SH	IEET CATALOG	BRYCE KRYTUSA - 7.920kW DC, 6.000kW AC
INDEX NO.	DESCRIPTION	SITE PLAN LAYOUT
T-1	COVER PAGE	
M-1	MOUNTING DETAIL	
M-2	STRUCTURAL DETAIL	82'-7"
E-1	SINGLE LINE DIAGRAM	
E-2	THREE LINE DIAGRAM	
E-3	STRING WIRING DIAGRAM	
PL-1	WARNING PLACARDS	
PL-2	SAFETY PLANS	
SS	SPEC SHEET(S)	
<u><u>s</u>c</u>	COPE OF WORK	
SYSTEM SIZE: 7920W DC, 6000 MODULES: (24)TITAN SOLA		155'-8" — CONDUIT RUI
(240V) OPTIMIZER:	TECHNOLOGIES SE6000H-US E P340 POWER OPTIMIZER	(E) MAIN SERVIC
APP	LICABLE CODES	
• ELECTRIC COD • FIRE CODE:IFC • BUILDING COD • RESIDENTIAL (C 2018 DE:IBC 2018	254'-5" (N) UTILITY METER (EXTERI
GE	ENERAL NOTES	(N) PV UTILITY DISCONNE (N) PV INVERTER (EXTE
CONFORM TO TH 2.INVERTERS A CONFORM TO TH 3.DRAWINGS A GENERAL ARRAN THE ACTUAL SIT 4.WORKING CL ELECTRICAL EQ ACCORDANCE W 5.ALL GROUND SERVICE GROU SERVICE EQUIPH 6.ALL CONDUC STANDARD COP 7.WHEN REQUIF FOR INSPECTIO REGULATIONS. 8.THE SYSTEM N THE CONTRACT LOCAL JURISDIC 9.ROOF ACCESS AREAS THAT D OF GROUND LA WINDOWS OR I POINTS OF BUIL ACCESS POINT	RE LISTED UNDER UL 1741 AND HE STANDARDS. ARE DIAGRAMMATIC, INDICATING NGEMENT OF THE PV SYSTEM AND TE CONDITION MIGHT VARY. EARANCES AROUND THE NEW PV UIPMENT WILL BE MAINTAINED IN VITH NEC 110.26. WIRING CONNECTED TO THE MAIN NDING IN MAIN SERVICE PANEL/ MENT. CTORS SHALL BE 600V, 75°C PER UNLESS OTHERWISE NOTED. RED, A LADDER SHALL BE IN PLACE ON IN COMPLIANCE WITH OSHA WILL NOT BE INTERCONNECTED BY FOR UNTIL APPROVAL FROM THE CTION AND/OR THE UTILITY. S POINT SHALL BE LOCATED IN O NOT REQUIRE THE PLACEMENT DDERS OVER OPENINGS SUCH AS DOORS, AND LOCATED AT STRONG LDING CONSTRUCTION WHERE THE T DOES NOT CONFLICT WITH	PROPERTY LINE
WIRES OR SIGN 10.PV ARRAY	Y COMBINER/JUNCTION BOX NSITION FROM ARRAY WIRING TO	SCALE:1/32" = 1'-0"



INSTALLATION NOTES

1.STRUCTURAL ROOF MEMBER LOCATIONS ARE ESTIMATED AND SHOULD BE LOCATED AND VERIFIED BY THE CONTRACTOR WHEN LAG BOLT PENETRATION OR MECHANICAL ATTACHMENT TO THE STRUCTURE IS REQUIRED.

2.ROOFTOP PENETRATIONS FOR SOLAR RACKING WILL BE COMPLETED AND SEALED WITH APPROVED SEALANT PER CODE BY A LICENSED CONTRACTOR. 3.LAGS MUST HAVE A MINIMUM 2.5" THREAD EMBEDMENT INTO THE STRUCTURAL MEMBER.

4.ALL PV RACKING ATTACHMENTS SHALL BE STAGGERED BY ROW BETWEEN THE ROOF FRAMING

MEMBERS AS NECESSARY. 5.ROOF MOUNTED STANDARD RAIL REQUIRES ONE THERMAL EXPANSION GAP FOR EVERY RUN OF RAIL

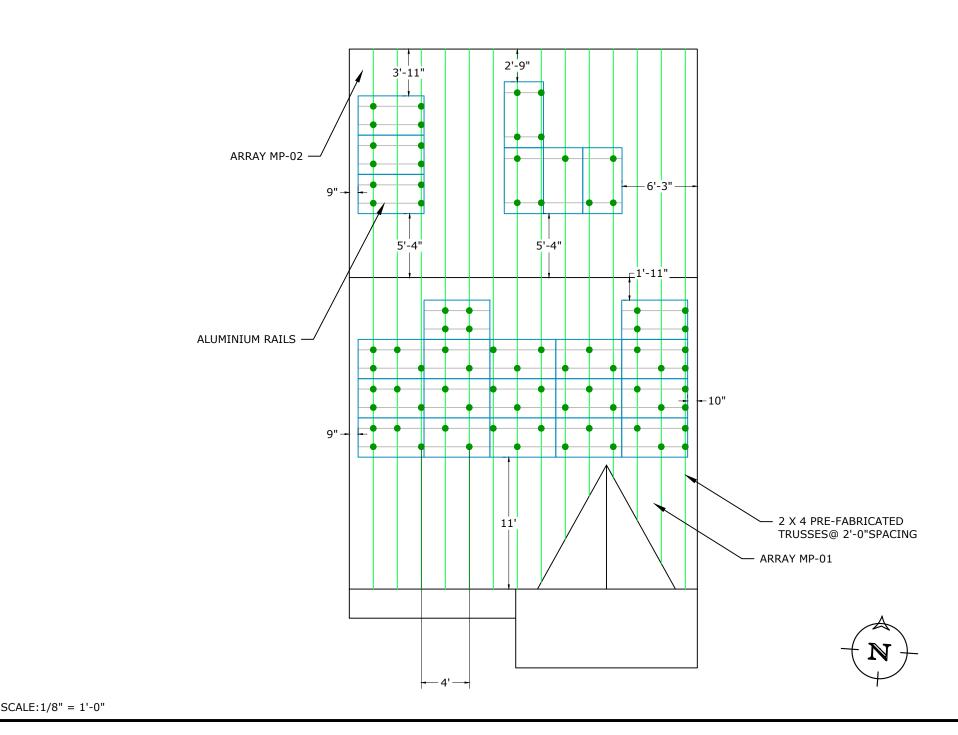
GREATER THAN 40'. 6.ALL CONDUCTORS AND CONDUITS ON THE ROOF SHALL BE MINIMUM 2.5" ABOVE THE ROOF SURFACE (INCLUDING CABLES UNDERNEATH MODULES AND RACKING).

7.THE PV INSTALLATION SHALL NOT OBSTRUCT ANY PLUMBING, MECHANICAL OR BUILDING ROOF VENTS.

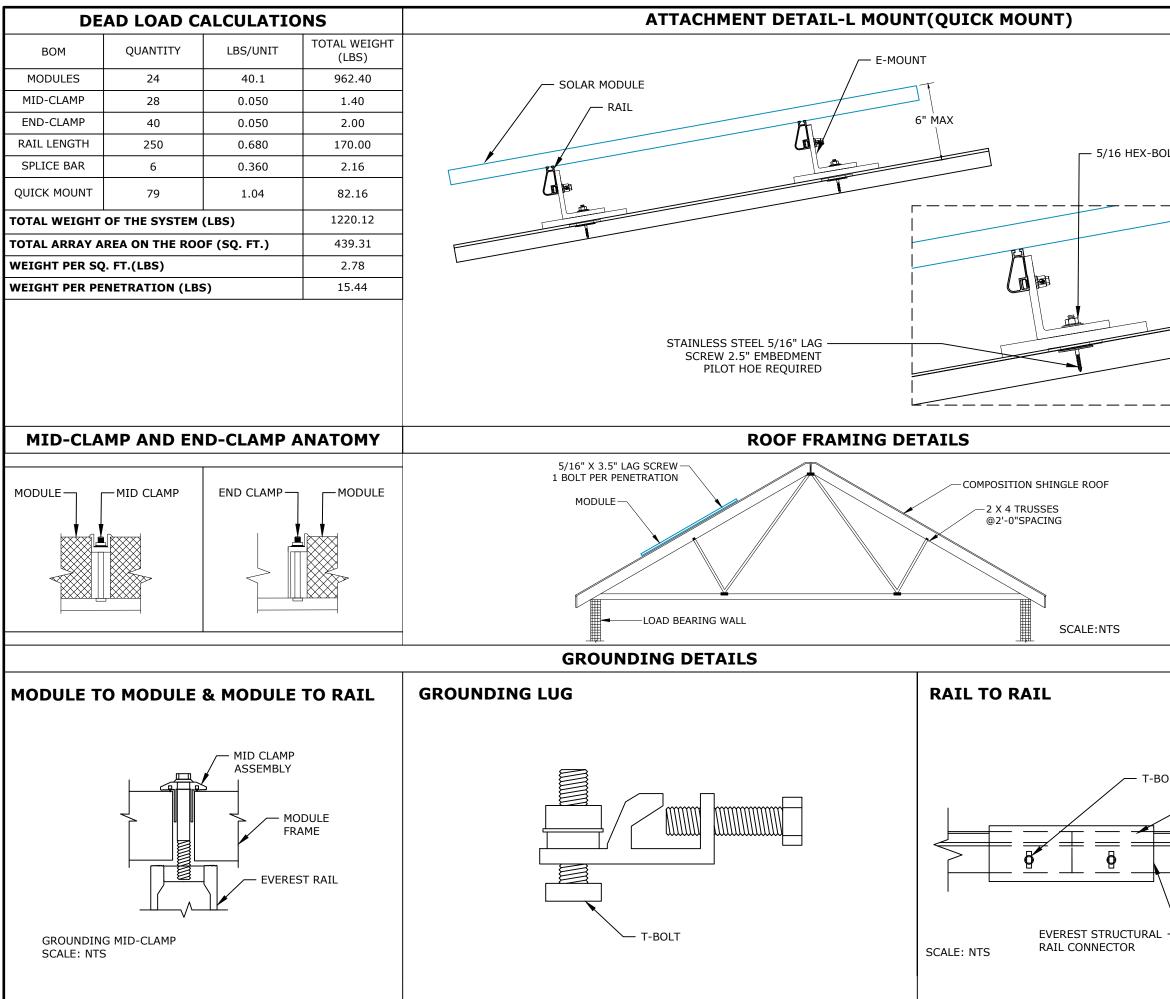
CTER THE REAL MUNIC OFFER 447 MOULAND CNOWLLOAD AF DOE

	SITE INFORMATION - WIND SPEED: 117 MPH AND SNOW LOAD: 15 PSF											
SR. NO	AZIMUTH	PITCH	NO. OF MODULES	ARRAY AREA (SQ. FT.)	ROOF TYPE	ATTACHMENT	ROOF EXPOSURE	FRAME TYPE	FRAME SIZE	FRAME SPACING	MAX RAIL SPAN	OVER HANG
MP-01	176°	18°	17	311.2	COMPOSITION SHINGLE	QUICK MOUNT	ATTIC	PRE-FABRICATED TRUSSES	2 X 4	2'-0"	4'-0"	2'-0"
MP-02	356°	18°	7	128.1	COMPOSITION SHINGLE	QUICK MOUNT	ATTIC	PRE-FABRICATED TRUSSES	2 X 4	2'-0"	4'-0"	2'-0"

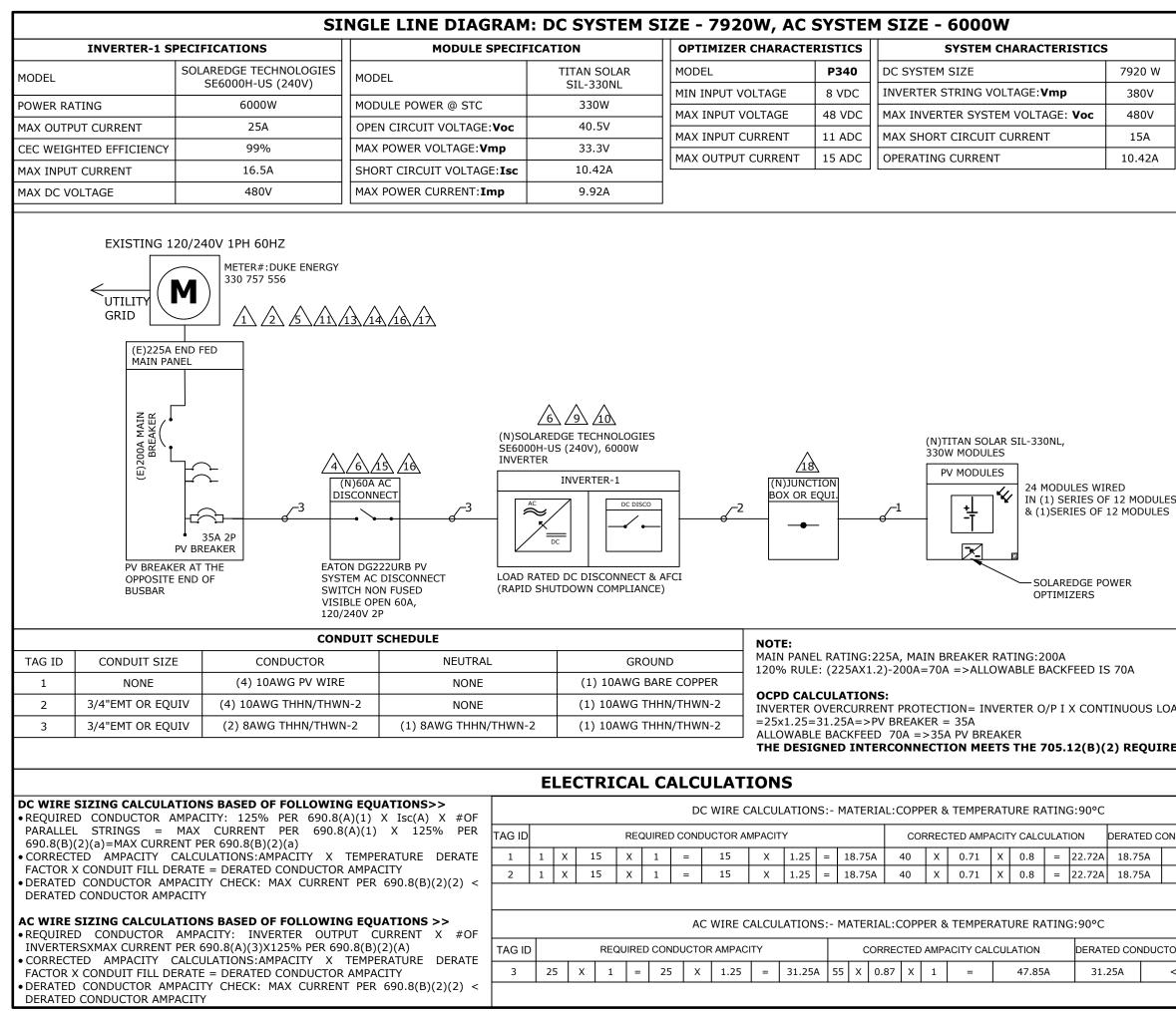
NOTE: PENETRATIONS ARE STAGGERED



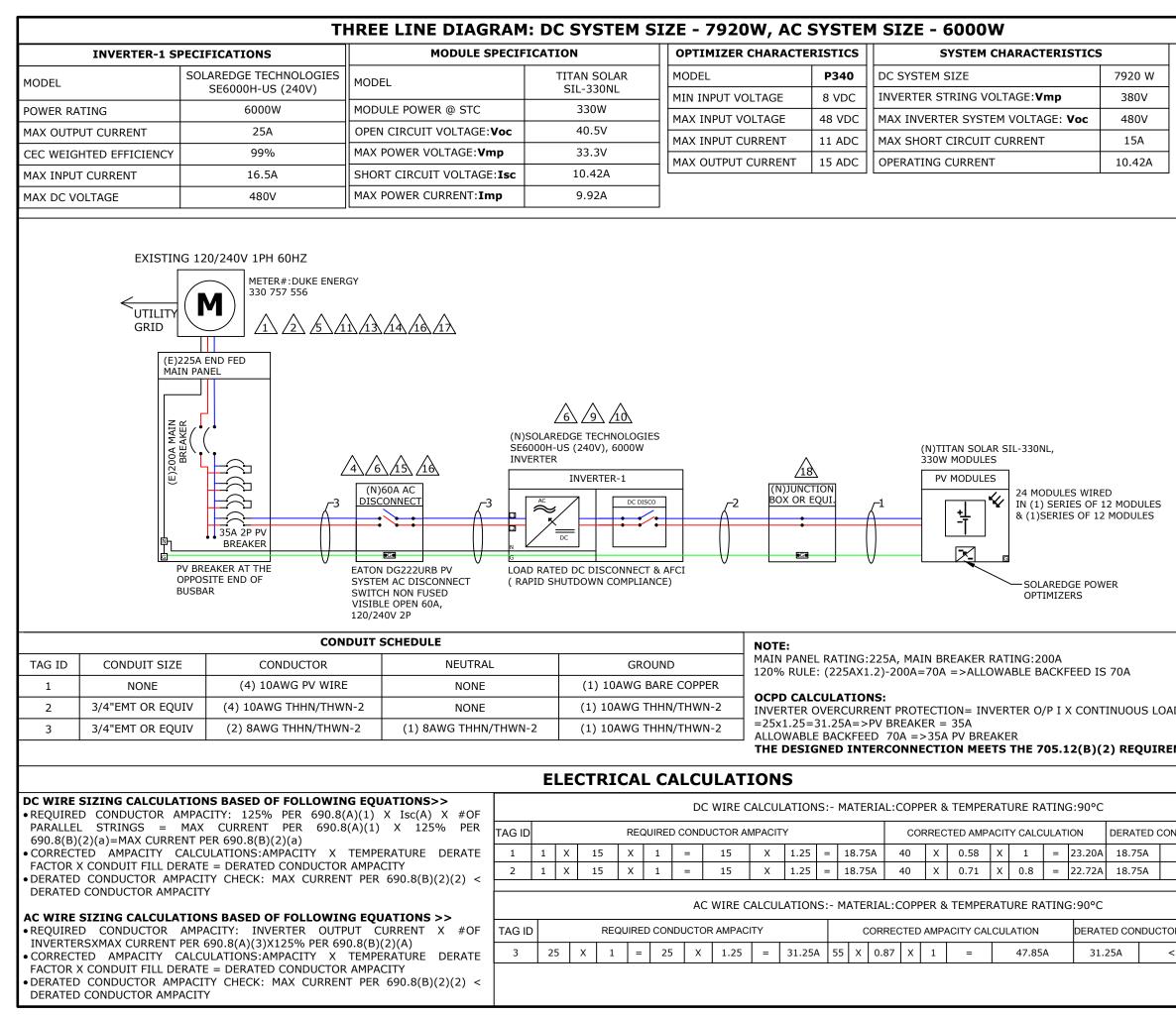




	MODULES DATA			
	TITAN SOLAR SIL-330NL			
	MODULE DIMS	MODULE DIMS 66.9"x39.4"x1		
	LAG SCREWS	5/16"x3.5": EMBEDM		
	UPLIFT C	ALCULAT	IONS	
LT	UPLIFT	13179.3	LBS	
	PULL OUT STRENGTH	48585	LBS	
	POINT LOADING	12	LBS	
			N W E R	
		25W, BASELINE		
	ADDRESS: 52	25W, BASELINE 10 INFORM	E RD	
	ADDRESS: 55 MESA AZ,852 CUSTOMER NAME:BRYCE KRY ADDRESS:524 MI FUQUAY-VARINA,	25W, BASELINE 10 INFORM TUSA NERAL SPRING NC 27526	TRD	
	ADDRESS: 52 MESA AZ,852 CUSTOMER NAME:BRYCE KRY ADDRESS:524 MI	25W, BASELINE 10 INFORM TUSA NERAL SPRING NC 27526	TRD	
	ADDRESS: 55 MESA AZ,852 CUSTOMER NAME:BRYCE KRY ADDRESS:524 MI FUQUAY-VARINA,	25W, BASELINE 10 INFORM TUSA NERAL SPRING NC 27526 21436	TRD	
	ADDRESS: 52 MESA AZ,852 CUSTOMER NAME:BRYCE KRY ADDRESS:524 MI FUQUAY-VARINA, 35.496310, -78.8	25W, BASELINE 10 INFORM TUSA NERAL SPRING NC 27526 21436 HARNETT	TRD	
	ADDRESS: 52 MESA AZ,852 CUSTOMER NAME:BRYCE KRY ADDRESS:524 MI FUQUAY-VARINA, 35.496310, -78.8 AHJ:NC-COUNTY H	25W, BASELINE 10 INFORM TUSA NERAL SPRING NC 27526 21436 HARNETT ERGY	TRD	
DLT SCREW	ADDRESS: 52 MESA AZ,852 CUSTOMER NAME:BRYCE KRY ADDRESS:524 MI FUQUAY-VARINA, 35.496310, -78.8 AHJ:NC-COUNTY H UTILITY:DUKE EN PRN NUMBER:TPS	25W, BASELINE 10 INFORM TUSA NERAL SPRING NC 27526 21436 HARNETT ERGY	E I	
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DLT SCREW	ADDRESS: 52 MESA AZ,852 CUSTOMER NAME:BRYCE KRY ADDRESS:524 MI FUQUAY-VARINA, 35.496310, -78.8 AHJ:NC-COUNTY H UTILITY:DUKE EN PRN NUMBER:TPS	25W, BASELINE 10 INFORM TUSA NERAL SPRING NC 27526 21436 HARNETT ERGY -013801 UMIN cause quality m CARL DET	E i patters	
	ADDRESS: 52 MESA AZ,852 CUSTOMER NAME:BRYCE KRY ADDRESS:524 MI FUQUAY-VARINA, 35.496310, -78.8 AHJ:NC-COUNTY H UTILITY:DUKE EN PRN NUMBER:TPS PRN NUMBER:TPS STRUCT DESIGNER /CHECK	25W, BASELINE 10 INFORM TUSA NERAL SPRING NC 27526 21436 HARNETT ERGY -013801 UNAL DET KED PAPER SIZ	E i hatters	



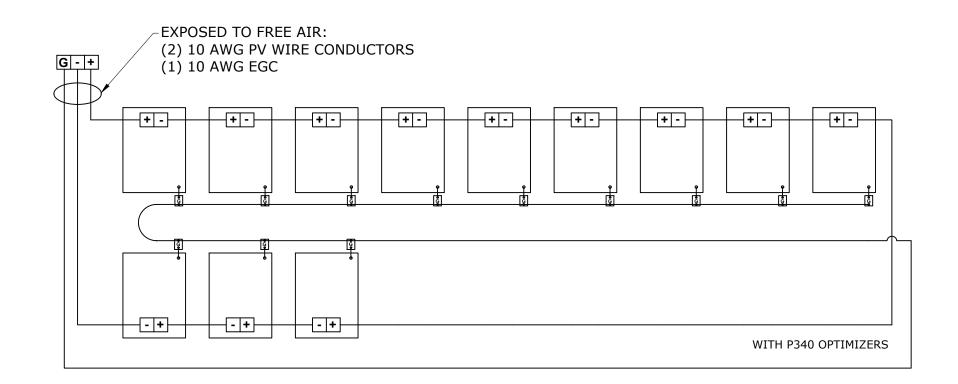
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	SHALL BE LISTE RESISTANT PER NEC 2.CONDUCTORS E LOCATIONS SHALL B IN WET LOCATIONS F 3.MAXIMUM DC/AC V BE NO MORE THAN 29 4.ALL CONDUCTORS UNLESS OTHERWISE 5.BREAKER/FUSE SI NEC 240.6 CODE SEC 6.AC GROUND CONDUCTOR SIZED F 7.AMBIENT TEMPER FACTOR IS BASED ON 8.AMBIENT TEMPER FACTOR IS BASED ON 9.MAX. SYSTEM VOL PER NEC 690.7.	XPOSED TO WET SE SUITABLE FOR USE VER NEC 310.10(C). VOLTAGE DROP SHALL %. SHALL BE IN CONDUIT NOTED. ZES CONFORMS TO TION. ING ELECTRODE VER NEC 250.66. ATURE CORRECTION N NEC 690.31(C). ATURE ADJUSTMENT NEC 310.15(B)(2). TAGE CORRECTION IS		
	10.CONDUCTORS AR AMPACITY TABLE NEC	RE SIZED PER WIRE C 310.15(B)(16).		
5	ADDRESS: 525W MESA AZ,85210			
	CUSTOMER INFORMATION			
	NAME:BRYCE KRYTUSA			
	ADDRESS:524 MINER FUQUAY-VARINA, NC	,		
	35.496310, -78.821436			
	AHJ:NC-COUNTY HAR	NETT		
AD(1.25)	UTILITY:DUKE ENERG	Y		
EMENTS.	PRN NUMBER:TPS-013801			
	, 🧶 ILLU	MINE i		
IDUCTOR AMPACITY CHECK		se quality matters		
< 22.72A				
< 22.72A	SINGLE LIN	E DIAGRAM		
	DESIGNER /CHECKED BY: RB/AJ	PAPER SIZE:17"X11"		
OR AMPACITY CHECK	SCALE:AS NOTED	REV:A		
< 47.85A	DATE:9/22/2020	E-1		



1.CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT PER NEC 310.10(D). 2.CONDUCTORS EXPOSED TO WET LOCATIONS SHALL BE SUITABLE FOR USE IN WET LOCATIONS SHALL BE IN CONDUIT 9.A.ALL CONDUCTORS SHALL BE IN CONDUIT 9.BREAKER/FUSE SIZES CONFORMS TO 9.BREAKER/FUSE SIZES CONFORMENTION 9.AX. SYSTEM VOLTAGE CORRECTION IS 9.MAX. SYSTEM VOLTAGE CORRECTION 10.CONDUCTORS ARE SIZED PER WIRE ADDRESS: 525W, BASELINE RD MESA AZ,85210 0.CUSTOMER INFORMATION NAME:BRYCE KRYTUSA			ELECTRICAL NOTES			
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SDLAR POWER ADDRESS: 525W, BASELINE RD MESA AZ,85210 CUSTOMER INFORMATION NAME: BRYCE KRYTUSA ADDRESS: 524 MINERAL SPRINGS LANE, FUQUAY-VARINA, NC 27526 35.496310, -78.821436 AHJ:NC-COUNTY HARNETT UTILITY: DUKE ENERGY PRN NUMBER: TPS-013801 NDUCTOR AMPACITY CHECK < 23.20A < 22.72A THREE LINE DIAGRAM DESIGNER /CHECKED 47.85A			SHALL BE LIST RESISTANT PER NEC 2.CONDUCTORS E LOCATIONS SHALL E IN WET LOCATIONS F 3.MAXIMUM DC/AC V BE NO MORE THAN 2' 4.ALL CONDUCTORS UNLESS OTHERWISE 5.BREAKER/FUSE SI NEC 240.6 CODE SEC 6.AC GROUND CONDUCTOR SIZED F 7.AMBIENT TEMPER FACTOR IS BASED ON 8.AMBIENT TEMPER FACTOR IS BASED ON 9.MAX. SYSTEM VOL PER NEC 690.7. 10.CONDUCTORS AF	ED AS SUNLIGHT 310.10(D). XPOSED TO WET E SUITABLE FOR USE PER NEC 310.10(C). /OLTAGE DROP SHALL %. SHALL BE IN CONDUIT NOTED. ZES CONFORMS TO TION. ING ELECTRODE PER NEC 250.66. ATURE CORRECTION NEC 690.31(C). ATURE ADJUSTMENT NEC 310.15(B)(2). TAGE CORRECTION IS RE SIZED PER WIRE		
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Because quality matters <	MENTS.		PRN NUMBER: TPS-01	3801		
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DATE:9/22/2020 E-2		47.85A	SCALE:AS NOTED	REV:A		
			DATE:9/22/2020	E-2		

STRING WIRING DIAGRAM

2 STRINGS OF 12 MODULES





ADDRESS: 525W, BASELINE RD MESA AZ,85210

CUSTOMER INFORMATION

NAME: BRYCE KRYTUSA

ADDRESS:524 MINERAL SPRINGS LANE, FUQUAY-VARINA, NC 27526

35.496310, -78.821436

AHJ:NC-COUNTY HARNETT

UTILITY: DUKE ENERGY

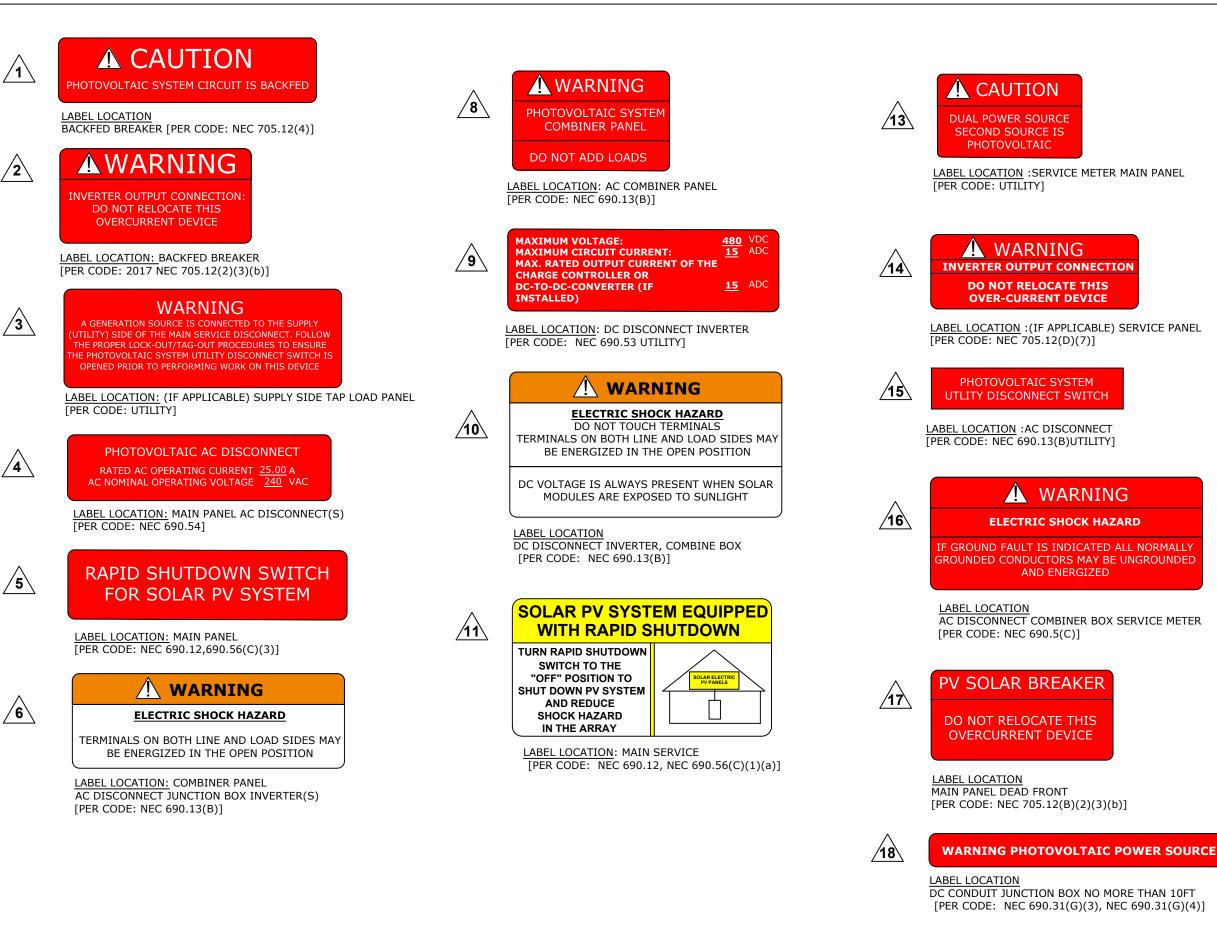
PRN NUMBER: TPS-013801



STRING WIRING DIAGRAM

DESIGNER /CHECKED BY: RB/AJ	PAPER SIZE:17"X11"
SCALE:AS NOTED	REV:A
DATE:9/22/2020	E-3

WARNING PLACARD



LABELS ARE REFLECTIVE AND WEATHER RESISTANT.LABEL REQUIRES CAPITALIZED LETTER WITH A MINIMUM HEIGHT OF 3/A INCH, WHITE LETTERS ON RED BACKGROUND LABELS SHALL BE PLACED ON INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES EVERY 10 FEET, WITHIN 1 FOOT OF TURNS OR BENDS AND WITHIN 1 FOOT ABOVE AND BELOW PENETRATIONS OF ROOF/CEILING ASSEMBLIES, WALLS OR BARRIER







ADDRESS: 525W, BASELINE RD MESA AZ,85210

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35.496310, -78.821436

AHJ:NC-COUNTY HARNETT

UTILITY: DUKE ENERGY

PRN NUMBER: TPS-013801



WARNING PLACARDS

DESIGNER /CHECKED BY: RB/AJ	PAPER SIZE:17"X11"
SCALE:AS NOTED	REV:A
DATE:9/22/2020	PL-1

SAFETY PLANS

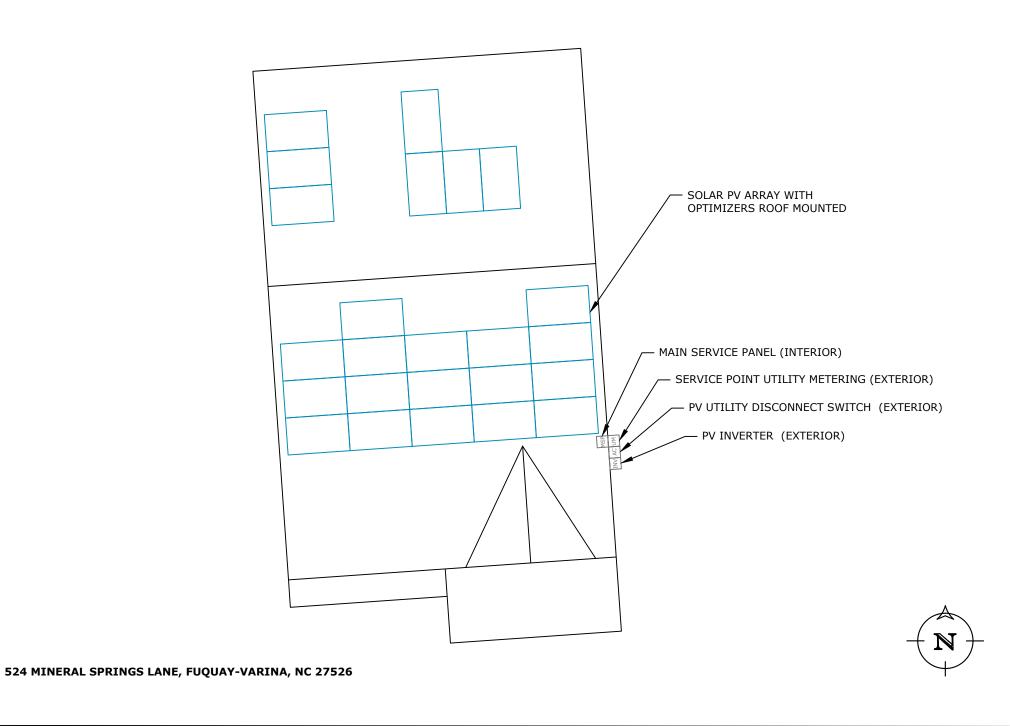
SAFETY PLANS

NOTES:

- INSTALLERS SHALL DRAW IN DESIGNATED SAFETY AREA AROUND HOME.
 INSTALLERS SHALL UPDATE NAME ADDRESS AND PHONE NUMBER OF NEAREST.
- 3. URGENT CARE FACILITY RELATIVE TO THE SITE BEFORE STARTING WORK.

LOCATION OF NEAREST URGENT CARE FACILITY

NAME: ADDRESS: PHONE NUMBER:





ADDRESS: 525W, BASELINE RD MESA AZ,85210

CUSTOMER INFORMATION

NAME: BRYCE KRYTUSA

ADDRESS:524 MINERAL SPRINGS LANE, FUQUAY-VARINA, NC 27526

35.496310, -78.821436

AHJ:NC-COUNTY HARNETT

UTILITY: DUKE ENERGY

PRN NUMBER: TPS-013801



SAFETY PLANS

DESIGNER /CHECKED BY: RB/AJ	PAPER SIZE:17"X11"
SCALE:AS NOTED	REV:A
DATE:9/22/2020	PL-2



60 Cell Monocrystalline PV Module



CHUBB, to Silfab Solar In



superior manufacturing processes and innovations

such as Bifacial and Back Contact technologies, to ensure our partners, such as Titan Solar have the latest in solar innovation.

INDUSTRY LEADING WARRANTY

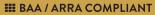
workmanship and 30-year performance warranty.

MAXIMUM ENERGY OUTPUT Leveraging over 35+ years of worldwide experience in the solar industry, Silfab is dedicated to

The Titan Solar Panel is manufactured by Silfab Solar and includes an industry leading 25-year product

NORTH AMERICAN QUALITY

Silfab is the leading automated solar module manufacturer in North America. Utilizing premium quality materials and strict quality control management to deliver the highest efficiency, premium quality PV modules 100% made in North America.



Panels are designed and manufactured to meet Buy American Act Compliance. The US State Department, US Military and FAA have all utilized Silfab panels in their solar installations.

III LIGHT AND DURABLE

Engineered to accommodate high wind load conditions for test loads validated up to 4000Pa uplift. The light-weight frame is exclusively designed for wide-ranging racking compatibility and durability.

III QUALITY MATTERS

Total automation ensures strict quality controls during the entire manufacturing process at ISO certified facilities.

III DOMESTIC PRODUCTION

Silfab Solar manufactures PV modules in two automated locations within North America. Our 500+ North American team is ready to help Titan Solar win the hearts win the hearts and minds of customers, providing customer service and product delivery that is direct, efficient and local.

III AESTHETICALLY PLEASING

All black sleek design, ideal for high-profile residential or commercial applications.

III PID RESISTANT

PID Resistant due to advanced cell technology and material selection. In accordance to IEC 62804-1.

Electrical Specifications		SIL-330) NL mono PERC			
Test Conditions		STC	NOCT			
Module Power (Pmax)	Wp	330	235			
Maximum power voltage (Vpmax)	V	33.3	30.2			
Maximum power current (Ipmax)	A	9.92	7.8			
Open circuit voltage (Voc)	V	40.5	36.7			
Short circuit current (lsc)	A	10.42	8.2			
Module efficiency	%	19.4	17.3			
Maximum system voltage (VDC)	V		1000			
Series fuse rating	А		20			
Power Tolerance	Wp		0 to +10			
Measurement conditions: STC 1000 W/m2 • AM 1.5 • Temperature 25 °C • NO	CT 800 W/m² • AM 1.5 • Mea	surement uncertainty ≤ 3%				
 Sun simulator calibration reference modules from Fraunhofer Institute. Electrica 	I characteristics may vary by					
Temperature Ratings			mono PERC			
Temperature Coefficient Isc			4 %/°C			
Temperature Coefficient Voc			3 %/°C			
Temperature Coefficient Pmax			5 %/℃			
NOCT (± 2°C)			5°C			
Operating temperature			+85 °C			
Mechanical Properties and Components			mono PERC			
AA 1.1		Metric	Imperial 41 ±0.4 lbs			
Module weight Dimensions (H x L x D)	1700	18.6 kg ±0.2 kg 0 mm x 1000 mm x 38 mm				
		ar load / 5400 Pa front load N/m ²	66.9 in x 39.4 in x 1.5 in			
Maximum surface load (wind/snow)*	4000 Pa re		83.5/112.8 lb/ft ^{^2}			
Hail impact resistance	60	ø 25 mm at 83 km/h Si mono PERC - 5 busbar	ø 1 in at 51.6 mph 60 - Si mono PERC - 5 busbar			
Cells	00-	158.75 x 158.75 mm	6.25 x 6.25 Inch			
Glass	3.2 mm	high transmittance, tempered,	0.126 in high transmittance, tempered,			
		M anti-reflective coating	DSM anti-reflective coating			
Cables and connectors (refer to installation manual)		m, ø 5.7 mm, MC4 from Staubli	47.2 in, ø 0.22 in, MC4 from Staubli			
Backsheet	Н		UV resistance, multi-layer dielectric film, PV backsheet			
Frame		Anodized Alu	minum (Black)			
Bypass diodes	3 dia	des-30SQ045T (45V max DC blockin	ng voltage, 30A max forward rectified current)			
Junction Box		UL 3730 Certified, IEC 6	2790 Certified, IP67 rated			
Warranties		SIL-330 NL	. mono PERC			
Module product workmanship warranty		25 years**				
Para di secondari		30 years				
Linear power performance guarantee	≥ 97.1% end	1 st year ≥ 91.6% end 12 th year	≥ 85.1% end 25 th year ≥ 82.6% end 30 th yea			
Certifications		SIL-330 NL	mono PERC			
		ULC ORD C1703, UL1703, CEC listed***, UL 61215-1/-1-1/-2, UL 61730-1/-2, IEC 61215-1/-1-1/-2***.				
	IEC (172)	IEC 61730-1/-2***, CSA C22.2#61730-1/-2***, IEC 62716 Ammonia Corrosion; IEC61701:2011 Salt Mist Corrosion Certifed, UL Fire Rating: Type 2				
Product	IEC 61/3					

Eff vs. Irr Performance SIL-330 NL

600



f 🕑 in

Factory

Modules Per Pallet: 26

Pallets Per Truck: 36 Modules Per Truck: 936

silfabsolar com/downloads

operating modules.

* Warning. Read the Safety and Installation Manual for mounting specifications and before handling, installing and

***Certification and CEC listing in progress.

**12 year extendable to 25 years subject to registration and condi-tions outlined under "Warranty" at www.silfabsolar.com.

Third-party generated pan files from Fraunhofer-Institute for Solar Energy Systems ISE are available for download at: www.

240 Courtneypark Drive East Mississauga ON L5T 2Y3 Canada Tel +1 905-255-2501 | Fax +1 905-696-0267 info@silfabsolar.com www.silfabsola Silfab Solar Inc.

12

200

400

800 Cornwall Ave Bellingham WA 98225 USA Tel +1 360-569-4733

ISO9001:2015

25°C

40°0

55%

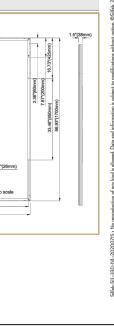
1000

800

Drainage (x8)

7x12 (x4)

39.37"(1





ADDRESS: 525W, BASELINE RD MESA AZ,85210

CUSTOMER INFORMATION

NAME: BRYCE KRYTUSA

ADDRESS:524 MINERAL SPRINGS LANE, FUQUAY-VARINA, NC 27526

35.496310, -78.821436

AHJ:NC-COUNTY HARNETT

UTILITY: DUKE ENERGY

PRN NUMBER: TPS-013801



MODULE SPEC SHEET

DESIGNER /CHECKED BY: RB/AJ	PAPER SIZE:17"X11"
SCALE:AS NOTED	REV:A
DATE:9/22/2020	SS-1

NVERTERS

Single Phase Inverter with HD-Wave Technology

for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US / SE7600H-US / SE10000H-US / SE11400H-US



Optimized installation with HD-Wave technology

- / Specifically designed to work with power optimizers / UL1741 SA certified, for CPUC Rule 21 grid compliance
- Record-breaking 99% weighted efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12

solaredge.com

- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- I Optional: Faster installations with built-in consumption metering (1% accuracy) and production revenue grade metering (0.5% accuracy, ANSI C12.20)



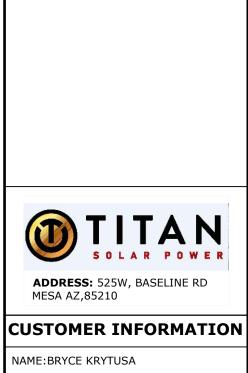
/ Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/ SE7600H-US / SE10000H-US / SE11400H-US

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H		
APPLICABLE TO INVERTERS WITH PART NUMBER		SEXXXXH-XXXXBXX4						
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000		
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000		
AC Output Voltage MinNomMax. (211 - 240 - 264)	~	~	~	~	~	1		
AC Output Voltage MinNomMax. (183 - 208 - 229)	-	~	-	~		-		
AC Frequency (Nominal)				59.3 - 60 - 60.5(1)				
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42		
Maximum Continuous Output Current @208V	-	16	-	24	-	-		
Power Factor			1	, Adjustable - 0.85 to	0.85			
GFDI Threshold				1				
Utility Monitoring, Islanding Protection, Country Configurable Thresholds				Yes				
INPUT								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500		
Maximum DC Power @208V	-	5100	-	7750	-	-		
Transformer-less, Ungrounded				Yes				
Maximum Input Voltage				480				
Nominal DC Input Voltage		3	80			400		
Maximum Input Current @240V ⁽²⁾	8.5	10.5	13.5	16.5	20	27		
Maximum Input Current @208V ⁽²⁾	-	9	-	13.5	-	- 1		
Max. Input Short Circuit Current				45				
Reverse-Polarity Protection				Yes				
Ground-Fault Isolation Detection				600kΩ Sensitivity				
Maximum Inverter Efficiency	99			ç	9.2			
CEC Weighted Efficiency	99							
Nighttime Power Consumption		< 2.5						

⁽¹⁾ For other regional settings please contact SolarEdge support ⁽²⁾ A higher current source may be used; the inverter will limit its input current to the values stated

-US	SE11400H-US	
	11400 @ 240V 10000 @ 208V	VA
	11400 @ 240V 10000 @ 208V	VA
	~	Vac
	~	Vac
		Hz
	47.5	A
	48.5	A
		A
	17650	W
	15500	W
		Vdc
		Vdc
	30.5	Adc
	27	Adc
		Adc
		01
	00.0.04014	%
	99 @ 240V 98.5 @ 208V	%
		W



ADDRESS:524 MINERAL SPRINGS LANE, FUQUAY-VARINA, NC 27526

35.496310, -78.821436

AHJ:NC-COUNTY HARNETT

UTILITY: DUKE ENERGY

PRN NUMBER: TPS-013801



INVERTER SPEC SHEET

DESIGNER /CHECKED BY: RB/AJ	PAPER SIZE:17"X11"
SCALE:AS NOTED	REV:A
DATE:9/22/2020	SS-2

/ Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/ SE7600H-US / SE10000H-US / SE11400H-US

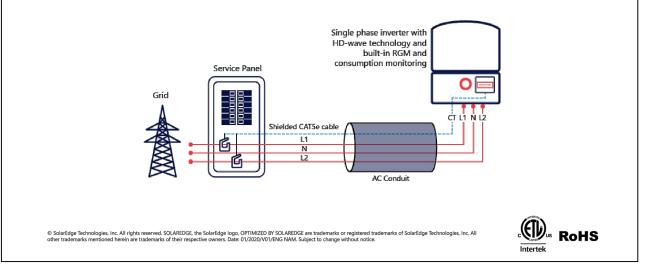
MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US		
ADDITIONAL FEATURES							0		
Supported Communication Interfaces		RS485, Ethernet, ZigBee (optional), Cellular (optional)							
Revenue Grade Metering, ANSI C12.20		Optional ⁽³⁾							
Consumption metering									
Inverter Commissioning	With the SetApp mobile application using Built-in Wi-Fi Access Point for Local Connection								
Rapid Shutdown - NEC 2014 and 2017 690.12		Automatic Rapid Shutdown upon AC Grid Disconnect							
STANDARD COMPLIANCE									
Safety	UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07								
Grid Connection Standards		IEEE1547, Rule 21, Rule 14 (HI)							
Emissions	FCC Part 15 Class B								
INSTALLATION SPECIFICA	TIONS								
AC Output Conduit Size / AWG Range		1" Maximum / 14-6 AWG 1" Maximum /14-4 AWG							
DC Input Conduit Size / # of Strings / AWG Range		1'' Maxir	num / 1-2 strings / 14	1-6 AWG		1" Maximum / 1-3	strings / 14-6 AWG		
Dimensions with Safety Switch (HxWxD)	17.7 x 14.6 x 6.8 / 450 x 370 x 174 21.3 x 14.6 x 7.3 / 540 x 370				/ 540 x 370 x 185	in / mm			
Weight with Safety Switch	22,	′ 10	25.1 / 11.4	26.2	/ 11.9	38.8	/ 17.6	lb / kg	
Noise		<	25			<50		dBA	
Cooling				Natural Convection	ı				
Operating Temperature Range	-40 to +140 / -40 to +60 ⁽⁴⁾							°F / °C	
Protection Rating	NEMA 4X (Inverter with Safety Switch)								

(a) Inverter with Revenue Grade Meter P/N: SExxxXH-US000BNC4; Inverter with Revenue Grade Production and Consumption Meter P/N: SExxxXH-US000BNI4. For consumption metering, current transformers should be ordered separately: SEACT0750-200NA-20 or SEACT0750-400NA-20. 20 units per box (a) Full power up to at least 50°C / 122°F; for power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf

n/sites/default/files/se-temperature-derating-note-na.pdf

How to Enable Consumption Monitoring

By simply wiring current transformers through the inverter's existing AC conduits and connecting them to the service panel, homeowners will gain full insight into their household energy usage helping them to avoid high electricity bills





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AHJ:NC-COUNTY HARNETT

UTILITY: DUKE ENERGY

PRN NUMBER: TPS-013801



INVERTER SPEC SHEET

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SCALE:AS NOTED	REV:A
DATE:9/22/2020	SS-3

Power Optimizer

For North America P320 / P340 / P370 / P400 / P405 / P485 / P505



POWEROPTIMIZER

PV power optimization at the module-level

- I Specifically designed to work with SolarEdge inverters
- / Up to 25% more energy
- Superior efficiency (99.5%)
- / Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- / Flexible system design for maximum space utilization

- Fast installation with a single bolt
- I Next generation maintenance with modulelevel monitoring
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)
- Module-level voltage shutdown for installer and firefighter safety

solaredge

F320/F340/	P3/0/F	P400 / P	405 / P48	35 / P50	5				
Optimizer model (typical module compatibility)	P320 (for 60-cell modules)	P340 (for high- power 60-cell modules)	P370 (for higher- power 60 and 72- cell modules)	P400 (for 72 & 96-cell modules)	P405 (for high- voltage modules)	P485 (for high- voltage modules)	P505 (for higher current modules)		
INPUT									
Rated Input DC Power ⁽¹⁾	320	340	370	400	405	485	505	W	
Absolute Maximum Input Voltage (Voc at lowest temperature)	4	18	60	80	125	2)	83(2)	Vdc	
MPPT Operating Range	8 -	48	8 - 60	8 - 80	12.5 -	105	12.5 - 83	Vdc	
Maximum Short Circuit Current (lsc)		11 10.1 14						Adc	
Maximum DC Input Current		13.75 12.5 17.5							
Maximum Efficiency				99.5				%	
Weighted Efficiency			9	8.8			98.6	%	
Overvoltage Category				1					
OUTPUT DURING OPERA	TION (POWER	R OPTIMIZER	CONNECTED	TO OPERATIN	IG SOLAREDGI	E INVERTER)			
Maximum Output Current				15				Adc	
Maximum Output Voltage			60			85		Vdc	
OUTPUT DURING STAND OFF)	BY (POWER C	OPTIMIZER D	ISCONNECTED	FROM SOLA	REDGE INVER	ER OR SOLA	REDGE INVER	RTER	
Safety Output Voltage per Power Optimizer				1 ± 0.1				Vdc	
STANDARD COMPLIANC	E								
EMC			FCC Part15 C	lass B, IEC61000-6-2	, IEC61000-6-3				
Safety		IEC62109-1 (class II safety), UL1741							
Material	UL94 V-0 , UV Resistant								
RoHS		Yes							
INSTALLATION SPECIFIC/	ATIONS								
Maximum Allowed System Voltage				1000				Vdc	
Compatible inverters	All SolarEdge Single Phase and Three Phase inverters								
Dimensions (W x L x H)	129 :	x 153 x 27.5 / 5.1 x	6 x 1.1	129 x 153 x 33.5 / 5.1 x 6 x 1.3	129 x 159 x 49.5	/ 5.1 x 6.3 x 1.9	129 x 162 x 59 / 5.1 x 6.4 x 2.3	mm / in	
Weight (including cables)		630 / 1.4		750 / 1.7	845 /	1.9	1064 / 2.3	gr/l	
Input Connector			MC4 ⁽³⁾			Single or dual MC4 ⁽³⁾⁽⁴⁾	MC4 ⁽³⁾		
Input Wire Length				0.16 / 0.52				m/f	
Output Wire Type / Connector				ouble Insulated / M					
Output Wire Length	0.9 /	2.95	1.2 / 3.9	1.2 / 3.9	1.2 /	3.9	1.2 / 3.9	m/f	
Operating Temperature Range ⁽⁵⁾				-40 - +85 / -40 - +1	85			°C/°	
Protection Rating	IP68 / NEMA6P								
Relative Humidity				0 - 100				%	

⁶ Alled power of the inductive at STC with not exceed the optimizer valued input DC Power . Modules with up to +3% power toterance are allowed
 ⁶ NEC 2017 requires max input voltage be not more than 80V
 ⁶ For other connector types please contact SolarEdge
 ⁶ For all vestion for parallel connection of two modules use the P485. In the case of an odd number of PV modules in one string, installing one P485 dual version power optimizer
 ⁶ For all vestion for parallel connection of two modules use the P485. In the case of an odd number of PV modules in one string, installing one P485 dual version power optimizer
 ⁶ For ambient temperature above +85°C / +185°F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Technical Note for more details.

PV Sy s tem Desig a SolarEdge Inv	gn Using erter ⁽⁶⁾⁽⁷⁾	Single Phase HD-Wave	Single phase	Three Phase for 208V grid	Three Phase for 277/480V grid	
Minimum String Length P320, P340, P370, P400		8		10	18	
(Power Optimizers)	P405, P485, P505	(5	8	14	
Maximum String Length (Power Optimizers)		25		25	50(8)	
Maximum Power per String		5700 (6000 with SE7600-US - SE11400- US) 5250		6000 ⁽⁹⁾	12750(10)	w
Parallel Strings of Different Lengths or Orientations	S	Yes				

6 For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string_sizing_na.pdf
 7 It is not allowed to mix P405/P485/P505 with P320/P340/P370/P400 in one string
 8 A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement
 9 For 208V grid: It is allowed to install up to 6500W per string when the maximum power difference between each string is 1,000W
 10 For 2777/480V grid: it is allowed to install up to 17,550W per string when the maximum power difference between each string is 2,000W

solaredge.com

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Jus	RoHS
k	



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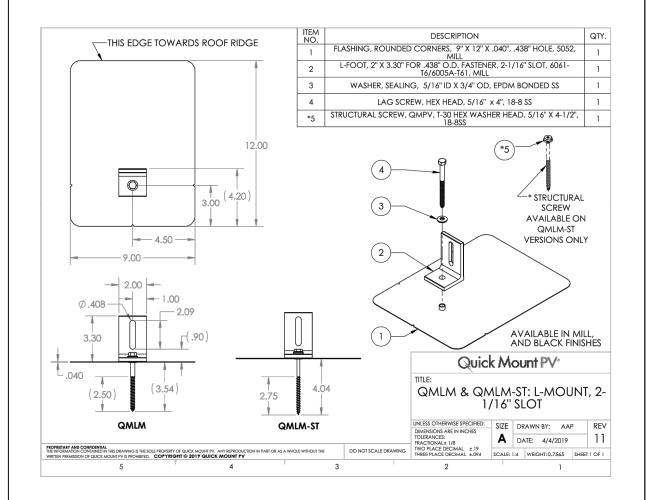


OPTIMIZER SPEC SHEET

DESIGNER /CHECKED BY: RB/AJ	PAPER SIZE:17"X11"		
SCALE:AS NOTED	REV:A		
DATE:9/22/2020	SS-4		

L-Mount | QMLM / QMLM-ST

Elevated Water Seal Technology®





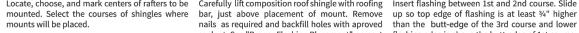
Apr-2019 Rev 6

L-Mount Installation Instructions

Installation Tools Required: tape measure, roofing bar, chalk line, stud finder, caulking gun, sealant compatible with roofing materials, drill with 7/32" or 1/8" bit, drill or impact gun with 1/2" socket.

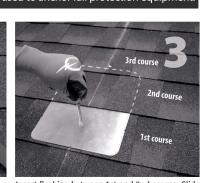
WARNING: Quick Mount PV products are NOT designed for and should NOT be used to anchor fall protection equipment.







page.



Locate, choose, and mark centers of rafters to be Carefully lift composition roof shingle with roofing Insert flashing between 1st and 2nd course. Slide nails as required and backfill holes with aproved than the butt-edge of the 3rd course and lower sealant. See "Proper Flashing Placement" on next flashing edge is above the butt-edge of 1st course. Mark center for drilling.

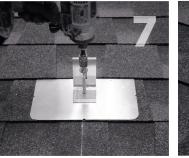


1/8" bit (ST) for attaching with the structural screw. compatible with roofing materials. Drill pilot hole into roof and rafter, taking care to drill square to the roof. Do not use mount as a drill guide. Drill a 2" deep hole into rafter.



If attaching with lag bolt use a 1/22" bit (Lag). Use a Clean off any sawdust, and fill hole with sealant Place L-foot onto elevated flute and rotate L-foot to

desired orientation.

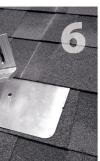


drive prepared lag bolt through L-foot until L-foot as well as the module manufacturer. NOTE: Make can no longer easily rotate. DO NOT over-torque. sure top of L-Foot makes solid contact with racking. NOTE: Structural screw can be driven with T-30 hex head bit. BI 7.2.3-44



Prepare lag bolt or structural screw with sealing You are now ready for the rack of your choice. washer. Using a ½-inch socket on an impact gun, Follow all the directions of the rack manufacturer All roofing manufacturers' written instructions must also be followed by anyone modifying a roof system. Consult the roof manufacturer's specs and instructions prior to working on the roof.

BI 7.2.3-44



Apr-2019 Rev 6



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MOUNT SPEC SHEET

DESIGNER /CHECKED PAPER SIZE:17"X11" BY: RB/AJ

SCALE: AS NOTED

DATE:9/22/2020

REV:A

SS-5



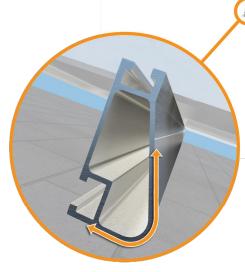
Tech Brief

XR Rail Family

Solar Is Not Always Sunny

Over their lifetime, solar panels experience countless extreme weather events. Not just the worst storms in years, but the worst storms in 40 years. High winds capable of ripping panels from a roof, and snowfalls weighing enough to buckle a panel frame.

XR Rails are the structural backbone preventing these results. They resist uplift, protect against buckling and safely and efficiently transfer loads into the building structure. Their superior spanning capability requires fewer roof attachments, reducing the number of roof penetrations and the amount of installation time.



Force-Stabilizing Curve

Sloped roofs generate both vertical and lateral forces on mounting rails which can cause them to bend and twist. The curved shape of XR Rails is specially designed to increase strength in both directions while resisting the twisting. This unique feature ensures greater security during extreme weather and a longer system lifetime.

Compatible with Flat & Pitched Roofs

XR Rails are compatible with FlashFoot and other pitched roof attachments.



Corrosion-Resistant Materials

All XR Rails are made of 6000-series aluminum alloy, then protected with an anodized finish. Anodizing prevents surface and structural corrosion, while also providing a more attractive appearance.

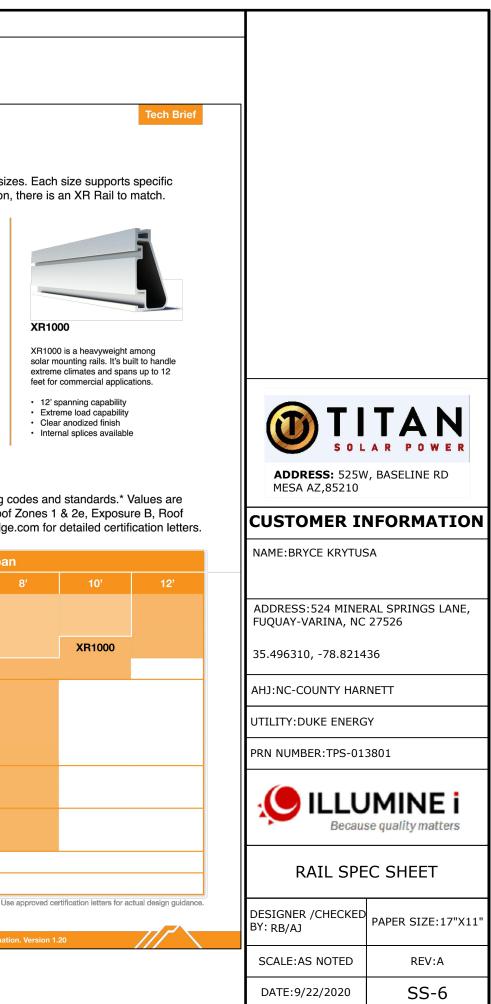


XR Rail Family

The XR Rail Family offers the strength of a curved rail in three targeted sizes. Each size supports specific design loads, while minimizing material costs. Depending on your location, there is an XR Rail to match.







XR100 is the ultimate residential

mounting rail. It supports a range of wind and snow conditions, while also maximizing spans up to 10 feet.

· 10' spanning capability

Heavy load capability

Rail Selection

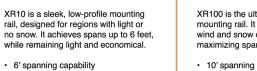
Moderate load capability

Internal splices available

Clear & black anodized finish

The table below was prepared in compliance with applicable engineering codes and standards.* Values are based on the following criteria: ASCE 7-16, Gable Roof Flush Mount, Roof Zones 1 & 2e, Exposure B, Roof Slope of 8 to 20 degrees and Mean Building Height of 30 ft. Visit IronRidge.com for detailed certification letters.

Wind (MPH) 90 120	4'	5' 4"	6'	8'	
				0	10'
100					
120					
140	XR10		XR100		XR10
160					
90					
120					
140					
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90					
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	160 90 120 140 160 90 160 160 160 160	160 90 120 140 160 90 160 160 160 160 160	160 90 120 140 160 90 160 90 160 160 160 160 160 160 160 160 160 160 160	160 Image: state s	160 Image: state s



Clear & black anodized finish

Internal splices available