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|  | FDOT Traffic Engineering Research Laboratory (TERL) Surge Protective Device (SPD) for 120V or 120/240V Power Compliance Matrix | By signing this form, the applicant declares that he/she has read and understands the provisions of Sections 620 and 996 of the FDOT *Standard Specifications for Road and Bridge Construction* and all implemented modifications. The requirements listed on this matrix are derived from Sections 620 and 996, and are the basis for determining a product’s compliance and its acceptability for use on Florida’s roads. |  |

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| --- | --- | --- | --- |
| Date: | Click here to enter a date. | Applicant’s Name (print): |  |
| Manufacturer: |       |  |       |
| Item, Model No.: |       | Signature: |       |

|  |  | **\*\* Greyed out rows in table below are for TERL use only \*\*** |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **ID No** | **Section** | **Requirement** | **Item Comply? (Yes/No/NA)** | **Comments(Applicant must provide information as indicated)** | **TERL Evaluation Method** |
| 1 | 996-1.1 | SPD is permanently marked with manufacturer name or trademark, part number, and date of manufacture or serial number. |  | *Applicant may provide comments in this field.* | Physical Inspection |
|  |  | TERL Test Cases (Steps): SPD002 (Step 1) |       |       | Init.:       |
| 2 |  996-4.2.2 | SPD includes L-N, L-G, and N-G protection. |  | *Provide a first or third-party test report that demonstrates the device meets this requirement. The test report must be less than 5 years old and meet the requirements of FDOT Product Certification Handdbook (PCH), section 7.2.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): SPD001 (Step 1) |       |       | Init.:       |
| 32 |   | SPD has a maximum surge current rating of 50kA per phase or greater. |  | *Provide a first or third-party test report that demonstrates the device meets this requirement. The test report must be less than 5 years old and meet the requirements of FDOT PCH, section 7.2.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): SPD001 (Step 2) |       |       | Init.:       |
| 4 |   | SPD meets the requirements of UL 1449, Third Edition, and is listed by an NRTL. |  | *Provide a first or third-party test report that demonstrates the device meets requirements of UL 1449, Third Edition. The test report must be less than 5 years old and meet the requirements of FDOT PCH, section 7.2. Indicate listing (UL, ETL, etc.).* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): SPD001 (Step 3) |       |       | Init.:       |
| 5 |   | SPD has a visual indication system that monitors the weakest link in each mode and shows normal operation or failure status and also provides one set of normally open (NO)/normally closed (NC) Form C contacts for remote alarm monitoring. |  | *Provide product literature, specifications, user manual,or similar information that indicates compliance. (Indicate specific configurations by model number or series).* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): SPD001 (Step 4), SPD002 (Step 2) |       |       | Init.:       |
| 6 |   | SPD enclosure has a NEMA 4 rating. |  | *Applicant may provide comments in this field.* | Compliance Matrix Review |
|  |  | TERL Test Cases (Steps): SPD001 (Step 5) |       |       | Init.:       |
| 7 | 996-4.2.5 | All parts are made of corrosion-resistant materials, such as plastic, stainless steel, anodized aluminum, brass, or gold-plated metal. |  | *Provide product literature, specifications, user manual, or similar information that indicates compliance. (Indicate specific configurations by model number or series).* | Document Review and Physical Inspection |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): SPD001 (Step 6), SPD002 (Step 3) |       |       | Init.:       |
| 8 | 996-4.2.6 | SPD operates properly during and after being subjected to the temperature and humidity test described in NEMA TS 2-2021, Section 2.2.7, and the vibration and shock tests described in NEMA TS 2 2021, Sections 2.2.8 and 2.2.9. |  | *Provide a first or third-party test report that demonstrates the device meets this requirement. The test report must be less than 5 years old and meet the requirements of FDOT PCH, section 7.2.* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): SPD001 (Step 7) |       |       | Init.:       |
| 9 | 620-2.7.1 | The SPD is intended for installation at the utility disconnect to the cabinet. |  | *Provide product literature, specifications, user manual,or similar information that indicates compliance. (Indicate specific configurations by model number or series).* | Document Review |
|  |  |  |  | *Indicate location of requested information in submittal.* |  |
|  |  | TERL Test Cases (Steps): SPD001 (Step 8) |       |       | Init.:       |
| 10 | 620-2.7.4 | SPD has a manufacturer’s warranty covering defects for a minimum of 2 years from the date of final acceptance.  |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |
|  |  | TERL Test Cases (Steps): SPD001 (step 9) |       |       | Init.:       |
| 11 |  | If the SPD, including any component of the unit, fails during the warranty period, the entire SPD is replaced by the manufacturer at no cost to the Department or maintaining agency. |  | *Provide a statement of conformance in this field.* | Compliance Matrix Review |
|  |  | TERL Test Cases (Steps): SPD001 (Step 10) |       |       | Init.:       |

**Document History for:**

**Surge Protective Device (SPD) for 120V or 120/240V Power Compliance Matrix**

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| Rev | Description | Authored and Checked | Reviewed | Approved | Approval Date | Rev More Stringent? |
| 1.0 | New CM to correspond with specification content move from Section 785 to 620. This CM updates and replaces previous CM-785-2.2-01. Revised document approver title. | R. MeyerK. Moser | J. Morgan | J. Morgan | 10/27/2014 | No |
| 2.0 | Moved from Spec 620 to Spec 996-4.2. | W. Geitz | M. DeWittJ. Morgan | D. Vollmer | 01/30/2020 | No |
| 3.0 | Added warranty information. | W. Geitz | M. DeWittC. Raimer | D. Vollmer | 12/29/2021 | No |
| 4.0 | Added test cases and steps, and updated to latest FA Date 10-24-22. | P. Blaiklock W. Geitz | P. Blaiklock W. Geitz | D. Vollmer | 02/23/2023 | No |
| 5.0 | Updated to latest FA dates of 9-13-23 and 12-1-23 for specs 620 and 996, respectively. | W. Geitz | L. Audisio | D. Vollmer | 01/08/2023 | No |