

# Surge Protection Made Simple™ for IEC Applications

## IEC Class II Surge Arresters for 230 Volt, 2-Pole TN & TT Systems



### Description

The Cooper Bussmann® IEC Class II 230 volt, two-pole, modular surge arresters feature local, *easyID*™ visual indication and optional remote contact signaling. The unique module locking system fixes the protection module to the base part. Modules can be easily replaced without tools by simply depressing the release buttons. Integrated mechanical coding between the base and protection module ensures against installing an incorrect replacement module.

230 Volt models are offered with MCOV ratings of 255 and 275 volts.

### TN System Arresters

The features of these single-pole devices are for use in single-phase 230 volt TN systems ("2-0" circuit).

### TT System Arrester

The features of these single-pole devices are for use in single-phase 230 volt TT and TNS systems ("1-1" circuit).

### Remote Signaling Contact

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



**BSPM2275TN(R)**  
**BSPH2275TT(R)**



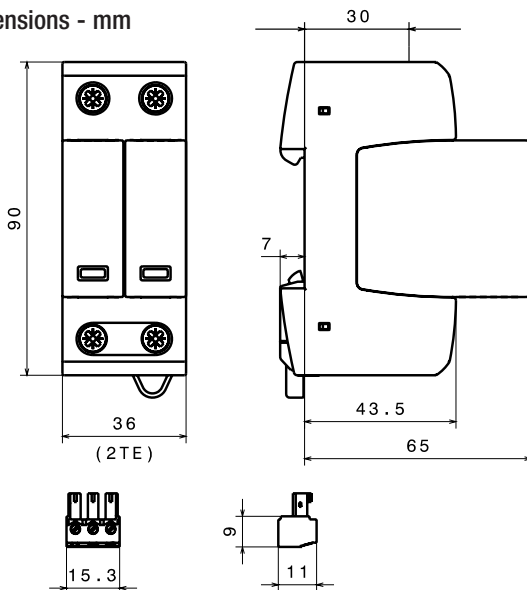
*easyID*™  
Visual Status Indication



Remote Signal  
Contact Available



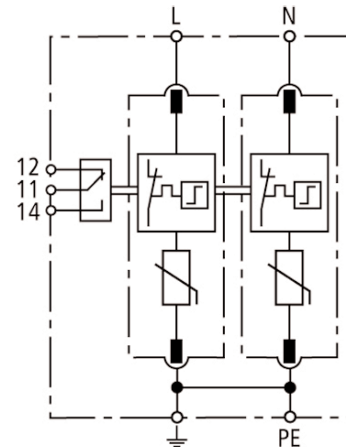
### Dimensions - mm



Shown with optional remote contact signaling

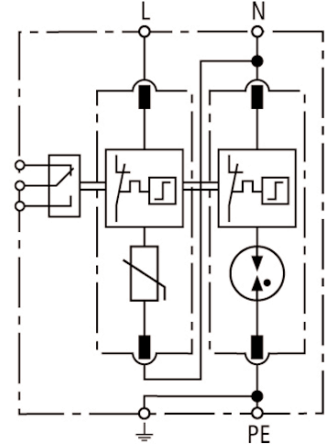
### Circuit Diagrams

- MOV
- Thermal Disconnector
- Gas Discharge Tube (single)



**BSPM2275TN(R)**

Shown with optional remote  
contact signaling



**BSPH2275TT(R)**

Shown with optional remote  
contact signaling

Ordering Information		
System Voltage/Poles	230V/2	230V/2
Max. continuous operating AC voltage (MCOV) [U <sub>C</sub> ]	275V	--
Max. Continuous operating AC voltage (MCOV) [L-N] [U <sub>C</sub> ]	--	275V
Max. Continuous operating AC voltage (MCOV) [N-PE] [U <sub>C</sub> ]	--	255V
Catalog Numbers:	Without Remote Signaling	BSPM2275TN
	With Remote Signaling	BSPM2275TNR
Replacement Modules:	MOV Technology	BPM275IEC
	Spark Gap technology	--
		BSPH2275TT
		BSPH2275TTR
		BPM275IEC
		BPSNPEIEC*
Specifications		
Lightning impulse current (10/350 μs) [N-PE] [I <sub>imp</sub> ]	--	12kA
Voltage protection level [U <sub>p</sub> ]	≤ 1.25kV	--
Voltage protection level at 5kA [U <sub>p</sub> ]	≤ 1kV	--
Voltage protection level [L-N] [U <sub>p</sub> ]	--	≤ 1.25kV
Voltage protection level [L-N] at 5kA [U <sub>p</sub> ]	--	≤ 1kV
Voltage protection level [N-PE] [U <sub>p</sub> ]	--	≤ 1.5kV
Follow current extinguishing capability [N-PE] [I <sub>ff</sub> ]	--	100A rms
Response time [t <sub>A</sub> ]	≤ 25 ns	--
Response time [L-N] [t <sub>A</sub> ]	--	≤ 25 ns
Response time [N-PE] [t <sub>A</sub> ]	--	≤ 100 ns
Temporary overvoltage (TOV) [U <sub>T</sub> ]	335V/5 sec.	--
Temporary overvoltage (TOV) [L-N] [U <sub>T</sub> ]	--	335V/5 sec.
Temporary overvoltage (TOV) [N-PE] [U <sub>T</sub> ]	--	1200V/200 ms
SPD according to EN 61643-11		Type 2
SPD according to IEC 61643-1		Class II
Nominal discharge current (8/20 μs) [I <sub>n</sub> ]		20kA
Max. discharge current (8/20 μs) [I <sub>max</sub> ]		40kA
Max. mains-side overcurrent protection		125A gL/gG
Short-circuit withstand capability for max. mains-side overcurrent protection		50kA rms
Nominal AC voltage [U <sub>N</sub> ]		230V
TOV characteristics		withstand
Operating temperature range [T <sub>U</sub> ]		-40°C to +80°C
Operating state/fault indication		green (good)/red (replace)
Number of ports		1
Cross-sectional area (min.)		1.5mm <sup>2</sup> /14AWG solid/flexible
Cross-sectional area (max.)		35mm <sup>2</sup> /2AWG stranded-25mm <sup>2</sup> /4AWG flexible
Mounting		35mm DIN rail per EN 60715
Enclosure material		Thermoplastic, UL 94V0
Location category		Indoor
Degree of protection		IP20
Capacity		2 mods., DIN 43880
Standards Information		KEMA
Product Warranty		Five Years**
Remote Contact Signaling		
Remote Contact Signaling Type		Changeover Contact
AC Switching Capacity (Volts/Amps)		250V/0.1A
DC Switching Capacity (Volts/Amps)		250V/0.1A; 125V/0.2A; 75V/0.5A
Conductor Ratings and Cross-Sectional Area for Remote Contact Signal Terminals		60/75°C Max. 1.5mm <sup>2</sup> /14AWG Solid/Flexible
Ordering Information		Order from Catalog Numbers Above

\* N-PE Surge arrester for location between neutral conductor and protective conductor in TT systems.

\*\* See Cooper Bussmann SPD Limited Warranty Statement (3A1502) for details at [www.cooperbussmann.com/surge](http://www.cooperbussmann.com/surge).

Recommended Cooper Bussmann Back Up Fuses	
DIN Fuse Size	NH Fuse Part Number
00	125NHG00B
0	125NHG0B
01	125NHG01B
02	125NHG02B

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