SYSTEM INFORMATION						
MODULE HANWHA Q.PEAK DUO BLK-G10+ 365						
INVERTER	ENPHASE IQ8PLUS-72-2-US					
RACKING	ROOFTECH RT-MINI II W/ UNIRAC NXT HORIZON 2-RAIL RACKING SYSTEM					
SYSTEM SIZE (DC)	4.38 KW					
LOCATION	30.1410476,-82.6096150					

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						

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							



Building	
Plans Seviewed	
of Florida	
	Plans leviewed or Code mpliance

BILL OF MATERIALS	
MODULES	12
INVERTERS	12
L-FOOT ATTACHMENT W/ RT-MINI	28
171" RAILS	5
SKIRTS	0
ENPHASE COMBINER BOX	1
EATON 60A FUSIBLE AC DISCONNECT	1
35A FUSES	2
125A LINE TAPS	2

### **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

FBC,	RESI	IDEN	IIAL	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-G10+ 365 365 WATT MODULE 67.6" X 41.1" X 1.26' (SEE DATASHEET)



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

# **PROFESSIONAL**

No TOPERING Digitally signed by

Reason: Digitally signed by Mina A Maker: Reason This it is has been electronically signed and sealed by MANAL Maker, PE 86753, COA # 33404] on the Date and Jibeb Stame Ahawar Reinsba digitaltsignatureeRrinted leggies notativis idaeura earte a see notv nanside ned kigned and sealed # and the signature must be Stamp serified sin anyticlect conict copies Printed copies of this document are not considered signed and sealed

on any electronic copies Date: 2023.06.07 02:06:33 -05:00

and the signature must be verified

#### **SOLAR CONTRACTOR**

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

#### **CUSTOMER INFORMATION**

ALBERTO MARRIOTT - MS127930 195 SOUTHEAST FOREST TERRACE, LAKE CITY, FL 32025 3863650529

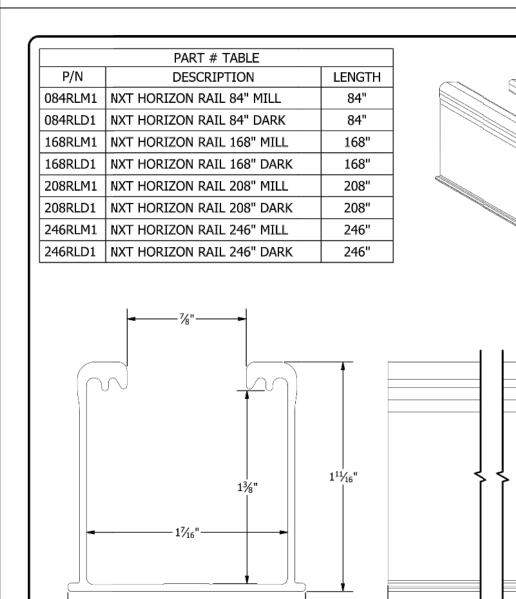
#### **PV SYSTEM INFORMATION**

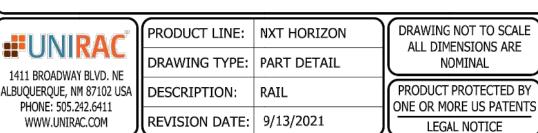
SYSTEM SIZE (DC): 4.38 KW 12 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 12 INVERTERS: ENPHASE IQ8PLUS-72-2-US

NITIAL	DATE: 6/7/2023	DESIGNER: KJL					
EV:	DATE:	DESIGNER:					
EV:	DATE:	DESIGNER:					

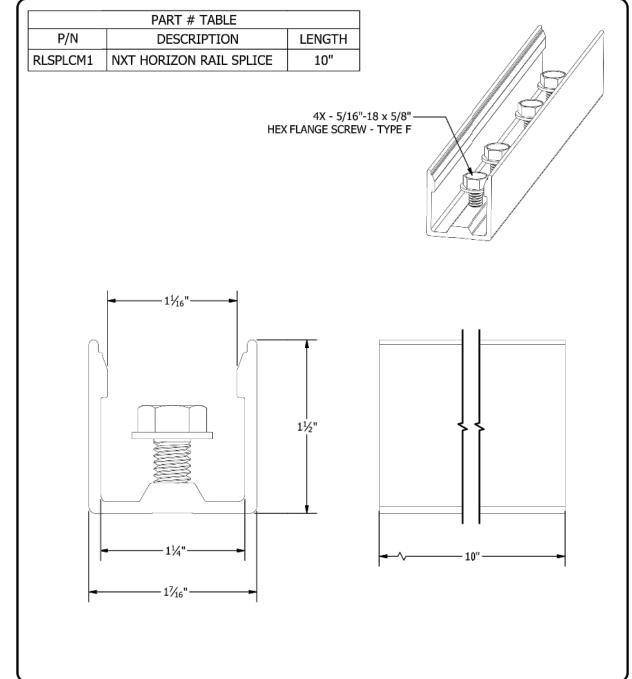
**COVER PAGE** 

**PV-1** 





LENGTH





1411 BROADWAY BLVD. NE ALBUQUERQUE, NM 87102 USA PHONE: 505.242.6411 WWW.UNIRAC.COM

NH-P01

SHEET

PRODUCT LINE:	NXT HORIZON
DRAWING TYPE:	PART DETAIL
DESCRIPTION:	RAIL SPLICE
REVISION DATE:	9/22/2021

DRAWING NOT TO SCALE
ALL DIMENSIONS ARE
NOMINAL

PRODUCT PROTECTED BY
ONE OR MORE US PATENTS

LEGAL NOTICE

SHEET NH-POZ

momentum

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 Mina A Maker. Reason This it is no has been electronically signed and sealed by Mina Maker. PE 86753, COA # 33404] on the Batternelighers from a hower. Reason digital signature of rinted expressorating agreed stress sealed # and digital signature and the Stamp serified signature and the Stamp serified signature and the Stamp serified signature and the Stamp

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

Date: 2023.06.07 02:06:33 -05:00

#### **SOLAR CONTRACTOR**

CERTIFIED SOLAR CONTRACTOR LICENSE NUMBER: CVC5703: MOMENTUM SOLAR 5728 MAJOR BLVD. SUITE 307, ORLANDO FL. 32819

#### **CUSTOMER INFORMATION**

ALBERTO MARRIOTT - MS127930 195 SOUTHEAST FOREST TERRACE, LAKE CITY, FL 32025 3863650529

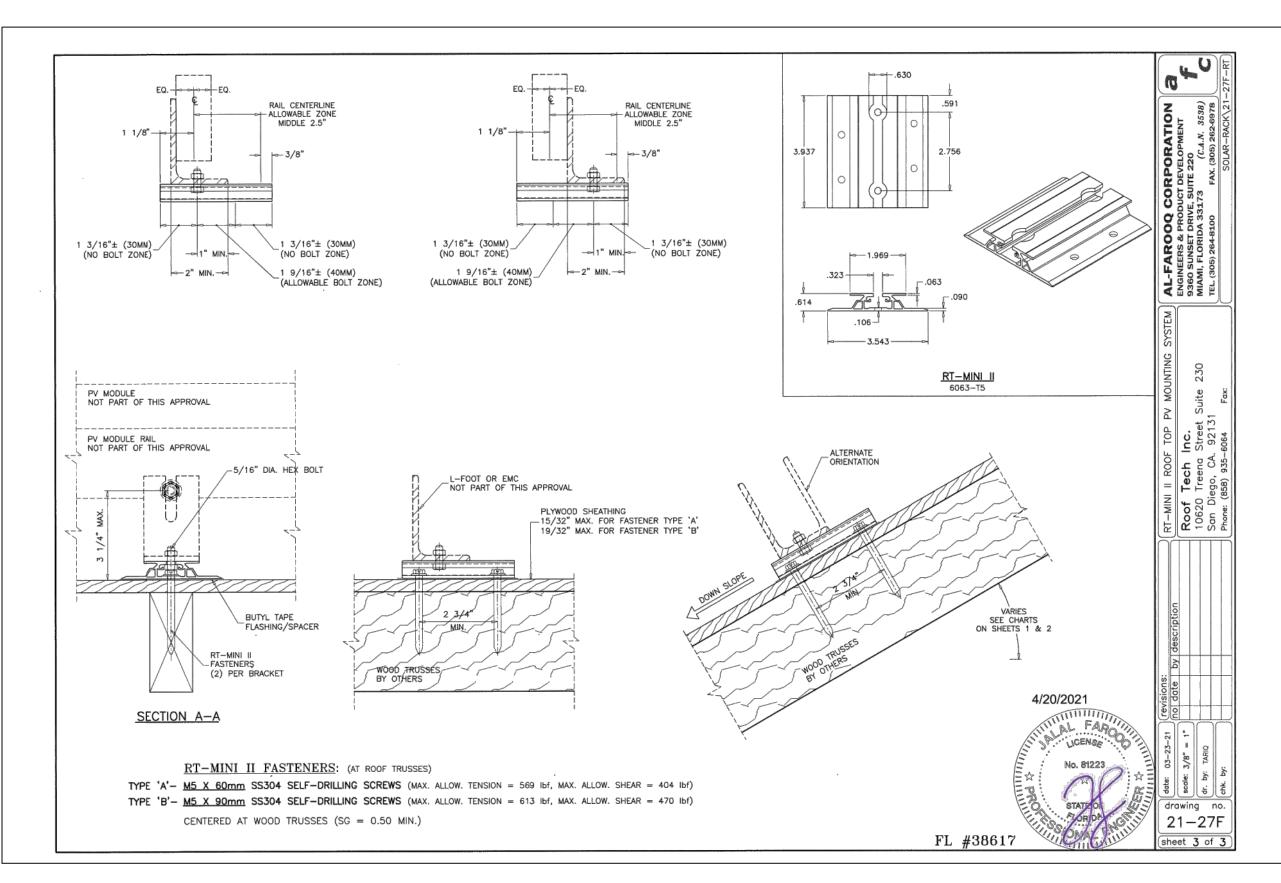
#### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC ): 4.38 KW 12 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 12 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION									
INITIAL	DATE: 6/7/2023	DESIGNER: KJL							
REV:	DATE:	DESIGNER:							
REV:	DATE:	DESIGNER:							

ATTACHMENT DETAIL

**PV-1.1** 



ATTACHMENT DETAIL FOR SHINGLE 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

Digitally signed by

Digitally signed by Reason: Digitally signed by Mina A Maker. Reasoff of This it in has been electronically signed and sealed by Minam. Maker, PE 86753, COA # 33404] on the Bate and Jieus Stamp showar. Reason digital teignature and seed by panside real eigenature and seed # and the signature and the Stamp years and signature and the Stamp years and signature and the Stamp

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

Date: 2023.06.07 02:06:33 -05:00

#### SOLAR CONTRACTOR

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

#### **CUSTOMER INFORMATION**

ALBERTO MARRIOTT - MS127930 195 SOUTHEAST FOREST TERRACE, LAKE CITY, FL 32025 3863650529

#### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC ): 4.38 KW 12 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 12 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMATION							
INITIAL	DATE: 6/7/2023	DESIGNER: KJL						
REV:	DATE:	DESIGNER:						
REV:	DATE:	DESIGNER:						

ATTACHMENT DETAIL

PV-1.1 (2)

						LANDSCAPE MAX SPAN	PORTRAIT MAX SPAN	LANDSCAPE MAX	PORTRAIT MAX	
SCALE: 3/32" = 1'-0"	ROOF	PANEL COUNT	TILT	AZIMUTH	SHADING	(ROOF AREA 1/2/3)	(ROOF AREA 1/2/3)	CANTILEVER	CANTILEVER	
<b>1</b>	R1	5	26°	269°	93%	48 /32 /32	48 /32 /32	16 /10 /10	16 /10 /10	momentum
	R2	4	26°	179°	83%	48 /32 /32	48 /32 /32	16 /10 /10	16 /10 /10	SOLAR
	R3	3	26°	179°	83%	48 /32 /32	48 /32 /32	16 /10 /10	16/10/10	PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 325 HIGH STREET, METUCHEN, NJ 08840 (732) 902-6224 MOMENTUMSOLAR.COM
										PROFESSIONAL ENGINEERING
RAFTER SPACING 24" O.C. (TYP)  FRONT OF RESIDENCE SOUTHEAST SOUTHEAST (36" VENTILATION, 36" ROOF ACCESS) (TYP)  GROUND ACCESS (TYP)  DRIVEWAY	3'-0"	3'-0" 3'-0"  RIDGE 3'-0"  GUTTER	RIDGE		RIDGE	3'-0" R2 -0" 11'-4"	S	TOTAL SQUARE FOOTAGE OF SQUARE FOOTAGE OF SQUARE FOOTAGE OF SOLAR ROCE.  BYMBOL  MSP MAIN SERVICE PANEL  SP SUB-PANEL  M UTILITY METER  AC DISCONNECT  UDC UTILITY DISCONNECT	F ROOF: 3164 SQFT R ARRAY:231.53 SQFT DF COVERAGE: 7.32%	No PE86753  Digitally signed by Reason: Digitally signed by Mina A Maker. Reason This it is has been elestronically signed and sealed by Mina Maker. PE 86753, COA # \$3404] on the Date And Grand The Bate And T
CLAMPING MAX SPACING IN ZONE 1 7 AND IN ZONE 2 AND ZONE 3 48" O.C	2" O.C			MSP  M AC DISC C	<del></del>			LC LOAD CENTER  N3R NEMA 3R BOX W/ ENVOY-S	SATELLITE DISH  FIRE SETBACKS  MIN 3'X3' GROUND ACCESS	PROJECT INFORMATION  INITIAL DATE: 6/7/2023 DESIGNER: KJL  REV: DATE: DESIGNER:  REV: DATE: DESIGNER:
NOTE				LLLO INIONE L	-C			CB COMBINER BOX	MIN 3'x3' GROUND ACCESS POINT	ROOF LAYOUT
NOTE: 1. ROOF COVERING MATERIAL IS COMP				ITE SHINGLE.				MODULE	PITCH DIRECTION	
2. REFER TO LAYOUT DETAIL DRAWING	S PV-3 FOR A	LL ROOFTOP DIMEN	NSIONS.						WIND PRESSURE ZONE LINES. REFER TO PV-2.2 FOR ADDITIONAL INFO	PV-2

PV MODULE RATINGS		INVERTER RATINGS			VOLTAGE DROP CALCULATIONS					$\vdash$		
MODULE MAKE	HANWHA	INVERTER MAKE	ENPHASE		FORMULA US	ED PER NEC H	IANDBOOK 21	5.2(A)(4) WHE	RE APPLICABI	_E		
MODEL	Q.PEAK DUO	MODEL	IQ8PLUS-72-2-	WIRE RUN	V <sub>mp</sub>	$I_{mp}$	R	L (FT)	Vo	% V <sub>o</sub>	WIRE SIZE	
	BLK-G10+ 365	WODEL	US	JS BRANCH TO J-BOX	240.00 14.52	1.98	79.00	4.542	1.89%	12 AWG		
MAX POWER	365W	MAX OUTPUT POWER	290W	DRANCH TO J-BOX	240.00	14.52	1.50	79.00	4.542	1.89%	12 AWG	PI
OPEN CIRCUIT VOLTAGE	41.21V	OPEN DC VOLTAGE	60V	J-BOX TO LOAD CENTER	240.00	14.52	1.24	50.00	1.800	0.75%	10 AWG	
MPP VOLTAGE	34.58V	NOMINAL AC VOLTAGE	240V	LOAD CENTER TO AC								├
SHORT CIRCUIT CURRENT	11.07A	MAX AC CURRENT	1.21A	DISCONNECT	240.00	18.15	0.778	3.00	0.085	0.04%	08 AWG	
MPP CURRENT	10.56A	CEC INVERTER EFFICIENCY	97%	AC DISCONNECT TO	240.00	18.15	0.491	10.00	0.178	0.07%	06 AWG	
NUMBER OF MODULES	12	NUMBER OF INVERTERS	12	INTERCONNECTION								-

SUB PANEL **BREAKER SIZE** 

**UL1703 COMPLIANT** 

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

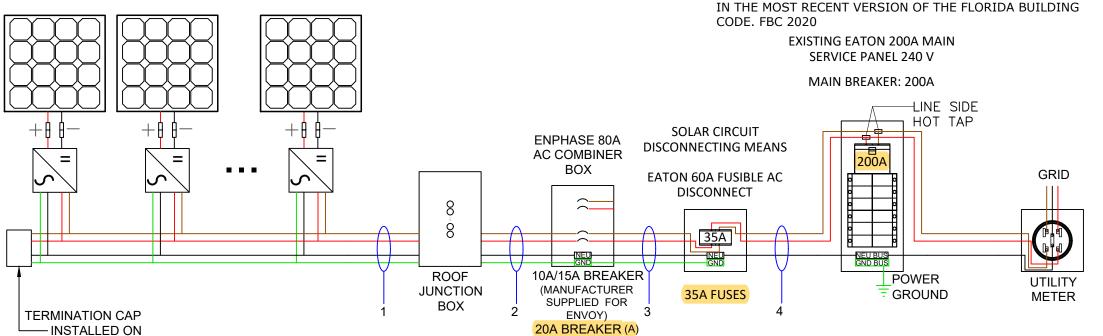
YES

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

YES

### 12 HANWHA Q.PEAK DUO BLK-G10+ 365 365W MODULES PAIRED WITH 12 ENPHASE IQ8PLUS-72-2-US MICRO-INVERTERS

**BRANCH CIRCUIT A** 12 MICRO-INVERTERS



#### Wire Wire Temp. Conduit Derated Inverter NEC Design **Ground Wire** Temp. Ground Wire Qty NOC (A) Wire Tag Wire Type Conduit Gauge Current (A) Rating Ampacity (A) Fill Derate Ampacity (A) Qty Correction Type Derate Size **OPEN AIR** 1 12 AWG 90°C 30 0.96 28.80 1.21 1.25 18.15 12 AWG 1 Trunk Cable 12 Trunk Cable 2 3/4" PVC 2 75°C 10 AWG THWN-2 35 0.96 1 33.60 12 1.21 1.25 08 AWG THWN-2 18.15 3 3/4" PVC 3 + G08 AWG THWN-2 75°C 50 0.96 1 48.00 12 1.21 1.25 18.15 08 AWG THWN-2 3/4" PVC 06 AWG THWN-2 75°C 65 0.96 1 62.40 12 1.21 1.25 18.15 THWN-2

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

**END OF CABLE** 



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

#### **PROFESSIONAL ENGINEERING**



Reason: Digitally signed by Mina A Maker Reason This it is has been electronically signed and sealed by MANAL Makar, PE LICENSED PURSUANT TO CHAPTER 471, CERTIFY THAT THE PV DESIGNED AND APPROVED USING THE STANDARDS CONTAINED 86753, COA # \$3404] on the Date and Jine Stame shawar. ksiaspa digitaltsignatureeRrinted |endires-natatinjs:idpeuraentsabbenoty pansidenad signed sandseated # | **3040th| 606 igneature anust he** Stamp

**FSEC CERTIFICATION STATEMENT:** 

PER FL. STATUE 377.705, I, MINA A. MAKAR PE# 86753,

CERTIFICATE OF AUTHORIZATION #33404, AN ENGINEER

ELECTRICAL SYSTEM AND ELECTRICAL COMPONENTS ARE

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

Date: 2023.06.07 02:06:33 -05:00

#### **SOLAR CONTRACTOR**

MOMENTUM SOLAR 5728 MAJOR BLVD. SUITE 307, ORLANDO FL. 32819

#### **CUSTOMER INFORMATION**

ALBERTO MARRIOTT - MS127930 195 SOUTHEAST FOREST TERRACE, LAKE CITY, FL 32025 3863650529

#### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC): 4.38 KW 12 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 12 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION					
INITIAL	DATE: 6/7/2023	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.

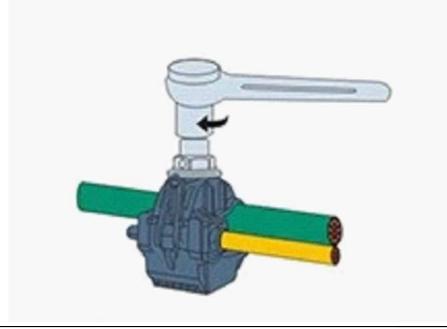
#### **TABLE 1:**

MAKE	MODEL	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
- 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**



Digitally signed by Reason: Digitally signed by Mina A Maker. Reason Phis item has been electronically signed and sealed by MANAL Maker, PE 86753, COA # 33404] on the Date and Jibeb Stame Ahawar psiaspa digitaltsignatureeRrinted leavies natalnis idaeura en la atendati ngnsjdengdsigned ændseded # and the signature must be stamp varified sin capyligheats onist copies

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies Date: 2023.06.07 02:06:33 -05:00

### **SOLAR CONTRACTOR**

CAMERON CHRISTENSEN

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

#### **CUSTOMER INFORMATION**

ALBERTO MARRIOTT - MS127930 195 SOUTHEAST FOREST TERRACE, LAKE CITY, FL 32025 3863650529

#### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC): 4.38 KW 12 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 12 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION				
INITIAL	DATE: 6/7/2023	DESIGNER: KJL		
REV:	DATE:	DESIGNER:		
REV:	DATE:	DESIGNER:		

ELECTRICAL CONT.

**PV-3.1** 

	WARNING SIGN(S) OR LABEL(S) SHALL COMPLY WITH NEC ARTICLE 110.21(B). LABEL WARNINGS SH.  LABEL			T	
TAG (A)	AC SOLAR VOLTAGE	QUANTITY 12	AC CONDUITS	NOTE  1 AT EVERY SEPARATION BY ENCLOSURES / WALLS / PARTITIONS / CEILINGS / FLOORS OR NO MORE THAN 10'	EXAMPLES
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 A  RATED AC OUTPUT CURRENT A  NOMINAL OPERATING AC VOLTAGE 240 V  AC VOLTAGE 240 V  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 MARKET AND THE STATE OF THE S
(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  TERMIAS, STRIOTH TIEL WE NO  LOAD SICKS MAY ET SHIFTOLD  IN THE OPEN POSITION  LOAD SICKS MAY BE SHIFTOLD  IN THE OPEN POSITION
<u>©</u>	EMERGENCY RESPONDER THIS SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN  TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN ENTIRE PV SYSTEM BECTOME OF THE PURPOR SHUTCH SHOP OF THE PURPOR SHUTCH	1	INTERCONNECTION POINT	1 OF EACH AT BUILDING	A STOCK CONTROL OF THE STOCK C
	POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE	1	BACKFEED PANEL	INTERCONNECTION POINT AND ONE DIRECTORY PLACARD	1-21.0+ce (1-35) 51 351 322 (1-35) 220 (1-35
$\Theta$	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		WARNING ADULL POWER SUPPLY MONOR AND

















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. resingua digitaltaignatureeRrinted enpires notathis indocuments a see noty pansidenalisigned and sealed # andounesignature must be Stamp vanified singay igleate opies Printed copies of this document are

not considered signed and sealed and the signature must be verified on any electronic copies

Date: 2023.06.07 02:06:33 -05:00

#### **SOLAR CONTRACTOR**

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

#### **CUSTOMER INFORMATION**

ALBERTO MARRIOTT - MS127930 195 SOUTHEAST FOREST TERRACE, LAKE CITY, FL 32025 3863650529

### **PV SYSTEM INFORMATION**

SYSTEM SIZE (DC ): 4.38 KW 12 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 12 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION					
INITIAL	DATE: 6/7/2023	DESIGNER: KJL			
REV:	DATE:	DESIGNER:			
REV:	DATE:	DESIGNER:			

**EQUIPMENT LABELS** 

**PV-3.2**