Surge protective devices

UL DIN-Rail SPD - low voltage AC/DC power

BSPM1A___LV



Description

The Bussmann series UL Type 4 48Vac/60Vdc, 75Vac/100Vdc, 120Vac/200Vdc, 275VAc/350Vdc, 320Vac/420Vdc, 385Vac/500Vdc, 440Vac/585Vdc and 600Vac/dc single 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.

LV power system arresters

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

- Surge arrester according to UL 1449 3rd Edition, Type 4
 Component Assembly for use in Type 2 applications helps meet UL 508A requirements*
- Proven MOV technology for reliable surge protection
- "Thermo Dynamic Control" SPD monitoring device ensures high reliability against surge events
- Module locking system with module release button make module replacement easy without tools
- Optional remote signaling of all protection modules make status monitoring easy and accurate in any monitoring scheme
- No additional upstream overcurrent protection necessary to make installation easier and more economical
- Vibration and shock tested according to EN 60068-2 to withstand harsh environments

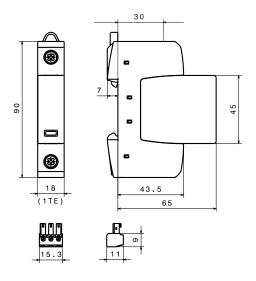
Optional remote signaling Form C contact

The remote signaling contact versions have a floating changeover contact for use as a break or make contact for easy adoption in any monitoring application.

* Except as noted in data sheets.

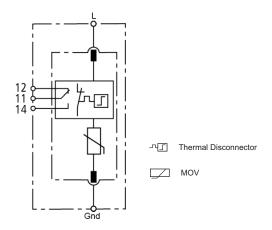
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Dimensions - mm



Shown with optional remote contact signaling

Module circuit diagrams - Shown with optional remote contact signaling



BSPM1A48D60LV, BSPM1A75D100LV, BSPM1A150D200LV, BSPM1A275D350LV, BSPM1A320D420LV, BSPM1A385D500LV, BSPM1A440D585LV, BSPM1A600D600LV

Shown with optional remote contact signaling

For remote signaling contact, add "R" suffix to the part number, E.g., BSPM1A150D200LV ${\bf R}$

Surge protective devices

UL DIN-Rail SPD - low voltage AC/DC power

| Ordering information — for 48Vac/60Vdc to 275Vac/350Vdc | | | | | | | |
|---|-----------------------|----------------|---------------------|---------------------|---------------------|--|--|
| System voltage | | 48Vac/60Vdc | 75Vac/100Vdc | 120Vac/200Vdc | 275Vac/350Vdc | | |
| Catalog numbers (base + modules) | W/O remote signaling | BSPM1A48D60LV | BSPM1A75D100LV | BSPM1A150D200LV | BSPM1A275D350LV | | |
| | With remote signaling | BSPM1A48D60LVR | BSPM1A75D100LVR | BSPM1A150D200LVR | BSPM1A275D350LVR | | |
| Replacement Modules | | BPMA48D60LV | BPMA75D100LV | BPMA150D200LV | BPMA275D350LV | | |
| | | Specif | ications | | | | |
| Max. continuous operating AC voltage [V _c] | | 48Vac | 75Vac | 150Vac | 275Vac | | |
| Voltage protection level [VPL] | | ≤0.33kV | ≤0.4kV | ≤0.7kV | ≤1.5kV | | |
| Voltage protection level at 5kA [VPL] | | ≤0.25kV | ≤0.35kV | ≤0.55kV | ≤1kV | | |
| Max. continuous operating DC voltage [V _c] | | 60Vdc | 100Vdc | 200Vdc | 350Vdc | | |
| Nominal discharge current (8/20µs) [In] AC | | 7.5kA | 10kA | 15kA | 20kA | | |
| Nominal discharge current (8/20µs) [In] DC | | 7.5kA | 10kA | 12.5kA | 12.5kA | | |
| Surge current capacity(8/20µs) [I _{max}] | | 25kA | 40kA | 40kA | 40kA | | |
| Temporary overvoltage (TOV) | | 70V / 5 sec. | 90V / 5 sec. | 175V / 5 sec. | 335V / 5 sec | | |
| Agency information* | | _ | UL / cUL, CSA, KEMA | UL / cUL, CSA, KEMA | UL / cUL, CSA, KEMA | | |

| Ordering information — for 320Vac/420Vdc to 600Vac/dc | | | | | | | |
|--|-----------------------|---------------------|---------------------|---------------------|---------------------|--|--|
| System voltage | | 320Vac/420Vdc | 385Vac/500Vdc | 440Vac/585Vdc | 600Vac/600Vdc | | |
| Catalog numbers: (base + modules) | W/O remote signaling | BSPM1A320D420LV | BSPM1A385D500LV | BSPM1A440D585LV | BSPM1A600D600LV | | |
| | With remote signaling | BSPM1A320D420LVR | BSPM1A385D500LVR | BSPM1A440D585LVR | BSPM1A600D600LVR | | |
| Replacement modules | | BPMA320D420LV | BPMA385D500LV | BPMA440D585LV | BPMA600D600LV | | |
| Specifications Specification Specif | | | | | | | |
| Max. continuous operating AC voltage [V _C] | | 320Vac | 385Vac | 440Vac | 600Vac | | |
| Max. continuous operating DC voltage [V _c] | | 420Vdc | 500Vdc | 585Vdc | 600Vdc | | |
| Voltage protection level [VPL] | | ≤1.5kV | ≤1.75kV | ≤2kV | ≤2.5kV | | |
| Voltage protection level at 5kA [VPL] | | ≤1.2kV | ≤1.35kV | ≤1.7kV | ≤2kV | | |
| Nominal discharge current (8/20µs) [In] AC | | 20kA | 20kA | 20kA | 15kA | | |
| Nominal discharge current (8/20µs) [In] DC | | 12.5kA | 5kA | 5kA | 5kA | | |
| Surge current capacity(8/20µs) [I _{max}] | | 40kA | 40kA | 40kA | 30kA | | |
| Temporary overvoltage (TOV) | | 335V / 5 sec. | 385V / 5 sec. | 580V / 5 sec. | 600V / 5 sec. | | |
| Agency information* | | UL / cUL, CSA, KEMA | | |

| Specifications — all catalog numbers | | | | | |
|--|-----------------------------------|--|--|--|--|
| SPD according to EN 61643-11 | Type 2 | | | | |
| SPD according to IEC 61643-1 | Class II | | | | |
| Response time [t _A] | ≤25ns | | | | |
| 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 (minimum) | 14AWG solid/stranded | | | | |
| Cross-sectional area (maximum) | 1AWG solid — 2AWG stranded | | | | |
| Mounting | 35mm DIN-Rail per EN 60715 | | | | |
| Enclosure material | Thermoplastic, UL 94V0 | | | | |
| Location category | Indoor | | | | |
| Degree of protection | IP20 | | | | |
| Capacity | 1 module, DIN 43880 | | | | |
| Warranty | Five Years** | | | | |
| Remote contact signaling | | | | | |
| Remote contact signaling type | Changeover contact | | | | |
| AC switching capacity (volts/amps) | 250V/0.5A | | | | |
| DC switching capacity (volts/amps) | 250V/0.1A; 125V/0.2A; 75V/0.5A | | | | |
| Conductor ratings / cross-sectional area for remote contact signal terminals | 60/75°C Max. 14AWG solid/stranded | | | | |
| Ordering information | Order from catalog numbers above | | | | |

^{*} Agency information not applicable to DC ratings.

See document 3A1502 for blue label one-pole low voltage power non-SCCR rated BSPM installation instructions.

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^{**} See SPD Limited Warranty Statement (3A1502) for details at www.cooperbussmann.com/Surge.