



Document Title:

Aluminum Base Adapter for 24" Hole Spacing

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Author Miguel J. Rios López, PE General Engineer, Distribution Standards & Materials	Signature 	Date Sep 11, 2023
Reviewer Rafael Torres Martinez, PE Supervisor, Distribution Standards & Materials	Signature 	Date Sep 11, 2023
Approver Ricardo Castro Gómez, PE Manager, Distribution Standards & Materials	Signature 	Date Sep 11, 2023

Version History

Date	Revision Comments
Mar. 23, 2023	Initial Release (Ver. 1)
Sep. 11, 2023	General format modifications and redesigned drawing (Ver. 2).

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Aluminum Base Adapter for 24" Hole Spacing

1. Introduction

This is a general specification that covers the aluminum base adapter for 24" hole spacing to be used in metal and concrete square poles on 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 equipment/material.

2. Special Requirements

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

- 3.1. Descriptive and technical literature must be supplied by the 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. Evidence of LUMA Energy's approval of the equipment/material shall be supplied by the 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. Compatible with

- 5.1. K-Line Insulators Limited
- 5.2. AKM
- 5.3. These models are examples of the equipment/material described in this document and do not represent a preference. LUMA will evaluate equally any model not listed here during any acquisition event.

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6. Packaging

All equipment/material 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)

The bidder shall indicate the quantity of units per bundle at bid opening or as requested by LUMA Energy.

8. Acceptance criteria

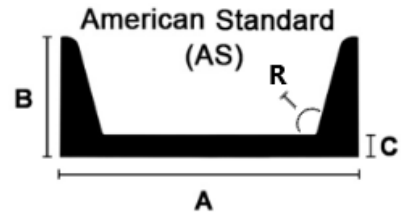
- 8.1. Latest applicable codes, standards, and other regulations: ANSI/ASTM.
- 8.2. ASTM B221: Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, And Tubes.
- 8.3. ASTM B308: Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles
- 8.4. Compliance with attached LUMA drawing.

9. Description

- 9.1. This base adapter is a transition part used in the installation of electrical equipment or brackets on concrete or metal poles, especially for capacitor banks where the base hole spacing pattern is 18". This adapter matches the 8" and 12" hole spacing pattern on our poles.
- 9.2. The base adapter must be made of 6061-T6 structural aluminum with mechanical properties as follows, complying with ASTM B308:
 - a. Tensile Strength = 45 ksi (1 ksi = 1000 lbf/in² = 1000 psi = 6.89 MPa)
 - b. Yield Point = 40 ksi
 - c. Shear Strength = 30 ksi
 - d. Elasticity = 10 ksi
 - e. Elongation in 2" = 17%
 - f. Fatigue Limit = 14 ksi
 - g. Brinell Hardness = 95 HB
 - h. Melting Point = 1220°F (660°C)
- 9.3. The base adapter must be able to be drilled to affix the equipment base or bracket that needs to be installed.

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- 9.4. The base adapter shall consist of one (1) 28" (71.12 cm) piece of structural aluminum C-channel American Standard Type (6 X 4.50) with the following approximate dimensions:
- Width (A): 6" (15.24 cm)
 - Flange (B): 2-3/16" (5.56 cm)
 - Web (C): 7/16" (1.11 cm)
 - Radius (R): 5/16" (0.79 cm)
 - Length: 28" (71.12 cm)
- 9.5. This aluminum C-channel must be perforated to create four (4) mounting slots at the longitudinal centerline of base (A). Every slot must be 13/16" (0.81 cm) wide and 2" (5.08 cm) long center to center (2-13/16" edge to edge). Upper slot must be set at 1-5/8" from channel edge to slot upper border. The next slot must be set at 2-3/16" from the lower edge of the first slot. The third slot must be set at 9-3/16" from the lower edge of the second slot. The fourth slot must be set at 2-3/16" from the lower edge of the third slot, letting 1-5/8" from its lower edge to the channel lower edge.
- 9.6. A 13/16" diameter hole must be set at 2-3/16" from its bottom edge to the top edge of the third slot coming from top to bottom of the C-channel. This will let an 8" spacing from the center of the second slot to the center of this hole.
- 9.7. All dimensions and perforations patterns as per drawing on Appendix 1.



10. Inspection

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

11. Proposal Information

- 11.1. Submitted proposals must include:
- Technical information
 - Table of Compliance completed by the bidder with reference (see Appendix 2).

— End of Specification —

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Appendix

Aluminum Base Adapter for 24" Hole Spacing

Appendix 2: Table of Compliance

Line	Criteria	Description	Pass/Fail (P/F)	Comments
1	Specification	The Proponent complies with the corresponding specification document 4350.302.		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document (ANSI/ASTM).		
3	Material	6061-T6 structural aluminum		
4	Type	C-Channel (6 X 4.50) as per American Standard Aluminum Channel Sizes		
5	Dimensions (As per Section 9.4)	Length: 28"		
		Width: 6"		
		Flange: 2-3/16"		
		Web: 7/16"		
		Radius: 5/16"		
6	Product Requirement	Slots pattern as per Drawing on Appendix 1.		
		The aluminum base adapter can be drilled to affix the equipment base or bracket that needs to be installed.		
7	Required Information	Technical information and dimensional drawing included.		











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Final Audit Report

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