



DISTRIBUTION ENGINEERING  
STANDARDS AND MATERIALS

	Document Title: <b>Mechanical Grounding Connector</b>		
	Document Type: Material Specification	Document No.: 4350.210	
Department: Distribution Engineering	Version: 2 Date: 08/01/2022	Issue	Effective Date: 08/01/2022

**APPROVAL:**

<b><u>Author:</u></b> Rodolfo A. Flores Ortiz Standards Engineer, Dist. Standards and Materials	Signature and Date  Aug 1, 2022
<b><u>Reviewer:</u></b> Rafael Torres Martínez Materials Supervisor, Dist. Standards and Materials	Signature and Date  Aug 1, 2022
<b><u>Approver</u></b> Ricardo Castro Gómez Manager, Dist. Standards and Materials	Signature and Date  Aug 1, 2022

**Document History**

Version 1 (02/11/2022):

- New specification document created. New Item Number for 038-83151.

Version 2 (08/01/2022):

- Modified title of document to improve identification of the material.
- Modified Section 5: Equal or Approved Equal to.
- Modified Section 7: Quantity per package.
- Modified Section 9: Description to change specified type of material, dimensions, etc. Modified TOC to include changes.
- Added Section 11.



**Equipment Specification**

Document No.: 4350.210

Item No.: 038-83151

Asset Suite: 83151

Originating Department: Distribution Engineering



## **Mechanical Grounding Connector**

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### **1. Introduction**

This is a general specification that covers the minimum requirements for the copper mechanical grounding, #6-2/0 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 document includes the general electrical and mechanical characteristics of the material.

### **2. Special Requirements**

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this material to LUMA on previous orders, will not have to furnish samples at bid opening. 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.

### **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. Containers shall be marked outside with LUMA Energy's purchase order, item number, name and size, net and gross weight, manufacturer's name, and lot number.
- 4.2. Packaging labels and tags shall be waterproof.

### **5. Equal or Approved Equal to**

Burndy, catalog number CL3/0-516TN



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### 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)

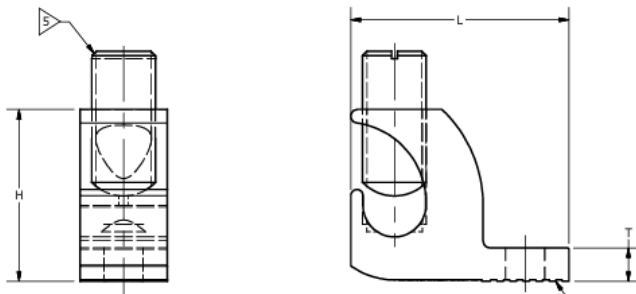
Ninety (90) per carton or as requested by LUMA Energy.

### 8. Acceptance Criteria

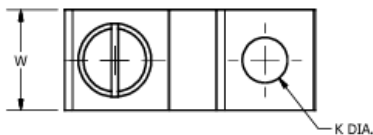
- 8.1. Test required: certified by external laboratories.
- 8.2. Latest applicable codes, standards, and other regulations: UL Standards (486A-486B)

### 9. Description

- 9.1. Copper mechanical grounding connector for stranded copper cable.
- 9.2. Material must be copper. Must be furnished with an electro tin-plate.
- 9.3. Must be furnished with a hole compatible for a stud/bolt sized 1/4 inch (6.4 mm).
- 9.4. Approximate dimensions:



Dimension	Inches (mm)
H	1.56 (40)
L	2.00 (51)
T	0.30 (8)
W	1.56 (40)
Diameter K	0.33 (8)





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- 9.5. Must include an appropriately sized screw for the conductor connection. Screw type must be Allen Key or flat screwdriver.
- 9.6. The connector shall be manufactured with a lay in lug (open-faced) that allows for continuous run of the conductor or termination.
- 9.7. Must be compatible with copper conductors.
- 9.8. Conductor sizes: #6 to 2/0 AWG stranded minimum range.

### **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. Proposal Information**

- 11.1. Submitted proposals must include:
  - a. Technical information
  - b. Table of Compliance completed by the bidder with reference. (See Appendix 1)

— End of Specification —

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# **Appendix**



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### Appendix 1: Table of Compliance

Line	Criteria	Description	Pass/Fail (P / F)	Comments
1	Specification	The Proponent complies with the corresponding specification document (4350.210).		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document. (UL)		
3	Material	<ul style="list-style-type: none"><li>• Copper</li><li>• Furnished with an electro tin-plate.</li></ul>		
4	Hole	Compatible for a stud/bolt sized 1/4 inch (6.4 mm)		
5	Compatible	Stranded copper conductors. Min. range from 6 AWG to 2/0 AWG.		
	Dimensions	Meet approximate dimensions in section 9.4.		
6	Construction	<ul style="list-style-type: none"><li>• Must include an appropriately sized screw for the conductor connection. Screw type must be Allen Key or flat screwdriver.</li><li>• The connector shall be manufactured with a lay in lug (open-faced) that allows for continuous run of the conductor or termination.</li></ul>		











# 4350.210 Mechanical Grounding Connector (08-01-2022)

Final Audit Report

2022-08-01

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