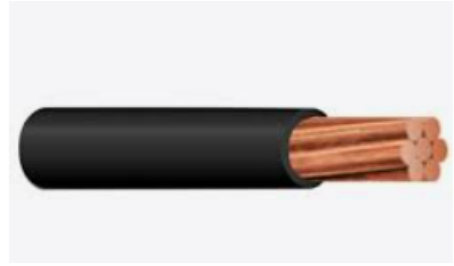




**Equipment Specification**

Document No.: 4350.048

Originating Department: Distribution Engineering



**Copper Cable No. 4 & 6 AWG, UF,  
Single Wire, Distribution System**

---

**1. Introduction**

This is a general specification that covers the minimum requirements for a single stranded copper cable, 4 AWG, and 6 AWG, Type UF 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 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.



## Equipment Specification

Document No.: 4350.048

Originating Department: Distribution Engineering

# Copper Cable No. 4 & 6 AWG, UF, Single Wire, Distribution System

---

## 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

For manufacturer and model see section 12 table 1.

## 6. Packaging

- 6.1. 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.
- 6.2. Shall be shipped in 500 ft (152.4 m) continuous coil each. Cable won't be accepted by sections less than 500 ft (152.4 m).

## 7. Number Per Package (Logistics)

Five hundred feet (152.4 m) coil 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. UL (493), Federal Specifications (J-C-30), ASTM (B8).



**Equipment Specification**

Document No.: 4350.048

Originating Department: Distribution Engineering

**Copper Cable No. 4 & 6 AWG, UF,  
Single Wire, Distribution System**

---

**9. Description**

- 9.1. These cables are used for underground service entrance and system grounding.
- 9.2. Cable consisting of a concentric-lay-stranded (7 strands) copper single wire in compliance with ASTM B8, rated at 600 V.
- 9.3. Type UF black insulation in compliance with UL 493.

**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 of 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/manufacture 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.

**12. Table 1: Warehouse and Asset Suite Identification Number**

Item	Warehouse Catalog #	Asset Suite #	Suggested Manufacturer
6 AWG	006-01104	56076	Southwire Company American Wire Group
4 AWG	006-01112	56077	Southwire Company American Wire Group

— End of Specification —



**Equipment Specification**



Document No.: 4350.048

Originating Department: Distribution Engineering

**Copper Cable No. 4 & 6 AWG, UF,  
Single Wire, Distribution System**

---

**Document History**

<b>Version</b>	4	
<b>Date</b>	02/24/2022	
<b>Author</b>	Miguel J. Rios	
<b>Reviewer</b>	Rafael Torres	
<b>Approver Manager</b>	Ricardo Castro	