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**Armor Rods for Aluminum Conductors**

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**Related/Referenced Documents**

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## Version History

Version	Date	Revision
1	Nov. 02, 2021	Initial Release, converted from PREPA to LUMA format.
2	Feb. 16, 2022	Table 1 edited
3	May 20, 2022	TOC and new signature format added. Two codes eliminated for item 002-82351. Item 002-83036 added.
4	Nov. 07, 2022	Cover Page added and diameter for 002-82350 edited.
5	Aug. 08, 2023	General format, document name, Table 1, and TOC modifications. Items 002-85171 and 002-85172 created. Document changed as shared between T&D for Item 002-82351.
6	Sep. 30, 2025	General format revision. Table of Contents added. Added Section 9.4. Modified description for item 002-82351 and 002-83036. Document number changed from 4350.030 (Legacy Number) to 4300.50.030 (New Engineering Records Nomenclature Number).
7	Jan. 21, 2026	General format modifications and Item 002-85172 removed.

## Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
002-82348	82348	7	1/21/2026
002-82349	82349	7	1/21/2026
002-82350	82350	7	1/21/2026
002-85171	85171	3	1/21/2026
002-82351	82351	7	1/21/2026
002-83036	83036	7	1/21/2026

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## 1. Introduction

This is a general specification that covers the minimum requirements for aluminum armor rods to be used in the distribution and transmission systems 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 characteristics of the product.

## 2. Special Requirements

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this product to LUMA on previous orders will not have to furnish samples at bid opening. The product 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 product 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's purchase order and item 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 products 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 delivery time so the receiving personnel can verify that everything requested is present, avoiding any delay in the receiving process.

## **7. Number Per Package (Logistics)**

See Table 2 for standard package or as required by LUMA Energy.

## **8. Acceptance Criteria**

- 8.1. Product shall be manufactured in accordance with the latest issue below (section 8.2). When conflicts occur between purchaser's specifications and the latest issue below, the purchaser's specification shall prevail.
- 8.2. All characteristics, definitions, and terminology, except as specifically covered in this specification, shall be in accordance with the latest revision of the ANSI, ASTM, AWS, NEMA, and any other applicable codes, standards, and other regulations, in addition to the following standards:
- 8.3. 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 armor rods are designed to protect cable against bending, compression, abrasion, arc-over, and to provide repair. They are also used to repair damaged aluminum-based conductors and restore the conductors' mechanical strength and conductivity.

9.2. Shall be compatible with ACSR, AAAC, and ACSS type conductors, as specified in Table 1.

9.3. General characteristics:

- a. Single Support Length (S): 52” to 100” (132.08 to 203.2 cm).
- b. Diameter Range: 0.390” minimum to 1.139” maximum (0.99 to 2.89 cm).
- c. Weight Per Carton: 37 lbs. to 66 lbs. maximum (16.78 to 29.94 kg).
- d. Rod Diameter: 0.167” to 0.310” (0.42 to 0.79 cm).
- e. Rods per Set: 9 to 13 max.

9.4. Shall include a mark that indicates the center of the armor rod.

9.5. Shall comply with the requirements of each conductor as mentioned in Table 1.

Table 1: Requirements per Conductor Size.

Warehouse Catalog #	Asset Suite #	Conductor	Strands - Overall Diameter Inches (cm)	Length Inches (cm)	Rods	
					# per set	Diameter Inches (cm)
002-82348	82348	1/0 ACSR 123.3 AAAC	6/1 - 0.398 (1.01) 7 - 0.398 (1.01)	52 (132.1)	9	0.167 (0.42)
002-82349	82349	3/0 ACSR 195.7 AAAC	6/1 - 0.502 (1.28) 7 - 0.502 (1.28)	56 (142.2)	11	0.167 (0.42)
002-82350	82350	266.8 ACSR	26/7 - 0.642 (1.62)	64 (162.6)	12	0.182 (0.46)
002-85171	85171	394.5 AAAC	19 - 0.721 (1.83)	72 (182.9)	12	0.204 (0.52)
002-82351	82351	556.5 ACSR 652.4 AAAC 556.5 ACSS	24/7 - 0.914 (2.32) 19 - 0.927 (2.35) 24/7 - 0.914 (2.32)	80 (203.2)	13	0.250 (0.635)
002-83036	83036	795 ACSS 927.2 AAAC	26/7 - 1.107 (2.81) 37 - 1.108 (2.81)	100 (254.0)	12	0.310 (0.787)

## 10. Inspection

10.1. Upon inspection of incoming product, 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 product 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 products were found later to be defective or out of compliance.

## 11. Proposal Information

11.1. Submitted proposals must include:

- a. Technical information, drawings, and tests (see Section 3 for more details).
- b. Table of Compliance completed by the bidder with reference (see Appendix 1).

## 12. Table 2: Warehouse and Asset Suite Identification Number

Warehouse Catalog #	Asset Suite #	Conductor	Standard Package (EA)	Compatible Manufacturer & Model
002-82348	82348	1/0 ACSR 123.3 AAAC	50	PLP (AR-0118)
002-82349	82349	3/0 ACSR 195.7 AAAC	25	PLP (AR-0122)
002-82350	82350	266.8 ACSR	25	PLP (AR-0127)
002-85171	85171	394.5 AAAC	18	PLP (AR-0130)
002-82351	82351	556.5 ACSR 652.4 AAAC 556.5 ACSS	12	PLP (AR-0135)
002-83036	83036	795 ACSS 927.2 AAAC	6	PLP (AR-0141)

—End of Specification —

## Appendix

## Appendix 1: Table of Compliance

Line	Description	Pass/Fail (P / F)	Comments
1	Compliance with the document 4300.50.030		
2	Industry standards: If different ones are used, information showing compatibility with the required ones is required.		
3	Tech. info., tests, and drawings provided.		
4	Material: Aluminum		
5	Compatible with ACSR, AAAC, and ACSS conductors, as required.		
6	Single Support Length (S): As per Table 1.		
7	Diameter Range: As per Table 1.		
8	Conductor Size: As per Table 1.		
9	Rod Diameter: As per Table 1.		
10	Rods per Set: As per Table 1.		
11	Center mark included		

**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.**












# 4300.50.030 Armor Rod (1-21-26)


Final Audit Report

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