



Document Title:
Trunnion Clamp for Top Line Post Insulator for Copper Conductors

Document Type: **Specification** Engineering Type: **Material Specification** Document No.: **4350.168**

Department: **Distribution** Version: **04** Effective Date: **Jul 23, 2024**

Shared document with: N/A

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Management Approval (If apply)

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Related/Referenced Documents

N/A

Version History

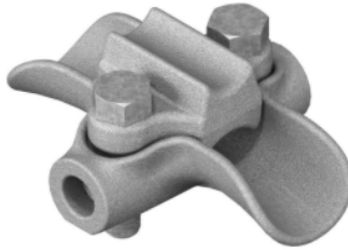
Version	Date	Revision Comments
1	Jan. 14, 2022	PREPA to LUMA Format (002-11953), New Item Created (002-82667).
2	May. 16, 2022	General format modifications and Table of Compliance (TOC) added.
3	Jan. 9, 2023	Table 1 and TOC modified. Cover Page added.
4	Jul. 23, 2024	General format modifications, TOC updated, Section 4 modified, and sections order rearranged.



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Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
002-82667	82667	4	7/23/2024
002-11953	56577	10	7/23/2024



1. Introduction

This is a general specification that covers the minimum requirements for top line post insulator trunnion clamps 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 (O11) 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

For compatible manufacturers and models, see Table 1. These models are examples of the equipment/materials described in this document and do not represent a preference. LUMA will evaluate equally any models not listed here during any acquisition event.

5. Markings

- 5.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 5.2. 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)

Twenty (20) units per box for each item 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. ASTM A47: For ferritic malleable iron castings.
 - b. ASTM A153: For hot dip galvanized process on iron and steel hardware.
- 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. Used for clamping distribution line copper conductors to vertical and horizontal line post insulators.
- 9.2. The dead-end straight-line clamp shall have the following characteristics:
 - a. Shall be saddle type for post insulators.
 - b. Shall have a stainless-steel spring in, at least, one trunnion.
 - c. Body and keeper material: malleable or ductile iron hot-dip galvanized as per ASTM A153. Casting shall be as per ASTM A47. Bronze will be accepted as well.
 - d. Hardware: hot dip galvanized as per ASTM A153.
 - e. See table 1 for clamping range (based on conductor's overall diameter), strength, weight, and dimensions.

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: Warehouse and Asset Suite Identification Number

Warehouse Catalog #	Asset Suite #	Clamping Range OD Conductor	Approximate Dimensions (L X W)	Approx. Weight	Minimum Ultimate Strength	Compatible Manufacturer & Model
002-82667	82667	2 - 4/0 AWG 0.25 to 0.57" (6.4 to 14.5 mm)	5.13" X 3.88" (13.0, 9.8 cm)	2.5 lbs (1.1 kg)	2,800 lbf (12.4 kN)	Maclean (LPS-57-F)
002-11953	56577	4/0 AWG - 750 MCM 0.50 to 1.06" (12.7 to 26.9 mm)	5.25" X 3.88" (13.3, 9.8 cm)	2.5 lbs (1.1 kg)	2,800 lbf (12.4 kN)	Maclean (LPS-118-F)

— End of Specification —



Appendix



Appendix 1: Table of Compliance

Line	Description	Pass/Fail (P / F)	Comments
1	The Proponent complies with the specification document 4350.168.		
2	The Proponent complies with the industry standards established in the specification document. (ANSI/ASTM)		
3	Tech. info., tests & drawings provided.		
4	Hardware: hot dip galvanized steel		
5	Body & Keeper: hot dip galvanized high steel strength or ductile iron. Bronze will be accepted.		
6	Hot dip galvanizing procedure as per ASTM A153.		
7	Min. Ultimate Strength	2,800 lbf.	
8	Approx. Weight	2.5 lbs.	
9	Clamping Range (Conductor Size)	Shall be stamped on clamp body. • 002-82667: 0.25" - 0.57", (2 - 4/0) • 002-11953: 0.50" - 1.06", (4/0 - 750)	
10	Approx. Dimensions	• 002-82667: 5.13" X 3.88" • 002-11953: 5.25" X 3.88"	

NOTE: This table is only a checklist 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.











4350.168 Line Post Insulator Clamps, CU (7-23-24)

Final Audit Report

2024-07-23

Created:	2024-07-23
By:	Miguel Rios (miguel.rioslopez@lumapr.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAUWmZ4UhvznzIASfnFWZjR6jCP5VcTeOGC

"4350.168 Line Post Insulator Clamps, CU (7-23-24)" History

-  Document created by Miguel Rios (miguel.rioslopez@lumapr.com)
2024-07-23 - 12:32:52 PM GMT
-  Document emailed to Miguel Rios (miguel.rioslopez@lumapr.com) for signature
2024-07-23 - 12:32:58 PM GMT
-  Document e-signed by Miguel Rios (miguel.rioslopez@lumapr.com)
E-signature obtained using URL retrieved through the Adobe Acrobat Sign API
Signature Date: 2024-07-23 - 12:33:20 PM GMT - Time Source: server
-  Document emailed to Rodolfo Flores (rodolfo.floresortiz@lumapr.com) for signature
2024-07-23 - 12:33:21 PM GMT
-  Email viewed by Rodolfo Flores (rodolfo.floresortiz@lumapr.com)
2024-07-23 - 12:42:15 PM GMT
-  Document e-signed by Rodolfo Flores (rodolfo.floresortiz@lumapr.com)
Signature Date: 2024-07-23 - 12:43:18 PM GMT - Time Source: server
-  Document emailed to Ricardo Castro (ricardo.castro@lumapr.com) for signature
2024-07-23 - 12:43:20 PM GMT
-  Email viewed by Ricardo Castro (ricardo.castro@lumapr.com)
2024-07-23 - 1:17:03 PM GMT
-  Document e-signed by Ricardo Castro (ricardo.castro@lumapr.com)
Signature Date: 2024-07-23 - 1:17:46 PM GMT - Time Source: server
-  Agreement completed.
2024-07-23 - 1:17:46 PM GMT