



Document Title:  
**SM-5 Fuse Refill for SM-5 Fuse Holder**

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**Related/Referenced Documents**

N/A

**Version History**

Version	Date	Revision Comments
1	Dec. 22, 2021	PREPA to LUMA format
2	May, 7, 2024	General format modifications and Item 010-86000 & 010-86001 added.



### Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
010-07061	55966	5	05/07/2024
010-07079	55967	4	05/07/2024
010-07087	55968	4	05/07/2024
010-76891	76891	3	05/07/2024
010-86000	86000	1	05/07/2024
010-86001	86001	1	05/07/2024
010-76891	76891	3	05/07/2024



## 1. Introduction

This is a general specification that covers the minimum requirements for a SM-5 Fuse Refill for SM-5 Fuse Holder 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.

## 4. Markings

- 4.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 4.2. Packaging labels and tags shall be waterproof.

## 5. Compatible with

For compatible manufacturers and models see Table 1. 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.

## 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)

As requested by LUMA Energy

One (1) unit per box or as requested by LUMA.

## 8. Acceptance Criteria

- 8.1. Test required: certified by external laboratories.
- 8.2. Latest applicable codes, standards, and other regulations:
- 8.3. quality system certified to ISO 9001:2000
- 8.4. IEEE C37.41 – Standard design tests for high-voltage (>1000 V) fuses and accessories
- 8.5. IEEE C37.42 - Specifications for high voltage (above 1000 volts) Class A and Class B expulsion and current-limiting fuses.

## 9. Description

- 9.1. The SM-5 power fuse refill for SM-5 fuse holder consists of a fusible element, arcing rods, and a solid-material arc-extinguishing medium contained within a filament-wound glass epoxy tube.
- 9.2. These units are especially suited for protecting transformers, capacitor banks, and cables in outdoor distribution substations.
- 9.3. Shall be designed in accordance with the minimum melting time characteristic curve TCC153-4 for standard speed.
- 9.4. Nominal operating voltage: 14.4 KV
- 9.5. Maximum Interrupting Current (symmetrical): 25,000 A.
- 9.6. Basic Insulation Level (BIL): 110 KV
- 9.7. For models and ratings see Table 1.

## 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
- b. Table of Compliance completed by the bidder with reference (see Appendix 1).

**12. Table 1: Warehouse and Asset Suite Identification Number**

Warehouse Catalog #	Asset Suite #	SM-5 Fuse Refill for SM-5 Fuse Holder Continuous Current Rating (A)	Compatible Manufacturer & Model
010-07061	55966	20	S & C Electric Company – catalog #: 132030R4
010-07079	55967	30	S & C Electric Company – catalog #: 132050R4
010-07087	55968	40	S & C Electric Company – catalog #: 132060R4
010-86000	86000	250	S & C Electric Company – catalog #: 132400R4
010-86001	86001	300	S & C Electric Company – catalog #: 132500R4
010-76891	76891	400	S & C Electric Company – catalog #: 132600R4

— 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 (4350.145).		
2	Product Requirements	SM-5 power fuse refill for SM-5 fuse holder consists of a fusible element, arcing rods, and a solid-material arc-extinguishing medium contained within a filament-wound glass epoxy tube.		
		Shall be designed in accordance with the minimum melting time characteristic curve TCC153-4 for standard speed.		
		Nominal operating voltage: 14.4 KV		
		Maximum Interrupting Current (symmetrical): 25,000 A.		
		Basic Insulation Level (BIL): 110 KV		
3	SM-5 Fuse Refill for SM-5 Fuse Holder Continuous Current Rating (A)	20		
		30		
		40		
		250		
		300		
		400		











# 4350.145 SM-5 Fuse Refill for SM-5 Fuse Holder rev2

Final Audit Report

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