

OVERVOLTAGE PROTECTION FOR PV SYSTEMS

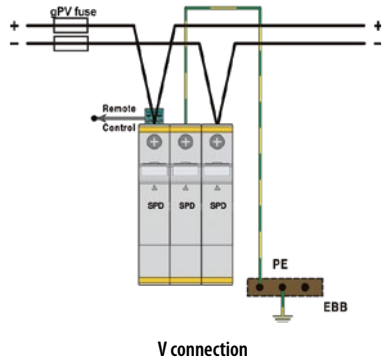
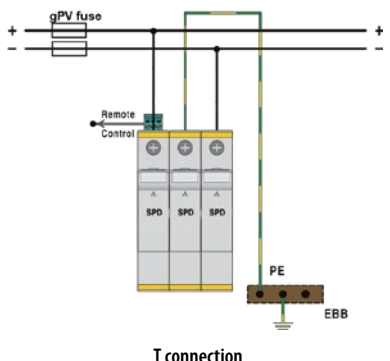
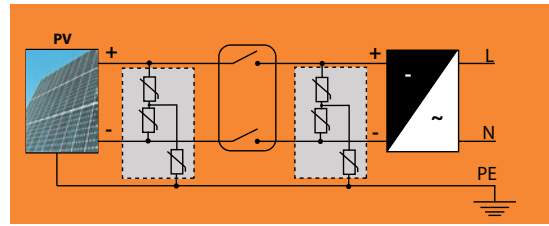
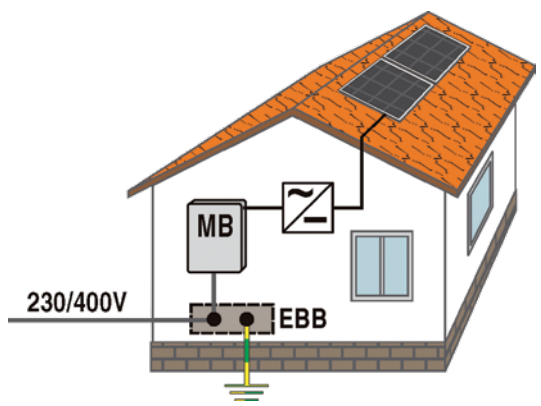


ETITEC (E)M T2 PV Y series of overvoltage surge protective devices has been developed to protect against indirect discharges and is intended to protect photovoltaic systems. The circuit topology consist of two (three) varistors stages each protected by a thermal disconnection device.

Location of Use: String box, Inverter
 Mode of Protection:(+) - PE, (-) - PE, (+) - (-)
 Surge Ratings: I_{Total} =up to 20 kA (8/20 μ s)
 I_{Total} =up to 50 kA (8/20 μ s)
 EN Category: Type 2
 Protective Elements: High Energy MOV
 Housing: Pluggable Design
 Compliance: IEC 61643-31:2018+A1:2014

- Advantages:**
- optical indication of faulty device (green ok, red false)
 - remote signalisation (RC version only)
 - DIN rail mounting (EN 60715)
 - high discharge currents and high degree of protection
 - MOV varistor is the protective element
 - metal snapper, new way of mounting on DINrail (easier, quicker)
 - modular design
 - IEC 61643-31:2018
 - RoHS compliant
 - connection up to 35mm2

ETITEC (E)M T2 PV Y for photovoltaic system on a building without External Lightning Protection



Note: If distance between string and inverter is less than 10 m, then you need only one ETITEC.

ETITEC M T2 PV						
Type	Code No.	Max PV voltage U_{cpv} [V DC]	I_{scpv} [kA]	$I_{t1}/I_{t2\ max}$ [kA]	Weight [g]	Packaging [pcs]
ETITEC M T2 PV 250/20 Y	002440732	250	6	20/50	294	1/5
ETITEC M T2 PV 250/20 Y RC	002440733	250	6	20/50	300	1/5
ETITEC M T2 PV 600/20 Y	002440735	600	6	20/50	347	1/5
ETITEC M T2 PV 600/20 Y RC	002440736	600	6	20/50	353	1/5
ETITEC M T2 PV 1100/20 Y	002440515	1100	11	20/40	396	1/5
ETITEC M T2 PV 1100/20 Y RC	002440516	1100	11	20/40	406	1/5
ETITEC M T2 PV 1500/20 Y	002440517	1500	11	20/30	444	1/5
ETITEC M T2 PV 1500/20 Y RC	002440518	1500	11	20/30	454	1/5

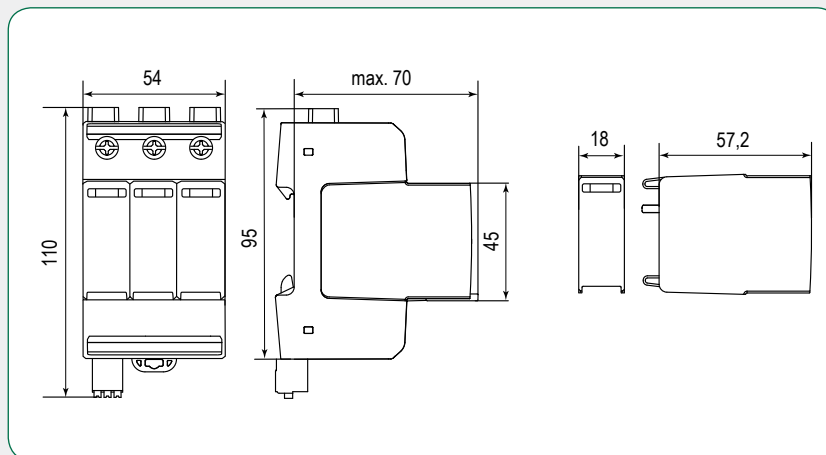


ETITEC M T2 PV 1100/20 Y

*RC - remote contact for remote signalisation of bad module (to be replaced)

Spare (replacement) modules				
Type	Code No.	Compatible with	Weight [g]	Packaging [pcs]
MOD. M T2 PV 125/20	002440734	ETITEC M T2 PV 250/20 Y (RC)	50	1/24
MOD. M T2 PV 300/20	002440737	ETITEC M T2 PV 600/20 Y (RC)	61	1/24
MOD. M T2 PV 550/20	002440523	ETITEC M T2 PV 1100/20 Y (RC)	0,071	1/28
MOD. M T2 PV 750/20	002440524	ETITEC M T2 PV 1500/20 Y (RC)	0,087	1/28

*Due to serial connection of modules (Y topology), U_{cpv} voltage of single module is 1/2 of total U_{cpv} between each pole



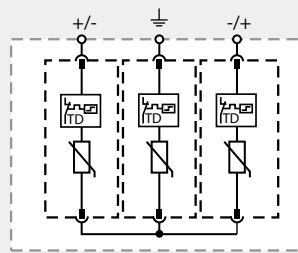
Difference between ETITEC M T2 PV and ETITEC EM T2 PV

ETITEC EM T2 PV is the economic version without module latching mechanism, easily distinguishable from ETITEC M T2 PV by the grey color of ETI logo on the device.

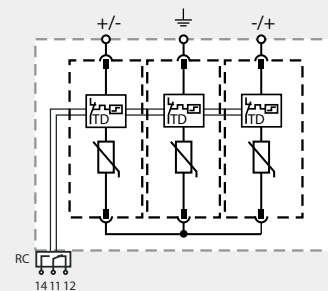
Technical data				
Type	ETITEC M T2 PV 250/20 Y	ETITEC M T2 PV 600/20 Y	ETITEC M T2 PV 1100/20 Y	ETITEC M T2 PV 1500/20 Y
	T2 / II / C			
Maximum Continuous Operating DC Voltage U_{CPV}	250 V	600 V	1100 V	1500 V
Nominal Discharge Current (8/20 μ s) I_n	20 kA			
Maximum Discharge Current (8/20 μ s) I_{max}	50 kA		40 kA	30 kA
Total Discharge Current I_{total}	50 kA		40 kA	
Voltage Protection Level U_p	1 kV	2 kV	< 3,8 kV	< 5 kV
Response Time t_A	< 25 ns			
Number of Ports	1			
Thermal Protection	✓			
Short-Circuit Current Rating I_{SCPV}	11 kA			
Operating Temperature Range T_a	-40°C ... +85°C			
Permissible Operating Humidity RH	5% - 95%			
Altitude (max)	4000 m			
Operating State / Fault Indication	Green Flag / Not Green Flag			
Conductor Cross Section (max)	35 mm ² (Solid, Stranded) / 25 mm ² (Flexible)			
Terminal Screw Torque M_{max}	max. 4,5 Nm			
Mounting	35 mm DIN Rail, EN 60715			
Degree Of Protection	IP20			
Housing Material	Thermoplastic: Extinguishing Degree UL 94 V-0			
Size	3 modules			
Remote contacts - type ...RC				
Contacts ratings	AC: 250V/1A; 125V/1A; DC: 48V/0,5A, 24V/0,5A, 12V/0,5A			
Terminal cross section	Max. 1,5 mm ²			
Terminal Screw Torque M_{max}	0,25 Nm			
Standards	IEC 61643-31:2018+A1:2014			

Legend

- +/-, -/+ Terminal for +/-, -/+ Conductor
- ⊕ Terminal for PE /G Conductor
- RC Remote Contacts Optional
- TD Thermal Disconnecter



ETITEC M T2 PV ... Y



ETITEC M T2 PV ... Y RC

Plug Internal Configuration



Spare Plug

