

Surge Protection Made Simple™ for IEC Applications

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



RoHS
2002/95/EC

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)



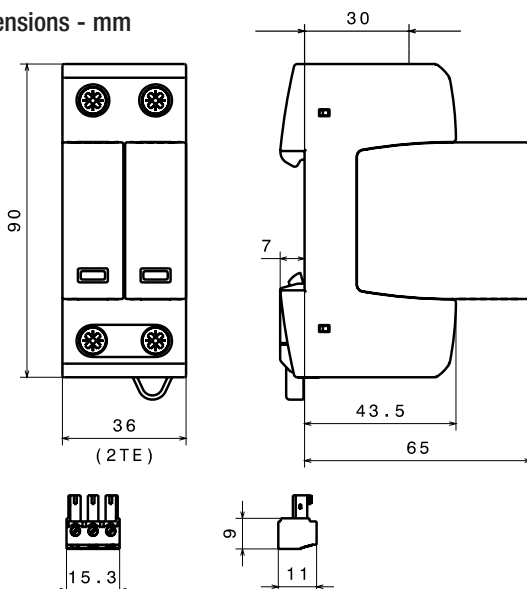
easyID™
Visual Status Indication



Remote Signal
Contact Available



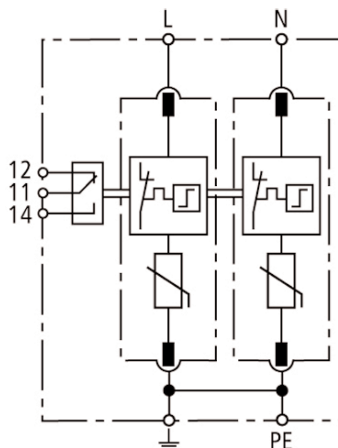
Dimensions - mm



Shown with optional remote contact signaling

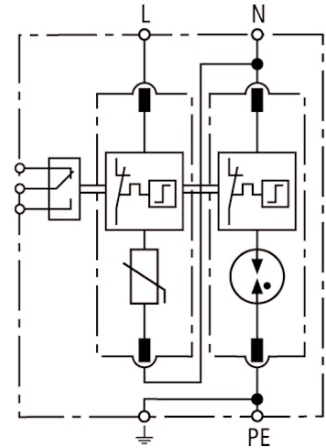
Circuit Diagrams

- 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 _C]		275V	- -
Max. Continuous operating AC voltage (MCOV) [L-N] [U _C]		- -	275V
Max. Continuous operating AC voltage (MCOV) [N-PE] [U _C]		- -	255V
Catalog Numbers:	Without Remote Signaling	BSPM2275TN	BSPH2275TT
	With Remote Signaling	BSPM2275TNR	BSPH2275TTR
Replacement Modules:	MOV Technology	BPM275IEC	BPM275IEC
	Spark Gap technology	- -	BPSNPEIEC*
Specifications			
Lightning impulse current (10/350 μs) [N-PE] [I _{imp}]		- -	12kA
Voltage protection level [U _p]		≤ 1.25kV	- -
Voltage protection level at 5kA [U _p]		≤ 1kV	- -
Voltage protection level [L-N] [U _p]		- -	≤ 1.25kV
Voltage protection level [L-N] at 5kA [U _p]		- -	≤ 1kV
Voltage protection level [N-PE] [U _p]		- -	≤ 1.5kV
Follow current extinguishing capability [N-PE] [I _{fi}]		- -	100A rms
Response time [t _A]		≤ 25 ns	- -
Response time [L-N] [t _A]		- -	≤ 25 ns
Response time [N-PE] [t _A]		- -	≤ 100 ns
Temporary overvoltage (TOV) [U _T]		335V/5 sec.	- -
Temporary overvoltage (TOV) [L-N] [U _T]		- -	335V/5 sec.
Temporary overvoltage (TOV) [N-PE] [U _T]		- -	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 _n]		20kA	
Max. discharge current (8/20 μs) [I _{max}]		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 _N]		230V	
TOV characteristics		withstand	
Operating temperature range [T _U]		-40°C to +80°C	
Operating state/fault indication		green (good)/red (replace)	
Number of ports		1	
Cross-sectional area (min.)		1.5mm ² /14AWG solid/flexible	
Cross-sectional area (max.)		35mm ² /2AWG stranded-25mm ² /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 ² /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.

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

The only controlled copy of this Data Sheet is the electronic read-only version located on the Cooper Bussmann Network Drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Cooper Bussmann reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Cooper Bussmann also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.