

# Protistor® size 120 gR

750VDC (IEC)

## 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

Ampere Range (A)	50 ... 160 A
Speed/Characteristic	gR
Product Size	120
Package	1
Rated Voltage DC (IEC)	750 VDC

## 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
- 750VDC or less equipments

## STANDARDS

- EU conformity
- REACH compliant
- IEC 60269-4 Compliance



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## PRODUCT RANGE

### Size 120 gR 750VDC type EF, blade contacts with striker

Catalog number	Item number	Rated voltage DC (IEC)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Rated breaking capacity DC	Max. I <sup>2</sup> t @900V, L/R=40ms, IP=50I <sub>n</sub>	Max. I <sup>2</sup> t @900V, L/R=40ms, IP=10I <sub>n</sub>	Power dissipation at I <sub>n</sub>	Power dissipation at 0.8 I <sub>n</sub>	Weight
D120GC75V50EF	Y084776	750 V	50 A	0.665 kA <sup>2</sup> s	100 kA	8.5 kA <sup>2</sup> s	42.5 kA <sup>2</sup> s	8.1 W	4.4 W	0.72 kg
D120GC75V63EF	R085207	750 V	63 A	1.175 kA <sup>2</sup> s	100 kA	15 kA <sup>2</sup> s	75.5 kA <sup>2</sup> s	10.4 W	5.7 W	0.72 kg
D120GC75V80EF	Q085206	750 V	80 A	1.875 kA <sup>2</sup> s	100 kA	24.5 kA <sup>2</sup> s	125 kA <sup>2</sup> s	13.4 W	7.3 W	0.72 kg
D120GC75V100EF	P085205	750 V	100 A	3.01 kA <sup>2</sup> s	100 kA	40 kA <sup>2</sup> s	200 kA <sup>2</sup> s	16.7 W	9.1 W	0.72 kg
D120GC75V125EF	R086242	750 V	125 A	4.685 kA <sup>2</sup> s	100 kA	62.5 kA <sup>2</sup> s	315 kA <sup>2</sup> s	21 W	11.5 W	0.72 kg
D120GC75V160EF	N085204	750 V	160 A	7.49 kA <sup>2</sup> s	100 kA	100 kA <sup>2</sup> s	485 kA <sup>2</sup> s	27 W	15 W	0.72 kg



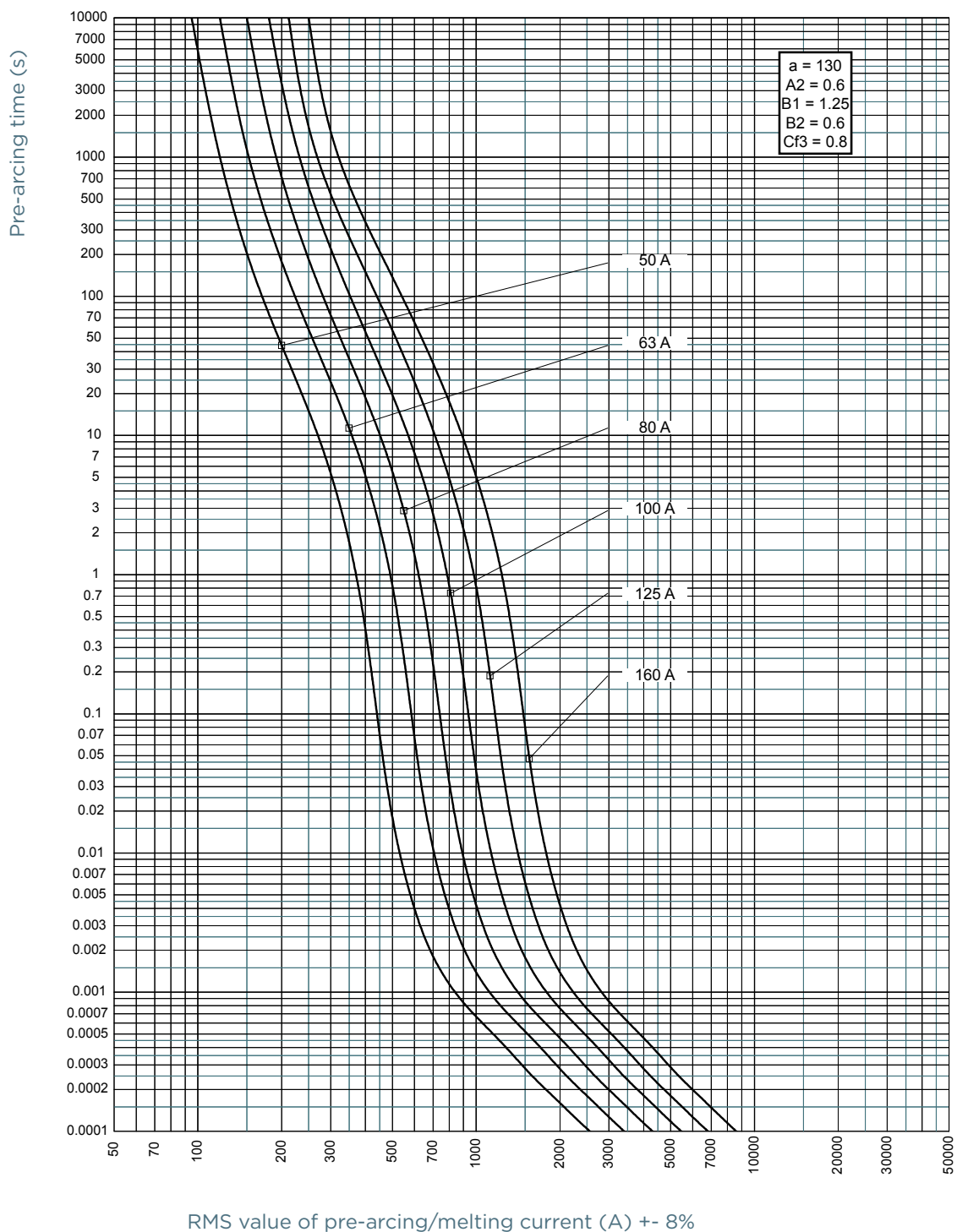
D120GC75V50TF

### Size 120 gR 750VDC type TTF, threads terminals with striker

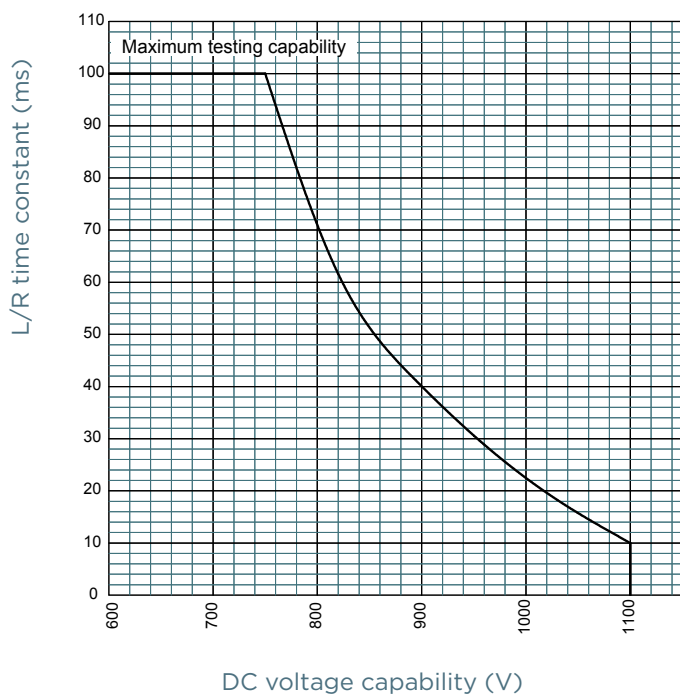
Catalog number	Item number	Rated voltage DC (IEC)	Rated current I <sub>n</sub>	Pre-arcing I <sup>2</sup> t	Rated breaking capacity DC	Max. I <sup>2</sup> t @900V, L/R=40ms, IP=50I <sub>n</sub>	Max. I <sup>2</sup> t @900V, L/R=40ms, IP=10I <sub>n</sub>	Power dissipation at I <sub>n</sub>	Power dissipation at 0.8 I <sub>n</sub>	Weight
D120GC75V50TF	B220824	750 V	50 A	0.665 kA <sup>2</sup> s	100 kA	8.5 kA <sup>2</sup> s	42.5 kA <sup>2</sup> s	8.1 W	4.4 W	0.65 kg
D120GC75V63TF	Q082400	750 V	63 A	1.175 kA <sup>2</sup> s	100 kA	15 kA <sup>2</sup> s	75.5 kA <sup>2</sup> s	10.4 W	5.7 W	0.65 kg
D120GC75V80TF	Z090435	750 V	80 A	1.875 kA <sup>2</sup> s	100 kA	24.5 kA <sup>2</sup> s	125 kA <sup>2</sup> s	13.4 W	7.3 W	0.65 kg
D120GC75V100TF	R082401	750 V	100 A	3.01 kA <sup>2</sup> s	100 kA	40 kA <sup>2</sup> s	200 kA <sup>2</sup> s	16.7 W	9.1 W	0.65 kg
D120GC75V125TF	P085251	750 V	125 A	4.685 kA <sup>2</sup> s	100 kA	62.5 kA <sup>2</sup> s	315 kA <sup>2</sup> s	21 W	11.5 W	0.65 kg
D120GC75V160TF	R085253	750 V	160 A	7.49 kA <sup>2</sup> s	100 kA	100 kA <sup>2</sup> s	485 kA <sup>2</sup> s	27 W	15 W	0.65 kg

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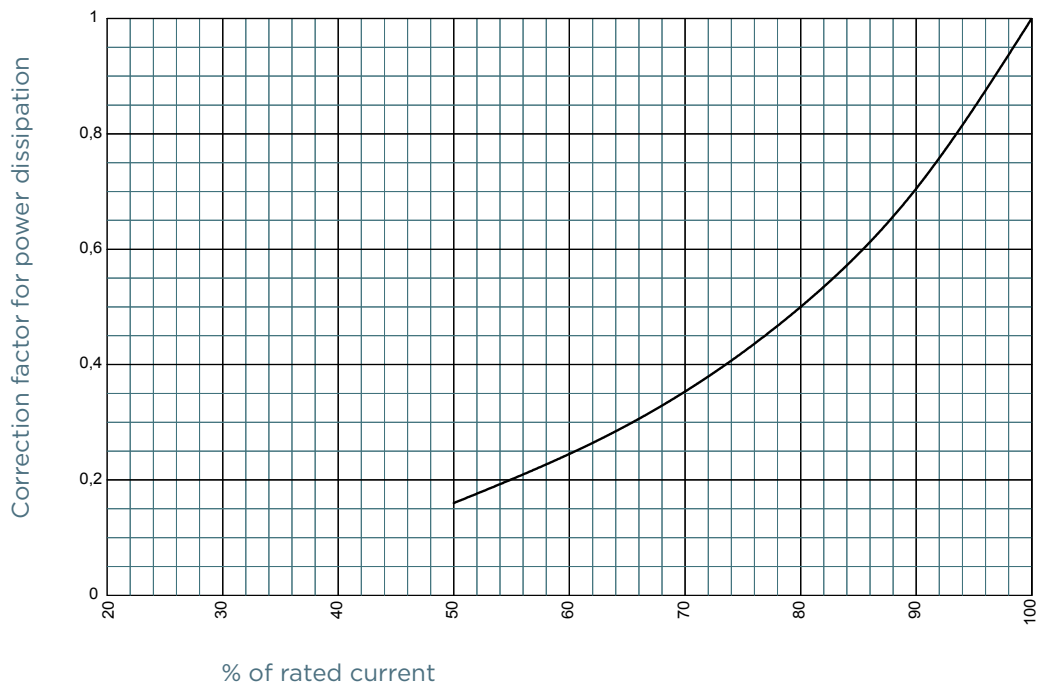
TIME CURRENT CHARACTERISTIC CURVES



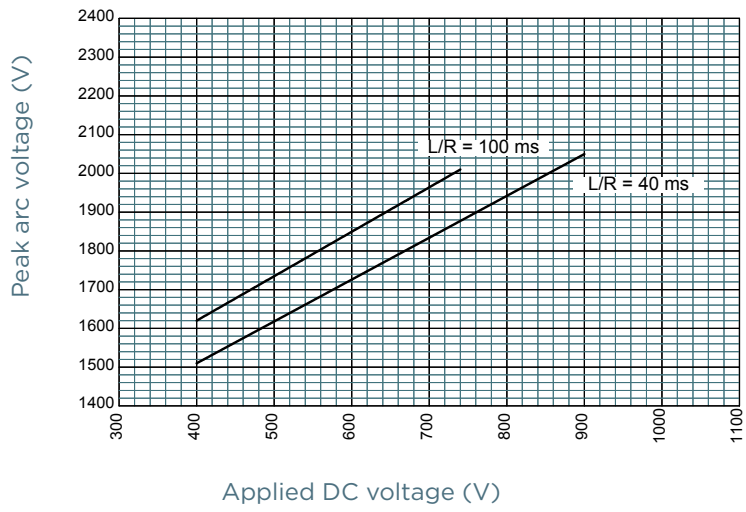
## L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY



## POWER DISSIPATION



## PEAK ARC VOLTAGE

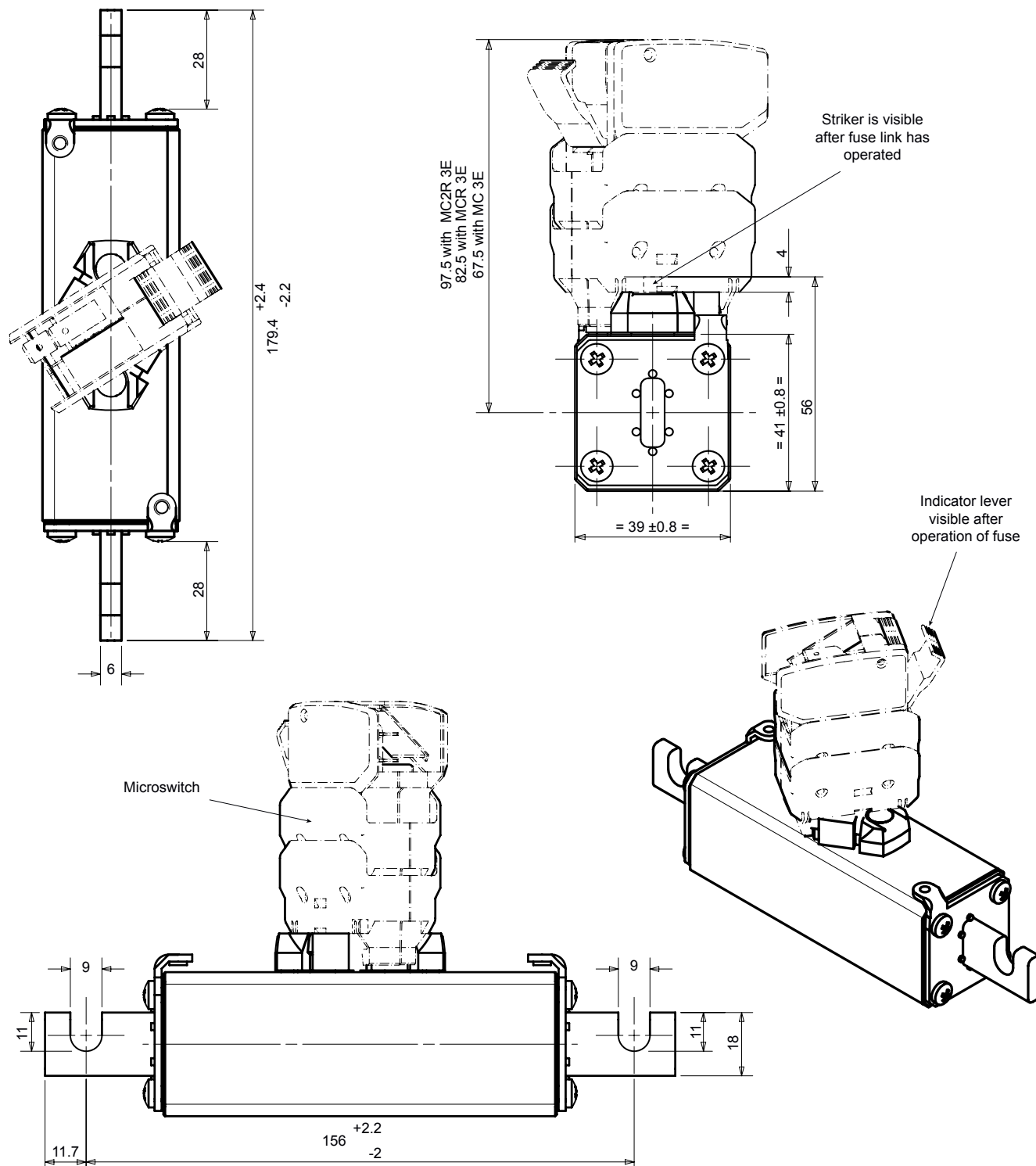


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## DIMENSIONS

### Size 120 gR blade contacts type EF



Dimensions in mm

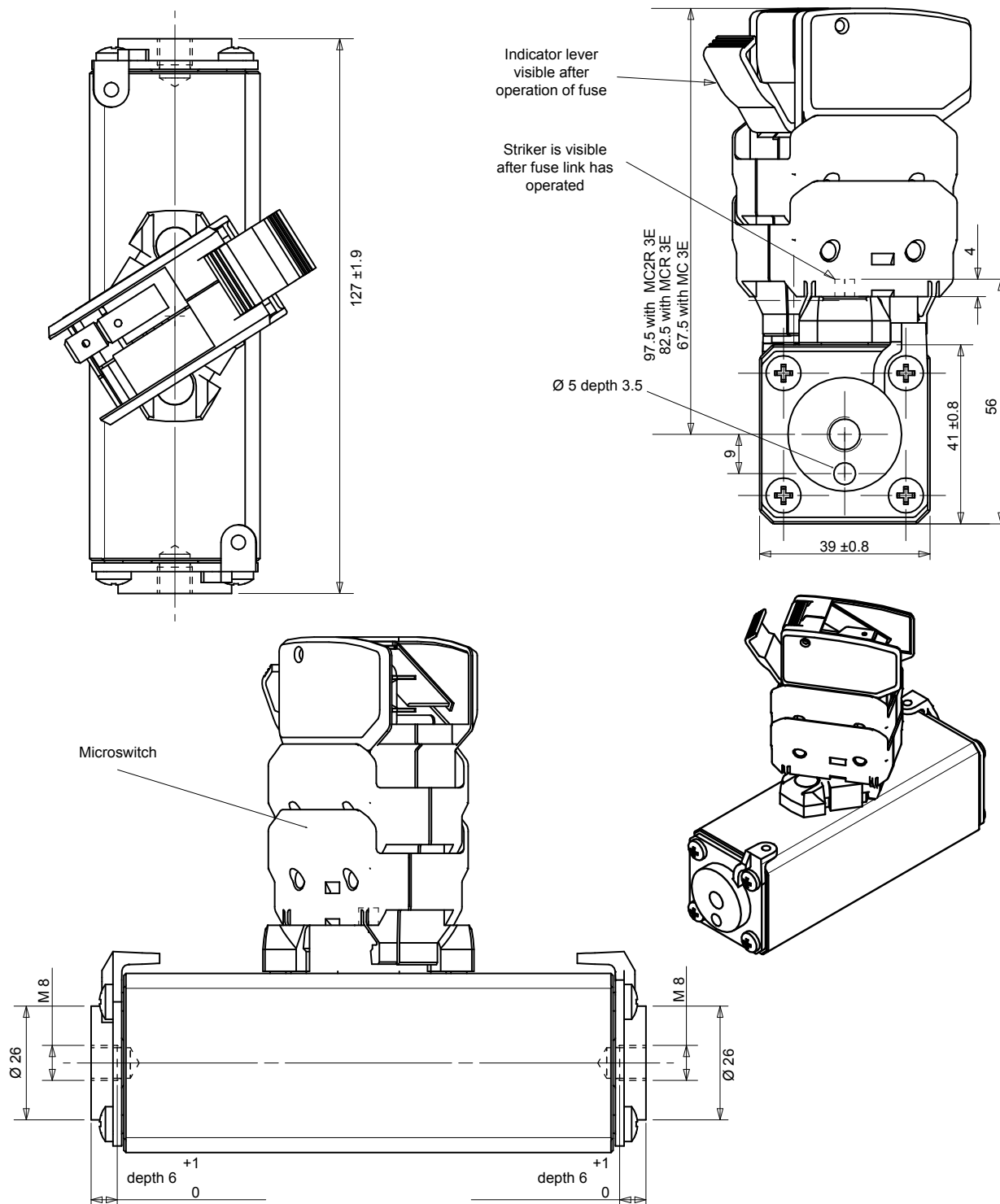
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# Protistor® size 120 gR

750VDC (IEC)

## DIMENSIONS

### Size 120 gR threads terminals type TTF



Dimensions in mm