

Surge arrester ETITEC ML T123

EN/IEC/VDE: T1, T2, T3 /I, II, III /B+C+D

ETITEC ML T123 is a surge arrester for complete overvoltage protection in standard modular housing. Protection corresponds to all categories of overvoltage protections: IEC categories I, II, III and EN Type 1, Type 2, Type 3. Groups B, C, D by VDE. It's intended for installation in main distribution board or in power distribution enclosure in front of energy meter, as the first level of protection against lightning strikes, partial direct, indirect atmospheric discharges and induced surges. Due to the housing of standard modular size, it can be installed also in any sub-distribution board.

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.

Compliance: IEC 61643-11:2011, EN 61643-11:2012+A11:2018

Advantages:

- remote signalisation (RC version only)
- DIN rail mounting (EN 60715)
- spring-loaded fixing for easy mounting on DIN rail
- latching mechanism for extra reliable module holding
- High performance MOV inside
- The earth connection terminal allows additional connection 2nd earth conductor (V connection type)
- Coding system prevents wrong module insertion
- Each module is equipped with a thermal disconnection system which disconnects faulty device from power supply in case of MOV overload due to high energy surge, TOV or ageing
- connection up to 35mm²

ETITEC ML T123

Type	Code No.	I _{imp} (10/350) [kA]	I _n /I _{max} L-N/N-PE (8/20) [kA]	U _c [V AC]	Network	Weight [g]	Packaging [pcs]
ETITEC ML T123 300/12,5 1+0	002440661	12,5	20/40	300	TNC	161	1/12
ETITEC ML T123 300/12,5 1+0 RC	002440662	12,5	20/40	300	TNC	182	1/12
ETITEC ML T123 300/12,5 2+0	002440663	12,5	20/40	300	TNC-S	344	1/7
ETITEC ML T123 300/12,5 2+0 RC	002440664	12,5	20/40	300	TNC-S	353	1/7
ETITEC ML T123 300/12,5 3+0	002440665	12,5	20/40	300	TNC	553	1/5
ETITEC ML T123 300/12,5 3+0 RC	002440666	12,5	20/40	300	TNC	562	1/5
ETITEC ML T123 300/12,5 4+0	002440667	12,5	20/40	300	TNC-S	680	1/4
ETITEC ML T123 300/12,5 4+0 RC	002440668	12,5	20/40	300	TNC-S	689	1/4
ETITEC ML T123 300/12,5 1+1	002440669	12,5	20/40+50/100	300	TN, TT	332	1/7
ETITEC ML T123 300/12,5 1+1 RC	002440670	12,5	20/40+50/100	300	TN, TT	338	1/7
ETITEC ML T123 300/12,5 3+1	002440671	12,5	20/40+50/100	300	TN, TT	667	1/4
ETITEC ML T123 300/12,5 3+1 RC	002440672	12,5	20/40+50/100	300	TN, TT	676	1/4

* RC -> remote signalisation.

**The first digit of the value (1+0), (1+1), (2+0), (3+0), (3+1), (4+0) indicates the number of varistors (MOVs); the second digit of the value (1+0), (1+1), (2+0), (3+0), (3+1), (4+0) shows the presence (1) or absence (0) of the GDT element (TT network systems);

note: the values of I_{imp} and I_n/I_{max} - indicated per one pole



ETITEC ML T123 300/12,5 2+0



ETITEC ML T123 300/12,5 3+0

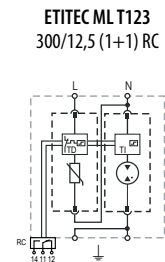
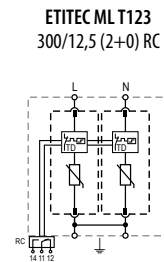
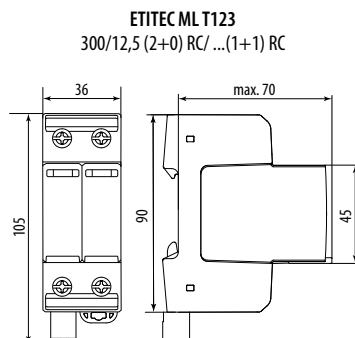
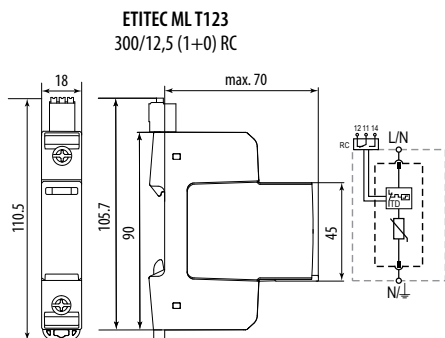


ETITEC ML T123 300/12,5 3+1

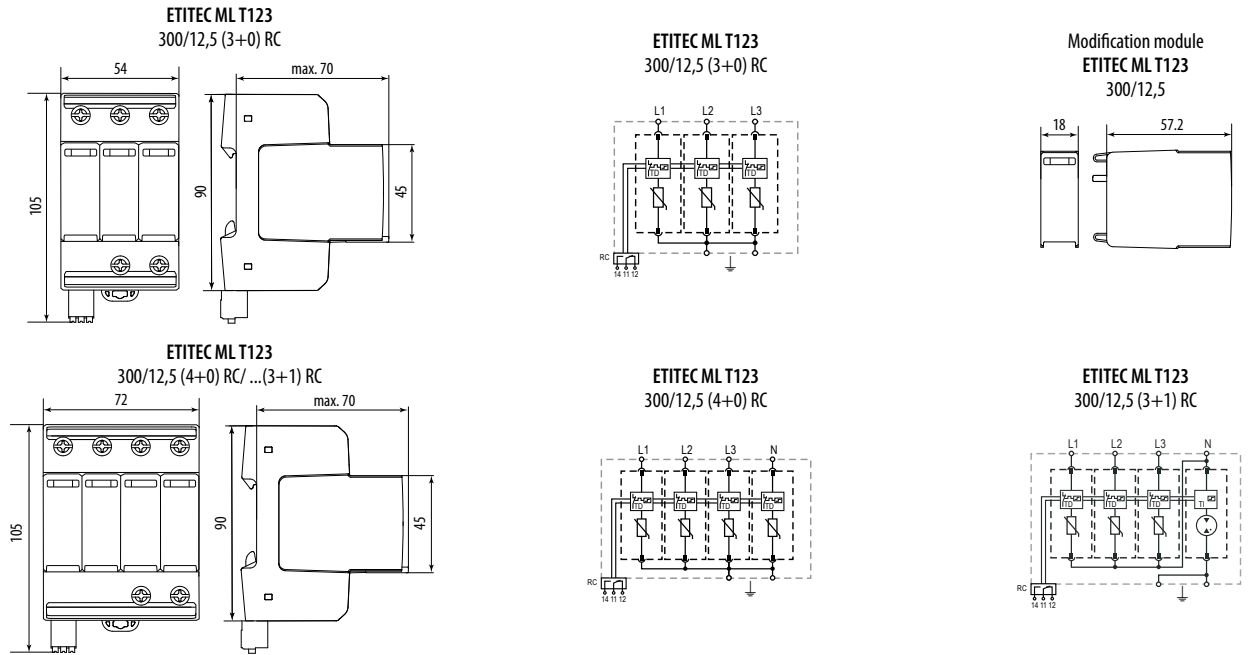
Surge arrester ETITEC ML T123

EN/IEC/VDE: T1, T2, T3 /I, II, III/B+C+D

ETITEC ML T123		
Type	ETITEC ML T123 300/12,5 (1+0), (2+0), (3+0)	ETITEC ML T123 300/12,5 (1+1), (3+1)
In accordance with	IEC 61643-11:2011, EN 61643-11:2012+A11:2018	
Category IEC/EN/VDE	T1, T2, T3/I, II, III/B+C+D	
Nominal AC voltage (50/60Hz) U_n	240V	
Max. continuous operating voltage (AC) U_c	300 V (L-N)	300 V (L-N) / 305 (N-PE)
Impulse discharge current per pole (10/350) I_{imp}	12,5 kA	12,5 kA/50 kA
Nominal discharge current (8/20) I_n	20 kA	20 kA (L-N)/50 kA(N-PE)
Max. discharge current (8/20) I_{max}	40 kA	40 kA (L-N)/100 kA(N-PE)
TOV immunity U_T (AC)	337 V (L-N)/5s withstand	
	442V/120 min (L-N) safe fail	442V/120 min (L-N) Safe fail, 1200V (N-PE) withstand 200ms
Charge		
Voltage Protection level for Type2 / for Type 3 U_p	1500 V / 900V	1500 V / 900V (L-N)/(N-PE)
Open circuit voltage Type 3 test U_{oc}	6 kV	
Follow current I_{fi}	-	100 A _{RMS} (N-PE)
Response time t_A	< 25 ns	<25 ns (L-N) / < 100 ns (N-PE)
Residual current I_{pe} at U_{ref}	< 0,3 mA	
Thermal decoupler	✓	
Torque	4,5 Nm	
Back-up fuse (if mains > 160A)	160 A gG	
Short-circuit current rating I_{SCCR}	25 kA / 50 Hz	
Temperature range	- 40°C ... +85°C	
Cross-section of connection wire	35 mm ² (solid, stranded) / 25 mm ² (flexible)	
Mounting	indoors on top hat fixing rail 35 mm (EN 60715)	
Degree of protection	IP 20	
Casing material	thermoplastic; extinguishing degree UL 94 V-0	
Dimensions	1TE ... 4TE	
Fault indication (visual)	OK - green indicator / faulty - RED indicator	
Fault indication (remote contacts)	✓ (version with RC contact)	
Additional data for ETITEC B-RC		
Remote signalisation (RC)	✓	
Switching capability (RC)	AC: 250V/1A; DC: 48V/0,5A; 24V/0,5A; 12V/0,5A	
Cross-section of connection wire (RC)	max. 1.5 mm ² (single-core)	



Technical data



Surge arrester ETITEC group C T2

EN/IEC/VDE: T2/II/C

ETITEC C T2			
Type	275/20	440/20	255/20 G
In accordance with	IEC/EN 61643-11		
Category IEC/EN/VDE	II/T2/C		
Max. continuous operating voltage (AC) U_c	275	440	255
Nominal AC voltage U_0	230 V 50-60 Hz		
TOV immunity U_r (AC)	335 V/5s withstand	335 V/5s withstand	1200 V
	440 V/120 min safe disconnection	440 V/120 min withstand	-
Nominal discharge current (8/20) I_n	20 kA		
Max. discharge current (8/20) I_{max}	40 kA		
Charge			
Protection level U_p - at I_n (8/20)	<1,5 kV	<2,0 kV	<1,5 kV
Follow current I_f	x		>100 A
Response time t_A	< 25 ns		< 100 ns
Residual current I_{pe} at U_{ref}	< 0,2 mA		-
Current source generator		1mA	
U_n min (MOV)		459V	
U_n max (MOV)		561V	
Voltage step generator		100V/s	
U_n min (GDT)		480V	
U_n max (GDT)		720V	
Thermal decoupler	✓		-
Torque		3,0 Nm	
Back-up fuse (if mains > 125A)	125 A gG		-
Short-circuit current rating I_{SCCR}	25 kA / 50 Hz		-
Temperature range	- 40°C ... +70°C		
Cross-section of connection wire	min. 6mm ² , max. single strand 35mm ² , multi-strand 25mm ²		
Mounting	indoors on top hat fixing rail 35 mm (EN 60715)		
Degree of protection	IP 20		
Casing material	thermoplastic; extinguishing degree UL 94 V-0		
Dimensions	1 TE ... 4 TE		
Indication of disconnector operation	red flag		
Permissible humidity	5% - 95%		
Additional data for ETITEC C-RC			
Remote signalisation (RC)	✓		-
Switching capability (RC)	AC: 250V/0.5A; 125V/3A		-
Cross-section of connection wire (RC)	max. 1.5 mm ²		-
Torque (RC)	0,25 Nm		-

Type of network and nr. of SPD poles

Network	Nr of poles (SPD configuration)
TNC 1phase	1+0
TNC 3 phase	3+0
TNS 1 phase	2+0 / 1+1
TNS 3 phase	4+0 / 3+1
TT 1 phase	1+1
TT 3 phase	3+1
IT 1 phase	2+0
IT 3 phase	4+0

At TNC, TNS, TT systems with $U_n=230V$, recommended U_c value of SPD is 275V.

At IT system, recommended U_c value of SPD is 440V.