

# Protistor® size 122 gR

750VDC

## SEMICONDUCTOR PROTECTION FUSES

## SQUARE BODY HIGH-SPEED FUSE-LINKS DC PROTECTION



Mersen DC offers provide a very high performant protection for railway power and auxiliary circuits. Mersen DC Semiconductor fuse-links were developed to provide improved performance required by today's new DC equipment. These fuse-links are typically operated at more elevated temperature than other fuse type, have lower  $I^2t$  to minimize damage to protected components on short circuits, lower watts loss and longer life.

## TECHNICAL DATA OVERVIEW

|                        |               |
|------------------------|---------------|
| Rated Voltage DC (IEC) | 750 VDC       |
| Ampere Range (A)       | 250 ... 500 A |
| Speed/Characteristic   | gR            |
| Product Size           | 122           |

## FEATURES & BENEFITS

- Multiple body sizes and terminals or blades combination
- Very low  $I^2t$
- Extremely fast acting
- Eliminate all overloads
- Excellent cycling capability

## APPLICATIONS

- Protection of inverters
- Protection of motor drives
- Protection of UPS systems
- Railway power and auxiliary circuits
- Similar 750VDC or less equipments

## STANDARDS

- IEC 60269-4 Compliance

# Protistor® size 122 gR 750VDC

## PRODUCT RANGE



D122GC75V250EF

### Size 122 gR 750VDC blade contacts (EF), with striker

| Catalog number | Item number | Rated voltage DC (IEC) | Rated current $I_n$ | Pre-arcng $I^2t$        | Rated breaking capacity DC | Max. $I^2t$ @900V, L/R=40ms, IP=50In | Max. $I^2t$ @900V, L/R=40ms, IP=10In | Power dissipation at $I_n$ | Power dissipation at 0.8 $I_n$ | Weight |
|----------------|-------------|------------------------|---------------------|-------------------------|----------------------------|--------------------------------------|--------------------------------------|----------------------------|--------------------------------|--------|
| D122GC75V250EF | A087331     | 750 V                  | 250 A               | 18.05 kA <sup>2</sup> s | 100 kA                     | 250 kA <sup>2</sup> s                | 1250 kA <sup>2</sup> s               | 46.7 W                     | 25.5 W                         | 1.3 kg |
| D122GC75V315EF | B087332     | 750 V                  | 315 A               | 30.06 kA <sup>2</sup> s | 100 kA                     | 400 kA <sup>2</sup> s                | 2000 kA <sup>2</sup> s               | 58 W                       | 31.5 W                         | 1.3 kg |
| D122GC75V350EF | W221141     | 750 V                  | 350 A               | 38.08 kA <sup>2</sup> s | 100 kA                     | 500 A <sup>2</sup> s                 | 2500 A <sup>2</sup> s                | 64.5 W                     | 35 W                           | 1.3 kg |
| D122GC75V400EF | L089388     | 750 V                  | 400 A               | 50.94 kA <sup>2</sup> s | 100 kA                     | 600 kA <sup>2</sup> s                | 3100 kA <sup>2</sup> s               | 74.5 W                     | 40.5 W                         | 1.3 kg |
| D122GD75V450EF | P220951     | 750 V                  | 450 A               | 63.5 kA <sup>2</sup> s  | 100 kA                     | 800 kA <sup>2</sup> s                | 4000 kA <sup>2</sup> s               | 90 W                       | 49 W                           | 1.3 kg |
| D122GD75V500EF | Q220952     | 750 V                  | 500 A               | 103 kA <sup>2</sup> s   | 100 kA                     | 1200 kA <sup>2</sup> s               | 6200 kA <sup>2</sup> s               | 95 W                       | 52 W                           | 1.3 kg |

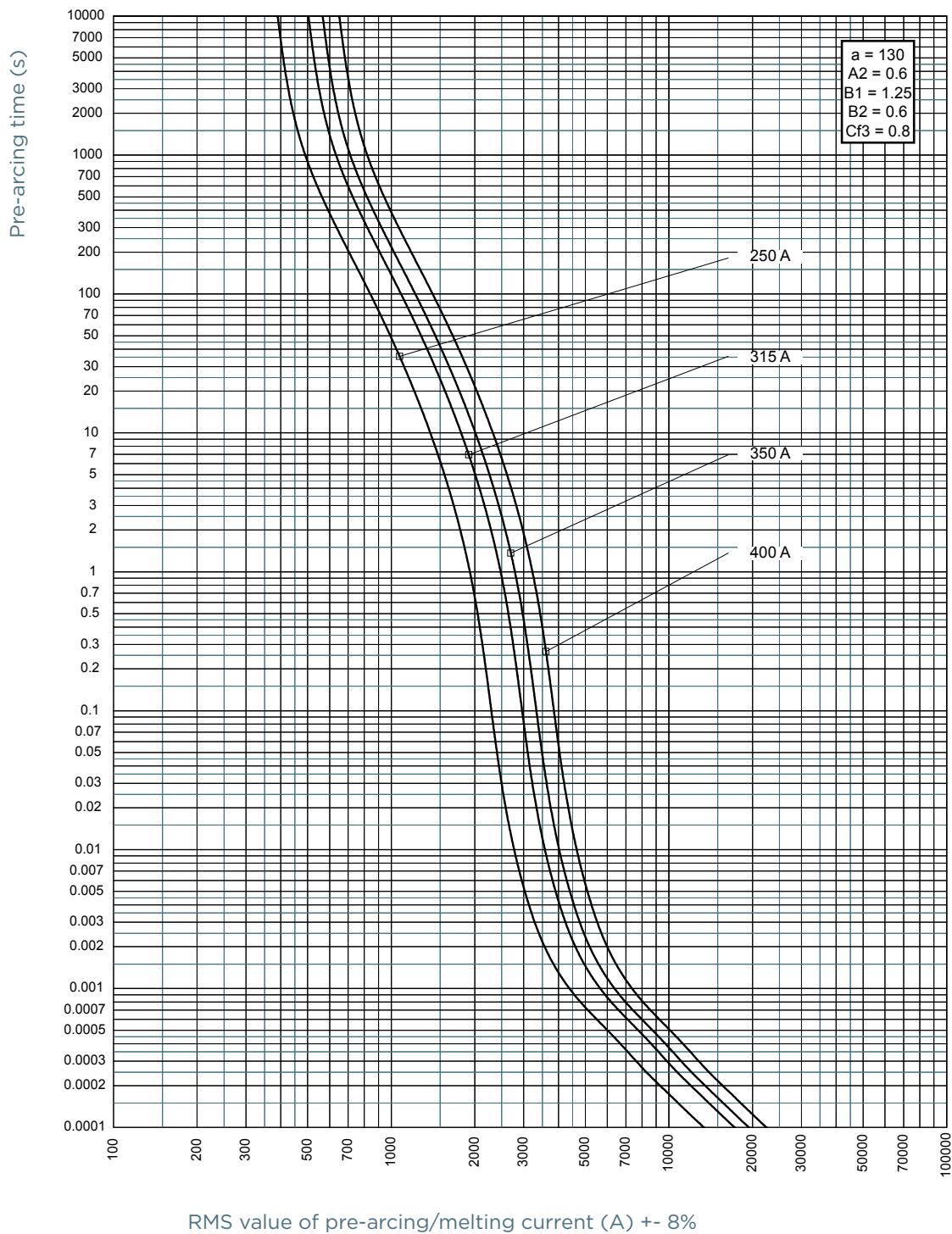


D122GC75V250TF

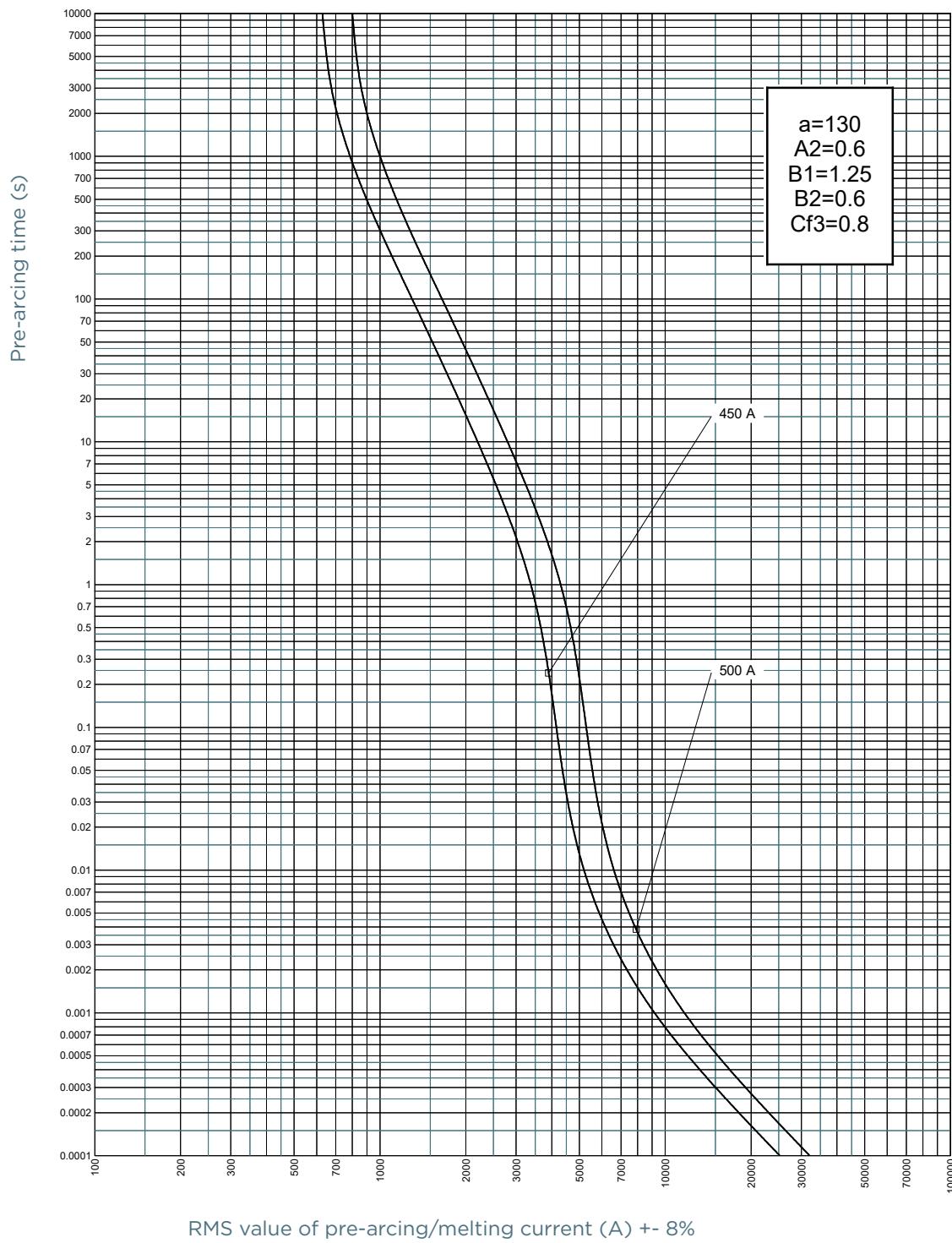
### Size 122 gR 750VDC threads terminals (TTF), with striker

| Catalog number | Item number | Rated voltage DC (IEC) | Rated current $I_n$ | Pre-arcng $I^2t$        | Rated breaking capacity DC | Max. $I^2t$ @900V, L/R=40ms, IP=50In | Max. $I^2t$ @900V, L/R=40ms, IP=10In | Power dissipation at $I_n$ | Power dissipation at 0.8 $I_n$ | Weight  |
|----------------|-------------|------------------------|---------------------|-------------------------|----------------------------|--------------------------------------|--------------------------------------|----------------------------|--------------------------------|---------|
| D122GC75V250TF | B090437     | 750 V                  | 250 A               | 18.05 kA <sup>2</sup> s | 100 kA                     | 250 kA <sup>2</sup> s                | 1250 kA <sup>2</sup> s               | 46.7 W                     | 25.5 W                         | 1.43 kg |
| D122GC75V315TF | M085249     | 750 V                  | 315 A               | 30.06 kA <sup>2</sup> s | 100 kA                     | 400 kA <sup>2</sup> s                | 2000 kA <sup>2</sup> s               | 58 W                       | 31.5 W                         | 1.43 kg |
| D122GC75V350TF | G220898     | 750 V                  | 350 A               | 38.08 kA <sup>2</sup> s | 100 kA                     | 500 kA <sup>2</sup> s                | 2500 kA <sup>2</sup> s               | 64.5 W                     | 35 W                           | 1.43 kg |
| D122GC75V400TF | C090438     | 750 V                  | 400 A               | 50.94 kA <sup>2</sup> s | 100 kA                     | 600 kA <sup>2</sup> s                | 3100 kA <sup>2</sup> s               | 74.5 W                     | 40.5 W                         | 1.43 kg |
| D122GD75V450TF | R220953     | 750 V                  | 450 A               | 63.5 A <sup>2</sup> s   | 100 kA                     | 800 kA <sup>2</sup> s                | 4000 kA <sup>2</sup> s               | 90 W                       | 49 W                           | 1.43 kg |
| D122GD75V500TF | S220954     | 750 V                  | 500 A               | 103 A <sup>2</sup> s    | 100 kA                     | 1200 kA <sup>2</sup> s               | 6200 kA <sup>2</sup> s               | 95 W                       | 52 W                           | 1.43 kg |

TIME CURRENT CHARACTERISTIC CURVES



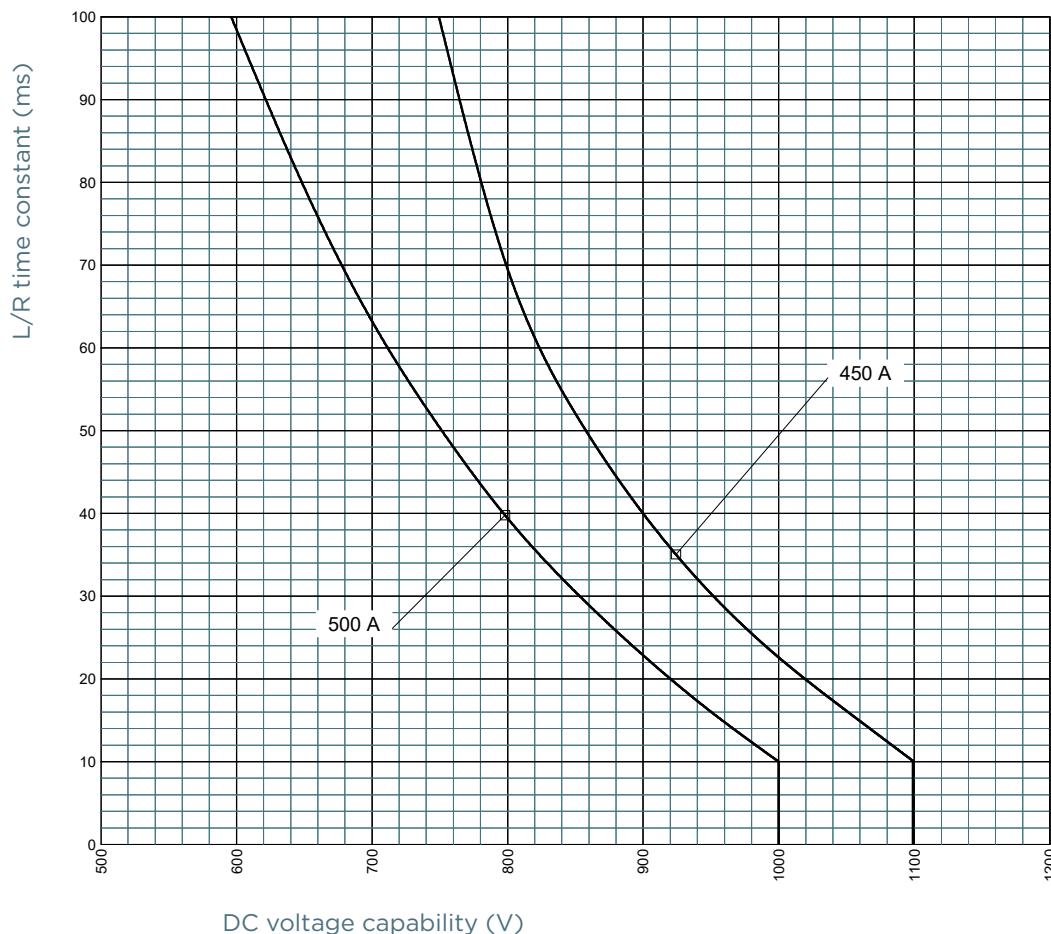
## TIME CURRENT CHARACTERISTIC CURVES



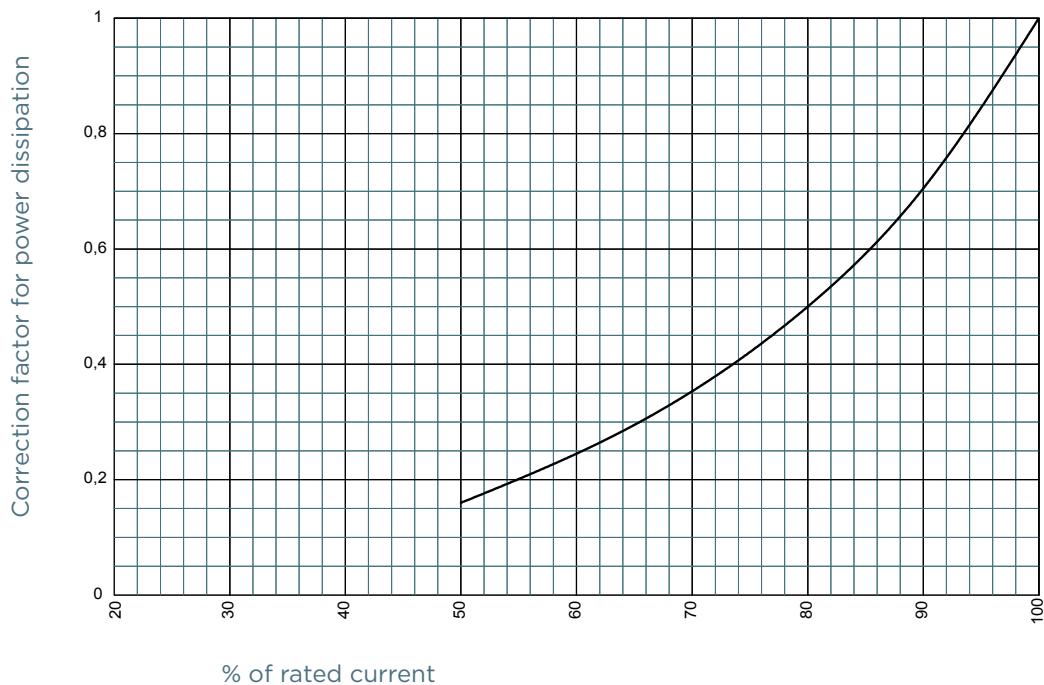
# Protistor® size 122 gR

## 750VDC

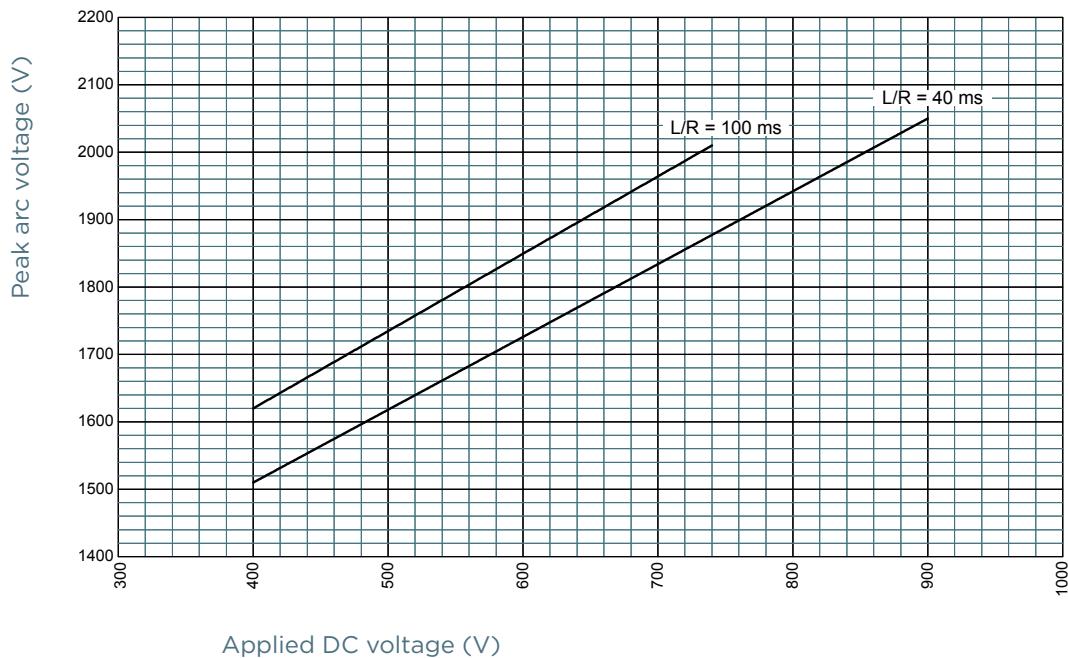
### L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY



## POWER DISSIPATION



## PEAK ARC VOLTAGE

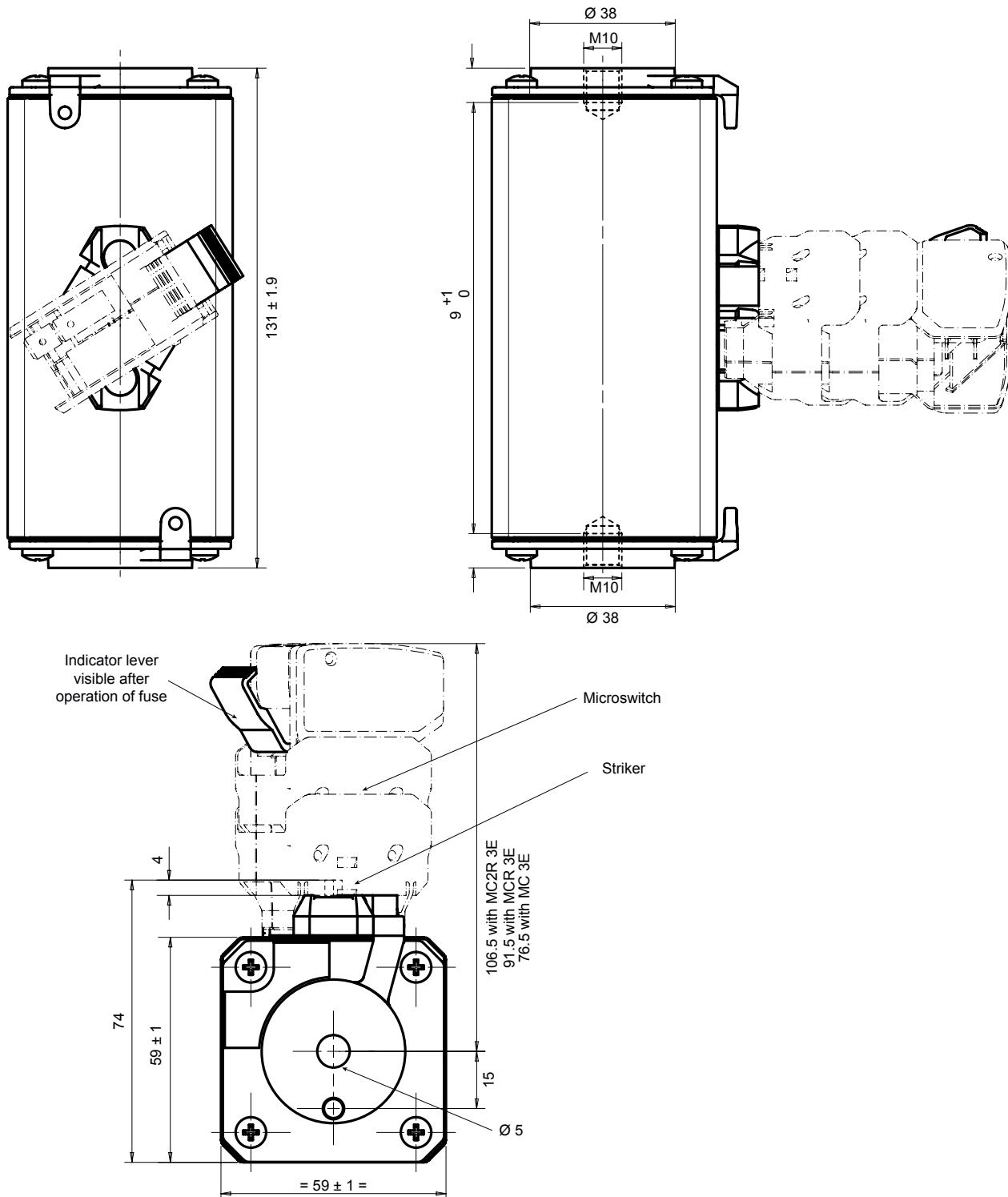


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## DIMENSIONS

### Size 122 gR threads terminals (TTF)

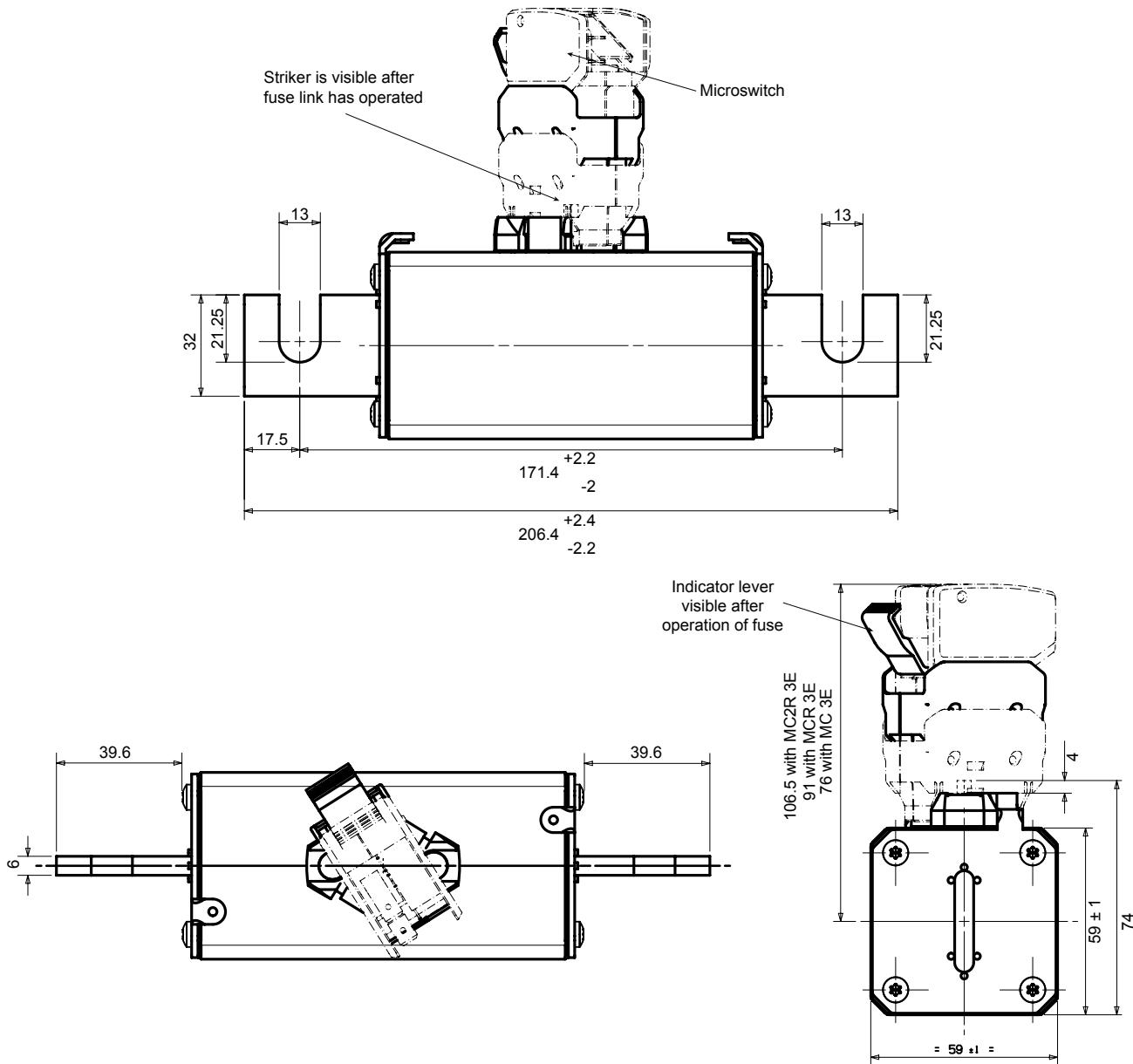


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## DIMENSIONS

### Size 122 gR blade contacts (EF)



Dimensions in mm