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Primary Load Break Junction, 4-way & 6-way, 15 kV

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Equipment Specification

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Version History

Version	Date	Revision Comments
01	Aug. 19, 2022	PREPA to LUMA Format for Items 038-00638 (Ver. 4) and 038-01032 (Ver. 2).
02	May. 12, 2023	Cover Page added, Section 9 and Table 2 modified, Document name changed, and Item 038-84786 created (Ver. 1). Elastimold models modified.
03	Oct. 07, 2024	General format modifications, Sections 3, 4, 8, and 9 modified, and sections order rearranged.



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Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
038-00638	5496	6	10/07/2024
038-01032	55171	4	10/07/2024
038-84786	84786	2	10/07/2024



1. Introduction

This is a general specification that covers the minimum requirements for the primary load break junction 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 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 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 must include, but is not limited to details of material, drawings, documented testing, and instructions for use and installation. **The literature must be an official document from and certified by the manufacturer.** Failure to submit documents on time and duly certified by the manufacturer will cause bidder disqualification.
- 3.2. If required by LUMA, final drawings and documentation shall be submitted by the vendor before the manufacturing and shipping process for approval.

4. Compatible with

For compatible manufacturers and models, see Table 2. 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.

5. Markings

- 5.1. Containers shall be marked outside with LUMA Energy purchase order and item number.
- 5.2. Package(s) to be delivered to the warehouse shall be clearly marked with manufacturer and item information (part number, serial number, quantity, etc.).
- 5.3. Packaging labels and tags shall be waterproof.

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)

One (1) unit per box or as required by LUMA Energy.

8. Acceptance Criteria

- 8.1. Tests required shall be certified by qualified external laboratories.
- 8.2. Product shall be manufactured in accordance with the latest issue below (section 8.3). When conflicts occur between purchaser's specifications and the latest issue below, the purchaser's specification shall prevail.
- 8.3. Latest applicable codes, standards, and other regulations:
 - a. IEEE 386-2016: For separable insulated connector systems for power distribution systems rated 2.5 kV through 35 kV.
- 8.4. If any other standards different from the ones indicated in this document are used, the supplier must provide information showing compatibility with the required ones.

9. Description

- 9.1. The load break junctions are used in pad-mounted apparatus and underground vaults, among others, to sectionalize, establish loops, taps, or splices, and to facilitate apparatus changeouts.
- 9.2. Shall be compatible with submersible elbow connectors and other accessories in compliance with IEEE 386 latest issue.
- 9.3. Shall have a standard interface spacing of approximately 4" center to center.
- 9.4. Shall provide a separable, fully shielded insulated assembly.
- 9.5. The system shall have a continuous solid current path of copper or copper alloy.
- 9.6. The load break junction shall be constructed of 304 or 316 stainless-steel as well as the hardware included.
- 9.7. Shall include an adjustable bracket, also in 304 or 316 stainless-steel, for mounting at various operating angles on flat or curved surfaces (Appendix 4).
- 9.8. Shall have a grounding lug for #2 AWG to 1/0 AWG stranded wire.
- 9.9. Shall include parking stands at both ends.

9.10. Table 1: Electrical characteristics

Current Rating	Voltage Class	Minimum AC Withstand Voltage (1 min)	Minimum AIC RMS Symmetrical @ 10 Cycles	Minimum Basic Insulated Level	Minimum Corona Extinction
200 A	15 kV	34 kV	10 kA	95 kVBIL	11 kV
600 A	15 kV	34 kV	25 kA	95 kVBIL	11 kV

9.11. There will be two 4-way models and one 6-way model with the following characteristics:

a. 4-Way Model, 200 A (Appendix 1):

Shall be a four (4) way system of 200 A deepwell interfaces with approximately 4” (10.16 cm) center to center spacing between them. See Table 2, Item 1 for approximate dimensions.

b. 6-Way Model, 5-200 A & 1-600 A (Appendix 2):

Shall be a six (6) way system with five (5) deepwell interfaces of 200 A and one (1) bushing interface of 600 A. The spacing between them shall be approximately 4” (10.16 cm) center to center. See Table 2, Item 2 for approximate dimensions.

c. 4-Way Model, 600 A (Appendix 3):

Shall be a four (4) way system of 600 A bushing interfaces with approximately 4” (10.16 cm) spacing center to center between them. See Table 2, Item 3 for approximate dimensions.

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/materials were found later to be defective.

11. Proposal Information

11.1. Submitted proposals must include:

- a. Technical information, tests, and drawings.
- b. Table of Compliance completed by the bidder with reference (see Appendix 5).



12. Table 2: Warehouse and Asset Suite Identification Number

Item	Warehouse Catalog #	Asset Suite #	Approximate Dimensions			Compatible Manufacturer & Model
			Overall Length (A)	Overall Interface Length (B)	Mounting Hole Spacing (C)	
4-way (200A)	038-00638	5496	24" (61.0 cm)	15-1/2" (39.4 cm)	10" (25.4 cm)	Elastimold (J4-2222-15-TMA) EATON (LJ215C4B)
6-way (5-200A & 1-600A)	038-01032	55171	31" (78.7 cm)	23-1/2" (59.7 cm)	9-3/8" (23.8 cm)	Elastimold (J6-222226-15-TMA)
4-way (600A)	038-84786	84786	24" (61.0 cm)	15-1/2" (39.4 cm)	10" (25.4 cm)	Elastimold (J4-6666-15-TMA)

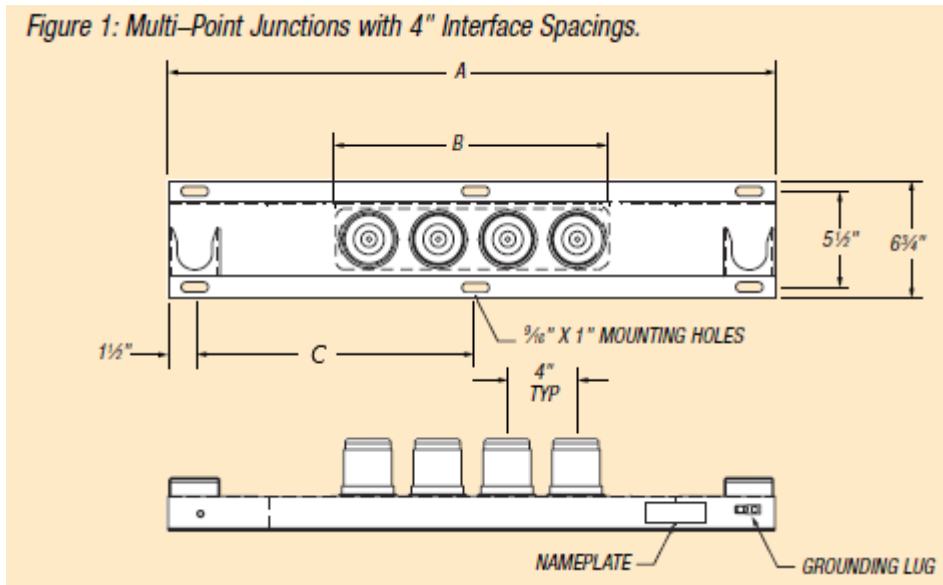
— End of Specification —



Appendix

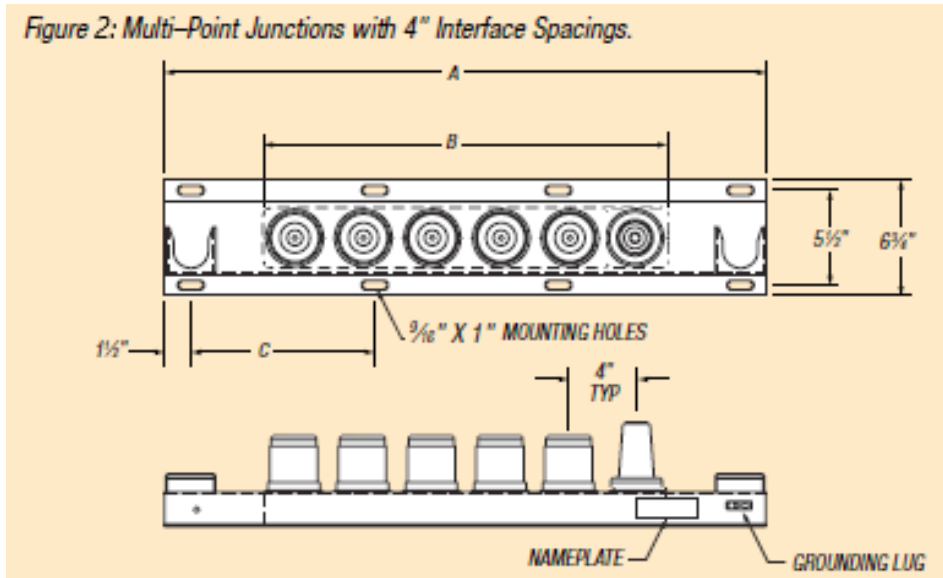
Appendix 1: 4-Way, 200 A

Figure 1: Multi-Point Junctions with 4" Interface Spacings.



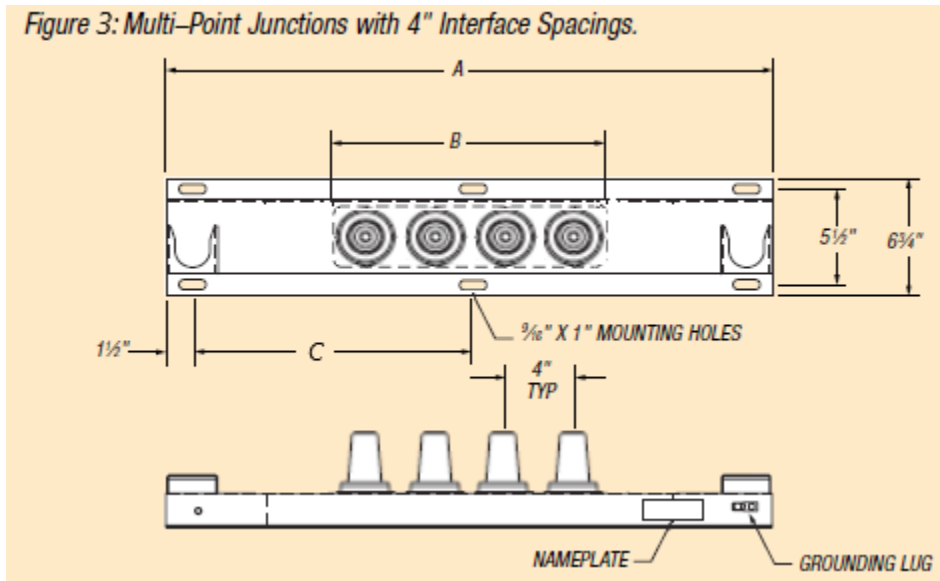
Appendix 2: 6-Way, 5-200 A & 1-600 A

Figure 2: Multi-Point Junctions with 4" Interface Spacings.

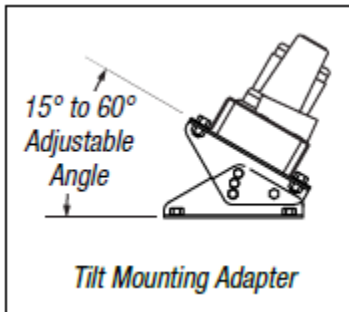


Appendix 3: 4-Way, 600 A

Figure 3: Multi-Point Junctions with 4" Interface Spacings.



Appendix 4: Tilt Mounting Adapter





Appendix 5: Table of Compliance

Line	Description	Pass/Fail (P / F)	Comments
1	Complies with the specification document 4350.180.		
2	Industry Standards: IEEE 386		
3	Tech. info. and drawings provided.		
4	Stainless-Steel 304 or 316.		
5	Current Path in Copper or Copper Alloy.		
6	Standard Interface at approx. 4" spacing center to center.		
7	Compatible with submersible elbow connectors and other accessories complying with IEEE 386.		
8	Adjustable Stainless-Steel Bracket included (Appendix 4).		
9	Grounding Lug for 2 to 1/0 AWG stranded wire.		
10	Parking Stands included at both ends.		
11	Electrical requirements as per Table 1.		
12	Approx. dimensions as per Table 2: <ul style="list-style-type: none">• Appendix 1 for 4-Way, 200A Model.• Appendix 2 for 6-Way, 1-600A & 5-200A Model.• Appendix 3 for 4-Way, 600A Model.		
13	038- 00638: 4-Way system with 4 Deepwell Interfaces of 200 A.		
14	038-01032: 6-Way system with 1 Bushing Interface of 600 A and 5 Deepwell Interfaces of 200 A.		
15	038-84786: 4-Way system with 4 Bushing Interfaces of 600 A.		

NOTE: This table is only a checklist for reference. The compliance must be with the complete document. Filling out the table with "PASS" won't be accepted as a compliance without the technical information required to certify it.










4350.180 Primary Loadbreak Junction, 4-Way & 6-Way (10-7-24)

Final Audit Report

2024-10-07

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