

Surge Voltage Protection for Photovoltaic Installations

EP Y2+1PV 1000
EP Y2+1PV 1000/FM

Multi-pole, pre-wired pluggable class II surge voltage arrester (type 2) category C

Powerful, fault-resistant and leakage current-free SPD for photovoltaic installations



- Class II surge protection device (T2)
- 3-pole complete unit consisting of a compact basic module with pluggable protective modules
- Fault-resistant and leakage current-free Y-connection with MOV and GDT
- No undesired triggering of the thermal disconnection device
- No interference with insulation monitoring devices
- High discharge capacity
- Large multi-functional terminals for conductor cross sections up to 50 mm²
- Visual fault indicator via colour change green – red in the vision panel
- Function control indication by optional potential-free remote contact (changeover)

Product description

Leutron's surge arresters of the series **EP Y 2+1 PV 1000** are specially designed to protect d.c. generator circuits up to 1,000 V d.c. in photovoltaic installations. Due to their so called 2+1 or Y-connection consisting of two metal oxide varistors (MOV) and a gas-filled surge arrester (GDT) a fault-resistant and leakage current-free surge protection up to 1,000 V d.c. is guaranteed.

The specific circuit design impedes an undesired triggering of the thermal disconnection device and possible interferences with insulation monitoring devices by leakage currents.

The MOV protection modules, as always, are equipped with a thermodynamic disconnection device. If the disconnection device is triggered the visual fault indicator changes from green to red and the optional potential-free remote contact (changeover) is activated and throws over.

Protects People and Valuables



Technical Data:

Type	Part no.:	Note
EP Y2+1 PV 1000	39 50 36	Terminals for d.c. and PE (+ / - -PE)
EP Y2+1 PV 1000 /FM	39 50 37	with remote signalling contact

Spare parts		
EP C S 550	38 13 12	Protection module without basic module (receptacle)

Class according to DIN EN 60099-4 (VDE 0675 Part 4) respectively DIN EN 61643-11 (VDE 0675 Part 6-11)			SPD Type 2 T2, Class II
PV voltage according to IEC 60364-7-712 respectively DIN VDE 0100-712 (VDE0100-712)	U_{OCSTC}	[V] d.c.	$\leq 1,000$
Max. continuous operating d.c. voltage	U_C	[V] d.c.	745
Protection level at i_{sn} (8/20 μ s)	U_P	[kV]	< 2.5
Response time	t_A	[ns]	< 25
Nominal impulse discharge current (8/20 μ s)	I_{sn}	[kA]	20
Maxi. nominal impulse discharge current (8/20 μ s)	I_{max}	[kA]	40
Operating temperature range	T	[°C]	-40 ... +80
Max. conductor cross section		[mm ²]	50 stranded / 35 fine-stranded
Recommended connection torque for terminals		[Nm]	4,5
Max. current carrying capacity of the optional remote signalling contact (FM) changeover contact		[V/A]	a.c.: 250/0.5 / d.c.: 250/0.1 A
Max. conductor cross section for the remote signalling contact (FM)		[mm ²]	Max. 1.5
Degree of protection (IEC/EN 60529)			IP 20
Enclosing material / colour			Polyamide PA 6 30SV, UL94 V0 / yellow
Mounting on			35 mm DIN rail (DIN / EN 50022)

Dimensions [mm]

Circuit diagram

Housing size 3 MW according to DIN 43880

FM

54

48
60
45.5
90

EP Y2+1 PV 1000 (/FM)

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Subject to modification in terms of technical data and delivery possibility

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