LUMA	Document Title: **Wedge Connector Aluminum to Copper Cable Transition**	
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Version History

Version	Date	Description
00	June 20,2022	First issue. General revision for final approval
01	Jun 2, 2023	Connector catalog correction due copper cable increment to 1000 MCM.

1. General

1.1. This specification describes the minimum requirements of Wedge Connector for Aluminum to Copper Transition on overhead lines with power booster, used on the transmission system of Puerto Rico.

1.2. The wedge connector shall be designed, rated, manufactured, and tested in accordance with the latest applicable IEEE, NEMA, ANSI, ASTM, and NEC Standards[1], If the Vendor does not demonstrate its compliance with the applicable standards, these specification requirements and supply the requested documents, the bid may be rejected.

1.3. The Vendor shall provide LUMA Energy with a list of recommended spare parts, tools, and service equipment, including prices.

2. Specific Name

2.1. Wedge Connector Aluminum to Copper Transition.

3. Basic Use

3.1. For combination or connection of ACSR Cable with 1000 MCM Bare Copper Cable conductors at overhead assemblies of transmission lines structures.

4. Special Requirements

4.1. Samples shall be furnished if requested by LUMA.

4.2. LUMA may require one (1) unit properly labeled for testing and analysis.

4.3. Descriptive and technical literature shall be supplied if requested by LUMA.

4.4. Vendors that have supplied this material to PREPA in previous orders will not have to furnish samples at bid opening.

4.5. They shall be required to show evidence of LUMA's approval of the equipment if requested.

5. Marking and packaging

5.1. Containers shall be marked outside with LUMA's purchase order number and code number.

5.2. Vendor shall prepare material and equipment for shipment in such a manner as to facilitate handling and protection from damage.

5.3. All material shall be packaged and marked in such a way that the receiving warehouse can readily identify and send in one (1) complete unit to a field location without opening crates or boxes to sort items and/or parts.

[1] IEEE = Institute of Electrical and Electronics Engineers
NEMA = National Electric Manufacturers Association
ANSI = American National Standard Institute
ASTM = American Society of Testing and Materials
NESC = National Electric Safety Code.

6. Labeling

6.1. Each unit shall be clearly marked with the installation tool to be used, either with a color coding or numbering.

7. Equal or approved equal to:

7.1. Burndy Corp. – see Table 1 for specific catalog number.

8. Number of pieces per package:

8.1. Each box with five (5) connectors.

9. Description

9.1. Table 1: Dimensions

Catalog Number	Sum of Diameters (in.)		Run (in.)		Tap (in.)		LUMA Warehouse Number
	Max	Min	Max	Min	Max	Min	
WCY71PB (556.5 ACSR - 1000 Copper)	2.216	2.074	1.133	0.907	1.156	0.947	002-77922
WCY105PB (1192.5 ACSR - 1000 Copper)	2.489	2.329	1.302	1.242	1.187	1.087	002-83118

9.2. Aluminum wedge connector that is power-driven between the run and tap cables locking them into a “C” shaped aluminum alloy spring body.

9.3. The wedge connector shall be suitable to perform a connection of ACSR Cable and Bare Copper Cable.

9.4. The wedge connector shall come with PENTX 1530 or equivalent oxide inhibitor, applied to the shell groove and to the wedge groove at factory.

9.5. Installation tool – Burndy Corp., Catalog – Type WTRBYK,

9.6. Power Boosters – Yellow Coded

9.7. The wedge connector shall accommodate the following conductors’ sizes:

9.7.1. 1192.5 MCM ACSR Bunting 45/7; 1.302 in. Cable Diameter.

9.7.2. 1192.5 MCM ACSR PR Special 36/1; 1.274 in. Cable Diameter.

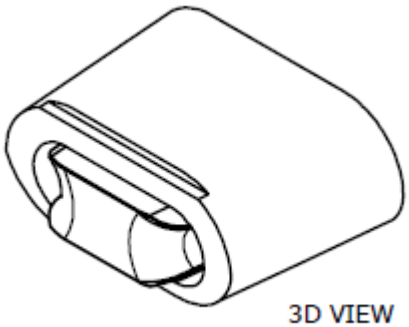
9.7.3. 556.5 MCM ACSR Parakeet 24/7; 0.914 in. Cable Diameter.

9.7.4. 1000 MCM Bare Cooper 61 Strands; 1.152 in. Cable Diameter.

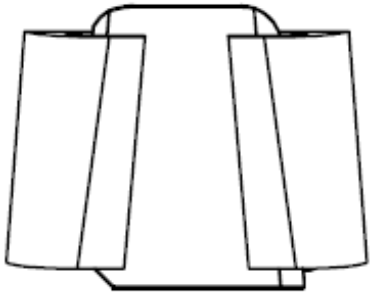
10. Inspection

10.1. 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 shall not prevent subsequent rejection if such material is found to be defective later.

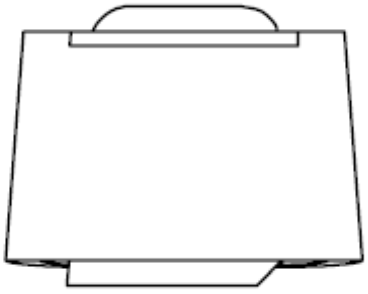
11. Drawing



3D VIEW



BACK VIEW



FRONT VIEW

— End of Specification —