

# Protistor® size 14x51 gR

690VAC (IEC) / 700VAC (UL)

## SEMICONDUCTOR PROTECTION FUSES

### IEC HIGH-SPEED CYLINDRICAL FUSE-LINKS AC PROTECTION



These Protistor® size 14x51 have been designed to protect power semi conductors, complying with standard IEC 60269-1 and -4. They are extremely high interrupting rating fuses: 690VAC, with large band of ratings (current rating 1 to 63A).

Two models are existing: with or without trip-indicator.

## TECHNICAL DATA OVERVIEW

|                        |            |
|------------------------|------------|
| Rated voltage AC (IEC) | 690 V      |
| Ampere Range (A)       | 1 ... 63 A |
| Size per Standard      | 14x51      |
| Speed/Characteristic   | gR         |
| I.R. AC (IEC)          | 160 kA     |
| I.R. AC (UL)           | 200 kA     |
| I.R. DC (UL)           | 50 kA      |
| Rated voltage AC (UL)  | 700 V      |
| Rated voltage DC (UL)  | 500 V      |

## FEATURES & BENEFITS

- IEC standard 60269-4 compliant
- UL 248-13 compliant
- gR class
- Clearing all overloads
- Improved safety and protection
- Enabling selective coordination among all
- Distribution circuit fuses
- With or without trip-indicator

## STANDARDS

- IEC 60269-4
- UL Recognized
- UL 248-13
- CCC GB 1539.4
- RoHS compliant



# Protistor® size 14x51 gR

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## PRODUCT RANGE



FR14GR69V16T

### CP 14x51 gR with striker

| Catalog number | Item number | Rated voltage AC (IEC) | Rated current I <sub>n</sub> | Clearing I <sup>2</sup> t at Rated Voltage | Rated breaking capacity AC | Power dissipation at I <sub>n</sub> | Pre-arcing I <sup>2</sup> t | Package | Weight |
|----------------|-------------|------------------------|------------------------------|--|----------------------------|-------------------------------------|-----------------------------|---------|--------|
| FR14GR69V2T    | D1017178    | 690 V                  | 2 A                          | 1.8 A <sup>2</sup> s                       | 160 kA                     | 1.75 W                              | 0.9 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V4T    | E1017179    | 690 V                  | 4 A                          | 13 A <sup>2</sup> s                        | 160 kA                     | 2.9 W                               | 6.7 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V6T    | F1017180    | 690 V                  | 6 A                          | 35 A <sup>2</sup> s                        | 160 kA                     | 2 W                                 | 8 A <sup>2</sup> s          | 10      | 20 g   |
| FR14GR69V8T    | G1017181    | 690 V                  | 8 A                          | 40 A <sup>2</sup> s                        | 160 kA                     | 2.25 W                              | 4.3 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V10T   | H1017182    | 690 V                  | 10 A                         | 45 A <sup>2</sup> s                        | 160 kA                     | 2.95 W                              | 4.3 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V12T   | J1017183    | 690 V                  | 12 A                         | 60 A <sup>2</sup> s                        | 160 kA                     | 4.1 W                               | 5.4 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V16T   | K1017184    | 690 V                  | 16 A                         | 125 A <sup>2</sup> s                       | 160 kA                     | 4.65 W                              | 13.1 A <sup>2</sup> s       | 10      | 20 g   |
| FR14GR69V20T   | L1017185    | 690 V                  | 20 A                         | 230 A <sup>2</sup> s                       | 160 kA                     | 4.8 W                               | 26.8 A <sup>2</sup> s       | 10      | 20 g   |
| FR14GR69V25T   | M1017186    | 690 V                  | 25 A                         | 385 A <sup>2</sup> s                       | 160 kA                     | 5.95 W                              | 52.5 A <sup>2</sup> s       | 10      | 20 g   |
| FR14GR69V32T   | Q1017189    | 690 V                  | 32 A                         | 700 A <sup>2</sup> s                       | 160 kA                     | 6.9 W                               | 96.7 A <sup>2</sup> s       | 10      | 20 g   |
| FR14GR69V40T   | S1017191    | 690 V                  | 40 A                         | 1050 A <sup>2</sup> s                      | 160 kA                     | 7.5 W                               | 210 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V50T   | T1017192    | 690 V                  | 50 A                         | 2250 A <sup>2</sup> s                      | 160 kA                     | 8.75 W                              | 387 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V63T   | V1017193    | 690 V                  | 63 A                         | 2900 A <sup>2</sup> s                      | 160 kA                     | 12.5 W                              | 617 A <sup>2</sup> s        | 10      | 20 g   |



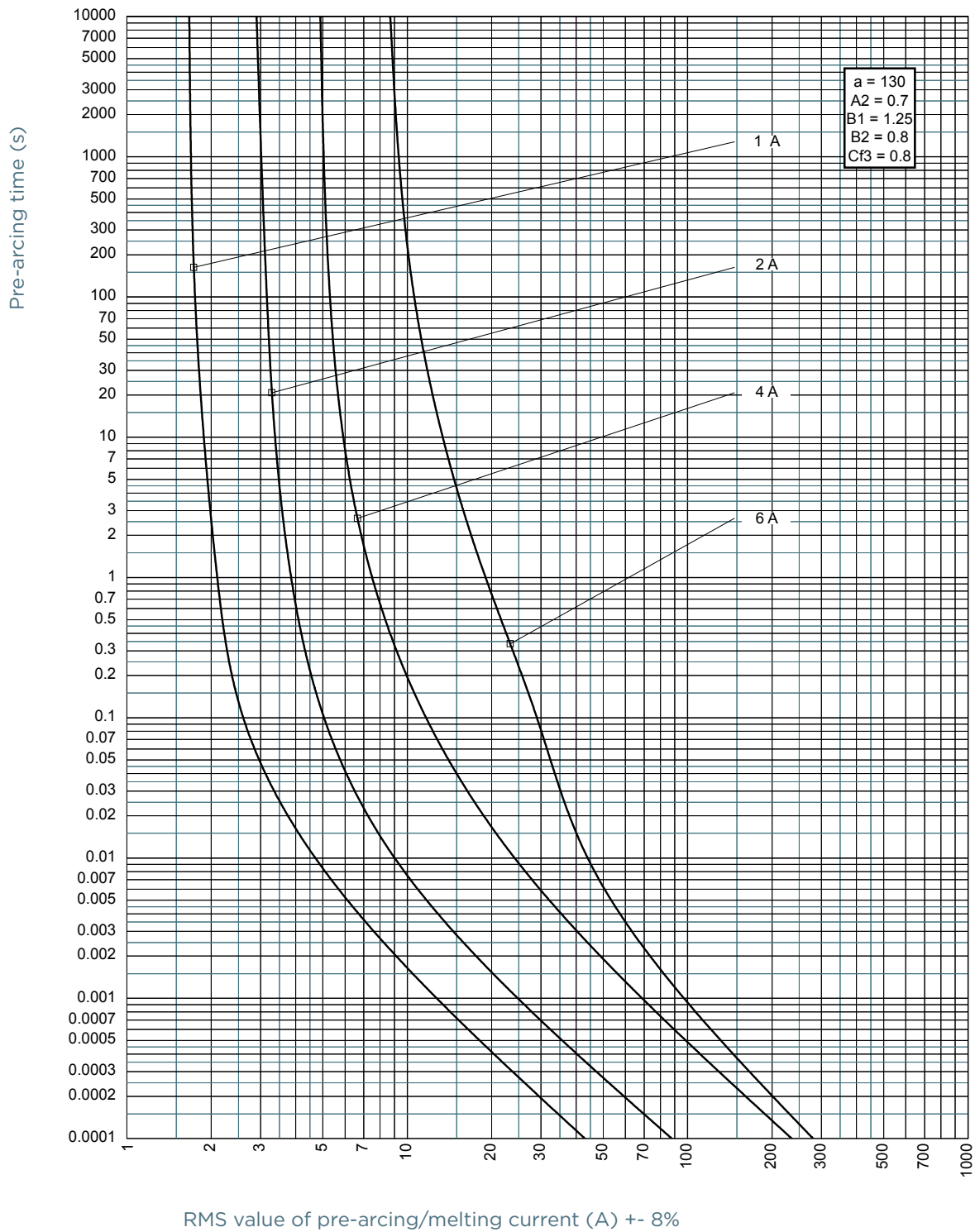
FR14GR69V63

### CP 14x51 gR without striker

| Catalog number | Item number | Rated voltage AC (IEC) | Rated current I <sub>n</sub> | Clearing I <sup>2</sup> t at Rated Voltage | Rated breaking capacity AC | Power dissipation at I <sub>n</sub> | Pre-arcing I <sup>2</sup> t | Package | Weight |
|----------------|-------------|------------------------|------------------------------|--|----------------------------|-------------------------------------|-----------------------------|---------|--------|
| FR14GR69V1     | X1017195    | 690 V                  | 1 A                          | 0.3 A <sup>2</sup> s                       | 160 kA                     | 1.15 W                              | 0.2 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V2     | Y1017196    | 690 V                  | 2 A                          | 1.8 A <sup>2</sup> s                       | 160 kA                     | 1.75 W                              | 0.9 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V4     | Z1017197    | 690 V                  | 4 A                          | 13 A <sup>2</sup> s                        | 160 kA                     | 2.9 W                               | 6.7 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V6     | A1017198    | 690 V                  | 6 A                          | 35 A <sup>2</sup> s                        | 160 kA                     | 2 W                                 | 8 A <sup>2</sup> s          | 10      | 20 g   |
| FR14GR69V8     | B1017199    | 690 V                  | 8 A                          | 40 A <sup>2</sup> s                        | 160 kA                     | 2.25 W                              | 4.3 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V10    | C1017200    | 690 V                  | 10 A                         | 45 A <sup>2</sup> s                        | 160 kA                     | 2.95 W                              | 4.3 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V12    | D1017201    | 690 V                  | 12 A                         | 60 A <sup>2</sup> s                        | 160 kA                     | 4.1 W                               | 5.4 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V16    | E1017202    | 690 V                  | 16 A                         | 125 A <sup>2</sup> s                       | 160 kA                     | 4.65 W                              | 13.1 A <sup>2</sup> s       | 10      | 20 g   |
| FR14GR69V20    | F1017203    | 690 V                  | 20 A                         | 230 A <sup>2</sup> s                       | 160 kA                     | 4.8 W                               | 26.8 A <sup>2</sup> s       | 10      | 20 g   |
| FR14GR69V25    | G1017204    | 690 V                  | 25 A                         | 385 A <sup>2</sup> s                       | 160 kA                     | 5.95 W                              | 52.5 A <sup>2</sup> s       | 10      | 20 g   |
| FR14GR69V32    | H1017205    | 690 V                  | 32 A                         | 700 A <sup>2</sup> s                       | 160 kA                     | 6.9 W                               | 96.7 A <sup>2</sup> s       | 10      | 20 g   |
| FR14GR69V40    | J1017206    | 690 V                  | 40 A                         | 1050 A <sup>2</sup> s                      | 160 kA                     | 7.5 W                               | 210 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V50    | K1017207    | 690 V                  | 50 A                         | 2250 A <sup>2</sup> s                      | 160 kA                     | 8.75 W                              | 387 A <sup>2</sup> s        | 10      | 20 g   |
| FR14GR69V63    | L1017208    | 690 V                  | 63 A                         | 2900 A <sup>2</sup> s                      | 160 kA                     | 12.5 W                              | 617 A <sup>2</sup> s        | 10      | 20 g   |

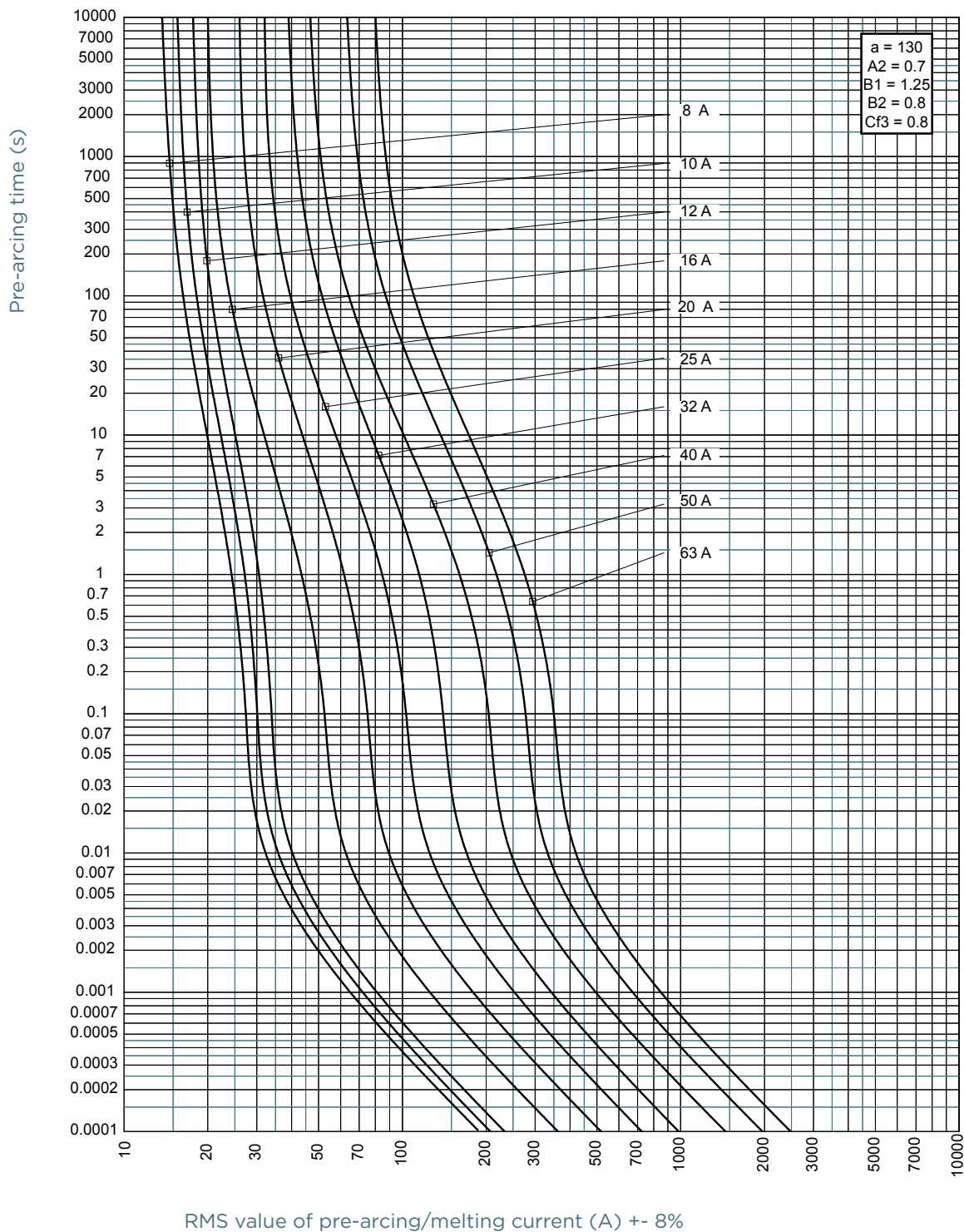
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### Size 14x51 gR 1-6A



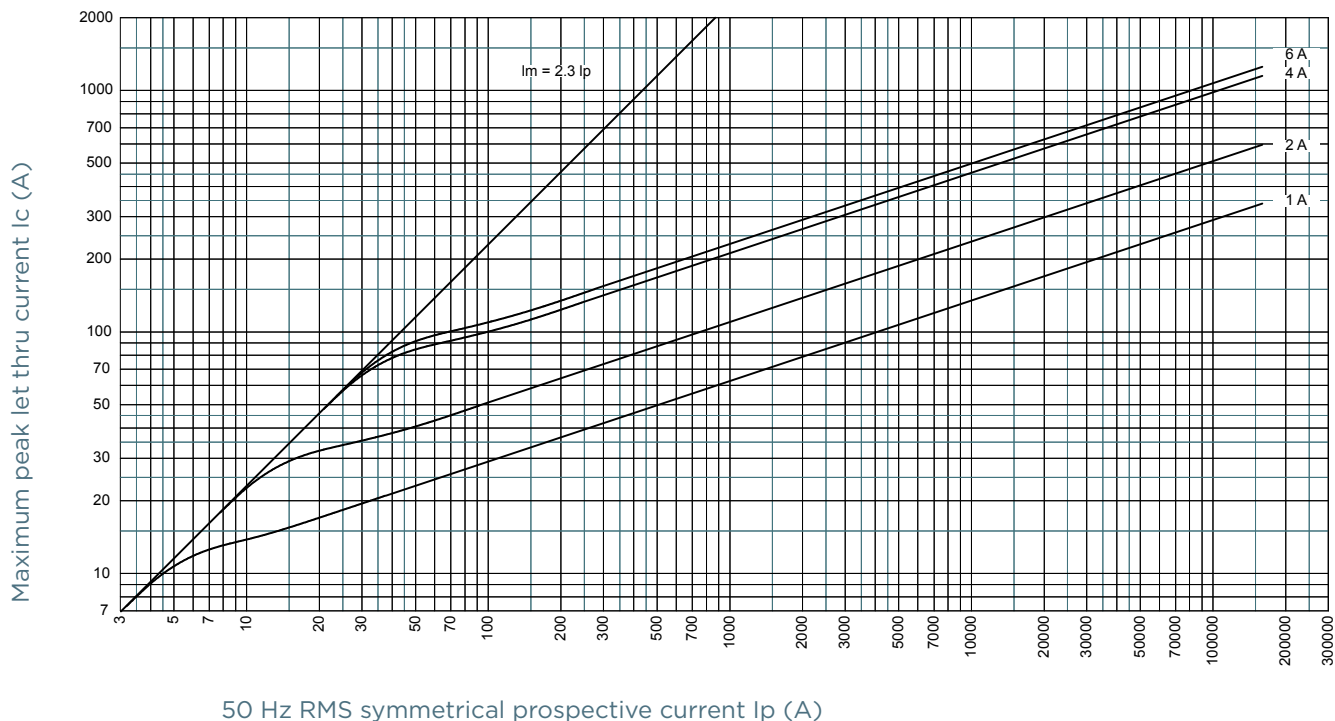
## TIME CURRENT CHARACTERISTIC CURVES

### Size 14x51 gR 8-63A

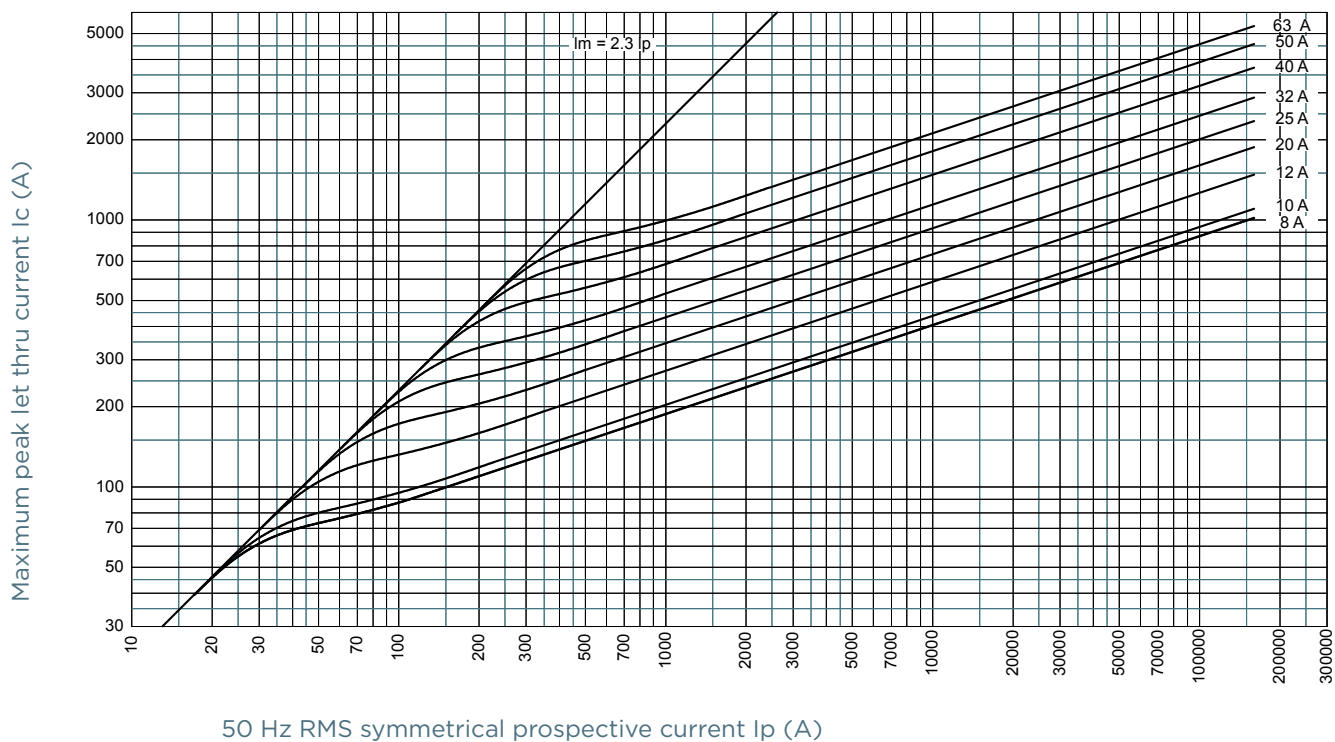


## CUT-OFF CURRENT CHARACTERISTIC

### Size 14x51 gR 1-6A



### Size 14x51 gR 8-63A

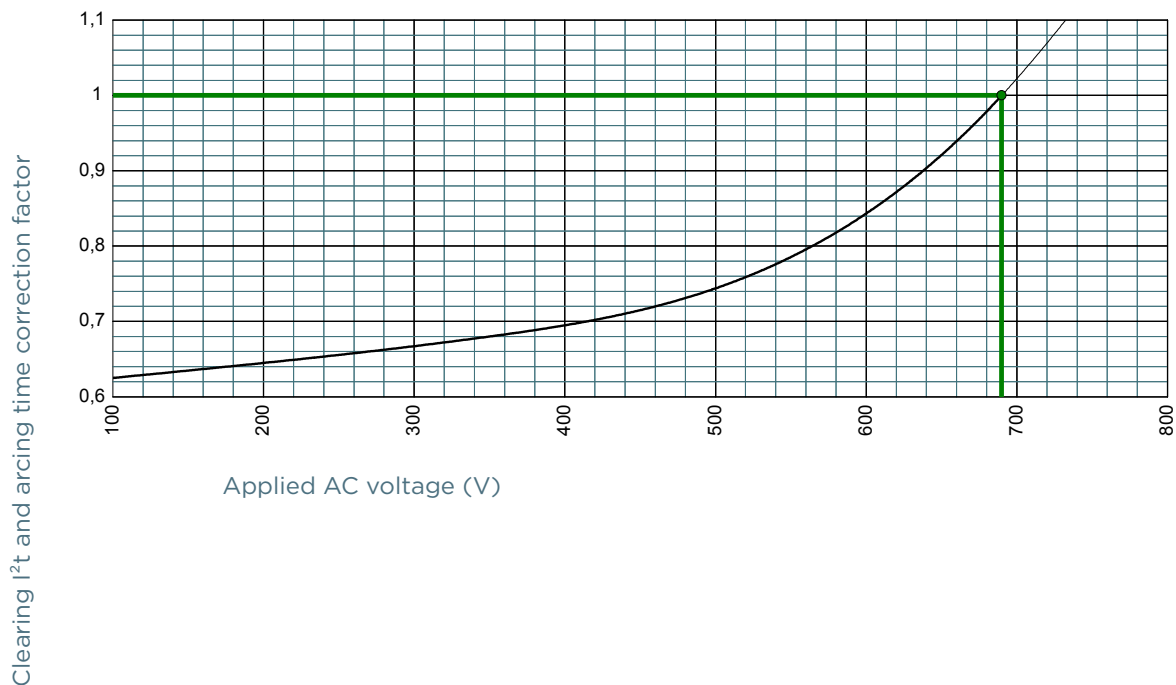


# Protistor® size 14x51 gR

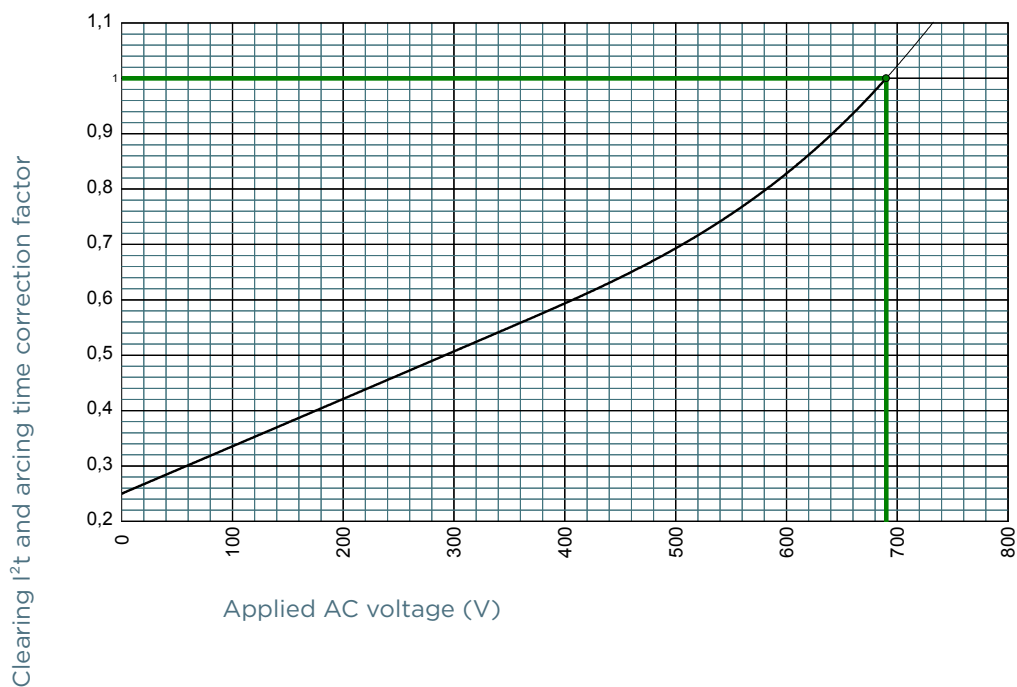
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## I<sup>2</sup>T MULTIPLIER COEFFICIENT

### Size 14x51 gR 1-6A



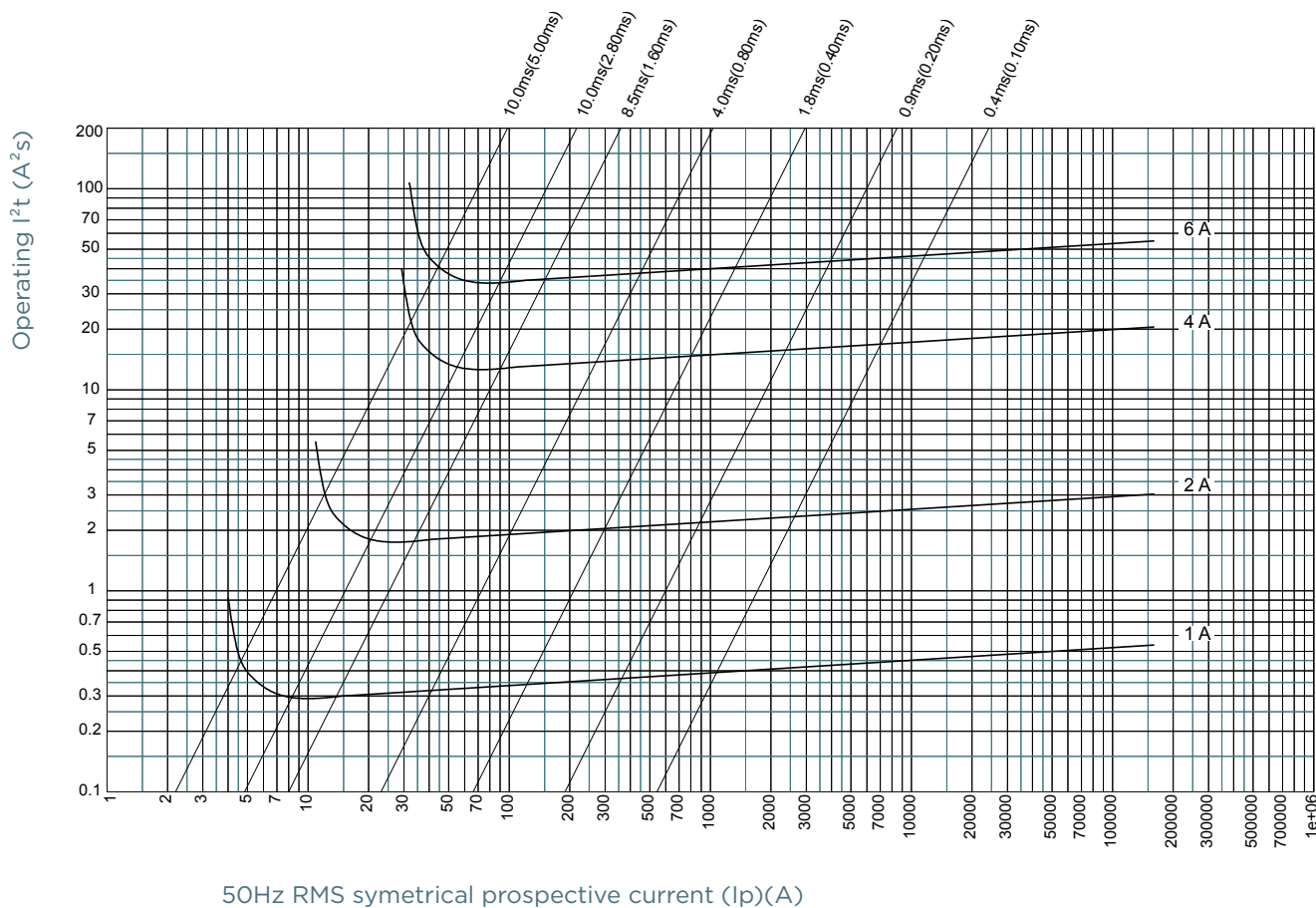
### Size 14x51 gR 8-63A



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## CHARACTERISTICS TOTAL I<sup>2</sup>T CURVE

Size 14x51 gR 1-6A



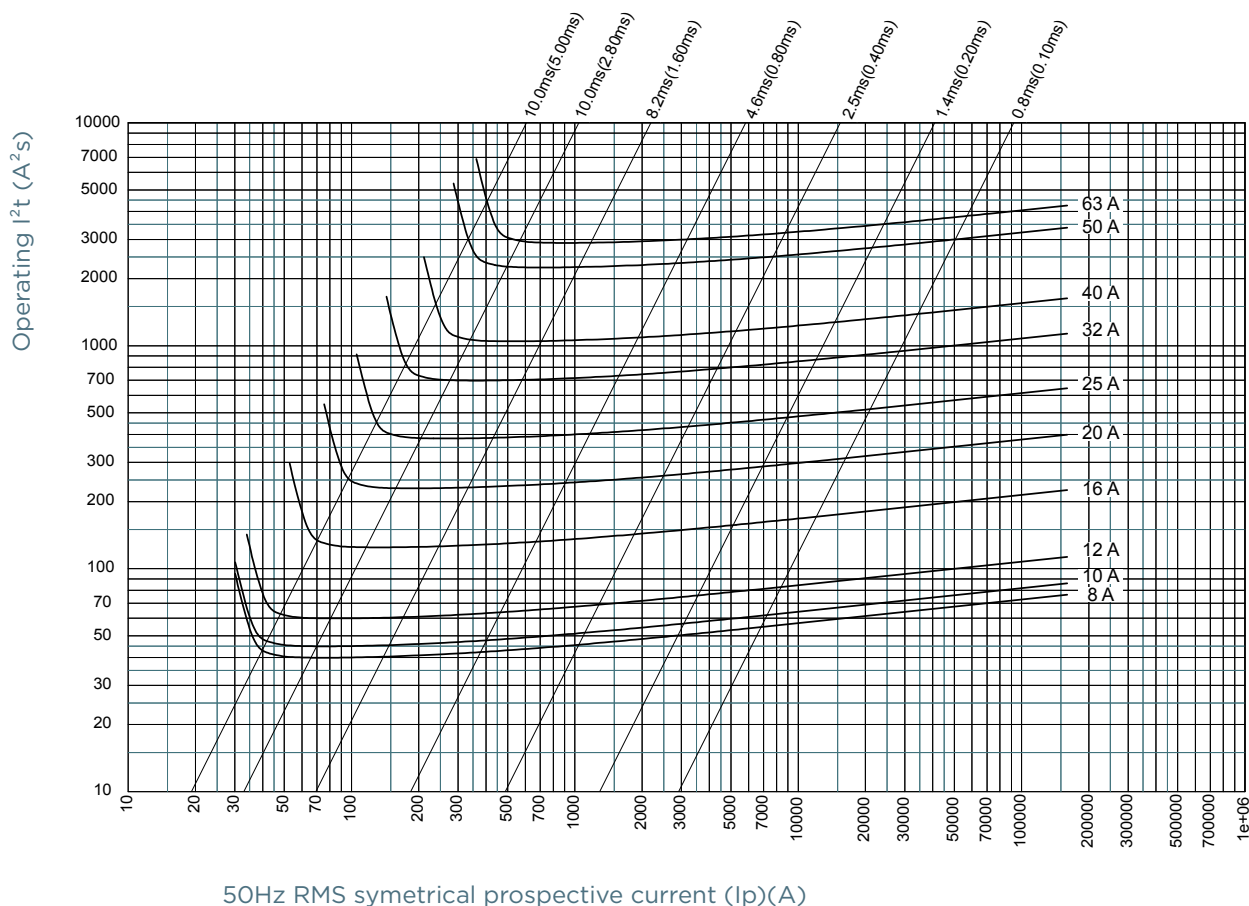
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# Protistor® size 14x51 gR

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## CHARACTERISTICS TOTAL I<sup>2</sup>T CURVE

Size 14x51 gR 8-63A



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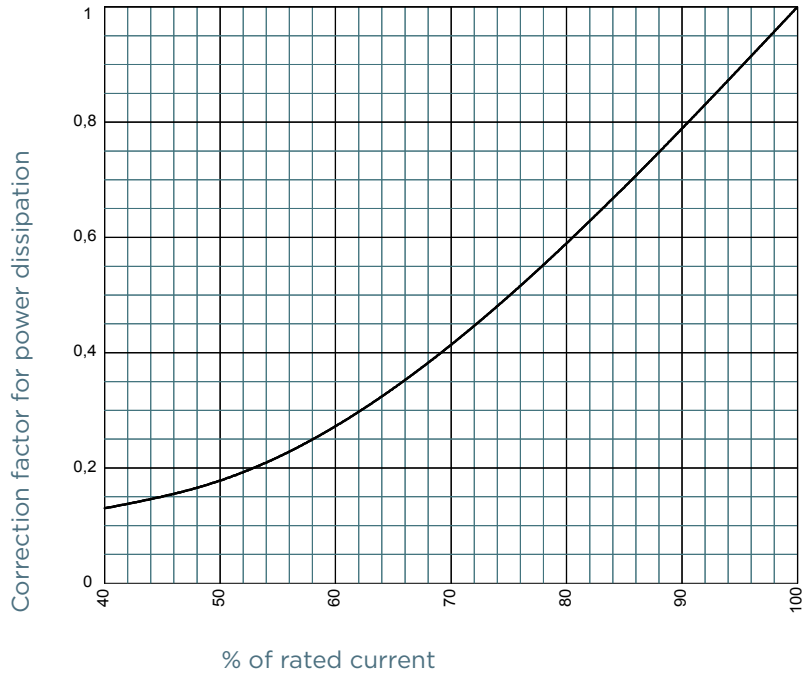


# Protistor® size 14x51 gR

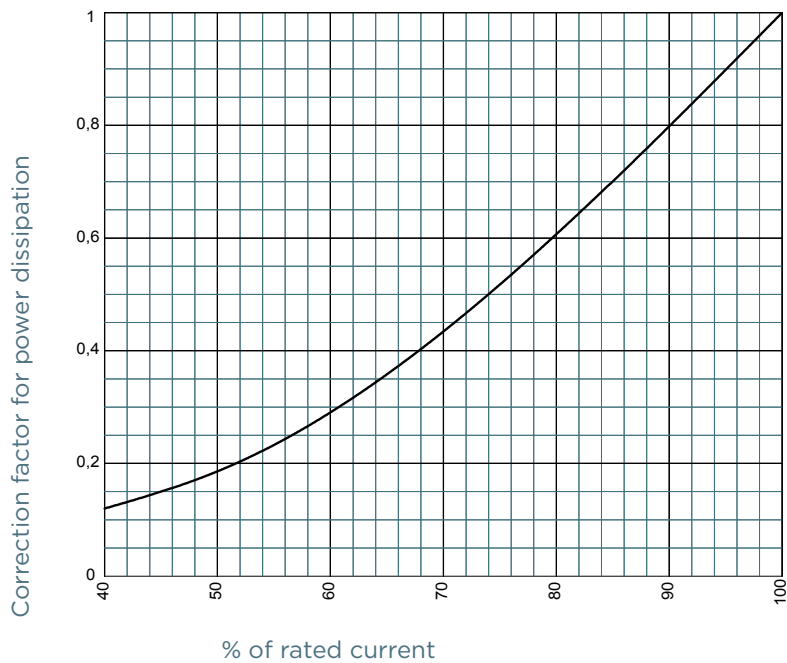
690VAC (IEC) / 700VAC (UL)

## POWER DISSIPATION

### Size 14x51 gR 1-6A



### Size 14x51 gR 8-63A



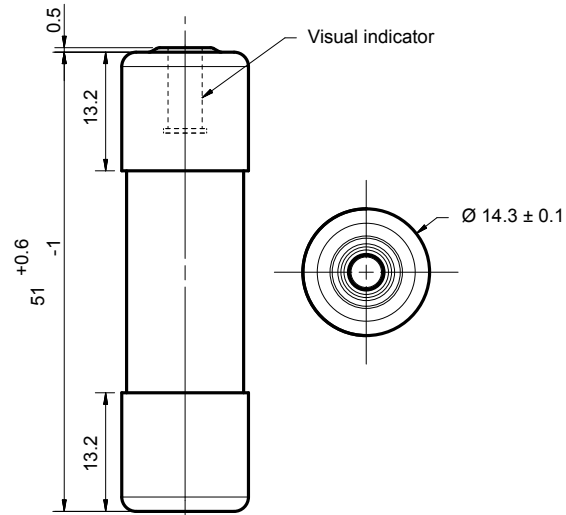
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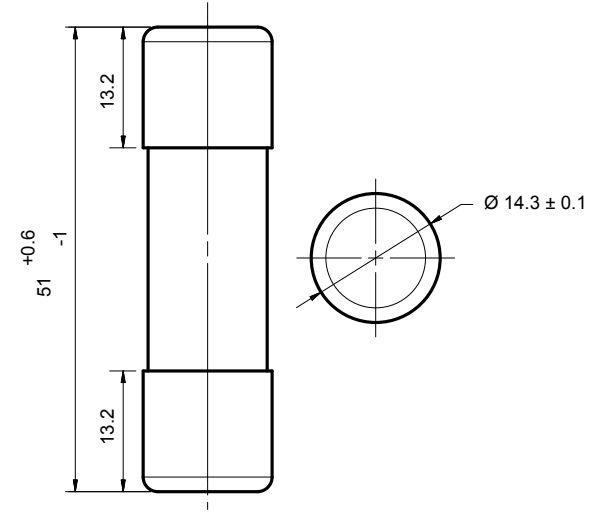
## DIMENSIONS

**CP 14x51 gR with striker** (100211)



Dimensions in mm

**CP 14x51 gR without striker** (100212)



Dimensions in mm