

## One-pole IEC Class II surge arresters for TN and TT systems

RoHS



Remote contact  
signaling available

*easyID™* local  
visual status  
indication

### Catalog symbols:

- BSPM\_TN
- BSPM\_TNR
- BSPG\_NPE
- BSPG\_NPER

### Description:

Eaton's Bussmann™ series one-pole IEC Class II modular surge arresters for TN and TT systems feature local *easyID™* visual status indication and optional remote contact signaling. The unique module locking system fixes the protection module to the base. 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.

### 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.

### Optional remote contact signaling

The three-pole terminal remote contact signaling option has a floating changeover contact for use as a break or make contact, according to circuit concept.

### Specifications:

#### System volts

- 275
- 320
- 385
- 440
- 600

#### Systems types

- TN
- TT

#### Agency information

- CE
- CSA (420V, 500V TT/TN and 585V TN systems)
- KEMA
- RoHS compliant

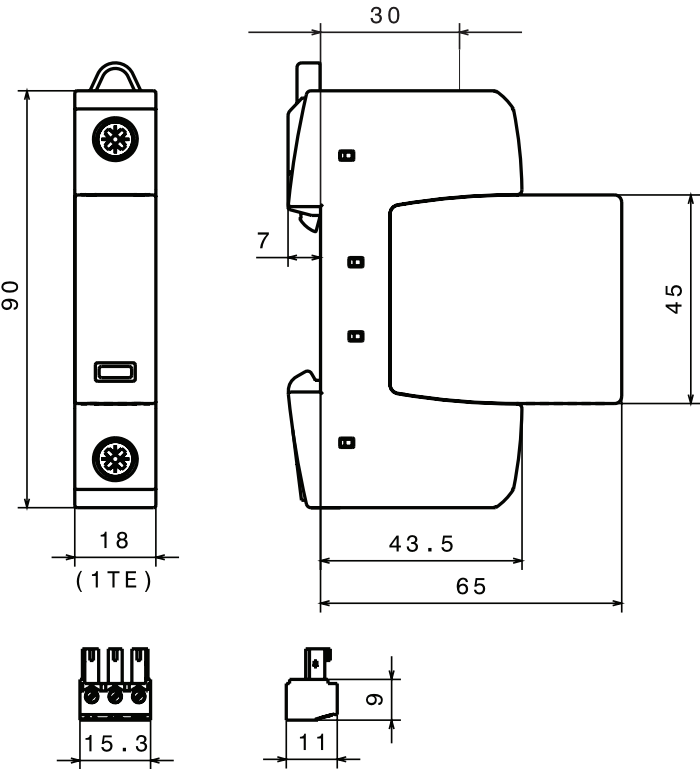
#### Mounting

- 35mm DIN-Rail

#### Warranty

- Five years

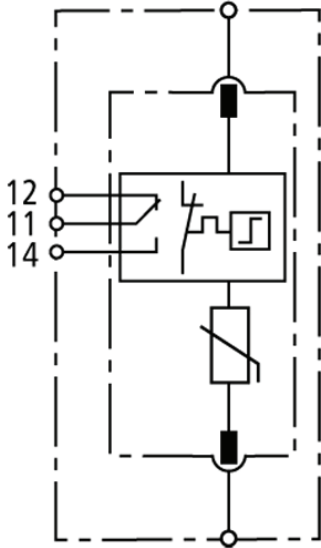
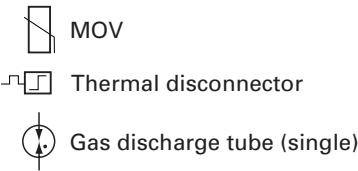
Dimensions - mm:



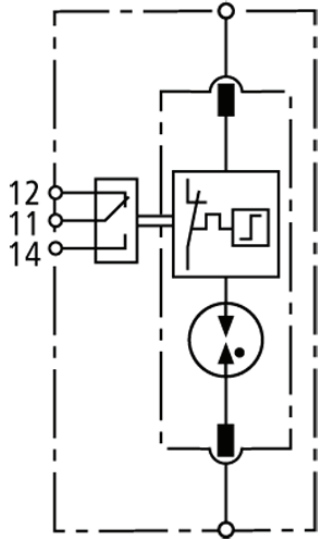
Shown with optional remote contact signaling.

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 (50-60Hz) / poles                                                                   |                      | 230V/1                                    | 230V/1              | 230V/1              | 400V/1              | 480V/1              | 230V/1*             |
|----------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Max. Continuous Operating Voltage (MCOV) [U <sub>c</sub> ] AC (50-60Hz)                            |                      | 275V                                      | 320V                | 385V                | 440V                | 600V                | 255V                |
| Catalog numbers (base + modules)                                                                   | W/O remote signaling | BSPM1275TN                                | BSPM1320TN          | BSPM1385TN          | BSPM1440TN          | BSPM1600TN          | BSPG1255NPE         |
|                                                                                                    | W/ 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> ]                                                         |                      | ≤ 1.5kV                                   | ≤ 1.5kV             | ≤ 1.75kV            | ≤ 2kV               | ≤ 2.5kV             | ≤ 1.5kV             |
|                                                                                                    | at 5kA               | ≤ 1kV                                     | ≤ 1.2kV             | ≤ 1.35kV            | ≤ 1.7kV             | ≤ 2kV               | —                   |
| Max. mains-side overcurrent protection                                                             |                      | 125A gG                                   | 125A gG             | 125A gG             | 125A gG             | 100A gG             | —                   |
| Short-circuit withstand capability for max. mains-side overcurrent protection (I <sub>SCCR</sub> ) |                      | 50kA <sub>rms</sub>                       | 25kA <sub>rms</sub> | 25kA <sub>rms</sub> | 25kA <sub>rms</sub> | 25kA <sub>rms</sub> | —                   |
| Temporary Overvoltage (TOV) [U <sub>T</sub> ]                                                      | Withstand            | 335V / 5 sec.                             | 335V / 5 sec.       | 440V / 120 min.     | 580V / 5 sec.       | 700V / 5 sec.       | 1200V / 200 ms      |
|                                                                                                    | Safe failure         | 440V / 120 min.                           | 440V / 120 min.     | —                   | 765V / 120 min.     | 915V / 120 min.     | —                   |
| Response time [t <sub>A</sub> ]                                                                    |                      | ≤ 25 ns                                   | ≤ 25 ns             | ≤ 25 ns             | ≤ 25 ns             | ≤ 25 ns             | ≤ 100 ns            |
| Follow current extinguishing capability [I <sub>f</sub> ]                                          |                      | —                                         | —                   | —                   | —                   | —                   | 100A <sub>rms</sub> |
| Lightning impulse current (10/350μs) [I <sub>imp</sub> ]                                           |                      | —                                         | —                   | —                   | —                   | —                   | 12kA                |
| Nominal discharge current (8/20μs) [I <sub>n</sub> ]                                               |                      | 20kA                                      | 20kA                | 20kA                | 20kA                | 15kA                | 20kA                |
| Max. Discharge current (8/20μs) [I <sub>max</sub> ]                                                |                      | 40kA                                      | 40kA                | 40kA                | 40kA                | 30kA                | 40kA                |
| Agency information                                                                                 |                      | KEMA                                      | KEMA, CSA           | KEMA, CSA           | KEMA, CSA           | KEMA, CSA           | KEMA                |
| Capacity                                                                                           |                      | 1 mod., DIN 43880                         |                     |                     |                     |                     |                     |
| SPD according to                                                                                   |                      | EN 61643-11 Type 2, IEC 61643-11 Class II |                     |                     |                     |                     |                     |
| Operating environment [T <sub>U</sub> ]                                                            |                      | -40°C to +80°C, 5% to 95% RH              |                     |                     |                     |                     |                     |
| Operating state/fault indication                                                                   |                      | Green (good) / Red (replace)              |                     |                     |                     |                     |                     |
| Number of ports                                                                                    |                      | 1                                         |                     |                     |                     |                     |                     |
| Cross-sectional area                                                                               | Min.                 | 1.5mm²/14AWG solid/flexible               |                     |                     |                     |                     |                     |
|                                                                                                    | 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                                      |                     |                     |                     |                     |                     |
| Product warranty                                                                                   |                      | Five years**                              |                     |                     |                     |                     |                     |
| Remote contact signaling                                                                           |                      |                                           |                     |                     |                     |                     |                     |
| Contact signaling type                                                                             |                      | Changeover contact                        |                     |                     |                     |                     |                     |
| Switching capacity (volts/amperes)                                                                 | AC                   | 250V/0.5A                                 |                     |                     |                     |                     |                     |
|                                                                                                    | DC                   | 250V/0.1A; 125V/0.2A; 75V/0.5A            |                     |                     |                     |                     |                     |
| Conductor ratings and cross-sectional area                                                         |                      | 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 Eaton Bussmann series SPD limited warranty statement (3A1502) for details at [www.cooperbussmann.com/surge](http://www.cooperbussmann.com/surge).

## Recommended Bussmann series back up fuses

| DIN fuse size | TT / TN system NH fuse catalog numbers |               |
|---------------|----------------------------------------|---------------|
|               | 275, 320, 385, 440V                    | 600V          |
| 00            | 125NHG00B                              | 100NHG00B-690 |
| 0             | 125NHG0B                               | —             |
| 01            | 125NHG01B                              | —             |
| 1             | 125NHG1B                               | 100NHG1B-690  |
| 02            | 125NHG02B                              | —             |

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