

Evaluation Report

QBase Series Solar Support System

Manufacturer:
Quick Mount PV

for

Florida Product Approval

FL 29846.2

Florida Building Code 6th Edition (2017)

Per Rule 61G20-3

Method: 2 - B

Category: Structural Components

Sub - Category: Anchors

Product: *Quick Mount PV QBase Series*

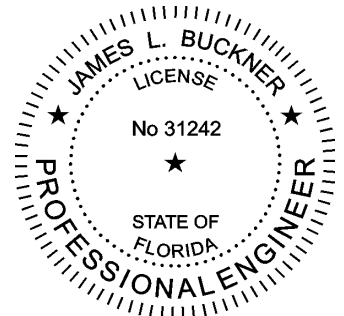
Type: **PV Anchor System**

Prepared by:

James L. Buckner, P.E., SECB
Florida Professional Engineer # 31242
Florida Evaluation ANE ID: 1916
Report No. 19-139-02-QB-ER
Date: 6 / 20 / 19

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Facsimile of digital copy signed by
James L. Buckner, P.E.
Electronically signed and sealed documents shall
comply with the provisions of FAC Rule 61G15-23.



A handwritten signature in blue ink, appearing to read "James L. Buckner".

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Manufacturer:	Quick Mount PV 2700 Mitchell Drive Walnut Creek, CA 94598
Product Name:	QBase Series Solar Support System
Product Category:	Structural Components
Product Sub-Category	Anchors
Compliance Method:	State Product Approval Rule 61G20-3.005 (1) (d)
Product Description:	Quick Mount PV developed QBase to provide a mounting solution for installations with high standoffs. The QBase has a cast aluminum foundation with four gussets to support standoff posts from 3.25 to 12 inches . The single base for all post heights reduces the number of components needed for a wide variety of roof types and installations.
Product Assembly as Evaluated:	General Assembly Description: Refer to Page 4 of this report for product assembly components/material & standards: <ul style="list-style-type: none">- Solar Panel System (Not part of evaluation)- PV mount system- Screws connecting- Roof Sheathing (Designed by others)
Support Type:	Type: 2X Wood Support 2X Wood Support (Design of wood supporting and its attachment to support wall/framing is outside the scope of this evaluation.) Description: Minimum Dimensions: 2x4 Material: Southern Yellow Pine (G=0.55 Minimum) Wood: Wood members with which the connectors are used shall be either sawn lumber or engineered lumber having a minimum specific gravity of 0.55 (minimum equivalent specific gravity of 0.55 for engineered lumber.

Performance: **Wind Uplift Resistance - Anchor Bracket Assembly to Dimensional Lumber**
*** F1 = 1,212 LBS** Allowable Uplift Load (2:1 Factor of Safety)

Wind Shear Resistance - Anchor Bracket Assembly to Dimensional Lumber

*** F2 = 687 LBS** Allowable Shear Load (2:1 Factor of Safety)

*** F3 = 950 LBS** Allowable Shear Load (2:1 Factor of Safety)

Performance Standards: The following test protocol was performed to demonstrate compliance with the intent of the code as this product does not specifically address the performance standard in the code.

- **Modified TAS 105 (2011)** – Test Procedure for Field Withdrawal Resistance Testing

Code Compliance: The product described herein has demonstrated compliance with the , Florida Building Code 6th Edition (2017), Section 1708.2

Evaluation Report Scope: This product evaluation is limited to compliance with the structural requirements of the Florida Building Code, as related to the scope section to Florida Product Approval Rule 61G20-3.001.

Limitations and Conditions of Use:

- Scope of “Limitations and Conditions of Use” for this evaluation:
This evaluation report for “Optional Statewide Approval” contains technical documentation, specifications and installation method(s) which include “Limitations and Conditions of Use” throughout the report in accordance with Rule 61G20-3.005. Per Rule 61G20-3.004, the Florida Building Commission is the authority to approve products under “Optional Statewide Approval”.
- Option for application outside “Limitations and Conditions of Use”
Rule 61G20-3.005(1)(e) allows engineering analysis for “project specific approval by the local authorities having jurisdiction in accordance with the alternate methods and materials authorized in the Code”. Any modification of the product as evaluated in this report and approved by the Florida Building Commission is outside the scope of this evaluation and will be the responsibility of others.
- Design of support system is outside the scope of this report.
- Fire Classification is outside the scope of Rule 61G20-3, and is therefore not included in this evaluation.
- This evaluation report does not evaluate the use of this product for use in the High Velocity Hurricane Zone code section. (Dade & Broward Counties)

Quality Assurance: The manufacturer has demonstrated compliance of roof panel products in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through **Keystone Certifications, Inc** (FBC Organization #: QUA 1824).

Components/Materials (As Evaluated):

QBase:
 Material: A360 Cast Aluminum
 Material Properties: In compliance with FBC Section 2002.1
 Dimensions:
 Base Outer Diameter: 4"
 Base Inner Diameter: 1.25"
 Base Height: 1.50"

Post:
 Material: 6063-T5 Aluminum
 Material Properties: In compliance with FBC Section 2002.1
 Dimensions:
 Post Outer Diameter: 1.25"
 Post Min Height: 3.25" Nominal
 Post Max Height: 12" Nominal

Fasteners:
 Base to Supporting Member:
 Type: Lag Bolt w/ Hex Head
 Material: Steel or Stainless Steel
 Corrosion: Zinc Coated or Stainless Steel
 Size: 5/16" Ø x 3"

Installation:

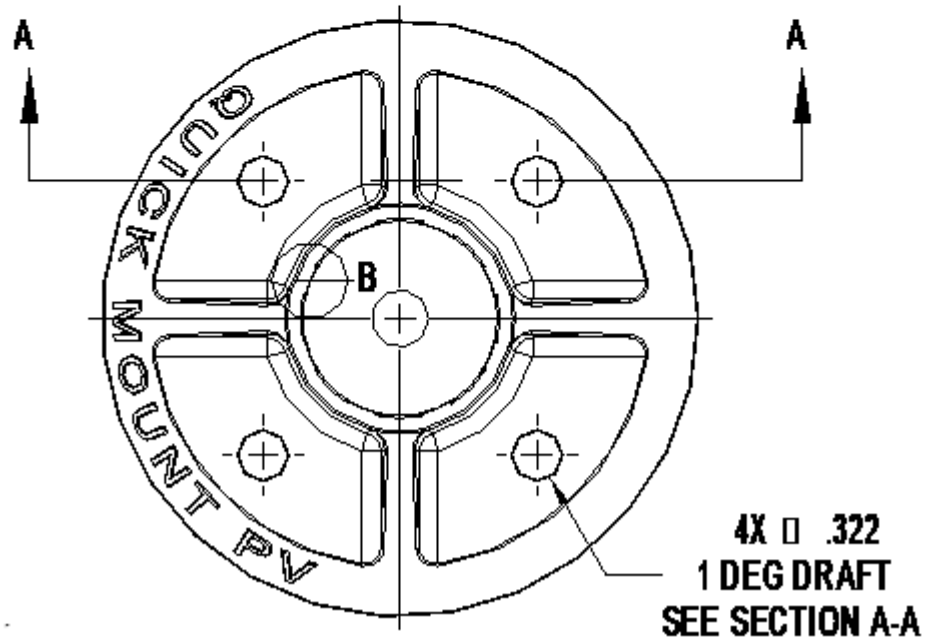
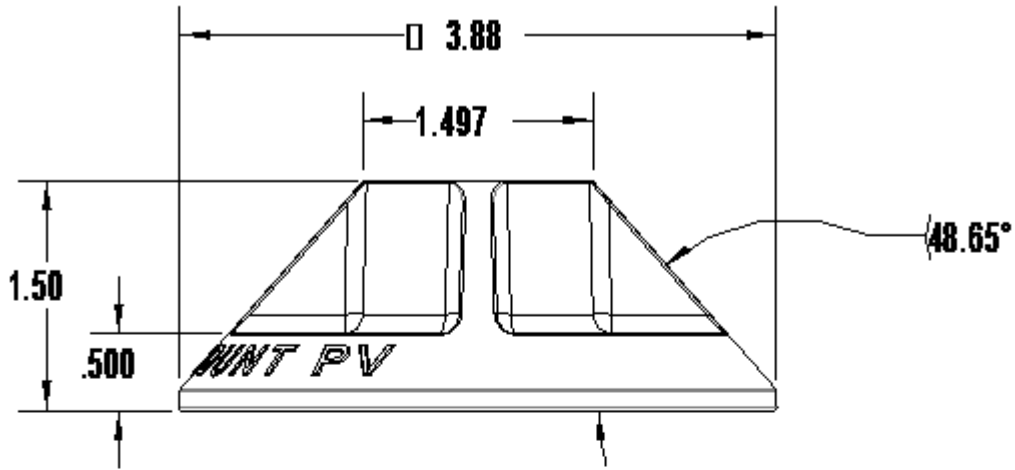
2x Supporting Member Bracket Attachment	
# Screws to 2x	(2) 5/16" Ø x 3" Hex Head zinc coated Lag Bolts
# Screws to 2x	(2) 5/16" Ø x 3" Hex Head 18-8 SS Lag Bolts

Fasteners, where used, shall be minimum length listed above.

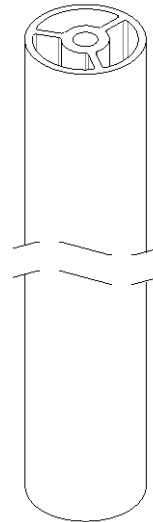
Install the QBase Series assembly in compliance with the installation method listed in this report and applicable code sections of FBC 6th Edition (2017). The installation method described herein is in accordance with the scope of this evaluation report. Refer to manufacturer's installation instructions as a supplemental guide for attachment.

Referenced Data:

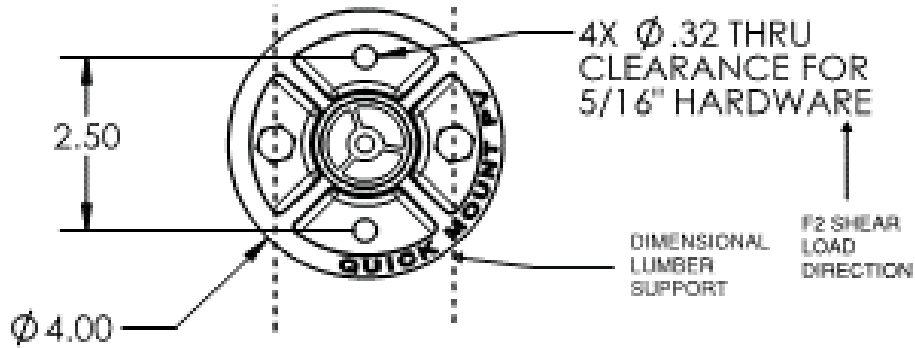
1. TAS 105-11 – Test Procedure for Field Withdrawal Resistance Testing
By Atlantic & Caribbean Roof Consulting (FBC Organization #TST ID: 4671)
File No. ACRC 19-0207 Date: 5/02/19
2. Quality Assurance
By Keystone Certifications, Inc (FBC Organization #QUA ID:1824)
3. Certification of Independence
By James L. Buckner, P.E. @ CBUGK Engineering
(FBC Organization # ANE 1916)



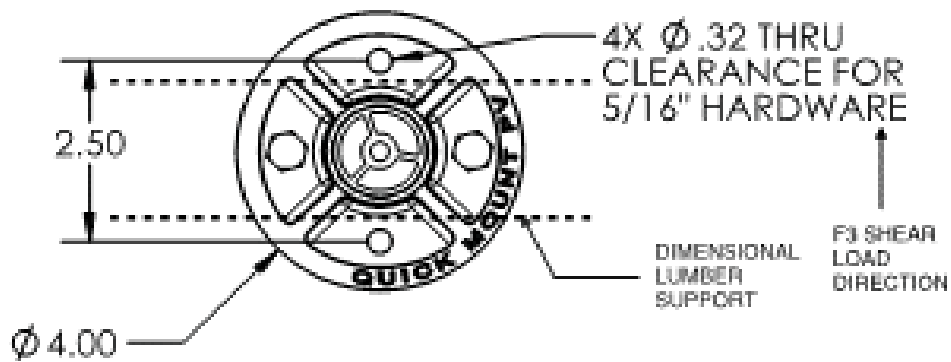
QBase VIEW



POST ISOMETRIC VIEW



F2 LOAD CONDITION



F3 LOAD CONDITION