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				

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				

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					

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, 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)

11
11
21
5
0
1
1
2
1

momentum SOLAR

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

PROFESSIONAL



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 leggies notativis idae uraents 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 and the signature must be verified on any electronic copies

Date: 2023.11.10 09:11:59 -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						
NITIAL	DATE: 8/29/2023	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.

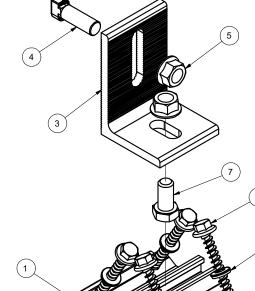


Features and Benefits

- 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.





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6	***		<i>)</i>

HIS DRAWING IS CONFIDENTIAL PROPERTY OF SUNMODO AND ITS CONTENTS MAY	
OT BE DISCLOSED WITHOUT THE PRIOR WRITTEN CONSENT OF SUNMODO CORP.	

IN 1/2" PLYWO					
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

В	7 B15018-001 6 C50001-001			SEALIN	SEALING WASHER .26 ID X .50 X .125					4
				HEX CA	HEX CAP SCREW 3/8-16 X 3/4					1
				GASKE	T, EPDM, WITH	ADHESIV	Έ			2
				FLANG	E NUT 3/8-16					2
	4	B20007-00	2	T-BOLT	3/8-16X1.0", 30	4 SS				1
	3 A20062-001 2 B15039-001			L FOOT						1
				HEX W	ASHER HEAD LA	AG BOLT	1/4X3			4
	1	A50224-00	1	METAL	METAL ROOF DECK MOUNT				1	
	ITEM	PART N	UMBER		DES	CRIPTIC	N			QTY
	MATERIAL SEE NOTES Third Angle Projection:		SunModo Corp.							
	GENERAL SPECIFICATIONS All Dimensions in inches [millimeters] Tolerances XXXX 40.01 [0.25mm]			14800 NE 65TH STREET, VANCOUVER WA 98682					32	
	X.XX ±0.02 X.X ±0.039 Unless othe DRAWN BY	[1.0mm] .010	ak all sharp edges 0020 unless erwise specified. DATE	METAL ROOF DECK MOUNT KIT						
	CHECKED E	BY	10/16/2018	В	DRAWING NUMBER K50)532-00°	1 STRU	CTUI	RE	
S MAY ORP.	APPROVAL	S		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



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Date: 2023.11.10 09:11:59 -05:00

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and the signature must be verified

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

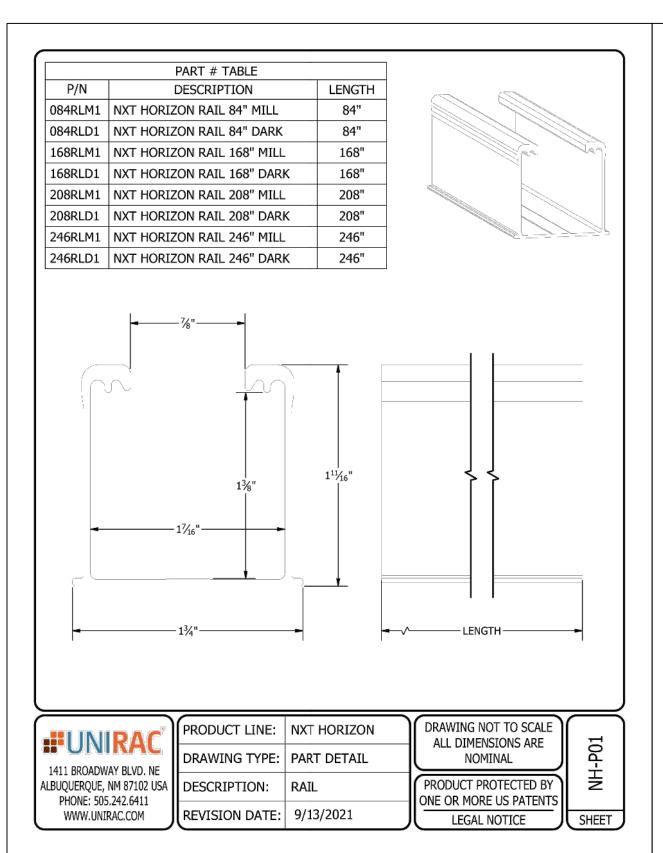
PV SYSTEM INFORMATION

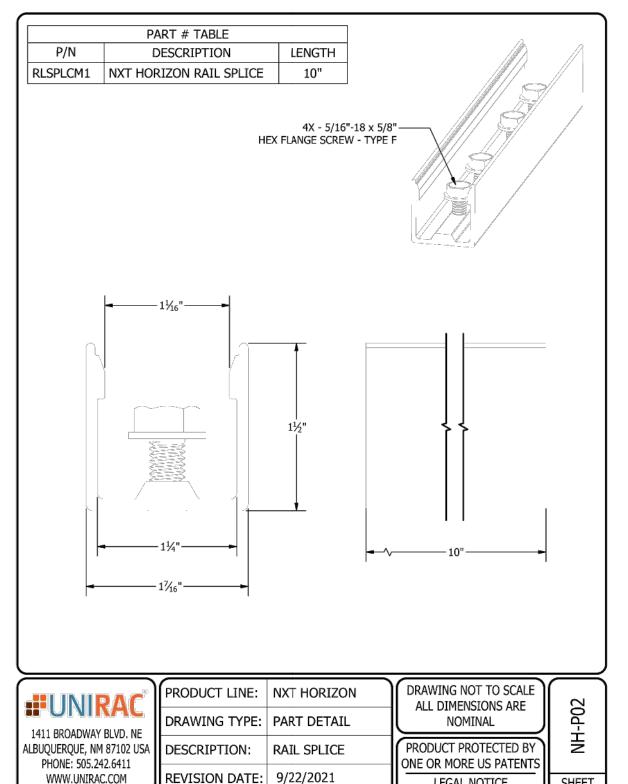
SYSTEM SIZE (DC): 4.4 KW 11 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 11 INVERTERS: ENPHASE IQ8PLUS-72-2-US

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

ATTACHMENT DETAIL

PV-1.1





LEGAL NOTICE

SHEET

WWW.UNIRAC.COM



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

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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

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

ATTACHMENT DETAIL

PV-1.1 (2)

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)	1	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
	1/1	11		100	3770	40/40/40	40740740		10/10/10		10/10/10	SOLAR	
W												PRO CUSTOM SOLAR LLC D.B.	A MOMENTUM COLAR
												325 HIGH STREET, METU (732) 902-6. MOMENTUMSOL	CHEN, NJ 08840 224
												PROFESSI ENGINEE	ONAL
	AC MSP M ICAL EQUIPMENT											No PESS	11/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1
3'-0"												Digitally signed by Reason: Digitally si A Maker. Reason been electronically sealed by Maker. 86753, COA # 5340 Date and clight responding the light responding to the light r	gned by Min This it in ha sigued and Makar, PE 14] on the
3'-0"		RJØGE /						DRIVEV	WAY			Reject digitalisigna copies natalny signed panside nad signedus panside nad signedus panside nad signedus panside na signedus	arotseeroot Brotseerood# NustingeStan
3'-0"					3'-0"	RIDGE	·		SQUARE FOOTAGE O			Printed copies of this not considered signe and the signature muon any electronic coppate: 2023.11.10 09:	d and sealed ist be verified pies
				 I I I	· R1				E FOOTAGE OF SOLA ITAGE OF SOLAR ROO			SOLAR CONTI CAMERON CHRIST CERTIFIED SOLAR CONTRACTOR LIV	ENSEN
									GE SETBACK SHALL E			MOMENTUM SO 5728 MAJOR BLVD. SUITE 307,	LAR ORLANDO FL. 32819
	GUTTER				,				SYMBOL	LEGE	ND	CUSTOMER INFO MARY ALLEN - N 293 SE OAKM	1S134140
	FIRE SETBACK (36" VENTILATION					GUTTER		MSP	MAIN SERVICE PANEL		CHIMNEY	LAKE CITY, FL (386) 965-0	32025
GROUND ACCESS ——————————————————————————————————	36" ROOF ACCESS (TYP))				RAFTER SP	ACING	SP	SUB-PANEL		SKYLIGHT	PV SYSTEM INFO	W
(TYP)						26" O.C. (1		M	UTILITY METER		VENT	11 MODULES: HAŃWHA ML-G10+ 400 11 INVERTERS: ENPHASE	
								AC.	AC DISCONNECT		PIPE VENT	IQ8PLUS-72-2-US	
								DISC		\bigcirc		-	
								UDC	UTILITY DISCONNECT		FAN		
				RESIDENCE				LC	LOAD CENTER	4	SATELLITE DISH	PROJECT INFOR INITIAL DATE: 8/29/2023	DESIGNER: KJL
CLAMPING MAX SPACING IN ZOI			SE OAI	KMONT ST				N3R	NEMA 3R BOX W/ ENVOY-S		FIRE SETBACKS	REV: DATE:	DESIGNER:
AND IN ZONE 2 AND ZONE 3 48	··· U.C							СВ	COMBINER BOX		MIN 3'x3' GROUND ACCESS POINT	REV: DATE:	DESIGNER:
NOTE:									MODULE		PITCH DIRECTION	ROOF LA	YOUT
 ROOF COVERING MATERIAL IS REFER TO LAYOUT DETAIL DRA 										WIND PRE	SSURE ZONE LINES. REFER TO	PV-	2
								1		PV-2.2 FO	R ADDITIONAL INFO		~

PV MODULE RAT	TINGS	INVERTER RATINGS				VOLTAG	E DROP CALC	ULATIONS				
MODULE MAKE	HANWHA	INVERTER MAKE	ENPHASE		FORMULA US	ED PER NEC H	ANDBOOK 215	5.2(A)(4) WHE	RE APPLICABL	E		
MODEL	Q.PEAK DUO BLK	MODEL	IQ8PLUS-72-2-	WIRE RUN	V_{mp}	I _{mp}	R	L (FT)	Vo	% V _o	WIRE SIZE	
	ML-G10+ 400	WODEL	US	BRANCH TO J-BOX	240.00	13.31	1.98	72.42	3.817	1.59%	12 AWG	
MAX POWER	400W	MAX OUTPUT POWER	290W	DIVARICH TO 3-BOX	240.00	13.31	1.98	72.42	3.817	1.59%	12 AWG	PR
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							+	-
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	
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

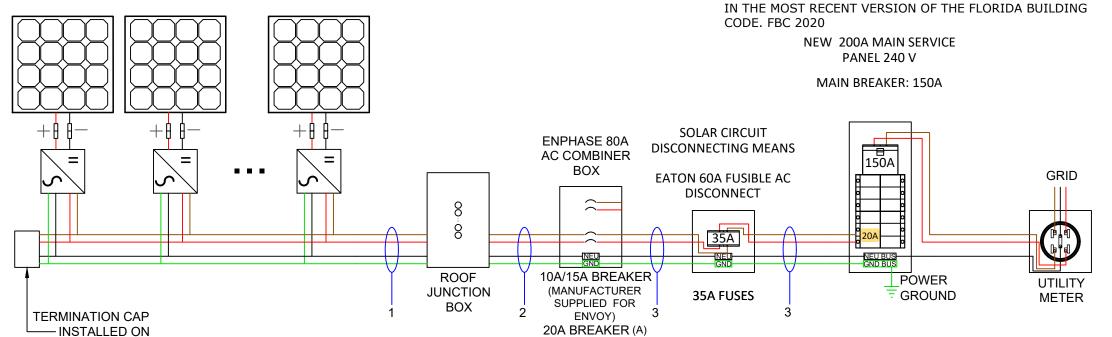
YES

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

SOLAR INSTALLER NOTES:

REPLACE EXISTING MAIN SERVICE PANEL WITH NEW 200A MAIN SERVICE PANEL AND 150A MAIN BREAKER, REPLACE METER CAN, RISERS & FEEDERS

END OF CABLE

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	L
1	OPEN AIR	1	12 AWG	Trunk Cable	90°C	30	0.96	1	28.80	11	1.21	1.25	16.64	12 AWG	Trunk Cable	IN RE
2	3/4" PVC	2	10 AWG	THWN-2	75°C	35	0.96	1	33.60	11	1.21	1.25	16.64	08 AWG	THWN-2	RE
3	3/4" PVC	3 + G	08 AWG	THWN-2	75°C	50	0.96	1	48.00	11	1.21	1.25	16.64	08 AWG	THWN-2	Ŀ
																\vdash

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



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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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Date: 2023.11.10 09:11:59 -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

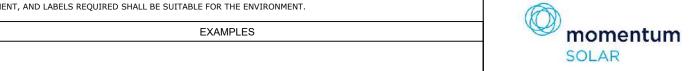
SYSTEM SIZE (DC): 4.4 KW 11 MODULES: HANWHA Q.PEAK DUO BLK ML-G10+ 400 11 INVERTERS: ENPHASE IQ8PLUS-72-2-US

	PROJECT INFORMATION								
INITIAL	DATE: 8/29/2023	DESIGNER: KJL							
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 SI	HALL ADEQUATELY W	/ARN OF THE HAZARD. LABE	LS SHALL BE PERMANENTLY AFFIXED TO THE E	EQUIPMEN	
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 RATED AC OUTPUT CURRENT NOMINAL OPERATING AC VOLTAGE AC VOLTAGE POWER TO THIS SERVICE IS ALSO SUPPLIED FROM ON-SITE SOLAR GENERATION AC VOLTAGE A		AC DISCONNECT (RSD SWITCH)	1 OF EACH AT FUSED AC DISCONNECT COMPLETE VOLTAGE AND CURRENT VALUES ON DISCONNECT LABEL		
Œ	AC SYSTEM DISCONNECT 3096 B HAMILTON BLVD S. PLAINFIELD, NJ 07080 PHONE NUMBER:732-902-6224					
F	DUAL POWER SUPPLY SECOND SOURCE IS PHOTOVOLTAIC SYSTEM	1	UTILITY METER	1 AT UTILITY METER AND ONE DIRECTORY PLACARD		
<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 SECTION OF THE PV SYSTEM SECTION SHUTCH OF FEAR PURPLY SECOND SOURCE IS PHOTOVOLTAIC SYSTEM SECTIONS SHUTCH IS OFFERT THAT SECTION SHUTCH IS OFFER T	1	INTERCONNECTION POINT			
	POWER SOURCE OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE	1	BACKFEED PANEL	1 OF EACH AT BUILDING INTERCONNECTION POINT AND ONE DIRECTORY PLACARD		
Θ	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			



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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. Reinsba digitalteignatureeRrinted environtalinis igaeura en toate outy pansidenalisigned and sealed # andounce signed but a must have Stamp serified singay iglectromist copies

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CAMERON CHRISTENSEN
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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







B

G BACKFEED