

GENERIC SPECIFICATIONS

Generic Specification for Bluetooth Enabled Surge Protection Device (SPD)

1. General

- 1.1 Electronic equipment is highly susceptible to damage from lightning and transient pulses which are conducted or induced via the power lines through direct and indirect lightning events.
- 1.2 All surge protection components including Surge Protection Device, Neutral - Earth Protector and Alarm Interface Module (AIM) shall be Bluetooth enabled for connectivity via a Bluetooth app using smart phones or tablets.
- 1.3 The Bluetooth app shall be suitable for the following operating platforms: Windows, iOS and Android.
- 1.4 Each individual surge element shall provide the following data via a Bluetooth app:
- Protection Status
 - Surge Count
 - Temperature (Current & Max)
 - Voltage (Current & Max)
 - Power Quality Reading (Current & Max)

2. Surge Protection Device

- 2.1 The surge protection device shall be Bluetooth enabled and provide status indication via a multicoloured LED display.
- 2.2 The surge protection device shall have Bluetooth connectivity as outlined under Section 1 titled "General".
- 2.3 The surge protection device shall be configured for Phase-to-Neutral (Ph-N) protection applications for single or multiple phases.
- The surge protection device shall be designed for mounting on a standard 35 mm DIN rail.

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- 2.4** The surge protection device shall be designed to meet the requirements of IEC 61643-11 and UL 1449 Edition 4.
- 2.5** The surge protection device shall be a MOV-type SPD with a surge rating of 50 kA (I_{max}) @ 8/20 μ s.
- 2.6** The surge protection device shall have a surge withstand capability complying with ANSI C62.41 Cat A, Cat B, Cat C, AS/NZS 1768-2007 Cat A, Cat B, Cat C and equivalent location categories in succeeding versions of AS1768.
- 2.7** The surge protection device shall be configured with a hardwired base and pluggable module.
- 2.8** UL 1449 Edition 4.

3. Neutral-to-Earth (N-E) Protector

- 3.1** The neutral-earth protector shall be Bluetooth enabled and provide status indication via a multicoloured LED display.
- 3.2** The neutral-earth protector shall have Bluetooth connectivity as outlined under the section 1 titled "General".
- 3.3** The neutral-earth protector shall be designed for use at main and sub-distribution boards between neutral and earth conductors only.
- 3.4** The neutral-earth protector shall be designed for mounting on a standard 35 mm DIN rail.
- 3.5** The neutral-earth protector shall be designed to meet the requirements of IEC 61643 and EN 61643.
- 3.6** The neutral-earth protector shall utilise encapsulated gas tube technology with a surge rating of 15 kA (I_{imp}) @ 10/350 μ s.
- 3.7** The neutral-earth protector shall be configured with a hardwired base and pluggable module.

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4. Alarm Interface Module

- 4.1 The alarm interface module shall provide status indication via a multicoloured LED display and via Bluetooth connectivity.
- 4.2 The alarm interface module is designed for use in conjunction with Bluetooth enabled surge protection devices (Section 2) and neutral-earth protectors (Section 3).
- 4.3 The alarm interface module shall provide changeover volt-free contact output.
- 4.4 The alarm interface module shall be designed for mounting on a standard 35 mm DIN rail.
- 4.5 The alarm interface module shall be designed to connect to a maximum of 19 Bluetooth enabled surge protection devices.