NEW PHOTOVOLTAIC SYSTEM 6.39 KW DC
102 SONORA DR, LILLINGTON, NC 27546

GENERAL NOTES

1.1.1 PROJECT NOTES:
1.1.2 THIS PHOTOVOLTAIC (PV) SYSTEM SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE (NEC) ARTICLE 690, ALL MANUFACTURERS'S LISTING AND INSTALLATION INSTRUCTIONS, AND THE RELEVANT CODES AS SPECIFIED BY THE AUTHORITY HAVING JURISDICTION'S (AHJ) APPLICABLE CODES.
1.1.3 THE UTILITY INTERCONNECTION APPLICATION MUST BE APPROVED AND PV SYSTEM INSPECTED PRIOR TO PARALLEL OPERATION
1.1.4 GROUND FAULT DETECTION AND INTERRUPTION (GFDI) DEVICE IS INTEGRATED WITH THE MICRO-INVERTER IN ACCORDANCE WITH NEC 690.41(B)
1.1.5 ALL PV SYSTEM COMPONENTS; MODULES, UTILITY-INTERACTIVE INVERTERS, AND SOURCE CIRCUIT COMBINER BOXES ARE IDENTIFIED AND LISTED FOR USE IN PHOTOVOLTAIC SYSTEMS AS REQUIRED BY NEC 690.4: PV MODULES: UL1703, IEC61730, AND IEC61215, AND NFPA 70 CLASS C FIRE INVERTERS: UL 1741 CERTIFIED, IEEE 1547, 929, 519 COMBINER BOX(ES): UL 1703 OR UL 1741 ACCESSORY
1.1.6 MAX DC VOLTAGE CALCULATED USING MANUFACTURER PROVIDED TEMP COEFFICIENT FOR VOC. IF UNAVAILABLE, MAX DC VOLTAGE CALCULATED ACCORDING TO NEC 690.7.
1.1.7 ALL INVERTERS, PHOTOVOLTAIC MODULES,PHOTOVOLTAIC PANELS, AND SOURCE CIRCUIT COMBINERS INTENDED FOR USE IN A PHOTOVOLTAIC POWER SYSTEM WILL BE IDENTIFIED AND LISTED FOR THE APPLICATION PER 690.4. SHALL BE INSTALLED ACCORDING TO ANY INSTRUCTIONS FROM LISTING OR LABELING [NEC 110.3].
1.1.8 ALL SIGNAGE TO BE PLACED IN ACCORDANCE WITH LOCAL BUILDING CODE. IF EXPOSED TO SUNLIGHT, IT SHALL BE UV RESISTANT. ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS REQUIRED BY THE NEC AND AHJ.

1.2.1 SCOPE OF WORK:
1.2.2 PRIME CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND SPECIFICATIONS OF THE GRID-TIED PHOTOVOLTAIC SYSTEM RETROFIT. PRIME CONTRACTOR WILL BE RESPONSIBLE FOR COLLECTING EXISTING ONSITE REQUIREMENTS TO DESIGN, SPECIFY, AND INSTALL THE EXTERIOR ROOF-MOUNTED PORTION OF THE PHOTOVOLTAIC SYSTEMS DETAILED IN THIS DOCUMENT

1.3.1 WORK INCLUDES:
1.3.2 PV RACKING SYSTEM INSTALLATION - IRONRIDGE XR10
1.3.3 PV MODULE AND INVERTER INSTALLATION - LONGI SOLAR LR4-60HPB-355M / SOLAREDGE SE5000H-US INVERTER / SOLAREDGE POWER OPTIMIZER P370
1.3.4 PV EQUIPMENT ROOF MOUNT
1.3.5 PV SYSTEM WIRING TO A ROOF-MOUNTED JUNCTION BOX
1.3.6 PV LOAD CENTERS (IF INCLUDED)
1.3.7 PV METERING/MONITORING (IF INCLUDED)
1.3.8 PV DISCONNECTS
1.3.9 PV GROUNDING ELECTRODE & BONDING TO (E) GEC
1.3.10 PV FINAL COMMISSIONING
1.3.11 (E) ELECTRICAL EQUIPMENT RETROFIT FOR PV
1.3.12 SIGNAGE PLACED IN ACCORDANCE WITH LOCAL BUILDING CODE

PROJECT INFORMATION

OWNER
NAME: ALLEN ROBERT

SCOPE OF WORK
SYSTEM SIZE: STC:18 X 355W= 6.39 kW DC
PTC: 18 x 331.6W = 5.97 kW DC
(18) LONGI SOLAR LR4-60HPB-355M
(1) SOLAREDGE SE5000H-US
(18) SOLAREDGE POWER OPTIMIZER P370

ATTACHMENT TYPE: ROOF MOUNT
MSP UPGRADE: NO
UTILITY METER UPGRADE: NO

AUTHORITIES HAVING JURISDICTION
BUILDING: HARNETT COUNTY
ZONING: HARNETT COUNTY
UTILITY: SOUTH RIVER ELEC MEMBER CORP
METER NO: 81973687

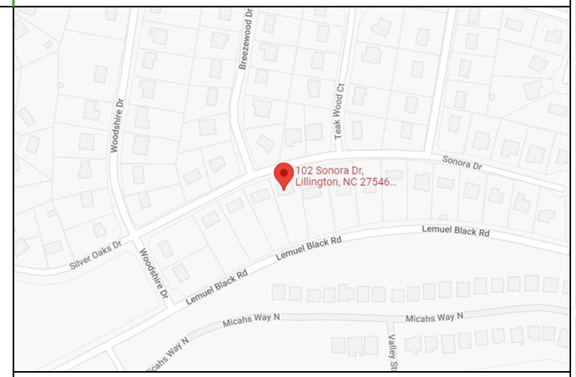
DESIGN SPECIFICATION

OCCUPANCY:	II
CONSTRUCTION:	SINGLE-FAMILY
ZONING:	RESIDENTIAL
GROUND SNOW LOAD:	10 LB/SQFT
WIND EXPOSURE:	B
WIND SPEED:	127 MPH

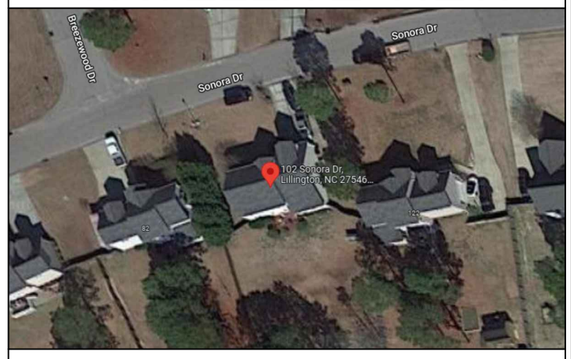
APPLICABLE CODES & STANDARDS

BUILDING:	NCBC 2018, NCRC 2018
ELECTRICAL:	NEC 2017
FIRE:	NCFC 2018

VICINITY MAP



SATELLITE VIEW



SHEET INDEX

CONTRACTOR

COMPLETE SOLAR
3000 EXECUTIVE PKWY
SUITE #504
SAN RAMON, CA 94583
PHONE NUMBER:
(877) 299-4943
Lic# 961988

PROJECT NAME & ADDRESS

ALLEN ROBERT

102 SONORA DR, LILLINGTON, NC 27546

COUNTY:-HARNETT COUNTY

SYSTEM SIZE
DC SIZE: 6.390 KW DC-(STC)
AC SIZE: 5.000 KW AC

SHEET TITLE
COVER PAGE

DRAWN DATE	11/19/2022
DRAWN BY	AP

SHEET NUMBER
G-001

2.1.1 SITE NOTES:

2.1.2 A LADDER WILL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REGULATIONS.
2.1.3 THE PV MODULES ARE CONSIDERED NON-COMBUSTIBLE AND THIS SYSTEM IS A UTILITY INTERACTIVE SYSTEM WITH NO STORAGE BATTERIES.
2.1.4 THE SOLAR PV INSTALLATION WILL NOT OBSTRUCT ANY PLUMBING, MECHANICAL, OR BUILDING ROOF VENTS.
2.1.5 PROPERACCESS AND WORKING CLEARANCE AROUND EXISTING AND PROPOSED ELECTRICAL EQUIPMENT WILL BE PROVIDED AS PERSECTION NEC 110.26.
2.1.6 ROOF COVERINGS SHALL BE DESIGNED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THIS CODE AND THE APPROVED MANUFACTURER'S INSTRUCTIONS SUCH THAT THE ROOF COVERING SERVES TO PROTECT THE BUILDING OR STRUCTURE.

2.2.1 EQUIPMENT LOCATIONS:

2.2.2 ALL EQUIPMENT SHALL MEET MINIMUM SETBACKS AS REQUIRED BY NEC 110.26.
2.2.3 WIRING SYSTEMS INSTALLED IN DIRECT SUNLIGHT MUST BE RATED FOR EXPECTED OPERATING TEMPERATURE AS SPECIFIED BY NEC 690.31 (A),(C) AND NEC TABLES 310.15 (B)(2)(A) AND 310.15 (B)(3)(C).
2.2.4 JUNCTION AND PULL BOXES PERMITTED INSTALLED UNDER PV MODULES ACCORDING TO NEC 690.34.
2.2.5 ADDITIONAL AC DISCONNECT(S) SHALL BE PROVIDED WHERE THE INVERTER IS NOT WITHIN SIGHT OF THE AC SERVICING DISCONNECT.
2.2.6 ALL EQUIPMENT SHALL BE INSTALLED ACCESSIBLE TO QUALIFIED PERSONNEL ACCORDING TO NEC APPLICABLE CODES.
2.2.7 ALL COMPONENTS ARE LISTED FOR THEIR PURPOSE AND RATED FOR OUTDOOR USAGE WHEN APPROPRIATE.

2.3.1 STRUCTURAL NOTES:

2.3.2 RACKING SYSTEM & PV ARRAY WILL BE INSTALLED ACCORDING TO CODE-COMPLIANT INSTALLATION MANUAL. TOP CLAMPS REQUIRE A DESIGNATED SPACE BETWEEN MODULES, AND RAILS MUSTALSO EXTEND A MINIMUM DISTANCE BEYOND EITHER EDGE OF THE ARRAY/SUBARRAY, ACCORDING TO RAI MANUFACTURER'S INSTRUCTIONS.
2.3.3 JUNCTION BOX WILL BE INSTALLED PER MANUFACTURERS' SPECIFICATIONS. IF ROOF-PENETRATING TYPE, IT SHALL BE FLASHED & SEALED PER LOCAL REQUIREMENTS.
2.3.4 ROOFTOP PENETRATIONS FOR PV RACEWAY WILLBE COMPLETED AND SEALED W/ APPROVED CHEMICAL SEALANT PER CODE BY A LICENSED CONTRACTOR.
2.3.5 ALL PV RELATED ROOF ATTACHMENTS TO BE SPACED NO GREATER THAN THE SPAN DISTANCE SPECIFIED BY THE RACKING MANUFACTURER.
2.3.6 WHEN POSSIBLE, ALL PV RELATED RACKING ATTACHMENTS WILL BE STAGGERED AMONGST THE ROOF FRAMING MEMBERS.

2.4.1 WIRING & CONDUIT NOTES:

2.4.2 ALL CONDUIT AND WIRE WILL BE LISTED AND APPROVED FOR THEIR PURPOSE. CONDUIT AND WIRE SPECIFICATIONS AREBASED ON MINIMUM CODE REQUIREMENTS AND ARE NOT MEANT TO LIMIT UP-SIZING.
2.4.3 CONDUCTORS SIZED ACCORDING TO NEC 690.8, NEC 690.7.
2.4.4 VOLTAGE DROP LIMITED TO 1.5%.
2.4.5 DC WIRING LIMITED TO MODULE FOOTPRINT. MICROINVERTER WIRING SYSTEMS SHALL BE LOCATED AND SECURED UNDER THE ARRAY W/ SUITABLE WIRING CLIPS.
2.4.6 AC CONDUCTORS COLORED OR MARKED AS FOLLOWS: PHASE A OR L1- BLACK PHASE B OR L2- RED, OR OTHER CONVENTION IF THREE PHASE PHASE C OR L3- BLUE, YELLOW, ORANGE**, OR OTHER CONVENTION NEUTRAL- WHITE OR GREY IN 4-WIRE DELTA CONNECTED SYSTEMS THE PHASE WITH HIGHER VOLTAGE TO BE MARKED ORANGE [NEC 110.15].

2.5.1 GROUNDING NOTES:

2.5.2 GROUNDING SYSTEM COMPONENTS SHALL BE LISTED FOR THEIR PURPOSE, AND GROUNDING DEVISES EXPOSED TO THE ELEMENTS SHALL BE RATED FOR SUCH USE.
2.5.3 PV EQUIPMENT SHALL BE GROUNDED ACCORDING TO NEC 690.43 AND MINIMUM NEC TABLE 250.122.
2.5.4 METAL PARTS OF MODULE FRAMES, MODULE RACKING, AND ENCLOSURES CONSIDERED GROUNDED IN ACCORD WITH 250.134 AND 250.136(A).
2.5.5 EQUIPMENT GROUNDING CONDUCTORS SHALLBE SIZED ACCORDING TO NEC 690.45 AND MICROINVERTER MANUFACTORERS' INSTRUCTIONS.
2.5.6 EACH MODULE WILL BE GROUNDED USING WEEB GROUNDING CLIPS AS SHOWN IN MANUFACTURERDOCUMENTATION AND APPROVED BY THE AHJ. IF WEEBS ARE NOT USED, MODULE GROUNDING LUGS MUST BE INSTALLED AT THE SPECIFIED GROUNDING LUG HOLES PER THE MANUFACTURERS' INSTALLATION REQUIREMENTS.
2.5.7 THE GROUNDING CONNECTION TO A MODULE SHALL BE ARRANGED SUCH THAT THE REMOVAL OFA MODULE DOES NOT INTERRUPT A GROUNDING CONDUCTOR TO ANOTHER MODULE.
2.5.8 GROUNDING AND BONDING CONDUCTORS, IF INSULATED, SHALL BE COLORED GREEN OR MARKED GREEN IF #4 AWG OR LARGER [NEC 250.119]
2.5.9 THE GROUNDING ELECTRODE SYSTEM COMPLIES WITH NEC 690.47 AND NEC 250.50 THROUGH 250.106. IF EXISTING SYSTEM IS INACCESSIBLE, OR INADEQUATE, A GROUNDING ELECTRODE SYSTEM PROVIDED ACCORDING TO NEC 250, NEC 690.47 AND AHJ.
2.5.10 GROUND-FAULT DETECTION SHALL COMPLY WITH NEC 690.41(B)(1) AND (2) TO REDUCE FIRE HAZARDS

2.6.1 DISCONNECTION AND OVER-CURRENT PROTECTION NOTES:
2.6.2 DISCONNECTING SWITCHES SHALL BE WIRED SUCH THAT WHENTHE SWITCH IS OPENED THE CONDUCTORS REMAINING ENERGIZED ARECONNECTED TO THE TERMINALS MARKED "LINE SIDE" (TYPICALLY THE UPPER TERMINALS).
2.6.3 DISCONNECTS TO BE ACCESSIBLE TO QUALIFIED UTILITY PERSONNEL, BE LOCKABLE, AND BE A VISIBLE-BREAK SWITCH
2.6.4 PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION TO REDUCE SHOCK HAZARD FOR EMERGENCY RESPONDERS IN ACCORDANCE WITH 690.12(A) THROUGH (D).
2.6.5 ALL OCPD RATINGS AND TYPES SPECIFIED ACCORDING TO NEC 690.8, 690.9, AND 240.
2.6.6 MICROINVERTER BRANCHES CONNECTED TO A SINGLE BREAKER OR GROUPED FUSES IN ACCORDANCE WITH NEC 110.3(B).
2.6.7 IF REQUIRED BY AHJ, SYSTEM WILL INCLUDE ARC-FAULT CIRCUIT PROTECTION ACCORDING TO NEC 690.11 AND UL1699B.

2.7.1 INTERCONNECTION NOTES:

2.7.2 LOAD-SIDE INTERCONNECTION SHALL BE IN ACCORDANCE WITH [NEC 705.12 (B)]
2.7.3 THE SUM OF THE UTILITY OCPD AND INVERTER CONTINUOUS OUTPUT MAY NOT EXCEED 120% OF BUSBAR RATING [NEC 705.12(B)(2)(3)(b)].
2.7.4 THE SUM OF 125 PERCENT OF THE POWER SOURCE(S) OUTPUT CIRCUIT CURRENT AND THE RATING OF THE OVERCURRENT DEVICE PROTECTING THE BUSBAR SHALL NOT EXCEED 120 PERCENT OF THE AMPACITY OF THE BUSBAR, PV DEDICATED BACKFEED BREAKERS MUST BE LOCATED OPPOSITE END OF THE BUS FROM THE UTILITY SOURCE OCPD [NEC 705.12(B)(2)(3)].
2.7.5 AT MULTIPLE ELECTRIC POWER SOURCES OUTPUT COMBINER PANEL, TOTAL RATING OF ALL OVERCURRENT DEVICES SHALL NOT EXCEED AMPACITY OF BUSBAR. HOWEVER, THE COMBINED OVERCURRENT DEVICE MAY BE EXCLUDED ACCORDING TO NEC 705.12 (B)(2)(3)(C).
2.7.6 FEEDER TAP INTERCONECTION (LOADSIDE) ACCORDING TO NEC 705.12 (B)(2)(1)
2.7.7 SUPPLY SIDE TAP INTERCONNECTION ACCORDING TO NEC 705.12 (A) WITH SERVICE ENTRANCE CONDUCTORS IN ACCORDANCE WITH NEC 230.42
2.7.8BACKFEEDING BREAKER FOR ELECTRIC POWER SOURCES OUTPUT IS EXEMPT FROM ADDITIONAL FASTENING [NEC 705.12 (B)(5)].

CONTRACTOR

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PROJECT NAME & ADDRESS

ALLEN ROBERT

102 SONORA DR,
LILLINGTON,
NC 27546

COUNTY:-HARNETT COUNTY

SYSTEM SIZE
DC SIZE: 6.390 KW DC-(STC)
AC SIZE: 5.000 KW AC

SHEET TITLE

NOTES

DRAWN DATE	11/19/2022
DRAWN BY	AP

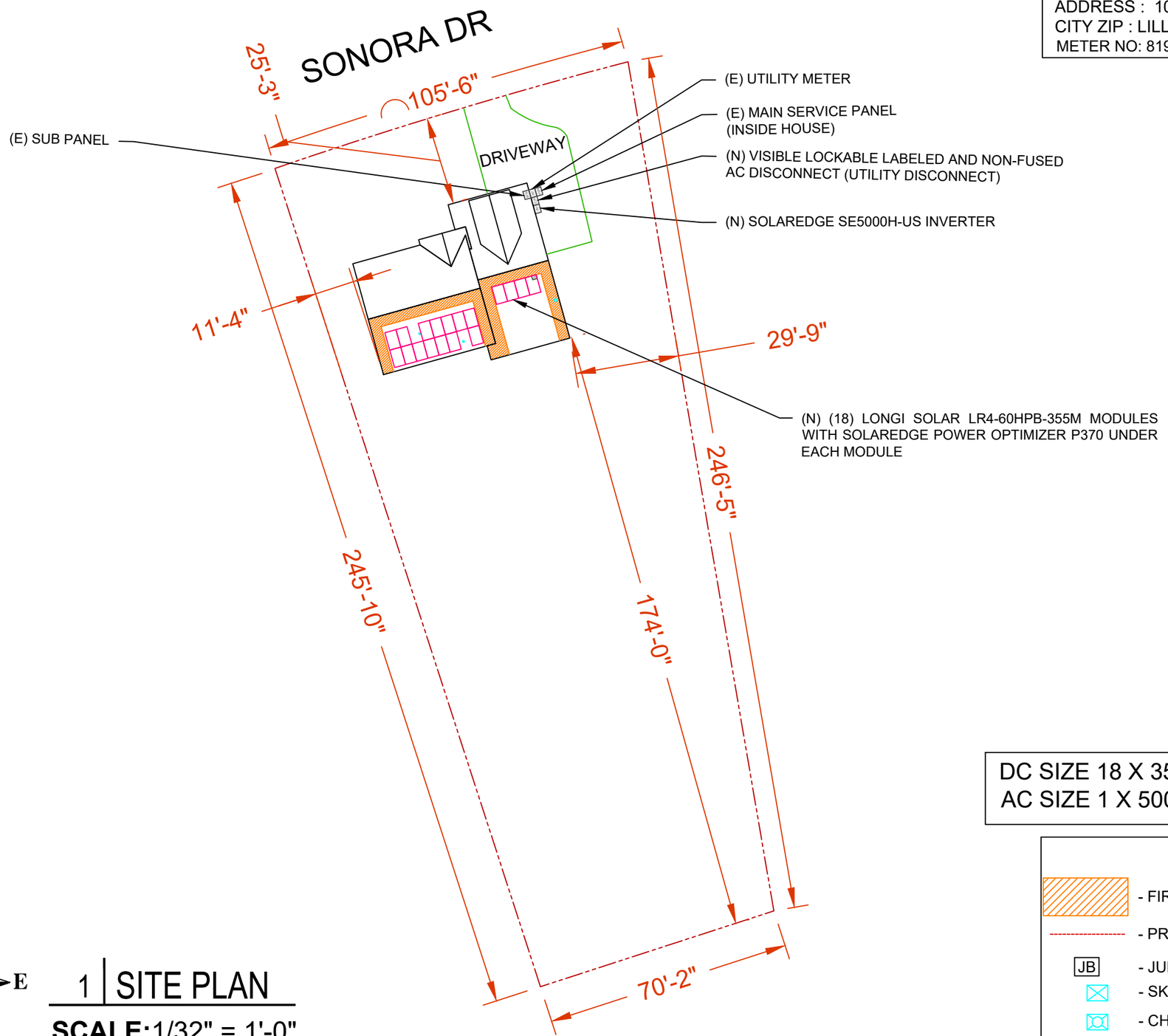
SHEET NUMBER

G-002

TOTAL HOME SQUARE FOOTAGE IS:2105 FT²
TOTAL ARRAY SQUARE FOOTAGE IS: 361.62 FT²
% COVERED BY SOLAR IS: 17.18%

(18) LONGI SOLAR LR4-60HPB-355M
(1) SOLAREDGE SE5000H-US
(18) SOLAREDGE POWER OPTIMIZER P370

ADDRESS : 102 SONORA DR
CITY ZIP : LILLINGTON, NC 27546
METER NO: 81973687



DC SIZE 18 X 355W = 6.390 kW DC-STC
AC SIZE 1 X 5000W = 5.000 kW AC

LEGEND

- FIRE SETBACK
- PROPERTY LINE
- JB - JUNCTION BOX
- SKYLIGHT (ROOF OBSTRUCTION)
- CHIMNEY (ROOF OBSTRUCTION)
- VENT, ATTIC FAN (ROOF OBSTRUCTION)

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1 | SITE PLAN

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

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SITE PLAN

DRAWN DATE	11/19/2022
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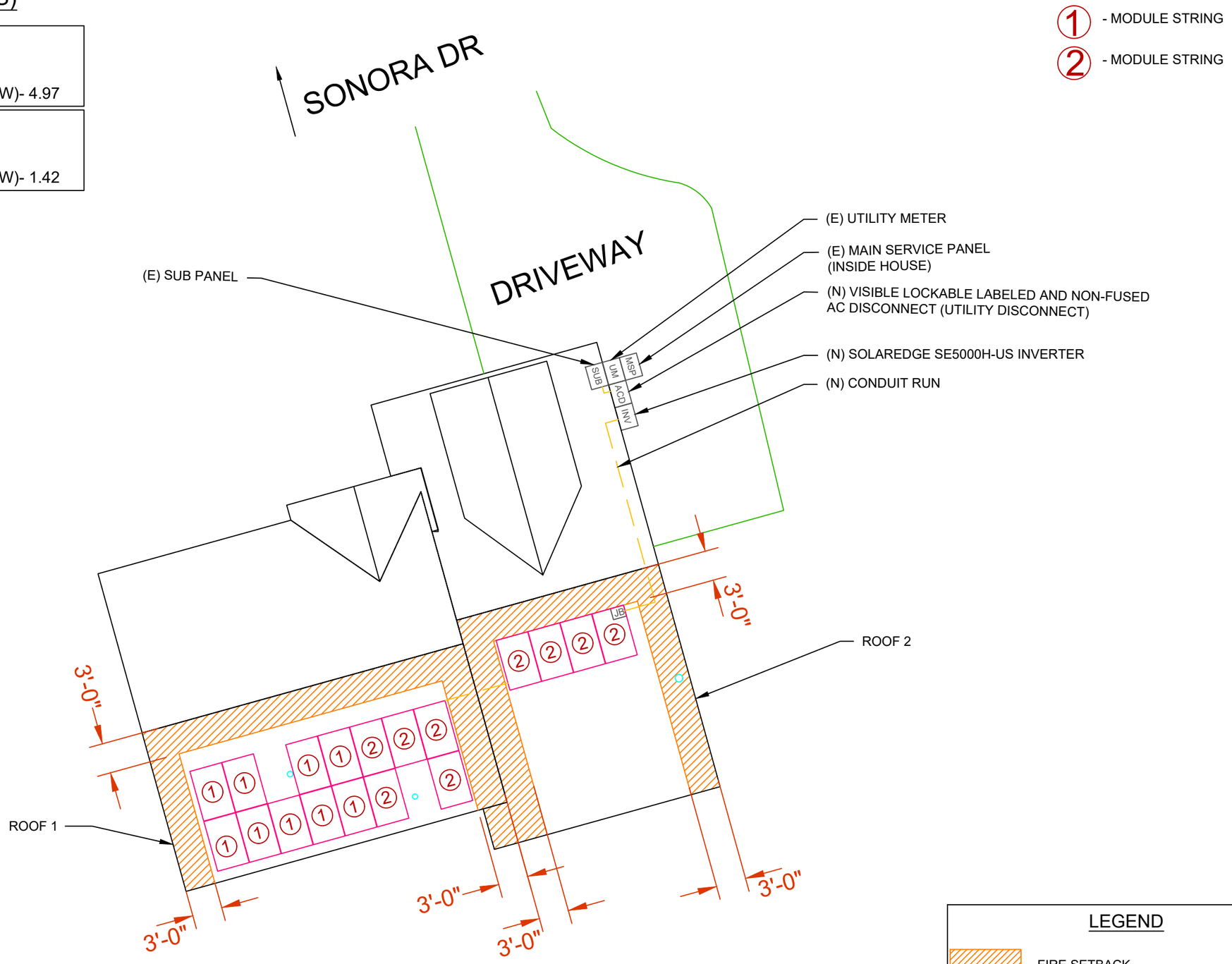
SHEET NUMBER

A-101

ROOF SECTION(S)

ROOF 1	TILT - 34° AZIMUTH - 165° MODULE - 14 SYSTEM SIZE (KW)- 4.97
ROOF 2	TILT - 34° AZIMUTH - 165° MODULE - 4 SYSTEM SIZE (KW)- 1.42



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1 | ELECTRICAL PLAN

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

LEGEND

- FIRE SETBACK
- PROPERTY LINE
- JB - JUNCTION BOX
- SKYLIGHT (ROOF OBSTRUCTION)
- CHIMNEY (ROOF OBSTRUCTION)
- VENT, ATTIC FAN (ROOF OBSTRUCTION)

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ELECTRICAL PLAN

DRAWN DATE	11/19/2022
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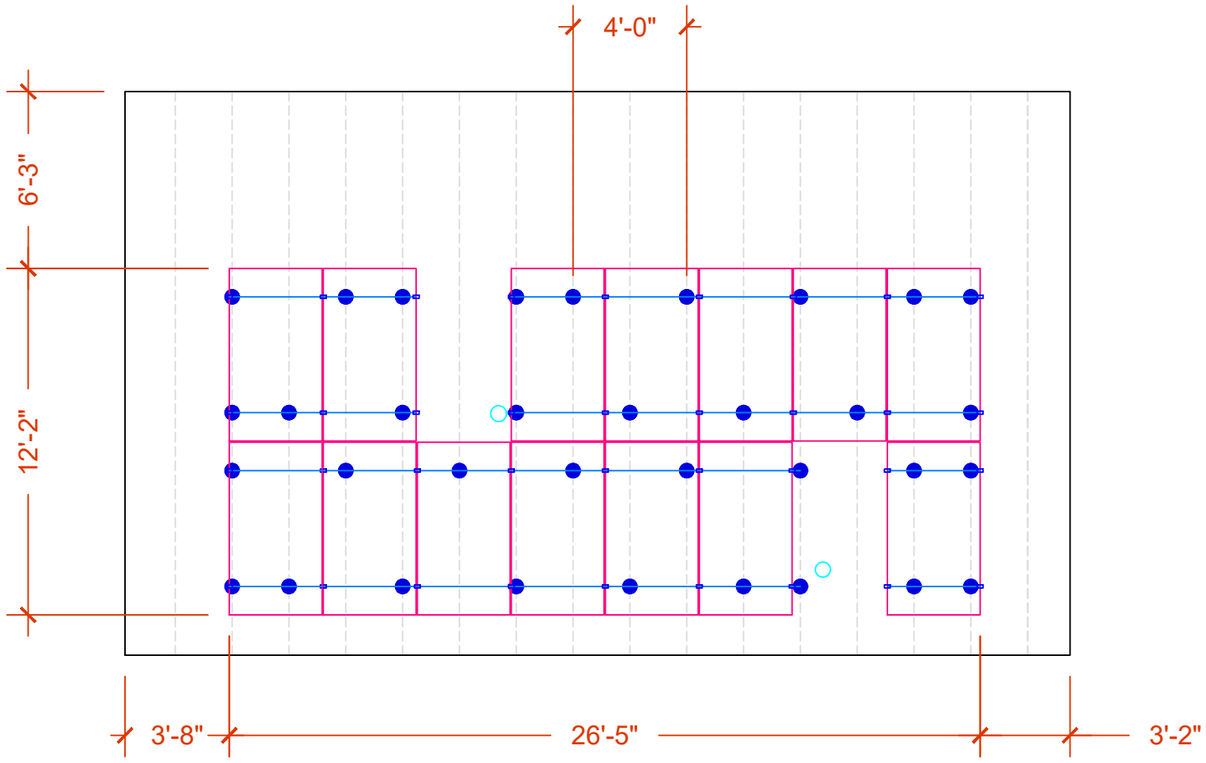
SHEET NUMBER

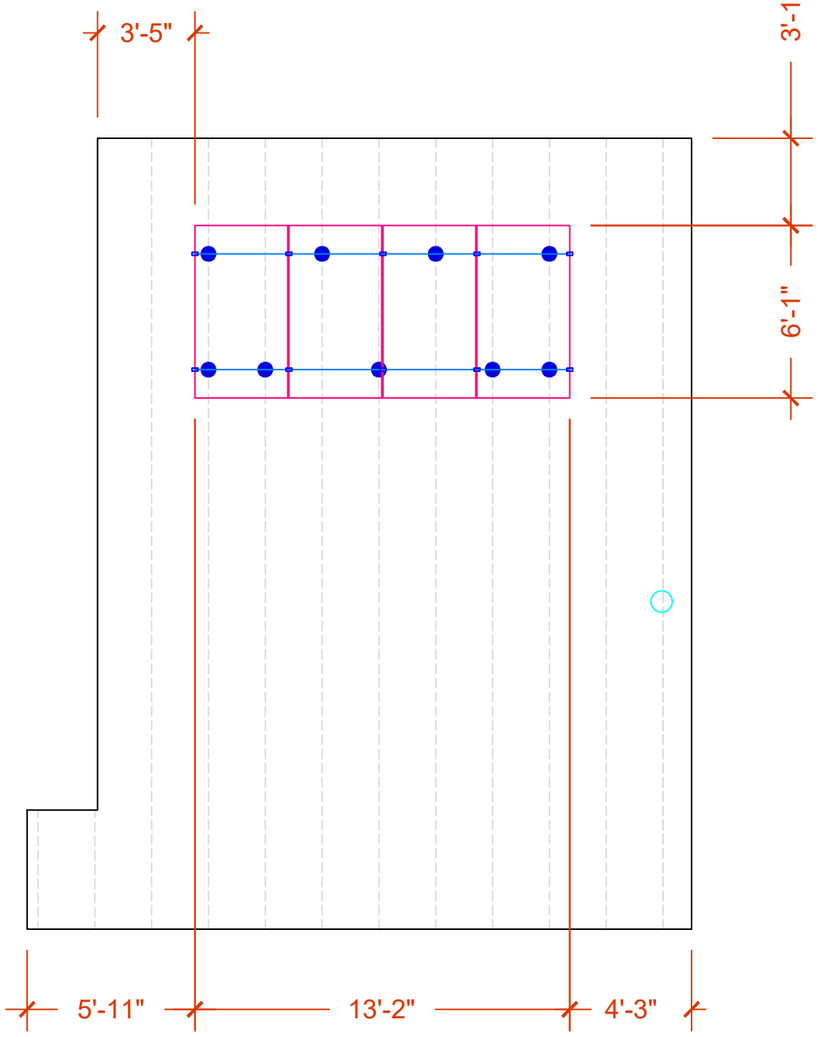
A-102

- CLAMP
- RT MINI MOUNT
- IRONRIDGE XR-10
-TRUSS

43 - TOTAL MOUNT



ARRAY 1
TILT- 34 DEG
AZIMUTH - 165 DEG



ARRAY 2
TILT- 34 DEG
AZIMUTH - 165 DEG

1 ATTACHMENT PLAN

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

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ATTACHMENT PLAN

DRAWN DATE	11/19/2022
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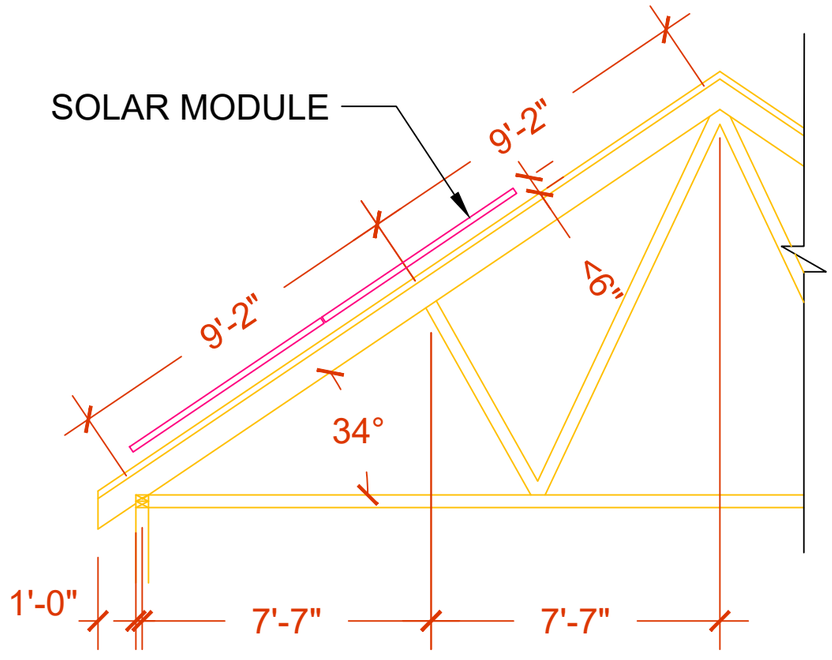
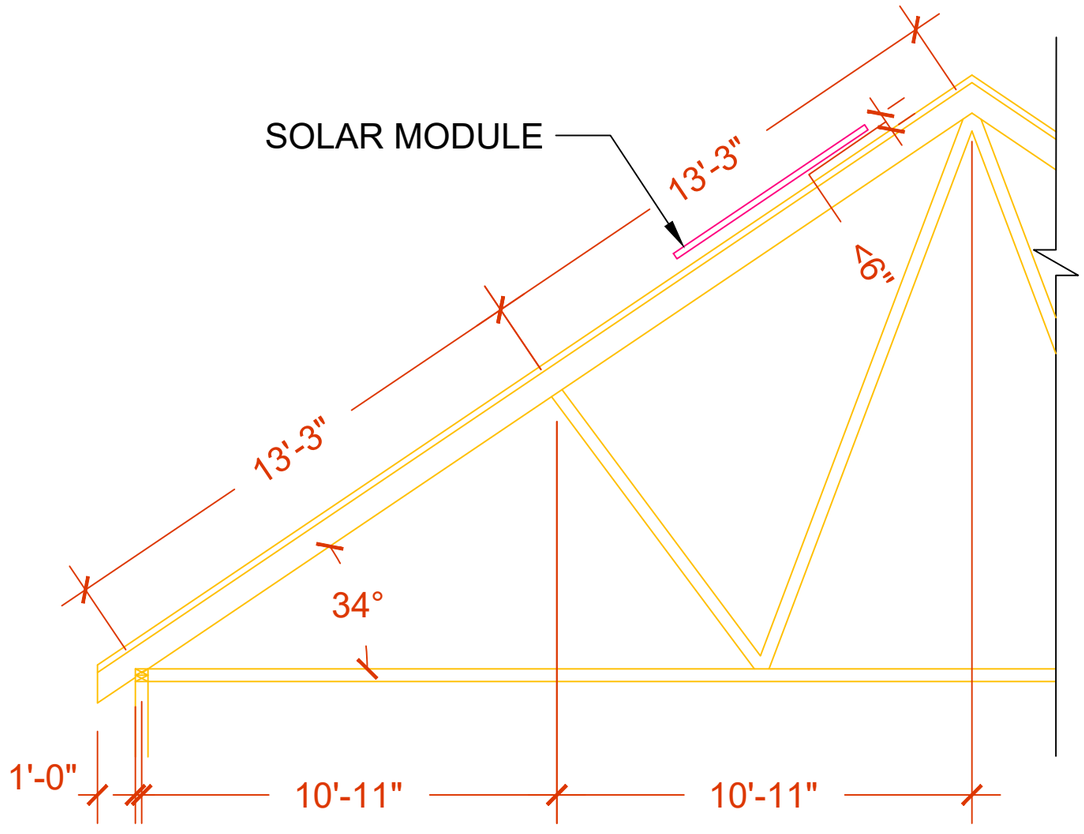
A-103

ROOF SECTION(S)

ROOF 1	ROOF MATERIAL - COMPOSITE SHINGLE TRUSS SIZE - 2"X4" O.C. SPACING - 24"
ROOF 2	ROOF MATERIAL - COMPOSITE SHINGLE TRUSS SIZE - 2"X4" O.C. SPACING - 24"



ROOF 1



ROOF 2

1 | STRUCTURAL PLAN

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

CONTRACTOR

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SHEET TITLE
STRUCTURAL PLAN

DRAWN DATE	11/19/2022
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SHEET NUMBER

A-104

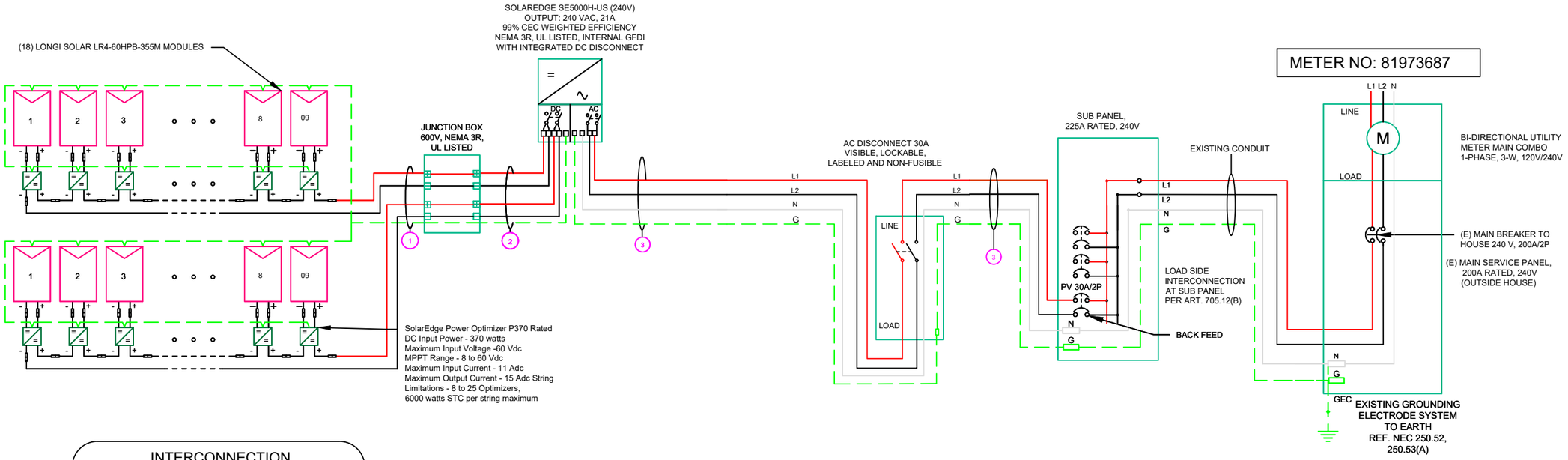
SOLAR MODULE SPECIFICATIONS	
MANUFACTURER / MODEL #	LONGI SOLAR LR4-60HPB-355M
VMP	40.6 V
IMP	11.25 A
VOC	34.6 V
ISC	10.27A
TEMP. COEFF. VOC	-0.27%/°C
MODULE DIMENSION	69.9"L x 41.4"W x 1.4"D (In Inch)

DC SIZE 18 X 355W = 6.390 kW DC-STC
AC SIZE 1 X 5000W = 5.000 kW AC

INVERTER SPECIFICATIONS	
MANUFACTURER / MODEL #	SOLAREDGE SE5000H-US
NOMINAL AC POWER	5000 W
NOMINAL OUTPUT VOLTAGE	240 VAC
NOMINAL OUTPUT CURRENT	21A

POWER OPTIMIZER (OPTIMIZER P370)	
MAXIMUM INPUT POWER	370W
MINIMUM INPUT VOLTAGE	8 VDC
MAXIMUM INPUT VOLTAGE	60 VDC
MAXIMUM MODULE ISC	11 ADC
MAXIMUM OUTPUT CURRENT	15 ADC

NOTE :
CONDUIT TO BE UL LISTED FOR WET LOCATIONS AND UV PROTECTED (EX. -EMT,PVC OR RMC)
*FMC MAYBE USED IN INDOOR APPLICATIONS WHERE PERMITTED BY NEC ART .348



INTERCONNECTION 120% RULE - NEC 705.12(B)(2)(3)(b)
UTILITY FEED + SOLAR BACKFEED 200+ 30 = 230A
BUS RATING x 120% 225A x 120% = 270.0A

SOLAR BREAKER LOCATED AT THE FURTHEST END OF BUSBAR FROM THE MAIN BREAKER OR FEEDER UNIT

ID	PHASE CONDUCTOR QTY, SIZE AND TYPE PER CONDUIT			GROUND CONDUCTOR QTY, SIZE AND TYPE PER CONDUIT			CONDUIT SIZE	CONDUIT TYPE
1	4	AWG #10	THWN-2	1	AWG #6	BARE COPPER IN FREE AIR	3/4"	FREE AIR
2	4	AWG #10	THWN-2	1	AWG #10	THWN-2, COPPER	3/4"	EMT
3	3	AWG #10	THWN-2	1	AWG #10	THWN-2, COPPER	3/4"	EMT

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SHEET TITLE
LINE DIAGRAM

DRAWN DATE	11/19/2022
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SHEET NUMBER
E-601

AMBIENT TEMPERATURE SPECS	
RECORD LOW TEMP	-10°
AMBIENT TEMP (HIGH TEMP 2%)	36°
CONDUIT HEIGHT	0.5"
ROOF TOP TEMP	90°
CONDUCTOR TEMPERATURE RATE	58°
MODULE TEMPERATURE COEFFICIENT OF Voc	-0.29%/°C

DC CONDUCTOR AMPACITY CALCULATIONS:

ARRAY TO JUNCTION BOX :

EXPECTED WIRE TEMP (In Celsius)	58°
TEMP. CORRECTION PER TABLE (310.16)	0.71
NO. OF CURRENT CARRYING CONDUCTORS	2
CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a)	1
CIRCUIT CONDUCTOR SIZE	10AWG
CIRCUIT CONDUCTOR AMPACITY	40A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	18.75A
1.25 X Isc	
DERATED AMPACITY OF CIRCUIT CONDUCTOR PER NEC TABLE 310.16	28.40A
TEMP. CORRECTION PER TABLE (310.16) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a) X CIRCUIT CONDUCTOR AMPACITY	
Result should be greater than (18.75A) otherwise less the entry for circuit conductor size and ampacity	

PERCENT OF VALUES	NUMBER OF CURRENT CARRYING CONDUCTORS
.80	4-6
.70	7-9
.50	10-20

DC CONDUCTOR AMPACITY CALCULATIONS:

FROM JUNCTION BOX TO INVERTER :

AMBIENT TEMPERATURE ADJUSTMENT FOR EXPOSED CONDUIT PER NEC 310.15(B)(2)(c)	22°
EXPECTED WIRE TEMP (In Celsius)	36°+22° = 58°
TEMP. CORRECTION PER TABLE (310.16)	0.71
NO. OF CURRENT CARRYING CONDUCTORS	4
CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a)	0.8
CIRCUIT CONDUCTOR SIZE	10AWG
CIRCUIT CONDUCTOR AMPACITY	40A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(A&B)	18.75A
1.25 X Isc	
DERATED AMPACITY OF CIRCUIT CONDUCTOR PER NEC TABLE 310.16	22.72A
TEMP. CORRECTION PER TABLE (310.16) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a) X CIRCUIT CONDUCTOR AMPACITY	
Result should be greater than (18.75A) otherwise less the entry for circuit conductor size and ampacity	

AC CONDUCTOR AMPACITY CALCULATIONS:

AFTER INVERTER :

No. OF INVERTER	1
EXPECTED WIRE TEMP (In Celsius)	36°
TEMP. CORRECTION PER TABLE (310.16)	0.91
NO. OF CURRENT CARRYING CONDUCTORS	3
CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a)	1
CIRCUIT CONDUCTOR SIZE	10AWG
CIRCUIT CONDUCTOR AMPACITY	35A
REQUIRED CIRCUIT CONDUCTOR AMPACITY PER NEC 690.8(B)	26.25A
1.25 X MAX INVERTER OUTPUT CURRENT	
DERATED AMPACITY OF CIRCUIT CONDUCTOR PER NEC TABLE 310.16	31.85A
TEMP. CORRECTION PER TABLE (310.16) X CONDUIT FILL CORRECTION PER NEC 310.15(B)(2)(a) X CIRCUIT CONDUCTOR AMPACITY	
Result should be greater than (26.25A) otherwise less the entry for circuit conductor size and ampacity	

CONTRACTOR

COMPLETE SOLAR
3000 EXECUTIVE PKWY
SUITE #504
SAN RAMON, CA 94583
PHONE NUMBER:
(877) 299-4943
Lic# 961988

PROJECT NAME & ADDRESS

ALLEN ROBERT

102 SONORA DR,
LILLINGTON,
NC 27546

COUNTY:-HARNETT COUNTY

SYSTEM SIZE
DC SIZE: 6.390 KW DC-(STC)
AC SIZE: 5.000 KW AC

SHEET TITLE
ELECTRICAL CALCULATIONS

DRAWN DATE	11/19/2022
DRAWN BY	AP

SHEET NUMBER

E-602

WARNING:
PHOTOVOLTAIC
POWER SOURCE

LABEL 1
ON ALL CONDUITS SPACED AT MAX 10FT

! WARNING !
ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS.
TERMINALS ON BOTH LINE AND LOAD SIDES
MAY BE ENERGIZED IN THE OPEN POSITION

LABEL 5
AT EACH AC DISCONNECT

! CAUTION !
SOLAR POINT OF
INTERCONNECTION

LABEL 9
AT UTILITY METER

! CAUTION !
SOLAR ELECTRIC
SYSTEM CONNECTED
AND ENERGIZED

LABEL 2
AT INVERTER

PHOTOVOLTAIC
AC DISCONNECT

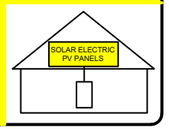
LABEL 6
AT EACH AC DISCONNECT

! WARNING !
THE SERVICE METER IS ALSO SERVED
BY A PHOTOVOLTAIC SYSTEM

LABEL 10
AT UTILITY METER

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



LABEL 3
AT INVERTER

! WARNING !
DUAL POWER SOURCES
SECOND SOURCE IS PV SYSTEM

LABEL 7
AT MEP

PHOTOVOLTAIC
DC DISCONNECT

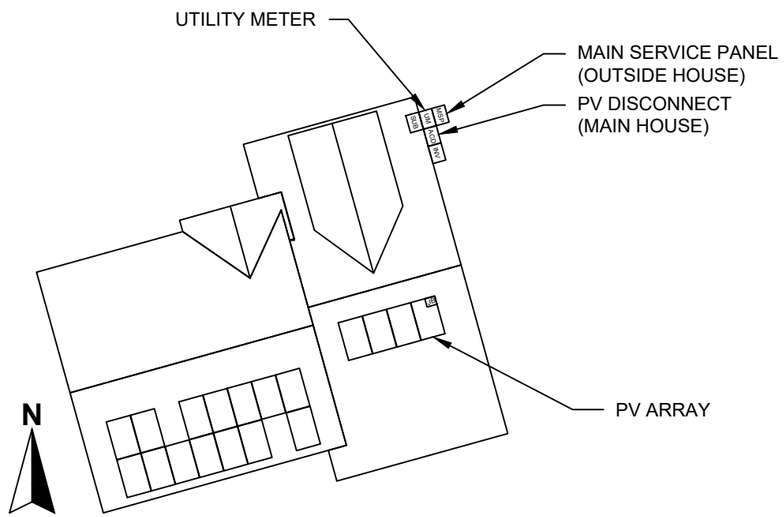
LABEL 4
AT DC DISCONNECT

! WARNING !
SOLAR SYSTEM CONNECTED
AND ENERGIZED

LABEL 8
AT MEP

CAUTION

POWER TO THIS BUILDING IS ALSO SUPPLIED
FROM THE FOLLOWING SOURCES WITH
DISCONNECTS LOCATED AS SHOWN:



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DC SIZE: 6.390 KW DC-(STC)
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SHEET TITLE
PLACARD

DRAWN DATE	11/19/2022
DRAWN BY	AP

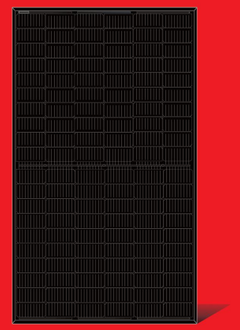
SHEET NUMBER
E-603

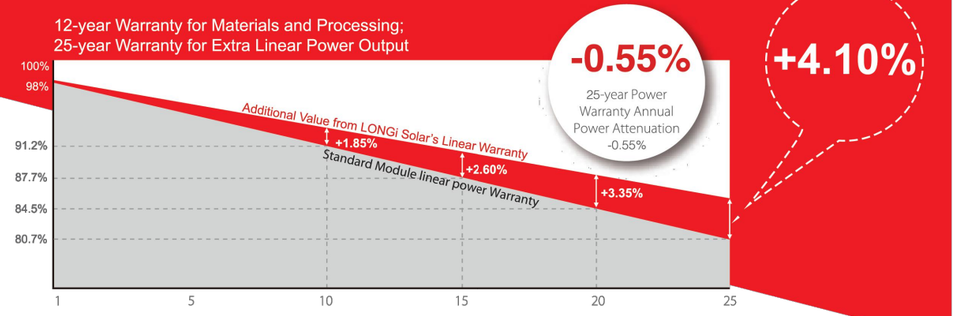
LR4-60HPB 345~370M

Hi-MO 4m (Black)

NEW

High Efficiency
Low LID Mono PERC with
Half-cut Technology





Complete System and Product Certifications

IEC 61215, IEC 61730, UL 61730

ISO 9001:2008: ISO Quality Management System

ISO 14001: 2004: ISO Environment Management System

TS62941: Guideline for module design qualification and type approval

OHSAS 18001: 2007 Occupational Health and Safety

* Specifications subject to technical changes and tests.
LONGi Solar reserves the right of interpretation.

Positive power tolerance (0 ~ +5W) guaranteed

High module conversion efficiency (up to 20.3%)

Slower power degradation enabled by Low LID Mono PERC technology: first year <2%, 0.55% year 2-25

Solid PID resistance ensured by solar cell process optimization and careful module BOM selection

Reduced resistive loss with lower operating current

Higher energy yield with lower operating temperature

Reduced hot spot risk with optimized electrical design and lower operating current

LONGi

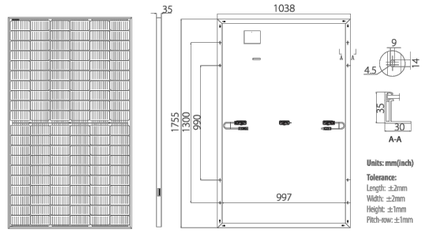
Room 801, Tower 3, Lujiazui Financial Plaza, No.826 Century Avenue, Pudong Shanghai, 200120, China
Tel: +86-21-80162606 E-mail: module@longi-silicon.com Facebook: www.facebook.com/LONGi Solar

Note: Due to continuous technical innovation, R&D and improvement, technical data above mentioned may be of modification accordingly. LONGi have the sole right to make such modification at anytime without further notice; Demanding party shall request for the latest datasheet for such as contract need, and make it a consisting and binding part of lawful documentation duly signed by both parties.

20200414V11 for EU DG only

LR4-60HPB 345~370M

Design (mm)



Mechanical Parameters

Cell Orientation: 120 (6×20)
Junction Box: IP68, three diodes
Output Cable: 4mm², 1200mm in length (for EU DG)
Glass: Single glass 3.2mm coated tempered glass
Frame: Anodized aluminum alloy frame
Weight: 19.5kg
Dimension: 1755×1038×35mm
Packaging: 30pcs per pallet
180pcs per 20'GP
780pcs per 40'HC

Operating Parameters

Operational Temperature: -40℃ ~+85℃
Power Output Tolerance: 0 ~ +5 W
Voc and Isc Tolerance: ±3%
Maximum System Voltage: DC1000V (IEC/UL)
Maximum Series Fuse Rating: 20A
Nominal Operating Cell Temperature: 45±2℃
Safety Class: Class II
Fire Rating: UL type 1 or 2

Electrical Characteristics

Test uncertainty for Pmax: ±3%

Model Number	LR4-60HPB-345M		LR4-60HPB-350M		LR4-60HPB-355M		LR4-60HPB-360M		LR4-60HPB-365M		LR4-60HPB-370M	
Testing Condition	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum Power (Pmax/W)	345	257.6	350	261.4	355	265.1	360	268.8	365	272.6	370	276.3
Open Circuit Voltage (Voc/V)	40.2	37.7	40.4	37.9	40.6	38.1	40.8	38.2	41.0	38.4	41.2	38.6
Short Circuit Current (Isc/A)	11.06	8.95	11.16	9.02	11.25	9.09	11.33	9.16	11.41	9.23	11.50	9.30
Voltage at Maximum Power (Vmp/V)	34.2	31.8	34.4	32.0	34.6	32.2	34.8	32.4	35.0	32.6	35.2	32.8
Current at Maximum Power (Imp/A)	10.09	8.09	10.18	8.16	10.27	8.23	10.35	8.30	10.43	8.36	10.52	8.43
Module Efficiency(%)	18.9		19.2		19.5		19.8		20.0		20.3	

STC (Standard Testing Conditions): Irradiance 1000W/m², Cell Temperature 25℃, Spectra at AM1.5

NOCT (Nominal Operating Cell Temperature): Irradiance 800W/m², Ambient Temperature 20℃, Spectra at AM1.5, Wind at 1m/S

Temperature Ratings (STC)

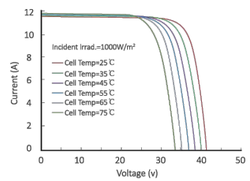
Temperature Coefficient of Isc	+0.048%/℃
Temperature Coefficient of Voc	-0.270%/℃
Temperature Coefficient of Pmax	-0.350%/℃

Mechanical Loading

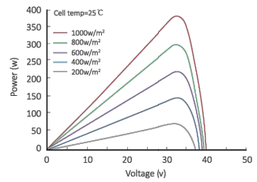
Front Side Maximum Static Loading	5400Pa
Rear Side Maximum Static Loading	2400Pa
Hailstone Test	25mm Hailstone at the speed of 23m/s

I-V Curve

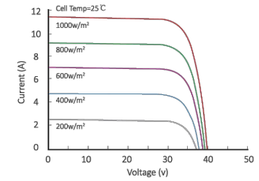
Current-Voltage Curve (LR4-60HPB-360M)



Power-Voltage Curve (LR4-60HPB-360M)



Current-Voltage Curve (LR4-60HPB-360M)



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20200414V11 for EU DG only

CONTRACTOR

COMPLETE SOLAR
3000 EXECUTIVE PKWY
SUITE #504
SAN RAMON, CA 94583
PHONE NUMBER:
(877) 299-4943
Lic# 961988

PROJECT NAME & ADDRESS

ALLEN ROBERT

102 SONORA DR,
LILLINGTON,
NC 27546

COUNTY:-HARNETT COUNTY

SYSTEM SIZE
DC SIZE: 6.390 KW DC-(STC)
AC SIZE: 5.000 KW AC

SHEET TITLE
RESOURCE DOCUMENT

DRAWN DATE	11/19/2022
DRAWN BY	AP

SHEET NUMBER
R-001

Single Phase Inverter with HD-Wave Technology

for North America

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

12-25 YEAR WARRANTY

INVERTERS

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)

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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	600kΩ 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: SExxxH-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: SExxxH-US000NNU4

RoHS

CONTRACTOR

COMPLETE SOLAR
3000 EXECUTIVE PKWY
SUITE #504
SAN RAMON, CA 94583
PHONE NUMBER:
(877) 299-4943
Lic# 961988

PROJECT NAME & ADDRESS

ALLEN ROBERT

102 SONORA DR, LILLINGTON, NC 27546

COUNTY:-HARNETT COUNTY

SYSTEM SIZE
DC SIZE: 6.390 KW DC-(STC)
AC SIZE: 5.000 KW AC

SHEET TITLE
RESOURCE DOCUMENT

DRAWN DATE	11/19/2022
DRAWN BY	AP

SHEET NUMBER
R-002

Power Optimizer

For North America

P320 / P340 / P370 / P400 / P401 / P405 / P485 / 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

solaredge.com

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/ Power Optimizer

For North America

P320 / P340 / P370 / P400 / P401 / P405 / P485 / 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)	P401 (for high power 60 and 72 cell modules)	P405 (for high-voltage modules)	P485 (for high-voltage modules)	P505 (for higher current modules)	
INPUT									
Rated Input DC Power[1]	320	340	370	400		405	485	505	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	48		60	80	60	125[2]		83[2]	Vdc
MPPT Operating Range	8 - 48		8 - 60	8 - 80	8-60	12.5 - 105		12.5 - 83	Vdc
Maximum Short Circuit Current (Isc)	11			10.1	11.75	11		14	Adc
Maximum DC Input Current	13.75			12.5	14.65	12.5		17.5	Adc
Maximum Efficiency	99.5								%
Weighted Efficiency	98.8							98.6	%
Overvoltage Category	II								
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)									
Maximum Output Current	15								Adc
Maximum Output Voltage	60					85			Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)									
Safety Output Voltage per Power Optimizer	1 ± 0.1								Vdc
STANDARD COMPLIANCE									
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3								
Safety	IEC62109-1 (class II safety), UL1741								
Material	UL94 V-0 , UV Resistant								
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 153 x 29.5 /5.1 x 6 x 1.16		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	655 / 1.5		845 / 1.9		1064 / 2.3	gr / lb
Input Connector	MC4[3]						Single or dual MC4[3][4]	MC4[3]	
Input Wire Length	0.16 / 0.52								m / ft
Output Wire Type / Connector	Double Insulated / MC4								
Output Wire Length	0.9 / 2.95	1.2 / 3.9							m / ft
Operating Temperature Range[5]	-40 - +85 / -40 - +185								°C / °F
Protection Rating	IP68 / NEMA6P								
Relative Humidity	0 - 100								%

(1) Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed
(2) NEC 2017 requires max input voltage be not more than 80V
(3) For other connector types please contact SolarEdge
(4) For dual version for parallel connection of two modules use P485-4NMDMRM. In the case of an odd number of PV modules in one string, installing one P485 dual version power optimizer connected to one PV module. When connecting a single module seal the unused input connectors with the supplied pair of seals.
(5) For ambient temperature above +85°C / +185°F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Technical Note for more details.

PV System Design Using a SolarEdge Inverter[6][7]		Single Phase HD-Wave	Single phase	Three Phase for 208V grid	Three Phase for 277/480V grid	
Minimum String Length (Power Optimizers)	P320, P340, P370, P400, P401	8		10	18	
	P405, P485, P505	6		8	14	
Maximum String Length (Power Optimizers)		25		25	50[8]	
Maximum Power per String		5700 (6000 with SE7600-US - SE11400-US)	5250	6000[9]	12750[10]	W
Parallel Strings of Different Lengths or Orientations		Yes				

(6) For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string_sizing_na.pdf
(7) It is not allowed to mix P405/P485/P505 with P320/P340/P370/P400/P401 in one string
(8) A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement
(9) For 208V grid: it is allowed to install up to 6,500W per string when the maximum power difference between each string is 1,000W
(10) For 277/480V grid: it is allowed to install up to 15,000W per string when the maximum power difference between each string is 2,000W

Intertek RoHS

CONTRACTOR

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AC SIZE: 5.000 KW AC

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RESOURCE DOCUMENT

DRAWN DATE	11/19/2022
DRAWN BY	AP

SHEET NUMBER
R-003

Tech Brief

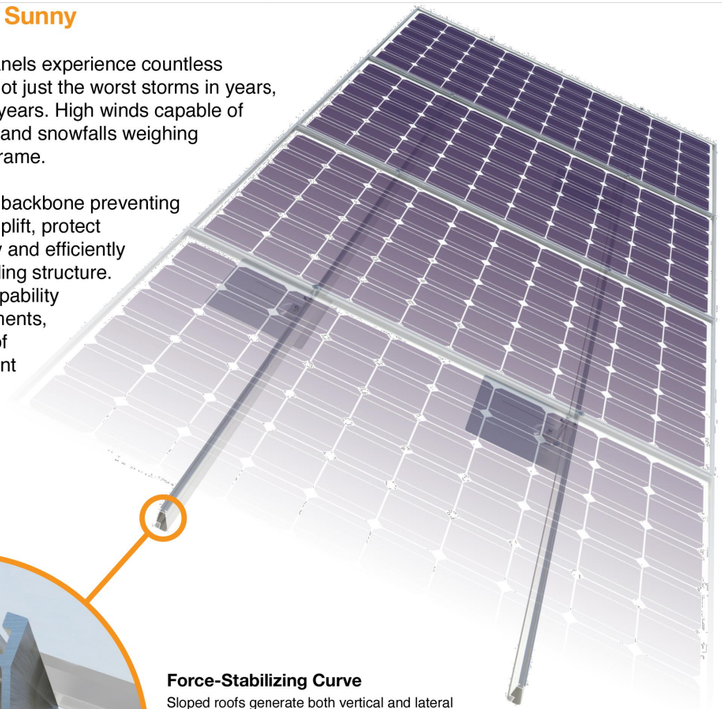
IRONRIDGE

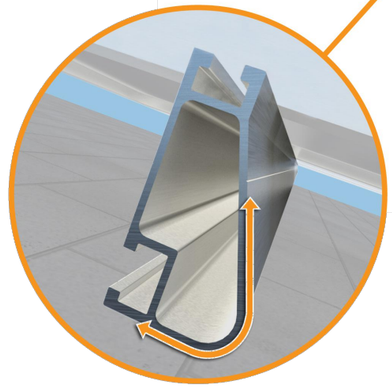
XR Rail Family

Solar Is Not Always Sunny

Over their lifetime, solar panels experience countless extreme weather events. Not just the worst storms in years, but the worst storms in 40 years. High winds capable of ripping panels from a roof, and snowfalls weighing enough to buckle a panel frame.

XR Rails are the structural backbone preventing these results. They resist uplift, protect against buckling and safely and efficiently transfer loads into the building structure. Their superior spanning capability requires fewer roof attachments, reducing the number of roof penetrations and the amount of installation time.





Force-Stabilizing Curve

Sloped roofs generate both vertical and lateral forces on mounting rails which can cause them to bend and twist. The curved shape of XR Rails is specially designed to increase strength in both directions while resisting the twisting. This unique feature ensures greater security during extreme weather and a longer system lifetime.

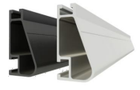
Compatible with Flat & Pitched Roofs

XR Rails are compatible with FlashFoot and other pitched roof attachments.

IronRidge offers a range of tilt leg options for flat roof mounting applications.

Corrosion-Resistant Materials

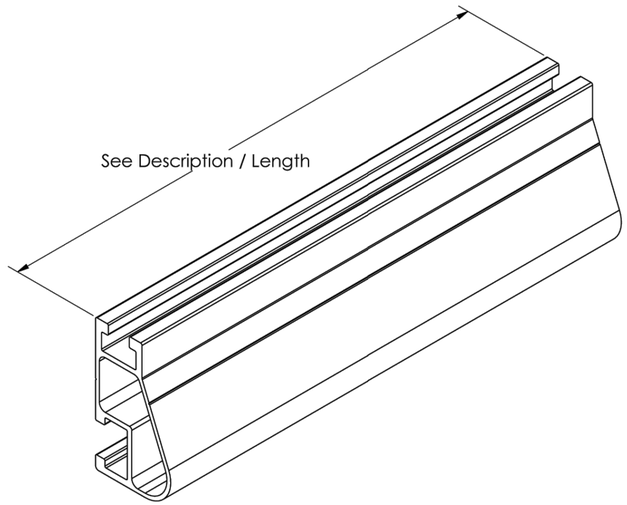
All XR Rails are made of 6000-series aluminum alloy, then protected with an anodized finish. Anodizing prevents surface and structural corrosion, while also providing a more attractive appearance.

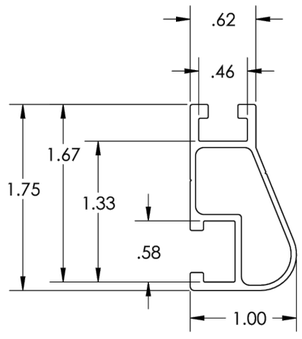


Cut Sheet

IRONRIDGE

XR10 Rail





Rail Section Properties	
Property	Value
Total Cross-Sectional Area	0.363 in^2
Section Modulus (X-axis)	0.136 in^3
Moment of Inertia (X-axis)	0.124 in^4
Moment of Inertia (Y-axis)	0.032 in^4
Torsional Constant	0.076 in^3
Polar Moment of Inertia	0.033 in^4

Clear Part Number	Black Part Number	Description / Length	Material	Weight
XR-10-132A	XR-10-132B	XR10, Rail 132" (11 Feet)	6000-Series Aluminum	4.67 lbs.
XR-10-168A	XR-10-168B	XR10, Rail 168" (14 Feet)		5.95 lbs.
XR-10-204A	XR-10-204B	XR10, Rail 204" (17 Feet)		7.22 lbs.

v1.0

CONTRACTOR

COMPLETE SOLAR
3000 EXECUTIVE PKWY
SUITE #504
SAN RAMON, CA 94583
PHONE NUMBER:
(877) 299-4943
Lic# 961988

PROJECT NAME & ADDRESS

ALLEN ROBERT

102 SONORA DR,
LILLINGTON,
NC 27546

COUNTY:-HARNETT COUNTY

SYSTEM SIZE
DC SIZE: 6.390 KW DC-(STC)
AC SIZE: 5.000 KW AC

SHEET TITLE
RESOURCE DOCUMENT

DRAWN DATE	11/19/2022
DRAWN BY	AP

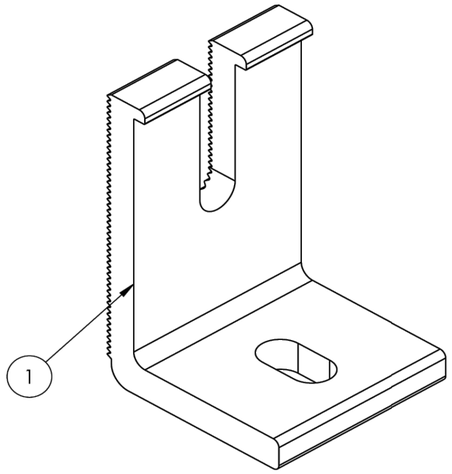
SHEET NUMBER

R-004

Cut Sheet

IRONRIDGE

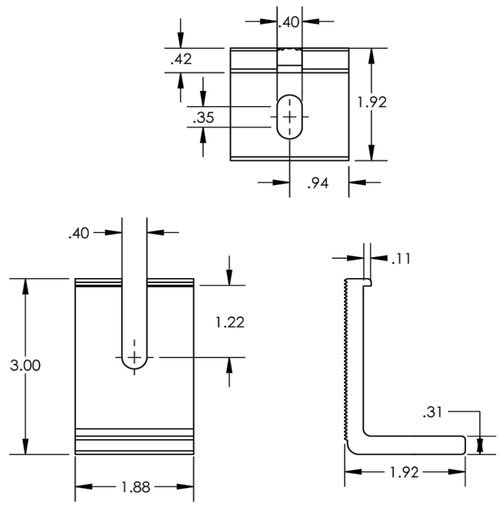
L-Foot



ITEM NO	DESCRIPTION	QTY IN KIT
1	FOOT, EXTRUDED L - SLOTTED	4

PART NUMBER	DESCRIPTION
FM-LFT-003	Kit, 4Pcs, Slotted L-Foot, Mill
FM-LFT-003-B	Kit, 4Pcs, Slotted L-Foot, Black

1) Foot, Extruded L - Slotted



v1.11

CONTRACTOR

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DRAWN BY	AP

SHEET NUMBER

R-005

RT-MINI

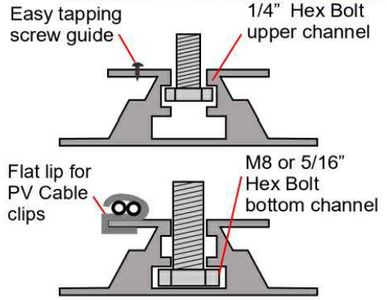
Self-flashing base for asphalt & metal roof-top PV mounting systems

RT-MINI is suitable for mounting any rail system with a conventional L-Foot.

Dual bolt design: M8 or 5/16” for L-Foot & 1/4” for EMC

Installation Manual

ICC ES
ICC ESR 3575



RT-MINI

Flexible Flashing certified by the International Code Council (ICC)

Engineered to ASTM D 1761 (Standard Test Methods for Mechanical Fasteners in Wood)

Components

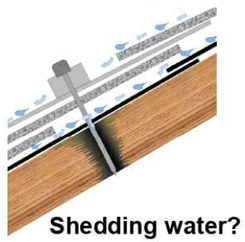
RT2-00-MINIBK

MINI base : 20 ea.
Screw : 40 ea.
Extra RT-Butyl : 10 ea.

Optional item
5 x 60mm Mounting screw (RT2-04-SD5-60) : 100 ea./Bag
5/16” Hex bolt, washer & nut set (RT-04-BN30SL-US) : 100 ea./Bag
RT-Butyl (RT2-04-BUTYLT) : 10 ea./Box

RT-Butyl is Roof Tech’s flexible flashing used in one million residential PV systems for the last 26 years. It is the first PV mounting system with Flexible Flashing certified by the ICC. Engineered to withstand wind speeds up to 180 mph and ground snow up to 90 psf.

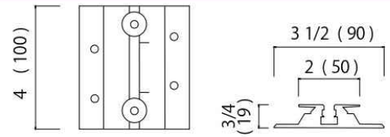
Metal Flashing Retrofit **Flexible Flashing**



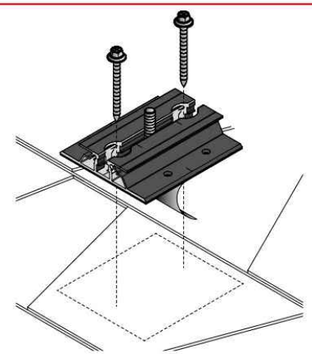
Shedding water? **100% Waterproof**

ICC ESR-3575 ASTM2140 testing UV testing (7500 hrs.)

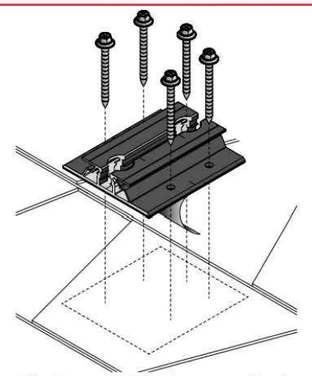
Dimensions in (mm)



Rafter installation



Deck installation



P.E. Stamped Letters available at www.roof-tech.us/support
TAS 100 A on metal and asphalt roof.

Roof Tech
The Standard for Waterproof Flexible Flashing Since 1994
www.roof-tech.us info@roof-tech.us

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www.roof-tech.us info@roof-tech.us
10620 Treena Street, Suite 230, San Diego, CA 92131
858.935.6064

March 2020

CONTRACTOR

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SHEET NUMBER
R-006