

## Class I&amp;II, T1+T2, PV DC Surge Arresters

Iimp 12.5kA

The PVB12.5 V is class I & class II (or T1+T2) PV DC SPD designed for DC application such as PV/ Photovoltaic system dc-side protection, especially for location of high risk exposure or LPZ 0-2 building entrances ( IEC 62305-4) to against the damage from direct or close lightning strikes.

With built in Prosurge's high energy MOV, PVB12.5 ensures remarkable lightning current discharge capacity up to 12.5kA 10/350µs and high reliability. The unique design of thermal protection provides quick thermal response and secure disconnection.

## Features

- TUV certified T1+ T2 PV DC SPD per IEC/EN 61643-31 standard.
- 18mm narrow model design, Single pole SPD for multi-purpose surge protection
- Application in Photovoltaic (PV) systems and other DC power system like charging system for electric vehicles etc.
- Unique thermal disconnecter design
- Lightning current capacity up to 12.5kA 10/350µs
- Surge current capability up to 80kA 8/20µs
- Low voltage protection level
- Degradation failure indication and optional remote signal contact.
- Pluggable module for easy replacement without the need to remove system wiring.
- Wide operating temperature -40°C ~85°C
- 35mm DIN-rail mounting
- Comply with EN 50539-11, UL1449 5<sup>th</sup>, IEEE C62.41, CSA C22.2 standards



PVB12.5/xxx-V-S

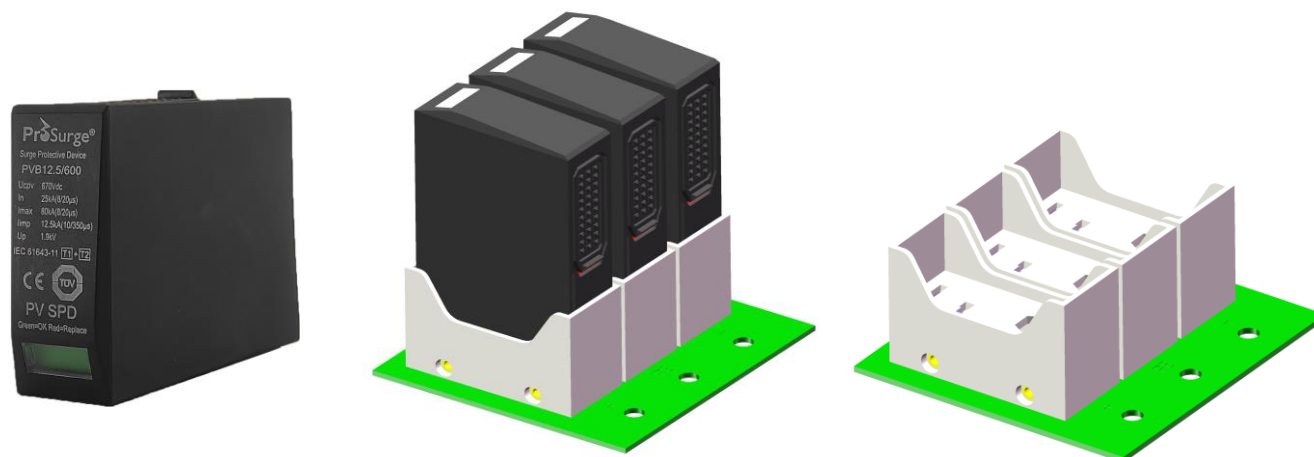


PVB12.5/xxx-V-C-S



PVB12.5/xxx-V-CD-S

## MPVB12.5 PCB Mount Plug-in Module



## General Product Specification

Category IEC/VDE	Class I + Class II/Type 1 + Type 2	
Short-circuit Current, $I_{scpv}$	1000A	
Leakage Current, $I_{pe}$	<0.1mA	
Thermal disconnecter	Internal: green - normal ; red - failure	
Wire Range	Single-strand 35mm <sup>2</sup> ; multi-strand 25mm <sup>2</sup>	
Mounting	35mm DIN-Rail	
Degree of Protection	IP 20	
Flammability	UL94 V0	
Operating & Storage Temperature	-40°C ~ +85°C	
Remote alarm contact*	NO/C/NC, Isolated Form C	
Remote alarm contact capability $U_n/I_n$	AC: 250V/0.5A    DC: 250V/0.1A; 125V/0.2A; 75V/0.5A	
Remote alarm contact connecting wire	Max. 1.5mm <sup>2</sup> or # 16AWG	

\*SPD part No. with “-S” means with remote signal alarm; part No. without “-S” means no remote signal alarm.

## Parameters

Model name	Mode of protection	SPD design technology	$U_{CPV}$ (Vdc)	$I_n$ (kA)	$I_{max}$ (kA)	$I_{imp}$ (kA)	$U_P$ (kV)
PVB12.5/48-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	55	25	80	12.5	0.6
PVB12.5/75-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	100	25	80	12.5	0.7
PVB12.5/100-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	125	25	80	12.5	0.7
PVB12.5/150-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	170	25	80	12.5	0.8
PVB12.5/200-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	225	25	80	12.5	1.0
PVB12.5/300-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	350	25	80	12.5	1.4
PVB12.5/400-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	460	25	80	12.5	1.6
PVB12.5/500-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	560	25	80	12.5	1.8
PVB12.5/600-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	670	25	80	12.5	2.2
PVB12.5/750-V(-S)	+/- to PE, or + to -	T1+T2, Voltage limiting	800	25	65	8.0	2.5
PVB12.5/48-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	55	25	80	12.5	0.6 (+/- to PE) 1.0(+ to -)
PVB12.5/75-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	100	25	80	12.5	0.7 (+/- to PE) 1.2(+ to -)
PVB12.5/100-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	125	25	80	12.5	0.7 (+/- to PE) 1.2 (+ to -)

## POWER SUPPLY SYSTEM

PVB12.5/150-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	170	25	80	12.5	0.8 (+/- to PE) 1.5 (+ to -)
PVB12.5/200-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	225	25	80	12.5	1.0 (+/- to PE) 2.0 (+ to -)
PVB12.5/300-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	350	25	80	12.5	1.4 (+/- to PE) 2.5 (+ to -)
PVB12.5/400-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	460	25	80	12.5	1.6 (+/- to PE) 3.0 (+ to -)
PVB12.5/500-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	560	25	80	12.5	1.8 (+/- to PE) 3.5 (+ to -)
PVB12.5/600-V-C(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	670	25	80	12.5	2.2 (+/- to PE) 4.0 (+ to -)
PVB12.5/100-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	110	25	80	12.5	1.0
PVB12.5/200-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	250	25	80	12.5	1.2
PVB12.5/300-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	340	25	80	12.5	1.5
PVB12.5/400-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	450	25	80	12.5	2.0
PVB12.5/600-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	700	25	80	12.5	2.5
PVB12.5/800-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	920	25	80	12.5	3.0
PVB12.5/1000-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	1120	25	80	12.5	3.5
PVB12.5/1200-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	1340	25	80	12.5	4.0
PVB12.5/1500-V-CD(-S)	+/- to PE, + to -	T1+T2, Voltage limiting	1500	25	65	8	4.5
MPVB12.5/48-V	+/- to PE, or + to -	T1+T2, Voltage limiting	55	25	80	12.5	0.6
MPVB12.5/75-V	+/- to PE, or + to -	T1+T2, Voltage limiting	100	25	80	12.5	0.7
MPVB12.5/100-V	+/- to PE, or + to -	T1+T2, Voltage limiting	125	25	80	12.5	0.7
MPVB12.5/150-V	+/- to PE, or + to -	T1+T2, Voltage limiting	170	25	80	12.5	0.8
MPVB12.5/200-V	+/- to PE, or + to -	T1+T2, Voltage limiting	225	25	80	12.5	1.0
MPVB12.5/300-V	+/- to PE, or + to -	T1+T2, Voltage limiting	350	25	80	12.5	1.4
MPVB12.5/400-V	+/- to PE, or + to -	T1+T2, Voltage limiting	460	25	80	12.5	1.6
MPVB12.5/500-V	+/- to PE, or + to -	T1+T2, Voltage limiting	560	25	80	12.5	1.8
MPVB12.5/600-V	+/- to PE, or + to -	T1+T2, Voltage limiting	670	25	80	12.5	2.2
MPVB12.5/750-V	+/- to PE, or + to -	T1+T2, Voltage limiting	800	25	65	8	2.5