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NX Indoor Current Limiting Hinge Style Fuse

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Related/Referenced Documents

N/A

Version History

Version	Date	Revision Comments
1	Dec. 21, 2021	Initial Release
2	Jul. 07, 2022	Table of compliance created.
3	Jul. 16, 2024	Format corrections, TOC update, Section 4 modified, and sections order rearranged.



Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
010-06451	56058	5	7/16/2024
010-06113	56041	5	7/16/2024
010-06121	56042	5	7/16/2024
010-06139	56043	5	7/16/2024
010-06154	56045	5	7/16/2024
010-06147	56044	5	7/16/2024
010-07707	54984	6	7/16/2024
010-06964	55958	5	7/16/2024
010-06972	55959	5	7/16/2024
010-06980	55960	5	7/16/2024
010-06998	55961	5	7/16/2024
010-07004	55962	5	7/16/2024
010-07012	55963	5	7/16/2024
010-07020	55964	4	7/16/2024
010-07038	55965	5	7/16/2024



1. Introduction

This specification describes the minimum requirements for the NX indoor current limiting hinge-style fuse 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 the LUMA's general warehouse (011) at Palo Seco, Puerto Rico. Shipping will include transportation and unloading at the indicated warehouse.

3. Literature

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. If required by LUMA, final drawings shall be submitted by the vendor before the manufacturing and shipping process for approval.

4. Compatible with

For compatible manufacturers and models see Table 1, Table 2, Table 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.

5. Markings

- 5.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 5.2. Each fuse shall be marked with voltage & ampere ratings, and type as minimum.
- 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 requested by LUMA Energy.

8. Acceptance Criteria

- 8.1. Test required: certified by 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 C37.42-2016 - Specifications for high voltage (above 1000 volts) Class A and Class B expulsion and current-limiting fuses.
- 8.4. If any other standard 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 NX current limiting fuse provide overload protection for indoor and underground cables distribution system.
- 9.2. The NX hinge-style fuses shall be designed to fit industry standard mountings.
- 9.3. The fuse must have a load break device.
- 9.4. Must have a blown fuse indicator button.
- 9.5. Must be capable of interrupting all current magnitudes positively and safely by opening the fuse with a switch disconnect stick.
- 9.6. Must be noiseless and expel no hot gases or burning particles while interrupting currents from minimum melt to maximum fuse rating.
- 9.7. Each fuse must be marked with its mounting code number. The mounting code number defines the mounting's insulation level, contact spacing and contact type. The mounting code number of the fuse and the mount must be the same.
- 9.8. Fuse tube diameter shall be 2 in (5.08 cm).
- 9.9. Maximum Interrupting Current (symmetrical) must be at least 50,000 A.
- 9.10. For models and ratings see Table 1, Table 2, Table 3 in Section 12.



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 1).

12. Table 1: Warehouse and Asset Suite Identification Number

12.1. Table 1:

Description:		NX Indoor Current Limiting Fuse		
Voltage Rating:		5.5 KV		
Time Current Characteristic Curves:		R240-91-31		
Warehouse Catalog #	Asset Suite #	Continuous Current Rating (A)	Suggested Manufacturer	Model
010-06451	56058	40	Copper Power System	FA2A40

12.2. Table 2

Description:		NX Indoor Current Limiting Fuse		
Voltage Rating:		8.3 KV		
Time Current Characteristic Curves:		R240-91-32		
Warehouse Catalog #	Asset Suite #	Continuous Current Rating (A)	Suggested Manufacturer	Model
010-06113	56041	8	Copper Power System	FA3A8
010-06121	56042	10	Copper Power System	FA3A10
010-06139	56043	12	Copper Power System	FA3A12
010-06154	56045	25	Copper Power System	FA3A25
010-06147	56044	18	Copper Power System	FA3A18
010-07707	54984	40	Copper Power System	FA3A40



12.3. Table 3

Description:		NX Indoor Current Limiting Fuse		
Voltage Rating:		15.5 KV		
Time Current Characteristic Curves:		R240-91-33		
Warehouse Catalog #	Asset Suite #	Continuous Current Rating (A)	Suggested Manufacturer	Model
010-06964	55958	8	Copper Power System	FA4A8
010-06972	55959	10	Copper Power System	FA4A10
010-06980	55960	12	Copper Power System	FA4A12
010-06998	55961	18	Copper Power System	FA4A18
010-07004	55962	20	Copper Power System	FA4A20
010-07012	55963	25	Copper Power System	FA4A25
010-07020	55964	30	Copper Power System	FA4A30
010-07038	55965	40	Copper Power System	FA4A40

— End of Specification —



Appendix



Appendix 1: Table of Compliance

Line	Criteria	Description	Pass/Fail (P / F)	Comments
1	Specification	The Proponent complies with the corresponding specification document (4350.140).		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document.		
3	Fuse Type	<ul style="list-style-type: none">• NX hinge-style		
4	Product Requirement	<ul style="list-style-type: none">• Operating Voltage and Ampacity as tables 1, 2, and 3• Must have a load break device.• Must have a blown fuse indicator button.• Marked as section 9.7.• Maximum Interrupter Current (symmetrical): 50,000 A		
5	Operating Voltage & Amp Rating	See tables 1, 2, and 3 on section 12.		

NOTE: This table is only a check list for reference. The compliance shall be with the complete document. Marking a PASS in the table won't be accepted as a compliance without the technical information required to certify it.











4350.140 NX Fuses (7-16-24)

Final Audit Report

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