

ETITEC

Surge arresters 126

Technical data 375

ETITEC

SURGE ARRESTERS



Surge arresters

ETITEC surge arresters are intended for protection of electrical installations and devices against overvoltage effects, which may occur in atmospheric discharges and switching overvoltages. The main part of surge arrester is ZnO non-linear varistor. Its main characteristic is ohmic non-linearity, which depends strongly on the applied voltage at the clamps. All arresters have modular construction, a special feature is interchanging varistor part and visual signalization for varistor thermal failure. The signalization performed with a red flag, which appears when failure occurs. The models with RC mark are equipped with auxiliary contacts for signalization.

Surge arrester ETITEC group A

ETITEC A are surge arresters for outdoor mounting. Group A overvoltage protection is in accordance with VDE class C. This protection corresponds to IEC category II. Protection is provided on power lines and is capable of discharging enormous pulse currents. In case of permanent arrester damage thermal protection will be activated. The protective component interrupts the circuit and a red plug indicates a faulty device (type A). After activation of disconnecting device earth conductor is visibly separated (type AQ).



ETITEC A

type	code No.	weight [g]	packaging [pcs]
ETITEC A 10/275	002441310	130	3/60
ETITEC A 15/275	002441330	130	3/60
ETITEC A 10/440	002441315	130	3/60
ETITEC A 10/440 Al/Fe connection*	002441353	130	3/60
ETITEC A 15/440	002441335	130	3/60
ETITEC A 15/440 Al/Fe connection*	002441358	130	3/60

* Al/Fe connection for non isolated conductors

ETITEC A

contains a decoupling device, which protects a module against short circuit condition and also signalizes a failure – a red plug springs out of the casing.

ETITEC AQ

type	code No.	weight [g]	packaging [pcs]
ETITEC AQ 280/10	002442121	105	1/60
ETITEC AQ 440/10	002442221	105	1/60
ETITEC AQ 280/15	002442131	105	1/60
ETITEC AQ 440/15	002442231	105	1/60

ETITEC AQ

contains a decoupling device, which protects a module against short circuit condition. The earth conductor is visibly separated.

Accessories

type	code No.	weight [g]	packaging [pcs]
Connection clamp for non insulated conductors Al/Fe	002441941	170	3
Connection clamp for insulated conductor	002441942	430	3

Connection isolated conductors (only for A type)

type	code No.
Al 16 mm ² 1m	002441394
Al 25 mm ² 1m	002441391
Cu 10 mm ² 1m	002441392
Cu 6 mm ² 1m	002441393

Surge arrester ETITEC group B EN/IEC/VDE: T1, T2/I, II/B+C

ETITEC B is surge arrester for indoor application. Group B overvoltage protection is in accordance with VDE class B, C. This protection corresponds to IEC category I, II. The protection is made on the main distribution box, as the first level of protection against lightning strikes, partial direct, indirect atmospheric discharges and induced surges. In case of permanent arrester damage, thermal protection is activated which signalizes faulty arrester. Consequently only the varistor overvoltage insert has to be replaced. The basic casing remains in the top hat fixing DIN rail. ETITEC B 230/100G is an overvoltage arrester for protection against partial direct and indirect atmospheric discharges. It is used as a galvanic separation between N-PE conductor in TT systems.

ETITEC B

type	code No.	weight [g]	packaging [pcs]
ETITEC B 275/25*	002441420	300	1/6
ETITEC B 275/25 RC*	002441421	310	1/6
ETITEC B 440/25*	002441422	295	1/6
ETITEC B 440/25 RC*	002441423	305	1/6
ETITEC B 275/35 (8/20)	002441460	140	1/12
ETITEC B 275/35-RC (8/20)	002441680	150	1/12
ETITEC B 440/35 (8/20)	002441470	150	1/12
ETITEC B 440/35-RC (8/20)	002441690	160	1/12
MODUL ETITEC B 275/35 (8/20)	002441461	70	1/12
MODUL ETITEC B 440/35 (8/20)	002441471	80	1/12
ETITEC B 230/100G	002441900	260	1/6

* fixed, varistor's part cannot be changed

** RC → remote signalisation

Advantages:

- indication window of faulty device
- two module system (in case of a failure of one of the modules protection is still possible)
- remote signalisation
- mounting on DIN rail
- connection up to 35mm²
- high discharge currents
- high degree of protection
- varistor is the protective element



Surge arrester ETITEC group B-F EN/IEC/VDE: T1, T2/I, II/B+C

ETITEC B-F

type	code No.	U _c [V AC]	I _{imp} (10/350) [kA]	weight[g]	packaging [pcs]
ETITEC B 150/12,5 F 1+0	002440120	150	12,5	124	12
ETITEC B 275/12,5 F 1+0	002440121	275	12,5	150	
ETITEC B 320/12,5 F 1+0	002440122	320	12,5	150	
ETITEC B 150/12,5 F 1+0 RC	002440123	150	12,5	129	
ETITEC B 275/12,5 F 1+0 RC	002440124	275	12,5	155	
ETITEC B 320/12,5 F 1+0 RC	002440125	320	12,5	155	7
ETITEC B 150/12,5 F 2+0	002440130	150	12,5	248	
ETITEC B 275/12,5 F 2+0	002440131	275	12,5	300	
ETITEC B 320/12,5 F 2+0	002440132	320	12,5	300	
ETITEC B 150/12,5 F 2+0 RC	002440133	150	12,5	258	
ETITEC B 275/12,5 F 2+0 RC	002440134	275	12,5	600	5
ETITEC B 320/12,5 F 2+0 RC	002440135	320	12,5	600	
ETITEC B 150/12,5 F 3+0	002440140	150	12,5	372	
ETITEC B 275/12,5 F 3+0	002440141	275	12,5	450	
ETITEC B 320/12,5 F 3+0	002440142	320	12,5	450	
ETITEC B 150/12,5 F 3+0 RC	002440143	150	12,5	387	3
ETITEC B 275/12,5 F 3+0 RC	002440144	275	12,5	465	
ETITEC B 320/12,5 F 3+0 RC	002440145	320	12,5	465	
ETITEC B 150/12,5 F 4+0	002440150	150	12,5	496	
ETITEC B 275/12,5 F 4+0	002440151	275	12,5	600	
ETITEC B 320/12,5 F 4+0	002440152	320	12,5	600	1/12
ETITEC B 150/12,5 F 4+0 RC	002440153	150	12,5	516	
ETITEC B 275/12,5 F 4+0 RC	002440154	275	12,5	620	
ETITEC B 320/12,5 F 4+0 RC	002440155	320	12,5	620	
MODUL ETITEC B 150/12,5 F	002440160	150	12,5	70	
MODUL ETITEC B 275/12,5 F	002440161	275	12,5	70	
MODUL ETITEC B 320/12,5 F	002440162	320	12,5	70	

* RC → remote signalisation

Note: I_{imp} - defined for a single 1-pole varistor (MOV)

Advantages:

- indication window of faulty device
- remote signalisation
- mounting on DIN rail
- connection up to 35mm²
- high discharge currents
- high degree of protection
- varistor is the protective element



Surge arrester ETITEC group WENT EN/IEC/VDE: T1, T2 /I, II/B+C

ETITEC Went is surge arrester for indoor application. Group WENT surge protection is in accordance with VDE class B, C. This protection corresponds to IEC category I, II. The protection is made on the main distribution box, as the first level of protection against lightning strikes and partial direct. It's distinguished by its small requirement for space, since for a complete 3-phase systems protection; it only requires a width of 4 modules. It represents a solution for systems and overvoltage protection for all 4 known network systems (TT, TNC, TNC-S and IT) can easily be built in.

Advantages:

- indication window of faulty device
- two module sistem (in case of failure of one of the modules protection is still possible)
- remote signalisation
- mounting on DIN rail
- connection up to 35mm²
- high discharge currents
- high degree of protection
- varistor is the protective element

ETITEC WENT

type	code No.	weight [g]	packaging [pcs]
ETITEC WENT TNC-S 25/50 2+0	002444001	374	1/7
ETITEC WENT IT 25/50 2+0	002444021	458	1/3
ETITEC WENT TT 25/50 1+1	002444002	364	1/3
ETITEC WENT TNC 25/75 3+0	002444003	570	1/5
ETITEC WENT TT 25/100 3+1	002444004	768	1/2
ETITEC WENT TNC-S 25/100 4+0	002444005	756	1/3
ETITEC WENT IT 25/100 4+0	002444025	1000	1/2
ETITEC WENT TNC-S 25/50 RC 2+0	002444011	379	1/7
ETITEC WENT IT 25/50 RC 2+0	002444031	463	1/3
ETITEC WENT TT 25/50 RC 1+1	002444012	369	1/3
ETITEC WENT TNC 25/75 RC 3+0	002444013	570	1/5
ETITEC WENT TT 25/100 RC 3+1	002444014	772	1/2
ETITEC WENT TNC-S 25/100 RC 4+0	002444015	760	1/3
ETITEC WENT IT 25/100 RC 4+0	002444035	1004	1/2

RC → remote signalisation

Note: I_{imp} - defined for a single 1-pole varistor (MOV)

ETITEC WENT 25/_

I_{imp} = 25 kA/pole
 I_n = 25 kA/pole
 I_{max} = 100 kA/pole
 U_p at I_{imp} = 1,3 kV (TNC)

ETITEC WENT

type	code No.	weight [g]	packaging [pcs]
ETITEC WENT TNC-S 12,5/25 2+0	002444042	251	1/7
ETITEC WENT IT 12,5/25 2+0	002444062	283	1/7
ETITEC WENT TT 12,5/25 1+1	002444043	245	1/7
ETITEC WENT TNC 12,5/37,5 3+0	002444044	382	1/5
ETITEC WENT TT 12,5/50 3+1	002444046	538	1/3
ETITEC WENT TNC-S 12,5/50 4+0	002444045	462	1/3
ETITEC WENT IT 12,5/50 RC 4+0	002444065	526	1/3
ETITEC WENT TNC-S 12,5/25 RC 2+0	002444052	256	1/7
ETITEC WENT IT 12,5/25 RC 2+0	002444072	288	1/7
ETITEC WENT TT 12,5/25 RC 1+1	002444053	245	1/7
ETITEC WENT TNC 12,5/37,5 RC 3+0	002444054	384	1/5
ETITEC WENT TT 12,5/50 RC 3+1	002444056	542	1/3
ETITEC WENT TNC-S 12,5/50 RC 4+0	002444055	464	1/3
ETITEC WENT IT 12,5/50 RC 4+0	002444075	528	1/3

RC → remote signalisation

Note: I_{imp} - defined for a single 1-pole varistor (MOV)

ETITEC WENT 12,5/_

I_{imp} = 12,5 kA/pole
 I_n = 20 kA/pole
 I_{max} = 50 kA/pole
 U_p at I_{imp} = 1,2 kV (TNC)



Surge arrester ETITEC group C EN/IEC/VDE: T2/II/C

ETITEC C is surge arrester for indoor application. Group C surge protection is in accordance with VDE class C. This protection corresponds to IEC category II. The protection is made on the subdistribution box, as the second level of protection against overvoltage indirect lightning strikes. In case of permanent arrester damage, thermal protection is activated which signalize faulty arrester. ETITEC C 255/20 G is an overvoltage arrester with gas discharge tube for protection against indirect lightning strikes. It is used as a galvanic separation between N-PE conductor in TT network systems.

*Note: First number of designation 1+0, 2+0, 3+1 etc. indicates the number of varistors. Second one means the following: number 0 indicates there is no gas discharge tube, number 1 indicates there is.

ETITEC C			
type	code No.	weight [g]	packaging [pcs]
ETITEC C 275/20 1+0	002441510	125	1/12
ETITEC C 275/20 1+0 RC	002441710	135	1/12
ETITEC C 275/20 4+0	002441512	465	1/3
ETITEC C 275/20 4+0 RC	002441513	475	1/3
ETITEC C 275/20 2+0	002441520	240	1/6
ETITEC C 275/20 2+0 RC	002441521	250	1/6
ETITEC C 275/20 3+0	002441522	350	1/3
ETITEC C 275/20 3+0 RC	002441523	360	1/3
ETITEC C 275/20 1+1	002441524	230	1/6
ETITEC C 275/20 1+1 RC	002441525	240	1/6
ETITEC C 275/20 3+1	002441526	440	1/3
ETITEC C 275/20 3+1 RC	002441527	450	1/3
ETITEC C 440/20 1+0	002441515	135	1/12
ETITEC C 440/20 1+0 RC	002441720	145	1/12
ETITEC C 440/20 4+0	002441530	480	1/3
ETITEC C 440/20 4+0 RC	002441531	490	1/3
ETITEC C 440/20 2+0	002441532	250	1/6
ETITEC C 440/20 2+0 RC	002441533	260	1/6
ETITEC C 440/20 3+0	002441534	365	1/3
ETITEC C 440/20 3+0 RC	002441535	375	1/3
ETITEC C 440/20 U	002441528	130	1/12
ETITEC C 440/20 U RC	002441529	140	1/12
ETITEC C 275/20 U	002441536	120	1/12
ETITEC C 275/20 U RC	002441537	130	1/12
ETITEC C 255/20 G	002441910	105	1/12
MODUL ETITEC C 275/20	002441511	55	1/12
MODUL ETITEC C 440/20	002441516	65	1/12
MODUL ETITEC C 255/20G	002441517	35	1/12

*U → fixed, varistor's part cannot be changed

**RC → remote signalisation

Note: I_{imp} - defined for a single 1-pole varistor (MOV)

Advantages:

- indication window of faulty device
- remote signalisation
- mounting on top hat fixing DIN rail
- connection up to 35mm²
- high discharge currents
- high degree of protection
- varistor is the protective element
- metal snapper, new way of mounting on DIN rail (easier, quicker)
- new round-off shape



Surge arrester ETITEC group D EN/IEC/VDE: T3/III/D

ETITEC D is a surge arrester for indoor application. Group D surge protection is in accordance with VDE class D. This protection corresponds to IEC category III. The protection should be installed immediately before the protected load. This is protection against indirect lightning strikes. In case of permanent arrester damage, thermal protection is activated, which signalizes faulty arrester. Consequentially only the varistor overvoltage insert has to be replaced. The basic casing remains on the top hat fixing DIN rail.

ETITEC D			
type	code No.	weight [g]	packaging [pcs]
ETITEC D 275/3	002441610	125	1/12
ETITEC D 275/3 RC	002441740	135	1/12
ETITEC D 440/3	002441620	135	1/12
ETITEC D 440/3 RC	002441750	145	1/12
MODUL ETITEC D 275/3	002441611	55	1/12
MODUL ETITEC D 440/3	002441621	65	1/12

*RC → remote signalisation



Surge protection of SIGNAL/CONTROL lines

ETITEC SIGNAL/CONTROL low voltage protective devices have been developed to protect against the effects of induced voltages onto data, signal and communication circuits. Coarse protection is provided by a three terminal gas discharge tube while fine protection is provided using a high speed silicon or metal oxide varistor stage. Care is taken to ensure coordination between these two stages without voltages or surge current blind spots occurring. The circuit topology consists of a multi-stage protector providing both common (longitudinal) mode and differential (transverse) mode protection.

ETITEC SIG EM-TD series provides overcurrent protection by PTC element, which provides a level of protection against short circuit or mains incursion. Internal thermal disconnectors are also employed to reduce the hazards of thermal runaway during fault conditions.

ETITEC SIG EMH-TC series is designed to minimize intercapacitance and shunt capacitance, thereby maximizing the operating frequency to 35MHz in most cases. Thermal protection is provided to reduce the hazards of thermal runaway should there be an inadvertent mains incursion fault.

ETITEC SIG EMS-TC series is intended for those applications where high ground potential rises may frequently occur, such as in locations close to electric railways. Thermal protection is provided to reduce the hazards of thermal runaway should there be an inadvertent mains incursion fault.

ETITEC SIG EMO series is intended for those application where higher than normal surge discharge levels may be experienced.

Advantages:

- indication window of faulty device
- remote signalisation (option)
- mounting on top hat fixing DIN rail
- high degree of protection
- PTC is the protective element
- metal snapper, new way of mounting on DIN rail (easier, quicker)

ETITEC SIGNAL/CONTROL lines

type	code No.	dodatne funkcije	weight [g]	packaging [pcs]
ETITEC SIG EM-TD 24V RC	002441701	1, 2, 3, 4	110	1/12
ETITEC SIG EM-TD 24V 2 GND	002441702	1, 3, 4	110	1/12
ETITEC SIG EM-TD 110V RC	002441703	1, 2, 4	110	1/12
ETITEC SIG EM-TD 110V 2 GND	002441704	1, 4	110	1/12
ETITEC SIG EMH-TC 24V 2GND	002441705	4	110	1/12
ETITEC SIG EMH-TC 110V 2GND	002441706	4	110	1/12
ETITEC SIG EMS-TC 24V	002441707	4	110	1/12
ETITEC SIG EMS-TC 110V	002441708	4	110	1/12
ETITEC SIG EMO 24V	002441709		110	1/12
ETITEC SIG EMO 110V	002441711		110	1/12

