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Vector Structural Engineering has reviewed the existing structure with loading from the solar array. The design of the racking system, connections, and all other structural is by others. Mechanical, architectural, and all other nonstructural aspects of the design are by others. Electrical is by others, unless stamped by Dean Levorsen.



Owner:
 JENNIFER EAD
 67 SENTER FARM CT
 FUQUAY-VARINA, NC 27526
 (401) 497-4214

Solar Modules:
 18 JINKO JKM320M-60HL

Inverters:
 (18) Enphase Energy Inc IQ7-60-2-US(240v)

Racking:
 QUICKMOUNT - ROOF MOUNT SYSTEM HARDWARE 06/09/2021

(9 MOUNTING RAILS) - ALUMINUM RAILS = 14' LENGTHS

(35 MOUNTING POINTS) - FOR "COMPS SHINGLE" ROOF

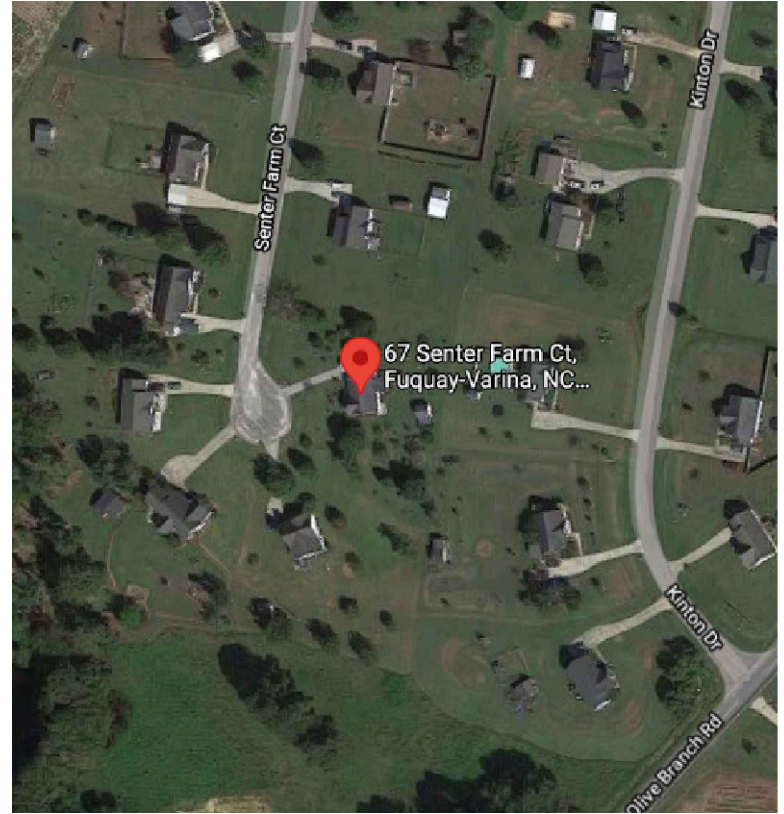
VSE Project Number: U2305.0958.211

Firm License Number: COA #P-0742

EAD RESIDENCE

PHOTOVOLTAIC SYSTEM PROJECT - 5.760 kW DC / 5.246 kW AC

VICINITY MAP



STREET VIEW



GENERAL NOTES

1. ROOF RAFTER 2x6" DF ON 16" €
2. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST NC CODE OF REGULATIONS, NATIONAL ELECTRICAL CODE EDITION AND ALL APPLICABLE LOCAL CODES AND REGULATIONS. (Construction shall comply with 2018 International Building Codes, 2017 NEC, and 2018 International Fire Code)
3. ALL PANELS, SWITCHES, ETC. SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS IN COMPLIANCE TO UL REQUIREMENTS TO ACCOMMODATE CONDUCTORS SHOWN.
4. WHERE WIRE SIZES ARE INDICATED ON PLANS, FOR INDIVIDUAL CIRCUITS, THE WIRE SIZE INDICATED SHALL APPLY TO THE COMPLETE CIRCUIT, UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL EXTEND WIRING FROM ALL JUNCTION BOXES, SWITCHES, ETC. AND MAKE FINAL CONNECTION AS REQUIRED TO ALL BUILDING EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS.
6. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED. FOLLOW DRAWING IN LAYING OUT WORK AND CHECK DRAWINGS OR OTHER TRADES RELATING TO WORK TO VERIFY SPACE IN WHICH WORK WILL BE INSTALLED. MAINTAIN HEADROOM AND MINIMUM CODE REQUIRED WORKING CLEARANCES AT ALL TIMES.
7. ALL EXTERIOR ELECTRICAL DEVICES AND EQUIPMENT INCLUDING THOSE THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WEATHERPROOF TYPE, NEMA 3R.
8. DISCONNECT SWITCHES SHALL BE MOUNTED ON INDIVIDUAL SUPPORTS, OR OTHERWISE DIRECTLY ON EQUIPMENT, PROVIDED.
9. NO MODIFICATION TO EQUIPMENT IS NECESSARY. ALL ELECTRIC MATERIAL SHALL BE LISTED BY "UL" FOR THE TYPE OF APPLICATION AND "UL" LABEL SHALL APPEAR ON ALL ELECTRICAL EQUIPMENT.
10. WIRING METHOD SHALL BE EMT ABOVE GROUND AND MOUNTED IN CONCEALED SPACES (UNLESS APPROVED OTHERWISE) AND SCHEDULE - 40 PVC FOR BELOW GROUND INSTALLATION UNLESS NOTED OTHERWISE.

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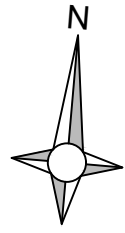


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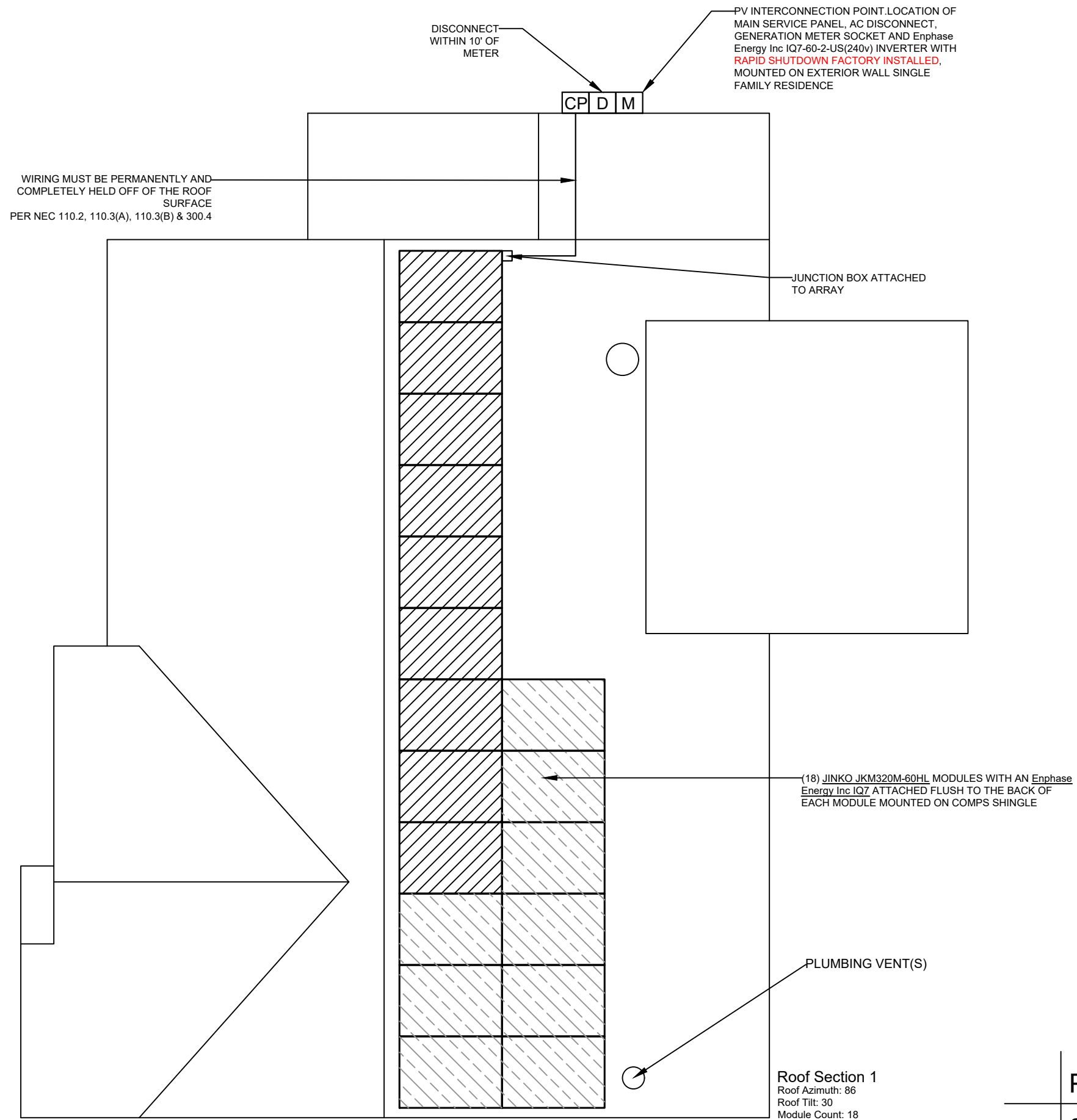
SHEET NAME:
TITLE SHEET

SHEET NUMBER:
T-1

67 SENTER FARM CT FUQUAY-VARINA, NC 27526



PV SYSTEM SIZE:
5.76 kW DC



LEGEND	
CP	COMBINER PANEL
D	SOLAR DISCONNECT
M	METER

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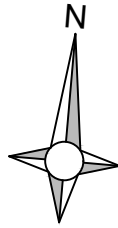
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SHEET NAME:
SITE PLAN

SHEET NUMBER:
PV-1

PV SYSTEM SITE PLAN
SCALE: 3/16" = 1'-0"



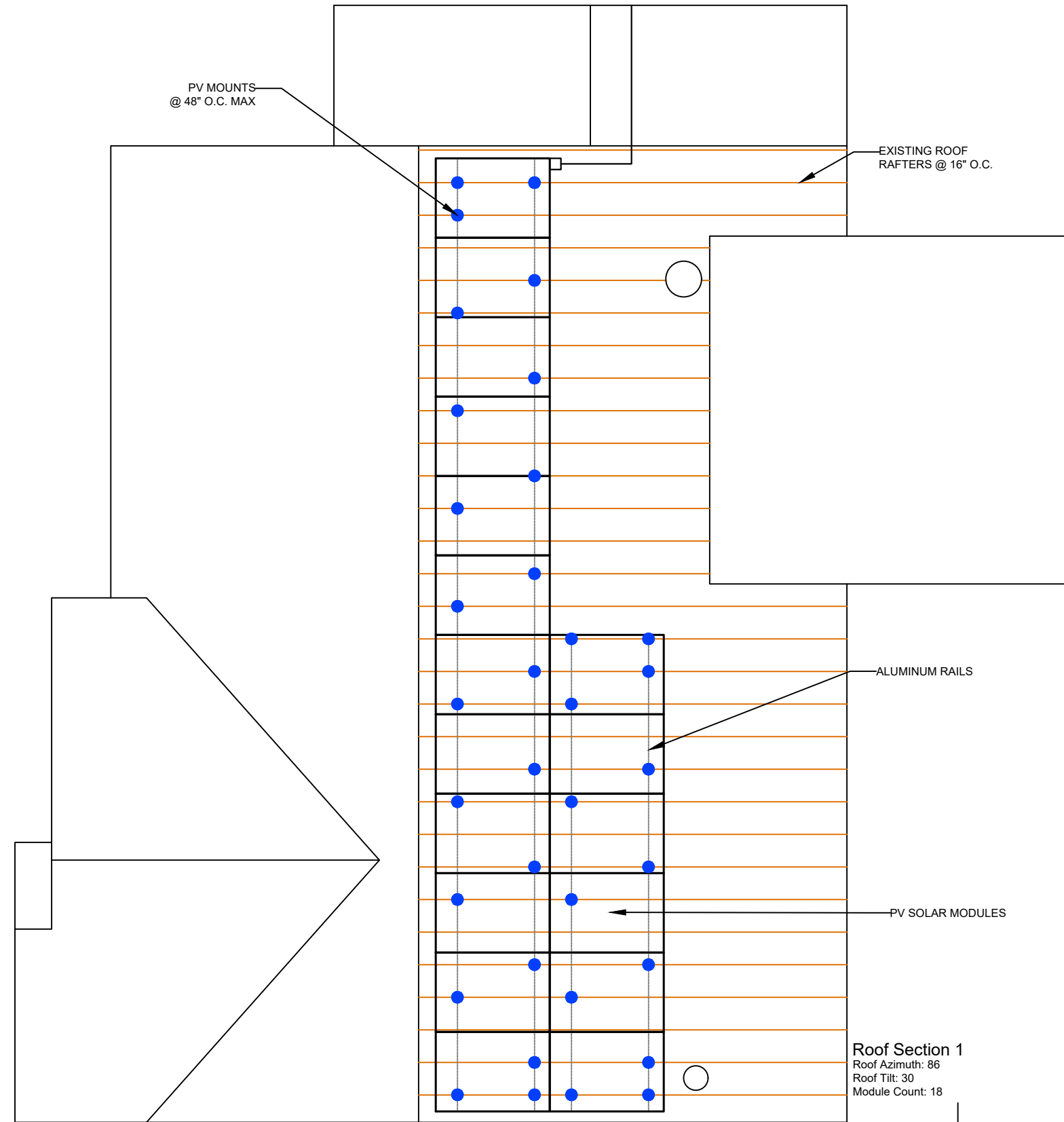
VECTOR
ENGINEERS

651 W. GALENA PARK BLVD. STE. 101 PHONE (801) 990-1775
DRAPER, UTAH 84020 WWW.VECTORSE.COM



06/09/2021
Firm License Number: COA #P-0742
VSE Project Number: U2305.0958.211

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Roof Section 1
Roof Azimuth: 86
Roof Tilt: 30
Module Count: 18

PV SYSTEM MOUNTING DETAILS

SCALE: 3/16" = 1'-0"

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FUQUAY-VARINA, NC 27526

SOLAR

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SHEET NAME:
ATTACHMENT
DETAILS

SHEET NUMBER:

PV-2



PV-3

SHEET NUMBER:

STRUCTURAL PICTURES

REVISIONS:



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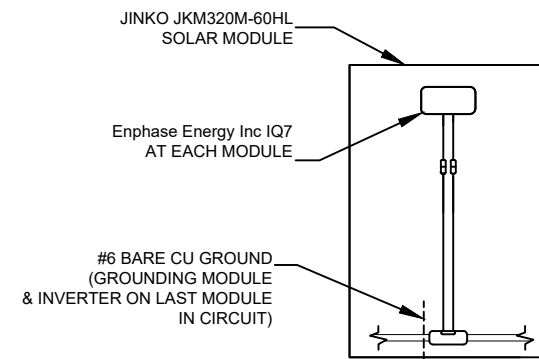
EAD RESIDENCE
67 SENTER FARM CT
FUQUAY-VARINA, NC 27526

PV MODULE SPECIFICATIONS	
MANUFACTURER	JINKO
MODEL	18 JKM320M-60HL
P _{max}	320
I _{mp}	9.59
V _{mp}	33.4
V _{dc}	1000V(DC)/1500V(DC)
OCPD	20
PANEL WATTAGE	320
INVERTER SPECIFICATIONS	
MANUFACTURER	ENPHASE
MODEL	18 IQ7-60-2-US(240v)
MAX DC INPUT VOLTAGE	48
MAX OUTPUT POWER	240
MAX FUSE (OCPD)	30
INVERTER WATTAGE	240
DESIGN INFO	
CUSTOMER NAME	JENNIFER EAD
SYSTEM SIZE	5.760 kW DC / 5.246 kW AC

EQUIPMENT SIZING CALCULATIONS

- 18 AMP (MAX INVERTER OUTPUT)*1.25 (OCP) =22.5A (USE 30A BREAKER)
(SOLAR BREAKER IN MAIN PANEL)

MODULE DETAIL



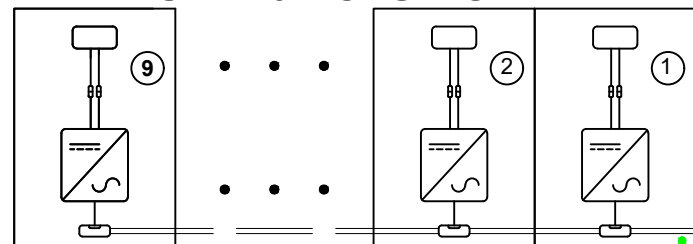
Notes:

- This system meets the requirements of NEC 690.35 and is exempt from the system grounding requirements of NEC 690.41 System Grounding.
- The DC conductors are not bonded to ground and the optimizers do not require a GEC.
- NEC 690.43(C) Structure as Equipment Grounding Conductor allows for equipment to be used as the EGC in a photovoltaic system.
- The devices listed and identified for grounding the equipment may be stand-alone grounding components or UL-2703 listed mounting hardware. Optimizers and modules are bonded to the racking with listed and approved grounding components.
- Equipment operating 150 volts or greater shall only be serviced or replaced by qualified personnel. Field protection may be in the form of conduit, closed cabinet or an enclosure which require use of tools to open.
- Solar Photovoltaic System equipment will be installed in accordance with the requirements of Art. 690 of the 2017 NEC.
- Local utility provider shall be notified prior to use and activation of any solar photovoltaic installation.
- No sheet metal or tech screws shall be used to ground disconnect enclosure with tin-plated aluminum lugs; proper grounding/bar kits must be used.
- All solar modules, equipment, and metallic components are to be grounded in accordance with code and the manufacturer's installation instructions.
- PV modules Cannot be installed over or block any attic vents, plumbing vents, furnace or water heater vents etc.
- Wiring must be permanently and completely held off of the roof surface per NEC 110.2, 110.3(A), 110.3(B) & 300.4
- Conductors with higher temperature ratings if the equipment is listed and identified for use with such conductors per NEC 110.14 (C)(1)(3)

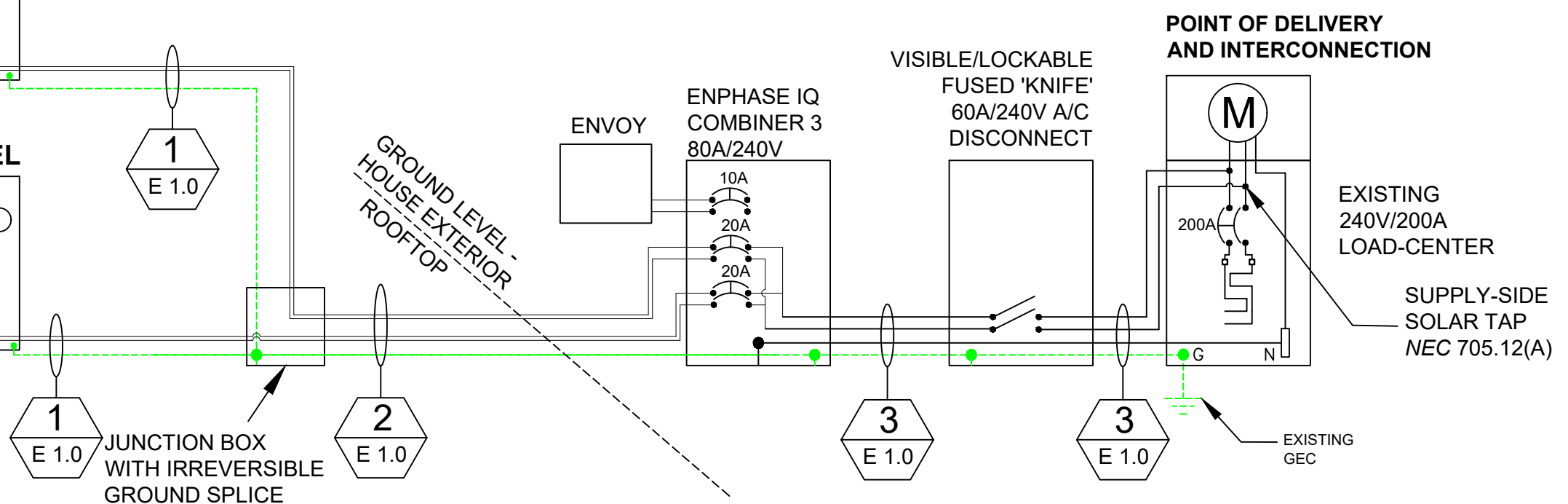
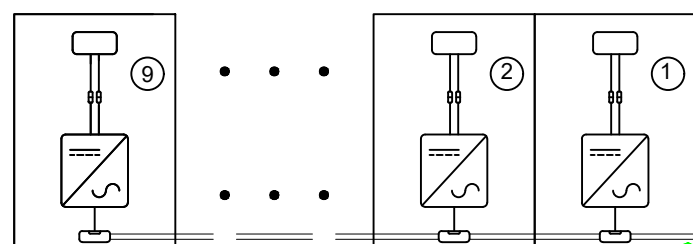
Conduit and Conductor Schedule

Tag	Description	Wire Gauge	# of Conductors	Conduit Type	Conduit Size
1	Enphase engage cable - THWN	12 AWG	4	N/A - Free Air	N/A - Free Air
1	Bare Copper Ground (EGC/GEC)	6 AWG	1	N/A - Free Air	N/A - Free Air
2	THWN	12 AWG	4	EMT	3/4"
2	THWN-2 - Ground	10 AWG	1	EMT	3/4"
3	THWN-2	10 AWG	3	EMT	3/4"
3	THWN-2 - Ground	10 AWG	1	EMT	3/4"

PV CIRCUIT 1: 9 MODULES/PARALLEL



PV CIRCUIT 2: 9 MODULES/PARALLEL



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SOLAR



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SHEET NAME:

3-LINE
DIAGRAM

SHEET NUMBER:

E-1



EAD RESIDENCE
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FUQUAY-VARINA, NC 27526

SOLAR
E

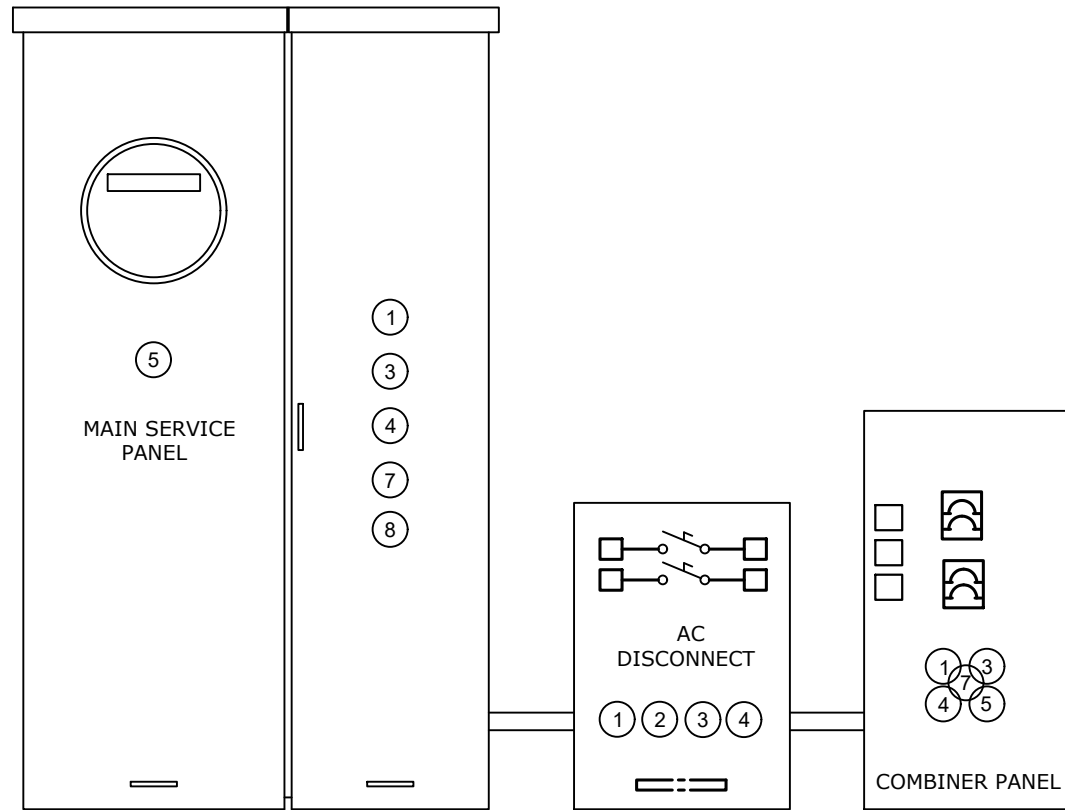
REVISIONS:
DRAWN BY: KE

SHEET NAME:
METER PICTURES

SHEET NUMBER:

DETAIL - 1:

MAIN SERVICE PANEL, AC DISCONNECT AND COMBINER PANEL MOUNTED ON EXTERIOR WALL OF SINGLE FAMILY RESIDENCE. WITH Enphase Energy Inc IQ7-60-2-US(240v) MICROINVERTER MOUNTED UNDER EACH PANEL



LABEL-8:
PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

LABEL 8 IS REFLECTIVE WEATHER RESISTANT PLAQUE WITH LETTERING A MINIMUM HEIGHT OF 3/8" IN WHITE ON RED BACKGROUND.

LABEL-9:
DC POWER SUPPLY
 DC OPERATING CURRENT 16.46 AMPS
 OPERATING VOLTAGE 350 Vdc
 MAXIMUM DC SYSTEM VOLTAGE 500 Vdc
 MAXIMUM CIRCUIT CURRENT 30.0
 SHORT CIRCUIT CURRENT 30 Adc

LABEL-10:
RAPID SHUTDOWN DISCONNECT

LABEL 10 IS REFLECTIVE WEATHER RESISTANT PLAQUE WITH LETTERING A MINIMUM HEIGHT OF 3/8" IN WHITE ON RED BACKGROUND.

REQUIRED SIGNAGE:

2017 NEC CODES, ARTICLE 690

LABEL-1:
PHOTOVOLTAIC SYSTEM AC DISCONNECT

LABEL-2:
AC POWER SUPPLY
 PHOTOVOLTAIC AC DISCONNECT
 AC OPERATING VOLTAGE 240 VOLTS
 MAXIMUM CIRCUIT CURRENT 22.5

LABEL-3:
WARNING-ELECTRIC SHOCK HAZARD
 DO NOT TOUCH TERMINALS
 TERMINALS ON BOTH LINE AND LOAD SIDE
 MAY BE ENERGIZED IN THE OPEN POSITION

LABEL-4:
WARNING - ELECTRIC SHOCK HAZARD
 IF A GROUND FAULT IS INDICATED
 THEN THE NORMALLY GROUNDED CONDUCTORS
 MAY BE ENERGIZED IN THE OPEN POSITION

LABEL-5:
CAUTION:
 PANEL MAY BE ENERGIZED BY UTILITY OR CUSTOMER
 SOLAR PV SYSTEM

LABEL-6:
CAUTION:
 BOTH TOP AND LOWER SOCKET JAWS MAY BE ENERGIZED
 BY SOURCE AND CUSTOMER SOLAR PV SYSTEM

LABEL-7:
WARNING: PHOTOVOLTAIC POWER SOURCE
 LABEL 7 IS REFLECTIVE WEATHER RESISTANT STICKER TO BE PLACED ON ALL INTERIOR AND EXTERIOR CONDUIT, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES EVERY 10', WITHIN 1' OF TURNS OR BENDS, AND 1' ABOVE AND BELOW ALL PENETRATIONS ON DC CONDUIT

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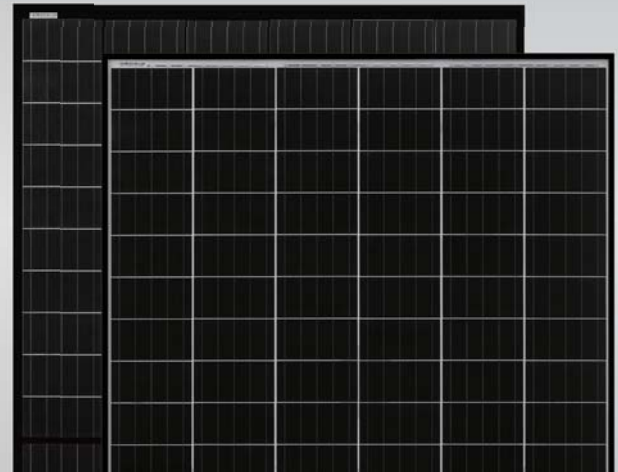
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 LABELS DIAGRAM

SHEET NUMBER:
E-3

Eagle HC 60M G2 315-335 Watt

MONO PERC HALF CELL MODULE

Positive power tolerance of 0~+3%



KEY FEATURES



Diamond Cell Technology

Uniquely designed high performance 5 busbar mono PERC half cell



Higher Module Power

Decrease in current loss yields higher module efficiency



Shade Tolerance

More shade tolerance due to twin arrays



PID FREE

Reinforced cell prevents potential induced degradation



Strength and Durability

Certified for high snow (5400Pa) and wind (2400 Pa) loads

- ISO9001:2008 Quality Standards
- ISO14001:2004 Environmental Standards
- OHSAS18001 Occupational Health & Safety Standards
- IEC61215, IEC61730 certified products
- UL1703 certified products

Nomenclature:

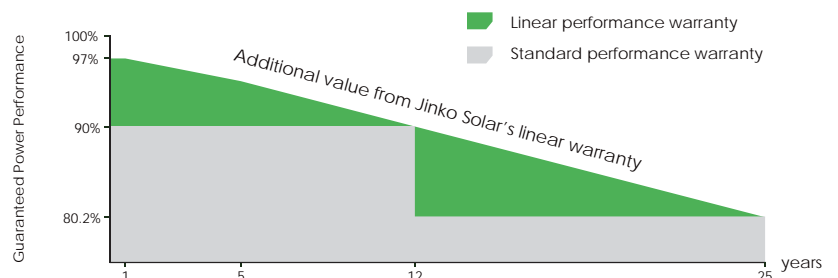
JKM335M-60HBL

Code	Cell	Code	Backsheet	Code	Cell
null	Full	null	White	null	Normal
H	Half	B	Black	L	Diamond

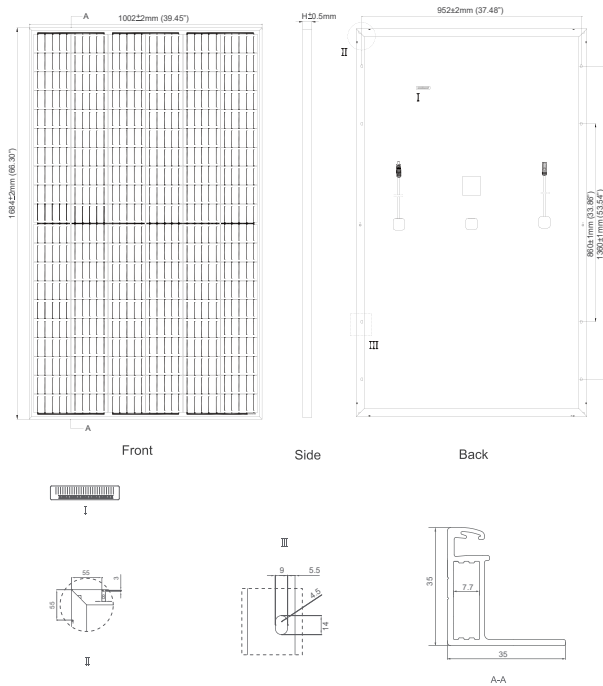


LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty • 25 Year Linear Power Warranty



Engineering Drawings

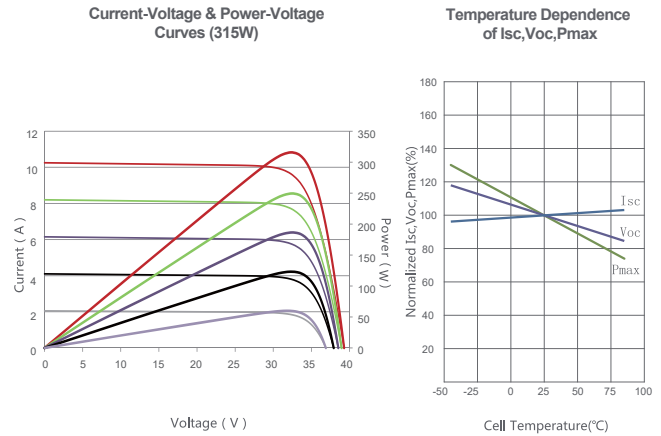


Packaging Configuration

(Two pallets = One stack)

30pcs/pallet, 60pcs/stack, 780pcs/40'HQ Container

Electrical Performance & Temperature Dependence



Mechanical Characteristics

Cell Type	Mono PERC Diamond Cell (158.75 x 158.75 mm)
No. of Half-cells	120 (6×20)
Dimensions	1684×1002×35mm (66.30×39.45×1.38 inch)
Weight	19.0 kg (41.9 lbs)
Front Glass	3.2mm, Anti-Reflection Coating, High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Junction Box	IP67 Rated
Output Cables	12AWG, Anode 1525mm (60.04 in), Cathode 1525mm (60.04 in) or Customized Length
Fire Type	Type 1

SPECIFICATIONS

Module Type	JKM315M-60HL		JKM320M-60HL		JKM325M-60HL		JKM330M-60HL		JKM335M-60HL	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	315Wp	235Wp	320Wp	239Wp	325Wp	242Wp	330Wp	246Wp	335Wp	250Wp
Maximum Power Voltage (Vmp)	33.2V	31.2V	33.4V	31.4V	33.6V	31.6V	33.8V	31.8V	34.0V	32.0V
Maximum Power Current (Imp)	9.49A	7.56A	9.59A	7.62A	9.68A	7.66A	9.77A	7.74A	9.87A	7.82A
Open-circuit Voltage (Voc)	40.7V	37.6V	40.9V	37.8V	41.1V	38.0V	41.3V	38.2V	41.5V	38.4V
Short-circuit Current (Isc)	10.04A	8.33A	10.15A	8.44A	10.20A	8.54A	10.31A	8.65A	10.36A	8.74A
Module Efficiency STC (%)	18.67%		18.96%		19.26%		19.56%		19.85%	
Operating Temperature (°C)	-40°C~+85°C									
Maximum System Voltage	1000VDC(UL)/1000VDC(IEC)									
Maximum Series Fuse Rating	20A									
Power Tolerance	0~+3%									
Temperature Coefficients of Pmax	-0.36%/°C									
Temperature Coefficients of Voc	-0.28%/°C									
Temperature Coefficients of Isc	0.048%/°C									
Nominal Operating Cell Temperature (NOCT)	45±2°C									

STC: Irradiance 1000W/m² Cell Temperature 25°C AM=1.5

NOCT: Irradiance 800W/m² Ambient Temperature 20°C AM=1.5 Wind Speed 1m/s

* Power measurement tolerance: ± 3%

CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

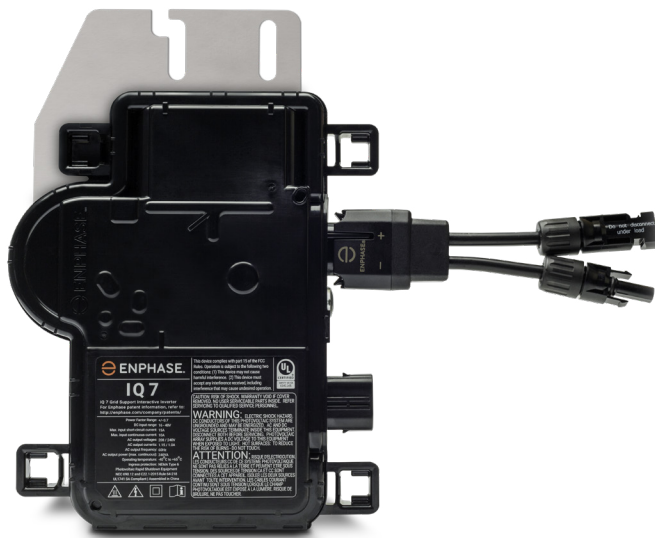
© Jinko Solar Co., Ltd. All rights reserved. Specifications included in this datasheet are subject to change without notice.
JKM315-335M-60HL-A1-US

Enphase IQ 7 and IQ 7+ Microinverters

The high-powered smart grid-ready **Enphase IQ 7 Micro™** and **Enphase IQ 7+ Micro™** dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enphase IQ Envoy™, Enphase IQ Battery™, and the Enphase Enlighten™ monitoring and analysis software.

IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.



Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Productive and Reliable

- Optimized for high powered 60-cell and 72-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ 7+ Micro is required to support 72-cell modules.



To learn more about Enphase offerings, visit enphase.com

Enphase IQ 7 and IQ 7+ Microinverters

INPUT DATA (DC)	IQ7-60-2-US		IQ7PLUS-72-2-US	
Commonly used module pairings ¹	235 W - 350 W +		235 W - 440 W +	
Module compatibility	60-cell PV modules only		60-cell and 72-cell PV modules	
Maximum input DC voltage	48 V		60 V	
Peak power tracking voltage	27 V - 37 V		27 V - 45 V	
Operating range	16 V - 48 V		16 V - 60 V	
Min/Max start voltage	22 V / 48 V		22 V / 60 V	
Max DC short circuit current (module I _{sc})	15 A		15 A	
Overvoltage class DC port	II		II	
DC port backfeed current	0 A		0 A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit			
OUTPUT DATA (AC)	IQ 7 Microinverter		IQ 7+ Microinverter	
Peak output power	250 VA		295 VA	
Maximum continuous output power	240 VA		290 VA	
Nominal (L-L) voltage/range ²	240 V / 211-264 V	208 V / 183-229 V	240 V / 211-264 V	208 V / 183-229 V
Maximum continuous output current	1.0 A (240 V)	1.15 A (208 V)	1.21 A (240 V)	1.39 A (208 V)
Nominal frequency	60 Hz		60 Hz	
Extended frequency range	47 - 68 Hz		47 - 68 Hz	
AC short circuit fault current over 3 cycles	5.8 Arms		5.8 Arms	
Maximum units per 20 A (L-L) branch circuit ³	16 (240 VAC)	13 (208 VAC)	13 (240 VAC)	11 (208 VAC)
Overvoltage class AC port	III		III	
AC port backfeed current	0 A		0 A	
Power factor setting	1.0		1.0	
Power factor (adjustable)	0.85 leading ... 0.85 lagging		0.85 leading ... 0.85 lagging	
EFFICIENCY	@240 V	@208 V	@240 V	@208 V
Peak efficiency	97.6 %	97.6 %	97.5 %	97.3 %
CEC weighted efficiency	97.0 %	97.0 %	97.0 %	97.0 %
MECHANICAL DATA				
Ambient temperature range	-40°C to +65°C			
Relative humidity range	4% to 100% (condensing)			
Connector type (IQ7-60-2-US & IQ7PLUS-72-2-US)	MC4 (or Amphenol H4 UTX with additional Q-DCC-5 adapter)			
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)			
Weight	1.08 kg (2.38 lbs)			
Cooling	Natural convection - No fans			
Approved for wet locations	Yes			
Pollution degree	PD3			
Enclosure	Class II double-insulated, corrosion resistant polymeric enclosure			
Environmental category / UV exposure rating	NEMA Type 6 / outdoor			
FEATURES				
Communication	Power Line Communication (PLC)			
Monitoring	Enlighten Manager and MyEnlighten monitoring options. Both options require installation of an Enphase IQ Envoy.			
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect required by NEC 690.			
Compliance	CA Rule 21 (UL 1741-SA) UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according manufacturer's instructions.			

1. No enforced DC/AC ratio. See the compatibility calculator at <https://enphase.com/en-us/support/module-compatibility>.

2. Nominal voltage range can be extended beyond nominal if required by the utility.

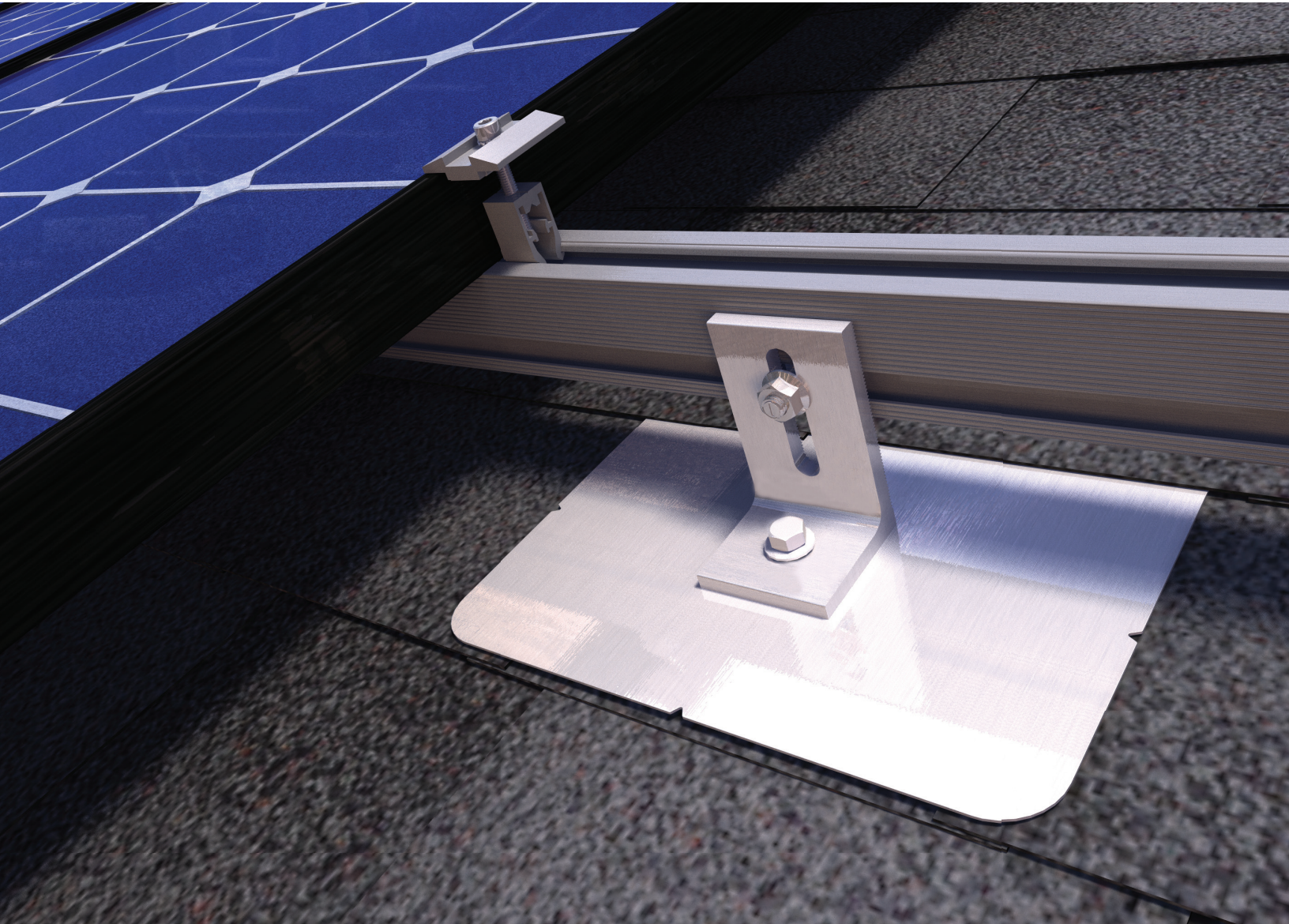
3. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

To learn more about Enphase offerings, visit enphase.com



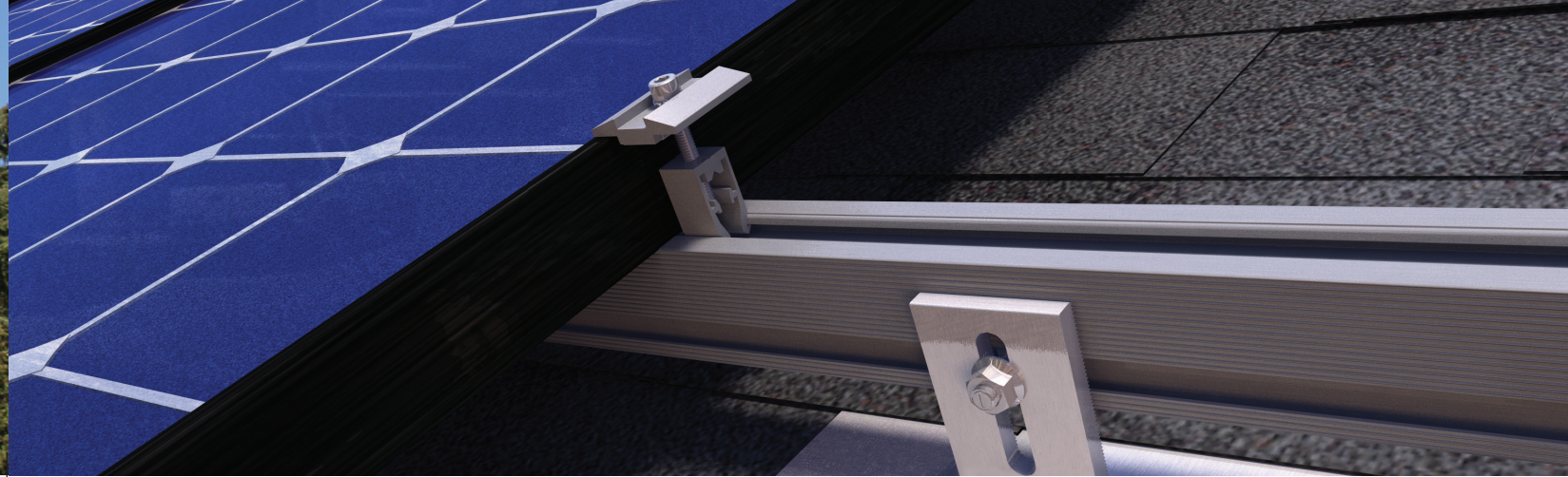
QRail™ Series

Rail System with QClick Technology™



Cost-Effective Mounting and Racking For All Roofs

Quick Mount PV®
RESPECT THE ROOF



QRail™ — Fully Integrated Mounting and Racking System

The QRail Series is a strong and versatile solar array mounting system that provides unrivaled benefits to solar designers and installers. Combined with Quick Mount PV's industry-leading waterproof mounts, QRail offers a complete racking solution for mounting solar modules on any roof.



Easily design array configurations with the QDesign software application. Generate complete engineering reports and calculate a precise bill of materials for all the mounting, racking and accessories needed for a complete solar array.

Comprehensive, One-Source Solution

QRail, together with Quick Mount PV's waterproof mounting products, provides the benefit of a single-sourced, seamlessly integrated rooftop installation that works with all roof types — composition/asphalt shingles, flat or curved tile, metal shingle, shake, slate and low slope roofs. The QRail system also works with any roof attachment system for maximum flexibility.

Superior Strength and Versatility

QRail is engineered for optimal structural performance. The system is certified to UL 2703, fully code compliant and backed by a 25-year warranty. QRail is available in Light, Standard and Heavy versions to match all geographic locations. QRail is compatible with virtually all modules and works on a wide range of pitched roof surfaces. Modules can be mounted in portrait or landscape orientation in standard or shared-rail configurations.

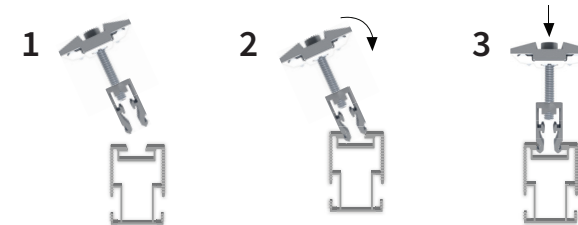


QRails come in two lengths —
168 inches (14 ft) and 208 inches (17.3 ft)
Mill and Black Finish

Fast, Simple Installation: It Just Clicks

QClick Technology™

The universal mid and end clamps use QClick technology to simply “click” into the rail channel and remain upright, ready to accept the module. The pre-assembled clamps fit virtually all module frames and require no extra hardware, eliminating pre-loading and reducing installation time.

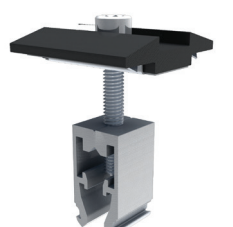


Installing is as easy as 1-2-3



UNIVERSAL END CLAMP

2 clamps for modules from
30-45mm or 38-50mm thick



UNIVERSAL BONDED MID CLAMP

2 clamps for modules from
30-45mm or 38-50mm thick

QSplice™ Technology

QRail's innovative internal QSplice installs in seconds, requiring no tools or screws. Simply insert QSplice into the rail and slide the other rail on to create a fully structural, bonded splice. An external splice is also available.



Installs in seconds — no tools or hardware required



QSPICE

Fully Integrated Electrical Bonding

The QRail system provides an integrated electrical bonding path, ensuring that all exposed metal parts and the solar module frames are electrically connected. All electrical bonds are created when the components are installed and tightened down.

Quick Mount PV[®]

RESPECT THE ROOF

2700 Mitchell Drive
Walnut Creek, CA 94598

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925-478-8269



Intertek
4008516

UL STD 2703

QRB May 2019

The Strongest Attachment in Solar

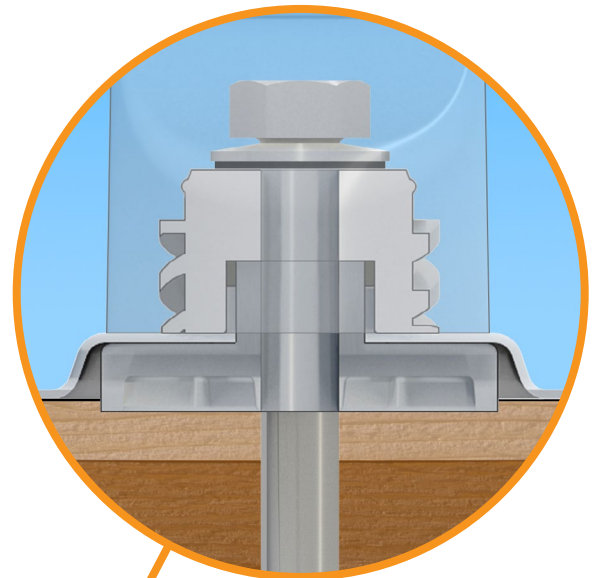
IronRidge FlashFoot2 raises the bar in solar roof protection. The unique water seal design is both elevated and encapsulated, delivering redundant layers of protection against water intrusion. In addition, the twist-on Cap perfectly aligns the rail attachment with the lag bolt to maximize mechanical strength.

Twist-On Cap

FlashFoot2's unique Cap design encapsulates the lag bolt and locks into place with a simple twist. The Cap helps FlashFoot2 deliver superior structural strength, by aligning the rail and lag bolt in a concentric load path.

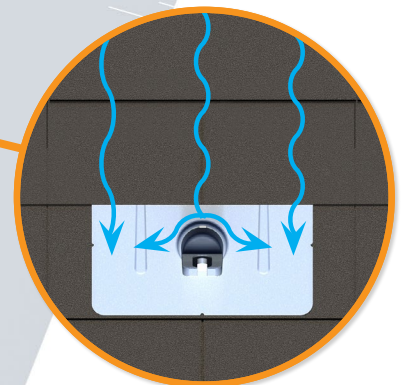
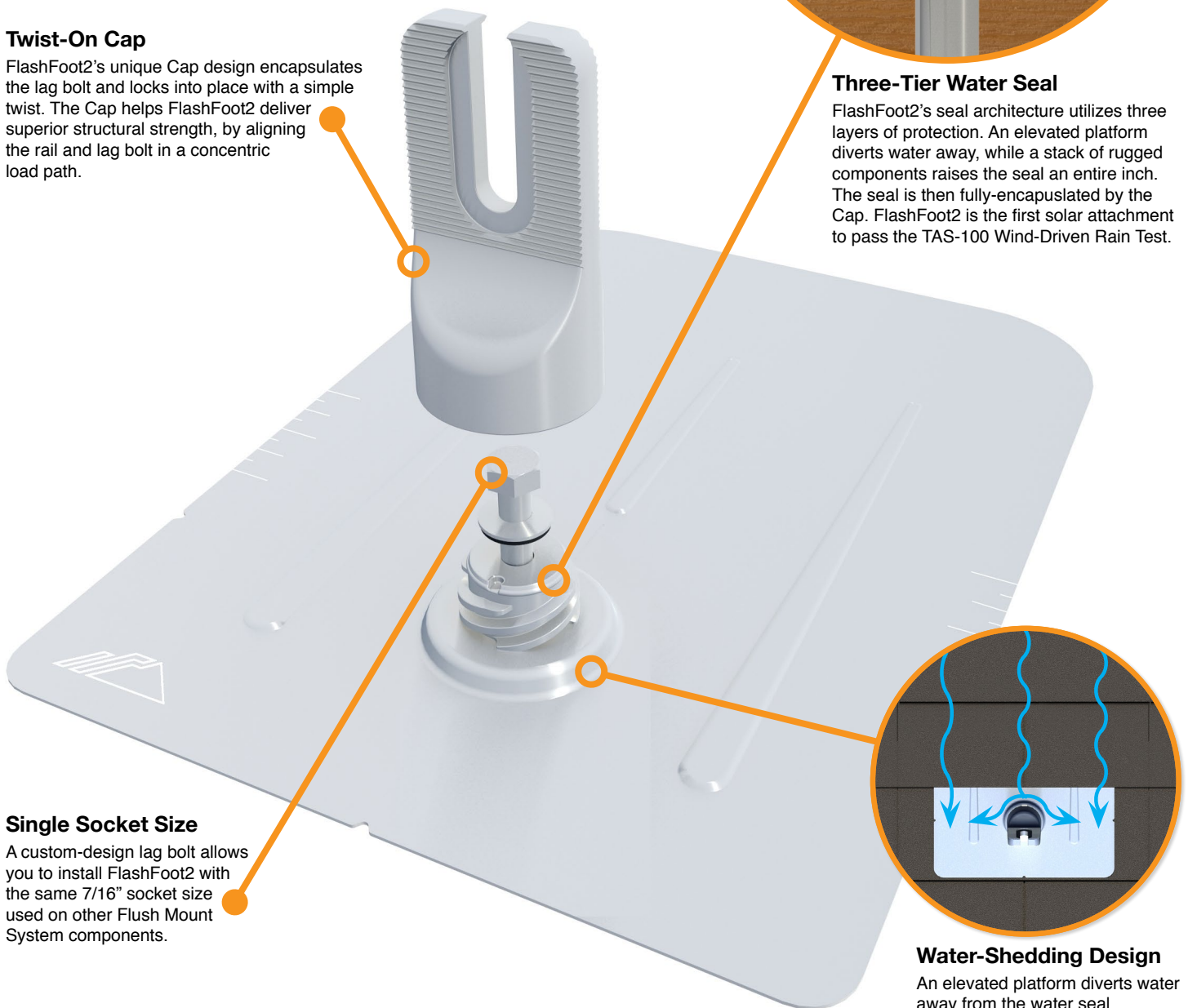
Single Socket Size

A custom-design lag bolt allows you to install FlashFoot2 with the same 7/16" socket size used on other Flush Mount System components.



Three-Tier Water Seal

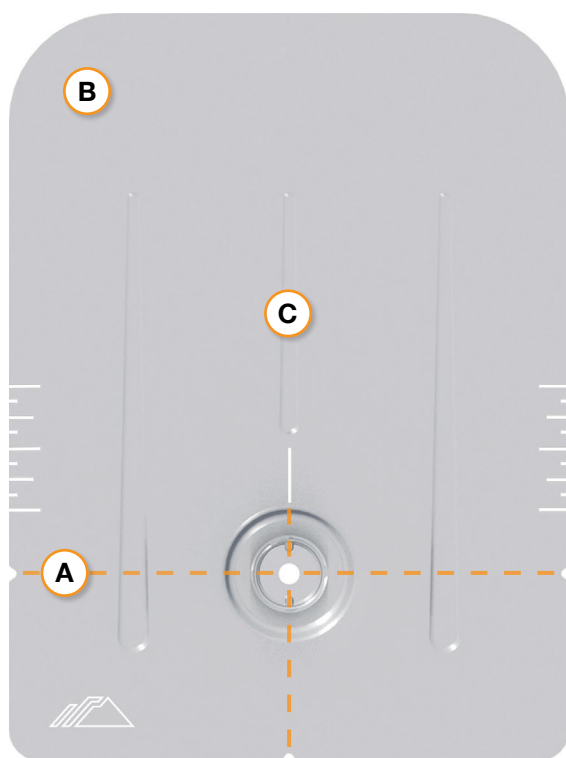
FlashFoot2's seal architecture utilizes three layers of protection. An elevated platform diverts water away, while a stack of rugged components raises the seal an entire inch. The seal is then fully-encapsulated by the Cap. FlashFoot2 is the first solar attachment to pass the TAS-100 Wind-Driven Rain Test.



Water-Shedding Design

An elevated platform diverts water away from the water seal.

Installation Features



A Alignment Markers

Quickly align the flashing with chalk lines to find pilot holes.

B Rounded Corners

Makes it easier to handle and insert under the roof shingles.

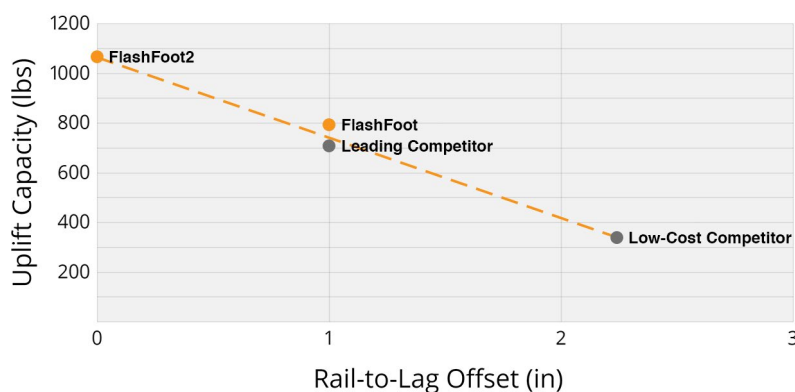
C Reinforcement Ribs

Help to stiffen the flashing and prevent any bending or crinkling during installation.

Benefits of Concentric Loading

Traditional solar attachments have a horizontal offset between the rail and lag bolt, which introduces leverage on the lag bolt and decreases uplift capacity.

FlashFoot2 is the only product to align the rail and lag bolt. This concentric loading design results in a stronger attachment for the system.



Testing & Certification

Structural Certification

Designed and Certified for Compliance with the International Building Code & ASCE/SEI-7.

Water Seal Ratings

Water Sealing Tested to UL 441 Section 27 "Rain Test" and TAS 100-95 "Wind Driven Rain Test" by Intertek. Ratings applicable for composition shingle roofs having slopes between 2:12 and 12:12.

UL 2703

Conforms to UL 2703 Mechanical and Bonding Requirements. See Flush Mount Install Manual for full ratings.