



Document Title:  
**Universal Terminal**

Document Type:  
**Material Specifications**

Document No.:  
**4350.243**

Department:  
**Distribution Standards & Materials**

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Sep 15, 2022

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Signature and Date

Sep 21, 2022

**Version History**

Date	Revision Comments
Sep. 9, 2022	Initial Release.

Warehouse Catalog	Item Version	Date
038-83451	1	09/09/2022
038-83452	1	09/09/2022



**Equipment Specification**

Document No.: 4350.243

Originating Department: Distribution Engineering



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## **Universal Terminal**

### **1. Introduction**

This is a general specification that covers the minimum requirements for universal terminal 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

### **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**

For suggested manufacturer/supplier and model see Table 1.

### **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)**

See Table 1 or as requested by LUMA Energy.



**Equipment Specification**

Document No.: 4350.243

Originating Department: Distribution Engineering

## **Universal Terminal**

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### **8. Acceptance Criteria**

- 8.1. Test required: certified by external laboratories.
- 8.2. Latest applicable codes, standards, and other regulations:
  - a. UL (486A-486B): For single-polarity connectors for use with all alloys of copper or aluminum, or copper-clad aluminum conductors, or all three, for providing contacts between current-carrying parts.

### **9. Description**

- 9.1. Universal terminals used on heavy-duty transformers connectors and enclosed equipment.
- 9.2. Material shall be high strength tin plated aluminum alloy.
- 9.3. Shall be suitable for copper and aluminum conductors.
- 9.4. Shall include appropriately sized screws for the conductor connection. Screw type must be Allen Key for the 2 Hole 2 Cable Model (Figure 1) and Flat Head screwdriver for the 2 Hole 3 Cable Model (Figure 2).
- 9.5. Stud holes size shall be 1/2" (1.27 cm) complying with NEMA standards.
- 9.6. For dimensions and conductor range see Table 1, Figure 1, and Figure 2.

### **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)



**Equipment Specification**

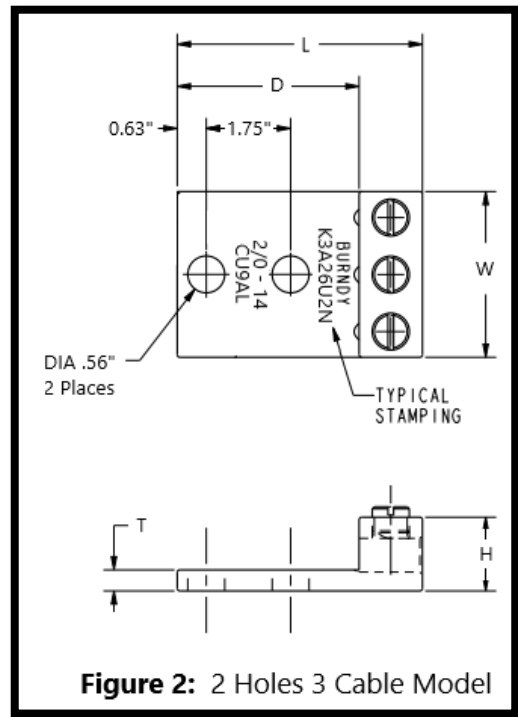
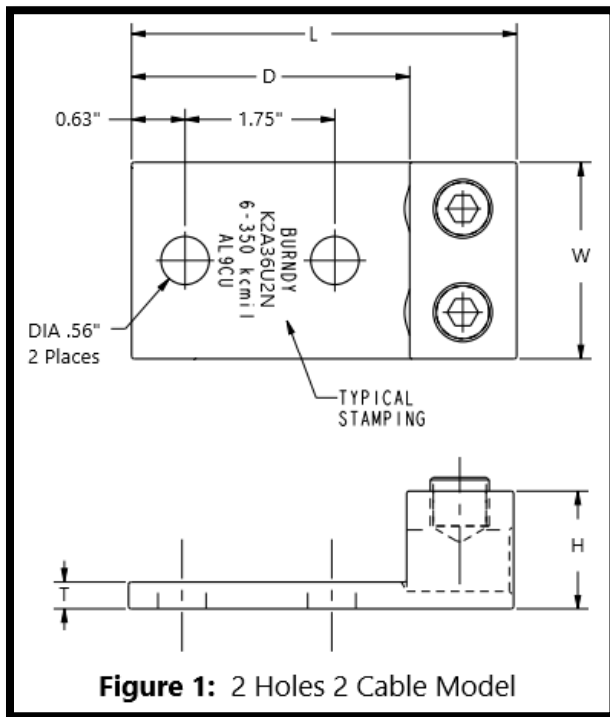
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Originating Department: Distribution Engineering

**Universal Terminal**

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

Item	Warehouse Catalog #	Asset Suite #	Package	Cable Range	Dimensions					Suggested Manufacturer & Model
					L	W	D	T	H	
2 Holes 2 Cables	038-83451	83451	54 per carton	2 AWG – 600 MCM	4.69" (11.9 cm)	2.41" (6.1 cm)	3.22" (8.2 cm)	0.44" (1.1 cm)	1.39" (3.5 cm)	Burndy (K2A36U2N)
2 Holes 3 Cables	038-83452	83452	108 per carton	14 AWG – 2/0 AWG	3.75" (9.5 cm)	1.97" (5.0 cm)	3.06" (7.8 cm)	0.19" (0.5 cm)	0.80" (2.0 cm)	Burndy (K3A26U2N)



— End of Specification —



**Equipment Specification**

Document No.: 4350.243

Originating Department: Distribution Engineering

## **Universal Terminal**

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# **Appendix**



**Equipment Specification**

Document No.: 4350.243

Originating Department: Distribution Engineering

**Universal Terminal**

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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 (4350.243).		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document. (ANSI, UL, NEMA)		
3	Material	<ul style="list-style-type: none"><li>• High Strength Tin Plated Aluminum Alloy</li><li>• Suitable for Copper and Aluminum conductors.</li></ul>		
4	Dimensions	<ul style="list-style-type: none"><li>• As indicated in Table 1 and Figures 1 &amp; 2.</li><li>• Stud Hole Size: 1/2"</li></ul>		
5	Cable Range	<ul style="list-style-type: none"><li>• 038-83451: 2 AWG - 600 MCM</li><li>• 038-83452: 14 AWG - 2/0 AWG</li></ul>		
6	Requirement	Must include an appropriately sized screw for the conductor connection. Screw type must be: <ul style="list-style-type: none"><li>• 038-83451: Allen Key</li><li>• 038-83452: Flat Head Screwdriver</li></ul>		











# 4350.243 Universal Terminal (9-9-22)

Final Audit Report

2022-09-21

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