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 RACKING SYSTEM					
SYSTEM SIZE (DC)	7.2 KW					
LOCATION	30.1877515,-82.6242650					

CEI	NED	ΛІ	NO.	TES:
GLI	4 F L	AL	110	I EJ.

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)	130					
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
$V_{asd}$	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	PANEL LAYOUT						
PV-3	ELETRICAL						
PV-3.1	ELECTRICAL CONT.						
PV-3.2	EQUIPMENT LABELS						



BILL OF MATERIALS	
MODULES	18
INVERTERS	18
L-FOOT ATTACHMENT W/ SUNMODO EZ GRIP	45
171" RAILS	8
SKIRTS	0
ENPHASE COMBINER BOX	1
EATON 60A FUSIBLE AC DISCONNECT	1
35A FUSES	2
30A BACKFEED BREAKER	1



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# **PROFESSIONAL**



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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**

MICHAEL PRY - MS134283 870 SE SAINT JOHNS ST LAKE CITY, FL 32025 6786400711

#### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC): 7.2 KW 18 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 18 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION									
NITIAL	DATE: 8/16/2023	DESIGNER: KJL							
EV:	DATE:	DESIGNER:							
EV:	DATE:	DESIGNER:							

**COVER PAGE** 

**PV-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  $1/4 \times 3$ " 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.

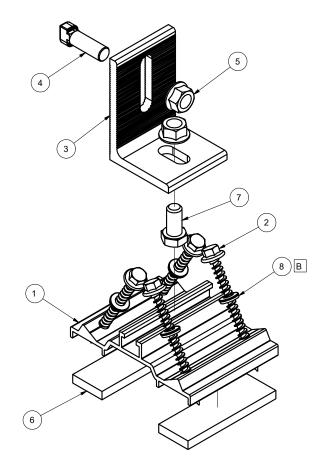


#### Features and Benefits

- 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.





THIS DRAWING IS CONFIDENTIAL PROPERTY OF SUNMODO AND ITS CONTENTS MANOT BE DISCLOSED WITHOUT THE PRIOR WRITTEN CONSENT OF SUNMODO CORF

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							
UPLIFT	190	125							
LATERAL.PERP. TO SLOT	125	85							
LATERAL.PARALLEL TO SLOT	135	90							

#### NOTE

- \* Factor of Safety as shown
- \* Torque at 3/8" T-Bolt = 15ft.lbs (20 N.m)
- \* All loads in pounds force
- All loads in pounds loice
- \* Values valid only for conditions 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 SunModo
- 4 1/4" Deck Screws in Min 7/16" OSB

В	8	B15019-00	1	SEALIN	IG WASHER .26 ID X .50	X .125		4			
	7	B15018-00	1	HEX CA	HEX CAP SCREW 3/8-16 X 3/4						
	6	C50001-00	1	GASKE	T, EPDM, WITH ADHESI\	/E		2			
	5	B15003-00	1	FLANG	E NUT 3/8-16			2			
	4	B20007-00	2	T-BOLT	3/8-16X1.0", 304 SS			1			
	3	A20062-00	1	L FOOT	-			1			
	2	B15039-00	1	HEX W	ASHER HEAD LAG BOLT	1/4X3		4			
	1	A50224-00	1	METAL	ROOF DECK MOUNT			1			
	ITEM PART NUMBER				DESCRIPTION						
	MATERIAL SEE NOTES Third Angle Projection: GENERAL SPECIFICATIONS All Dimensions in inches [millimeters] Tolerances XXXX ± 0.02 [0.25mm] XXX ± 0.02 [0.55mm] XX ± 0.02 [0.50mm] Drawal By 1.0mm] Uriless otherwise spect of otherwise specified. DRAWNE BY			SunModo Corp.  14800 NE 65TH STREET, VANCOUVER WA 98682							
				METAL ROOF DECK MOUNT KIT							
	LWF CHECKED B	BY	10/16/2018	B K50532-001 STRUCTURE							
AY D	APPROVAL	S		SCALE: NONE SHEET 1 c		of	1				

ATTACHMENT DETAIL FOR CORRUGATED METAL ROOF



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

# PROFESSIONAL ENGINEERING

No PE86753

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86753, COA # \$3404] on the
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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**

MICHAEL PRY - MS134283 870 SE SAINT JOHNS ST LAKE CITY, FL 32025 6786400711

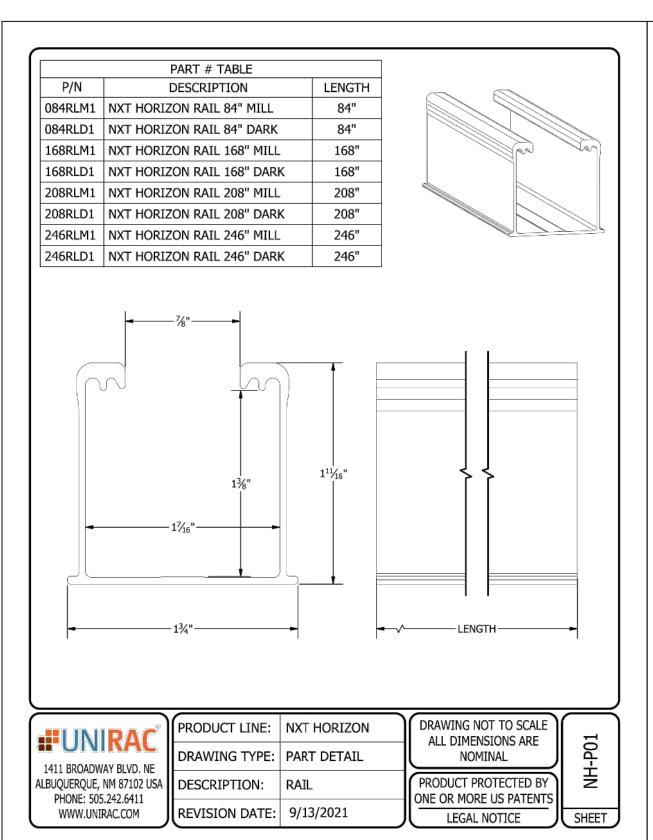
#### PV SYSTEM INFORMATION

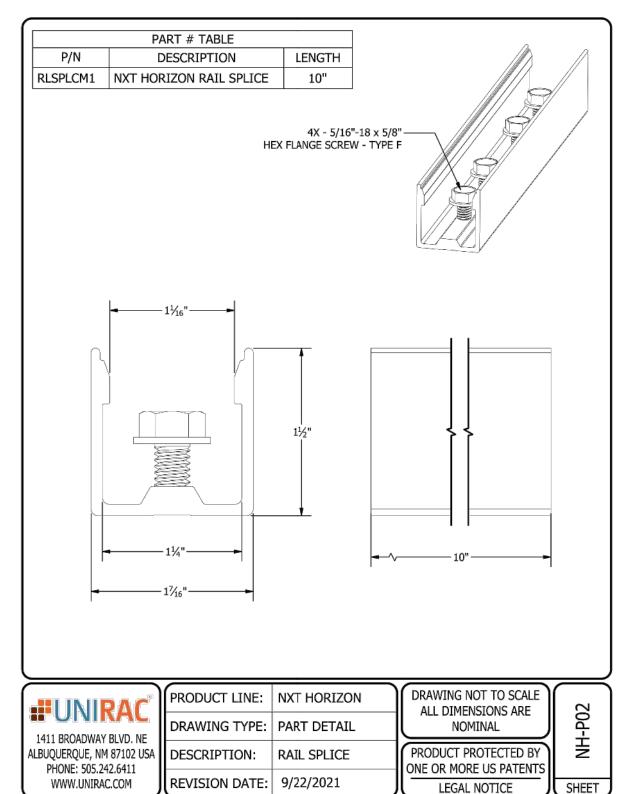
SYSTEM SIZE (DC ): 7.2 KW
18 MODULES: HANWHA Q.PEAK DUO BLK
ML-G10+ 400
18 INVERTERS: ENPHASE
IQ8PLUS-72-2-US

PROJECT INFORMATION									
INITIAL	DATE: 8/16/2023	DESIGNER: KJL							
REV:	DATE:	DESIGNER:							
REV:	DATE:	DESIGNER:							

ATTACHMENT DETAIL

**PV-1.1** 







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

# PROFESSIONAL ENGINEERING

No PE86753

Digitally signed by
Reason: Digitally signed by

Reason: Digitally signed by Mina A Maker. Reason: This it is has been electronically signed and sealed by Mina Maker. PE 86753, COA # \$3404] on the Batternst Jimes toma Annular. Reason digital teignature Printed environd aligital teignature Printed environal aliginature are sealed # and the signature are the Stamp specified singular gray is least topics.

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# SOLAR CONTRACTOR

CERTIFIED SOLAR CONTRACTOR LICENSE NUMBER: CVC570.
MOMENTUM SOLAR
5728 MAJOR BLVD. SUITE 307, ORLANDO FL. 32819

#### **CUSTOMER INFORMATION**

MICHAEL PRY - MS134283 870 SE SAINT JOHNS ST LAKE CITY, FL 32025 6786400711

#### **PV SYSTEM INFORMATION**

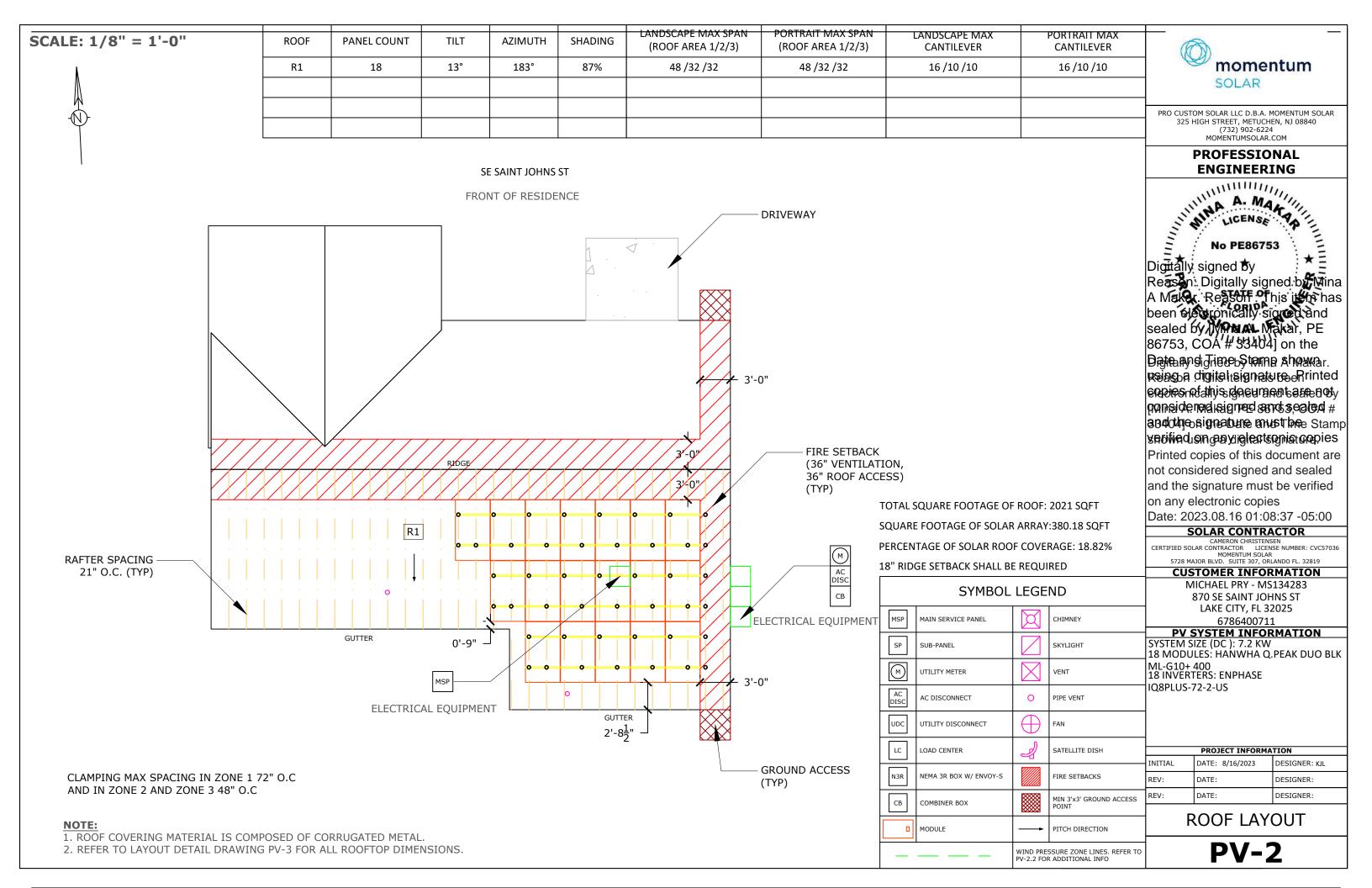
SYSTEM SIZE (DC): 7.2 kW 18 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 18 INVERTERS: ENPHASE

IQ8PLUS-72-2-US

	PROJECT INFORMATION								
INITIAL	DATE: 8/16/2023	DESIGNER: KJL							
REV:	DATE:	DESIGNER:							
REV:	DATE:	DESIGNER:							

ATTACHMENT DETAIL

PV-1.1 (2)



-													
PV MODULE RATINGS		INVERTER RATINGS		VOLTAGE DROP CALCULATIONS									
	MODULE MAKE	HANWHA	INVERTER MAKE	INVERTER MAKE ENPHASE		FORMULA US	ED PER NEC H	ANDBOOK 215	5.2(A)(4) WHE	RE APPLICABL	_E		
	MODEL	Q.PEAK DUO BLK	NODEL I'	IQ8PLUS-72-2-	WIRE RUN	$V_{mp}$	I <sub>mp</sub>	R	L (FT)	Vo	% V <sub>o</sub>	WIRE SIZE	
		ML-G10+ 400	WODEL	US	BRANCH TO J-BOX	240.00	12.1	1.98	65.83	3.154	1.31%	12 AWG	
	MAX POWER	400W	MAX OUTPUT POWER	290W	BRANCH TO J-BOX	240.00	12.1	1.96	05.65	5.154	1.51%	12 AWG	DD
	OPEN CIRCUIT VOLTAGE	45.3V	OPEN DC VOLTAGE	60V	J-BOX TO LOAD CENTER	240.00	21.78	1.24	50.00	2.701	1.13%	10 AWG	
	MPP VOLTAGE	37.13V	NOMINAL AC VOLTAGE	240V	LOAD CENTER TO AC								
	SHORT CIRCUIT CURRENT	11.14A	MAX AC CURRENT	1.21A	DISCONNECT	240.00	27.225	0.778	3.00	0.127	0.05%	08 AWG	
	MPP CURRENT	10.77A	CEC INVERTER EFFICIENCY	97%	AC DISCONNECT TO	240.00	27.225	0.778	10.00	0.424	0.18%	08 AWG	
	NUMBER OF MODULES	18	NUMBER OF INVERTERS	18	INTERCONNECTION								

SUB PANEL **BREAKER SIZE** 

**UL1703 COMPLIANT** 

\_UL1703 COMPLIANT PV BREAKER # OF MODULES PER BRANCH **UP TO 16** 20A

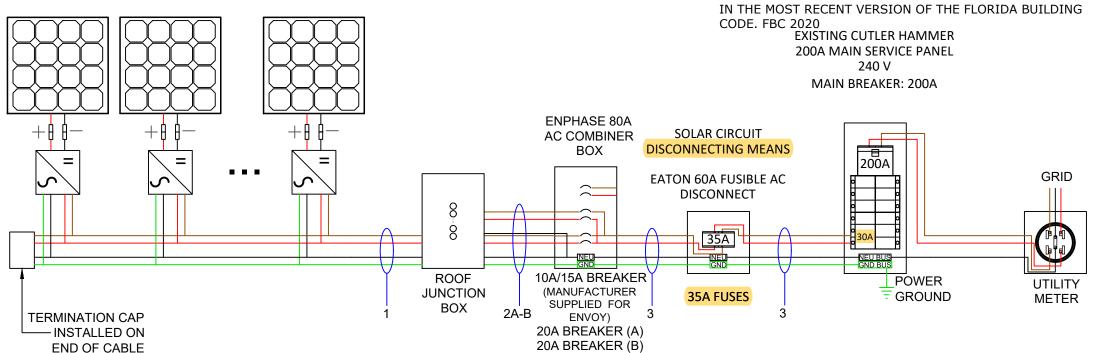
YES

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

YES

18 HANWHA Q.PEAK DUO BLK ML-G10+ 400 400W MODULES PAIRED WITH 18 ENPHASE IQ8PLUS-72-2-US MICRO-INVERTERS

**BRANCH CIRCUIT A** 10 MICRO-INVERTERS **BRANCH CIRCUIT B 8 MICRO-INVERTERS** 



NEC 705.12(B)(2)(3)(b) 120% RULE

 $(1.25 \times 21.78) + 200 \le 200 \times 1.20$ 

(1.25 x INVERTER OUTPUT) + MAIN OCPD ≤ BUS RATING x 1.20

**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

																1
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	10	1.21	1.25	15.13	12 AWG	Trunk Cable	L
2A	2/411 52/6	_	10 AWG	THWN-2	75°C	35	0.96		26.88	10	1.21	1.25	15.13			INIT
2B	3/4" PVC	4	10 AWG	THWN-2	75°C	35	0.96	0.8	26.88	8	1.21	1.25	12.10	08 AWG	11110010 2	REV
3	3/4" PVC	3 + G	08 AWG	THWN-2	75°C	50	0.96	1	48.00	18	1.21	1.25	27.23	08 AWG	THWN-2	╁
																Ľ

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



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## **PROFESSIONAL ENGINEERING**



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#### **SOLAR CONTRACTOR**

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

#### **CUSTOMER INFORMATION**

MICHAEL PRY - MS134283 870 SE SAINT JOHNS ST LAKE CITY, FL 32025 6786400711

#### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC): 7.2 KW |18 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 18 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMATION						
INITIAL	DATE: 8/16/2023	DESIGNER: KJL					
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.
- 2. 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
- 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.
- 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	MODEL VOLTAGE RATING		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:

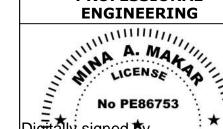
- 1. ADJUST THE CONNECTOR NUT TO SUITABLE LOCATION
- PUT THE BRANCH WIRE INTO THE CAP SHEATH FULLY
- INSERT THE MAIN WIRE, IF THERE ARE TWO LAYS OF INSULATED LAY IN THE MAIN CABLE, SHOULD STRIP A CERTAIN LENGTH OF THE FIRST INSULATED LAY FROM INSERTED END
- TURN THE NUT BY HAND, AND FIX THE CONNECTOR IN SUITABLE LOCATION.
- SCREW THE NUT WITH THE SLEEVE SPANNER.
- 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 MOMENTUMS OF ARCOM

# **PROFESSIONAL**



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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**

MICHAEL PRY - MS134283 870 SE SAINT JOHNS ST LAKE CITY, FL 32025 6786400711

### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC): 7.2 KW 18 MODULES: HAŃWHA Q.PEAK DUO BLK ML-G10+ 400 18 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION						
INITIAL	DATE: 8/16/2023	DESIGNER: KJL				
REV:	DATE:	DESIGNER:				
REV:	DATE:	DESIGNER:				

ELECTRICAL CONT.

**PV-3.1** 

ALL	ALL WARNING SIGN(S) OR LABEL(S) SHALL COMPLY WITH 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.						
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 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 AC DISCONNECT  RATED AC OUTPUT CURRENT  NOMINAL OPERATING 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		
F	DUAL POWER SUPPLY SECOND SOURCE IS PHOTOVOLTAIC SYSTEM	1	UTILITY METER	1 AT UTILITY METER AND ONE DIRECTORY PLACARD	ELECTRIC SHOOK HAZARD  DONOT TOUGH TEMMALS  TEMMAS STROPT HE SHE WE NO  LOAD SIES WHE ELENGOLD  IN THE OPEN MOSTION  AMERICAN HE SHEOKED  IN THE OPEN MOSTION		
(G)	EMERGENCY RESPONDER THIS SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN  TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN ENTIRE PV SYSTEM ESCHOOL OF THE PV SYSTEM SECTION OF THE PV SYSTEM AND SYSTEM SECTION OF THE PV SECTION OF THE PV SYSTEM SYSTEM SYSTEM SECTION OF THE PV SYSTEM SYSTEM SECTION OF THE PV SYSTEM SYSTEM SYSTEM SECTION OF THE PV SYSTEM SYSTEM SYSTEM SECTION OF THE PV SYSTEM SYSTEM SYSTEM SYSTEM SECTION OF THE PV SYSTEM SY	1	INTERCONNECTION POINT	1 OF EACH AT BUILDING INTERCONNECTION POINT AND	CO CONTROL OF THE PROPERTY OF		
	POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE	1	BACKFEED PANEL	ONE DIRECTORY PLACARD	1-210-ce		
$\Theta$	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		A WARNING A DUAL POYER SUPPLY SOURCES UNITY SIDE AND A WORLD AND A		

















G BACKFEED



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

## **PROFESSIONAL ENGINEERING**

No PE86753

Digitally signed by Reason: Digitally signed by Reason: Digitally signed by Mina A Maker: Reason of this it in has been electronically signed and sealed by Mina Maker, PE 86753, COA # \$3404] on the Bate and Time Stemps shower Date and Jierb Stame Ahawar. Reinsba digitalteignatureeRrinted environdalinis igaeura anto amendy pansidenalisigned and sealed # and the signature must be Stamp serified singay iglectromist copies

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

Date: 2023.08.16 01:08:37 -05:00

#### **SOLAR CONTRACTOR**

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

### **CUSTOMER INFORMATION**

MICHAEL PRY - MS134283 870 SE SAINT JOHNS ST LAKE CITY, FL 32025 6786400711

# PV SYSTEM INFORMATION

SYSTEM SIZE (DC ): 7.2 KW 18 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 18 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION						
INITIAL	DATE: 8/16/2023	DESIGNER: KJL				
REV:	DATE:	DESIGNER:				
REV:	DATE:	DESIGNER:				

**EQUIPMENT LABELS** 

**PV-3.2**