

## Surge Protection Made Simple™ for Wind Power Applications IEC Class II Surge Arresters for 230/400 Volt, TNS & TT Systems



RoHS  
2002/95/EC

### Description

The Cooper Bussmann® IEC Class II 230/400 volt, four-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.

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

### TNS System Arrester

The features of these four-pole devices are for use in TNS 230/400 volt systems ("4-0" circuit) against surges.

### TT System Arrester

The features of these four-pole devices are for use in TT and TN-S 230/400 volt systems ("3+1" circuit) against surges.

### 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.



**BSPM4230WE(R)**  
**BSPH4230WE(R)**



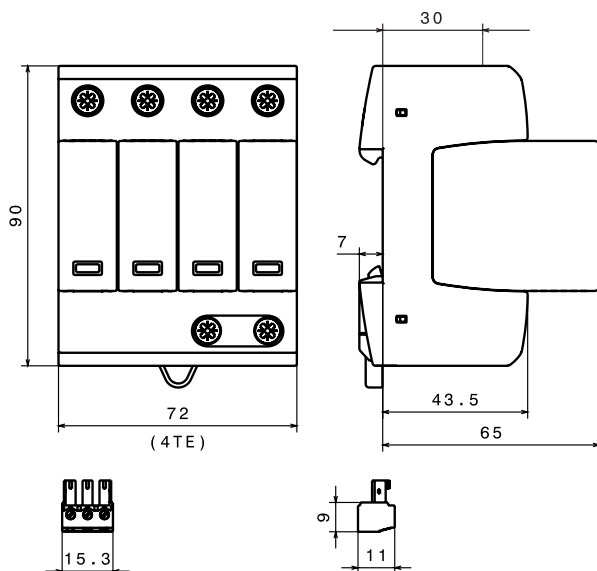
*easyID*™  
Visual Status Indication



Remote Signal  
Contact Available

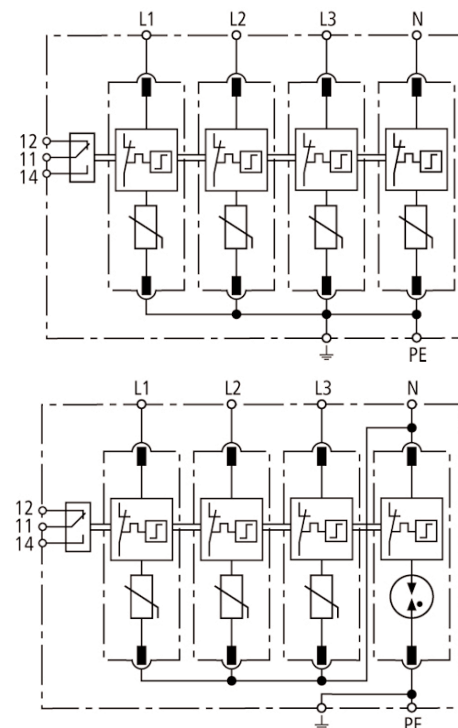


### Dimensions - mm



Shown with optional remote contact signaling

### Circuit Diagrams - Shown with optional remote contact signaling



**BSPM4230WE(R)**

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

**BSPH4230WE(R)**

ORDERING INFORMATION			
System Voltage/Poles		230/400V/4	230/400V/4
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 [N-PE] [U <sub>C</sub> ]		- -	255V
Catalog Numbers:	Without Remote Signaling	BSPM4230WE	BSPH4230WE
	With Remote Signaling	BSPM4230WER	BSPH4230WER
Replacement Modules:	MOV technology	BPM275WE	BPM275WE
	Spark Gap technology	- -	BPSNPEWE*
SPECIFICATIONS			
Line System Type		TNS	TT / TNS
Nominal AC voltage [U <sub>N</sub> ]		230/400V	230/400V
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>f</sub> ]		- -	100A <sub>rms</sub>
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	
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.)		1.5mm²/14AWG solid/flexible	
Cross-sectional area (max.)		35mm²/2AWG stranded-25mm²/4AWG flexible	
Mounting		35mm DIN rail per EN 60715	
Enclosure material		Thermoplastic, UL 94V0	
Location category		Indoor	
Degree of protection		IP20	
Capacity		4 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. 1.5mm²/14AWG Solid/Flexible	
Ordering Information		Order from Catalog Numbers Above	

Recommended Cooper Bussmann Back Up Fuse	
DIN Fuse Size	NH Fuse Part Number
00	125NHG00B

\* N-PE Surge arrester module 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).

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