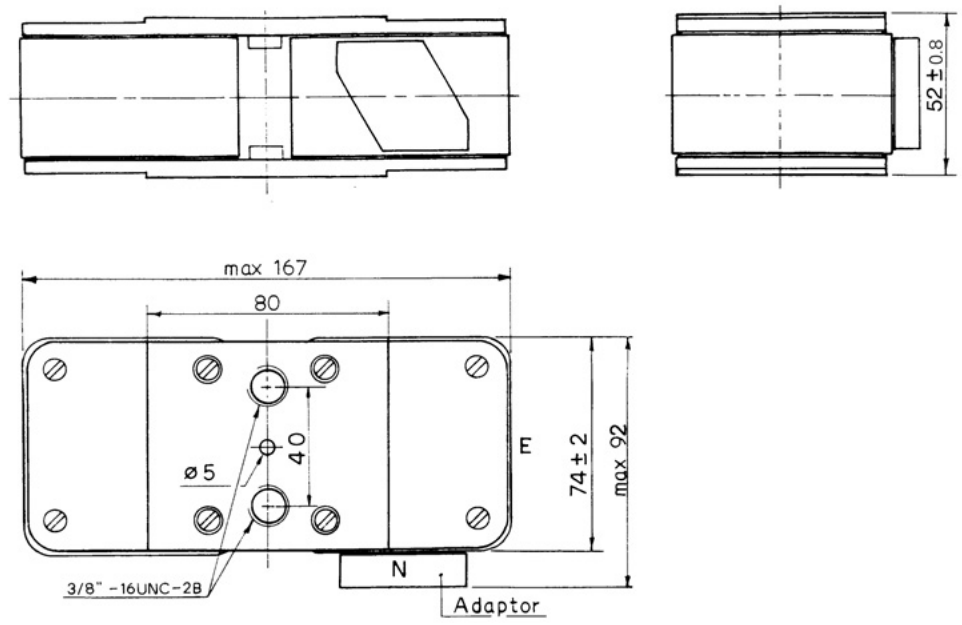
Data sheet: 170K6326

## 660 V a.c. (IEC) - 1000 A to 4000 A - Size 23 - Flush end contact - 170M

### Dimensions (mm) -BU/55, -BKE/55 and -BKN/55




### Dimensions (mm) -GU/55, -GKE/55 and -GKN/55



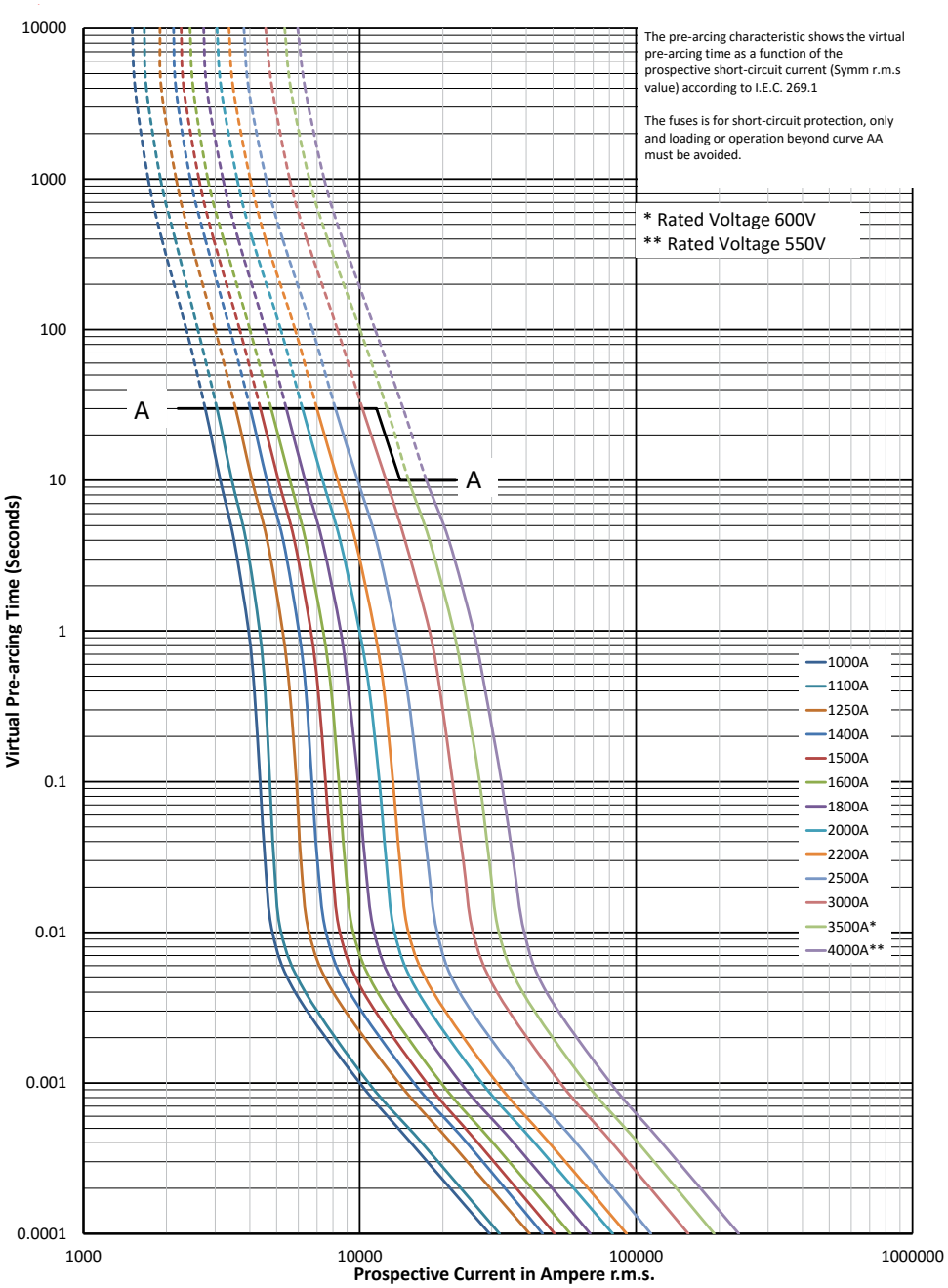

**Type -GU/55, -GKE/55, -GKN/55**

When using these fuse links, please consult Eaton for application assistance at bulehighspeedtechnical@eaton.com.

Data sheet: 170K6326

# 660 V a.c. (IEC) - 1000 A to 4000 A - Size 23 - Flush end contact - 170M

## Time-current curve - 1000 A to 4000 A

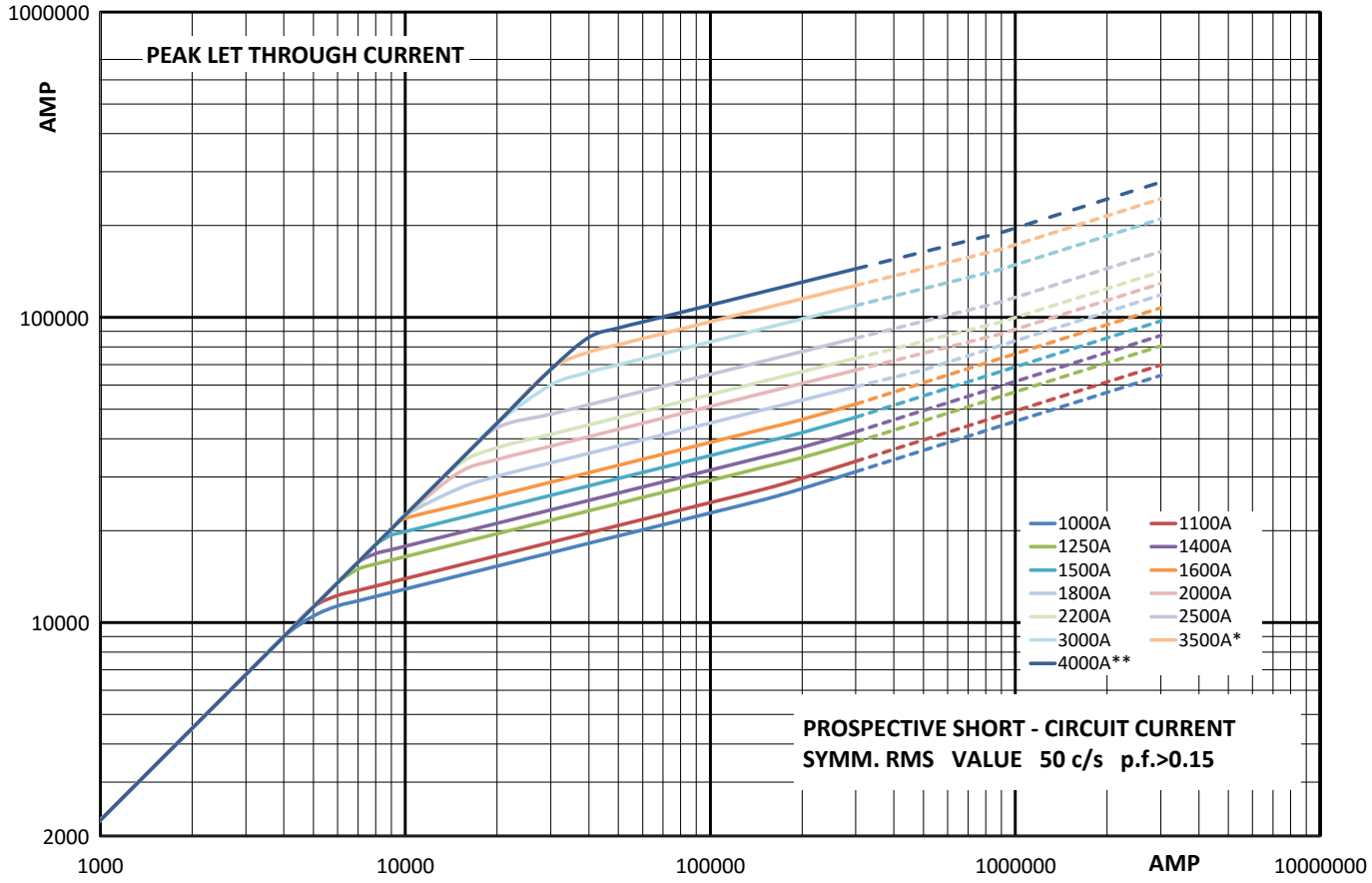



$K_b$ = 1 N = 1.5

Data sheet: 170K6326

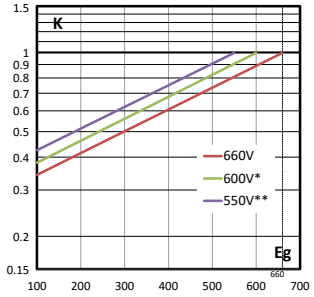
# 660 V a.c. (IEC) - 1000 A to 4000 A - Size 23 - Flush end contact - 170M

## Cut-off curve - 1000 A to 4000 A



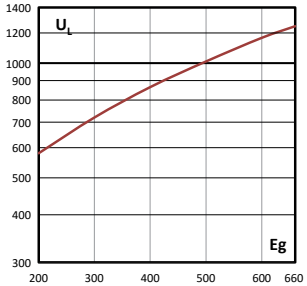

### Total clearing I²t

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).



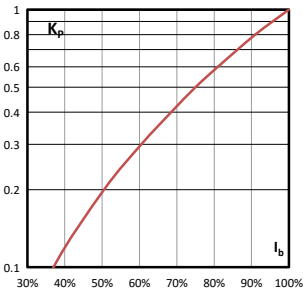

### Arc voltage

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 sheet: 170K6326

# 1250 V a.c. (IEC) - 630 A to 2800 A - Size 23 - Flush end contact - 170M

## Description

Square body, flush end contact, high speed fuse links, for the protection of power rectifiers.



## Technical data

- Rated voltage:
  - 1250 V a.c. (IEC 630 A to 2200 A)
  - 1100 V a.c. (IEC 2500 A and 2800 A)
- Rated current: 630 A to 2800 A
- Breaking capacity: 125kA RMS Sym
- Operating class: aR

## Standards / Agency information

CE, Designed and tested to IEC 60269 Part 4

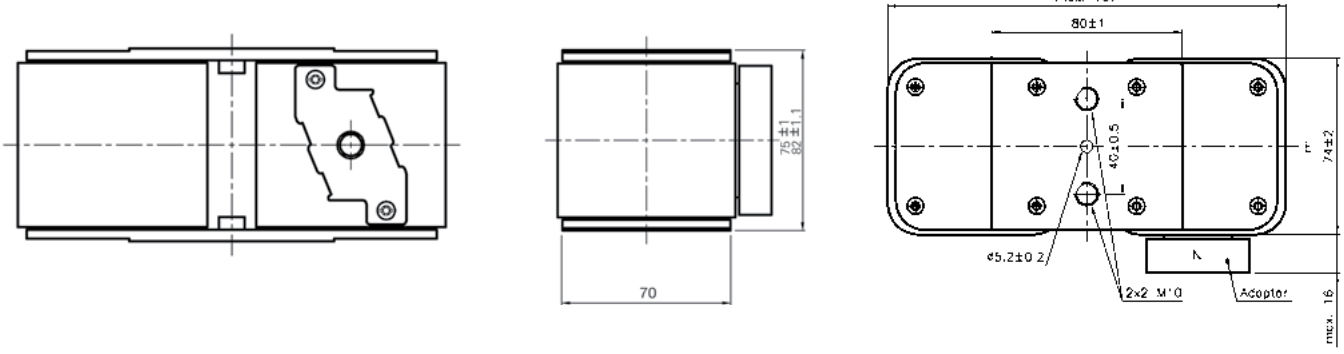
## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 1250 V a.c. | Watts loss (W) | Catalogue numbers -BU/75 Visual indicator | -BKE/75 Type K indicator | -BKN/75 Type K indicator | -BU/80 Visual indicator | -BKE/80 Type K Indicator | -BKN/80 Type K Indicator |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 | 1250 V a.c. (IEC) | 630 | 38,000 | 310,000 | 170 | 170M6775 | 170M6795 | 170M6785 | | | |
| | | 700 | 54,000 | 440,000 | 180 | 170M6776 | 170M6796 | 170M6786 | | | |
| | | 800 | 78,000 | 640,000 | 190 | 170M6777 | 170M6797 | 170M6787 | | | |
| | | 900 | 120,000 | 980,000 | 200 | 170M6805 | 170M6807 | 170M6806 | | | |
| | | 1000 | 155,000 | 1,250,000 | 210 | 170M6778 | 170M6798 | 170M6788 | | | |
| | | 1100 | 220,000 | 1,750,000 | 220 | 170M6779 | 170M6799 | 170M6789[3] | | | |
| | | 1250 | 330,000 | 2,700,000 | 230 | 170M6780 | 170M6800 | 170M6790 | | | |
| | | 1300 | 460,000 | 3,800,000 | 240 | 170M6781 | 170M6801 | 170M6791 | | | |
| | | 1600 | 820,000 | 5,200,000 | 250 | 170M6782 | 170M6802 | 170M6792 | | | |
| | | 1800 | 1,200,000 | 7,600,000 | 260 | 170M6783[2] | 170M6803[2] | 170M6793[2] | | | |
| | | 2000 | 1,800,000 | 11,000,000 | 270 | | | | 170M6784 | 170M6804 | 170M6794 |
| | | 2100 | 2,300,000 | 14,500,000 | 280 | | | | 170M6815 | 170M6833 | 170M6827 |
| | 1100 V a.c. (IEC) | 2500 | 3,200,000 | 16,000,000[1] | 290 | | | | 170M6816 | 170M6834 | 170M6828 |
| | | 2800 | 5,000,000 | 24,000,000[1] | 300 | | | | 170M6817 | 170M6835 | 170M6829 |

[1] Clearing at 1000 V [2] Rated voltage 900 V d.c. 10XIn 90 kA [3]1000 V d.c. UL 50 kA IR

When using these fuse links, please consult Eaton for application assistance at bulehighspeedtechnical@eaton.com.

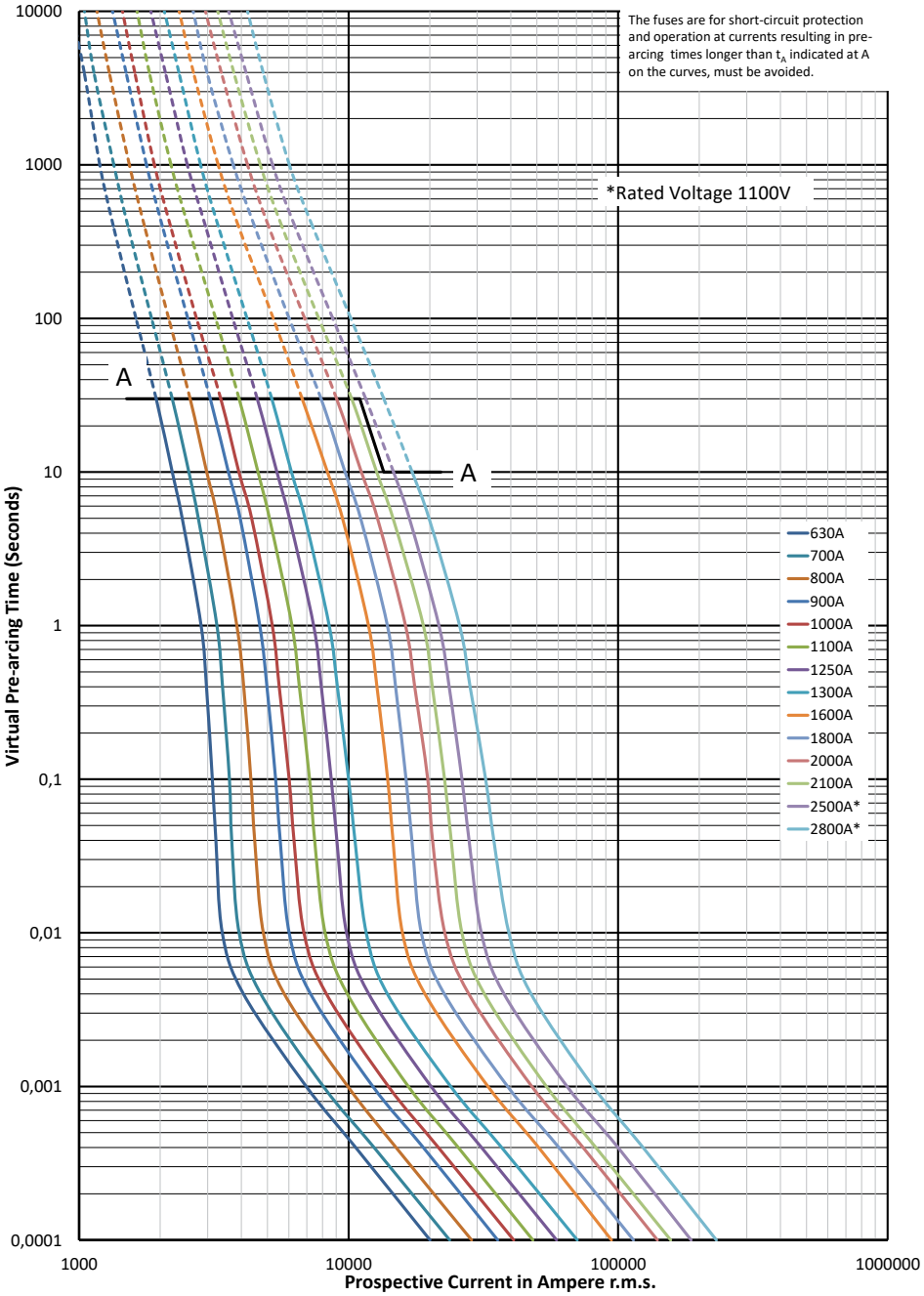
## Dimensions (mm)




Data sheet: 170K6638

# 1250 V a.c. (IEC) - 630 A to 2800 A - Size 23 - Flush end contact - 170M

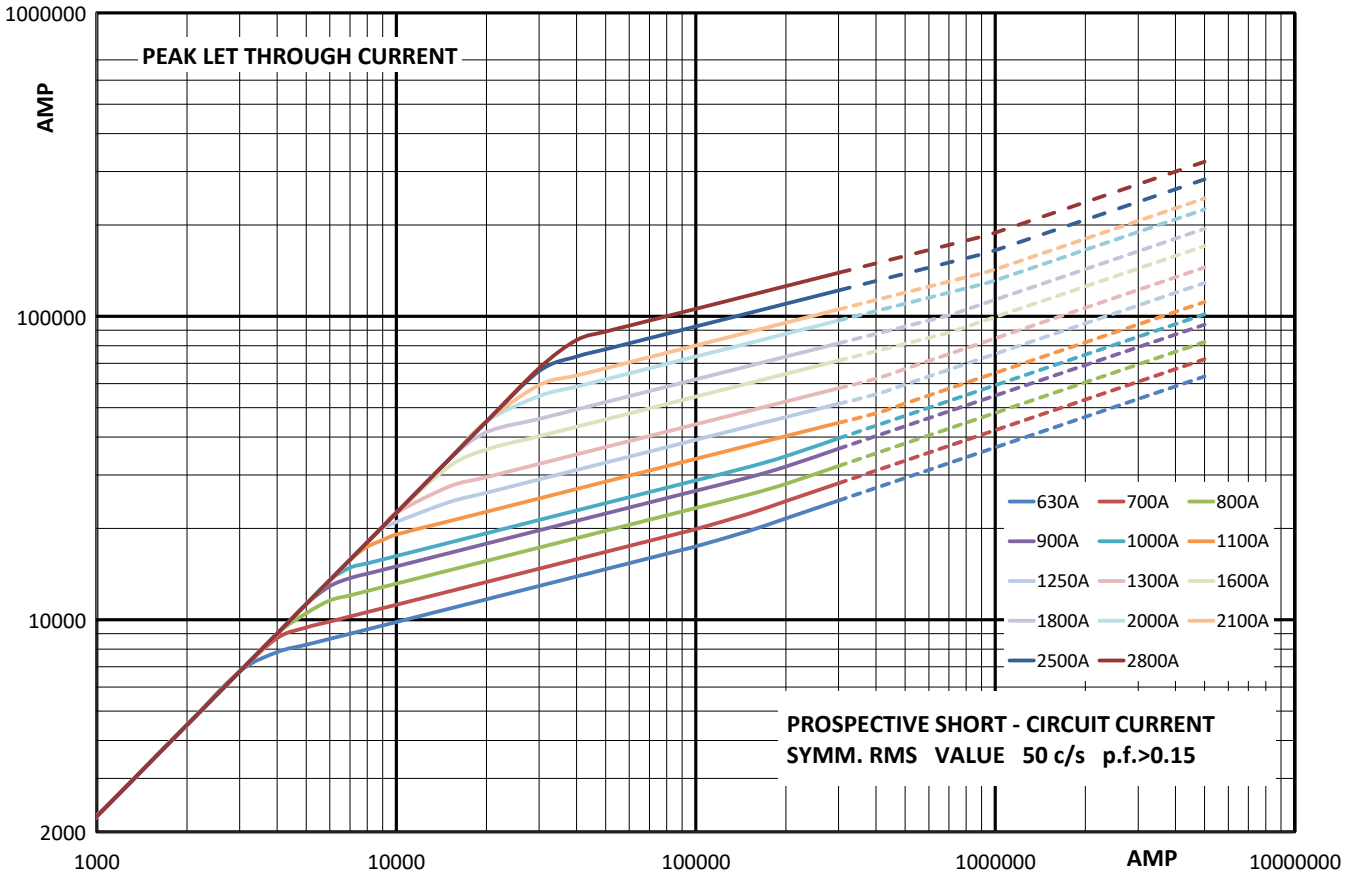
## Time-current curve - 630 A to 2800 A




Data sheet: 170K6638

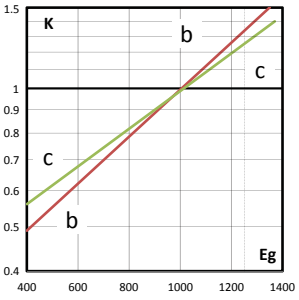
# 1250 V a.c. (IEC) - 630 A to 2800 A - Size 23 - Flush end contact - 170M

## Cut-off curve - 630 A to 2800 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).

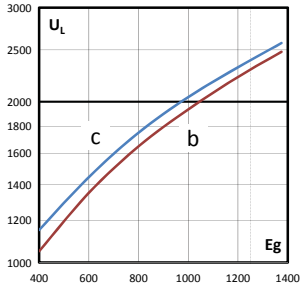



B: fuses ≤ 1400 A

C: fuses ≥ 1600 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.

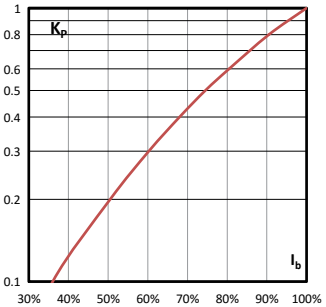



B: fuses ≤ 1400 A

C: fuses ≥ 1600 A

### 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 sheet: 170K6638

# 690 V a.c. (IEC), 700 V a.c. (UL) - 2000 A to 6500 A - Size 24 - Flush end contact - 170M

## Description

Square body, flush end contact, high speed fuse links, for the protection of power rectifiers.




## Technical data

- Rated voltage: 690 V a.c. (IEC) / 700 V a.c. (UL)
- Rated current: 2000 A to 6500 A
- Breaking capacity: 200 kA RMS Sym
- Operating class: aR

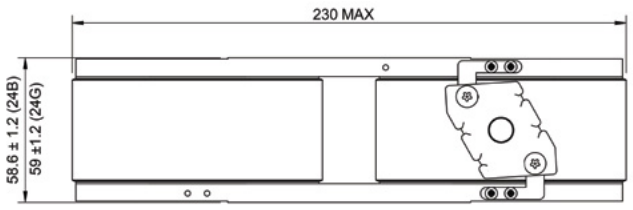
## Standards / Agency information

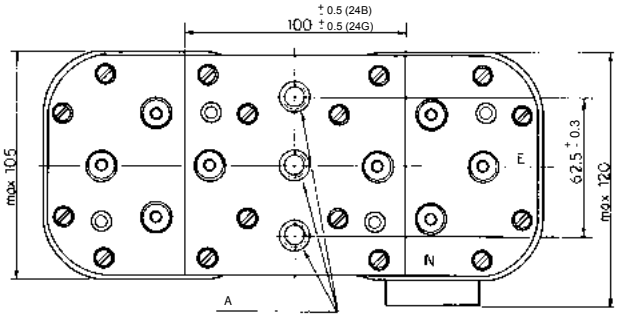
CE, Designed and tested to IEC 60269 Part 4, UL Recognised

## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | Catalogue numbers | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Pre-arcing | Clearing at 660 V a.c. | | -BU/60 Without indicator | -BKN/60 Type K indicator | -GU/60 Without indicator | -GKN/60 Type K indicator |
| 24 | 690 V a.c. (IEC) 700 V a.c. (UL) | 2000 | 340,000 | 2,300,000 | 340 | 170M7138 | 170M7158 | 170M7198 | 170M7218 |
| | | 2500 | 650,000 | 4,350,000 | 390 | 170M7139 | 170M7159 | 170M7199 | 170M7219 |
| | | 3000 | 1,100,000 | 7,300,000 | 430 | 170M7140 | 170M7160 | 170M7200 | 170M7220 |
| | | 3500 | 1,800,000 | 12,000,000 | 460 | 170M7141 | 170M7161 | 170M7201 | 170M7221 |
| | | 4000 | 2,700,000 | 18,000,000 | 490 | 170M7142 | 170M7162 | 170M7202 | 170M7222 |
| | | 4500 | 3,800,000 | 25,500,000 | 520 | 170M7143 | 170M7163 | 170M7203 | 170M7223 |
| | | 5000 | 5,450,000 | 36,500,000 | 540 | 170M7144 | 170M7164 | 170M7204 | 170M7224 |
| | | 5500 | 7,400,000 | 49,500,000 | 560 | 170M7145 | 170M7165 | 170M7205 | 170M7225 |
| | | 6000 | 9,600,000 | 64,000,000 | 580 | 170M7146 | 170M7166 | 170M7206 | 170M7226 |
| | | 6500 | 12,500,000 | 83,000,000 | 600 | 170M7147 | 170M7167 | 170M7207 | 170M7227 |

## Dimensions (mm)



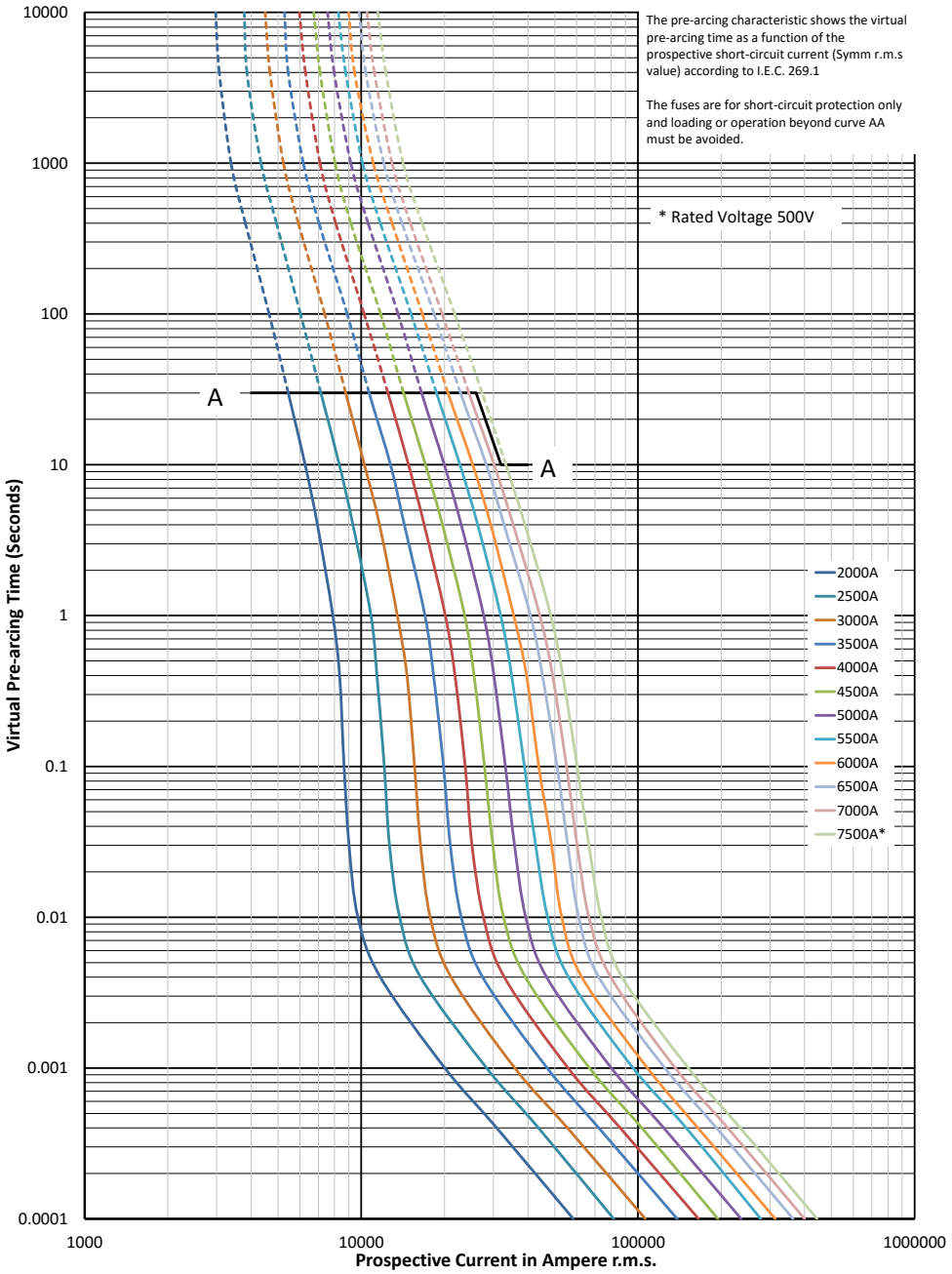

| Size | Type | A |
|---|---|---|
| 24 | BKN | 2x3 M12 |
| 24 | GKN | 2x3 ½" -13 UNC-2B |

When using these fuse links, please consult Eaton for application assistance at bulehighspeedtechnical@eaton.com

Data sheet: 170K6332

# 690 V a.c. (IEC), 700 V a.c. (UL) - 2000 A to 6500 A - Size 24 - Flush end contact - 170M

## Time-current curve - 2000 A to 7500 A

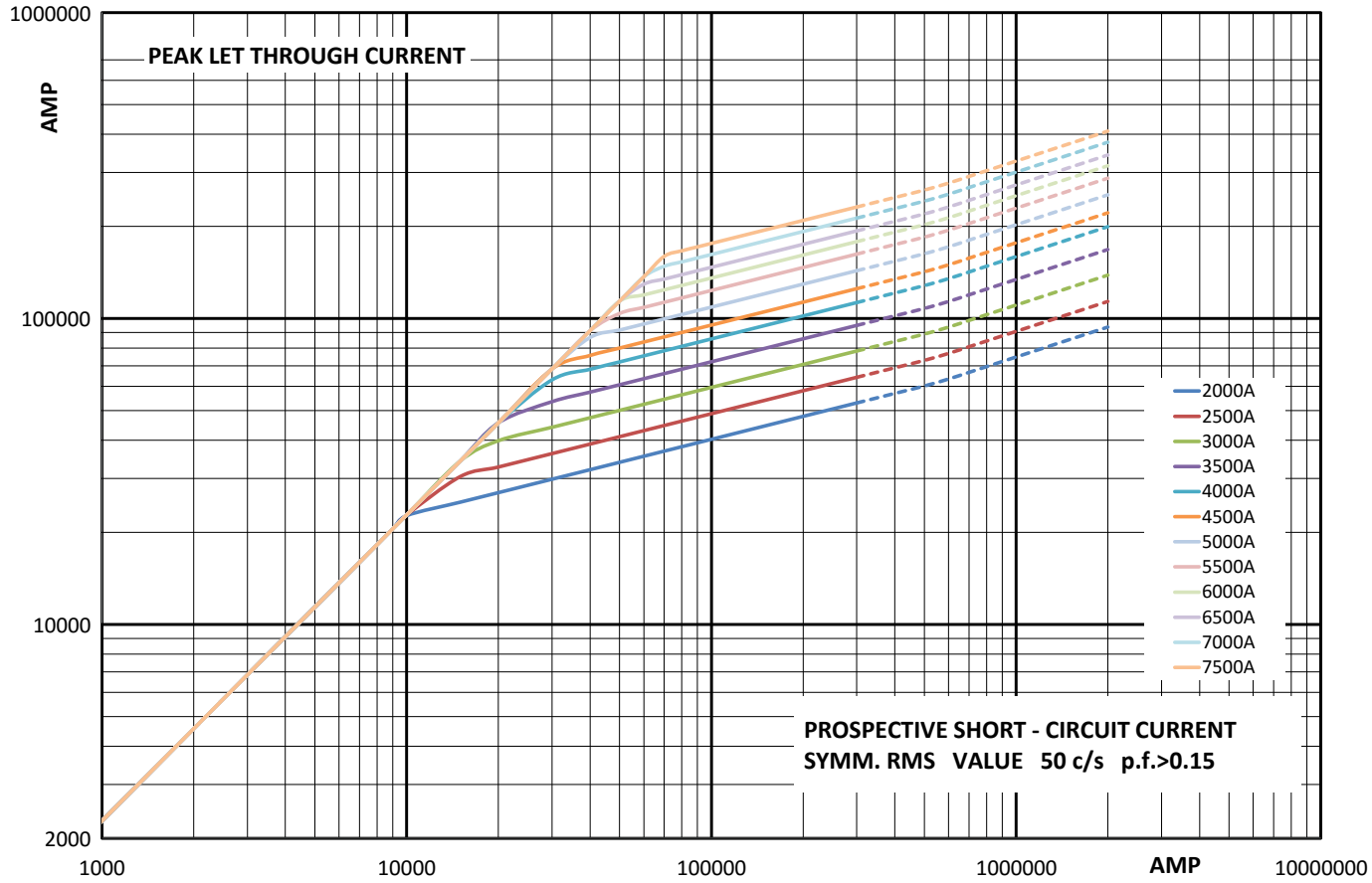



$K_b$ = 1 N = 1.5

Data sheet: 170K6332

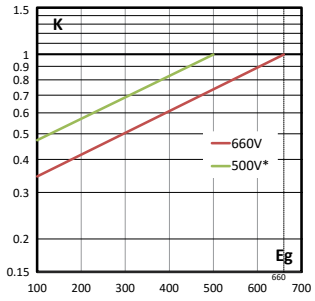
# 690 V a.c. (IEC), 700 V a.c. (UL) - 2000 A to 6500 A - Size 24 - Flush end contact - 170M

## Cut-off curve - 2000 A to 7500 A



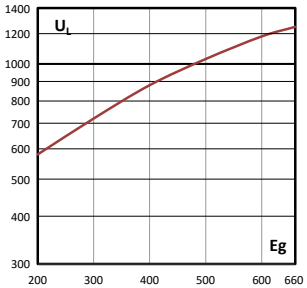

### Total clearing $I^2t$

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).



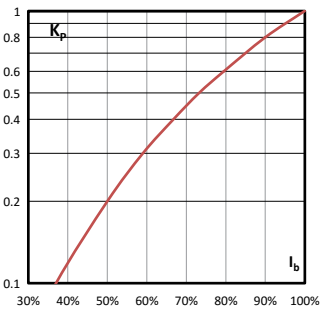

### Arc voltage

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 sheet: 170K6332

# 1000 V a.c. (IEC and UL) - 2000 A to 5000 A - Size 24 - Flush end contact - 170M

## Description

Square body, flush end contact, high speed fuse links, for the protection of power rectifiers.



## Technical data

- Rated voltage: 1000 V a.c. (IEC and UL)
- Rated current: 2000 A to 5000 A
- Breaking capacity: 166 kA RMS Sym / 100 kA RMS (UL)
- Operating class: aR

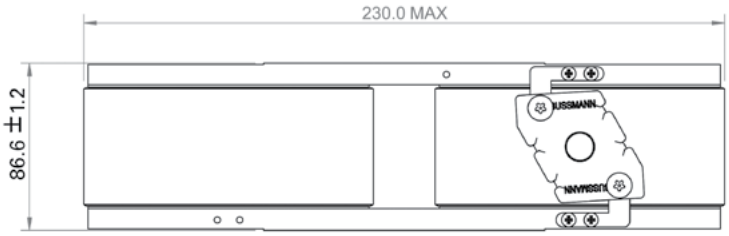
## Standards / Agency information

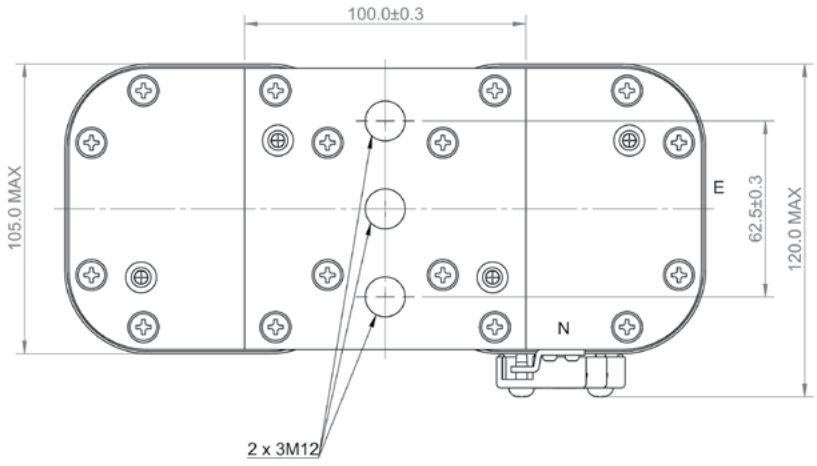
CE, Designed and tested to IEC 60269 Part 4, UL Recognised

## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 1000 V a.c. | Watts loss (W) | Catalogue numbers -BKN/85 Type K indicator |
|---|---|---|---|---|---|---|
| 24 | 1000 V a.c. (IEC & UL) | 2000 | 900,000 | 5,350,000 | 345 | 170M7608 |
| | | 3000 | 2,950,000 | 17,500,000 | 430 | 170M7680 |
| | | 3200 | 3,300,000 | 20,000,000 | 440 | 170M7567 |
| | | 3500 | 4,500,000 | 27,000,000 | 450 | 170M7568 |
| | | 4000 | 6,800,000 | 40,000,000 | 475 | 170M7569 |
| | | 4200 | 8,000,000 | 47,500,000 | 485 | 170M7498 |
| | | 4500 | 10,000,000 | 59,000,000 | 495 | 170M7488 |
| | | 5000 | 14,000,000 | 82,500,000 | 540 | 170M7622 |

## Dimensions (mm)



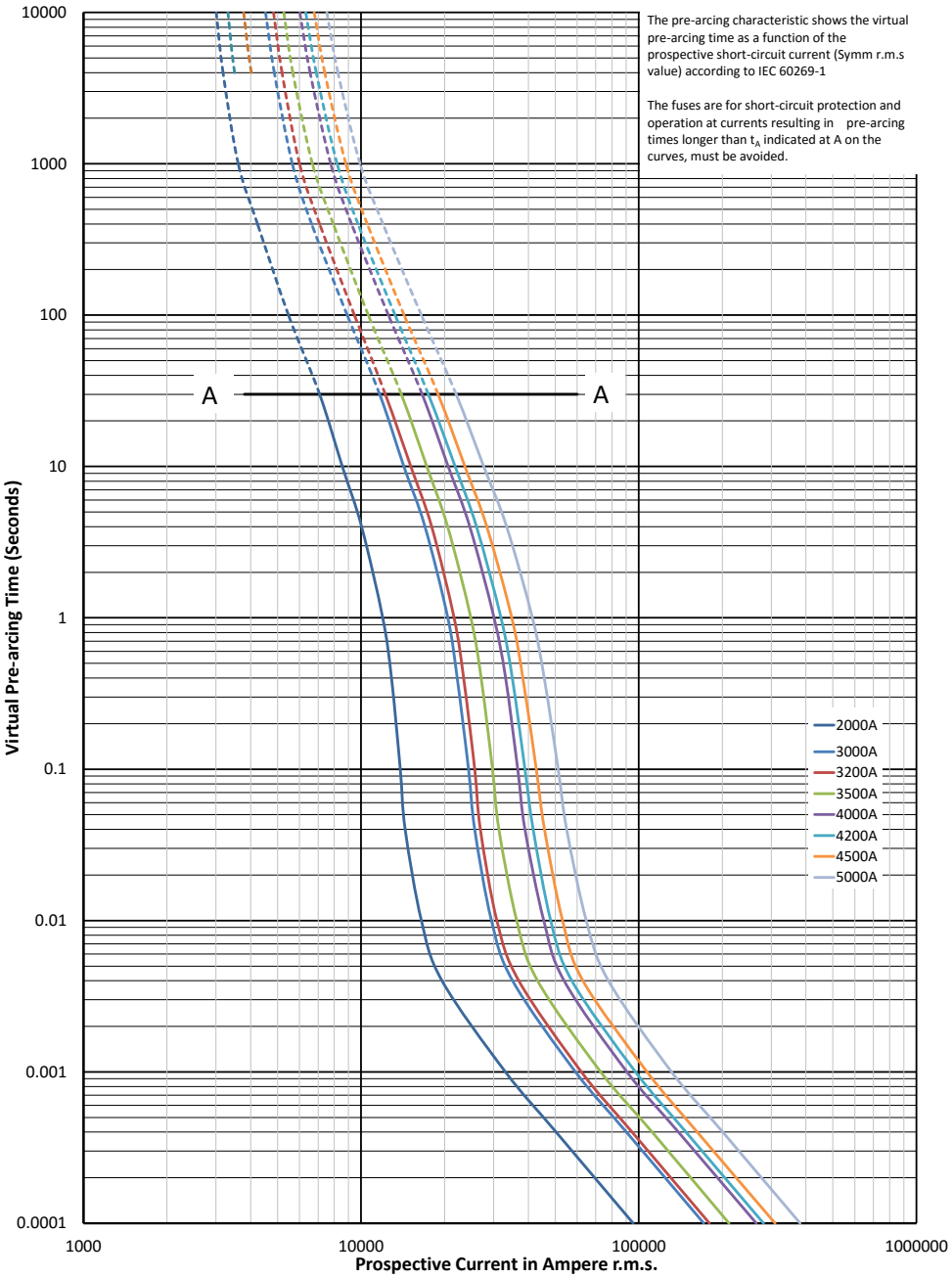

The normal position of the indicator is as shown position N, position E on request only

When using these fuse links, please consult Eaton for application assistance at bulehighspeedtechnical@eaton.com.

Data sheets: 170K8514

# 1000 V a.c. (IEC and UL) - 2000 A to 5000 A - Size 24 - Flush end contact - 170M

## Time-current curve - 2000 A to 5000 A

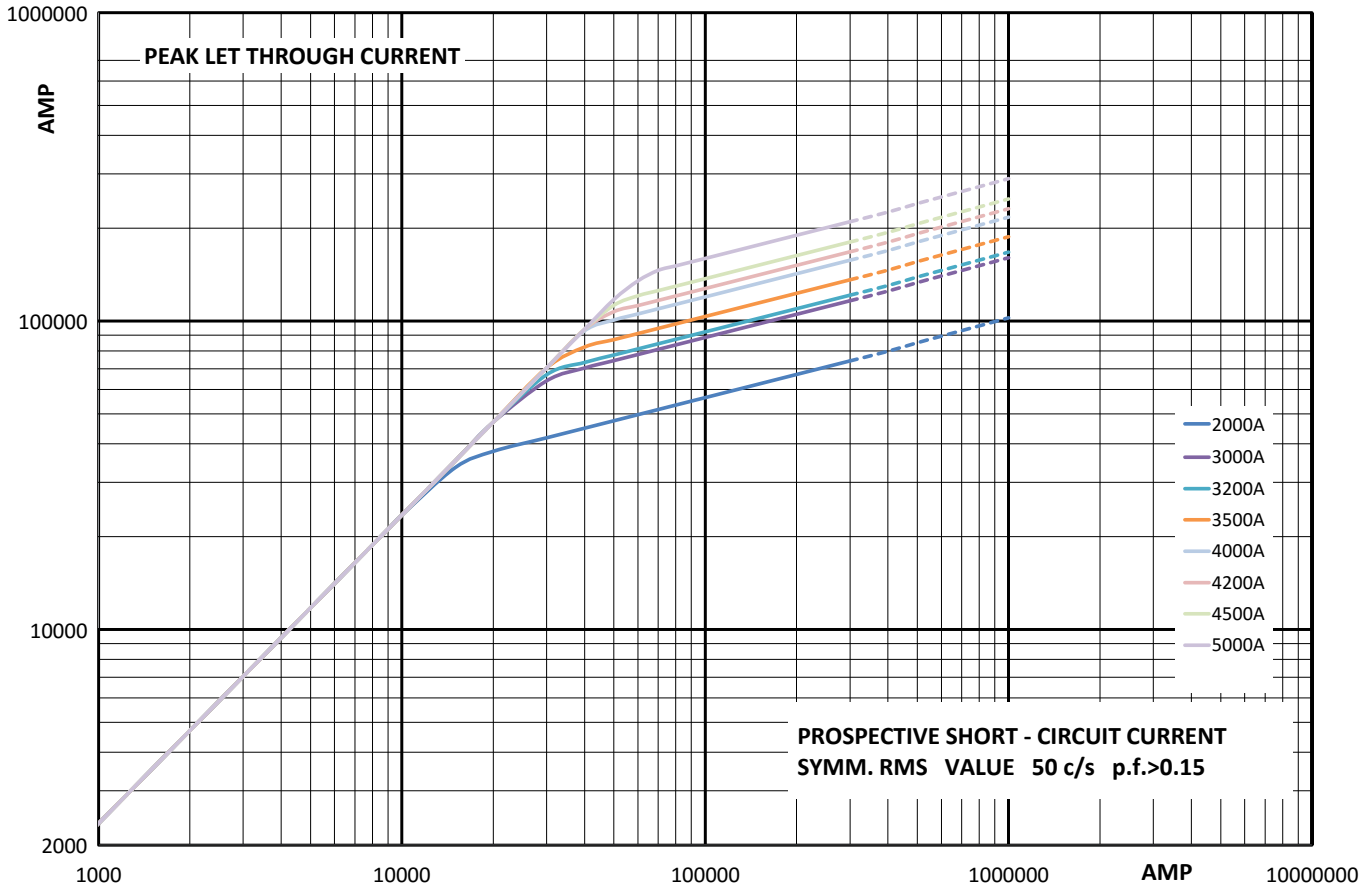



$K_b$ = 1 N = 1.5

Data sheets: 170K8514

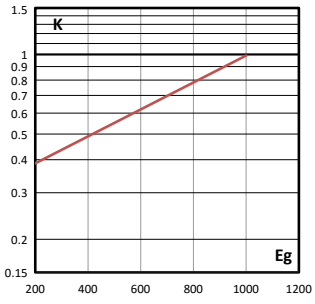
# 1000 V a.c. (IEC and UL) - 2000 A to 5000 A - Size 24 - Flush end contact - 170M

## Cut-off curve - 2000 A to 5000 A



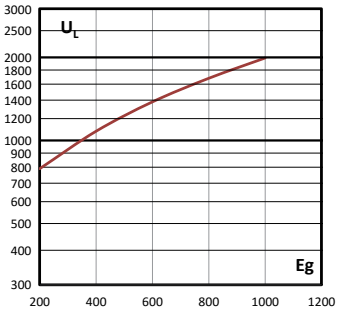

### Total clearing I²t

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).



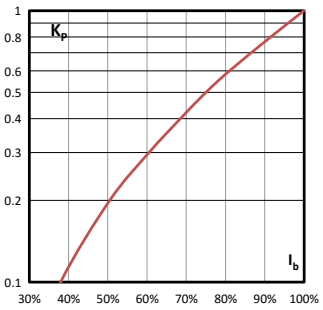

### Arc voltage

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: 170K8514

# 1100-2000 V a.c. (IEC), 1800 A to 5500 A - Size 5 - Flush end contact - 170M

## Description

Square body flush end contact high speed fuse links, for the protection or isolation for components such as diodes, silicon controlled rectifiers (SCRs), Gate Turn-Off Thrystors (GTOs) and IGBTs. Typical application include AC and DC drives, high power rectifiers.



## Technical data

- Rated voltage: 1100-2000 V a.c. (IEC)
- Rated current: 1800 A to 5500 A
- Breaking capacity: 300 kA RMS Sym. estimated: 197 kA tested
- Operating class: aR

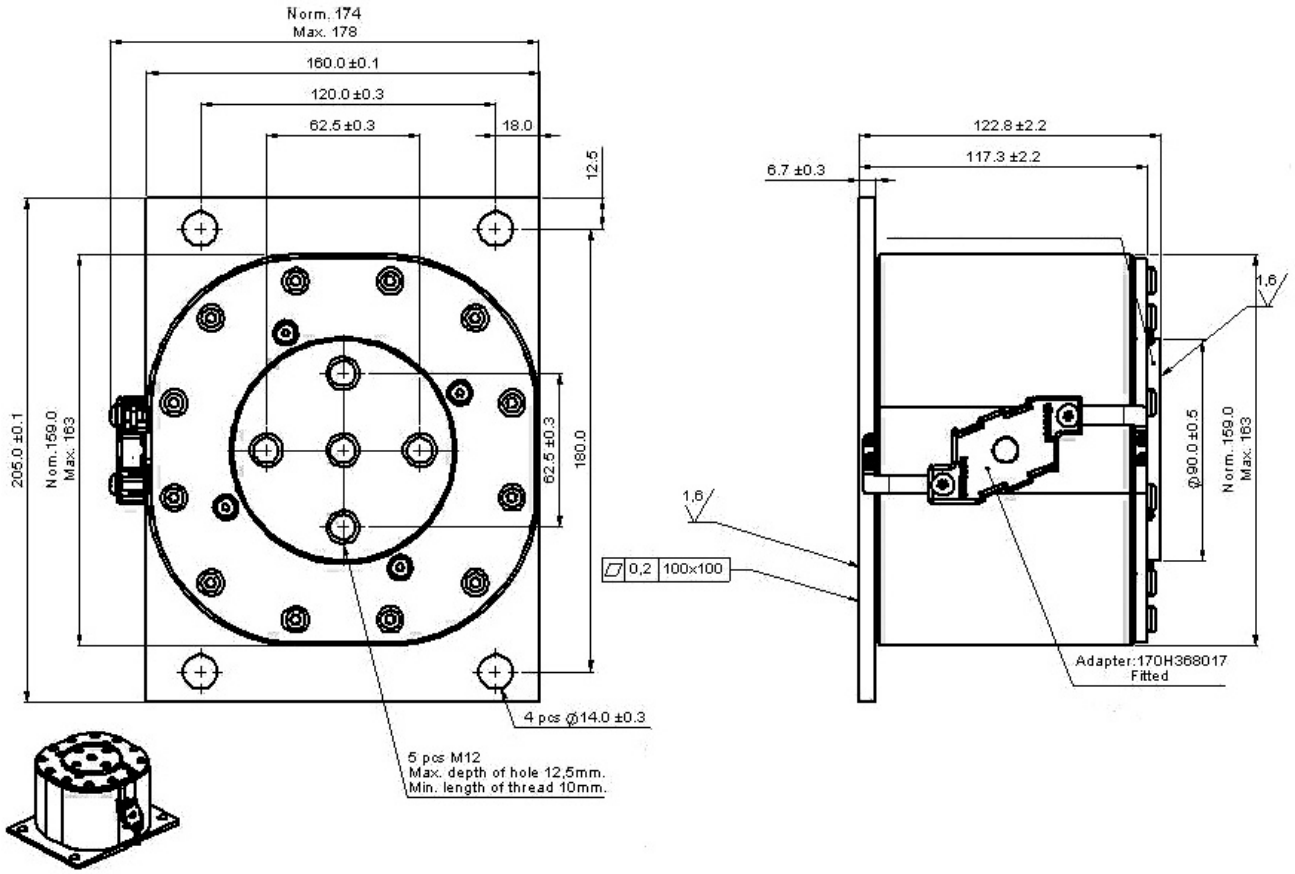
## Standards / Agency information

Consult Eaton bulehighspeedtechnical@eaton.com

## Catalogue Numbers

Consult Eaton bulehighspeedtechnical@eaton.com

## Dimensions (mm)




**<u>This dimension drawing is an example</u> of the range of size 5 fuse links available.**

# 600 V a.c. / 450 V d.c. (UL) - 1 A to 600 A - DFJ Drive fuse links

## Description

Bolted tags high speed fuse links that provide maximum protection for AC and DC drives and controllers. The DFJ fuse link has the lowest I2t of any branch circuit fuse to protect power semi-conductor devices that utilise diodes, GTOs, SCRs and SSRs. The DFJ fuse links combine the performance of high speed fuse links and the convenience of Class J branch circuit fuse links, allowing the use of readily available Class J fuse blocks, holders and switches.




## Technical data

- Rated voltage: 600 V a.c. / 450 V d.c. (UL)
- Rated current: 1 A to 600 A
- Breaking capacity: 200 kA RMS Sym., 100 kA DC
- Operating class: aR
-

## Standards / Agency information

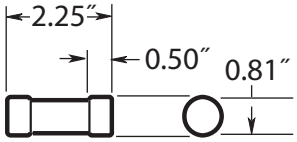
UL Listed, Std 248-8, Class J, Guide JDDZ, File E4273 CSA Certified, C22-2 No 248.8, Class 1422-02, File 53787 meets NEC branch circuit protection.

## Catalogue numbers

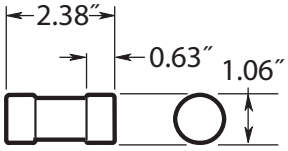
| Rated voltage | Rated current (Amps) | Catalogue numbers |
|---|---|---|
| 600 V a.c./ 450 V d.c. (UL) | 1 | DFJ-1 |
| | 2 | DFJ-2 |
| | 3 | DFJ-3 |
| | 4 | DFJ-4 |
| | 5 | DFJ-5 |
| | 6 | DFJ-6 |
| | 8 | DFJ-8 |
| | 10 | DFJ-10 |
| | 12 | DFJ-12 |
| | 15 | DFJ-15 |
| | 20 | DFJ-20 |
| | 25 | DFJ-25 |
| | 30 | DFJ-30 |
| | 40 | DFJ-40 |
| | 45 | DFJ-45 |
| | 50 | DFJ-50 |
| | 60 | DFJ-60 |
| 600 -700 V a.c./ 450 V d.c. (UL) | 70 | DFJ-70 |
| | 80 | DFJ-80 |
| | 90 | DFJ-90 |
| | 100 | DFJ-100 |
| 600 V a.c./ 450 V d.c. (UL) | 110 | DFJ-110 |
| | 125 | DFJ-125 |
| | 150 | DFJ-150 |
| | 175 | DFJ-175 |
| | 100 | DFJ-100 |
| | 225 | DFJ-225 |
| | 250 | DFJ-250 |
| | 300 | DFJ-300 |
| | 350 | DFJ-350 |
| | 400 | DFJ-400 |
| | 450 | DFJ-450 |
| | 500 | DFJ-500 |
| | 600 | DFJ-600 |

Data sheet: 1048

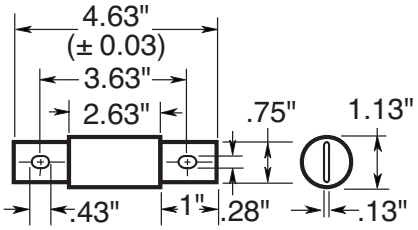
## Dimensions (in)



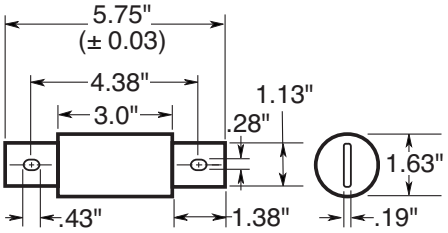

**1 to 30 A**




**35 to 60 A**



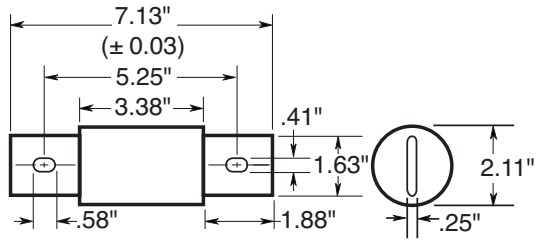

**70 to 100 A**



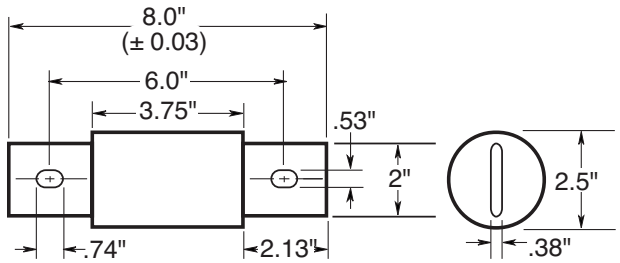

**110 to 200 A**

# 600 V a.c. / 450 V d.c. (UL) - 1 A to 600 A - DFJ Drive fuse links

## Dimensions (in)

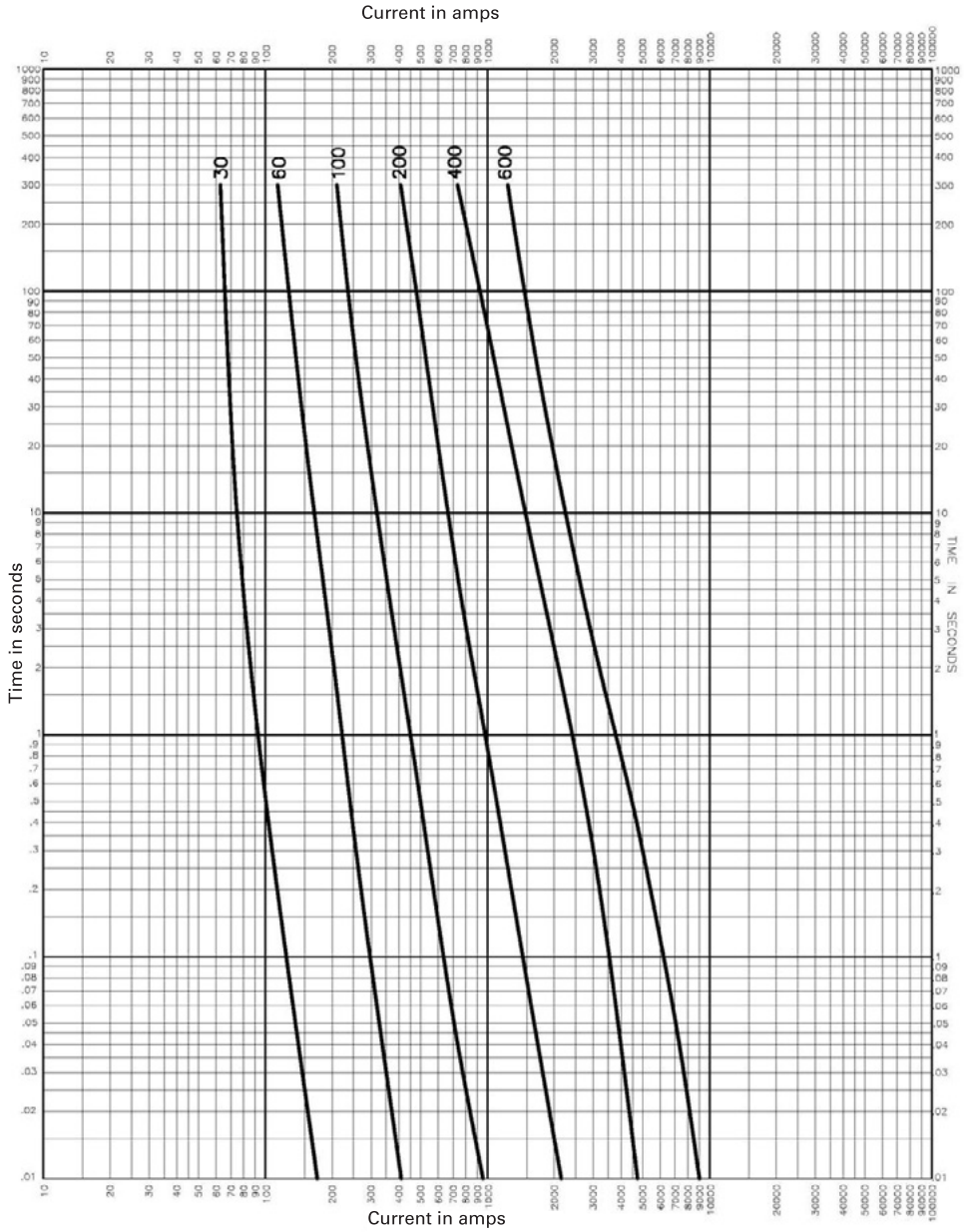



**225 to 400 A**




**450 to 600 A**

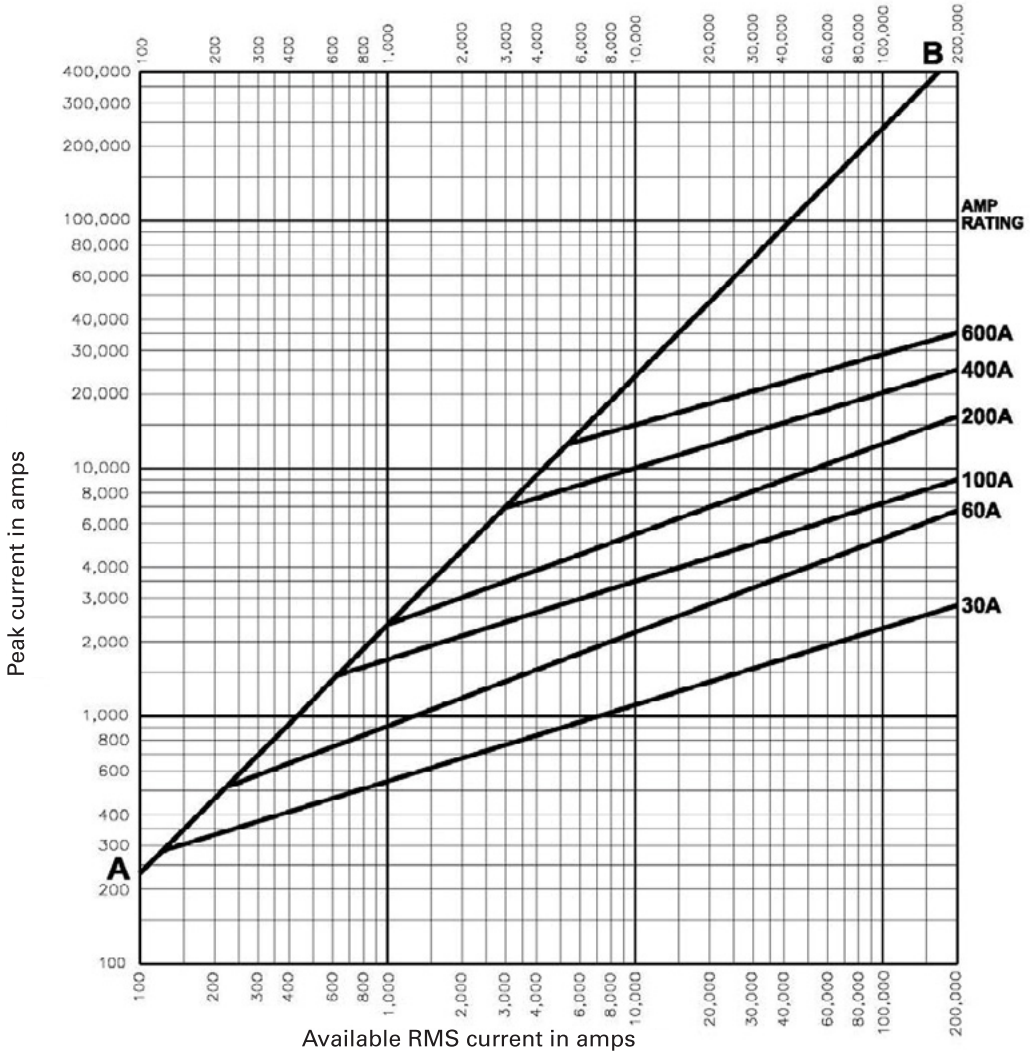
## Time-current curve - 30 A to 600 A




Data sheet: 1048

## 600 V a.c. / 450 V d.c. (UL) - 1 A to 600 A - DFJ Drive fuse links

### Cut-off curve - 30 A to 600 A




Data sheet: 1048

# 750 V d.c. (IEC), 800 V d.c. (UL) - 25 A to 630 A - Sizes 000 and 230 - IGBT fuse links - 170M

## Description

Bolted tags high speed fuse links for the protection of IGBT modules, optimised for use in IGBT inverter circuits with DC link rated voltages up to 750 V d.c.. Low inductance ≤ 15nH.




## Technical data

- Rated voltage:
  - 750 V d.c. tested at 863V d.c. according to IEC 60269-4
  - 800 V d.c. tested at 800 V d.c. according to UL 248-1
- Rated current: 25 A to 630 A
- Breaking capacity: 50 kA DC (1ms tc) at 800 V d.c.
- Operating class: aR

## Standards / Agency information

UL DC Recognised, 800 V d.c. L/R 1 mS max

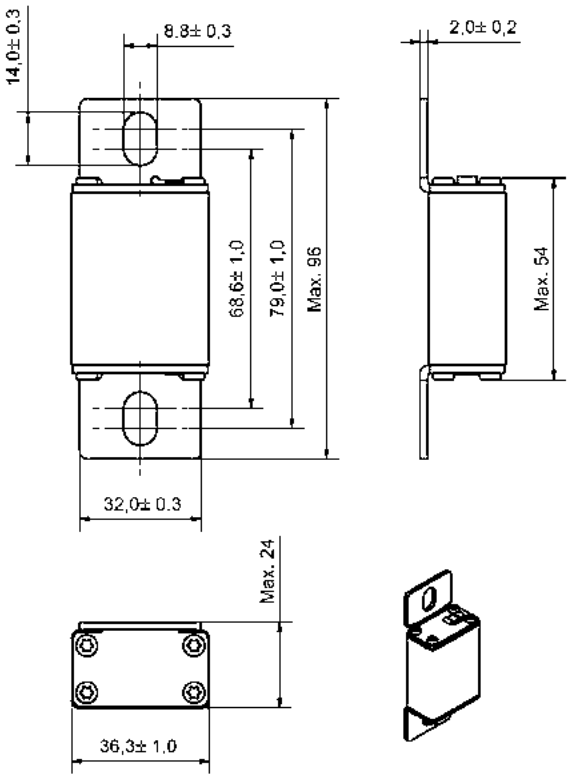
## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | Watts loss (W) | Catalogue numbers -FU/70 | -FN/70 |
|---|---|---|---|---|---|---|
| 000 | 750 V d.c. (IEC) 800 V d.c. (UL) | 25 | 25 | 12 | 170M1750 | 170M1730 |
| | | 32 | 45 | 13 | 170M1751 | 170M1731 |
| | | 40 | 75 | 14 | 170M1752 | 170M1732 |
| | | 50 | 135 | 16 | 170M1753 | 170M1733 |
| | | 63 | 260 | 17 | 170M1754 | 170M1734 |
| | | 80 | 460 | 20 | 170M1755 | 170M1735 |
| | | 100 | 795 | 25 | 170M1756 | 170M1736 |
| | | 125 | 1300 | 29 | 170M1757 | 170M1737 |
| | | 160 | 2550 | 34 | 170M1758 | 170M1738 |
| | | 200 | 4350 | 40 | 170M1759 | 170M1739 |
| | | 250 | 7400 | 48 | 170M1760 | 170M1740 |
| | | 315 | 12,500 | 60 | 170M1761 | 170M1741 |
| | | 350 | 17,000 | 65 | 170M1762 | 170M1742 |
| 230 | 750 V d.c. (IEC) 800 V d.c. (UL) | 100 | 380 | 35 | 170M1770 | 170M1785 |
| | | 125 | 645 | 42 | 170M1771 | 170M1786 |
| | | 160 | 1350 | 47 | 170M1772 | 170M1787 |
| | | 200 | 2550 | 54 | 170M1773 | 170M1788 |
| | | 250 | 4950 | 62 | 170M1774 | 170M1789 |
| | | 315 | 9350 | 72 | 170M1775 | 170M1790 |
| | | 350 | 12,000 | 78 | 170M1776 | 170M1791 |
| | | 400 | 18,500 | 80 | 170M1777 | 170M1792 |
| | | 450 | 27,000 | 85 | 170M1778 | 170M1793 |
| | | 500 | 37,500 | 90 | 170M1779 | 170M1794 |
| | | 550 | 48,500 | 95 | 170M1780 | 170M1795 |
| | | 630 | 69,500 | 105 | 170M1781 | 170M1796 |

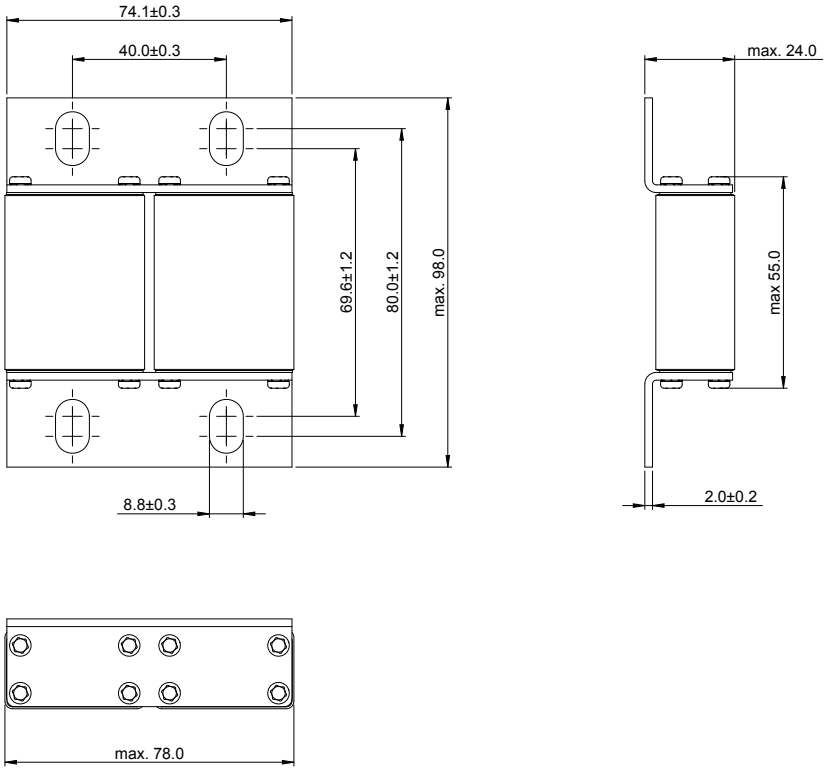
Data sheets: 170K6422 (Size 000), 170K6426 (Size 230)

## 750 V d.c. (IEC), 800 V d.c. (UL) - 25 A to 630 A - Sizes 000 and 230 - IGBT fuse links - 170M

### Dimensions (mm) - Size 000



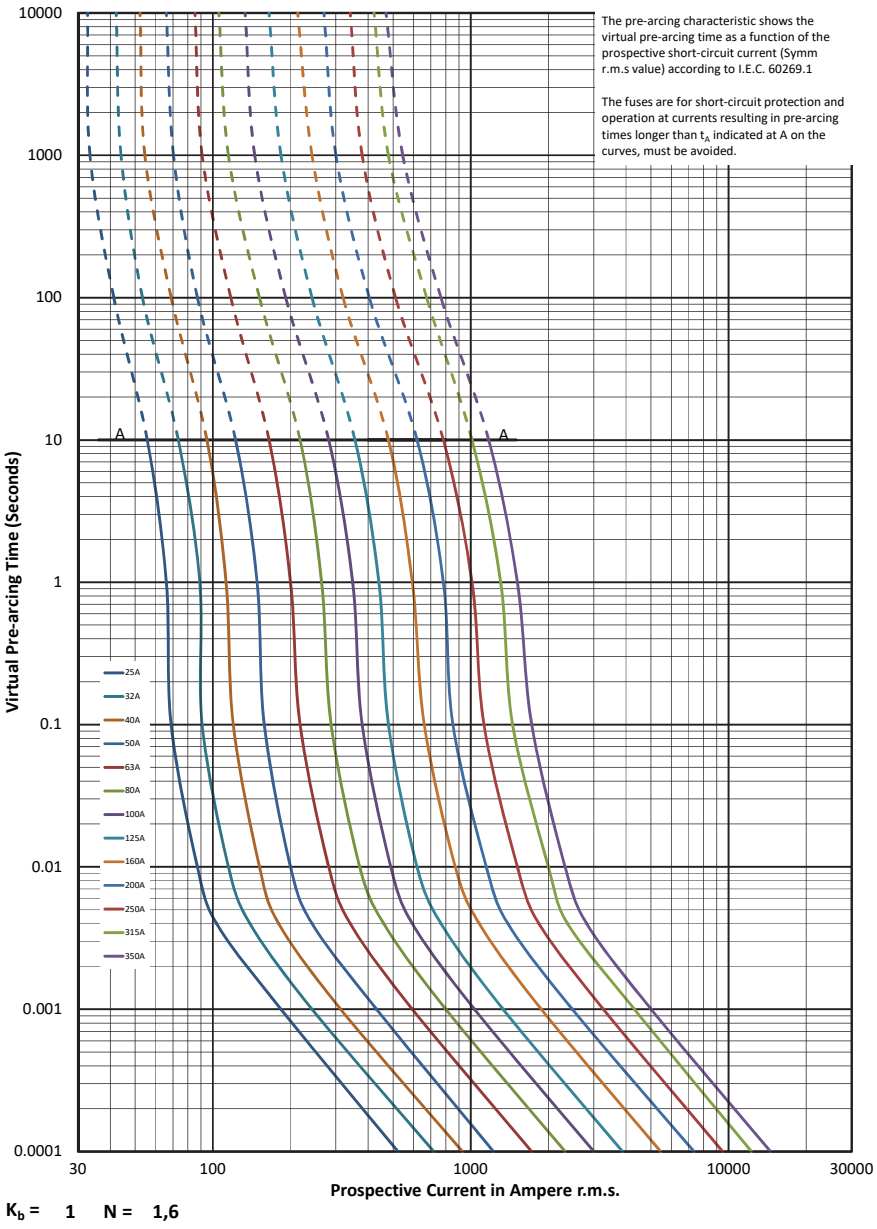

### Dimensions (mm) - Size 230




Data sheets: 170K6422 (Size 000), 170K6426 (Size 230)

# 750 V d.c. (IEC), 800 V d.c. (UL) - 25 A to 630 A - Sizes 000 and 230 - IGBT fuse links - 170M

## Time-current curve - Size 000, 25 A to 350 A

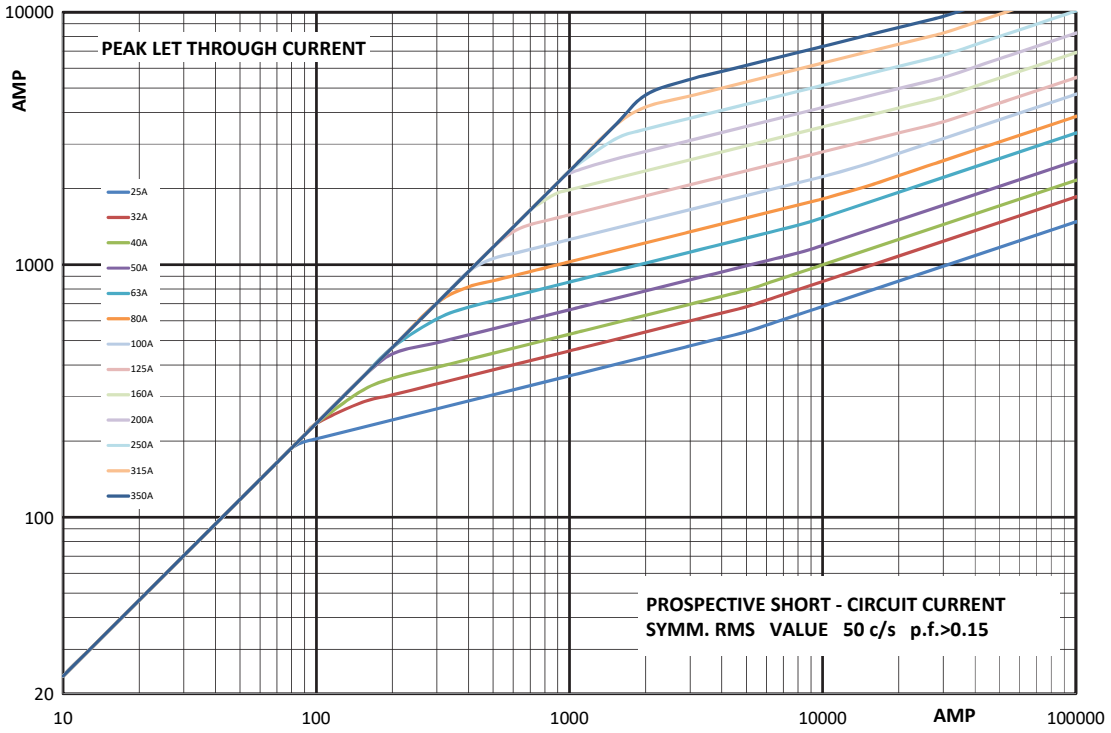



$K_b$ = 1 N = 1,6

Data sheets: 170K6422 (Size 000), 170K6426 (Size 230)

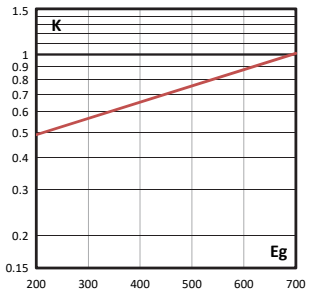
# 750 V d.c. (IEC), 800 V d.c. (UL) - 25 A to 630 A - Sizes 000 and 230 - IGBT fuse links - 170M

## Cut-off curve - Size 000, 25 A to 350 A



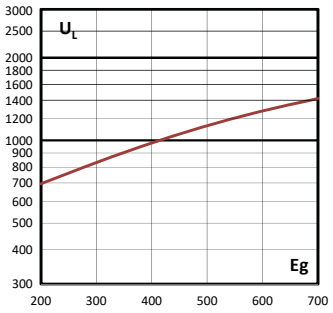

### Total clearing I²t

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).



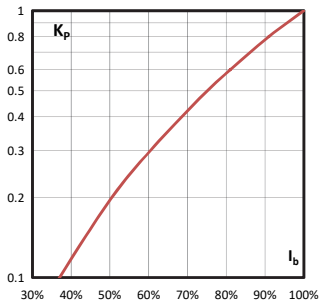

### Arc voltage

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

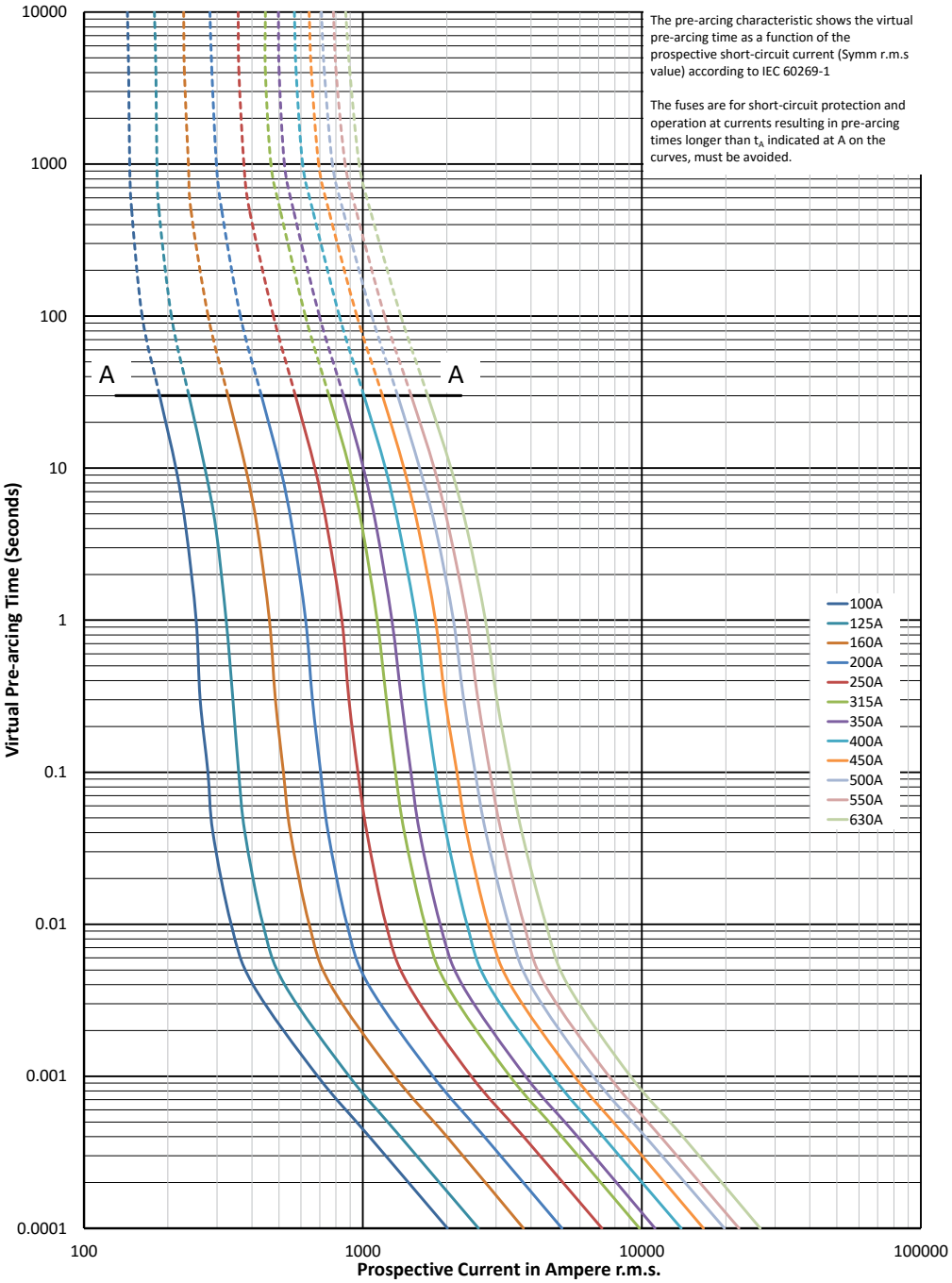
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6422 (Size 000), 170K6426 (Size 230)

# 750 V d.c. (IEC), 800 V d.c. (UL) - 25 A to 630 A - Sizes 000 and 230 - IGBT fuse links - 170M

## Time-current curve - Size 230, 100 A to 630 A

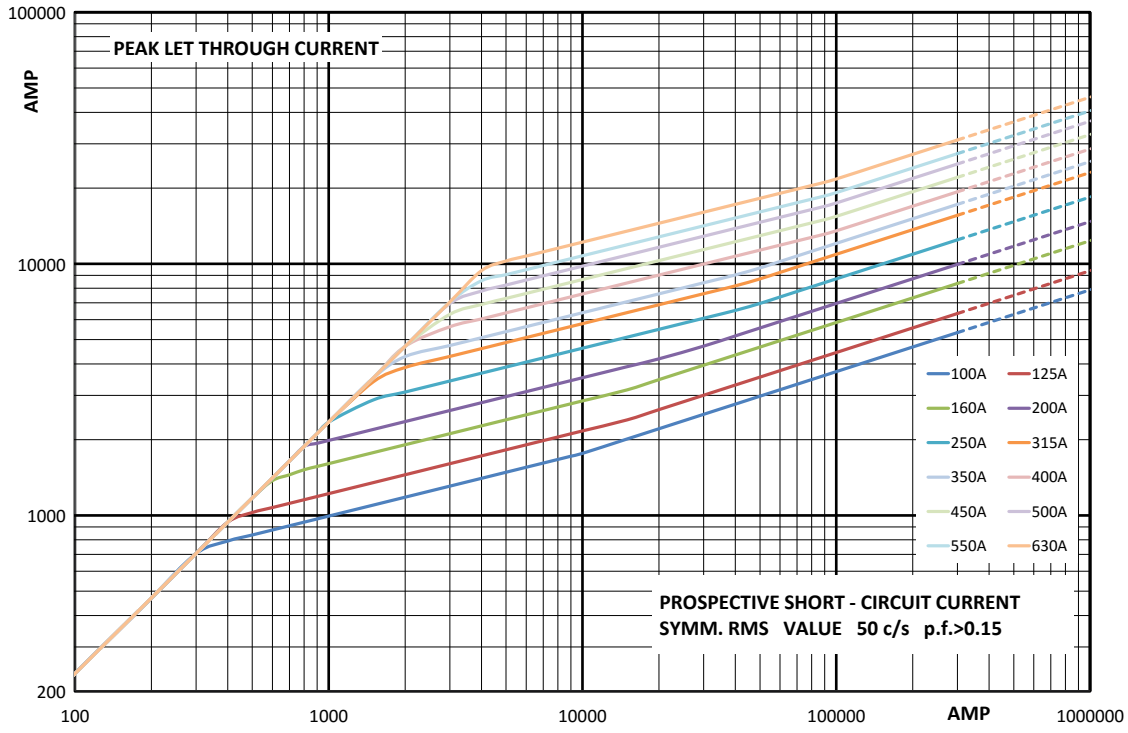



$K_b$ = 1 1.6

Data sheets: 170K6422 (Size 000), 170K6426 (Size 230)

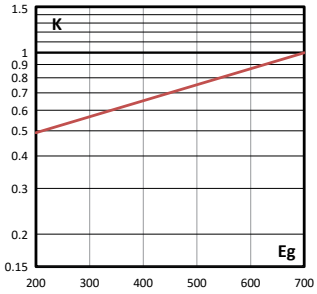
# 750 V d.c. (IEC), 800 V d.c. (UL) - 25 A to 630 A - Sizes 000 and 230 - IGBT fuse links - 170M

## Cut-off curve - Size 230, 100 A to 630 A



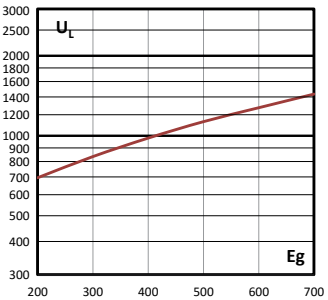

### Total clearing I²t

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).



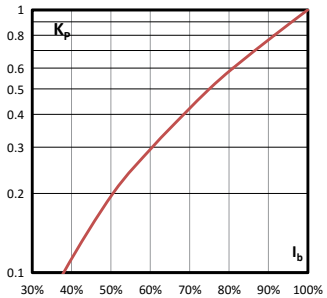

### Arc voltage

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: 170K6422 (Size 000), 170K6426 (Size 230)

# 1000 V d.c. (IEC and UL) - 25 A to 500 A - Sizes 000 and 230 - IGBT fuse links - 170M




## Description

High speed bolted tags high speed fuse links for the protection of IGBT modules, optimised for use in IGBT inverter circuits with DC link rated voltages up to 1000 V d.c.. Low inductance ≤ 20nH.

## Technical data

- Rated voltage: 1000 V d.c. tested at 1000 V d.c. according to UL 248-1
- Rated current: 25 A to 500 A
- Breaking capacity: 50 kA DC (1ms tc UL)
- Operating class: aR

## Standards / Agency information

UL DC Recognised, 1000 V d.c. L/R 1mS max.

CE

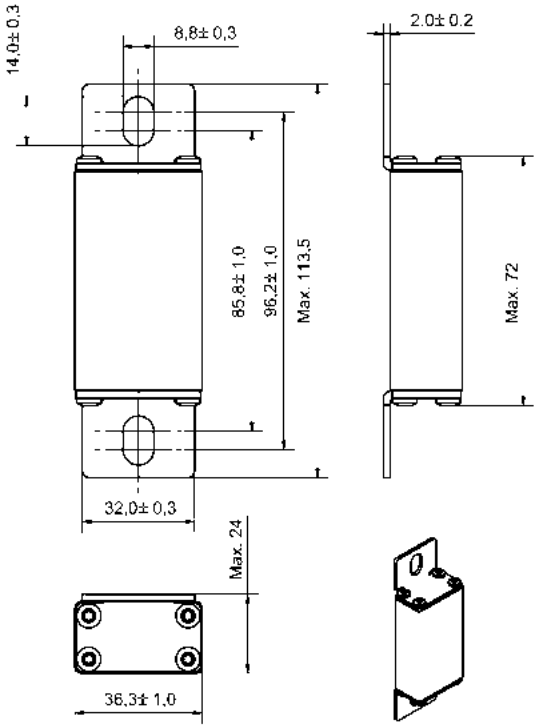
## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | Watts loss (W) | Catalogue numbers -FU/90 | -FN/90 |
|---|---|---|---|---|---|---|
| 000 | 1000 V d.c. (UL) | 25 | 19 | 14 | 170M1802 | 170M1842 |
| | | 32 | 34 | 17 | 170M1803 | 170M1843 |
| | | 40 | 61 | 20 | 170M1804 | 170M1844 |
| | | 50 | 135 | 21 | 170M1805 | 170M1845 |
| | | 63 | 245 | 22 | 170M1806 | 170M1846 |
| | | 80 | 505 | 27 | 170M1807 | 170M1847 |
| | | 100 | 1050 | 32 | 170M1808 | 170M1848 |
| | | 125 | 1900 | 34 | 170M1809 | 170M1849 |
| | | 160 | 4050 | 37 | 170M1810 | 170M1850 |
| | | 200 | 8500 | 43 | 170M1811 | 170M1851 |
| | | 225 | 12,000 | 45 | 170M1812 | 170M1852 |
| | | 250 | 16,000 | 48 | 170M1813 | 170M1853 |
| 230 | 1000 V d.c. (UL) | 100 | 600 | 38 | 170M1824 | 170M1860 |
| | | 125 | 1200 | 42 | 170M1825 | 170M1861 |
| | | 160 | 2550 | 48 | 170M1826 | 170M1862 |
| | | 200 | 4650 | 55 | 170M1827 | 170M1863 |
| | | 250 | 9300 | 62 | 170M1828 | 170M1864 |
| | | 315 | 18,500 | 68 | 170M1829 | 170M1865 |
| | | 350 | 24,500 | 75 | 170M1830 | 170M1866 |
| | | 400 | 37,500 | 80 | 170M1831 | 170M1867 |
| | | 450 | 52,000 | 85 | 170M1832 | 170M1868 |
| | | 500 | 69,500 | 90 | 170M1833 | 170M1869 |

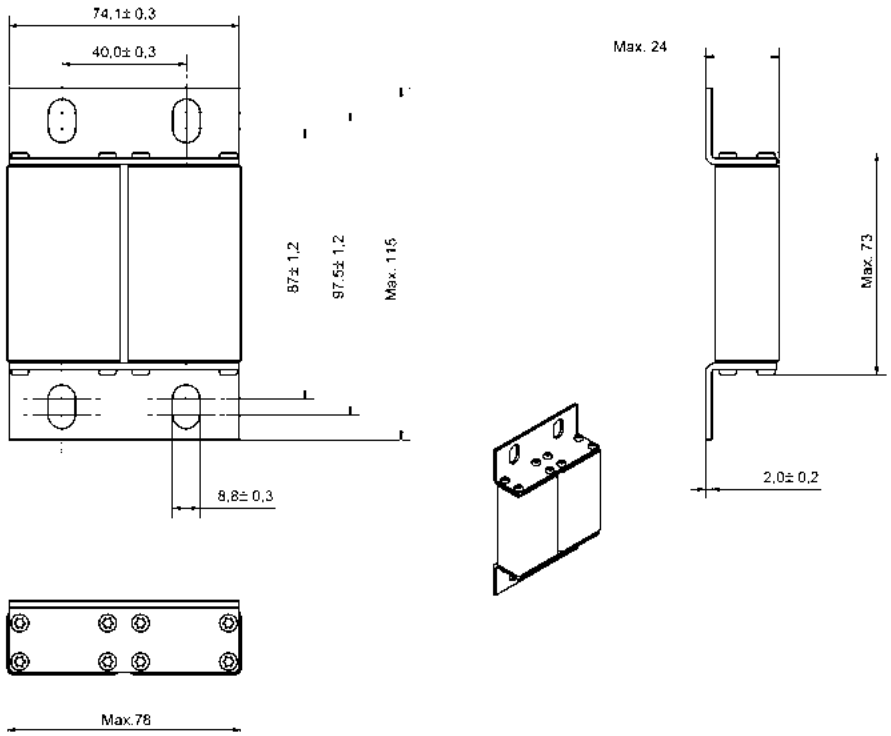
Data sheets: 170K6680 (Size 000), 170K6682 (Size 230)

## 1000 V d.c. (IEC and UL) - 25 A to 500 A - Sizes 000 and 230 - IGBT fuse links - 170M

### Dimensions (mm) - Size 000



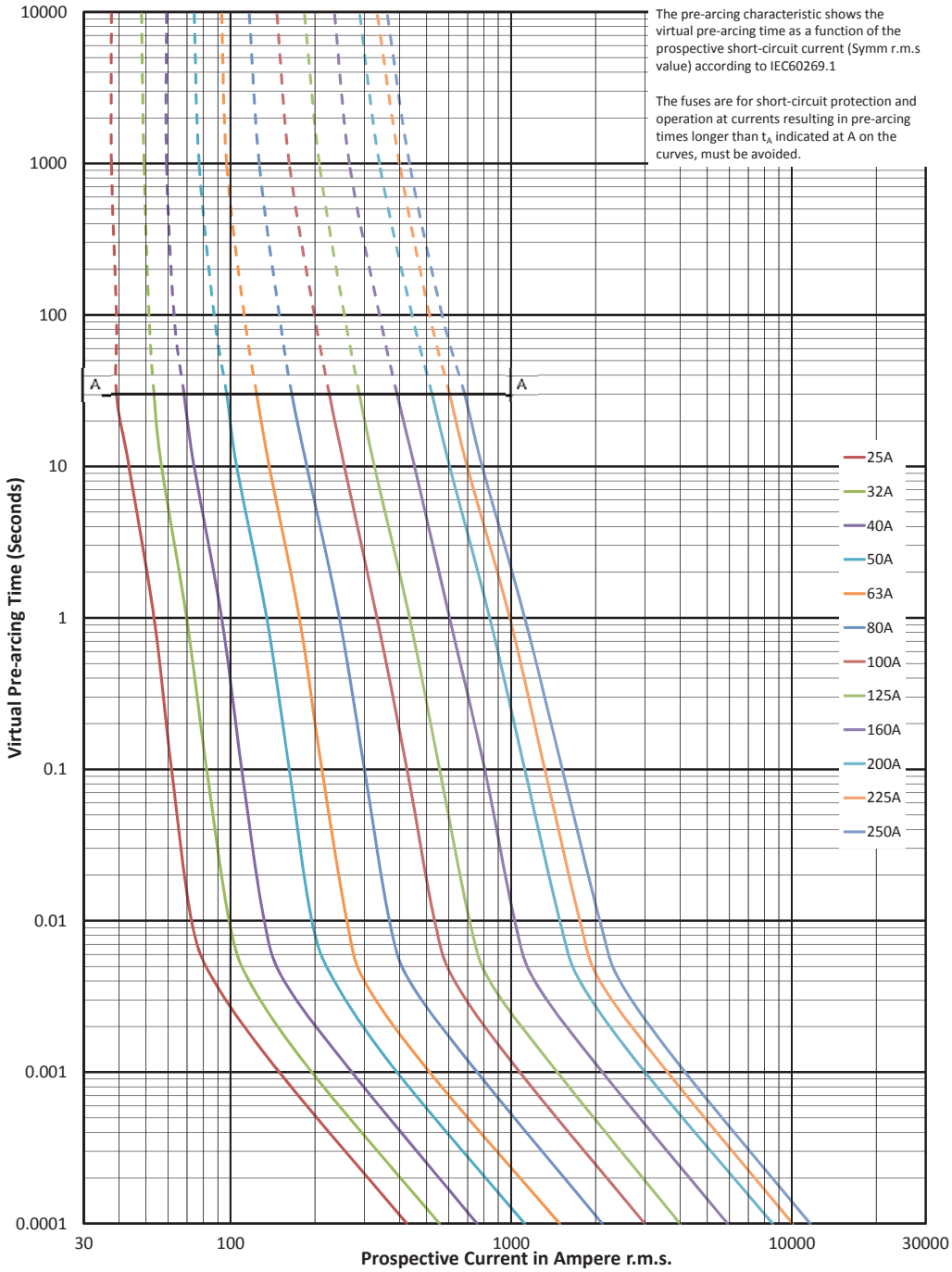

### Dimensions (mm) - Size 230




Data sheets: 170K6680 (Size 000), 170K6682 (Size 230)

# 1000 V d.c. (IEC and UL) - 25 A to 500 A - Sizes 000 and 230 - IGBT fuse links - 170M

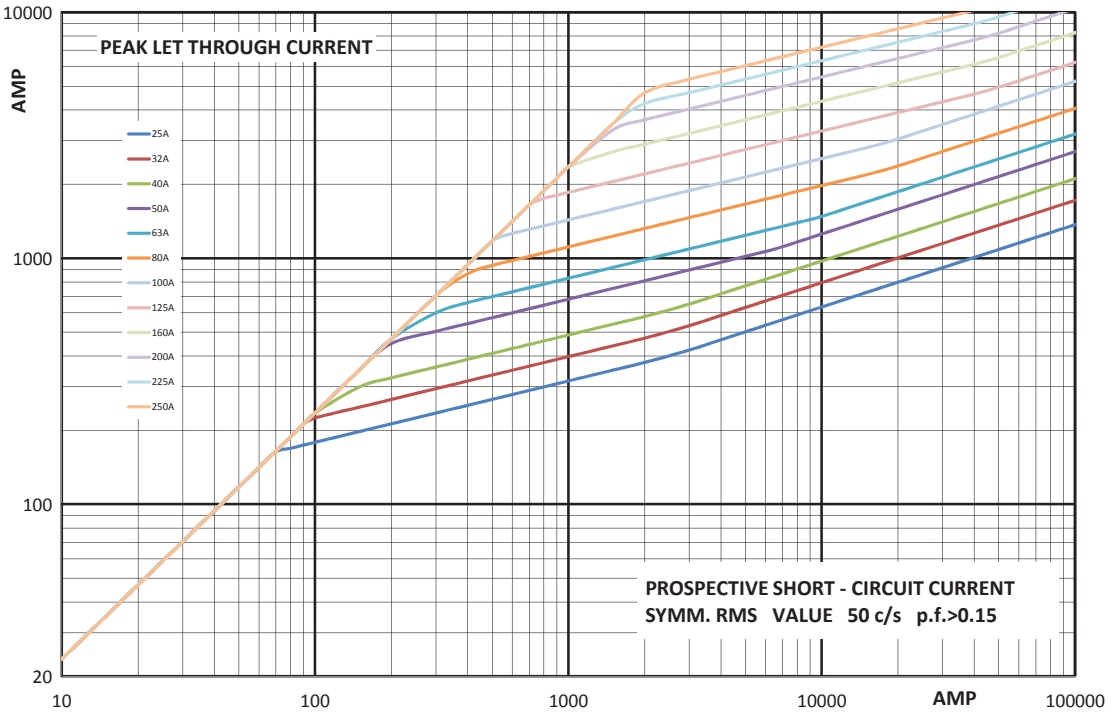
## Time-current curve - Size 000, 25 A to 250 A




Data sheets: 170K6680 (Size 000), 170K6682 (Size 230)

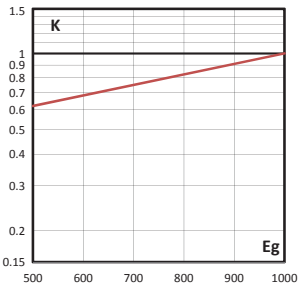
# 1000 V d.c. (IEC and UL) - 25 A to 500 A - Sizes 000 and 230 - IGBT fuse links - 170M

## Cut-off curve - Size 000, 25 A to 250 A



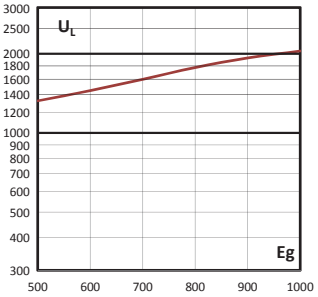

### Total clearing $I^2t$

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).



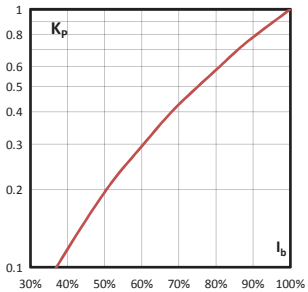

### Arc voltage

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

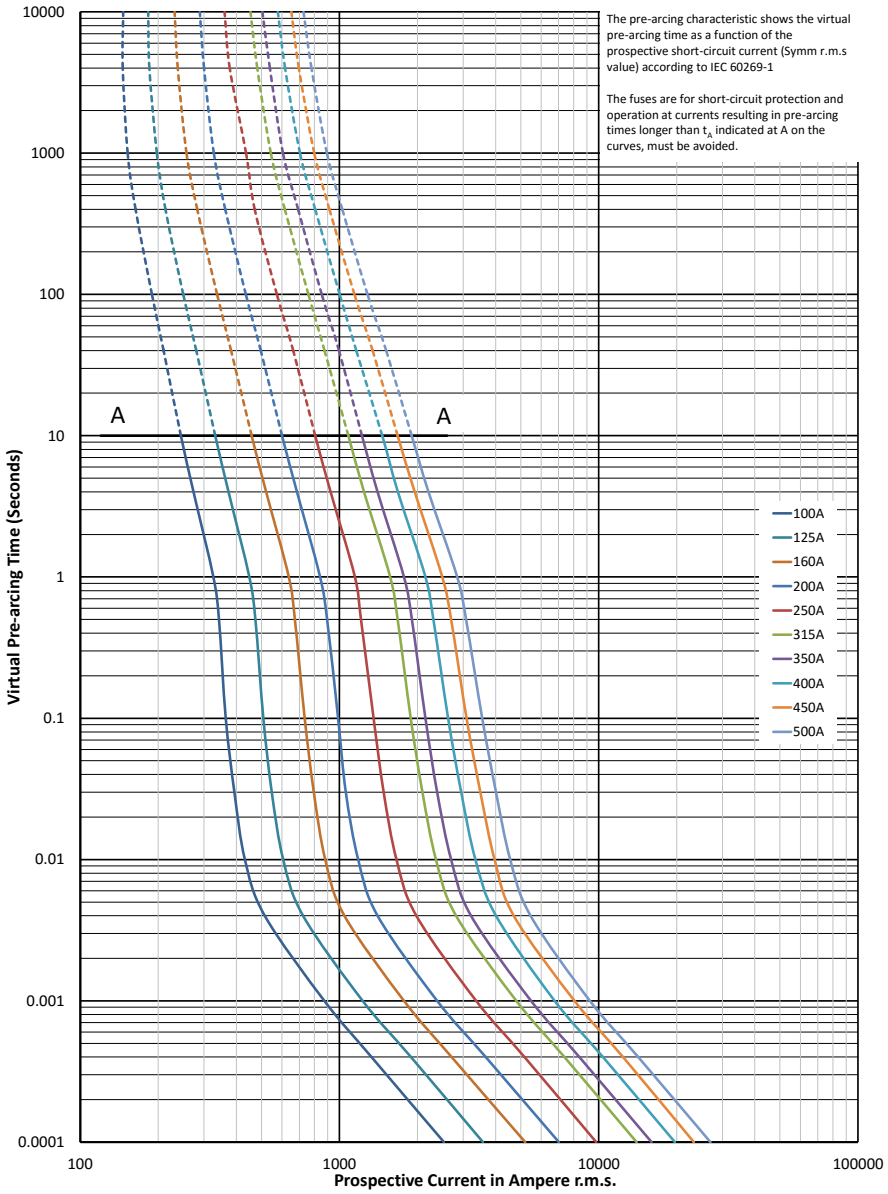
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




Data sheets: 170K6680 (Size 000), 170K6682 (Size 230)

# 1000 V d.c. (IEC and UL) - 25 A to 500 A - Sizes 000 and 230 - IGBT fuse links - 170M

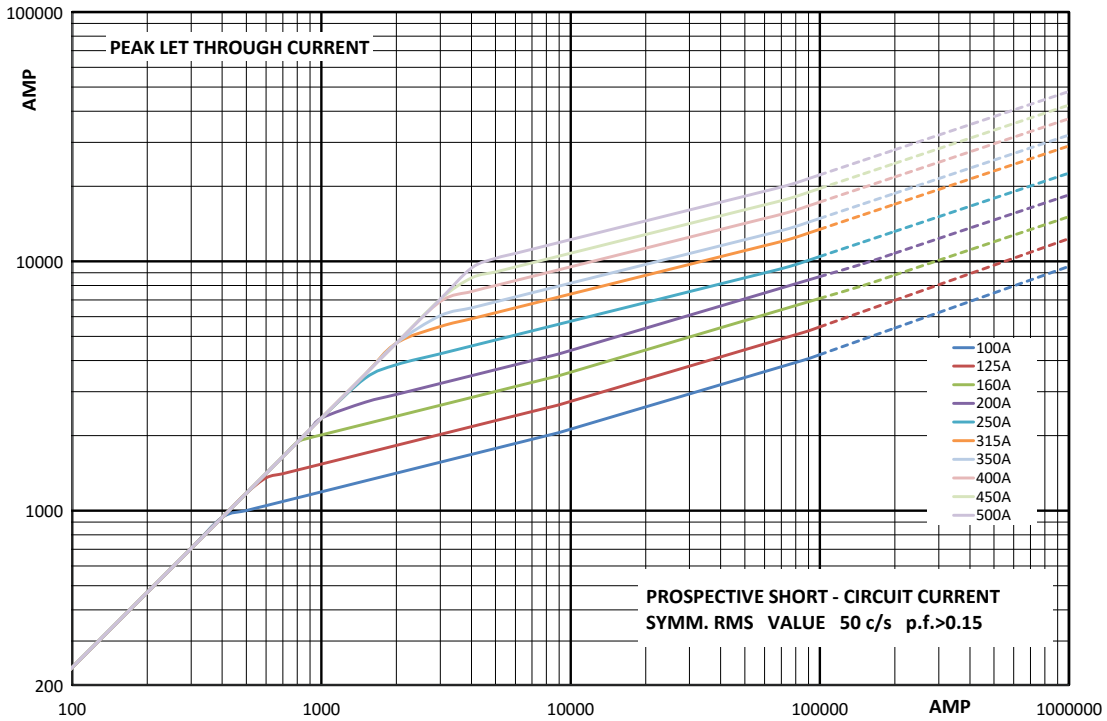
## Time-current curve - Size 230, 100 A to 500 A




Data sheets: 170K6680 (Size 000), 170K6682 (Size 230)

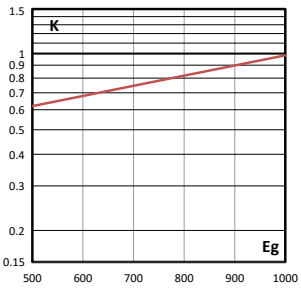
# 1000 V d.c. (IEC and UL) - 25 A to 500 A - Sizes 000 and 230 - IGBT fuse links - 170M

## Cut-off curve - Size 230, 100 A to 500 A



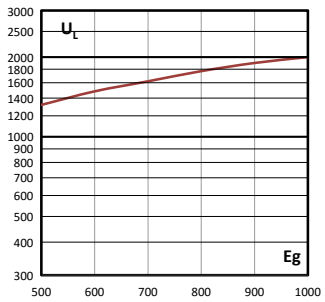

### Total clearing $I^2t$

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).



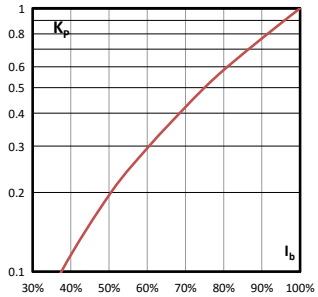

### Arc voltage

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: 170K6680 (Size 000), 170K6682 (Size 230)

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

## 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

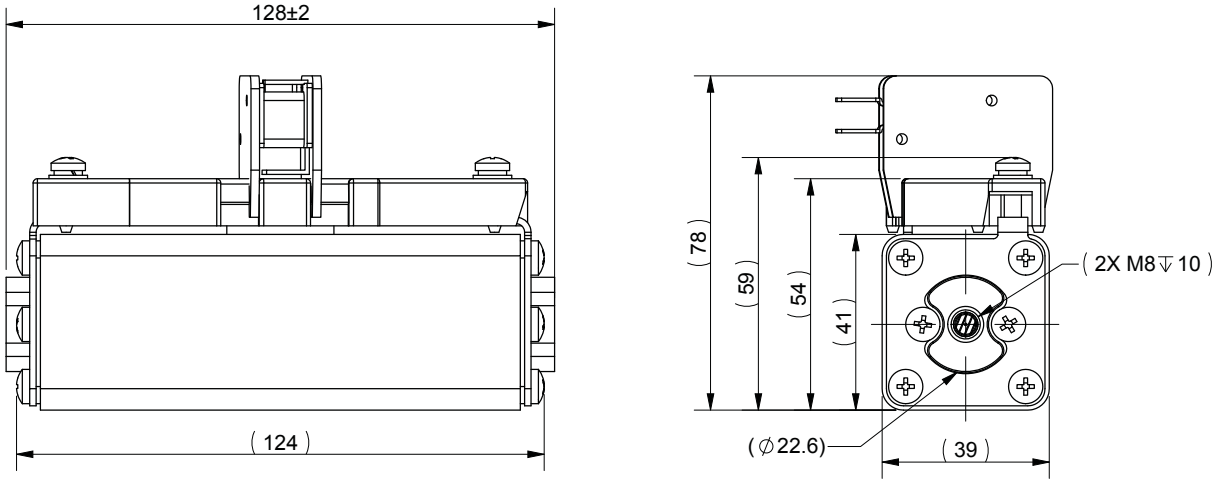
## Catalogue numbers

| Fuse link type | Fuse link body size | Rated voltage | Rated current (Amps) | Breaking capacity | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 750 V d.c. | Watts loss (W) 0.8 $I_n$ | Watts loss (W) $I_n$ | Catalogue numbers |
|---|---|---|---|---|---|---|---|---|---|
| Flush end | 1* | 750 V d.c. / 900 V d.c. (IEC) | 50 | 80 kA at 750 V d.c. L/R 65 ms<br>80 kA at 900 V d.c. L/R 45ms | 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 |
| | | | 800 | | 349,900 | 1,450,000 | 89 | 178 | 170M2016 |
| Parallel | 23 | 800 V d.c. (IEC/ UL) | 1000 | 100 kA at 800 V d.c., L/R 40 ms | 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 |

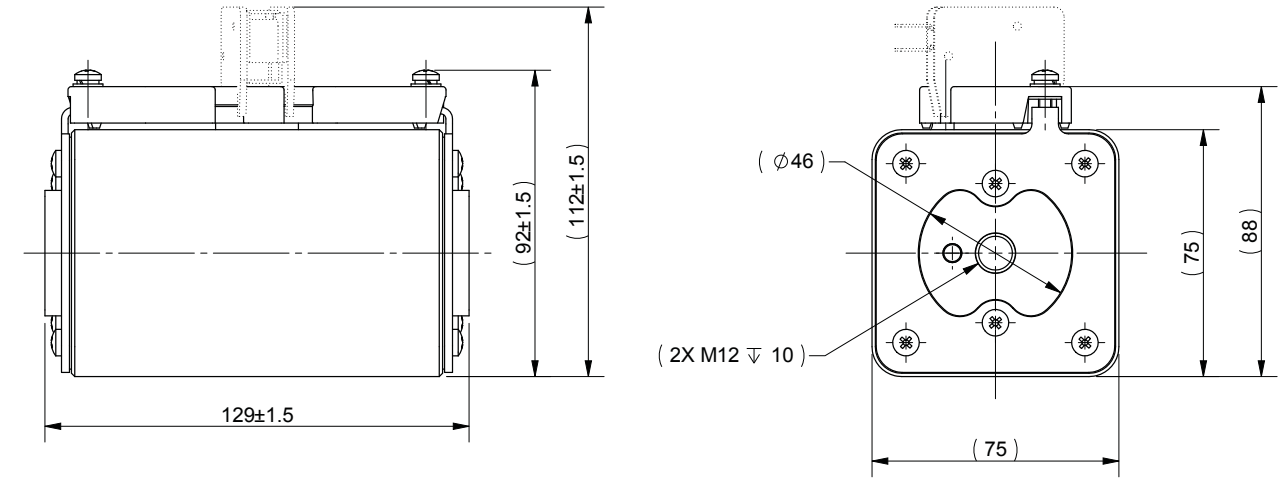
Data sheets: 720140, size 1* 5785524, 3 5785521, 23 5785525

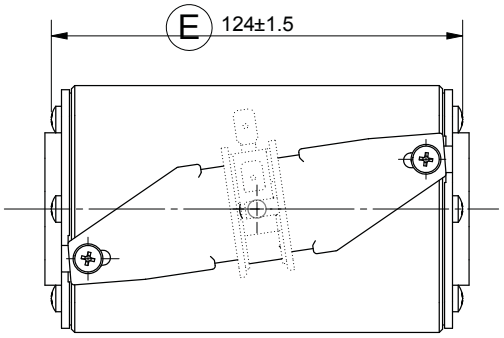
## 750 V d.c. (IEC) - 50 A to 1600 A - Sizes 1*, 3 and 23 - Square body fuse links - 170M

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




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

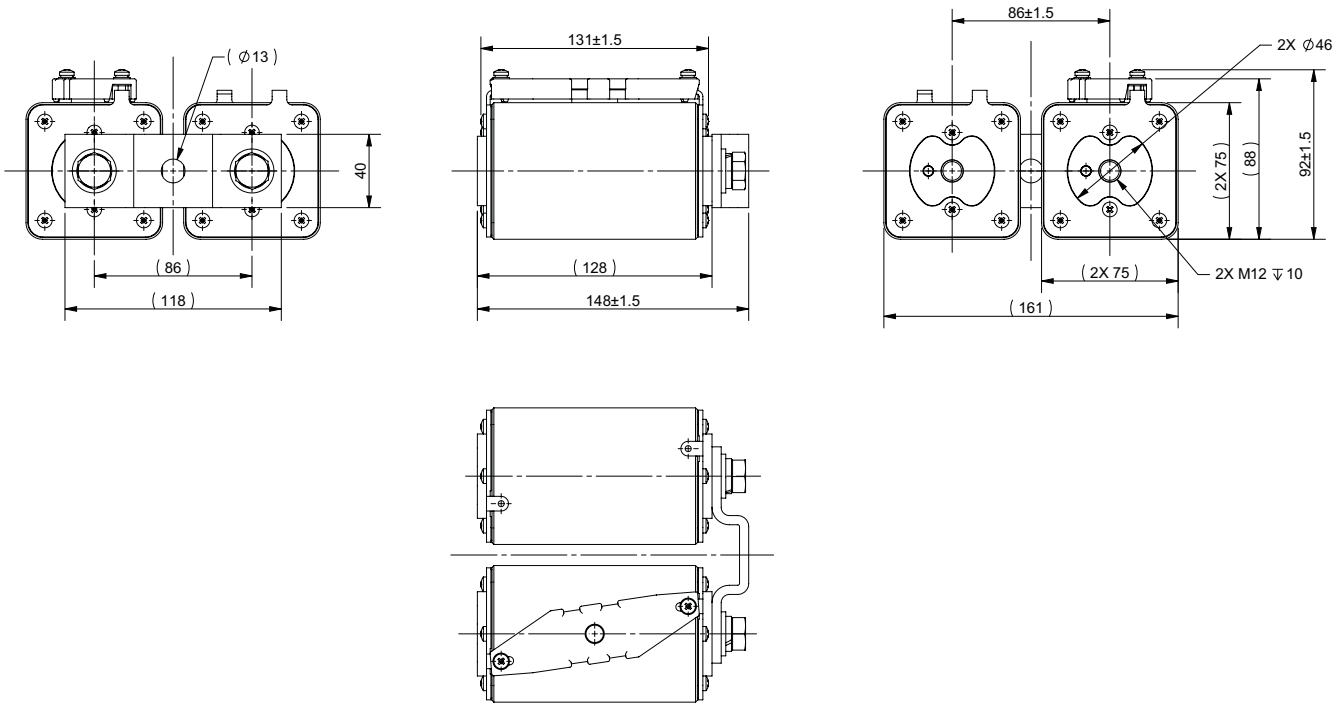


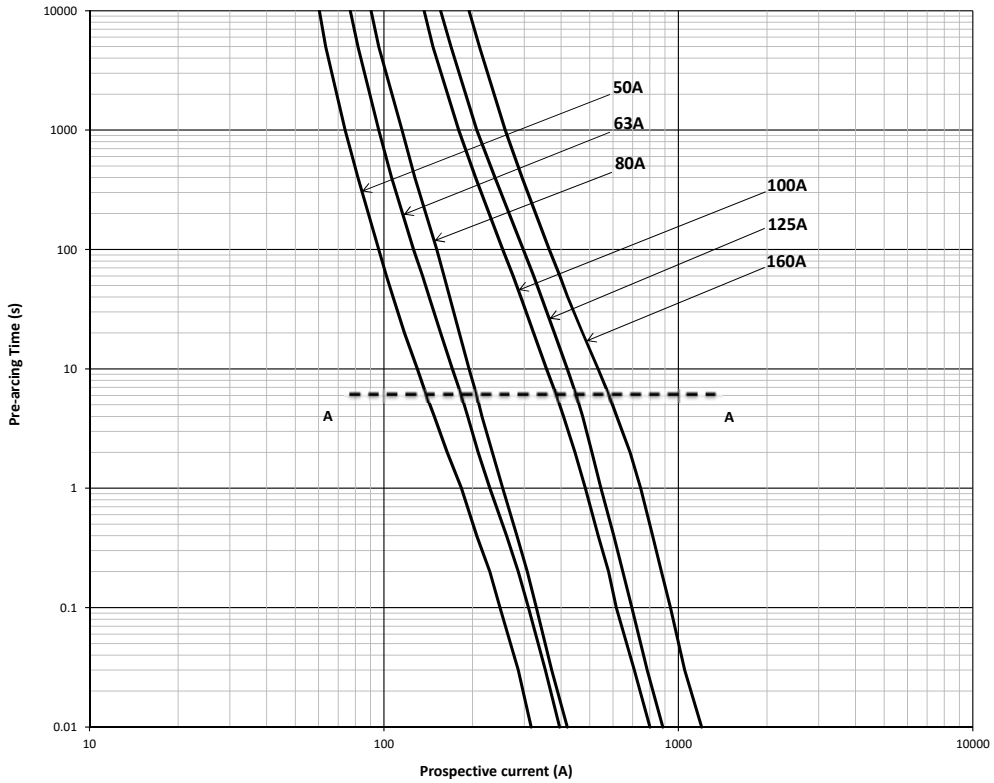

Data sheets: 720140, size 1* 5785524, 3 5785521, 23 5785525

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

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



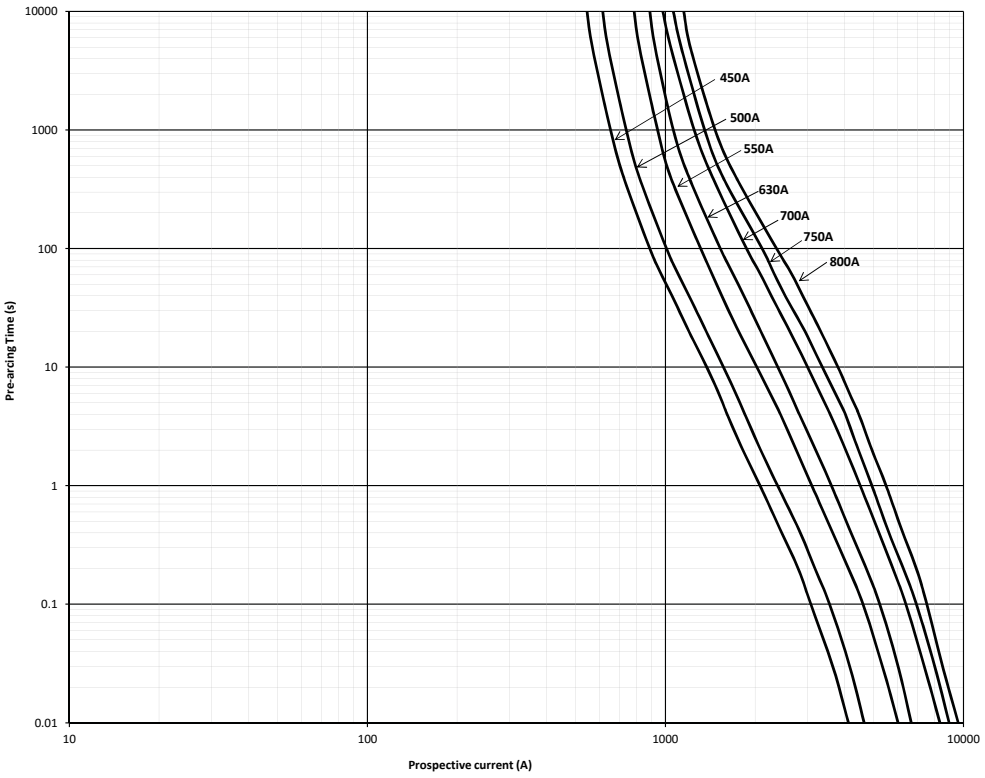

## Time-current curve - 170M2000 to 170M2005, 50 A to 160 A



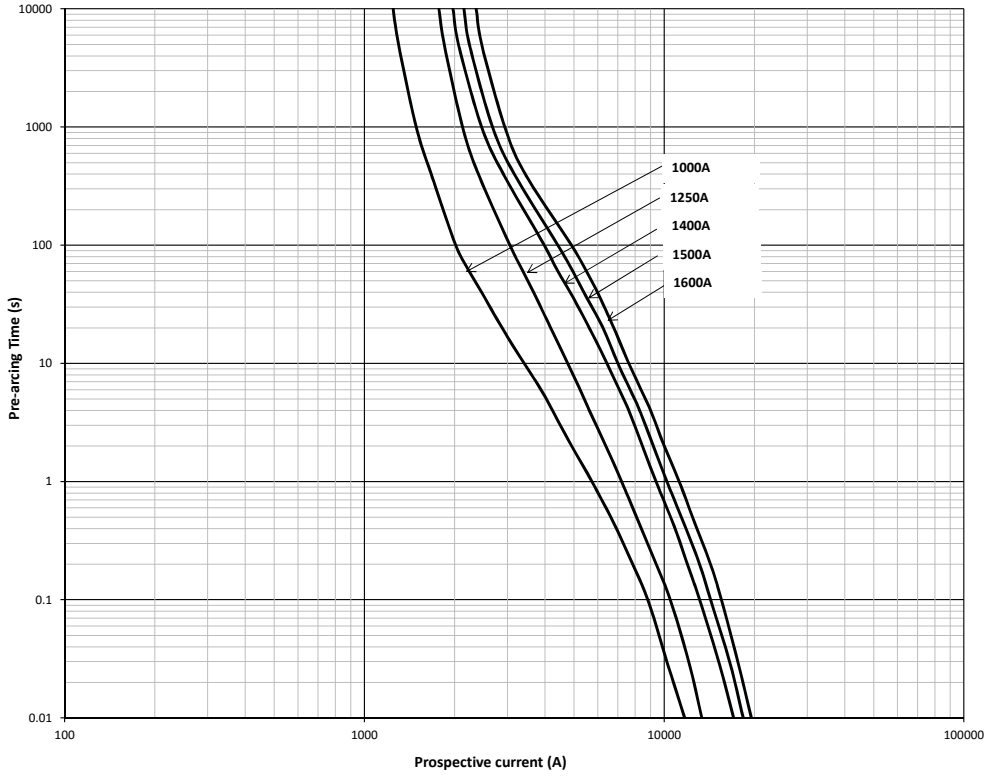

Data sheets: 720140, size 1* 5785524, 3 5785521, 23 5785525

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

### 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

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

## 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

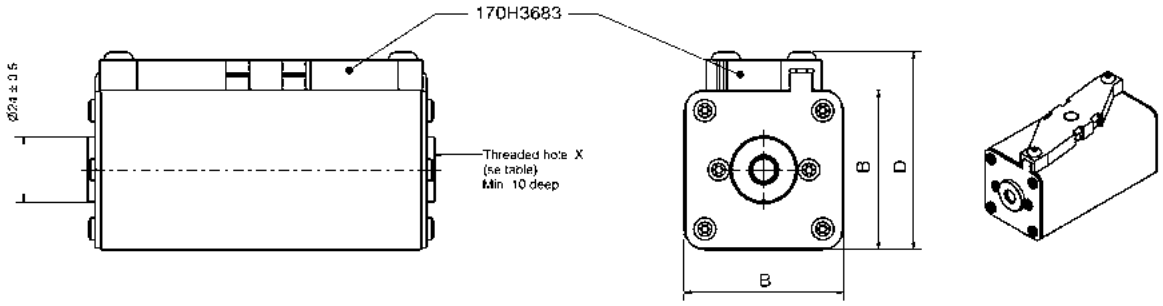
## Catalogue numbers

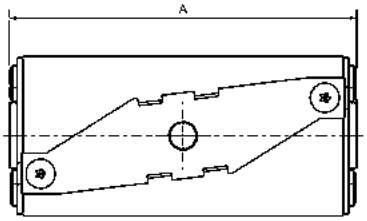
| Fuse link body size | Rated voltage | Breaking capacity | Rated current (Amps) | $I^2t$ ($A^2s$) Pre-arcing | Watts loss (W) | Catalogue numbers -BK flush end | Fuse link type | Catalogue numbers -EK knife blade | Fuse link type |
|---|---|---|---|---|---|---|---|---|---|
| 1* | 750 V d.c. (IEC) | 80 kA at 43ms | 63 | 1100 | 10 | 170E3577 | BK/130 | 170E3583 | EK/155 |
| | | | 80 | 1750 | 13 | 170E3578 | | 170E3584 | |
| | | | 100 | 3000 | 16 | 170E3579 | | 170E3585 | |
| | | | 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 | |
| 2 | 750 V d.c. (IEC) | 100 kA at 15ms | 250 | 17,000 | 47 | 170E8335 | | 170E8345 | EK/170 |
| | | | 315 | 28,000 | 57 | 170E8336 | | 170E8346 | |
| | | | 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)

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

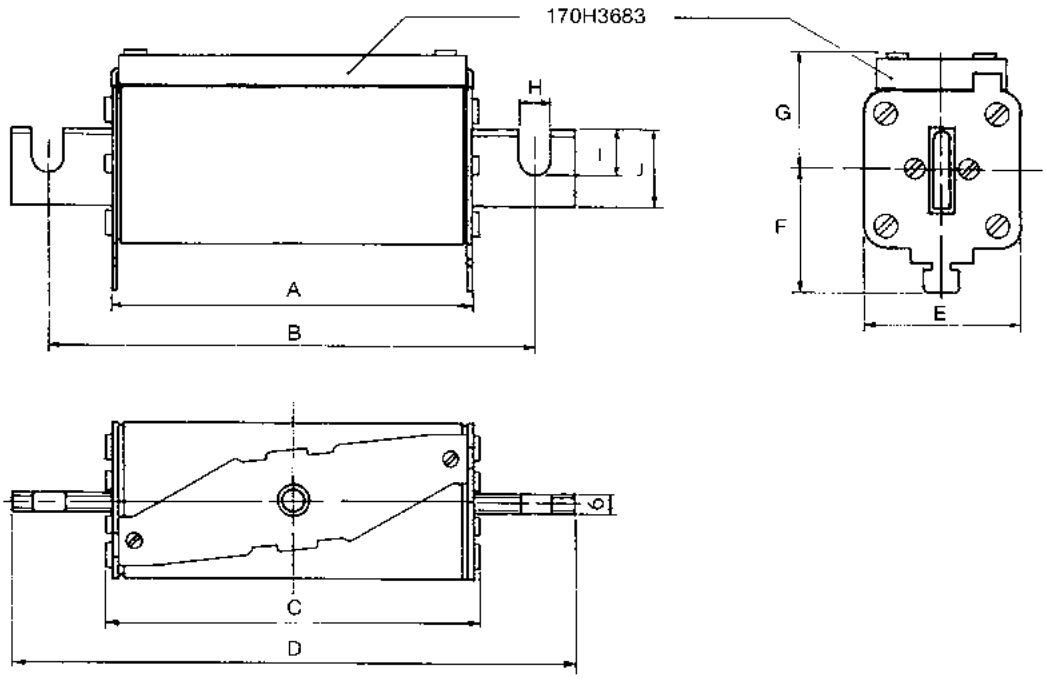
## Dimensions (mm) - BK/130




| Size | A | B | D | X |
|---|---|---|---|---|
| 1*BK/130 | 129 | 43 | 61 | M8 |
| 1 BK/130 | 130 | 51 | 69 | M8 |
| 2 BK/130 | 130 | 59 | 77 | M10 |
| 3 BK/130 | 131 | 74 | 90 | M12 |

## Dimensions (mm) - EK/

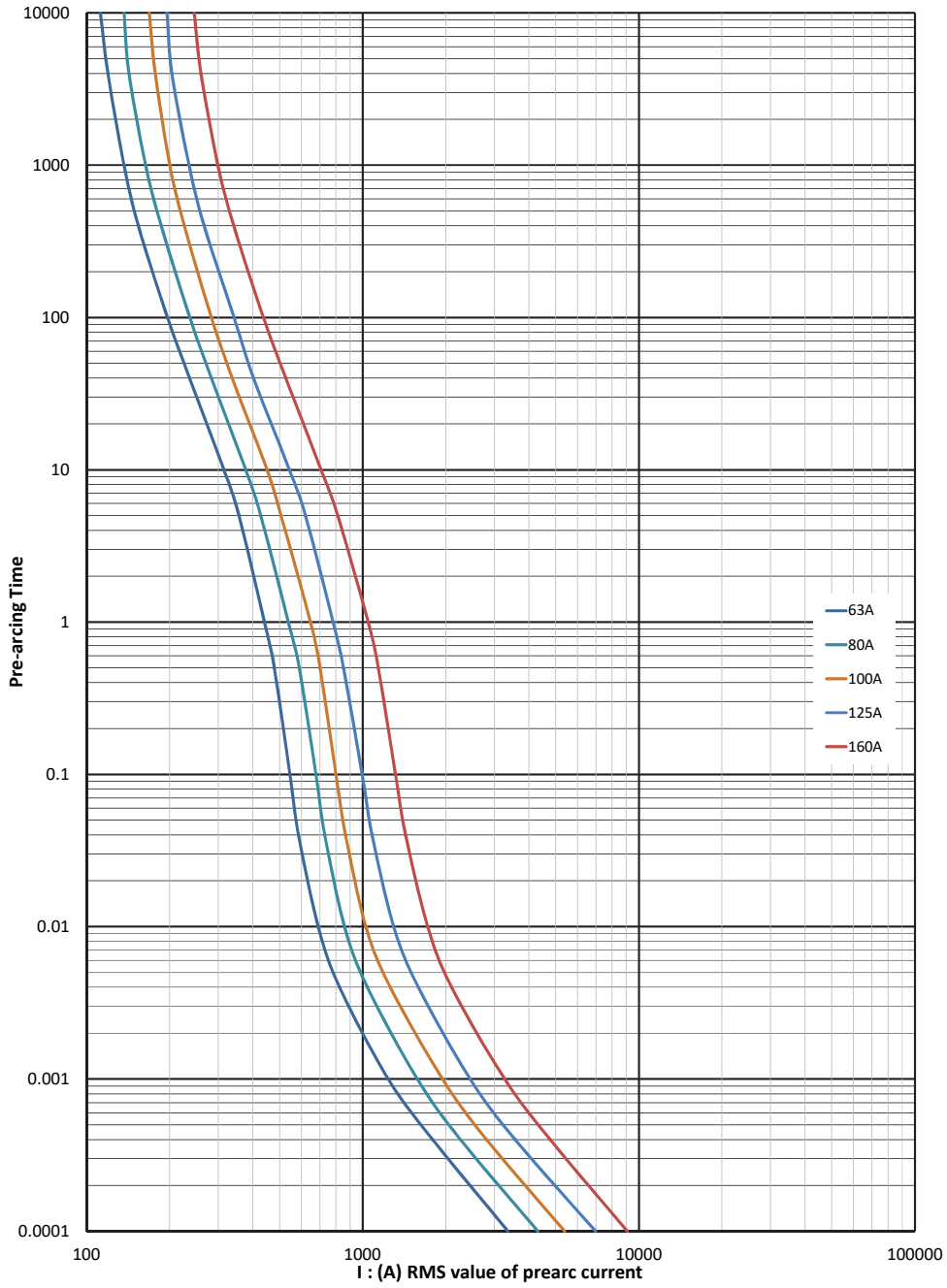



| Size | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 1*EK/155 | 124 | 156 | 129 | 180 | 43 | 36 | 41 | 9 | 9 | 18 |
| 1 EK/165 | 124 | 166 | 129 | 191 | 51 | 37 | 41 | 11 | 14 | 25 |
| 2 EK/170 | 124 | 170 | 129 | 205 | 59 | 42 | 48 | 13 | 21 | 30 |
| 3 EK/170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

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

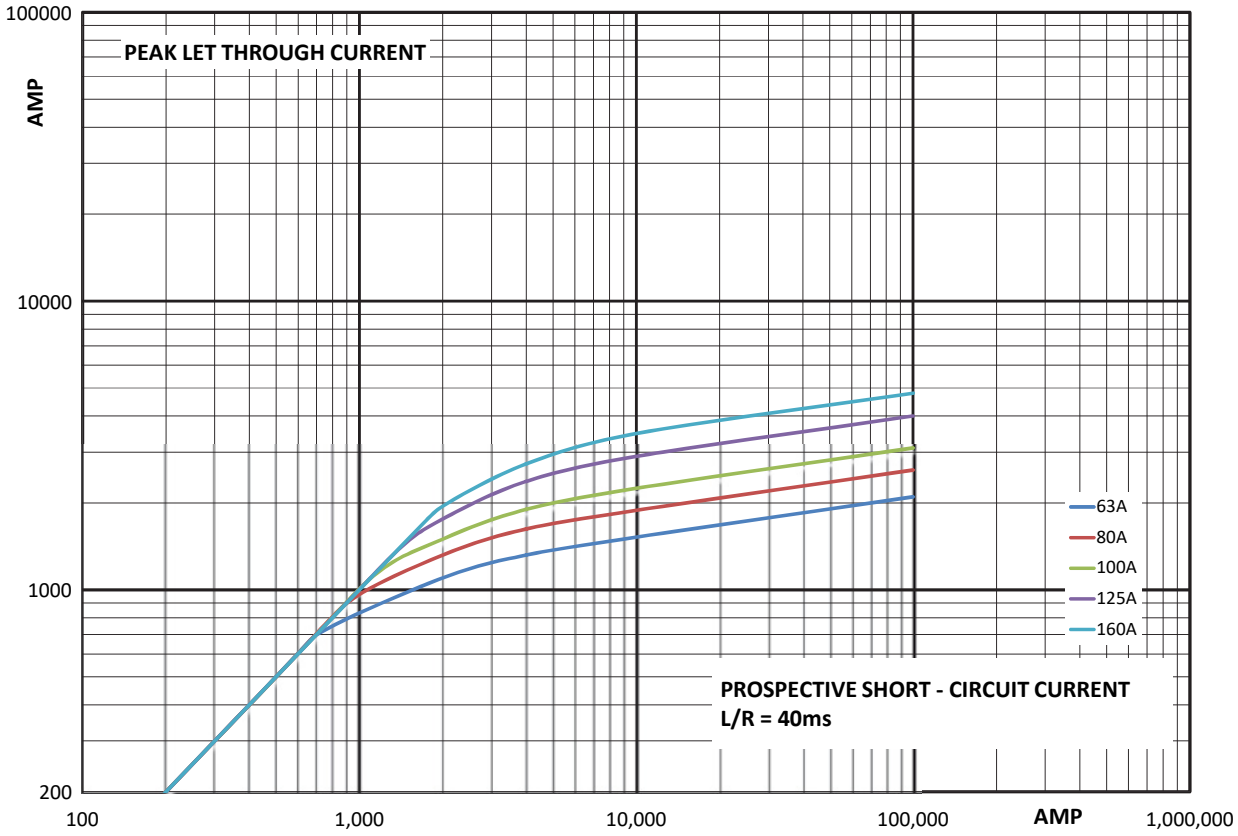
## Time-current curve - Size 1*, 63 A to 160 A




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

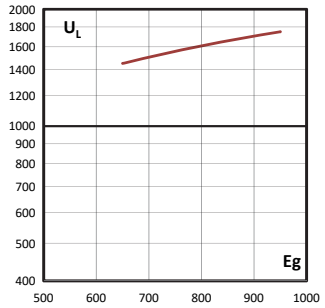
# 750 V d.c. (IEC) - 63 A to 500 A - Sizes 1*, 1, 2 and 3 - Square body fuse links - 170E

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



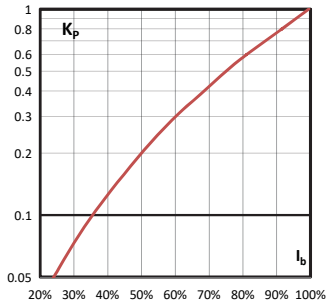

### Arc voltage

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

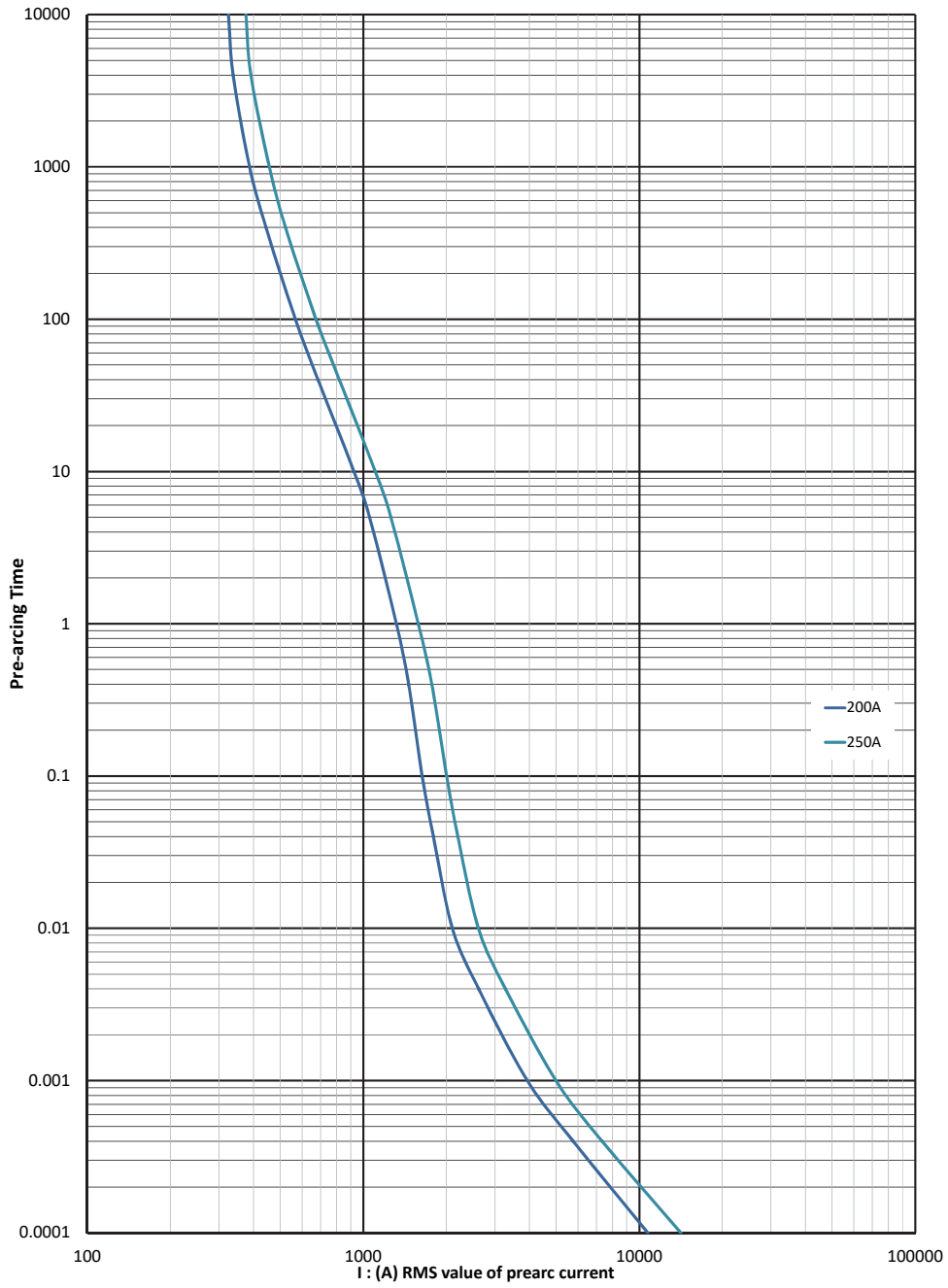
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




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

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

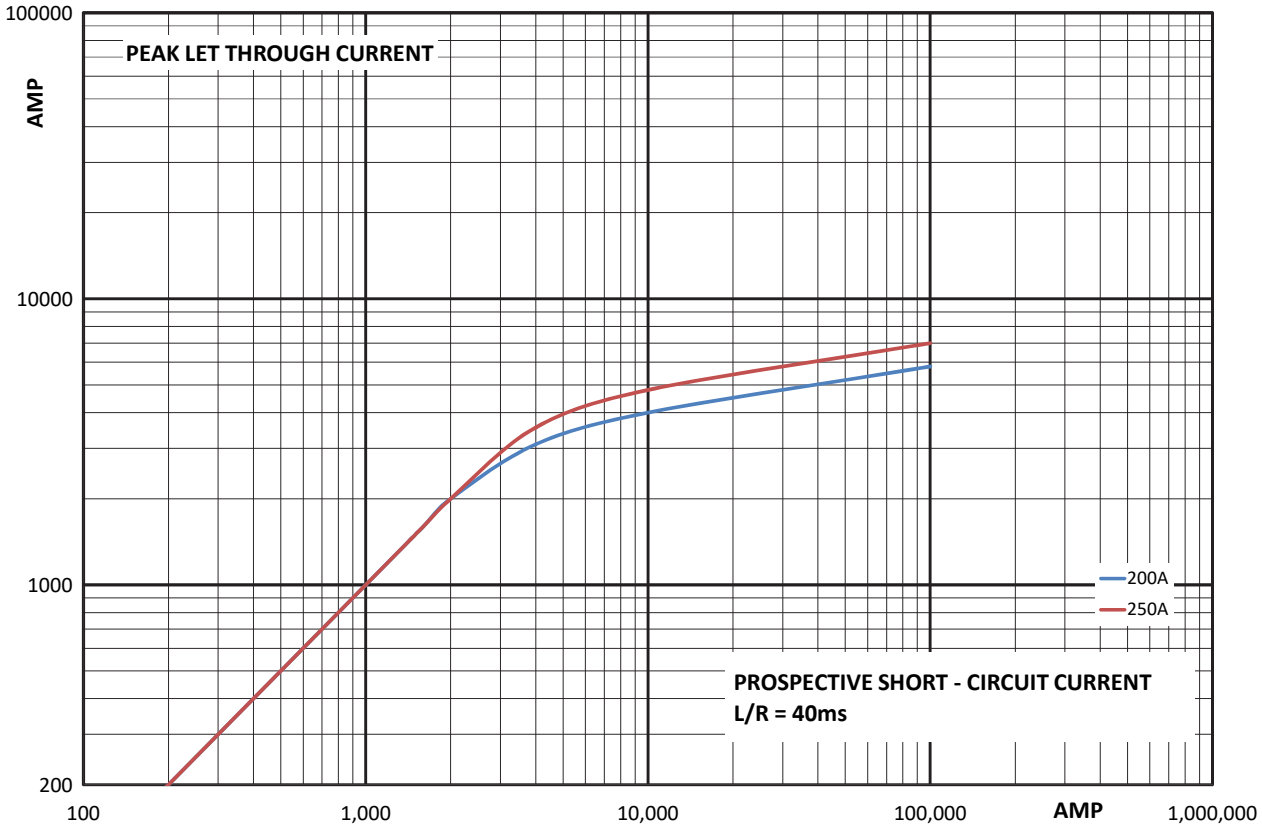
## Time-current curve - Size 1, 200 A and 250 A




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

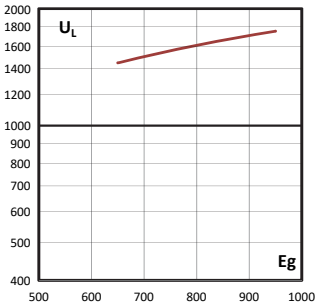
## 750 V d.c. (IEC) - 63 A to 500 A - Sizes 1*, 1, 2 and 3 - Square body fuse links - 170E

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



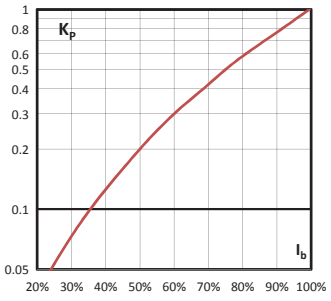

### Arc voltage

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

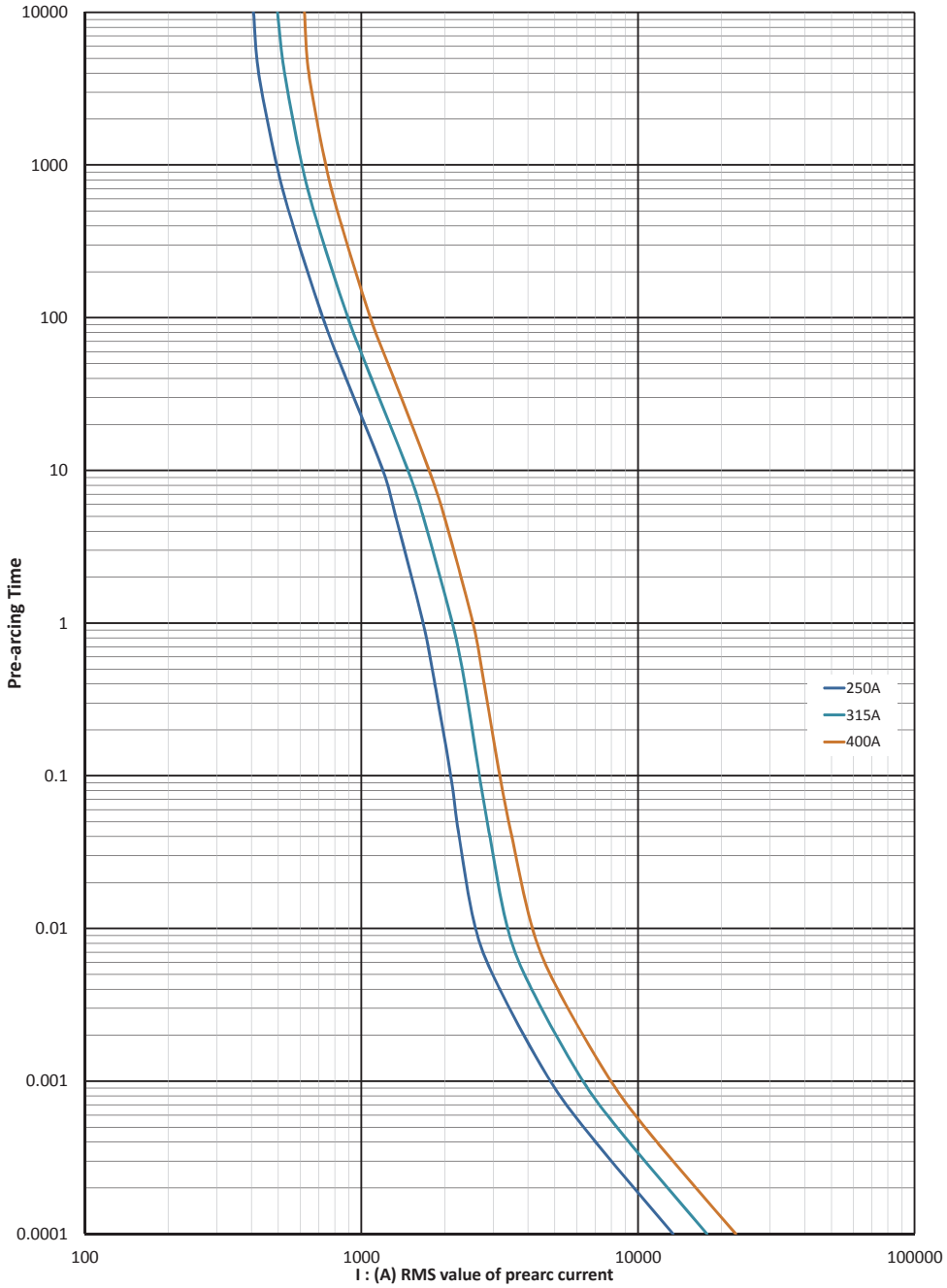
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




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

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

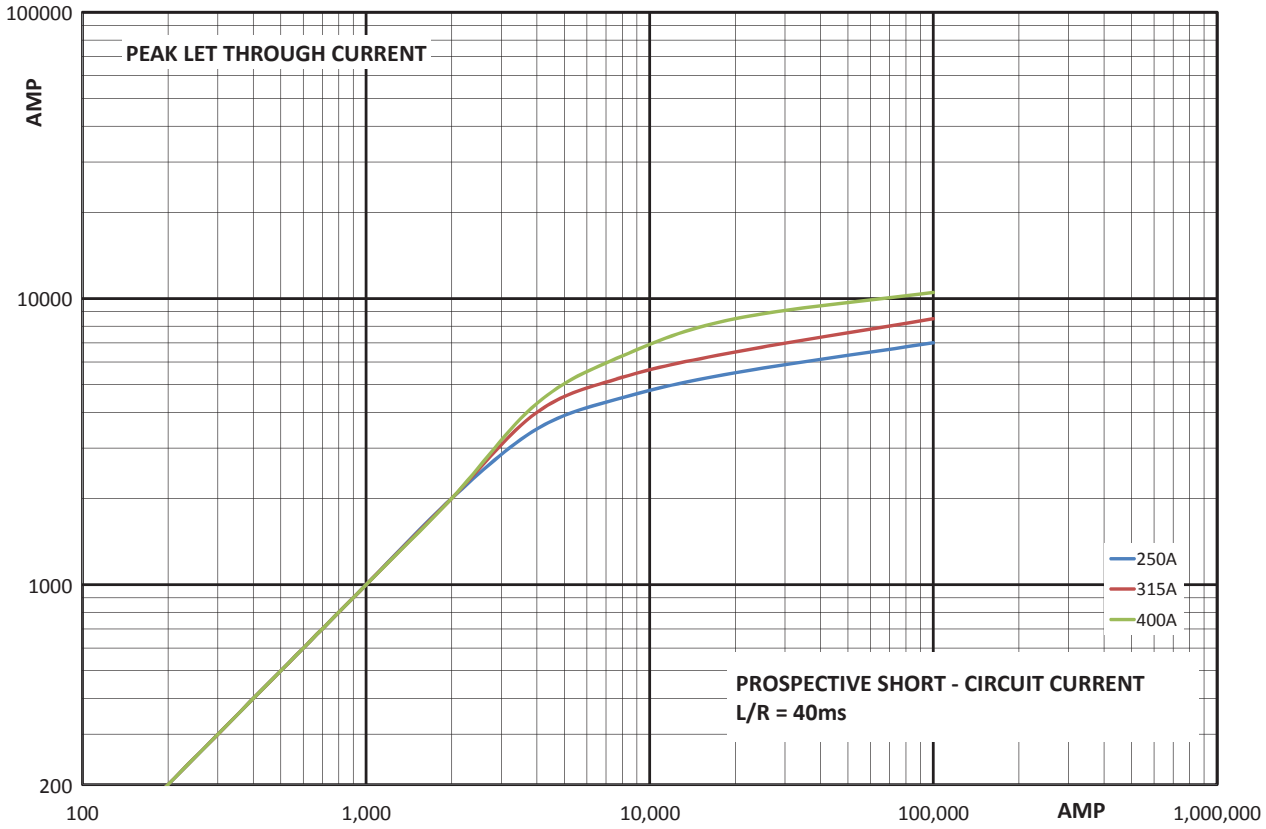
## Time-current curve - Size 2, 250 A to 400 A




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

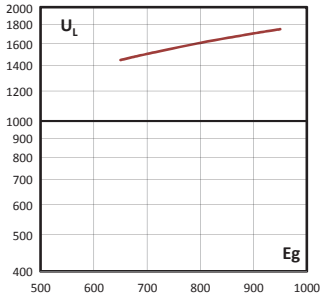
## 750 V d.c. (IEC) - 63 A to 500 A - Sizes 1*, 1, 2 and 3 - Square body fuse links - 170E

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



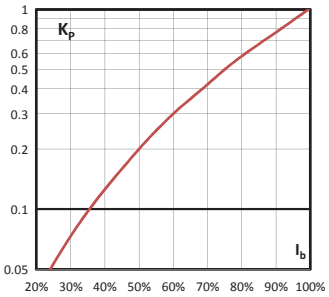

### Arc voltage

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

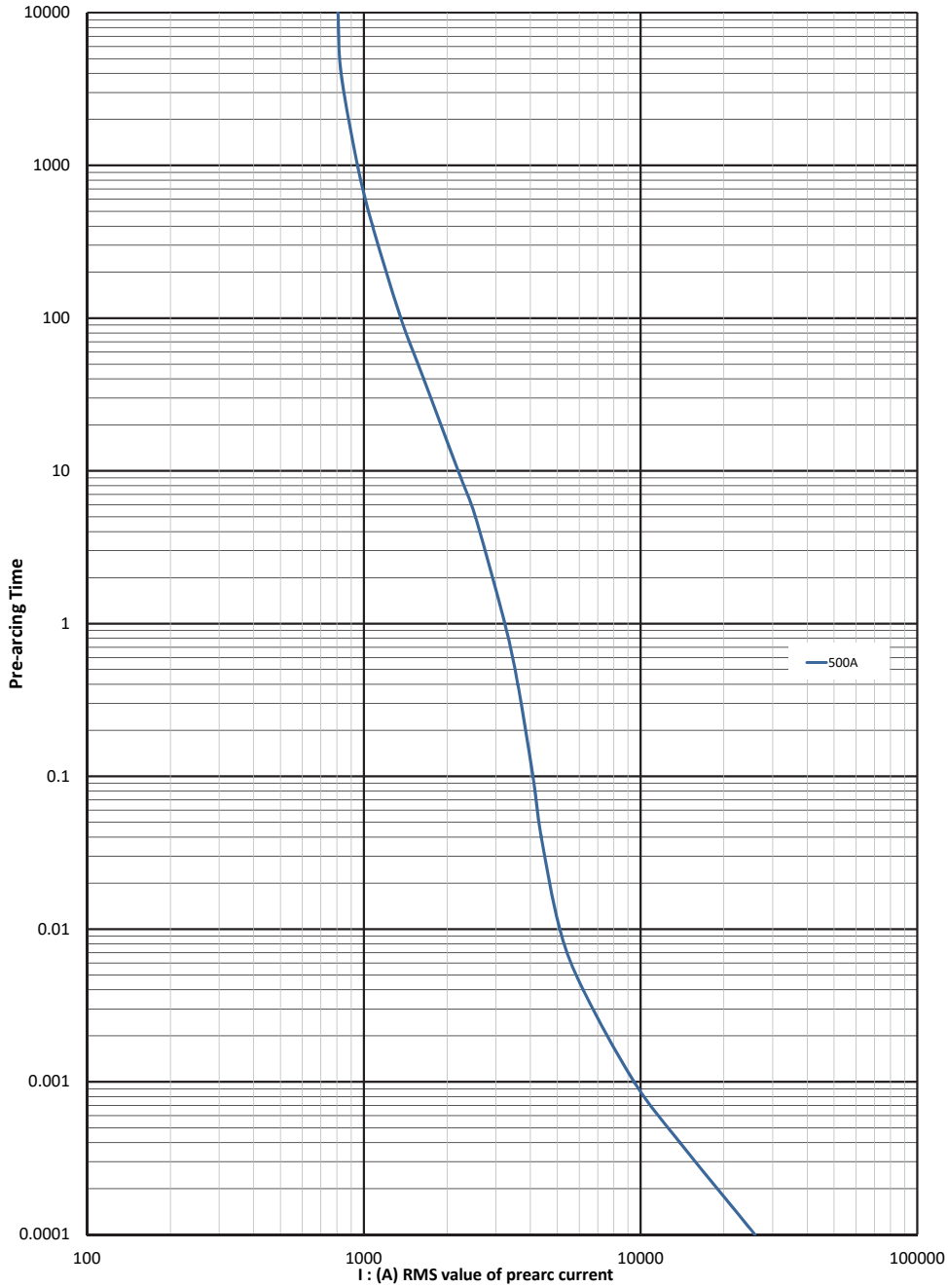
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




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

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

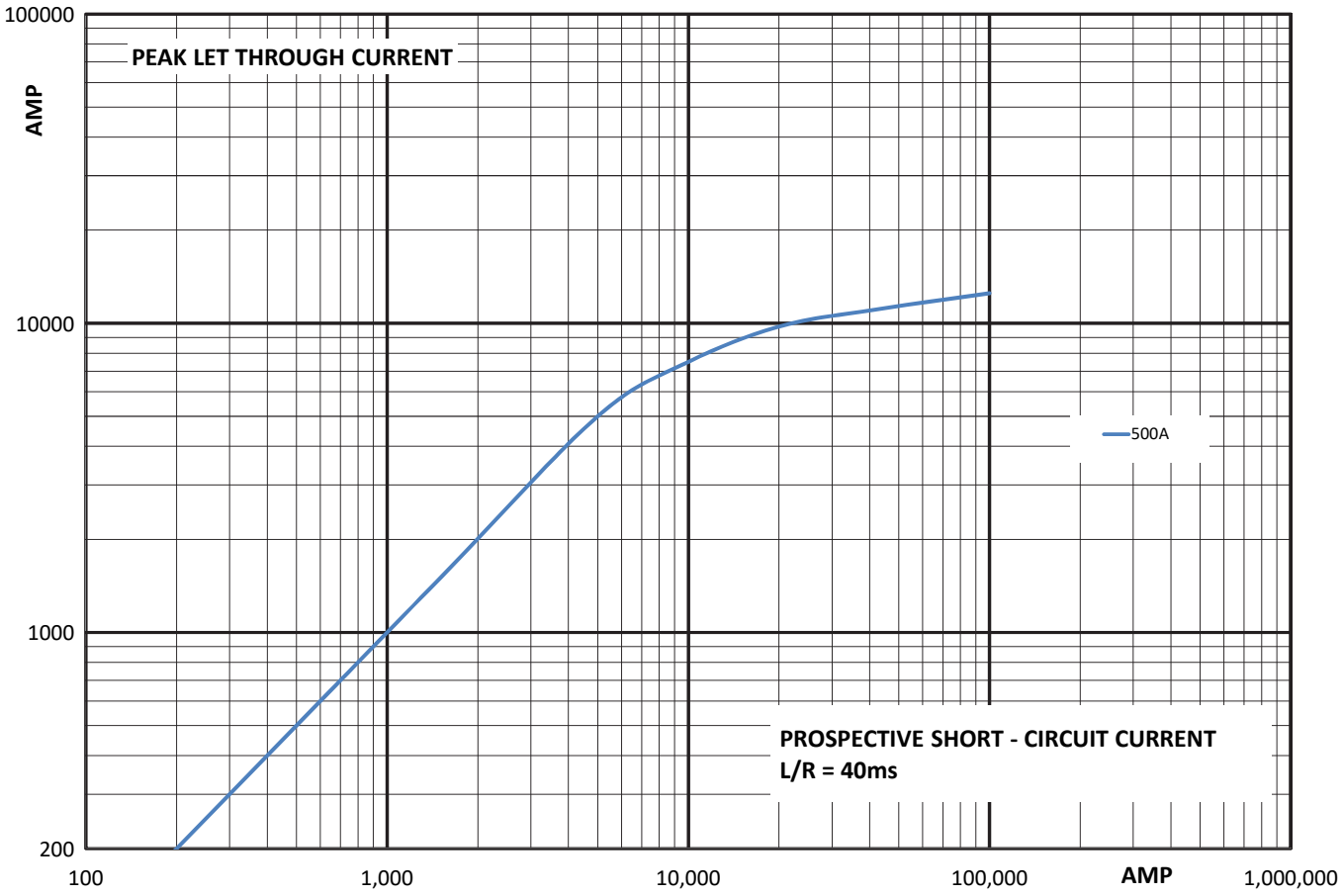
## Time-current curve - Size 3, 500 A




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

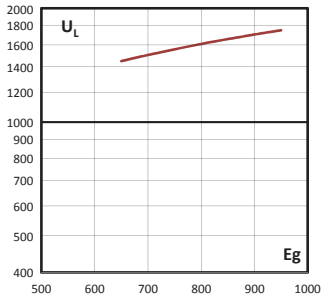
## 750 V d.c. (IEC) - 63 A to 500 A - Sizes 1*, 1, 2 and 3 - Square body fuse links - 170E

### Cut-off curve - Size 2, 500 A



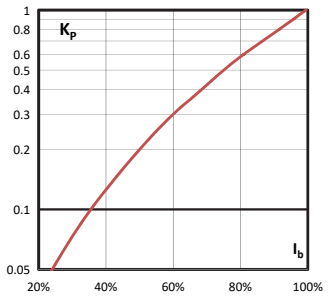

### Arc voltage

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)

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

## 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

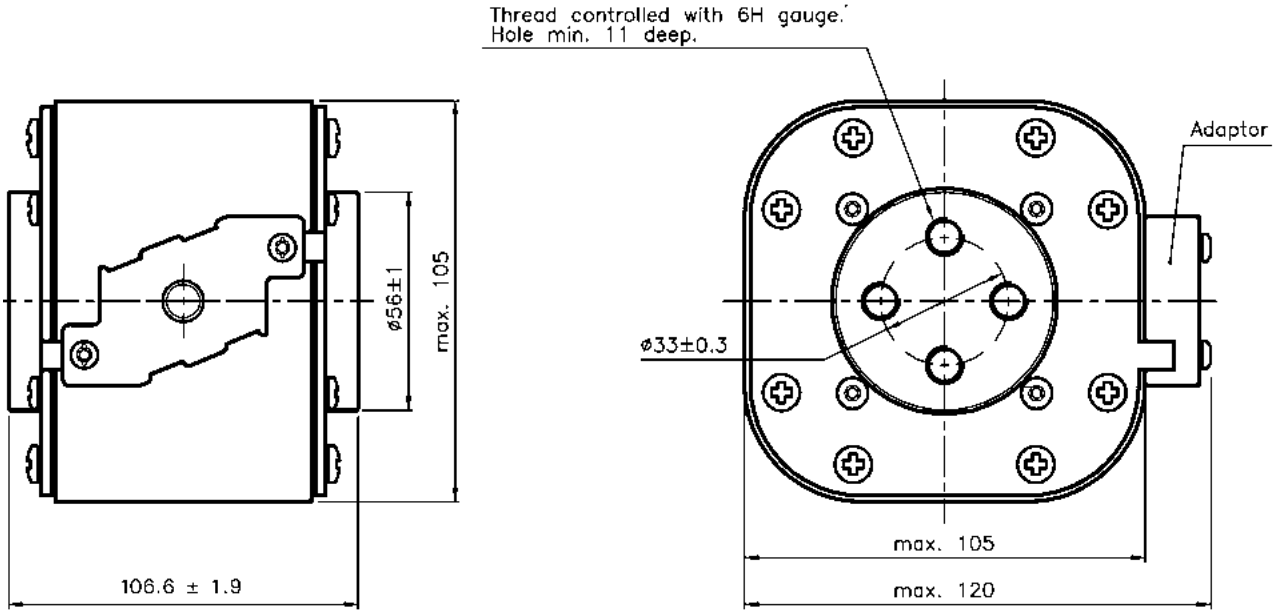
## Standards / Agency information

Consult Eaton bulehighspeedtechnical@eaton.com

## Catalogue numbers

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

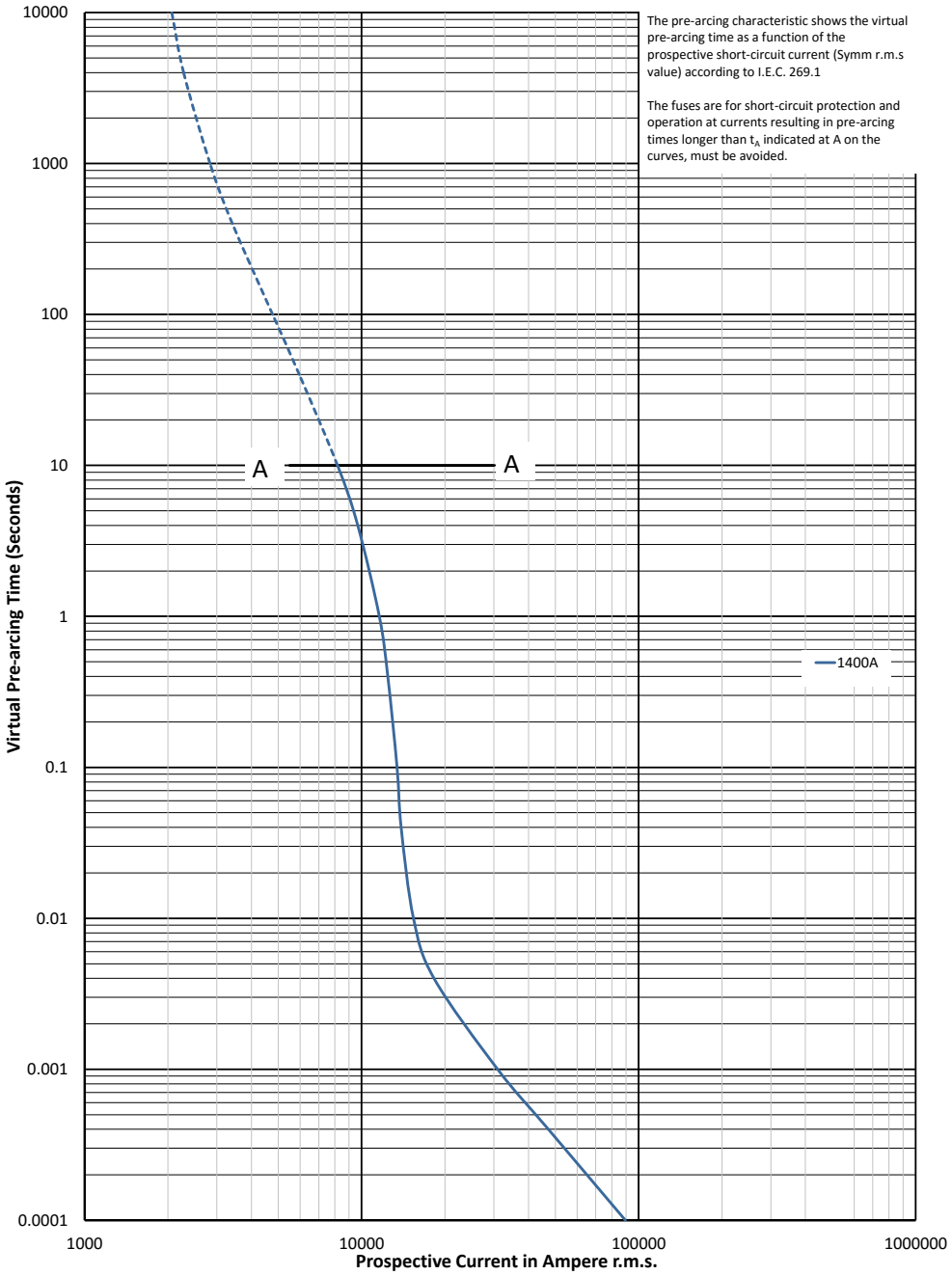
## Dimensions (mm)




Data sheet: 170K6640

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

## Time-current curve - 1400 A

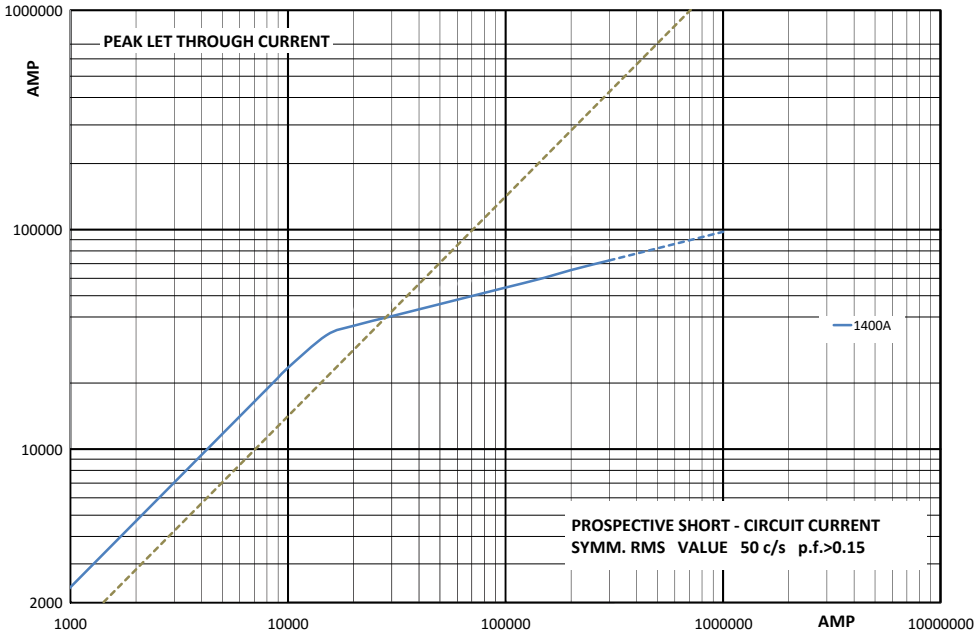



**$K_b$ = 1 N = 1.7**

Data sheet: 170K6640

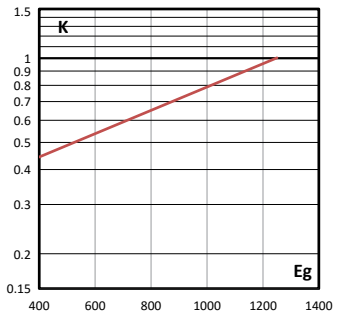
# 1250 V a.c. / 850 V d.c. (IEC) - 1400 A - Size 4 - Square body fuse link - 170M7217

## Cut-off curve - 1400 A



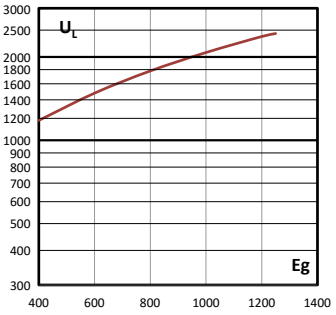

### Total clearing I²t

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).



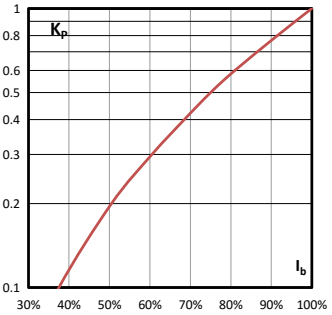

### Arc voltage

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.




Data sheet: 170K6640

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

## 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

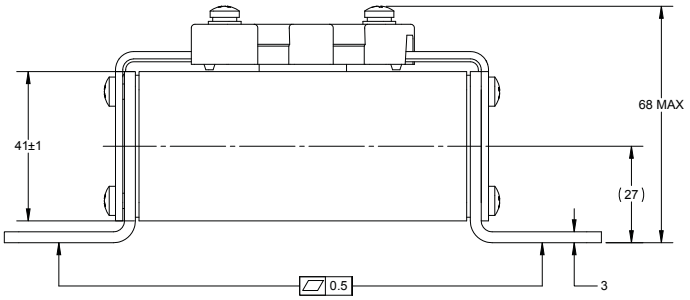
## Standards / Agency information

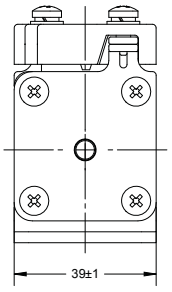
IEC 60269

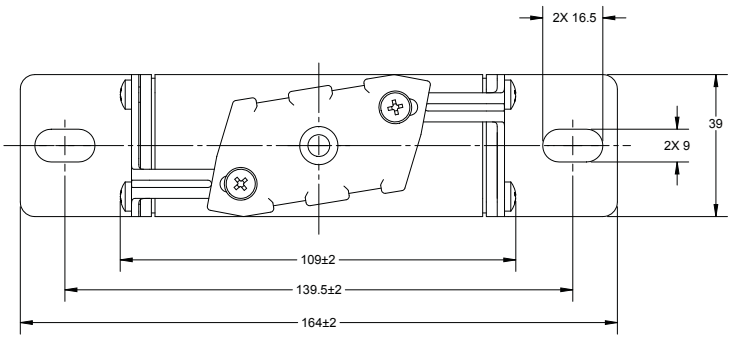
## Catalogue numbers

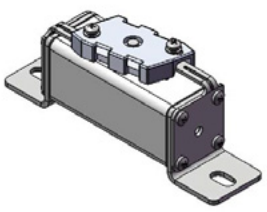
| | | | | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | |
|---|---|---|---|---|---|---|---|---|
| **Fuse link type** | **Fuse link body size** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Clearing at 1200 V d.c.** | **0.8 $I_n$** | **$I_n$** | **Catalogue numbers** |
| Single slot 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)



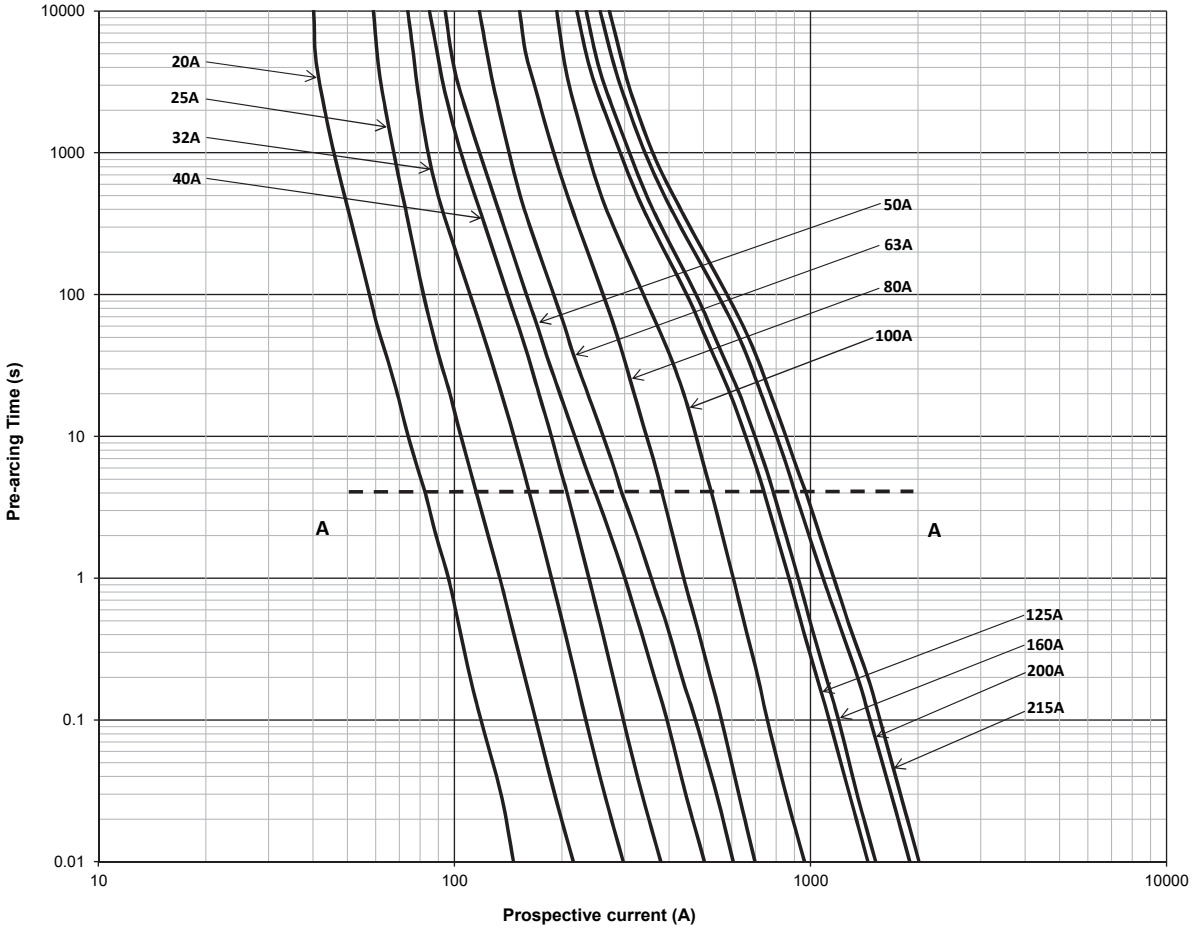



Data sheet: 5785523

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

## Time-current curve - 20 A to 215 A




Data sheet: 5785523

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

## 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

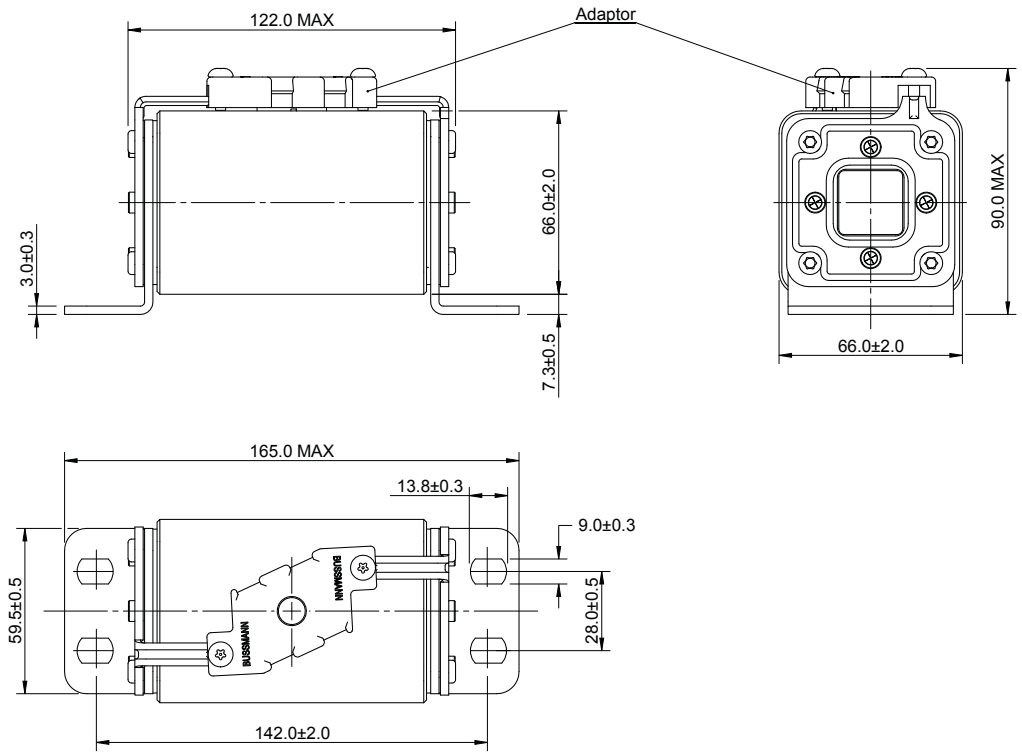
## Standards / Agency information

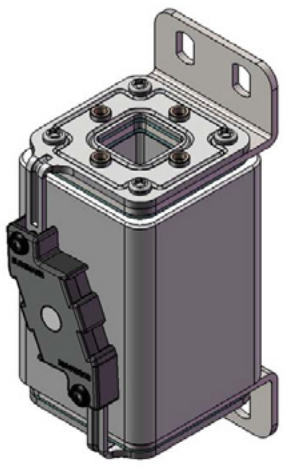
Contact Eaton bulehighspeedtechnical@eaton.com

## Catalogue numbers

| Fuse link type | Fuse link body size | Rated voltage | Rated current (Amps) | I²t (A² Sec) 1000 V d.c. L/R 15ms | I²t (A² Sec) 1000 V d.c. L/R 45ms | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|---|
| 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)

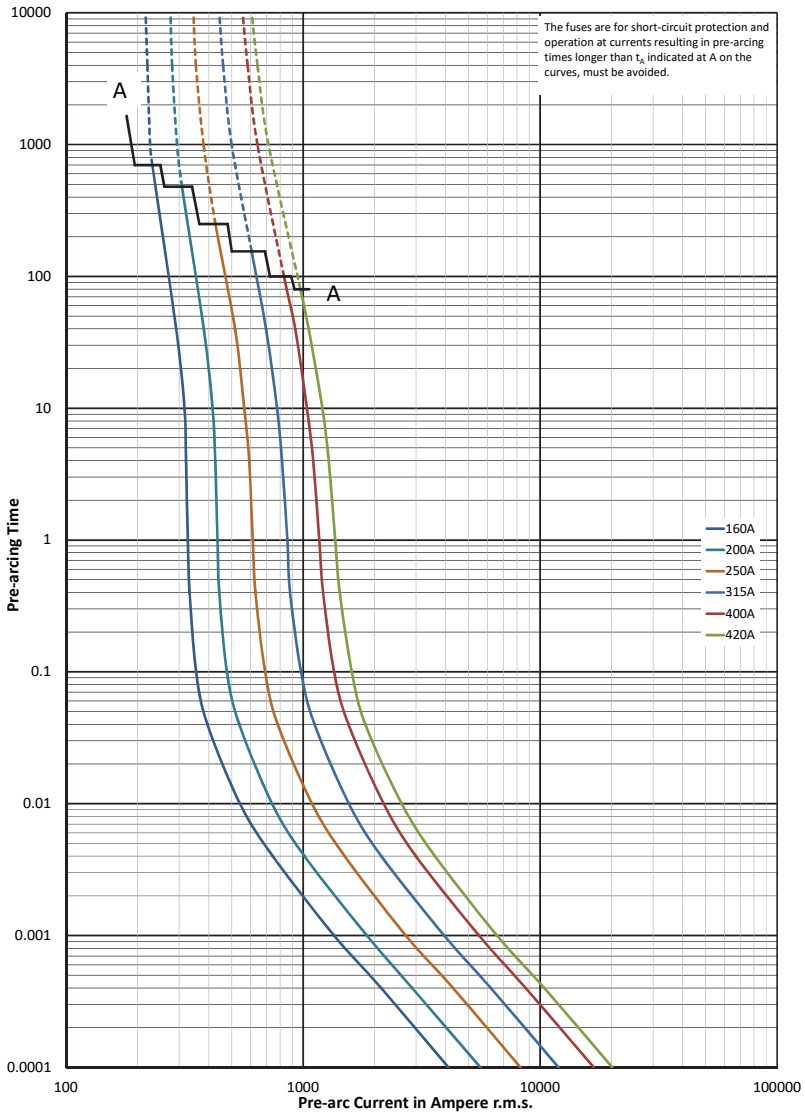


Data sheet: 170K5520

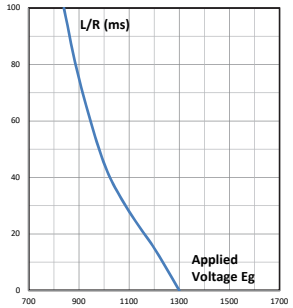
# 170F - Size 2, Square body fuse links, 1200 V d.c. (IEC), 160 A to 420 A

## Time-current curve - 160 A to 420 A



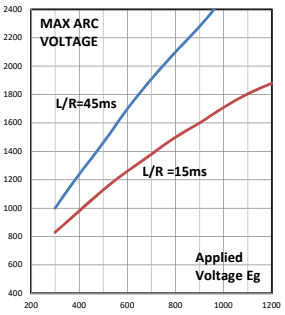

### Total clearing $I^2t$

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).



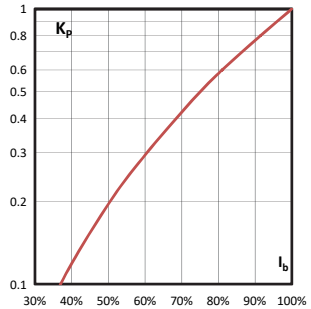

### Arc voltage

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 sheet: 170K5520

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

## 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

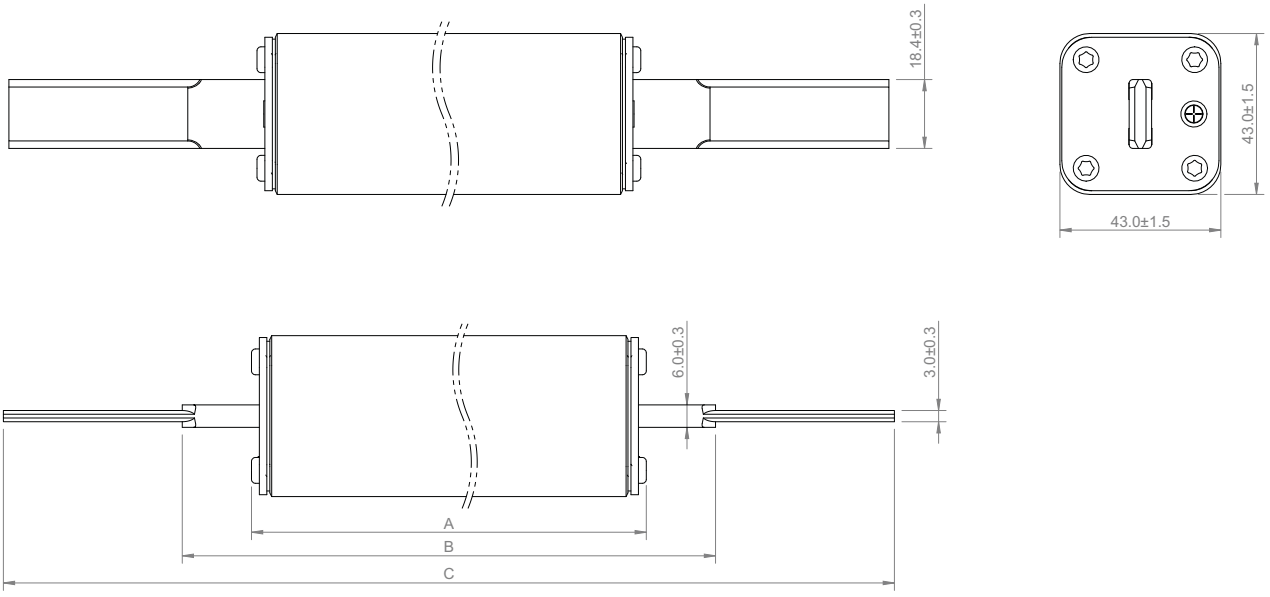
## Standards / Agency information

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* | 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)

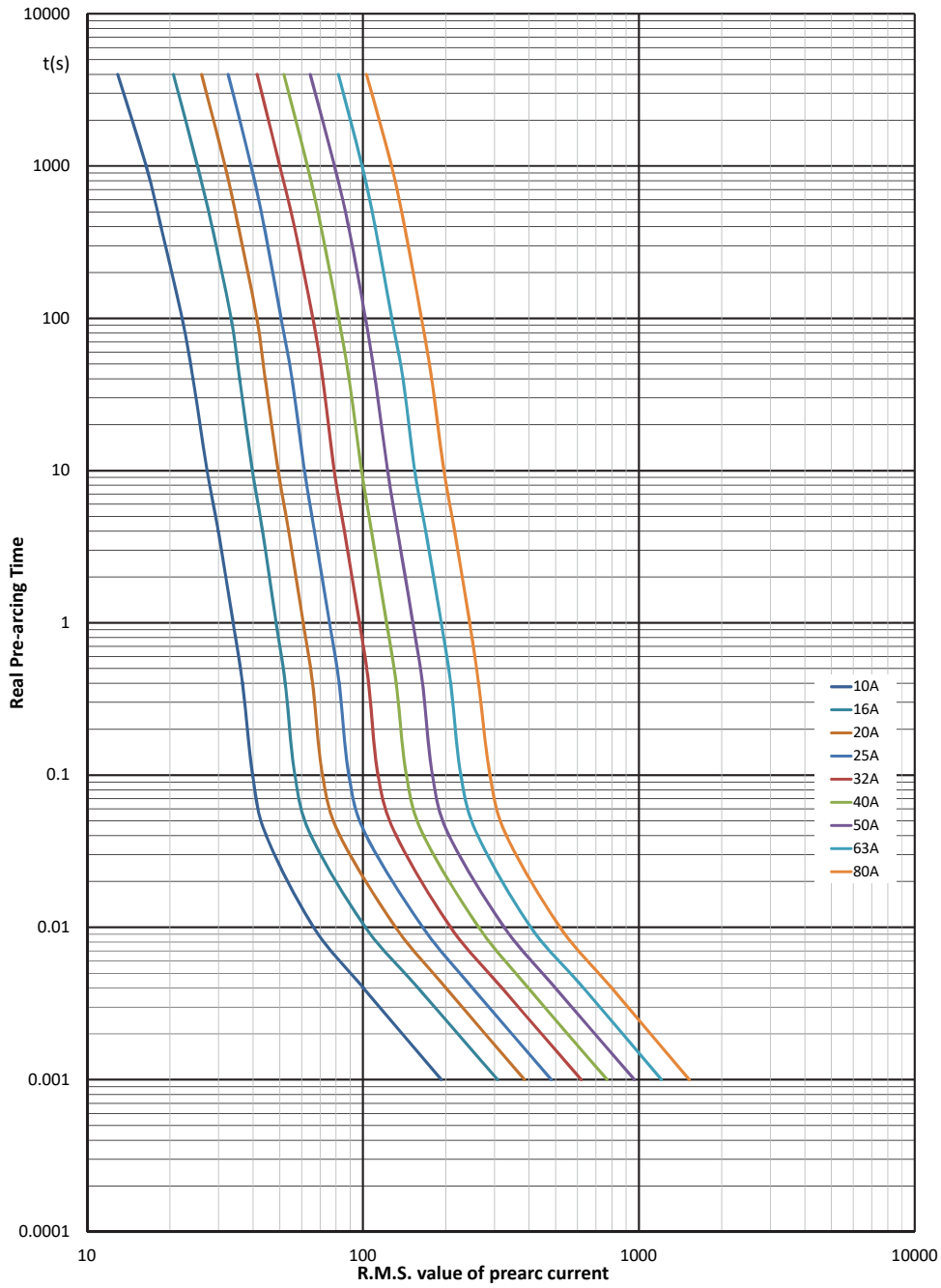



| A | B | C |
|---|---|---|
| 215 ± 2.5 | 250.5 ± 3.2 | 245.5 ± 3.5 |

Data sheet: 170K4538

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

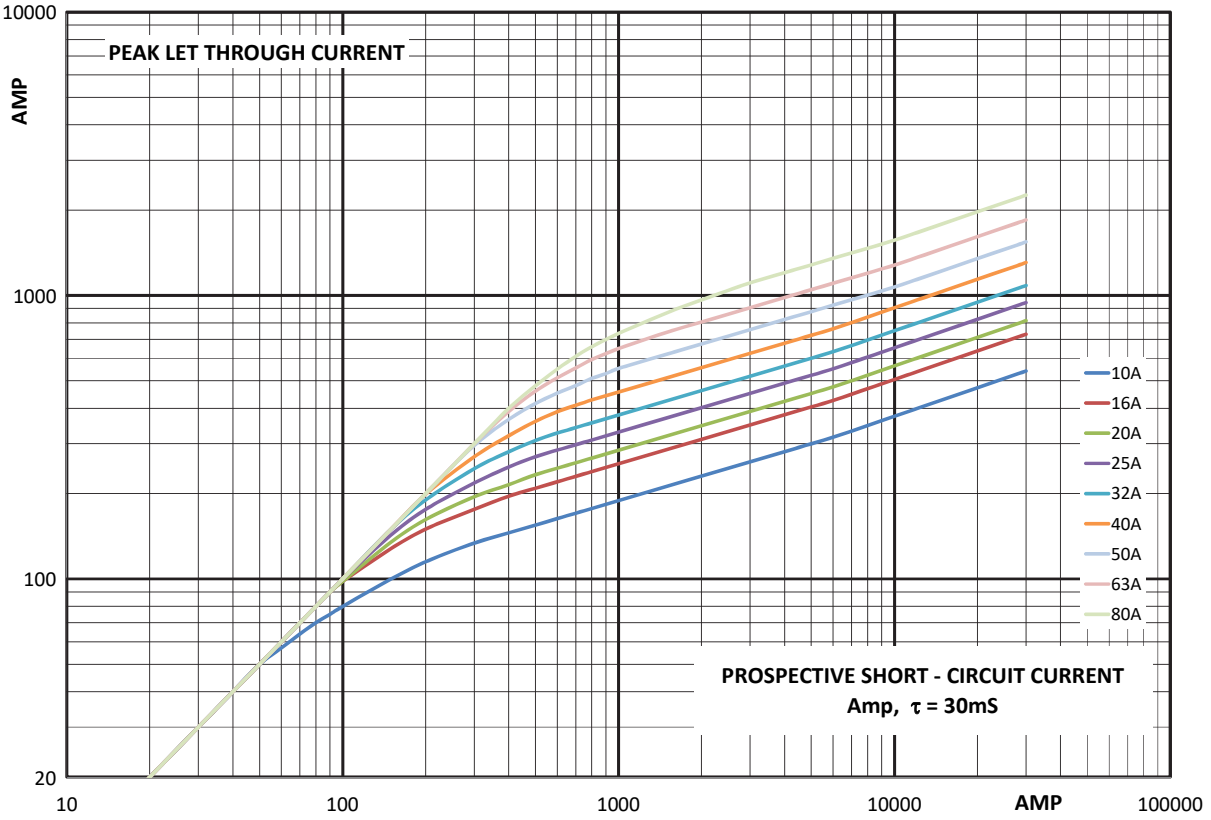
## Time-current curve - 10 A to 80 A




Data sheet: 170K4538

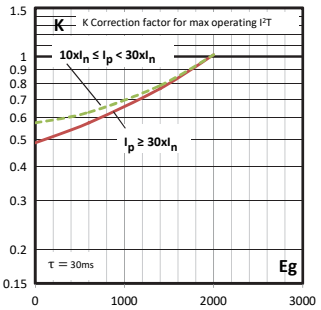
# 2000 V d.c. (IEC) - 10 A to 80 A - Size 1*- Square body fuse links - 170E

## Cut-off curve - 10 A to 80 A



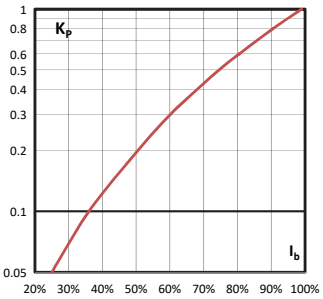

### Total clearing I²t

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).



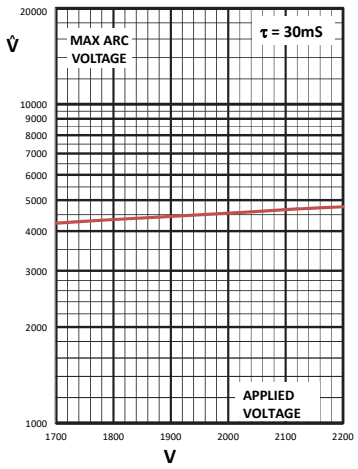

### Arc voltage

This curve gives the peak arc voltage, $U_L$, 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.

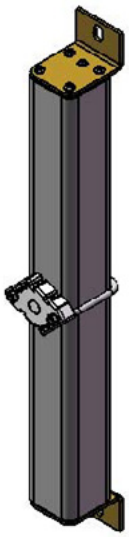



Data sheet: 170K4538

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

## 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

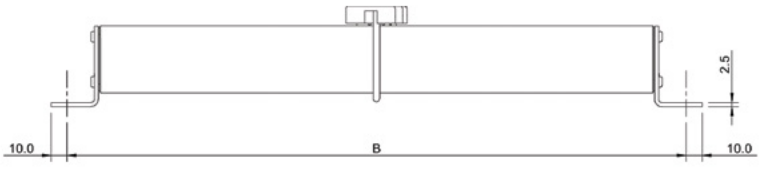
## Standards / Agency information

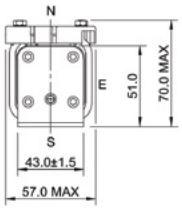
Contact Eaton bulehighspeedtechnical@eaton.com

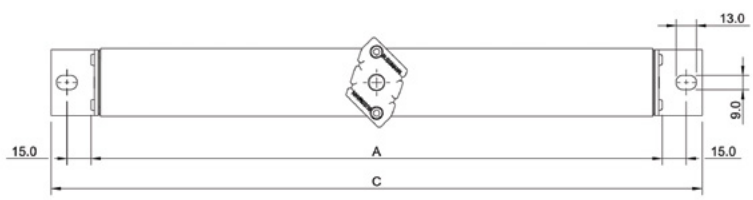
## Catalogue numbers

| 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)



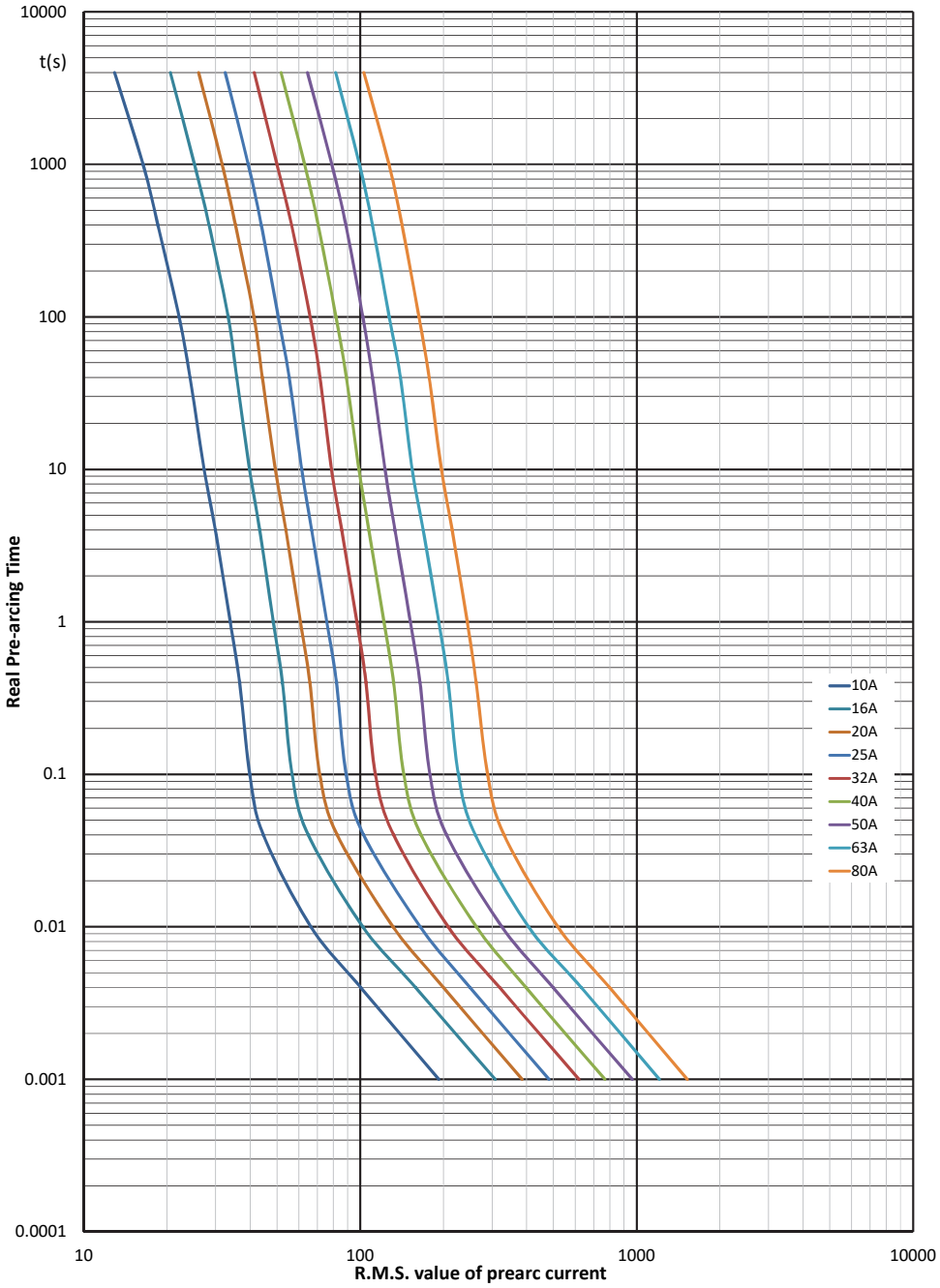




| A | B | C |
|---|---|---|
| 217 | 246 | 266 |

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

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

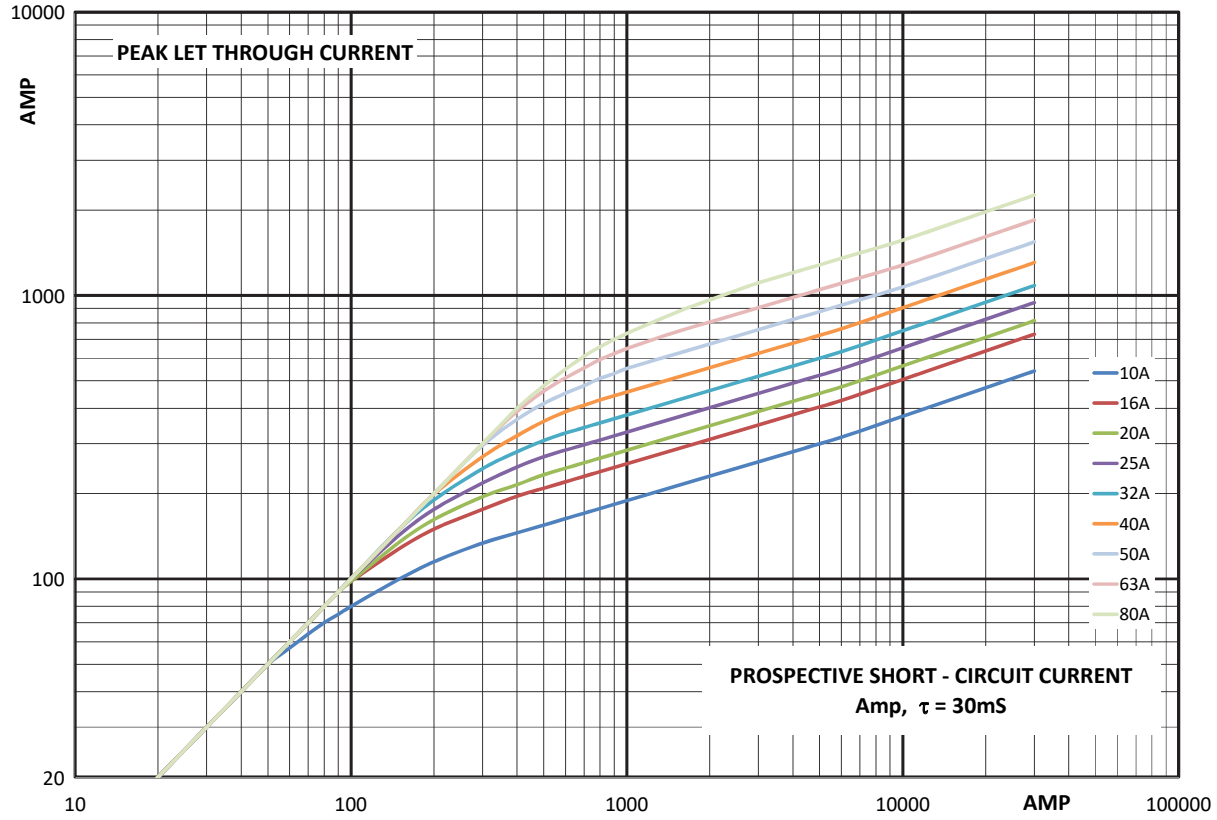
### Time-current curve - 10 A to 80 A




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

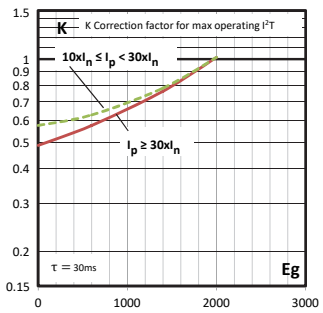
# 2000 V d.c. (IEC) - 10 A to 125 A - Size 1* - Square body fuse links - 170E

## Cut-off curve - 10 A to 80 A



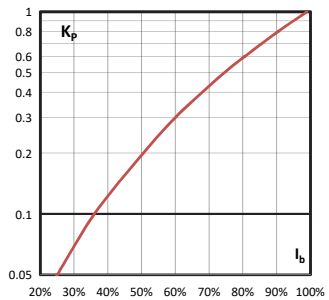

### Total clearing I²t

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).



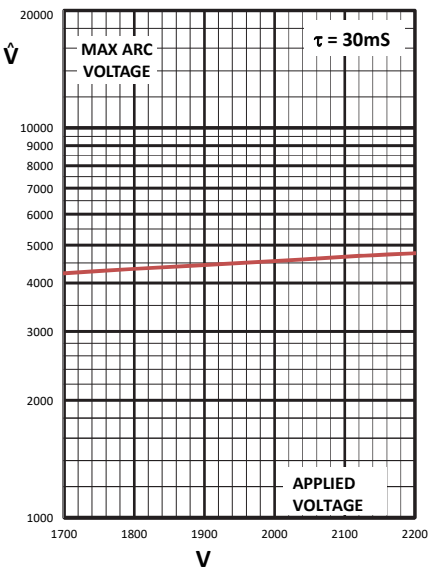

### Arc voltage

This curve gives the peak arc voltage, $U_L$, 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

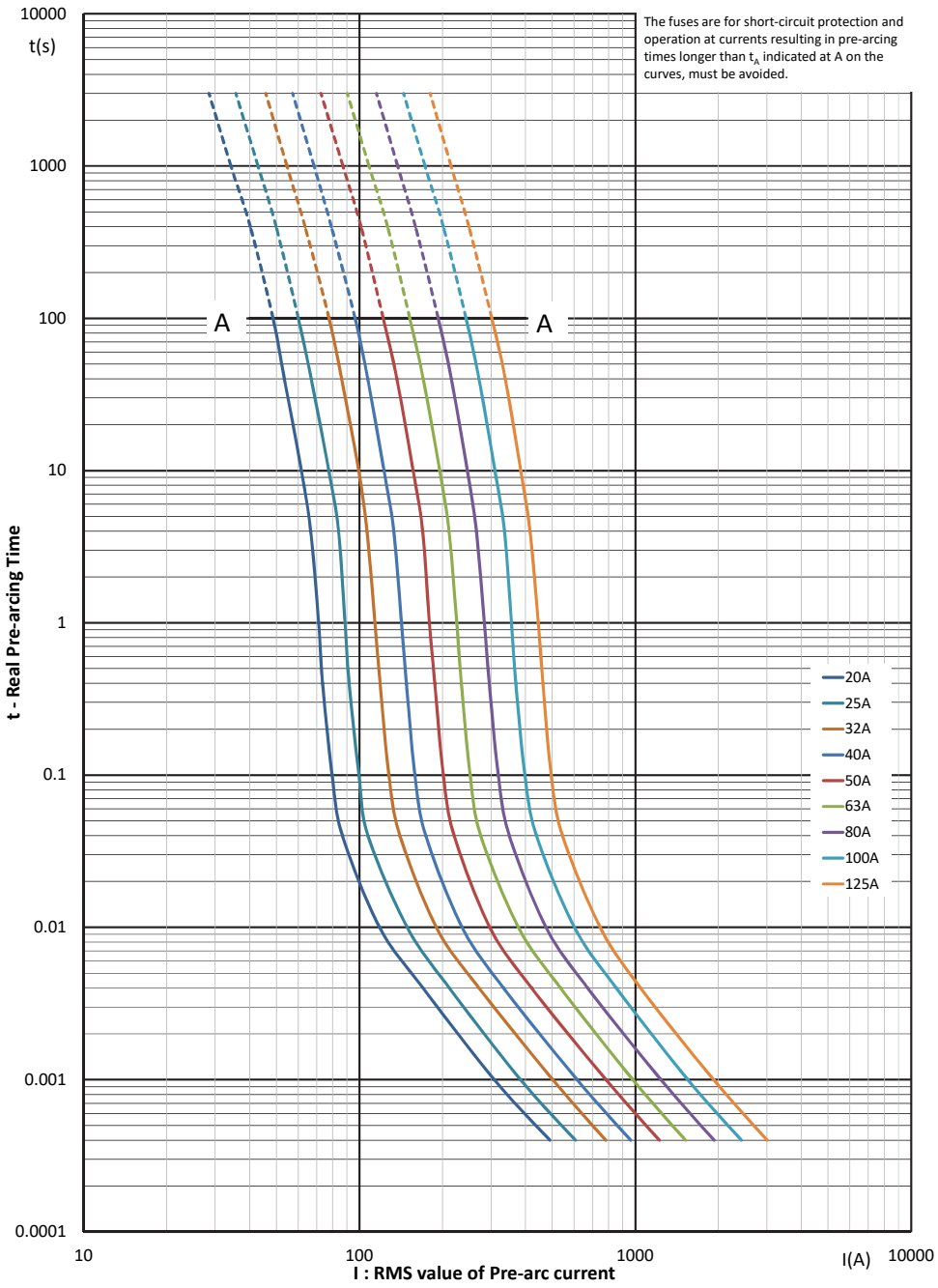
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$, is given as a function of the RMS load current, $I_b$, in percent of the rated current.




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

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

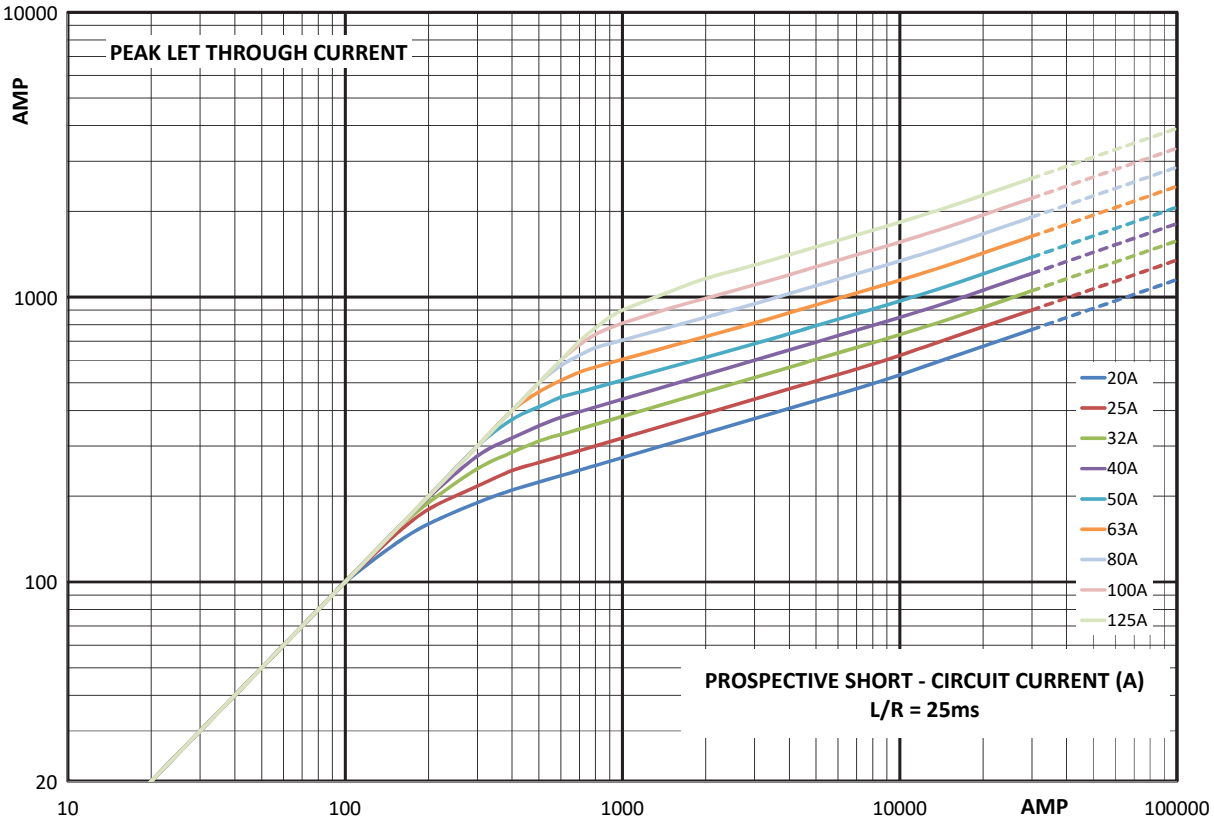
### Time-current curve - 20 A to 125 A




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

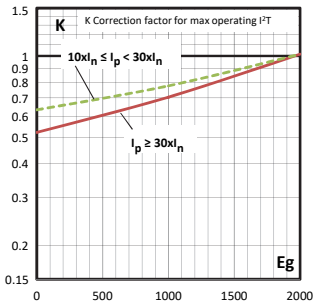
# 2000 V d.c. (IEC) - 10 A to 125 A - Size 1* - Square body fuse links - 170E

## Cut-off curve - 20 A to 125 A



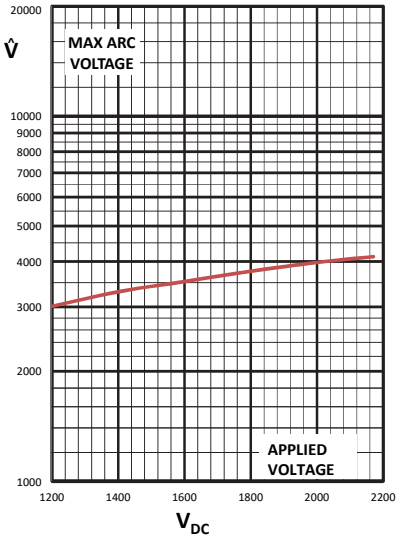

### Total clearing $I^2t$

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).



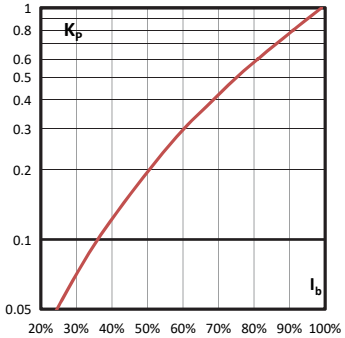

### Arc voltage

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)

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

## 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

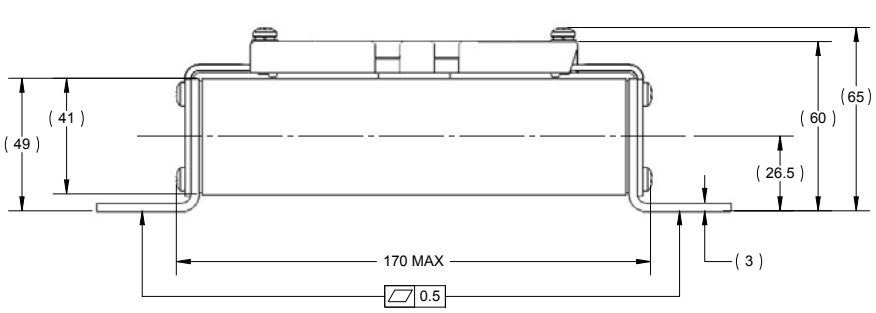
## Catalogue numbers

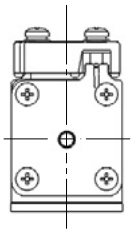
| | | | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | |
|---|---|---|---|---|---|---|---|
| **Fuse link type** | **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Total at 2000 V d.c.** | **0.8 $I_n$** | **$I_n$** | **Catalogue numbers** |
| Single slot tag | 2000 V d.c. (IEC) 1500 V d.c. (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 |
| | | 200 | 10,720 | 31,360 | 50 | 95 | 170M2056 |
| | | 215 | 21,870 | 64,000 | 51 | 97 | 170M2057 |
| Double slot tag | 2000 V d.c. (IEC) | 160 | 7900 | 42,000 | 68 | 91 | 170M2039 |
| | | 200 | 12,300 | 66,000 | 85 | 113 | 170M2040 |
| | | 250 | 21,900 | 120,000 | 100 | 133 | 170M2041 |
| | | 315 | 38,900 | 210,000 | 119 | 158 | 170M2042 |
| | | 400 | 65,700 | 350,000 | 148 | 176 | 170M2043 |
| Parallel double slot tag | 2000 V d.c. (IEC) | 500 | 105,851 | 163,010 | 109 | 230 | 170M2044 |
| | | 600 | 188,179 | 289,796 | 153 | 305 | 170M2045 |

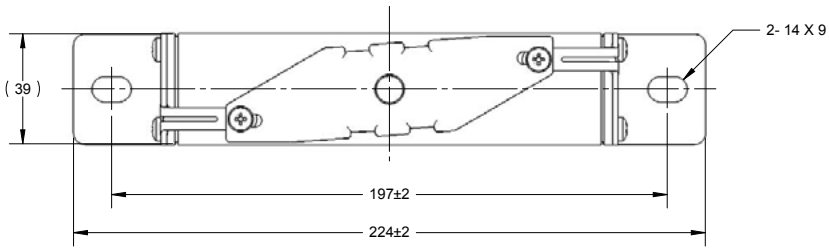
Data sheets: 720142, 5785522 (Single slot, 5785519 Double slot tag, 5785526 Parallel double slot tag)

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

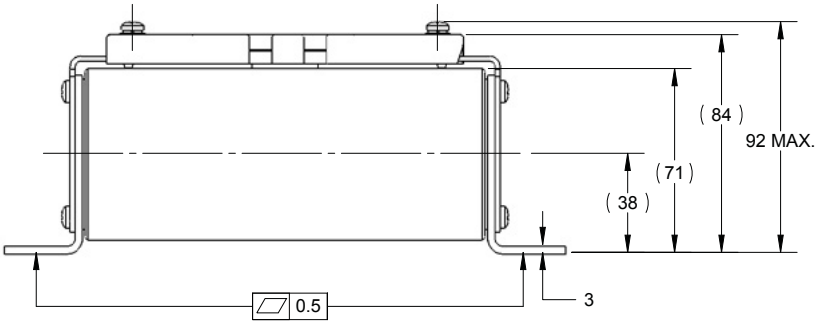
## Dimensions (mm) - 170M2046 to 170M2057, Single slot tag

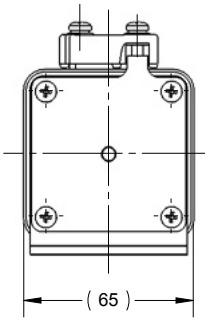


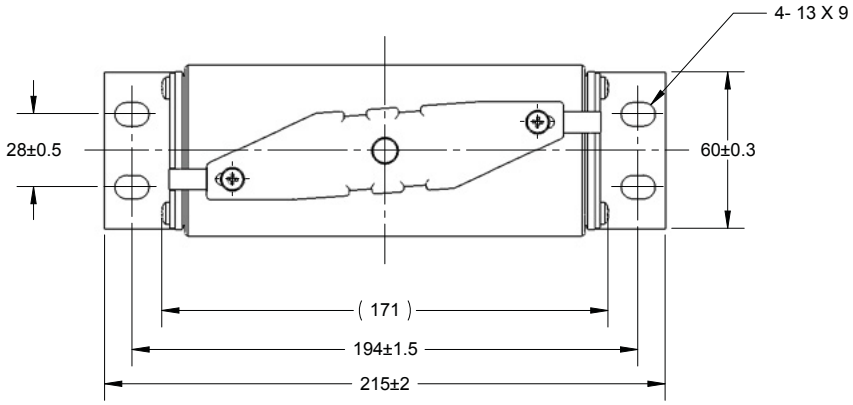






## Dimensions (mm) - 170M2039 to 170M2043, Double slot tag



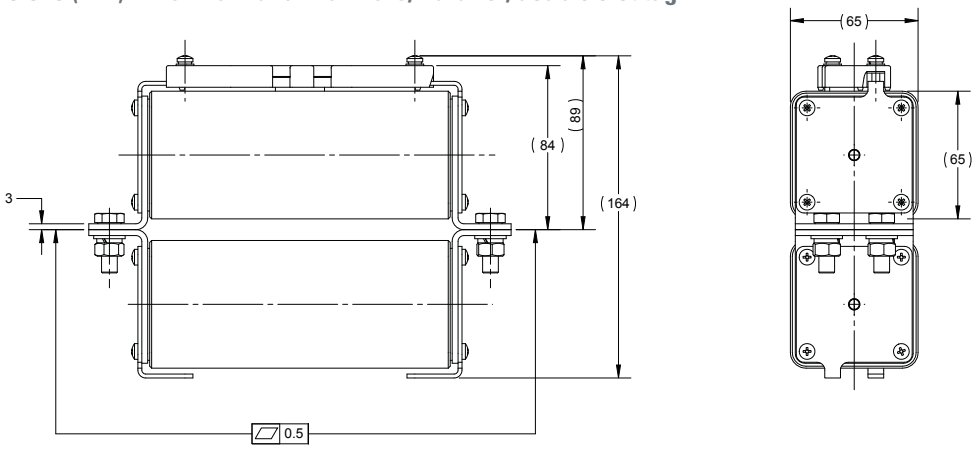



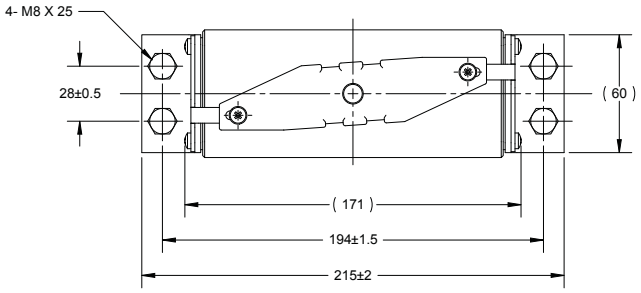




Data sheets: 720142, 5785522 (Single slot, 5785519 Double slot tag, 5785526 Parallel double slot tag)

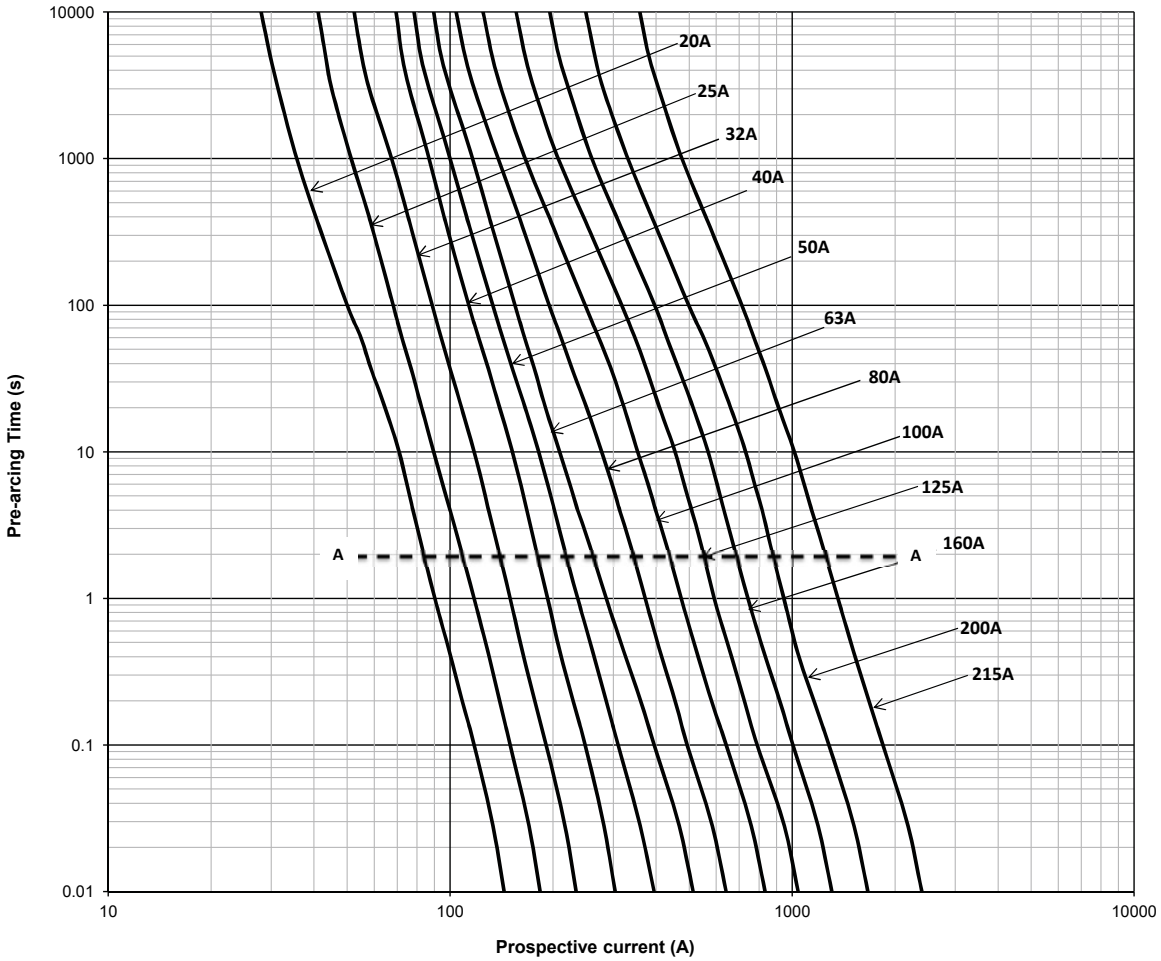
# 2000 V d.c. (IEC) - 20 A to 600 A - Square body fuse links - 170M

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



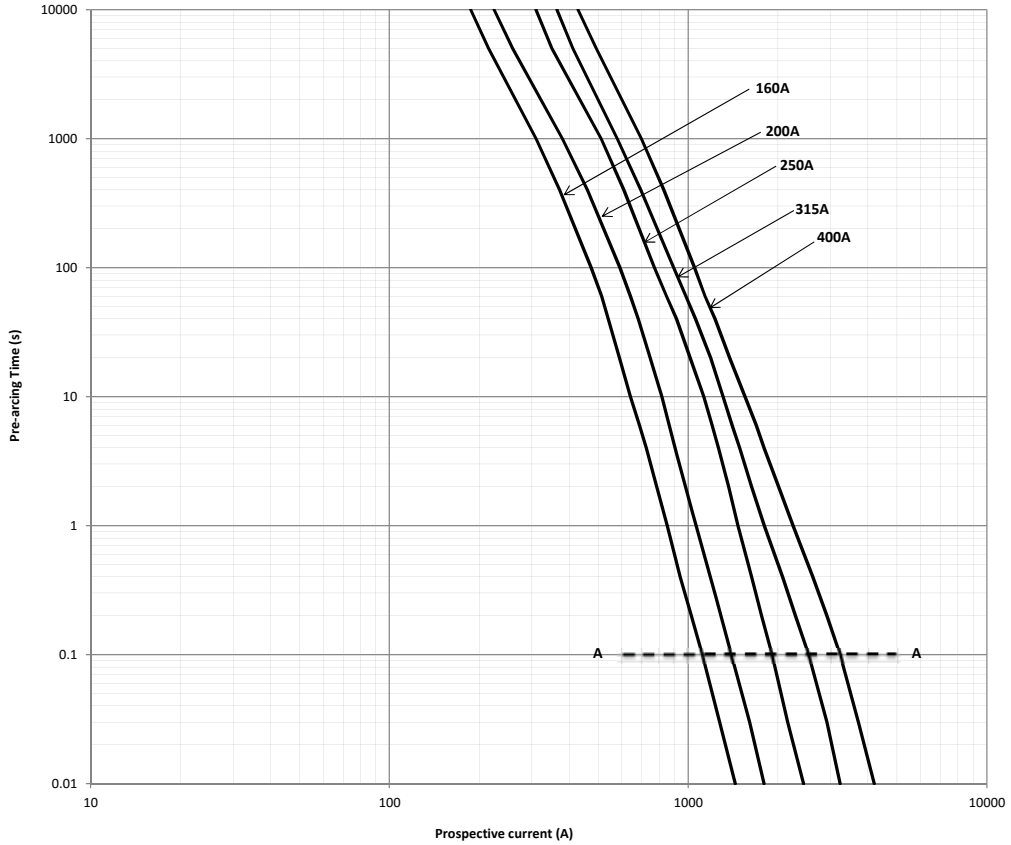

## Time-current curve - 170M2046 to 170M2056, 20 A to 215 A



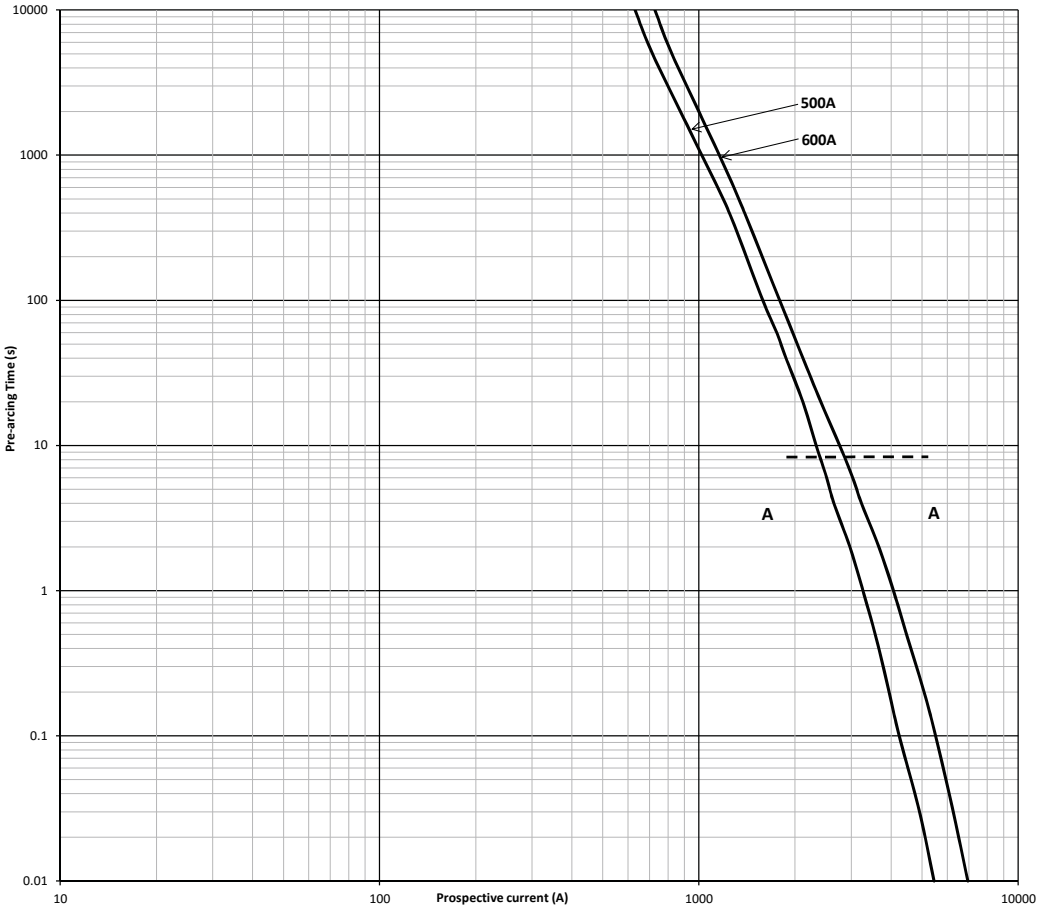

Data sheets: 720142, 5785522 (Single slot, 5785519 Double slot tag, 5785526 Parallel double slot tag)

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

## 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)

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

## 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

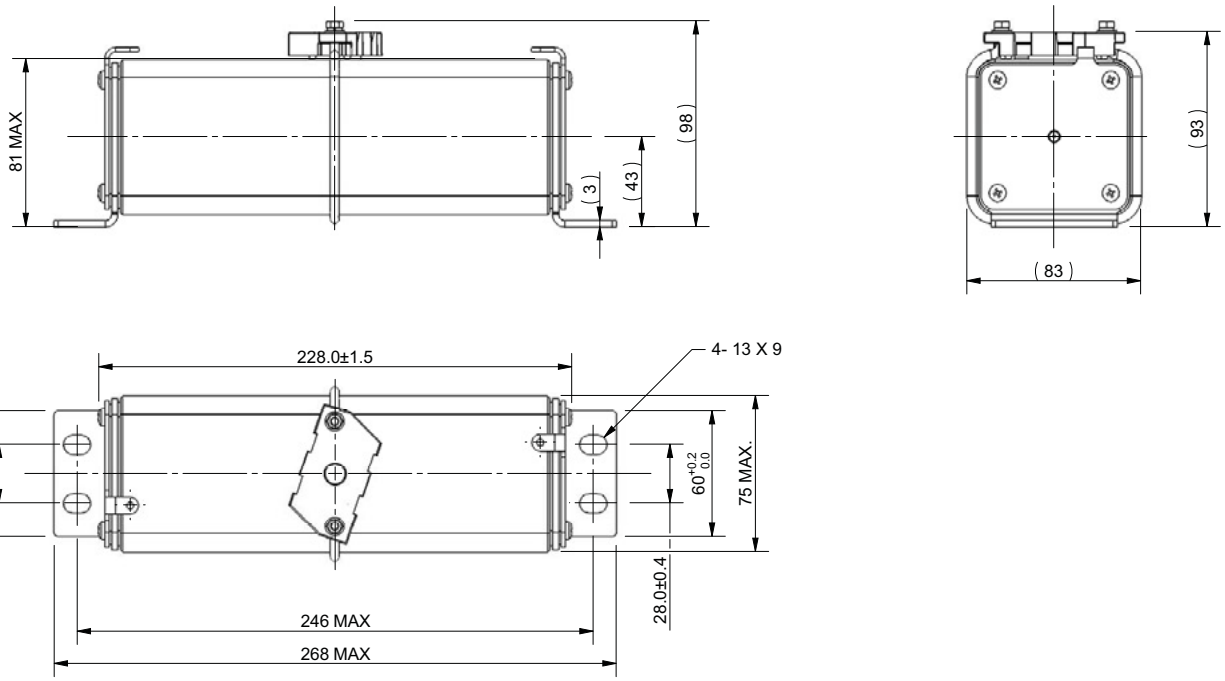
## Standards / Agency information

Tested in line with IEC 60269

## Catalogue numbers

| Fuse link type | Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Total at 2000 V d.c. | Watts loss (W) 0.8 $I_n$ | Watts loss (W) $I_n$ | Catalogue numbers |
|---|---|---|---|---|---|---|---|---|
| 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 |

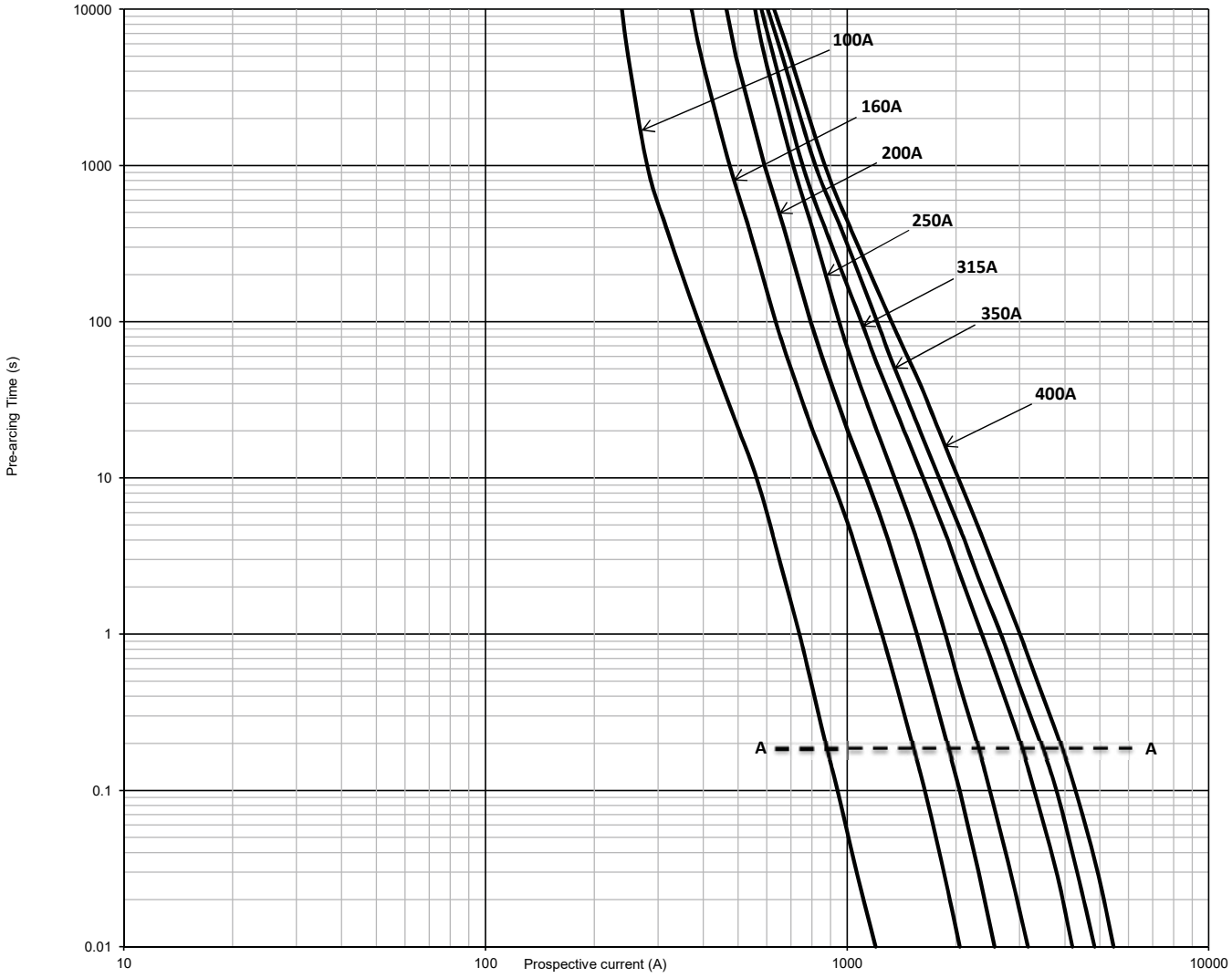
## Dimensions (mm)




Data sheet: 720143, 5785520

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

## Time-current curve - 100 A to 400 A




Data sheet: 720143, 5785520

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

## 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

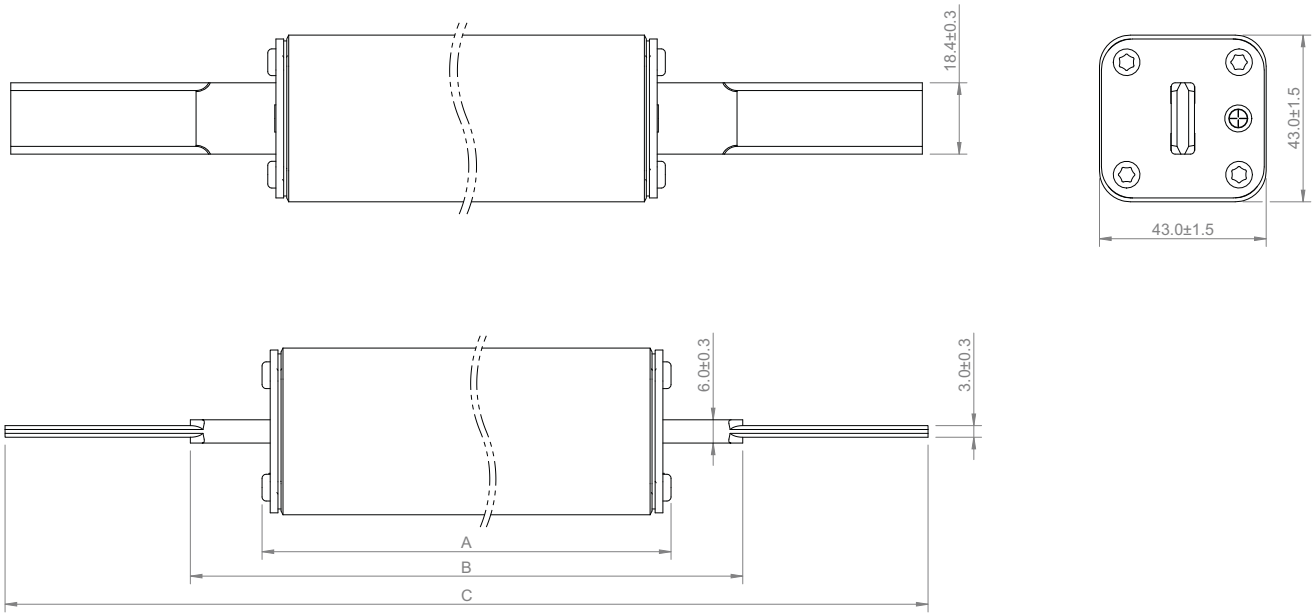
## Standards / Agency information

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 |

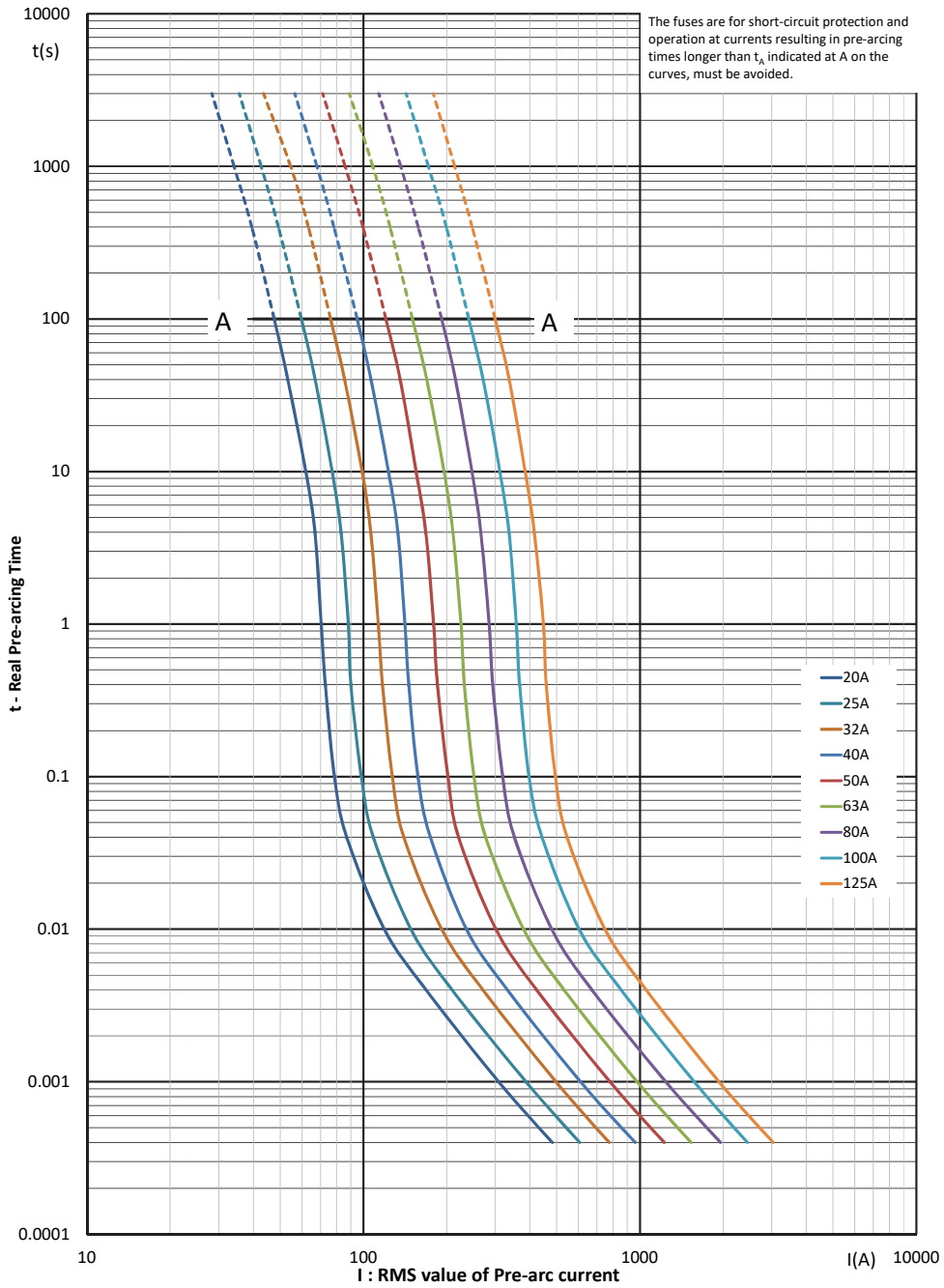
## Dimensions (mm)




Data sheet: 170K6600

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

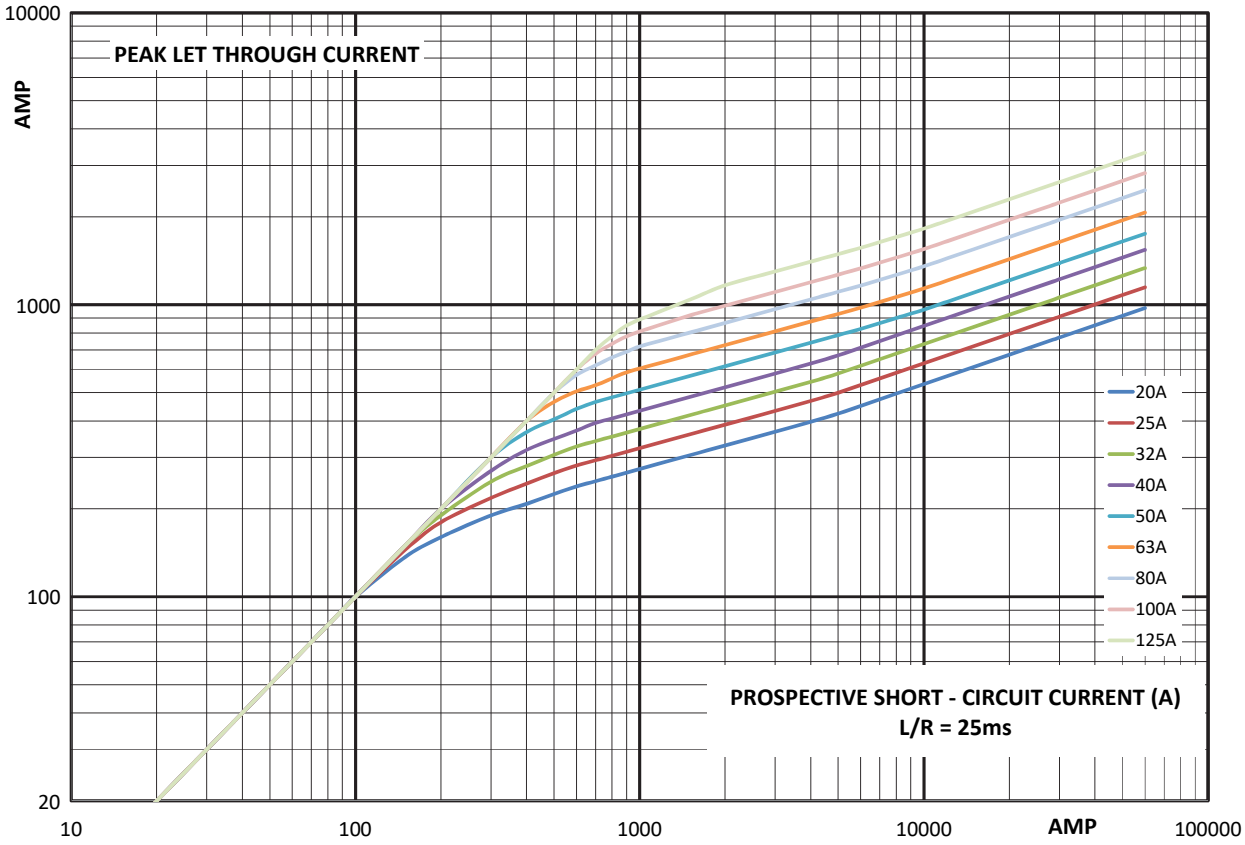
## Time-current curve - 20 A to 125 A




Data sheet: 170K6600

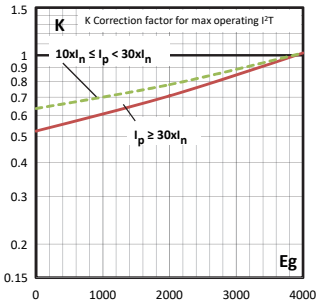
# 4000 V d.c. (IEC) - 20 A to 125 A - Size 1* - Square body fuse links - 170E

## Cut-off curve - 20 A to 125 A



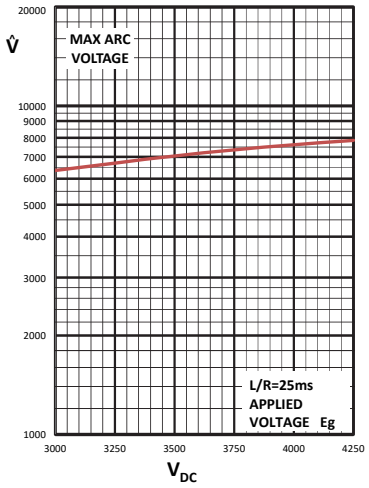

### Total clearing I²t

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).



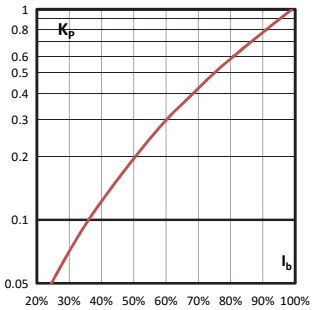

### Arc voltage

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.

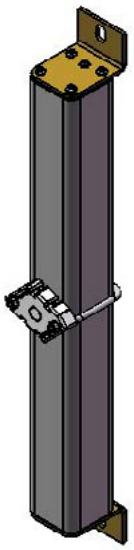



Data sheet: 170K6600

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

## 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

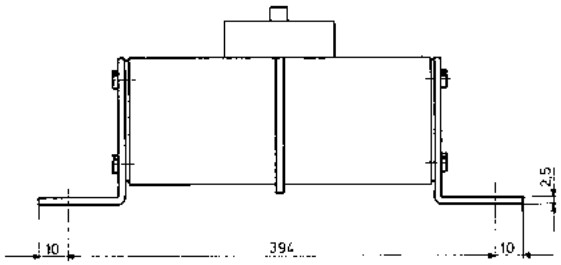
## Standards / Agency information

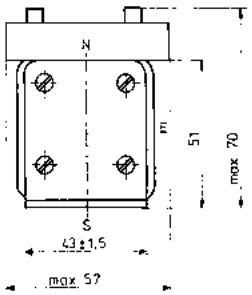
Contact Eaton bulehighspeedtechnical@eaton.com

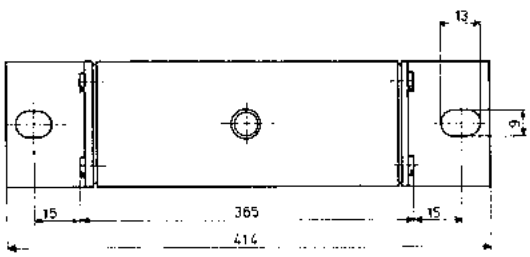
## Catalogue numbers

| 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 |
| 2//2 | 4000 V d.c. (IEC) | 315 | 360 | 170E8885 |
| | | 350 | 400 | 170E8886 |
| | | 400 | 455 | 170E8887 |
| | | 450 | 515 | 170E8888 |
| | | 500 | 600 | 170E8889 |

## Dimensions (mm) - Size 1*



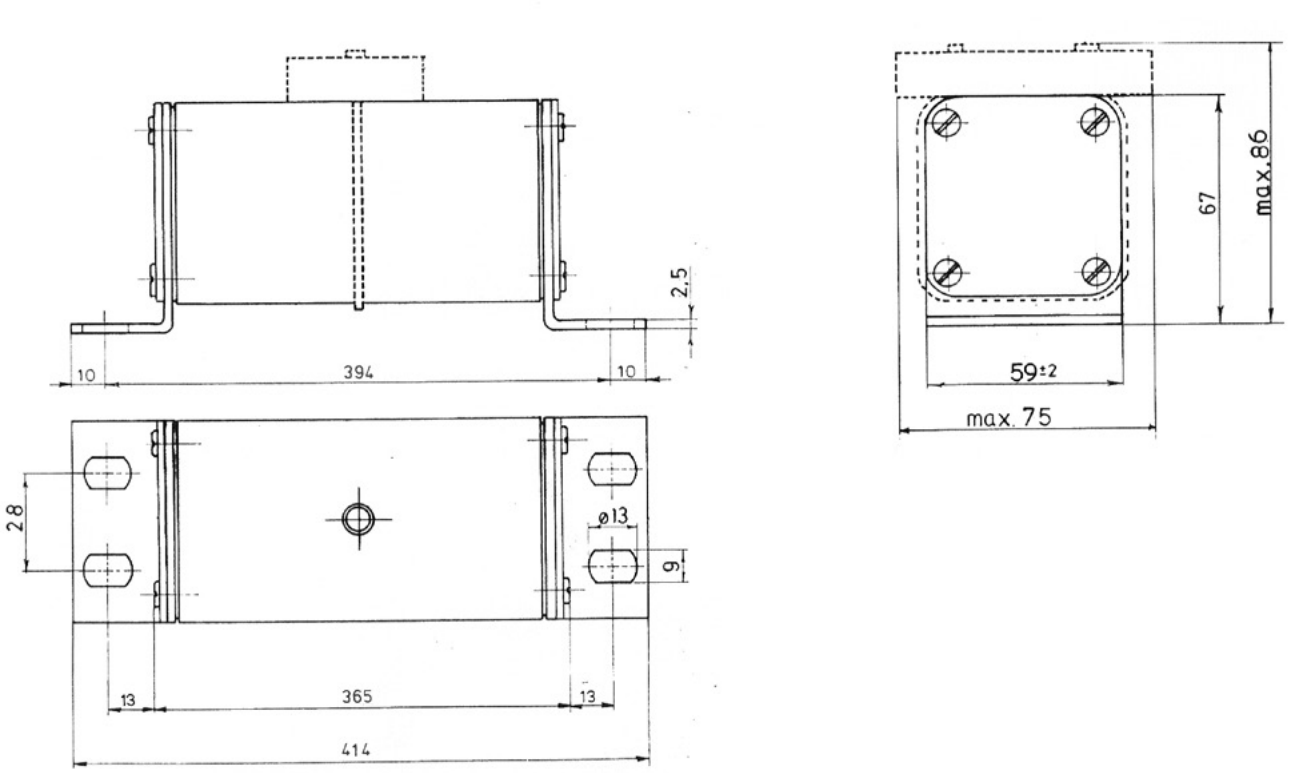



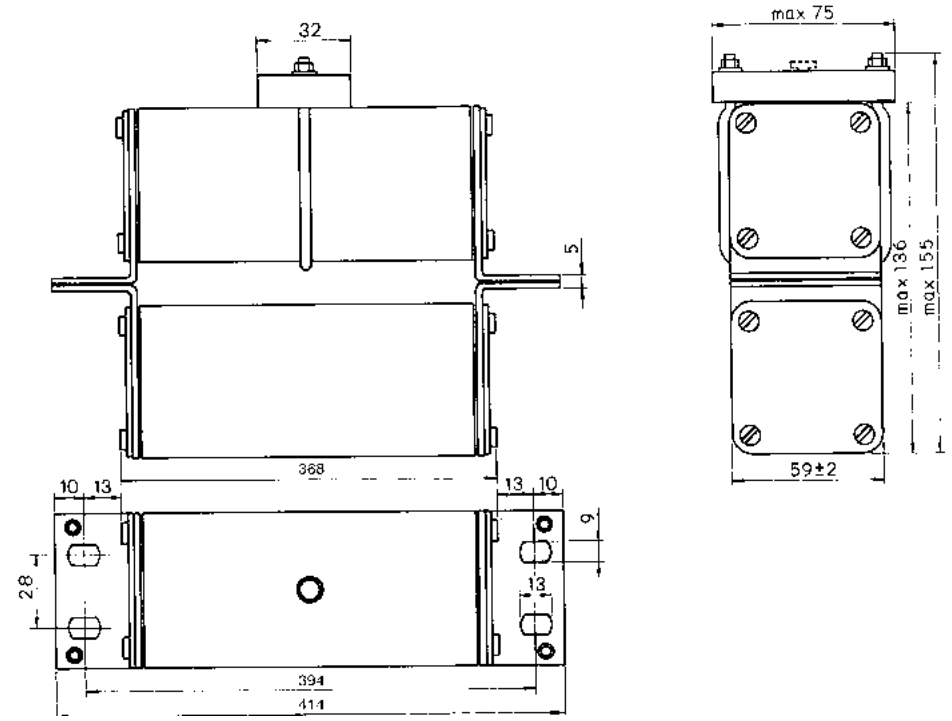

Data sheets: 1* 170K6600, 2 and 2//2 170K6604

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

### Dimensions (mm) - Size 2



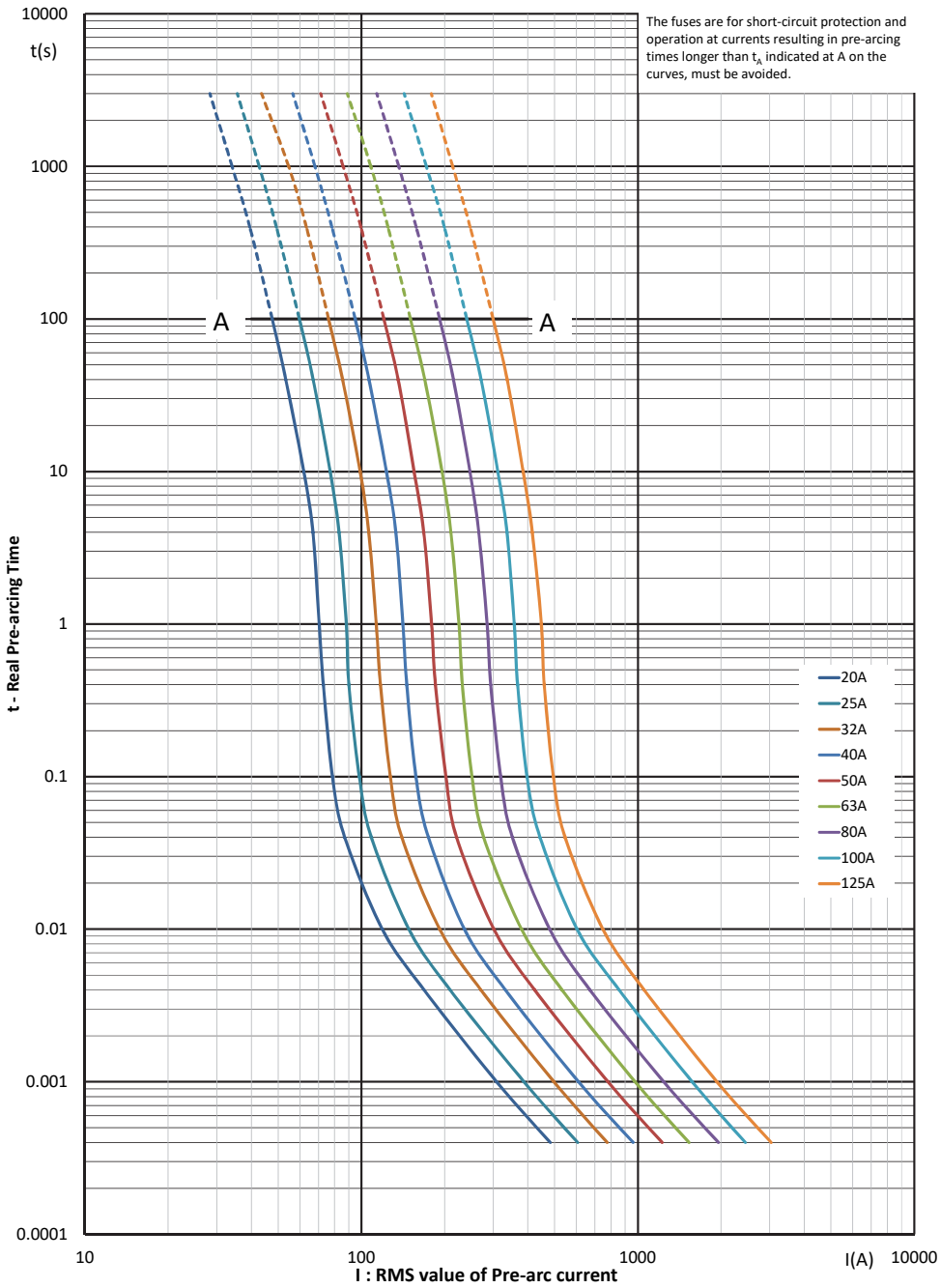

### Dimensions (mm) - Size 2/2




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

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

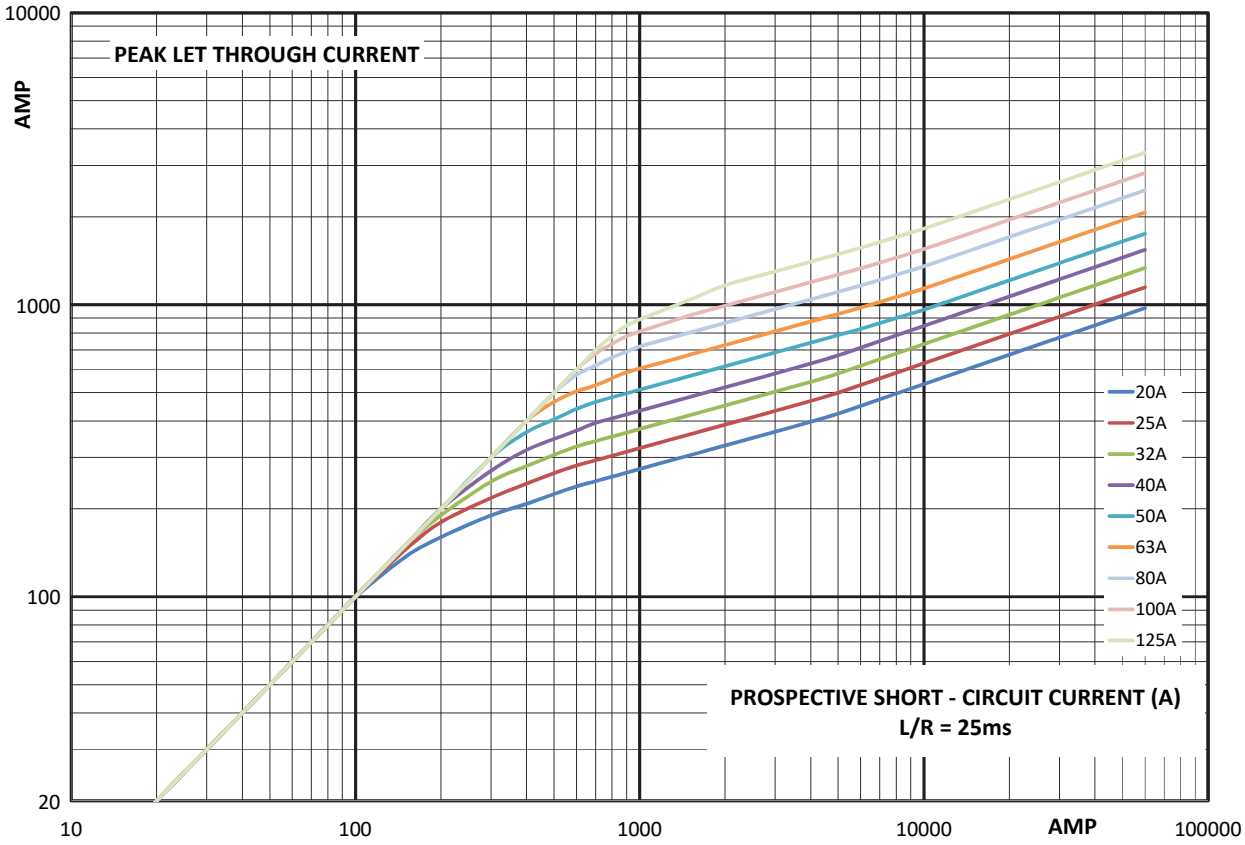
## Time-current curve - Size 1*, 20 A to 125 A




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

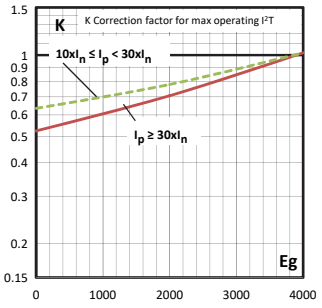
# 4000 V d.c. (IEC) - 20 A to 450 A - Sizes 1*, 2 and 2//2 - Square body fuse links - 170E

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



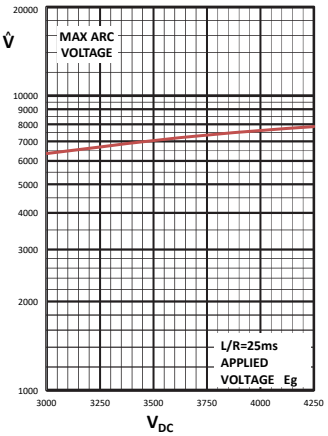

### Total clearing I²t

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).



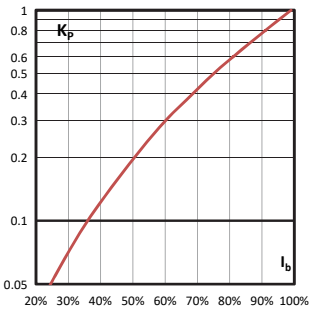

### Arc voltage

This curve gives the peak arc voltage, $U_L$, 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

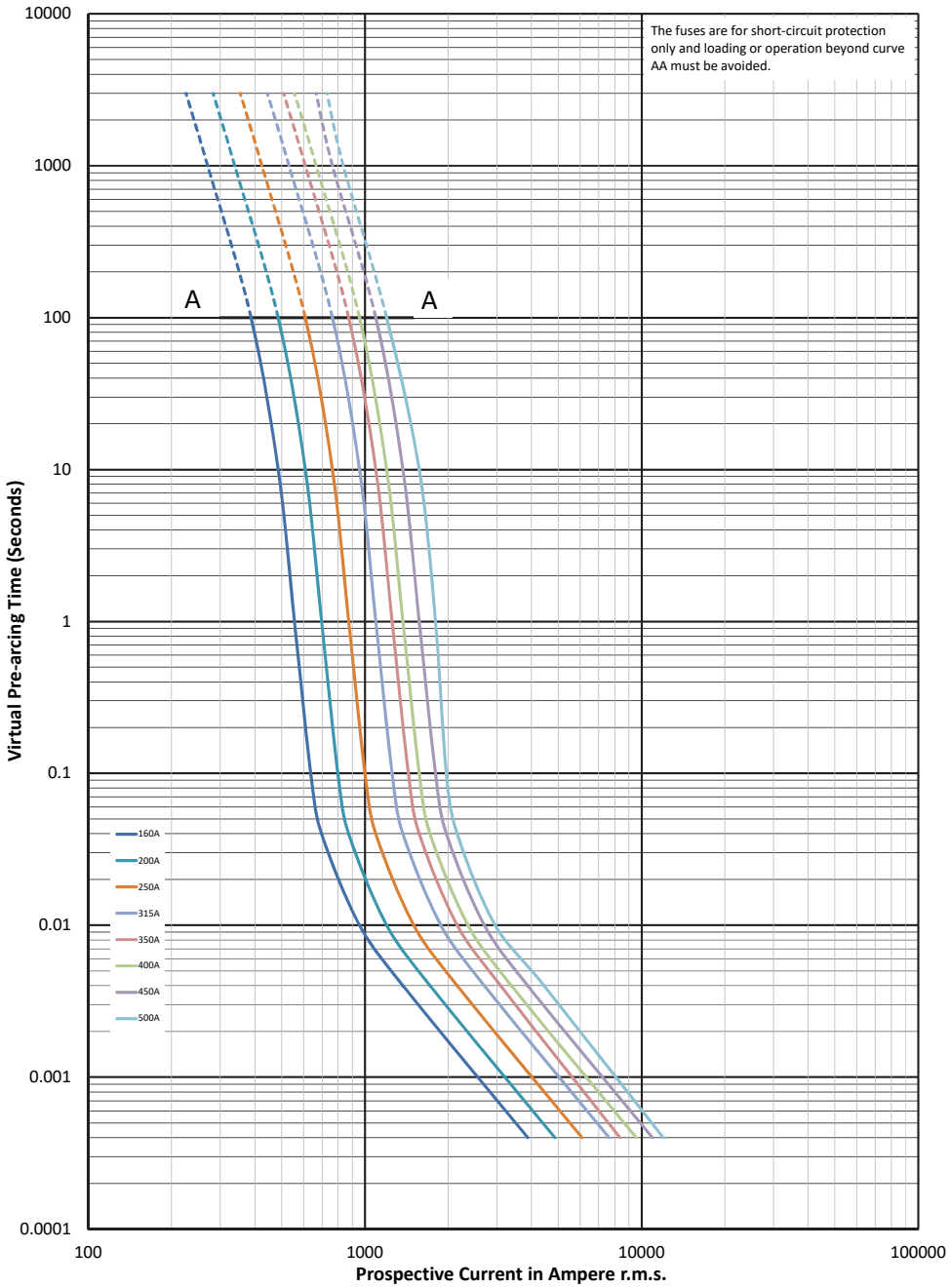
Watts loss at rated current is given in the electrical characteristics. The curve allows the calculation of the watts losses at load currents lower than the rated current. The correction factor, $K_p$ , is given as a function of the RMS load current, $I_b$ , in percent of the rated current.




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

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

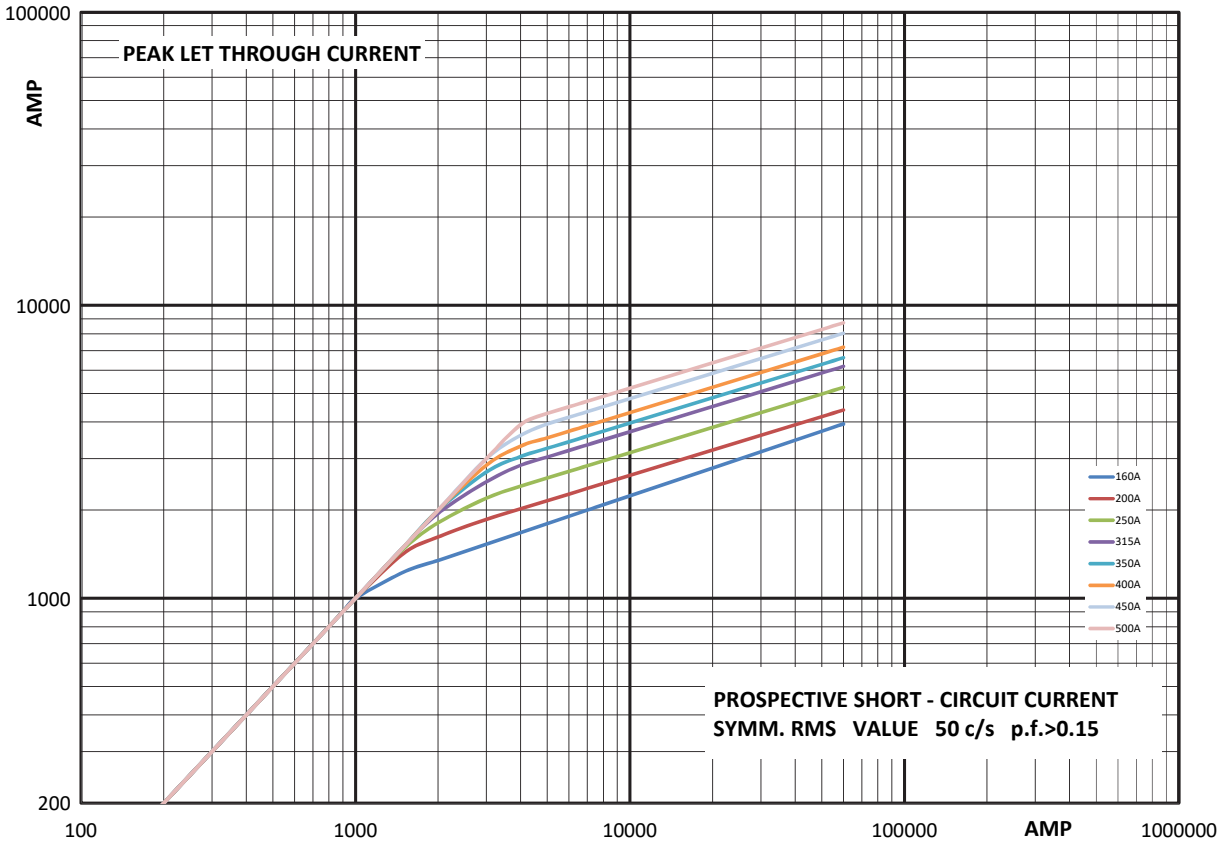
## Time-current curve - Sizes 2 and 2//2, 160 A to 500 A




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

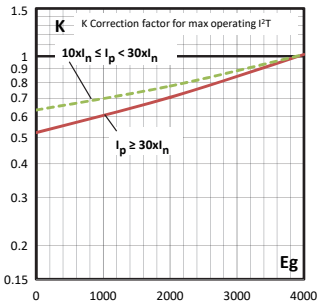
# 4000 V d.c. (IEC) - 20 A to 450 A - Sizes 1*, 2 and 2//2 - Square body fuse links - 170E

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



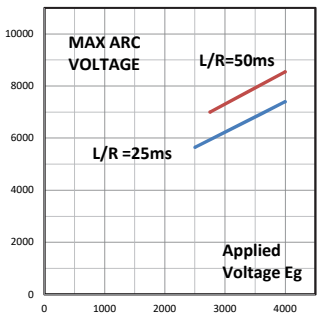

### Total clearing $I^2t$

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).



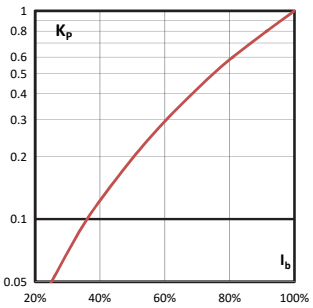

### Arc voltage

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.

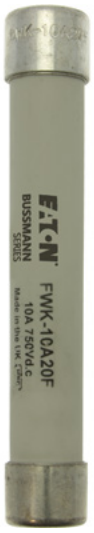



Data sheets: 1* 170K6600, 2 and 2//2 170K6604

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

## 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

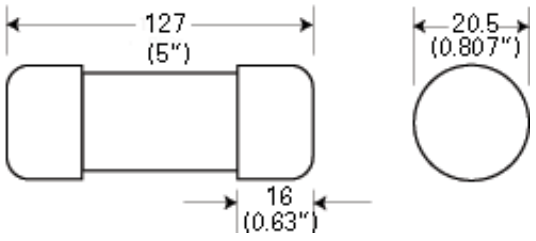
## Standards / Agency information

Tested in line with IEC 60269

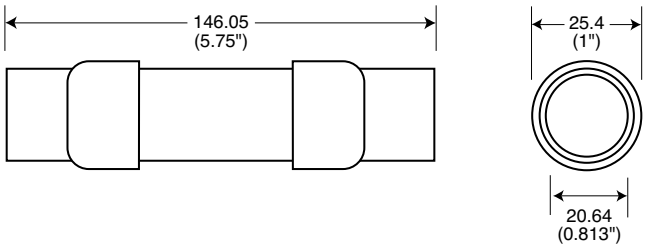
## Catalogue numbers

| Fuse link size | Rated voltage | Rated current (Amps) | I²t (A² Sec) Pre-arcing | I²t (A² Sec) Clearing at 750 V d.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|
| 20 x 127 mm (13/18" 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 5¾") | 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




Data sheets: 720039, 5785454

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

## 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

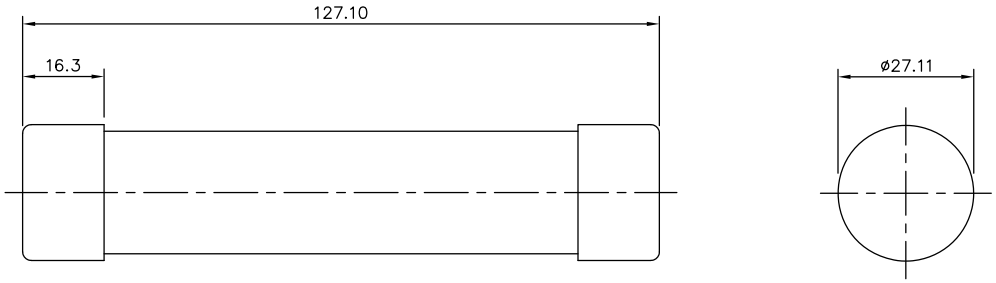
## Standards / Agency information

Tested in line with IEC 60269

## Catalogue numbers

| Fuse link type | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 750 V d.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|
| 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)




Data sheets: 5785132

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

### 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

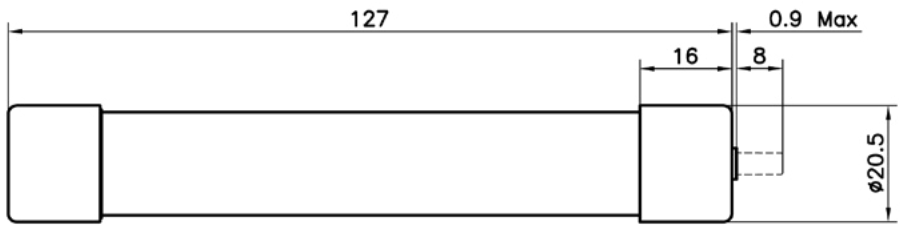
### Standards / Agency information

Consult Eaton bulehighspeedtechnical@eaton.com

### Catalogue numbers

| | | | $I^2t$ ($A^2$ Sec) | | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|
| Fuse link size | Rated voltage | Rated current (Amps) | 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 |
| | | 15 | 209 | 500 | 5.0 | FWS-15A20F | FWS-15A20FI |
| 20 x 127 mm ($^{13}/_{16}$" x 5) | 1200 V a.c./ 1000 V d.c. (IEC) | 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)




Data sheets: 720040, 5785455

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

## 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

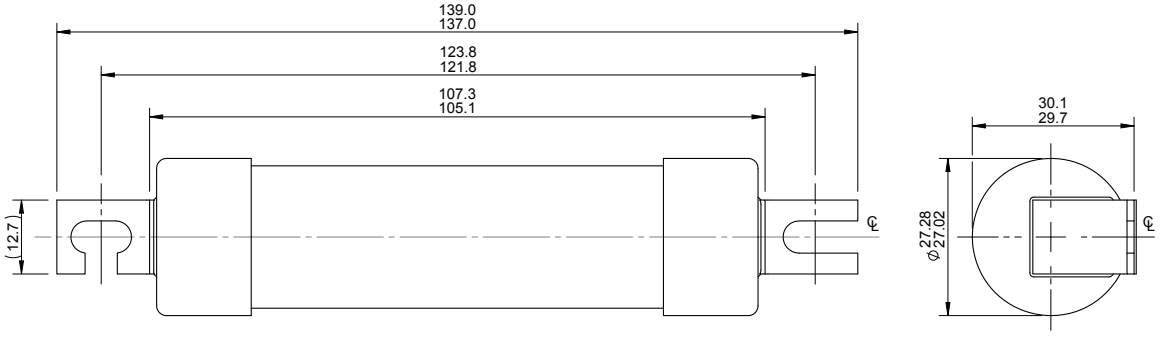
## Standards / Agency information

Tested in line with IEC 60269

## Catalogue numbers

| Fuse link type | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Clearing at 750 V d.c. | Watts loss (W) | Catalogue numbers |
|---|---|---|---|---|---|---|
| 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)




Data sheet:5785049

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

## 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

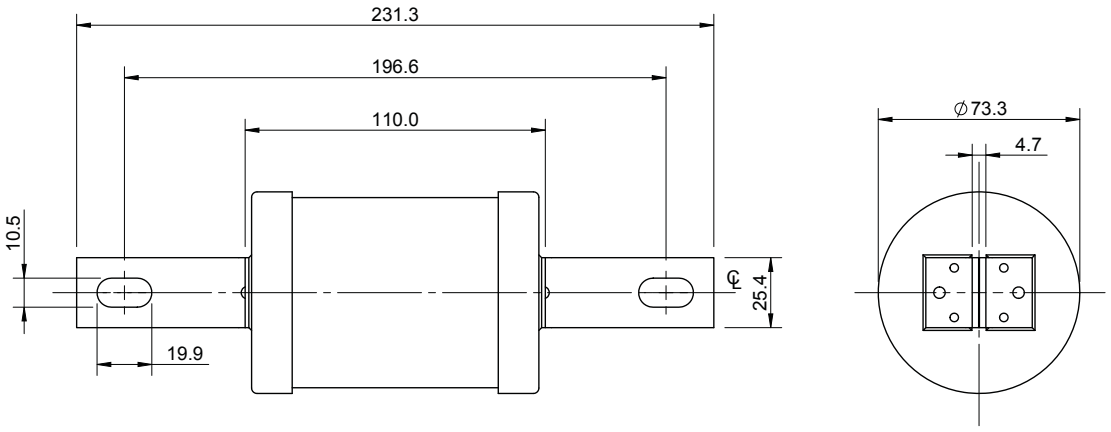
## Standards / Agency information

Consult Eaton bulehighspeedtechnical@eaton.com

## Catalogue numbers

| Rated voltage | Rated current (Amps) | $I^2t$ ($A^2s$) | 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)




Data sheet: 5785107

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

## 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

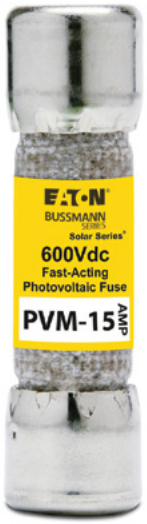
150 and 200 Amps: BU-NBC-150 and 200

# Photovoltaic fuse links, fuse bases and holders

## 600 V d.c. (UL) - 4 A to 30 A - 10 x 38 mm - PVM

### Description

A range of UL 2579 fast-acting 600 V d.c. midget fuse links specifically designed to protect solar power systems in extreme ambient temperature, high cycling and low level fault Rated current conditions (reverse rated current, multi-array fault).




### Technical data

- Rated voltage: 600 V d.c. to UL 2579
- Rated current: 4 A to 30 A
- Breaking capacity: 50 kA DC (4 A to 30 A)

### Compatible fuse holder

CHPV

### Standards / Agency information

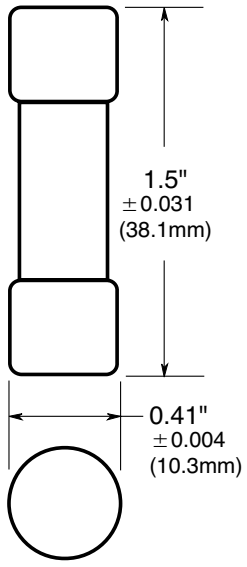
UL Listed 2579, Guide JFGA, File E335324, CSA Component Certified C22.2

### Catalogue numbers

| Rated voltage | Rated current (Amps) | Power Loss (W) 0.8 x $I_n$ | Power Loss (W) 1 x $I_n$ | Catalogue numbers |
|---|---|---|---|---|
| 600 V d.c. (UL) | 4 | | | PVM-4 |
| | 5 | | | PVM-5 |
| | 6 | | | PVM-6 |
| | 7 | | | PVM-7 |
| | 8 | | | PVM-8 |
| | 9 | | | PVM-9 |
| | 10 | 1 | 1.9 | PVM-10 |
| | 12 | | | PVM-12 |
| | 15 | 1 | 1.7 | PVM-15 |
| | 20 | | | PVM-20 |
| | 25 | | | PVM-25 |
| | 30 | 1.6 | 2.9 | PVM-30 |

Please contact FUSETECH@eaton.com for further information

### Dimensions in (mm)

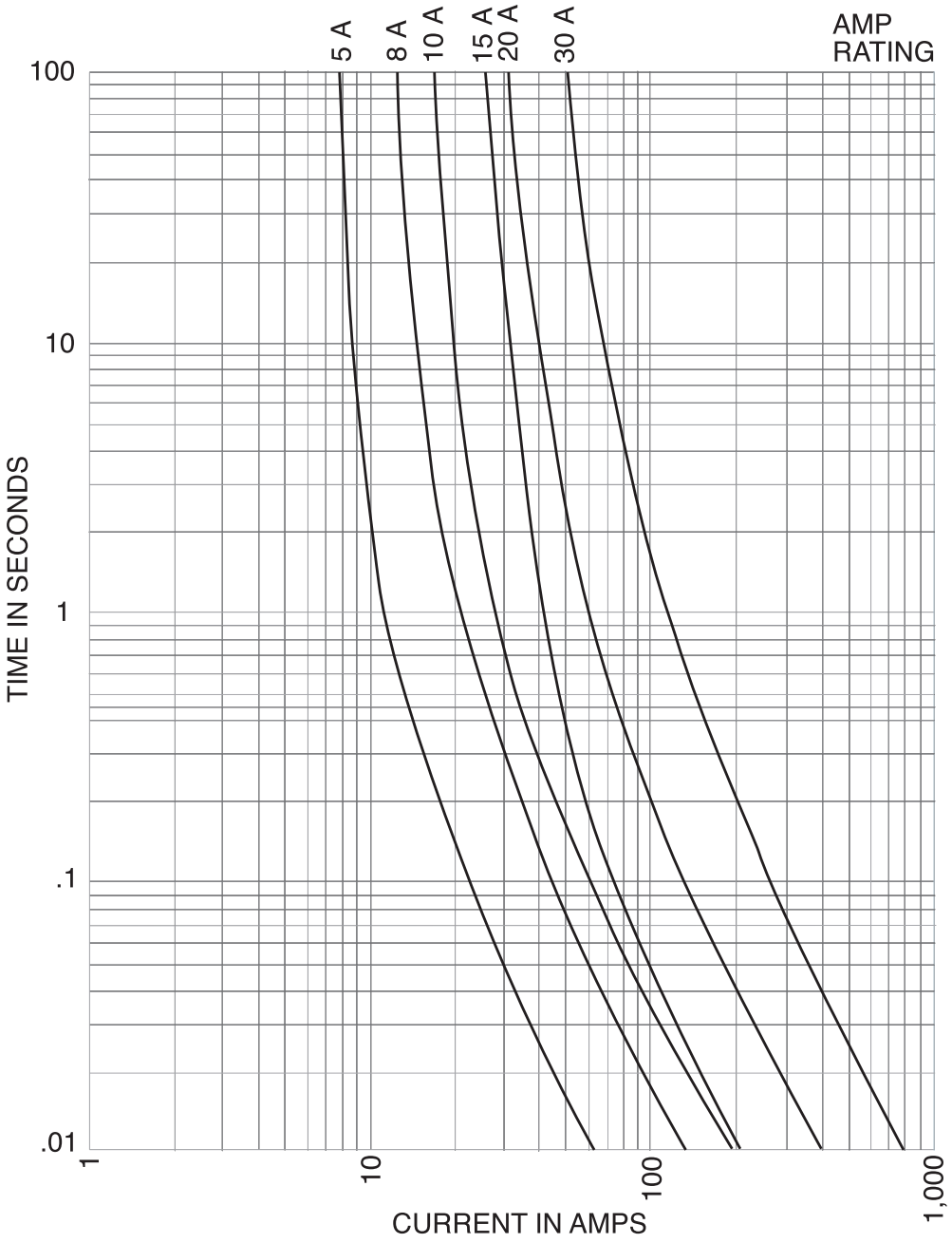



Data sheet: 2153

# Photovoltaic fuse links, fuse bases and holders

## 600 V d.c. (UL) - 4 A to 30 A - 10 x 38 mm - PVM

**Time-current curve - 5 A to 30 A**




Please contact FUSETECH@eaton.com for further information

Data sheet: 2153

# 1000 V d.c. (IEC/UL) - 1 A to 20 A - 10 x 38 MM - PV-A10

## Description

A range of fuse links in a 10 x 38 mm package specifically designed for the protection and isolation of photovoltaic strings. The fuse links are capable of interrupting low over rated currents associated with faulted PV (reverse rated current, multi-array fault) string arrays.




## Technical data

- Rated voltage: 1000 V d.c. (IEC/UL)
- Rated current: 1 A to 20 A
- Breaking capacity: 50 kA
- Operating class: gPV and UL PV fuse links

## Compatible fuse holder

CHPV

## Standards / Agency information

IEC 60269-6, UL Recognised 2579 (File number E335324), CSA, CCC (1-15A), RoHS compliant.

## Catalogue numbers - Cylindrical and bolt fixing fuse links

| | | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|
| Rated voltage | Rated current (Amps) | Pre-arcing | Total at 1000 V d.c. | 0.8 $I_n$ | $I_n$ | Cylindrical | Bolt fixing |
| 1000 V d.c. (UL/IEC) | 1 | 0.2 | 0.4 | 0.8 | 1.5 | PV-1A10F | PV-1A10-T |
| | 2 | 1.2 | 4 | 0.6 | 1.0 | PV-2A10F | PV-2A10-T |
| | 2.5 | 3 | 9 | 0.6 | 1.0 | PV-2-5A10F | PV-2-5A10-T |
| | 3 | 4 | 11 | 0.8 | 1.3 | PV-3A10F | PV-3A10-T |
| | 3.5 | 6.6 | 18 | 0.9 | 1.4 | PV-3-5A10F | PV-3-5A10-T |
| | 4 | 9.5 | 26 | 1.0 | 1.5 | PV-4A10F | PV-4A10-T |
| | 5 | 19 | 50 | 1.0 | 1.6 | PV-5A10F | PV-5A10-T |
| | 6 | 30 | 90 | 1.1 | 1.8 | PV-6A10F | PV-6A10-T |
| | 8 | 3 | 32 | 1.2 | 2.1 | PV-8A10F | PV-8A10-T |
| | 10 | 7 | 70 | 1.2 | 2.3 | PV-10A10F | PV-10A10-T |
| | 12 | 12 | 120 | 1.5 | 2.7 | PV-12A10F | PV-12A10-T |
| | 15 | 15 | 160 | 1.7 | 2.9 | PV-15A10F | PV-15A10-T |
| | 16 | 19 | 200 | 1.8 | 3 | PV-16A10F | PV-16A10-T |
| | 20 | 34 | 350 | 2.1 | 3.6 | PV-20A10F | PV-20A10-T |

## Catalogue numbers - PCB fixing fuse links

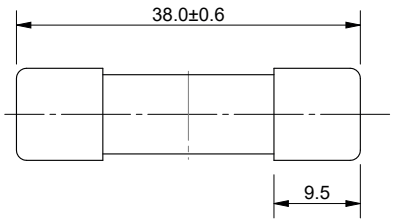
| | | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | Catalogue numbers | | |
|---|---|---|---|---|---|---|---|---|
| Rated voltage | Rated current (Amps) | Pre-arcing | Total at 1000 V d.c. | 0.8 $I_n$ | $I_n$ | PCB fixing single pin | PCB fixing double pin | PCB fixing double pin silver cap |
| 1000 V d.c. (UL/IEC) | 1 | 0.2 | 0.4 | 0.8 | 1.5 | PV-1A10-1P | PV-1A10-2P | PV-1A10-2P-S |
| | 2 | 1.2 | 4 | 0.6 | 1.0 | PV-2A10-1P | PV-2A10-2P | PV-2A10-2P-S |
| | 2.5 | 3 | 9 | 0.6 | 1.0 | PV-2-5A10-1P | PV-2-5A10-2P | PV-2-5A10-2P-S |
| | 3 | 4 | 11 | 0.8 | 1.3 | PV-3A10-1P | PV-3A10-2P | PV-3A10-2P-S |
| | 3.5 | 6.6 | 18 | 0.9 | 1.4 | PV-3-5A10-1P | PV-3-5A10-2P | PV-3-5A10-2P-S |
| | 4 | 9.5 | 26 | 1.0 | 1.5 | PV-4A10-1P | PV-4A10-2P | PV-4A10-2P-S |
| | 5 | 19 | 50 | 1.0 | 1.6 | PV-5A10-1P | PV-5A10-2P | PV-5A10-2P-S |
| | 6 | 30 | 90 | 1.1 | 1.8 | PV-6A10-1P | PV-6A10-2P | PV-6A10-2P-S |
| | 8 | 3 | 32 | 1.2 | 2.1 | PV-8A10-1P | PV-8A10-2P | PV-8A10-2P-S |
| | 10 | 7 | 70 | 1.2 | 2.3 | PV-10A10-1P | PV-10A10-2P | PV-10A10-2P-S |
| | 12 | 12 | 120 | 1.5 | 2.7 | PV-12A10-1P | PV-12A10-2P | PV-12A10-2P-S |
| | 15 | 15 | 160 | 1.7 | 2.9 | PV-15A10-1P | PV-15A10-2P | PV-15A10-2P-S |
| | 16 | 19 | 200 | 1.8 | 3 | PV-16A10-1P | PV-16A10-2P | PV-16A10-2P-S |
| | 20 | 34 | 350 | 2.1 | 3.6 | PV-20A10-1P | PV-20A10-2P | PV-20A10-2P-S |

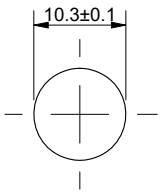
Data sheet: 720110

# Photovoltaic fuse links, fuse bases and holders

## 1000 V d.c. (IEC/UL) - 1 A to 20 A - 10 x 38 MM - PV-A10

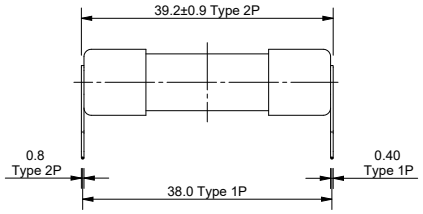
### Dimensions (mm) - PV-**A10F, Cylindrical



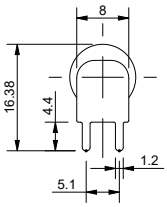





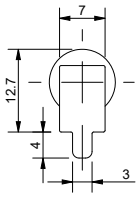

### Dimensions (mm) - PV-**A10-xP, PCB fixing




(PV-**A10-2P)

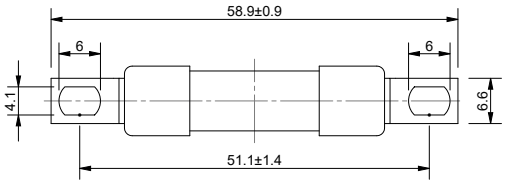


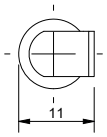

(PV-**A10-1P)






### Dimensions (mm) - PV-**A10-T, Bolt fixing



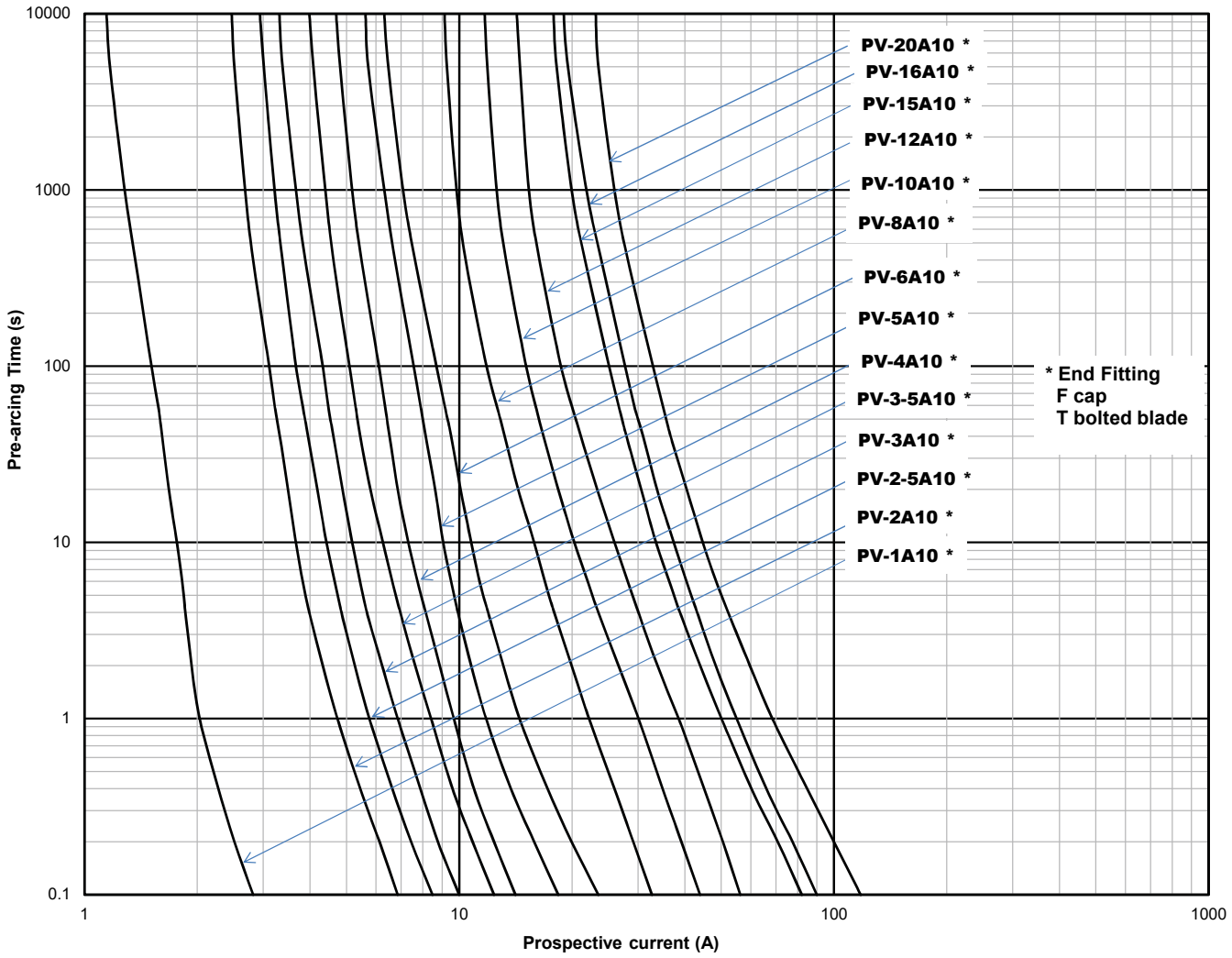





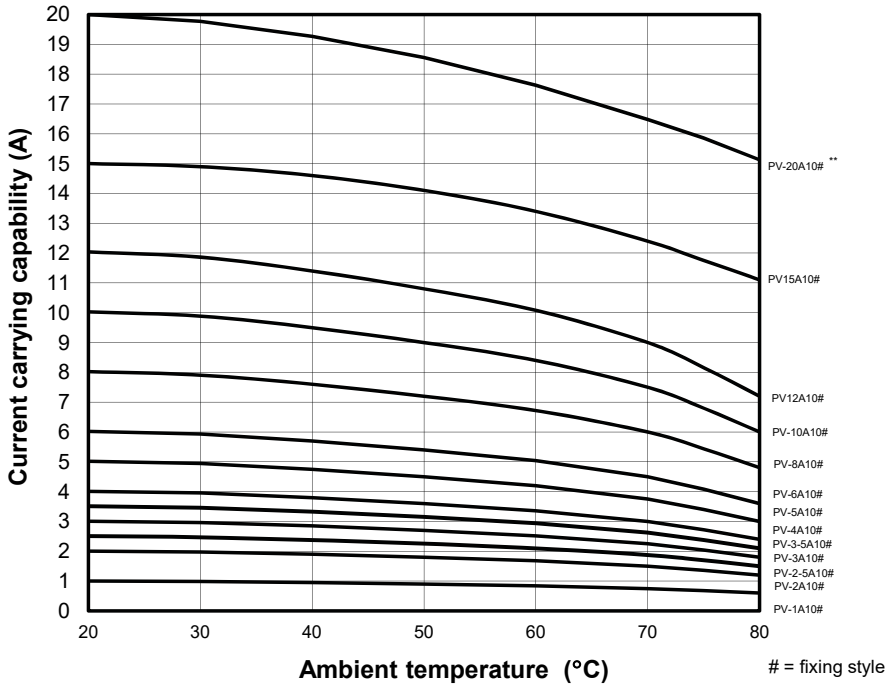

Data sheet: 720110

# 1000 V d.c. (IEC/UL) - 1 A to 20 A - 10 x 38 MM - PV-A10

## Time-current curve - 1 A to 20 A




## Temperature deratings




Data sheet: 720110

# Photovoltaic fuse links, fuse bases and holders

## 1000 V d.c. (IEC/UL) - 32 A (IEC), 30 A (UL) - Modular fuse holder for 10 x 38 mm PV fuse links

### Description

Compact DIN-Rail mounting fuse holders specifically designed for 10 x 38 mm photovoltaic fuse links.



### Catalogue numbers

- CHPV1U 1-pole modular fuse holder
- CHPV2U 2-pole modular fuse holder
- CHPV1IU 1-pole modular fuse holder with neon indicator
- CHPV2IU 2-pole modular fuse holder with neon indicator

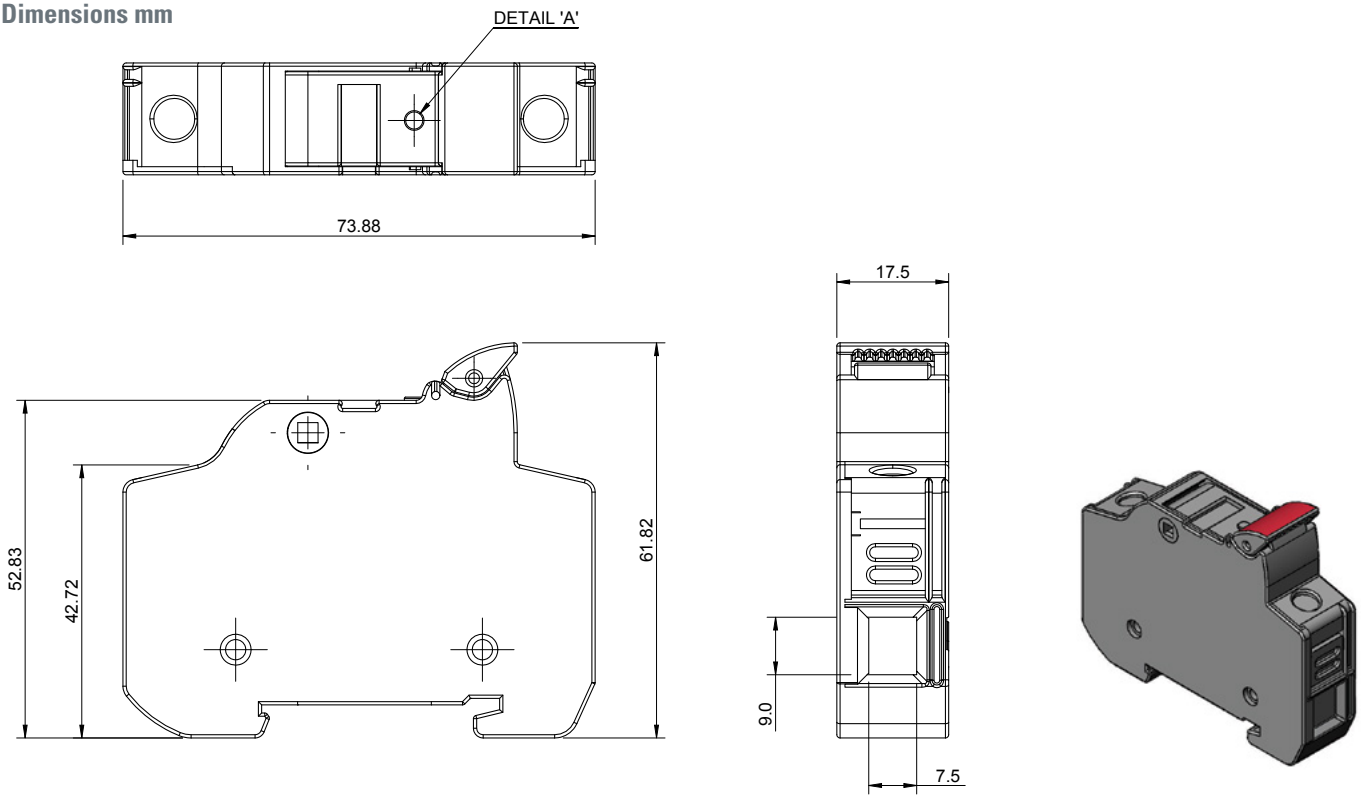
### Technical data

| IEC | | UL | | | | |
|---|---|---|---|---|---|---|
| **Rated voltage** | **Rated current** | **Rated voltage** | **Rated current** | **Terminal rating** | **Rated breaking withstand capactiy** | **Compatible Bussmann series fuse links** |
| 1000 V d.c. | 32 A | 1000 V d.c. | 30 A | IEC 1 to 25 $mm^2$<br>70°C PVC<br>Copper cable (solid stranded or fine stranded)<br>Spade lug<br>Comb bus bar | 33 kA rms sym | Solar PV range: PVM, PV-A10F |

### Standards / Agency information

| IEC | UL | CSA | CCC | CE |
|---|---|---|---|---|
| IEC 60269-1 | UL 4248-1<br>UL4248-19<br>UL file E14853 | C22.2 No 4248.1<br>C22.2 No 4248.19 | GB 13539.1 | DCB 272 |

### Dimensions mm




Data sheet: 720147

# 1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH

## Description

A range of NH size bladed fuse links specifically designed for protecting and isolating photovoltaic array combiners and disconnects. These fuse links are capable of interrupting low overrated currents associated with faulted PV systems (reverse rated current, multi-array fault).




## Technical data

- Rated voltage: 1000 V d.c. (IEC and UL)
- Rated current: 32 A to 400 A
- Breaking capacity: 50 kA
- Operating class: gPV and UL PV fuse links

## Compatible fuse base

SD-D-PV see page 352

## Standards / Agency information

IEC 60269-6, UL Recognised file 2579 E335324 for size 1 only, RoHS compliant

## Catalogue numbers

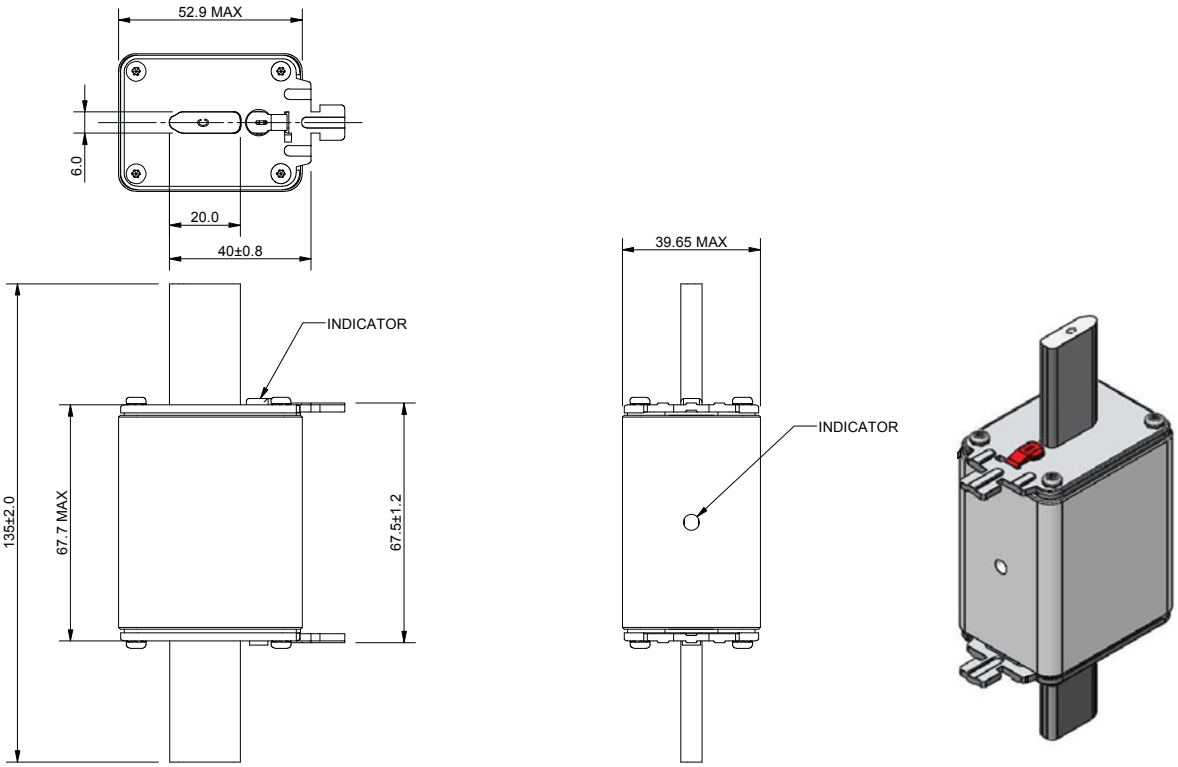
| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | Catalogue numbers | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Pre-arcing | Total at 1000 V d.c. | 0.8 $I_n$ | $I_n$ | Blade without bolt holes | Blade with bolt holes | Blade with bolt holes and lugs |
| NH1 | 1000 V d.c. (IEC/UL) | 32 | 80 | 720 | 4 | 8 | PV-32ANH1 | PV-32ANH1-B | |
| | | 40 | 185 | 1670 | 5 | 9 | PV-40ANH1 | PV-40ANH1-B | |
| | | 50 | 400 | 3600 | 6 | 11 | PV-50ANH1 | PV-50ANH1-B | |
| | | 63 | 470 | 4300 | 6 | 12 | PV-63ANH1 | | |
| | | 80 | 640 | 5760 | 8 | 15 | PV-80ANH1 | | |
| | | 100 | 1300 | 11700 | 8 | 16 | PV-100ANH1 | | |
| | | 110 | 2100 | 18900 | 9 | 18.5 | PV-110ANH1 | | |
| | | 125 | 2600 | 23400 | 9 | 17 | PV-125ANH1 | | |
| | | 160 | 5200 | 46800 | 14 | 27 | PV-160ANH1 | | |
| | | 175 | 8300 | 74700 | 15 | 29 | PV-175ANH1 | | |
| | | 200 | 10200 | 82000 | 13 | 25 | PV-200ANH1 | | |
| NH2 | 1000 V d.c. (IEC/UL) | 160 | 4600 | 37000 | 14 | 28 | PV-160ANH2 | | |
| | | 200 | 9500 | 76000 | 16 | 32 | PV-200ANH2 | | |
| | | 250 | 17000 | 136000 | 19 | 38 | PV-250ANH2 | | |
| NH3 | 1000 V d.c. (IEC/UL) | 300 | 32000 | 260000 | 24 | 40 | PV-300ANH3 | | |
| | | 315 | 32000 | 260000 | 26 | 44 | PV-315ANH3 | | |
| | | 350 | 44500 | 370000 | 27 | 45 | PV-350ANH3 | | |
| | | 355 | 44500 | 370000 | 28 | 46 | PV-355ANH3 | | |
| | | 400 | 67500 | 550000 | 30 | 50 | PV-400ANH3 | | |
| NH1 | 1000 V d.c. (IEC/UL) | 63 | 470 | 4300 | 6 | 12 | | PV-63ANH1-B | PV-63ANH1-BL |
| | | 80 | 640 | 5760 | 8 | 15 | | PV-80ANH1-B | PV-80ANH1-BL |
| | | 100 | 1300 | 11700 | 8 | 16 | | PV-100ANH1-B | PV-100ANH1-BL |
| | | 125 | 2600 | 23400 | 9 | 17 | | PV-125ANH1-B | PV-125ANH1-BL |
| | | 160 | 5200 | 46800 | 14 | 27 | | PV-160ANH1-B | PV-160ANH1-BL |
| | | 200 | 10200 | 82000 | 13 | 25 | | PV-200ANH1-B | PV-200ANH1-BL |
| NH2 | 1000 V d.c. (IEC/UL) | 160 | 4600 | 37000 | 14 | 28 | | PV-160ANH2-B | PV-160ANH2-BL |
| | | 200 | 9500 | 76000 | 16 | 32 | | PV-200ANH2-B | PV-200ANH2-BL |
| | | 250 | 17000 | 136000 | 19 | 38 | | PV-250ANH2-B | PV-250ANH2-BL |
| NH3 | 1000 V d.c. (IEC/UL) | 300 | 32000 | 260000 | 24 | 40 | | PV-300ANH3-B | PV-300ANH3-BL |
| | | 315 | 32000 | 260000 | 26 | 44 | | PV-315ANH3-B | PV-315ANH3-BL |
| | | 355 | 38000 | 310000 | 29 | 48 | | PV-355ANH3-B | PV-355ANH3-BL |
| | | 400 | 61000 | 490000 | 32 | 50 | | PV-400ANH3-B | PV-400ANH3-BL |

Data sheet: 720133

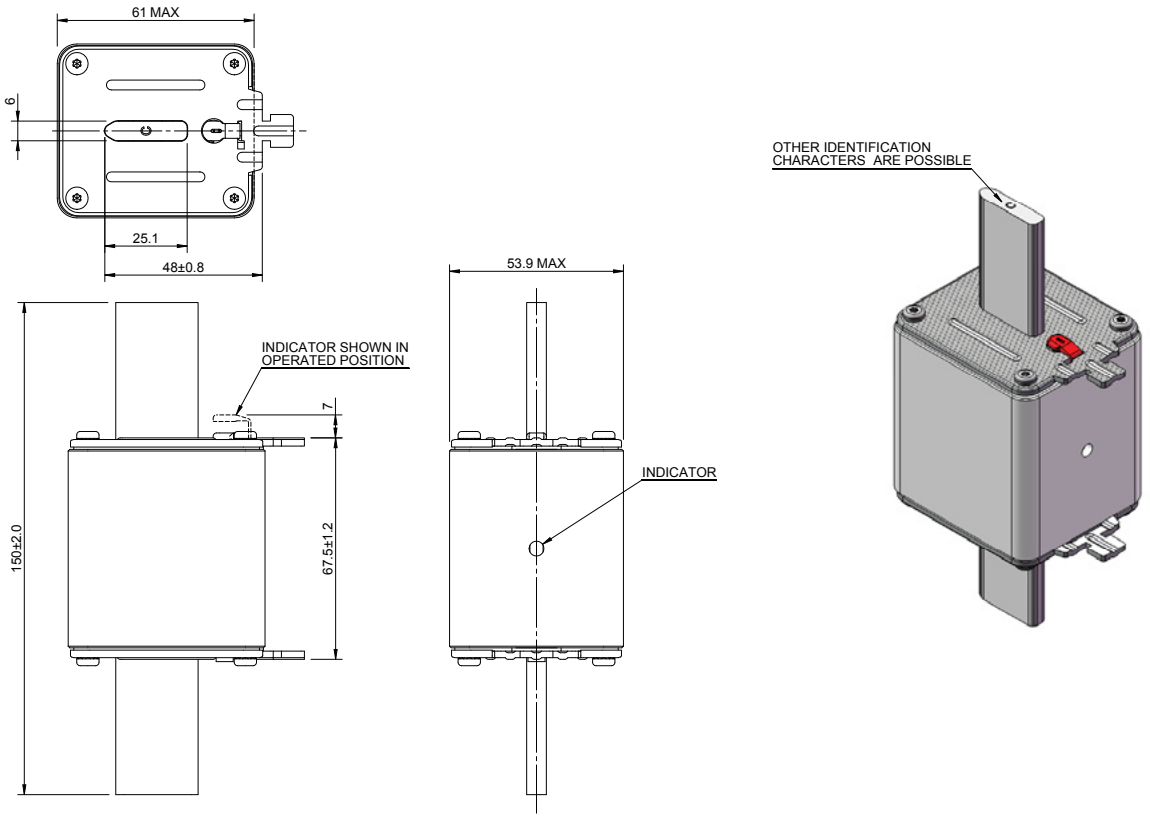
# Photovoltaic fuse links, fuse bases and holders

## 1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH

### Dimensions (mm) - NH1, blade without bolt holes



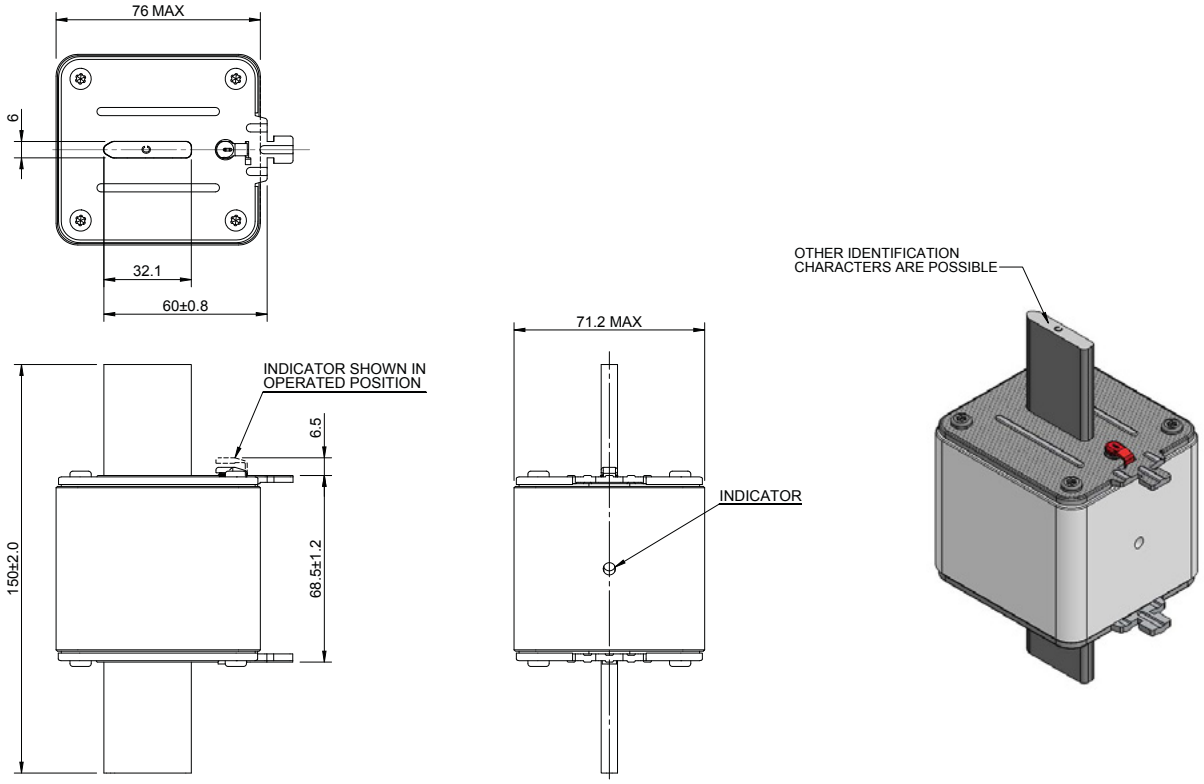

### Dimensions (mm) - NH2, blade without bolt holes



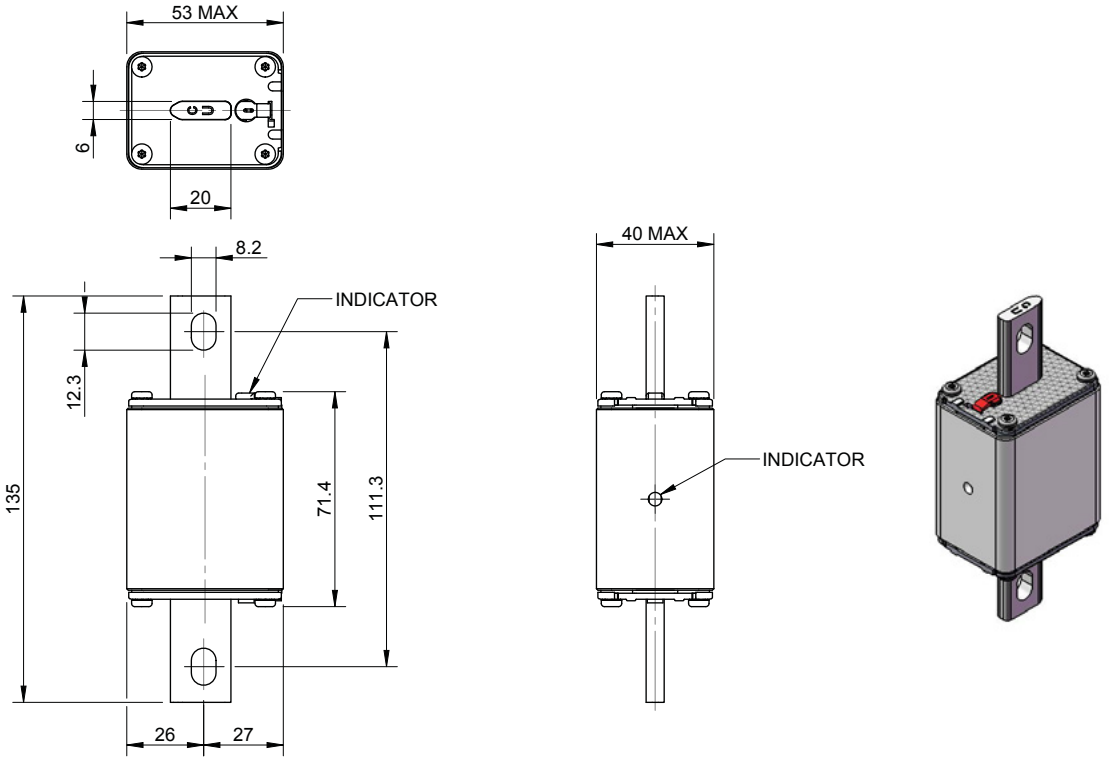

Data sheet: 720133

# 1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH

## Dimensions (mm) - NH3, blade without bolt holes




## Dimensions (mm) - NH1, blade with bolt holes

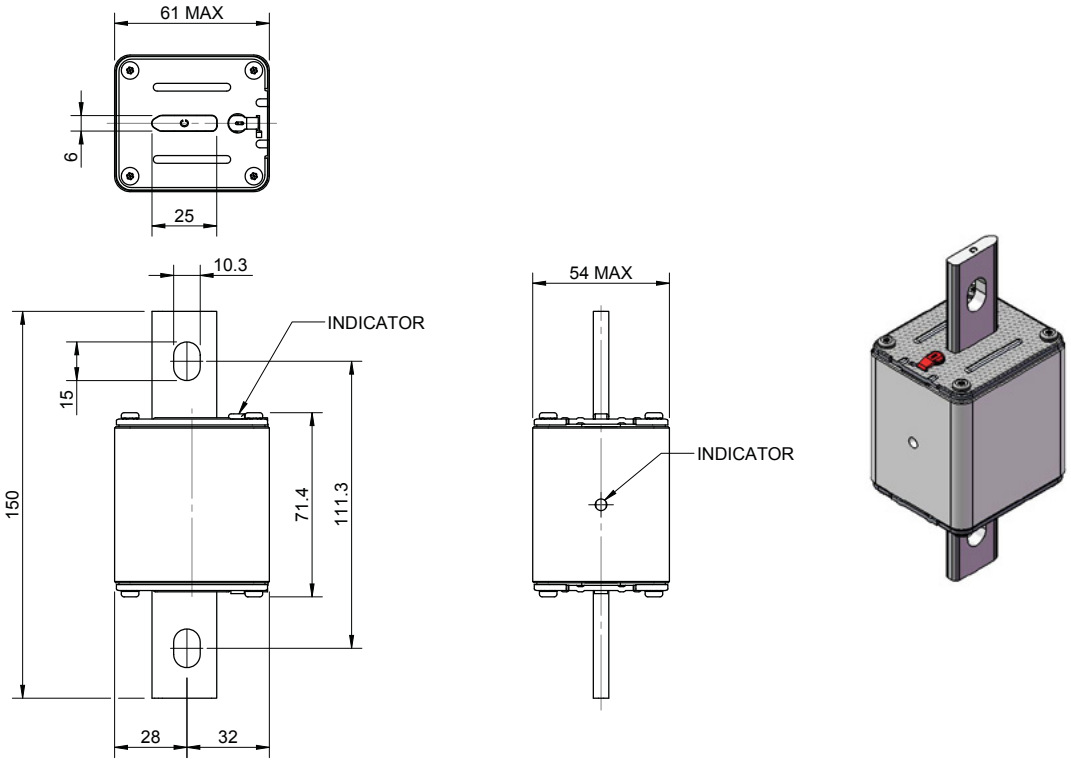



Data sheet: 720133

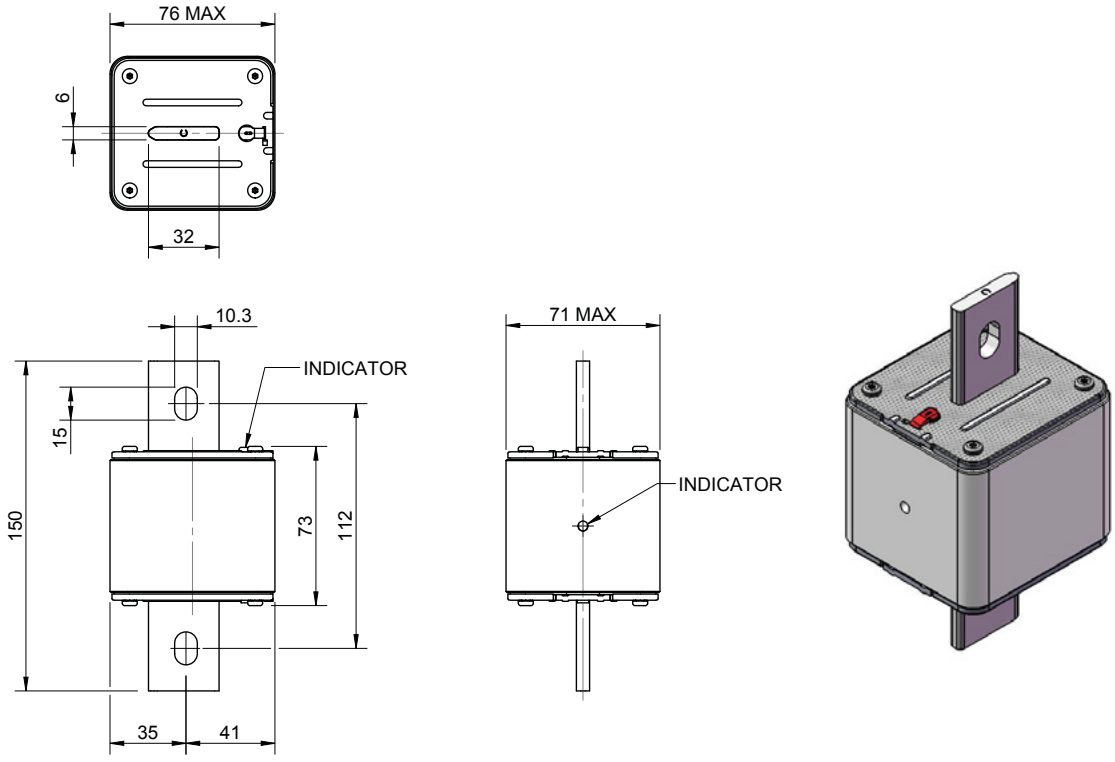
# Photovoltaic fuse links, fuse bases and holders

## 1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH

### Dimensions (mm) - NH2, blade with bolt holes



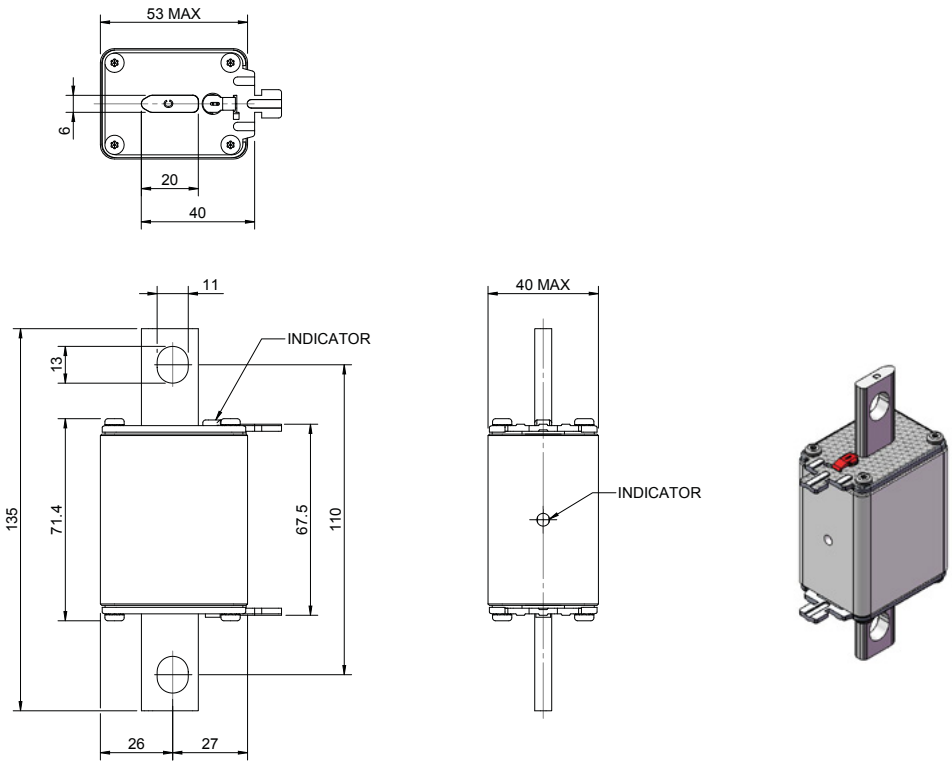

### Dimensions (mm) - NH3, blade with bolt holes



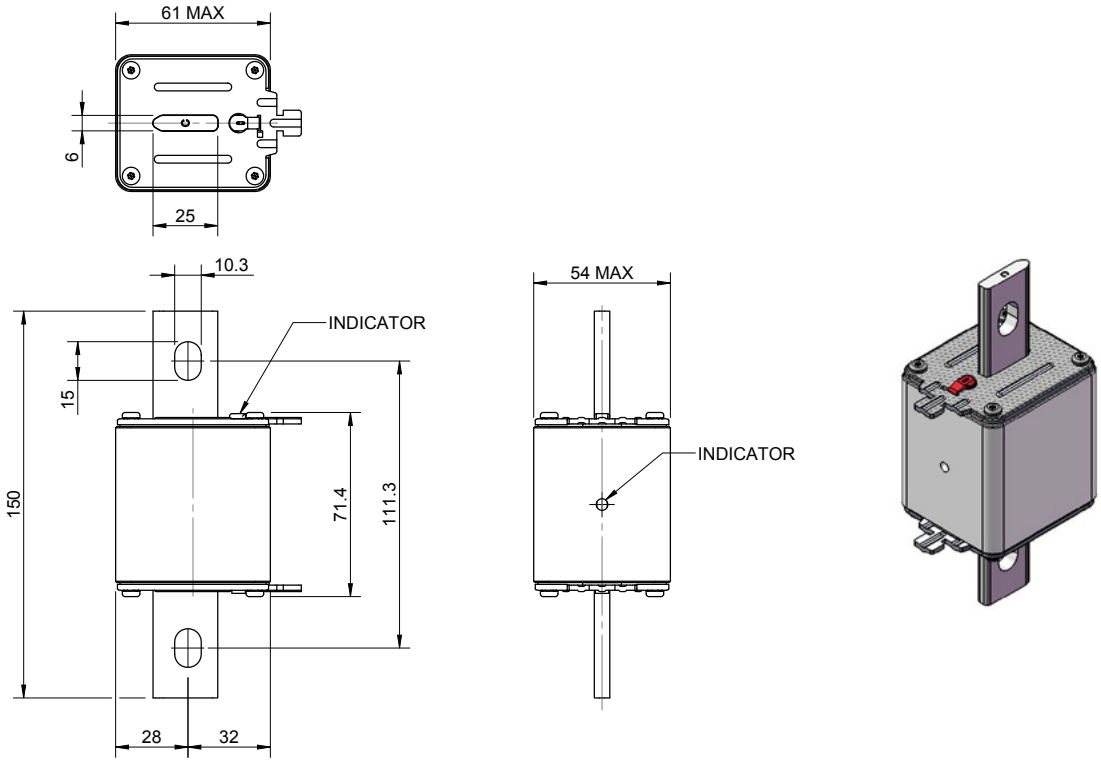

Data sheet: 720133

# 1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH

## Dimensions (mm) - NH1, blade with bolt holes and lugs




## Dimensions (mm) - NH2, blade with bolt holes and lugs

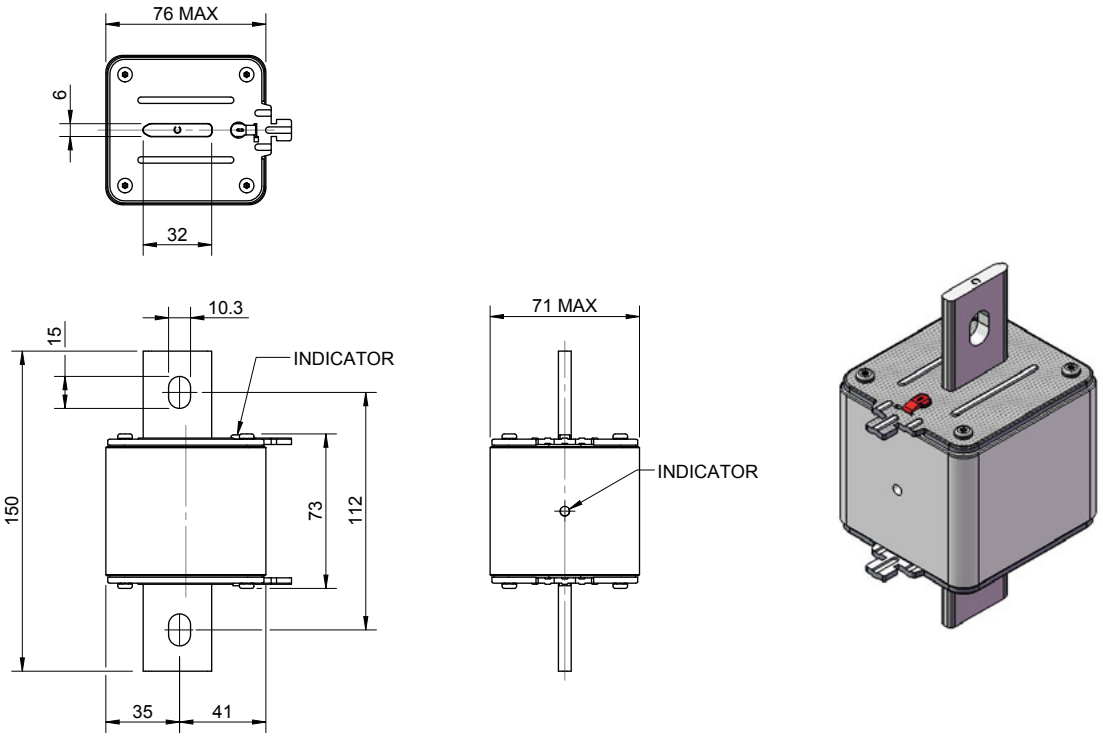



Data sheet: 720133

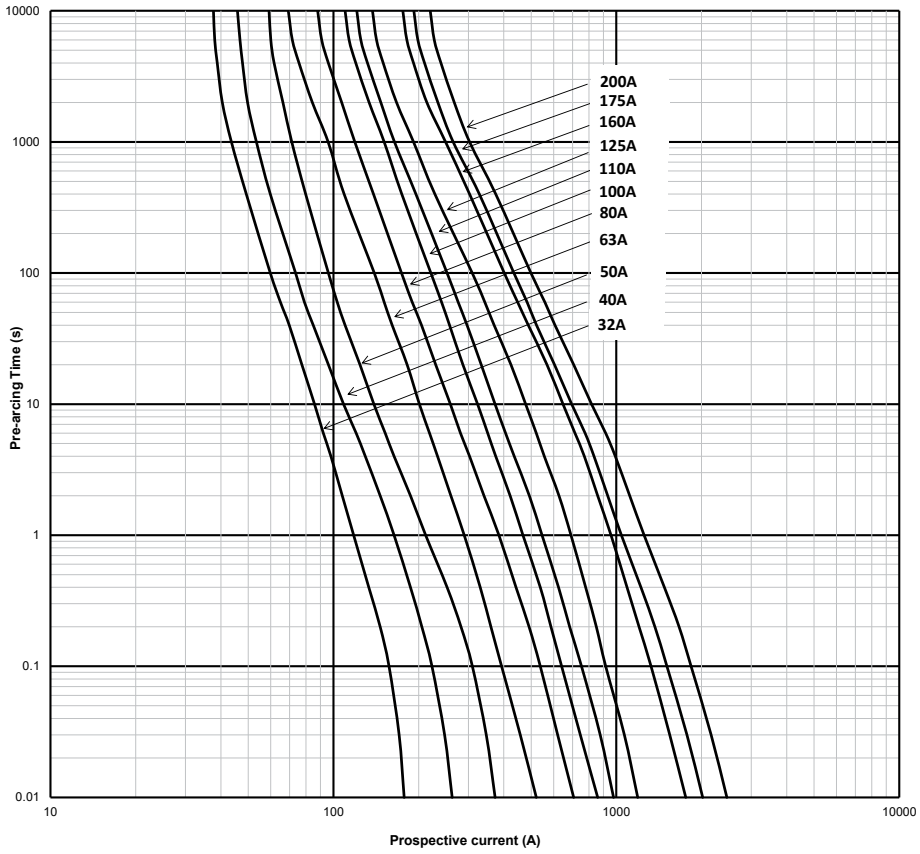
# Photovoltaic fuse links, fuse bases and holders

## 1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH

### Dimensions (mm) - NH3, blade with bolt holes and lugs



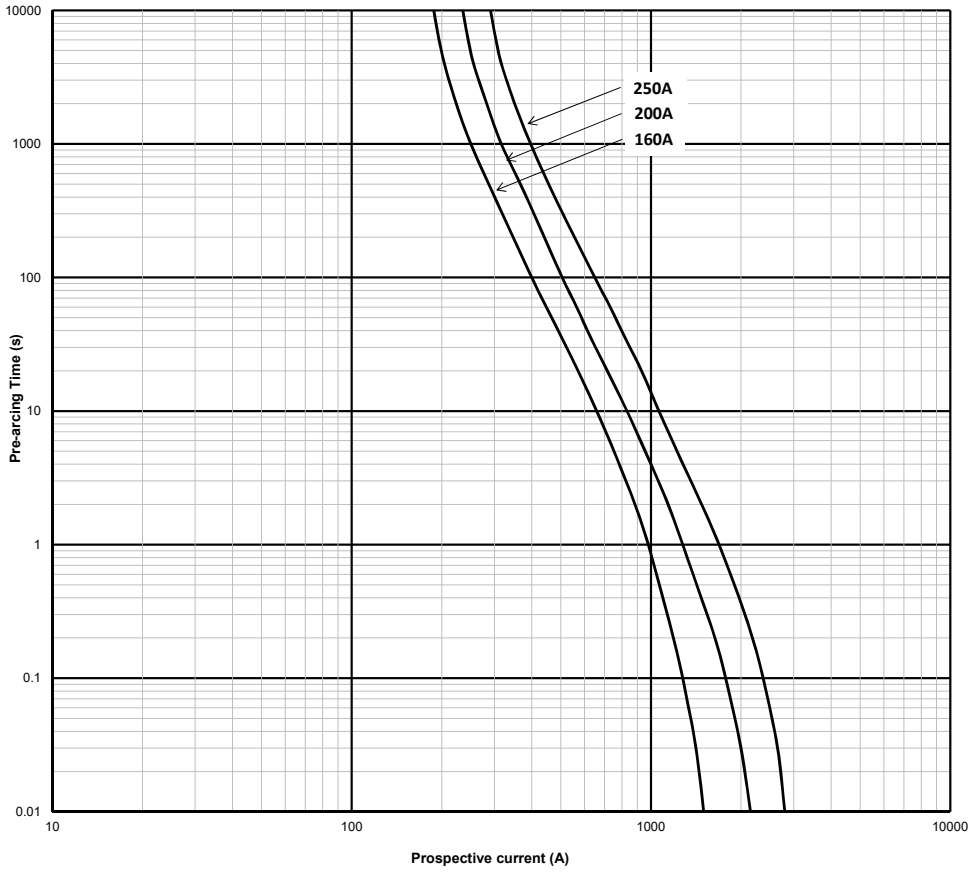

### Time-current curve - Size 1, 32 A to 200 A



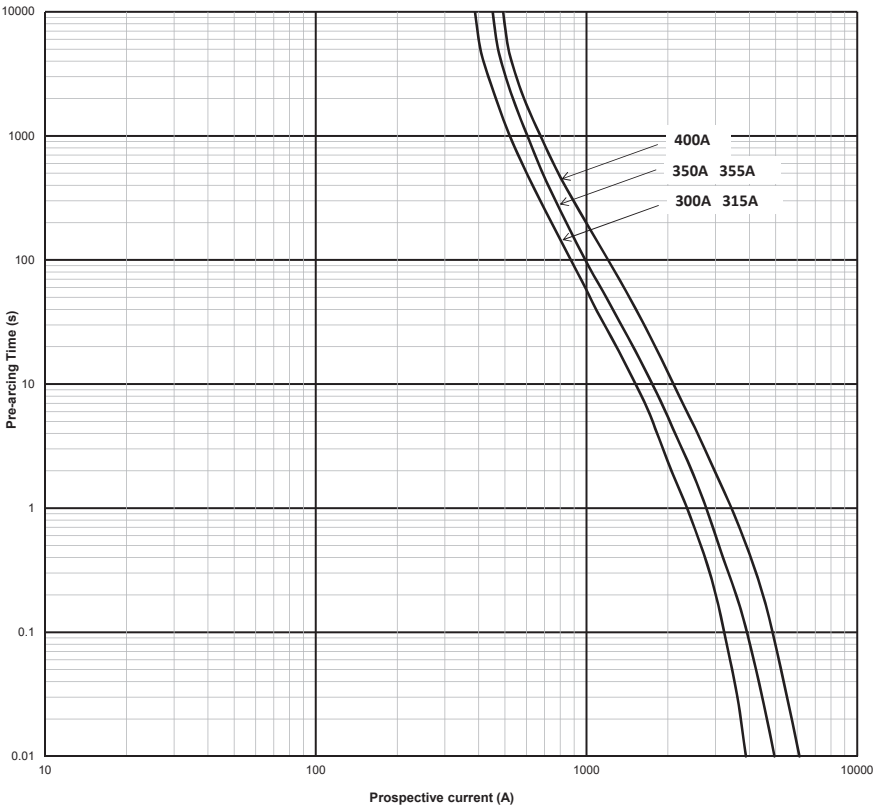

Data sheet: 720133

# 1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH

## Time-current curve - Size 2, 160 A to 250 A



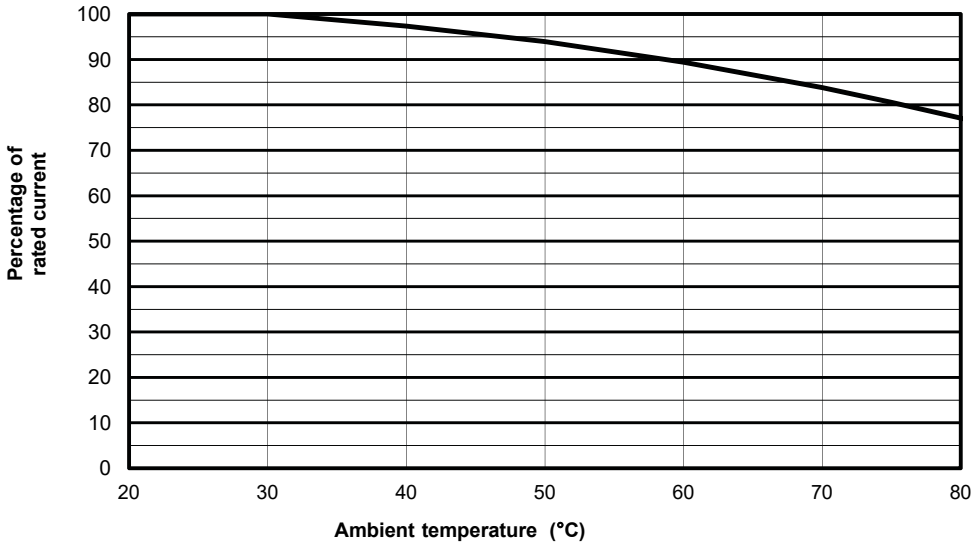

## Time-current curve - Size 3, 300 A to 400 A




Data sheet: 720133

## 1000 V d.c. (IEC/UL) - 32 A to 400 A - NH PV-ANH

### Temperature derating curve - Sizes 1 to 3




Data sheet: 720133

# 1000 V d.c. (IEC/UL) - 160 A to 400 A - Flush end - PV-AF

## Description

A range of flush end fuse links specifically designed for protecting and isolating photovoltaic array combiners and disconnects. These fuse links are capable of interrupting low overrated currents associated with faulted PV systems (reverse rated current, multi-array fault).




## Technical data

- Rated voltage: 1000 V d.c. (IEC and UL)
- Rated current: 160 A to 400 A
- Breaking capacity: 50 kA
- Operating class: gPV and UL PV fuse links

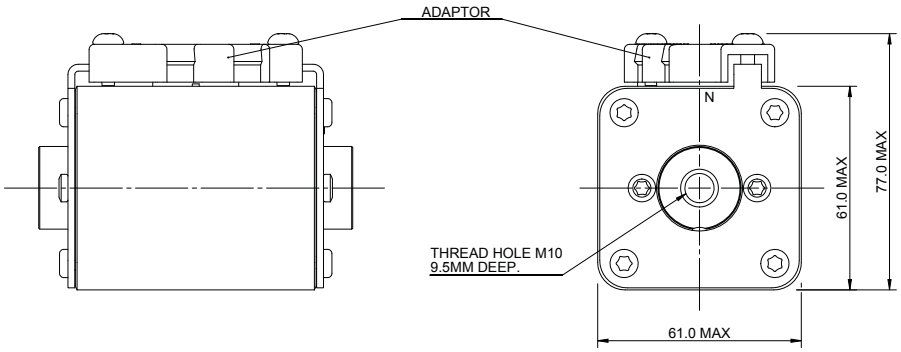
## Standards / Agency information

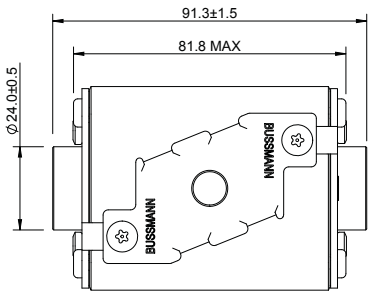
IEC 60269-6, UL 2579 (file number E335324), CSA Listed, RoHS compliant

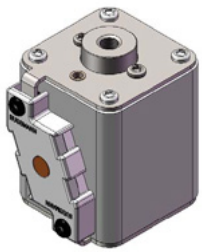
## Catalogue numbers

| Fuse link type | Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | Watts loss (W) Total at 1000 V d.c. | Watts loss (W) 0.8 $I_n$ | Watts loss (W) $I_n$ | Catalogue numbers |
|---|---|---|---|---|---|---|---|---|
| Flush end | 2 | 1000 V d.c.(IEC/UL) | 160 | 4600 | 37,000 | 15 | 30 | PV-160AF2 |
| | | | 200 | 9500 | 76,000 | 17 | 34 | PV-200AF2 |
| | | | 250 | 17,000 | 136,000 | 19 | 38 | PV-250AF2 |
| | 3 | 1000 V d.c.(IEC/UL) | 315 | 27,000 | 240,000 | 30 | 49 | PV-315AF3 |
| | | | 355 | 37,000 | 350,000 | 31 | 51 | PV-355AF3 |
| | | | 400 | 61,500 | 550,000 | 32 | 52 | PV-400AF3 |

## Dimensions (mm) - Size 2



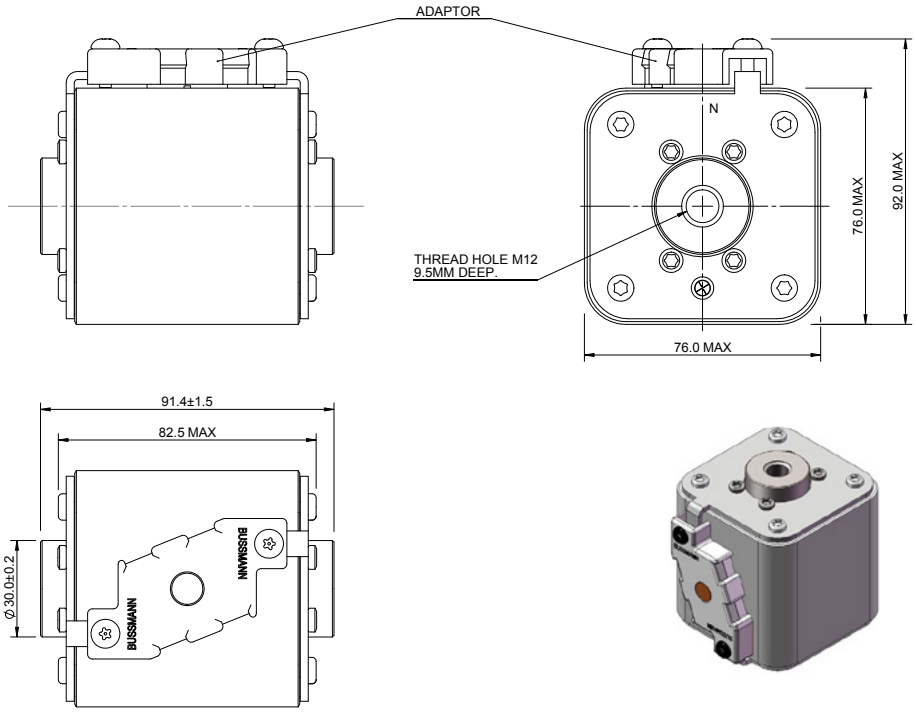



Data sheet: 10370

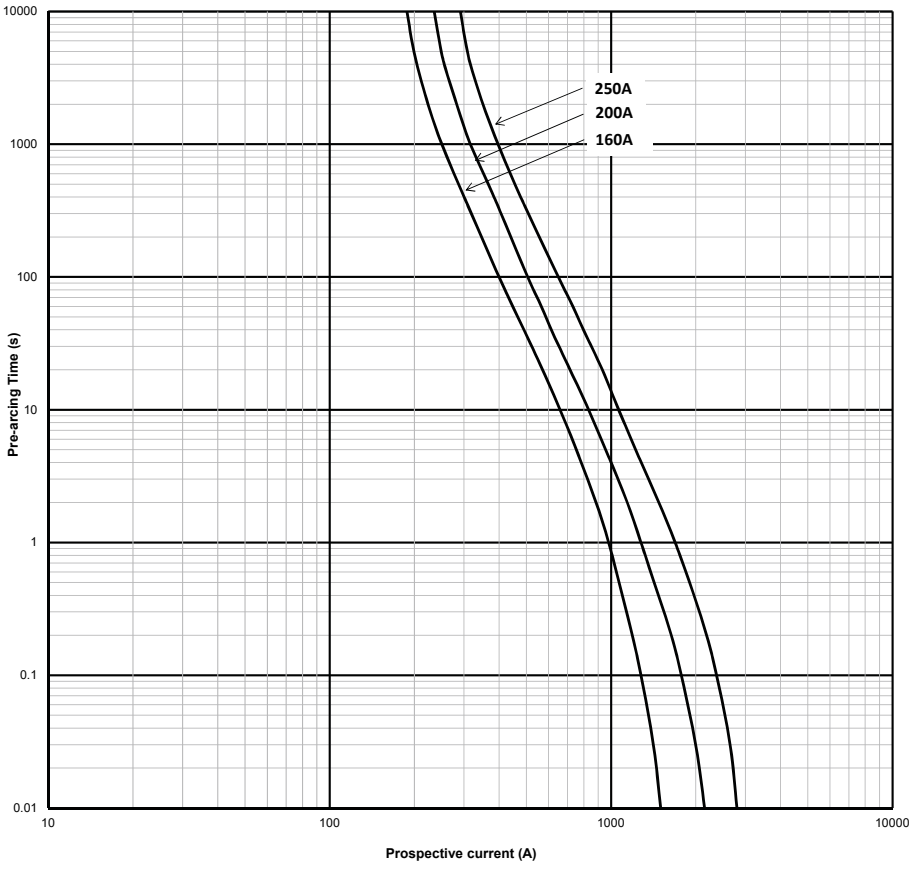
# Photovoltaic fuse links, fuse bases and holders

## 1000 V d.c. (IEC/UL) - 160 A to 400 A - Flush end - PV-AF

### Dimensions (mm) - Size 3



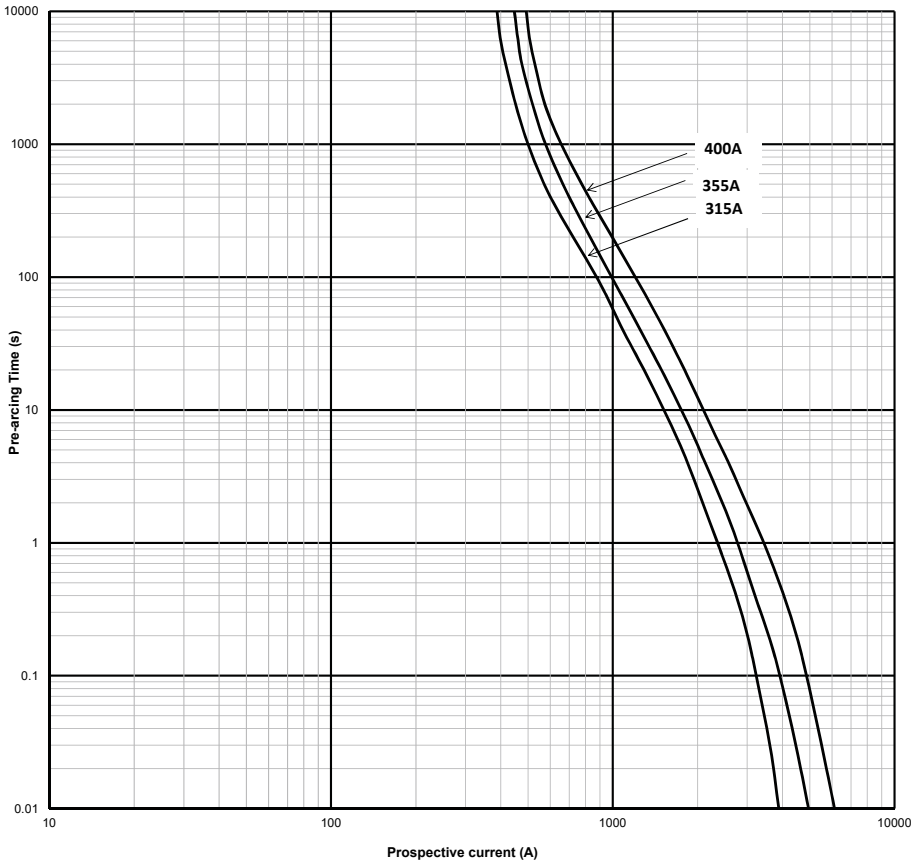

### Time-current curve - Size 2, 160 A to 250 A




Data sheet: 10370

# 1000 V d.c. (IEC/UL) - 160 A to 400 A - Flush end - PV-AF

## Time-current curve -Size 3, 315 A to 400 A




Data sheet: 10370

# Photovoltaic fuse links, fuse bases and holders

## 1000 and 1100 V d.c. (IEC/UL) - 15 A to 32 A - 14 x 51 mm - PV-14F

### Description

A range of fuse links in a 14 x 51 mm package specifically designed for the protection and isolation of photovoltaic strings. The fuse links are capable of interrupting low overrated currents associated with faulted PV (reverse rated current, multi-array fault).




### Technical data

- Rated voltage:
  - 1100 V d.c. (IEC and UL, 15 A and 20 A)
  - 1000 V d.c. (IEC and UL, 25 A and 32 A)
- Rated current: 15 A to 32 A
- Breaking capacity: 30 kA
- Operating class: gPV and UL PV fuse links

### Compatible fuse holder

- CHPV14

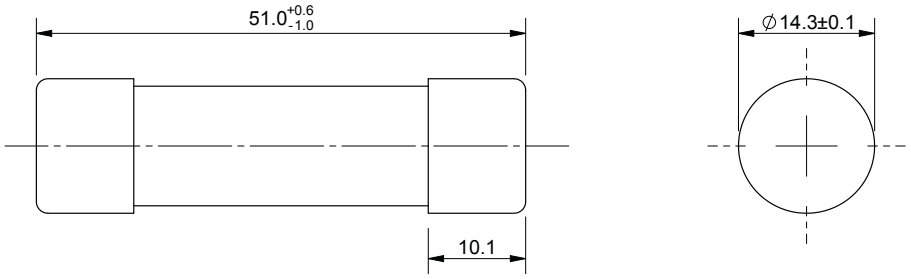
### Standards / Agency information

IIEC 60269-6, UL Recognised 2579 (File number E335324), RoHS compliant. Pending: CCC

### Catalogue numbers

| Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Total at rated voltage | Watts loss (W) 0.8 $I_n$ | Watts loss (W) $I_n$ | Catalogue numbers |
|---|---|---|---|---|---|---|
| 1100 V d.c. (IEC/UL) | 15 | 14 | 270 | 2.1 | 4 | PV-15A14F |
| | 20 | 27 | 570 | 2.9 | 5.5 | PV-20A14F |
| 1000 V d.c. (IEC/UL) | 25 | 65 | 950 | 2.8 | 5.3 | PV-25A14F |
| | 32 | 120 | 1750 | 4 | 7.5 | PV-32A14F |

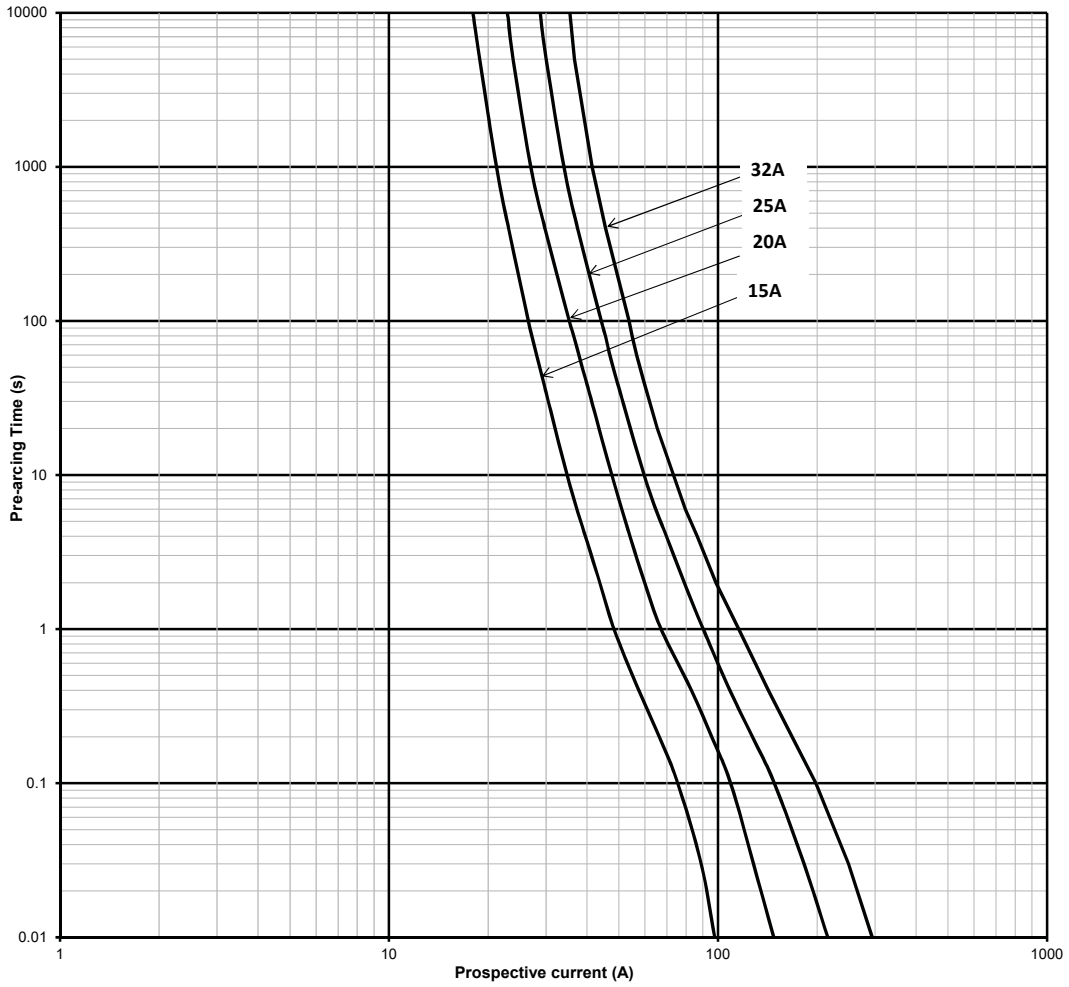
### Dimensions (mm)




Data sheet: 720132

# 1000 and 1100 V d.c. (IEC/UL) - 15 A to 32 A - 14 x 51 mm - PV-14F

## Time-current curve - 15 A to 32 A




Data sheet: 720132

# Photovoltaic fuse links, fuse bases and holders

## 1500 V d.c. (IEC/UL) - 2.25 A to 30 A - 10 x 85 mm - PV-A10F85L

### Description

A range of fuse links in a 10 x 85 mm package specifically designed for the protection and isolation of photovoltaic strings.

### Technical data

- Rated voltage: 1500 V d.c.
- Rated current: 2.25 A to 30 A
- Breaking capacity: 30 kA 1 ms
- Operating class: gPV
- Fuse body material
  - 2.25 A to 5 A: Ceramic
  - 12 A to 30 A: Melamine

### Compatible fuse holder

CHPV15H85

### Standards / Agency information

IEC 60269-6, UL 248-19, RoHS compliant



Ceramic fuse body

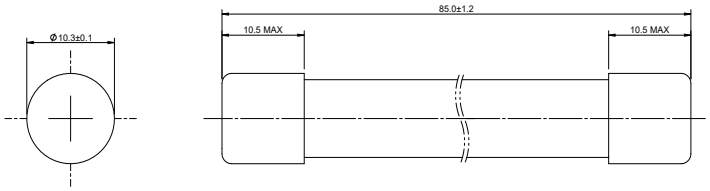


Melamine fuse body

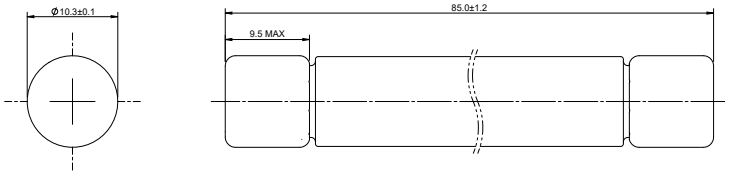
### Catalogue numbers

| Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Total at 1500 V d.c. | Watts loss (W) 0.8 $I_n$ | Watts loss (W) $I_n$ | Catalogue numbers |
|---|---|---|---|---|---|---|
| 1500 V d.c. (IEC/UL) | 2.25 | 3 | 10 | 1.4 | 2.4 | PV-2-25A10F85L |
| | 2.5 | 4 | 10 | 1.3 | 2.1 | PV-2.5A10F85L |
| | 3 | 7 | 20 | 1.3 | 2.2 | PV-3A10F85L |
| | 3.5 | 10 | 20 | 1.6 | 2.6 | PV-3.5A10F85L |
| | 4 | 15 | 30 | 1.7 | 2.8 | PV-4A10F85L |
| | 5 | 33 | 60 | 1.7 | 2.8 | PV-5A10F85L |
| | 12 | 19 | 240 | 2.1 | 3.5 | PV-12A10F85L |
| | 15 | 42 | 300 | 2.2 | 3.6 | PV-15A10F85L |
| | 16 | 48 | 350 | 2.1 | 3.5 | PV-16A10F85L |
| | 20 | 108 | 800 | 2.7 | 4.5 | PV-20A10F85L |
| | 25 | 190 | 1400 | 3.4 | 5.6 | PV-25A10F85L |
| | 30 | 485 | 3500 | 4 | 6.6 | PV-30A10F85L |

### Dimensions (mm) - 2.25 A to 5 A (Ceramic fuse body)



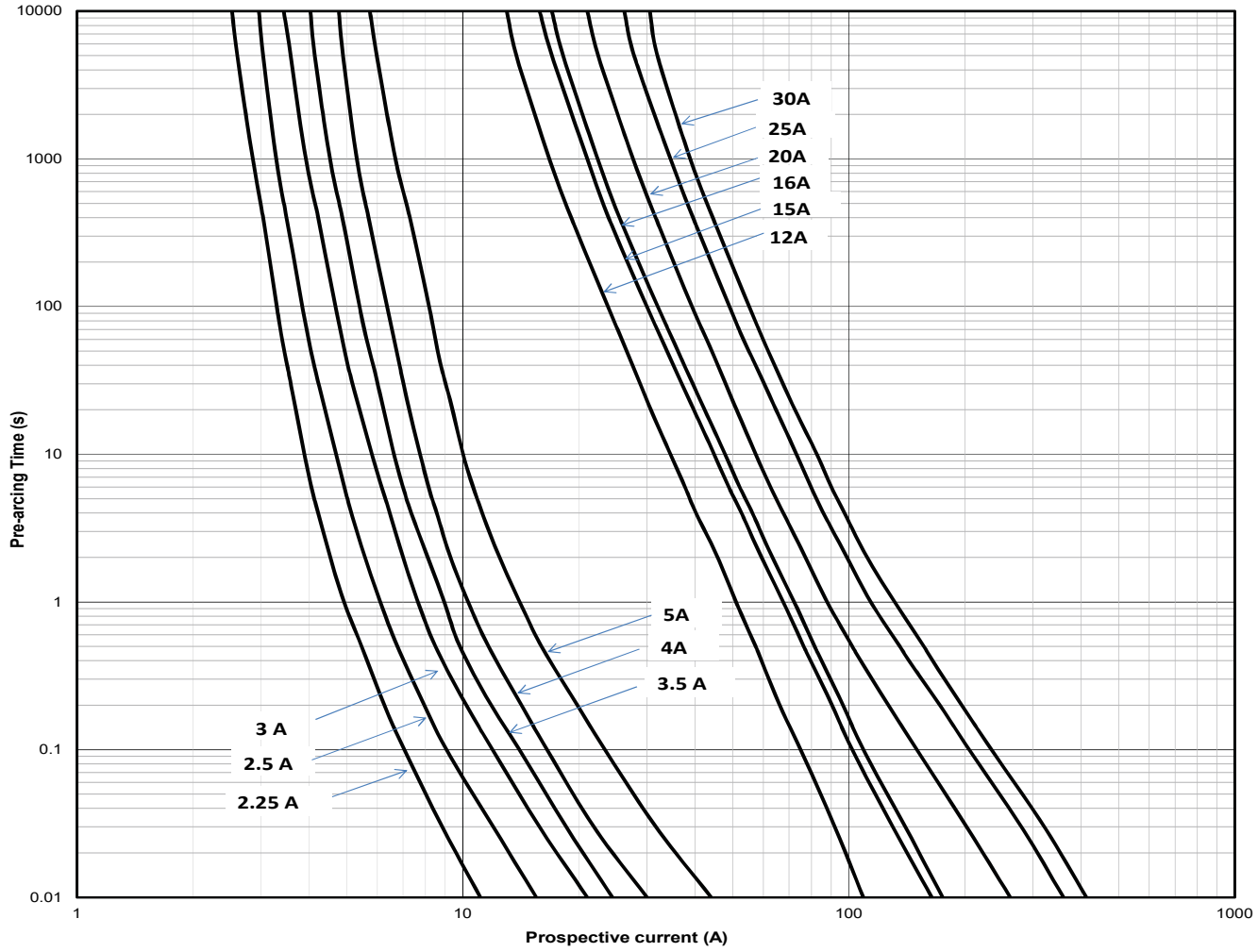

### Dimensions (mm) - 12 A to 30 A (Melamine fuse body)




Data sheet: 10658

## 1500 V d.c. (IEC/UL) - 2.25 A to 30 A - 10 x 85 mm - PV-A10F85L

### Time-current curve - 2.25 A to 30 A




Data sheet: 10658

# Photovoltaic fuse links, fuse bases and holders

## 1500 V d.c. - 32 A (IEC/UL) - Fuse holder for 10 x 85 mm fuse links - CHPV15H85

### Description

Eaton's Bussmann series 10 x 85 mm fuse holders are suitable for use with 10 x 85 mm and 14 x 85 mm cylindrical gPV fuse links. The unique design offers high degree of safety. There is no possibility of any accidental contact with live parts during replacement of the fuse links. When the fuse carrier is extracted, a spring loaded cover moves out covering the live parts hence protecting against accidental damage.



### Catalogue symbol

CHPV15H85

### Compatible fuse links

- 10 x 85 mm fuse links - PV-A10F85L
- 14 x 85 mm fuse links - PV-A14LF

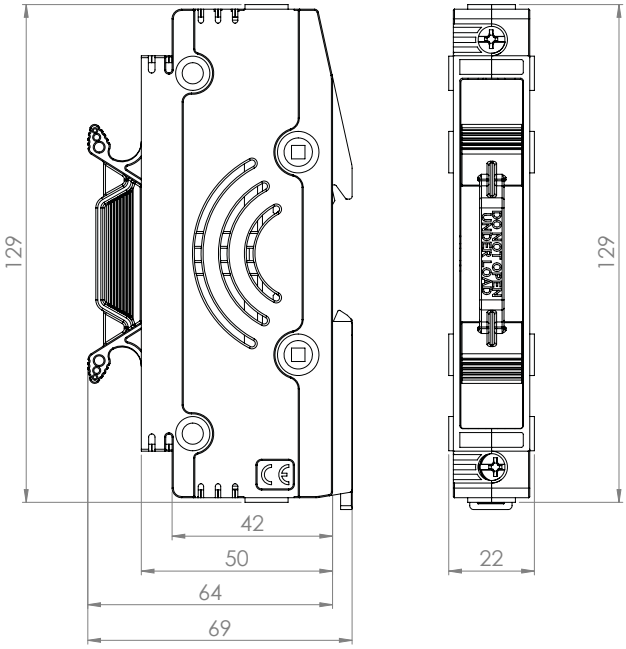
### Technical data

- Rated voltage: 1500 V d.c.
- Rated current: 32 A (IEC/UL)
- Breaking capacity: 50 kA

### Standards / Agency information

- IIEC 60269-1
- IEC 60269-6
- UL 4248-1 Edition 1 (File number 348242)
- UL 4248-19 Edition 1

### Dimensions (mm)




Data sheet: TD135010

# 1500 V d.c. - 50 A - Modular fuse holders for 14 x 51 mm PV Fuse links - CHPV14

## Description

Compact DIN-Rail mounting fuse holders specifically designed for 14 x 51 mm photovoltaic fuse links.



## Catalogue numbers

- CHPV141U 1-pole without indicator
- CHPV142 2-pole without indicator
- CHPV141IU 1-pole with indicator
- CHPV142IU 2-pole with indicator

## Standards / Agency information

IEC 60269-1 and 2, UL Listed file number E348242

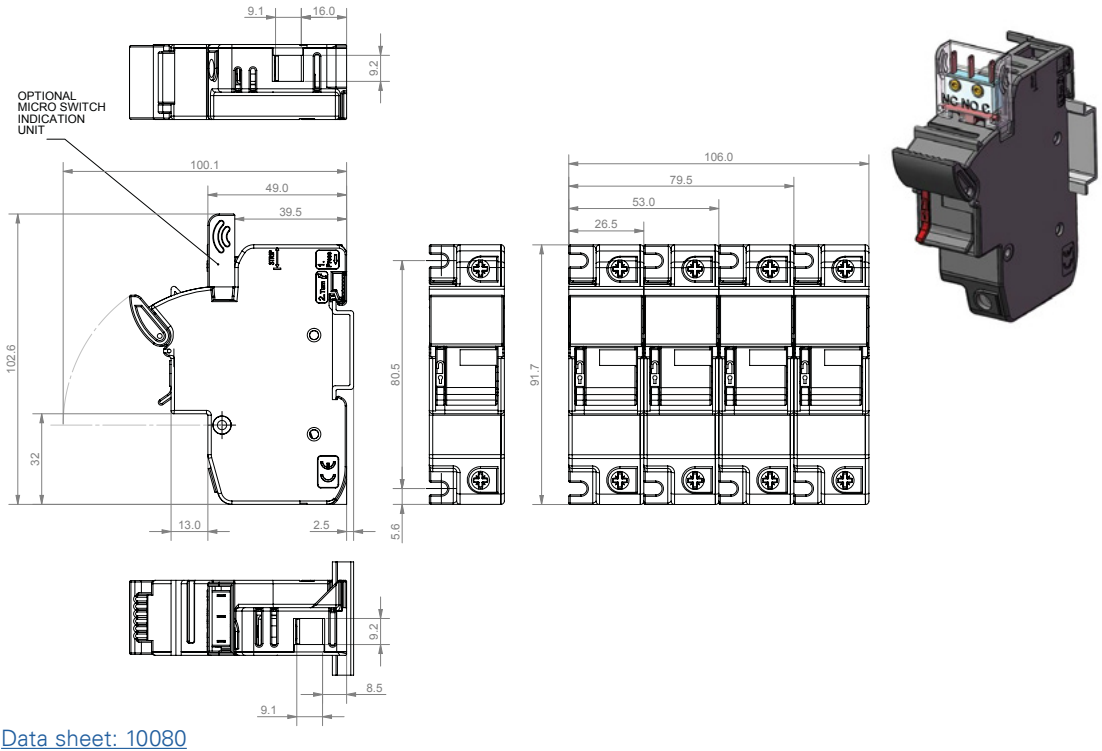
## Technical data

| Rated voltage | Rated current | | | | |
|---|---|---|---|---|---|
| IEC and UL | IEC and UL | Agency markings | Terminal rating | Rated breaking withstand capactiy | Compatible Bussmann series fuse links |
| 1500 V d.c. | 32 A | IEC 60269-1 and 2<br>UL Listed file number E348242 | Cable size: 1.5-50 mm²<br>Recommended torque setting: 3.5 Nm<br>Maximum torque setting: 3.5Nm<br>Mounting 35 mm DIN-Rail or 2 x M4 panel mounting screws | 10 kA d.c. | PV-A14F |

## Accessories

| Catalogue numbers | Description | Unit packing |
|---|---|---|
| JV-L | Multi-pole connector kit. One kit will gang up to 4-poles together | 12 |
| CH14-CTP | IP20 Protection accessory, provides IP20 protection to terminals with 10mm² or less cable | 12 |

## Dimensions (mm)




Data sheet: 10080

# Photovoltaic fuse links, fuse bases and holders

## 1300-1500 V d.c. (IEC and UL) - 2.25 A to 32 A - 14 x 65 mm - PV-14L

### Description

A range of fuse links in a 14 x 65 mm package specifically designed for the protection and isolation of photovoltaic strings. The fuse links are capable of interrupting low overrated currents associated with faulted PV (reverse rated current, multi-array fault).

### Technical data

- Rated voltage:
  - 1500 V d.c. (IEC and UL, 2.25 A to 20 A)
  - 1300 V d.c. (IEC and UL, 25 A and 32 A)
- Rated current: 2.25 A to 32 A
- Breaking capacity: 10 kA
- Operating class: gPV and UL PV fuse links




### Compatible fuse holder for PV-A14LF10F

CHPV15L85

### Standards / Agency information

IEC 60269-6, UL Recognised 2579 (File number E335324), RoHS compliant, Pending: CCC.

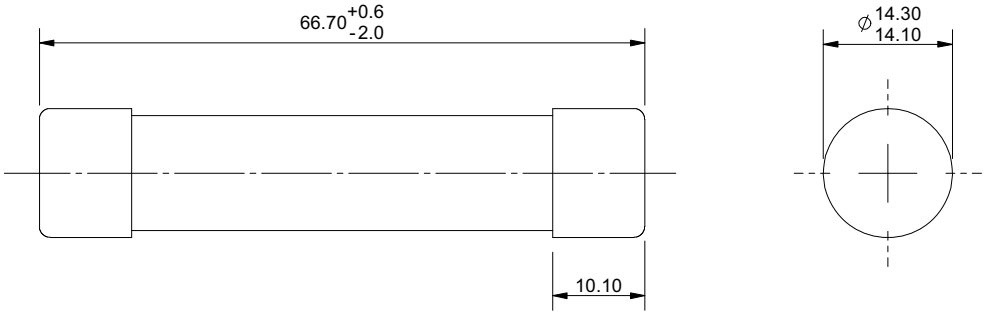
### Catalogue numbers

| Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Total at rated voltage | Watts loss (W) 0.8 $I_n$ | Watts loss (W) $I_n$ | Catalogue numbers Cylindrical | Cylindrical with tags | Cylindrical with 10mm fixings |
|---|---|---|---|---|---|---|---|---|
| 1500 V d.c. (IEC/UL) | 2.25 | 4 | 8 | 1.4 | 2.3 | PV-2.25A14LF | N/A | PV-2.25A14LF10F |
| | 2.5 | 5 | 10 | 1.5 | 2.5 | PV-2.5A14LF | PV-2.5A14L-T | PV-2.5A14LF10F |
| | 3 | 8 | 14 | 1.7 | 2.8 | PV-3A14LF | PV-3A14L-T | PV-3A14LF10F |
| | 3.5 | 12 | 23 | 1.8 | 3.0 | N/A | N/A | PV-3.5A14LF10F |
| | 4 | 18 | 34 | 2 | 3.3 | PV-4A14LF | PV-4A14L-T | PV-4A14LF10F |
| | 15 | 16 | 190 | 2.9 | 5.1 | PV-15A14LF | PV-15A14L-T | PV-15A14LF10F |
| | 20 | 34 | 400 | 3.8 | 6.9 | PV-20A14LF | PV-20A14L-T | PV-20A14LF10F |
| 1300 V d.c. (IEC/UL) | 25 | 65 | 550 | 4.1 | 7.5 | PV-25A14LF | PV-25A14L-T | PV-25A14LF10F |
| | 32 | 105 | 900 | 5.7 | 10.4 | PV-32A14LF | PV-32A14L-T | PV-32A14LF10F |

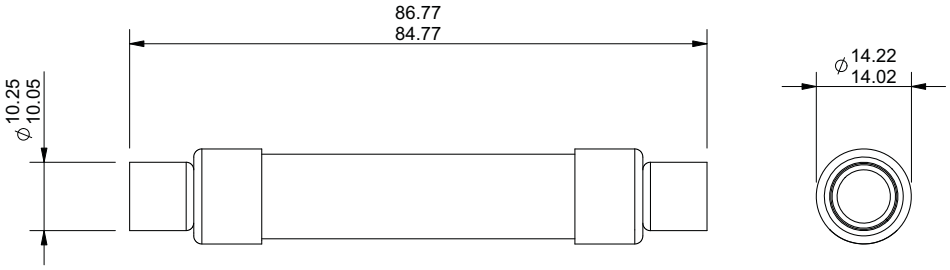
Data sheet: 720139, 5785579

# 1300-1500 V d.c. (IEC and UL) - 2.25 A to 32 A - 14 x 65 mm - PV-14L

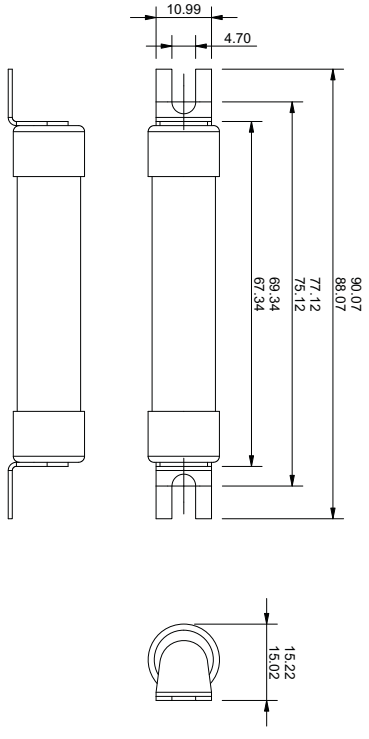
### Dimensions (mm) - PV-*A14LF, Cylindrical




### Dimensions (mm) - PV-*A14LF10F, Cylindrical with 10 mm Fixings




### Dimensions (mm) - PV-*A14L-T, Cylindrical with tags

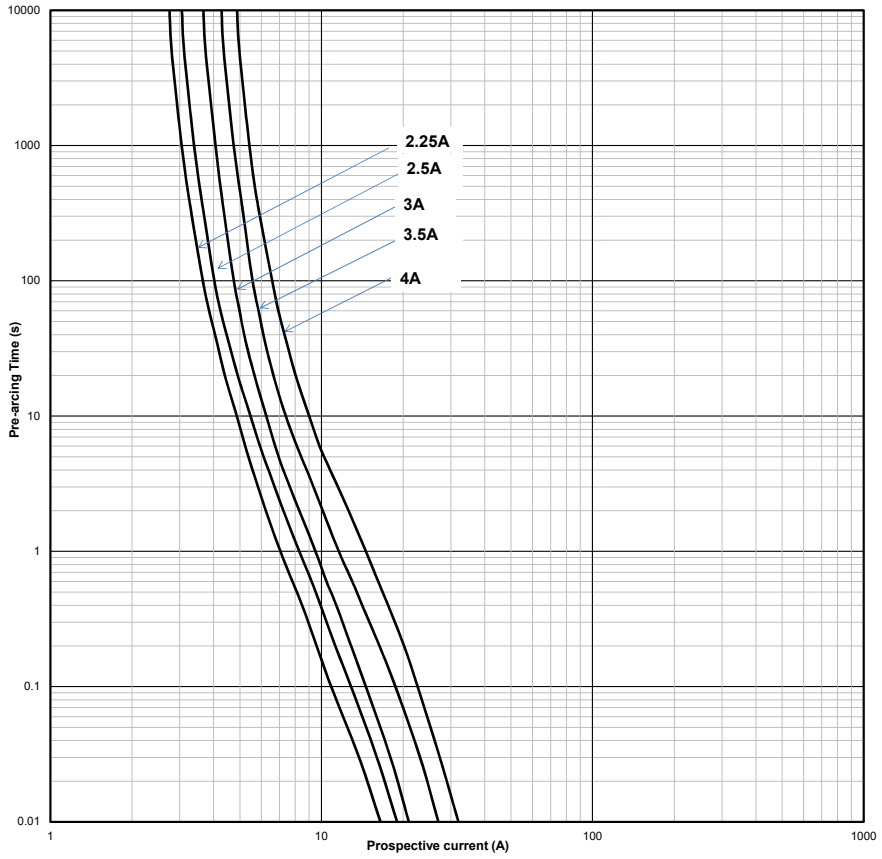



Data sheet: 720139, 5785579

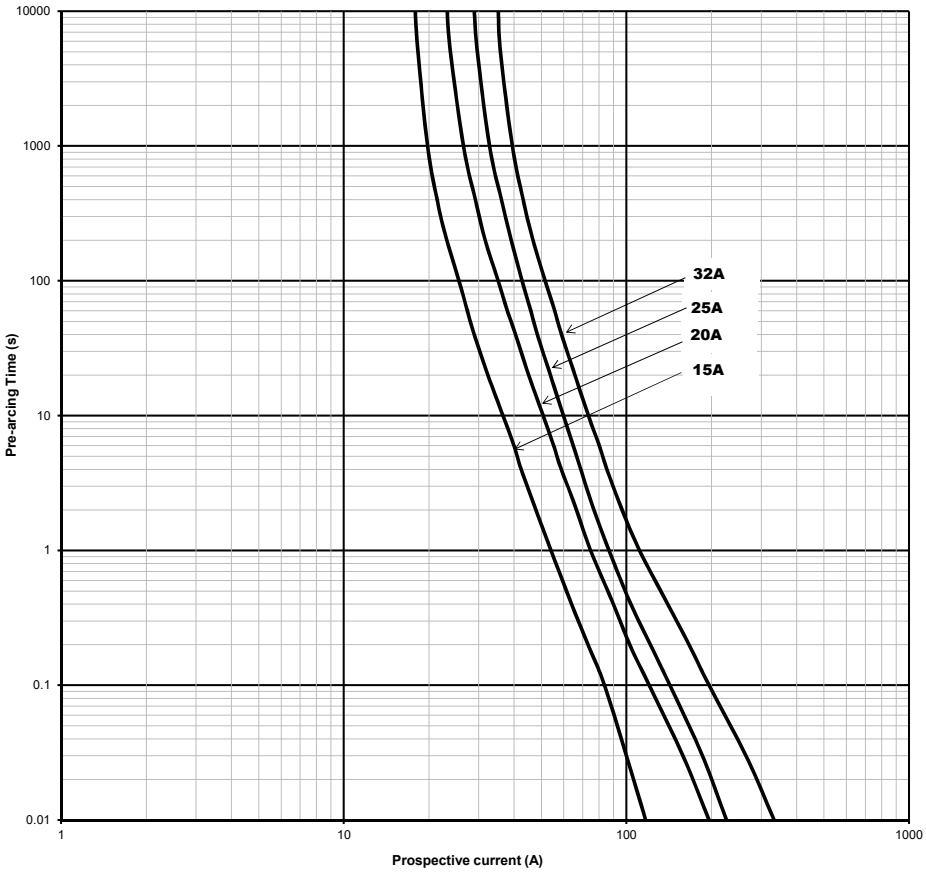
# Photovoltaic fuse links, fuse bases and holders

## 1300-1500 V d.c. (IEC and UL) - 2.25 A to 32 A - 14 x 65 mm - PV-14L

### Time-current curve - 2.25 A to 4 A




### Time-current curve - 3.5 A to 32 A




Data sheet: 720139, 5785579

# 1500 V d.c. (IEC and UL) - 32 A to 50 A - 22 x 65 mm - PV-22F65L

## Description

A range of fuse links in a 22 x 65 mm package specifically designed for the protection and isolation of photovoltaic strings. The fuse links are capable of interrupting low overrated currents associated with faulted PV (reverse rated current, multi-array fault).




## Technical data

- Rated voltage: 1500 V d.c. (IEC and UL)
- Rated current: 32 A to 50 A
- Breaking capacity: 50 kA
- Operating class: gPV and UL PV fuse links

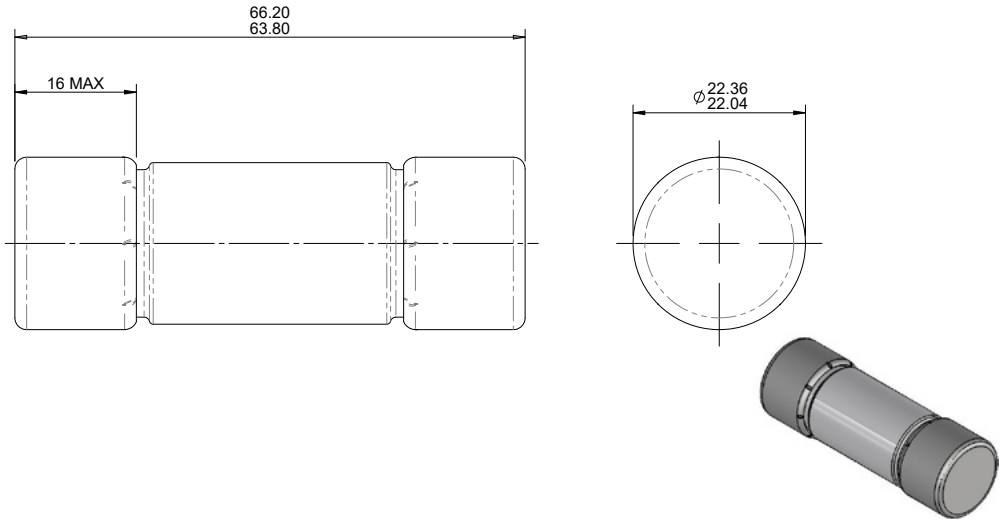
## Standards / Agency information

IEC 60269-6, UL Recognised 2579 (File number E335324), RoHS compliant, Pending: CCC.

## Catalogue numbers

| | | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | | |
|---|---|---|---|---|---|---|---|
| **Rated voltage** | **Rated current (Amps)** | **Pre-arcing** | **Total at rated voltage** | **0.7 $I_n$** | **$I_n$** | **Catalogue numbers** | **Compatible fuse holder** |
| 1500 V d.c. (IEC/UL) | 32 | 1650 | 3990 | 2.7 | 6.7 | PV-32A22F65L | CHPV22-65 |
| | 35 | 2900 | 7080 | 2.5 | 6.1 | PV-35A22F65L | CHPV22-65 |
| | 40 | 3450 | 8310 | 3.0 | 7.3 | PV-40A22F65L | CHPV22-65 |
| | 45 | 4600 | 11,100 | 3.4 | 8.3 | PV-45A22F65L | CHPV22-65 |
| | 50 | 6600 | 16,000 | 3.8 | 9.3 | PV-50A22F65L | CHPV22-65 |

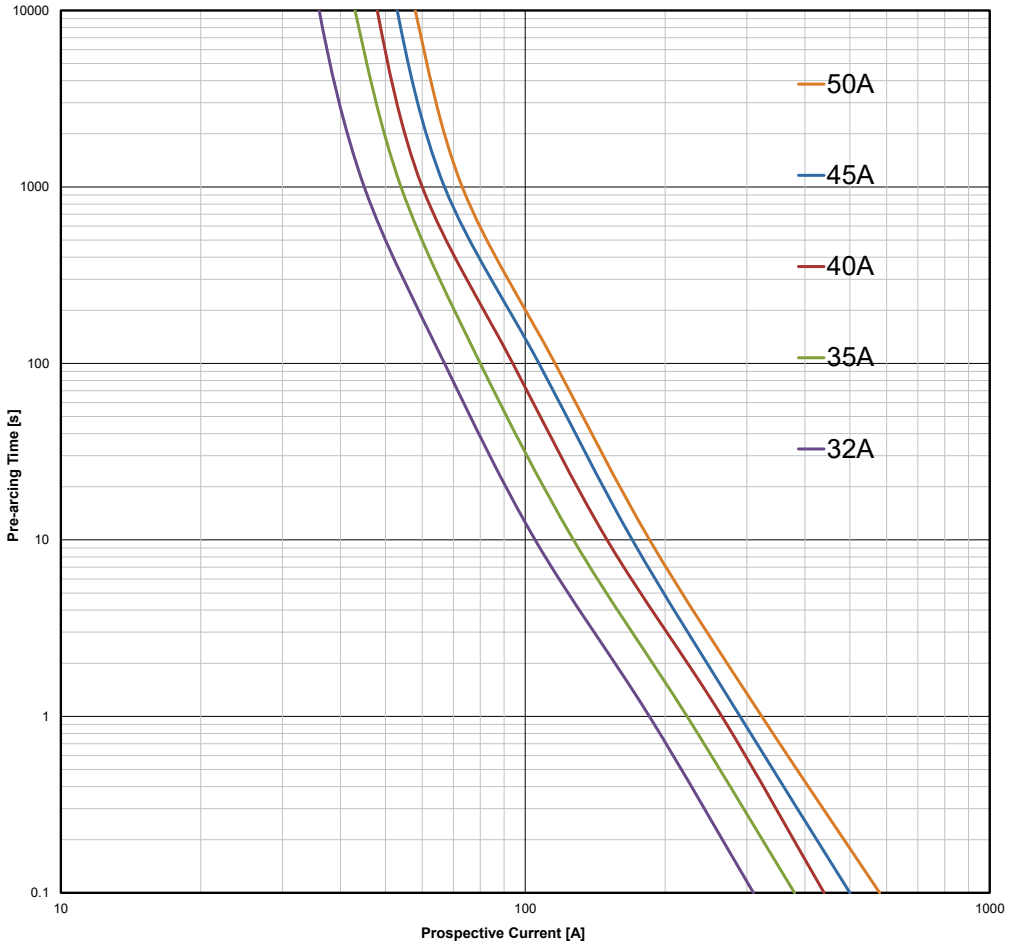
## Dimensions - mm



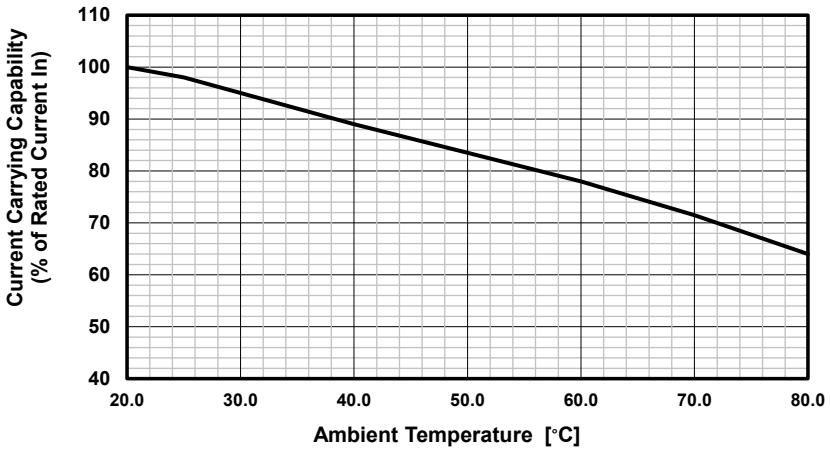

Data sheet: TD135022

## 1500 V d.c. (IEC and UL) - 32 A to 50 A - 22 x 65 mm - PV-22F65L

### Time-current curve




### Temperature derating curve




Data sheet: TD135022

# 1500 V d.c. (IEC) - 80 A - Fuse holder for 22 x 65 mm fuse links - CHPV22-65

## Description

Eaton's Bussmann series 22 x 65 mm fuse holder is suitable for use with 22 x 65 mm cylindrical gPV fuse links.

The unique design offers high degree of safety.There is no possibility of any accidental contact with live parts during replacement of the fuselinks. When the fuse carrier is in the extractedposition the carrier covers the live parts hence protecting against any accidental contact.



## Technical data

- Rated voltage:1500 V d.c.
- Rated current: 80 A
- Breaking capacity 50 kA

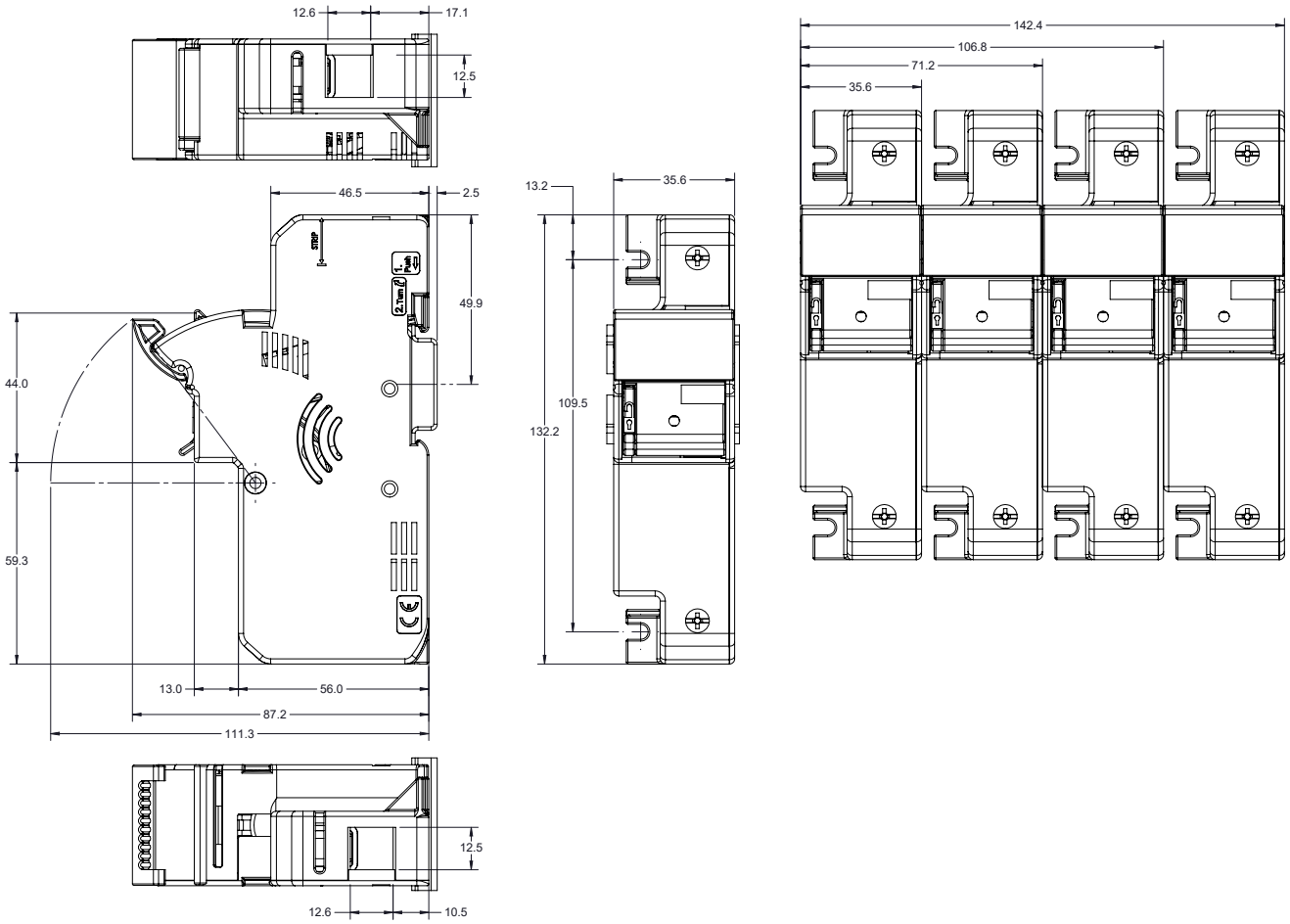
## Compatible fuse links

- PV-(amp)22F65L

## Standards / Agency information

IEC 60269-1, UL (pending)

## Dimensions (mm)




Data sheet: TD135024EN

# Photovoltaic fuse links, fuse bases and holders

## 1500 V d.c. (IEC), 1000 V d.c. (UL/CSA) - 250 A to 630 A - sizes 1 to 3 - NH fuse bases - SD-D-PV

### Description

Sizes 1 to 3 NH Fuse bases specifically designed for use with Bussmann series range of NH PV (Photovoltaic) fuse links.



### Technical data

- Rated voltage:
  - 1500 V d.c. (IEC)
  - 1000 V d.c. (UL/CSA)
- Rated current:
  - 250 A (SD1)
  - 400 A (SD2)
  - 630 A (SD3)
- Fuse base sizes: 1 to 3
- Withstand: 50 kA
- Power acceptance
  - SD1: 32 W
  - SD2: 45 W
  - SD3: 60 W

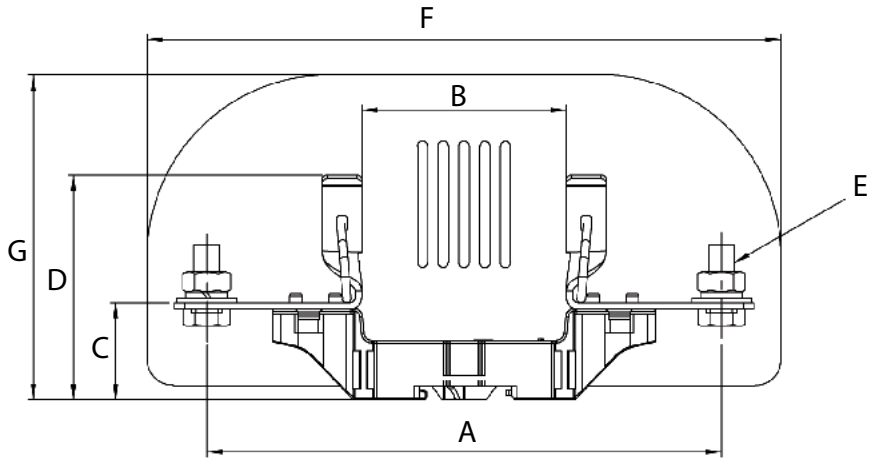
### Standards / Agency information

IEC 60269-1, UL Listed - UL File #E348242, CSA file #47235

### Accessories:

- Microswitches - 170H0236, 170H0238 and BVL50
- IP20 Finger-Safe Protection Kit - TD1-IP20, TD2-IP20, TD3-IP20
- Fuse extraction handle
- Shroud kits

### Dimensions (mm) - 1-pole with phase barriers

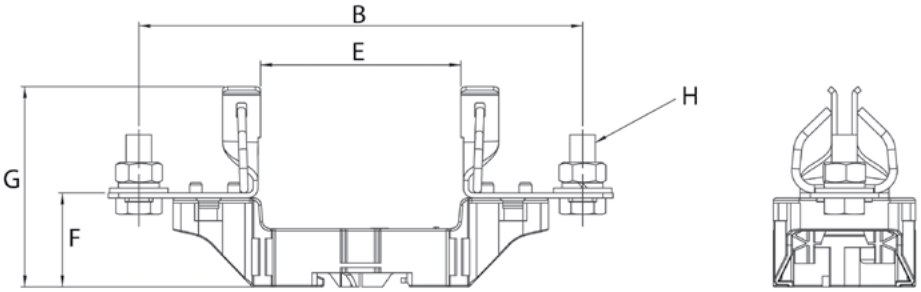


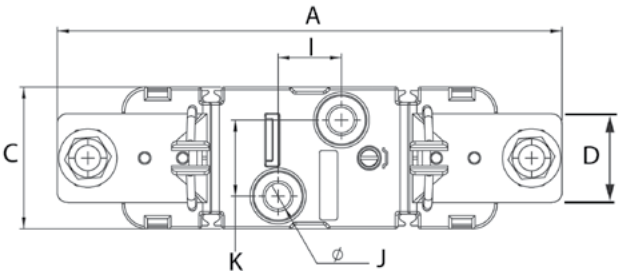

| Catalogue numbers | Poles/Type | A | B | C | D | E | F | G |
|---|---|---|---|---|---|---|---|---|
| SD1-D-PV | 1-pole | 175 | 79 | 37 | 78 | M10x25 | 245 | 125.5 |
| SD2-D-PV | 1 pole | 199 | 79 | 37.5 | 86 | M10x25 | 245 | 125.5 |
| SD3-D-PV | 1-pole | 209 | 82 | 37.5 | 88 | M12x30 | 260 | 137.5 |

Data sheet: 720149

# 1500 V d.c. (IEC), 1000 V d.c. (UL/CSA) - 250 A to 630 A - sizes 1 to 3 - NH fuse bases - SD-D-PV

## Dimensions (mm) - 1-pole without phase barriers




| Catalogue numbers | Poles | A | B | C | D | E | F | G | H | I | J | K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SD1-D-PV | 1-pole | 199 | 175 | 56 | 35 | 79 | 37 | 78 | M10x25 | 25 | 10 | 30 |
| SD2-D-PV | 1 pole | 224 | 199 | 56 | 35 | 79 | 37.5 | 86 | M10x25 | 25 | 10 | 30 |
| SD3-D-PV | 1-pole | 239 | 209 | 56 | 36 | 82 | 37.5 | 88 | M12x30 | 25 | 10 | 30 |

Data sheet: 720149

# Photovoltaic fuse links, fuse bases and holders

## 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

### Description

A range of XL package bladed fuse links specifically designed for protecting and isolating photovoltaic array combiners and disconnects. These fuse links are capable of interrupting low overrated currents associated with faulted PV systems (reverse rated current, multi-array fault).



### Technical data

- Rated voltage:
  - 1000 V d.c. (IEC and UL 63 to 600 A)
  - 1500 V d.c. (IEC and UL 50 to 500 A)
- Rated current: 50 A to 600 A
- Breaking capacity: see catalogue numbers tables
- Operating class: gPV and UL PV fuse links

### Compatible fuse base

- SD-S-PV

### Microswitches

- For bladed fuse links
  - 170H0235 or 170H0237 for 01XL
  - 170H0236 or 170H0238 for 1XL, 2XL and 3L
- For bolted fuse links
  - 170H0069 for all sizes

### Standards / Agency information

IEC 60269-6, UL Recognised file 2579 E335324, RoHS compliant

### Catalogue numbers - PV-XL fuse links, 1000 V d.c. - Bladed version

| Fuse link body size | Rated voltage | Rated current (Amps) | Breaking capacity (kA) | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | Catalogue numbers | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Pre-arcing | Total at 1000 V d.c. | 0.7 $I_n$ | $I_n$ | Bladed version | Compatible fuse bases | Compatible microswitches |
| 01 | 1000 V d.c. | 63 | 50 | 260 | 1900 | 10 | 24 | PV-63A-01XL | SD1XL-S-PV | 170H0236/170H0238 |
| | | 80 | 50 | 490 | 3600 | 12 | 29 | PV-80A-01XL | SD1XL-S-PV | 170H0236/170H0238 |
| | | 100 | 50 | 870 | 6300 | 13 | 32 | PV-100A-01XL | SD1XL-S-PV | 170H0236/170H0238 |
| | | 125 | 50 | 1930 | 13,900 | 16 | 40 | PV-125A-01XL | SD1XL-S-PV | 170H0236/170H0238 |
| | | 160 | 50 | 3900 | 28,100 | 18 | 44 | PV-160A-01XL | SD1XL-S-PV | 170H0236/170H0238 |
| 2 | 1000 V d.c. | 160 | 33 | 2780 | 21,000 | 18 | 44 | PV-160A-2XL | SD2XL-S-PV | 170H0236/170H0238 |
| | | 200 | 33 | 4950 | 37,000 | 20 | 50 | PV-200A-2XL | SD2XL-S-PV | 170H0236/170H0238 |
| | | 250 | 33 | 9450 | 70,000 | 24 | 60 | PV-250A-2XL | SD2XL-S-PV | 170H0236/170H0238 |
| | | 315 | 33 | 16,600 | 123,000 | 26 | 66 | PV-315A-2XL | SD2XL-S-PV | 170H0236/170H0238 |
| | | 355 | 33 | 26,000 | 192,000 | 27 | 68 | PV-355A-2XL | SD2XL-S-PV | 170H0236/170H0238 |
| 3 | 1000 V d.c. | 350 | 50 | 31,000 | 161,200 | 26 | 65 | PV-350A-3L | SD3L-S-PV | 170H0236/170H0238 |
| | | 400 | 50 | 44,500 | 231,400 | 33 | 82 | PV-400A-3L | SD3L-S-PV | 170H0236/170H0238 |
| | | 500 | 50 | 85,000 | 442,000 | 34 | 85 | PV-500A-3L | SD3L-S-PV | 170H0236/170H0238 |
| | | 600 | 50 | 137,000 | 712,400 | 43 | 108 | PV-600A-3L | SD3L-S-PV | 170H0236/170H0238 |

Data sheets: PV-XL 10201 and PVS-3L TD135020EN

# 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

## Catalogue numbers - PV-XL fuse links, 1000 V d.c. - Bolted version

| Fuse link body size | Rated voltage | Rated current (Amps) | Breaking capacity (kA) | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | Catalogue numbers |
|---|---|---|---|---|---|---|---|---|
| | | | | Pre-arcing | Total at 1000 V d.c. | 0.7 $I_n$ | $I_n$ | Bolted version |
| 01 | 1000 V d.c. | 63 | 50 | 260 | 1900 | 10 | 24 | PV-63A-01XL-B |
| | | 80 | 50 | 490 | 3600 | 12 | 29 | PV-80A-01XL-B |
| | | 100 | 50 | 870 | 6300 | 13 | 32 | PV-100A-01XL-B |
| | | 125 | 50 | 1930 | 13,900 | 16 | 40 | PV-125A-01XL-B |
| | | 160 | 50 | 3900 | 28,100 | 18 | 44 | PV-160A-01XL-B |
| 2 | 1000 V d.c. | 160 | 33 | 2780 | 21,000 | 18 | 44 | PV-160A-2XL-B |
| | | 200 | 33 | 4950 | 37,000 | 20 | 50 | PV-200A-2XL-B |
| | | 250 | 33 | 9450 | 70,000 | 24 | 60 | PV-250A-2XL-B |
| | | 315 | 33 | 16,600 | 123,000 | 26 | 66 | PV-315A-2XL-B |
| | | 355 | 33 | 26,000 | 192,000 | 27 | 68 | PV-355A-2XL-B |
| | | 160 | 33 | 2780 | 21,000 | 18 | 44 | PV-160A-2XL-3B[1] |
| | | 200 | 33 | 4950 | 37,000 | 20 | 50 | PV-200A-2XL-3B[1] |
| | | 250 | 33 | 9450 | 70,000 | 24 | 60 | PV-250A-2XL-3B[1] |
| | | 315 | 33 | 16,600 | 123,000 | 26 | 66 | PV-315A-2XL-3B[1] |
| | | 355 | 33 | 26,000 | 192,000 | 27 | 68 | PV-355A-2XL-3B[1] |
| 3 | 1000 V d.c. | 350 | 50 | 31,000 | 161,200 | 26 | 65 | PV-350A-3L-B |
| | | 400 | 50 | 44,500 | 231,400 | 33 | 82 | PV-400A-3L-B |
| | | 500 | 50 | 85,000 | 442,000 | 34 | 85 | PV-500A-3L-B |
| | | 600 | 50 | 137,000 | 712,400 | 43 | 108 | PV-600A-3L-B |

[1] PV-*A-2XL-3B have revised bolting patterns, which are identical to size 3L bolting pattern. This allows utilisation of both size 2XL and size 3L fuse links without changing the dimensional layout of the inverter, combiners and disconnects.

## Catalogue numbers - PV-XL and PVS-3L fuse links, 1500 V d.c. - Bladed version

| Fuse link body size | Rated voltage | Rated current (Amps) | Breaking capacity (IEC/UL) (kA) | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Pre-arcing | Total at 1500 V d.c. | 0.7 $I_n$ | $I_n$ | Bladed with top indicator | Bladed without top indicator |
| 01 | 1500 V d.c. | 50 | 30 | 175 | 1000 | 10 | 25 | PV-50A-01XL-15 | |
| | | 63 | 30 | 362 | 2250 | 10 | 26 | PV-63A-01XL-15 | |
| | | 80 | 30 | 565 | 3300 | 14 | 35 | PV-80A-01XL-15 | |
| | | 100 | 30 | 1100 | 6600 | 16 | 40 | PV-100A-01XL-15 | |
| | | 125 | 30 | 2200 | 10,500 | 18 | 44 | PV-125A-01XL-15 | |
| 1 | 1500 V d.c. | 100 | 30 | 1250 | 6000 | 24 | 43 | PV-100A-1XL-15 | |
| | | 125 | 30 | 1950 | 9360 | 25 | 52 | PV-125A-1XL-15 | |
| | | 160 | 30 | 4200 | 20,160 | 26 | 54 | PV-160A-1XL-15 | |
| | | 200 | 30 | 9400 | 45,120 | 31 | 60 | PV-200A-1XL-15 | |
| 2 | 1500 V d.c. | 125 | 30 | 2200 | 15,000 | 18 | 44 | PV-125A-2XL-15 | PV-125A-2XL-U-15 |
| | | 160 | 30 | 5000 | 32,000 | 19 | 48 | PV-160A-2XL-15 | PV-160A-2XL-U-15 |
| | | 200 | 30 | 8800 | 51,000 | 23 | 57 | PV-200A-2XL-15 | PV-200A-2XL-U-15 |
| | | 250 | 30 | 16,600 | 85,000 | 28 | 70 | PV-250A-2XL-15 | PV-250A-2XL-U-15 |
| 3 | 1500 V d.c. | 250 | 100 | 90,000 | 350,000 | 24 | 43 | PVS250A-3L-15 | PVS250A-3L-U-15 |
| | | 315 | 100 | 175,000 | 460,000 | 22 | 55 | PVS315A-3L-15 | PVS315A-3L-U-15 |
| | | 350 | 100 | 250,000 | 970,000 | 23 | 57 | PVS350A-3L-15 | PVS350A-3L-U-15 |
| | | 355 | 100 | 250,000 | 970,000 | 23 | 59 | PVS355A-3L-15 | PVS355A-3L-U-15 |
| | | 400 | 100 | 315,000 | 1,100,000 | 27 | 71 | PVS400A-3L-15 | PVS400A-3L-U-15 |
| | | 450 | 100[2] | 412,000 | 1,470,000 | 27 | 67 | PV-450A-3L-15 | PV-450A-3L-U-15 |
| | | 500 | 100[2] | 532,000 | 1,890,000 | 29 | 73 | PV-500A-3L-15 | PV-500A-3L-U-15 |

# Photovoltaic fuse links, fuse bases and holders

## 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

### Compatible fuse bases and microswitches - 1500 V d.c.- Bladed

| Fuse type | Fuse link body size | Rated voltage | Compatible XL Bases | Compatible microswitches |
|---|---|---|---|---|
| Bladed with top indicator | 01 | 1500 V d.c. | SD1XL-S-PV | 170H0236/170H0238 |
| | 1 | 1500 V d.c. | SD1XL-S-PV | 170H0236/170H0238 |
| | 2 | 1500 V d.c. | SD2XL-S-PV | 170H0236/170H0238 |
| | 3 | 1500 V d.c. | SD3L-S-PV | 170H0236/170H0238 |
| Bladed without top indicator | 2 | 1500 V d.c. | SD2XL-S-PV | |
| | 3 | 1500 V d.c. | SD3L-S-PV | |

### Catalogue numbers - PV-XL and PVS-3L fuse links, 1500 V d.c. - Bolted version

| Fuse link body size | Rated voltage | Rated current (Amps) | Breaking capacity (IEC/UL) (kA) | $I^2t$ ($A^2$ Sec) | | Watts loss (W) | | Catalogue numbers | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Pre-arcing | Total at 1500 V d.c. | 0.7 $I_n$ | $I_n$ | Bolted version with side indicator | Bolted without side indicator |
| 01 | 1500 V d.c. | 50 | 30 | 175 | 1000 | 10 | 25 | PV-50A-01XL-B-15 | |
| | | 63 | 30 | 362 | 2250 | 10 | 26 | PV-63A-01XL-B-15 | |
| | | 80 | 30 | 565 | 3300 | 14 | 35 | PV-80A-01XL-B-15 | |
| | | 100 | 30 | 1100 | 6600 | 16 | 40 | PV-100A-01XL-B-15 | |
| | | 125 | 30 | 2200 | 10,500 | 18 | 44 | PV-125A-01XL-B-15 | |
| 1 | 1500 V d.c. | 100 | 30 | 1250 | 6000 | 24 | 43 | PV-100A-1XL-B-15 | |
| | | 125 | 30 | 1950 | 9360 | 25 | 52 | PV-125A-1XL-B-15 | |
| | | 160 | 30 | 4200 | 20,160 | 26 | 54 | PV-160A-1XL-B-15 | |
| | | 200 | 30 | 9400 | 45,120 | 31 | 60 | PV-200A-1XL-B-15 | |
| 2 | 1500 V d.c. | 125 | 30 | 2200 | 15,000 | 18 | 44 | PV-125A-2XL-B-15 | PV-125A-2XL-BU-15 |
| | | 160 | 30 | 5000 | 32,000 | 19 | 48 | PV-160A-2XL-B-15 | PV-160A-2XL-BU-15 |
| | | 200 | 30 | 8800 | 51,000 | 23 | 57 | PV-200A-2XL-B-15 | PV-200A-2XL-BU-15 |
| | | 250 | 30 | 16,600 | 85,000 | 28 | 70 | PV-250A-2XL-B-15 | PV-250A-2XL-BU-15 |
| | | 125 | 30 | 2200 | 15,000 | 18 | 44 | PV-125A-2XL-3B-15[1] | PV-125A-2XL-3BU-15[1] |
| | | 160 | 30 | 5000 | 32,000 | 19 | 48 | PV-160A-2XL-3B-15[1] | PV-160A-2XL-3BU-15[1] |
| | | 200 | 30 | 8800 | 51,000 | 23 | 57 | PV-200A-2XL-3B-15[1] | PV-200A-2XL-3BU-15[1] |
| | | 250 | 30 | 16,600 | 85,000 | 28 | 70 | PV-250A-2XL-3B-15[1] | PV-250A-2XL-3BU-15[1] |
| 3 | 1500 V d.c. | 250 | 100 | 90,000 | 350,000 | 16 | 42 | PVS250A-3L-B-15 | PVS250A-3L-BU-15 |
| | | 315 | 100 | 175,000 | 460,000 | 21 | 52 | PVS315A-3L-B-15 | PVS315A-3L-BU-15 |
| | | 350 | 100 | 250,000 | 970,000 | 21 | 54 | PVS350A-3L-B-15 | PVS350A-3L-BU-15 |
| | | 355 | 100 | 250,000 | 970,000 | 22 | 57 | PVS355A-3L-B-15 | PVS355A-3L-BU-15 |
| | | 400 | 100 | 315,000 | 1,100,000 | 25 | 66 | PVS400A-3L-B-15 | PVS400A-3L-BU-15 |
| | | 450 | 100[2] | 412,000 | 1,470,000 | 27 | 67 | PV-450A-3L-B-15 | PV-450A-3L-BU-15 |
| | | 500 | 100[2] | 532,000 | 1,890,000 | 29 | 73 | PV-500A-3L-B-15 | PV-500A-3L-BU-15 |

[1] PV-*A-2XL-3B-15 have revised bolting patterns, which are identical to size 3L bolting pattern. This allows utilisation of both size 2XL and size 3L fuse links without changing the dimensional layout of the inverter, combiners and disconnects.

[2] 100 kA at time constant 6 mS.

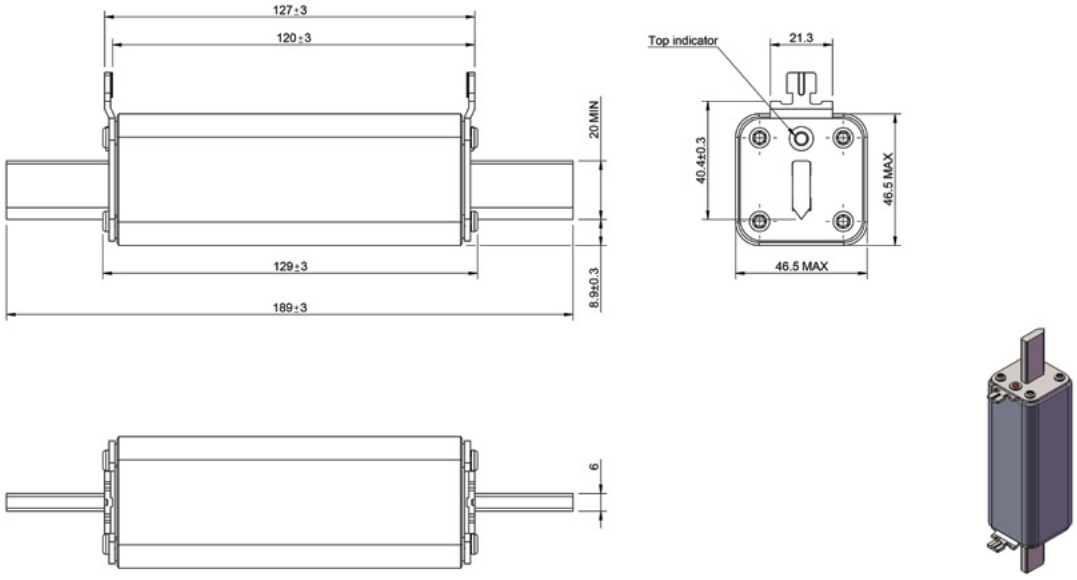
### Compatible microswitches - 1500 V d.c.- Bolted with side indicator

| Fuse type | Fuse link body size | Rated voltage | Compatible microswitches |
|---|---|---|---|
| Bolted version with side indicator | 01 to 3 | 1500 V d.c. | 170H0069 |

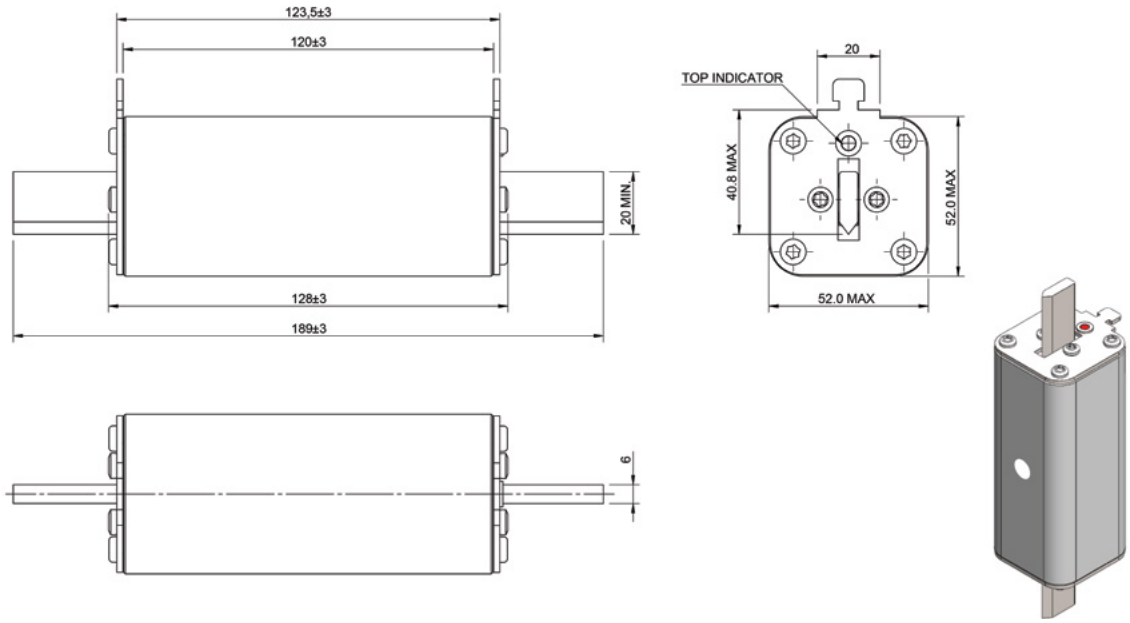
Data sheets: PV-XL 10201 and PVS-3L TD135020EN

# 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

## Dimensions (mm) - Size 01, bladed




## Dimensions (mm) - Size 1, bladed

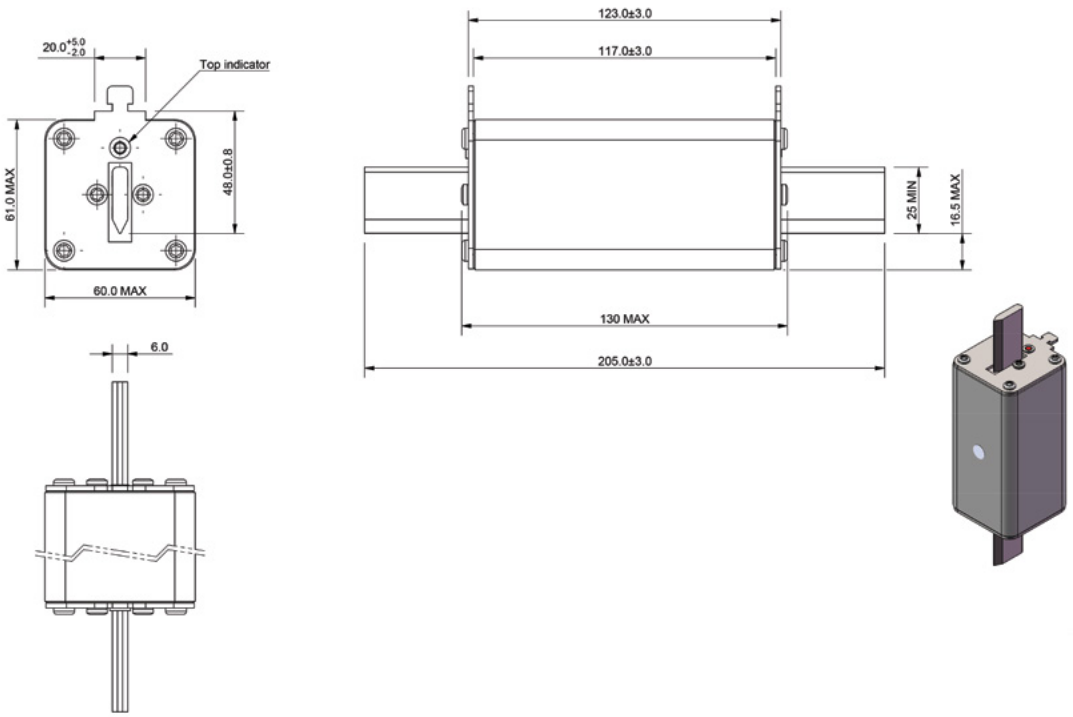



Data sheets: PV-XL 10201 and PVS-3L TD135020EN

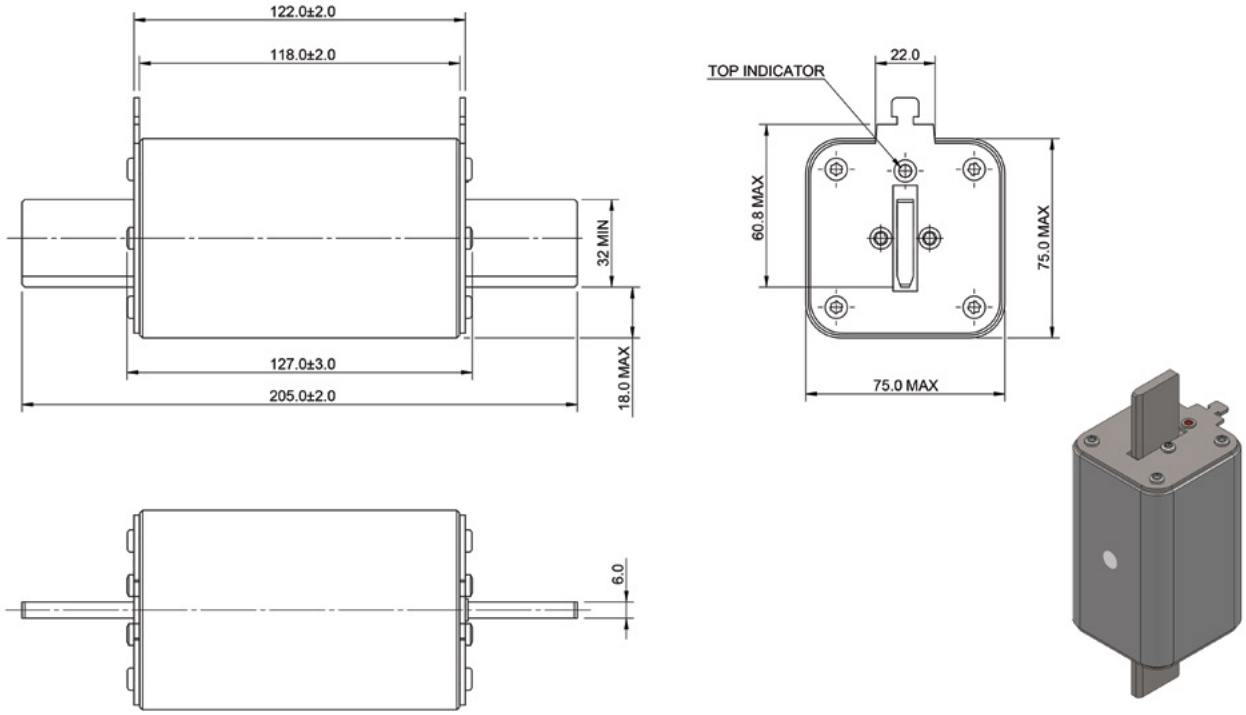
# Photovoltaic fuse links, fuse bases and holders

## 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

### Dimensions (mm) - Size 2, bladed



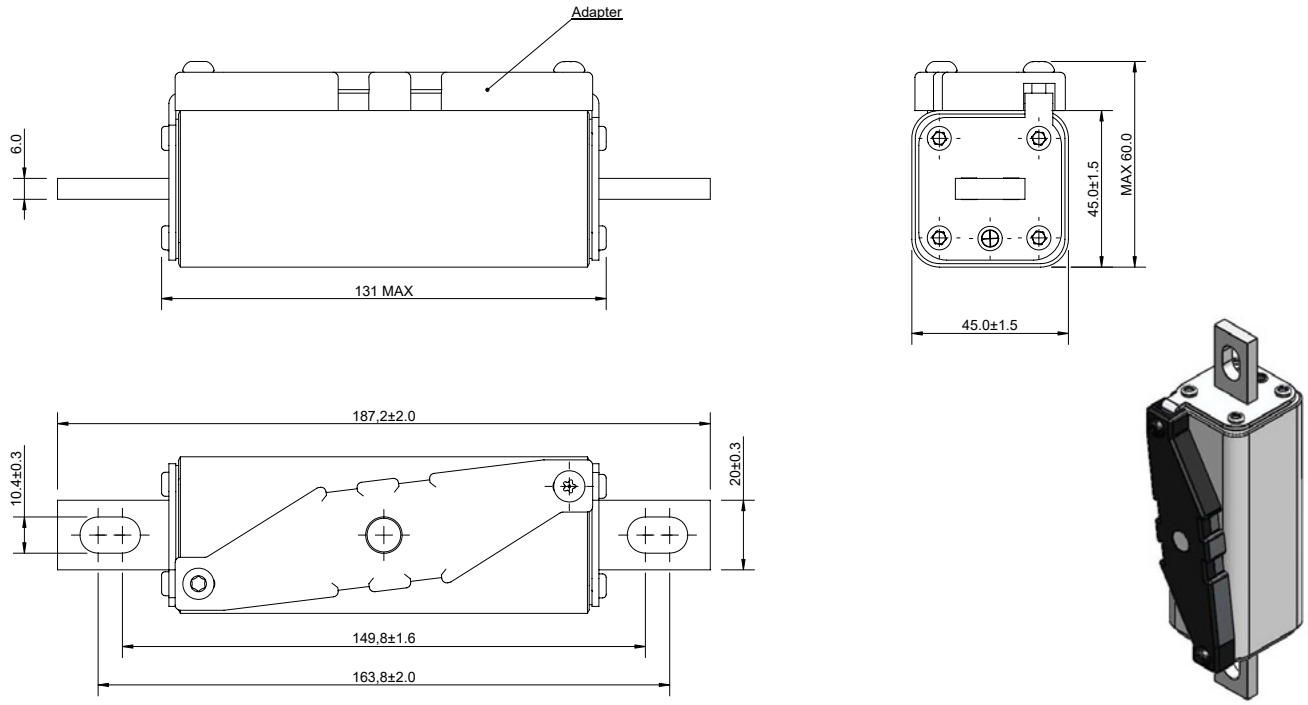

### Dimensions (mm) - Size 3, bladed



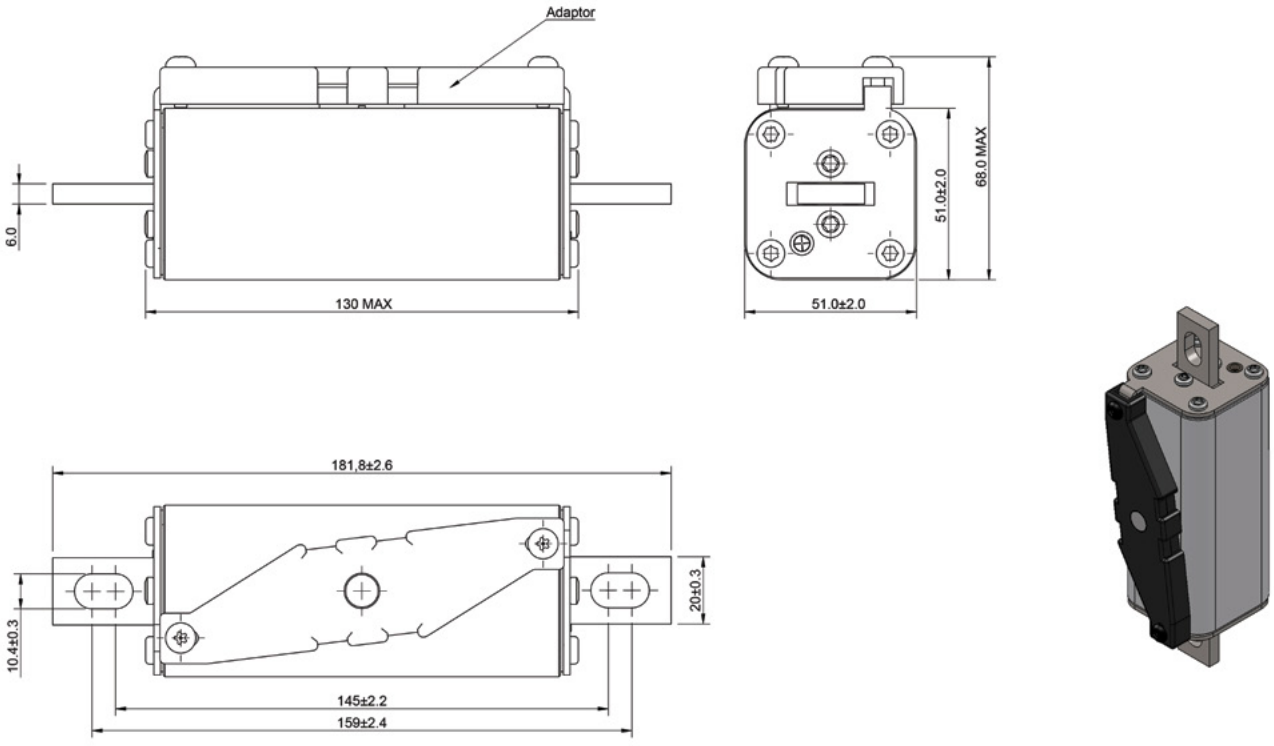

Data sheets: PV-XL 10201 and PVS-3L TD135020EN

# 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

## Dimensions (mm) - Size 01, bolted




## Dimensions (mm) - Size 1, bolted

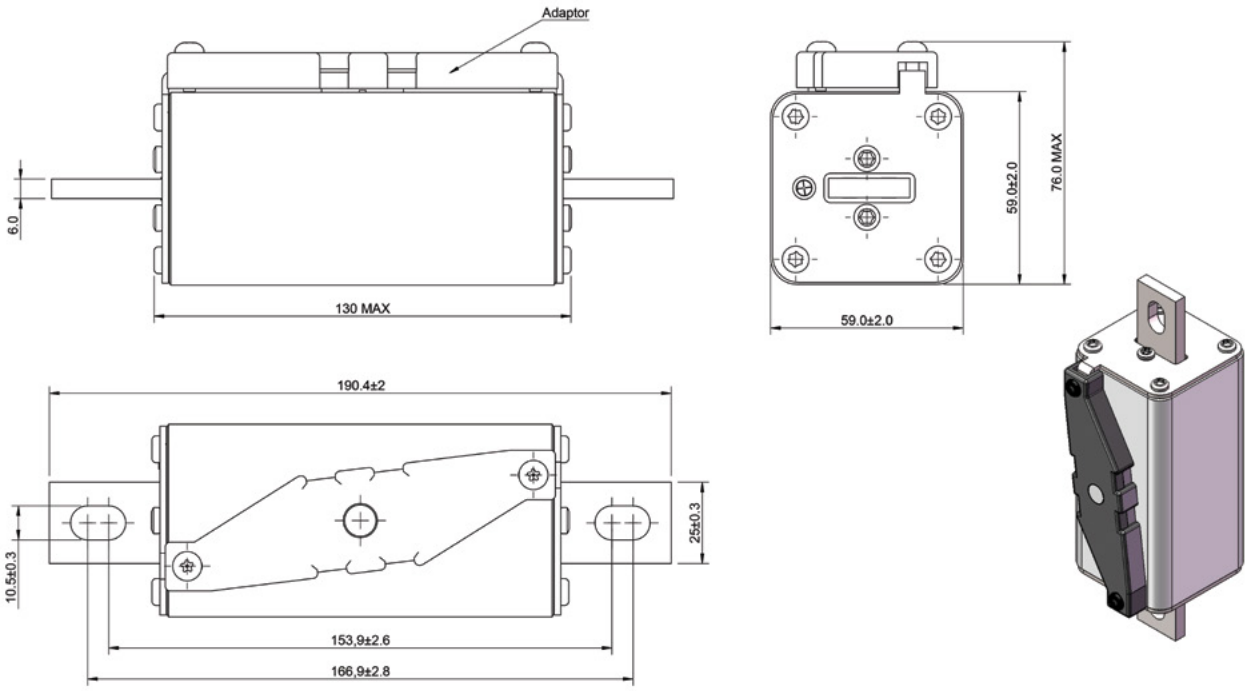



Data sheets: PV-XL 10201 and PVS-3L TD135020EN

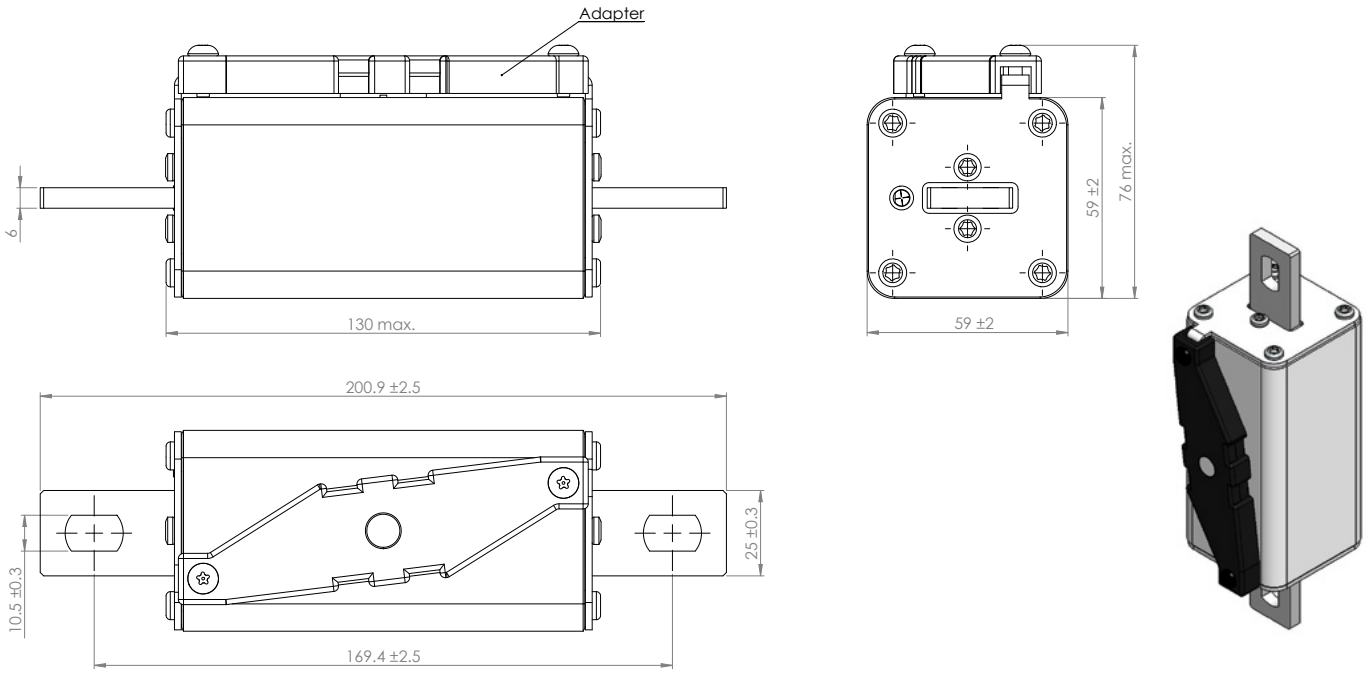
# Photovoltaic fuse links, fuse bases and holders

## 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

### Dimensions (mm) - Size 2, bolted




### Dimensions (mm) - Size 2XL-3B, bolted




PV-*A-2XL-3B and PV-*A-2XL-3B-15 have revised bolting patterns, which are identical to size 3L bolting pattern. This allows utilisation of both size 2XL and size 3L fuse links without changing the dimensional layout of the inverter, combiners and disconnects.

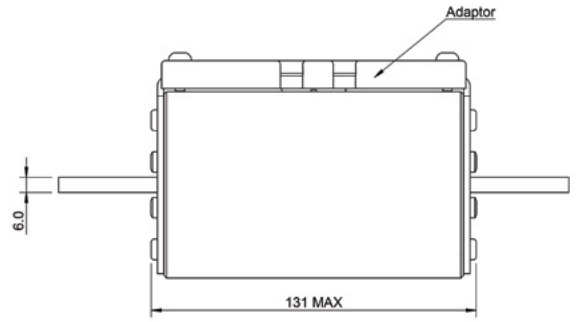
Mounting dimensions comparison

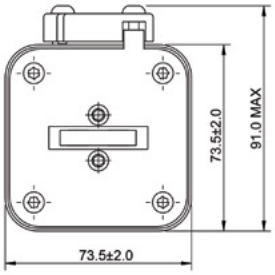
| 2XL-3B | 3L |
|---|---|
| 169.4 | 170.8 |

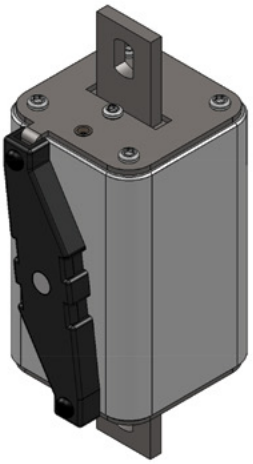
Data sheets: PV-XL 10201 and PVS-3L TD135020EN

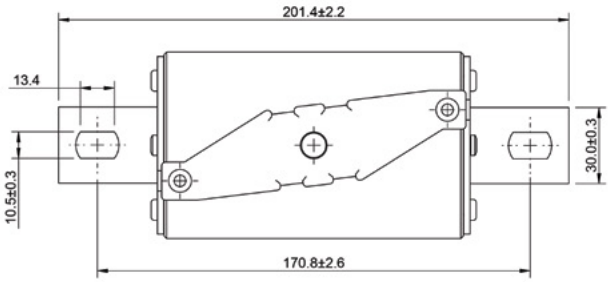
# 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

## Dimensions (mm) - Size 3, bolted

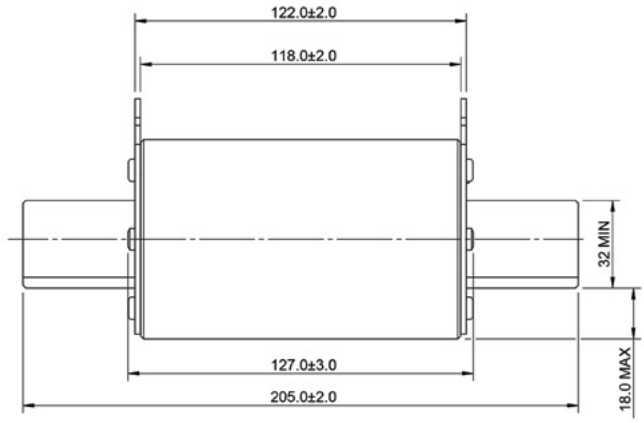


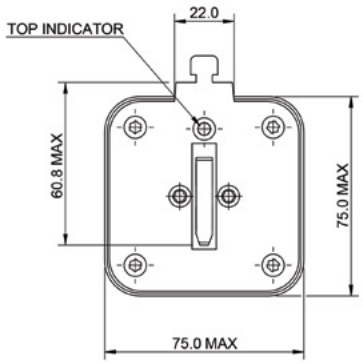





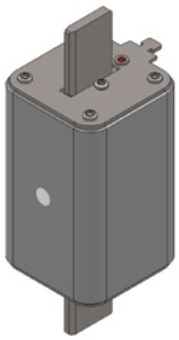

## Dimensions (mm) - Size 3L Bladed with and without top indicator







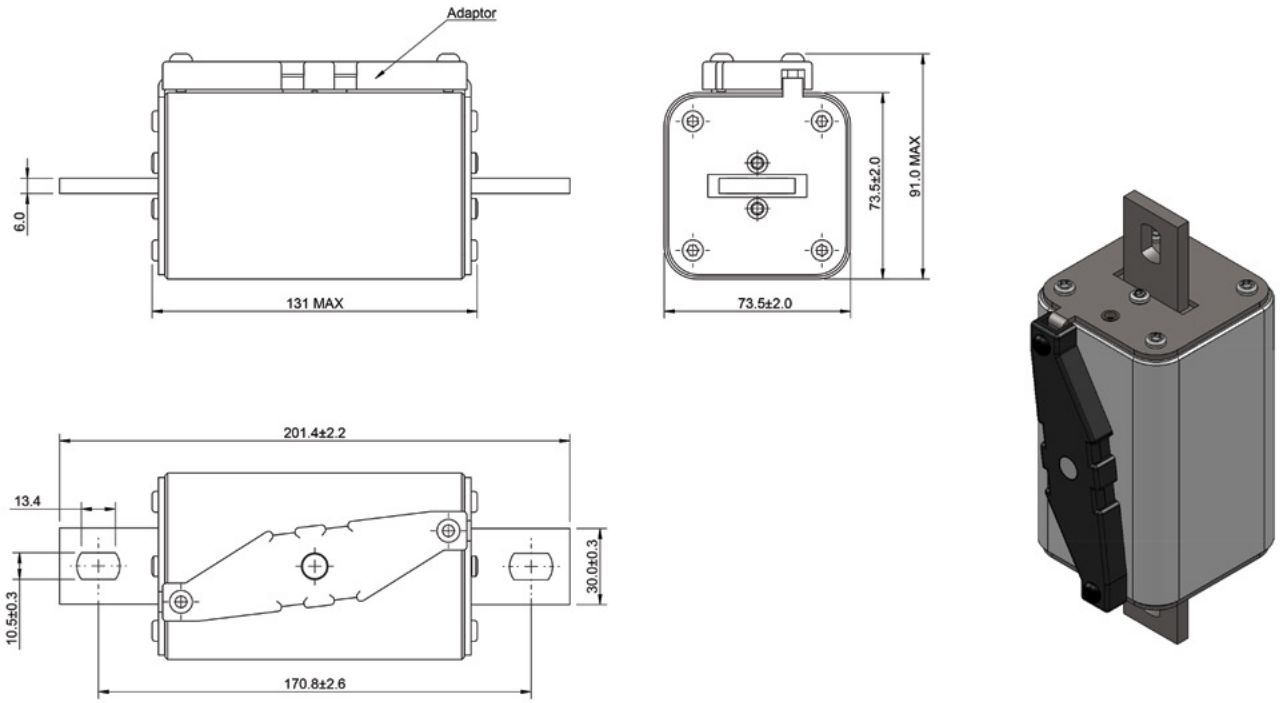


Data sheets: PV-XL 10201 and PVS-3L TD135020EN

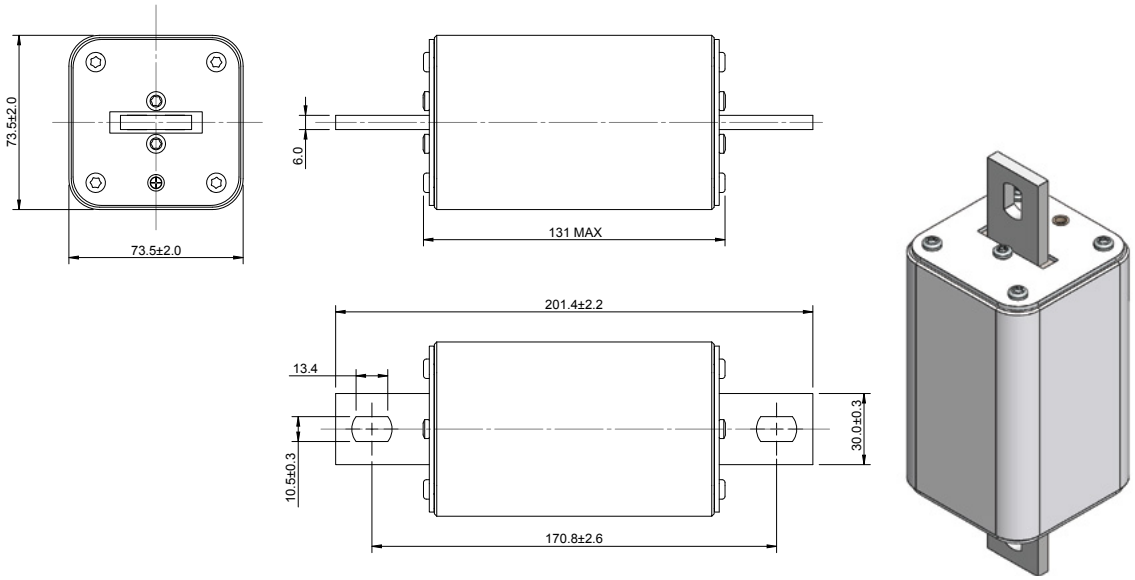
# Photovoltaic fuse links, fuse bases and holders

## 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

### Dimensions (mm) - Size 3L Bolted with side indicator



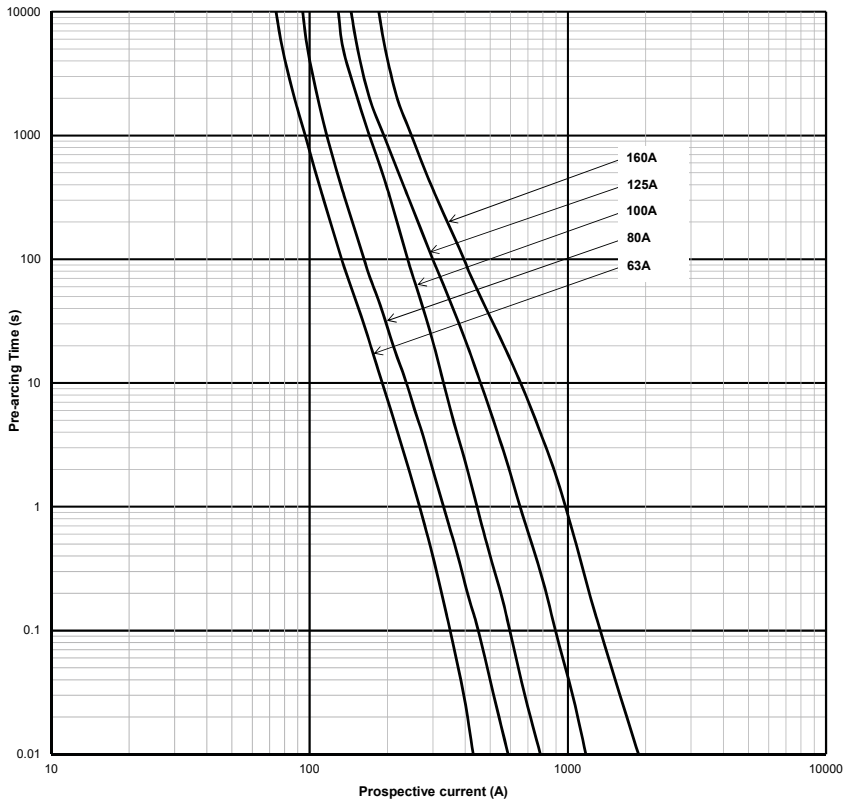

### Dimensions (mm) - Size 3L Bolted without side indicator



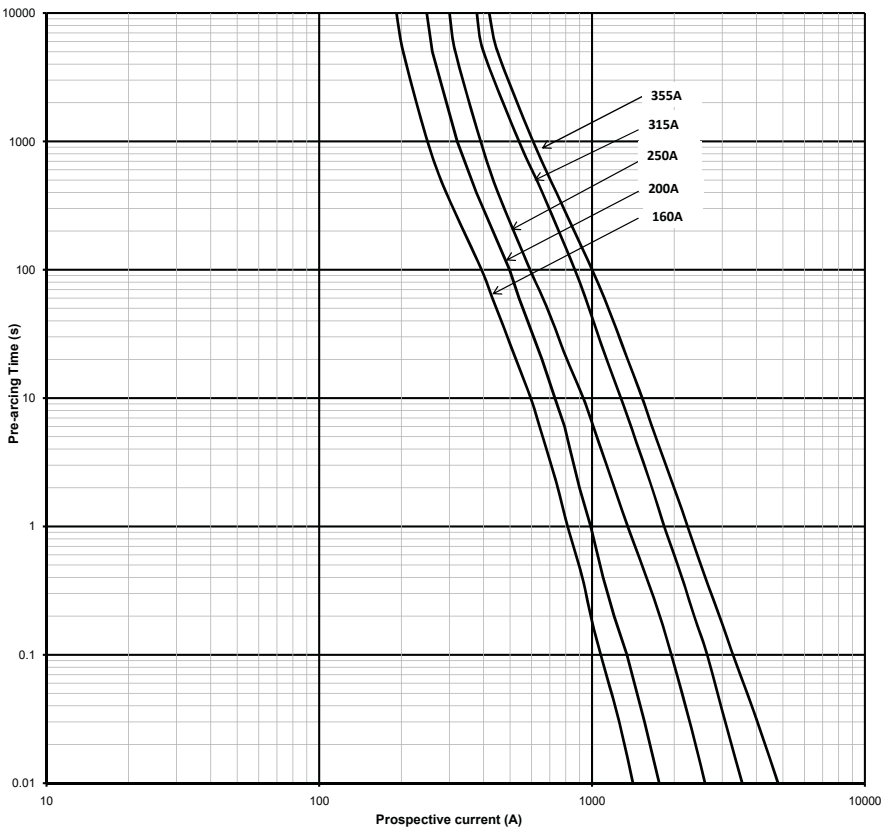

Data sheets: PV-XL 10201 and PVS-3L TD135020EN

# 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

## Time-current curve - Size 01XL, bladed and bolted, 1000 V d.c., 63 A to 160 A



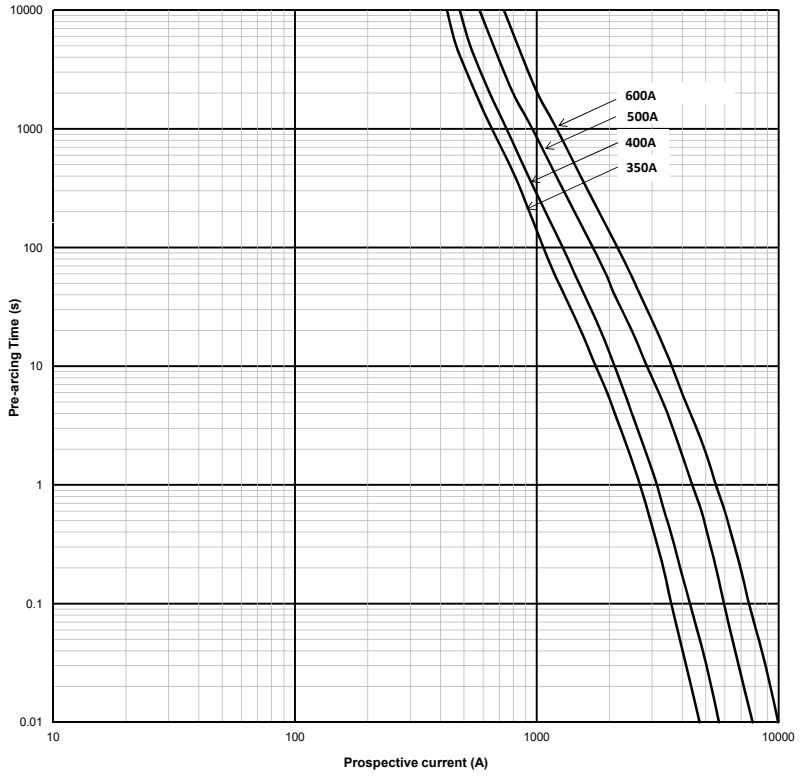

## Time-current curve - Size 2XL, bladed and bolted, 1000 V d.c., 160 A to 355 A



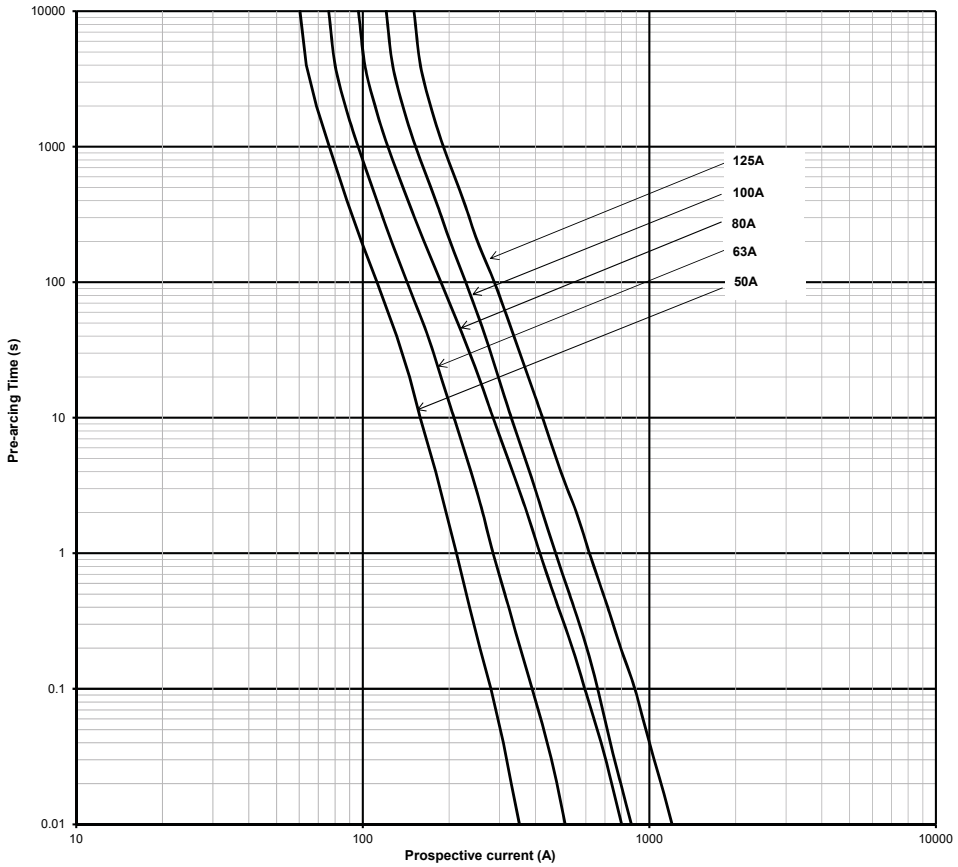

Data sheets: PV-XL 10201 and PVS-3L TD135020EN

## 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

### Time-current curve - Size 3L, bladed and bolted, 1000 V d.c., 350 A to 600 A



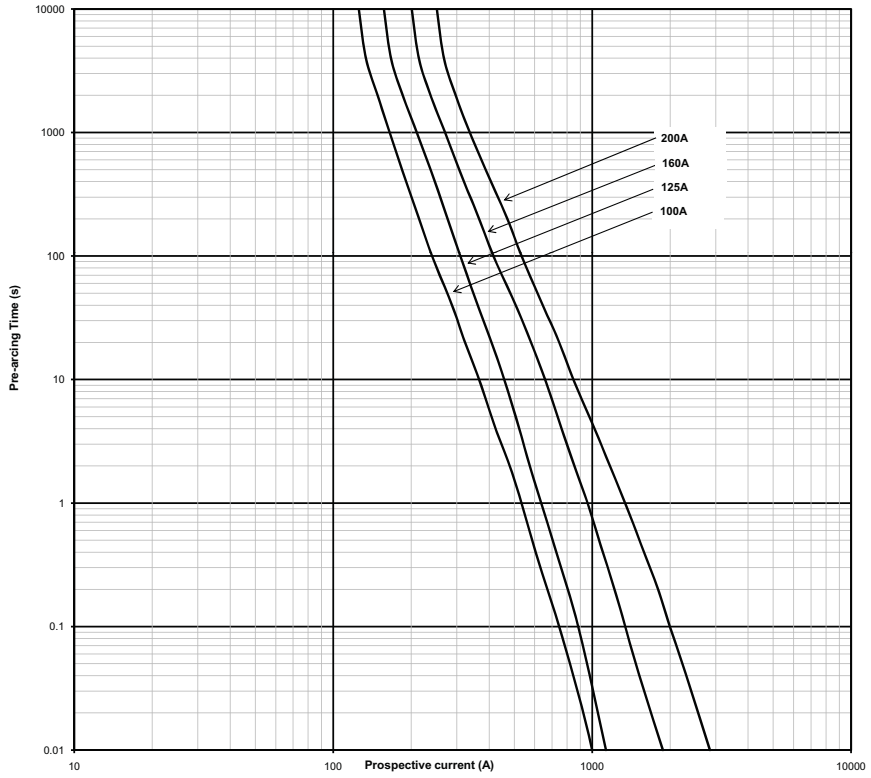

### Time-current curve - Size 01XL, bladed and bolted, 1500 V d.c., 50 A to 125 A



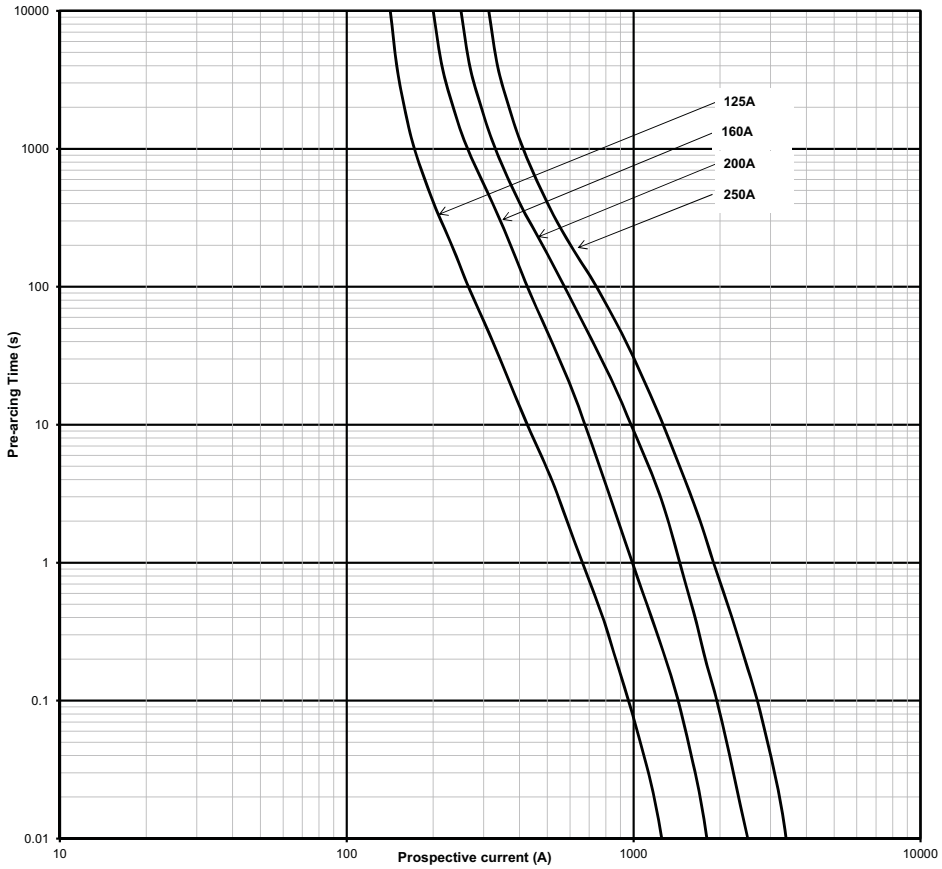

Data sheets: PV-XL 10201 and PVS-3L TD135020EN

# 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

## Time-current curve - Size 1XL, bladed and bolted, 1500 V d.c., 100 A to 200 A



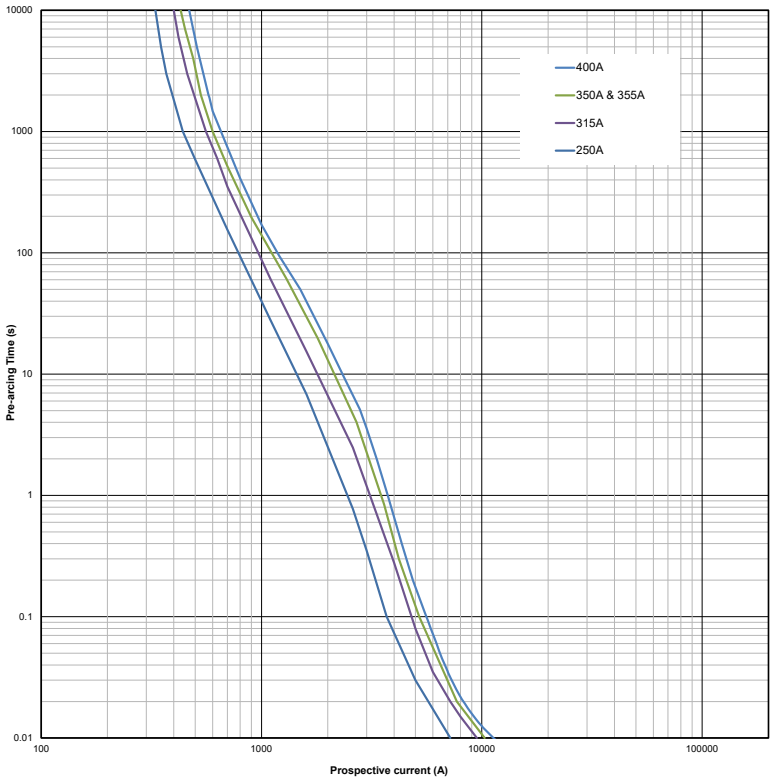

## Time-current curve - Size 2XL, bladed and bolted, 1500 V d.c., 125 A to 250 A



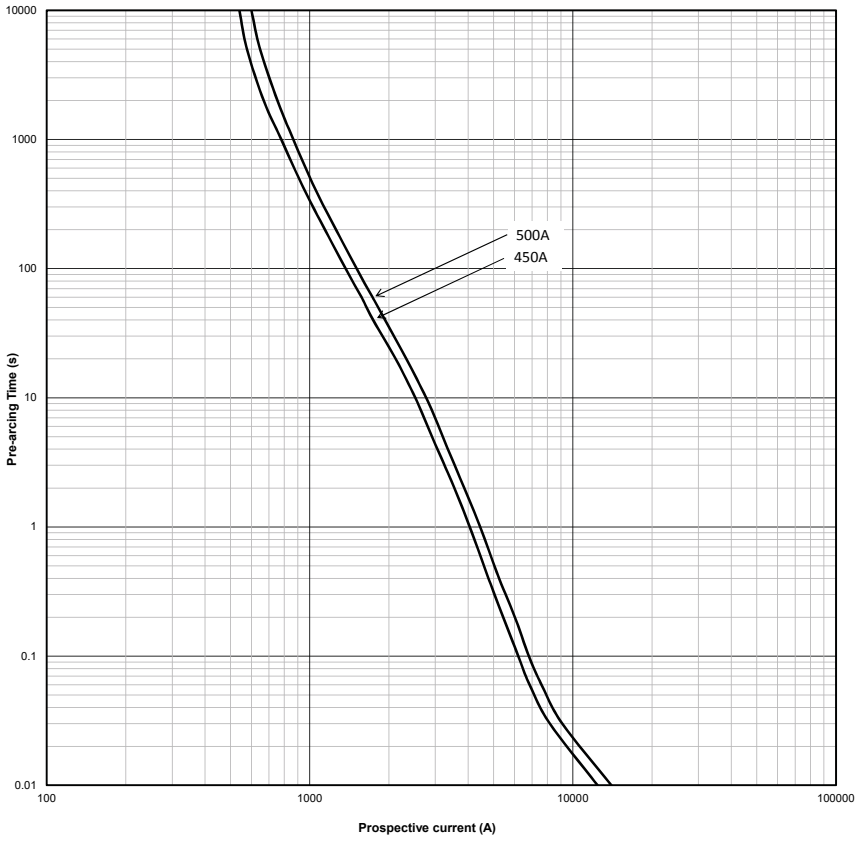

Data sheets: PV-XL 10201 and PVS-3L TD135020EN

## 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

### Time-current curve - PVS-3L 1500 V d.c., 250 A to 400 A



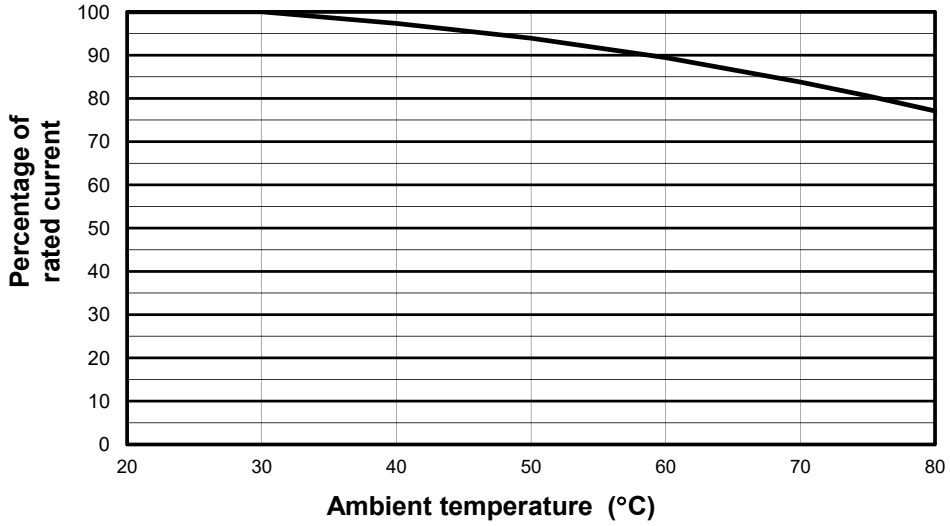

### Time-current curve - Size 3L, bladed and bolted, 1500 V d.c., 450 A and 500 A




Data sheets: PV-XL 10201 and PVS-3L TD135020EN

## 1000-1500 V d.c. (IEC/UL) - 50 A to 600 A - XL and 3L Style - PV-XL and PVS-3L

### Temperature derating curve




Data sheets: PV-XL 10201 and PVS-3L TD135020EN

# Photovoltaic fuse links, fuse bases and holders

## 1500 V d.c. (IEC) - 200 A to 500 A - sizes 1 to 3 - XL fuse bases - SD-S-PV

### Description

Sizes 1 to 3 XL Fuse bases specifically designed for use with the Bussmann series range of XL PV (Photovoltaic) fuse links.



### Technical data

- Rated voltage: 1500 V d.c. (IEC)
- Rated current: 200 A, 400 A and 630 A
- Fuse base size: 1 to 3
- Compatible fuse links: PV XL

### Standards / Agency information

- IEC 60269-1
- UL Listed (file number E348242)

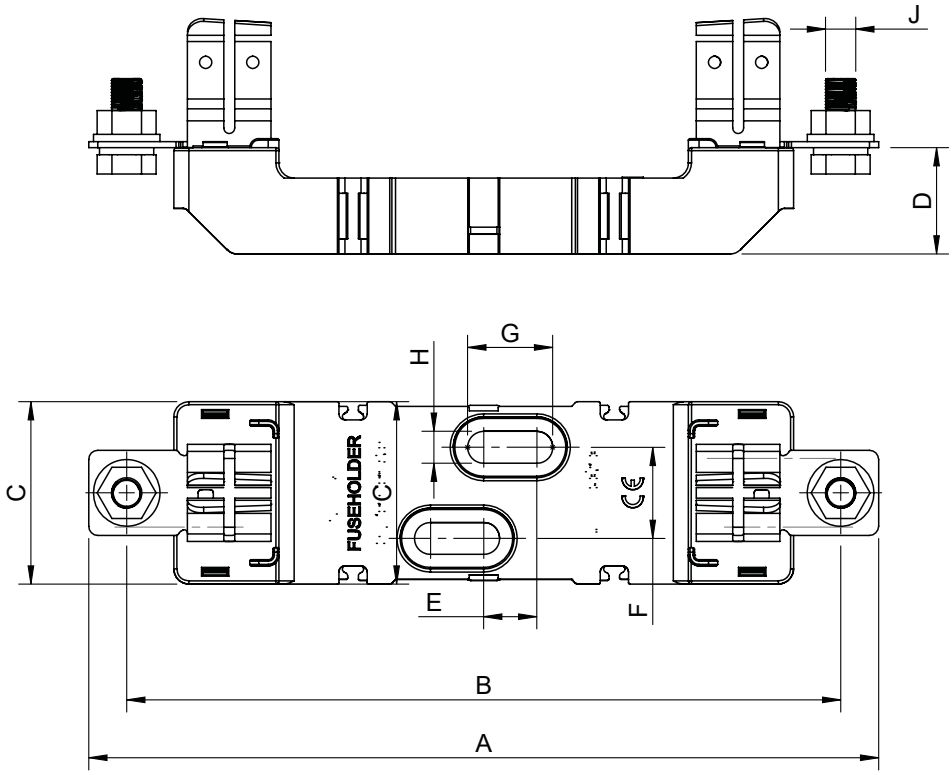
### Accessories:

Fuse extraction handle available in sizes 01XL to 3L

Part numbers: FEH1500B

Unit packing: 1

### Dimensions (mm)




| Catalogue numbers | XL Style fuse link size | Maximum fuse rated current (Amps) | Power acceptance | A | B | C | D | E | F | G | H | J |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SD1XL-S-PV | 01XL, 1XL | 200 | 57W | 260 | 235 | 60 | 35 | 17.5 | 30 | 28 | 10.5 | M10 |
| SD2XL-S-PV | 2XL | 400 | 75W | 285 | 260 | 60 | 35 | 17.5 | 30 | 28 | 10.5 | M12 |
| SD3L-S-PV | 3L | 500 | 108W | 300 | 270 | 60 | 35 | 17.5 | 30 | 28 | 10.5 | M12 |

Data sheet: 10066

# 800 V a.c. (IEC/UL) - 32 A to 400 A - NH 170M

## Description

Eaton's Bussmann series NH size 800 V a.c. fuse links are specifically designed to meet the needs of branch circuit and transformer protection in photovoltaic inverter systems. The fuse links are capable of interrupting low overcurrents associated with faulted PV systems (reverse current, multi-array fault).




## Technical data

- Rated voltage: 800 V a.c.
- Rated current: 32 A to 400 A
- Breaking capacity: 65 kA
- Operating class: gR

## Compatible fuse base

SD-D-PV see details page 352

## Microswitches, for use with bladed version

- 170H0236
- 170H0238

## Standards / Agency information

UL 248-13 (file number E125085), IEC 60269-4 (see details below)

## Catalogue numbers

| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Total at 800 V a.c. | Watts loss (W) $I_n$ | Catalogue numbers Bladed with lugs | Catalogue numbers Blade with bolt holes no lugs |
|---|---|---|---|---|---|---|---|
| NH1 | 800 V a.c. | 32 | 80 | 2000 | 8 | 170M7350 | |
| | | 40 | 185 | 3000 | 9 | 170M7351 | |
| | | 50 | 400 | 6000 | 11 | 170M7352 | |
| | | 63 | 470 | 7000 | 12 | 170M7353* | 170M7353-B* |
| | | 80 | 640 | 9000 | 15 | 170M7354 | 170M7354-B |
| | | 100 | 1300 | 17000 | 16 | 170M7355 | 170M7355-B |
| | | 125 | 2600 | 34000 | 17 | 170M7356* | 170M7356-B* |
| | | 160 | 5200 | 68000 | 27 | 170M7357* | 170M7357-B* |
| | | 200 | 10200 | 140000 | 25 | 170M7358* | 170M7358-B* |
| NH2 | 800 V a.c. | 160 | 4600 | 36800 | 28 | 170M7397 | 170M7397-B |
| | | 200 | 9500 | 76000 | 32 | 170M7398 | 170M7398-B |
| | | 250 | 17000 | 136000 | 38 | 170M7399 | 170M7399-B |
| NH3 | 800 V a.c. | 315 | 32000 | 230000 | 44 | 170M7400* | 170M7400-B* |
| | | 355 | 44500 | 320000 | 46 | 170M7401* | |
| | | 400 | 67500 | 480000 | 50 | 170M7402* | |
| | | 355 | 38000 | 270000 | 48 | | 170M7401-B* |
| | | 400 | 61000 | 430000 | 50 | | 170M7402-B* |

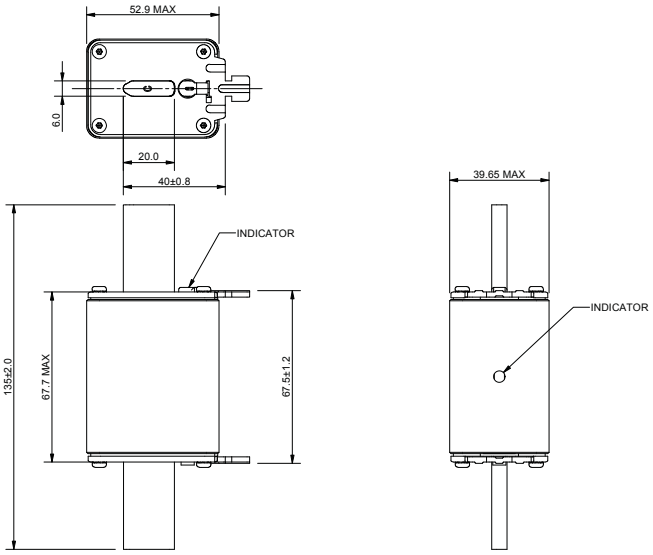
*UL 248-13 and IEC 60269-4

Data sheet: 10784

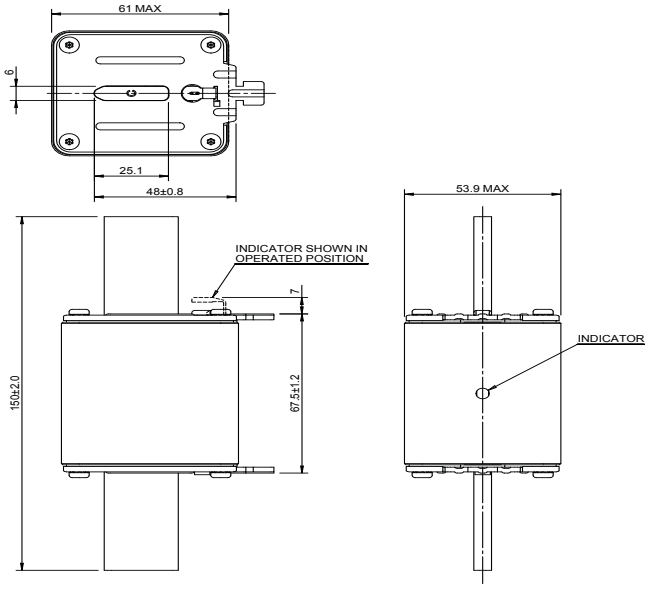
# Photovoltaic fuse links, fuse bases and holders

## 800 V a.c. (IEC/UL) - 32 A to 400 A - NH 170M

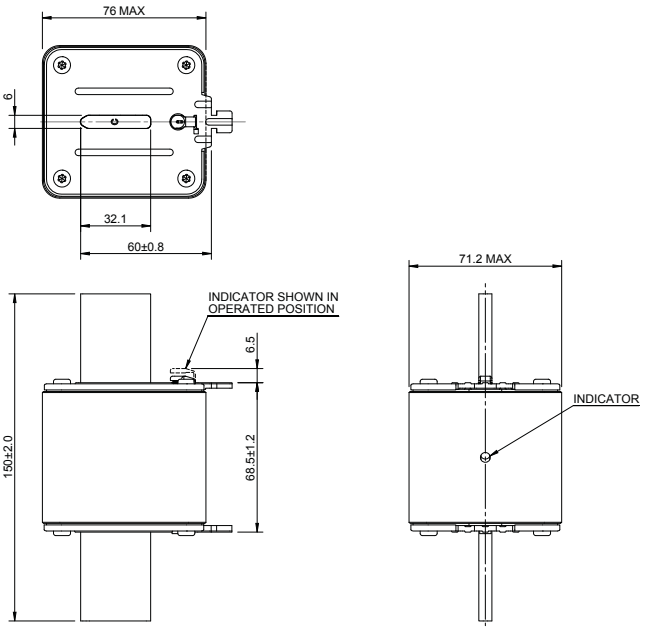
### Dimensions (mm) - NH1, bladed with lugs




### Dimensions (mm) - NH2, bladed with lugs



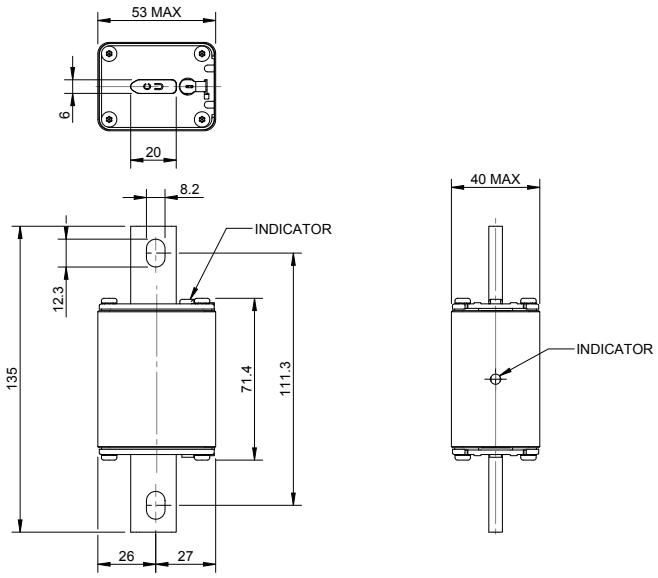

### Dimensions (mm) - NH3, bladed with lugs



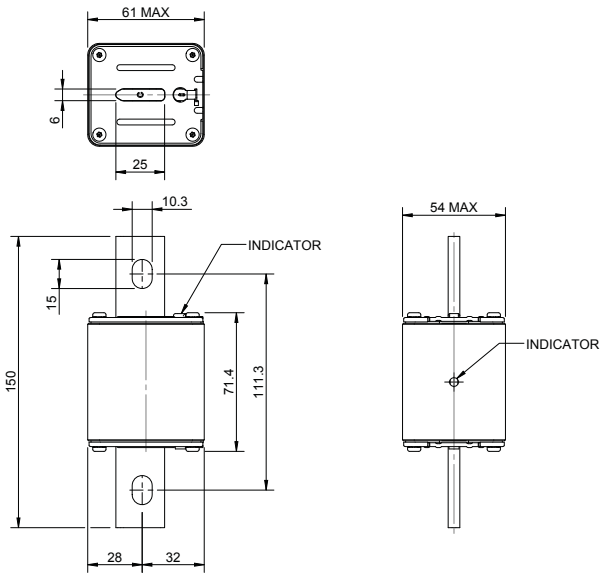

Data sheet: 10784

# 800 V a.c. (IEC/UL) - 32 A to 400 A - NH 170M

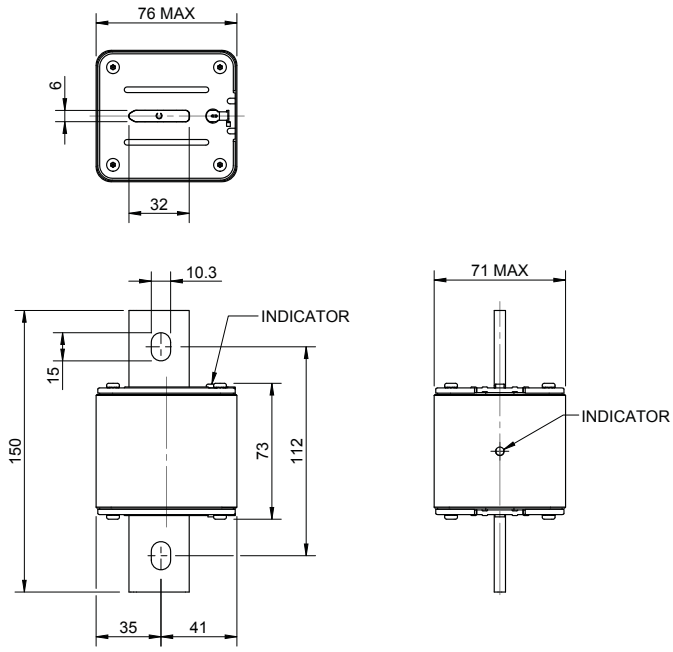
## Dimensions (mm) - NH1,bolt holes no lugs




## Dimensions (mm) - NH2, bolt holes no lugs




## Dimensions (mm) - NH3, bolt holes no lugs

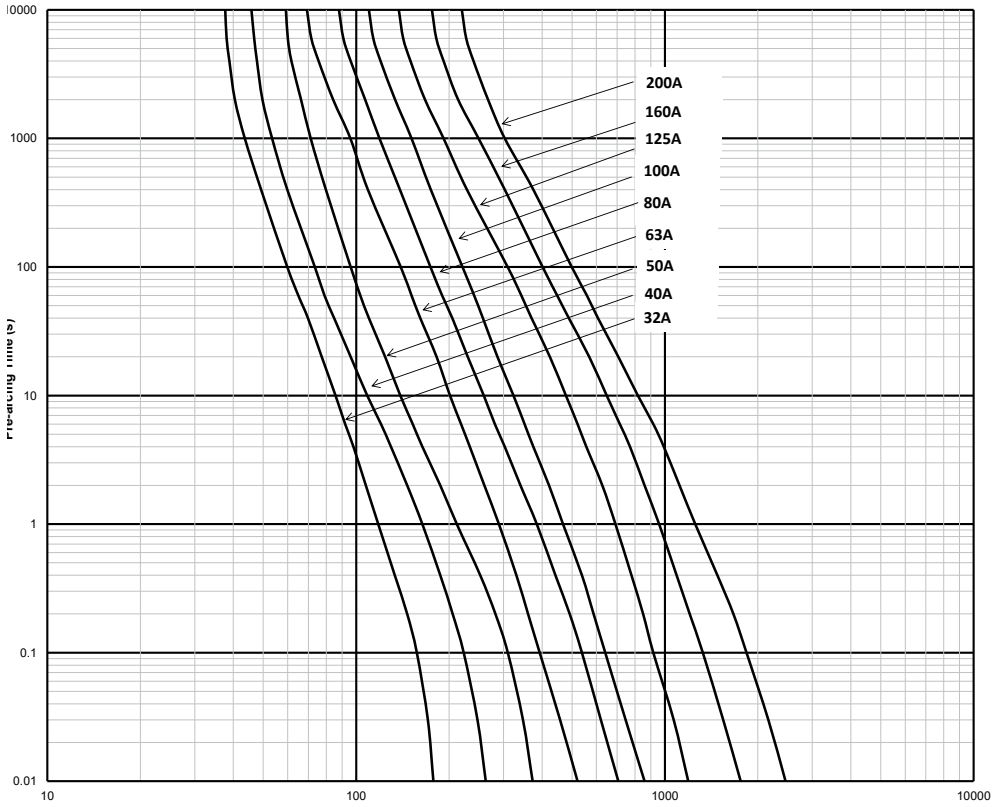



Data sheet: 10784

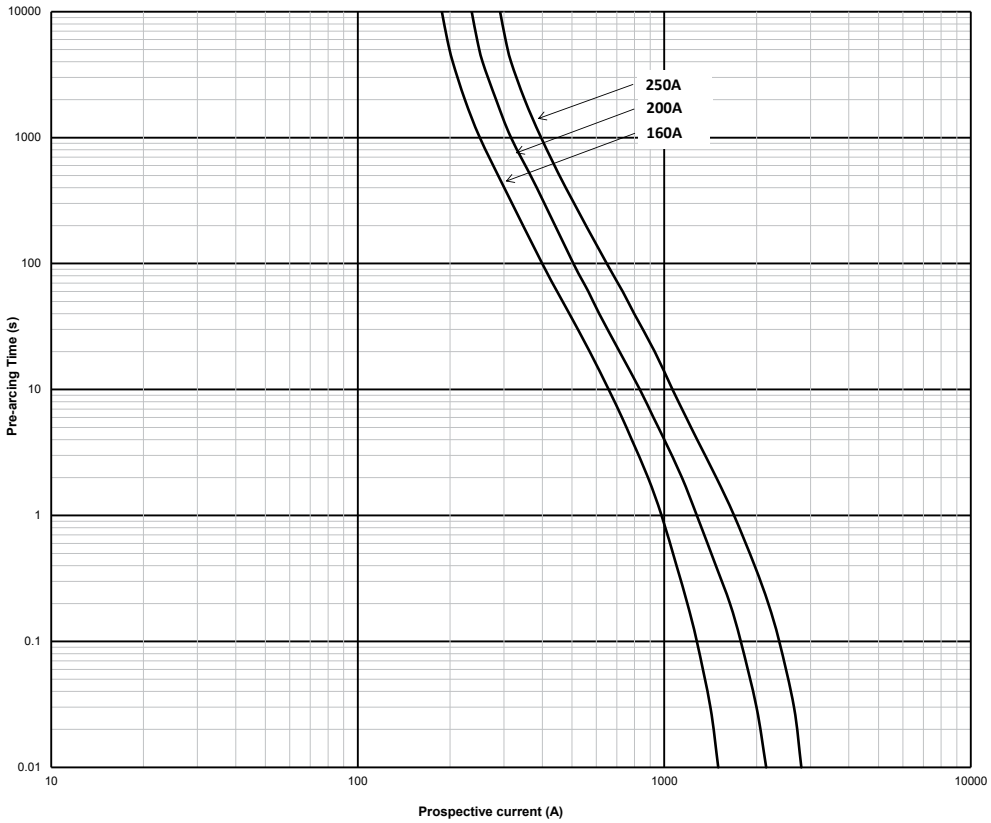
# Photovoltaic fuse links, fuse bases and holders

## 800 V a.c. (IEC/UL) - 32 A to 400 A - NH 170M

### Time-current curve - Size 1, 32 A to 200 A



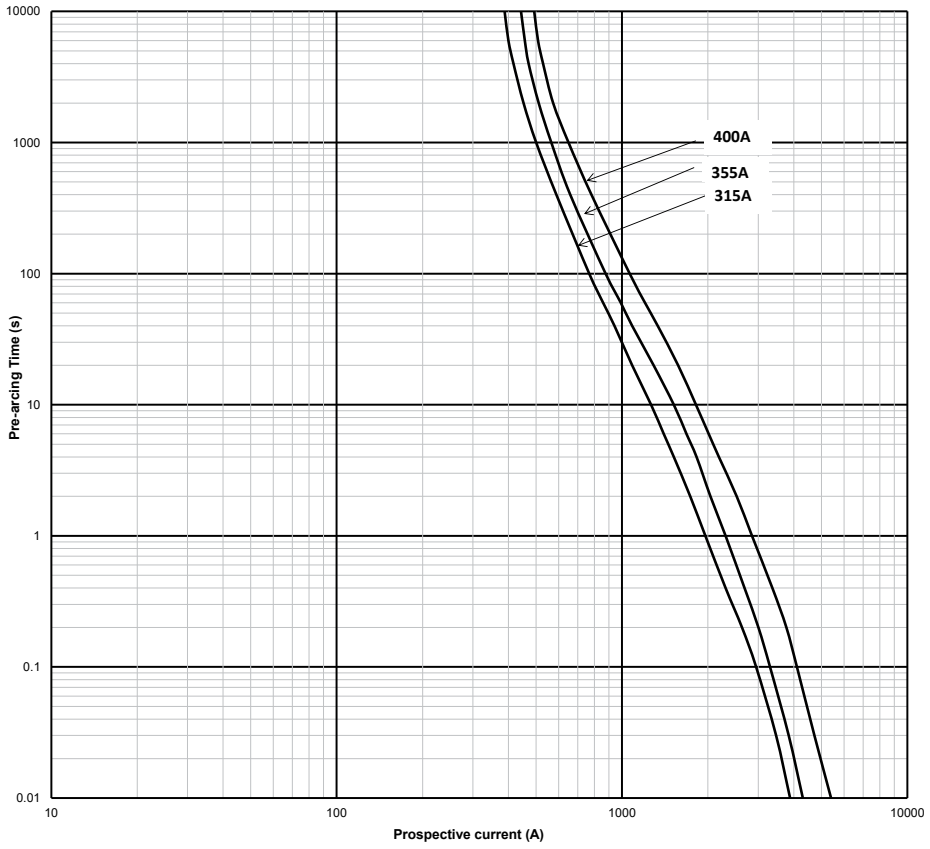

### Time-current curve - Size 2, 160 A to 250 A



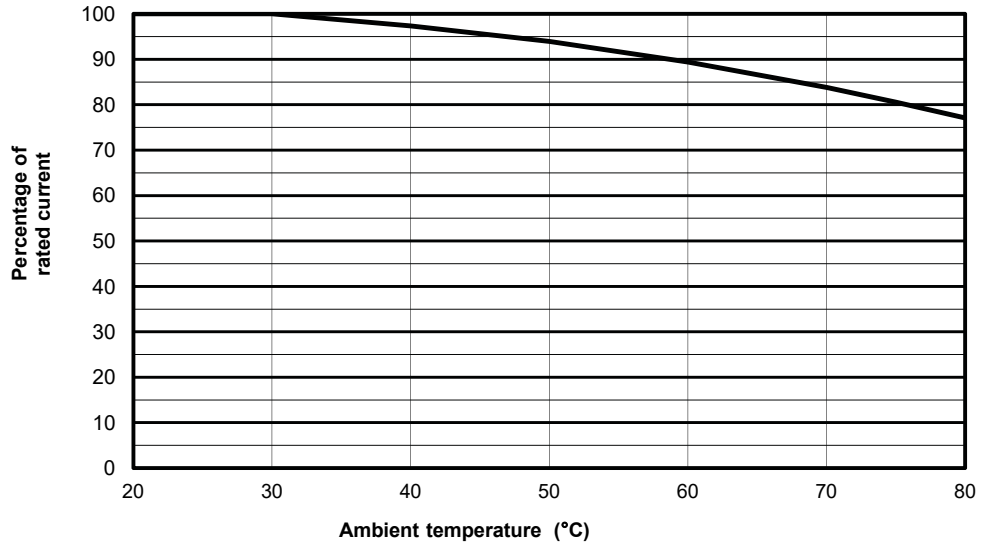

Data sheet: 10784

# 800 V a.c. (IEC/UL) - 32 A to 400 A - NH 170M

## Time-current curve - Size 3, 315 A to 400 A



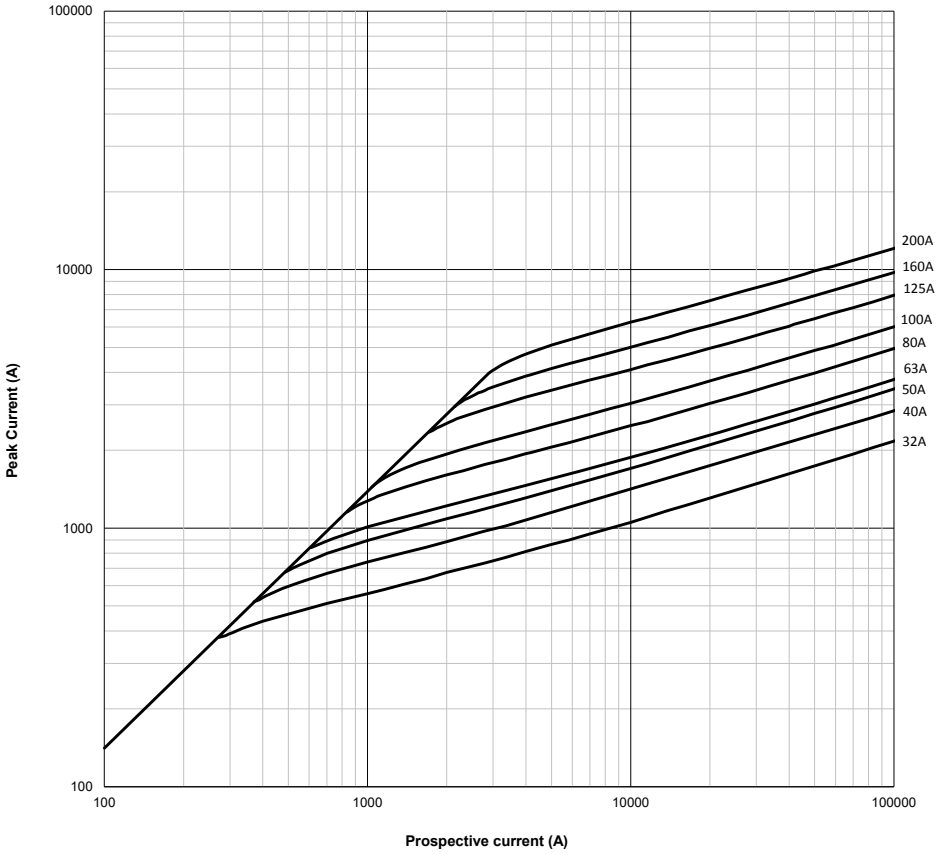

## Temperature derating curve



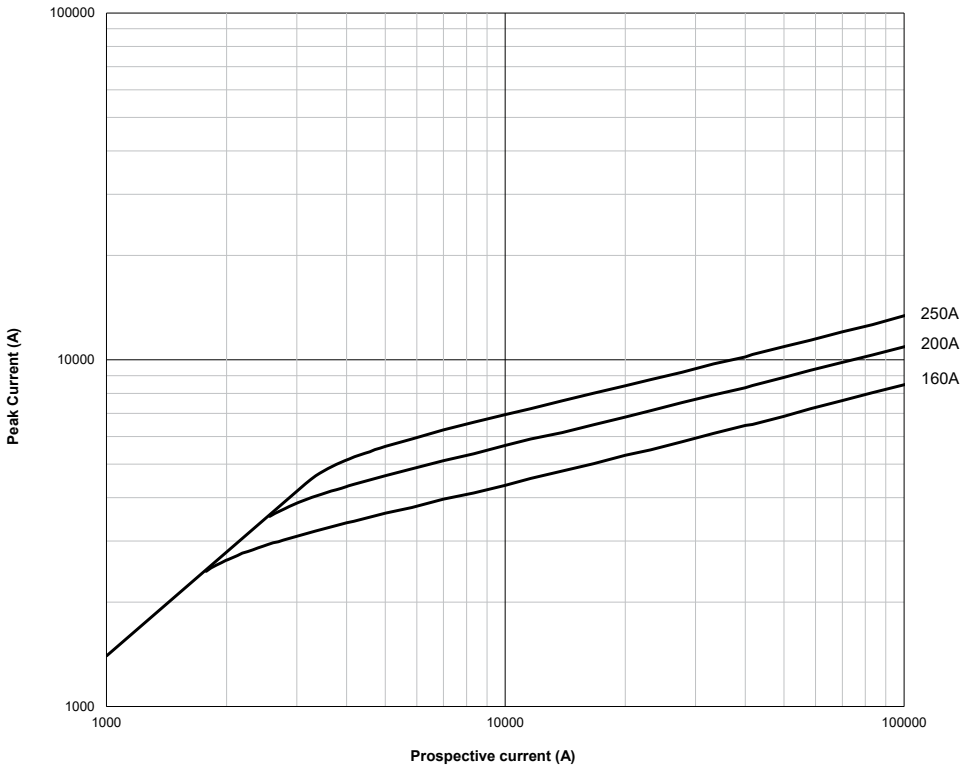

Data sheet: 10784

# 800 V a.c. (IEC/UL) - 32 A to 400 A - NH 170M

## Cut-off curve - Size 1, 32 A to 200 A




## Cut-off peak current curve - Size 2, 160 A to 250 A

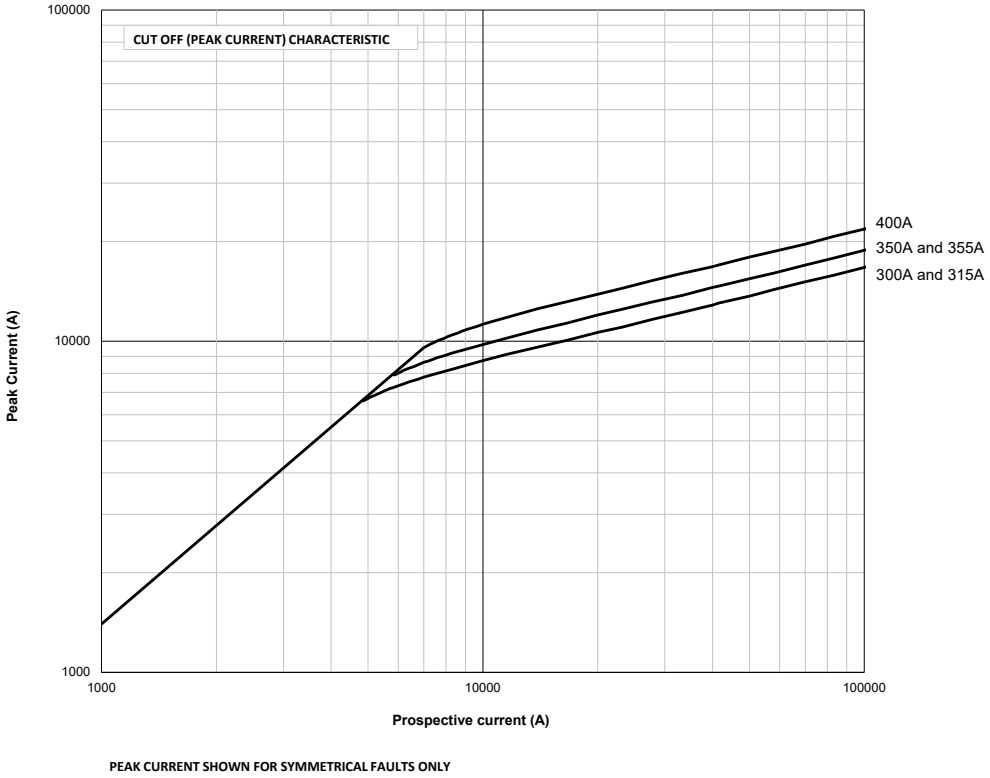



PEAK CURRENT SHOWN FOR SYMMETRICAL FAULTS ONLY

Data sheet: 10784

# 800 V a.c. (IEC/UL) - 32 A to 400 A - NH 170M

## Cut-off peak current curve - Sze 3, 315 A to 400 A




Data sheet: 10784

# Battery storage fuse links

## 250 V d.c. (IEC/UL) - 80 A to 315 A - Round body fuses - BSF-DD25

### Description

Eaton's Bussmann series BSF-DD25 centre bolted tags 250 V d.c. fuse links are specifically designed to protect battery modules and DC rated applications




### Technical data

- Rated voltage: 250 V d.c.
- Rated current: 80 A to 315 A
- Operating class: gBat proposed for full range fuse links for protection of battery storage systems
- Breaking capacity: 100 kA
- Time constant: 10 ms and 3 ms tested (suitable for most DC applications)

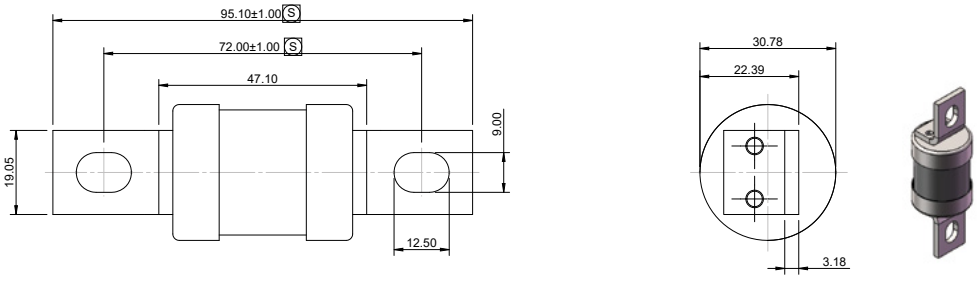
### Standards / Agency information

- Designed and tested to IEC 60269 Part 4 and Part 7
- CE/UKCA Compliant
- UL 248-13 Recognised
- RoHS Compliant

### Catalogue numbers

| Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | Clearing $I^2t$ at 250 V d.c. 100 kA 10 ms L/R | Watts loss $I_{n\ at\ 100\%}$ | Catalogue numbers |
|---|---|---|---|---|---|
| 250 V d.c. | 80 | 7200 | 18,000 | 8 | BSF-080A-DD25 |
| | 100 | 20,000 | 48,000 | 10 | BSF-100A-DD25 |
| | 125 | 29,500 | 71,000 | 11 | BSF-125A-DD25 |
| | 160 | 57,000 | 136,000 | 13 | BSF-160A-DD25 |
| | 200 | 120,000 | 285,000 | 14 | BSF-200A-DD25 |
| | 250 | 200,000 | 475,000 | 18 | BSF-250A-DD25 |
| | 315 | 265,000 | 630,000 | 25 | BSF-315A-DD25 |

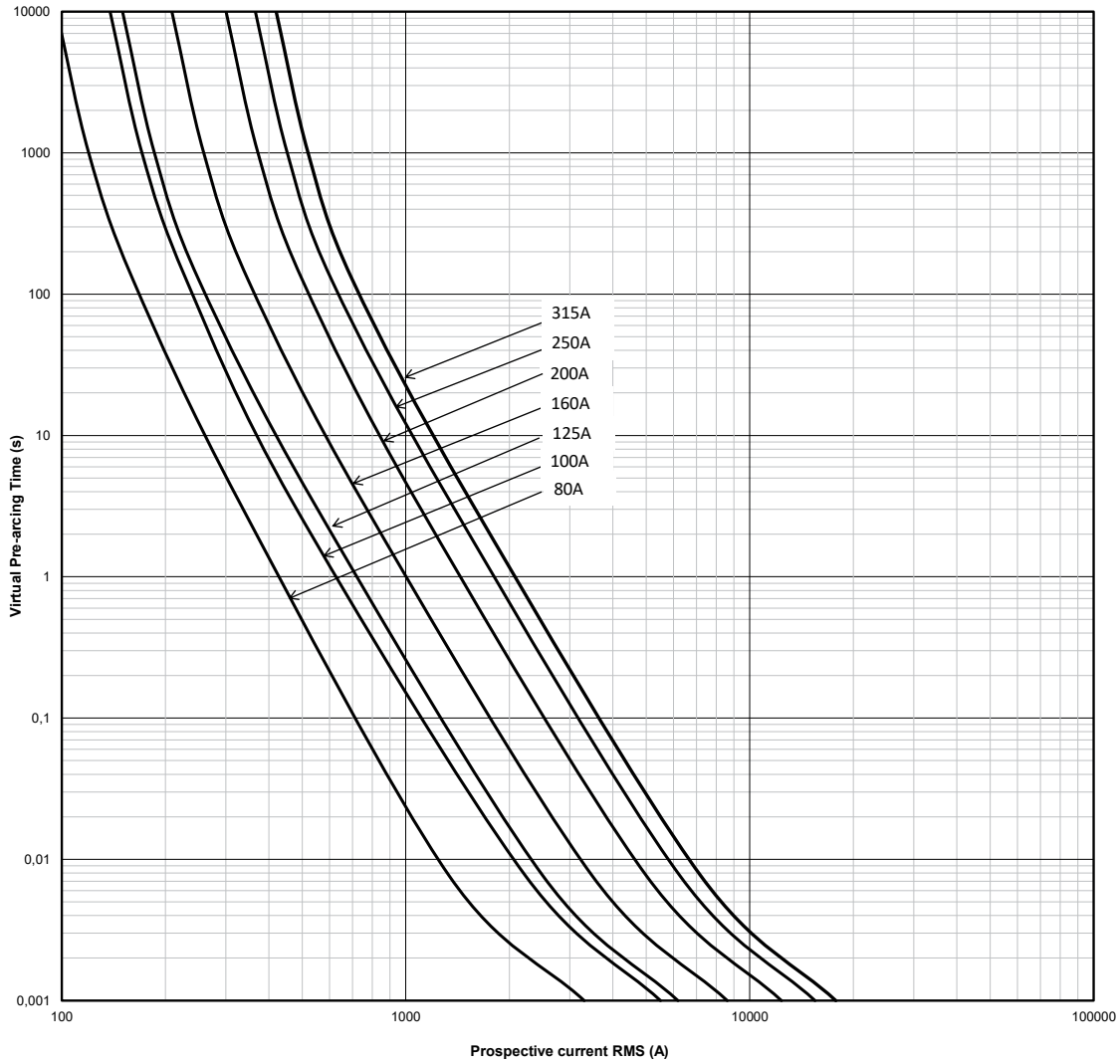
### Dimensions




Data sheet: 135011

# 250 V d.c. (IEC/UL) - 80 A to 315 A - Round body fuses - BSF-DD25

## Time current curve

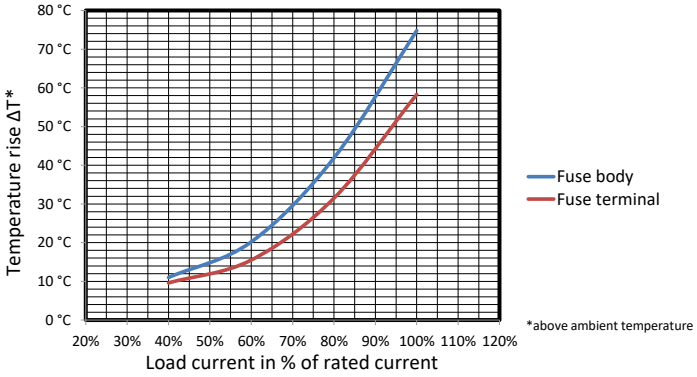



Data sheet: 135011

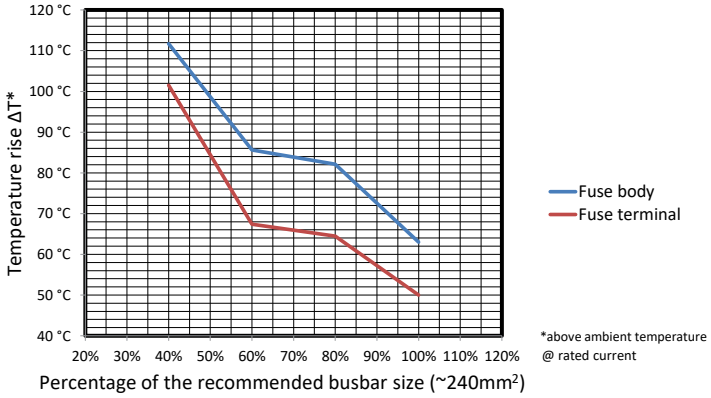
# Battery storage fuse links

## 250 V d.c. (IEC/UL) - 80 A to 315 A - Round body fuses - BSF-DD25

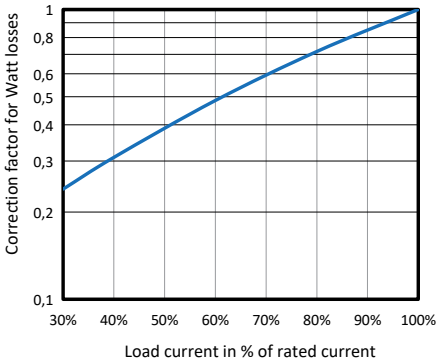
### Temperature rise caused by different load currents




### Temperature rise for various busbar sizes




### Power dissipation at different load currents




Data sheet: 135011

# Battery storage fuse links

## 1000 V d.c. (IEC/UL), 63 A to 400 A - NH Style - BSF-NH

### Description

Eaton's Bussmann series NH battery storage fuses are specifically designed to protect and isolate battery array combiners and disconnects. These fuse links are capable of interrupting low overcurrents associated with faulted battery storage systems (reverse current, multi-array fault).




### Technical data

- Rated voltage: 1000 V d.c.
- Rated current: 63 A to 400 A
- Operating class: gBat proposed for full range fuse links for protection of battery storage systems
- Breaking capacity: 100 kA
- Time constant: 4.5 ms at 100 kA

### Microswitches

- For bladed fuse links only
  - 170H0236
  - 170H0238

### Fuse holders

- For bladed fuse links only
  - SD1-D-PV
  - SD2-D-PV
  - SD3-D-PV

### Standards / Agency information

IEC 60269-7 for battery storage fuse links is under preparation.

### Catalogue numbers

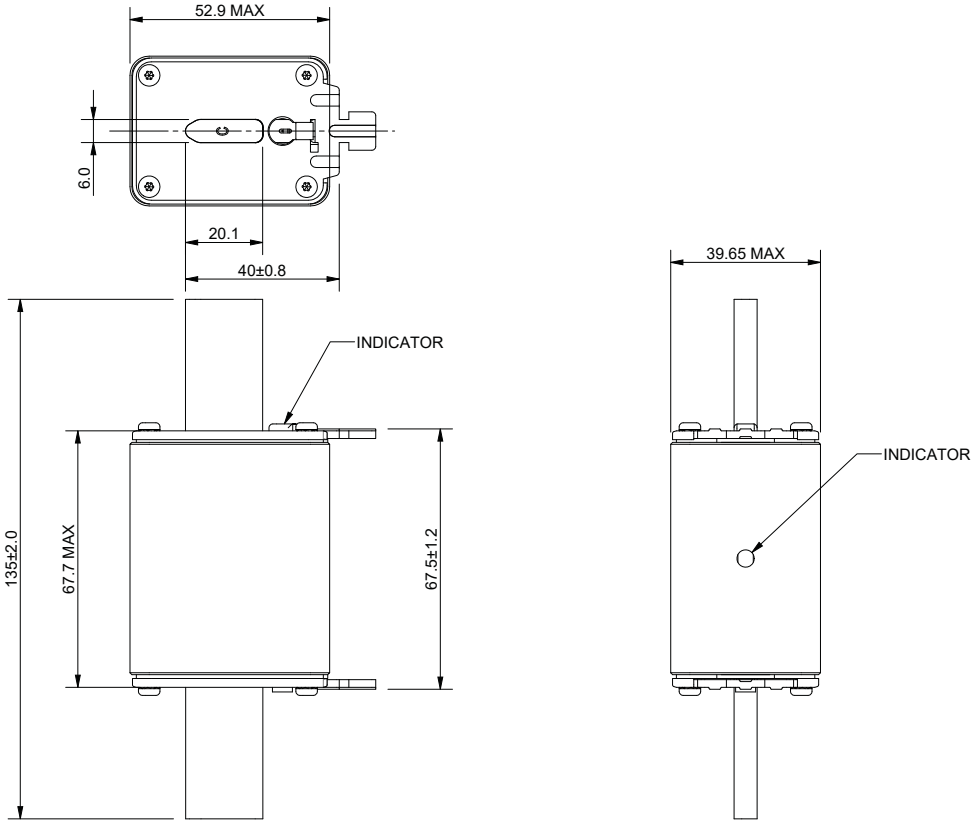
| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Total at 1000 V d.c. | Watts loss (W) 0.7 $I_n$ | Watts loss (W) $I_n$ | Catalogue numbers Bladed version | Catalogue numbers Bolted version |
|---|---|---|---|---|---|---|---|---|
| 1 | 1000 V d.c. | 63 | 470 | 4300 | 5 | 12 | BSF-063G-NH110 | BSF-063G-NH110-B |
| | | 80 | 640 | 5760 | 6 | 15.5 | BSF-080G-NH110 | BSF-080G-NH110-B |
| | | 100 | 1300 | 11,700 | 7 | 16.5 | BSF-100G-NH110 | BSF-100G-NH110-B |
| | | 125 | 2600 | 23,400 | 7 | 17.5 | BSF-125G-NH110 | BSF-125G-NH110-B |
| | | 160 | 5200 | 46,800 | 11 | 27.5 | BSF-160G-NH110 | BSF-160G-NH110-B |
| | | 200 | 10,200 | 82,000 | 10 | 25 | BSF-200G-NH110 | BSF-200G-NH110-B |
| 2 | 1000 V d.c. | 160 | 4600 | 37,000 | 11 | 28 | BSF-160G-NH210 | BSF-160G-NH210-B |
| | | 200 | 9500 | 76,000 | 13 | 32 | BSF-200G-NH210 | BSF-200G-NH210-B |
| | | 250 | 17,000 | 136,000 | 15 | 38 | BSF-250G-NH210 | BSF-250G-NH210-B |
| 3 | 1000 V d.c. | 315 | 32,000 | 260,000 | 18 | 44 | BSF-315G-NH310 | BSF-315G-NH310-B |
| | | 355 | 44,500 | 370,000 | 18 | 46 | BSF-355G-NH310 | BSF-355G-NH310-B |
| | | 400 | 67,500 | 550,000 | 20 | 50 | BSF-400G-NH310 | BSF-400G-NH310-B |

Data sheet: 135001

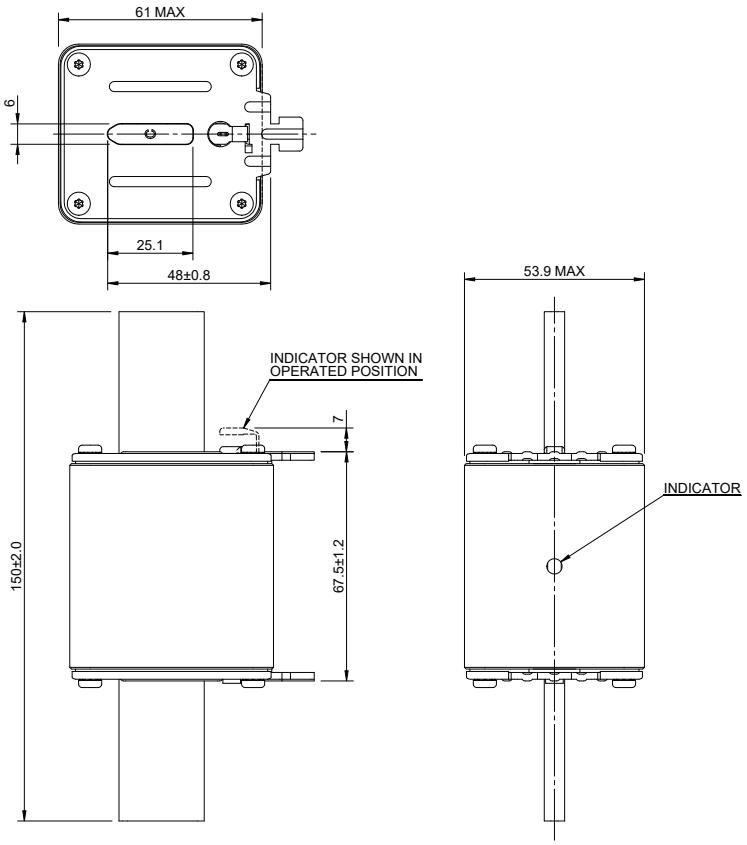
# Battery storage fuse links

## 1000 V d.c. (IEC/UL), 63 A to 400 A - NH Style - BSF-NH

### Dimensions (mm) - Size 1, bladed



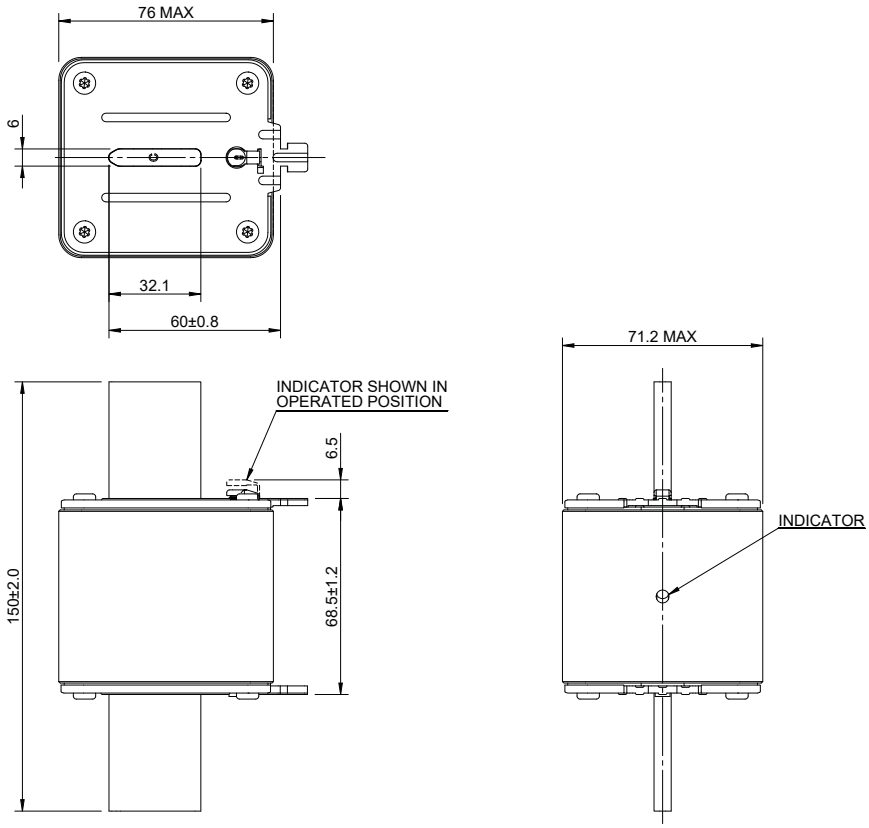

### Dimensions (mm) - Size 2, bladed



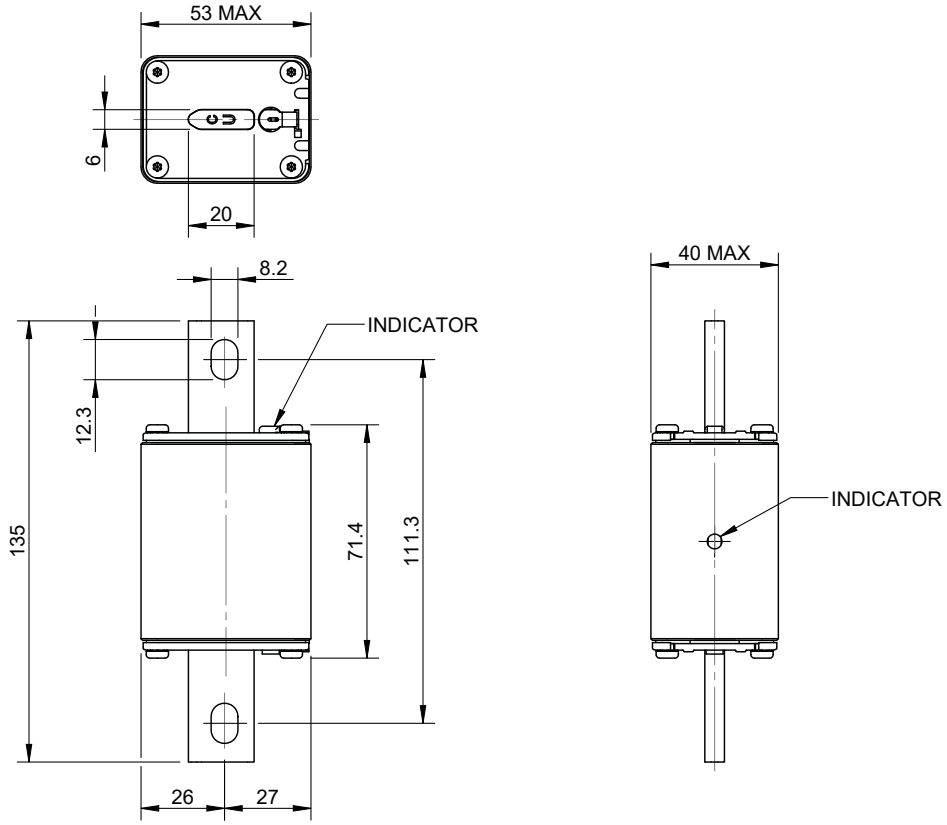

Data sheet: 135001

# 1000 V d.c. (IEC/UL), 63 A to 400 A - NH Style - BSF-NH

## Dimensions (mm) - Size 3, bladed




## Dimensions (mm) - Size 1, bolted

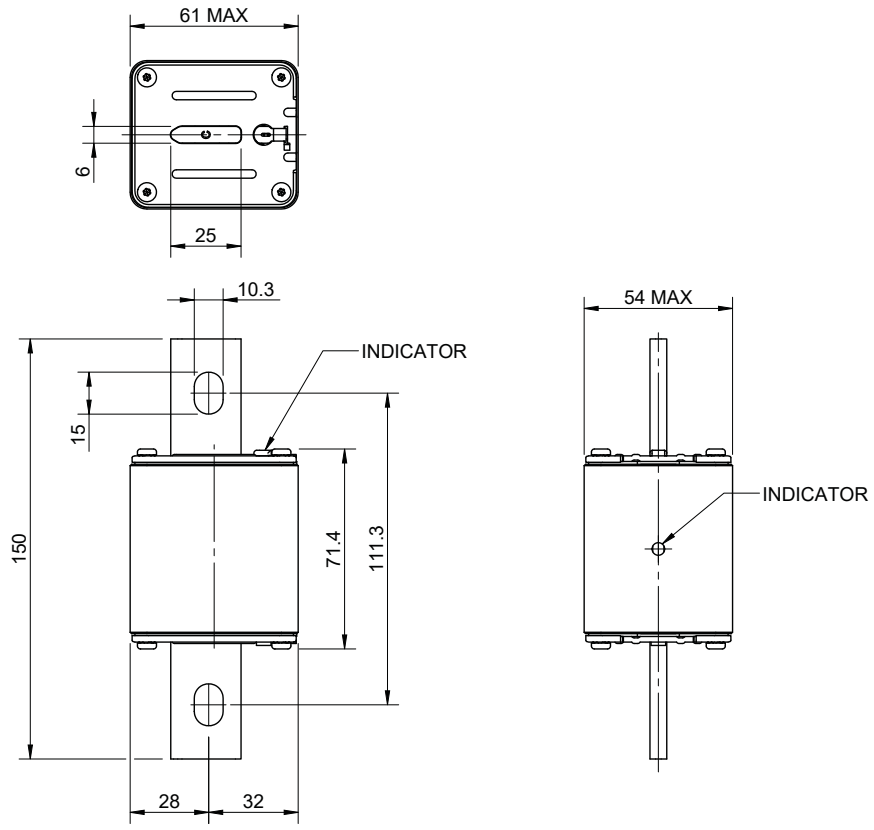



Data sheet: 135001

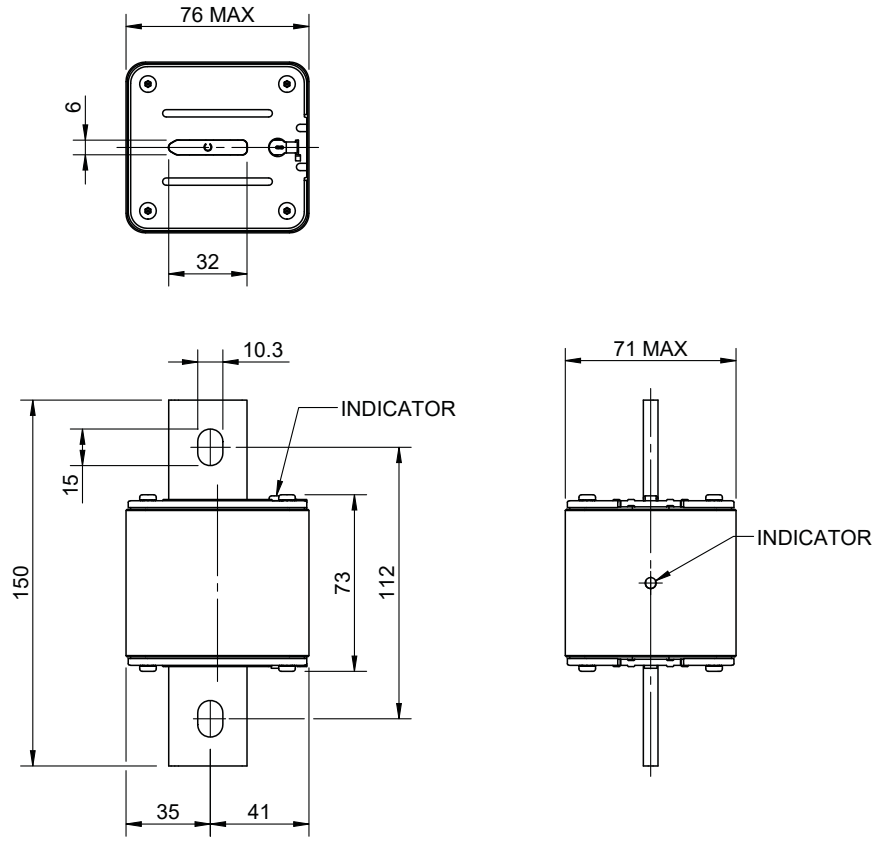
# Battery storage fuse links

## 1000 V d.c. (IEC/UL), 63 A to 400 A - NH Style - BSF-NH

### Dimensions (mm)- Size 2, bolted



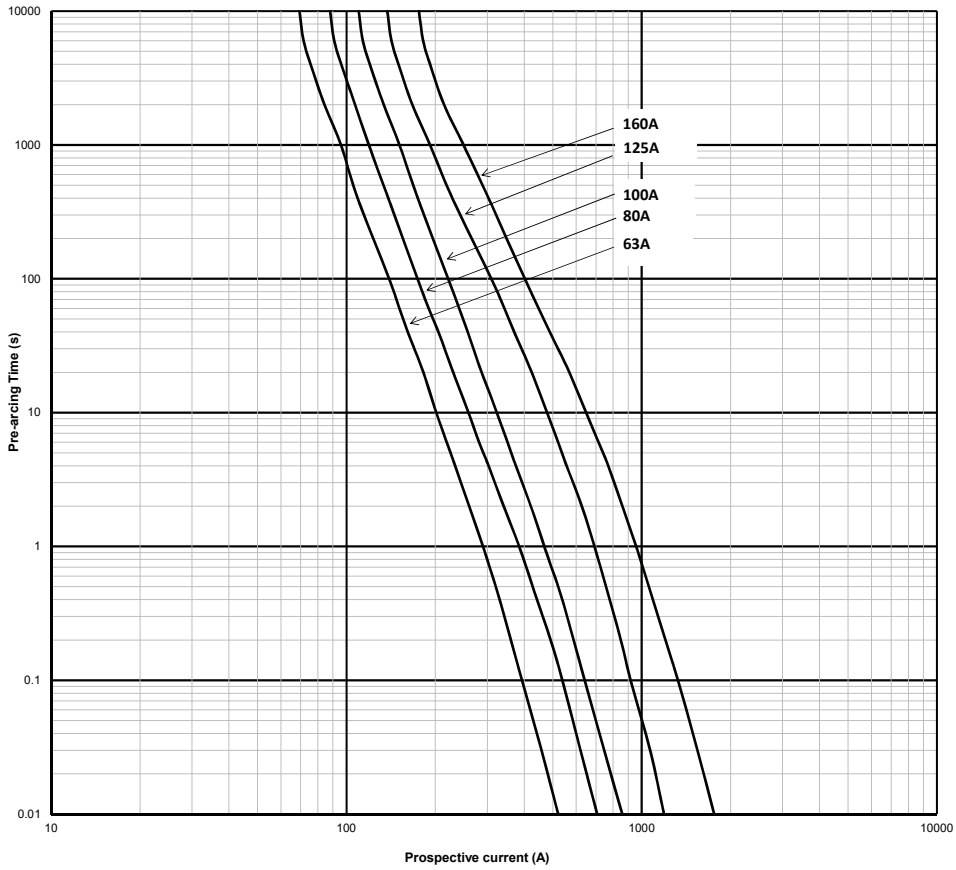

### Dimensions (mm) - Size 3, bolted



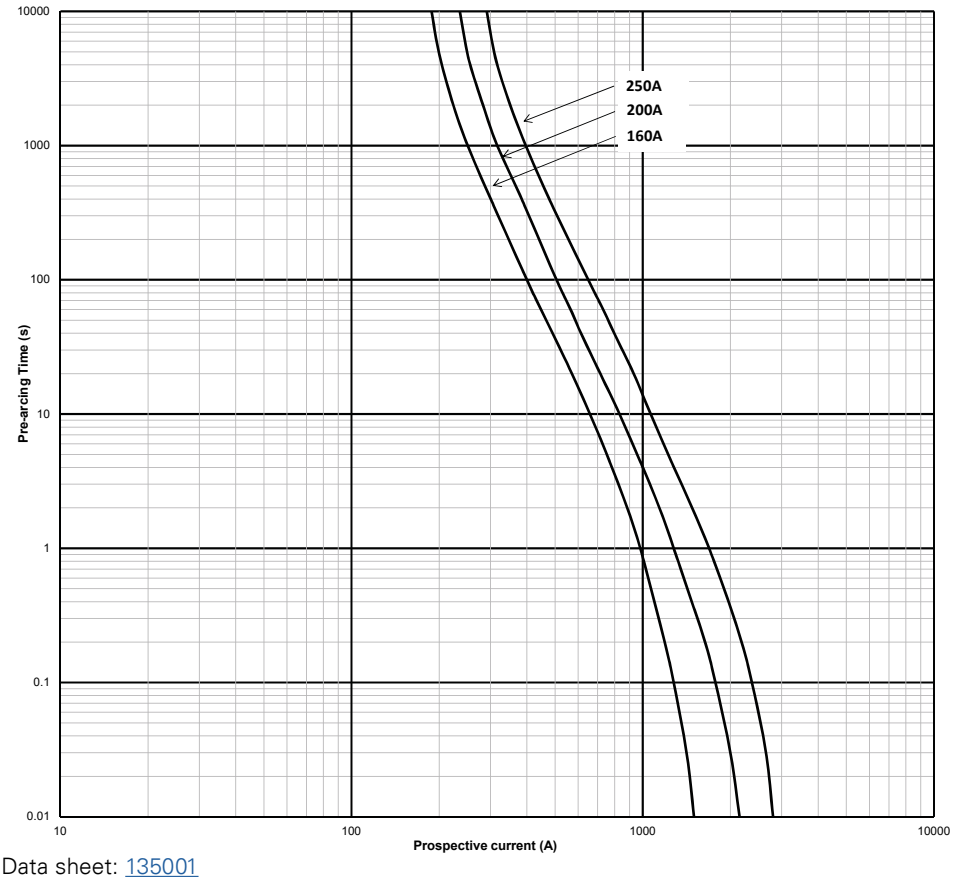

Data sheet: 135001

# 1000 V d.c. (IEC/UL), 63 A to 400 A - NH Style - BSF-NH

## Time-current curve - Size 1, 63 A to 200 A




## Time-current curve - Size 2, 160 A to 250 A

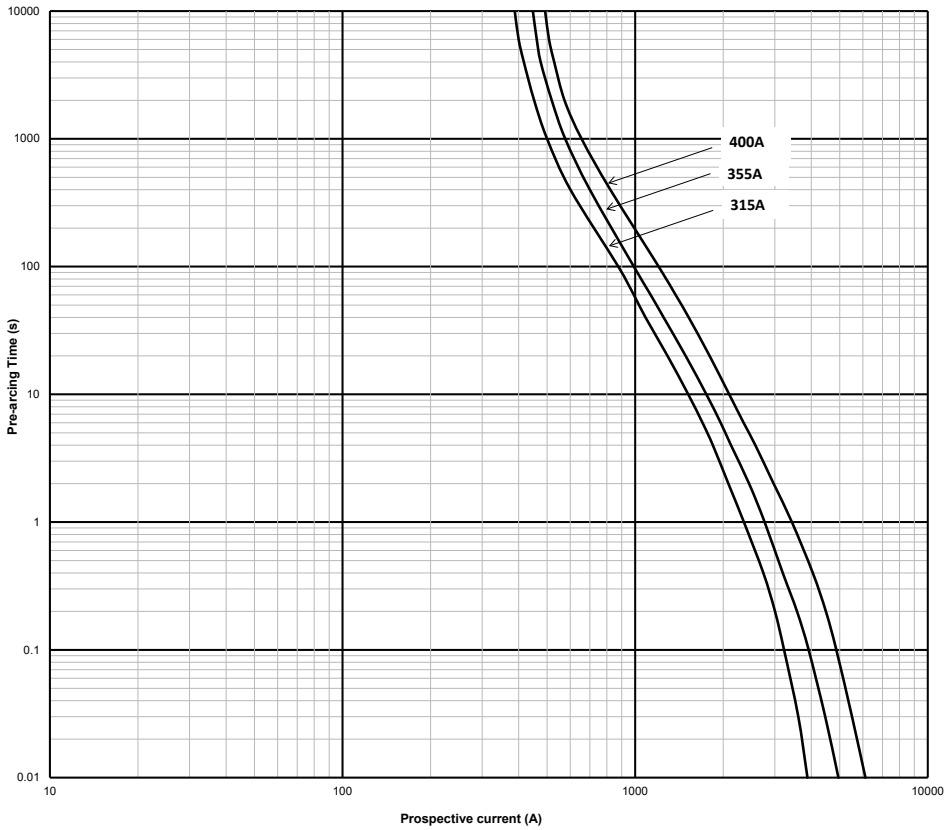



Data sheet: 135001

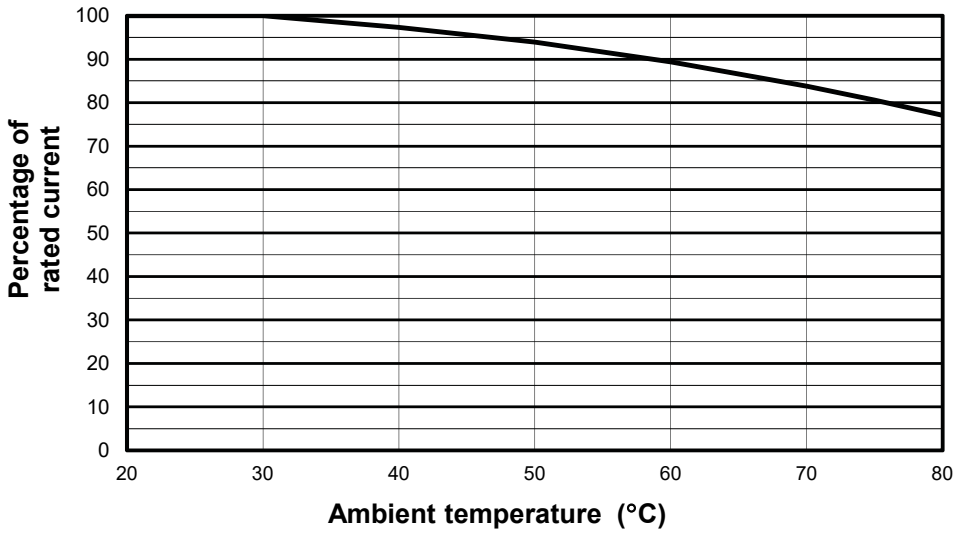
# Battery storage fuse links

## 1000 V d.c. (IEC/UL), 63 A to 400 A - NH Style - BSF-NH

### Time-current curve - Size 3, 315 A to 400 A




### Temperature derating




(The ambient temperature is that local to the fuse link)

Data sheet: 135001

# 1500 V d.c. (IEC/UL) - 250 A to 500 A - XL Style - BSF-3XL

## Description

Eaton's Bussmann series XL battery storage fuses are specifically designed to protect and isolate battery array combiners and disconnects. These fuse links are capable of interrupting low overcurrents associated with faulted battery storage systems (reverse current, multi-array fault).



## Technical data

- Rated voltage: 1500 V d.c.
- Rated current: 250 A to 500 A
- Operating class: gBat proposed for full range fuse links for protection of battery storage systems
- Breaking capacity: 100 kA
- Time constant: 4.5 ms at 100 kA

## Microswitches

- For bladed fuse links
  - 170H0236
  - 170H0238
- For bolted fuse links
  - 170H0069

## Compatible fuse bases

- SD3L-S-PV

## Standards / Agency information

IEC 60269-7 for battery storage fuse links is under preparation.

## Catalogue numbers

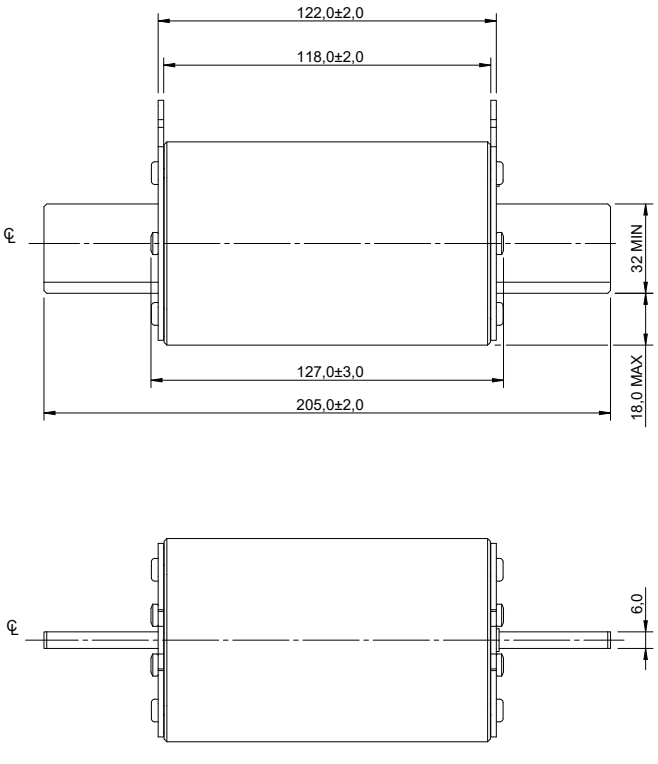
| Fuse link body size | Rated voltage | Rated current (Amps) | $I^2t$ ($A^2$ Sec) Pre-arcing | $I^2t$ ($A^2$ Sec) Total at 1500 V d.c. | Watts loss (W) 0.7 $I_n$ | Watts loss (W) $I_n$ | Catalogue numbers Bladed version | Catalogue numbers Bolted version |
|---|---|---|---|---|---|---|---|---|
| 3 | 1500 V d.c. | 250 | 74,000 | 263,000 | 20 | 49 | BSF-250G-3XL15 | BSF-250G-3XL15-B |
| | | 315 | 150,000 | 533,000 | 21 | 52 | BSF-315G-3XL15 | BSF-315G-3XL15-B |
| | | 355 | 195,000 | 693,000 | 24 | 59 | BSF-355G-3XL15 | BSF-355G-3XL15-B |
| | | 400 | 296,000 | 1,060,000 | 24 | 61 | BSF-400G-3XL15 | BSF-400G-3XL15-B |
| | | 450 | 412,000 | 1,470,000 | 27 | 67 | BSF-450G-3XL15 | BSF-450G-3XL15-B |
| | | 500 | 532,000 | 1,890,000 | 29 | 73 | BSF-500G-3XL15 | BSF-500G-3XL15-B |

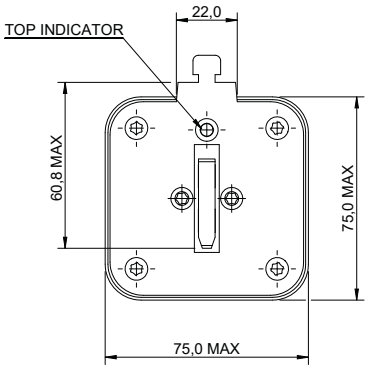
Data sheet: 135002

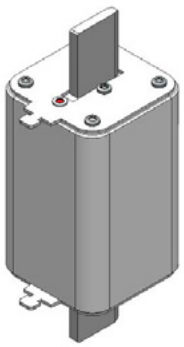
# Battery storage fuse links

## 1500 V d.c. (IEC/UL) - 250 A to 500 A - XL Style - BSF-3XL

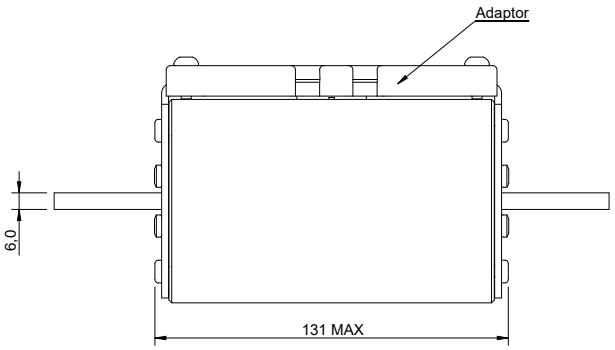
### Dimensions (mm) - Size 3, bladed

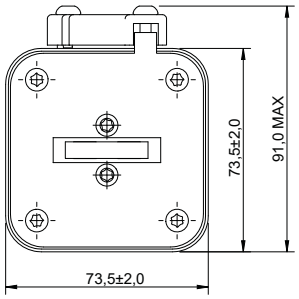


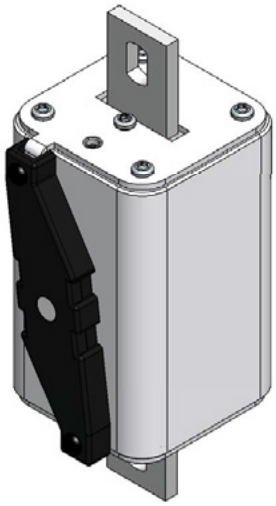



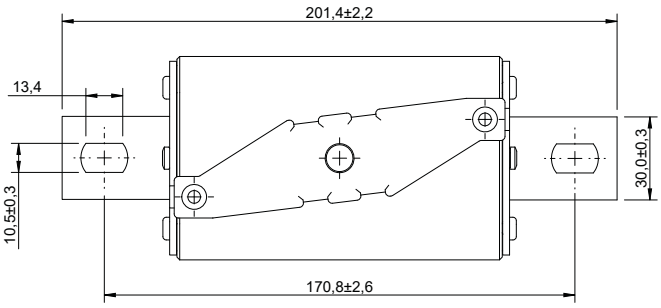



### Dimensions (mm) - Size 3, bolted



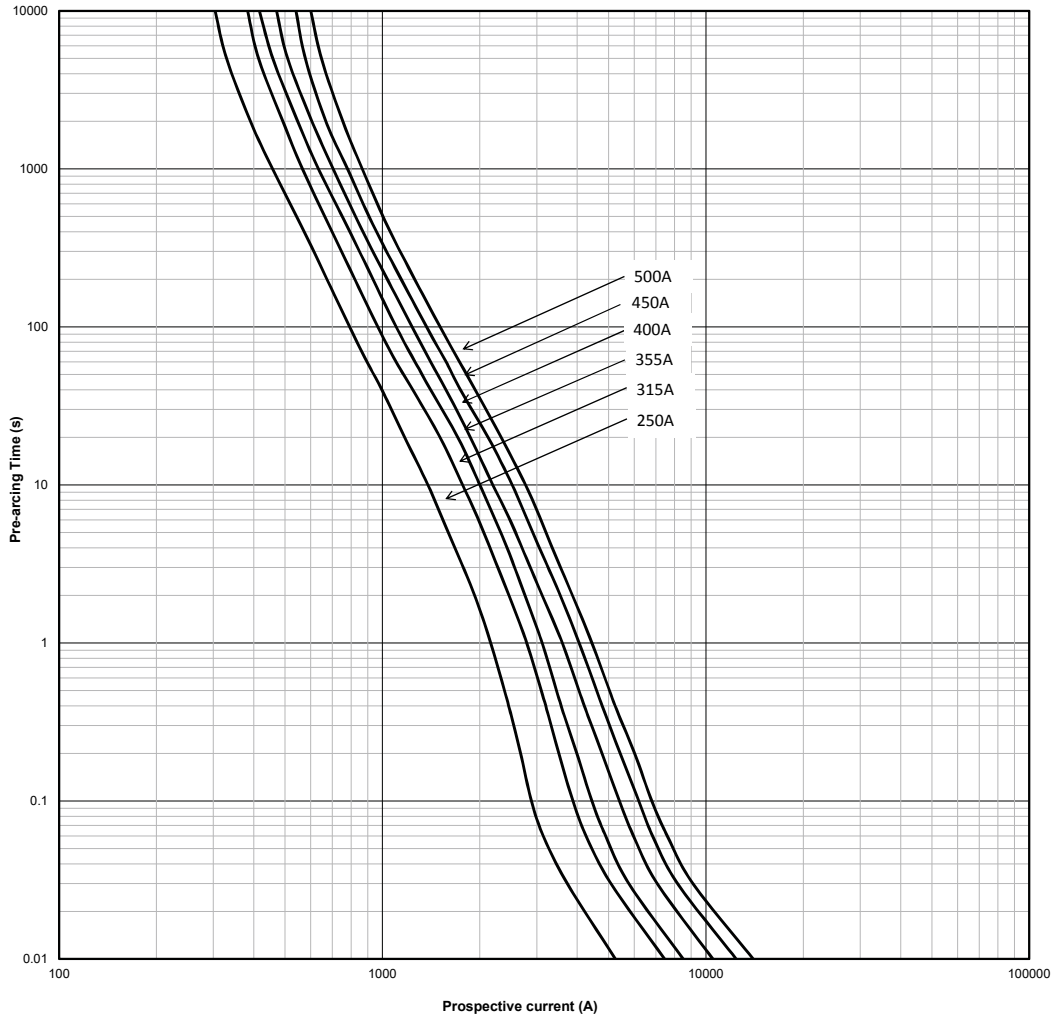





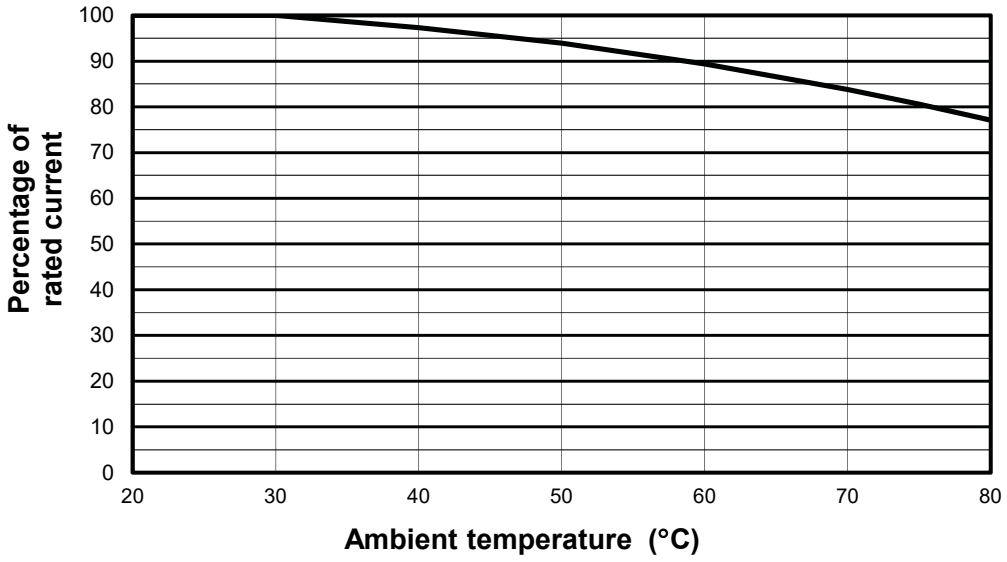

Data sheet: 135002

## 1500 V d.c. (IEC/UL) - 250 A to 500 A - XL Style - BSF-3XL

### Time-current curve - Size 3, 250 A to 500 A




### Temperature derating

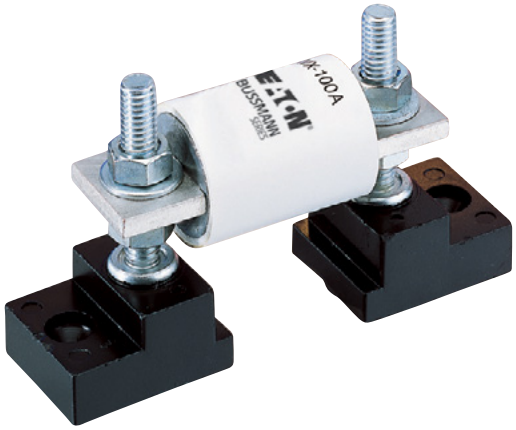



Data sheet: 135002

# Modular style fuse bases for North American, British and square body fuse links

## Description

Eaton's Bussmann series offers a comprehensive line of fuse bases that provide the user with design and manufacturing flexibility. Two identical half bases make up a Bussmann series modular fuse base. These 'split' units can be panel mounted any distance apart to accomodate any length fuse.



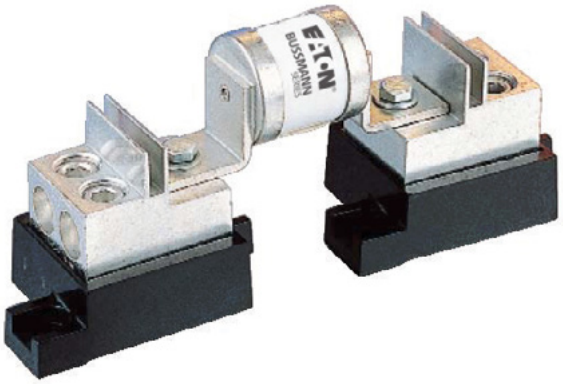

### 1 - Stud type

The simpler design is the C5268 modular fuse base. With this design, the fuse terminal and cable (with termination) are mounted on the same stud, minimizing labor needed for installation.
The stud type base is available in the configurations shown in the table below.

| Catalogue numbers | Max fuse amp rating | Stud height (in) | Stud dia. & threads |
|---|---|---|---|
| C5268-1 | 200 | 1 | 5/16"-18 |
| C5268-2 | 200 | 1.75 | 5/16"-18 |
| C5268-3 | 200 | 0.75 | 5/16"-18 |
| C5268-4 | 100 | 1 | 1/4"-20 |
| C5268-5 | 100 | 1.75 | 1/4"-20 |

### 2 - Connector Type

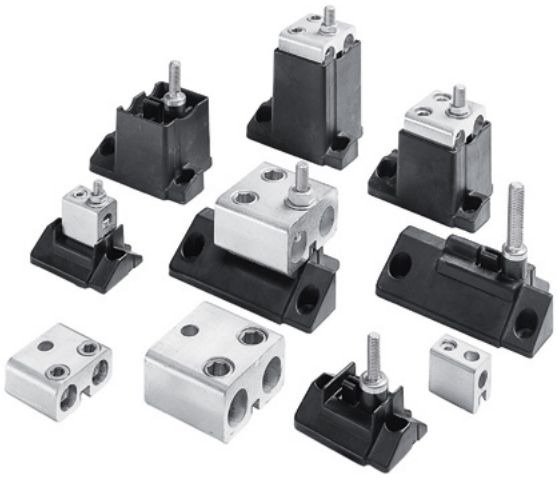
Eaton's Bussmann series also offers a modular style fuse base that utilises a tin-plated connector for wire termination and heat dissipation) and a plated-steel stud (for fuse mounting).
The connector type fuse base is available in the configurations shown below. Consult Eaton for additional product details.




| Catalogue numbers | Max rated voltage | Max fuse Amp rating |
|---|---|---|
| 1BS101 | 600 | 100 |
| 1BS102 | 600 | 400 |
| 1BS103 | 600 | 400 |
| 1BS104 | 600 | 600 |

### 3 - BH

BH fuse blocks provide a wide range of mounting configurations for Bussmann High Speed semi-conductors fuse links. BH fuse blocks have a Short-Circuit rated current rating of any installed fuse up to 200 kA RMS Sym.



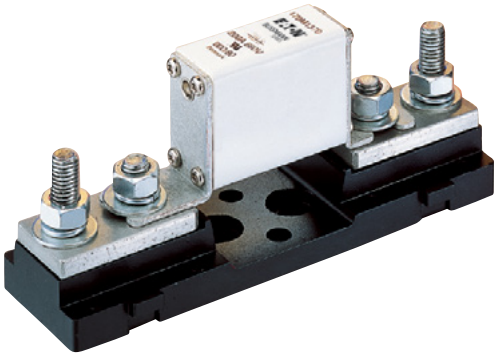
| Catalogue numbers | Max rated voltage | Max fuse Amp rating |
|---|---|---|
| BH-0 | 700 | 100 |
| BH-1 | 2500 | 400 |
| BH-2 | 5000 | 600 |
| BH-3 | 1250 | 700 |

Data sheets: 1200 (BH-0), 1201 (BH-1), 1202 (BH-2), 1203 (BH-3), 1206 (1BS101), 1207 (1BS102), 1208 (1BS103), 1209 (1BS104)

# Fixed center fuse bases for DIN 43653 square body fuse links

## Description

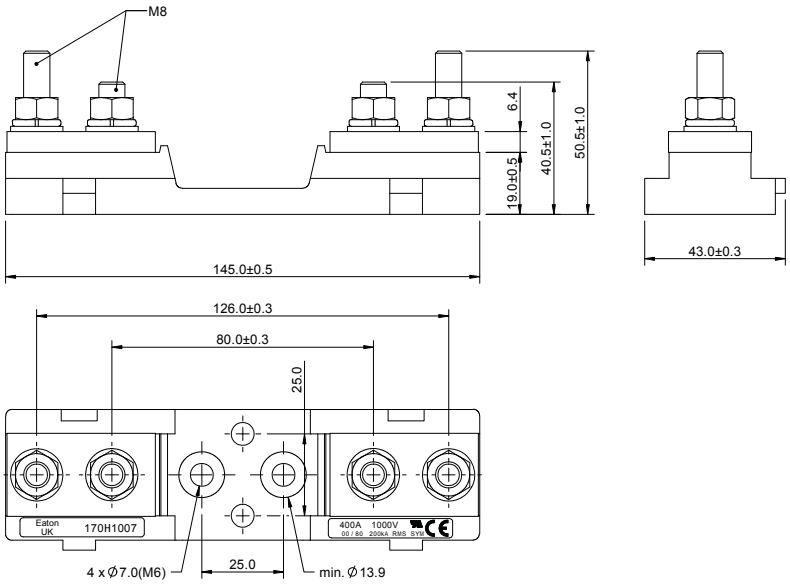
Fuse bases (blocks) to be used with DIN 43653 square body fuse links with centre distances of 80 and 110mm. Available for sizes 000, 00, 1*, 1, 2 and 3.

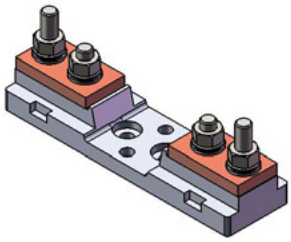


## Sizes 000 to 00 Fuse bases

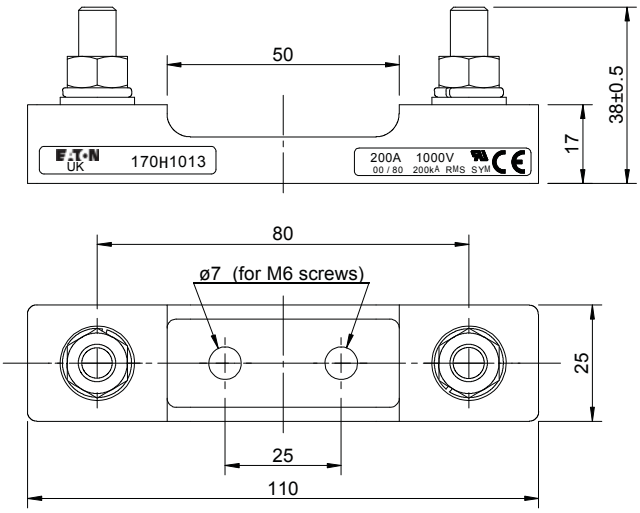
| Catalogue numbers | Max rated voltage (Volts) | Max fuse Amp rating (Amps) | Centre distance (mm) | Fuse sizes |
|---|---|---|---|---|
| 170H1007 | 1000 | 400 | 80 | 00, 000 |
| 170H1013 | 690 | 200 | 80 | 0000, 000 |

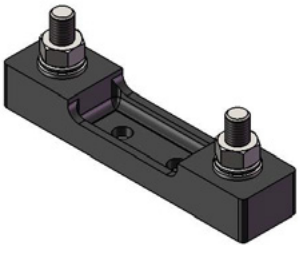
## Dimensions (mm) - 170H1007



## Dimensions (mm) - 170H1013



# Accessories

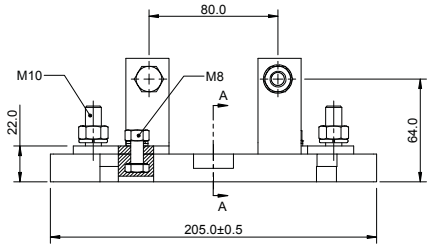
## Fixed center fuse bases for DIN 43653 square body fuse links

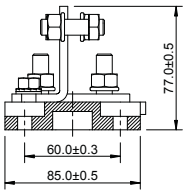
### Sizes 1* to 3

| Catalogue numbers | Max rated voltage (Volts) | Max fuse Amp rating (Amps) | Centre distance (mm) |
|---|---|---|---|
| 170H3003 | 1000 V a.c./V d.c. | 630 | 80 |
| 170H3004 | 1000 V a.c./V d.c. | 1250 | 80 |
| 170H3005 | 1400 V a.c./V d.c. | 630 | 110 |
| 170H3006 | 1400 V a.c./V d.c. | 1250 | 110 |

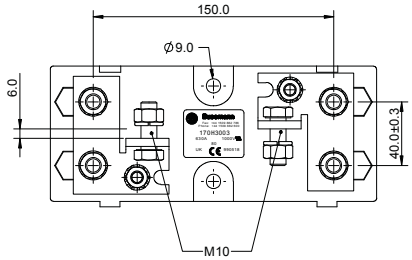


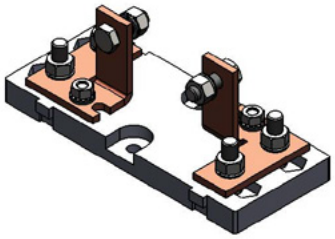
### Dimensions (mm) - 170H3003



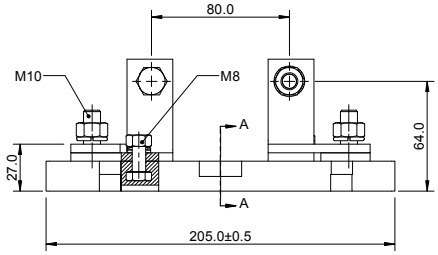



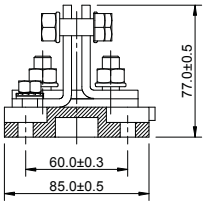

SECTION A-A



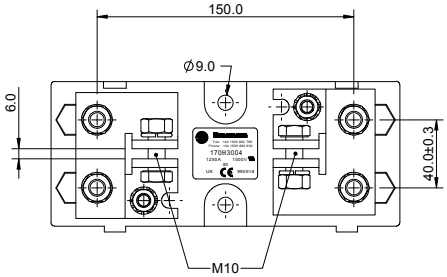



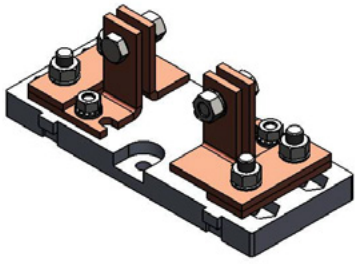
### Dimensions (mm) - 170H3004



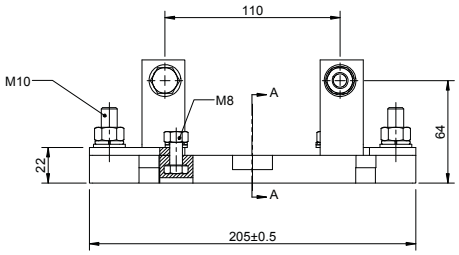

SECTION A-A

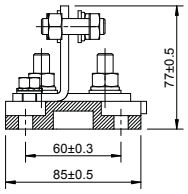


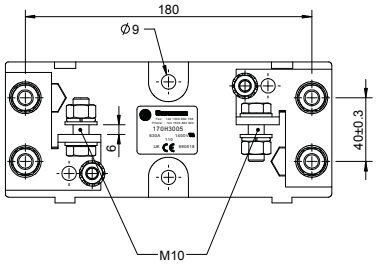
# Fixed center fuse bases for DIN 43653 square body fuse links

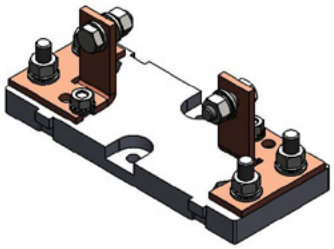
## Dimensions (mm) - 170H3005



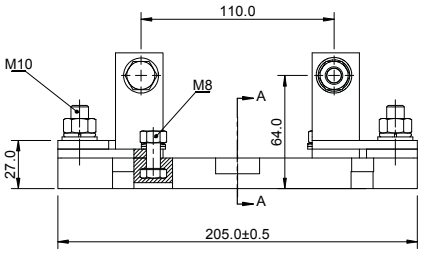



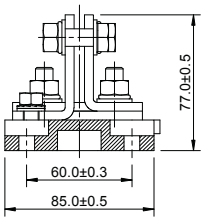

SECTION A-A



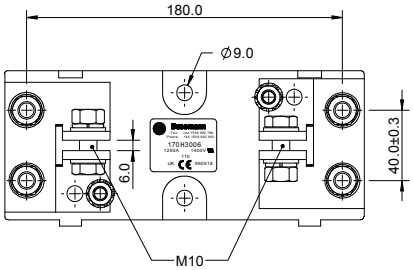



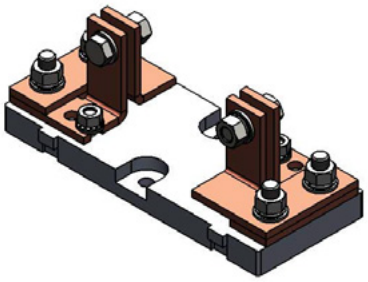
## Dimensions (mm) - 170H3006




SECTION A-A



Fuse links with higher current ratings than 1250 A can be used with 170H3004 or 170H3006 if the maximum load current is derated according to the table below.

| Fuse amp rating | Max. Amp load in fuse base |
|---|---|
| 1400 | 1325 |
| 1500 | 1400 |
| 1600 | 1500 |
| 1800 | 1650 |
| 2000 | 1800 |

# Fuse bases for ferrule fuse links, 600 V a.c. (UL) - 30 A - BMM

## Description

Modular, open-style fuse blocks for cylindrical industrial fuse links. Versatile 35mm DIN rail or screw-to-panel mounting.




## Technical data

- Rated voltage: 600 V a.c. (UL)
- Rated current:
  - 30 A (box lug terminal)
  - 20 A (with quick connector terminal)
- Compatible fuse links:
  - FWA-A10F
  - FWC-A10F
  - PVM
  - PV-A10F

## Standards / Agency information

- UL Recognised E14853-IZLT2
- CSA Certified 47235-6225-01
- CE
- RoHS compliant
- Conflict mineral free
- Reach declaration available upon request

## Catalogue numbers

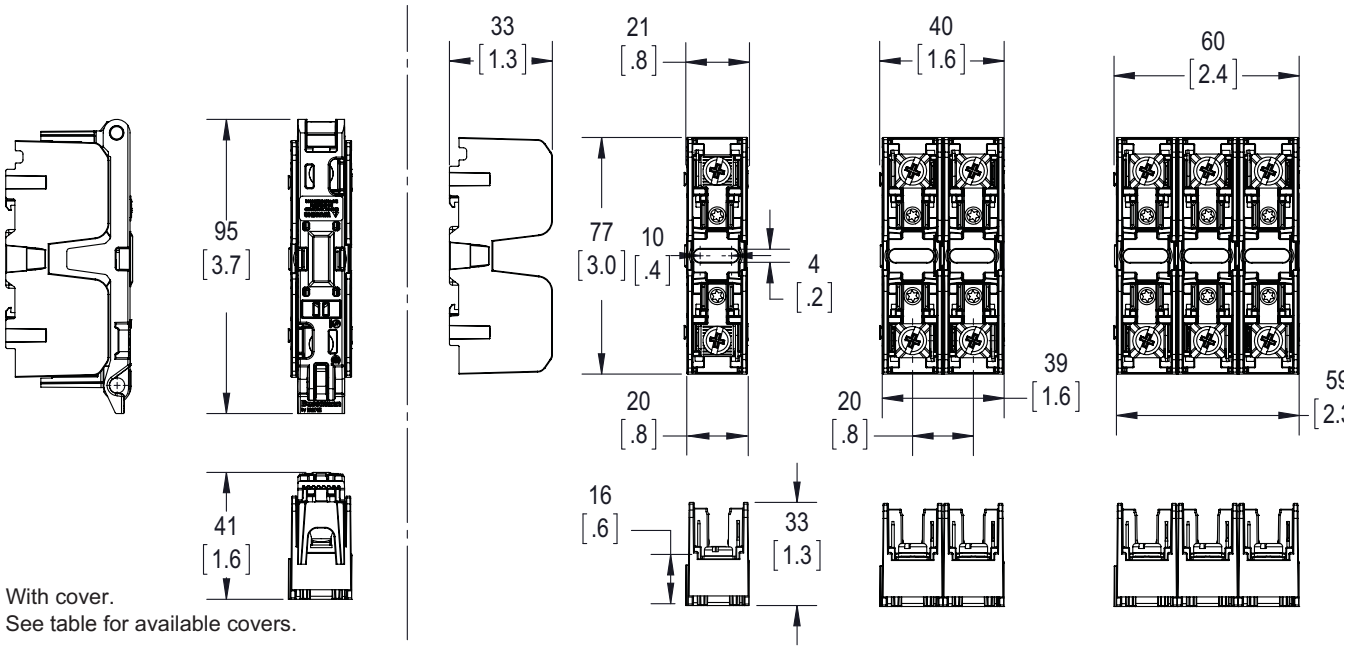
| Terminal type | | | | |
|---|---|---|---|---|
| **Screw w/quick connect[1]** | **Pressure plate w/quick connect[1]** | **Box lug** | **Fuse link size** | **Number of poles** |
| BMM603-1SQ | BMM603-1PQ | BMM603-1C | 10 x 38 (13/32" x 1-1/2") | 1 |
| BMM603-2SQ | BMM603-2PQ | BMM603-2C | 10 x 38 (13/32" x 1-1/2") | 2 |
| BMM603-3SQ | BMM603-3PQ | BMM603-3C | 10 x 38 (13/32" x 1-1/2") | 3 |

[1] Quick connect terminals rated for 20 A maximum.

Data sheet: 1104

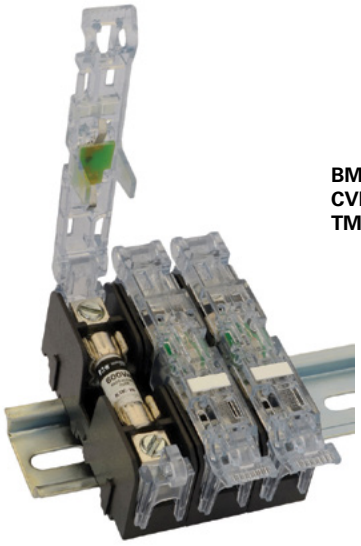
# Fuse bases for ferrule fuse links - 600 V a.c. (UL) - 30 A - BMM

## Dimensions mm (in)




## Recommended covers

| | Cover part numbers | |
|---|---|---|
| **Terminal type** | **Indicating** | **Non indicating** |
| Box lug (CR) | CVRI-CCM | CVR-CCM |
| Screw/quick connect (SQ) | CVRI-CCM-QC | CVR-CCM-QC |
| Pressure plate/quick connect (PQ) | CVRI-CCM-QC | CVR-CCM-QC |



**BMM603-3C with CVRI-CCM covers and TM27CB marker labels**

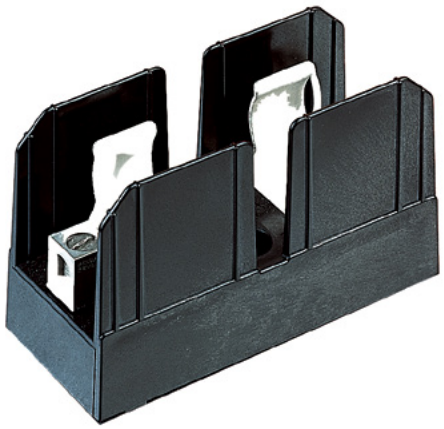
Data sheet: 1104

# Accessories

## Fuse bases for ferrule fuse links, 700 V a.c. (UL) - 100 A - JM70100

### Description

Modular, open-style fuse blocks for cylindrical industrial fuse links. Versatile 35mm DIN rail or screw-to-panel mounting.



### Technical data

- Rated voltage: 700 V a.c. (UL)
- Rated current: 100 A
- Compatible fuse links: FWP-A22F(I)

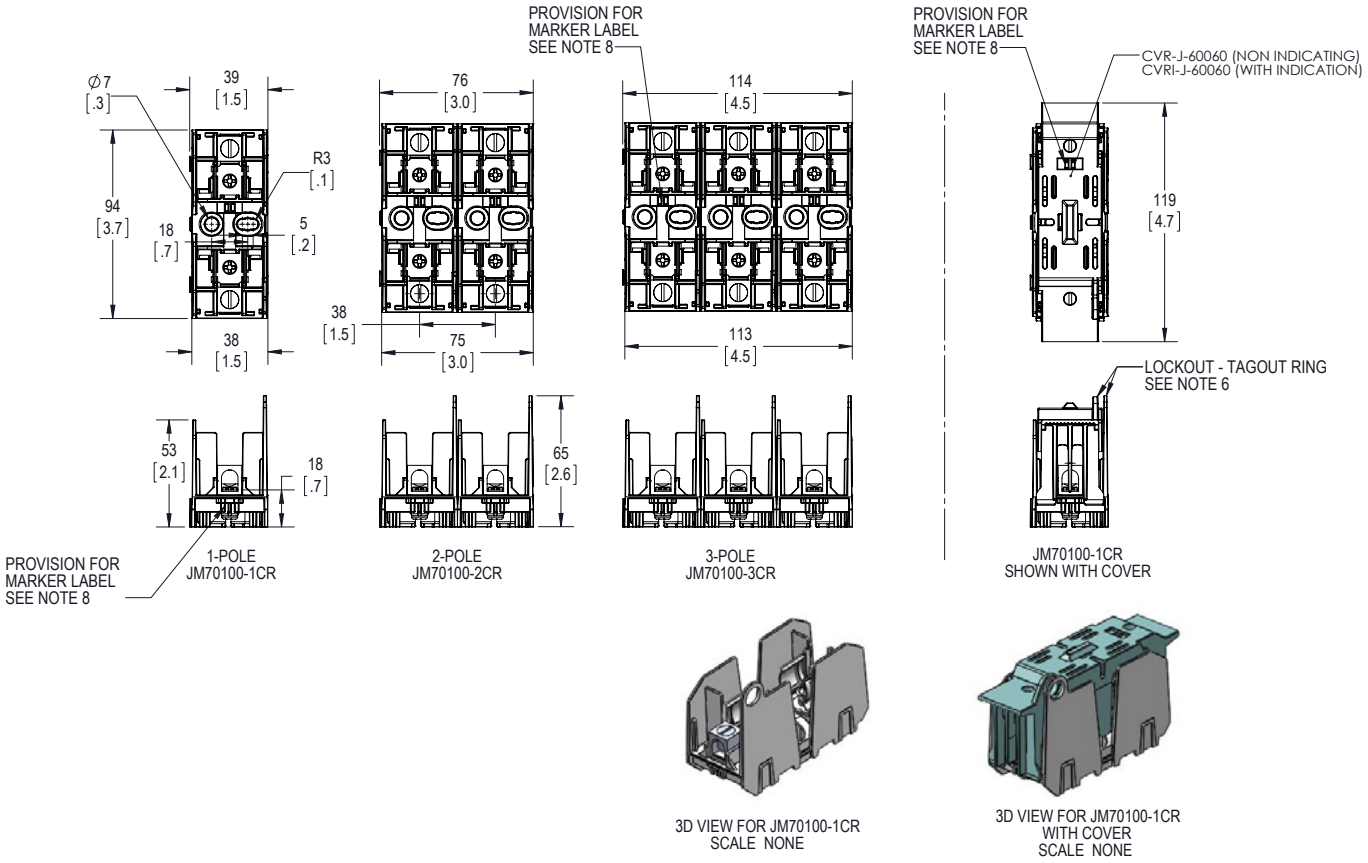
### Standards / Agency information

UL Recognised, Guide IZTL2, File 14853.

### Catalogue numbers

| Terminal type | | |
|---|---|---|
| **Box lug with retaining clip** | **Fuse link size** | **Number of poles** |
| JM70100-1CR | 22 x 58 mm | 1 |
| JM70100-2CR | | 2 |
| JM70100-3CR | | 3 |

### Dimensions mm (in)






3D VIEW FOR JM70100-1CR
SCALE NONE



3D VIEW FOR JM70100-1CR
WITH COVER
SCALE NONE

Data sheet: 1211

# Modular knifeblade fuse blocks - 600 V a.c. (UL)- 70 A to 600 A - JM60

## Description

Industry's first modular fuse block simplifies design and enhances safety.



## Technical data

- Rated voltage: 600V a.c. (UL)
- Rated current: see table below
- Compatible fuse links: DFJ

## Standards / Agency information

Blocks

- UL - Listed cULus E14853 - IZLT & IZLT7
- CSA - Certified 47235-6225-01

Covers

- UL - Listed UL E58836 - JDVS2
- CSA - Certified 47235-6225-01

| Catalogue numbers | | | | | | |
|---|---|---|---|---|---|---|
| Class J Block | Covers without indication* | Covers with indication* | Rated voltage | Rated current (Amps) | Number of poles | Compatible Bussmann series fuse links |
| JM60100-1CR | CVR-J-60100 | CVRI-J-60100 | 600 V a.c. | 70-100 | 1 | DFJ |
| JM60100-2CR | | | | | 2 | |
| JM60100-3CR | | | | | 3 | |
| JM60200-1CR | CVR-J-60200 | CVRI-J-60200 | 600 V a.c. | 110-200 | 1 | |
| JM60200-2CR | | | | | 2 | |
| JM60200-3CR | | | | | 3 | |
| JM60400-1CR | CVR-J-60400-M | CVRI-J-60400-M | 600 V a.c. | 225-400 | 1 | |
| JM60400-2CR | | | | | 2 | |
| JM60400-3CR | | | | | 3 | |
| JM60600-1CR | CVR-J-60600 | CVRI-J-60600 | 600 V a.c. | 450-600 | 1 | |
| JM60600-2CR | | | | | 2 | |
| JM60600-3CR | | | | | 3 | |

* Covers sold separately. Blown fuse indication requires 90 volts minimum and closed circuit to operate.

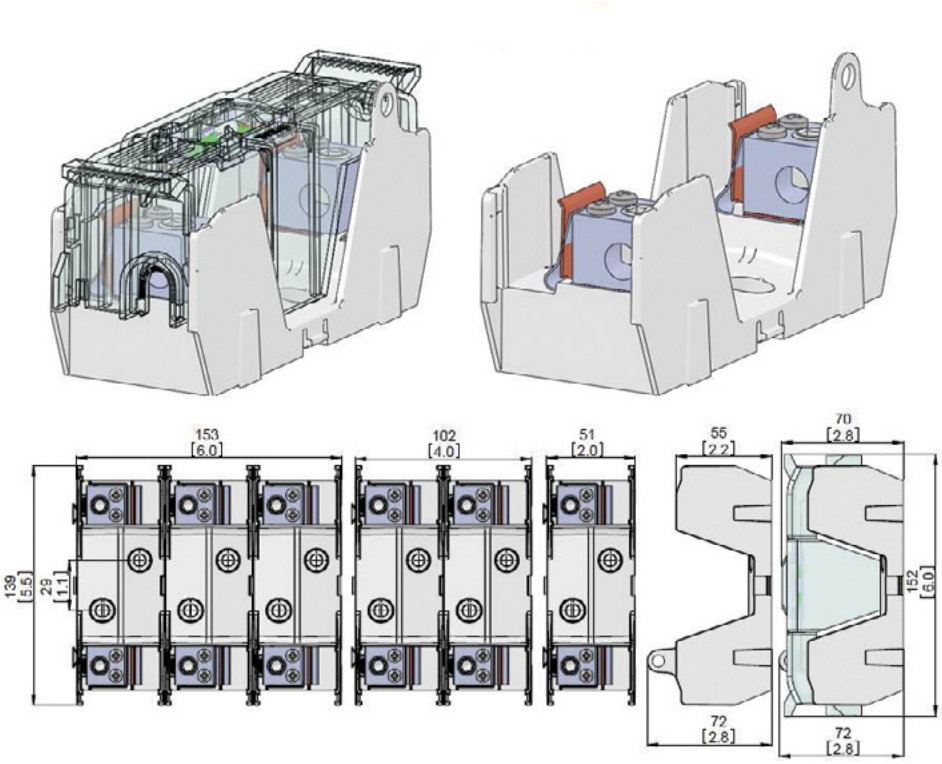
## Wire range and torque values

| Catalogue numbers<br>Class J Block | Wire range (solid and stranded) | Wire range (fine stranded) | Torque N•m (Lb-in) |
|---|---|---|---|
| JM60100-1CR | 1/0-3 AWG; (2) Cu 4-6 AWG<br>4-6 AWG; (2) Cu 8 AWG<br>8 AWG; (2) Cu 10-14 AWG<br>Cu 10-14 AWG; Al 10-12 AWG | 1-3 AWG<br>4-6 AWG<br>8 AWG | 6.2 (55)<br>5.6 (50)<br>5.1 (45)<br>4.5 (40)<br>4.0 (35) |
| JM60100-2CR | | | |
| JM60100-3CR | | | |
| JM60200-1CR | 250 MCM -1 AWG<br>2-6 AWG; (2) Cu 2-6 AWG | 3/0-1 AWG<br>2-6 AWG | 42 (375)<br>31 (275) |
| JM60200-2CR | | | |
| JM60200-3CR | | | |
| JM60400-1CR | 600kcmil<br>500kcmil-4 AWG<br>(2) Cu 3/0 - 4 AWG<br>(2) Al 3/0 - 4 AWG | N/A | 57 (500)<br>51 (450)<br>57 (500)<br>34 (300) |
| JM60400-2CR | | | |
| JM60400-3CR | | | |
| JM60600-1CR | (2) 500kcmil-4 AWG | N/A | 51 (450) |
| JM60600-2CR | | | |

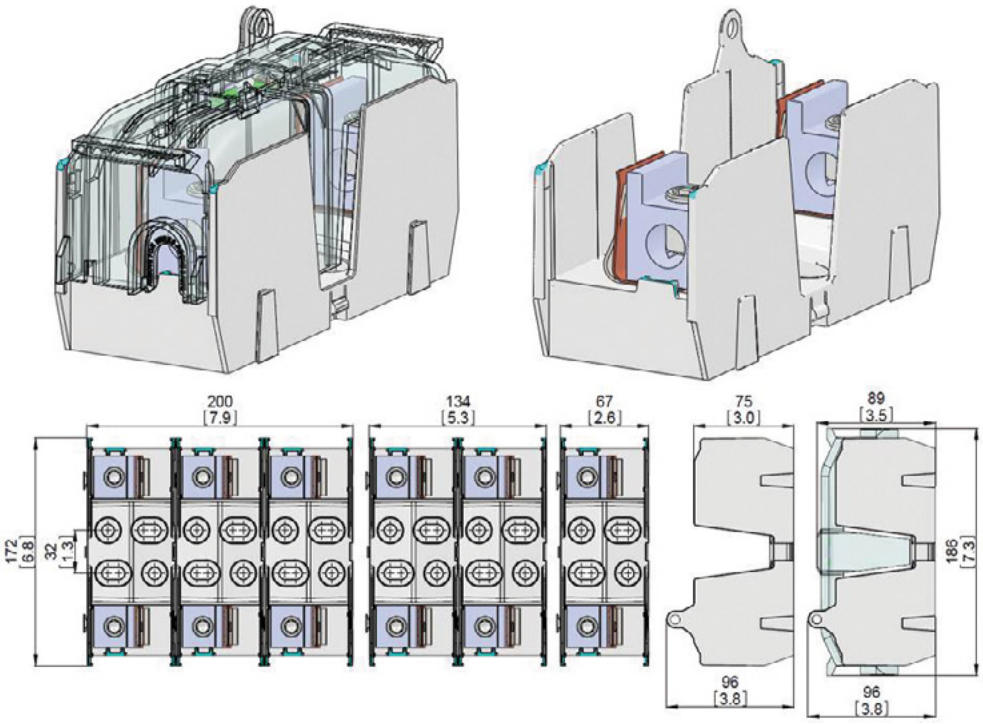
# Accessories

## Modular knifeblade fuse blocks - 600 V a.c. (UL)- 70 A to 600 A - JM60

### Dimensions mm (in) - 100 A

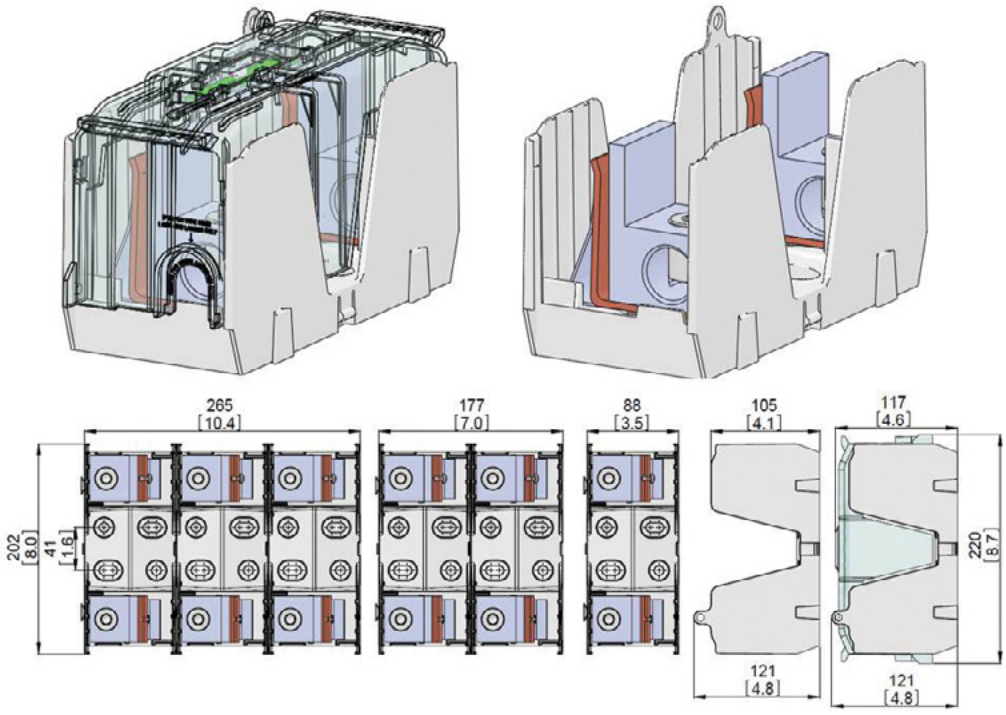



### Dimensions mm (in) - 200 A

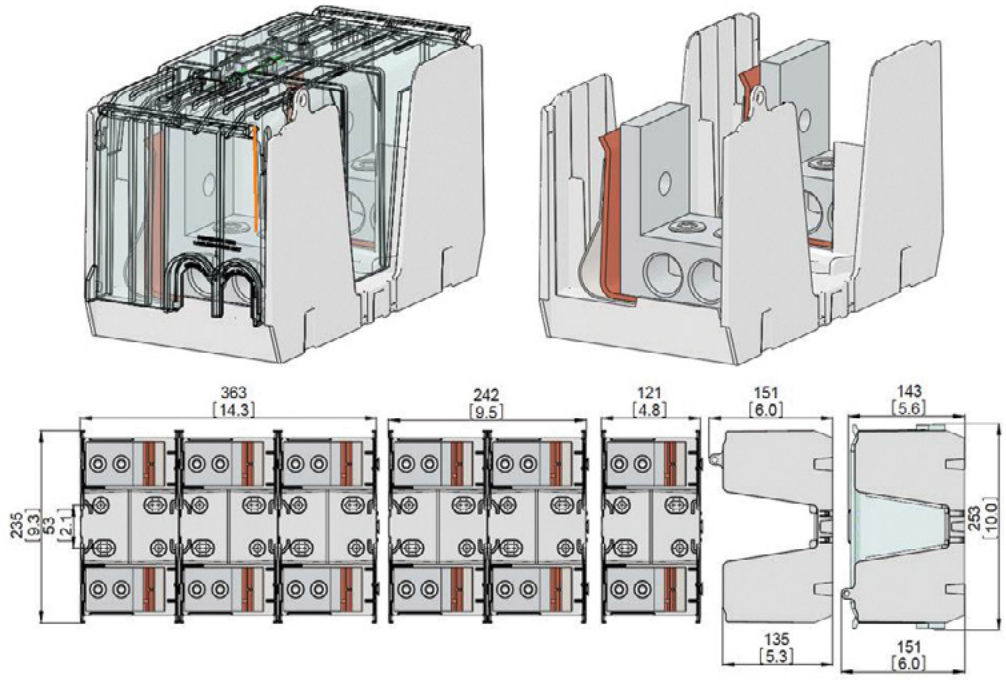


# Modular knifeblade fuse blocks - 600 V a.c. (UL)- 70 A to 600 A - JM60

## Dimensions mm (in) - 400 A




## Dimensions mm (in) - 600 A



# Modular fuse holders for 10 x 38 mm fuse links - CHM

## Description

Compact DIN-Rail mounting fuse holders for 10 x 38 mm cylindrical fuse links



## Technical data

See table page 384

## Catalogue numbers

| Catalogue number | Number of poles | Description |
|---|---|---|
| **Modular fuse holders for IEC industrial applications (Red)** | | |
| **Neutral only** | | |
| CHM1DNXU | 1 | Neutral fuse holder |
| **Fuse holder only** | | |
| CHM1DU | 1 | 1-pole modular fuse holder |
| CHM2DU | 2 | 2-pole modular fuse holder |
| CHM3DU | 3 | 3-pole modular fuse holder |
| CHM4DU | 4 | 4-pole modular fuse holder |
| **Fuse holder and neutral** | | |
| CHM1DNU | 2 | 1-pole + neutral modular fuse holder |
| CHM3DNU | 4 | 3-pole + neutral modular fuse holder |
| **Fuse holder with neon indicator** | | |
| CHM1DIU | 1 | 1-pole modular fuse holder with neon indicator |
| CHM2DIU | 2 | 2-pole modular fuse holder with neon indicator |
| CHM3DIU | 3 | 3-pole modular fuse holder with neon indicator |
| CHM4DIU | 4 | 4-pole modular fuse holder with neon indicator |
| **Fuse holder with neon indicator and neutral** | | |
| CHM1DNIU | 2 | 1-pole + neutral modular fuse holder with neon indicator |
| CHM3DNIU | 4 | 3-pole + neutral modular fuse holder with neon indicator |
| **Fuse holder with LED Indicator** | | |
| CHM1DI-48U | 1 | 1-pole modular fuse holder with LED indicator |
| **Modular fuse holders for photovoltaic applications (Yellow)** | | |
| **Fuse holder only** | | |
| CHPV1U | 1 | 1-pole modular fuse holder |
| CHPV2U | 2 | 2-pole modular fuse holder holder |
| **Fuse holder with neon indicator** | | |
| CHPV1IU | 1 | 1-pole modular fuse holder  with neon indicator |
| CHPV2IU | 2 | 2-pole modular fuse holder with neon indicator |
| **Modular fuse holders for UL Class CC applications (Black)** | | |
| **Fuse holder only** | | |
| CHCC1DU | 1 | 1-pole modular fuse holder |
| CHCC2DU | 2 | 2-pole modular fuse holder |
| CHCC3DU | 3 | 3-pole modular fuse holder |
| **Fuse holder with neon indicator** | | |
| CHCC1DIU | 1 | 1-pole modular fuse holder with neon indicator |
| CHCC2DIU | 2 | 2-pole modular fuse holder with neon indicator |
| CHCC3DIU | 3 | 3-pole modular fuse holder with neon indicator |
| **Fuse holder with LED Indicator** | | |
| CHCC1DI-48U | 1 | 1-pole modular fuse holder with LED indicator |

Data sheet: 720147

# Modular fuse holders for 10 x 38 mm fuse links - CHM

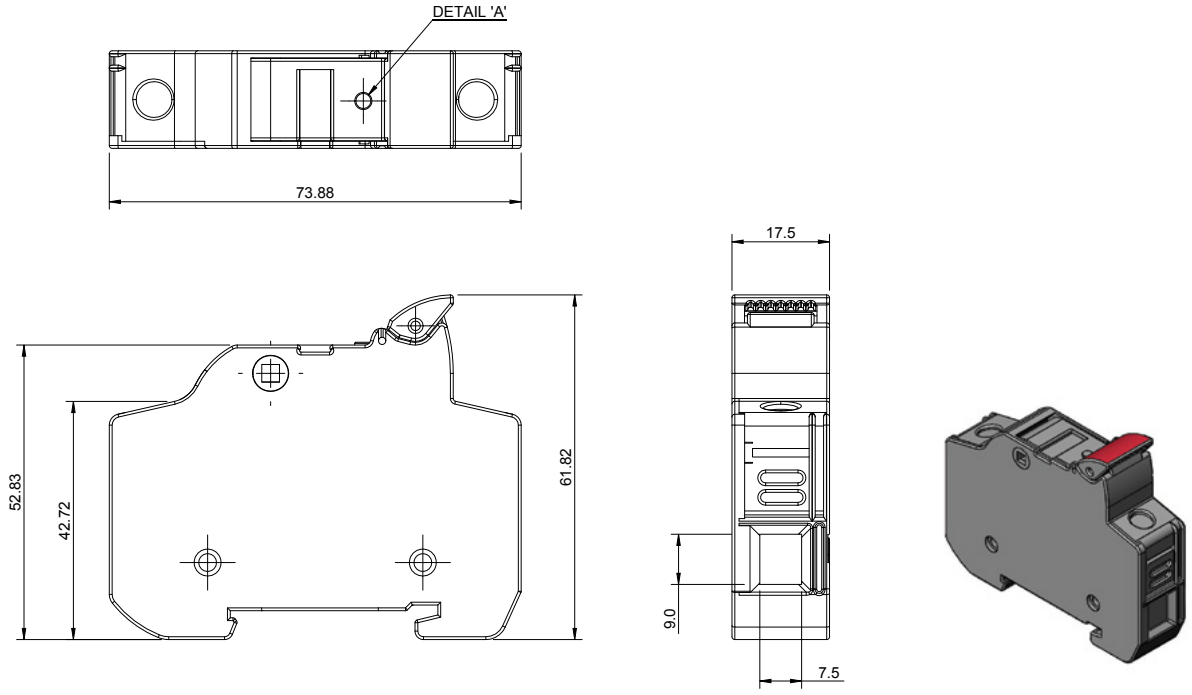
## Technical data

| Type | Rated voltage | | Rated current | | Terminal rating | Rated breaking withstand capactiy | Compatible Bussmann series fuse links |
|---|---|---|---|---|---|---|---|
| | IEC | UL | IEC | UL | | | |
| **Modular fuse holders for IEC industrial applications (Red)** | | | | | | | |
| CHM1 | 690 V a.c. | 600 V a.c. | 32 A | 30 A | IEC 1 to 25 mm² 70°C PVC Copper cable (solid stranded or fine stranded) Spade lug Comb bus bar | IEC 120 kA rms sym<br>UL 200 kA rms sym<br>CCC 100 kA rms sym | IEC: C10 and FWP-G10F<br>UL: FNQ, KLM, FNM, KTK, BAF, FWA, PVM, AGU, BAN, FWC |
| CHM_DN(X)U | 690 V a.c. | 600 V a.c. | 32 A | 30 A | | | |
| CHM1DI-48U | 48 V d.c. | 48 V d.c. | 32 A | 30 A | | | |
| **Modular fuse holders for Photovoltaic applications (Yellow)** | | | | | | | |
| CHPV | 1000 V d.c. | 1000 V d.c. | 32 A | 30 A | IEC 1 to 25 mm² 70°C PVC Copper cable (solid stranded or fine stranded) Spade lug Comb bus bar | 33 kA rms sym | Solar PV range: PVM, PV-A10F |
| **Modular fuse holders for UL Class CC Industrial applications (Black)** | | | | | | | |
| CHCC | N/A | 600 V a.c. | N/A | 30 A | Cable 75°C and 90°C Cu cable | 200 kA rms sym | LP-CC, FNQ-R, KTK-R |
| CHCC1DI-48U | N/A | 48 V d.c. | N/A | 30 A | | | |

## Standards / Agency information

| | IEC | UL | CSA | CCC | CE |
|---|---|---|---|---|---|
| CHMD(I)U | IEC 60269-1<br>IEC 60269-2 | UL 4248-1<br>UL file E14853 | C22.2 No 4248.1 | GB 13539.1<br>GB 13539.2 | DCB 272 |
| CHMDN(I)U | IEC 60269-1<br>IEC 60269-2 | UL 4248-1<br>UL file E14853 | C22.2 No 4248.1 | GB 13539.1<br>GB 13539.2 | DCB 272 |
| CHM1DI-48U | IEC 60269-1<br>IEC 60269-2 | UL 4248-1<br>UL file E14853 | C22.2 No 4248.1 | GB 13539.1<br>GB 13539.2 | DCB 272 |
| CHM1DNXU | IEC 60269-1<br>IEC 60269-2 | UL 4248-1<br>UL file E14853 | C22.2 No 4248.1 | GB 13539.1<br>GB 13539.2 | DCB 272 |
| CHPV | IEC 60269-1 | UL 4248-1<br>UL4248-19<br>UL file E14853 | C22.2 No 4248.1<br>C22.2 No 4248.19 | GB 13539.1 | DCB 272 |
| CHCC1D(I) to CHCC3D(I)U | N/A | UL 4248-1<br>UL file E14853 | C22.2 No 4248.1 | N/A | Contact: fusetech@eaton.com |
| CHCC1DI-48U | N/A | UL 4248-1<br>UL file E14853 | C22.2 No 4248.1 | N/A | Contact: fusetech@eaton.com |

## Dimensions mm




Data sheet: 720147

# Accessories

## Modular fuse holders for 14 x 51 mm fuse links - 690 V a.c. / 750 and 1500V d.c. - 50 A - CHPV14

### Description

Compact DIN-Rail mount fuse holders for 14 x 51 mm cylindrical fuse links.
Available in different versions with neutral and microswitch.




### Technical data

Rated voltage & Rated current: see table page 390

### Compatible fuse links

- C14G and C14M14 x 51 mm gG and gM cylindrical fuse links
- FW Ferrule
  - FWH-A14F
  - FWX-A14F
  - FWP-A14F (please consult Eaton's bulehighspeedtechnical@eaton.com if you wish to use a FWP fuse link with a striker option)
  - FWP-G14F
- PV-A14F

### Standards / Agency information

IEC 60269-1 and 60269-2

### Catalogue numbers

| Catalogue number | Number of poles | Description |
|---|---|---|
| **Neutral only** | | |
| CH141DNXU | 1 | Neutral modular fuse fuse holder |
| **Fuse holder only** | | |
| CH141DU | 1 | 1-pole modular fuse holder |
| CH142DU | 2 | 2-pole modular fuse holder |
| CH143DU | 3 | 3-pole modular fuse holder |
| CH144DU | 4 | 4-pole modular fuse holder |
| **Fuse holder and neutral** | | |
| CH141DNU | 2 | 1-pole + neutral modular fuse holder |
| CH143DNU | 4 | 2-pole + neutral modular fuse holder |
| **Fuse holder with neon indicator** | | |
| CH141DIU | 1 | 1-pole modular fuse holder with neon indicator |
| CH142DIU | 2 | 2-pole modular fuse holder with neon indicator |
| CH143DIU | 3 | 3-pole modular fuse holder with neon indicator |
| CH144DIU | 4 | 4-pole modular fuse holder with neon indicator |
| **Fuse holder with neon indicator and neutral** | | |
| CH141DNIU | 2 | 1-pole + neutral modular fuse holder with neon indicator |
| CH143DNIU | 4 | 3-pole + neutral modular fuse holder with neon indicator |
| **Fuse holder with microswitch** | | |
| CH141DMSU-F | 1 | 1-pole modular fuse holder with microswitch for remote fuse indication operation |
| CH143DMSU-F | 3 | 3-pole modular fuse holder with microswitch for remote fuse indication operation |
| **Fuse holder with microswitch and neutral** | | |
| CH143DNMSU-F | 4 | 3-pole + neutral modular fuse holder with microswitch for remote fuse indication operation |
| **Fuse holder with LED Indicator** | | |
| CHPV141DI-48U | 1 | 1-pole modular fuse holder with LED indicator |
| **Fuse holder for photovoltaic applications** | | |
| CHPV141U | 1 | 1-pole modular fuse holder |
| CHPV141IU | 1 | 1-pole modular fuse holder with neon indicator |
| CHPV142U | 2 | 2-pole modular fuse holder holder |
| CHPV142IU | 2 | 2-pole modular fuse holder with neon indicator |

Data sheet: 10080

# Modular fuse holders for 14 x 51 mm fuse links - 690 V a.c. / 750 and 1500V d.c. - 50 A - CHPV14

## Technical data

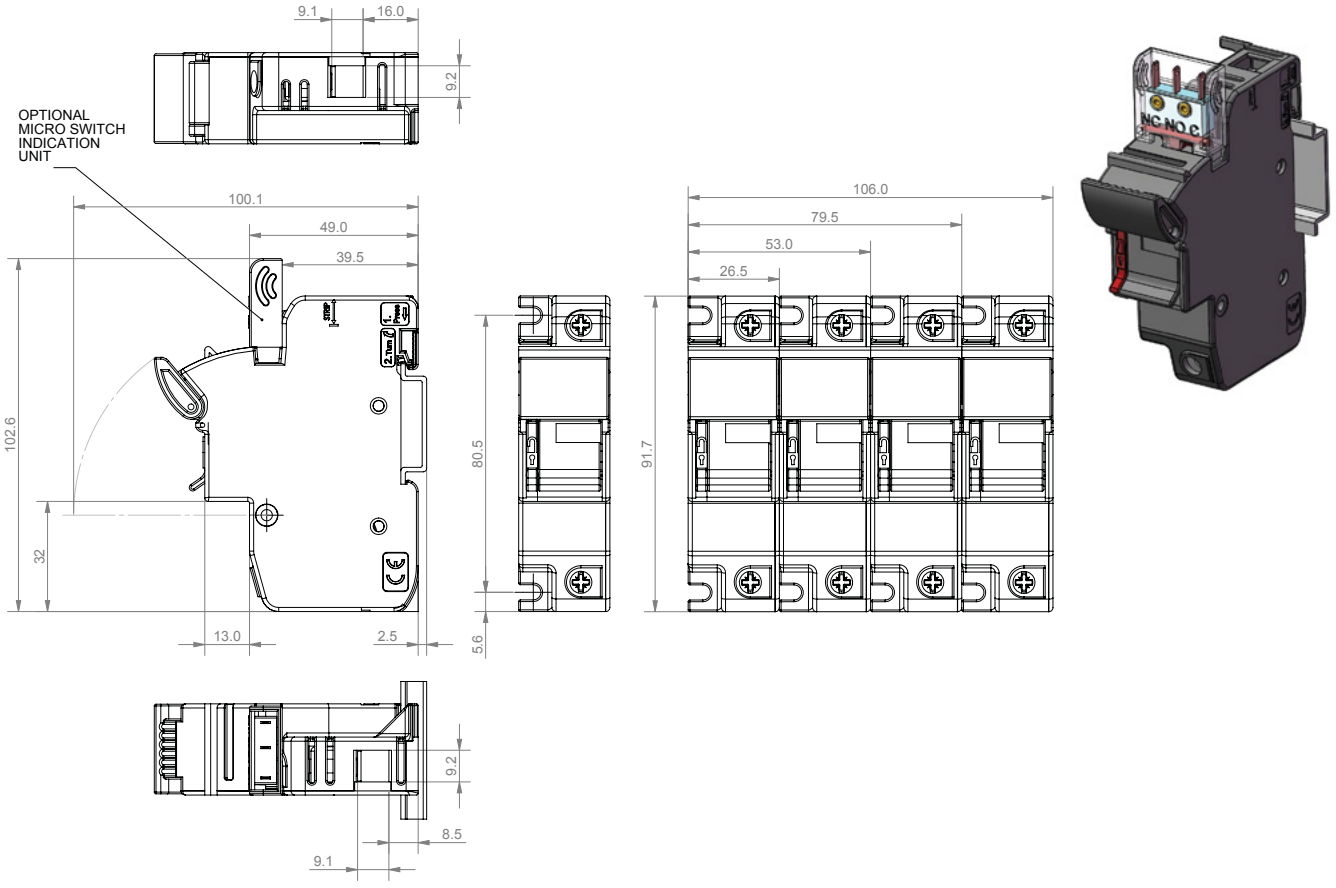
| Type | Rated current | | Rated voltage | | Agency markings | Terminal rating | Rated breaking withstand capactiy | Compatible Bussmann series fuse links |
|---|---|---|---|---|---|---|---|---|
| | IEC | UL | IEC | UL | | | | |
| CH14 | 50 A (a.c. and d.c.) | 50 A | 690 V a.c. / 750 V d.c. | 700 V a.c. | IEC 60269-1 and 2<br>UL Listed file number E14853 | Cable size: 1.5-50 $mm^2$<br>Recommended torque setting: 3.5 N•m<br>Maximum torque setting: 3.5 N•m<br>Mounting 35 mm DIN-Rail or 2 x M4 panel mounting screws | 120 kA a.c. | C14G and C14M<br>FWX-A14F[1]<br>FWH-A14F[1]<br>FWP-A14F<br>FWP-G14F |
| CHPV Photovoltaic | 50 A (a.c. and d.c.) | 50 A | 1500 V d.c. | 1500 V d.c. | IEC 60269-1 and 2<br>UL Listed file number E348242 | | 10 kA d.c. | PV-A14F |

[1] Maximum allowed continuous current applies. Please refer to data sheet for details.

## Accessories

| Catalogue numbers | Description | Unit packing |
|---|---|---|
| JV-L | Multi-pole connector kit. One kit will gang up to 4-poles together | 12 |
| CH14-SPS | Microswitch to work on CH141D(I)U, 1 n/o + 1 n/c changeover type | 3 |
| CH14-TPS | Microswitch to work on CH143D(I)U, 1 n/o + 1 n/c changeover type | 3 |
| CH14-CTP | IP20 protection accessory, provides IP20 protection to terminals with $10mm^2$ or less cable | 12 |

## Dimensions (mm)




Data sheet: 10080

# Accessories

## Modular fuse holders for 22 x 58 mm fuse links - 690 V a.c./1000 V d.c. - 125 A - CH22

### Description

Compact DIN-Rail mount fuse holders for 22 x 58 mm cylindrical fuse links. Available in different versions with neutral and microswitch.



### Technical data

Rated voltage & Rated current: see table below

### Compatible fuse links

- C22G and C22M 22 x 58 mm gG and gM cylindrical fuse links
- FWP-A22F Ferrule (please consult Eaton for derating information bulehighspeedtechnical@eaton.com
- FWP-G22F

**Standards / Agency information**

IEC 60269-1 and 60269-2

### Catalogue numbers

| Catalogue number | Number of poles | Description |
|---|---|---|
| **Neutral only** | | |
| CH221DNXU | 1 | Neutral holder |
| **Fuse holder only** | | |
| CH221DU | 1 | 1-pole modular fuse holder |
| CH222DU | 2 | 2-pole modular fuse holder |
| CH223DU | 3 | 3-pole modular fuse holder |
| CH224DU | 4 | 4-pole modular fuse holder |
| **Fuse holder with neon indicator** | | |
| CH221DIU | 1 | 1-pole modular fuse holder with neon indicator |
| CH222DIU | 2 | 2-pole modular fuse holder with neon indicator |
| CH223DIU | 3 | 3-pole modular fuse holder with neon indicator |
| CH224DIU | 4 | 4-pole modular fuse holder with neon indicator |
| **Fuse holder and neutral** | | |
| CH221DNU | 2 | 1-pole + neutral modular fuse holder |
| CH223DNU | 4 | 3-pole + neutral modular fuse holder |
| **Fuse holder with neutral and neon indicator** | | |
| CH221DNIU | 2 | 1-pole + neutral modular fuse holder + neon indicator |
| CH223DNIU | 4 | 3-pole + neutral modular fuse holder + neon indicator |
| **Fuse holder with microswitch** | | |
| CH221DMSU-F | 1 | 1-pole modular fuse holder with microswitch (pre-breaking/fuse operation) |
| CH223DMSU-F | 3 | 3-pole modular fuse holder with microswitch (pre-breaking/fuse operation) |
| **Fuse holder with neutral and microswitch** | | |
| CH223DNMSU-F | 3 | 3-pole modular fuse holder + neutral + microswitch (pre-breaking/fuse operation) |
| **Fuse holder with LED Indicator** | | |
| CH221DI-48U | 1 | 1-pole modular fuse holder with LED Indicator |

### Technical data

| Rated voltage | | Rated current | | | | | |
|---|---|---|---|---|---|---|---|
| IEC | UL | IEC | UL | Agency markings | Terminal rating | Rated breaking withstand capactiy | Compatible Bussmann series fuse links |
| 690 V a.c.<br>1000 V d.c. | 700 V a.c. | 125 A (a.c. and d.c.) | 100 A (a.c.) | IEC 60269-1 and 2<br><br>UL Listed file number E14853 | Cable size: 2.5-70 $mm^2$<br><br>Recommended torque setting: 4 N•m<br>Maximum torque setting: 5 N•m<br><br>Mounting 35 mm DIN-Rail or 2 x M4 panel mounting screws | 120 kA a.c.<br>50 kA d.c. | FWP Ferrule[1] |

[1] Maximum allowed continuous current applies. Please refer to data sheet for details.

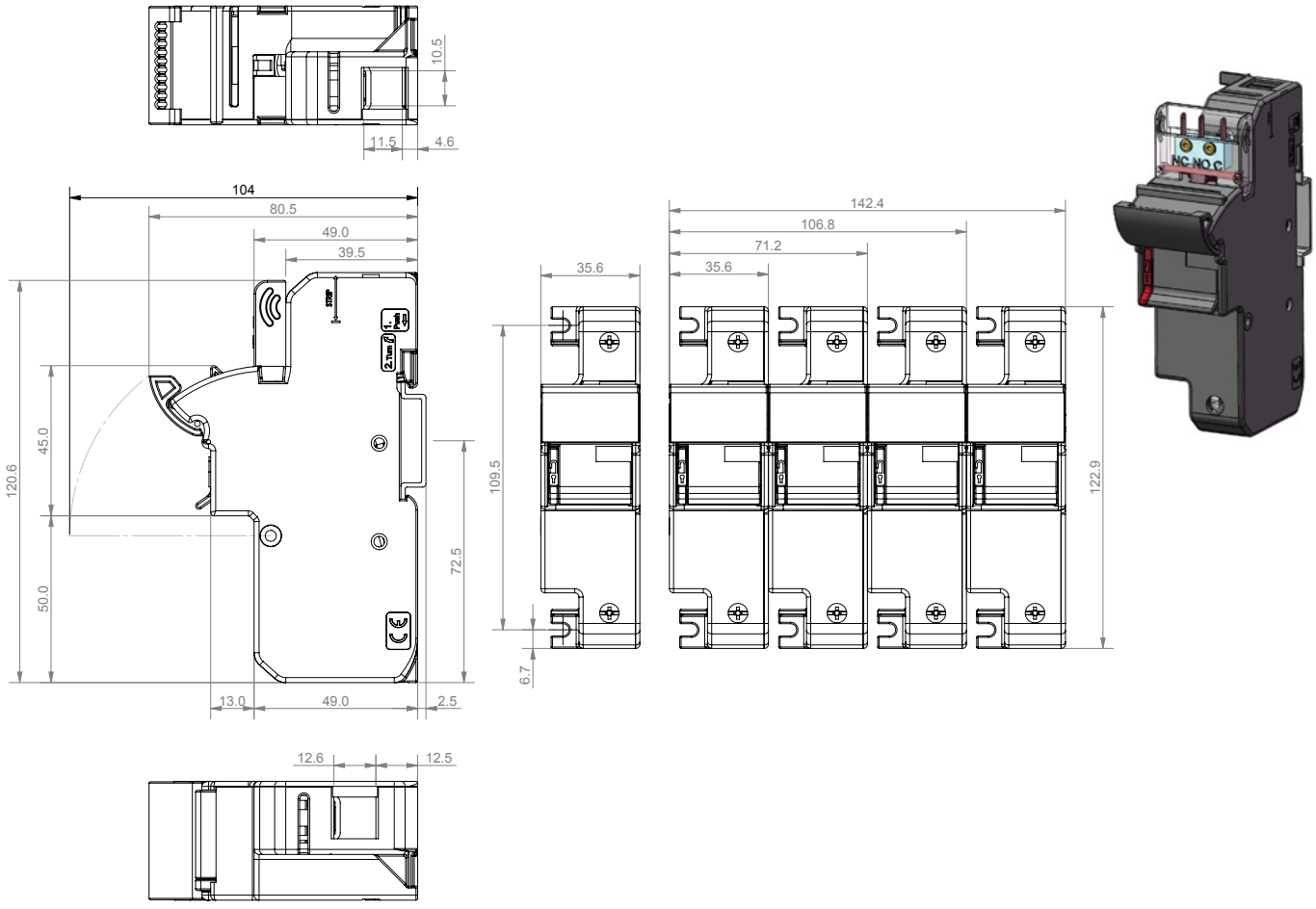
Data sheet: 10115

# Modular fuse holders for 22 x 58 mm fuse links - 690 V a.c./1000 V d.c. - 125 A - CH22

## Accessories

| Catalogue numbers | Description | Unit packing |
|---|---|---|
| JV-L | Multi-pole connector kit. One kit will gang up to 4-poles together | 12 |
| CH22-CTP | IP20 protection accessory, provides IP20 protection to terminals with 10mm$^2$ or less cable | 12 |
| CH22-SPS | Microswitch to work on CH221D(I)U, 1 n/o + 1 n/c changeover type | 3 |
| CH22-TPS | Microswitch to work on CH223D(I)U, 1 n/o + 1 n/c changeover type | 3 |

## Dimensions (mm)

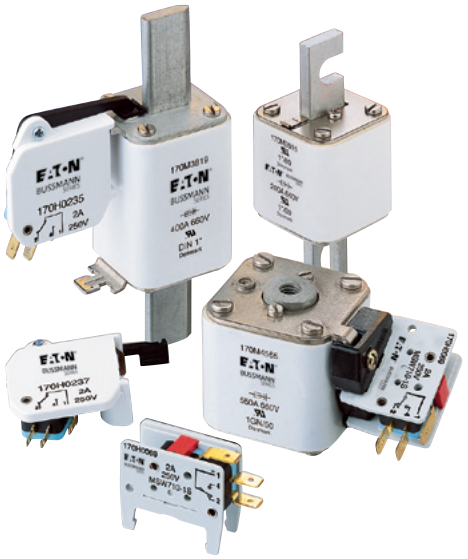



Data sheet: 10115

# Accessories

## Microswitches for square body fuse links - indicator systems - 170H

High Speed square body fuse links are available with three different indicators.



### 1 - Visual Indicator

The indicator situated in one end plate is clearly visible as soon as the fuse link has operated. The minimum rated voltage for operating the indicator is 20 V.

### 2 - Type T Indicator

The indicator is situated on one cover plate with a cover plate tag to accomodate an auxiliary switch. The minimum rated voltage for operating the indicator is 20 V. A special low rated voltage indicator (1.5V) is available on request).

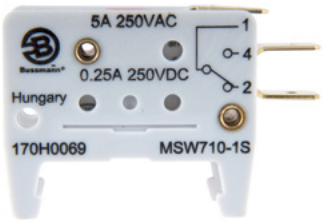
### 3 - Type K Indicator

The indicator is situated on the fuse link body. It is covered by an adaptor for snap-on mounting of an auxiliary switch. The operating Rated voltage of the indicator is 1.5V. As a matter of safety, the factory mounted adaptor must not be removed from the fuse link.

## Microswitches

### Specifications

High Speed square body fuse links with either Type T indicator or Type K indicator can be equiped with a microswitch. For remote electrical indication of fuse link operations. All microswitches have one normally open and one normally closed contact.







### Technical data

- Rated voltage: 10-250 V a.c.
- Rated current: 30mA-2A

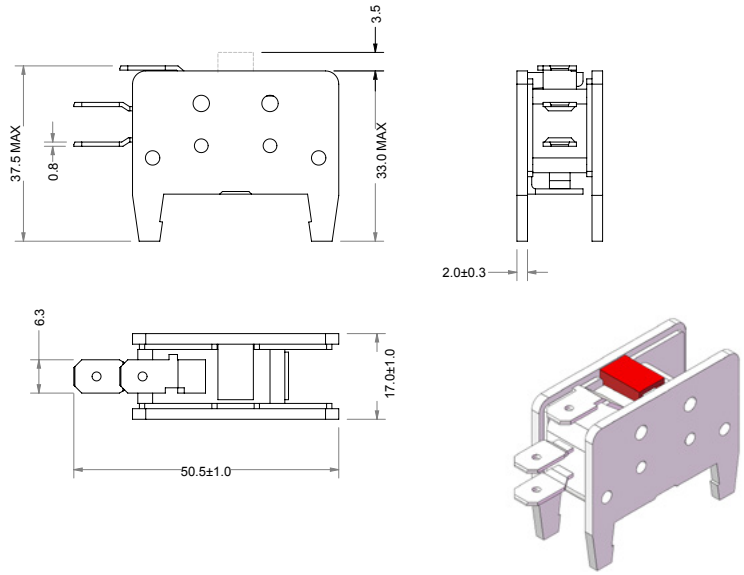
| Fuse link body size | DIN 43653 | | DIN 43620 | | French style | | Flush end | | US Style | Terminal size | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Type T | Type K | aR | gR and dual indication | Type T | Type K | Type T | Type K | Type K | 6.3 x 0.8mm lugs | 2.8 x 0.5mm lugs |
| 000 | 170H0236 | | 170H0236 | 170H0236 | | | | | | X | |
| | 170H0238 | | 170H0238 | 170H0238 | | | | | | | X |
| 00 | 170H0235 | | 170H0236 | 170H0236 | | | 170H0235 | | | X | |
| | 170H0237 | | 170H0238 | 170H0238 | | | 170H0237 | | | | X |
| 1* | 170H0235 | 170H0069 | 170H0235 | | 170H0236 | 170H0069 | | 170H0069 | 170H0069 | X | |
| | 170H0237 | | 170H0237 | | 170H0238 | | | | | | X |
| 1 | 170H0235 | 170H0069 | 170H0235[1] | 170H0236 | 170H0236 | 170H0069 | | 170H0069 | 170H0069 | X | |
| | 170H0237 | | 170H0237[1] | 170H0238 | 170H0238 | | | | | | X |
| 2 | 170H0235 | 170H0069 | 170H0235 | 170H0236 | 170H0236 | 170H0069 | | 170H0069 | 170H0069 | X | |
| | 170H0237 | | 170H0237 | 170H0238 | 170H0238 | | | | | | X |
| 3 | 170H0235 | 170H0069 | 170H0236 | 170H0236 | 170H0236 | 170H0069 | | 170H0069 | 170H0069 | X | |
| | 170H0237 | | 170H0238 | 170H0238 | 170H0238 | | | | | | X |
| 4 | | | | | | | | 170H0069 | | X | |
| 23 | | | | | | | | 170H0069 | | X | |
| 24 | | | | | | | | 170H0069 | | X | |

For special microswitches, double microswitches, DC rating of the microswitches, lower/higher signal levels and for insulation voltages please contact Eaton: bulehighspeedtechnical@eaton.com.

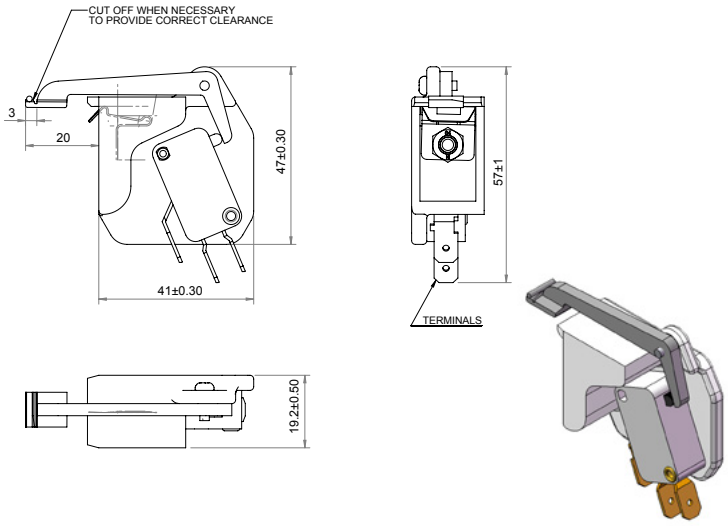
[1] DIN2* (55x55), if DIN2 then use microswitch 170H0236, 170H0238.

# Microswitches for square body fuse links - indicator systems - 170H

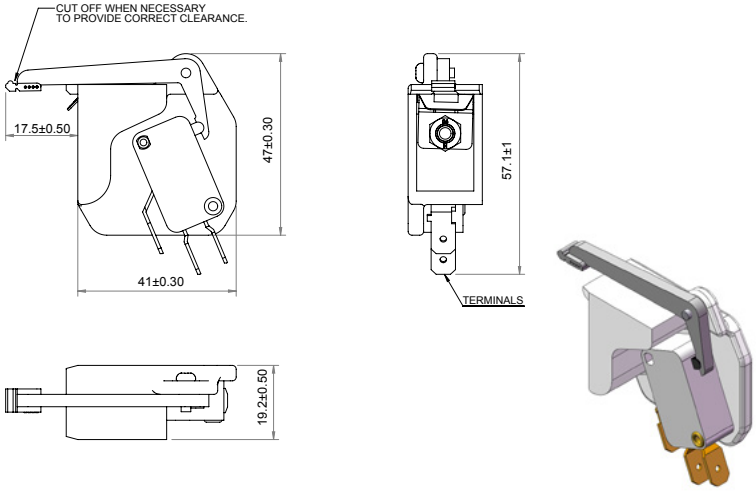
## Dimensions (mm) - 170H0069




## Dimensions (mm) - 170H0235 and 170H0237 for bent tags




## Dimensions (mm) - 170H0236 and 170H0238 for straight tags



# Accessories

## Microswitches for British Standard BS88-4 fuse links - Trip indicator/Microswitches

### Description

Trip-indicator fuse links are available for use in parallel with the main BS88-4 fuse links. They can either be attached to the associated fuse link or mounted separately in panel mounted fuse clips. A push-on adaptor and microswitch attachment is available for use with the trip indicator to give the facility of remote indication.

Fuse ratings of 20 A and below cannot usually accommodate a trip fuse link in parallel.






### Catalogue numbers

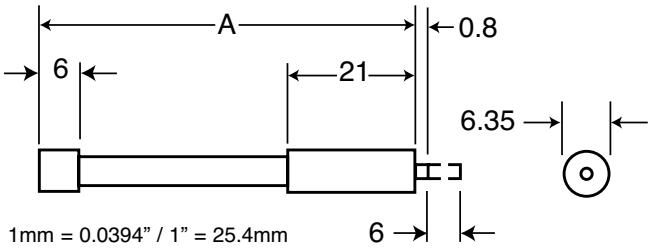
Trip indicator kit (indicator + clips)

| Fuse type | Catalogue number |
|---|---|
| ET | EC-600 |
| EET | EC-600 |
| FE | EC-600 |
| FEE | EC-600 |
| LET | EC-250 |
| FM | MC-600 |
| FMM | MC-600 |
| LMT | MC-250 |
| LMMT | MC-250 |
| MT | MC-700 |
| MMT | MC-700 |

Indicator Only

| Fuse type | Max RMS AC voltage (V a.c. RMS) | Dim 'A' (mm) |
|---|---|---|
| TI250 | 250 | 37.6 |
| TI500 | 500 | 47.5 |
| TI600 | 600 | 55.7 |
| TI700 | 700 | 61.8 |
| TI1100 | 1100 | 98.4 |
| TI1500 | 1500 | 120.8 |
| TI2000 | 2000 | 147.5 |
| TI2500 | 2500 | 198.3 |

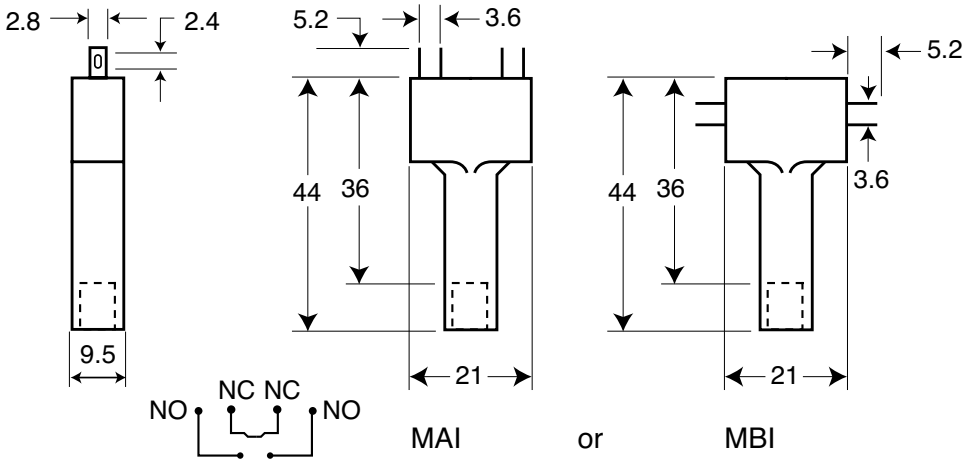
### Dimensions (mm)

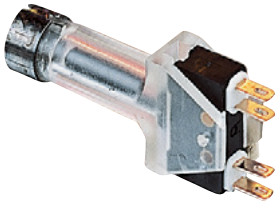





### Microswitch/Adaptor: MAI and MBI

### Dimensions (mm)



# FW14-PCB Mountable fuse clip

## Catalogue number

FW14-PCB

## Description

Mountable fuse clip compatible with any 14 mm Ø fuse links.

## Technical data

- Max rated power acceptance: 6 Watts

Please note deratings apply to fuse links with watts loss greater than 6 Watts, contact bulehighspeedtechnical@eaton.com for application assistance

- Material: Copper Alloy CuSn, tin plated
- Weight: 5 grams each

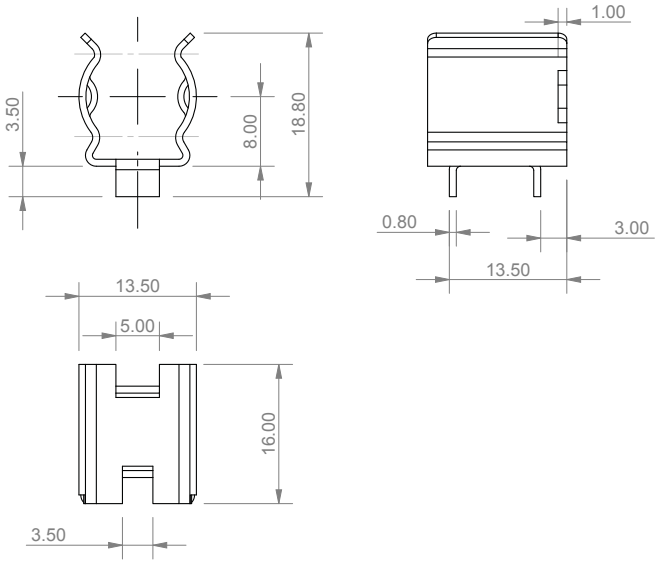
## Compatible fuse links

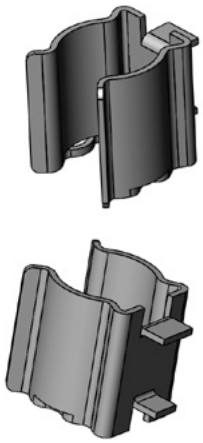
- Any 14 mm Ø fuse links

**Standards / Agency information**

IEC 60269-1

## Dimensions (mm)



**Appropriate creepage and clearances distances between clips should be maintained when mounting on the PCB.**

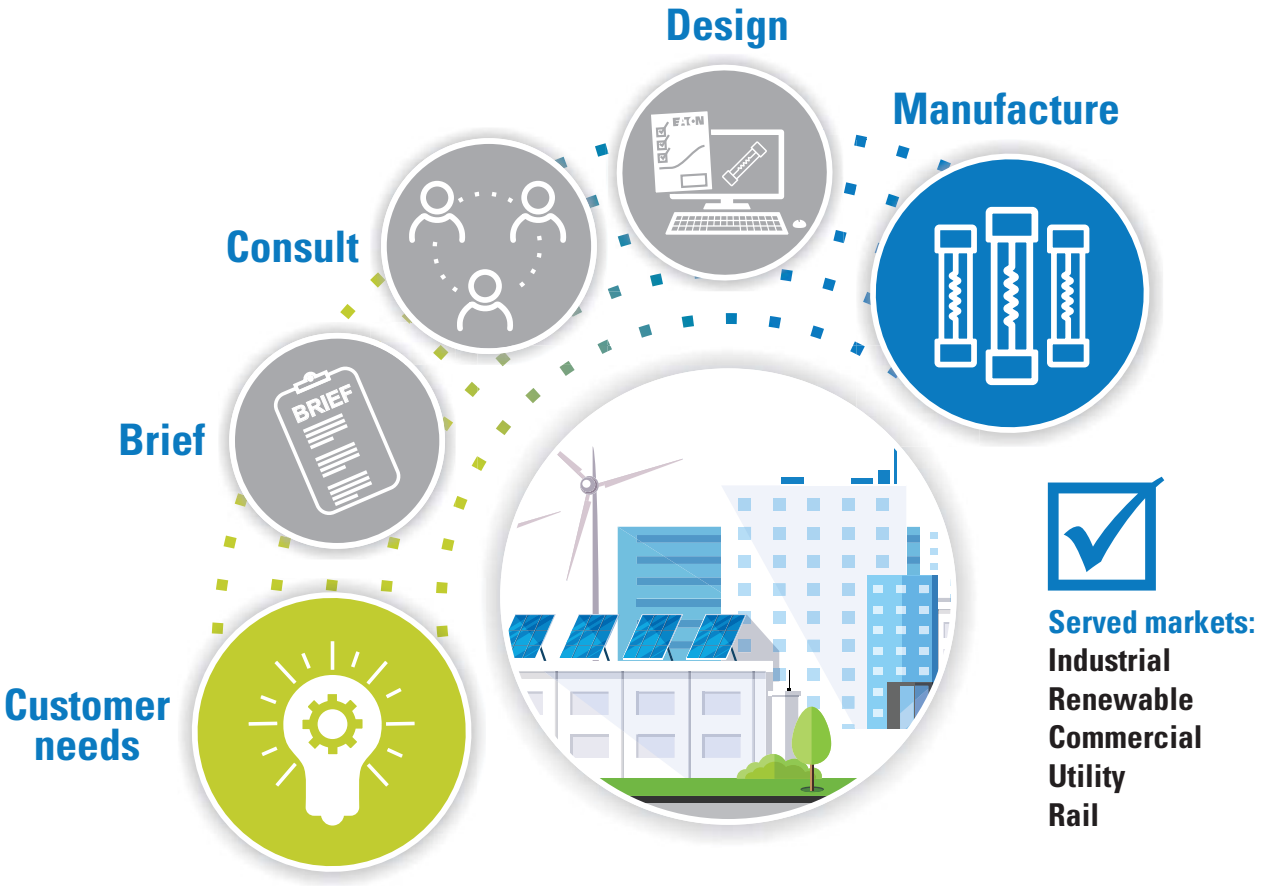
# Index


| Catalogue number | Page |
|---|---|
| 170E3577 to 170E3581 | 277 |
| 170E3583 to 170E3587 | 277 |
| 170E3906 to 170E3912 | 294 |
| 170E3914 to 170E3919 | 311 |
| 170E3922 | 311 |
| 170E3924 to 170E3932 | 308 |
| 170E3933 | 311 |
| 170E3937 to 170E3945 | 297 |
| 170E3950 to 170E3956 | 297 |
| 170E3970 | 297 |
| 170E3971 | 294 |
| 170E3976 | 297 |
| 170E3977 | 294 |
| 170E3982 | 294 |
| 170E3984 | 309 |
| 170E5417 | 277 |
| 170E5418 | 277 |
| 170E5420 | 277 |
| 170E5421 | 277 |
| 170E8335 to 170E8337 | 277 |
| 170E8345 to 170E8347 | 277 |
| 170E8882 to 170E8889 | 309 |
| 170E9681 | 277 |
| 170E9685 | 277 |
| 170F8230 to 170F8235 | 292 |
| 170H0069 | 404 |
| 170H023 | 404 |
| 170H1007 | 388 |
| 170H1013 | 388 |
| 170H300 | 387 |
| 170M1308 to 170M1322 | 92 |
| 170M1358 to 170M1372 | 92 |
| 170M1408 to 170M1422 | 92 |
| 170M1558D to 170M1572D | 142 |
| 170M1730 to 170M1742 | 261 |
| 170M1750 to 170M1762 | 261 |
| 170M1770 to 170M1781 | 261 |
| 170M1785 to 170M1796 | 261 |
| 170M1802 to 170M1813 | 267 |
| 170M1824 to 170M1833 | 267 |
| 170M1842 to 170M1853 | 267 |
| 170M1860 to 170M1869 | 267 |
| 170M2000 to 170M2005 | 273 |
| 170M2010 to 170M2021 | 273 |
| 170M2039 to 170M2045 | 300 |
| 170M2046 to 170M2057 | 302 |
| 170M2090 to 170M2096 | 306 |
| 170M2100 to 170M2111 | 290 |
| 170M2608 to 170M2621 | 92 |
| 170M2658 to 170M2671 | 92 |
| 170M2673 to 170M2685 | 151 |
| 170M2691 to 170M2702 | 131 |
| 170M2708 to 170M2721 | 194 |
| 170M2758 to 170M2771 | 194 |
| 170M3008 to 170M3023 | 98 |
| 170M3058 to 170M3073 | 98 |
| 170M3108 to 170M3123 | 98 |
| 170M3138 to 170M3148 | 121 |
| 170M3158 to 170M3173 | 98 |
| 170M3188 to 170M3198 | 121 |
| 170M3208 to 170M3223 | 98 |
| 170M3238 to 170M3248 | 121 |
| 170M3258 to 170M3273 | 98 |
| 170M3308 to 170M3321 | 154 |
| 170M3358 to 170M3371 | 154 |
| 170M3388 to 170M3397 | 217 |
| 170M3408 to 170M3423 | 197 |
| 170M3438 to 170M3448 | 217 |
| 170M3458 to 170M3473 | 197 |
| 170M3488 to 170M3497 | 217 |
| 170M3508 to 170M3523 | 197 |
| 170M3531 to 170M3541 | 174 |
| 170M3558 to 170M3573 | 197 |
| 170M3608 to 170M3623 | 164 |
| 170M3658 to 170M3673 | 164 |
| 170M3688 to 170M3697 | 184 |
| 170M3708 to 170M3723 | 164 |
| 170M3738 to 170M3747 | 184 |
| 170M3758 to 170M3773 | 164 |
| 170M3808D to 170M3819D | 142 |
| 170M3921 to 170M3931 | 207 |
| 170M3951 to 170M3961 | 207 |
| 170M3965 to 170M3975 | 111 |
| 170M3981 to 170M3991 | 111 |
| 170M4008 to 170M4019 | 98 |
| 170M4058 to 170M4069 | 98 |
| 170M4108 to 170M4119 | 98 |
| 170M4138 to 170M4147 | 121 |
| 170M4158 to 170M4169 | 98 |
| 170M4176 to 170M4186 | 131 |
| 170M4188 to 170M4197 | 121 |
| 170M4208 to 170M4219 | 98 |
| 170M4238 to 170M4247 | 121 |
| 170M4258 to 170M4269 | 98 |
| 170M4308 to 170M4318 | 154 |
| 170M4358 to 170M4368 | 154 |
| 170M4388 to 170M4397 | 217 |
| 170M4408 to 170M4419 | 197 |
| 170M4438 to 170M4447 | 217 |
| 170M4458 to 170M4469 | 197 |
| 170M4458 to 170M4469 | 197 |
| 170M4488 to 170M4497 | 217 |
| 170M4508 to 170M4519 | 197 |
| 170M4531 to 170M4540 | 174 |
| 170M4558 to 170M4569 | 197 |
| 170M4608 to 170M4619 | 164 |
| 170M4658 to 170M4669 | 164 |
| 170M4688 to 170M4697 | 184 |
| 170M4708 to 170M4719 | 164 |
| 170M4738 to 170M4747 | 184 |
| 170M4758 to 170M4769 | 164 |
| 170M4802 to 170M4815 | 108 |
| 170M4822 to 170M4835 | 108 |
| 170M4863D to 170M4867D | 141 |
| 170M4921 to 170M4930 | 207 |
| 170M4951 to 170M4960 | 207 |
| 170M4965 to 170M4974 | 111 |
| 170M4980 to 170M4989 | 111 |
| 170M5008 to 170M5018 | 98 |
| 170M5058 to 17M05068 | 98 |
| 170M5108 to 170M5118 | 98 |
| 170M5138 to 170M5150 | 121 |
| 170M5158 to 170M5168 | 98 |
| 170M5188 to 170M5200 | 121 |
| 170M5208 to 170M5218 | 98 |
| 170M5238 to 170M5250 | 121 |
| 170M5258 to 170M5268 | 98 |
| 170M5308 to 170M5316 | 154 |
| 170M5358 to 170M5366 | 154 |
| 170M5388 to 170M5398 | 217 |
| 170M5408 to 170M5418 | 197 |
| 170M5438 to 170M5448 | 217 |
| 170M5458 to 170M5468 | 197 |
| 170M5494 to 170M5500 | 217 |
| 170M5508 to 170M5518 | 197 |
| 170M5531 to 170M5540 | 174 |
| 170M5558 to 170M5568 | 197 |
| 170M5588 to 170M5598 | 217 |
| 170M5608 to 170M5618 | 164 |
| 170M5644 to 170M5650 | 217 |
| 170M5658 to 170M5668 | 164 |
| 170M5688 to 170M5700 | 184 |
| 170M5708 to 170M5718 | 164 |
| 170M5738 to 170M5750 | 184 |
| 170M5758 to 170M5768 | 164 |
| 170M5808D to 170M5814D | 142 |
| 170M5816D | 141 |
| 170M5817D | 141 |
| 170M5820D | 141 |
| 170M5881 to 170M5889 | 131 |
| 170M5922 to 170M5931 | 207 |
| 170M5952 to 170M5961 | 207 |
| 170M5966 to 170M5975 | 111 |
| 170M5981 to 170M5990 | 111 |
| 170M6008 to 170M6021 | 98 |
| 170M6058 to 170M6071 | 98 |
| 170M6080 to 170M6087 | 131 |
| 170M6108 to 170M6121 | 98 |
| 170M6138 to 170M6151 | 121 |
| 170M6158 to 170M6171 | 98 |
| 170M6188 to 170M6201 | 121 |
| 170M6208 to 170M6221 | 98 |
| 170M6208 to 170M6221 | 98 |
| 170M6238 to 170M6251 | 121 |
| 170M6258 to 170M6271 | 98 |
| 170M6308 to 170M6319 | 164 |
| 170M6338 to 170M6349 | 217 |
| 170M6358 to 170M6369 | 164 |
| 170M6408 to 170M6421 | 197 |
| 170M6458 to 170M6471 | 197 |
| 170M6494 to 170M6501 | 217 |
| 170M6508 to 170M6521 | 197 |
| 170M6538 to 170M6549 | 217 |
| 170M6558 to 170M6571 | 197 |
| 170M6588 to 170M6599 | 217 |
| 170M6608 to 170M6621 | 164 |
| 170M6644 to 170M6651 | 217 |
| 170M6658 to 170M6671 | 164 |
| 170M6688 to 170M6701 | 184 |
| 170M6708 to 170M6721 | 164 |
| 170M6738 to 170M6751 | 184 |
| 170M6758 to 170M6771 | 165 |
| 170M6775 to 170M6804 | 248 |
| 170M6808D to 170M6814D | 142 |
| 170M6815 to 170M6817 | 248 |
| 170M6827 to 170M6829 | 248 |
| 170M6833 to 170M6835 | 248 |
| 170M6858 to 170M6870 | 244 |
| 170M6878 to 170M6890 | 244 |
| 170M6892D | 141 |
| 170M6898 to 170M6910 | 244 |
| 170M6918 to 170M6930 | 242 |
| 170M6938 to 170M6950 | 244 |
| 170M6958 to 170M6970 | 244 |
| 170M7031 | 230 |
| 170M7031-UL | 230 |
| 170M7034 to 170M7037 | 230 |
| 170M7034-UL to 170M7037-UL | 230 |
| 170M7053 | 230 |
| 170M7053-UL | 230 |
| 170M7058 to 170M7066 | 227 |
| 170M7078 to 170M7086 | 227 |
| 170M7090 | 230 |
| 170M7090-UL | 230 |
| 170M7098 to 170M7106 | 227 |
| 170M7107 | 236 |
| 170M7114 | 227 |
| 170M7116 | 227 |
| 170M7118 to 170M7126 | 227 |
| 170M7138 to 170M7147 | 251 |
| 170M7156 | 230 |
| 170M7156-UL | 230 |
| 170M7158 to 170M7167 | 251 |
| 170M7171 | 227 |
| 170M7173 | 227 |
| 170M7198 to 170M7207 | 251 |
| 170M7217 | 238/287 |
| 170M7218 to 170M7227 | 251 |
| 170M7340 | 227 |
| 170M7350 to 170M7358 | 369 |
| 170M7353-B to 170M7402-B | 369 |
| 170M7397 to 170M7402 | 369 |
| 170M7488 | 254 |
| 170M7498 | 254 |
| 170M7510 to 170M7513 | 238 |
| 170M7516 | 238 |
| 170M7532 | 238 |
| 170M7542 | 230 |
| 170M7542-UL | 230 |
| 170M7544 | 230 |
| 170M7544-UL | 230 |
| 170M7546 | 238 |
| 170M7548 | 230 |
| 170M7548-UL | 230 |
| 170M7567 to 170M7569 | 254 |
| 170M7592 | 238 |

# Index


| Catalogue number | Page |
|---|---|
| 170M7595 | 238 |
| 170M7597 | 238 |
| 170M7608 | 254 |
| 170M7622 | 254 |
| 170M7633 | 238 |
| 170M7636 | 230 |
| 170M7636-UL | 230 |
| 170M7639 | 230 |
| 170M7639-UL | 230 |
| 170M7640 | 230 |
| 170M7640-UL | 230 |
| 170M7658 | 230 |
| 170M7658-UL | 230 |
| 170M7661 | 230 |
| 170M7661-UL | 230 |
| 170M7676 | 238 |
| 170M7680 | 252 |
| 170M7692 | 230 |
| 170M7693 | 230 |
| 170M7802 to 170M7804 | 238 |
| 170M7962-UL | 230 |
| 170M7963-UL | 230 |
| 170M7976 | 238 |
| 170M7978 | 238 |
| 170M8500 to 170M8513 | 207 |
| 170M8531 to 170M8544 | 174 |
| 170M8554D to 170M8557D | 142 |
| 170M8600 to 170M8613 | 207 |
| 170M8614 to 170M8627 | 111 |
| 170M8629 to 170M8642 | 111 |
| 17M1408 to 170M1422 | 93 |
| 1BS | 388 |
| BH | 386 |
| BMM | 392 |
| BSF-DD25 | 376 |
| BSF-G-3XL15 | 385 |
| BSF-G-NH | 379 |
| C5268 | 388 |
| CH14 | 400 |
| CH14-CTP | 401 |
| CH14-SPS | 401 |
| CH14-TPS | 401 |
| CH22 | 402 |
| CH22-CTP | 403 |
| CH22-SPS | 403 |
| CH22-TPS | 403 |
| CHCC | 398 |
| CHM | 398 |
| CHPV_IU | 328 and 399 |
| CHPV_U | 328 and 399 |
| CHPV14 | 344 |
| CHPV15H85 | 344 |
| CHPV22-65 | 351 |
| CHSF | 17 |
| CT | 48 |
| CVR | 393 |
| DFJ | 258 |
| EC | 406 |
| EET | 48 |
| ET | 48 |
| FE | 48 |
| FEE | 48 |
| FM | 53 |
| FMM | 53 |
| FW14-PCB | 404 |
| FWA-A | 10 |
| FWA-A10F | 59 |
| FWA-A21F | 59 |
| FWA-AH | 7 |
| FWA-B | 10 |
| FWC-A10F | 69 |
| FWE | 35 |
| FWH-A | 21 |
| FWH-A14F | 67 |
| FWH-A6F | 65 |
| FWH-B | 21 |
| FWJ | 32 |
| FWJ-A14F | 86 |
| FWK-A20F (5 A to 30 A) | 85 and 317 |
| FWK-A25F | 317 |
| FWL-A20F(I) | 88 and 319 |
| FWP-A | 26 |
| FWP-A14F(I) | 80 |
| FWP-A22F(I) | 83 |
| FWP-B | 26 |
| FWP-D | 26 |
| FWP-G10F | 71 |
| FWP-G14F | 74 |
| FWP-G22F | 77 |
| FWS-A20F(I) | 90 and 319 |
| FWX-A | 14 |
| FWX-A14F | 62 |
| FWX-AH | 14 |
| JM60 | 393 |
| JM70100 | 395 |
| JV-L | 400 and 403 |
| KAC | 24 |
| KBC | 25 |
| KC36 | 320 |
| LCT | 41 |
| LET | 41 |
| LMMT | 45 |
| LMT | 45 |
| LRC750 | 318 |
| MC | 406 |
| MMT | 53 |
| MT | 53 |
| NBC | 322 |
| PV-3L | 354 |
| PV-3L-15 | 354 |
| PV-A10 | 325 |
| PV-A10F85L | 342 |
| PV-A14F | 340 |
| PV-A14L | 346 |
| PV-A14LF10F | 346 |
| PV-A14L-T | 346 |
| PV-AF | 336 |
| PV-A22F65L | 348 |
| PV-ANH | 328 |
| PVM | 323 |
| PVS | 354 |
| PV-XL | 354 |
| PV-XL-15 | 354 |
| RC | 321 |
| SD-D-PV | 352 |
| SD-S-PV | 373 |
| TI | 406 |

# Customised fuse design service




Eaton's Field Applications Engineers are able to draw upon more than 100 years of fuse design knowledge to fully meet your application needs and ensure you can rely on the best in class electrical circuit protection solutions.

As the trend towards clean energy continues to drive new technologies in renewable energy generation, energy storage, electrical transportation and the adoption of DC technology throughout wider industries, the demand for customised fusing products has only increased.

Our Application and Design Engineers located at R&D centres in North America, Europe and Asia can leverage over 100 years of fuse design and application experience along with our in-house test labs to meet any customised solution requests for **Eaton's Bussmann series fuses.**

Our services include:

- New current/voltage ratings
- Design to meet I2t requirements
- Customised mounting connection and plating materials
- Modify indicator locations/ add or remove indicators
- Special end connections
- Acquire UL/IEC/CCC/CSA certificates
- Customised testing such as shock vibration
- Higher breaking capacity testing

**Contact us today:**

**For general fuse enquiries: buletechnical@eaton.com**

**For high speed fuses enquiries : bulehighspeedtechnical@eaton.com**

Powering Business Worldwide

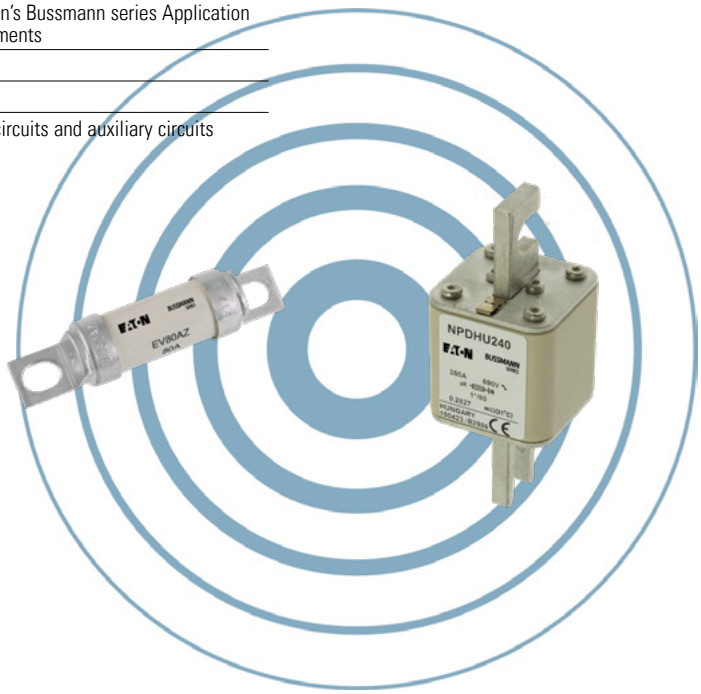


# Hybrid Electric Vehicles

**As the automotive world is becoming ever more electrified the power requirements are changing, so have the protection needs. Eaton is continually developing designs to meet these ever changing requirements. The experience of Eaton in protecting semiconductor devices has proved invaluable as vehicle powertrain systems have moved to power based converters for the variable speed motor drives and also for auxiliary power conversion.**

**Utilising a global network of engineering, manufacture and distribution Eaton is able to draw upon a wealth of knowledge to fully meet your application needs.**

| Hybrid Electric Vehicles (HEV) | |
|---|---|
| Standards | Most commonly ISO 8820-8, Jaso D622 amongst others |
| Voltage | Options up to 1000 V d.c., please contact Eaton's Bussmann series Application engineers to discuss your specific requirements |
| Current | Options up to 1250 A, please contact Eaton's Bussmann series Application engineers to discuss your specific requirements |
| Operating class | aR & gR |
| Breaking capacity | Up to 150 kA |
| Applications | Batteries, converters, inverters, charging circuits and auxiliary circuits |



# Contact details

## Customer Satisfaction team

Eaton's Customer Satisfaction team is available to answer questions regarding Bussmann series products.

Calls can be made between:

Monday - Friday 7.30 a.m. - 5.00 p.m. GMT

The Customer Satisfaction team can be reached via:

Phone: 00 44 (0) 1509 882 600

Email: GBBURsales@eaton.com

## www.my.eaton.com

Tailored just for you. Powerful online tools and resources get you the up-to-date information you need to work smarter, make informed decisions and streamline your transactions with Eaton.
Get started today at www.my.eaton.com by clicking 'Request User ID and Password'.

- Easy to Navigate
- Simple to Use
- Real-Time Data.

## Online resources

Visit www.eaton.com for the following resources:

- Product cross reference
- Product profiles
- Online catalogues for the latest United States and European catalogues.

## Application engineering

Application Engineering assistance is available to all customers. The Application Engineering team is staffed by university-qualified electrical engineers who are available with technical and application support.

Calls can be made between:

Monday - Thursday 8.30 a.m. - 4.30 p.m. GMT

Friday 8.30 a.m. - 4.00 p.m. GMT

Application Engineering can be reached via:

Phone: 00 44 (0) 1509 882 699

General technical enquiries:
buletechnical@eaton.com

Enquiries related to High speed fuses:
bulehighspeedtechnical@eaton.com

Eaton is an intelligent power management company dedicated to protecting the environment and improving the quality of life for people everywhere. We make products for the data center, utility, industrial, commercial, machine building, residential, aerospace and mobility markets. We are guided by our commitment to do business right, to operate sustainably and to help our customers manage power  today and well into the future. By capitalizing on the global growth trends of electrification and digitalization, we're helping to solve the world's most urgent power management challenges and building a more sustainable society for people today and generations to come.

Founded in 1911, Eaton has continuously evolved to meet the changing and expanding needs of our stakeholders. With revenues of nearly $25 billion in 2024, the company serves customers in more than 160 countries. For more information, visit www.eaton.com. Follow us on LinkedIn.

## Contact your local Eaton office

Eaton Electrical Products Limited
Unit 1, Hawker Business Park
Melton Road
Burton-on-the-Wolds
LE12 5TH
Leicestershire
United Kingdom
GBBURSsales@eaton.com
www.eaton.com




To contact us please visit **https: www.eaton.com/contacts**

For technical questions please contact your local Eaton team

**Eaton Electrical Products Limited**
Unit 1, Hawker Business Park
Melton Road
Burton-on-the-Wolds
LE12 5TH
United Kingdom

© 2020 Eaton
All Rights Reserved
Printed in the United Kingdom
Publication No. CA135001EN
January 2026

Changes to the products, to the information contained in this document, and to prices are reserved; so are errors and omissions. Only order confirmations and technical documentation by Eaton is binding. Photos and pictures also do not warrant a specific layout or functionality. Their use in whatever form is subject to prior approval by Eaton. The same applies to Trademarks (especially Eaton, Moeller, and Cutler-Hammer). The Terms and Conditions of Eaton apply, as referenced on Eaton Internet pages and Eaton order confirmations.

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

Powering Business Worldwide