

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



Remote contact signaling available

easyID™ local visual status indication

## Standard local visual indication

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

## 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

## Catalog symbols:

- BSPP3\_YPV
- BSPP3\_YPVR

## Description:

Eaton Bussmann™ series three-module photovoltaic SPDs have a three-step DC switching device and feature *easyID*™ 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<sup>th</sup> Edition, EN 50539-11 and IEC 60364-7-712. Includes a two year limited warranty.

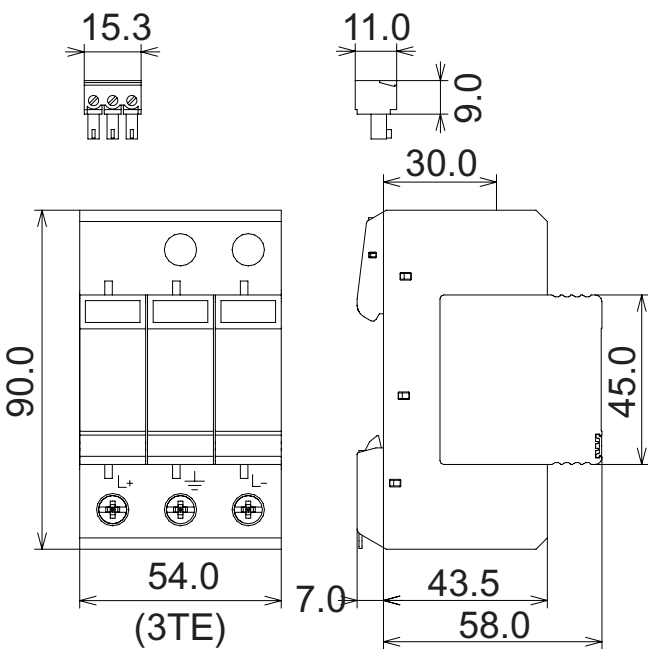
These prewired solutions consist of a base and modules that feature a disconnection device in the event of an overload and are mechanically keyed to prevent the use of an incorrect replacement module.

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



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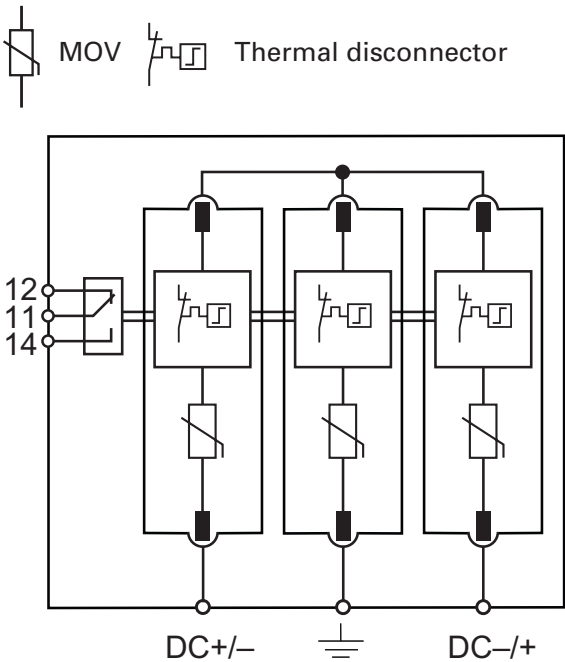
Dimensions - mm:



Shown with optional remote contact signaling.

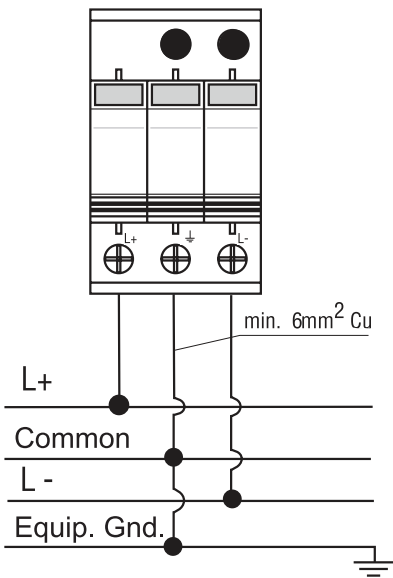
Module circuit diagrams:

Shown with optional remote contact signaling

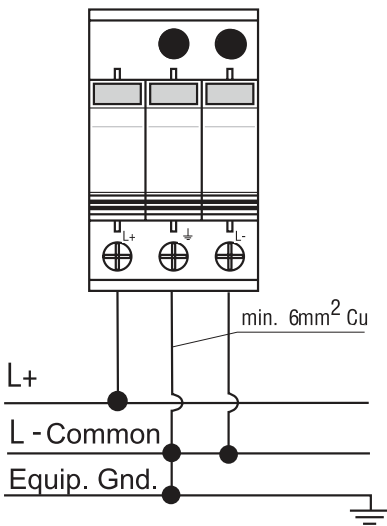


BSPP3600YPV(R)  
BSPP31000YPV(R)

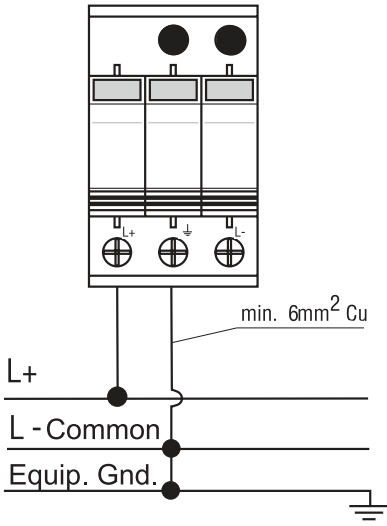
Typical application schematics:



**Application A**  
Two energized poles/modes



**Application B**  
One energized pole/mode



**Application C**  
One energized pole/mode\*

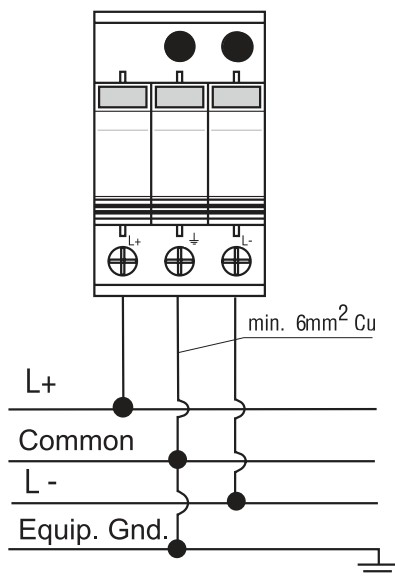
**Ordering information:**

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 <sub>max</sub> ]		40kA	40kA
Voltage protection level	[U <sub>p</sub> ]	=2.5kV	=4.0kV
	at 5kA [U <sub>p</sub> ]	=2.0kV	=3.5kV
Short-circuit withstand capability [ISCPV]		125A	
Technology		Fault resistant Y MOV circuit	
Operating temperature range [T <sub>U</sub> ]		-40°C to +80°C	
Nominal discharge current (8/20μs) (DC+ Δ DC-) (DC+/DC- Δ PE) [I <sub>n</sub> ]		20kA	
Response time [t <sub>A</sub> ]		=25ns	
Operating state/fault indication		Green (good) / Red (replace)	
Conductor ratings and cross-sectional area:	Min.	60/75°C 1.5mm² / 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			
Contact 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		60/75°C Max. 1.5mm² / 14AWG solid/flexible	
Ordering information		Order from catalog numbers above	

\* Maximum continuous operating voltage for PV applications.

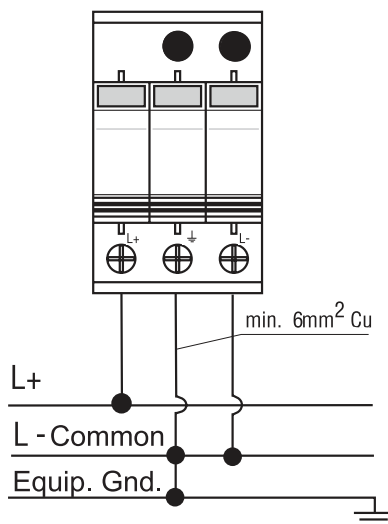
\*\* See Eaton's Bussmann Division SPD limited warranty statement (3A1502) for details at [www.cooperbussmann.com/surge](http://www.cooperbussmann.com/surge).

## Typical application schematics:



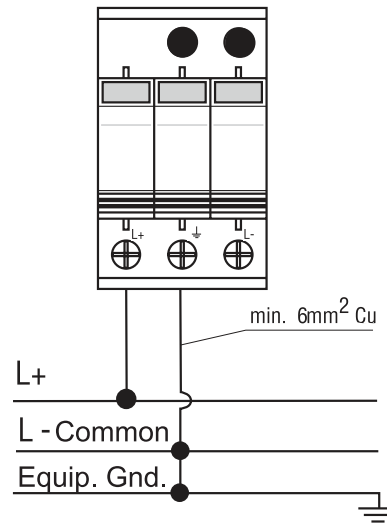
### Application A

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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