NOTE:
CONTRACTOR TO VERIFY THE ADHERENCE OF THE EXISTING ROOF STRUCTURAL LAYOUT TO THE ILLUSTRATION SHOWN IN RACKING/ATTACHMENT DETAIL. ROOF FRAMING CONSISTING OF NO. 2 2X4 SYP MEMBERS SHOULD NOT EXCEED AN UNSUPPORTED TOP CHORD LENGTH OF 5'-2".

PHOTOVOLTAIC ROOF MOUNT SYSTEM

64 MODULES - SYSTEM SIZE STC (25.6 KW DC / 22.8 KW AC)

512 NORTHWEST SHELBY TERRACE, LAKE CITY, FL 32055, US (30.1913269, -82.6543996)

SYSTEM SUMMARY STC DC/AC
(25.6 KW DC / 22.8 KW AC)
- 4X STRINGS OF 11 CONNECTED IN SERIES
- 2X STRINGS OF 10 CONNECTED IN SERIES
- (64) URECO FBM400MFG-BB (400W) MODULES
- (64) SOLAREDGE S440 OPTIMIZERS
- (2) SOLAREDGE SE11400H-US (240) INVERTERS

STC DC: (64) 400 = 25.6 KW
STC AC: (2) 10000 = 22.8 KW

GOVERNING CODES
2017 NATIONAL ELECTRICAL CODE
2020 FLORIDA FIRE PREVENTION CODE
2020 FLORIDA BUILDING CODE
2020 FLORIDA RESIDENTIAL CODE

GENERAL NOTES
1) ALL PANELS, SWITCHES, ETC. SHALL HAVE SUFFICIENT GUTTER SPACE AND LUGS IN COMPLIANCE WITH UL REQUIREMENTS TO ACCOMMODATE CONDUCTORS SHOWN.
2) THIS SYSTEM WILL NOT BE INTERCONNECTED UNTIL APPROVAL FROM THE LOCAL JURISDICTION AND UTILITY IS OBTAINED.
3) ALL EXTERIOR ELECTRICAL DEVICES AND EQUIPMENT INCLUDING THOSE THAT ARE EXPOSED TO OUTSIDE ENVIRONMENT SHALL BE WEATHERPROOF AND SHALL BE LISTED BY 'UL' FOR THE TYPE OF APPLICATION AND 'UL' LABEL SHALL APPEAR ON ALL ELECTRICAL EQUIPMENT.
4) WIRING METHOD SHALL BE EMT ABOVE GROUND MOUNTED IN CONCEALED SPACES (UNLESS APPROVED OTHERWISE) AND SCHEDULE-40 PVC FOR BELOW GROUND INSTALLATIONS UNLESS NOTED OTHERWISE.
5) AN OSHA APPROVED LADDER PROVIDING ACCESS TO ALL PORTIONS OF THE ARRAY SHALL BE SECURED IN PRIOR TO REQUESTING INSPECTION.
6) IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSTALL A SUPPLEMENTAL GROUNDING ELECTRODE CONDUCTOR IF NECESSARY.

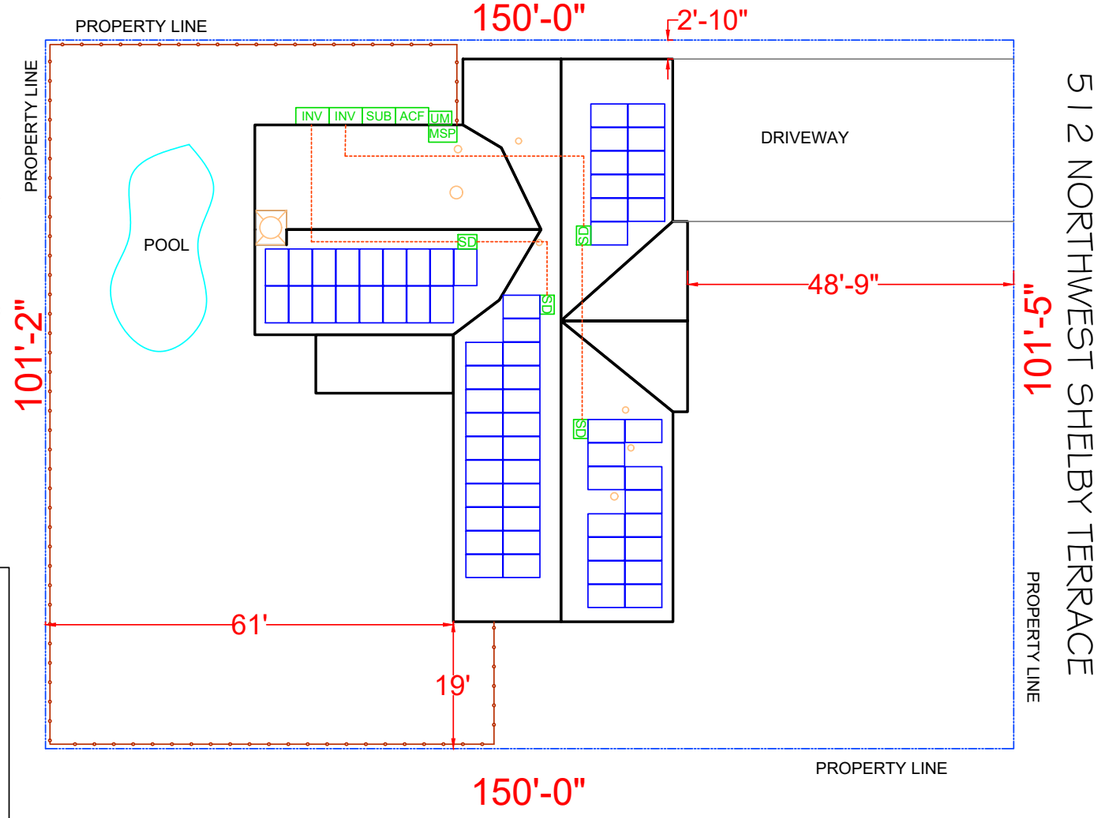
SAFETY PLAN NOTES
- INSTALLERS SHALL DRAW IN DESIGNATED SAFETY AREA AROUND HOME.
- INSTALLERS SHALL UPDATE NAME, ADDRESS AND PHONE NUMBER OF NEAREST URGENT CARE FACILITY RELATIVE TO THE SITE BEFORE STARTING WORK.

LOCATION OF NEAREST URGENT CARE FACILITY
(FOR INSTALLER USE ONLY)
- NAME:
- ADDRESS:
- PHONE NUMBER:

LEGEND

PV MODULE	DIMENSIONS
OPTIMIZER	PROPERTY LINE
ROOF ATTACHMENT	FENCE
	DRIVEWAY
	CONDUIT

MSP	MAIN SERVICE PANEL (EXISTING, 200a)	AC	AC DISCONNECT UNFUSED (N/A)
UM	UTILITY METER (EXISTING)	ACF	AC DISCONNECT FUSED (NEW)
PM	PRODUCTION METER (N/A)	SD	SOLADECK (NEW)
BAT	BATTERY (N/A)	AT	AUTO TRANSFORMER (N/A)
INV	(3) INVERTER (NEW)	SUB	SUBPANEL (NEW)
LC	LOAD CENTER (COMBINER PANEL) (NEW)	DCD	DC DISCONNECT (N/A)
SM	SOLAREDGE METER (N/A)	DCC	DC COMBINER (N/A)
BLP	BACKUP LOAD PANEL (N/A)	EE	EXISTING EQUIPMENT

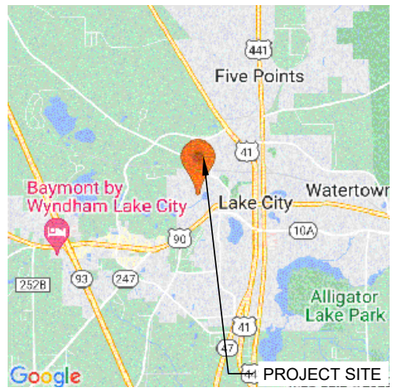


SITE PLAN & SAFETY PLAN
SCALE: 1"=20'-0"

SHEET INDEX

AHJ: COLUMBIA COUNTY
UTILITY: N/A

HOUSE PHOTO
SCALE: NTS



VICINITY MAP
SCALE: NTS

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

PROJECT NO. 2227898

CONTRACTOR:
SOLAR SPECIALIST, INC.
6520 US HWY 301 S STE 115
RIVERVIEW FL, 33578

PROJECT ADDRESS:
SMITH
512 NW SHELBY TER
LAKE CITY FL 32055

DESIGN DATE:	10/10/2022	
REVISION 1:	DATE	PAGE : 1
REVISION 2:	DATE	
SCALE:	NTS	

GENERAL NOTES:

1. ALL WORK SHALL COMPLY WITH STATE AND LOCAL CODES.
2. DRAWINGS HAVE BEEN DETAILED ACCORDING TO UL LISTING REQUIREMENTS.
3. PRIOR TO COMMENCEMENT OF WORK CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY DBM OF ANY INCONSISTENCIES.
4. ALL EQUIPMENT SHALL BE INSTALLED AS SHOWN.
5. WARNINGS PER NEC 690 AND NEC 2017.
6. WIRING SHALL NOT BE INSTALLED WITHIN 10 INCHES OF ROOF
7. DECKING EXCEPT WHERE DIRECTLY BELOW PV EQUIPMENT.
8. PHOTOVOLTAIC SYSTEM WILL COMPLY WITH NEC 2017.
9. ELECTRICAL SYSTEM GROUNDING WILL COMPLY WITH NEC 2017.
10. PHOTOVOLTAIC SYSTEM IS UNGROUNDED. NO CONDUCTORS ARE SOLIDLY GROUNDED IN THE INVERTER. SYSTEM COMPLIES WITH 690.35.
11. MODULES CONFORM TO AND ARE LISTED UNDER UL 1703.
12. INVERTER CONFORMS TO AND IS LISTED UNDER UL 1741.
13. RACKING CONFORMS TO AND IS LISTED UNDER UL 2703.
14. RAPID SHUTDOWN REQUIREMENTS MET WHEN INVERTERS AND ALL CONDUCTORS ARE WITHIN ARRAY BOUNDARIES PER NEC 690.12(1).
15. CONSTRUCTION FOREMAN TO PLACE CONDUIT RUN PER 690.31(G).
16. ARRAY DC CONDUCTORS ARE SIZED FOR DERATED CURRENT.

ROOF ACCESS POINT:

ROOF ACCESS POINT SHALL NOT BE LOCATED IN AREAS THAT DO NOT REQUIRE THE PLACEMENT OF GROUND LADDERS OVER OPENINGS SUCH AS WINDOWS OR DOORS, AND LOCATED AT STRONG POINTS OF BUILDING CONSTRUCTION IN LOCATIONS WHERE THE ACCESS POINT DOES NOT CONFLICT WITH OVERHEAD OBSTRUCTIONS SUCH AS TREE LIMBS, WIRES OR SIGNS.

I CERTIFY THAT THE INSTALLATION OF THE MODULES IS IN COMPLIANCE WITH, FBC 2020, RESIDENTIAL 7th EDITION, CHAPTER 3 SECTION 324, AND FBC: 2020, 7th ED., SECTION 101.4.9, SECTION 458: MANUFACTURED BUILDINGS, AS WELL AS CHAPTER 16. THE MANUFACTURED BUILDING STRUCTURE WILL SAFELY ACCOMMODATE WIND LATERAL AND UPLIFT FORCES, AND EQUIPMENT DEAD LOADS

APPLICABLE CODE: 2020 FLORIDA BUILDING CODE (7TH EDITION) & ASCE 7-16 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.

LAG SCREW DIAMETER AND EMBEDMENT LENGTHS ARE DESIGNED PER 2020 FLORIDA BUILDING CODE (7TH EDITION) REQUIREMENTS.ALL BOLT CAPACITIES ARE BASED ON A SOUTHER YELLOW PINE (SYP) RESIDENTIAL WOOD ROOF RAFTERS AS EMBEDMENT MATERIAL.

ALL WIND DESIGN CRITERIA AND PARAMETERS ARE FOR HIP AND GABLE RESIDENTIAL ROOFS, CONSIDERING FROM A 7° TO A MAXIMUM 23° (5/12 TO A MAXIMUM 7/12 PITCH) ROOF IN SCHEDULE. CONTRACTOR TO FIELD VERIFY THAT MEAN ROOF HEIGHT DOES NOT EXCEED 15'-0".

ALL DISSIMILAR MATERIALS SHALL BE SEPARATED WITH NEOPRENE WASHERS, PADS, ETC OR SIMILAR.

ALL ALUMINUM COMPONENTS SHALL BE ANODIZED ALUMINUM 6105-T5 UNLESS OTHERWISE NOTED.

ALL LAG SCREW SHALL BE ASTM A276 STAINLESS STEEL UNLESS OTHERWISE NOTED.

ALL SOLAR RAILING AND MODULES SHALL BE INSTALLED PER MANUFACTURER INSTRUCTIONS.

CONTRACTOR SHALL ENSURE ALL ROOF PENETRATIONS TO BE INSTALLED AND SEALED PER 2020 FLORIDA BUILDING CODE (7TH EDITION) OR LOCAL GOVERNING CODE.

NOTE TO INSTALLER:

FIELD ADJUSTMENTS CAN BE MADE TO THE LAYOUT OF THE ARRAY PLUMBING VENTS, SKYLIGHTS AND MECHANICAL VENTS SHALL NOT BE COVERED, MOVED, RE-ROUTED OR RE-LOCATED.

THE EXISTING STRUCTURE OF ROOF THAT SUPPORTS THE SOLAR PHOTOVOLTAIC PANELS OR MODULES IS ABLE TO ACCOMMODATE THE FULL SOLAR PANELS OR MODULES AND BALLAST DEAD LOAD (IF APPLICABLE), INCLUDING CONCENTRATED LOADS FROM SUPPORT FRAMES IN COMBINATION WITH THE LOADS FROM SECTION 1607.12.5.1, SECTION 1607.12.5.2 AND ALL OTHER APPLICABLE LOADS. THIS SOLAR PANEL INSTALLATION MEETS ALL SECTIONS OF THE FBC 2020.

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4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

PROJECT NO. 2227898

CONTRACTOR:
SOLAR SPECIALIST, INC.
6520 US HWY 301 S STE 115
RIVERVIEW FL, 33578

PROJECT ADDRESS:
SMITH
512 NW SHELBY TER
LAKE CITY FL 32055

DESIGN DATE:	10/10/2022
REVISION 1:	DATE
REVISION 2:	DATE
SCALE:	NTS

PAGE : 2

1 GENERAL NOTES

MODULE AREA & WEIGHT CALCULATIONS

PANEL TYPES (COUNT, AREA, WEIGHT):
- (64x) URECO FBM400MFG-BB (400W) (67.83" x 44.61", 47.8 LBS)

OPTIMIZER TYPES (COUNT, WEIGHT):
- (64x) SolarEdge S440 (1.5 LBS)

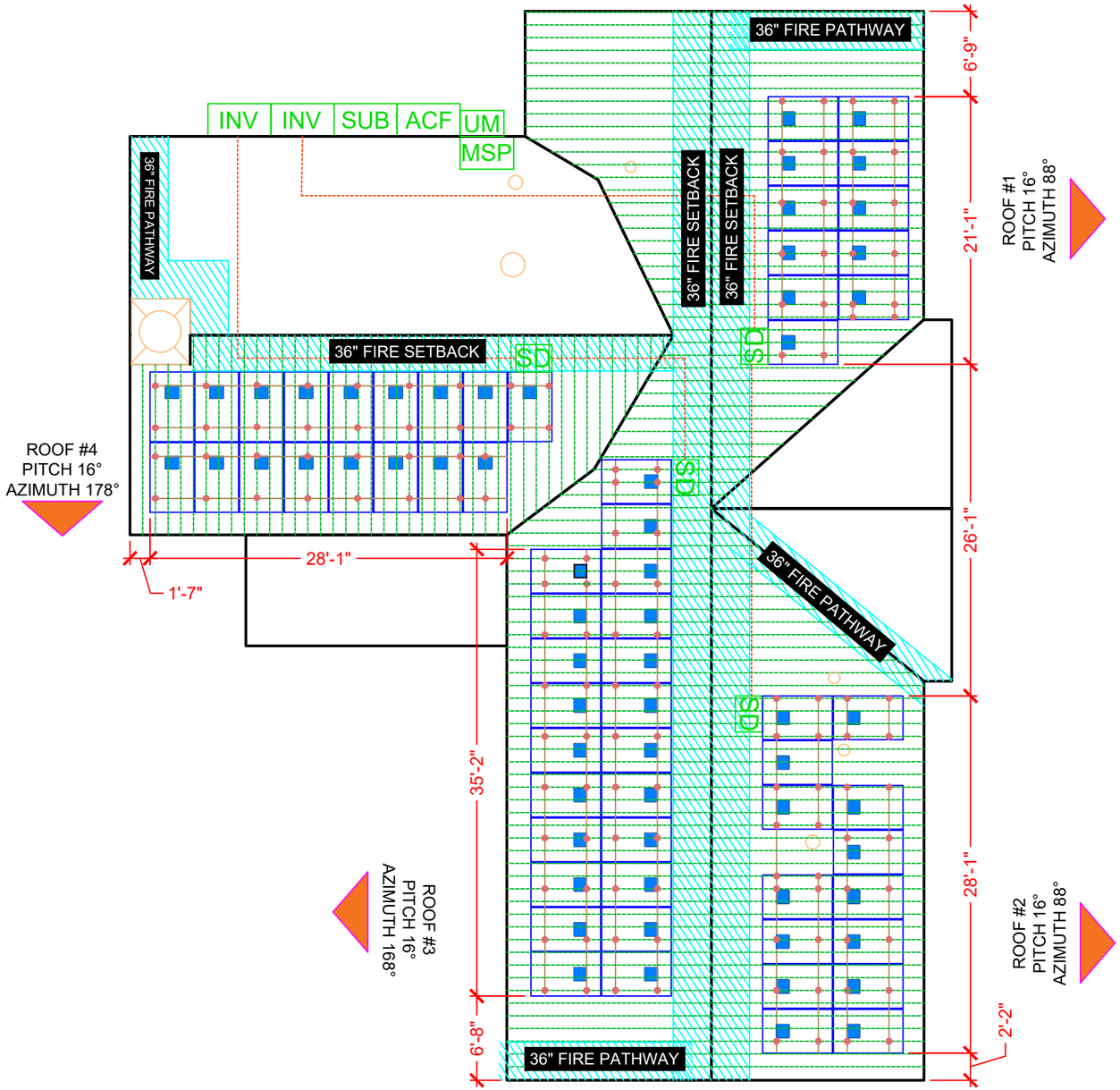
ATTACHMENT COUNT: 136
MOUNTING SYSTEM WEIGHT/MODULE: 1.5 LBS
TOTAL ROOF AREA: 3992 SF

TOTAL ARRAY AREA: (64) 67.8" x 44.6" = 1344.84 SF
TOTAL ARRAY WEIGHT: (64) 47.8 + (64) 1.5 + (64) 1.5 = 3251 LBS

WEIGHT AT EACH CONNECTION: 3557 LBS / 136 = 26.15 LBS
DISTRIBUTED LOAD: 3251 LBS / 1344.84 SF = 2.42 PSF
ROOF AREA COVERED BY ARRAY: 1345 SF / 3992 SF = 33.0%

BILL OF MATERIALS		
SOLAR PV MODULES	64	FBM400MFG-BB (400W) MODULES
OPTIMIZERS	64	SOLAREDGE S440
INVERTERS	02	SOLAREDGE SE10000H-US (240)
LOAD CENTER	01	AC COMBINER PANEL (MIN RATING 125A)
AC DISCONNECT	01	PV VISIBLE LOCKABLE LABELED DISCONNECT (200A FUSED 1PH 240VAC)
ATTACHMENTS	166	IRONRIDGE RESOURCES - FLASHFOOT 2
RAIL	32	IRONRIDGE RESOURCES - XR10
RAIL SPLICE	24	RAIL SPLICE
MID CLAMP	96	MID CLAMP
END CLAMP	40	END CLAMP
GROUNDING LUG	10	GROUNDING LUG

ROOF DESCRIPTION TABLE							
ROOF PLANE	TRUSS SIZE	TRUSS SPACING	METAL SPACING	MAX. ATTACHMENT SPACING	MODULE COUNT	ARRAY TILT	AZIMUTH
#1	2" x 4"	24" O.C.	12"	48"	16	16°	88°
#2	2" x 4"	24" O.C.	12"	48"	17	16°	88°
#3	2" x 4"	24" O.C.	12"	48"	25	16°	178°
#3	2" x 4"	24" O.C.	12"	48"	18	16°	178°



LEGEND

PV MODULE	DIMENSIONS
OPTIMIZER	TRUSS
	RAIL
ROOF ATTACHMENT	CONDUIT
	STRING

MSP	MAIN SERVICE PANEL (EXISTING, 200a)	AC	AC DISCONNECT UNFUSED (N/A)
UM	UTILITY METER (EXISTING)	ACF	AC DISCONNECT FUSED (NEW)
PM	PRODUCTION METER (N/A)	SD	SOLADECK (NEW)
BAT	BATTERY (N/A)	AT	AUTO TRANSFORMER (N/A)
INV	(1) INVERTER (NEW)	SUB	SUBPANEL (NEW)
LC	LOAD CENTER (COMBINER PANEL) (N/A)	DCD	DC DISCONNECT (N/A)
SM	SOLAREDGE METER (N/A)	DCC	DC COMBINER (N/A)
BLP	BACKUP LOAD PANEL (N/A)	EE	EXISTING EQUIPMENT

ROOF PLAN WITH MODULES

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

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512 NORTHWEST SHELBY TERRACE
(E) FRONT YARD

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PORT CHARLOTTE, FLORIDA 33952
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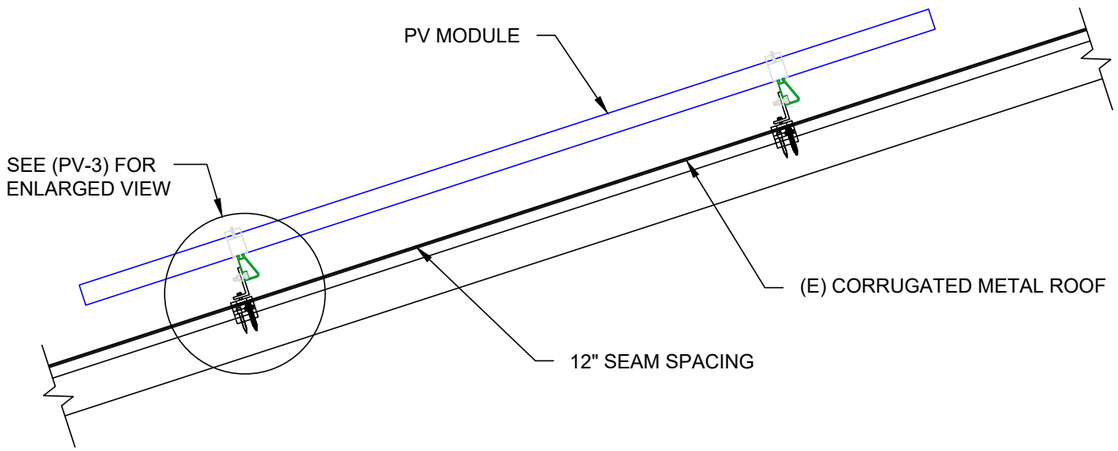


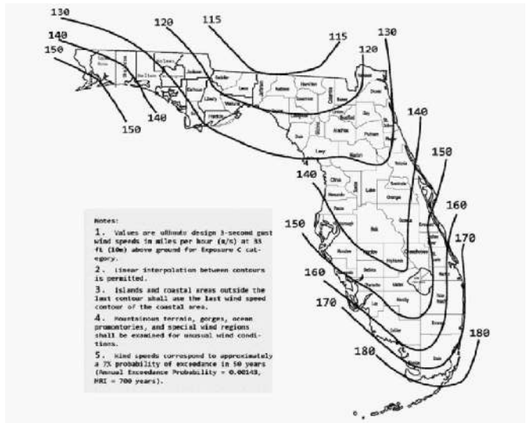


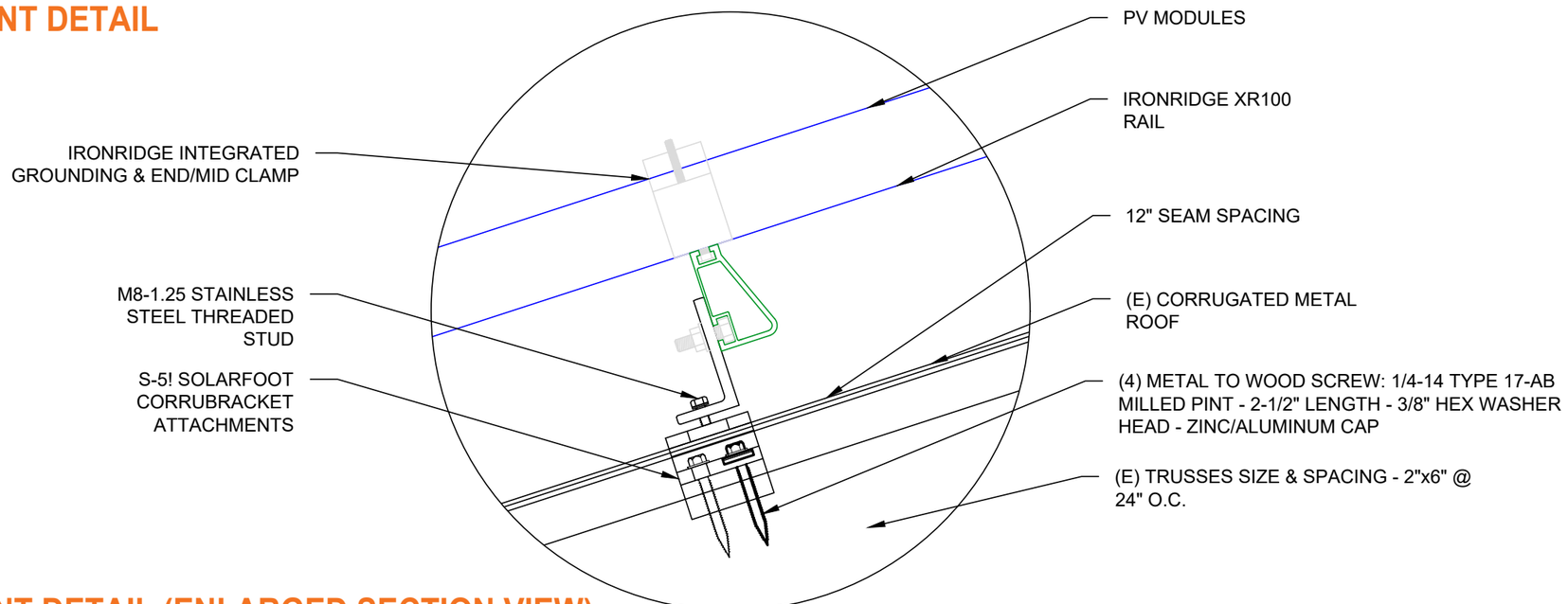
FIGURE 1609.3(1)
ULTIMATE DESIGN WIND SPEEDS, V_{ULT}, FOR RISK CATEGORY II BUILDINGS AND OTHER STRUCTURES

DESIGN CRITERIA

EXPOSURE CATEGORY = C
WIND SPEED = 120MPH
SNOW LOAD = 0PSF

ATTACHMENT DETAIL

SCALE: NTS



ATTACHMENT DETAIL (ENLARGED SECTION VIEW)

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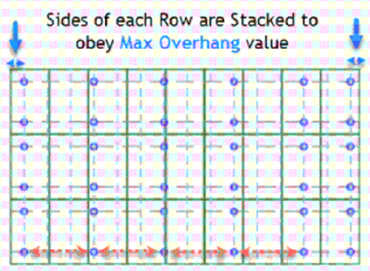
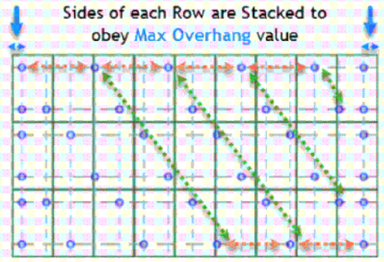
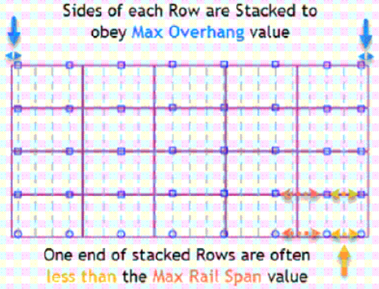
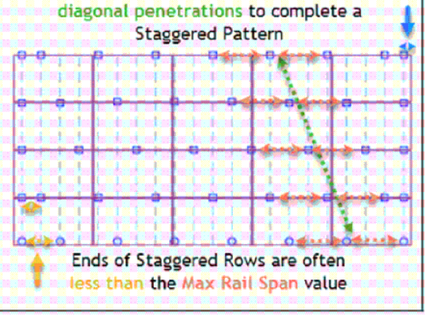
Structural Information					
SYSTEM SIZE	(25.6 KW DC / 22.8 KW AC)	RACKING	EVEREST CROSS RAIL 44-X RAIL		
MODULES	(64) URE FAM365E7G-BB				
MODULE DIMS	(67.83" X 44.61"X 1.38")	ROOF TYPE	METAL SHINGLE		
MAX ROOF HEIGHT	SINGLE STORY	FRAME TYPE	BLACK ANO DISED ALUMINIUM		
		OC SPACING	24" OC		
LAG LENGTH	5/16"x3.5": 2.5" MIN EMBEDMENT	COLUMN SPACING	1"	ROW SPACING	1"

ATTACHMENT SPECIFICATIONS									
Array	Landscape				Portrait				Layout
Name	Max OC Spacing	Max Overhang	*Reduced Max OC SPACING	*Reduced Max Overhang	Max OC Spacing	Max Overhang	*Reduced Max OC SPACING	*Reduced Max Overhang	Configuration
AR-01 TO AR-11	6'-0"	2'-4"	N/A	N/A	6'-0"	2'-2"	N/A	N/A	STACKED

Racking Type	Stacked All Non-snow & Non-high Wind Regions (exception: Standing Seam is always staggered)	Staggered All Regions if Snow>10 PSF or Wind>150 mph
Railed	 Penetration Spacing must land on structural members and be <= the Max Rail Span value	 Start in one corner with first Max Rail Span and stagger penetrations diagonally onto every structural member
Rail-Less (RL)	 One end of stacked Rows are often less than the Max Rail Span value	 Ends of Staggered Rows are often less than the Max Rail Span value

STRUCTURAL INFORMATION

PV-3.1

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4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
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REVISION 1: DATE
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SCALE: NTS

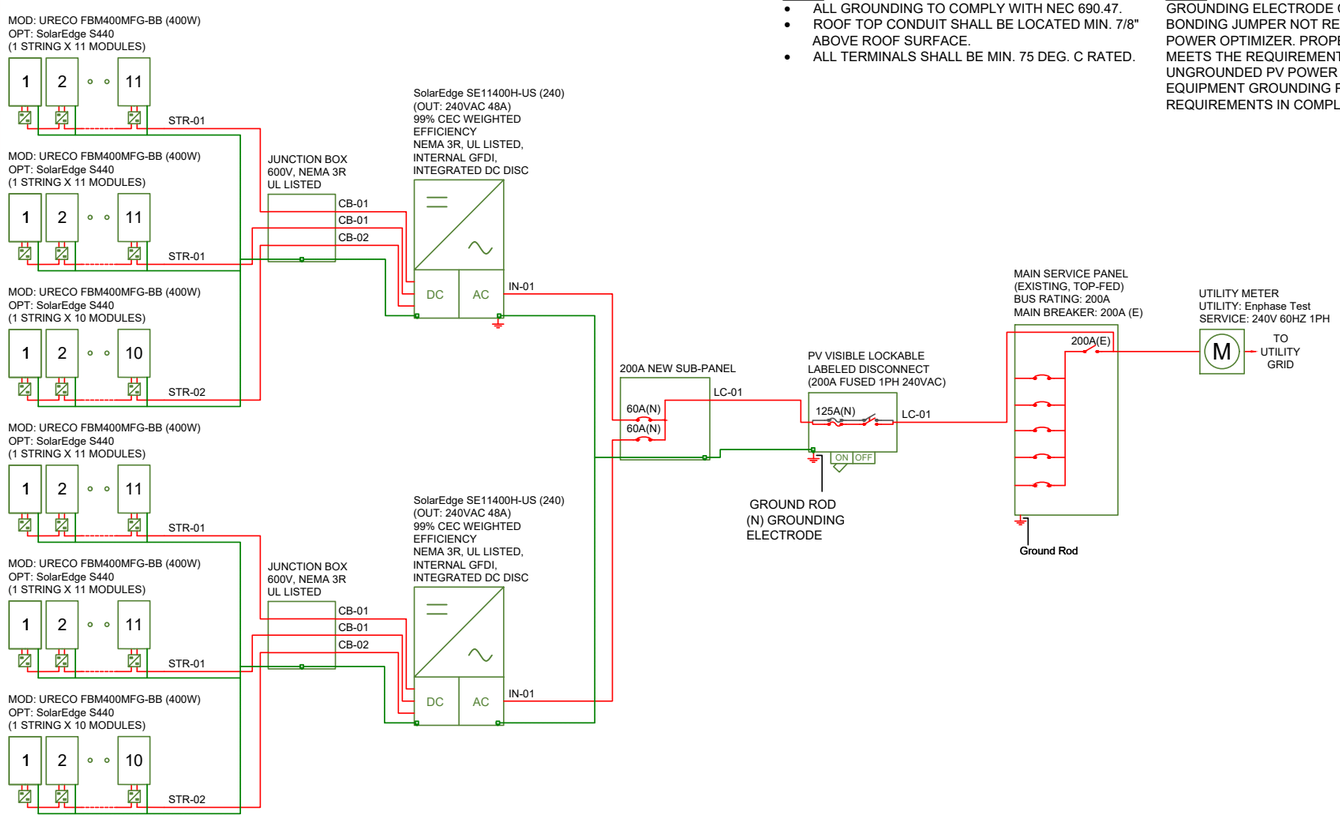
PAGE : 5

SYSTEM SUMMARY STC DC/AC
(25.6 kW DC / 22.8 kW AC)

- 4x STRINGS OF 11 CONNECTED IN SERIES
- 2x STRINGS OF 10 CONNECTED IN SERIES

- (64) URECO FBM400MFG-BB (400W) MODULES
- (64) SolarEdge S440 OPTIMIZERS
- (2) SolarEdge SE11400H-US (240) INVERTERS

STC DC: (64) 400 = 25.6 kW
STC AC: (2) 11400 = 22.8 kW



NOTE:
- ALL GROUNDING TO COMPLY WITH NEC 690.47.
- ROOF TOP CONDUIT SHALL BE LOCATED MIN. 7/8" ABOVE ROOF SURFACE.
- ALL TERMINALS SHALL BE MIN. 75 DEG. C RATED.

NOTE:
GROUNDING ELECTRODE CONDUCTOR/SYSTEM BONDING JUMPER NOT REQUIRED FOR SOLAREDGE POWER OPTIMIZER. PROPERLY INSTALLED SYSTEM MEETS THE REQUIREMENTS OF NEC 690.35 FOR UNGROUNDED PV POWER SYSTEMS. PROVIDE EQUIPMENT GROUNDING PER MANUFACTURER'S REQUIREMENTS IN COMPLIANCE WITH THE NEC.

DC wire details						
Wire	Min Ampacity	Live	Neutral	Ground	Min EMT	Min RMC
STR-01	18.75A	(2) 10 AWG PV	-	06 AWG BARE (NOT IN CONDUIT)	-	-
STR-02	18.75A	(2) 10 AWG PV	-	06 AWG BARE (NOT IN CONDUIT)	-	-
CB-01	18.75A	(2) 10 AWG THWN-2	-	10 AWG THWN-2	0.50 in	0.50 in
CB-02	18.75A	(2) 10 AWG THWN-2	-	10 AWG THWN-2	0.50 in	0.50 in

AC wire details							
Wire	Min Ampacity	Live	Neutral	Ground	Min EMT	Min PVC	Min RMC
IN-01	59.38A	(2) 06 AWG THWN-2	06 AWG THWN-2	10 AWG THWN-2	0.75 in	0.75 in	0.75 in
LC-01	118.75A	(2) 1/0 AWG THWN-2	1/0 AWG THWN-2	06 AWG THWN-2	1.50 in	1.50 in	1.25 in

INTERCONNECTION 120% RULE
(MAIN PANEL)

INTERCONNECTION
120% RULE
NOT APPLICABLE

LINE-SIDE TAP DOES NOT AFFECT
MAIN PANEL

EXTREME CASE MODULE OUTPUT
(URECO FBM400MFG-BB (400W))

Isc(25°C) = 13.68A, Tisc = 0.048A/°C
Isc(T) = Isc(25°C) + [Tisc x (T-25°C)]
Isc(-5°C) = 12.24A, Isc(34°C) = 14.11A

Voc(25°C) = 37.20V, Tvoc = -0.270V/°C
Voc(T) = Voc(25°C) + [Tvoc x (T-25°C)]
Voc(-5°C) = 45.30V, Voc(34°C) = 34.77V

ELECTRICAL SINGLE LINE DIAGRAM
SCALE: NTS

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(25.6 kW DC / 22.8 kW AC)

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- (64) SolarEdge S440 OPTIMIZERS
- (2) SolarEdge SE11400H-US (240) INVERTERS

STC DC: (64) 400 = 25.6 kW
STC AC: (2) 11400 = 22.8 kW

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Date: 2022.10.10 15:53:31 -04'00'

DC wire details

WireID	(Strings) Modules	Voltage	Backfeed *1.25 /cond. set	Min OCPD	Conductor sets	ccConductors /conduit	Expected max temp	Adjusted ampacity (ampacity x temp derate x conduit fill derate)	Conductor size	EGC size (Cu)	Conductor metal	Max length	V drop	Min EMT size	Min RMC size
STR-01	(1x) 11x URECO FBM400MFG-BB (400W)	400-480 V	18.75 A	20 A	1	2	34	35 x 0.94 x 1.00 = 32.90 A	10 AWG PV	06 AWG BARE (NOT IN CONDUIT)	Cu	50 ft	0.40 %	-	-
STR-02	(1x) 10x URECO FBM400MFG-BB (400W)	400-480 V	18.75 A	20 A	1	2	34	35 x 0.94 x 1.00 = 32.90 A	10 AWG PV	06 AWG BARE (NOT IN CONDUIT)	Cu	50 ft	0.40 %	-	-
CB-01	(1x) 11x URECO FBM400MFG-BB (400W)	400-480 V	18.75 A	20 A	1	2	34	35 x 0.94 x 1.00 = 32.90 A	10 AWG THWN-2	10 AWG THWN-2	Cu	50 ft	0.40 %	0.50 in	0.50 in
CB-02	(1x) 10x URECO FBM400MFG-BB (400W)	400-480 V	18.75 A	20 A	1	2	34	35 x 0.94 x 1.00 = 32.90 A	10 AWG THWN-2	10 AWG THWN-2	Cu	50 ft	0.40 %	0.50 in	0.50 in

AC wire details

WireID	#Modules	Nominal Voltage	Backfeed *1.25 /cond. set	Min OCPD	Total Power	Conductor sets	ccConductors /conduit	Expected max temp	Adjusted ampacity (ampacity x temp derate x conduit fill derate)	Conductor & neutral size	EGC size (Cu)	Conductor metal	Max length	V drop	Min EMT size	Min PVC size	Min RMC size
IN-01	32	240 V	59.38 A	60 A	11.4 kW	1	2	34	65 x 0.94 x 1.00 = 61.10 A	06 AWG THWN-2	10 AWG THWN-2	Cu	50 ft	0.84 %	0.75 in	0.75 in	0.75 in
LC-01	64	240 V	118.75 A	125 A	22.8 kW	1	2	34	150 x 0.94 x 1.00 = 141.00 A	1/0 AWG THWN-2	06 AWG THWN-2	Cu	10 ft	0.09 %	1.50 in	1.50 in	1.25 in

INTERCONNECTION 120% RULE
(MAIN PANEL)

INTERCONNECTION 120% RULE NOT APPLICABLE

LINE-SIDE TAP DOES NOT AFFECT MAIN PANEL

EXTREME CASE MODULE OUTPUT
(URECO FBM400MFG-BB (400W))

Isc(25°C) = 13.68A, Tisc = 0.048A/°C
Isc(T) = Isc(25°C) + [Tisc x (T-25°C)]
Isc(-5°C) = 12.24A, Isc(34°C) = 14.11A

Voc(25°C) = 37.20V, Tvoc = -0.270V/°C
Voc(T) = Voc(25°C) + [Tvoc x (T-25°C)]
Voc(-5°C) = 45.30V, Voc(34°C) = 34.77V

ELECTRICAL NOTES

1) ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL, AND LABELED FOR ITS APPLICATION.
2) ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 V AND 90 DEGREE 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 ILSCO GBL-4DBT LAY-IN LUG.
10) PV EQUIPMENT SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NEC 690.
11) EXACT LOCATION OF AUXILIARY GROUNDING TO BE DETERMINED AT TIME OF INSTALL.
12) EXISTING WIRES MUST BE REPLACED IF SMALLER THAN LISTED MINIMUM SIZES PER NEC 310.15(B)(16).
13) AC DISCONNECT LOCATED WITHIN 10' OR LESS FROM UTILITY METER

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

PROJECT NO. 2227898

CONTRACTOR:
SOLAR SPECIALIST, INC.
6520 US HWY 301 S STE 115
RIVERVIEW FL, 33578

PROJECT ADDRESS:
SMITH
512 NW SHELBY TER
LAKE CITY FL 32055

DESIGN DATE: 10/10/2022
REVISION 1: DATE
REVISION 2: DATE
SCALE: NTS

1

WARNING

ELECTRICAL SHOCK HAZARD

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

LABEL LOCATION: INVERTERS, AC DISCONNECTS, AC COMBINER BOXES, AC JUNCTION BOXES
CODE REF: NEC 2017 - 690.13(B)

2

WARNING

ELECTRICAL SHOCK HAZARD

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

DC VOLTAGE IS ALWAYS PRESENT WHEN SOLAR MODULES ARE EXPOSED TO SUNLIGHT

LABEL LOCATION: DC DISCONNECTS, DC COMBINER BOXES
CODE REF: NEC 2017 - 690.13(B)

3

PHOTOVOLTAIC DC DISCONNECT

MAXIMUM SYSTEM VOLTAGE: 480.0 VDC
MAXIMUM CIRCUIT CURRENT: 30.00 ADC
MAX RATED OUTPUT CURRENT OF THE CHARGE CONTROLLER OR DC-TO-DC CONVERTER (IF INSTALLED) N/A ADC

LABEL LOCATION: DC DISCONNECTS, INVERTERS
CODE REF: NEC 2017 - 690.53

4

WARNING

ELECTRICAL SHOCK HAZARD

IF GROUND FAULT IS INDICATED ALL NORMALLY GROUNDED CONDUCTORS MAY BE UNGROUNDED AND ENERGIZED

LABEL LOCATION: AC DISCONNECTS, AC COMBINER BOXES, SERVICE PANELS
CODE REF: NEC 2017 - 690.5(C)

5

PV SYSTEM DISCONNECT

MAXIMUM AC OPERATING CURRENT: 25.0 AMPS
NOMINAL OPERATING AC VOLTAGE: 240.0 VAC

LABEL LOCATION: INTERCONNECTION Placard (MSP BACKFEED BREAKER OR TAP BOX IF LINE SIDE TAP), AC DISCONNECTS
CODE REF: NEC 2017 - 690.54

6

PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT SWITCH

LABEL LOCATION: AC DISCONNECTS FOR UTILITY ACCESS
CODE REF: UTILITY

7

PHOTOVOLTAIC SYSTEM METER

LABEL LOCATION: PV PRODUCTION METER
CODE REF: NEC 2017 - 690.4(B)

8

WARNING: PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION: DC JUNCTION/PULL BOXES, DC CONDUIT (EVERY 1O FT, AT EACH TURN, ABOVE AND BELOW PENETRATIONS)
CODE REF: NEC 2017 - 690.31(G)(3), NEC 2017 - 690.31(G)(4)

9

WARNING

INVERTER OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL LOCATION: FIRST BACKFEED BREAKER (MSP/SUBPANEL) IF NO LINE SIDE TAP
CODE REF: NEC 2017 - 705.12(B)(2)(3)(b), NEC 2017 - 705.12(B)(3), CEC 2019 - 705.12(B)(2)(3)(b), CEC 2019 - 705.12(B)(3)

10

CAUTION

PHOTOVOLTAIC SYSTEM CIRCUIT IS BACKFED

LABEL LOCATION: INTERCONNECTION Placard (MSP BACKFEED BREAKER OR TAP BOX IF LINE SIDE TAP)
CODE REF: NEC 2017 - 705.2(4)

11

PV SOLAR BREAKER

DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL LOCATION: FIRST BACKFEED BREAKER (MSP/SUBPANEL) IF NO LINE SIDE TAP
CODE REF: NEC 2017 - 705.12(B)(2)(3)(b)

12

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

LABEL LOCATION: MSP
CODE REF: NEC 2017 - 690.56(C)(3)

13

CAUTION

DUAL POWER SOURCE SECOND SOURCE IS PHOTOVOLTIC

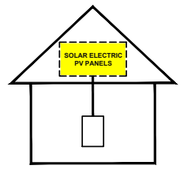
LABEL LOCATION: MSP, UTILITY METER (IF SEPARATE)
CODE REF: UTILITY

NOTES AND SPECIFICATIONS:
SIGNS AND LABELS SHALL MEET THE REQUIREMENTS OF NEC 110.21(B), UNLESS SPECIFIC INSTRUCTIONS ARE REQUIRED BY SECTION 690, OR IF REQUESTED BY THE LOCAL AHJ.
SIGNS AND LABELS SHALL ADEQUATELY WARN OF HAZARDS USING EFFECTIVE WORDS, COLORS AND SYMBOLS.
LABELS SHALL BE PERMANENTLY AFFIXED TO THE EQUIPMENT OR WIRING METHOD AND SHALL NOT BE HAND WRITTEN.
LABEL SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
SIGNS AND LABELS SHALL COMPLY WITH ANSI Z535.4 - 2011, PRODUCT SAFETY SIGNS AND LABELS, UNLESS OTHERWISE SPECIFIED.
DO NOT COVER EXISTING MANUFACTURER LABELS.

14

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 LOCATION: INTERCONNECTION POINT (MSP OR AC DISCONNECT IF LINE SIDE TAP)
CODE REF: NEC 2017 - 690.12, NEC 2017 - 690.56(C)

INSTALLER EMERGENCY CONTACT INFORMATION

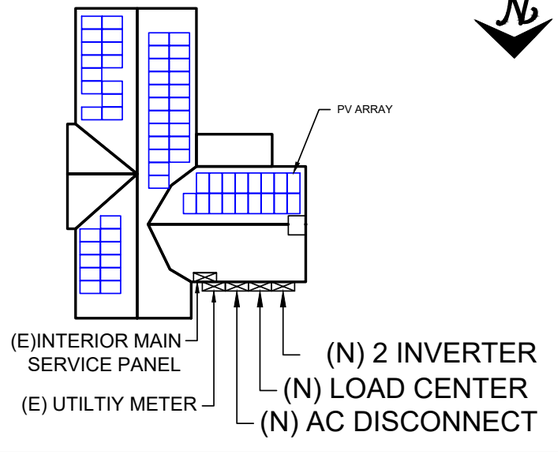
SOLAR SPECIALIST

TELEPHONE NO - 8139383107

CODE REF: NFPA 1-2018 ART. 11.12.2.1.5

CAUTION:

POWER TO THIS SERVICE IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS AS SHOWN



15

LABEL LOCATION: MSP
CODE REF: NEC 2017 - 705.10

This item has been electronically signed and sealed by Craig E. Gunderson, P.E. on date below using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signture must be verified on any electronic copies.

CRAIG E. GUNDERSON LICENSE No. 60102 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Craig E Gunderson
Date: 2022.10.10 15:53:39 -04'00'

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
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URECO
United Renewable Energy Co., Ltd.

EN

PEACH

FBM_MFG-BB / 108 cells
390W - 405 W
Mono-Crystalline PV Module

URE Peach module uses URE state-of -the art cell cutting technology, and advanced module manufacturing experiences.

Key Features

- Positive power tolerance
  +0 ~ +5 watt
- 100% EL inline inspection
  Better module reliability
- Withstand heavy loading
  front load 5400 Pa & rear load 2400 Pa
- Design for 1000 VDC
  Reduce the system BOS effectively
- Excellent low light performance
  3.5% relative eff. Reduction at low (200W/m²)

For more information, please visit us at **www.urecorp.com**

URECO
United Renewable Energy Co., Ltd.

EN

Electrical Data

Model - STC		FBM390MFG-BB	FBM395MFG-BB	FBM400MFG-BB	FBM405MFG-BB
Maximum Rating Power (Pmax)	[W]	390	395	400	405
Module Efficiency	[%]	19.98	20.23	20.49	20.75
Open Circuit Voltage (Voc)	[V]	36.84	37.03	37.20	37.36
Maximum Power Voltage	[V]	30.82	31.00	31.17	31.36
Short Circuit Current (Isc)	[A]	13.50	13.59	13.68	13.78
Maximum Power Current	[A]	12.66	12.75	12.84	12.92

*Standard Test Condition (STC): Cell Temperature 25 °C, Irradiance 1000 W/m², AM 1.5
*Values without tolerance are typical numbers.Measurement tolerance: ± 3%

Mechanical Data

Item	Specification
Dimensions	1723 mm (L)[1] x 1133 mm (W)[1] x 35 mm (D)[2] / 67.83" (L)[1] x 44.61" (W)[1] x 1.38" (D)[2]
Weight	21.7 kg / 47.84 lbs
Solar Cell	12x9 pieces monocrystalline solar cells series strings
Front Glass	White toughened safety glass, 3.2mm thickness
Cell Encapsulation	EVA (Ethylene-Viny-Acetate)
Frame	Black anodized aluminum profile
Junction Box	IP≥ 68, 3 diodes
Cable & Connector	Potrait : 500 mm (cable length can be customized), 1 x 4 mm² compatible with MC4
Package Configuration	31 pcs Per Pallet, 806 pcs per 40' HQ container

[1] : With assembly tolerance of ± 2 mm [± 0.08"]
[2] : With assembly tolerance of ± 0.8 mm [± 0.03"]

Operating Conditions

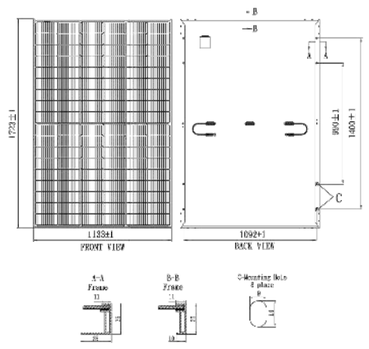
Item	Specification
Mechanical Load	5400 Pa
Maximum System Voltage	1000V
Series Fuse Rating	30 A
Operating Temperature	-40 to 85 °C

Temperature Characteristics

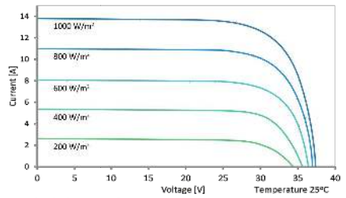
Item	Specification
Nominal Module Operating Temperature	45°C ± 2°C
Temperature Coefficient of Isc	0.048 % / °C
Temperature Coefficient of Voc	-0.27 % / °C
Temperature Coefficient of Pmax	-0.32 % / °C

*Nominal module operating temperature (NMOT): Air mass AM 1.5, irradiance 800W/m², temperature 20°C, windspeed 1 m/s.
*Reduction in efficiency from 1000W/m² to 200W/m² at 25°C: 3.5 ± 2%.

Engineering Drawing (mm)



Dependence on Irradiance



Reliability with Warranty

For more information, please visit us at **www.urecorp.com**

United Renewable Energy Co., Ltd.

Taipei Office
9F, NO. 295, Sec. 2, Tiding Blvd., Neihu Dist., Taipei 11493, Taiwan
Tel : +886-2-2656-2000
Fax : +886-2-2656-0593
e-mail : sales@urecorp.com

Headquarters
No. 7, Li-Hsin 3rd Road, Hsinchu Science Park Hsinchu city 30078, Taiwan
Tel : +886-3-578-0011
Fax : +886-3-578-1255

URECO_US_Peach_FBM_MFG-BB_V1_3.2_35mm_BS_EN_211019

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
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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

INVERTERS

Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking 99% weighted 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, NEC 2017 and NEC 2020 per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- Optional: Faster installations with built-in consumption metering (1% accuracy) and production revenue grade metering (0.5% accuracy, ANSI C12.20)

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

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	600kΩ 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

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Power Optimizer
For Residential Installations

S440, S500

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

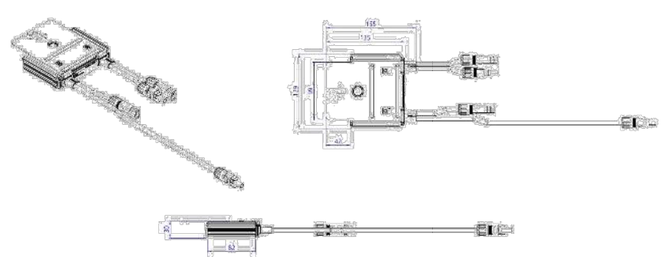
Power Optimizer
For Residential Installations
S440, S500

	S440	S500	UNIT
Rated Input DC Power(1)	440	500	W
Absolute Maximum Input Voltage (Voc)	60		Vdc
MPPT Operating Range	8 - 60		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		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)			
Safety Output Voltage per Power Optimizer	1		Vdc
STANDARD COMPLIANCE			
EMC	FCC Part 15 Class B, IEC61000-6-2, IEC61000-6-3, CISPR11, EN-55011		
Safety	IEC62109-1 (class II safety), UL 1741		
Material	UL 94 V-0, UV Resistant		
RoHS	Yes		
Fire Safety	VDE-AR-E 2100-712:2013-05		
INSTALLATION SPECIFICATIONS			
Maximum Allowed System Voltage	1000		Vdc
Dimensions (W x L x H)	129 x 155 x 30		mm
Weight (including cables)	655 / 1.5		gr / lb
Input Connector	MC4(2)		
Input Wire Length	0.1		m
Output Connector	MC4		
Output Wire Length	(-) 2.3, (-) 0.10		m
Operating Temperature Range(3)	-40 to +85		°C
Protection Rating	IP68 / NEMA6P		
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 other connector types please contact SolarEdge
(3) For ambient temperature above +70°C / +158°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		Single Phase HD-Wave	Three Phase	Three Phase for 277/480V Grid	
Minimum String Length (Power Optimizers)	S440, S500	8	16	18	
Maximum String Length (Power Optimizers)		25	50		
Maximum Nominal Power per String(5)		5700	11250(6)	12750(6)	W
Parallel Strings of Different Lengths or Orientations			Yes		

(4) If the inverter's rated AC power x maximum nominal power per string, then the maximum power per string will be able to reach up to the inverter's maximum input DC power. Refer to: https://www.solaredge.com/sites/default/files/se-power-optimizer-single-string-design-application-note.pdf
(5) For the 230/400V grid: it is allowed to install up to 15,500W per string when the maximum power difference between each string is ≥ 2,000W
(6) For the 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
(7) It is not allowed to mix S-series and P-series Power Optimizers in new installations



CE RoHS

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PAGE : 11

RSTC Enterprises, Inc.
2214 Heimstead Road
Eau Claire, WI 54703
715-830-9997

SOLADECK
FLASHED PV ROOF-MOUNT COMBINER/ENCLOSURES

Outdoor Photovoltaic Enclosures

0799 Series

Composition/Cedar Roof System

ETL listed and labeled

Report # 3171411PRT-002 Revised May, 2018

- UL50 Type 3R, 11 Edition Electrical equipment enclosures
- CSA C22.2 No. 290 Nema Type 3R
- Conforms to UL 1741 Standard

0799 Series Includes:

0799 - 2	Wire size 2/0-14
0799 - 5	Wire size 14-6
0799 - D	Wire size 14-8

Models available in Grey, Black or Stainless Steel

Basic Specifications

Material options:
- Powder coated, 18 gauge galvanized 90 steel (1,100 hours salt spray)
- Stainless steel

Process - Seamless draw (stamped)
Flashing - 15.25" x 17.25"
Height - 3"
Cavity - 255 Cubic inches

Base Plate:

- Fastened to base using toggle fastening system
- 5 roof deck knockouts
- Knockout sizes: (3) .5", (1) .75" and (1) 1"
- 8", 35mm slotted din rail
- Ground Block

Passthrough and combiner kits are available for either AC or DC applications.

FLORIDA ENGINEERING LLC
4161 TAMIAMI TRAIL, UNIT 101
PORT CHARLOTTE, FLORIDA 33952
(941) 391-5980
www.flengineeringllc.com
CA CERT. #30782

PROJECT NO. 2227898

CONTRACTOR:
SOLAR SPECIALIST, INC.
6520 US HWY 301 S STE 115
RIVERVIEW FL, 33578

PROJECT ADDRESS:
SMITH
512 NW SHELBY TER
LAKE CITY FL 32055

DESIGN DATE:	10/10/2022
REVISION 1:	DATE
REVISION 2:	DATE
SCALE:	NTS

Datasheet

IRONRIDGE

Flush Mount System

Built for solar's toughest roofs.

IronRidge builds the strongest mounting system for pitched roofs in solar. Every component has been tested to the limit and proven in extreme environments.

Our rigorous approach has led to unique structural features, such as curved rails and reinforced flashings, and is also why our products are fully certified, code compliant and backed by a 20-year warranty.

Strength Tested
All components evaluated for superior structural performance.

PE Certified
Pre-stamped engineering letters available in most states.

Class A Fire Rating
Certified to maintain the fire resistance rating of the existing roof.

Design Assistant
Online software makes it simple to create, share, and price projects.

UL 2703 Listed System
Entire system and components meet newest effective UL 2703 standard.

20-Year Warranty
Twice the protection offered by competitors.

Datasheet

XR Rails

XR10 Rail

A low-profile mounting rail for regions with light snow.
- 6' spanning capability
- Moderate load capability
- Clear and black finish

XR100 Rail

The ultimate residential solar mounting rail.
- 8' spanning capability
- Heavy load capability
- Clear and black finish

XR1000 Rail

A heavyweight mounting rail for commercial projects.
- 12' spanning capability
- Extreme load capability
- Clear anodized finish

Bonded Splices

All rails use internal splices for seamless connections.
- Self-drilling screws
- Varying versions for rails
- Forms secure bonding

Clamps & Grounding

UFOs

Universal Fastening Objects bond modules to rails.
- Fully assembled & lubed
- Single, universal size
- Clear and black finish

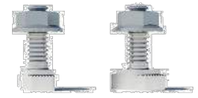
Stopper Sleeves

Snap onto the UFO to turn into a bonded end clamp.
- Bonds modules to rails
- Sized to match modules
- Clear and black finish

Grounding Lugs

Connect arrays to equipment ground.
- Low profile
- Single tool installation
- Mounts in any direction

Microinverter Kits



Mount MIs or POs to XR Rails.
- Bonds devices to rails
- Kit comes assembled
- Listed to UL 2703

Attachments

FlashFoot2

Flash and mount XR Rails with superior waterproofing.
- Twist-on Cap eases install
- Wind-driven rain tested
- Mill and black finish

Slotted L-Feet

Drop-in design for rapid rail attachment.
- Secure rail connections
- Slot for vertical adjusting
- Clear and black finish

Bonding Hardware

Bond and attach XR Rails to roof attachments.
- T & Square Bolt options
- Nut uses 7/16" socket
- Assembled and lubricated

Flush Standoffs

Raise Flush Mount System to various heights.
- Works with vent flashing
- 4" and 7" lengths
- Ships assembled

Resources

Design Assistant
Go from rough layout to fully engineered system. For free.
Go to IronRidge.com/design

NABCEP Certified Training
Earn free continuing education credits, while learning more about our systems.
Go to IronRidge.com/training

This item has been electronically signed and sealed by Craig E. Gunderson, P.E. on date below using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signture must be verified on any electronic copies.

CRAIG E. GUNDERSON LICENSE No. 60102 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Craig E Gunderson
Date: 2022.10.10 15:54:22 -04'00'

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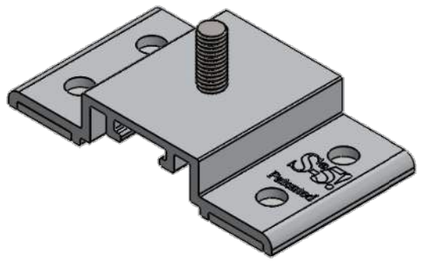
SolarFoot



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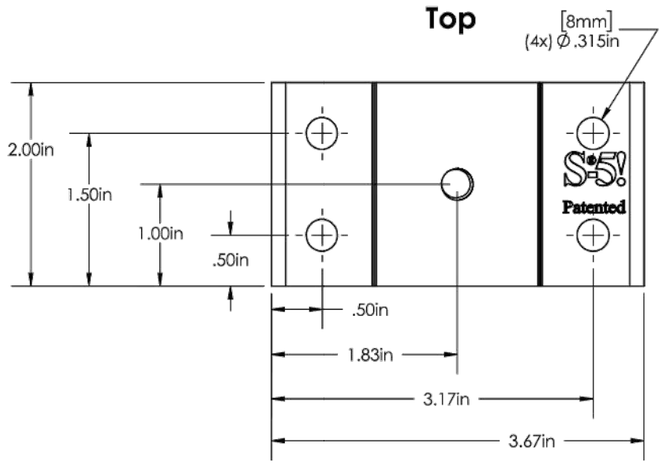
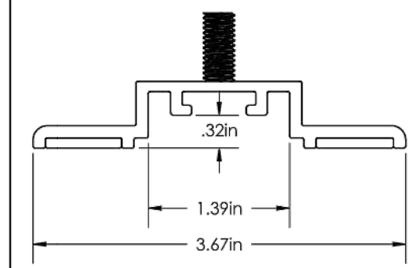
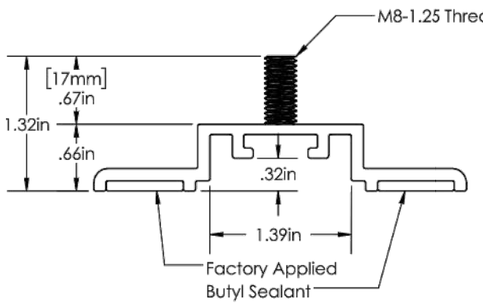




Scale 2:3

Back



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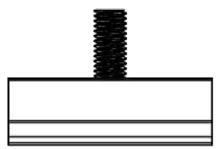
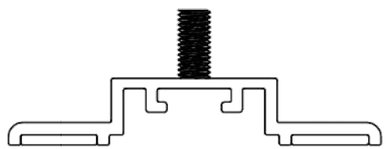


Front



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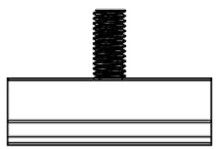

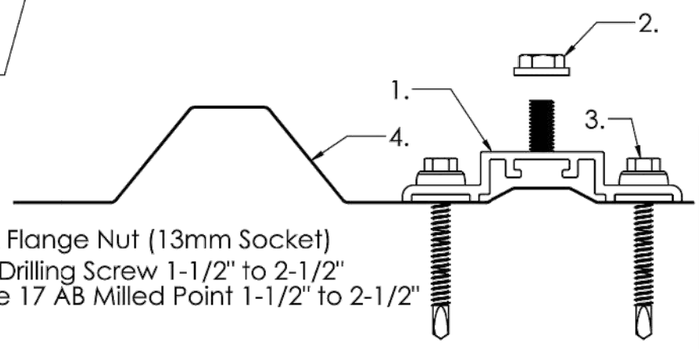

FOR STANDING SEAM SPECIFIC MECHANICAL LOAD TEST INFORMATION AND CLAMP INSTALLATION INFORMATION PLEASE VISIT: WWW.S-5.COM

General Notes:

1. SolarFoot
2. M8-1.25 Stainless Steel Hex Flange Nut (13mm Socket)
3. Metal to Metal:1/4-14 Self Drilling Screw 1-1/2" to 2-1/2"
   Metal to Wood:1/4-14 Type 17 AB Milled Point 1-1/2" to 2-1/2"
4. Example roof

MATERIAL: 6005A T61 Al	S-5! The Right Way!	METAL ROOF INNOVATIONS, LTD. 8655 TABLE BUTTE RD COLORADO SPRINGS, CO 80908 719-495-0518 719-495-0045(FAX)
EST ASSEMBLY WEIGHT: 0.248 lbs	TITLE: SolarFoot [CCD]	
SUPPLIED HARDWARE: M8-1.25 Hex Flange Nut		
SCALE: 2:3	DRAWING NO. LP66-A-0-A	DRAWN BY Paul Leitch — DATE 09/20/2017
EST. WEIGHT: Bracket: 0.129 lbs Fastener: 0.026 lbs Nut: 0.015 lbs	S-5!® PRODUCTS ARE PROTECTED BY MULTIPLE U.S. AND FOREIGN PATENTS. VISIT OUR WEBSITE AT WWW.S-5.COM FOR COMPLETE INFORMATION ON PATENTS AND TRADEMARKS.	

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