



Document Title:
Fuse, 14.4 kV, Type SMU-20

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Related/Referenced Documents

N/A

Version History

Version	Date	Revision Comments
1	Dec. 21, 2021	Initial Release.
2	Jul. 6, 2022	Format corrections
3	Sep. 7, 2022	Added new item. Modified compatibility and description for all items.
4	Jul. 15, 2024	General format revision. Section 4, 5, and 8 revised. TOC revised.



Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
010-07749	55266	6	7/15/2024
010-07756	55267	5	7/15/2024
010-07764	55268	5	7/15/2024
010-07772	55269	5	7/15/2024
010-07780	55270	5	7/15/2024
010-07798	55271	5	7/15/2024
010-07806	55272	6	7/15/2024
010-07814	55273	5	7/15/2024
010-83410	83410	2	7/15/2024



1. Introduction

This is a general specification that covers the minimum requirements for the fuse, 14.4 kV type SMU-20 to be used in the distribution system in Puerto Rico. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site specific conditions, quantity, and other requirements. This document includes the general electrical and mechanical characteristics of the equipment/material.

2. Special Requirements

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this equipment/material to LUMA on previous orders, will not have to furnish samples at bid opening. The equipment/material will be received at the LUMA's general warehouse (011) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

3. Literature

Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature may include, but is not limited to details of material, drawings, documented testing, and instructions for use and installation. Failure to submit documents on time will cause bidder disqualification. If required by LUMA, final drawings shall be submitted by the vendor before the manufacturing and shipping process for approval.

4. Compatible with

- 4.1. S&C Electric Co SMU-20, STD-Speed TCC No. 153-2. See Table 1 for catalog number.
- 4.2. These models are examples of the equipment/material described in this document and do not represent a preference. LUMA will evaluate equally any model not listed here during any acquisition event.

5. Markings

- 5.1. Containers shall be marked outside with LUMA Energy purchase order and item number.
- 5.2. Fuse type, voltage, and ampere rating shall be stamped in a visible place.
- 5.3. Packaging Labels and tags shall be waterproof.

6. Packaging

All equipment/material shall be packaged and marked in such a way as to facilitate handling and protection from damage and that the receiving warehouse can readily identify it and send it, in one complete unit, to a field location without opening crates or boxes to sort items and/or parts.

7. Number Per Package (Logistics)

One (1) per package or as requested by LUMA Energy.

8. Acceptance Criteria

- 8.1. Test required: certified by external laboratories.
- 8.2. Product shall be manufactured in accordance with the latest issue below (section 8.3). When conflicts occur between purchaser's specifications and the latest issue below, the purchaser's specification shall prevail.
- 8.3. Latest applicable codes, standards, and other regulations:
 - a. ANSI C37.46: IEEE Standard C37.46: High-Voltage (>1000 V) Expulsion and Current-Limiting Power Class Fuses and Fuse Disconnecting Switches
- 8.4. If any other standard different from the ones indicated in this document are used, the supplier must provide information showing compatibility with the required ones.

9. Description

- 9.1. Power fuse, type SMU-20.
- 9.2. Manufacturer voltage: 14.4 kV
- 9.3. Shall consist of a fusible element, arcing rod, and a solid-material arc-extinguishing medium contained within a filament-wound glass-epoxy tube.
- 9.4. To be used in SM-20, SML-20, SME-20, and SMD-20 mountings.
- 9.5. Shall be designed in accordance with the minimum melting time-current characteristic curve TCC 153-2 for standard speed.

10. Inspection

The acceptance of any equipment/material shall in no way relieve the vendor from his responsibility to meet all the requirements of this specification, and it would not prevent subsequent rejection if such equipment/materials were found later to be defective.

11. Proposal Information

- 11.1. Submitted proposals must include:
 - a. Technical information, tests, and drawings.
 - b. Table of Compliance completed by the bidder with reference (see Appendix 1).



12. Table 1: Ampere Rating, Warehouse, and Asset Suite Identification Number

Items	Warehouse Number	Asset Suite Number	Ampere Rating (A)	Compatible Model
7E	010-07749	55266	7	612007
20E	010-07756	55267	20	612020
25E	010-07764	55268	25	612025
40E	010-07772	55269	40	612040
80E	010-07780	55270	80	612080
100E	010-07798	55271	100	612100
125E	010-07806	55272	125	612125
150E	010-07814	55273	150	612150
200E	010-83410	83410	200	612200

— End of Specification —



Appendix

Appendix 1: Table of Compliance

Line	Criteria	Description	Pass/Fail (P / F)	Comments
1	Specification	The Proponent complies with the corresponding specification document (4350.134).		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document.		
3	Fuse Type	SMU-20		
4	Fuse Components	<ul style="list-style-type: none"> • Fusible Element • Arcing rod • Solid-material arc-extinguishing medium • Filament-wound glass-epoxy tube 		
5	Product Requirement	<ul style="list-style-type: none"> • Operating Voltage: 14.4 kV • Suitable for SM-20, SML-20, SME-20, and SMD-20 mountings. 		
6	Amp Rating	See table 1 on section 12		

NOTE: This table is only a check list for reference. The compliance shall be with the complete document. Marking a PASS in the table won't be accepted as a compliance without the technical information required to certify it.







4350.134 Fuse SMU-20 (07-15-2024)

Final Audit Report

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