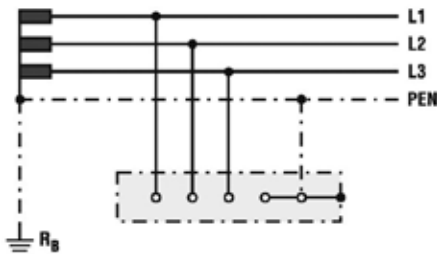


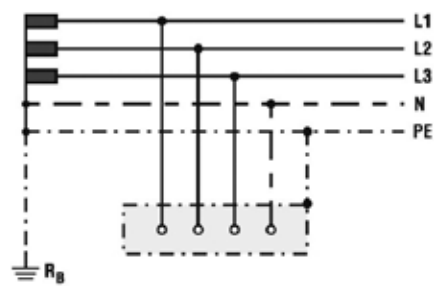
Surge arresters – ETITEC

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 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.

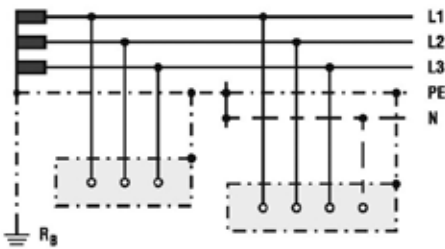
Common power distribution systems (Europe)



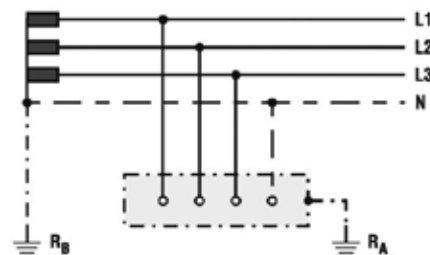
TN-C system



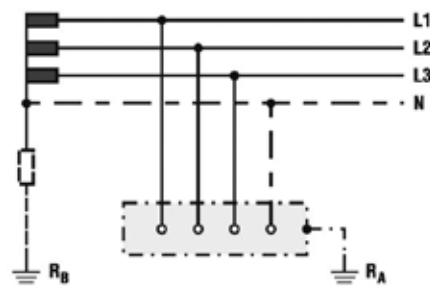
TN-S system



TN-C-S system



TT system



IT system

Surge arrester ETITEC group WENT

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 system (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 12,5/_

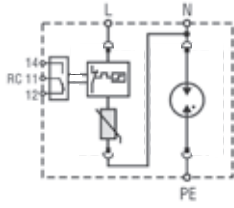
$I_{imp} = 12,5 \text{ kA/pole}$
 $I_n = 20 \text{ kA/pole}$
 $I_{max} = 50 \text{ kA/pole}$
 $U_p \text{ at } I_{imp} = 1,2 \text{ kV (TNC)}$

ETITEC WENT 25/_

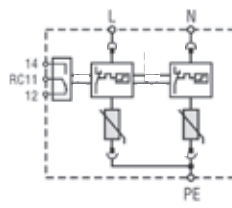
$I_{imp} = 25 \text{ kA/pole}$
 $I_n = 25 \text{ kA/pole}$
 $I_{max} = 100 \text{ kA/pole}$
 $U_p \text{ at } I_{imp} = 1,3 \text{ kV (TNC)}$

Technical data				
Type	ETITEC TNC-S 12,5	ETITEC TNC 12,5	ETITEC TT 12,5	ETITEC IT 12,5
Certified under; tested to	IEC-61643-1			
Category IEC / VDE	I,II / B,C			
Max. continuous operating voltage (AC/DC)	320/420			440/580
Type of SPD *	MOV / MOV	MOV / -	MOV / GDT	MOV / MOV
Nominal discharge current (8/20) I_n	20 kA / 20 kA	20 kA / -	20 kA / 50 kA	20 kA / 20 kA
Max. discharge current (8/20) I_{max}	50 kA / 50 kA	50 kA / -	50 kA / 100 kA	50 kA / 50 kA
Current peak value(10/350) I_{imp}	12,5 kA / 12,5 kA	12,5 kA / -	12,5 kA / 50 kA	12,5 kA / 12,5 kA
Specific energy	39 kJ/Ω	39 kJ/Ω	39 kJ// 625kJ/Ω	39 kJ/Ω
Charge	6,25 As	6,25 As	6,25 As/25 As	6,25 As
Protection level Up at I_{imp} (kV)	1,3 (2+0); 1,5 (4+0)	1,2	1,1 (1+1); 1,2 (3+1)	1,7 (2+0); 1,8 (4+0)
Follow current	no / >100A rms			
Response time	<25 ns		<25 ns/100 ns	<25 ns
Residual current at U_c	<2,5 mA		<2,5 mA / -	<2,5 mA
Thermal decoupler	✓	✓	✓/-	✓
Torque	max. 4,5 Nm			
Back-up fuse (if mains > 250 A)	250 A gL		250 A gL / -	250 A gL
Short-circuit withstand	25 kA / 50 Hz		25 kA/50 Hz / -	25 kA / 50 Hz
Temperature range	- 40°C ...+80°C			
Cross-section of connection wire	single-strand 35 mm ² ; multi-strand 25 mm ²			
Mounting	indors on top hat fixing rail 35 mm ²			
Degree of protection	IP 20			
Casing material	thermoplastic; extinguishing degree UL 94 V-0			
Dimensions	TNC 3 Module; other 4 Modules			
Additional data for WENT RC				
Remote signalisation	✓			
Switching capability	AC : 250 V/0,5 A; 125 V/3 A			
Cross-section of connection wire	max. 1,5 mm ²			
Torque	0,25 Nm			

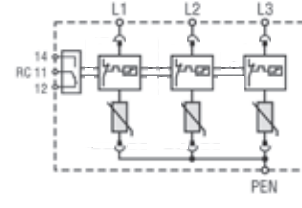
Connection diagram



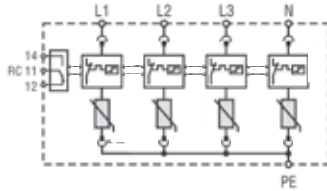
ETITEC WENT 1+1



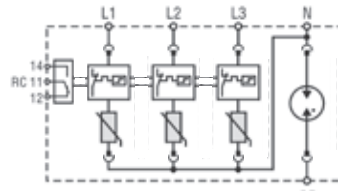
ETITEC WENT 2+0



ETITEC WENT 3+0



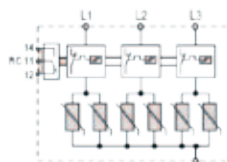
ETITEC WENT 4+0



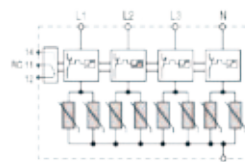
ETITEC WENT 3+1

Technical data

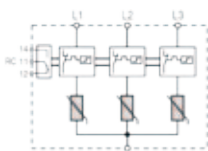
Type	ETITEC TNC-S 25	ETITEC TNC 25	ETITEC TT 25 (1+1)	ETITEC TT 25 (3+1)	ETITEC IT 25
Certified under; tested to	IEC-61643-1				
Category IEC / VDE	I, II / B, C				
Max. continuous operating voltage (AC/DC)	320/420				440/580
Type of SPD *	MOV / MOV	MOV / -	MOV / GDT	MOV / GDT	MOV / MOV
Nominal discharge current (8/20) I_n	25 kA / 25 kA	25 kA / -	25 kA / 50 kA	25 kA / 100 kA	25 kA / 25 kA
Max. discharge current (8/20) I_{max}	100 kA / 100 kA	100 kA / -	100 kA / 100 kA	100 kA / 100 kA	100 kA / 100 kA
Current peak value(10/350) I_{imp}	25 kA / 25 kA	25 kA / -	25 kA / 50 kA	25 kA / 100 kA	25 kA / 25 kA
Specific energy	156 kJ/Ω	156 kJ/Ω	156 kJ// 625kJ/Ω	156 kJ// 2,5MJ/Ω	156 kJ/Ω
Charge	12,5 As	12,5 As	12,5 As/25 As	12,5 As/25 As	12,5 As
Protection level Up at I_{imp} (kV)	1,2(2+0); 1,3(4+0)	1,3	1,2	1,3	1,8(2+0); 1,9(4+0)
Follow current	- / >100A rms				
Response time	<25 ns		<25 ns/100 ns		<25 ns
Residual current at U_c	<2,5 mA		<2,5 mA / -		<2,5 mA
Thermal decoupler	✓	✓	✓/-		✓
Torque	max. 4,5 Nm				
Back-up fuse (if mains > 250 A)	250 A gL		250 A gL / -		250 A gL
Short-circuit withstand	25 kA / 50 Hz		25 kA/50 Hz / -		25 kA / 50 Hz
Temperature range	-40°C ... +80°C				
Cross-section of connection wire	single-strand 35 mm ² ; multi-strand 25 mm ²				
Mounting	indors on top hat fixing rail 35 mm ²				
Degree of protection	IP 20				
Casing material	thermoplastic; extinguishing degree UL 94 V 0				
Dimensions	TNC 3 moduls; rest 4 moduls				
Additional data for WENT RC					
Remote signalisation	✓				
Switching capability	AC : 250 V/0,5 A; 125 V/3 A				
Cross-section of connection wire	max. 1,5 mm ²				
Torque	0,25 Nm				



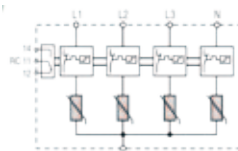
ETITEC WENT 3+0



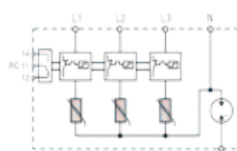
ETITEC WENT 4+0



ETITEC WENT 3+0



ETITEC WENT 4+0

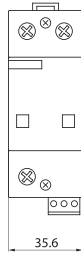


ETITEC WENT 3+1

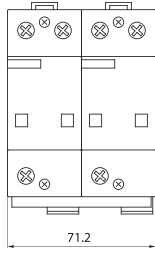


ETITEC WENT 3+1

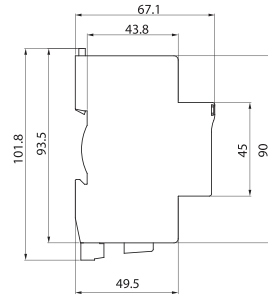
1-FWENT



3-FWENT

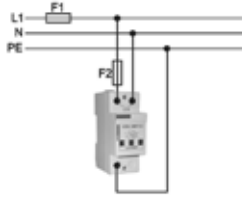


WENT

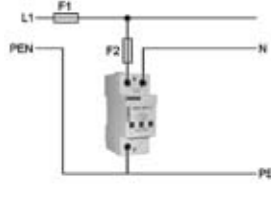


Network connections

1f

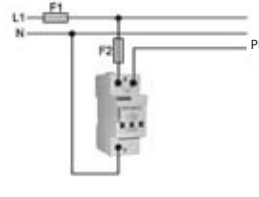


TNC-S

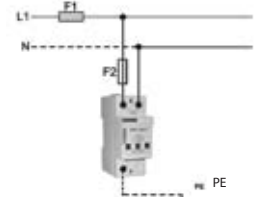


TNC

1f

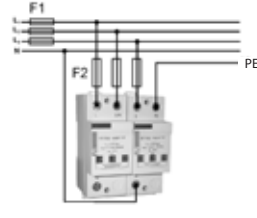


TT

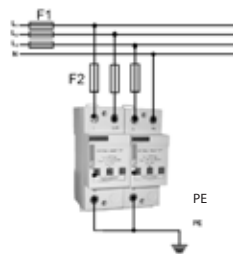


IT

3f

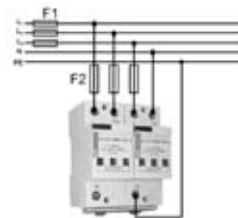


TT

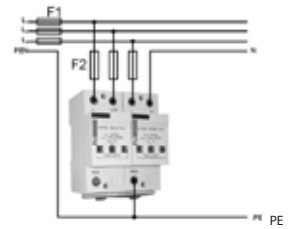


IT

3f



TNC-S



TNC