



Document Title:

Hex Head Bolt, Stainless Steel, 3/4"

Document Type:

Material Specifications

Document No.:

4350.306

Department:

Distribution Standards & Materials

Effective Date:

Mar 24, 2023

Author

Miguel J. Rios López, PE
General Engineer, Distribution Standards & Materials

Signature and Date

Mar 24, 2023

Reviewer

Rafael Torres Martinez PE
Supervisor, Distribution Standards & Materials

Signature and Date

Mar 24, 2023

Approver

Ricardo Castro PE
Manager, Distribution Standards & Materials

Signature and Date

Mar 24, 2023

Document History

Date	Revision Comments
Mar. 24, 2023	Initial Release

Warehouse Catalog	Item Version	Date
002-84534	1	03/24/2023
002-84535	1	03/24/2023



Equipment Specification
Document No.: 4350.306
Originating Department: Distribution Engineering



Hex Head Bolt, Stainless Steel, 3/4"

1. Introduction

This is a general specification that covers the minimum requirements for stainless steel hex head bolts 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 mechanical characteristics of the material.

2. Special Requirements

Samples shall be furnished as requested by LUMA Energy. Vendors that have supplied this material to LUMA on previous orders, will not have to furnish samples at bid opening. The 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. Quantity/Literature

Descriptive and technical literature must be supplied by 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. For products described in this specification as requiring qualification, awards will be made only for such products that, prior to the time for opening of bids, had been tested and/or approved by LUMA. Evidence of LUMA Energy's approval of the equipment or material shall be supplied by vendor if requested by LUMA Energy.

4. Markings

- 4.1. Containers shall be marked outside with LUMA Energy's purchase order and item number.
- 4.2. Packaging labels and tags shall be waterproof.

5. Equal or Approved Equal to

For suggested manufacturer and model, see Table 1.

6. Packaging

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.



Equipment Specification

Document No.: 4350.306

Originating Department: Distribution Engineering

Hex Head Bolt, Stainless Steel, 3/4"

7. Number Per Package (Logistics)

Standard package: 100 bolts per package or as requested by LUMA Energy.

8. Acceptance Criteria

8.1. Test required: certified by external laboratories.

8.2. Latest applicable codes, standards, and other regulations:

- a. ASME B18.2.1: Standard for general and dimensional data for inch series threaded rods.
- b. ASME B1.1: Standard for the thread form, series, class, allowance, tolerance, and designation for unified screw threads.
- c. ASTM F593: Standard specification for stainless steel bolts, hex cap screws, and studs.
- d. ASTM A380/A380M: Standard practice for cleaning, descaling, and passivation of stainless-steel parts, equipment, and systems.

9. Description

9.1. These hexagonal head bolts will be used primary with the 24" base adapter (4350.302) for the installation of pole capacitors banks and regulators heavy duty platforms. Could be used for general purpose on mechanical connections.

9.2. Head with six-sided tops without indentation.

9.3. Material: Stainless Steel 316

9.4. Dimensions

- a. Diameter: 3/4" (1.91 cm)
- b. Length: as per Table 1
- c. Minimum Thread Length: as per Table 1
- d. Thread Count: 10 TPI
- e. Head Height: 1/2" (1.27 cm) approximately
- f. Head Width across the flats: 1-1/8" (2.86 cm)

9.5. Minimum Tensile Strength: 18,350 lbs. (8,323 kg)



Hex Head Bolt, Stainless Steel, 3/4"

10. Inspection

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 would not prevent subsequent rejection if such materials were found later to be defective.

11. Proposal Information

11.1. Submitted proposals must include:

- a. Technical information
- 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 #	Diameter and Thread Size	Length	Minimum Thread Length	Approximate Weight / 100 pcs	Suggested Manufacturer & Model
002-84534	84534	3/4" - 10 TPI	2-1/2" (6.35 cm)	2-1/8" (5.40 cm)	58 lbs. (26.31 g)	Coastal Line Products - (60675024) Bolt Depot - (16244)
002-84535	84535	3/4" - 10 TPI	3" (7.62 cm)	1-3/4" (4.44 cm)	65 lbs. (29.48 g)	Coastal Line Products - (60676030) Bolt Depot - (16246)

— End of Specification —



Equipment Specification

Document No.: 4350.306

Originating Department: Distribution Engineering

Hex Head Bolt, Stainless Steel, 3/4"

Appendix



Equipment Specification
Document No.: 4350.306
Originating Department: Distribution Engineering

Hex Head Bolt, Stainless Steel, 3/4"

Appendix 1: Table of Compliance

Line	Criteria	Description	Pass/Fail (P/F)	Comments
1	Specification	The Proponent complies with the corresponding specification document 4350.306		
2	Industry Standards	The Proponent complies with the industry standards established in the specification document. (ASTM, ASME)		
3	Type	Hex Bolt		
4	Material	Stainless Steel 316		
5	Length	<ul style="list-style-type: none">• 002-84534: 2-1/2"• 002-84535: 3"		
6	Thread Min. Length	<ul style="list-style-type: none">• 002-84534: 2-1/8"• 002-84535: 1-3/4"		
7	Diameter	3/4"		
8	Head Dimensions	<ul style="list-style-type: none">• Height: 1/2" approximately• Width across the flats: 1-1/8"		
9	Threads per inch	10 TPI		
10	Tensile Strength	18,350 lbs. minimum		
11	Product Requirement	Head with six-sided tops without indentation.		











4350.306 Hex Head Bolt, SS, 3-4in (3-24-23)

Final Audit Report

2023-03-24

Created:	2023-03-24
By:	Miguel Rios (miguel.rioslopez@lumapr.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAALQ7_0cThEMBu1VPdjwiSvGt5iyUbZlAr

"4350.306 Hex Head Bolt, SS, 3-4in (3-24-23)" History

-  Document created by Miguel Rios (miguel.rioslopez@lumapr.com)
2023-03-24 - 5:41:55 PM GMT
-  Document e-signed by Miguel Rios (miguel.rioslopez@lumapr.com)
Signature Date: 2023-03-24 - 5:47:08 PM GMT - Time Source: server
-  Document emailed to Rafael Torres-Martinez (rafael.torresm@lumapr.com) for signature
2023-03-24 - 5:47:09 PM GMT
-  Email viewed by Rafael Torres-Martinez (rafael.torresm@lumapr.com)
2023-03-24 - 5:49:28 PM GMT
-  Document e-signed by Rafael Torres-Martinez (rafael.torresm@lumapr.com)
Signature Date: 2023-03-24 - 5:50:01 PM GMT - Time Source: server
-  Document emailed to ricardo.castro@lumapr.com for signature
2023-03-24 - 5:50:02 PM GMT
-  Email viewed by ricardo.castro@lumapr.com
2023-03-24 - 6:34:39 PM GMT
-  Signer ricardo.castro@lumapr.com entered name at signing as Ricardo Castro Gómez
2023-03-24 - 6:35:19 PM GMT
-  Document e-signed by Ricardo Castro Gómez (ricardo.castro@lumapr.com)
Signature Date: 2023-03-24 - 6:35:21 PM GMT - Time Source: server
-  Agreement completed.
2023-03-24 - 6:35:21 PM GMT

Names and email addresses are entered into the Acrobat Sign service by Acrobat Sign users and are unverified unless otherwise noted.