# Protistor® size 122 gR

#### **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 I²t 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<sup>2</sup>t
- 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

# PRODUCT RANGE



#### D122GC75V250EF

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

Catalog number	Item number	Rated voltage DC (IEC)	Rated current In	Pre-arcing I²t	Rated breaking capacity DC	Max. I <sup>2</sup> t @900V, L/R=40ms, IP=50In	Max. I <sup>2</sup> t @900V, L/R=40ms, IP=10In	Power dissi- pation at I <sub>n</sub>	Power dissi- pation at 0.8 In	Weight
D122GC75V250EF	A087331	750 V	250 A	18.05 kA²s	100 kA	250 kA²s	1250 kA²s	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 kA2s	2000 kA2s	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 kA2s	100 kA	1200 kA <sup>2</sup> s	6200 kA <sup>2</sup> s	95 W	52 W	1.3 kg



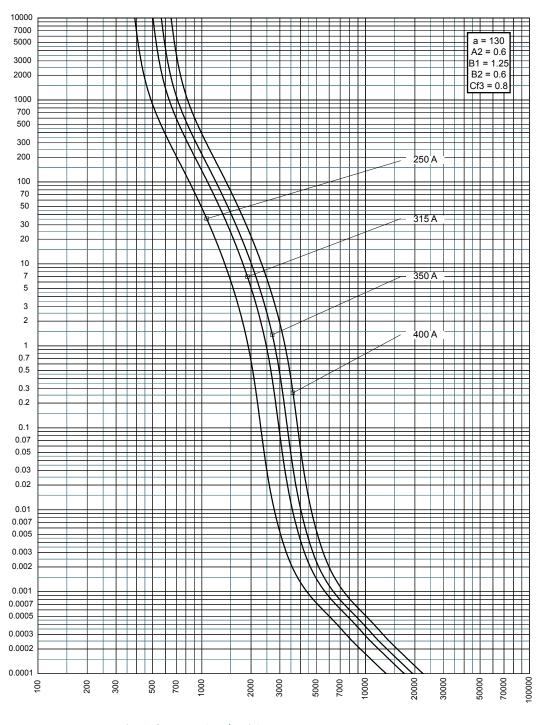
#### Size 122 gR 750VDC threads terminals (TTF), with striker

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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=50In	Max. I²t @900V, L/R=40ms, IP=10In	Power dissipation at I <sub>n</sub>	Power dissipation at 0.8 In	Weight
D122GC75V250TF	B090437	750 V	250 A	18.05 kA²s	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 kA2s	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 kA2s	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 kA2s	90 W	49 W	1.43 kg
D122GD75V500TF	S220954	750 V	500 A	103 A²s	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

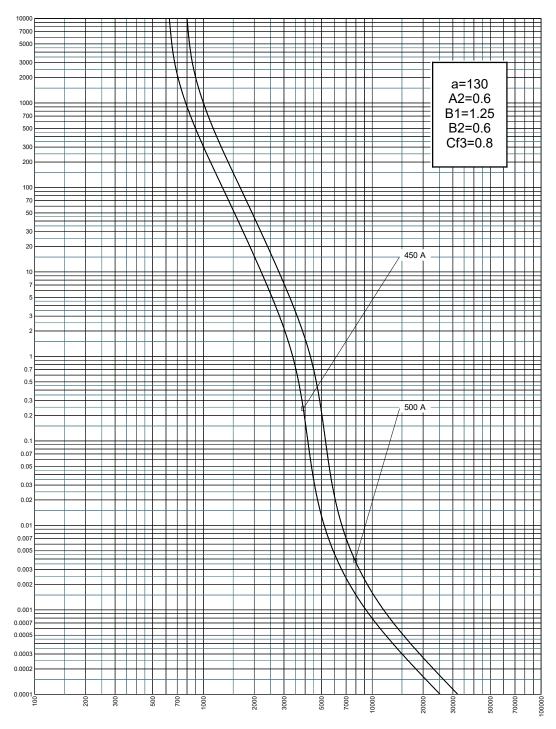
Pre-arcing time (s)



RMS value of pre-arcing/melting current (A) +- 8%

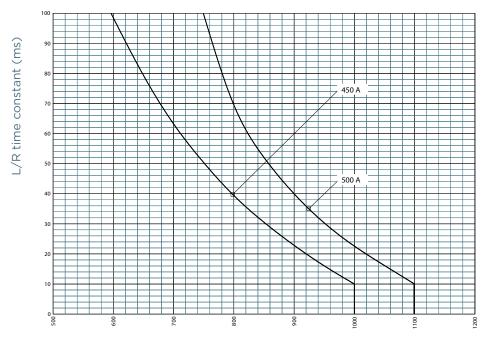
Pre-arcing time (s)

## TIME CURRENT CHARACTERISTIC CURVES



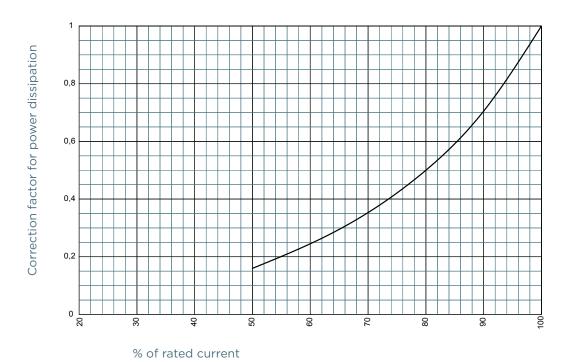
RMS value of pre-arcing/melting current (A) +- 8%

## L/R TIME CONSTANT VS DC VOLTAGE CAPABILITY

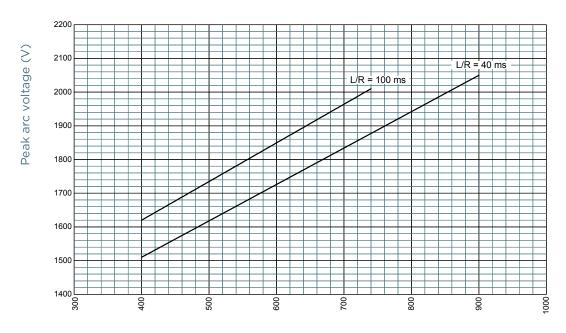


DC voltage capability (V)

## POWER DISSIPATION



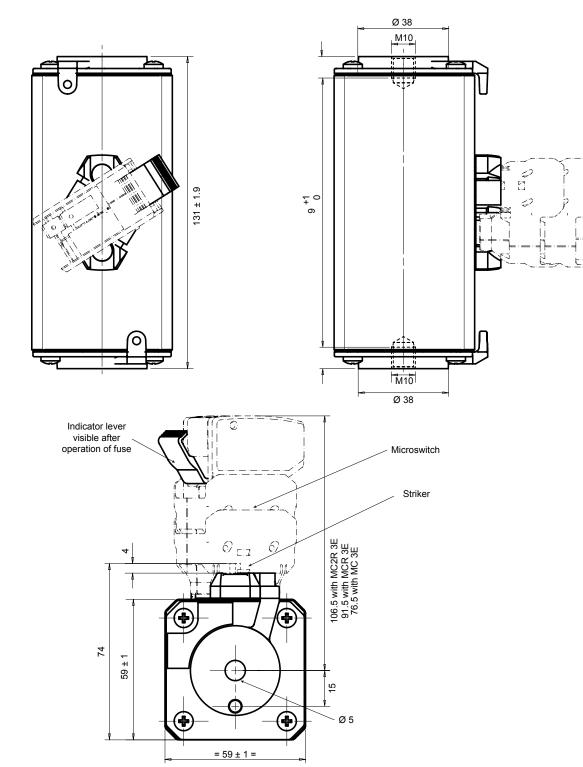
## PEAK ARC VOLTAGE



Applied DC voltage (V)

## **DIMENSIONS**

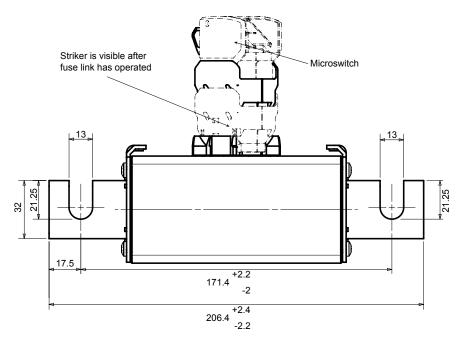
## Size 122 gR threads terminals (TTF)

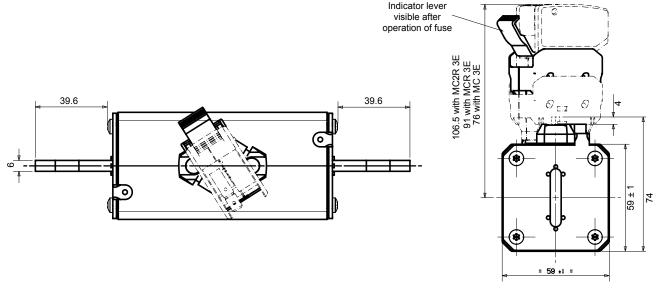


Dimensions in mm

## **DIMENSIONS**

#### Size 122 gR blade contacts (EF)





Dimensions in mm