This Product Is Obsolete
No recommended replacement is available

Surge Protection Made Simple™ for IEC Applications

IEC Class I Combined Lightning, Current and Surge Arresters for 230/400 Volt, 4-Pole TNS & TT Systems

Description

The Cooper Bussmann® IEC Class I 230 volt, four-pole, modular combined lightning, current and 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.

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

TNS System Arresters

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

TT System Arrester

Provides a current arresting means between neutral conductor and protective conductor in TT 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.

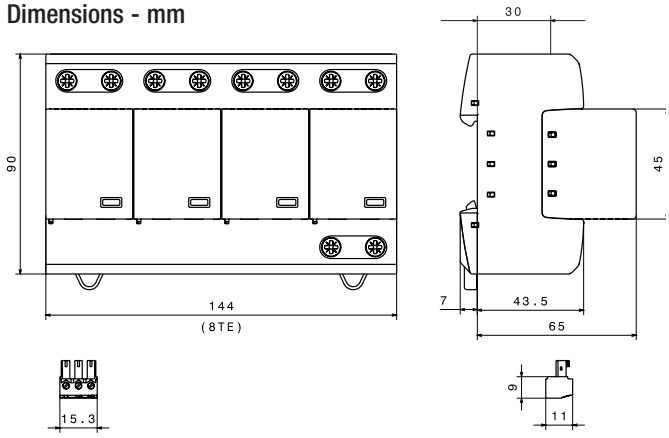
BSPS4255TNS(R)
BSPS4255TT(R)

5 YEAR WARRANTY

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

Remote Signal
Contact Available

Dimensions - mm

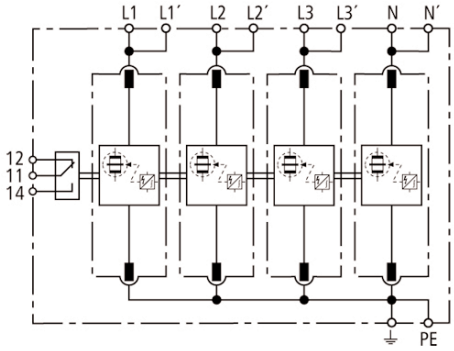


Shown with optional remote contact signaling

Circuit Diagrams

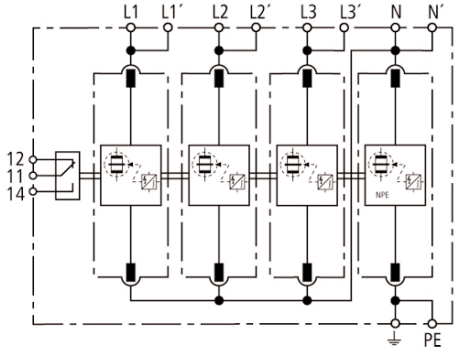
Creepage Discharge Spark Gap

Spark Gap Trigger



BSPS4255TNS(R)

Shown with optional remote contact signaling



BSPS4255TT(R)

Shown with optional remote contact signaling

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Ordering Information			
System Voltage/Poles		230/400V/4	230/400V/4
Max. Continuous operating AC voltage (MCOV) [U_C]		255V	255V
Catalog Numbers:	Without Remote Signaling	BSPS4255TNS	BSPS4255TT
	With Remote Signaling	BSPS4255TNSR	BSPS4255TTR
Replacement Modules (Spark Gap technology):		BPS255IEC	BPS255IEC
		- -	BPS100NPEIEC*

Specifications	
SPD according to EN 61643-11/... IEC 61643-1	Type 1/Class I
Energy-coordinated protection effect with regard to the terminal equipment	Type 1 + Type 2
Energy-coordinated protection effect with regard to the terminal equipment (≤ 5m)	Type 1 + Type 2 + Type 3
Nominal AC voltage [U_N]	230/400V
Lightning impulse current (10/350 µs) [L1+L2+L3+N-PE] [I_{total}]	100kA
Specific energy [L1+L2+L3+N-PE] [W/R]	2.50MJ/ohms
Lightning impulse current (10/350 µs) [L, N-PE] [I_{imp}]	25kA
TNS system specific energy [L,N-PE] [W/R]	156.25kJ/ohms
TT system specific energy [L-N]/[N-PE] [W/R]	156.25kJ/ohms/2.50kJ/ohms
Nominal discharge current (8/20 µs) [I_n]	25/100kA
Voltage protection level [L-PE]/[N-PE] [U_P]	≤ 1.5kV/≤ 1.5kV
TNS system follow current extinguishing capability AC [I_{fi}]	50kA rms
TT system follow current extinguishing capability AC [I_{fi}]	50kA rms/100A rms
Follow current limitation/Selectivity	No tripping of a 20A gL/gG fuse up to 50kA rms (prosp.)
Response time [t_A]	≤ 100 ns
Max. Backup fuse (L) up to I_K ≤ 50kA rms	315A gL/gG
Max. Backup fuse (L) for I_K > 50kA rms	200A gL/gG
Max. Backup fuse (L-L´)	125A gL/gG
Temporary overvoltage (TOV) [L-N] [U_T]	440V/5 sec.
Temporary overvoltage (TOV) [N-PE] [U_T]	1200V/200mS
TOV characteristics	Withstand
Operating temperature range [parallel]/[continuity] [T_U]	-40°C to +80°C/-40°C to +60°C
Operating state/fault indication	green (good)/red (replace)
Number of ports	1
Cross-sectional area (L1, L1´, L2, L2´, L3, L3´, N, N´, PE, ⏚) [min.]	10mm² solid/flexible
Cross-sectional area (L1, L2, L3, N, PE) [max.]	50mm²/1AWG stranded-35mm²/2AWG flexible
Cross-sectional area (L1´, L2´, L3´, N´, ⏚) [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	8 mods., DIN 43880
Agency 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 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 NH DIN Size Back Up Fuses

Size	NH Fuse Part Number	Size	NH Fuse Part Number
00	125NHG00B (max L-L)	02	125NHG02B (max L-L)
0	125NHG0B (max L-L)	02	200NHG02B (max L Ik >50kA)
01	125NHG01B (max L-L)	2	315NHG2B (max L ≤50kA)
1	200NHG1B (max L Ik >50kA)	03	315NHG03B (max L ≤50kA)

COOPER Bussmann