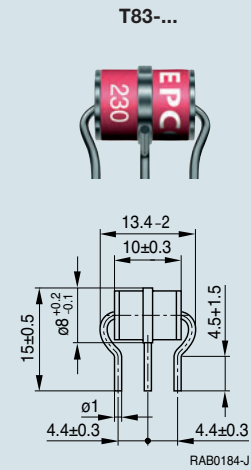
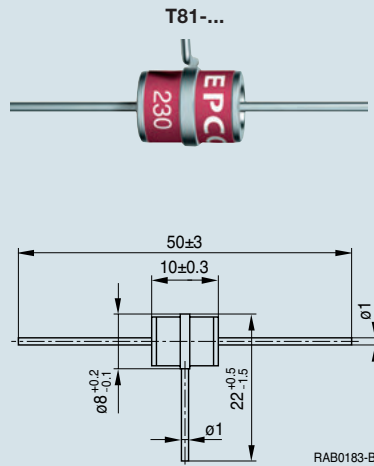
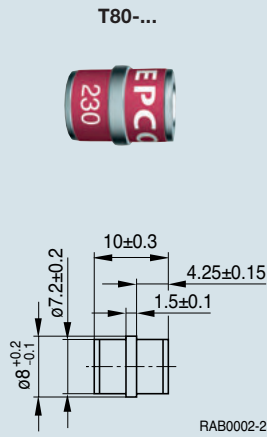


# 3-Electrode Arresters

## 3-Elektroden-Ableiter

Medium-duty types  
10 kA / 10 A • Ø 8 x 10 mm



| Type<br>Ordering code                                | T80-A90X<br>B88069X8360C203<br>T81-A90X<br>B88069X8440B252<br>T83-A90X<br>B88069X8300B502 | T81-A150X<br>B88069X9580B252<br>T83-A150X<br>B88069X9590B502 | T80-A230X<br>B88069X9380C203<br>T81-A230X<br>B88069X8470B252<br>T83-A230X<br>B88069X8910B502 | T80-A250X<br>B88069X8170C203<br>T83-A250X<br>B88069X8340B502 |    |
|--|---|--|--|--|----|
| Nom. DC spark-over voltage $V_{sdcN}$                | 90  | 150  | 230  | 250  | V  |
| Tolerance of $V_{sdcN}$                              | ± 20  | ± 20   | ± 20   | ± 20   | %  |
| Impulse spark-over voltage                           |   |  |  |  |    |
| @ 100 V/µs 99% of measured values                    | < 400   | < 450  | < 450  | < 500  | V  |
| @ 100 V/µs typical values                            | < 300   | < 400  | < 400  | < 450  | V  |
| @ 1 kV/µs 99% of measured values                     | < 550   | < 550  | < 650  | < 650  | V  |
| @ 1 kV/µs typical values                             | < 500   | < 500  | < 600  | < 600  | V  |
| Nom. alternating discharge current @ 50 Hz, 1 s      | 10  | 10   | 10   | 10   | A  |
| Alternating discharge current @ 50 Hz, 9 cycles      | 40  | 40   | 40   | 40   | A  |
| Nom. impulse discharge current 10 operations 8/20 µs | 10  | 10   | 10   | 10   | kA |
| Single impulse discharge current, 1 op. 8/20 µs      | 15  | 15   | 15   | 15   | kA |
| Impulse discharge current, 1 op. 10/350 µs           | 2   | 2  | 5  | 2  | kA |
| Impulse discharge current, 300 op. 10/1000 µs        | 200   | 200  | 200  | 200  | A  |
| Insulation resistance                                | > 10  | > 10   | > 10   | > 10   | GΩ |
| Capacitance @ 1 MHz                                  | < 1.5   | < 1.5  | < 1.5  | < 1.5  | pF |

Currents through center electrode, half value through each line electrode.

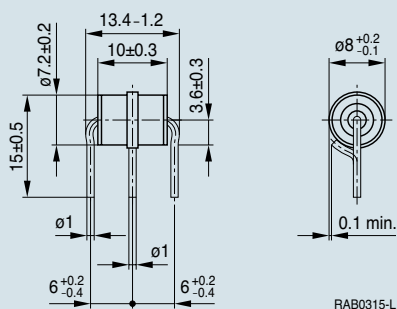
About packing see page 65.

Please read *Important notes* on page 4 and *Cautions and warnings* on page 69.  
Bitte beachten Sie die Seite 4 *Wichtige Hinweise* sowie die *Warn- und Sicherheitshinweise* auf Seite 69.

# 3-Electrode Arresters 3-Elektroden-Ableiter

Medium-duty types  
10 kA / 10 A • Ø 8 x 10 mm

T87-...



Dimensional drawings for T80-, T81- and T83- series see page 47.  
Maßbilder für Serien T80, T81 und T83 siehe Seite 47.




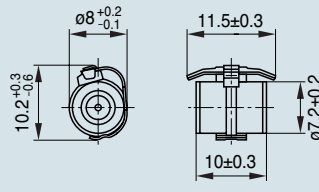
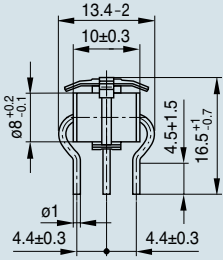
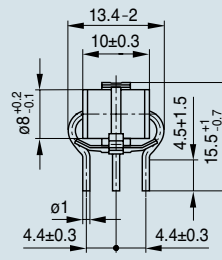
| Type<br>Ordering code                                | T81-A300X<br>B88069X9000B252<br>T83-A300X<br>B88069X7990B502 | T80-A350X<br>B88069X8500C203<br>T81-A350X<br>B88069X9190B252<br>T83-A350X<br>B88069X8690B502 | T80-A420X<br>B88069X7910C203<br>T83-A420X<br>B88069X7960B502 | T83-A500X<br>on request | T83-C600X<br>B88069X8530B502<br>T87-C600X<br>B88069X8550B502 |    |
|--|--|--|--|-------------------------|--|----|
| Nom. DC spark-over voltage $V_{sdclN}$               | 300  | 350  | 420  | 500                     | 600  | V  |
| Tolerance of $V_{sdclN}$                             | ± 20   | ± 20   | ± 20   | ± 20                    | -30/+17  | %  |
| Impulse spark-over voltage                           |  |  |  |                         |  |    |
| @ 100 V/µs 99% of measured values                    | < 700  | < 700  | < 850  | < 900                   | < 900  | V  |
| @ 100 V/µs typical values                            | < 600  | < 600  | < 700  | < 800                   | < 800  | V  |
| @ 1 kV/µs 99% of measured values                     | < 800  | < 900  | < 950  | < 1100                  | < 1100   | V  |
| @ 1 kV/µs typical values                             | < 700  | < 800  | < 850  | < 1000                  | < 1000   | V  |
| Nom. alternating discharge current @ 50 Hz, 1 s      | 10   | 10   | 10   | 10                      | 10   | A  |
| Alternating discharge current @ 50 Hz, 9 cycles      | 40   | 40   | 40   | 40                      | 40   | A  |
| Nom. impulse discharge current 10 operations 8/20 µs | 10   | 10   | 10   | 10                      | 10   | kA |
| Single impulse discharge current, 1 op. 8/20 µs      | 15   | 15   | 15   | 15                      | 15   | kA |
| Impulse discharge current, 1 op. 10/350 µs           | 2  | 2  | 2  | 2                       | 2  | kA |
| Impulse discharge current, 300 op. 10/1000 µs        | 200  | 200  | 200  | on request              | on request   | A  |
| Insulation resistance                                | > 10   | > 10   | > 10   | > 10                    | > 10   | GΩ |
| Capacitance @ 1 MHz                                  | < 1.5  | < 1.5  | < 1.5  | < 1.5                   | < 1.5  | pF |

Currents through center electrode, half value through each line electrode.

About packing see page 65.

# 3-Electrode Arresters 3-Elektroden-Ableiter

Medium-duty types / With short-circuit spring  
10 kA / 10 A • Ø 8 x 10 mm

|                                      | T80-...F   | T8*-...F1   | T8*-...F4   |
|--------------------------------------|--|---|---|
|                                      |   |    |    |
|                                      |   |    |    |
|                                      | RAB0311-F  | RAB0189-Q   | RAB0190-T   |
| Type                                 | <b>T80-A90XF</b>   | <b>T80-A230XF</b>   | <b>T80-A350XF</b>   |
| Ordering code                        | B88069X2391B502<br><b>T83-A90XF1</b><br>B88069X8430B502<br><b>T83-A90XF4</b><br>B88069X8350B502<br><b>T83-A150XF1</b><br>B88069X9930B502 | B88069X8380B502<br><b>T83-A230XF1</b><br>B88069X9420B502<br><b>T83-A230XF4</b><br>B88069X8870B502<br><b>T85-A230XF4 *)</b><br>B88069X9260B502 | B88069X8230B502<br><b>T83-A250XF</b><br>B88069X8230B502<br><b>T83-A250XF4</b><br>B88069X8990B502<br><b>T83-A260XF4</b><br>B88069X8250B502 |
| Nom. DC spark-over voltage $V_{sdN}$ | <b>90/150</b>  | <b>230</b>  | <b>250/260</b>  |
|                                      |  |   | <b>350</b>  |
|                                      |  |   | <b>500</b>  |
|                                      |  |   | <b>V</b>  |

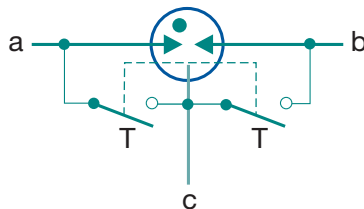
\*) Design with shorter lead length.  
About packing see page 65.

Variants ...F1 and ...F4 are the most common positions for the short-circuit spring. The electrical characteristics are the same as those given for the corresponding types without a short-circuit spring on pages 47 and 48. Alternative voltages, lead configurations and spring positions on request.

Die Positionierungsvarianten ...F1 und ...F4 zeigen die in der Praxis bevorzugte Anordnung der Kurzschlussfeder. Die elektrischen Kennwerte entsprechen den Angaben für die Grundtypen (ohne Kurzschlussfeder) auf den Seiten 47 und 48. Andere Spannungen und Ausführungen der Anschlussdrähte sowie Anordnung der Kurzschlussfeder auf Anfrage.

Circuit:

- a, b Tip/ring (line) electrode
- c Center electrode
- T Temperature-controlled short-circuit mechanism



Schaltung:

- a, b Aderelektrode
- c Mittelelektrode
- T Temperaturgesteuerter Kurzschlussmechanismus