



Document Title:  
**Shank Pin for 1" Pin Type Insulator**

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**Author**

Rodolfo A Flores Ortiz, PE  
General Engineer, Distribution Standards & Materials

Signature and Date

Nov 7, 2023

**Reviewer**

Miguel J. Rios López, PE  
General Engineer, Distribution Standards & Materials

Signature and Date

Nov 7, 2023

**Approver**

Ricardo Castro Gómez, PE  
Manager, Distribution Standards & Materials

Signature and Date

Nov 8, 2023

**Management Approval (If apply)**

**Approver**

Name  
Position

Signature and Date

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**Related/Referenced Documents**

N/A.

**Version History**

Version	Date	Revision
01	04/13/2022	Document created in LUMA format.
02	11/07/2023	New item 002-55434 added. General format revision.



## Item Version History

Warehouse Catalog #	Asset Suite	Version	Date
002-07837	57603	6	11/07/2023
002-55434	55434	1	11/07/2023



## 1. Introduction

This is a general specification that covers the minimum requirements for hot dip galvanized shank pins 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 mechanical characteristics of the 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. For products described in this specification as requiring qualification, awards will be made only for such products that, prior to the time for opening of bids, had been tested and/or approved by LUMA Energy. Evidence of PREPA's and/or LUMA Energy's approval of the equipment/material shall be supplied by the vendor if requested by LUMA Energy.

## 4. Markings

- 4.1. Wooden crates or packages must be clearly marked on the outside with LUMA Energy's purchase order, warehouse item number, and supplier's part number.
- 4.2. Packaging labels and tags shall be waterproof.

## 5. Compatible with:

- 5.1. See Table 1 for compatible manufacturers and models.
- 5.2. 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.

## 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)

- 7.1. One (1) unit contains one (1) hot dip galvanized steel pin with one (1) spring lock washer and one (1) square nut.
- 7.2. Product Weight: 1.31 lbs (0.59 kg).
- 7.3. Standard package: 25 units per box or as requested by LUMA Energy.
- 7.4. Pallet quantity: 1,680 units

## 8. Acceptance Criteria

- 8.1. Test required: certified by external laboratories.
- 8.2. Latest applicable codes, standards, and other regulations:
  - a. ASTM A575 or ASTM A576 - Forged Steel
  - b. ANSI C135.17 – Standard for insulator pins with lead threads for overhead line construction, galvanized ferrous bolt type.
  - c. IEEE C135.1 - Standard for Zinc-Coated Steel Bolts and Nuts for Overhead Line Construction.
  - d. ASTM A 153 – Standard for hot dip galvanized coating.
  - e. ASTM A 1059 – Standard for Thermal diffusion galvanized.

## 9. Description

- 9.1. Used to support pin type insulator with 1" (2.54 cm) NEMA internal thread on crossarm.
- 9.2. Short shank forged steel pin with hot dip galvanized coating or thermal diffusion galvanized.
- 9.3. 1" (2.54 cm) long cast lead with standard thread for 1" (2.54 cm) pin type insulator.
- 9.4. The pin shall have 5" (12.7 cm) minimum above crossarm.
- 9.5. The shank shall be 1-1/2" (3.81 cm) or 5-3/4" (14.61 cm) in length, as requested by LUMA (see Table 1) and 5/8" (1.59 cm) diameter with standard thread.
- 9.6. Each unit shall be furnished with one (1) split lock washer a one (1) square nut.
- 9.7. The pin base should be 2" (5.08 cm) minimum in diameter.
- 9.8. Weight: 1.31 lbs (0.59 kg)



9.9. Material: Forged steel

## 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/material 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 Identification Table

Item	Warehouse Catalog #	Asset Suite #	Minimum Shank Length Inch (cm)	Compatible Manufacturer & Model
Short Shank Pin	002-07837	57603	1-1/2 (3.81)	Hubbell: 886 Maclean: J222Z
Long Shank Pin	002-55434	55434	5-3/4 (14.61)	Hubbell: 881 Maclean: J203Z

— End of Specification —



## Appendix

## Appendix 1: Table of Compliance

Criteria	Description	Pass/Fail (P/F)	Comments
Specification	The Proponent complies with the corresponding specification document 4350.104.		
Industry Standards	The Proponent complies with the industry standards established in the specification document. (ANSI, ASTM, IEEE)		
Type	Shank forged steel pin		
Material	Hot dip galvanized or thermal diffusion galvanized forged steel bolt		
Product Requirement	1" (2.54 cm) long cast lead with standard thread for 1" (2.54 cm) pin type insulator		
Product Requirement	The pin must have 5" (15.24 cm) above crossarm		
Product Requirement	The pin base should be 2" (5.08 cm) minimum in diameter.		
Product Requirement	The shank shall have 1-1/2" (3.81 cm) or 5-3/4" (14.61 cm) in length, 5/8" (1.59 cm) diameter with standard thread		
Product Requirement	Each unit shall be furnished with one (1) split lock washer a one (1) square nut		











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Final Audit Report

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