SYSTEM INFORMATION								
MODULE	HANWHA Q.PEAK DUO BLK-G10+ 365							
INVERTER	ENPHASE IQ8PLUS-72-2-US							
RACKING	SUNMODO EX GRIP W/ UNIRAC NXT HORIZON 2-RAIL RACKING SYSTEM							
SYSTEM SIZE (DC)	9.125 KW							
LOCATION	30.1866678,-82.6302033							

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 ^a												
V _{ult}	110	115	120	130	140	150	160	170	180	190	200		
V _{asd}	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-G10+ 365 365 WATT MODULE 67.6" 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					
PV-2	ROOF LAYOUT					
PV-3	ELECTRICAL					
PV-3.1	ELECTRICAL CONT.					
PV-3.2	EQUIPMENT LABELS					



BILL OF MATERIALS							
MODULES	25						
INVERTERS	25						
L-FOOT ATTACHMENT W/ RT-MINI	46						
171" RAILS	10						
SKIRTS	7						
ENPHASE COMBINER BOX	1						
EATON 60A FUSIBLE AC DISCONNECT	1						
40A FUSES	2						
125A LINE TAPS	2						



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

PROFESSIONAL ENGINEERING



Digitally signed by Reason: Digitally signed by Wina A Maker. Reason: This item has been electronically signed and sealed by Wina Maker. PE 86753, COA # \$3404] on the Battern of the Batt

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

Date: 2023.04.27 12:04:31 -05:00

SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

JOSE IRIZARRY - MS124989 280 SE PERRY AVE LAKE CITY, FL 32025 3863440449

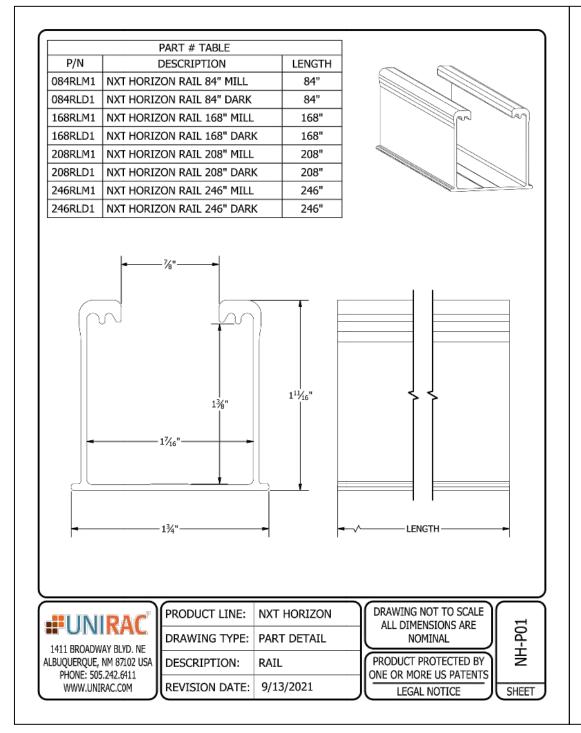
PV SYSTEM INFORMATION

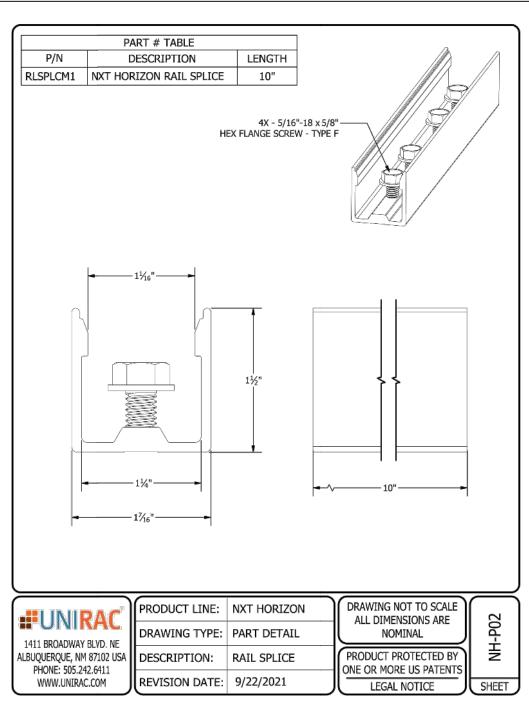
SYSTEM SIZE (DC): 9.125 KW 25 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 25 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMA	IION
NITIAL	DATE: 4/27/2023	DESIGNER: AKL
REV:	DATE:	DESIGNER:
REV:	DATE:	DESIGNER:

COVER PAGE

PV-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 Wina A Maker. Reason This it is has been electronically signed and sealed by Winam. Maker, PE 86753, COA # \$3404] on the Bathansi Tieres toma showar. Reason digital signature and assembly point denotable ignature and the Stamp showar ignature 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: 2023.04.27 12:04:31 -05:00 SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

JOSE IRIZARRY - MS124989 280 SE PERRY AVE LAKE CITY, FL 32025 3863440449

PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 9.125 KW
25 MODULES: HANWHA Q.PEAK DUO
BLK-G10+ 365
25 INVERTERS: ENPHASE
IQ8PLUS-72-2-US

	PROJECT INFORMA	TION
INITIAL	DATE: 4/27/2023	DESIGNER: AKL
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.

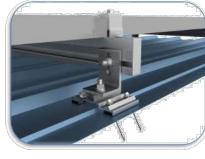
The EZ Grip Metal Deck Mount is designed to fit on the most popular R-Panel and U-Panel trapezoidal types of metal roofs. The aluminum extruded base easily clears roof profiles 7/16" tall by 1-1/2" wide. The EPDM gaskers on the washers and on the aluminum extruded base combine to provide a water tight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

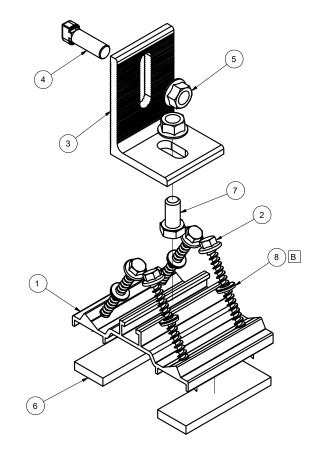


Features and Benefits

- 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 \times 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

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

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
- SunModo

4 1/4" Deck Screws	in Min	7/16"	OSB
--------------------	--------	-------	-----

	8	B15019-00	4	OF AL IN	IO WACHED ON ID V. FO	V 405			4			
В	_		·		SEALING WASHER .26 ID X .50 X .125							
	7	B15018-00	·		AP SCREW 3/8-16 X 3/4				1			
	6	C50001-00	1	GASKE	T, EPDM, WITH ADHESI	VE			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 BOL	Γ 1/4X3			4			
	1	A50224-00	1	METAL	ROOF DECK MOUNT				1			
	ITEM	PART N	UMBER		DESCRIPTION							
	MATERIAL Third Angle	SEE NOTES			SunMod	o Cor	'n.					
	GENERAL S All Dimens Tolerances X.XXX ±0.0 X.XX ±0.02	PECIFICATIONS sions in inches [millin 1 [0.25mm]		14800 NE 65TH STREET, VANCOUVER WA 98682								
	X.X ±0.039 Unless othe DRAWN BY	[1.0mm] .010	0020 unless erwise specified. DATE	METAL ROOF DECK MOUNT KIT								
	LWF CHECKED E	BY	10/16/2018	B K50532-001 STRUCTURE								
AY P.	APPROVAL	s		SCALE	: NONE	SHEET	1	of	1			

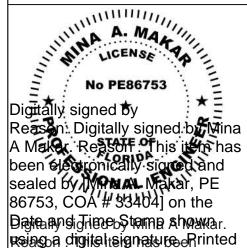
ATTACHMENT DETAIL FOR CORRUGATED METAL ROOF

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



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

PROFESSIONAL ENGINEERING



enpinsontally signed and see outy principle ned signed and spectod # and the signed and the Stamp service signed and single stamp is copies. Printed copies of this document are

and the signature must be verified on any electronic copies

not considered signed and sealed

Date: 2023.04.27 12:04:31 -05:00

SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

JOSE IRIZARRY - MS124989 280 SE PERRY AVE LAKE CITY, FL 32025 3863440449

PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 9.125 KW
25 MODULES: HANWHA Q.PEAK DUO
BLK-G10+ 365
25 INVERTERS: ENPHASE
IQ8PLUS-72-2-US

	PROJECT INFORMA	TION
INITIAL	DATE: 4/27/2023	DESIGNER: AKL
REV:	DATE:	DESIGNER:
REV:	DATE:	DESIGNER:

ATTACHMENT DETAIL

PV-1.1 (2)

CCALE: 4 /0" 41 0"	5005	DANIEL COUNT	T!! T	V-218 41 1	CHADING	LANDSCAPE MAX SPAN	PORTRAIT MAX SPAN	LANDSCAPE MAX	PORTRAIT MAX	_
SCALE: 1/8" = 1'-0"	ROOF	PANEL COUNT	TILT	AZIMUTH	SHADING	(ROOF AREA 1/2/3)	(ROOF AREA 1/2/3)	CANTILEVER	CANTILEVER	
M	R1	25	20°	90°	93%	48 /32 /32	48 /32 /32	16 /10 /10	16/10/10	momentum
\mathbb{A}										SOLAR
-\(\text{\text{\$\dots}}\)-										PRO CUSTOM SOLAR LLC D.B.A. MOMENTUM SOLAR 325 HIGH STREET, METUCHEN, NJ 08840
										325 HIGH STREET, METUCHEN, NJ 08840 (732) 902-6224 MOMENTUMSOLAR.COM
						11/1/1/1				PROFESSIONAL ENGINEERING
					RIDGE	12'-10" 3'-0"	(T FII (3 36 (T RA	ROUND ACCESS (YP) RE SETBACK 6" VENTILATION, 1" ROOF ACCESS) (YP) AFTER SPACING 1" O.C. (TYP)	FRONT OF RESIDENCE SE PERRY AVE	No PE86753 Digitally signed by Reason: Digitally signed by Min A Maker. Reason This it is had been elegationically signed and sealed by Min Maker, PE 86753, COA # 93404] on the Date hy of the bate hy
							S	FOTAL SQUARE FOOTAGE OF SOLA PERCENTAGE OF SOLAR ROCE 18" RIDGE SETBACK SHALL B SYMBOL	R ARRAY:482.36 SQFT OF COVERAGE: 24.06% BE REQUIRED LEGEND	on any electronic copies Date: 2023.04.27 12:04:31 -05:00 SOLAR CONTRACTOR CAMERON CHRISTENSEN CERTIFIED SOLAR CONTRACTOR LICENSE NUMBER: CVC570 MOMENTUM SOLAR 5728 MAJOR BLVD. SUITE 307, ORLANDO FL. 32819 CUSTOMER INFORMATION JOSE IRIZARRY - MS124989 280 SE PERRY AVE LAKE CITY, FL 32025
								MSP MAIN SERVICE PANEL	CHIMNEY	3863440449
								SP SUB-PANEL	SKYLIGHT	SYSTEM SIZE (DC): 9.125 KW 25 MODULES: HANWHA Q.PEAK DUO
							,	M UTILITY METER	VENT	BLK-G10+ 365 25 INVERTERS: ENPHASE
							- 0'-7 ¹ / ₂ "	AC DISCONNECT	O PIPE VENT	IQ8PLUS-72-2-US
							-		_	-
									FAN	-
						R1		LC LOAD CENTER	SATELLITE DISH	PROJECT INFORMATION INITIAL DATE: 4/27/2023 DESIGNER: AKL
CLAMPING MAX SPACING IN ZONE 1						9'-0"		N3R NEMA 3R BOX W/ ENVOY-S	FIRE SETBACKS	REV: DATE: DESIGNER:
AND IN ZONE 2 AND ZONE 3 48" O.	.C							CB COMBINER BOX	MIN 3'x3' GROUND ACCESS POINT	REV: DATE: DESIGNER:
NOTE:								MODULE	PITCH DIRECTION	ROOF LAYOUT
1. ROOF COVERING MATERIAL IS CO 2. REFER TO LAYOUT DETAIL DRAWI			 NSIONS.	MSP AC DISC	СВ		-		WIND PRESSURE ZONE LINES. REFER TO	PV-2
L. M. E. C. O E MOOT DETAIL DIAW!			ELEC	CTRICAL EQUI					PV-2.2 FOR ADDITIONAL INFO	PV-Z

PV MODULE RAT	INGS	INVERTER RATINGS		
MODULE MAKE	HANWHA	INVERTER MAKE	ENPHASE	
MODEL	Q.PEAK DUO BLK-G10+ 365	MODEL	IQ8PLUS-72-2- US	
MAX POWER	365W	MAX OUTPUT POWER	290W	
OPEN CIRCUIT VOLTAGE	41.21V	OPEN DC VOLTAGE	60V	
MPP VOLTAGE	34.58V	NOMINAL AC VOLTAGE	240V	
SHORT CIRCUIT CURRENT	11.07A	MAX AC CURRENT	1.21A	
MPP CURRENT	10.56A	CEC INVERTER EFFICIENCY	97%	
NUMBER OF MODULES	25	NUMBER OF INVERTERS	25	
UL1703 COMPLIANT	YES	UL1703 COMPLIANT	YES	

	VOLTAGE DROP CALCULATIONS							
	FORMULA USED PER NEC HANDBOOK 215.2(A)(4) WHERE APPLICABLE]
WIRE RUN	V_{mp}	I _{mp}	R	L (FT)	Vo	% V _o	WIRE SIZE]
BRANCH TO J-BOX	240.00	15.73	1.98	85.58	5.331	2.22%	12 AWG	L
J-BOX TO LOAD CENTER	240.00	30.25	1.24	50.00	3.751	1.56%	10 AWG	
LOAD CENTER TO AC DISCONNECT	240.00	37.8125	0.778	3.00	0.177	0.07%	08 AWG	
AC DISCONNECT TO INTERCONNECTION	240.00	37.8125	0.491	10.00	0.371	0.15%	06 AWG	

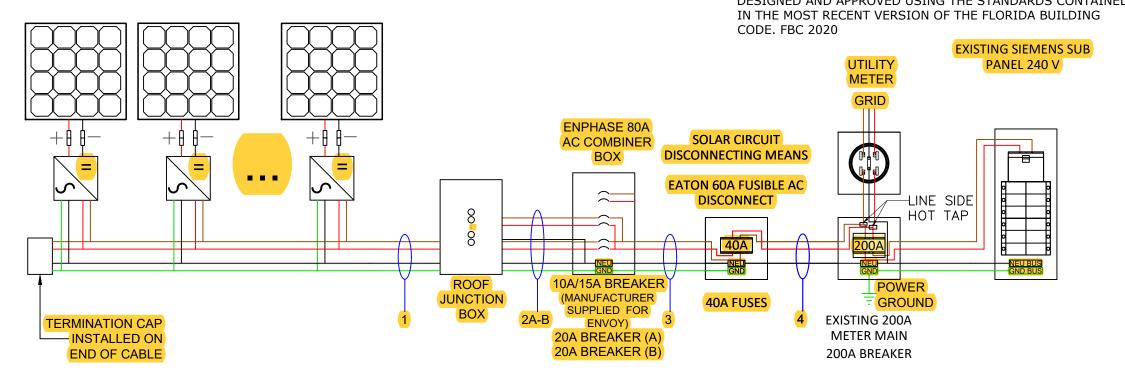
SUB PANEL	# OF MODULES	PV BREAKER PER BRANCH
BREAKER SIZE	UP TO 16	20A

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

25 HANWHA Q.PEAK DUO BLK-G10+ 365 365W MODULES PAIRED WITH

25 ENPHASE IQ8PLUS-72-2-US MICRO-INVERTERS

BRANCH CIRCUIT A
13 MICRO-INVERTERS
BRANCH CIRCUIT B
12 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	13	1.21	1.25	19.66	12 AWG	Trunk Cable
2A	3/4" PVC	4	10 AWG	THWN-2	75°C	35	0.96	0.8	26.88	13	1.21	1.25	19.66	00 000	THW/N-2
2B	3/4 PVC	4	10 AWG	THWN-2	75°C	35	0.96	0.8	26.88	12	1.21	1.25	18.15	08 AWG	THWN-2
3	3/4" PVC	3 + G	08 AWG	THWN-2	75°C	50	0.96	1	48.00	25	1.21	1.25	37.81	08 AWG	THWN-2
4	3/4" PVC	3	06 AWG	THWN-2	75°C	65	0.96	1	62.40	25	1.21	1.25	37.81		THWN-2

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



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 A Maker. Reason: Prince of the control of the contr

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

EXISTING SIEMENS SUB
PANEL 240 V

EXISTING SIEMENS SUB
PANEL 240 V

EXISTING SIEMENS SUB
PANEL 240 V

Reason: Digitally signed by Mina
A. Maker. Reason: Digitally signed by Mina
A. Maker.

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

Date: 2023.04.27 12:04:31 -05:00

SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

JOSE IRIZARRY - MS124989 280 SE PERRY AVE LAKE CITY, FL 32025 3863440449

PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 9.125 KW 25 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 25 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION						
INITIAL	DATE: 4/27/2023	DESIGNER: AKL				
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.

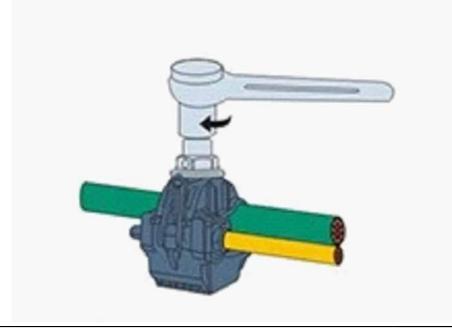
TABLE 1:

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:

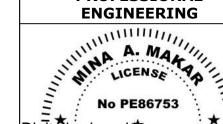
- 1. ADJUST THE CONNECTOR NUT TO SUITABLE LOCATION
- PUT THE BRANCH WIRE INTO THE CAP SHEATH FULLY
- INSERT THE MAIN WIRE, IF THERE ARE TWO LAYS OF INSULATED LAY IN THE MAIN CABLE, SHOULD STRIP A CERTAIN LENGTH OF THE FIRST INSULATED LAY FROM INSERTED END
- TURN THE NUT BY HAND, AND FIX THE CONNECTOR 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 This it is 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: 2023.04.27 12:04:31 -05:00

SOLAR CONTRACTOR

CAMERON CHRISTENSEN

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

CUSTOMER INFORMATION

JOSE IRIZARRY - MS124989 280 SE PERRY AVE LAKE CITY, FL 32025 3863440449

PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 9.125 KW 25 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 25 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMA	TION
INITIAL	DATE: 4/27/2023	DESIGNER: AKL
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 SHA	_	1		
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 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
Ē	DUAL POWER SUPPLY SECOND SOURCE IS PHOTOVOLTAIC SYSTEM	1	UTILITY METER	1 AT UTILITY METER AND ONE DIRECTORY PLACARD	E.ECTING SHOCK HAZAND DO NOT TOLICH FE RIMAUS TERMINA STROM HE SUE NO LOSS SICE SAVE SH STROM IN THE CHEM POSITION.
(i)	EMERGENCY RESPONDER THIS SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUTD DOWN ENTIRE PV SYSTEM ARE SECTIONAL SHITCH FAIR ARE SHOT HE OF HE OF HE OFF	1	INTERCONNECTION POINT	4.05 54.011.47 51.111.51.112	A CANCEL MANAGEMENT AND
	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-c 200 200 200 200 200 200 200 200 200 20
\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		E MARNING A DUAL POWER SUPPLY SOURCES UPLITY SOURCE LECTIC CONTENTS



















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 environtalinis igaeura en toate outy 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: 2023.04.27 12:04:31 -05:00

SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

JOSE IRIZARRY - MS124989 280 SE PERRY AVE LAKE CITY, FL 32025 3863440449

PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 9.125 KW 25 MODULES: HANWHA Q.PEAK DUO BLK-G10+ 365 25 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION							
INITIAL	DATE: 4/27/2023	DESIGNER: AKL					
REV:	DATE:	DESIGNER:					
REV:	DATE:	DESIGNER:					

EQUIPMENT LABELS

PV-3.2