Surge Protection Made Simple™ for IEC Applications

IEC Class II Surge Arresters for 230/400 Volt, 4-Pole TNS & TT Systems

Description

The Cooper Bussmann® IEC Class II 230/400 volt, four-pole, modular surge arresters feature local, *easy*ID™ 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, 320 or 385 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.

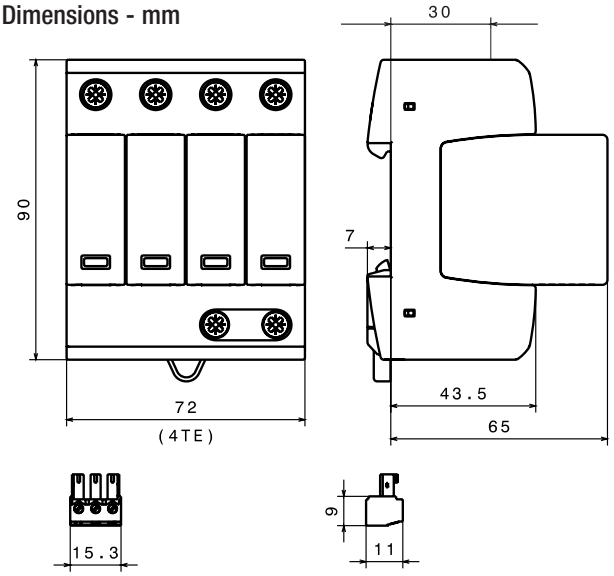
BSPM4275TNS(R)
BSPH4275TT(R)
BSPH4320TT(R)
BSPH4385TT(R)

5 YEAR WARRANTY

***easy*ID™**
Visual Status Indication

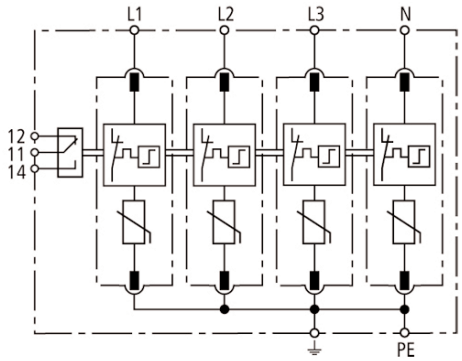
Remote Signal
Contact Available

Dimensions - mm



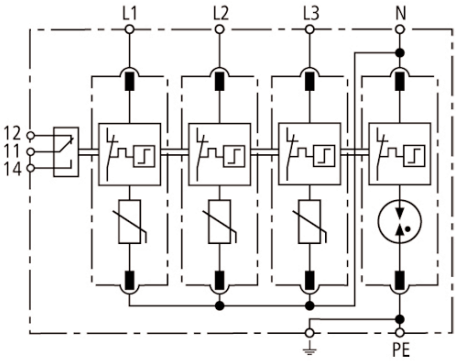
Shown with optional remote contact signaling

Circuit Diagrams



BSPM4275TNS(R)

Shown with optional remote contact signaling



MOV

Thermal Disconnector

Gas Discharge Tube (single)

BSPH4275TT(R)
BSPH4320TT(R)
BSPH4385TT(R)

Shown with optional remote contact signaling

Ordering Information					
System Voltage/Poles		230V/4	230V/4	230V/4	230V/4
Max. continuous operating AC voltage (MCOV) [U_C]		275V	- -	- -	- -
Max. continuous operating AC voltage (MCOV) [L-N] [U_C]		- -	275V	320V	385V
Max. continuous operating AC voltage [N-PE] [U_C]		- -	255V	255V	255V
Catalog Numbers:	Without Remote Signaling	BSPM4275TNS	BSPH4275TT	BSPH4320TT	BSPH4385TT
	With Remote Signaling	BSPM4275TNSR	BSPH4275TTR	BSPH4320TTR	BSPH4385TTR
Replacement Modules:	MOV technology	BPM275IEC	BPM275IEC	BPM320IEC	BPM385IEC
	Spark Gap technology	- -	BPSNPEIEC*	BPSNPEIEC*	BPSNPEIEC*
Specifications					
Lightning impulse current (10/350 µs) [N-PE] [I_{imp}]		- -	12kA	12kA	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	≤ 1.5kV	≤ 1.75kV
Voltage protection level [L-N] at 5kA [U_P]		- -	≤ 1kV	≤ 1.2kV	≤ 1.35kV
Voltage protection level [N-PE] [U_P]		- -	≤ 1.5kV	≤ 1.5kV	≤ 1.5kV
Follow current extinguishing capability [N-PE] [I_{fi}]		- -	$100A_{rms}$	$100A_{rms}$	$100A_{rms}$
Response time [t_A]		≤ 25 ns	- -	- -	- -
Response time [L-N] [t_A]		- -	≤ 25 ns	≤ 25 ns	≤ 25 ns
Response time [N-PE] [t_A]		- -	≤ 100 ns	≤ 100 ns	≤ 100 ns
Temporary overvoltage (TOV) [U_T]		335V/5 sec.	- -	- -	- -
Temporary overvoltage (TOV) [L-N] [U_T]		- -	335V/5 sec.	335V/5 sec.	385V/5 sec.
Temporary overvoltage (TOV) [N-PE] [U_T]		- -	1200V/200 ms	1200V/200 ms	1200V/200 ms
Short-circuit withstand capability for max. mains-side overcurrent protection		$50kA_{rms}$	$50kA_{rms}$	$25kA_{rms}$	$25kA_{rms}$
SPD according to EN 61643-11		Type 2			
SPD according to IEC 61643-1		Class II			
Nominal AC voltage [U_N]		230/400V			
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			
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.)		1.5mm²/14AWG 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			

* 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.

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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