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)	4.4 KW							
LOCATION	30.1850023,-82.6080949							

GEN	ER	AL	NO	TES:

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 DES R301.2(1)	IGN CRITERIA TABLE
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 ^a											
V _{ult}	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	ROOF LAYOUT							
PV-3	ELECTRICAL							
PV-3.1	ELECTRICAL CONT.							
PV-3.2	EQUIPMENT LABELS							



BILL OF MATERIALS	
MODULES	11
INVERTERS	11
L-FOOT ATTACHMENT W/ SUNMODO EZ GRIP	21
171" RAILS	5
SKIRTS	0
ENPHASE COMBINER BOX	1
EATON 60A FUSIBLE AC DISCONNECT	1
35A FUSES	2
20A BACKFEED BREAKER	1



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

PROFESSIONAL



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Date: 2023.08.29 02:08:50 -05:00

SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

MARY ALLEN - MS134140 293 SE OAKMONT ST LAKE CITY, FL 32025 (386) 965-0403

PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 4.4 KW 11 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 11 INVERTERS: ENPHASE IQ8PLUS-72-2-US

PROJECT INFORMATION INITIAL DATE: 8/29/2023 DESIGNER: KJL DESIGNER REV:

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 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.

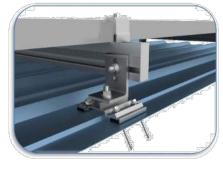
The EZ Grip Metal Deck Mount is designed to fit on the most popular R-Panel and U-Panel trapezoidal types of metal roofs. The aluminum extruded base easily clears roof profiles 7/16" tall by 1-1/2" wide. The EPDM gaskets on the washers and on the aluminum extruded base combine to provide a water tight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

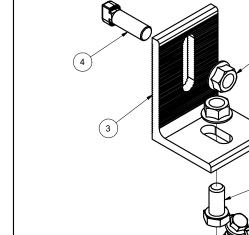


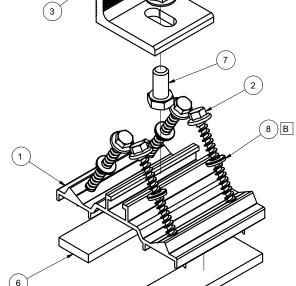
Features and Renefits

- 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 MAY NOT BE DISCLOSED WITHOUT THE PRIOR WRITTEN CONSENT OF 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	IN 7/16" OSB										
LOAD DIRECTION	FOS=2	FOS=3									
UPLIFT	190	125									
LATERAL.PERP. TO SLOT	125	85									

NOTE

* Factor of Safety as shown

LATERAL.PARALLEL TO SLOT

- * Torque at 3/8" T-Bolt = 15ft.lbs (20 N.m)
- * All loads in pounds force
- * 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

135

- * 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	SEALING WASHER .26 ID X .50 X .125							
	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-BOL1	Г 3/8-16X1.0", 304 SS				1		
	3	A20062-00	1	L F001	ſ				1		
	2	B15039-00	1	HEX W	ASHER HEAD LAG BOLT	1/4X3			4		
	1	A50224-00	1	METAL	METAL ROOF DECK MOUNT						
	ITEM	TEM PART NUMBER			DESCRIPTION						
	GENERAL S	SEE NOTES rd Angle Projection: Sun Modo Corp. Sun Modo Corp. WERL SPECIFICATIONS ID Dimensions in inches [millimeters] arances 14800 NE 65TH STREET, VANCOUVER WA 986						A 9868	2		
	XXX 2.0.02 [0.50mm]			METAL ROOF DECK MOUNT KI							
				B K50532-001 STRUCTURE							
MAY P.	APPROVALS		SCALE	: NONE	SHEET	1	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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SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

MARY ALLEN - MS134140 293 SE OAKMONT ST LAKE CITY, FL 32025 (386) 965-0403

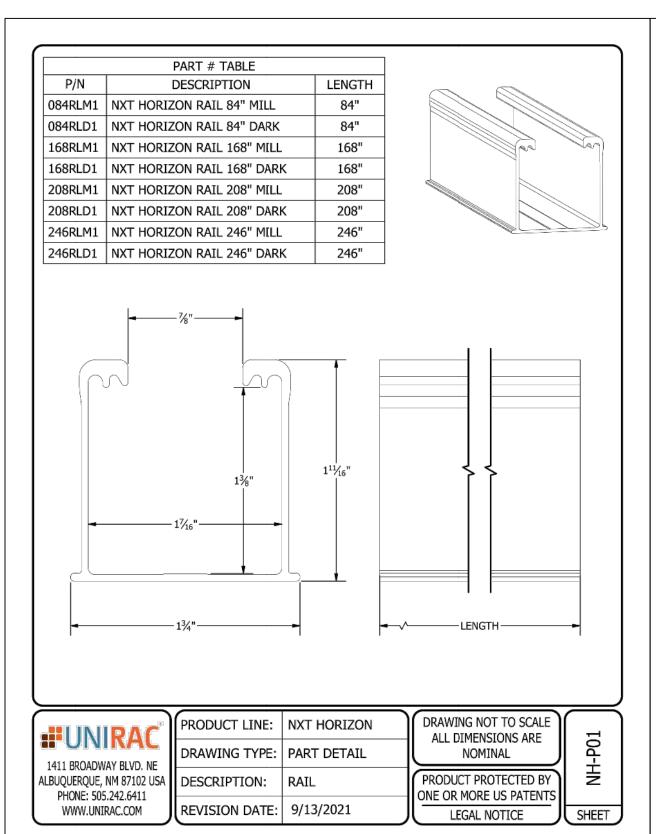
PV SYSTEM INFORMATION

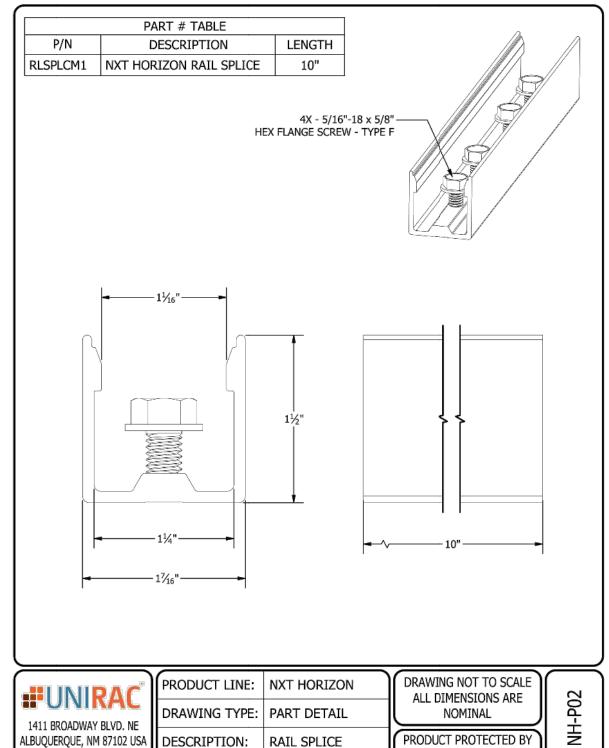
SYSTEM SIZE (DC): 4.4 KW 11 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 11 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMA	TION
INITIAL	DATE: 8/29/2023	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 Mina A Makex. Reasont of his item has been elegronically signed and sealed by Makex. Makex, PE 86753, COA # 33404] on the Date and Jine Stame shawar. Reingoa digitalteignatureeRrinted endernotathis daeumenteamenoty pansidenad signed sandseated # and the signature and the Stamp sephadian any iglect coniat copies

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SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

MARY ALLEN - MS134140 293 SE OAKMONT ST LAKE CITY, FL 32025 (386) 965-0403

PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 4.4 KW 11 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 11 INVERTERS: ENPHASE

IQ8PLUS-72-2-US

PROJECT INFORMATION								
INITIAL	DATE: 8/29/2023	DESIGNER: KJL						
REV:	DATE:	DESIGNER:						
REV:	DATE:	DESIGNER:						
	REV:	INITIAL DATE: 8/29/2023 REV: DATE:						

PV-1.1 (2)

ALBUQUERQUE, NM 87102 USA PHONE: 505.242.6411 WWW.UNIRAC.COM

DESCRIPTION: RAIL SPLICE 9/22/2021 REVISION DATE:

PRODUCT PROTECTED BY ONE OR MORE US PATENTS

LEGAL NOTICE

SHEET

ATTACHMENT DETAIL

SCALE: 1/8" = 1'-0"	ROOF	PANEL COUNT	TILT	AZIMUTH	SHADING	LANDSCAPE MAX SPAN (ROOF AREA 1/2/3)	PORTRAIT MAX SPAN (ROOF AREA 1/2/3)		LANDSCAPE MAX CANTILEVER		PORTRAIT MAX CANTILEVER		_
	R1	11	21°	188°	97%	48 /48 /48	48 /48 /48		16 /10 /10		16 /10 /10	mome	entum
	NI NI	11		100	3770	40/40/40	40/40/40		10/10/10		10/10/10	SOLAR	
W													A MOMENTUM COLAR
												PRO CUSTOM SOLAR LLC D.B./ 325 HIGH STREET, METU (732) 902-6 MOMENTUMSOL	CHEN, NJ 08840 224
				·						'		PROFESSI	
												ENGINEE	RING
·	AC MSP M PISC MSP M RICAL EQUIPMENT											No PERG	753
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		3-10							GE SETBACK SHALL E			CERTIFIED SOLAR CONTRACTOR LI MOMENTUM SO 5728 MAJOR BLVD. SUITE 307,	LAR ORLANDO FL. 32819
	GUTTER		 	 	•				SYMBOL			CUSTOMER INFO	
	- FIRE SETBACK				· <u> </u>	GUTTER		<u> </u>	STIMBUL	LEGE	IND	293 SE OAKM LAKE CITY, FL	
	(36" VENTILATION 36" ROOF ACCESS							MSP	MAIN SERVICE PANEL	M	CHIMNEY	(386) 965-0 PV SYSTEM INFO	0403
GROUND ACCESS ———— (TYP)	(TYP)					RAFTER SP		SP	SUB-PANEL		SKYLIGHT	SYSTEM SIZE (DC): 4.4 K 11 MODULES: HANWHA	W
						26" O.C. (1	YP)	M	UTILITY METER		VENT	ML-G10+ 400 11 INVERTERS: ENPHASE	
								AC DISC	AC DISCONNECT	0	PIPE VENT	IQ8PLUS-72-2-US	
								UDC	UTILITY DISCONNECT	\bigcirc	FAN	-	
			EDON'T OF	DECIDENCE									
				RESIDENCE KMONT ST				LC	LOAD CENTER		SATELLITE DISH	PROJECT INFOR INITIAL DATE: 8/29/2023	DESIGNER: KJL
CLAMPING MAX SPACING IN ZO AND IN ZONE 2 AND ZONE 3 48			SE UAI	MINIOINI 31				N3R	NEMA 3R BOX W/ ENVOY-S		FIRE SETBACKS	REV: DATE:	DESIGNER:
AND IN COINE 2 AND COINE 3 40	. O.C							СВ	COMBINER BOX		MIN 3'x3' GROUND ACCESS POINT	REV: DATE:	DESIGNER:
NOTE:	0.00Mp00=5 == 5=1	DD1104=== ::-						0	MODULE	 	PITCH DIRECTION	ROOF LA	YOUT
 ROOF COVERING MATERIAL IS REFER TO LAYOUT DETAIL DR 									<u> </u>	WIND PRE	SSURE ZONE LINES. REFER TO	PV-	2
										PV-2.2 FO	R ADDITIONAL INFO	F V -	

PV MODULE RAT	PV MODULE RATINGS		PV MODULE RATINGS INVERTER RATINGS			VOLTAGE DROP CALCULATIONS								
MODULE MAKE	HANWHA	INVERTER MAKE	ENPHASE		FORMULA US	ED PER NEC H	ANDBOOK 215	5.2(A)(4) WHE	RE APPLICABL	E		l		
MODEL	Q.PEAK DUO BLK	MODEL	IQ8PLUS-72-2-	WIRE RUN	V_{mp}	I _{mp}	R	L (FT)	Vo	% V _o	WIRE SIZE	ĺ		
	ML-G10+ 400	WODEL	US BRANCH TO J-BOX 240.00	13.31	1.98	72.42	3.817	1.59%	12 AWG	l				
MAX POWER	400W	MAX OUTPUT POWER	290W	DRANCH TO J-BOX	240.00	15.51	1.56	72.42	3.617	1.59%	12 AVVG	DE		
OPEN CIRCUIT VOLTAGE	45.3V	OPEN DC VOLTAGE	60V	J-BOX TO LOAD CENTER	240.00	13.31	1.24	50.00	1.650	0.69%	10 AWG			
MPP VOLTAGE	37.13V	NOMINAL AC VOLTAGE	240V	LOAD CENTER TO AC							-	<u> </u>		
SHORT CIRCUIT CURRENT	11.14A	MAX AC CURRENT	1.21A	DISCONNECT	240.00	16.6375	0.778	3.00	0.078	0.03%	08 AWG	ĺ		
MPP CURRENT	10.77A	CEC INVERTER EFFICIENCY	97%	AC DISCONNECT TO INTERCONNECTION	240.00	16.6375	0.778	10.00	0.259	0.11%	08 AWG			
NUMBER OF MODULES	11	NUMBER OF INVERTERS	11	INTERCONNECTION								1		

SUB PANEL **BREAKER SIZE**

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

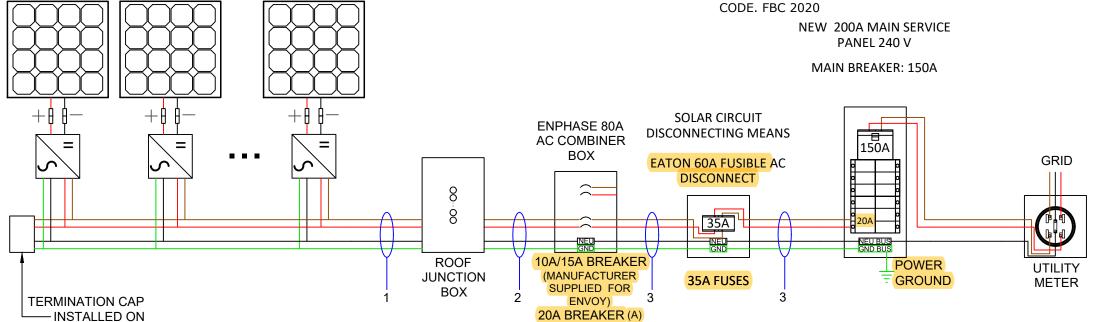
YES

11 HANWHA Q.PEAK DUO BLK ML-G10+ 400 400W MODULES PAIRED WITH

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

_UL1703 COMPLIANT

BRANCH CIRCUIT A 11 MICRO-INVERTERS



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

 $(1.25 \times 13.31) + 150 \le 200 \times 1.20$

(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

IN THE MOST RECENT VERSION OF THE FLORIDA BUILDING

SOLAR INSTALLER NOTES: REPLACE EXISTING MAIN SERVICE PANEL WITH NEW **200A MAIN SERVICE PANEL AND 150A MAIN BREAKER**

Wire Wire Temp. Conduit Derated **NEC** Design **Ground Wire** Temp. Inverter Ground Wire Qty NOC (A) Wire Tag Wire Type Conduit Gauge Rating Ampacity (A) Fill Derate Ampacity (A) Qty Correction Current (A) Type Derate Size **OPEN AIR** 12 AWG 90°C 0.96 28.80 11 1.21 12 AWG 1 Trunk Cable 30 1.25 16.64 Trunk Cable 3/4" PVC 2 75°C 2 10 AWG THWN-2 35 0.96 1 11 1.21 1.25 08 AWG THWN-2 33.60 16.64 3/4" PVC 3 + G08 AWG THWN-2 75°C 50 0.96 1 48.00 11 1.21 1.25 16.64 08 AWG 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



Digitally signed by Reason: Digitally signed by Mina A Maker Reason This it is has been electronically signed and sealed by MANAL Makar, PE DESIGNED AND APPROVED USING THE STANDARDS CONTAINED 86753, COA # \$3404] on the Date and Jine Stame shawar. ksiaspa digitaltsignatureeRrinted |eadiesnotathis:daeumentseaendty pansidenad signed sandseated #

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| **3040th | Consideration and the Stamp**

SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

MARY ALLEN - MS134140 293 SE OAKMONT ST LAKE CITY, FL 32025 (386) 965-0403

PV SYSTEM INFORMATION

SYSTEM SIZE (DC): 4.4 KW 11 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 11 INVERTERS: ENPHASE

IQ8PLUS-72-2-US

	PROJECT INFORMATION		
	INITIAL	DATE: 8/29/2023	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.

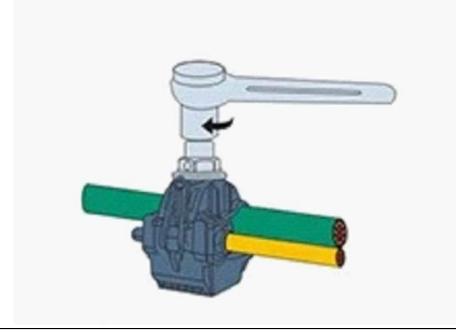
TABLE 1:

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:

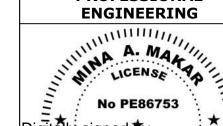
- 1. ADJUST THE CONNECTOR NUT TO SUITABLE LOCATION
- PUT THE BRANCH WIRE INTO THE CAP SHEATH FULLY
- INSERT THE MAIN WIRE, IF THERE ARE TWO LAYS OF INSULATED LAY IN THE MAIN CABLE, SHOULD STRIP A CERTAIN LENGTH OF THE FIRST INSULATED LAY FROM INSERTED END
- TURN THE NUT BY HAND, AND FIX THE CONNECTOR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



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SOLAR CONTRACTOR

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

CUSTOMER INFORMATION

MARY ALLEN - MS134140 293 SE OAKMONT ST LAKE CITY, FL 32025 (386) 965-0403

PV SYSTEM INFORMATION

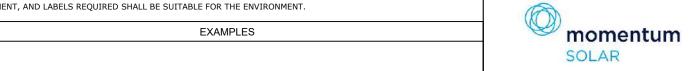
SYSTEM SIZE (DC): 4.4 KW 11 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 11 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMA	TION
INITIAL	DATE: 8/29/2023	DESIGNER: KJL
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 SHALL ADEQUATELY WARN OF THE HAZARD. LABELS SHALL BE PERMANENTLY AFFIXED TO THE EQUIPMENT					
TAG	LABEL	QUANTITY	LOCATION	NOTE	
(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	
0	PHOTOVOLTAIC SYSTEM A C DISCONNECT A RATED AC OUTPUT CURRENT A NOMINAL OPERATING AC VOLTAGE 240 V ELECTRICAL SHOCK HAZARI TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM	2	AC DISCONNECT (RSD SWITCH)	1 OF EACH AT FUSED AC DISCONNECT COMPLETE VOLTAGE AND CURRENT VALUES ON DISCONNECT LABEL	
Œ	POWER TO THIS SERVICE IS ALSO SUPPLIED FROM ON-SITE SOLAR GENERATION AC SYSTEM DISCONNECT PHOTOVOLTAIC SYSTEM INSTALLED BY MOMENTUM SOLAR 3096 B HAMILTON BLVD S. PLAINFIELD, NJ 07080 PHONE NUMBER:7322-902-6224				
F	DUAL POWER SUPPLY SECOND SOURCE IS PHOTOVOLTAIC SYSTEM	1	UTILITY METER	1 AT UTILITY METER AND ONE DIRECTORY PLACARD	
© .	EMERGENCY RESPONDER THIS SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN ENTIRE PV SYSTEM GETCAGO OF THE PV STREEM PARTY SECOND SOURCE IS PHOTOVOLTAIC SYSTEM SHUTDOWN SHOTON IS OPERATED.	1	INTERCONNECTION POINT	1 OF EACH AT BUILDING INTERCONNECTION POINT AND ONE DIRECTORY PLACARD	
	POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE	1	BACKFEED PANEL		
Э	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		



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 has been electronically signed and sealed by Mina Maker, PE 86753, COA # 33404] on the Date and Jime Steman shower Date and Jierb Stame Ahawar. Reinson digitalteignaturee Printed environtalinis igaeura en toate outy pansidenalisigned and sealed # andounce signed but a must have Stamp serified singay iglectromist copies

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INITIAL	DATE: 8/29/2023	DESIGNER: KJL	
REV:	DATE:	DESIGNER:	
REV:	DATE:	DESIGNER:	

EQUIPMENT LABELS

PV-3.2



SOLAR INSTALLER NOTES:

REPLACE EXISTING MAIN SERVICE PANEL WITH NEW

200A MAIN SERVICE PANEL AND 150A MAIN BREAKER







F



G BACKFEED

B