

# Surge Protection Made Simple™ for IEC Applications

## IEC Class II Surge Arresters for 230-600 Volt, 1-Pole TN & TT Systems



### Description

The Cooper Bussmann IEC Class II 275, 320, 385, 440 and 600 volt, one-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.

Class II single-pole surge arrester models are offered with MCOV ratings of 255, 275, 320, 385, 440 and 600 volts.

### TN System Arresters

The features of these single-pole devices are for use as a single device or in combination with other devices.

### TT System Arrester

Provides a current arresting means between neutral conductor and protective conductor in TT systems, this device helps ensure fulfilling the requirements for protection of personnel and equipment in “3+1” and “1+1” circuits.

### 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.



BSPM1275TN(R)  
BSPM1320TN(R)  
BSPM1385TN(R)  
BSPM1440TN(R)  
BSPM1600TN(R)  
BSPG1255NPE(R)



*easyID*™  
Visual Status Indication



Remote Signal Contact Available



### Dimensions - mm



Shown with optional remote contact signaling

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



BSPM1275TN(R)  
BSPM1320TN(R)  
BSPM1385TN(R)  
BSPM1440TN(R)  
BSPM1600TN(R)

BSPG1255NPE(R)

Ordering Information						
System Voltage/Poles	230V/1	230V/1	230V/1	400V/1	600V/1	230V/1*
Max. Continuous operating AC voltage (MCOV) [U <sub>C</sub> ]	275V	320V	385V	440V	600V	255V
Catalog Numbers: Without Remote Signaling	BSPM1275TN	BSPM1320TN	BSPM1385TN	BSPM1440TN	BSPM1600TN	BSPG1255NPE
(Base + Modules) With Remote Signaling	BSPM1275TNR	BSPM1320TNR	BSPM1385TNR	BSPM1440TNR	BSPM1600TNR	BSPG1255NPER
Replacement Modules	BPM275IEC	BPM320IEC	BPM385IEC	BPM440IEC	BPM600IEC	BPG255NPE
Specifications						
Line system type	TN / TT	TN / TT	TN / TT	TN	TN	TT
Max. Continuous operating DC voltage [U <sub>C</sub> ]	350V	420V	500V	585V	600V	--
Voltage protection level [U <sub>p</sub> ]	≤ 1.25kV	≤ 1.5kV	≤ 1.75kV	≤ 2kV	≤ 2.5kV	≤ 1.5kV
Voltage protection level at 5kA [U <sub>p</sub> ]	≤ 1kV	≤ 1.2kV	≤ 1.35kV	≤ 1.7kV	≤ 2kV	--
Max. mains-side overcurrent protection	125A gL/gG	125A gL/gG	125A gL/gG	125A gL/gG	100A gL-gG	--
Short-circuit withstand capability for max. mains-side overcurrent protection	50kA <sub>rms</sub>	25kA <sub>rms</sub>	25kA <sub>rms</sub>	25kA <sub>rms</sub>	25kA rms	--
Temporary overvoltage (TOV) [U <sub>T</sub> ]	335V/5 sec.	335V/5 sec.	385V/5 sec.	580V/5 sec.	600V/5 sec.	1200V/200 ms
Response time [t <sub>A</sub> ]	≤ 25 ns	≤ 25 ns	≤ 25 ns	≤ 25 ns	≤ 25 ns	≤ 100 ns
Follow current extinguishing capability [I <sub>ff</sub> ]	--	--	--	--	--	100A <sub>rms</sub>
Lightning impulse current (10/350 μs) [I <sub>imp</sub> ]	--	--	--	--	--	12kA
Nominal discharge current (8/20 μs) [I <sub>n</sub> ]	20kA	20kA	20kA	20kA	15kA	20kA
Max. Discharge current (8/20 μs) [I <sub>max</sub> ]	40kA	40kA	40kA	40kA	30kA	40kA
Standards Information	KEMA	KEMA, CSA	KEMA, CSA	KEMA, CSA	KEMA	KEMA
Capacity	1 mod., DIN 43880					
SPD according to EN 61643-11	Type 2					
SPD according to IEC 61643-1	Class II					
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					
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	TT / TN System NH Fuse Part Numbers	
	275, 320, 385, 440V	600V
00	125NHG00B	100NHG00B-690
0	125NHG0B	100NHG0B-690
01	125NHG01B	--
1	--	100NHG1B-690
02	125NHG02B	--
2	--	100NHG2B-690

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