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Insulated Cap with Ground, 15 kV, 200 A & 600 A

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Author

Rodolfo A. Flores Ortiz, PE (Lic. 27131)
Senior Engineer, Distribution Standards & Materials

Signature and Date

Jan 27, 2025

Reviewer

Miguel J. Rios López, PE (Lic. 16636)
General Engineer, Distribution Standards & Materials

Signature and Date

Jan 27, 2025

Approver

Ricardo Castro Gómez, PE (Lic. 12135)
Manager, Distribution Standards & Materials

Signature and Date

Jan 29, 2025

Management Approval (If apply)

Approver

Name
Position

Signature and Date

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Related/Referenced Documents

N/A

Version History

Version	Date	Revision Comments
01	Apr. 18, 2022	Items 038-01040 and 038-01057 converted from PREPA to LUMA format.
02	Aug. 23, 2022	Item 038-01537 converted from PREPA to LUMA format.
03	Sep. 23, 2022	Cover Page added and section 9.9 edited.
04	Jan. 27, 2025	General revision. Section 4, 5 rearranged. Section 9 modified. TOC revised.



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Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
038-01040	55172	8	01/27/2025
038-01057	55173	8	01/27/2025
038-01537	56916	3	01/27/2025



1. Introduction

This is a general specification that covers the minimum requirements for insulated cap with ground 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 manufacturer and model 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 or pallets shall be marked outside with LUMA Energy's purchase order and warehouse catalog number.
- 5.2. Individual package(s) shall be clearly marked with manufacturer name and item information (part number, serial number, quantity, etc.).
- 5.3. Packaging labels and tags shall be waterproof.

6. Packaging

- 6.1. 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.
- 6.2. A list of all parts included in the container and/or package must be provided at the time of delivery so that the receiving personnel can verify that everything requested is present, avoiding any delay in the receiving process.

7. Number Per Package (Logistics)

- 7.1. Standard package: Twenty-five (25) units per box or as requested by LUMA.
- 7.2. All parts and accessories shall be contained inside the package or box.

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 386-2016 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 cap is used to insulate, shield, and water seal IEEE Std. 386 bushing interfaces for a 15/25 kV class system.
- 9.2. Shall provide a fully shielded and submersible connection.
- 9.3. Shall be hot-stick operable at de-energized circuits.
- 9.4. Shall be suitable to be installed in manhole installation.

- 9.5. Housing shall be made of rubber or ethylene propylene diene terpolymer (EPDM), watertight, resistant to chemicals.
- 9.6. Shall include ground (#14 AWG minimum ground lead size).
- 9.7. Shall include test point for items **038-01040 and 038-01537**.
- 9.8. Shall include a factory installed stud for item **038-01537**.
- 9.9. Shall be equipped with a stainless-steel bail assembly to ensure a mechanical lock with the mating product for item **038-01040**.
- 9.10. Shall include an appropriate lubricant compound for the electrical installation. Lubricant shall be equal or similar to Elastimold 82-08.
- 9.11. Table 1: Electrical characteristics

Current Rating	Voltage Class	AC Withstand Voltage (1 min)	Basic Insulated Level	Corona Extinction
200	15 kV	34 kV	95 kVBIL	11 kV
600	15/25 kV	45 kV	140 kVBIL	21.5 kV

10. Inspection

- 10.1. Upon inspection of incoming equipment/material, the purchaser reserves the right to refuse product shipments and to determine the acceptability or rejection of the product received. The supplier shall be liable for all costs incurred for a product that is rejected.
- 10.2. 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, drawings, and tests.
 - b. Table of Compliance completed by the bidder with reference (see Appendix 1).



12. Table 2: Warehouse and Asset Suite Identification Number

Item (Amps)	Warehouse Catalog #	Asset Suite #	Type	Compatible Manufacturer & Model
Cap (200)	038-01040	55172	Load Break	Elastimold (168DRG)
Cap (200)	038-01057	55173	Dead Break	Elastimold (K150DR)
Cap (600)	038-01537	56916	Dead Break	Elastimold (K656DRGSP)

— End of Specification —



Appendix



Appendix 1: Table of Compliance

Line	Description	Pass/Fail (P / F)	Comments
1	The Proponent complies with the corresponding specification document (4350.230).		
2	IEEE 386		
3	Tech. info., drawings, and tests provided.		
4	Type <ul style="list-style-type: none">• 038-01040: Load Break• 038-01057: Dead Break• 038-01537: Dead Break		
5	Housing Material <ul style="list-style-type: none">• Rubber or EPDM• Fully shielded & watertight		
6	Electrical Requirements <ul style="list-style-type: none">• Voltage Class: 15/25 kV• Operating Voltage: 13.2 kV• Basic Insulating Level: 95kV BIL minimum• 60Hz, 1 min. withstand: 34 kV minimum Current Capacity: <ul style="list-style-type: none">• 038-01040: 200 A• 038-01057: 200 A• 038-01537: 600 A		
7	Hot-Stick operable at de-energized circuits.		
8	Ground with #14 AWG grounding lead minimum size.		
9	Test Point (038-01040 and 038-01537)		
10	Lubricant Compound		
11	Stainless-Steel Bail Assembly (038-01040)		
12	Factory Installed Stud (038-01537)		

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.











4350.230 Insulated Cap With Ground (01-27-25)

Final Audit Report

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