Effective January 2016 Supersedes August 2013

PV PRO three module photovoltaic surge protective devices for 600 and 1000Vdc systems



Catalog symbols:

- BSPP3_YPV
- BSPP3_YPVR

Description:

Eaton Bussmann[™] series three-module photovoltaic SPDs have a three-step DC switching device and feature *easy*ID[™] local visual indication and optional remote contact signaling.

These complete surge protective devices are suitable for all PV systems in accordance with UL 1449 $4^{\rm th}$ Edition, EN 50539-11 and IEC 60364-7-712. Includes a two year limited warranty.

These prewired solutions consist of a base and modules that feature a disconnection device in the event of an overload and are mechanically keyed to prevent the use of an incorrect replacement module.

In case of insulation faults in the generator circuit, a reliable and tested fault-resistant Y circuit prevents damage to the surge protective devices.



Standard local visual indication

The green and red visual indicator flags show the module protective status (green = good, red = replace).

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Optional remote contact signaling

The three-pole terminal remote contact signaling option has a floating changeover contact for use as a break or make contact, according to circuit concept.

Specifications:

System volts

- 600 Vdc
- 1000 Vdc

Systems types

- Two energized poles (all voltages)
- One energized pole (600 and 1000Vdc)

Agency information

- UL Recognized
- CE
- RoHS compliant

Mounting

• 35 mm DIN-Rail

Warranty

· Five years

Dimensions - mm:



Shown with optional remote contact signaling.

Module circuit diagrams:

Shown with optional remote contact signaling



BSPP3600YPV(R) BSPP31000YPV(R)

Typical application schematics:



Application A Two energized poles/modes



Application B One energized pole/mode



Application C One energized pole/mode*

Ordering information:

Nominal PV system voltage		600Vdc	1000Vdc	
Catalog numbers (base + modules)	W/O remote contact signaling	BSPP3600YPV	BSPP31000YPV	
	W/ remote contact signaling	BSPP3600YPVR	BSPP31000YPVR	
Replacement modules:		BPP300SYPV	BPP500SYPV	
Specifications				
Nominal PV system voltage		600V	1000V	
UCPV per EN50539-11 *		600Vdc	1000Vdc	
System MOV MCOV		700Vdc	1170Vdc	
Max system discharge current (8/20µs) [I _{max}]		40kA	40kA	
Voltage protection level	[U _P]	=2.5kV	=4.0kV	
	at 5kA [U _P]	=2.0kV	=3.5kV	
Short-circuit withstand capability [ISCPV]		125A		
Technology		Fault resistant Y MOV circuit		
Operating temperature range [T _u]		-40°C to +80°C		
Nominal discharge current (8/20µs) (DC+ Δ DC-) (DC+/DC- Δ PE) [I _n]		20kA		
Response time [t _A]		=25ns		
Operating state/fault indication		Green (good) / Red (replace)		
Conductor ratings and cross-sectional area:	Min.	60/75°C 1.5mm ² / 14AWG Solid/Flexible		
	Max.	60/75°C 35mm² / 2AWG stranded / 25mm² / 4AWG flexible		
Mounting		35mm DIN-Rail per EN 60715		
Enclosure material		UL 94V0 Thermoplastic		
Degree of protection		IP20		
Capacity		3 Modules, DIN 43880		
Agency information:		UL UL 1449 3rd Edition (Type 2)		
		IEC EN 50539-11, IEC 61643-11 Type 2, IEC 61643-11 Class II		
Warranty		Two Years**		
Remote contact signaling				
ontact signaling type		Changeover contact		
AC switching capacity (Volts/Amps)	AC	250V / 0.1A		
	DC	250V / 0.1A; 125V / 0.2A; 75V / 0.5A		
Cross-sectional area	sectional area		60/75°C Max. 1.5mm ² / 14AWG solid/flexible	
Drdering information		Order from catalog numbers above		

Maximum continuous operating voltage for PV applications.
** See Eaton's Bussmann Division SPD limited warranty statement (3A1502) for details at www.cooperbussmann.com/surge.

Typical application schematics:



Two energized poles/modes



Application B One energized pole/mode



Application C One energized pole/mode*

* BSPP31000YPV(R) 1000Vdc one energized pole/mode requires the following:

1. Use a suitable electrical insulator to keep a 10mm min. safety distance from the PV-SPD and other grounded parts in the housing.

2. No metal covers are in the area of the module release buttons as shown.

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