



Document Title:
Ball Y-Clevis Connector 30,000 lbs

Document Type: Specification	Engineering Type Material Specification	Document No.: 4752.171
--	---	----------------------------------

Department: Transmission Engineering	Version: 02	Effective Date: Nov 27, 2024
--	----------------	---------------------------------

For other, specify here


Shared document with: Select one

**Select the Departments impacted by the document (If apply)*

For other, specify here

Author

Guillermo J. Nieves Díaz
Technical Specialist 1, Transmission Engineering Design & Standards



Guillermo Nieves (Nov 25, 2024 10:18 AST)

Reviewer 1

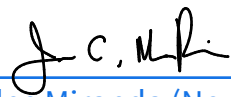
Leonardo Montes Sanchez
Engineer 2, Transmission Engineering Design & Standards



Leonardo Montes Sanchez (Nov 26, 2024 15:45 AST)

Reviewer 2


Juan C. Miranda Rivera
Manager, Transmission Lines Engineering Design



Juan Carlos Miranda (Nov 26, 2024 17:14 AST)

Approver

Yamil I. Rivera Hernández
Section Manager, Transmission Engineering Design



Yamil Rivera (Nov 27, 2024 08:15 AST)

Management Approval (If apply)

Approver

N/A

Signature and Date

Related/Referenced Documents

Include the applicable document, section, or reference "[add link here](#)".

Version	Date	Revision
00	Dec 28, 2021	
01	May 16, 2022	General revision for final approval
02	Nov 27, 2024	Changed cover page and document to new format. Modified contents of section 2, 4, and 7. Added table of compliance.

1. General

1.1. Overview

- 1.1.1. This is a general specification that covers the minimum requirements for a Clevis Connector for Suspension Strings, Forged-Steel Ball Y- to be used in the distribution and transmission system in Puerto Rico.
- 1.1.2. Further information will be provided by LUMA Energy at the time of order placement and will provide information on site conditions, quantity and other requirements.
- 1.1.3. This document includes the general electrical and mechanical characteristics of the material.

2. Acceptance Criteria

- 2.1. Latest applicable codes, standards, and other regulations: ANSI/ASTM A153.

3. Specific Name

- 3.1. Ball Y-Clevis Connector 30,000 lbs.

4. Specific Requirements

- 4.1.1. Samples shall be furnished to LUMA.
- 4.1.2. LUMA requires One (1) unit properly labeled for testing and analysis.
- 4.1.3. Descriptive and technical literature shall be supplied to LUMA.

5. Basic Use

- 5.1.1. For attaching suspension insulator strings to steel structures.

6. Description

- 6.1.1. Forged-Steel ball Y-Clevis connector for suspension strings.
- 6.1.2. Clevis connector shall be made from drop-forged steel with an ultimate strength of 30,000LBF minimum (133.45KN).
- 6.1.3. Shall be hot-dip galvanized in accordance with ANSI/ASTM A153.
- 6.1.4. Ball Y-Clevis shall fit ball and socket insulators ANSI classes 52-5 and 52-3 per ANSI Spec. C-29.2.-71
- 6.1.5. Metric conversion as per latest ASTM.

7. Markings and Packaging

- 7.1. Containers/pallets or package shall be marked outside with LUMA'S purchase order number and code number.
- 7.2. All material and equipment 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.
- 7.3. Twenty-five (25) units per box, or as requested by LUMA

8. Compatible with

- 8.1. Anderson Electric catalog No. YBC-30 or Bethea YCB-65.
- 8.2. These models are an example 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.

9. Proposal Information

- 9.1. Submitted proposals must include:
 - a. Technical Information
 - b. Table of Compliance completed by the bidder with reference

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.

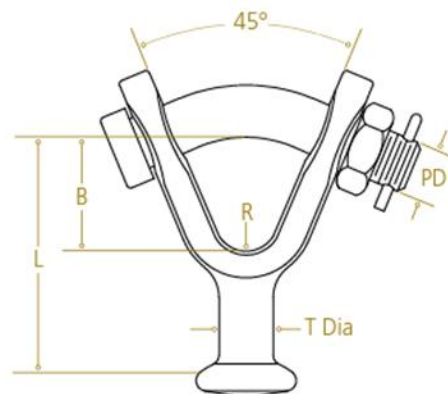
11. Drawings

Table 1: Measurements

L MIN.	B MIN.	T Dia	R MIN.	PD
3 ³ / ₃₂ "	1 ¹ / ₂ "	²³ / ₃₂ "	0.406"	³ / ₄ "

Warehouse ID	002-12985
--------------	-----------

— 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 (4752.171)		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document (ANSI, ASTM)		
3	Material	Ball Y-Clevis Connector 30,000 lbs. <ul style="list-style-type: none"> • Shall be made from drop-forged steel with an ultimate strength of 30,000 LBF minimum (133.45KN) • Shall be hot-dip galvanized in accordance with ANSI/ASTM A153 		
4	Dimensions	Complies with Table 1		
5	Requirements	<ul style="list-style-type: none"> • Samples shall be furnished to LUMA. • LUMA requires One (1) unit properly labeled for testing and analysis. • They shall be required to show evidence of LUMA's approval of the equipment. 		












4752.171 - Ball Y-Clevis Connector 30,000 lbs

Final Audit Report

2024-11-27

Created:	2024-11-25
By:	Guillermo Nieves (guillermoj.nievesdia@lumapr.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAvNpX0w_5dzXu0efxew_e4cdRlpYDBHwW

"4752.171 - Ball Y-Clevis Connector 30,000 lbs" History

-  Document created by Guillermo Nieves (guillermoj.nievesdia@lumapr.com)
2024-11-25 - 2:17:12 PM GMT
-  Document e-signed by Guillermo Nieves (guillermoj.nievesdia@lumapr.com)
Signature Date: 2024-11-25 - 2:18:36 PM GMT - Time Source: server
-  Document emailed to Leonardo Montes Sanchez (leonardo.montessanch@lumapr.com) for signature
2024-11-25 - 2:18:37 PM GMT
-  Document e-signed by Leonardo Montes Sanchez (leonardo.montessanch@lumapr.com)
Signature Date: 2024-11-26 - 7:45:05 PM GMT - Time Source: server- Signature captured from device with phone number XXXXXXXX5488
-  Document emailed to Juan Carlos Miranda (juanc.miranda@lumapr.com) for signature
2024-11-26 - 7:45:06 PM GMT
-  Email viewed by Juan Carlos Miranda (juanc.miranda@lumapr.com)
2024-11-26 - 8:58:44 PM GMT
-  Document e-signed by Juan Carlos Miranda (juanc.miranda@lumapr.com)
Signature Date: 2024-11-26 - 9:14:56 PM GMT - Time Source: server
-  Document emailed to Yamil Rivera (yamil.rivera@lumapr.com) for signature
2024-11-26 - 9:14:58 PM GMT
-  Email viewed by Yamil Rivera (yamil.rivera@lumapr.com)
2024-11-27 - 12:15:50 PM GMT
-  Document e-signed by Yamil Rivera (yamil.rivera@lumapr.com)
Signature Date: 2024-11-27 - 12:15:59 PM GMT - Time Source: server
-  Agreement completed.
2024-11-27 - 12:15:59 PM GMT