WYSSLING CONSULTING
CORPORATE EXPERIENCE WITH SMALL BUSINESS VALUE

Scott E. Wyssling, PE
Coleman D. Larsen, SE, PE
Gregory T. Elvestad, PE

76 North Meadowbrook Drive
Alpine, UT 84004
office (201) 874-3483
swyssling@wysslingconsulting.com

January 30, 2024

Smartsun
635 Old Barnwell Road
West Columbia, SC 29170

Re: Engineering Services
Huerta Residence
3232 US-401, Lillington, NC
11.700 kW System

To Whom It May Concern:

We have received information regarding solar panel installation on the roof of the above referenced structure. Our evaluation of the structure is to verify the existing capacity of the roof system and its ability to support the additional loads imposed by the proposed solar system.

A. Site Assessment Information

1. Site visit documentation identifying attic information including size and spacing of framing for the existing roof structure.
2. Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information will be utilized for approval and construction of the proposed system.

B. Description of Structure:

Roof Framing:	Assumed prefabricated wood trusses at 16" on center. All truss members are constructed of 2x4 dimensional lumber.
Roof Material:	Composite Asphalt Shingles
Roof Slope:	23 degrees
Attic Access:	Inaccessible
Foundation:	Permanent

C. Loading Criteria Used

- **Dead Load**
  - Existing Roofing and framing = 7 psf
  - New Solar Panels and Racking = 3 psf
  - TOTAL = 10 PSF
- **Live Load** = 20 psf (reducible) – 0 psf at locations of solar panels
- **Ground Snow Load** = 15 psf
- **Wind Load** based on ASCE 7-10
  - Ultimate Wind Speed = 117 mph (based on Risk Category II)
  - Exposure Category C

Analysis performed of the existing roof structure utilizing the above loading criteria is in accordance with the 2018 North Carolina Residential Code (2015 IRC)*, including provisions allowing existing structures to not require strengthening if the new loads do not exceed existing design loads by 105% for gravity elements and 110% for seismic elements. This analysis indicates that the existing framing will support the additional panel loading without damage, if installed correctly.*

D. Solar Panel Anchorage

1. The solar panels shall be mounted in accordance with the most recent Unirac installation manual. If during solar panel installation, the roof framing members appear unstable or deflect non-uniformly, our office should be notified before proceeding with the installation.
2. The maximum allowable withdrawal force for a $^{5}/_{16}$" lag screw is 229 lbs per inch of penetration as identified in the National Design Standards (NDS) of timber construction specifications. Based on a minimum penetration depth of 2½", the allowable capacity per connection is greater than the design withdrawal force (demand). Considering the variable factors for the existing roof framing and installation tolerances, the connection using one $^{5}/_{16}$" diameter lag screw with a minimum of 2½" embedment will be adequate and will include a sufficient factor of safety.
3. Considering the wind speed, roof slopes, size and spacing of framing members, and condition of the roof, the panel supports shall be placed no greater than 48" on center.

Based on the above evaluation, this office certifies that with the racking and mounting specified, the existing roof system will adequately support the additional loading imposed by the solar system. This evaluation is in conformance with the 2018 North Carolina Residential Code (2015 IRC), current industry standards, and is based on information supplied to us at the time of this report.

Should you have any questions regarding the above or if you require further information do not hesitate to contact me.

Very truly yours,

Scott E. Wyssling, PE
North Carolina License No. 46546
North Carolina COA P-2308

Wyssling Consulting, PLLC
76 N Meadowbrook Drive Alpine UT 84004
North Carolina COA # P-2308

NEW PV ROOF MOUNT SYSTEM DESIGN

SCOPE OF WORK

(30) JINKO JKM390M-72HBL-V
(1) SOLAREDGE SE10000H-US
ROOF MOUNT: UNIRAC FLASH KIT PRO
MOUNTING RAILS: UNIRAC SM LIGHT

SITE CONDITION

ASCE 7-10 WIND SPEED -117
EXPOSURE CATEGORY - C
RISK CATEGORY - II
SNOW LOAD - 15 LBS/SQFT

UTILITY COMPANY

DUKE ENERGY PROGRESS

INTERCONNECTION TYPE

PROTECTED LOAD SIDE TAP

CODE REFERENCES

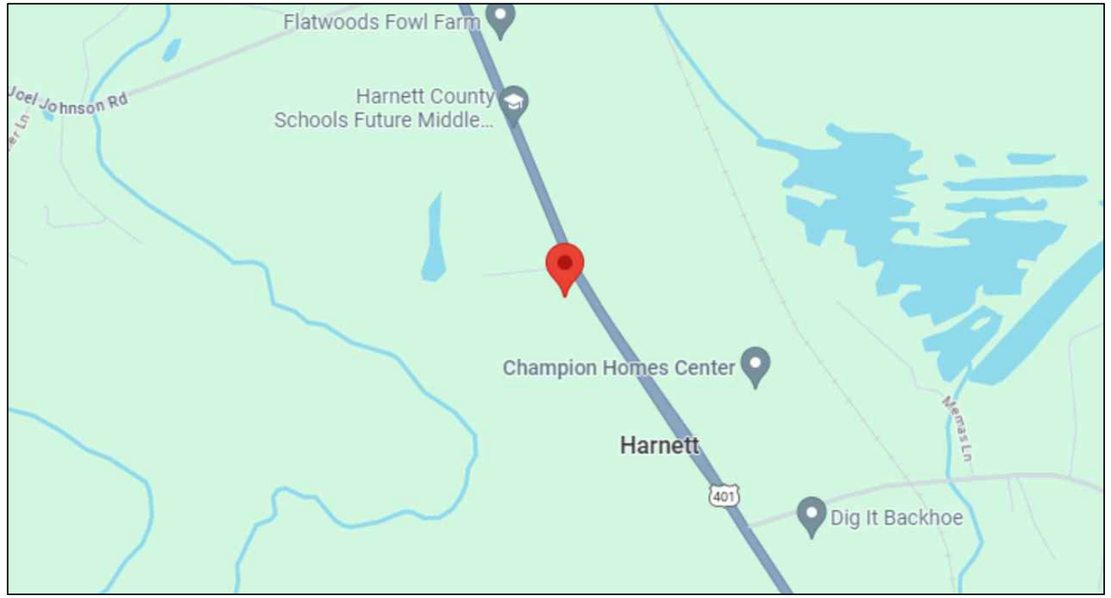
2020 NATIONAL ELECTRICAL CODE
2015 NORTH CAROLINA FIRE CODE
2015 NORTH CAROLINA BULDING CODE
2015 NORTH CAROLINA RESIDENTIAL CODE

SHEET INDEX

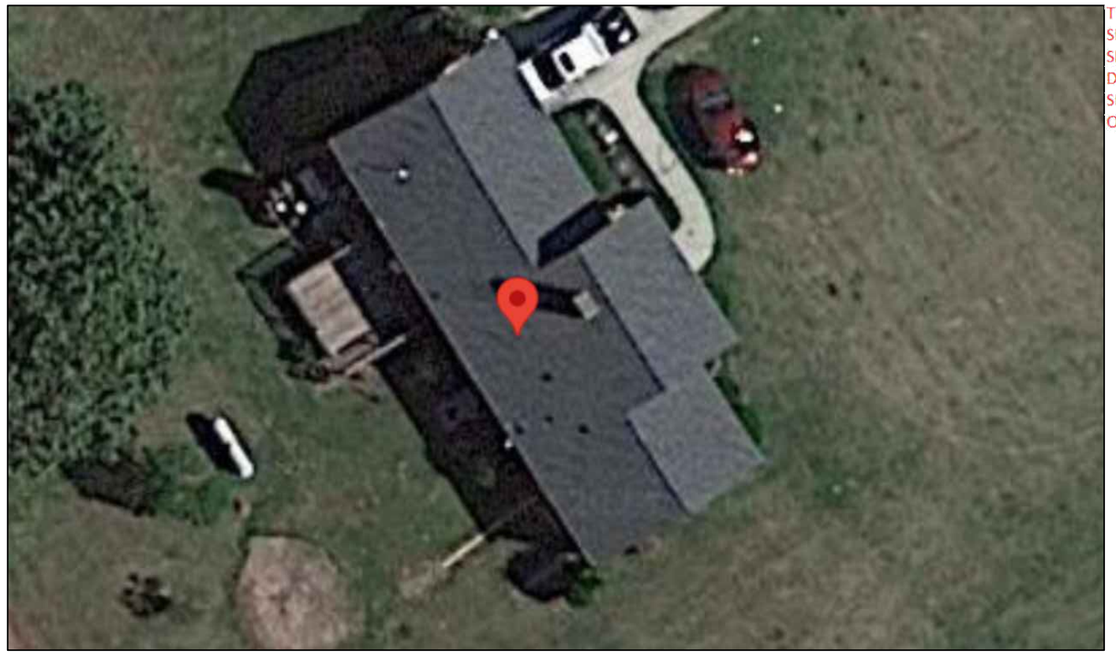
LEGEND

- ● - ROOF ACCESS POINT
- (E) - EXISTING
- (N) - NEW
- M - UTILITY METER
- P - PRODUCTION METER
- MSP - MAIN SERVICE PANEL
- ▨ - FIRE CODE SETBACKS
- CP - COMBINER PANEL
- G - GAS METER
- LC - LOAD CENTER
- SUB - SUBPANEL
- JB - JUNCTION BOX
- AC - AC DISCONNECT
- ─ - APPROX. CONDUIT/ATTIC RUN
- BAT - ENERGY STORAGE
- GEN - GENERATOR
- MBE - MAIN BREAKER ENCLOSURE
- ATS - AUTOMATIC TRANSFER SWITCH
- ESS - ENPOWER SMART SWITCH
- INV - INVERTER

VICINITY MAP



PROPERTY MAP



CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

NORTH CAROLINA PROFESSIONAL SEAL 046546 ENGINEER SCOTT E. WYSSLING

Wyssling Consulting, PLLC
76 N Meadowbrook Drive Alpine UT 84004
North Carolina COA # P-2308

Signed 1/30/2024

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS

DESCRIPTION	DATE	REV

PROJECT INFORMATION

PV1.1

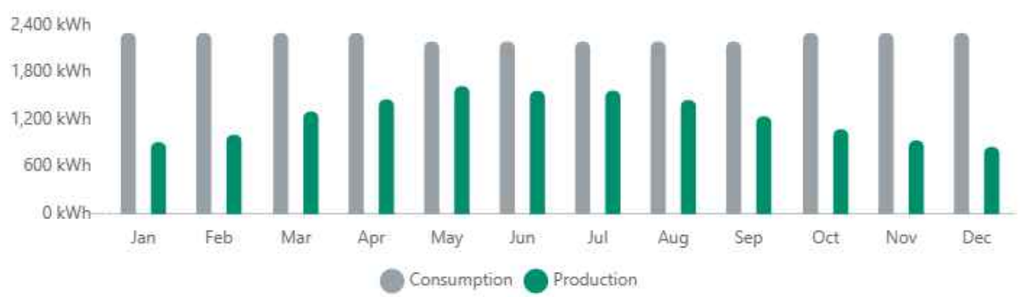
Simulation updated | Size 11.70kW | Production 55% | Savings 69%

Production | Utility Bill Savings

ANNUAL PRODUCTION

30	14,978kWh	55%
Panels	Energy	Energy Offset

MONTHLY PRODUCTION (KWH)



AURORA SOLAR SHADE ANALYSIS
FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546
11.7 KW DC STC
10 KW AC

MODULES
(30) JINKO JKM390M-72HBL-V

INVERTERS:
(1) SOLAREDGE SE10000H-US

OPTIMIZERS:
(30) S440 POWER OPTIMIZERS

THE SYSTEM HAS A FIRST YEAR ANNUAL ENERGY PRODUCTION OF: 14978 KWH/YEAR

THIS PRODUCTION IS AN ESTIMATE PREPARED USING AURORA SOLAR SHADE ANALYSIS SOFTWARE. ALL SOLAR SYSTEMS EXPERIENCE PERFORMANCE DEGRADATION OVER THEIR LIFETIME. THIS IS USUALLY APPROXIMATELY 1% PER YEAR, BUT VARIES BASED ON EQUIPMENT USED AND ENVIRONMENTAL CONDITIONS.

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

NORTH CAROLINA PROFESSIONAL SEAL 046546 ENGINEER SCOTT E. WYSSLING

Wyssling Consulting, PLLC
76 N Meadowbrook Drive Alpine UT 84004
North Carolina COA # P-2308

Signed 1/30/2024

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS

DESCRIPTION	DATE	REV

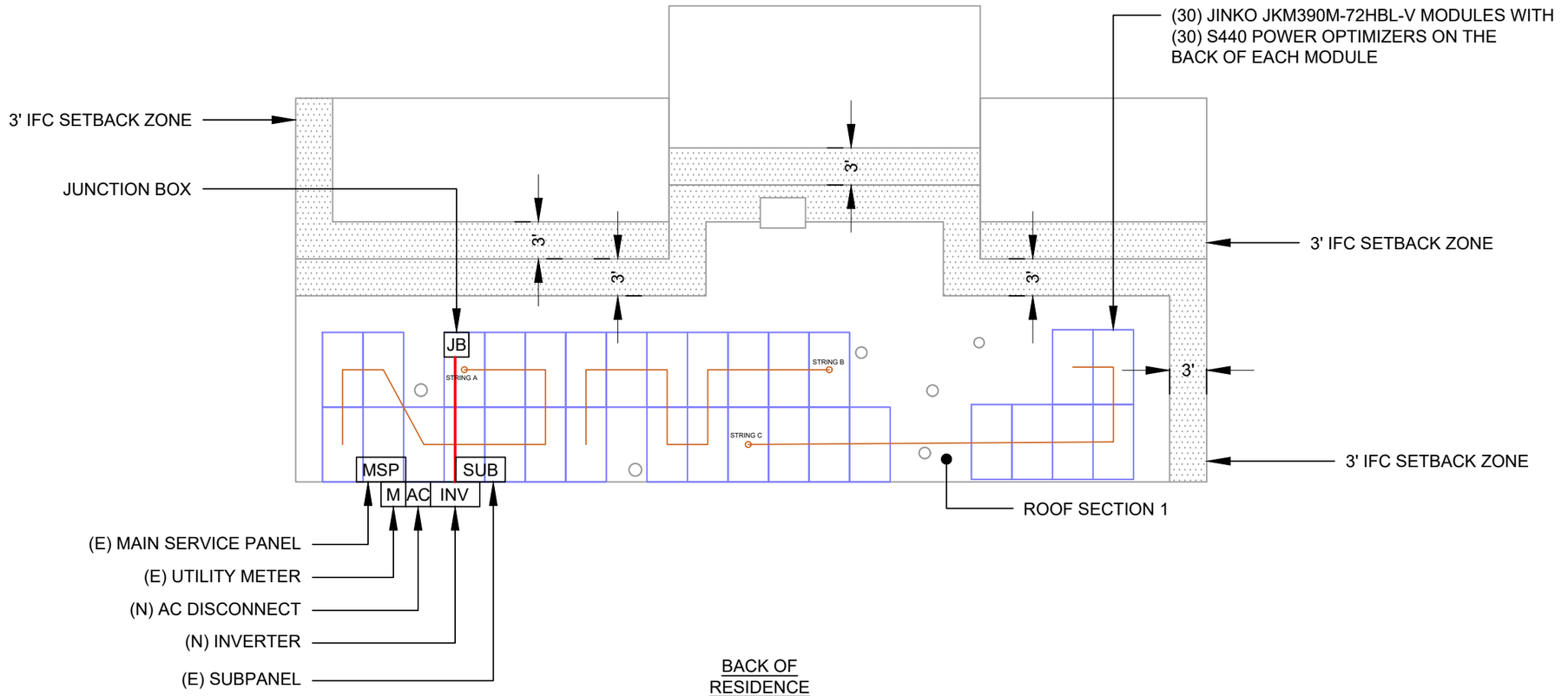
PROJECT INFORMATION

PV1.2

LEGEND

- ROOF ACCESS POINT
- (E) - EXISTING
- (N) - NEW
- M - UTILITY METER
- P - PRODUCTION METER
- MSP - MAIN SERVICE PANEL
- AC - AC DISCONNECT
- CP - COMBINER PANEL
- ENV - ENVOY
- FIRE CODE SETBACKS
- G - GAS METER
- LC - LOAD CENTER
- SUB - SUBPANEL
- JB - JUNCTION BOX
- APPROX. CONDUIT/ATTIC RUN
- BAT - ENERGY STORAGE
- GEN - GENERATOR
- MBE - MAIN BREAKER ENCLOSURE
- INV - INVERTER
- ESS - ENPOWER SMART SWITCH
- APPROX. PROPERTY LINE

FRONT OF RESIDENCE



BACK OF RESIDENCE

ROOF AREAS	
ROOF SECTION 1 - SURFACE AREA	1616 SQ.FT
ROOF SECTION 1 - SOLAR COVERAGE	650 SQ.FT
ROOF SECTION 1 - PERCENTAGE COVER	40%
ROOF TOTAL SURFACE AREA	1616 SQ.FT
ROOF TOTAL SOLAR COVERAGE	650 SQ.FT
ROOF TOTAL PERCENTAGE COVER	40%

1 SITE PLAN
SCALE: 3/32" = 1'-0"

NOTE: PROVIDE ADDITIONAL JUNCTION BOXED AS REQUIRED TO COMBINE MODULES ON DIFFERENT ARRAYS INTO A SINGLE STRING.

NOTE: NFPA-1//FFPC 11.12.2.2.2 ZONES THAT ARE DIMENSIONED AS 18" MEET REQUIREMENTS PER CODE AND INDICATE A 3' SETBACK SPLIT BETWEEN A HIP OR VALLEY.

NFPA-1/FFPC SECTION 11.12.2.2.2 REQUIRED 3 FEET ACCESS, PATHWAYS, AND SETBACKS. DO NOT PLACE ANY PV MODULES IN THIS SPACE.

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

NORTH CAROLINA PROFESSIONAL SEAL 046546 ENGINEER SCOTT E. WYSSLING

Wyssling Consulting, PLLC
76 N Meadowbrook Drive Alpine UT 84004
North Carolina COA # P-2308

Signed 1/30/2024

ENGINEERING STAMP:

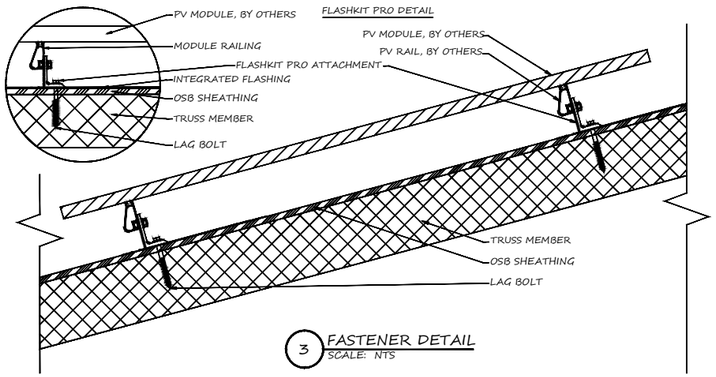
DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS

DESCRIPTION	DATE	REV

SITE INFORMATION

PV2.1



3 FASTENER DETAIL
SCALE: NTS

ROOF INFO									FT	SQ.FT	LBS	
Layout	Count	Azimuth	Tilt	Solar Access	Roof Type	Portrait	Landscape	Count	Rail Length	Array Area	Array Weight	Surface Area
Roof Section 1	30	238	5/12 (22.62°)	94	Comp Shingle		86	86	200	650	400	1615.94

DEAD LOAD CALCULATIONS			
LOAD	QTY	WEIGHT	TOTAL
MODULE	30	49.6	1488
MICROINVERTER	30	2.38	71.4
RAILS LINEAR FT	1133	0.5	566.5
ATTACHMENT	86	0.74	63.64
TOTAL ARRAY WEIGHT			2189.54
AREA NAME	QTY	FT2	TOTAL FT2
MODULES	30	21.66	649.77
POINT LOAD (TOTAL ARRAY WEIGHT / # OF ATTACHMENTS)			25.45976744
DISTRIBUTED LOAD (TOTAL WEIGHT / ARRAY AREA			3.37

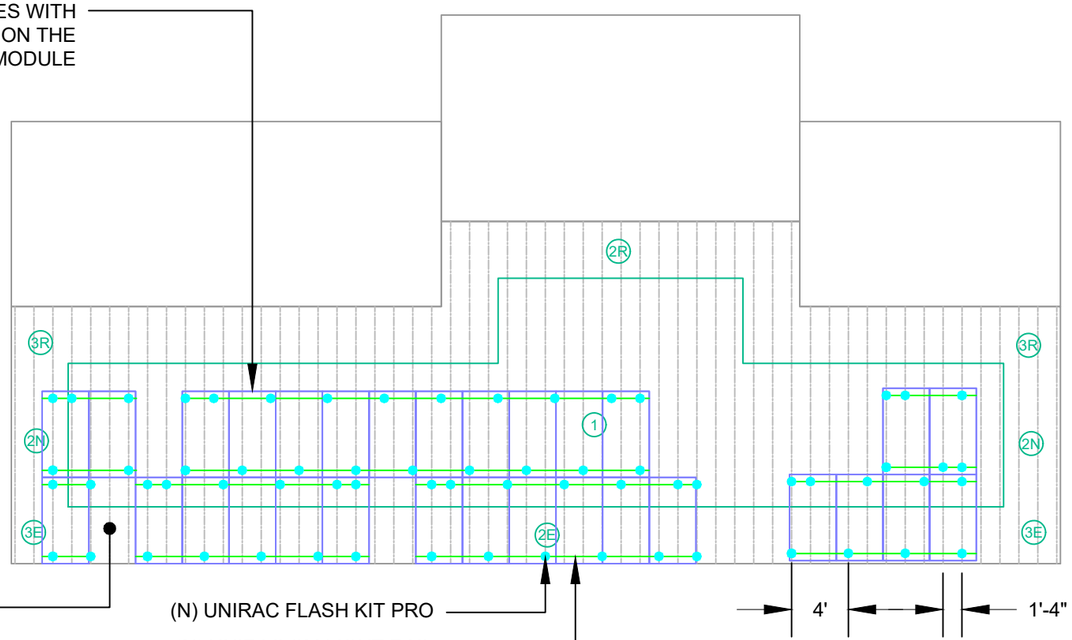
ROOF SUMMARY	
STRUCTURE	
TYPE	TRUSS
MATERIAL	SOUTHERN PINE #2
SIZE	2"x4"
SPACING	16"
DECKING:	
TYPE	OSB
MATERIAL	WOOD COMPOSITE
THICKNESS	7/16"
WEIGHT	1.6 LBS/SQFT
ROOFING:	
TYPE	ARCH SHINGLE
MATERIAL	ASPHALT
WEIGHT	2.3 LBS/SQFT

ATTACHMENTS	
ROOF MOUNT	86
RAIL COUNT	15
SPLICE BAR	12
MID CLAMPS	46
END CLAMPS	28

ROOF MOUNT, FASTENER AND RAIL	
ROOF MOUNT:	
MAKE	UNIRAC
MODEL	FLASH KIT PRO
MATERIAL	ALUMINUM
FASTENER:	
MAKE	GENERIC
MODEL	LAG BOLT
MATERIAL	SS LAG W/EPDM WASHER
SIZE	5/16" X4"
GENERAL	
WEIGHT	1 LBS
FASTENERS PER MOUNT	1 PER MOUNT
MAX. PULL-OUT FORCE	800 LBS
SAFETY FACTOR	2
DESIGN PULL-OUT FORCE	400 LBS
LAG BOLT EMBEDDED WITH 2.5" OF THREAD IN WOOD TRUSSES MEMBER	
MOUNTING RAIL:	
MAKE	Unirac
MODEL	SM Light
MATERIAL	ALUMINUM
WEIGHT	1 LBS
SPACING	48"

PV MODULES	
MAKE	JINKO
MODEL	JKM390M-72HBL-V
WIDTH	39 INCHES
LENGTH	79 INCHES
THICKNESS	2 INCHES
WEIGHT	50 LBS

(30) JINKO JKM390M-72HBL-V MODULES WITH
(30) S440 POWER OPTIMIZERS ON THE
BACK OF EACH MODULE



ROOF SECTION 1

(N) UNIRAC FLASH KIT PRO

(N) UNIRAC SM LIGHT RAIL

LEGEND

- ROOF ACCESS POINT
(E) - EXISTING
(N) - NEW
M - UTILITY METER
P - PRODUCTION METER
MSP - MAIN SERVICE PANEL
AC - AC DISCONNECT
CP - COMBINER PANEL
ENV - ENVOY
- FIRE CODE SETBACKS
G - GAS METER
LC - LOAD CENTER
SUB - SUBPANEL
JB - JUNCTION BOX
- APPROX. CONDUIT/ATTIC RUN
BAT - ENERGY STORAGE
GEN - GENERATOR
MBE - MAIN BREAKER ENCLOSURE
INV - INVERTER
ESS - ENPOWER SMART SWITCH
- APPROX. PROPERTY LINE

ROOF SECTION

SCALE: 3/32" = 1'-0"

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF
MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

NORTH CAROLINA PROFESSIONAL SEAL 046546 ENGINEER SCOTT E. WYSSLING

Wyssling Consulting, PLLC
76 N Meadowbrook Drive Alpine UT 84004
North Carolina COA # P-2308

Signed 1/30/2024

THIS PLAN HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SCOTT WYSSLING, PE USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS		
DESCRIPTION	DATE	REV

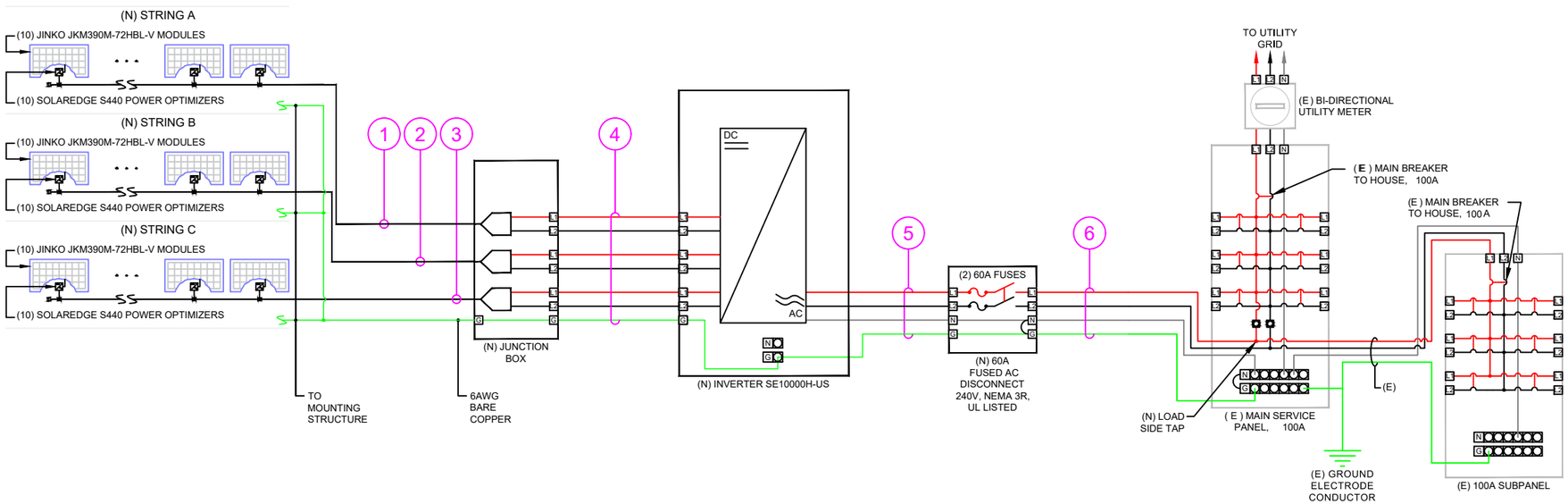
STRUCTURAL INFORMATION

PV3.1

ID	INITIAL CONDUCTOR LOCATION	FINAL CONDUCTOR LOCATION	MIN. CONDUCTOR SIZE (AWG)		MIN. DIA CONDUIT SIZE (IN.)	# OF PARALLEL CIRCUITS	CURRENT-CARRYING CONDUCTORS IN CONDUIT	OCPD (A)	MIN. EGC SIZE (AWG)		TEMP. CORR. FACTOR		CONDUIT FILL FACTOR	CONT. CURRENT (A)	MAX. CURRENT (A)	BASE AMP. (A)	DERATED AMP. (A)	TERM. AMP. RATING (A)	LENGTH (FT)	VOLTAGE DROP (%)
1	STRING A	JUNCTION BOX	10	PV WIRE	N/A	1	2	N/A	6	BARE COPPER	0.76	55°C	N/A	15.73	19.66	40	N/A	N/A	55.00	0.90
2	STRING B	JUNCTION BOX	10	PV WIRE	N/A	1	2	N/A	6	BARE COPPER	0.76	55°C	N/A	15.73	19.66	40	N/A	N/A	55.00	0.90
3	STRING C	JUNCTION BOX	10	PV WIRE	N/A	1	2	N/A	6	BARE COPPER	0.76	55°C	N/A	15.73	19.66	40	N/A	N/A	55.00	0.90
4	JUNCTION BOX	IQ COMBINER	10	THWN-2 COPPER	0.75 LTNM	3	6	20	10	THWN-2 COPPER	0.76	55°C	0.8	15.73	19.66	40	24.3	35	35.00	0.57
5	IQ COMBINER	AC DISCONNECT	8	THWN-2 COPPER	0.75 LTNM	1	3	60	10	THWN-2 COPPER	0.96	33°C	1	47.19	58.99	55	52.8	50	5.00	0.15
6	AC DISCONNECT	MSP	6	THWN-2 COPPER	0.75 LTNM	1	3	60	6	THWN-2 COPPER	0.96	33°C	1	47.19	58.99	75	72.0	65	5.00	0.10

LIST OF EQUIPMENT

EQUIPMENT	QTY	DESCRIPTION
SOLAR PV MODULE	30	JINKO JKM390M-72HBL-V
POWER OPTIMIZER	30	SOLAREDGE S440 POWER OPTIMIZER
JUNCTION BOX	1	JUNCTION BOX, NEMA 3R, UL LISTED
INVERTER	1	SOLAREDGE SE10000H-US
AC DISCONNECT	1	60A FUSED AC DISCONNECT, 240V, NEMA 3R, UL LISTED
SUBPANEL	1	100A SUBPANEL



CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS

DESCRIPTION	DATE	REV

ELECTRICAL INFORMATION

PV4.1

MODULE OPTIMIZER	
MAKE	SOLAREDGE
MODEL	S440
DC INPUT:	
RATED POWER	440 WATTS
VOLT. RANGE	8-60
MAX. SCC	14.5 AMPS
MAX. DC INPUT CURRENT	14.5 AMPS
DC OUTPUT:	
MAX. CURRENT	15 AMPS
MX. VOLT.	60 VOLTS
MAX. SYSTEM VOLT.	1000 VOLTS
MIN. STRING	8 OPTIMIZERS
MAX. STRING	25 OPTIMIZERS
MAX. POWER	
INVERTERS: SE3800H-SE6000H	5700 WATTS
INVERTERS: SE7600H-SE114000H	6000 WATTS

DC/ AC INVERTER (NEW)	
MANUFACTURER/ MODEL	SOLAREDGE SE10000H-US (240V)
MAX AC OUTPUT	42
AC OUTPUT VOLTAGE	240
MAX DC INPUT VOLTAGE	480
MAX INPUT CURRENT	27
WEIGHTED CEC EFFICIENCY	99%
INVERTER WATTAGE	10000 W

NOTES:

- USE MODEL SE10000H-US INVERTER WITH REVENUE GRADE PRODUCTION AND CONSUMPTION METER

AC DISCONNECT	
MAKE	N/A
MODEL	N/A
ENCL. RATING	NEMA 3R
VOLT. RATING	240 VOLTS
BUS RATING	60 AMPS
UL LIST. (Y/N)	YES
FUSED (Y/N)	YES
FUSE RATING	40 AMPS

NOTES:

- LOAD-BREAK RATED
- VISIBLE OPEN
- LOCKABLE IN OPEN POSITION
- INSTALL ADJACENT TO METER
- DISCONNECT TO BE READILYACCESSIBLE TO UTILITY COMPANYPERSONNEL AT ALL TIMES
- SERVICE RATED
- PROVIDE NEUTRAL/GROUND BONDING JUMPER

MD PANEL (EXISTING)	
MAKE	N/A
MODEL	120/240
ENCL. RATING	NEMA 3R
VOLT. RATING	240 VOLTS
BUS RATING	100 AMPS
UL LIST. (Y/N)	YES
MAIN BREAKER (Y/N)	NO
BREAKER RATING	100 AMPS

NOTES:

- BACK-FEED SOLAR OUTPUT VIA FEEDER TAP INSIDE OF METER/ 6-THROW DISCONNECT COMBO
- SUBPANEL FED VIA 100A BREAKER IN 6-THROW DISCONNECT

SUBPANEL (EXISTING)	
MAKE	N/A
MODEL	N/A
ENCL. RATING	NEMA 3R
VOLT. RATING	240 VOLTS
BUS RATING	100 AMPS
UL LIST. (Y/N)	YES
FUSED (Y/N)	100 AMPS
FUSE RATING	N/A

JUNCTION BOX	
MAKE	SOLADECK
MODEL	0783-3R
PRO. RATING	NEMA 3R
VOLT. RATING	600 VOLTS
AMP RATING	120 AMPS
UL LISTING	UL 50

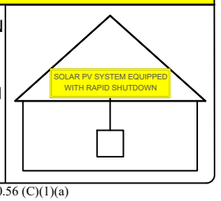
NOTES:

- PROVIDE ADDITIONAL JUNCTION BOXED AS REQUIRED TO COMBINE MODULES ONDIFFERENT ARRAYS INTO A SINGLESTRING

EQUIPMENT LABELS

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)
PLACE WITHIN 3FT OF SERVICE DISCONNECTING MEANS TO WHICH THE PV SYSTEMS ARE CONNECTED AND SHALL INDICATE THE LOCATIONS OF RAPID SHUTDOWN SWITCHES

WARNING: PHOTOVOLTAIC POWER SOURCE

NEC 690.31 (G)(3)&(4)
PLACE ON ALL JUNCTION BOXES, EXPOSED RACEWAYS, AND OTHER WIRING METHODS EVERY 10' AND ON EVERY SECTION SEPARATED BY ENCLOSURES, WALLS, PARTITIONS, CEILINGS, OR FLOORS.

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

NEC 690.56 (C)(3)
PLACE ON RAPID SHUTDOWN SWITCH OR EQUIPMENT WITH INTEGRATED RAPID SHUTDOWN *REFLECTIVE*

⚠WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

NEC 705.12 (B)(3)
PLACE ON ALL EQUIPMENT THAT IS SUPPLIED BY BOTH POWER SOURCES

⚠WARNING
ELECTRIC SHOCK HAZARD
TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

NEC 690.13 (B)
PLACE ON PV SYSTEM DISCONNECTING MEANS.

EQUIPMENT LABEL NOTES
1. LABELS SHOWN ARE 1/2 THEIR ACTUAL REQUIRED SIZE.
2. LABEL MATERIAL SHALL BE SUITABLE FOR THE EQUIPMENT ENVIRONMENT.
3. CONDUIT SHALL BE MARKED WITH REQUIRED LABEL EVERY 10 FEET.

PHOTOVOLTAIC POWER SOURCE
OPERATING AC VOLT. 240 VAC
MAXIMUM OPERATING AC OUTPUT CURRENT 42 AMPS

NEC 690.54
PLACE ON INTERCONNECTION DISCONNECTING MEANS

DIRECT CURRENT
PHOTOVOLTAIC POWER SOURCE
MAXIMUM VOLTAGE 600 VDC
MAX CIR. CURRENT 37.5 AMPS

NEC 690.53
PLACE ON ALL DC DISCONNECTING MEANS

PV SYSTEM DISCONNECT

NEC 690.13 (B)
PLACE ON PV SYSTEM DISCONNECTING MEANS.

CONSTRUCTION NOTES

1. ALL WORK AND EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL, STATE, AND LOCAL CODES AND ORDINANCES
2. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS, BEST PRACTICES, AND SPECIFICATIONS
3. WIRES SHALL BE RATED AND LABELED "SUNLIGHT RESISTANT" WHERE EXPOSED TO AMBIENT CONDITIONS
4. THE PHOTOVOLTAIC SYSTEM SHALL NOT EXCEED 600 VOLTS OR 800 AMPS
5. EACH ELECTRICAL APPLIANCE SHALL BE PROVIDED WITH A NAMEPLATE GIVING THE IDENTIFYING NAME AND THE RATING IN VOLTS AND AMPERES, OR VOLTS AND WATTS. IF THE APPLIANCE IS TO BE USED ON A SPECIFIC FREQUENCY OR REQUENCIES, IT SHALL BE SO MARKED. WHERE MOTOR OVERLOAD PROTECTION EXTERNAL TO THE APPLIANCES IS REQUIRED, THE APPLIANCE SHALL BE SO MARKED
6. WHERE APPLICABLE, GROUNDING ELECTRODE CONDUCTOR TO BE CONTINUOUS.GROUNDING CRIMPS TO BE IRREVERSIBLE
7. IN ONE- AND TWO-FAMILY DWELLINGS, LIVE PARTS IN PHOTOVOLTAIC SOURCE CIRCUITS AND PHOTOVOLTAIC OUTPUT CIRCUITS OVER 150 VOLTS TO GROUND, SHALL ONLY BE ACCESSIBLE TO QUALIFIED PERSONS WHILE ENERGIZED.
8. PHOTOVOLTAIC SYSTEMS SHALL BE PERMANENTLY MARKED AT VARIOUS EQUIPMENT LOCATIONS TO IDENTIFY THAT A PHOTOVOLTAIC SYSTEM IS INSTALLED AND THAT VARIOUS DANGERS ARE PRESENT.
9. EACH PHOTOVOLTAIC SYSTEM DISCONNECTING MEANS SHALL BE PERMANENTLY MARKED TO IDENTIFY IT AS A PHOTOVOLTAIC SYSTEM DISCONNECT
10. WHERE ALL TERMINALS OF A DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPENPOSITION, A WARNING SIGN SHALL BE MOUNTED ON OR ADJACENT TO THE DISCONNECT
11. A PERMANENT LABEL FOR THE DIRECT-CURRENT PHOTOVOLTAIC POWER SOURCE SHALL BE PROVIDED BY THE INSTALLED AT THE DC DISCONNECT MEANS
12. A PERMANENT PLAQUE OR DIRECTORY, DENOTING ALL ELECTRIC POWER SOURCES SERVING THE PREMISES, SHALL BE INSTALLED AT EACH SERVICE EQUIPMENTLOCATION AND AT LOCATIONS OF ALL POWER PRODUCTION SOURCES.
13. A PERMANENT PLAQUE OR DIRECTORY SHALL BE PROVIDED DENOTING THE LOCATIONSOF THE SERVICE DISCONNECT MEANS AND THE PHOTOVOLTAIC SYSTEM DISCONNECTMEANS IF THEY ARE NOT LOCATED AT THE SAME LOCATION.
14. ALL MODULE GROUND CONNECTIONS SHALL BE MADE IN ACCORDANCE WITH NEC SECTION 690.4 (C)

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS

DESCRIPTION	DATE	REV

ELECTRICAL INFORMATION

PV4.2

EAGLE
MODULES

THE MOST DEPENDABLE SOLAR PRODUCT

EAGLE G2 BLACK

380-400 WATT • MONO PERC HALF-CELL MODULE

Positive power tolerance of 0~+3%

*PRELIMINARY VERSION

- NYSE-listed since 2010, Bloomberg Tier 1 manufacturer
- Top performance in the strictest 3rd party labs
- Automated manufacturing utilizing artificial intelligence
- Vertically integrated, tight controls on quality
- Premium solar module factory in Jacksonville, Florida

KEY FEATURES

Superior Aesthetics
Black backsheet and black frame create ideal look for residential applications.

Diamond Half-Cell Technology
World-record breaking efficient mono PERC half-cells deliver high power in a small footprint.

Thick and Tough
Fire Type 1 rated module engineered with a thick frame, 3.2mm front side glass, and thick backsheet for added durability.

Shade Tolerant
Twin array design allows continued performance even with shading by trees or debris.

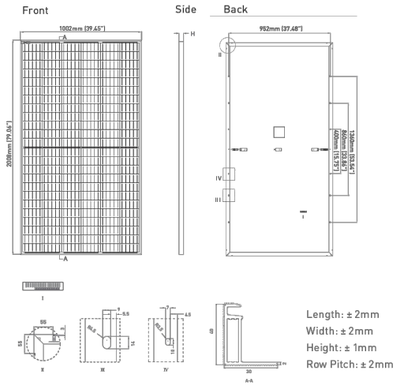
Protected Against All Environments
Certified to withstand humidity, heat, rain, marine environments, wind, hailstorms, and packed snow.

Warranty
12-year product and 25-year linear power warranty.

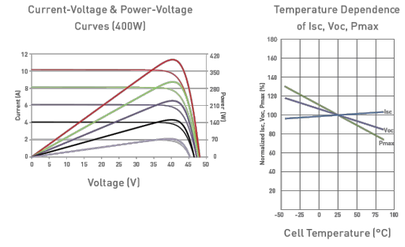
- ISO9001:2008 Quality Standards
- ISO14001:2004 Environmental Standards
- IEC61215, IEC61730 certification pending
- ISO 45001 2018 Occupational Health & Safety Standards
- UL1703/61730 certification pending

BUILDING YOUR TRUST IN SOLAR. WWW.JINKOSOLAR.US

ENGINEERING DRAWINGS



ELECTRICAL PERFORMANCE & TEMPERATURE DEPENDENCE



MECHANICAL CHARACTERISTICS

Cells	Mono PERC Diamond Cell (158.75 x 158.75mm)
No. of Half Cells	144 (6 x 24)
Dimensions	2008 x1002 x 40mm (79.06 x 39.45 x 1.57in)
Weight	22.5kg (49.6lbs)
Front Glass	3.2mm, Anti-Reflection Coating High Transmission, Low Iron, Tempered Glass
Frame	Anodized Aluminum Alloy
Junction Box	IP68 Rated
Output Cables	12 AWG, 1400mm (55.12in)
Connector	Staubli MC4 Series
Fire Type	Type 1
Pressure Rating	5400Pa (Snow) & 2400Pa (Wind)
Hailstone Test	50mm Hailstones at 35m/s

TEMPERATURE CHARACTERISTICS

Temperature Coefficients of Pmax	-0.35%/°C
Temperature Coefficients of Voc	-0.29%/°C
Temperature Coefficients of Isc	0.048%/°C
Nominal Operating Cell Temperature (NOCT)	45±2°C

MAXIMUM RATINGS

Operating Temperature (°C)	-40°C~+85°C
Maximum System Voltage	1500VDC (UL and IEC)
Maximum Series Fuse Rating	20A

PACKAGING CONFIGURATION

(Two pallets = One stack)

27pcs/pallet, 54pcs/stack, 594pcs/40'HQ Container

WARRANTY

12-year product and 25-year linear power warranty

1st year degradation not to exceed 2.5%, each subsequent year not to exceed 0.6%, minimum power at year 25 is 83.1% or greater.

ELECTRICAL CHARACTERISTICS

Module Type	JKM380M-72HBL-V		JKM385M-72HBL-V		JKM390M-72HBL-V		JKM395M-72HBL-V		JKM400M-72HBL-V	
	STC	NOCT	STC	NOCT	SCT	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax)	380Wp	279Wp	385Wp	283Wp	390Wp	287Wp	395Wp	291Wp	400Wp	294Wp
Maximum Power Voltage (Vmp)	39.10V	36.5V	39.37V	36.8V	39.64V	37.0V	39.90V	37.4V	40.16V	37.6V
Maximum Power Current (Imp)	9.72A	7.67A	9.78A	7.71A	9.84A	7.75A	9.90A	7.77A	9.96A	7.82A
Open-circuit Voltage (Voc)	48.2V	45.4V	48.4V	45.6V	48.6V	45.8V	48.8V	46.0V	49.1V	46.2V
Short-circuit Current (Isc)	10.30A	8.32A	10.38A	8.38A	10.46A	8.45A	10.54A	8.51A	10.61A	8.57A
Module Efficiency STC (%)	18.89%		19.14%		19.38%		19.63%		19.88%	

***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%

*PRELIMINARY VERSION
The company reserves the final right for explanation on any of the information presented hereby. JKM380-400M-72HBL-V-D1-US

BUILDING YOUR TRUST IN SOLAR. WWW.JINKOSOLAR.US

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS		
DESCRIPTION	DATE	REV

LABELS,
DETAILS & SPECS

PV5.1

Single Phase Inverter with HD-Wave Technology

for North America

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

INVERTERS

12-25 YEAR WARRANTY

Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking efficiency
- 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)

solaredge.com

solaredge

Single Phase Inverter with HD-Wave Technology for North America

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

	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
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
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
ADDITIONAL FEATURES								
Supported Communication Interfaces	RS485, Ethernet, ZigBee (optional), Cellular (optional)							
Revenue Grade Data, ANSI C12.20	Optional[3]							
Rapid Shutdown - NEC 2014 and 2017 690.12	Automatic Rapid Shutdown upon AC Grid Disconnect							
STANDARD COMPLIANCE								
Safety	UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07							
Grid Connection Standards	IEEE1547, Rule 21, Rule 14 (HI)							
Emissions	FCC Part 15 Class B							
INSTALLATION SPECIFICATIONS								
AC Output Conduit Size / AWG Range	1" Maximum / 14-6 AWG					1" Maximum /14-4 AWG		
DC Input Conduit Size / # of Strings / AWG Range	1" Maximum / 1-2 strings / 14-6 AWG					1" Maximum / 1-3 strings / 14-6 AWG		
Dimensions with Safety Switch (HxWxD)	17.7 x 14.6 x 6.8 / 450 x 370 x 174					21.3 x 14.6 x 7.3 / 540 x 370 x 185		in / mm
Weight with Safety Switch	22 / 10		25.1 / 11.4	26.2 / 11.9		38.8 / 17.6		lb / kg
Noise	< 25				<50			dBA
Cooling	Natural Convection							
Operating Temperature Range	-13 to +140 / -25 to +60[4] (-40°F / -40°C option)[5]							°F / °C
Protection Rating	NEMA 4X (Inverter with Safety Switch)							

(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
(3) Revenue grade inverter P/N: SExxxxH-US000NNC2
(4) For power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf
(5) -40 version P/N: SExxxxH-US000NNU4

RoHS

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS

DESCRIPTION	DATE	REV

EQUIPMENT SPEC SHEETS

PV5.2

Power Optimizer

For Residential Installations

S440 / S500 / S500B / S650B

POWER OPTIMIZER

Enabling PV power optimization at the module level

- Specifically designed to work with SolarEdge residential inverters
- Detects abnormal PV connector behavior, preventing potential safety issues*
- Module-level voltage shutdown for installer and firefighter safety
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch loss, from manufacturing tolerance to partial shading
- Faster installations with simplified cable management and easy assembly using a single bolt
- Flexible system design for maximum space utilization
- Compatible with bifacial PV modules

* Functionality subject to inverter model and firmware version

solaredge.com

solaredge

Power Optimizer

For Residential Installations

S440 / S500 / S500B / S650B

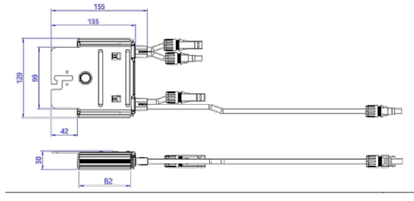
	S440	S500	S500B	S650B	UNIT
INPUT					
Rated Input DC Power(1)	440	500		650	W
Absolute Maximum Input Voltage (Voc)	60		125	85	Vdc
MPPT Operating Range	8 – 60		12.5 – 105	12.5 - 85	Vdc
Maximum Short Circuit Current (Isc) of Connected PV Module	14.5	15			Adc
Maximum Efficiency	99.5				%
Weighted Efficiency	98.6				%
Overvoltage Category	II				
OUTPUT DURING OPERATION					
Maximum Output Current	15				Adc
Maximum Output Voltage	60		80		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)					
Safety Output Voltage per Power Optimizer	1 ± 0.1				Vdc
STANDARD COMPLIANCE(2)					
EMC	FCC Part 15 Class B, IEC61000-6-2, IEC61000-6-3, CISPR11, EN-55011				
Safety	IEC62109-1 (class II safety), UL1741				
Material	UL94 V-0, UV Resistant				
RoHS	Yes				
Fire Safety	VDE-AR-E 2100-712:2018-12				
INSTALLATION SPECIFICATIONS					
Maximum Allowed System Voltage	1000				Vdc
Dimensions (W x L x H)	129 x 155 x 30		129 x 165 x 45		mm
Weight	720		790		gr
Input Connector	MC4(3)				
Input Wire Length	0.1				m
Output Connector	MC4				
Output Wire Length	(+) 2.3, (-) 0.10				m
Operating Temperature Range(4)	-40 to +85				°C
Protection Rating	IP68				
Relative Humidity	0 – 100				%

(1) Rated power of the module at STC will not exceed the Power Optimizer Rated Input DC Power. Modules with up to +5% power tolerance are allowed.
(2) For details about CE compliance, see Declaration of Conformity – CE.
(3) For other connector types please contact SolarEdge.
(4) Power de-rating is applied for ambient temperatures above +85°C for S440 and S500, and for ambient temperatures above +75°C for S500B. Refer to the Power Optimizers Temperature De-Rating Technical Note for details.

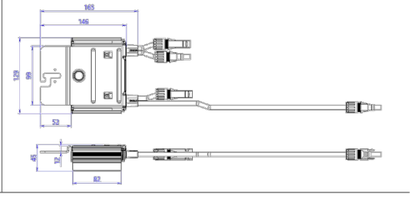
PV System Design Using a SolarEdge Inverter(5)		SolarEdge Home Wave Inverter Single Phase	SolarEdge Home Short String Inverter Three Phase	Three Phase for 230/400V Grid	Three Phase for 277/480V Grid	
Minimum String Length (Power Optimizers)	S440, S500	8	9	16	18	
	S500B, S650B	6	8	14		
Maximum String Length (Power Optimizers)		25	20	50		
Maximum Continuous Power per String		5700	5625	11,250	12,750	W
Maximum Allowed Connected Power per String(6) (In multiple string designs, the maximum is permitted only when the difference in connected power between strings is 2,000W or less)		6800(7)	See(6)	13,500	15,000	W
Parallel Strings of Different Lengths or Orientations		Yes				

(5) It is not allowed to mix S-series and P-series Power Optimizers in new installations in the same string.
(6) If the inverter's rated AC power ≤ maximum continuous power per string, then the maximum connected power per string will be able to reach up to the inverters maximum input DC power. Refer to the Single String Design Guidelines application note.
(7) For inverters with a rated AC power ≥ 8000W that are connected to at least two strings.

S440, S500 (Flat Bracket)



S500B, S650B (Bent Bracket)



CE RoHS

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS

DESCRIPTION	DATE	REV

EQUIPMENT SPEC SHEETS

PV5.3

FLASHKIT PRO

UNIRAC
FEATURING SHED & SEAL TECHNOLOGY

FLASHKIT PRO is the complete attachment solution for composition shingle roofs. Featuring Unirac's patented **SHED & SEAL** technology, a weather proof system which provides the ultimate protection against roof leaks. Kitted in 10 packs for maximum convenience, flashings and hardware are available in Mill or Dark finishes. With **FLASH**KIT pro, you have everything you need for a quick, professional installation.

UNIRAC 25 YEAR FULL-SYSTEM WARRANTY

TRUSTED WATER SEAL FLASHINGS
FEATURING SHED & SEAL TECHNOLOGY

YOUR COMPLETE SOLUTION
Flashings, lags, continuous slot L-Feet and hardware

CONVENIENT 10 PACKS
Packaged for speed and ease of handling

THE COMPLETE ROOF ATTACHMENT SOLUTION

FOR QUESTIONS OR CUSTOMER SERVICE VISIT UNIRAC.COM OR CALL (505) 248-2702

FLASHKIT PRO

INSTALLATION GUIDE

UNIRAC
FEATURING SHED & SEAL TECHNOLOGY

FLASHKIT PRO IS THE COMPLETE FLASHING AND ATTACHMENT SOLUTION FOR COMPOSITION ROOFS.

INSTALL **FLASH**KIT PRO FLASHING

INSTALL L-FOOT

ATTACH L-FOOT TO RAIL

PRE-INSTALL

- Locate roof rafters and snap chalk lines to mark the installation point for each roof attachment.
- Drill a 7/32" pilot hole at each roof attachment. Fill each pilot hole with sealant.

STEP 1 INSTALL **FLASH**KIT PRO FLASHING

- Add a U-shaped bead of roof sealant to the underside of the flashing with the open side of the U pointing down the roof slope. Slide the aluminum flashing underneath the row of shingles directly up slope from the pilot hole as shown. Align the indicator marks on the lower end of the flashing with the chalk lines on the roof to center the raised hole in the flashing over the pilot hole in the roof. When installed correctly, the flashing will extend under the two courses of shingles above the pilot hole.

STEP 2 INSTALL L-FOOT

- Fasten L-foot and Flashing into place by passing the included lag bolt and pre-installed stainless steel-backed EPDM washer through the L-foot EPDM grommet, and the raised hole in the flashing, into the pilot hole in the roof rafter.
- Drive the lag bolt down until the L-foot is held firmly in place. It is normal for the EPDM on the underside of the stainless steel backed EPDM washer to compress and expand beyond the outside edge of the steel washer when the proper torque is applied.

TIP:

- Use caution to avoid over-torqueing the lag bolt if using an impact driver.
- Repeat Steps 1 and 2 at each roof attachment point.

STEP 3 ATTACH L-FOOT TO RAIL

- Insert the included 3/8"-16 T-bolts into the lower slot on the Rail (sold separately), spacing the bolts to match the spacing between the roof attachments.
- Position the Rail against the L-Foot and insert the threaded end of the T-Bolt through the continuous slot in the L-Foot. Apply anti-seize to bolt threads to prevent galling of the T-bolt and included 3/8" serrated flange nut. Place the 3/8" flange nut on the T-bolt and finger tighten. Repeat STEP 3 until all L-Feet are secured to the Rail with a T-bolt. Adjust the level and height of the Rail and torque each bolt to 30ft-lbs.

FASTER INSTALLATION. 25-YEAR WARRANTY.

FOR QUESTIONS OR CUSTOMER SERVICE VISIT UNIRAC.COM OR CALL (505) 248-2702

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF
MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

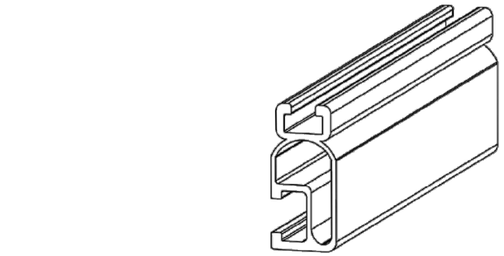
ENGINEERING STAMP:

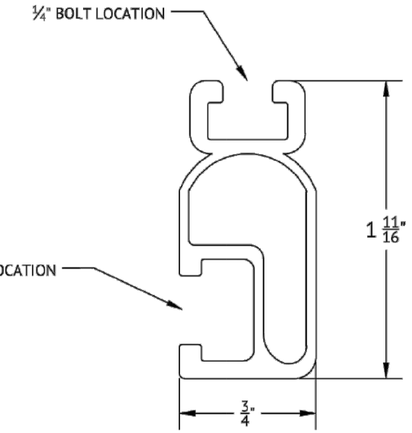
DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS		
DESCRIPTION	DATE	REV

EQUIPMENT
SPEC SHEET

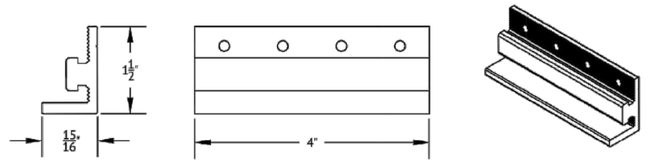
PV5.4

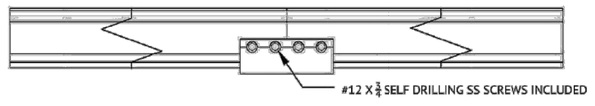




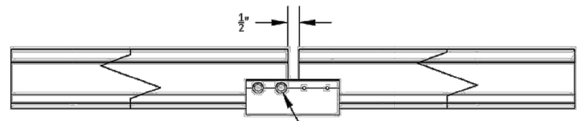
UNIRAC	
1411 BROADWAY BLVD NE ALBUQUERQUE, NM 87102 USA	
WWW.UNIRAC.COM	
PRODUCT LINE:	SOLARMOUNT
DRAWING TYPE:	PART DETAIL
DESCRIPTION:	LIGHT RAIL
REVISION DATE:	APRIL 2016
DRAWING NOT TO SCALE ALL DIMENSIONS ARE NOMINAL	
PRODUCT PROTECTED BY ONE OR MORE US PATENTS	
LEGAL NOTICE	
SM-P02	
SHEET	

BONDING SPLICE BAR





TYPICAL SPLICE BAR DETAIL



TYPICAL EXPANSION JOINT DETAIL

NOTE THAT ONLY 2 SCREWS ARE USED AT AN EXPANSION JOINT. THE SPLICE BAR DOES NOT BOND ACROSS AN EXPANSION JOINT.

UNIRAC	
1411 BROADWAY BLVD NE ALBUQUERQUE, NM 87102 USA	
WWW.UNIRAC.COM	
PRODUCT LINE:	SOLARMOUNT
DRAWING TYPE:	PART & ASSEMBLY
DESCRIPTION:	BONDING SPLICE BAR
REVISION DATE:	APRIL 2016
DRAWING NOT TO SCALE ALL DIMENSIONS ARE NOMINAL	
PRODUCT PROTECTED BY ONE OR MORE US PATENTS	
LEGAL NOTICE	
SM-A01	
SHEET	

CONTRACTOR

635 OLD BARNWELL ROAD
WEST COLUMBIA SC 29170

JOB TITLE

NEW SOLAR PV ROOF
MOUNT SYSTEM
11.7 KW DC INPUT
10 KW AC EXPORT

FERNANDO POMPA HUERTA
3832 US-401,
LILLINGTON, NC, 27546

ENGINEERING STAMP:

DRAWN BY: LEONI MARLOU EBO
DATE: 01 - 26 - 2023

REVISIONS

DESCRIPTION	DATE	REV

EQUIPMENT
SPEC SHEET

PV5.5