

March 24, 2022

Sigora Solar LLC 490 Westfield Road STE A Charlottesville, VA 22901

> Re: Engineering Services Boisvert Residence 58 Ancient Oak Court, Bunnlevel, NC 6.000 kW System

To Whom It May Concern:

We have received information regarding solar panel installation on the roof of the above referenced structure. Our evaluation of the structure is to verify the existing capacity of the roof system and its ability to support the additional loads imposed by the proposed solar system.

### A. Site Assessment Information

- 1. Site visit documentation identifying attic information including size and spacing of framing for the existing roof structure.
- Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information will be utilized for approval and construction of the proposed system.

## B. Description of Structure:

Roof Framing:Prefabricated wood trusses at 24" on center. All truss members are<br/>constructed of 2x4 dimensional lumber.Roof Material:Composite Asphalt Shingles<br/>34 degreesAttic Access:AccessibleFoundation:Permanent

- C. Loading Criteria Used
  - Dead Load
    - Existing Roofing and framing = 7 psf
    - New Solar Panels and Racking = 3 psf
    - TOTAL = 10 PSF
  - Live Load = 20 psf (reducible) 0 psf at locations of solar panels
  - Ground Snow Load = 10 psf
  - Wind Load based on ASCE 7-10
    - Ultimate Wind Speed = 120 mph (based on Risk Category II)
    - Exposure Category C

Analysis performed of the existing roof structure utilizing the above loading criteria is in accordance with the North Carolina Residential Code (2018), including provisions allowing existing structures to not require strengthening if the new loads do not exceed existing design loads by 105% for gravity elements and 110% for seismic elements. This analysis indicates that the existing framing will support the additional panel loading without damage, if installed correctly.

## D. Solar Panel Anchorage

- 1. The solar panels shall be mounted in accordance with the most recent SnapNRack installation manual. If during solar panel installation, the roof framing members appear unstable or deflect non-uniformly, our office should be notified before proceeding with the installation.
- 2. The maximum allowable withdrawal force for a <sup>5</sup>/<sub>16</sub>" lag screw is 235 lbs per inch of penetration as identified in the National Design Standards (NDS) of timber construction specifications. Based on a minimum penetration depth of 2½", the allowable capacity per connection is greater than the design withdrawal force (demand). Considering the variable factors for the existing roof framing and installation tolerances, the connection using one <sup>5</sup>/<sub>16</sub>" diameter lag screw with a minimum of 2½" embedment will be adequate and will include a sufficient factor of safety.
- 3. Considering the wind speed, roof slopes, size and spacing of framing members, and condition of the roof, the panel supports shall be placed no greater than 48" on centers.
- 4. Panel supports connections shall be staggered to distribute load to adjacent framing members.

Based on the above evaluation, this office certifies that with the racking and mounting specified, the existing roof system will adequately support the additional loading imposed by the solar system. This evaluation is in conformance with the North Carolina Residential Code, current industry standards, and is based on information supplied to us at the time of this report.

Should you have any questions regarding the above or if you require further information do not hesitate to contact me.

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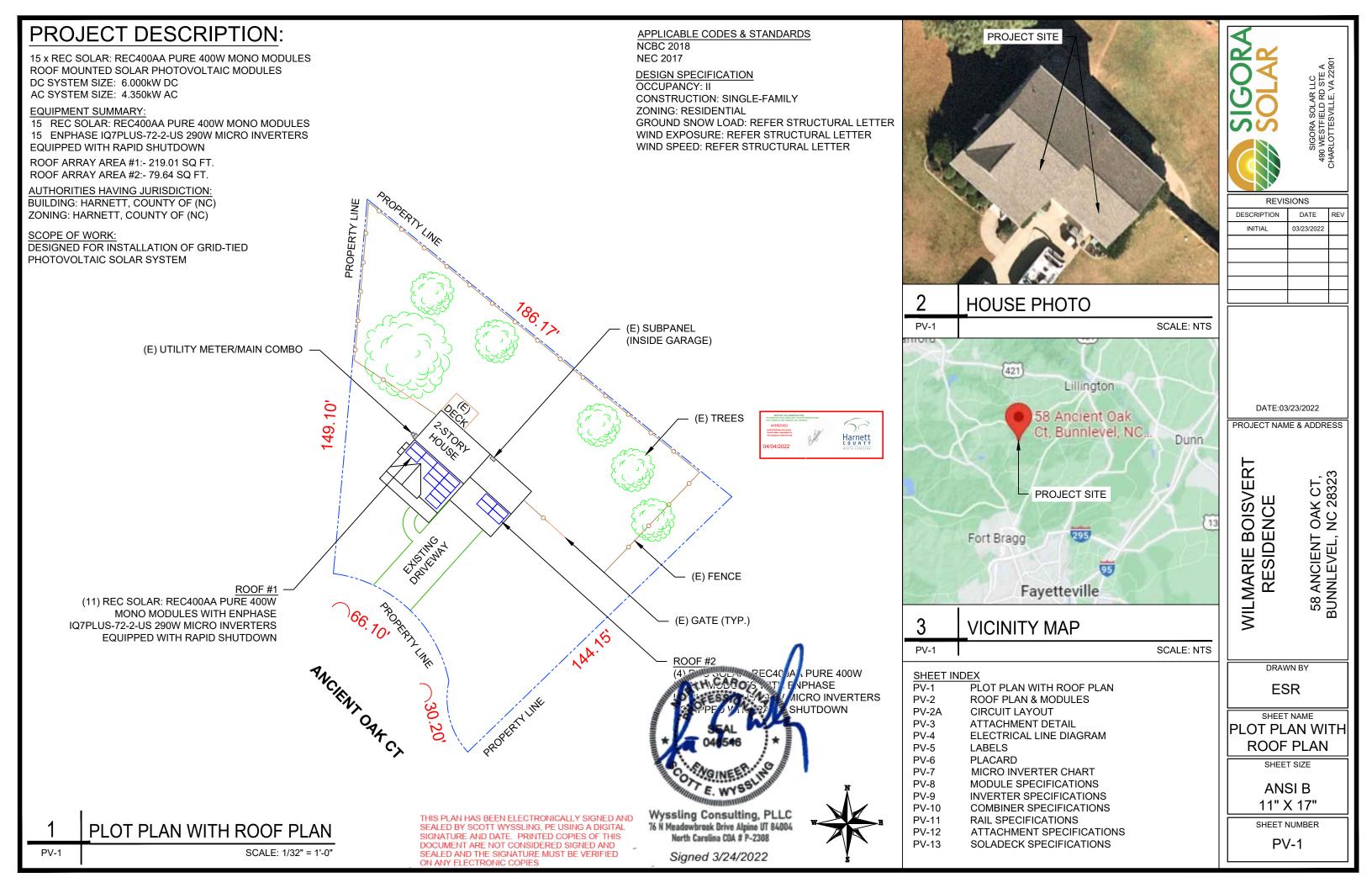
Scott E. Wyssling, PE North Carolina Licence 10. 46546

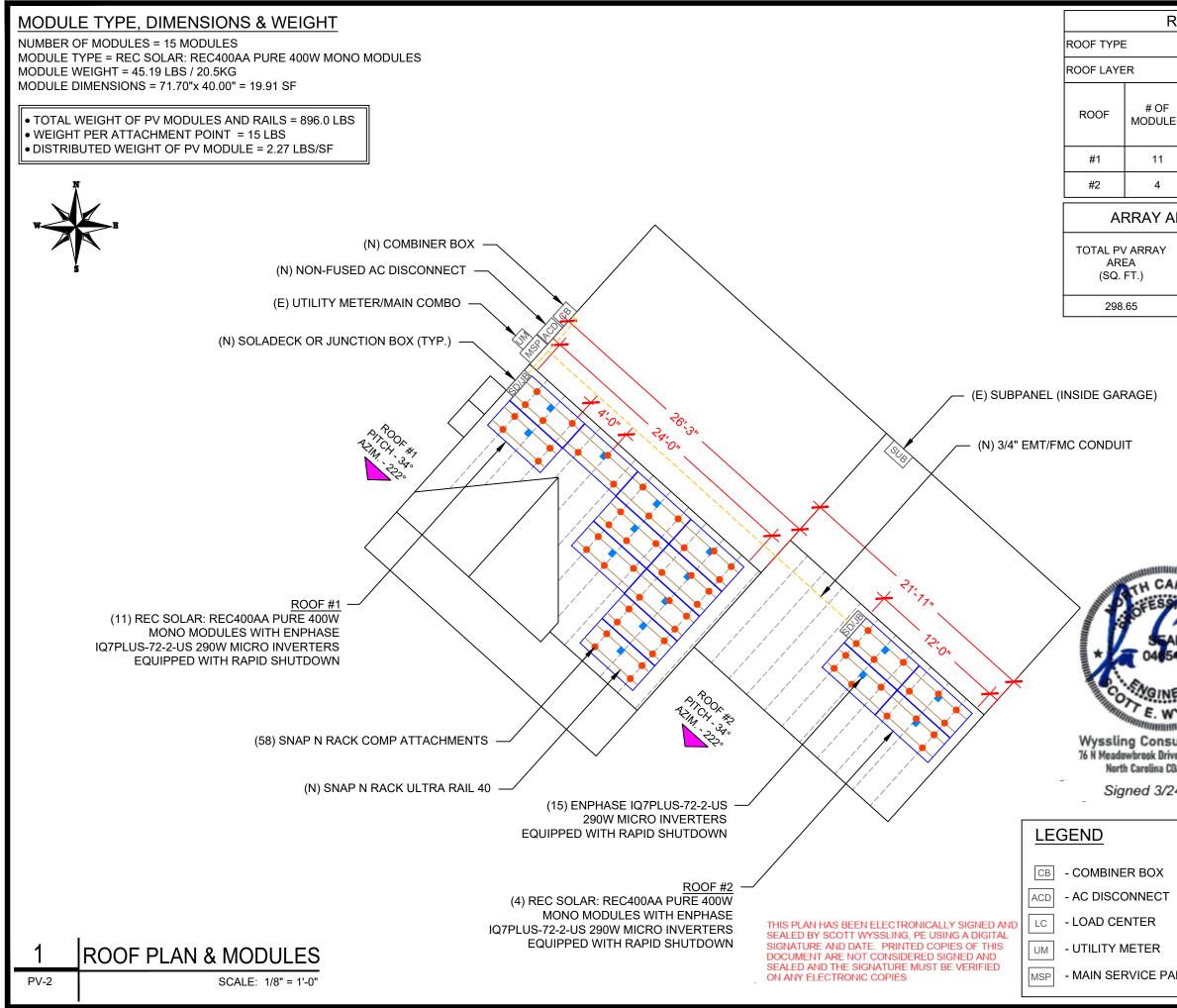
THIS PLAN HAS BEEN ELECTRONICALLY SIGNED AND SEALED BY SCOTT WYSSLING, PE USING A DIGITAL SIGNATURE AND DATE. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES



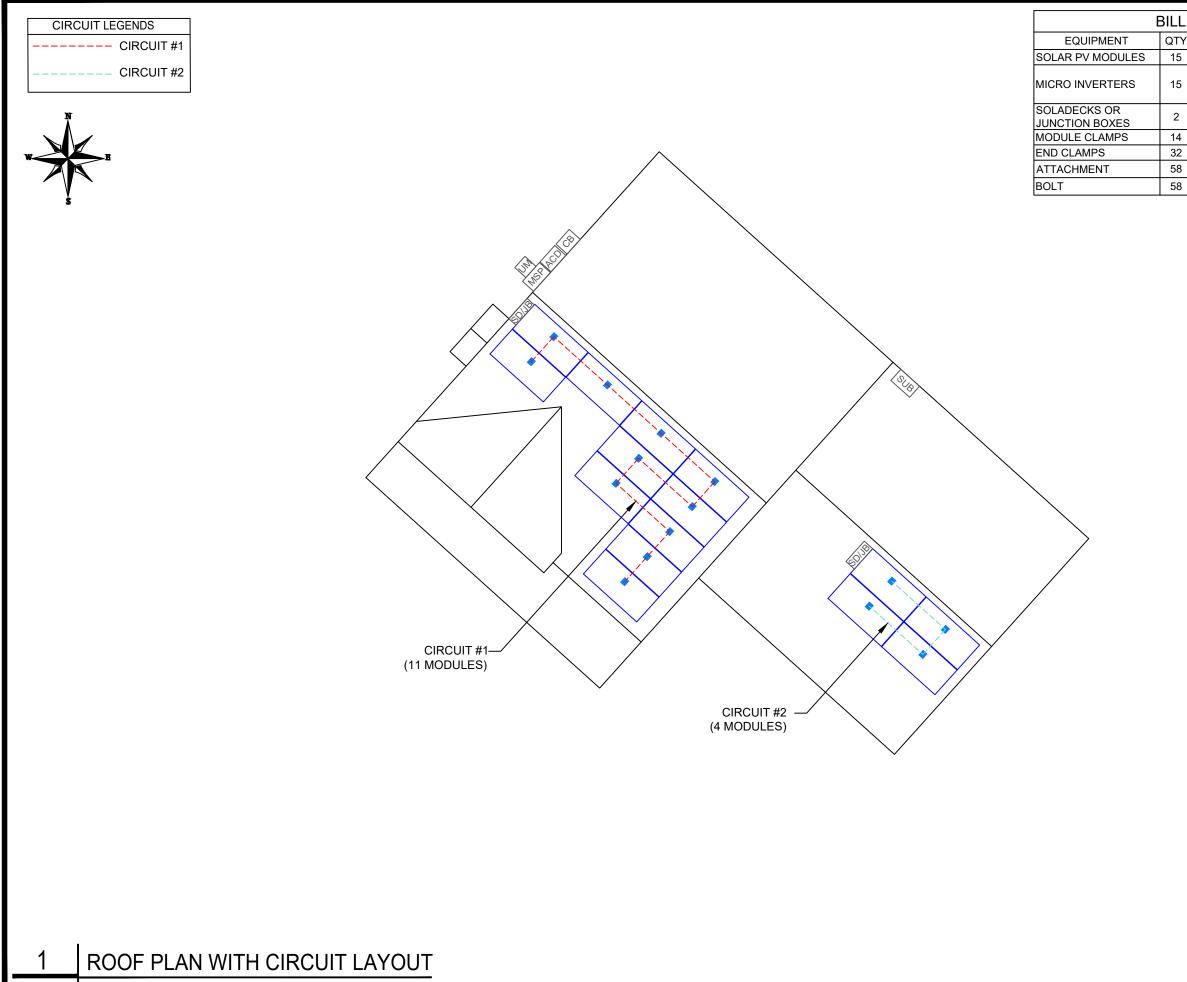
Wyssling Consulting, PLLC 76 N Meadowbrook Drive Alpine UT 84004 COA # P-2308





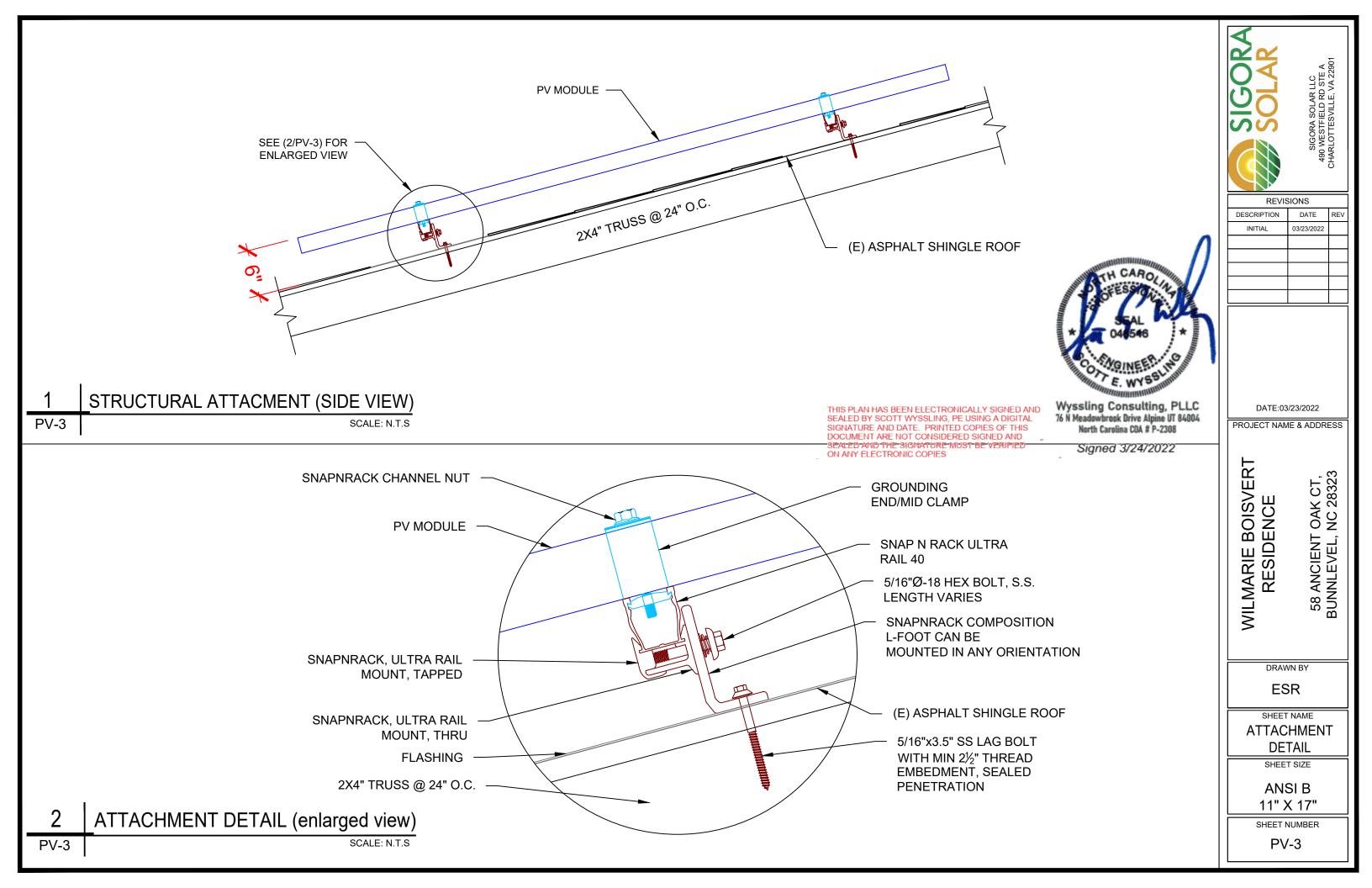


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L (	OF MATERIALS
ΓY	DESCRIPTION
5	REC SOLAR: REC400AA PURE 400W
5	ENPHASE IQ7PLUS-72-2-US 290W MICRO INVERTERS EQUIPPED WITH RAPID SHUTDOWN
2	SOLADECKS OR JUNCTION BOXES
4	MID MODULE CLAMPS
2	END CLAMPS / STOPPER SLEEVE
8	SNAP N RACK COMP
8	LAG BOLT

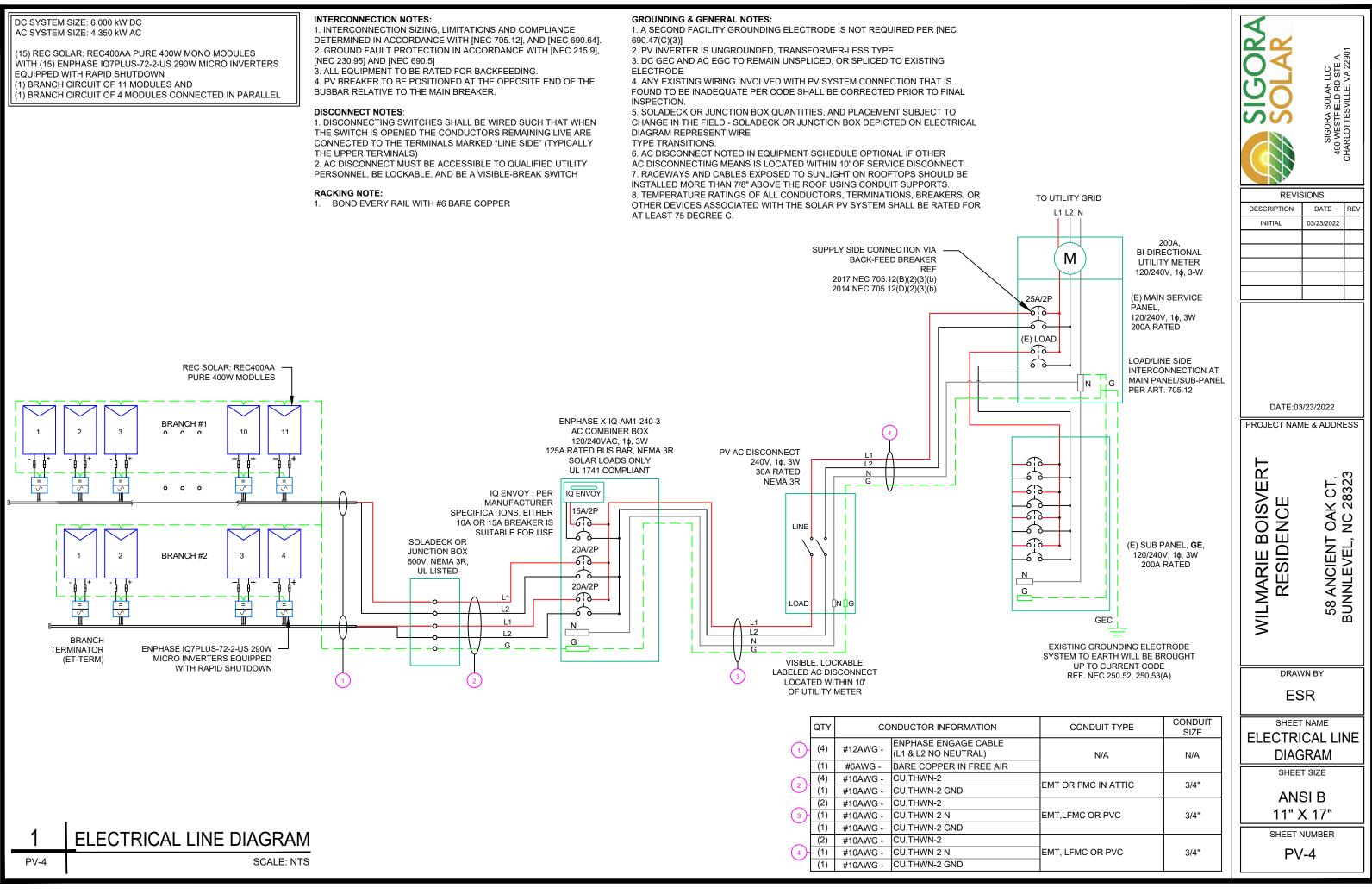
	SIC 490 W	CHARLOTTESVILLE, VA 2290
REVIS	DATE	REV
INITIAL	03/23/2022	
WILMARIE BOISVERT RESIDENCE	58 ANCIENT OAK CT,	BUNNLEVEL, NC 28323
ES		
SHEET CIRC	CUIT	
LAY SHEE	T SIZE	



DC SYSTEM SIZE: 6.000 kW DC AC SYSTEM SIZE: 4.350 kW AC

(15) REC SOLAR: REC400AA PURE 400W MONO MODULES WITH (15) ENPHASE IQ7PLUS-72-2-US 290W MICRO INVERTERS EQUIPPED WITH RAPID SHUTDOWN (1) BRANCH CIRCUIT OF 11 MODULES AND 1) BRANCH CIRCUIT OF 4 MODULES CONNECTED IN PARALLEL

PERSONNEL, BE LOCKABLE, AND BE A VISIBLE-BREAK SWITCH



## WARNING: PHOTOVOLTAIC **POWER SOURCE**

## LABEL 1

AT DIRECT-CURRENT EXPOSED RACEWAYS, CABLE TRAYS, COVERS AND ENCLOSURES OF JUNCTION BOXES, AND OTHER WIRING METHODS; SPACED AT MAXIMUM 10FT SECTION OR WHERE SEPARATED BY ENCLOSURES, WALLS, PARTITIONS, CEILINGS, OR FLOORS.

NEC 690.31(G)(3&4) (NOT USED FOR ENPHASE MICROINVERTERS)

## PHOTOVOLTAIC

## LABEL 2

DCDISONNECT

AT EACH PV DISCONNECTING MEANS NEC 690.13(B) (NOT USED FOR ENPHASE MICROINVERTERS)

## WARNING INVERTER OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCURRENT DEVICE

## WARNING: DUAL POWER SOURCE

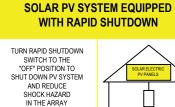
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

## MAXIMUM VOLTAGE MAXIMUM CIRCUIT CURRENT MAX RATED OUTPUT CURRENT OF THE CHARGE CONTROLLER OR DC-TO-DC CONVERTER FINSTALLED)

LABEL 3

AT DC PV SYSTEM DISCONNECTING MEANS

NEC 690.53 (NOT USED FOR ENPHASE MICROINVERTERS)



## PHOTOVOLTAIC

## LABEL 4

AT AC DISCONNECTING MEANS NEC 690.13(B)

## AC DISONNECT

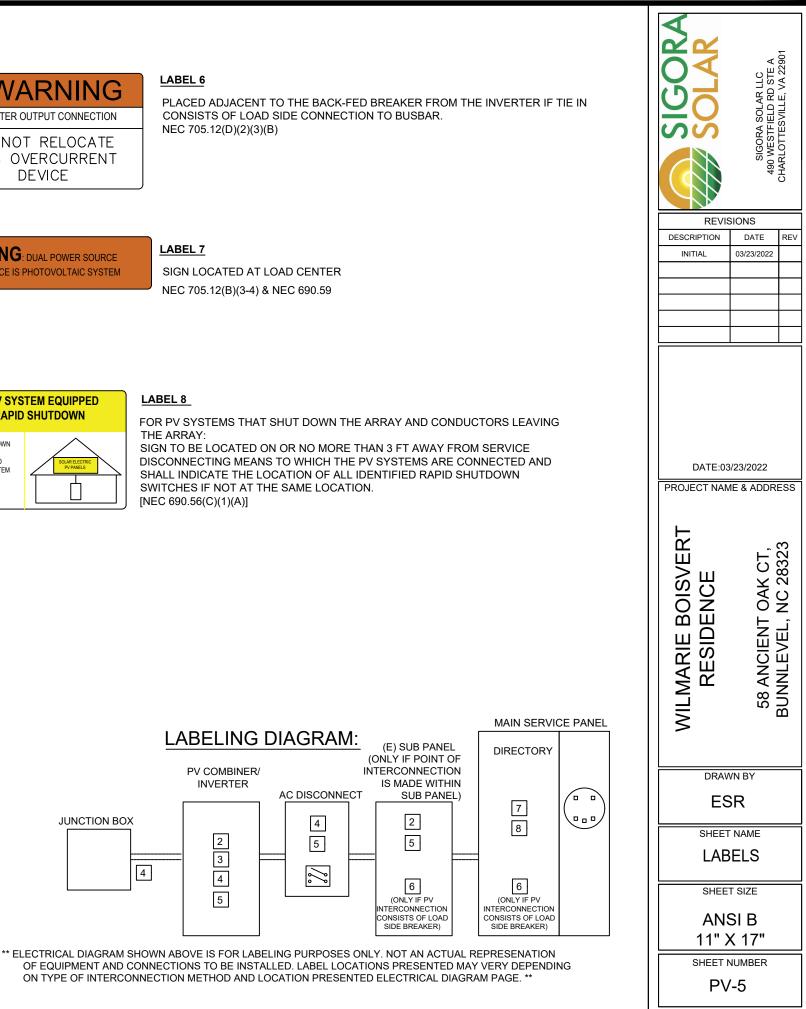
### PHOTOVOLTAIC AC DISCONNECT RATED AC OUTPUT CURRENT: 18.15A 240V NOMINAL OPERATING AC VOLTAGE

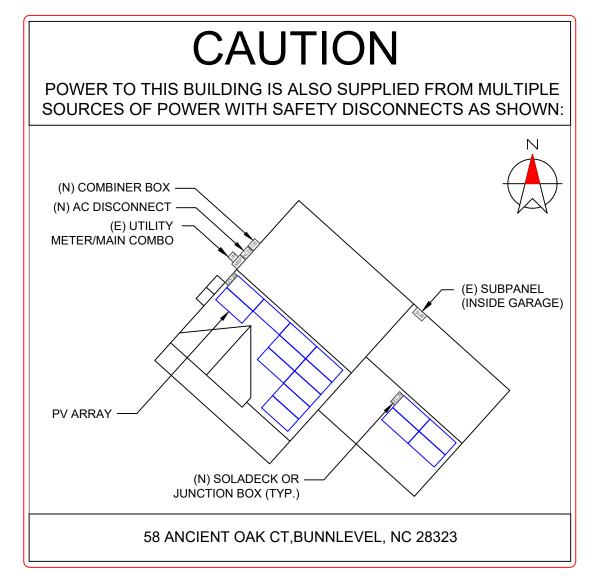
## LABEL 5 AT AC DISCONNECTING MEANS NEC 690.54

15 MICROS X 1.21 AMP/MICRO = 18.15AMP

### LABELING NOTES

- 1. LABELS CALLED OUT ACCORDING TO ALL COMMON CONFIGURATIONS. ELECTRICIAN TO DETERMINE EXACT REQUIREMENTS IN THE FIELD PER CURRENT NEC AND LOCAL CODES AND MAKE APPROPRIATE ADJUSTMENTS.
- 2. LABELING REQUIREMENTS BASED ON THE 2017 NATIONAL ELECTRIC CODE, OSHA STANDARD 19010.145, ANSI Z535.
- 3. MATERIAL BASED ON THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- 4. LABELS TO BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED [NEC 110.21]
- 5. LABELS TO BE A MINIMUM LETTER HEIGHT OF 3/8", WHITE ON RED BACKGROUND; REFLECTIVE, AND PERMANENTLY AFFIXED [IFC 605.11.1.1]

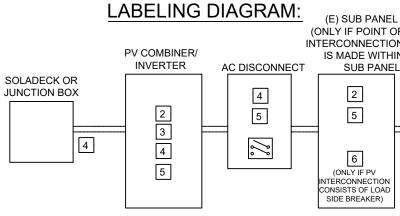




## DIRECTORY

PERMANENT PLAQUE OR DIRECTORY PROVIDING THE LOCATION OF THE SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC SYSTEM.

(ALL PLAQUES AND SIGNAGE WILL BE INSTALLED AS OUTLINED WITHIN: NEC 690.56(B)&(C), [NEC 705.10])



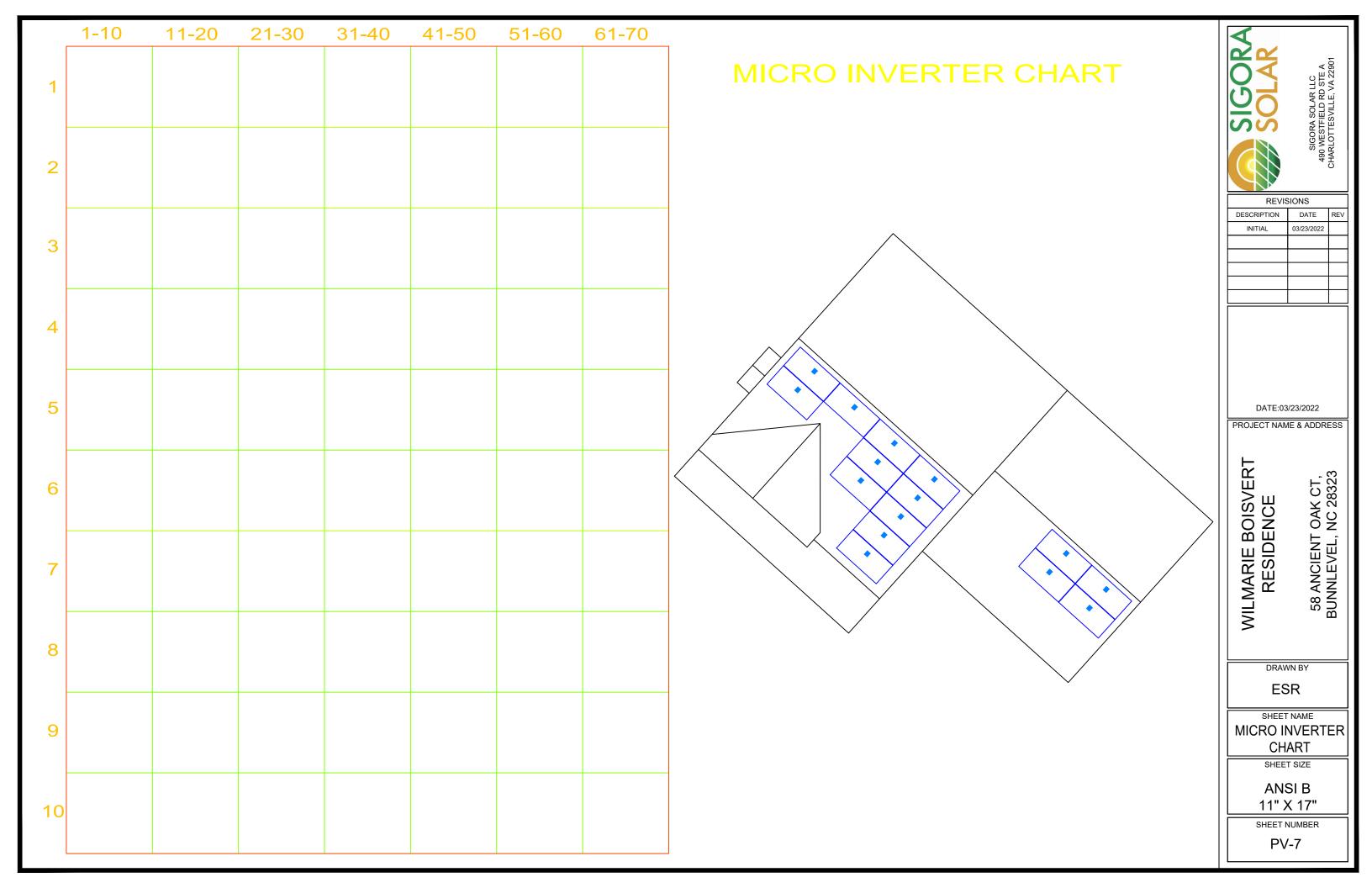
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\*\* ELECTRICAL DIAGRAM SHOWN ABOVE IS FOR LABELING PURPOSES ONLY. NOT AN ACTUA OF EQUIPMENT AND CONNECTIONS TO BE INSTALLED. LABEL LOCATIONS PRESENTED ON TYPE OF INTERCONNECTION METHOD AND LOCATION PRESENTED ELECTRICAL DIA

			REVIS DESCRIPTION		REV
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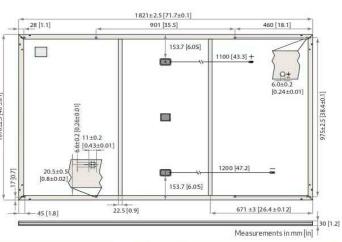


## SOLAR'S MOST TRUSTED



## REC ALPHA PURE SERIES PRODUCT SPECIFICATIONS

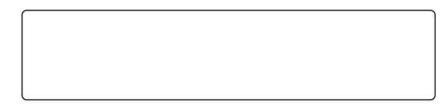
GENERAL DA	TA
Cell type:	132 half-cut REC heterojunction cells with lead-free, gapless technology, 6 strings of 22 cells in series
Glass:	3.2 mm solar glass with anti-reflective surface treatment in accordance with EN 12150
Backsheet:	Highlyresistantpolymer(black)
Frame:	Anodized aluminum (black)
Junction box:	3-part, 3bypass diodes, lead-free IP68rated, in accordance with IEC 62790
Connectors:	Stäubli MC4 PV-KBT4/KST4 (4 mm²) in accordance with IEC 62852, IP68 only when connected
Cable:	4 mm² solar cable, 11 m + 1.2 m in accordance with EN 50618
Dimensions:	1821 x 1016 x 30 mm (1.85 m²)
Weight:	20.5 kg
Origin:	Made in Singapore



ELECTRICAL DATA		Proc	duct Code*:	RECXXXAA	Pure	
Power Output - P <sub>MAX</sub> (Wp)	385	390	395	400	405	410
Watt Class Sorting - (W)	0/+5	0/+5	0/+5	0/+5	0/+5	0/+5
Nominal Power Voltage - $V_{MPP}(V)$	41.2	41.5	41.8	42.1	42.4	42.7
Nominal Power Current - I <sub>MPP</sub> (A)	9.35	9.40	9.45	9.51	9.56	9.6
OpenCircuit Voltage - V <sub>oc</sub> (V)	48.5	48.6	48.7	48.8	48.9	49.0
Short Circuit Current - I <sub>sc</sub> (A)	10.18	10.19	10.20	10.25	10.30	10.3
PowerDensity (W/m²)	208	211	214	216	219	222
Panel Efficiency (%)	20.8	21.1	21.4	21.6	21.9	22.2
PowerOutput - P <sub>MAX</sub> (Wp)	293	297	301	305	309	312
Nominal Power Voltage - V <sub>MPP</sub> (V)	38.8	39.1	39.4	39.7	40.0	40.2
Nominal Power Current - I <sub>MPP</sub> (A)	7.55	7.59	7.63	7.68	7.72	7.76
OpenCircuit Voltage - V <sub>oc</sub> (V)	45.7	45.8	45.9	46.0	46.1	46.2
Short Circuit Current - I <sub>sr</sub> (A)	8.16	8.20	8.24	8.28	8.32	8.36

temperature 20°C, windspeed1 m/s). \* Where xx x indicates the nominal power class (P<sub>MAX</sub>) at STC above.

MAXIMUM RATINGS		WARRANTY				DELIVERY INFORMATION	
Operational temperature:	-40+85°C		Standard	I REC	ProTrust	Panels per pallet:	33
Maximum system voltage:	1000 V	Installed by an REC Certified Solar Professional	No	Yes	Yes	Panels per 40 ft GP/high cube container:	792(24pallets)
Maximum test load (front):	+7000 Pa (713kg/m²)°	System Size	All	≤25 kW	25-500 kW	Panels per 13.6 m truck:	924 (28 pallets)
Maximum test load (rear):	-4000 Pa(407 kg/m²)°	, Product Warranty (yrs)	20	25	25	Panels per 53 ft truck:	891 (27 pallets)
Maxseries fuse rating:	25 A	Power Warranty (yrs)	25	25	25		
Maxreverse current:	25 A	Labor Warranty (yrs)	0	25	10	LOW LIGHT BEHAVIOUR	
'See installation m	anual for mounting instructions. d = Test load / 1.5 (safet y factor)	Power in Year1	98%	98%	98%	Typical low irradiance performance of n	nodule at STC:
Design loa	d=Test load/1.5(safety factor)	Annual Degradation	0.25%	0.25%	0.25%	8	
		Power in Year 25	92%	92%	92%	lency	
		See warranty docu	ments for a	details.Cor	ditions apply	iii - [	



Founded in 1996, REC Group is an international pioneering solar energy company dedicated to empowering consumers with clean, affordable solar power. As Solar's Most Trusted, REC is committed to high quality, innovation, and a low carbon footprint in the solar materials and solar panels it manufactures. Headquartered in Norway with operational headquarters in Singapore, REC also has regional hubs in North America, Europe, and Asia-Pacific.

# REC ALPHOC® JRE SERIES SPECIFICATIONS

COMPACT PANEL SIZE









EXPERIENCE



### CERTIFICATIONS

IEC 61215:2016, IEC	61730:2016, UL 61730
IEC 62804	PID
IEC 61701	Salt Mist
IEC 62716	Ammonia Resistance
IS011925-2	Ignitability (Class E)
IEC 62782	Dynamic Mechanical Load
IEC 61215-2:2016	Hailstone (35mm)
IEC 62321	Lead-free acc. to RoHS EU 863/2015
150 14001, 150 900	I, IEC 45001, IEC 62941
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		CE		Lead-Free	take e-way WEEE-complia recycling scheme
TEMP	ERATL	IRE RAT	INGS*		
Nomin	alModul	eOperati	noTemno	erature	44°C (+2°C

noninativodate operating temperature.	++ C (=2 C)
Temperature coefficient of $P_{_{MAX}}\!\!:$	-0.26 %/°C
Temperature coefficient of $V_{oc}$ :	-0.24 %/°C
Temperature coefficient of I <sub>sc</sub>	0.04%/°C
"The tem perature coefficients state	d are linear values

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Data Sheet Enphase Microinverters Region: AMERICAS

## Enphase IQ 7 and IQ 7+ Microinverters

The high-powered smart grid-ready Enphase IQ 7 Micro<sup>™</sup> and Enphase IQ 7+ Micro<sup>™</sup> dramatically simplify the installation process while achieving the highest system efficiency.

Part of the Enphase IQ System, the IQ 7 and IQ 7+ Microinverters integrate with the Enphase IQ Envoy<sup>™</sup>, Enphase IQ Battery<sup>™</sup>, and the Enphase Enlighten<sup>™</sup> monitoring and analysis software.

IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.

### Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

### Productive and Reliable

- Optimized for high powered 60-cell and 72-cell\* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

## Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

\* The IQ 7+ Micro is required to support 72-cell modules.



## Enphase IQ 7 and IQ 7+ Microinverters

INPUT DATA (DC)	IQ7-60-2-US		IQ7PLUS-72-2
Commonly used module pairings <sup>1</sup>	235 W - 350 W	+	235 W - 440 W -
Module compatibility	60-cell PV mod		60-cell and 72-
Maximum input DC voltage	48 V		60 V
Peak power tracking voltage	27 V - 37 V		27 V - 45 V
Operating range	16 V - 48 V		16 V - 60 V
Min/Max start voltage	22 V / 48 V		22 V / 60 V
Max DC short circuit current (module Isc)	15 A		15 A
Overvoltage class DC port	Ш		П
DC port backfeed current	0 A		0 A
PV array configuration		led array; No additio tion requires max 20	
OUTPUT DATA (AC)	IQ 7 Microinv	verter	IQ 7+ Microin
Peak output power	250 VA		295 VA
Maximum continuous output power	240 VA		290 VA
Nominal (L-L) voltage/range <sup>2</sup>	240 V / 211-264 V	208 V / 183-229 V	240 V / 211-264 V
Maximum continuous output current	1.0 A (240 V)	1.15 A (208 V)	1.21 A (240 V)
Nominal frequency	60 Hz		60 Hz
Extended frequency range	47 - 68 Hz		47 - 68 Hz
AC short circuit fault current over 3 cycles	5.8 Arms		5.8 Arms
Maximum units per 20 A (L-L) branch circuit <sup>3</sup>	16 (240 VAC)	13 (208 VAC)	13 (240 VAC)
Overvoltage class AC port	111		111
AC port backfeed current	0 A		0 A
Power factor setting	1.0		1.0
Power factor (adjustable)	0.85 leading	0.85 lagging	0.85 leading (
EFFICIENCY	@240 V	@208 V	@240 V
Peak efficiency	97.6 %	97.6 %	97.5 %
CEC weighted efficiency	97.0 %	97.0 %	97.0 %
MECHANICAL DATA			
Ambient temperature range	-40°C to +65°C	2	
Relative humidity range	4% to 100% (co	ondensing)	
Connector type (IQ7-60-2-US & IQ7PLUS-72-2-US)	MC4 (or Amph	enol H4 UTX with ad	Iditional Q-DCC-5
Dimensions (WxHxD)	212 mm x 175	mm x 30.2 mm (with	iout bracket)
Weight	1.08 kg (2.38 lt	os)	
Cooling	Natural convec	tion - No fans	
Approved for wet locations	Yes		
Pollution degree	PD3		
Enclosure	Class II double	-insulated, corrosion	n resistant polyme
Environmental category / UV exposure rating	NEMA Type 6 /		1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 -
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Communication	Power Line Co	mmunication (PLC)	
Monitoring		ager and MyEnlighte	n monitorina optic
		equire installation of	
Disconnecting means		connectors have be uired by NEC 690.	een evaluated and
Compliance	CAN/CSA-C22 This product is NEC-2017 sect	. 1741-SA) .1741/IEEE1547, FCC .2 NO. 107.1-01 I UL Listed as PV Raj ion 690.12 and C22. ctors, when installed	pid Shut Down Equ 1-2015 Rule 64-21

No enforced DC/AC ratio. See the compatibility calculator at <u>https://enphase.com/en-us/support/module-comp</u>
 Nominal voltage range can be extended beyond nominal if required by the utility.
 Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

### To learn more about Enphase offerings, visit enphase.com

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UL

SAFETY US-CA E341165

	GORA
74 6 110	
-72-2-US	SS
40 W + d 72-cell PV modules	
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CC-5 adapter) Dlymeric enclosure g options. IQ Envoy. d and approved by UL for use as the load-break as B, ICES-0003 Class B, In Equipment and conforms with NEC-2014 and 54-218 Rapid Shutdown of PV Systems, for AC	WILMARIE BOISVERT RESIDENCE
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Data Sheet Enphase Networking

## Enphase **IQ Combiner 3**

(X-IQ-AM1-240-3)

The Enphase IQ Combiner 3<sup>™</sup> with Enphase IQ Envoy™ consolidates interconnection equipment into a single enclosure and streamlines PV and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and Eaton BR series busbar assembly.





### Smart

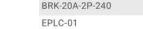
- Includes IQ Envoy for communication and control
- · Flexible networking supports Wi-Fi, Ethernet, or cellular
- Optional AC receptacle available for PLC bridge
- Provides production metering and optional consumption monitoring

## Simple

- · Reduced size from previous combiner
- · Centered mounting brackets support single stud mounting
- · Supports back and side conduit entry
- · Up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)
- 80 A total PV or storage branch circuits

## Reliable

- · Durable NRTL-certified NEMA type 3R enclosure
- Five-year warranty
- UL listed



XA-PLUG-120-3 XA-ENV-PCBA-3

## ELECTRICAL SPECIFICATIONS

Rating	Continuous duty
System voltage	120/240 VAC, 60 Hz
Eaton BR series busbar rating	125 A
Max. continuous current rating (output to grid)	65 A
Max. fuse/circuit rating (output)	90 A
Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR series Distributed Ger
Max. continuous current rating (input from PV)	64 A
Max. total branch circuit breaker rating (input)	80A of distributed generation / 90A with IQ Envoy
Production Metering CT	200 A solid core pre-installed and wired to IQ Env

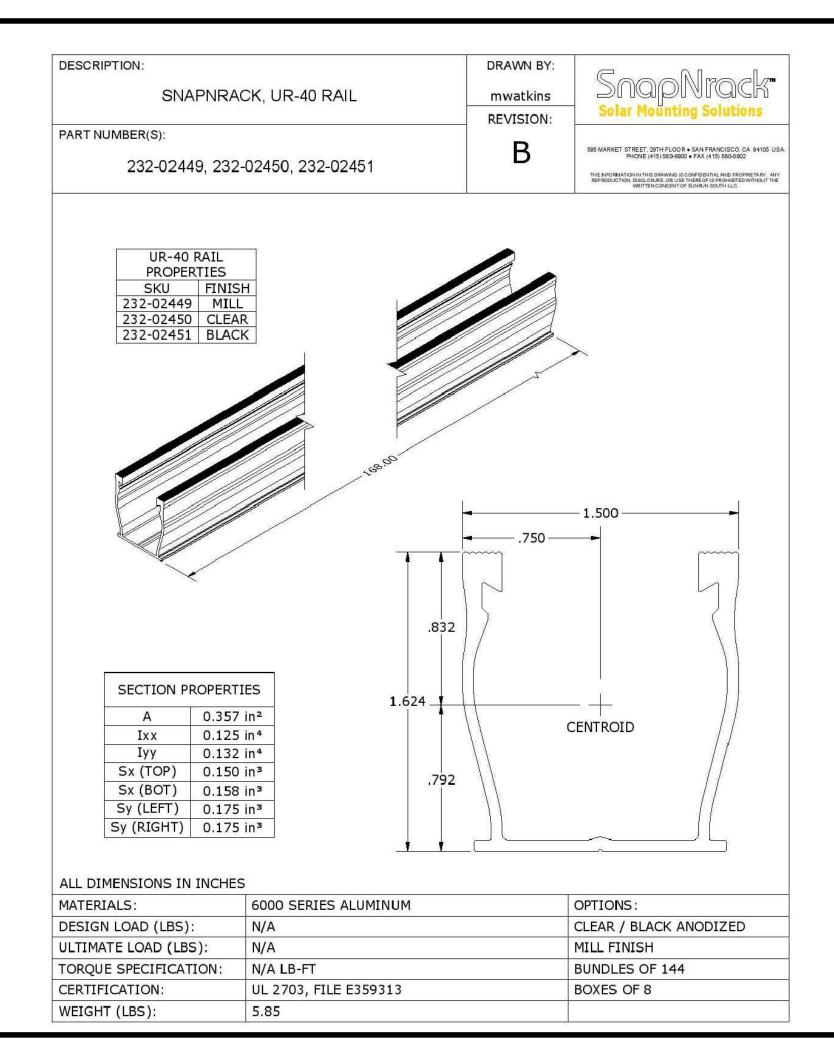
	<ul> <li>60 A breaker branch input: 4 to 1/0 AWG cop</li> <li>Main lug combined output: 10 to 2/0 AWG co</li> <li>Neutral and ground: 14 to 1/0 copper conduct</li> <li>Always follow local code requirements for conduct</li> </ul>
Altitude	To 2000 meters (6,560 feet)
INTERNET CONNECTION OPTION	IS
Integrated Wi-Fi	802.11b/g/n
Ethernet	Optional, 802.3, Cat5E (or Cat 6) UTP Ethernet of
Cellular	Optional, CELLMODEM-01 (3G) or CELLMODEN (not included)
COMPLIANCE	
Compliance, Combiner	UL 1741 CAN/CSA C22.2 No. 107.1 47 CFR, Part 15, Class B, ICES 003 Production metering: ANSI C12.20 accuracy cla
Compliance, IQ Envoy	UL 60601-1/CANCSA 22.2 No. 61010-1

## To learn more about Enphase offerings, visit enphase.com

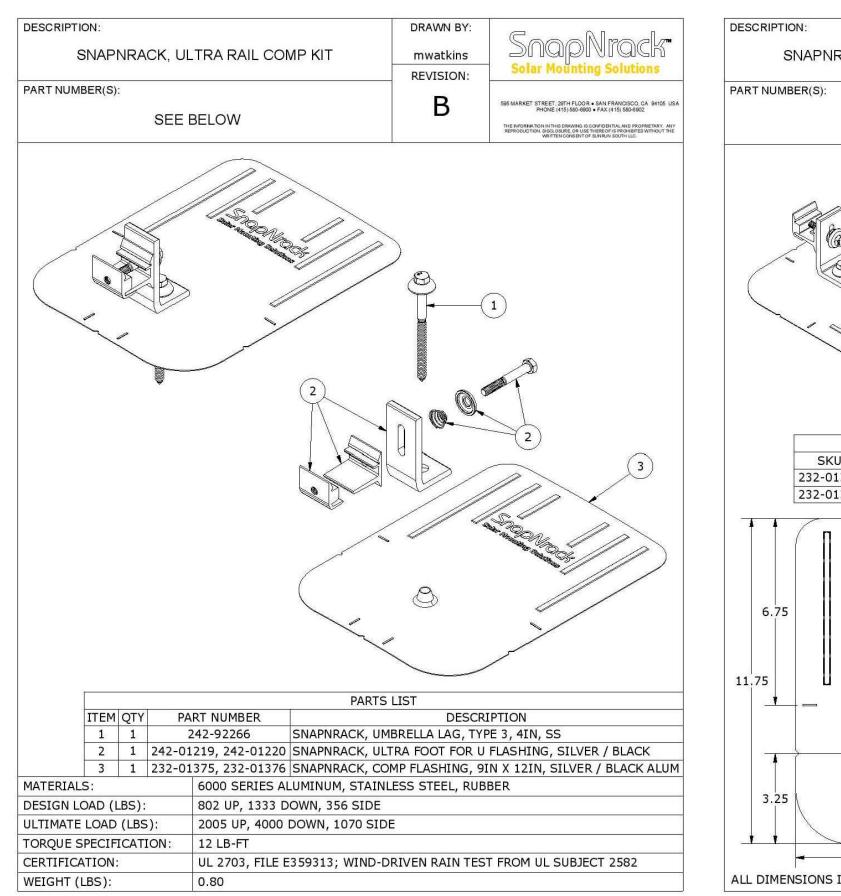


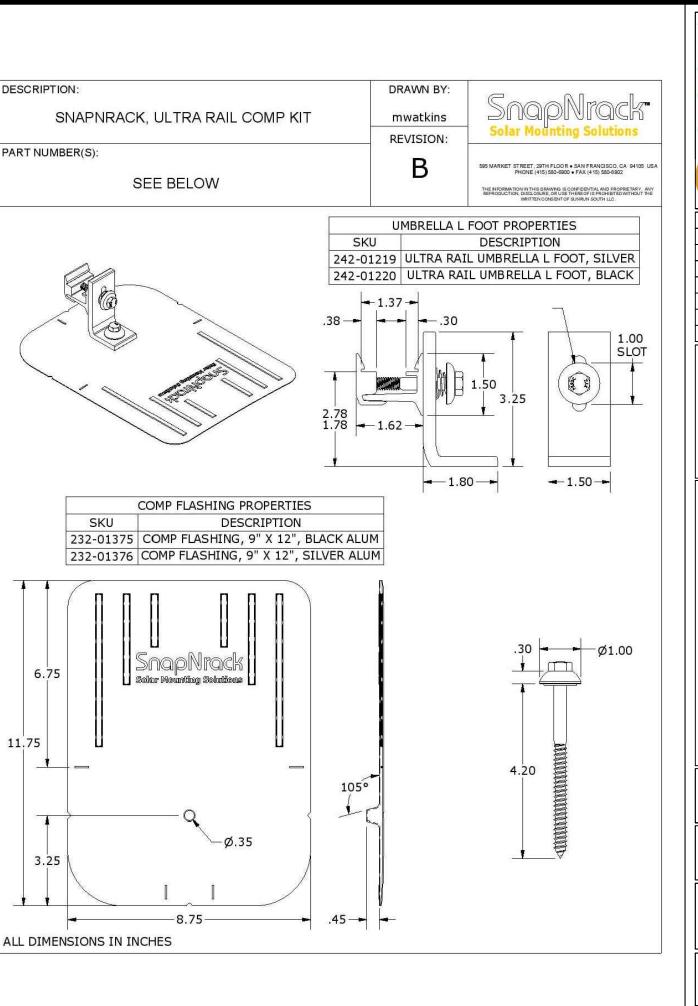


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			$\mathbf{A}$	E A 2901
Enphase IQ Combiner 3				LLC STE VA 2
MODEL NUMBER			$\overline{}$	AR LE,
IQ Combiner 3 X-IQ-AM1-240-3	IQ Combiner 3 with Enphase IQ Envoy <sup>™</sup> printed circuit board for integrated revenue grade PV		U.	SVIL
	production metering (ANSI C12.20 +/- 0.5%) and optional* consumption monitoring (+/- 2.5%).	S	S	ORA
ACCESSORIES and REPLACEMENT PARTS (no	ot included, order separately)			SIG(
Enphase Mobile Connect™ CELLMODEM-03 (4G / 12-year data plan) CELLMODEM-01 (3G / 5-year data plan) CELLMODEM-M1 (4G based LTE-M / 5-year data plan)	Plug and play industrial grade cellular modem with data plan for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.)			SIGORA SOLAR LLC 490 WESTFIELD RD STE A CHARLOTTESVILLE, VA 22901
Consumption Monitoring* CT CT-200-SPLIT	Split core current transformers enable whole home consumption metering (+/- 2.5%).		REVISI	ONS
Circuit Breakers	Supports Eaton BR210, BR215, BR220, BR230, BR240, BR250, and BR260 circuit breakers.	DESC	RIPTION	DATE REV
BRK-10A-2-240 BRK-15A-2-240 BRK-20A-2P-240	Circuit breaker, 2 pole, 10A, Eaton BR210 Circuit breaker, 2 pole, 15A, Eaton BR215 Circuit breaker, 2 pole, 20A, Eaton BR220	INI	TIAL	03/23/2022
EPLC-01	Power line carrier (communication bridge pair), quantity 2			
XA-PLUG-120-3	Accessory receptacle for Power Line Carrier in IQ Combiner 3 (required for EPLC-01)			
XA-ENV-PCBA-3	Replacement IQ Envoy printed circuit board (PCB) for Combiner 3			
ELECTRICAL SPECIFICATIONS				
Rating	Continuous duty			
System voltage	120/240 VAC, 60 Hz			
Eaton BR series busbar rating	125 A			
Max. continuous current rating (output to grid)	65 A			
Max. fuse/circuit rating (output)	90 A			
Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR series Distributed Generation (DG) breakers only (not included)			
Max. continuous current rating (input from PV)	64 A		DATE:03/2	23/2022
Max. total branch circuit breaker rating (input)	80A of distributed generation / 90A with IQ Envoy breaker included			& ADDRESS
Production Metering CT	200 A solid core pre-installed and wired to IQ Envoy	PROJ		ADDRESS
Dimensions (WxHxD)	49.5 x 37.5 x 16.8 cm (19.5" x 14.75" x 6.63"). Height is 21.06" (53.5 cm with mounting brackets).	н		
Weight	7.5 kg (16.5 lbs)			M
Ambient temperature range	-40° C to +46° C (-40° to 115° F)	U		CT, 832
Cooling Enclosure environmental rating	Natural convection, plus heat shield Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction	0 1	Щ	
Wire sizes	<ul> <li>20 A to 50 A breaker inputs: 14 to 4 AWG copper conductors</li> <li>60 A breaker branch input: 4 to 1/0 AWG copper conductors</li> <li>Main lug combined output: 10 to 2/0 AWG copper conductors</li> <li>Neutral and ground: 14 to 1/0 copper conductors</li> <li>Always follow local code requirements for conductor sizing.</li> </ul>	WILMARIE BOI	$\frown$	58 ANCIENT OAk BUNNLEVEL, NC 2
Altitude	To 2000 meters (6,560 feet)		КŬ	РЦ (
INTERNET CONNECTION OPTIONS			$\mathcal{L}$	ΕĂ
Integrated Wi-Fi	802.11b/g/n			UN 28
Ethernet	Optional, 802.3, Cat5E (or Cat 6) UTP Ethernet cable (not included)	2		m
Cellular	Optional, CELLMODEM-01 (3G) or CELLMODEM-03 (4G) or CELLMODEM-M1 (4G based LTE-M) (not included)			
COMPLIANCE Compliance, Combiner	UL 1741			
Compliance, Compliner	CAN/CSA C22.2 No. 107.1 47 CFR, Part 15, Class B, ICES 003 Production metering: ANSI C12.20 accuracy class 0.5 (PV production)		DRAWN ESI	
Compliance, IQ Envoy	UL 60601-1/CANCSA 22.2 No. 61010-1		SHEET I	
* Consumption monitoring is required for Enphase To learn more about Enphase offerings, visi	12000-000 # 2010-000 270-000		COMB	
© 2018 Enphase Energy. All rights reserved. All trademarks or	brands in this document are registered by their respective owner.		SHEET	SIZE
2018-09-13			ANS	IВ
			11" X	17"
			SHEET NU	JMBER
			PV-1	U



	ES	DATE:03 PROJECT NAW RESIDENCE		DESCRIPTION	SOLAR
AIL ICATIO		58 ANCIENT OAK CT, 258 ANCIENT OAK CT,		DATE 03/23/2022	SIGORA SOLAR LLC 490 WESTFIELD RD STE A
N		IC 28323		REV	CHARLOTTESVILLE, VA 22901





SIGORA SOLAR	SIGORA SOLAR LLC 490 WESTFIELD RD STE A CHARLOTTESVILLE, VA 22901
REVIS	SIONS
DESCRIPTION	DATE REV
INITIAL	03/23/2022
WILMARIE BOISVERT RESIDENCE	58 ANCIENT OAK CT, BUNNLEVEL, NC 28323 BANNLEVEL, NC 28323
ES	
ATTAC	HMENT ICATION
ANS	SI B ( 17"
SHEET N PV-	



## **Basic Features**

- Stamped Seamless Construction
- 18 Gauge Galvanized Steel
- Powder Coated Surfaces
- Flashes into the roof deck
- 3 Roof deck knockouts .5", .75", 1"
- 5 Centering dimples for entry/exit fittings or conduit
- 2 Position Ground lug installed
- Mounting Hardware Included



SolaDeck Model SD 0783



## SolaDeck UL50 Type 3R Enclosures

Available Models: Model SD 0783 - (3" fixed Din Rail) Model SD 0786 - (6" slotted Din Rail)



## SolaDeck UL 1741 Combiner/Enclosures

Models SD 0783-41 and SD 0786-41 are labeled and ETL listed UL STD 1741 according to the UL STD 1741 for photovoltaic combiner enclosures. Max Rated - 600VDC, 120AMPS

Model SD 0783-41 3" Fixed Din Rail fastened using Norlock System \*\*Typical System Configuration

- 4- Din Rail Mounted Fuse Holders 600VDC 30 AMP
- 1- Power Distribution Block 600VDC 175AMP
- 1- Bus Bar with UL lug

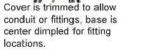
Model SD 0786-41 6" Slotted Din Rail fastened using steel studs

- \*\*Typical System Configuration
- 4- Din Rail Mounted Fuse Holders 600VDC 30 AMP
- 4- Din Rail Mounted Terminal Blocks Bus Bars with UL lug

\*\*Fuse holders and terminal blocks added in the field must be UL listed or recognized and meet 600 VDC 30 AMP 110C for fuse holders, 600V 50 AMP 90C for rail mounted terminal blocks and 600 V 175 AMP 90C for Power Distribution Blocks. Use Copper Wire Conductors.



locations.





Model SD 0783-41, wired with Din Rail mounted fuse holders, bus bar and power distribution block.



Model SD 0786-41, wired with Din Rail mounted fuse holders. terminal blocks and bus bars.

RSTC Enterprises, Inc • 2219 Heimstead Road • Eau Cliare, WI 54703 For product information call 1(866) 367-7782

DRAWN ESF SHEET N SOLAD	MILMARIE BOISVERT RESIDENCE	DATE:03/2	INITIAL	REVISIO	SOLAR SOLAR
		3/2022	03/23/2022	DNS DATE	SIGORA SOLAR LLC 490 WESTFIELD RD STE A
	NC 28323			REV	CHARLOTTESVILLE, VA 22901