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Document Title:
PVC SCH 80 Conduit & Fittings

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Related/Referenced Documents

N/A

Version History

Version	Date	Revision
01	Sep. 12, 2022	Initial Release.
02	Jun. 12, 2023	Addition of item 038-84893.
03	Jan. 16, 2024	General format modifications. Document changed as shared between T&D for item 038-83317.
04	May, 13, 2025	General format revision. Reconciled document 4802.402, items 038-84046 and 038-83970 were added from doc. 4802.402. Shared document with Substation Engineering and Transmission.

Warehouse Catalog #	Asset Suite #	Version	Date
038-84893	84893	3	05/13/2025
038-84046	84046	2	05/13/2025
038-83970	83970	2	05/13/2025
038-83314	83314	3	05/13/2025
038-83315	83315	3	05/13/2025
038-83316	83316	3	05/13/2025
038-83317	83317	3	05/13/2025

1. Introduction

This is a general specification that covers the minimum requirements for PVC conduits and fittings schedule 80 to be used in the distribution and transmission 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 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 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 that the receiving personnel can verify that everything requested is present, avoiding any delay in the receiving process.

7. Number Per Package (Logistics)

Standard unit of purchase is 1 conduit (equivalent to 10' of conduit) 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. NEMA TC-2: Electrical Polyvinyl Chloride (PVC) Conduit

b. NEMA TC-3: Polyvinyl Chloride (PVC) Fittings for Use with Rigid PVC Conduit and Tubing.

c. UL 651: Schedule 40 and 80 Rigid PVC Conduit and Fittings

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. PVC SCH 80, 10 ft. Conduits

a. PVC conduits (SCH or EPC 80) for heavy-duty underground, aboveground, concrete-encased, or direct burial applications in the distribution system.

b. The conduit must be PVC schedule 80 (EPC 80) conforming NEMA TC-2.

c. Shall comply with the following:

1. Material: Polyvinyl Chloride (PVC).
2. Material color: Gray.
3. Shall be corrosion, rust, and sunlight resistant.
4. Shall have one belled end.
5. Shall be suitable for cables up to 194°F (90°C) operating temperature.
6. Shall be suitable to be used on temperatures up to 122°F (50°C).
7. Each conduit shall be 10' (3.05 m) long.

9.2. Table 1: PVC Conduit Dimensions and Warehouse Identification

Warehouse Catalog	Asset Suite	Conduit Size	Approximate OD	Compatible Manufacturer and Model
038-84893	84893	3/4" (1.90 cm)	1.050" (2.67 cm)	Cantex (A53AG12) Prime Conduit (49407-010)
038-84046	84046	1" (2.54 cm)	1.315" (3.34 cm)	Cantex (A53BA12) Prime Conduit (49408-010)
038-83970	83970	1-1/2" (3.81 cm)	1.90" (4.83 cm)	Cantex (A53BE12) Prime Conduit (49410-010)
038-83314	83314	2" (5.08 cm)	2.375" (6.03 cm)	Cantex (A53CA12) Prime Conduit (49411-010)
038-83315	83315	3" (7.62 cm)	3.5" (8.89 cm)	Cantex (A53DA12) Prime Conduit (49413-010)
038-83316	83316	4" (10.16 cm)	4.5" (11.43 cm)	Cantex (A53EA12) Prime Conduit (49415-010)
038-83317	83317	6" (15.24 cm)	6.625" (16.83 cm)	Cantex (A53GA12) Prime Conduit (49417-010)

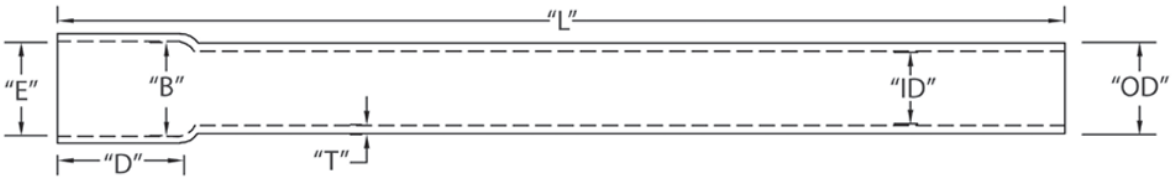

Figure 1: Conduit Dimension Schematic

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).

—End of Specification —

Appendix

Appendix 1: Table of Compliance

Line	Description	Pass/Fail	Comments
1	The Proponent complies with the corresponding specification document (4350.236).		
2	The Proponent complies with the industry standards established in the specification document (ASTM, UL).		
3	Outside Diameter: • Trade 3/4": 1.050” • Trade 1”: 1.213” • Trade 1-1/2”: 1.90” • Trade 2”: 2.375” • Trade 3”: 3.5” • Trade 4”: 4.5” • Trade 6”: 6.625”		
4	Length: 10’ for each conduit size.		
5	PVC SCH 80, resistant to corrosion and chemicals, nonconductive, and gray color.		
6	For use with cables rated up to 90°C.		

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.

4350.236 PVC SCH 80 Conduit & Fittings (05-13-2025)

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