



Document Title:
Flat Square Washer, Stainless-Steel or Thermal Diffusion Galvanized (TDG)

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Department
Distribution

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Related/Referenced Documents

N/A

Version History

Version	Date	Revision Comments
1	Jul. 14, 2022	Initial Release.
2	Jul. 02, 2024	Format corrections, Section 4 modified, and sections order rearranged.
3	Jul. 17, 2024	Engineers license number was added



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Item Version History

Warehouse Catalog #	Asset Suite #	Version	Date
002-13702	57703	6	7/17/2024
002-82660	82660	5	7/17/2024
002-82661	82661	5	7/17/2024
002-82662	82662	5	7/17/2024



1. Introduction

This is a general specification that covers the minimum requirements for square washers 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 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 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. 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)

Standard Package: See Table 1 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. ASME B18.2.2 - Standard for the complete general and dimensional data for the various types of inch series square and hex nuts, including machine screw nuts and coupling nuts.
 - b. ASTM A276/A276M: Standard specification for stainless steel bars and shapes.
 - c. ASTM A380/A380M: Standard practice for cleaning, descaling, and passivation of stainless-steel parts, equipment, and systems.
 - d. ASTM A29/A29M-16: Standard specification for general requirements for steel bars, carbon, and alloy hot-wrought.
 - e. ASTM A1059: Standard specification for zinc alloy thermo-diffusion coatings (TDC) on steel fasteners, hardware, and other products.
- 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. Stainless steel and thermal diffusion galvanized square washers are used in highly corrosive environments in conjunction with machine, double arming, and eye bolts on poles and arms.
- 9.2. Material must be 304 or 316 stainless steel conforming to ASTM A240/A240M, or thermal diffusing galvanized low carbon steel conforming to ASTM A29/A29M and ASTM A-1059.
- 9.3. For sizes (length X width X thickness) and hole diameter see Table 1.

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

12. Table 1: Warehouse and Asset Suite Identification Number

Item	Hole	Warehouse Catalog #	Asset Suite #	Package lbs. per 100 pcs. Approximate	Compatible Manufacturer & Model
2-1/4" x 2-1/4" x 3/16" (5.7 x 5.7 x 0.5 cm)	11/16" (1.7 cm)	002-13702	57703	23 (10.4 kg)	<u>Stainless Steel</u> Coastal Line Products, Catalog # 60661003 <u>Thermal Diffusion</u> MacLean (J1075T) Hubbell (6813TDG)
2-1/4" x 2-1/4" x 3/16" (5.7 x 5.7 x 0.5 cm)	13/16" (2.1 cm)	002-82660	82660	23 (10.4 kg)	<u>Stainless Steel</u> Coastal Line Products, Catalog # 60661004 <u>Thermal Diffusion</u> MacLean (J1076T) Hubbell (6814TDG)
4" x 4" x (3/16" or 1/4") (10.2 x 10.2 x 0.5 or 0.6 cm)	11/16" (1.7 cm)	002-82661	82661	75 (34.0 kg)	<u>Stainless Steel</u> Coastal Line Products, - <u>Thermal Diffusion</u> MacLean - Hubbell -
4" x 4" x (3/16" or 1/4") (10.2 x 10.2 x 0.5 or 0.6 cm)	7/8" or 13/16" (2.2 or 2.1 cm)	002-82662	82662	75 (34.0 kg)	<u>Stainless Steel</u> Coastal Line Products, Catalog # 60661005 <u>Thermal Diffusion</u> MacLean - Hubbell (6818TDG)

— End of Specification —



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Appendix



Appendix 1: Table of Compliance

Line	Description	Pass/Fail (P / F)	Comments
1	The Proponent complies with the corresponding specification document (4350.121).		
2	The Proponent complies with the industry standards established in the specification document (ANSI/IEEE).		
3	Tech. info., tests & drawings provided.		
4	Shape Type		
5	304 or 316 Stainless Steel or Thermal Diffusing Galvanized as per Section 9.2.		
6	Measurements as per Table 1.		

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.












4350.121 Flat Square Washers (July 2024)

Final Audit Report

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