



Document Title:
Standoff Bushing, 15/25 kV Class, 200 & 600 A / Feed-Thru Standoff Bushing, 15/25 kV Class, 200 A

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Related/Referenced Documents

N/A

Version History

Version	Date	Revision Comments
01	May 13, 2022	PREPA to LUMA Format.
02	Aug. 18, 2022	General format revision. Added 072-79764 and 038-83336. Added Table of Compliance
03	Oct. 11, 2024	General format modifications, Sections 3, 4, 8, and 9 modified, and sections order rearranged.



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Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
038-00992	55169	6	10/11/2024
072-79764	79764	3	10/11/2024
038-83336	83336	2	10/11/2024



Standoff Bushing



Feed-Thru Standoff Bushing

1. Introduction

This is a general specification that covers the minimum requirements for standoff bushing to be used in the electrical 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 LUMA's general warehouse (011) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

3. Literature

- 3.1. Descriptive and technical literature must be supplied by the vendor at time of bidding. This literature must include, but is not limited to details of material, drawings, documented testing, and instructions for use and installation. **The literature must be an official document from and certified by the manufacturer.** Failure to submit documents on time and duly certified by the manufacturer will cause bidder disqualification.
- 3.2. If required by LUMA, final drawings and documentation shall be submitted by the vendor before the manufacturing and shipping process for approval.

4. Compatible with

For compatible manufacturers and models, see Table 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. Package(s) to be delivered to the warehouse shall be clearly marked with manufacturer and item information (part number, serial number, quantity, etc.).

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) unit per box or as requested by LUMA.

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. IEEE 386 for separable insulated connector systems for power distribution systems rated 2.5 kV through 35 kV.

8.4. If any other standards 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. The insulated standoff bushing and the Feed-Thru bushing are used to isolate and sectionalize energized cables in pad-mounted cabinets, underground vaults, and other apparatus in a 15/25 kV class underground system. Additionally, the Feed-Thru includes means to test, ground, place an elbow arrester, park a load break elbow connector, and bypass transformers.

9.2. Shall be an insulated, fully shielded, fully submersible, separable connector for energized operation.

9.3. Shall be suitable for 15/25 kV class elbow connectors that conform to ANSI/IEEE 386. Load Break type for energized circuits and Dead Break type for deenergized circuits

9.4. Housing shall be made of rubber or ethylene propylene diene terpolymer (EPDM), watertight, and resistant to chemicals.

9.5. The mounting bracket and eyebolt shall be in stainless steel.

9.6. Shall have a latch indicator ring to ensure a correct elbow connector installation.

9.7. Shall include a grounding lug attached to the bracket.

9.8. The Feed-Thru model shall be horizontal.



- 9.9. The following minimum information shall be permanently attached to or made an integral stamped part of the insulated standoff bushing:
- a. Device name
 - b. Manufacturer name, trademark, type, and identification number
 - c. Manufacture date and/or serial number

9.10. The 600 A model shall include a factory installed stud.

9.11. Table 1: Electrical Characteristics

Current Rating	Voltage Class	Minimum AC Withstand Voltage (1 min)	Minimum Basic Insulated Level	Minimum Corona Extinction
200	15 kV	34 kV	95 kVBIL	11 kV
600	15/25 kV	40 kV	140 kVBIL	19 kV

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).

12. Table 2: Warehouse and Asset Suite Identification Number

Item (Amps)	Warehouse Catalog #	Asset Suite #	Type	Compatible Manufacturer & Model
200	038-00992	55169	Load Break (Standoff Bushing)	Elastimold (164SOP) EATON (ISB215S)
200	072-79764	79764	Load Break (Feed-Thru)	Elastimold (164FT) EATON (LPF215H)
600	038-83336	83336	Dead Break (Standoff Bushing)	Elastimold (K650SOPSP) EATON (GSB625ASAP)

— End of Specification —



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Appendix



Appendix 1: Table of Compliance

Line	Description	Pass/Fail	Comments
1	The Proponent complies with the corresponding specification document (4350.218).		
2	The Proponent complies with the industry standards established in the specification document. (IEEE 386)		
3	Tech. info. and drawings provided.		
4	<ul style="list-style-type: none"> • 038-00992: Load Break (Standoff Bushing) • 072-79764: Load Break (Feed-Thru) • 038-83336: Dead Break (Standoff Bushing) 		
5	<ul style="list-style-type: none"> • Rubber or EPDM • Fully Shielded & Watertight 		
6	Suitable for 15/25 kV class connectors that conform to ANSI/IEEE 386 connector installation.		
7	Mounting bracket and eyebolt shall be in stainless steel.		
8	Latch indicator ring to assure a correct elbow		
9	Grounding lug attached to the bracket.		
10	Factory installed stud for the 600 A model.		
11	Information described in section 9.8 permanently attached to or made an integral stamped part of the bushing.		
12	Electrical Requirements (200 A Model) <ul style="list-style-type: none"> • Voltage Class: 15 kV • Basic Insulating Level: 95kV BIL • Current Capacity: 200A • AC 60Hz 1 min withstand: 34kV • Min. Corona Voltage: 11kV 		
13	Electrical Requirements (600 A Model) <ul style="list-style-type: none"> • Voltage Class: 15/25 kV • Basic Insulating Level: 140 kV BIL minimum • Current Capacity: 600A • AC 60Hz 1 min withstand: 40 kV minimum • Min. Corona Voltage: 19 kV minimum 		

NOTE: This table is only a checklist for reference. The compliance must be with the complete document. Filling out the table with “PASS” won’t be accepted as a compliance without the technical information required to certify it.










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Final Audit Report

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