

SCOPE OF WORK

TO INSTALL A SOLAR PHOTOVOLTAIC (PV) SYSTEM
 THE POWER GENERATED BY THE PV SYSTEM WILL BE INTERCONNECTED WITH
 THE UTILITY GRID THROUGH THE EXISTING ELECTRICAL SERVICE EQUIPMENT.
 THE PV SYSTEM DOES NOT INCLUDE BATTERIES.

ELECTRICAL NOTES

- 1) ALL EQUIPMENT TO BE LISTED BY THE UL OR OTHER NRTL AND LABELED FOR ITS APPLICATION.
- 2) ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600V AND 90°C WET ENVIRONMENT.
- 3) WIRING, CONDUIT, AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.
- 4) WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.26.
- 5) DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS. CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS AND ACCESSORIES TO FULFILL APPLICABLE CODES AND STANDARDS.
- 6) WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
- 7) ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
- 8) MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURER'S INSTRUCTION.
- 9) MODULE SUPPORT RAIL TO BE BONDED TO CONTINUOUS COPPER G.E.C. VIA WEEB LUG OR THE ILSCO GBL-4DBT LAY-IN LUG.
- 10) THE POLARITY OF THE GROUNDED CONDUCTORS IS (positive/negative) OR THE DC SIDE OF THE PV SYSTEM IS UNGROUNDED AND SHALL COMPLY WITH NEC 690.35



VICINITY MAP



COMPANY:
Sun Dollar Energy, LLC

4904 Elaine Avenue
 Raleigh, NC 27616
 919-508-6907
 NC Electrical License #: 30043U
 NC GC License #: 73462

CLIENT:
Stephanie Mckinney
 73 Avery Pond Drive
 Fuquay Varina, NC 27526
 (919) 703-9684

GENERAL INFORMATION:

- System**
- System Type: Grid Tied
 - Module Type: Axitec AC-310MH/120S 310 Watt
 - # of Modules: 39
 - Inverter: SolarEdge SE11400H-US
 - Power Optimizers: SolarEdge P320
 - Racking: Everest Rail
 - Solar Mounts: Quickmount L-Mounts
 - DC Watts: 12.09KW DC STC

- Existing Home Electrical**
- (E) Main Service Panel: 200A
 - (E) Main Breaker: 200A
 - Grid Voltage: 120/240V

- Special Info**
- Roof Type: Asphalt Shingle
 - Array 1 Rafter Size: 2x4 @ 24" o.c.
 - Array 1 Pitch: 33°
 - Array 1 Azimuth: 165°
 - Average High Temp: 93.2°F
 - Record Low Temp: 10.4°F

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COVER	TITLE BLOCK
PV-1	SITE PLAN
PV-2	ROOF LAYOUT AND MOUNTING DETAIL
PV-3	FULL ELECTRICAL SCHEMATIC
PV-4	AMPACITY CALCULATIONS AND WIRE SIZING
PV-5	LABELING REQUIREMENTS
CUTSHEETS	MANUFACTURER SPECIFICATION SHEETS

GOVERNING CODES	
NFPA 70 NATIONAL ELECTRICAL CODE 2017	
2018 INTERNATIONAL BUILDING CODE	
2018 NORTH CAROLINA BUILDING CODE	
2018 NORTH CAROLINA RESIDENTIAL CODE	
UNDERWRITERS LABORATORIES (UL) STANDARDS	
OSHA 29 CFR 1910.269	
NORTH CAROLINA DEPARTMENT OF INSURANCE	

REV	DESCRIPTION	BY	DATE
REVISIONS			

DESIGNER:
GREGORY B. RESCH

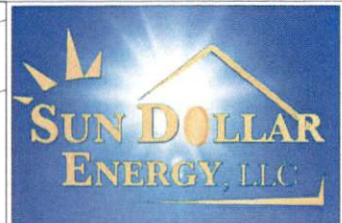
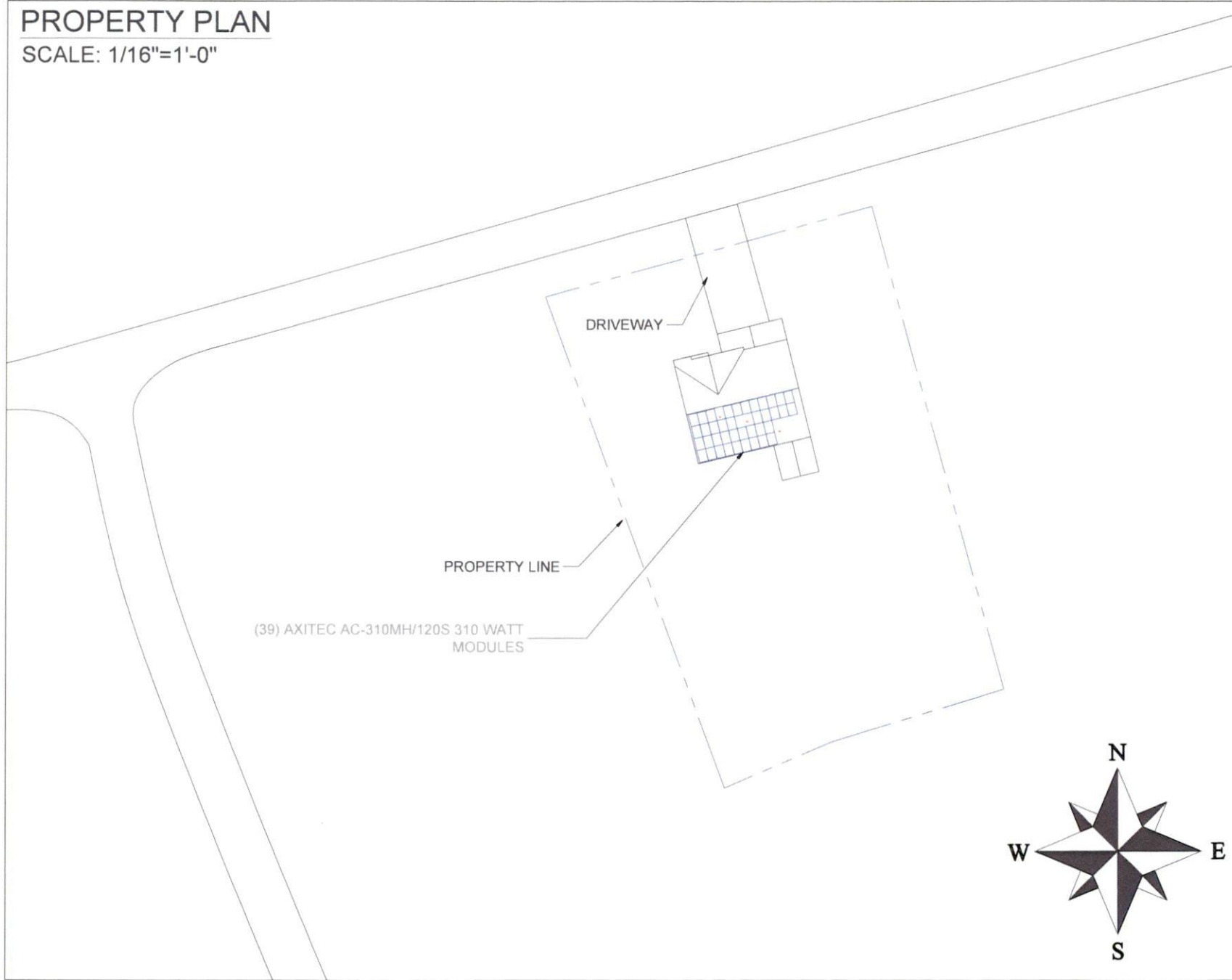
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PROPERTY PLAN

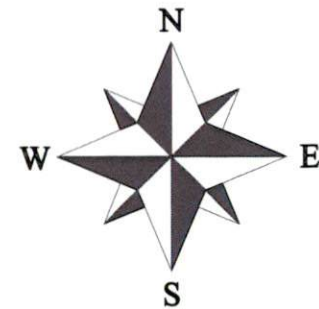
SCALE: 1/16"=1'-0"



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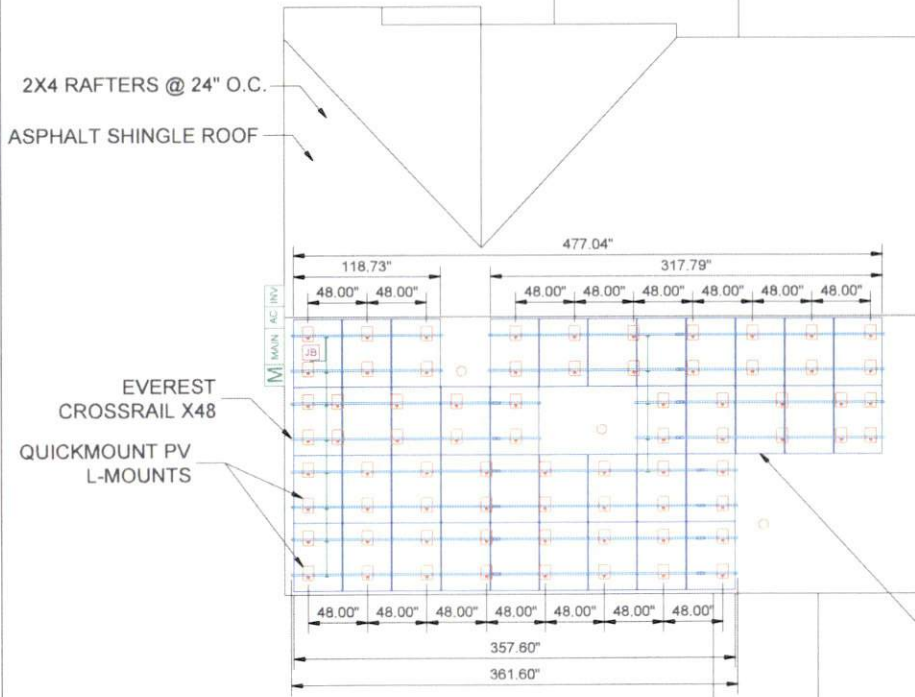


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SHEET:
PV-1

ROOF PLAN

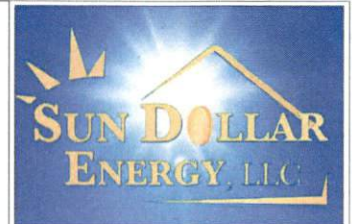
SCALE: 1/4"=1'-0"



LOAD CALCULATIONS		
NUMBER OF MODULES	39	
MODULE WEIGHT	39.68	LBS
MODULE SQ FT	17.875	SQ FT
TOTAL MODULE WEIGHT	1547.52	LBS
TOTAL MODULE SQ FT	697.125	SQ FT
NUMBER OF PORTRAIT	39	
NUMBER OF LANDSCAPE	0	
TOTAL LENGTH OF RAIL	261	LF
RAIL WEIGHT PER FOOT	0.56	LBS
TOTAL RAIL WEIGHT	146.16	LBS
NUMBER OF FLANGES	72	
WEIGHT PER FLANGE	2	LBS
WEIGHT PER SYSTEM	144	LBS
NUMBER OF MID CLAMPS	66	
MID CLAMP WEIGHT	0.21	LBS
WEIGHT PER SYSTEM	13.86	LBS
NUMBER OF END CLAMPS	24	
END CLAMP WEIGHT	0.32	LBS
WEIGHT PER SYSTEM	7.68	LBS
NUMBER OF SPLICES	14	
WEIGHT PER SPLICE	0.1	LBS
WEIGHT PER SYSTEM	1.4	LBS
TOTAL ARRAY WEIGHT	1860.62	LBS
POINT LOAD	25.8419	LBS/FT
TOTAL ARRAY AREA	697.125	SQ FT
ARRAY DEAD LOAD	2.6690	PSF

LEGEND

- UTILITY METER
- MAIN SERVICE PANEL
- INVERTER
- AC DISCONNECT
- DC DISCONNECT
- JUNCTION BOX
- COMBINER BOX
- SUBPANEL
- LOAD CENTER
- PV METER/MONITORING
- SOLMETRIC READING
- EXTERIOR CONDUIT RUN
- GAS METER
- QUICKMOUNT PV L-MOUNT
- EVEREST RAIL
- EVEREST SPLICE KIT
- # AWG BARE Cu GROUND WIRE W/ BURNDY WEEB LUG 3/0



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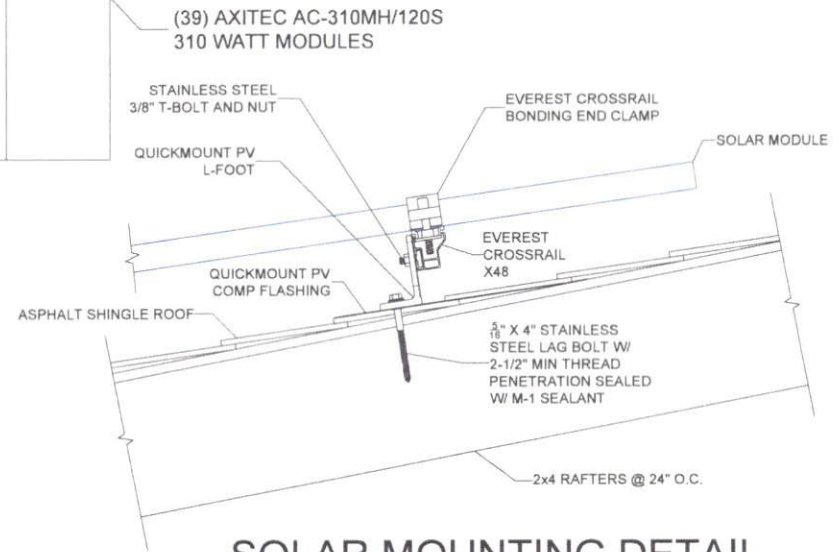
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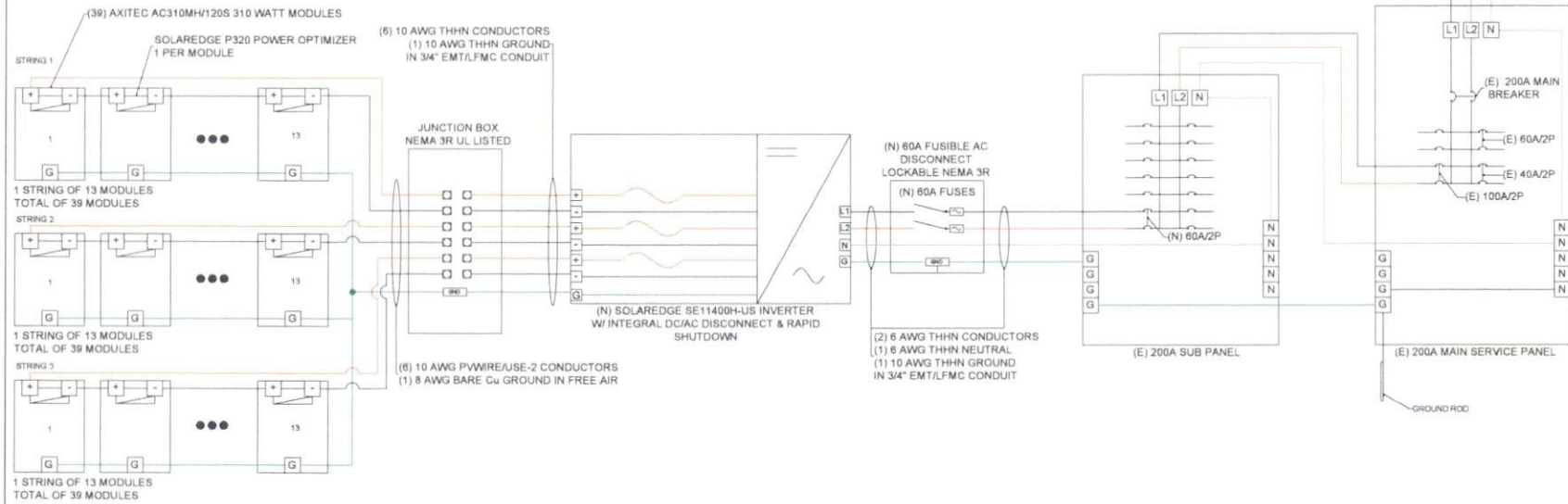
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PV-2

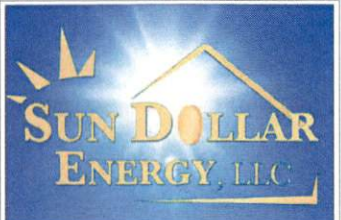


SOLAR MOUNTING DETAIL

MODULE DATA		Inverter Data (provided by manufacturer)		Temperature Data from ASHRAE	
Make of Model	AXITEC	Make of Model	SolarEdge	Average High Temp. ("F)	93.2°F
Model Number	AC-310MH/120S	Model Number	SE11400H-US	Record Low Temp. ("F)	10.4°F
Max Power Point (MPP) Voltage (Vmpp)	32.74 Volts	Max DC Volt Rating	480 volts		
Max Power Point (MPP) Current (Impp)	9.47 Amps	Max AC Output	11400 Watts		
Open Circuit Voltage (Voc)	40.01 Volts	Nominal AC Voltage	240 volts		
Short Circuit Current (Isc)	9.96 Amps	Max AC Current	47.5 amps		
Max Series Fuse (OCPD)	20 Amps	Strings per Inverter	3		
Max Power (Pmax)	310 Watts	Number of Inverters	1		
Max Voltage (typically less than 600V DC)	1000 Volts				



NOTE: DC IS UNGROUNDED



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Ampacity Calculations

Wiring Location: Module to Power Optimizer (Direct Current)
 Wiring Location: Inverter to Service Entrance (Alternating Current)
 All calculations show minimum sizing for ampacity
 Actual wire sizing may be larger for voltage drop or other factors
 All calculations are according to the 2017 National Electric Code

Modules: Axitec AC-310MH/120S
 Inverter: SolarEdge SE11400H-US

Initial Input Values

Isc (Short Circuit Current)	9.96				
Number of circuits	9.96	x	1	=	9.96
Maximum Circuit Current (NEC 690.8 (A)(1)+2)	9.96	x	156%	=	15.5376
Minimum Overcurrent Device	20	A			Series Fuse Rating by Manufacturer

Size AWG

Chosen Conductor Type (THHN, RHW-2, or USE-2)

10

Conductor Derating

NEC 690.31 © ref (NEC 310.16)

Conductor 90°C Ampacity	40				
Conduit Fill Derating	4-6	40	x	0.8	= 32
Temperature Derating (°F)	132-140	32	x	0.71	= 22.72

Ampacity vs Overcurrent

Device

Conductor Ampacity Check	22.72		15.5376		OK
Conductor to Overcurrent Check	22.72		20		OK

Input Data Into Yellow Fields

Green Field must say OK

Use this calculation for over current protection and wire sizing for stringers coming from Solar Panels.
 Isc comes from manufacturer

Ampacity Calculations

Wiring Location: Inverter to Service Entrance (Alternating Current)
 All calculations show minimum sizing for ampacity
 Actual wire sizing may be larger for voltage drop or other factors
 All calculations are according to the 2017 National Electric Code

Modules: Axitec AC-310MH/120S
 Inverter: SolarEdge SE11400H-US

Initial Input Values

Inverter Continuous AC Output Combined (Watts)	11400
Minimum Operating Voltage	240

Watts	11400	/	Volts	240	=	Amps	47.5
-------	-------	---	-------	-----	---	------	------

Inverter Continuous AC Amps	47.5				
Number of Inverters	47.5	x	1	=	47.5

Overcurrent Device Rating

NEC 690.8 (B)(3)

Minimum Overcurrent Device Circuit Breaker Size per NEC 240.6(A)	47.5	x	125%	=	59.375
	60	Amps			
	60	Amps			
					Size AWG #

Chosen Conductor Type (THHN, THWN, RHW-2 or USE-2)

6

Conductor Derating

NEC 690.31© ref (NEC 310.16)

Conductor 90°C Ampacity	75				
Conduit Fill Derating	1-3	75	x	1	= 75
Temperature Derating (°F)	96-104	75	x	0.91	= 68.25

Ampacity vs Overcurrent

Device

Conductor Ampacity Check	68.25		59.375		OK
Conductor to Overcurrent Check	68.25		60		OK

Input Data into Yellow Fields

Green Fields must say OK

Use this calculation for over current protection and wire sizing for inverter



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PV-4

PV LABELS

SIGNAGE REQUIREMENTS

- > WARNING SIGNS OR LABELS SHALL COMPLY WITH NEC 110.21(B)
- > MIN. 3/8" LETTER HEIGHT
- > ALL CAPITAL LETTERS
- > ARIAL OR SIMILAR FONT
- > REFLECTIVE, WEATHER RESISTANT MATERIAL, UL 969

**PHOTOVOLTAIC SYSTEM
DC DISCONNECT**

OPERATING VOLTAGE: VDC
 OPERATING CURRENT: AMPS
 MAX SYSTEM VOLTAGE: VDC
 SHORT CIRCUIT CURRENT: AMPS
 CHARGE CONTROLLER MAX: AMPS

NEC 690.53

1

APPLY TO:
INVERTER

WARNING: PHOTOVOLTAIC POWER SOURCE

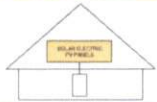
NEC 690.31(G)(3)(4)

2

APPLY TO:
SOLAR DC CONDUIT

**SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN**

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY



NEC 690.56(C)(1)(a)

3

APPLY TO:
SOLAREGE INVERTERS

WARNING

ELECTRIC SHOCK HAZARD

TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

NEC 690.13(B)

4

APPLY TO:
DISCONNECTS
SOLAR LOAD CENTERS
COMBINER BOXES

**RAPID SHUTDOWN
SWITCH FOR
SOLAR PV SYSTEM**

NEC 690.5(C)(3)

5

APPLY TO:
SMA AND SOLAREGE INVERTERS

**PHOTOVOLTAIC SYSTEM
AC DISCONNECT**

OPERATING VOLTAGE: VDC
 OPERATING CURRENT: AMPS

NEC 690.54

6

APPLY TO:
AC DISCONNECT

WARNING

TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL

NEC 110.27(C) & OSHA 1910.145(f)(7)

7

APPLY TO:
COMBINER BOXES
ENCLOSURES
BREAKER PANEL
MAIN SERVICE DISCONNECT

SOLAR PV BREAKER

**BREAKER IS BACKFED
DO NOT RELOCATE**

NEC 690.64(B)(7) & NEC 705.12(B)(2)

8

APPLY TO:
PV SYSTEM BREAKER

WARNING

DUAL POWER SUPPLY

SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

NEC 705.12(D)(3) & NEC 690.64

9

APPLY TO:
MAIN SERVICE PANEL
METER

DC JUNCTION BOX

WARNING

ELECTRIC SHOCK HAZARD

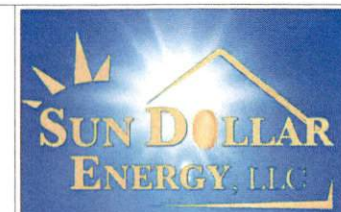
THE DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM ARE UNGROUNDED AND MAY BE ENERGIZED

PHOTOVOLTAIC POWER SOURCE

NEC 690.31(G)(2)

10

APPLY TO:
DC JUNCTION BOXES



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PV-5



310 - 320 Wp

AXITEC
high quality german solar brand

AXIblackpremium HC

120 halfcell monocrystalline
High performance solar module

The advantages:

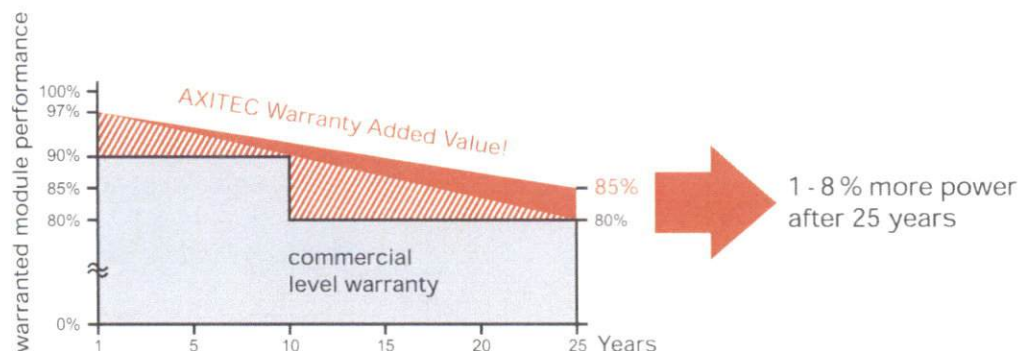
- 15**
Years
15 years manufacturer's warranty
- HC**
Highest module performance through Half-Cut-technology and tested materials
- +**
Wp
Guaranteed positive power tolerance from 0-5 Wp by individual measurement
- ↓**
5.400 Pa
Maximum 5400 Pa snow load
- 100%**
100 % electroluminescence inspection
- Soft Grip**
High stability due to AXITEC-Soft-Grip-Seam aluminium frame construction
- IP67**
High quality junction box and connector systems



Fig. similar 120MHEN190218A

Exclusive linear AXITEC high performance guarantee!

- 15 years manufacturer's guarantee on 90% of the nominal performance
- 25 years manufacturer's guarantee on 85% of the nominal performance





AXIblackpremium HC 310 - 320 Wp

Electrical data (at standard conditions (STC) irradiance 1000 watt/m², spectrum AM 1,5 at a cell temperature of 25°C)

Type	Nominal output P _{mpp}	Nominal voltage U _{mpp}	Nominal current I _{mpp}	Short circuit current I _{sc}	Open circuit voltage U _{oc}	Module conversion efficiency
AC-310MH/120SB	310 Wp	32,74 V	9,47 A	9,96 A	40,01 V	18,66 %
AC-315MH/120SB	315 Wp	32,97 V	9,56 A	10,03 A	40,13 V	18,96 %
AC-320MH/120SB	320 Wp	33,21 V	9,64 A	10,11 A	40,25 V	19,26 %

Design

Frontside	3,2 mm hardened, low-reflection white glass
Cells	120 monocrystalline high efficiency cells
	156,75 mm x 78,38 mm
Backside	Composite film
Frame	35 mm black aluminium frame

Mechanical data

L x W x H	1675 x 992 x 35 mm
Weight	18,5 kg with frame

Power connection

Socket	Protection Class IP67
Wire	approx. 1,1 m, 4 mm ²
Plug-in system	Plug/socket IP67

Limit values

System voltage	1000 VDC
NOCT (nominal operating cell temperature)*	45°C +/-2K
Max. load-carrying capacity	5400 N/m ²
Reverse current feed IR	20,0 A
Permissible operating temperature	-40°C to 85°C / -40F to 185F

(No external voltages greater than U_{oc} may be applied to the module)

* NOCT, irradiance 800 W/m²; AM 1,5; wind speed 1 m/s; Temperature 20°C

Temperature coefficients

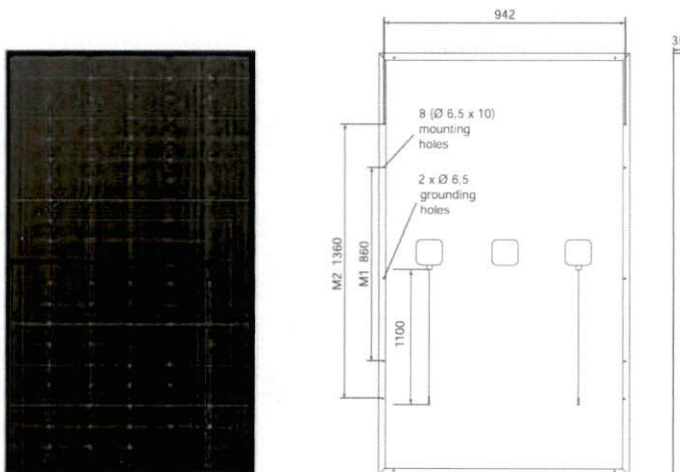
Voltage U _{oc}	-0,29 %/K
Current I _{sc}	0,04 %/K
Output P _{mpp}	-0,39 %/K

Low-light performance (Example for AC-310MH/120SB)

I-U characteristic curve	Current I _{pp}	Voltage U _{pp}
200 W/m ²	1,90 A	32,15 V
400 W/m ²	3,81 A	32,39 V
600 W/m ²	5,68 A	32,50 V
800 W/m ²	7,57 A	32,68 V
1000 W/m ²	9,47 A	32,74 V

Packaging

Module pieces per pallet	30
Module pieces per HC-container	780



All dimensions in mm

Single Phase Inverter with HD-Wave Technology

for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US /
SE7600H-US / SE10000H-US / SE11400H-US



Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Extremely small
- Built-in module-level monitoring
- Outdoor and indoor installation
- Optional: Revenue grade data, ANSI C12.20 Class 0.5 (0.5% accuracy)

/ Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/
SE7600H-US / SE10000H-US / SE11400H-US

Model Number	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXXBXX4							
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 ¹⁾							Hz
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5	A
Power Factor	1, adjustable -0.85 to 0.85							
GFDI Threshold	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							
INPUT								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W
Maximum DC Power @208V	-	5100	-	7750	-	-	15500	W
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage	480							Vdc
Nominal DC Input Voltage	380				400			Vdc
Maximum Input Current @240V ²⁾	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Maximum Input Current @208V ²⁾	-	9	-	13.5	-	-	27	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600ka Sensitivity							
Maximum Inverter Efficiency	99	99.2						%
CEC Weighted Efficiency	99						99 @ 240V 98.5 @ 208V	%
Nighttime Power Consumption	< 2.5							W

¹⁾ For other regional settings please contact SolarEdge support.

²⁾ A higher current source may be used; the inverter will limit its input current to the values stated.

Power Optimizer

For North America

P320 / P340 / P370 / P400 / P405 / P505



POWER OPTIMIZER

PV power optimization at the module-level

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module-level monitoring
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)
- Module-level voltage shutdown for installer and firefighter safety

/ Power Optimizer

For North America

P320 / P340 / P370 / P400 / P405 / P505

Optimizer model (typical module compatibility)	P320 (for 60-cell modules)	P340 (for high-power 60-cell modules)	P370 (for higher-power 60 and 72-cell modules)	P400 (for 72 & 96-cell modules)	P405 (for thin film modules)	P505 (for higher current modules)	
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INPUT

Rated Input DC Power ⁽¹⁾	320	340	370	400	405	505	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48		60	80	125 ⁽²⁾	83 ⁽²⁾	Vdc
MPPT Operating Range	8 - 48		8 - 60	8 - 80	12.5 - 105	12.5 - 83	Vdc
Maximum Short Circuit Current (Isc)	11			10.1		14	Adc
Maximum DC Input Current	13.75			12.63		17.5	Adc
Maximum Efficiency	99.5						%
Weighted Efficiency	98.8					98.6	%
Overvoltage Category	II						

OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)

Maximum Output Current	15						Adc
Maximum Output Voltage	60			85			Vdc

OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)

Safety Output Voltage per Power Optimizer	1 ± 0.1						Vdc
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STANDARD COMPLIANCE

EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3					
Safety	IEC62109-1 (class II safety), UL1741					
RoHS	Yes					

INSTALLATION SPECIFICATIONS

Maximum Allowed System Voltage	1000						Vdc
Compatible inverters	All SolarEdge Single Phase and Three Phase inverters						
Dimensions (W x L x H)	129 x 153 x 27.5 / 5.1 x 6 x 1.1			129 x 153 x 33.5 / 5.1 x 6 x 1.3	129 x 159 x 49.5 / 5.1 x 6.3 x 1.9	129 x 162 x 59 / 5.1 x 6.4 x 2.3	mm / in
Weight (including cables)	630 / 1.4			750 / 1.7	845 / 1.9	1064 / 2.3	gr / lb
Input Connector	MC4 ⁽³⁾						
Output Wire Type / Connector	Double Insulated, MC4						
Output Wire Length	0.95 / 3.0			1.2 / 3.9			m / ft
Input Wire Length	0.16 / 0.52						m / ft
Operating Temperature Range	-40 - +85 / -40 - +185						°C / °F
Protection Rating	IP68 / NEMA6P						
Relative Humidity	0 - 100						%

⁽¹⁾ Rated STC power of the module. Module of up to +5% power tolerance allowed

⁽²⁾ NEC 2017 requires max input voltage be not more than 80V

⁽³⁾ For other connector types please contact SolarEdge

PV System Design Using a SolarEdge Inverter ⁽⁴⁾⁽⁵⁾	Single Phase HD-Wave	Single phase	Three Phase 208V	Three Phase 480V	
Minimum String Length (Power Optimizers)	P320, P340, P370, P400	8	10	18	
	P405 / P505	6	8	14	
Maximum String Length (Power Optimizers)		25	25	50 ⁽⁶⁾	
Maximum Power per String	5700 (6000 with SE7600-US - SE11400-US)	5250	6000 ⁽⁷⁾	12750 ⁽⁸⁾	W
Parallel Strings of Different Lengths or Orientations	Yes				

⁽⁴⁾ For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string_sizing_na.pdf

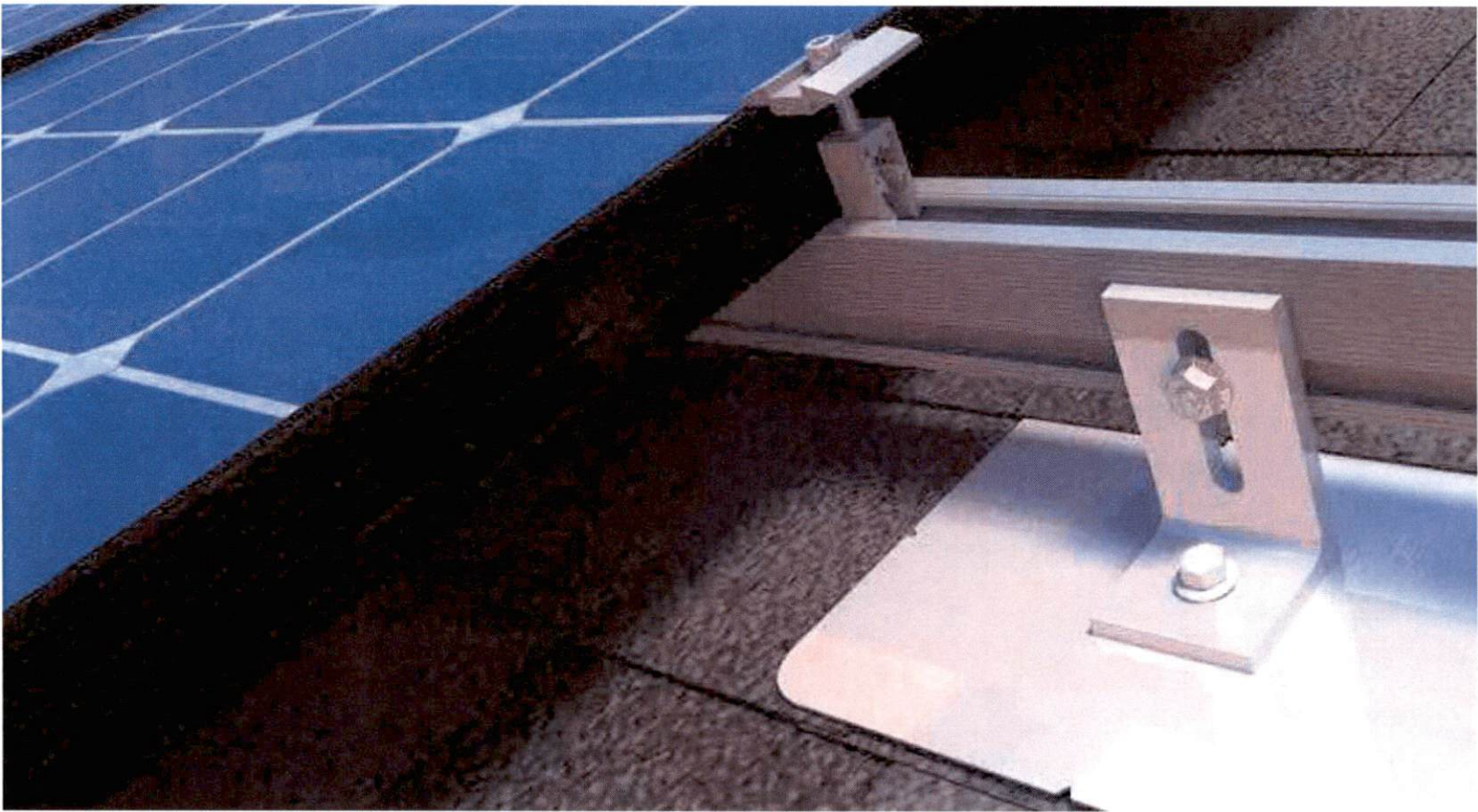
⁽⁵⁾ It is not allowed to mix P405/P505 with P320/P340/P370/P400 in one string

⁽⁶⁾ A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement

⁽⁷⁾ For SE14.4KUS/SE43.2KUS: It is allowed to install up to 6,500W per string when 3 strings are connected to the inverter (3 strings per unit for SE43.2KUS) and when the maximum power difference between the strings is up to 1,000W

⁽⁸⁾ For SE30KUS/SE33.3KUS/SE66.6KUS/SE100KUS: It is allowed to install up to 15,000W per string when 3 strings are connected to the inverter (3 strings per unit for SE66.6KUS/SE100KUS) and when the maximum power difference between the strings is up to 2,000W

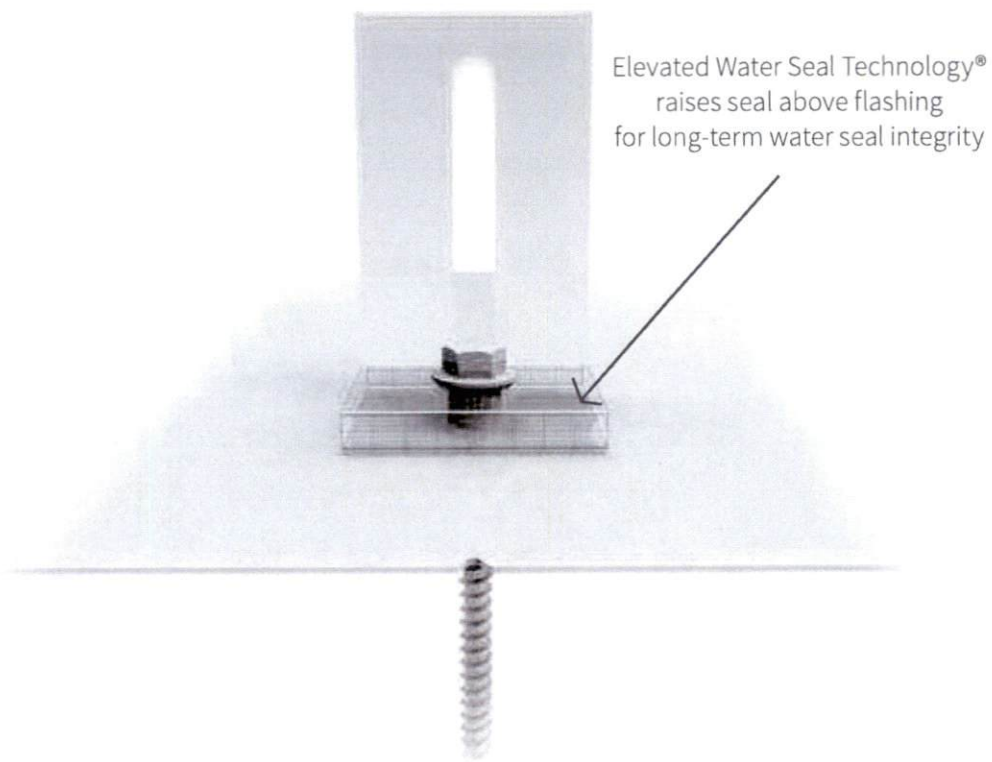
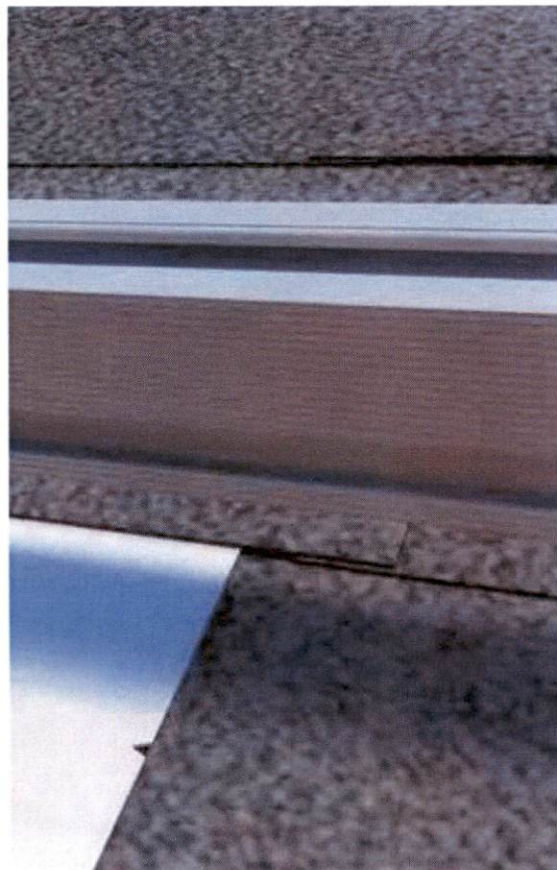
L-Mount® Series



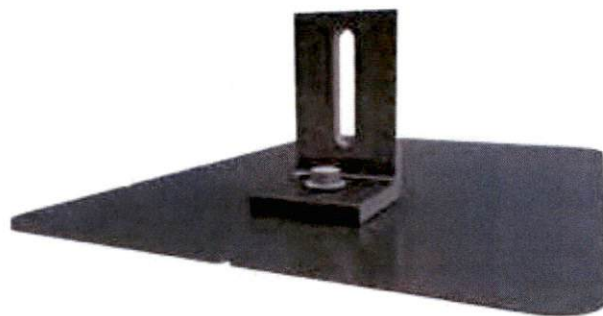
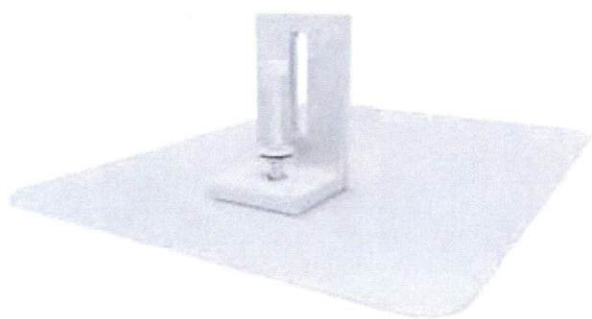
The L-Mount® Series is designed for cost-effective, one-bolt installation onto existing composition/asphalt shingle roofs. Quick Mount PV engineered its patented Elevated Water Seal Technology® into an integrated L-foot and flashing for super-fast, single-lag bolt installation with unparalleled waterproofing. The L-Mount comes with a lag bolt or structural screw for attachment versatility and works with all leading racks. The L-Mount features a 9" x 12" aluminum flashing with alignment guides and rounded corners to easily slide under shingles and speed installation on the roof.

FEATURES

- L-foot can be rotated 360 degree for optimal adjustability
- Works with all leading racks
- Available with lag bolt or structural screw
- QBlock® Elevated Water Seal Technology®
- Single bolt installation, no shingle cutting
- 9" x 12" aluminum flashing
- Meets or exceeds roofing industry best practices; 100% IBC compliant
- 18-8 stainless steel hardware included
- Alignment guides
- 25-year warranty



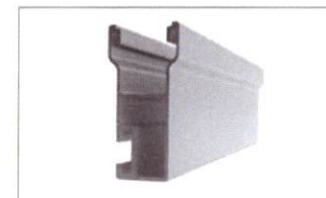
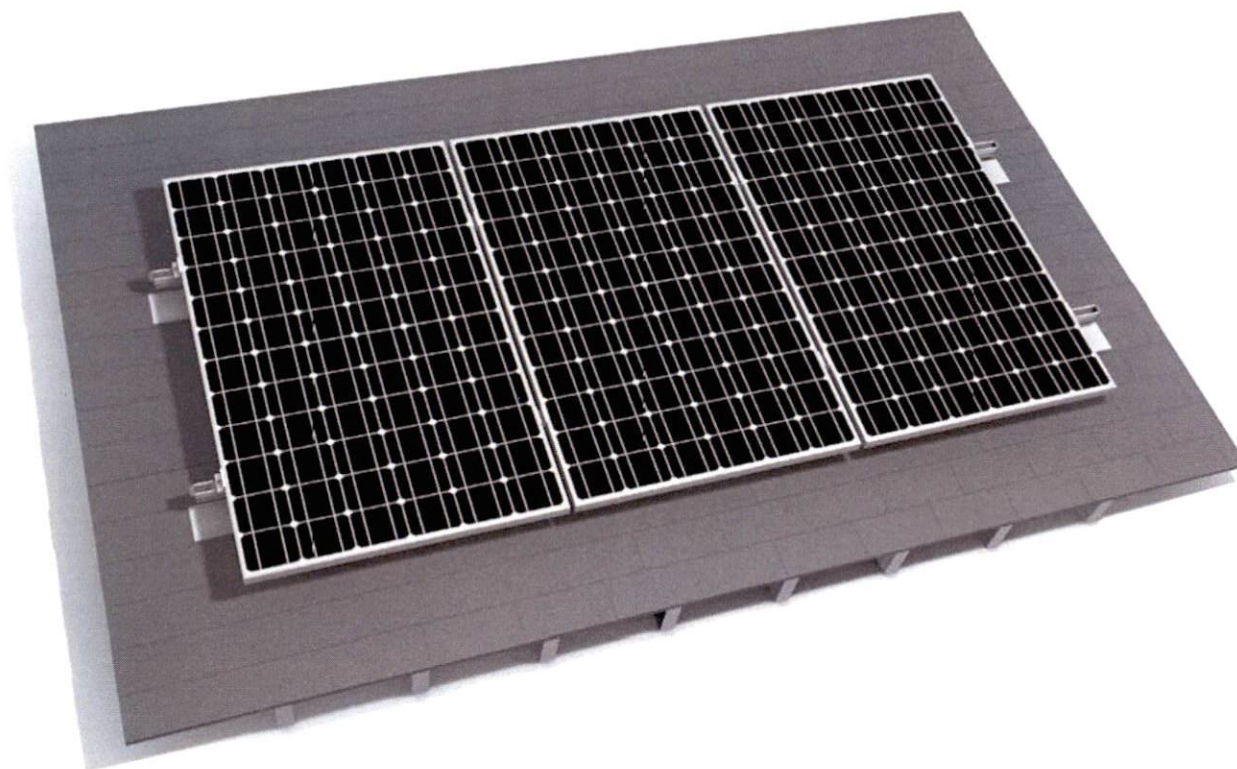
Single-Slot L-Mount with lag bolt



SINGLE-SLOT L-MOUNT

Available finishes:
aluminum mill (A); black (B)

Mounting systems for solar technology



EVEREST SOLAR SYSTEMS
RESIDENTIAL ROOF SOLUTIONS
CROSSRAIL SYSTEM

Everest Solar Systems, LLC
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Oceanside, CA 92056
Service-Hotline +1.760.301.5300
info@everest-solarsystems.com
www.everest-solarsystems.com

CROSSRAIL SYSTEM

- ▶ High quality, German-engineered system optimized for residential installation
- ▶ MK3 mounting hardware simplifies module installation – fast, easy, and secure
- ▶ Easily integrates with third party roof attachment products
- ▶ L-foot provides adjustability and compatibility with common roof types
- ▶ 100% code-compliant, structural validation for all solar states
- ▶ Three rail sizes available to suit all structural conditions
- ▶ Most components also available in dark
- ▶ Fast installation with minimal component count result in low total installed cost
- ▶ Simple to design using code compliant Everest Online Design Tool
- ▶ Use two innovative components to turn this system into Shared Rail or Tilt Up

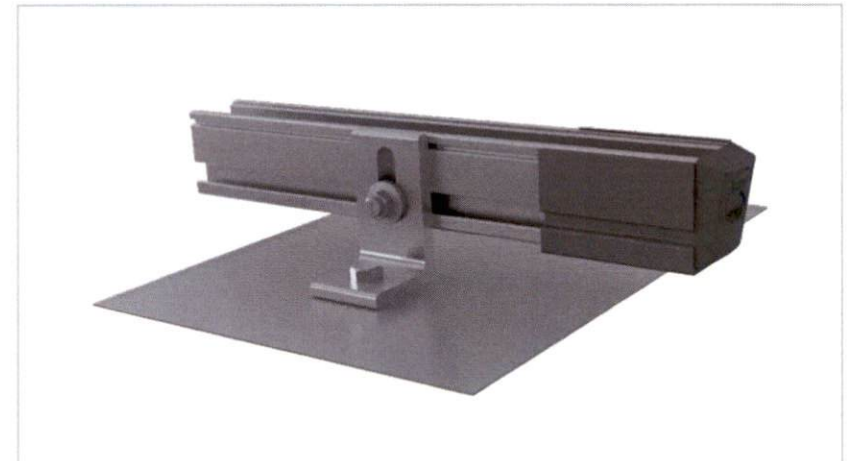
TECHNICAL DATA



Applicable roof types	Composition shingle, tile, flat tile
Flexibility	Modular construction, suitable for any system size, height adjustable
PV modules	For all common module types
Module orientation	Portrait and landscape
Material	High corrosion resistance, stainless steel and high grade aluminum
Roof attachment	Screw connection into rafter
Structural validity	IBC compliant, stamped engineering letters available for all solar states
Warranty	20 years
System components	CrossRail 48-X/48-XL/80, L-Foot, Mid and End Clamp Sets



CrossRail Structural Splice



CrossRail with EverFlash, Rail Sleeve and End Cap



Bonding Mid Clamp | End Clamp | Micro, Optimizer & Accs Mounting Kit