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Document Title:

Bay-O-Net Fuse Links for PM Transformers

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Related/Referenced Documents

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Version History

Version	Date	Revision
01	May 20, 2025	PREPA to LUMA format for Items 010-7889, 010-07897, 010-07905, 010-07913, and 010-07921.

Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
010-07913	55283	2	05/20/2025
010-07921	55284	2	05/20/2025
010-07905	55282	2	05/20/2025
010-07897	55281	2	05/20/2025
010-07889	55280	2	05/20/2025

1. Introduction

This is a general specification that covers the minimum requirements for Bay-O-Net Fuse Links for PM Transformers 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 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 manufacturer and model see Table 1. 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's purchase order and item number.

5.2. Individual package(s) shall be clearly marked with manufacturer name and item information (part number, serial number, quantity, etc.).

5.3. Packaging labels and tags shall be waterproof.

6. Packaging

6.1. 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.

6.2. A list of all parts included in the container and/or package must be provided at the time of delivery so the receiving personnel can verify that everything requested is present, avoiding any delay in the receiving process.

7. Number Per Package (Logistics)

Standard package: One hundred (100) per box or as requested by LUMA.

8. Acceptance Criteria

8.1. Test required: certified by external qualified 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. ANSI/IEEE C37.41: Service conditions and definitions for high-voltage fuses (above 1000 V), distribution enclosed single-pole air switches, fuse disconnecting switches, and accessories.

8.4. If any other standard different from the ones indicated in this document is used, the supplier must provide information showing compatibility with the required ones.

9. Description

9.1. Pad mounted transformer removable fuse link for protection against excessive overload, secondary faults, and transformer faults.

9.2. Shall be suitable for Bay-O-Net type fuses.

9.3. Shall be dual-load sensing to protect against faults and transformer fluid temperatures.

9.4. Shall be designed in accordance with the minimum melting time-current curve 1557B and maximum clearing T-C curve 1558B characteristics (Eaton Cooper Power series).

9.5. The body shall be constructed in such a way to provide track-free bore to withstand full-rated voltage after fuse operation.

9.6. The contacts shall be silver plated brass.

9.7. The fuse element shall be corrosion resistant.

9.8. Electrical Characteristics:

a. Voltage Class: 2.4 to 15 kV (see Appendix 2 for specific use).

b. Current Rating: As per Table 1.

9.9. The current rating shall be stamped in a visible place.

10. Inspection

10.1. Upon inspection of incoming equipment/material, the purchaser reserves the right to refuse product shipments and to determine the acceptability or rejection of the product received. The supplier shall be liable for all costs incurred for a product that is rejected.

10.2. 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, drawings, and tests.

b. Table of Compliance completed by the bidder with reference (see Appendix 1).

12. Table 1: Warehouse and Asset Suite Identification Number

Warehouse Catalog #	Asset Suite #	Current Rating (A)	Usage based on 1Ø and 3Ø PM XFMR Capacity (kVA) and High Voltage (kV)	Compatible Manufacturer (Model)
010-07913	55283	8	See Appendix 2 Table A-5 for 1Ø XFMR Table A-6 for 3Ø XFMR	EATON (4000358C05M) *
010-07921	55284	15		EATON (4000358C08M) *
010-07905	55282	25		EATON (4000358C10M) *
010-07897	55281	50		EATON (4000358C12M) *
010-07889	55280	65		EATON (4000358C14M) *

* **M** at the end of the model number means packages of 50 units per bag coming from factory.

—End of Specification —

Appendix

Appendix 1: Table of Compliance

Line	Description	Pass/Fail	Comments
1	Complies with document 4350.356.		
2	Industry Standards: ANSI C37.41		
3	Tech. info., drawings, and tests provided.		
4	Bay-O-Net type fuse link		
5	Dual Load Sensing		
6	As per 1557B and 1558B TC protective curves (EATON).		
7	Track-Free Bore Body		
8	Silver Plated Brass Contacts		
9	Corrosion Resistant Fuse Element		
10	Voltage Class: 2.4 to 15 kV		
11	Current Rating as per Table 1.		
12	Current rating stamped in a visible place.		

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.

Appendix 2: Usage based on 1Ø and 3Ø PM XFMR Capacity (kVA) and High Voltage (kV)

Table A-5. Bayonet Fuse Link Sizes for Single-Phase Compartmental (URD/Pad-mounted) Transformers

Bayonet Fuse Link Sizes for Single Phase Transformers				
Transformer Nameplate KVA	Nominal Voltage Across Transformer Windings			
	2,400	4,160	4,800	7,620
	FUSE SIZE			
25	25	15	15	8
37.5	50	25	15	15
50	50	25	25	15
75	65	50	50	25
100	65	50	50	25
167	140	65	65	50

Table A-6. Bayonet Fuse Link Sizes for Three-Phase Compartmental (URD/Pad-mounted) Delta Connected Transformers

Bayonet Fuse Link Sizes for Three Phase Transformers				
Transformer KVA	Nominal Voltage Across Transformer Windings			
	4,160	4,800	8,320	13,200
	FUSE SIZE			
75	25	25	15	8
112.5	50	25	15	15
150	50	50	25	15
225	65	65	50	25
300	65	65	50	25
500	140	140	65	50
750	140	140	140	65
1000			140	65

4350.356 Fuse Links for PM Transformers (5-20-25)

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