



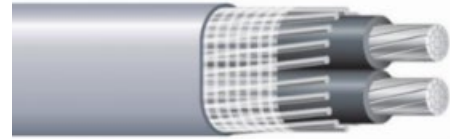
Equipment Specification

Document No.: 4350.060

Item No.: 042-00507

Asset Suite: 37630

Originating Department: Distribution Engineering



Aluminum Cable, 3/C, 4 AWG, Style U (SEU), Service Entrance

1. Introduction

This is a general specification that covers the minimum requirements for an aluminum cable, 3/C, 4 AWG 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 cable is used for service-drop installations. This document includes the general electrical and mechanical characteristics of the material.

2. Special Requirements

- 2.1. Samples shall be furnished as requested by LUMA Energy. All documented testing required by applicable specifications and standards shall be submitted with product samples, including mechanical drawings, prior to approval. Vendors that have supplied this material to PREPA/LUMA on previous orders, will not have to furnish samples at bid opening. With the exception if any material or design changes were made to an approved product, vendor must re-submit sample to the Material Specification engineer for approval before shipping. The 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.
- 2.2. Product shall be manufacture in accordance with the latest issue ASTM, NEMA, IEEE and ANSI specification. When conflicts occur between Purchaser's specifications and the ASTM, NEMA, IEEE, or ANSI specifications, the Purchaser's specification shall prevail. The product shall be furnished as described here in this specification or as amended by the purchase order. Any changes or updates to the Supplier's procedures, quality routines, and/or inspection layout shall be liable for all costs incurred for product that is refused/rejected.
- 2.3. Upon inspection of incoming material, the purchaser reserves the right to refuse product shipments and to determine the acceptability or rejection of product received. The Supplier shall be liable for all costs incurred for product that is refused/rejected.
- 2.4. Vendor shall submit two (2) quotes: one for conductor on steel reel and another for conductor on wood reel. See detail of reels in section 6.



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3. Quantity/Literature

Descriptive and technical literature must be supplied by 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. Evidence of PREPA's and/or LUMA Energy's approval of the equipment or material shall be supplied by vendor if requested by LUMA Energy.

4. Markings

- 4.1. Coils shall be marked outside with LUMA Energy's purchase order, item number, description of wire & specification date, code name, net length & size, gross & tare weights, and manufacturer's name & lot/production number.
- 4.2. Packaging labels and tags shall be waterproof.

5. Equal or Approved Equal to

- 5.1. American Wire Group.
- 5.2. Southwire Company.

6. Packaging

All material and equipment 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)

150 or 200 ft long wrapped coils (45.72 or 60.96 m) in individual containers that do not exceed 60 lbs (27.22 kg) or as requested by LUMA.

8. Acceptance Criteria

- 8.1. Test required: certified by external laboratories.
- 8.2. Latest applicable codes, standards, and other regulations: ANSI/ASTM (B800, B801, B901), ICEA (S-95-658), IEEE, UL (44, 854).



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9. Description

- 9.1. This cable is used for aerial service entrance, style-U (SEU) in accordance with UL 854, in rural overhead service-drop installations that include two phase conductors surrounded by a concentric neutral.
- 9.2. The cable shall consist of three 1350 no. 10 hard-drawn alloy aluminum conductors, no. 4 AWG, and rated at 600 V.
 - a. Two of them shall be compact stranded in accordance with ASTM B901, seven (7) strands each, XHHW, with an approximately 0.06" (1.52 mm) cross-link polyethylene (XLP) insulation in accordance with ICEA publication no. S-95-658 and UL 44.
 - b. The other one is for neutral and shall be concentric, twelve (12) strands, uninsulated, in accordance with ASTM B800 and B801, and protected by a polyester glass tape.

10. Inspection

The acceptance of any material or equipment 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 materials were found later to be defective.

11. Warranty

The conductor shall be designed and manufactured to provide a minimum life expectancy of 40 years. Replacement costs associated with premature conductor failure due to inadequate design or faulty manufacturing is to be the responsibility of the Supplier. The manufacturer shall guarantee that each part of the finished conductor has been manufactured in accordance with requirements of the referenced specifications and standards and that the finished conductor complies with the same requirements. The supplier/manufacturer shall agree to replace any length of conductor for two years after date of delivery if defective material or workmanship is found during installation or if the conductor fails from normal use during its first year of service. In either case, the supplier/manufacturer shall be given a reasonable opportunity to inspect such defect or failure. A technical report detailing the cause(s) of the defect and the corrective measures implemented to prevent recurrence shall be provided upon request of the purchaser.

— End of Specification —



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Document History

Version	5
Date	02/23/2022
Author	Miguel J. Rios
Reviewer	Rafael Torres
Approver Manager	Ricardo Castro

Handwritten signatures in blue ink are present over three horizontal lines. The first signature is above the line for Miguel J. Rios. The second signature is above the line for Rafael Torres. The third signature is above the line for Ricardo Castro.