SYSTEM INFORMATION											
MODULE	HANWHA Q.PEAK DUO BLK ML-G10+ 400										
INVERTER	ENPHASE IQ8PLUS-72-2-US										
RACKING	SUNMODO EZ GRIP W/ UNIRAC NXT HORIZON 2-RAIL										
SYSTEM SIZE (DC)	6 KW										
LOCATION	30.0871580,-82.6490190										

# **GENERAL NOTES:**

THIS PV SYSTEM HAS BEEN DESIGNED TO MEET THE MINIMUM DESIGN STANDARDS FOR BUILDING AND OTHER STRUCTURES OF THE ASCE 7-16, 7TH EDITION 2020 FLORIDA RESIDENTIAL CODE, 7TH EDITION 2020 FLORIDA BUILDING CODE, 7TH EDITION 2020 FLORIDA FIRE PREVENTION CODE, NEC 2017 AND ALL LOCAL CODES & ORDINANCES.

ROOF SHALL HAVE NO MORE THAN TWO LAYERS OF COVERING IN ADDITION TO THE SOLAR EQUIPMENT.

INSTALLATION OF SOLAR EQUIPMENT SHALL BE FLUSH MOUNTED, PARALLEL TO AND NO MORE THAN 6-INCHES ABOVE THE SURFACE OF THE ROOF.

ANY PLUMBING VENTS ARE NOT TO BE CUT OR COVERED FOR SOLAR EQUIPMENT INSTALLATION. ANY RELOCATION OR MODIFICATION OF THE VENT REQUIRES A PLUMBING PERMIT AND INSPECTION.

ALL DESIGN, CALCULATIONS ARE PERFORMED BY DANIEL DUNZIK REGISTERED ARCHITECT. FLORIDA STATE STATUTE 471.003(3) PROVIDES THAT LICENSED ARCHITECTS ARE EXEMPTED FROM THE PROVISIONS OF CHAPTER 471 ENGINEERING AND NOT PRECLUDED FROM PERFORMING ENGINEERING SERVICES FOR INTEGRATED SYSTEMS AND SERVICES THAT ARE INCIDENTAL TO BUILDINGS AND STRUCTURES.

## **INVERTER PLACEMENT:**

SYSTEM UTILIZES "ENPHASE" MICRO-INVERTERS WITH RAPID SHUTDOWN CONTROL LOCATED ON THE BACK SIDE OF EACH MODULE.

### **STRUCTURAL STATEMENT:**

THE EXISTING STRUCTURE IS ADEQUATE TO SUPPORT THE NEW LOADS IMPOSED BY THE PHOTOVOLTAIC MODULE SYSTEM INCLUDING UPLIFT & SHEAR.EXISTING RAFTER SIZES & DIMENSIONS CONFORM TO 7TH EDITION 2020 FLORIDA RESIDENTIAL CODE

MOUNTING BRACKETS AND HARDWARE MEET OR EXCEED FLORIDA CODE REQUIREMENTS FOR THE DESIGN CRITERIA OF THE TOWN.

#### **FSEC CERTIFICATION STATEMENT:**

PER FL. STATUE 377.705, I, MINA A. MAKAR PE# 86753, CERTIFICATE OF AUTHORIZATION #33404, AN ENGINEER LICENSED PURSUANT TO CHAPTER 471, CERTIFY THAT THE PV ELECTRICAL SYSTEM AND ELECTRICAL COMPONENTS ARE DESIGNED AND APPROVED USING THE STANDARDS CONTAINED IN THE MOST RECENT VERSION OF THE FLORIDA BUILDING CODE. FBC 2020

CLIMATIC & GEOGRAPHIC DESIGN CRITERIA TABLE R301.2(1)									
SPEED (MPH)	120								
TOPOGRAPHIC EFFECTS	В								
SPECIAL WIND REGION	NO								
WIND BORNE DEBRIS ZONE	2								
SEISMIC DESIGN CATEGORY	С								
CLIMATE ZONE	2A								
WIND EXPOSURE CATETORY	В								

FBC, RESIDENTIAL 2020

	TABLE R301.2.1.3												
,	WIND SPEED CONVERSIONS <sup>a</sup>												
V <sub>ult</sub>	110	115	120	130	140	150	160	170	180	190	200		
V <sub>asd</sub>	85	89	93	101	108	116	124	132	139	147	155		

For SI: 1 mile per hour = 0.447 m/s.

a. Linear interpolation is permitted.

HANWHA Q.PEAK DUO BLK ML-G10+ 400 400 WATT MODULE 74" X 41.1" X 1.26" (SEE DATASHEET)

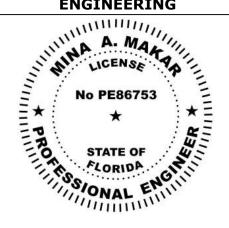
	PLAN KEY
PV-1	COVER PAGE
PV-1.1	ATTACHMENT DETAIL
PV-1.1(2)	ATTACHMENT DETAIL CONT
PV-2	ROOF LAYOUT
PV-3	ELECTRICAL
PV-3.1	ELECTRICAL CONT.
PV-3.2	EQUIPMENT LABELS

<u></u>	
BILL OF MATERIALS	
MODULES	15
INVERTERS	15
L-FOOT ATTACHMENT W/ RT-MINI	37
171" RAILS	7
SKIRTS	
ENPHASE COMBINER BOX	1
EATON 60A FUSIBLE AC DISCONNECT	1
35A FUSES	2
125A LINE TAPS	2



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33404] on the Date and Time Stamp
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on any electronic copies

Date: 2023.07.03 05:07:35 -05:00

#### SOLAR CONTRACTOR

CAMERON CHRISTENSEN
CERTIFIED SOLAR CONTRACTOR LICENSE NUMBER: CVC57036
MOMENTUM SOLAR
5728 MAJOR BLVD. SUITE 307, ORLANDO FL. 32819

#### **CUSTOMER INFORMATION**

BRIDGET VANDERMARK - MS130268 290 SOUTHWEST DYNASTY GLEN LAKE CITY, FL 32024 3864067044

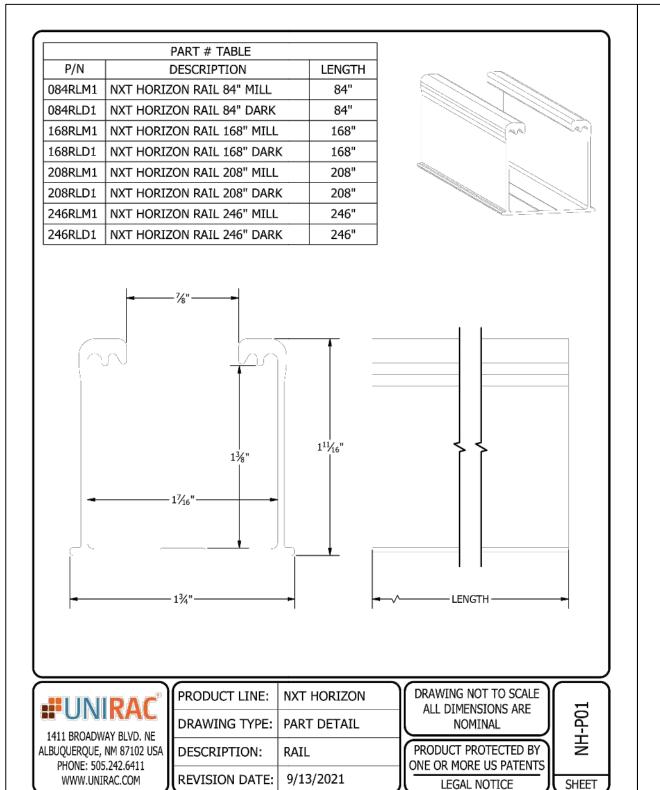
# **PV SYSTEM INFORMATION**

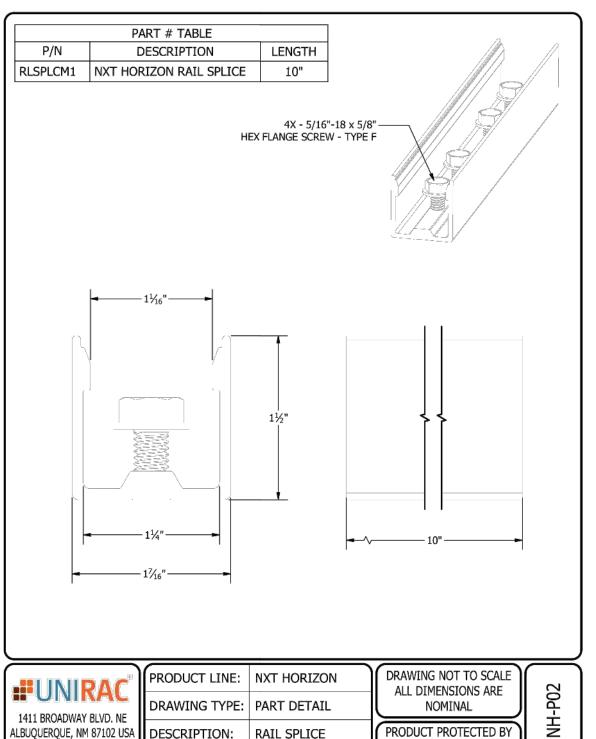
SYSTEM SIZE (DC): 6 KW
15 MODULES: HANWHA Q.PEAK DUO BLK
ML-G10+ 400
15 INVERTERS: ENPHASE
IQ8PLUS-72-2-US

	PROJECT INFORMA	TION
NITIAL	DATE: 7/3/2023	DESIGNER: SR
EV:	DATE:	DESIGNER:
EV:	DATE:	DESIGNER:

**COVER PAGE** 

PV-1





RAIL SPLICE

9/22/2021

ALBUQUERQUE, NM 87102 USA

PHONE: 505.242.6411

WWW.UNIRAC.COM

DESCRIPTION:

REVISION DATE:

PRODUCT PROTECTED BY

ONE OR MORE US PATENTS

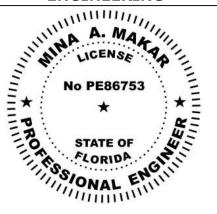
LEGAL NOTICE

SHEET



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CERTIFIED SOLAR CONTRACTOR LICENSE NUMBER: CVC57036 MOMENTUM SOLAR 5728 MAJOR BLVD. SUITE 307, ORLANDO FL. 32819

#### **CUSTOMER INFORMATION**

**BRIDGET VANDERMARK - MS130268** 290 SOUTHWEST DYNASTY GLEN LAKE CITY, FL 32024 3864067044

#### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC ): 6 KW 15 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 15 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMATION										
INITIAL	DATE: 7/3/2023	DESIGNER: SR									
REV:	DATE:	DESIGNER:									
REV:	DATE:	DESIGNER:									

ATTACHMENT DETAIL

**PV-1.1** 



### EZ GRIP METAL DECK MOUNT

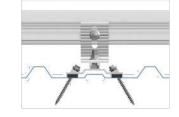
# Make your next metal roof attachment without the daunting task of locating the

truss. SunModo's EZ Grip Metal Deck Mount installs into 26 gauge sheet metal, 1/2 plywood or 7/16 OSB roof decking material.

#### SunModo's EZ Grip Metal Deck Mount installs in just minutes into sheet metal, plywood or OSB roof decking. The four

included 1/4 x 3" Hex Washer Head Self-tapping Screws have the length to penetrate though 1-1/2 inches of insulation while still piercing completely through the roof decking. And since the four screws are guided by the aluminum extruded base to penetrate at a 30-degree angle, the Metal Roof Deck Mount Kit offers superior attachment performance. 1/4-20 Self-drilling screws can be used for attachments into 26 gauge minimum thickness metal roofs.

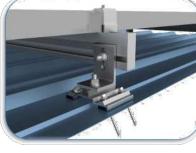
The EZ Grip Metal Deck Mount is designed to fit on the most popular R-Panel and U-Panel trapezoidal types of metal roofs. The aluminum extruded base easily clears roof profiles 7/16" tall by 1-1/2" wide. The EPDM gaskets on the washers and on the aluminum extruded base combine to provide a water tight seal at the roof penetration site.



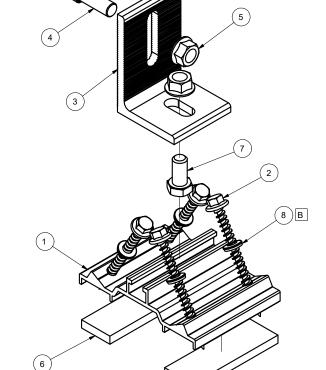
#### Features and Benefits

- Attaches into 1/2 plywood or 7/16 OSB roof decking material using four 1/4 x 3" Hex Washer Head Self-tapping Screws
- Attaches into 26 gauge minimum thickness sheet metal using four 1/4 x 2" Hex Washer Head Self-drilling Screws
- Angled penetrations provide superior attachment performance
- . A wide variety of L-feet and attachment options are available
- Passed the High-Velocity Hurricane Zone (HVHZ) -TAS 100(a) Wind-Driven Rain Test

SunModo Corp | Vancouver, WA | 360-844-0048 Document Number D10153-V003 | ©2019 – SunModo Corp







IN 1/2" PLYWOOD											
LOAD DIRECTION	FOS=2	FOS=3									
UPLIFT	345	230									
LATERAL.PERP. TO SLOT	140	95									
LATERAL.PARALLEL TO SLOT	265	175									
IN 7/16" OSB											
LOAD DIRECTION	FOS=2	FOS=3									
. In lier	190	125									
UPLIFT											
LATERAL.PERP. TO SLOT	125	85									

#### NOTES

- \* Factor of Safety as shown
- \* Torque at 3/8" T-Bolt = 15ft.lbs (20 N.m)
- \* All loads in pounds force
- \* Values valid only for conditons equal or better than test conditions
- \* Values valid only when product is used in accordance with SunModo installation instruction and other technical documentation
- \* The kit as shown in the BOM. For alternative configurations, contact
- 4 1/4" Deck Screws in Min 7/16" OSB

В	8	B15019-00	1	SEALIN	IG WASHER .26 ID X .5	60 X .125			4			
	7	B15018-00	1	HEX CA	AP SCREW 3/8-16 X 3/4	1			1			
	6	C50001-00	1	GASKE	T, EPDM, WITH ADHE	SIVE			2			
	5	B15003-00	1	FLANG	E NUT 3/8-16				2			
	4	B20007-00	2	T-BOLT	T 3/8-16X1.0", 304 SS				1			
	3	A20062-00	1	L F001	Γ				1			
	2	B15039-00	1	HEX W	ASHER HEAD LAG BO	LT 1/4X3			4			
	1	A50224-00	1	METAL ROOF DECK MOUNT								
	ITEM	PART N	UMBER	DESCRIPTION								
	MATERIAL Third Angle	SEE NOTE			SunModo Corp.							
	GENERAL S All Dimens Tolerances X.XXX ±0.0 X.XX ±0.02	PECIFICATIONS ions in inches [millin 1 [0.25mm]	neters] ak all sharp edges	14800 NE 65TH STREET, VANCOUVER WA 98682								
	X.X ±0.039   Unless other	1.0mm] .010	0020 unless erwise specified. DATE	TITLE	METAL ROOF D	ECK MOU	NT k	ΊΤ				
	CHECKED B	ΙΥ	10/16/2018	В	DRAWING NUMBER K50532-	001 STRU	CTU	RE				
Y ·	APPROVALS			SCALE	: NONE	SHEET	1	of	1			

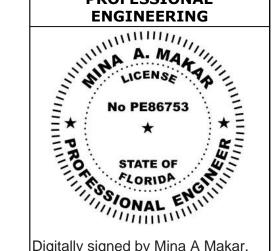
ATTACHMENT DETAIL FOR CORRUGATED METAL ROOF

THIS DRAWING IS CONFIDENTIAL PROPERTY OF SUNMODO AND ITS CONTENTS M. NOT BE DISCLOSED WITHOUT THE PRIOR WRITTEN CONSENT OF SUNMODO CORF



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# **PROFESSIONAL ENGINEERING**



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#### SOLAR CONTRACTOR

CAMERON CHRISTENSEN
CERTIFIED SOLAR CONTRACTOR LICENSE NUMBER: CVC57036 MOMENTUM SOLAR 5728 MAJOR BLVD. SUITE 307, ORLANDO FL. 32819

#### **CUSTOMER INFORMATION**

**BRIDGET VANDERMARK - MS130268** 290 SOUTHWEST DYNASTY GLEN LAKE CITY, FL 32024 3864067044

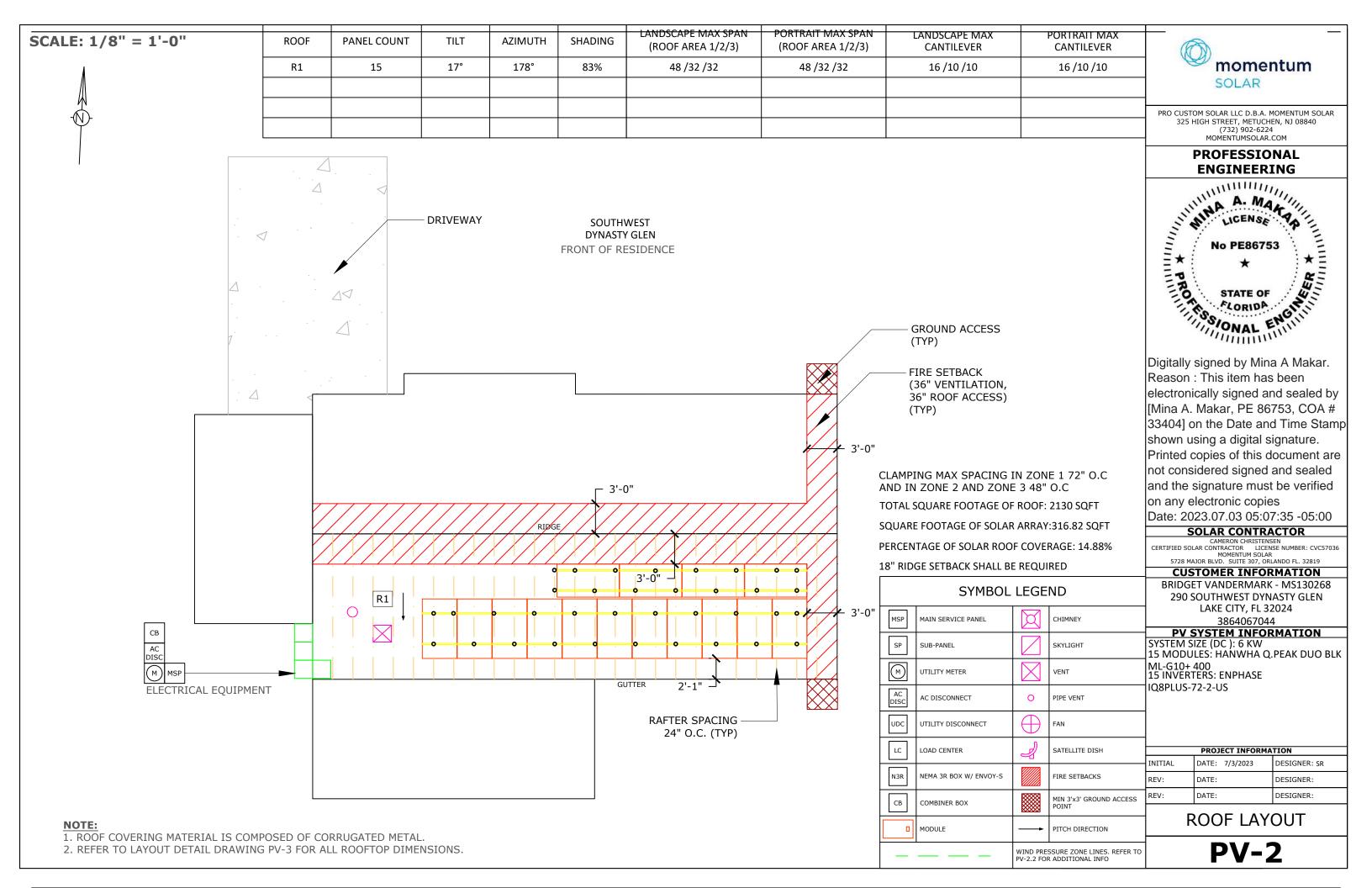
#### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC): 6 KW 15 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 15 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMATION  DATE: 7/3/2023 DESIGNER: SR  DATE: DESIGNER:					
INITIAL	DATE: 7/3/2023	DESIGNER: SR				
REV:	DATE:	DESIGNER:				
REV:	DATE:	DESIGNER:				

ATTACHMENT DETAIL

**PV-1.1 (2)** 



PV MODULE RA	TINGS	INVERTER RATINGS	,			VOLTAG	GE DROP CALC	ULATIONS				
MODULE MAKE	HANWHA	INVERTER MAKE	ENPHASE		FORMULA US	ED PER NEC H	ANDBOOK 21	5.2(A)(4) WHE	RE APPLICABL	E		
MODEL	MODEL Q.PEAK DUO BLK MU-G10+ 400 MODEL		IQ8PLUS-72-2-	WIRE RUN	V <sub>mp</sub>	I <sub>mp</sub>	R	L (FT)	Vo	% V <sub>o</sub>	WIRE SIZE	
			US	BRANCH TO J-BOX	240.00	240.00 9.68	1.98	52.67	2.019	0.84%	12 AWG	
MAX POWER	400W	MAX OUTPUT POWER	290W	DIVINCIT TO 3 BOX	240.00	3.00	1.50	32.07	2.015	0.0470	12 AWG	PF
OPEN CIRCUIT VOLTAGE	45.3V	OPEN DC VOLTAGE	60V	J-BOX TO LOAD CENTER	240.00	18.15	1.24	50.00	2.251	0.94%	10 AWG	
MPP VOLTAGE	37.13V	NOMINAL AC VOLTAGE	240V	LOAD CENTER TO AC						<del>                                     </del>		
SHORT CIRCUIT CURRENT	11.14A	MAX AC CURRENT	1.21A	DISCONNECT	240.00	22.6875	0.778	3.00	0.106	0.04%	08 AWG	
MPP CURRENT	10.77A	CEC INVERTER EFFICIENCY	97%	AC DISCONNECT TO	240.00	22.6875	0.491	10.00	0.223	0.09%	06 AWG	
NUMBER OF MODULES	15	NUMBER OF INVERTERS	15	INTERCONNECTION								

SUB PANEL BREAKER SIZE

**UL1703 COMPLIANT** 

# OF MODULES PV BREAKER
PER BRANCH THIS SOLAR PH
FLORIDA BUILD

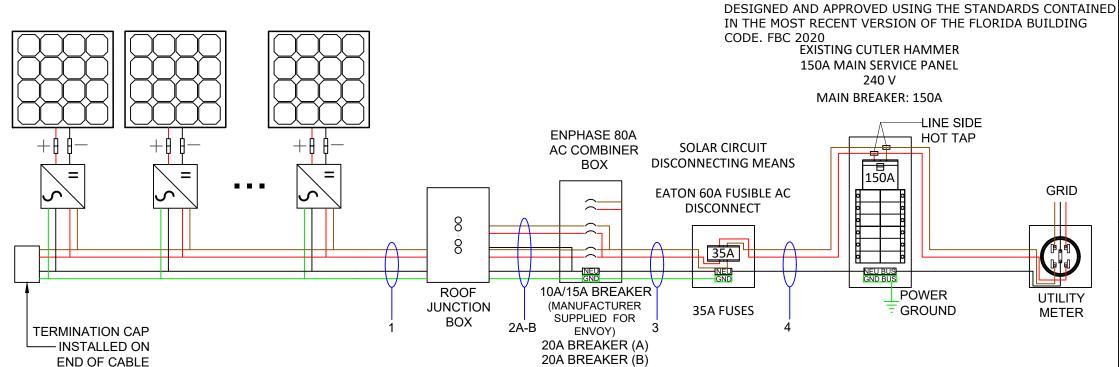
YES

THIS SOLAR PHOTOVOLTAIC SYSTEM COMPLIES WITH THE 2020 FLORIDA BUILDING CODE AND THE 2017 NATIONAL ELECTRICAL CODE

YES

# 15 HANWHA Q.PEAK DUO BLK ML-G10+ 400 400W MODULES PAIRED WITH 15 ENPHASE IQ8PLUS-72-2-US MICRO-INVERTERS

BRANCH CIRCUIT A 8 MICRO-INVERTERS BRANCH CIRCUIT B 7 MICRO-INVERTERS



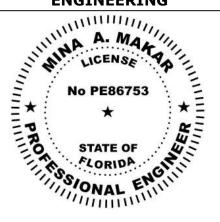
Wire Tag	Conduit	Wire Qty	Wire Gauge	Wire Type	Temp. Rating	Wire Ampacity (A)	Temp. Derate	Conduit Fill Derate	Derated Ampacity (A)	Inverter Qty	NOC (A)	NEC Correction	Design Current (A)	Ground Size	Ground Wire Type
1	OPEN AIR	2	12 AWG	Trunk Cable	90°C	30	0.96	1	28.80	8	1.21	1.25	12.10	12 AWG	Trunk Cable
2A	2/411 00/6		10 AWG	THWN-2	75°C	35	0.96	0.0	26.88	8	1.21	1.25	12.10	00 4146	T1004/01 0
2B	3/4" PVC 4	4	10 AWG	THWN-2	75°C	35	0.96	0.8	26.88	7	1.21	1.25	10.59	08 AWG	THWN-2
3	3/4" PVC	3 + G	08 AWG	THWN-2	75°C	50	0.96	1	48.00	15	1.21	1.25	22.69	08 AWG	THWN-2
4	3/4" PVC	3	06 AWG	THWN-2	75°C	65	0.96	1	62.40	15	1.21	1.25	22.69		THWN-2

NOTE: LETTER "G" IN WIRE QTY TAB STANDS FOR GROUNDING CONDUCTOR.



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# PROFESSIONAL ENGINEERING



FSEC CERTIFICATION STATEMENT:
PER FL. STATUE 377.705 , I, MINA A. MAKAR PE# 86753,

CERTIFICATE OF AUTHORIZATION #33404, AN ENGINEER LICENSED PURSUANT TO CHAPTER 471, CERTIFY THAT THE PV

ELECTRICAL SYSTEM AND ELECTRICAL COMPONENTS ARE

Digitally signed by Mina A Makar.
Reason: This item has been
electronically signed and sealed by
[Mina A. Makar, PE 86753, COA #
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CAMEROIN CHRISTEINSEN
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#### CUSTOMER INFORMATION

BRIDGET VANDERMARK - MS130268 290 SOUTHWEST DYNASTY GLEN LAKE CITY, FL 32024 3864067044

#### PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 6 KW 15 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 15 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION				
INITIAL	DATE: 7/3/2023	DESIGNER: SR		
REV:	DATE:	DESIGNER:		
REV:	DATE:	DESIGNER:		

THREE LINE DIAGRAM

PV-3

#### **ELECTRICAL NOTES:**

- 1. ALL CALCULATIONS FOR VOC, VMAX, IMP AND ISC HAVE BEEN CALCULATED USING THE MANUFACTURED STRING CALCULATOR BASED ON ASHRAE 2% HIGH AND EXTREME MINIMUM TEMPERATURE COEFFICIENTS.
- THE ENTIRE ARRAY IS BONDED ACCORDING TO (NEC 690.46 250.120 PARAGRAPH C). THE GROUND IS CARRIED AWAY FROM THE GROUNDING LUG USING #6 BARE COPPER WIRE OR #8 THWN-2 COPPER WIRE.
- 3. THIS SYSTEM COMPLIES WITH NEC 2017
- 4. BRANCH CIRCUIT CALCULATION FOR WIRE TAG 1 DISPLAYS THE LARGEST BRANCH CIRCUIT IN SYSTEM. OTHER BRANCH CIRCUITS SHALL HAVE LOWER DESIGN CURRENT THAN THE ONE SHOWN. IN ADDITION, VOLTAGE DROP CALCULATIONS FROM PANELS TO THE COMBINER BOX SHALL BE SHOWN IN A SIMILAR FASHION
- 5. ALL CONDUCTORS ARE SIZED BASED ON NEC 2017 ARTICLE 310
- 6. ALL EQUIPMENT INSTALLED IS RATED AT 75°C
- 7. INVERTER NOC (NOMINAL OPEN CURRENT) OBTAINED FROM EQUIPMENT DATASHEET
- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL LOCAL AND NATIONAL CODE REQUIREMENTS.
- 9. EACH MODULE MUST BE GROUNDED ACCORDING TO USER INSTRUCTIONS
- 10. ALL EQUIPMENT SHALL BE LISTED PER NEC 690.4(B)
- 11. PER NEC 690.13, 690.15, PROVIDE A WARNING SIGN AT ALL LOCATIONS WHERE TERMINALS OF THE DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPEN POSITION> SIGN SHALL READ \*WARNING ELECTRIC SHOCK HAZARD DO NOT TOUCH TERMINALS OR EQUIVALENT.
- 12. PER NEC 705.10, PROVIDE A PERMANENT PLAQUE OR DIRECTORY SHOWING ALL ELECTRIC POWER SOURCES ON THE PREMISES AT SERVICE ENTRANCE.
- 13. INTERCONNECTION METHOD SHALL COMPLY WITH NEC 705.12
- 14. AND OPTION FOR A SINGLE CIRCUIT BRANCH TO BE SPLIT INTO TWO SUB-CIRCUIT BRANCHES IS ACCEPTABLE.
- 15. ALL CONDUCTORS MUST BE COPPER.
- 16. NEUTRAL AND EQUIPMENT GROUNDING CONDUCTOR BONDED AS PER NEC 250.24(C).
- 17. EQUIPMENT GROUNDING CONDUCTOR IS CONNECTED TO A GROUNDING ELECTRODE SYSTEM PER 250.54(D).
- 18. FUSES FOR PV DISCONNECT HAVE AIC RATINGS OF 200KA AC AND 20KA DC.
- 19. SUPPLY SIDE CONNECTION SHALL BE MADE USING ILSCO INSULATION PIERCING CONNECTORS (IPC). MAKE, MODEL, AND RATING OF INTERCONNECTION CAN BE SEEN ON TABLE 1 BELOW.
- 20. METHOD OF INTERCONNECTION CAN BE SEEN IN FIGURE 1.
- 21. UTILITY HAS 24-HR UNRESTRICTED ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS LOCATED AT THE SERVICE ENTRANCE.

- 22. WORKING CLEARANCES AROUND THE EXISTING AND NEW ELECTRICAL EQUIPMENT WILL BE MAINTAINED IN ACCORDANCE WITH NEC ARTICLE 110.26.
- CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT PER NEC ARTICLE 300.6 (C)(1) AND ARTICLE 310.8 (D).
- 24. CONDUCTORS EXPOSED TO WET LOCATIONS SHALL BE SUITABLE FOR USE IN WET LOCATIONS PER NEC ARTICLE 310.10 (C).
- 25. TOTAL AREA OF ALL CONDUCTORS, SPLICES, AND TAPS INSTALLED AT ANY CROSS SECTION OF THE WIRING DOES NOT EXCEED 75% OF THE CROSS SECTIONAL AREA OF THE SPACE. NEC 312.8(A)(2).
- 26. SYSTEM IS CONSIDERED AN AC MODULE SYSTEM. NO DC CONDUCTORS ARE PRESENT IN CONDUIT, COMBINER, JUNCTION BOX, DISCONNECT. AND COMPLIES WITH 690.6 NO DC DISCONNECT AND ASSOCIATED DC LABELING ARE REQUIRED.
- 27. SYSTEM COMPLIES WITH 690.12 RAPID SHUTDOWN AND ASSOCIATED LABELING AS PER 690.56(C). AC VOLTAGE AND SYSTEM OPERATING CURRENT SHALL BE PROVIDED 690.52.
- 28. CONDUCTORS IN CONDUIT ARE AC CONDUCTORS BRANCH CIRCUITS AND NOT PV SOURCE CIRCUITS. 690.6.
- 29. ALL GROUNDING SHALL COMPLY WITH 690.47(A) IN THAT THE AC MODULES WILL COMPLY WITH 250.64.
- 30. NO TERMINALS SHALL BE ENERGIZED IN THE OPEN POSITION IN THIS AC MODULE SYSTEM 690.13, 690.15, 690.6.
- 31. WHERE APPLICABLE: INTERCONNECTION SHALL COMPLY WITH 705.12(A) OR 705.12(B)
- 32. ALL WARNING SIGN(S) OR LABEL(S) SHALL COMPLY WITH 2017 NEC ARTICLE 110.21(B). LABEL WARNINGS SHALL ADEQUATELY WARN OF THE HAZARD. LABELS SHALL BE PERMANENTLY AFFIXED TO THE EQUIPMENT, AND LABELS REQUIRED SHALL BE SUITABLE FOR THE ENVIRONMENT.
- 33. PV POWER CIRCUIT LABELS SHALL APPEAR ON EVERY SECTION OF THE WIRING SYSTEM THAT IS SEPARATED BY ENCLOSURES, WALLS, PARTITIONS, CEILINGS, OR FLOORS,

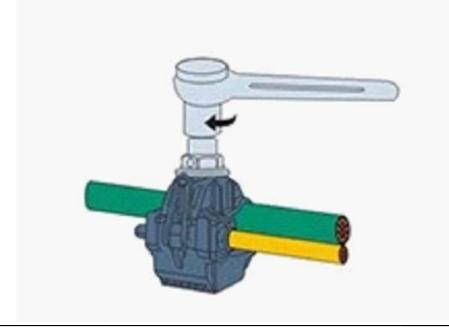
#### **TABLE 1:**

MAKE	MODEL	VOLTAGE RATING	CONDUCTOR RANGE MAIN	CONDUCTOR RANGE TAP
ILSCO	IPC 4006	600 V	4/0-4 AWG	6-14 AWG
ILSCO	IPC 4020	600 V	4/0-2 AWG	2/0-6 AWG

#### INSTRUCTIONS FOR LINE TAPS

#### FIGURE 1:

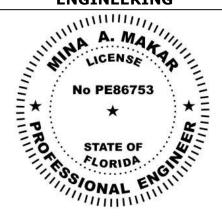
- 1. ADJUST THE CONNECTOR NUT TO SUITABLE LOCATION
- 2. PUT THE BRANCH WIRE INTO THE CAP SHEATH FULLY
- 3. INSERT THE MAIN WIRE, IF THERE ARE TWO LAYS OF INSULATED LAY IN THE MAIN CABLE, SHOULD STRIP A CERTAIN LENGTH OF THE FIRST INSULATED LAY FROM INSERTED END
- 4. TURN THE NUT BY HAND, AND FIX THE CONNECTOR IN SUITABLE LOCATION.
- 5. SCREW THE NUT WITH THE SLEEVE SPANNER.
- 6. SCREW THE NUT CONTINUALLY UNTIL THE TOP PART IS CRACKED AND DROPPED DOWN





PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 325 HIGH STREET, METUCHEN, NJ 08840 (732) 902-6224 MOMENTUMSOLAR.COM

# PROFESSIONAL ENGINEERING



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[Mina A. Makar, PE 86753, COA #
33404] on the Date and Time Stamp
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on any electronic copies
Date: 2023.07.03 05:07:35 -05:00

#### SOLAR CONTRACTOR

CAMERON CHRISTENSEN
CERTIFIED SOLAR CONTRACTOR LICENSE NUMBER: CVC57036
MOMENTUM SOLAR
5728 MAJOR BLVD. SUITE 307, ORLANDO FL. 32819

#### **CUSTOMER INFORMATION**

BRIDGET VANDERMARK - MS130268 290 SOUTHWEST DYNASTY GLEN LAKE CITY, FL 32024 3864067044

### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC ): 6 KW
15 MODULES: HANWHA Q.PEAK DUO BLK
ML-G10+ 400
15 INVERTERS: ENPHASE
IQ8PLUS-72-2-US

PROJECT INFORMATION			
INITIAL	DATE: 7/3/2023	DESIGNER: SR	
REV:	DATE:	DESIGNER:	
REV:	DATE:	DESIGNER:	

ELECTRICAL CONT.

**PV-3.1** 

ALL	WARNING SIGN(S) OR LABEL(S) SHALL COMPLY WITH NEC ARTICLE 110.21(B). LABEL WARNINGS SHA	LL ADEQUATELY W	/ARN OF THE HAZARD. LABE	LS SHALL BE PERMANENTLY AFFIXED TO THE	EQUIPMENT, AND LABELS REQUIRED SHALL BE SUITABLE FOR THE ENVIRONMENT.
TAG	LABEL	QUANTITY	LOCATION	NOTE	EXAMPLES
A	AC SOLAR VOLTAGE	12	AC CONDUITS	1 AT EVERY SEPARATION BY ENCLOSURES / WALLS / PARTITIONS / CEILINGS / FLOORS OR NO MORE THAN 10'	
B	WARNING: PHOTOVOLTAIC POWER SOURCE PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN	1	COMBINER BOX	1 AT ANY COMBINER BOX	
©	ELECTRICAL SHOCK HAZARD TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION	1	JUNCTION BOX	1 AT ANY JUNCTION BOX	
(E)	PHOTOVOLTAIC SYSTEM A C DISCONNECT  RATED AC OUTPUT CURRENT  NOMINAL OPERATING AC VOLTAGE  AC VOLTAGE  POWER TO THIS SERVICE IS ALSO SUPPLIED FROM ON-SITE SOLAR GENERATION  AC SYSTEM DISCONNECT  AC WARNING  ELECTRICAL SHOCK HAZARD TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION  RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM INSTALLED BY MOMENTUM SOLAR 3096 B HAMILTON BLVD S. PLAINFIELD, NJ 07080 PHONE NUMBER: 732-902-6224	1	AC DISCONNECT (RSD SWITCH)	1 OF EACH AT FUSED AC DISCONNECT COMPLETE VOLTAGE AND CURRENT VALUES ON DISCONNECT LABEL	A  A  A  A  A  A  A  A  A  A  A  A  A
F	DUAL POWER SUPPLY SECOND SOURCE IS PHOTOVOLTAIC SYSTEM	. 1	UTILITY METER	1 AT UTILITY METER AND ONE DIRECTORY PLACARD	ELECTRIC SHOCK HAZAND  DO NOT TOLICH TERMINALS  TERRIALS CREFOR THE LIVE NO LIVE SHEET WAY THE SH FROZZO LIVE THE OPEN POSITION  ARMIT SHEET WAY  ARMIT SHEET W
<b>©</b> .	EMERGENCY RESPONDER THIS SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN  TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN ENTIRE PV SYSTEM  ESCRIBE OF THE PV SYSTEM  THE CHORNING THE RAPO SHUTDOWN SHITCH SHOP SHUTDOWN SHUTCH SHOP SHUTDOWN SHITCH SHOP SHUTDOWN SHITCH SHOP SHUTDOWN SHUTCH SHOP SHUTCH SHUTCH SHOP SHUTCH SHUTCH SHOP SHUTCH SHUTCH SHOP SHUTCH SHUTCH SHUTCH SHOP SHUTCH	1	INTERCONNECTION POINT	4.05.54.011.47.0111.011.0	ALCONO.
	POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE	1	BACKFEED PANEL	1 OF EACH AT BUILDING INTERCONNECTION POINT AND ONE DIRECTORY PLACARD	1:210+ce
$\oplus$	NOMINAL OPERATING AC VOLTAGE: 240V NOMINAL OPERATING AC FREQUENCY: 60HZ MAXIMUM AC POWER: VA MAXIMUM AC CURRENT: A MAXIMUM OVERCURRENT DEVICE RATING FOR AC MODULE PROTECTION: 20A	1	AC CURRENT PV MODULES		WARNING DUAL POYER SUPPLY SOUNDED UTLING SHYPED A SOUNDED TO SHIPE A SOUNDED TO S















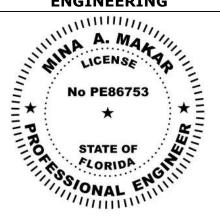


**G** BACKFEED



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PROJECT INFORMATION				
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**EQUIPMENT LABELS** 

**PV-3.2**