

## 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 nonlinearity, 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. ETI also provides SPD protection for PV systems - see Green Protect catalogue.

### 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 after activation of disconnecting device earth conductor is visibly separated (type AQ).



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 insulated conductor	002441931	430	3

## Surge arrester ETITEC group B EN/IEC/VDE: T1, T2, T3 / I, II, III / B+C+D

### Description

ETITEC B is surge arrester for indoor application. Group B overvoltage protection is in accordance with VDE class B, C, D. This protection corresponds to IEC category I, II, III and EN Type 1, Type 2, Type 3. 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 SPD module has to be replaced, while base unit remains fixed on DIN rail.

\*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.

### Advantages:

- optical indication of faulty device (red false)
- remote signalisation (RC version only)
- DIN rail mounting (EN 60715)
- high discharge currents
- high degree of protection
- varistor is the protective element
- metal snapper, new way of mounting on DINrail (easier, quicker)
- round-off shape compatible with ETIMAT
- modular design
- IEC/EN 61643-11
- RoHS compliant
- connection up to 35mm<sup>2</sup>

New!

### ETITEC B T12 Iimp=12,5kA

Type	Code No.	I <sub>imp</sub> (10/350) [kA]	I <sub>n</sub> /I <sub>max</sub> (8/20) [kA]	U <sub>c</sub> [V AC]	Weight [g]	Packaging [pcs]
ETITEC B T12 150/12,5 1+0	002440311	12,5	25/60	150	124	1/12
ETITEC B T12 150/12,5 1+0 RC	002440312	12,5	25/60	150	129	1/12
ETITEC B T12 275/12,5 1+0	002440313	12,5	25/60	275	150	1/12
ETITEC B T12 275/12,5 1+0 RC	002440314	12,5	25/60	275	155	1/12
ETITEC B T12 440/12,5 1+0	002440315	12,5	25/60	440	150	1/12
ETITEC B T12 440/12,5 1+0 RC	002440316	12,5	25/60	440	155	1/12
ETITEC B T12 275/12,5 2+0	002440317	12,5	25/60	275	198	1/7
ETITEC B T12 275/12,5 2+0 RC	002440318	12,5	25/60	275	203	1/7
ETITEC B T12 440/12,5 2+0	002440319	12,5	25/60	440	251	1/7
ETITEC B T12 440/12,5 2+0 RC	002440320	12,5	25/60	440	256	1/7
ETITEC B T12 275/12,5 3+0	002440321	12,5	25/60	275	382	1/5
ETITEC B T12 275/12,5 3+0 RC	002440322	12,5	25/60	275	387	1/5
ETITEC B T12 440/12,5 3+0	002440323	12,5	25/60	440	382	1/5
ETITEC B T12 440/12,5 3+0 RC	002440324	12,5	25/60	440	387	1/5
ETITEC B T12 275/12,5 4+0	002440325	12,5	25/60	275	462	1/3
ETITEC B T12 275/12,5 4+0 RC	002440326	12,5	25/60	275	467	1/3
ETITEC B T12 440/12,5 4+0	002440327	12,5	25/60	440	462	1/3
ETITEC B T12 440/12,5 4+0 RC	002440328	12,5	25/60	440	467	1/3
ETITEC B T12 275/12,5 1+1	002440329	12,5	25/60	275	198	1/7
ETITEC B T12 275/12,5 1+1 RC	002440330	12,5	25/60	275	203	1/7
ETITEC B T12 275/12,5 3+1	002440331	12,5	25/60	275	462	1/3
ETITEC B T12 275/12,5 3+1 RC	002440332	12,5	25/60	275	467	1/3
MOD.ETITEC B T12 150/12,5	002440333	12,5	25/60	150	78	12
MOD.ETITEC B T12 275/12,5	002440334	12,5	25/60	275	88	12
MOD.ETITEC B T12 440/12,5	002440335	12,5	25/60	440	102	12
MOD.ETITEC B T1 255/50	002440310	12,5	25/60	255	70	12

\* RC - remote signalisation. Note: Iimp and In/Imax - defined per single pole



ETITEC B T12 275/12,5 1+0



ETITEC B T12 275/12,5 4+0

Surge arrester ETITEC group B T12 EN/IEC/VDE: T1,T2 /I,II/B,C



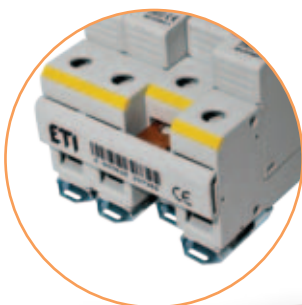
ETITEC B T12 275/7 1+0 ETITEC B T12 275/7 1+0 RC



ETITEC B T12 275/7 4+0



MODUL ETITEC B T12 275/7



IZ16/1F/2/ETITEC

IZ16/1F/3/ETITEC



IZ16/1F/3/ETITEC

Description

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 and EN Type 1, Type 2. 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 SPD module has to be replaced, while base unit remains fixed on DIN rail.

\*Note: First number of designation 1+0, 2+0, etc. indicates the number of (MOV) varistors or number of poles.

Advantages:

- optical indication of faulty device (green ok, red false)
- remote signalisation (RC version only)
- DIN rail mounting (EN 60715)
- high discharge currents
- high degree of protection
- varistor is the protective element
- metal snapper, new way of mounting on DINrail (easier, quicker)
- round-off shape compatible with ETIMAT
- modular design
- IEC/EN 61643-11
- RoHS compliant
- connection up to 35mm<sup>2</sup>

New!

ETITEC B T12

Type	Code No.	I <sub>imp</sub> (10/350) [kA]	I <sub>n</sub> /I <sub>max</sub> (8/20) [kA]	U <sub>c</sub> [V AC]	Weight [g]	Packaging [pcs]
ETITEC B T12 275/7 1+0	002440336	7	25/50	275 VAC	128	1/12
ETITEC B T12 275/7 1+0 RC	002440337	7	25/50	275 VAC	133	1/12
ETITEC B T12 275/7 2+0	002440338	7	25/50	275 VAC	244	1/7
ETITEC B T12 275/7 2+0 RC	002440339	7	25/50	275 VAC	249	1/7
ETITEC B T12 275/7 3+0	002440340	7	25/50	275 VAC	352	1/5
ETITEC B T12 275/7 3+0 RC	002440341	7	25/50	275 VAC	357	1/5
ETITEC B T12 275/7 4+0	002440342	7	25/50	275 VAC	456	1/3
ETITEC B T12 275/7 4+0 RC	002440343	7	25/50	275 VAC	471	1/3
MODUL ETITEC B T12 275/7	002440363	7	25/50	275 VAC	58	12

\* RC remote signalisation

Note: I<sub>imp</sub> and I<sub>n</sub>/I<sub>max</sub> - defined per single pole

Connection terminals

Type	code No.	weight [g]	packaging [pcs]	Connection terminals for
IZ16/1F/2/ETITEC	002921081	9	50/600	2 modules connection
IZ16/1F/3/ETITEC	002921082	15	50/600	3 modules connection
IZ16/1F/4/ETITEC	002921083	20	50/600	4 modules connection

For module width 17,8 mm.

Application: Connection terminals are designed to connect modular surge ETITEC for multi-module assemblies (multi). Connections are made at the terminals ground - PE

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

### Description

ETITEC C T2 is surge arrester for indoor application. Group C surge protection is in accordance with VDE class C. This protection corresponds to IEC class II. The protection is made at the subdistribution board, 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 T2 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.

New!

### ETITEC C T2

Type	Code No.	$I_n$ (8/20) [kA]	$U_c$ [V AC]	Weight [g]	Packaging [pcs]
ETITEC C T2 275/20 1+0	002440393	20	275 VAC	128	1/12
ETITEC C T2 275/20 1+0 RC	002440394	20	275 VAC	133	1/12
ETITEC C T2 275/20 4+0	002440395	20	275 VAC	456	1/3
ETITEC C T2 275/20 4+0 RC	002440396	20	275 VAC	471	1/3
ETITEC C T2 275/20 2+0	002440397	20	275 VAC	244	1/7
ETITEC C T2 275/20 2+0 RC	002440398	20	275 VAC	249	1/7
ETITEC C T2 275/20 3+0	002440399	20	275 VAC	352	1/5
ETITEC C T2 275/20 3+0 RC	002440400	20	275 VAC	357	1/5
ETITEC C T2 275/20 1+1	002440401	20	275 VAC	225	1/7
ETITEC C T2 275/20 1+1 RC	002440402	20	275 VAC	230	1/7
ETITEC C T2 275/20 3+1	002440403	20	275 VAC	441	1/3
ETITEC C T2 275/20 3+1 RC	002440404	20	275 VAC	446	1/3
ETITEC C T2 440/20 1+0	002440405	20	440 VAC	130	1/12
ETITEC C T2 440/20 1+0 RC	002440406	20	440 VAC	145	1/12
ETITEC C T2 440/20 4+0	002440407	20	440 VAC	466	1/3
ETITEC C T2 440/20 4+0 RC	002440408	20	440 VAC	471	1/3
ETITEC C T2 440/20 2+0	002440409	20	440 VAC	247	1/7
ETITEC C T2 440/20 2+0 RC	002440410	20	440 VAC	252	1/7
ETITEC C T2 440/20 3+0	002440411	20	440 VAC	356	1/5
ETITEC C T2 440/20 3+0 RC	002440412	20	440 VAC	361	1/5
ETITEC C T2 255/20 G	002440413	20	255 VAC	118	1/12
MODUL ETITEC C T2 275/20	002440414	20	275 VAC	56	12/12
MODUL ETITEC C T2 440/20	002440415	20	440 VAC	58	12/12
MODUL ETITEC C T2 255/20 G	002440416	20	255 VAC	36	12/12

\* RC remote signalisation Note: In - defined per single pole

### Connection terminals

Type	code No.	weight [g]	packaging [pcs]	Connection terminals for
IZ16/1F/2/ETITEC	002921081	9	50/600	2 modules connection
IZ16/1F/3/ETITEC	002921082	15	50/600	3 modules connection
IZ16/1F/4/ETITEC	002921083	20	50/600	4 modules connection

For module width 17,8 mm.

### Advantages:

- optical indication of faulty device (green ok, red false)
- remote signalisation (RC version only)
- DIN rail mounting (EN 60715)
- high discharge currents
- high degree of protection
- varistor is the protective element
- metal snapper, new way of mounting on DIN rail (easier, quicker)
- round-off shape compatible with ETIMAT
- modular design
- IEC/EN 61643-11
- RoHS compliant
- connection up to 35mm<sup>2</sup>



ETITEC C T2 275/20 1+0 ETITEC C T2 275/20 1+0 RC



ETITEC C T2 275/20 4+0



MODUL ETITEC C T2 275/20



IZ16/1F/2/ETITEC

IZ16/1F/3/ETITEC



IZ16/1F/3/ETITEC

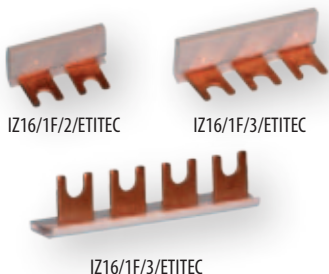
Surge arrester ETITEC group D T3 EN/IEC/VDE: T3 /III/D



ETITEC D T3 275/3 1+0 RC



MODUL ETITEC D T3 275/3



Description

ETITEC D T3 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, EN Type 3 . 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. Consequently only the SPD module has to be replaced, while base unit remains fixed on DIN rail.

Advantages:

- optical indication of faulty device (green ok, red false)
- remote signalisation (RC version only)
- DIN rail mounting (EN 60715)
- high discharge currents
- high degree of protection
- varistor is the protective element
- metal snapper, new way of mounting on DIN rail (easier, quicker)
- round-off shape compatible with ETIMAT
- modular design
- IEC/EN 61643-11
- RoHS compliant
- connection up to 35mm<sup>2</sup>

New!

ETITEC D T3

Type	Code No.	U <sub>oc</sub> /I <sub>n</sub> (8/20) [kA]	U <sub>c</sub> [V AC]	Weight [g]	Packaging [pcs]
ETITEC D T3 275/3 1+0	002440417	10kV/3kA	275	130	1/12
ETITEC D T3 275/3 1+0 RC	002440418	10kV/3kA	275	135	1/12
ETITEC D T3 440/3 1+0	002440419	10kV/3kA	440	132	1/12
ETITEC D T3 440/3 1+0 RC	002440420	10kV/3kA	440	137	1/12
MODUL ETITEC D T3 275/3	002440421	10kV/3kA	275	58	12
MODUL ETITEC D T3 440/3	002440422	10kV/3kA	440	60	12

\* RC remote signalisation  
Note: I<sub>n</sub> - defined per single pole

Connection terminals

Type	code No.	weight [g]	packaging [pcs]	Connection terminals for
IZ16/1F/2/ETITEC	002921081	9	50/600	2 modules connection
IZ16/1F/3/ETITEC	002921082	15	50/600	3 modules connection
IZ16/1F/4/ETITEC	002921083	20	50/600	4 modules connection

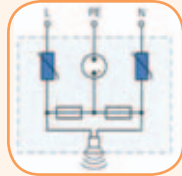
For module width 17,8 mm.

Application: Connection terminals are designed to connect modular surge ETITEC for multi-module assemblies (multi). Connections are made at the terminals ground - PE

## Surge arresters

### ETITEC D 255/3 MINI

Type	Code No.	Weight [g]	Packaging [pcs]
ETITEC D 255/3 MINI	002441632	25	1



ETITEC FILT D 20/275F 8A G is an electromagnetic interference (EMI) and overvoltage protective device of class III. It is designed for complete protection and is installed directly in front of protected devices on DIN rail. Protected electrical device is safe against effects of overvoltage, electrostatic voltage and electromagnetic interferences. These disturbances, which are present in all electrical systems, are caused by other electrical devices, by switching manoeuvres, by defects in electrical network and by other activities, such as welding.

Applications: Protecting devices such as: TV, PC, Server, Control and regulation devices,...

### ETITEC FILT D

Type	Code No.	Weight [g]	Packaging [pcs]
ETITEC FILT D 20/275F 8A G	002441712	94	1



## 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.

EM-RS485 has been developed to protect 2 pair data transmission circuits using the RS 485, RS 422 and V11 protocol. The circuit consists of two balanced pairs with equipotential equalization between them. Equipotential equalization is also provided between signal ground and protective ground to avoid equipment damage from ground potential rises during surge activity.

Coarse protection is provided by a three terminal gas discharge tube while fine protection is provided using a high speed silicon stage which provides both common (longitudinal) mode protection from each line to protective ground, and differential (transverse) mode protection between each pair.

Care is taken to ensure coordination between these two stages without voltage or surge current blind spots occurring. Thermal protection is provided to reduce the hazards of thermal runaway should there be an inadvertent mains incursion fault.

ETITEC LAN series is intended to protect Local Area Networks (LAN) from over voltage surges and electrostatic discharges created by switching transients in buildings. LAN systems are particularly prone to such disturbances because of the often long cable lengths involved which behave like antennas to such atmospheric disturbances. It provides protection to all 8 lines in the UTP, STP and is Cat 6 capable. Ground potential equalization between signal and protective (network or PC chassis) ground is provided.



### ETITEC SIGNAL/CONTROL lines

Type	Code No.	Weight [g]	Packaging [pcs]
ETITEC SIG EM-TD 24V RC	002441701	110	1/12
ETITEC SIG EM-TD 24V 2 GND	002441702	110	1/12
ETITEC SIG EM-TD 110V RC	002441703	110	1/12
ETITEC SIG EM-TD 110V 2 GND	002441704	110	1/12
ETITEC SIG EMH-TC 24V 2GND	002441705	110	1/12
ETITEC SIG EMH-TC 110V 2GND	002441706	110	1/12
ETITEC SIG EMS-TC 24V	002441707	110	1/12
ETITEC SIG EMS-TC 110V	002441708	110	1/12
ETITEC SIG EMO 24V	002441709	110	1/12
ETITEC SIG EMO 110V	002441711	110	1/12
ETITEC EM-RS485	002441713	114	6
ETITEC LAN	002441714	120	12

### Advantages:

- ETITEC SIG EM-TD: 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)