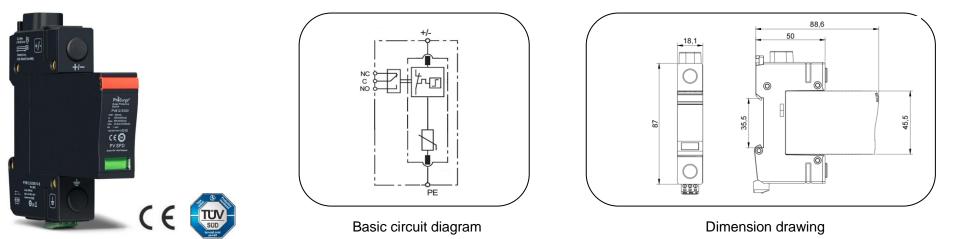
PrSurge[®]

POWER SUPPLY SYSTEM

Class I + Class II (T1+T2), PV DC Surge Arresters

PVB12.5/...V



The PVB12.5 V is class I & class II (or T1+T2) single pole 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 high energy MOV, PVB12.5 V 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.

- 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 disconnector 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 5th, IEEE C62.41,CSA C22.2 standards

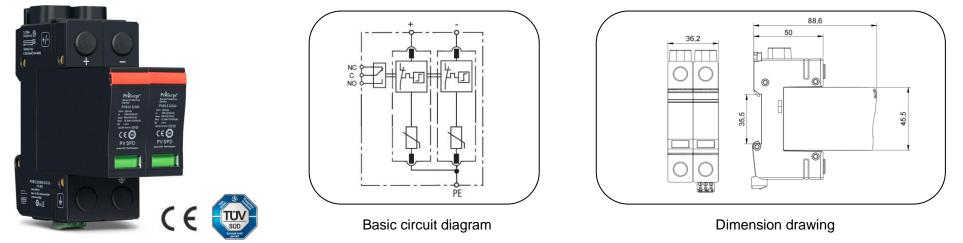


Part No.	PVB12.5/48-V (-S)	PVB12.5/75-V (-S)	PVB12.5/100- V(-S)	PVB12.5/150- V(-S)	PVB12.5/200- V(-S)	PVB12.5/300- V(-S)	PVB12.5/400- V(-S)	PVB12.5/500- V(-S)	PVB12.5/600- V(-S)	PVB12.5/750- V(-S)		
In accordance with	IEC/EN 61643-31; UL1449 5 th ; EN 50539-11											
Category IEC/EU/VDE	I+ II /1+2/ B+C											
DC+ to DC- or DC+/- to PE	DC+ to DC- or DC+/- to PE											
Nominal Voltage (DC) Un	48V	48V 75V 100V 150V 200V 300V 400V 500V 600V 750										
Max. continuous operating voltage (DC) Ucpv	85V	100V	125V	170V	225V	350V	460V	560V	670V	800V		
Nominal discharge current (8/20) In	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA		
Max. discharge current (8/20) Imax	80kA	80kA	80kA	80kA	80kA	80kA	80kA	80kA	80kA	65kA		
Lightning impulse current (10/350) limp	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	8kA		
Voltage protection level Up	0.6kV	0.7kV	0.7kV	0.8kV	1.0kV	1.4kV	1.6kV	1.8kV	2.2kV	2.5kV		
Response time tA		≤25ns										
Leakage Current Ipe	<0.1mA											
Short-circuit Current Iscpv					100)0A						
Operating temperature range		- 40ºC ~ + 85ºC										
Altitude		-500m ~ +4000m										
Cross-section of connection wire (max)		Single-strand 35mm ² ; multi-strand 25mm ²										
Mounting		35mm DIN-rail in accordance with EN 50022/DIN46277-3										
Enclosure material				therm	oplastic; extingui	ishing degree ULS	94 V-0					
Degree of protection					IP:	20						
Installation width					1 modules,	DIN 43880						
Thermal disconnector				Int	ernal Green – n	iormal ; red - failu	ire					
Remote alarm contact					Opti	onal						
Approvals, Certifications	TUV, CE											
Additional data for Remote Alarm Contacts												
Remote alarm contact type	Isolated Form C											
Switching capability Un/In	AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A											
Cross-section of remote signaling wire	Max. 1.5mm ² (or # 16AWG)											



Class I + Class II (T1+T2), PV DC Surge Arresters

PVB12.5/...-V-C



The PVB12.5 C is class I & class II (or T1+T2) prewired 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 high energy MOV, PVB12.5V C 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.

- TUV certified T1+ T2 PV DC SPD per IEC/EN 61643-31 standard.
- 18mm narrow model design, prewired two poles of V circuit for common mode protection
- Application in Photovoltaic (PV) systems and other DC power system like charging system for electric vehicles etc.
- Unique thermal disconnector 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 5th, IEEE C62.41,CSA C22.2 standards

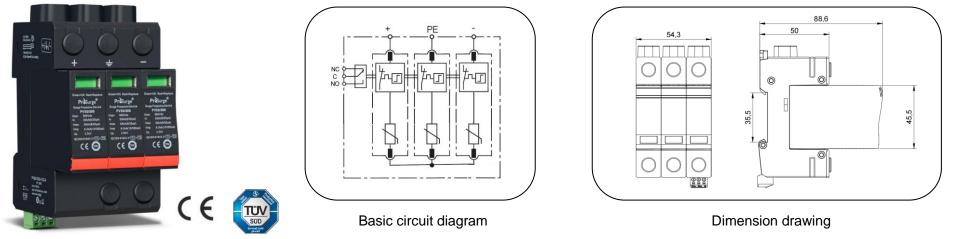


In accordance withIEC/EN 6163-31; UI.1449 5°; EN 50539-11Category IEC/EU//OEUI /1-2/ UEProtection modeUI /1-2/ UEDetermine with Row	Part No.	PVB12.5/48-V- C (-S)	PVB12.5/75-V- C(-S)	PVB12.5/100-V -C(-S)	PVB12.5/150-V -C(-S)	PVB12.5/200-V -C(-S)	PVB12.5/300-V -C(-S)	PVB12.5/400-V -C(-S)	PVB12.5/500-V -C(-S)	PVB12.5/600-V -C(-S)			
Deferred is a constrained in the second is a constrained in the second is a constrained in the second is a constrained is charge or the second is a constrained is charge or the second is a constrained is charge or the second is constrained is constra	In accordance with	0 (3)											
Nominal Voltage (DC) Un 448V 75V 100V 150V 200V 300V 400V 500V 600V Max. continuous operating voltage (DC) Ucpv 85V 100V 125V 170V 225V 350V 460V 560V 670V Nominal discharge current (8/20) In 25KA 80kA 80k	Category IEC/EU/VDE					I+ II /1+2/ B+C							
Max. continuous operating voltage (DC) Ucpv 85V 100V 125V 170V 225V 350V 460V 560V 670V Nominal discharge current (8/20) in 25kA 80kA 12.5kA 12.5kA </td <td>Protection mode</td> <td></td> <td></td> <td></td> <td>DC</td> <td>+ to DC- , DC+/- to</td> <td>PE</td> <td></td> <td></td> <td></td>	Protection mode				DC	+ to DC- , DC+/- to	PE						
Nominal discharge current (8/20) In 25kA 80kA 25kA 12.5kA 12.5kA 12.5kA 12.5kA 12.5kA 12.5kA 12.5kA 12.5kA 13.6kV 13.6kV	Nominal Voltage (DC) Un	48V	75V	100V	150V	200V	300V	400V	500V	600V			
Max. discharge current (8/20) imax80kA80kA80kA80kA80kA80kA80kA80kA80kALightning impulse current (10/350) imp12.5kA <t< td=""><td>Max. continuous operating voltage (DC)</td><td>Ucpv 85V</td><td>100V</td><td>125V</td><td>170V</td><td>225V</td><td>350V</td><td>460V</td><td>560V</td><td>670V</td></t<>	Max. continuous operating voltage (DC)	Ucpv 85V	100V	125V	170V	225V	350V	460V	560V	670V			
Lightning impulse current (10/350) limp12.5kA1	Nominal discharge current (8/20) In	25kA	25kA 25kA 25kA 25kA 25kA 25kA 25kA 25kA										
Det/- to PE D.6 kV D.7kV D.7kV D.8kV 1.0kV 1.4kV 1.6kV 1.8kV 2.2kV Up D.C + to D.C 1.0kV 1.2kV 1.2kV 1.5kV 2.0kV 2.5kV 3.0kV 3.5kV 4.0kV Response time L Stort-forcuit Current J.2kV 1.2kV 1.5kV 2.0kV 2.5kV 3.0kV 3.5kV 4.0kV Response time L Stort-forcuit Current J.2kV 1.2kV 1.5kV 2.0kV 2.5kV 3.0kV 3.5kV 4.0kV Short-forcuit Current Jee Stort-forcuit Current Jee J	Max. discharge current (8/20) Imax	80kA	80kA	80kA	80kA	80kA	80kA	80kA	80kA	80kA			
Notice of the DC+ to DC- 1.0kv 1.2kv 1.2kv 1.5kv 2.0kv 2.5kv 3.0kv 3.5kv 4.0kv Response time tA	Lightning impulse current (10/350) lin	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA			
TechnologicText	Voltage protection level DC+/-	to PE 0.6 kV	0.7kV	0.7kV	0.8kV	1.0kV	1.4kV	1.6kV	1.8kV	2.2kV			
Leakage Current Ige<0.1mAShort-circuit Current Iscpv1000AOperating temperature range- 40%C ~+ 85%CAltitude- 500m ~+ 4000mCross-section of connection wire (max)Single-strand 35mm ² ; multi-strand 25mm ² Mounting0Enclosure materialthermoplastic; extinguishing degree UL94 V-0Degree of protectionIP20Installation width2 modules, DIN 43880Thermal disconnectorOptionalApprovals, CertificationsOptionalApprovals, CertificationsTUV, CEAdditional data for Remote Alarm ContactsIsolated Form CSwitching capability Un/InAC: 250V/0.5ADC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Up DC + t	o DC - 1.0kV	1.2kV	1.2kV	1.5kV	2.0kV	2.5kV	3.0kV	3.5kV	4.0kV			
Shore circuit Current Iscpv1000AOperating temperature range- 40°C ~ + 85°CAltitude- 500m ~ + 4000mCross-section of connection wire (max)Single-strand 35mm²; multi-strand 25mm²Mounting0Bencore anterialCross-section of connection wire (max)Degree of protectionIP20Installation width2 modules, DIN 43880Thermal disconnectorOptionalApprovals, CertificationsOptionalApprovals, CertificationsTUV, CERemote alarm contact typeIsolated Form CSwitching capability Un/InAC: 250V/0.5ADC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Response time tA		≤25ns										
Operating temperature range- 40°C ~ + 85°CAltitude- 500m ~ + 4000mCross-section of connection wire (max)Single-strand 35mm?; multi-strand 25mm²Mounting035mm DIN-rail in accordance with EN 50022/DIN46277-3Enclosure material01920Degree of protectionIP20Installation width2 modules, DIN 43880Thermal disconnectorOptionalApprovals, Certifications0Additional data for Remote Alarm ContactsRemote alarm contact typeIsolated Form CSwitching capability Un/inC: 250V/0.5ADr. 250V/0.1A; 125V/0.2A; 75V/0.5A	Leakage Current Ipe					<0.1mA							
Alticude-500m ~ +4000mAltitude-500m ~ +4000mCross-section of connection wire (max)Single-strand 35mm²; multi-strand 25mm²Mounting35mm DIN-rail in accordance with EN 50022/DIN46277-3Enclosure materialthermoplastic; extinguishing degree UL94 V-0Degree of protectionIP20Installation width2 modules, DIN 43880Thermal disconnectorOptionalRemote alarm contactOptionalApprovals, CertificationsTUV, CEAdditional data for Remote Alarm ContactsIsolated Form CSwitching capability Un/InAC: 250V/0.5ADC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Short-circuit Current Iscpv					1000A							
Cross-section of connection wire (max)Single-strand 35mm²; multi-strand 25mm²MountingSingle-strand 35mm DIN-rail in accordance with EN 50022/DIN46277-3Enclosure materialThermoplastic; extinguishing degree UL94 V-0Degree of protectionIP20Installation width2 modules, DIN 43880Thermal disconnectorQuite of a strand 35mm?; multi-strand Green – normal; red - failureRemote alarm contactOptionalAdditional data for Remote Alarm ContactsTUV, CERemote alarm contact typeIsolated Form CSwitching capability Un/InC. 250V/0.5ADC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Operating temperature range					- 40ºC ~ + 85ºC							
Mounting35mm DIN-rail in accordance with EN 50022/DIN46277-3Enclosure materialThermoplastic; extinguishing degree UL94 V-0Degree of protectionIP20Installation width2 modules, DIN 43880Thermal disconnectorInternal Green – normal ; red - failureRemote alarm contactOptionalApprovals, CertificationsTUV, CEAdditional data for Remote Alarm ContactsIsolated Form CRemote alarm contact typeCSwitching capability Un/InAC: 250V/0.5ADC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Altitude					-500m ~ +4000m							
Enclosure materialthermoplastic; extinguishing degree UL94 V-0Degree of protectionIP20Installation width2 modules, DIN 43880Thermal disconnectorInternal © reen – normal; red - failureRemote alarn contactOptionalApprovals, CertificationsTUV, CEAdditional data for Remote Alarm ContactsIsolated Form CRemote alarn contact typeSolated Form CSwitching capability Un/InAc: 250V/0.5ADc: 250V/0.1A; 125V/0.2A; 75V/0.5A	Cross-section of connection wire (max)				Single-stran	d 35mm²; multi-sti	and 25mm ²						
Degree of protectionIP20Installation width2 modules, DIN 43880Thermal disconnectorInternal Green – normal ; red - failureRemote alarm contactOptionalApprovals, CertificationsTUV, CEAdditional data for Remote Alarm ContactsTUV, CERemote alarm contact typeIsolated Form CSwitching capability Un/InAC: 250V/0.5ADC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Mounting				35mm DIN-rail in ad	ccordance with EN	50022/DIN46277-3						
Installation width2 modules, DIN 43880Internal disconnectorInternal Green – normal; red - failureRemote alarm contactOptionalApprovals, CertificationsTUV, CEAdditional data for Remote Alarm ContactsIsolated Form CRemote alarm contact typeBc: 250V/0.5ADC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Enclosure material				thermoplastic	; extinguishing de	gree UL94 V-0						
Thermal disconnector Internal Green – normal; red - failure Remote alarm contact Optional Approvals, Certifications TUV, CE Additional data for Remote Alarm Contacts Isolated Form C Remote alarm contact type Dc: 250V/0.1A; 125V/0.2A; 75V/0.5A	Degree of protection					IP20							
Remote alarm contact Optional Approvals, Certifications TUV, CE Additional data for Remote Alarm Contacts Isolated Form C Remote alarm contact type Switching capability Un/In	Installation width				2	modules, DIN 4388	30						
Approvals, Certifications TUV, CE Additional data for Remote Alarm Contacts Isolated Form C Remote alarm contact type Isolated Form C Switching capability Un/In AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Thermal disconnector				Internal	Green – normal ; r	ed - failure						
Additional data for Remote Alarm Contacts Remote alarm contact type Switching capability Un/In AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Remote alarm contact					Optional							
Remote alarm contact type Isolated Form C Switching capability Un/In AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Approvals, Certifications					TUV, CE							
Switching capability Un/In AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A	Additional data for Remote Alarm Conta	octs											
	Remote alarm contact type		Isolated Form C										
Cross-section of remote signaling wire Max. 1.5mm ² (or # 16AWG)	Switching capability Un/In				AC: 250V/0.5A	DC: 250V/0.1A; 1	25V/0.2A; 75V/0.5A	N .					
	Cross-section of remote signaling wire		Max. 1.5mm ² (or # 16AWG)										



Class I + Class II (T1+T2), PV DC Surge Arresters

PVB12.5/...-V-CD



The PVB12.5 CD is class I & class II (or T1+T2) prewired 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 high energy MOV, PVB12.5V CD 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.

- TUV certified T1+ T2 PV DC SPD per IEC/EN 61643-31 standard.
- 18mm narrow model design, prewired three poles of Y circuit for common mode & differential mode protection
- Application in Photovoltaic (PV) systems and other DC power system like charging system for electric vehicles etc.
- Unique thermal disconnector 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 5th, IEEE C62.41,CSA C22.2 standards

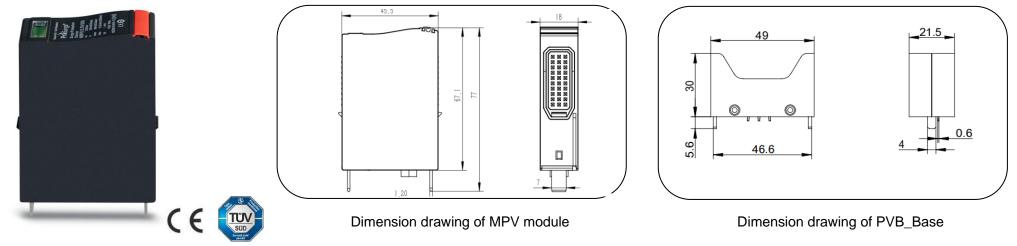


Part No.	PVB12.5/100- V-CD(-S)	PVB12.5/200- V-CD(-S)	PVB12.5/300- V-CD(-S)	PVB12.5/400- V-CD(-S)	PVB12.5/600- V-CD(-S)	PVB12.5/800- V-CD(-S)	PVB12.5/100 0-V-CD(-S)	PVB12.5/120 0-V-CD(-S)	PVB12.5/150 0-V-CD(-S)			
In accordance with	IEC/EN 61643-31; UL1449 5 th ; EN 50539-11											
Category IEC/EU/VDE	I+ II /1+2/ B+C											
Protection mode		DC+ to DC- , DC+/- to PE										
Nominal Voltage (DC) Un	100V	100V 200V 300V 400V 600V 800V 1000V 1200V 1										
Max. continuous operating voltage (DC) Ucpv	110V	250V	340V	450V	700V	920V	1120V	1340V	1500V			
Nominal discharge current (8/20) In	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA			
Max. discharge current (8/20) Imax	80kA	80kA	80kA	80kA	80kA	80kA	80kA	80kA	65kA			
Lightning impulse current (10/350) limp	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	8kA			
Voltage protection level Up (DC+/- to PE, DC+ to DC-)	1.0kV	1.2kV	1.5kV	2.0kV	2.5kV	3.0kV	3.5kV	4.0kV	4.5kV			
Response time tA		≤25ns										
Leakage Current Ipe		<0.1mA										
Short-circuit Current Iscpv					1000A							
Operating temperature range					- 40ºC ~ + 85ºC							
Altitude					-500m ~ +4000m							
Cross-section of connection wire (max)				Single-stran	d 35mm²; multi-s	rand 25mm ²						
Mounting			35	mm DIN-rail in ac	cordance with EN	I 50022/DIN4627	7-3					
Enclosure material				thermoplastic	; extinguishing de	gree UL94 V-0						
Degree of protection					IP20							
Installation width				3	modules, DIN 438	80						
Thermal disconnector				Internal	Green – normal ;	red - failure						
Remote alarm contact		Optional										
Approvals, Certifications		TUV, CE										
Additional data for Remote Alarm Contacts												
Remote alarm contact type		Isolated Form C										
Switching capability Un/In		AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A										
Cross-section of remote signaling wire	Max. 1.5mm ² (or # 16AWG)											

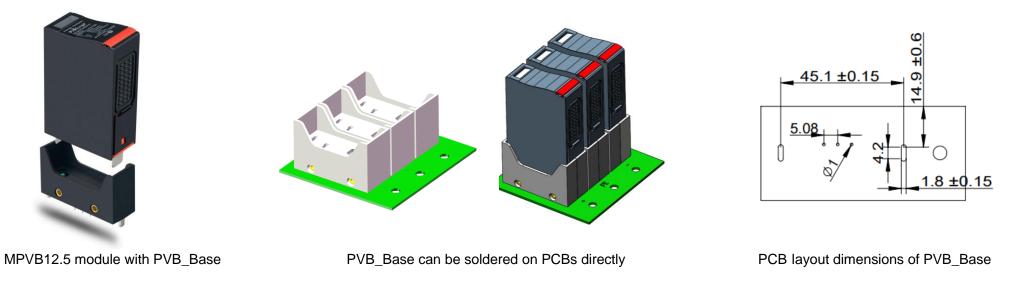


Plug-In module

MPVB12.5...-V



Class I &Class II (or T1 + T2) plug-in module for PVB12.5V series replacement, which is heavy MOV based device with Prosurge's thermal protection and arc extinguishing technology. MPVB12.5 module can be easy integrated on printed circuit boards (PCB) and installed closest to sensitive electronic element inside PV/ DC power electronics while used together with PVB_Base, it will help to protect the most important circuit and minimize the potential impact of lightning events. Further, optimal voltage protection level is achieved for the electronics of the PCB since there is no cable length between the SPD and the device to be protected. The PVB_Base also helps to provide floating remote signal for module fault indication.



Part No.	MPVB12.5/48 -V	MPVB12.5/75 -V	MPVB12.5/10 0-V	MPVB12.5/15 0-V	MPVB12.5/20 0-V	MPVB12.5/30 0-V	MPVB12.5/40 0-V	MPVB12.5/50 0-V	MPVB12.5/60 0-V	MPVB12.5/75 0-V	
In accordance with	IEC/EN 61643-31; UL1449 5 th ; EN 50539-11										
Category IEC/EU/VDE		I+ II /1+2/ B+C									
Nominal Voltage (DC) Un	48V	75V	100V	150V	200V	300V	400V	500V	600V	750V	
Max. continuous operating voltage (DC) Ucpv	85V	100V	125V	170V	225V	350V	460V	560V	670V	800V	
Nominal discharge current (8/20) In	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	25kA	
Max. discharge current (8/20) Imax	80kA	80kA	80kA	80kA	80kA	80kA	80kA	80kA	80kA	65kA	
Lightning impulse current (10/350) limp	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	12.5kA	8kA	
Voltage protection level Up	0.6kV	0.7kV	0.7kV	0.8kV	1.0kV	1.4kV	1.6kV	1.8kV	2.2kV	2.5kV	
Leakage Current Ipe	<0.1mA										
Short-circuit Current Iscpv					100	00A					
Operating temperature range		- 40ºC ~ + 85ºC									
Enclosure material				therm	oplastic; extingu	ishing degree ULS	94 V-0				
Degree of protection					IP	20					
Thermal disconnector				Int	ernal Green – r	normal ; red - failu	ure				
Approvals, Certifications	TUV, CE										
Additional data for PVD_Base's remote alarm contacts											
Remote alarm contact type	Isolated Form C										
Switching capability Un/In	AC: 250V/0.5A DC: 250V/0.1A; 125V/0.2A; 75V/0.5A										