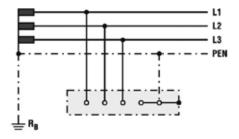
## Surge arresters - ETITEC

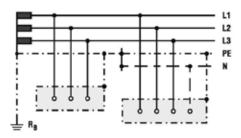
ETITEC surge arresters are intended for protection of electrical installations and devices against overvoltage effects, which may occur in atmospheric discharges and switching overvoltages. The main part of surge arrester is ZnO non-linear varistor. Its main characteristic is ohmic nonlinearity, which 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 thermical 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.

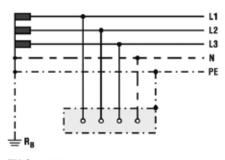
## Common power distribution systems (Europe)



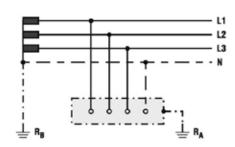
TN-C system



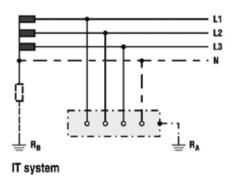
TN-C-S system



TN-S system



TT system





## Surge arresters group B, B-F

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 arrestor 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.

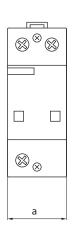
## Advantages:

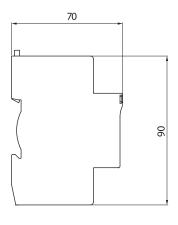
- indication window of faulty device
- two module system (in case of a failure of one of the modules protection is still possible)
- remote signalisation
- mounting on DIN rail
- connection up to 35mm<sup>2</sup>
- high discharge currents
- high degree of protection
- varistor is the protective element

Technical data ETITEC B, ETITEC								
Туре	275/25	440/25	275/35	440/35	275/50	320/50	440/50	
In accordance with	IEC-61643-1							
Category (IEC/VDE)	I, II / B, C							
Max. continuous operating voltage (AC/DC)U $_{\rm c}$	275/350V	440/580V	275/350V	440/580V	275/350 V	320/420V	440/580 V	
Nominal discharge current (8/20) I	25 kA							
Max. discharge current (8/20) I max	100 kA							
Impulse current (10/350) I <sub>imp</sub>	25	kA	35kA		50kA			
Specific energy	156	kJ/Ω	306kJ/Ω		625kJ/Ω			
Charge	12.	5As	17.5As		25As			
Protection level $U_p$ - at $I_n$ (8/20)	< 1.3kV	< 2.0kV	< 1.2kV	< 1.9kV	< 1.2kV	< 1.2kV	< 1.9kV	
Residual voltage U <sub>res</sub> - at I <sub>imp</sub>	< 1.2kV	< 1.8kV	< 1.2kV	< 1.8kV	< 1.2kV	< 1.2kV	< 1.8kV	
Follow current I <sub>f</sub>	×							
Response time tA	< 25 ns							
Thermal protection	✓							
Back-up fuse (if mains > 250 A, 315A, 500A)	250	A/gL	315A gL		500 A/gL			
Short-circuit withstand current	25 kA/50 Hz							
Temperature range	-40°C+80°C							
Terminal screw torque	max. 4.5Nm							
Terminal cross section	35mm² (solid)/25mm² (stranded)							
Mounting EN 60715	35mm top-hat rail							
Degree of protection	IP20							
Housing material	thermoplastic; extinguishing degree UL 94 V-0							
Additional data for ETITEC B-RC								
Remote contacts	✓							
Contact ratings	AC: 250V/0,5A; 125V/3A							
Terminal cross section	max. 1.5 mm <sup>2</sup>							
Remote terminal torque	0,25Nm							

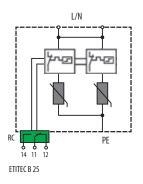
ETITEC

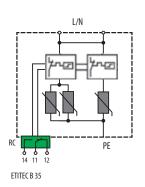


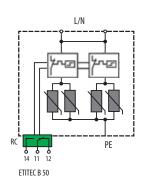




Dimensions						
ETITEC B	a					
275/25	36					
440/25	36					
275/35	36					
440/35	54					
275/50	36					
320/50	36					
440/50	72					



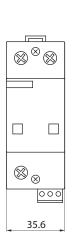


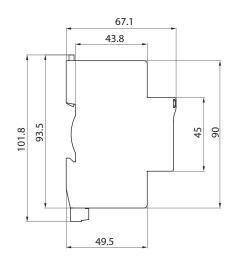


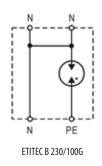
Technical data ETITEC B 100G				
Туре	ETITEC B 230/100G			
In accordance with	IEC-61643-1			
Category IEC / VDE	I, II / B, C			
Max. continuous operating voltage (AC/DC) $U_c$	255 V			
Nominal discharge current (8/20) I <sub>n</sub>	100 kA			
Max. discharge current (8/20) I <sub>max</sub>	160 kA			
Current peak value (10/350) I peak	100 kA			
Specific energy	2.5 MJ/W			
Charge	50 As			
Protection level Up - at I <sub>n</sub> (8/20)	/			
- at (1.2/50)	1.2 kV			
Follow current I <sub>f</sub>	100 ARMS			
Response time t <sub>A</sub>	100 ns			
Torque	max. 4.5 Nm			
Temperature range	- 40°C+80°C			
Cross-section of connection wire	single-strand 35 mm²; multi-strand 25 mm²			
Mounting	indors on top hat fixing rail 35 mm			
Degree of protection	IP 20			
Casing material	thermoplastic; extinguishing degree UL 94 V-0			
Dimensions	DIN 43880 2TE			

DATA



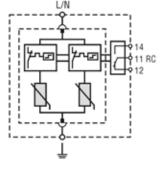






ETITEC B 230/100G

Technical data ETITEC B-F, ETITEC B-F-RC							
Туре	150/12,5F	275/12,5F	320/12,5F				
In accordance with	IEC-61643-1						
Category (IEC/VDE)	I, II / B, C						
Max. permitted operating voltage (AC/DC) Uc	150/200 V	275/350 V	320/420 V				
Nominal discharge current (8/20) I <sub>n</sub>	25 kA	25 kA	25 kA				
Max. discharge current (8/20) I <sub>max</sub>	50 kA	50 kA	50 kA				
Nominal discharge current (10/350) I	12,5 kA	12,5 kA	12,5 kA				
Protection level Up - at I <sub>n</sub> (8/20)	<1,0 kV	<1,6 KV	<1,6 kV				
Response time	< 25 ns						
Back-up fuse (if mains > 160 A)	160 AgL		-				
Short-circuit capability to	25 kA/50 Hz		Hz				
Temperature range	- 40°C+80°C						
Cross-section of connection wire	single-strand 35 mm <sup>2</sup> ; multi-strand 25 mm <sup>2</sup>						
Mounting	indors on top hat fixing rail 35 mm		ing rail 35 mm				
Degree of protection	IP20						
Casing material	thermoplastic; extinguishing degree V-0		shing degree V-0				
Additional data for ETITEC B-F-RC							
Remote signalisation	✓						
Switching capability	125 V/3 A						
Cross-section of connection wire	max. 1.5 mm <sup>2</sup>						



ETITEC B -F 12,5

