Late Info
E-1

E-1 HRC-17-163

This was an attachment to the November 9, 2017, staff report that was inadvertently not included in the March 8, 2018, staff report.

ABBREVIATIONS

A	AMPERE
AC	ALTERNATING CURRENT
BLDG	BUILDING
CONC	CONCRETE
DC	DIRECT CURRENT
EGC	EQUIPMENT GROUNDING CONDUCTOR
(E)	EXISTING
EMT	ELECTRICAL METALLIC TUBING
FSB	FIRE SET-BACK
GALV	GALVANIZED
GEC	GROUNDING ELECTRODE CONDUCTOR
GND	GROUND
HDG	HOT DIPPED GALVANIZED
I	CURRENT
Imp	CURRENT AT MAX POWER
Isc	SHORT CIRCUIT CURRENT
kVA	KILOVOLT AMPERE
kW	KILOWATT
LBW	LOAD BEARING WALL
MIN	MINIMUM
(N)	NEW
NEUT	NEUTRAL
NTS	NOT TO SCALE
OC	ON CENTER
PL	PROPERTY LINE
POI	POINT OF INTERCONNECTION
PV	PHOTOVOLTAIC
SCH	SCHEDULE
S	STAINLESS STEEL
STC	STANDARD TESTING CONDITIONS
TYP	TYPICAL
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
Vmp	VOLTAGE AT MAX POWER
Voc	VOLTAGE AT OPEN CIRCUIT
W	WATT
3R	NEMA 3R, RAINTIGHT

ELECTRICAL NOTES

1. THIS SYSTEM IS GRID-INTERTIED VIA A UL-LISTED POWER-CONDITIONING INVERTER.
2. THIS SYSTEM HAS NO BATTERIES, NO UPS.
3. A NATIONALLY-RECOGNIZED TESTING LABORATORY SHALL LIST ALL EQUIPMENT IN COMPLIANCE WITH ART. 110.3.
4. WHERE ALL TERMINALS OF THE DISCONNECTING MEANS MAY BE ENERGIZED IN THE OPEN POSITION, A SIGN WILL BE PROVIDED WARNING OF THE HAZARDS PER ART. 690.17.
5. EACH UNGROUNDED CONDUCTOR OF THE MULTIWIRE BRANCH CIRCUIT WILL BE IDENTIFIED BY PHASE AND SYSTEM PER ART. 210.5.
6. CIRCUITS OVER 250V TO GROUND SHALL COMPLY WITH ART. 250.97, 250.92(B).
7. DC CONDUCTORS EITHER DO NOT ENTER BUILDING OR ARE RUN IN METALLIC RACEWAYS OR ENCLOSURES TO THE FIRST ACCESSIBLE DC DISCONNECTING MEANS PER ART. 690.31(E).
8. ALL WIRES SHALL BE PROVIDED WITH STRAIN RELIEF AT ALL ENTRY INTO BOXES AS REQUIRED BY UL LISTING.
9. MODULE FRAMES SHALL BE GROUNDED AT THE UL-LISTED LOCATION PROVIDED BY THE MANUFACTURER USING UL LISTED GROUNDING HARDWARE.
10. MODULE FRAMES, RAIL, AND POSTS SHALL BE BONDED WITH EQUIPMENT GROUND CONDUCTORS.

JURISDICTION NOTES

LICENSE

NICK ARMSTRONG
NV # C078648 C-2 LICENSE

MODULE GROUNDING METHOD: ZEP SOLAR

AHJ: Carson City

UTILITY: NV Energy (Sierra Pacific Power)

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE 2012 IBC, 2012 IRC 2. ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2011 NATIONAL ELECTRIC CODE. 3. IFC 2012 Section 605

VICINITY MAP

INDEX

REV	BY	DATE	COMMENTS
REV A	NAME	DATE	COMMENTS
*	*	*	*
*	*	*	*
*	*	*	*
*	*	*	*

CONFIDENTIAL - THE INFORMATION HEREIN CONTAINED SHALL NOT BE USED FOR THE BENEFIT OF ANYONE EXCEPT TESLA INC., NOR SHALL IT BE DISCLOSED IN WHOLE OR IN PART TO OTHERS OUTSIDE THE RECIPIENT'S ORGANIZATION, EXCEPT IN CONNECTION WITH THE SALE AND USE OF THE RESPECTIVE TESLA EQUIPMENT, WITHOUT THE WRITTEN PERMISSION OF TESLA INC.

JOB NUMBER: JB-897204 00
MOUNTING SYSTEM: Comp Mount Type C
MODULES: (9) SolarCity Standard #SC325
INVERTER: SOLAREDGE # SE3000A-US-ZB-U

CUSTOMER OWNER:
JENNIFER YEN
314 W 5TH ST
CARSON CITY, NV 89703

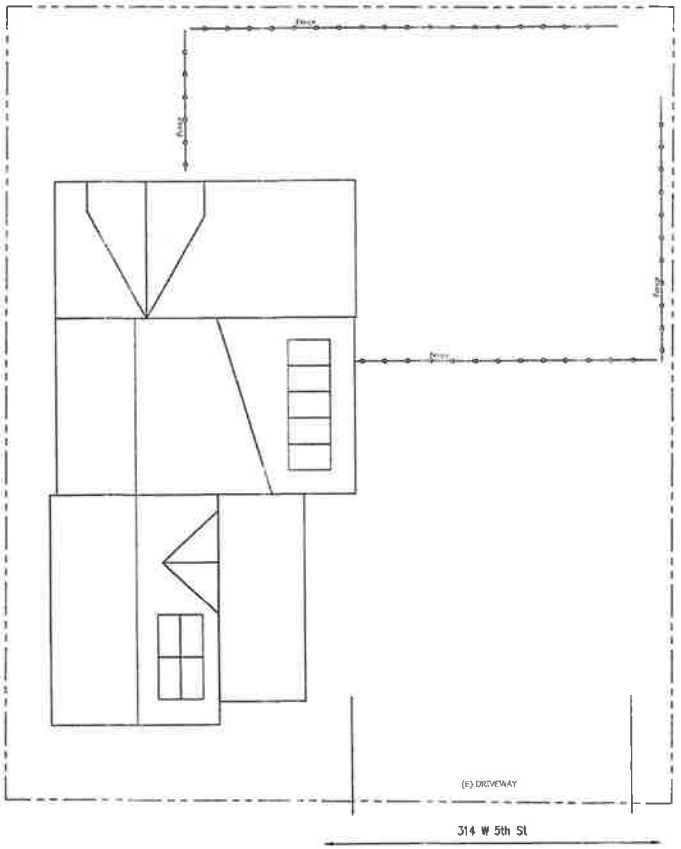
DESCRIPTION:
Jennifer Yen RESIDENCE
2.925 KW PV ARRAY

PAGE NAME:
COVER SHEET

DESIGN:
Aranxa Tikal Macias

SHEET: REV: DATE:
PV 1 a 9/9/2017

TESLA



PROPERTY PLAN

Scale: 1" = 20'-0"

0 20' 40'

N W E S

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PV 2 a 9/9/2017

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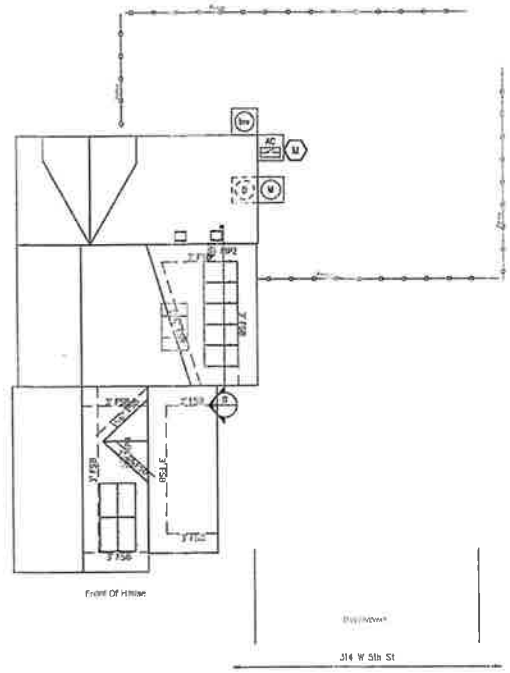

MP2	PITCH: 17 AZIMUTH: 180 MATERIAL: Comp Shingle	ARRAY PITCH: 17 ARRAY AZIMUTH: 180 STORY: 1 Story
MP3	PITCH: 45 AZIMUTH: 90 MATERIAL: Comp Shingle	ARRAY PITCH: 45 ARRAY AZIMUTH: 90 STORY: 1 Story
MP4	PITCH: 38 AZIMUTH: 90 MATERIAL: Comp Shingle	ARRAY PITCH: 38 ARRAY AZIMUTH: 90 STORY: 2 Stories

LEGEND

- (E) UTILITY METER & WARNING LABEL
- INVERTER W/ INTEGRATED DC DISCO & WARNING LABELS
- DC DISCONNECT & WARNING LABELS
- AC DISCONNECT & WARNING LABELS
- DC JUNCTION/COMBINER BOX & LABELS
- DISTRIBUTION PANEL & LABELS
- LOAD CENTER & WARNING LABELS
- DEDICATED PV SYSTEM METER
- RAPID SHUTDOWN
- STANDOFF LOCATIONS
- CONDUIT RUN ON EXTERIOR
- CONDUIT RUN ON INTERIOR
- GATE/FENCE
- HEAT PRODUCING VENTS ARE RED
- INTERIOR EQUIPMENT IS DASHED

PROFESSIONAL ENGINEER - STATE OF NEVADA
CHRIS H. KIM
Exp: 6/30/19
CIVIL
No. 024785

Chris Kim
Digitally signed by Chris Kim
Date: 2017.09.09 18:58:19 -04'00'

SITE PLAN

Scale: 1/16" = 1'

01' 16' 32'

N W E S

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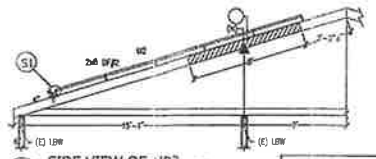
SHEET: REV: DATE:
PV 3 a 9/9/2017

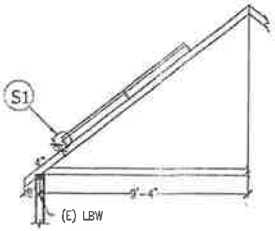
TESLA



B SIDE VIEW OF MP2 NTS

SISTER UPGRADE INFORMATION: RAFTER SECTIONS (SISTER) BY MATCHING

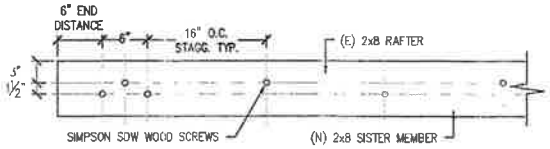
UPGRADE NOTES:
1. CUT AND ADD (N) SISTER AS SHOWN IN THIS SIDE VIEW AND REFERENCED TOP VIEW.
2. FASTEN (N) SISTER TO (E) MEMBER W/ SIMPSON SDW 22300 (F 2-PLY) OR 22400 (F 3-PLY) SDW SCREWS AS SHOWN AT 16" O.C. ALONG SPAN AS SPECIFIED. IF WOOD SPLITTING IS SEEN OR HEARD, PRE-DRILL WITH A 1/2" SPILL BIT.
ALT. OPTION FOR FULL LENGTH MEMBERS ONLY: FASTEN (N) SIDE MEMBER TO (E) RAFTER W/ NAIL (F 2-PLY) OR BOLT FROM EACH SIDE (F 3-PLY) COMMON NAILS AT 6" O.C. ALONG SPAN.
*SISTER ALL RAFTERS ON THIS MP SECTION (MP2) WHICH THE ARRAY IS LADDED



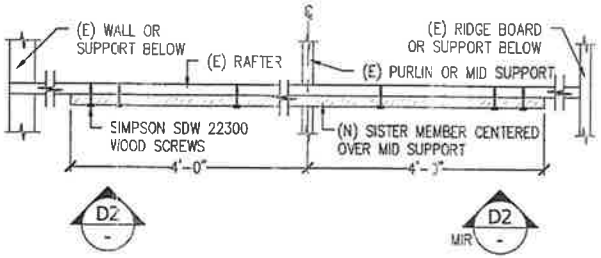
D SIDE VIEW OF MP4 NTS

MP4	X-SPACING	X-CANTILEVER	Y-SPACING	Y-CANTILEVER	NOTES
LANDSCAPE	72"	24"	41"	0"	STAGGERED
PORTRAIT	48"	21"	62"	0"	
RAFTER	2x4 @ 24" OC		ROOF AZI 90 PITCH 38		STORIES: 2
C.J.	2x4 @24" OC		ARRAY AZI 90 PITCH 38		
			Comp Shingle	Slab Sheathing	

X AND Y ARE ALWAYS RELATIVE TO THE STRUCTURE FRAMING THAT SUPPORTS THE PV.
X IS ACROSS RAFTERS AND Y IS ALONG RAFTERS.



D2 2x8 END FASTENER GROUPING
Scale: 1"=1'-0"



U2 TOP VIEW OF PARTIAL SISTER OVER SUPPORT
Scale: 3/4"=1'-0"

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STRUCTURAL VIEWS

DESIGN:
Aranxa Tikal Macias

SHEET: PV 4 REV: A DATE: 9/9/2017

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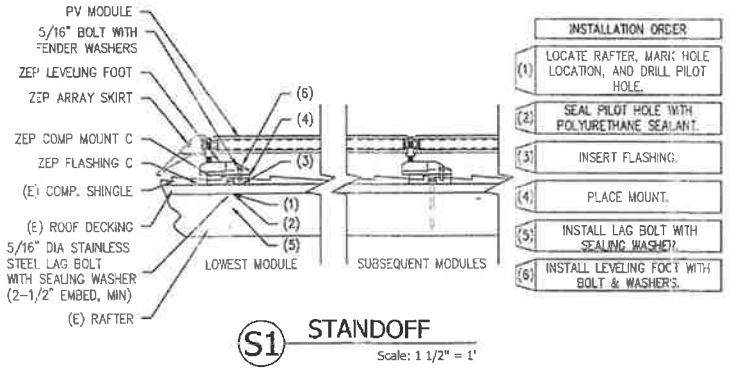

S1 STANDOFF

Scale: 1 1/2" = 1'

PROFESSIONAL ENGINEER - STATE OF NEVADA
CHRIS H. KIM
Exp: 6/30/2017
CIVIL
No. 024735

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PAGE NAME:
STRUCTURAL VIEWS

DESIGN:
Aranxa Tikal Macias

SHEET: REV: DATE:
PV 5 c 9/9/2017

TESLA

09.09.2017
Version #69.6

DESIGN SUMMARY

Jobsite Specific Design Criteria

Design Code		ASCE 7-10	
Importance Factor	I	1.0	
Ultimate Wind Speed	V-Ult	130 mph	Fig 1609A
Exposure Category		C	Section 26.7
Ground Snow Load	pg	30.0 psf	ASCE Table 7-1

MP Specific Design Information

MP Name	MP2	MP4					
Roofing	Comp Roof	Comp Roof					
Standoff	Comp Mount Type C	Comp Mount Type C					
Pitch	17°	38°					
SL/RLL: PV	21.0 psf	11.3 psf					
SL/RLL: Non-PV	21.0 psf	23.7 psf					

Standoff Spacing and Layout

MP Name	MP2	MP4					
X-Spacing	64"	72"					
X-Cantilever	24"	24"					
Y-Spacing	41"	41"					
Y-Cantilever	NA	NA					
X-Spacing	48"	48"					
X-Cantilever	19"	21"					
Y-Spacing	62"	62"					
Y-Cantilever	NA	NA					
Layout	Staggered	Staggered					

X and Y are maximums [illegible] relative to the structure [illegible] that support the PV. X is across rafters and Y is along rafters.

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PAGE NAME: UPLIFT CALCULATIONS

DESIGN: Aranxa Tikal Macias

SHEET: PV 6 REV: a DATE: 9/9/2017

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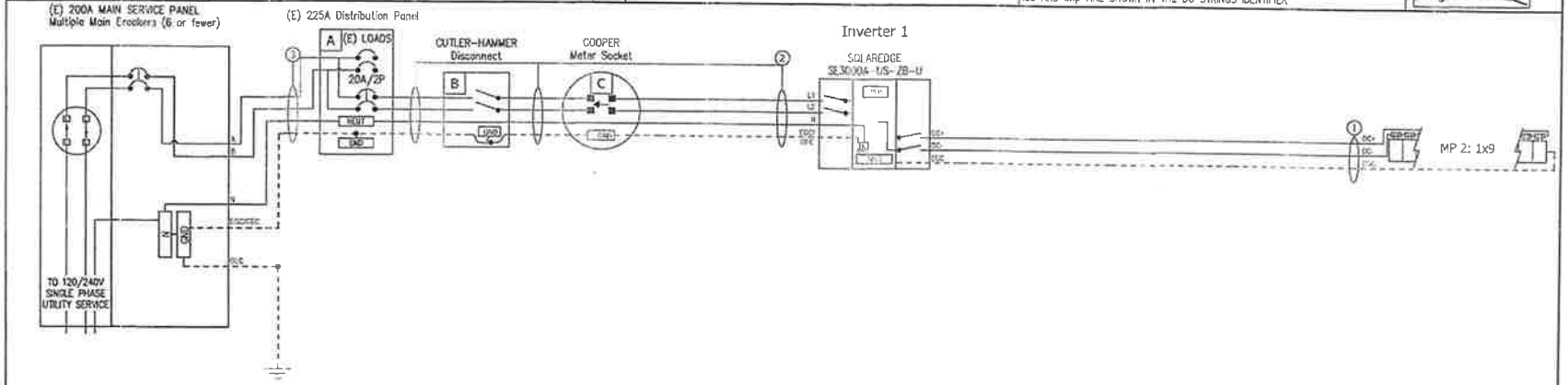
GROUND SPECS	MAIN PANEL SPECS	GENERAL NOTES	INVERTER SPECS	MODULE SPECS	LICENSE
BOND (N) #8 GEC TO (E) GROUND ROD AT PANEL WITH IRREVERSIBLE CRIMP	Panel Number: NoLabel Meter Number: 031352808 Underground Service Entrance	Inv 1: DC Ungrounded	INV 1 — (1) SOLAREDGE # SE3000A-US-ZB-U LABEL: A Inverter; 3000W, 240V, 97.5% w/Unified Disco and ZB, AFCI INV 2 INV 3	— (9) SolarCity Standard #SC325 PV Module; 325W, 306.5 PTC, 40MM, Blk Frm, MC4, 600v, ZEP, 96-C Voc: 69.6 Vpmax 57.6 Isc AND Imp ARE SHOWN IN THE DC STRINGS IDENTIFIER	NICK ARMSTRONG NV # 0078848 C-2 LICENSE



Voc* = MAX VOC AT MIN TEMP

AC

A — (1) SQUARE D # HOM220 PV BACKFEED BREAKER
Breaker; 20A/2P, 2 Spaces

B — (1) CUTLER-HAMMER # DG221URB
Disconnect; 30A, 240Vac, Non-Fusible, NEMA 3R
— (1) CUTLER-HAMMER # DG030NB
Ground/Neutral Kit; 30A, General Duty (DG)

C — (1) COOPER # B-Line Meter Socket 211
Meter Socket; 125A, 4-terminal, Ring Type
— (1) AW CAP; B-Line Meter Socket Accessory

③ (E) 2/0 Cu CONDUCTORS

② (1) AWG #10, THWN-2, Black
(1) AWG #10, THWN-2, Red
(1) AWG #10, THWN-2, White NEUTRAL Vmp = 240 VAC Imp= 12.5 AAC
— (1) AWG #8, THWN-2, Green EGC/GEC — (1) Conduit Kit; 3/4" EMT

DC

PV — (9) SOLAREDGE # P400-5NAM4DZ
PowerBox Optimizer, 400W, ZEP

① (2) AWG #10, PV Wire, 600V, Black Voc* = 500 VDC Isc = 15 ADC
(1) AWG #10, THHN/THWN-2, Green EGC Vmp = 350 VDC Imp= 8.25 ADC
(1) Conduit Kit; 3/4" EMT

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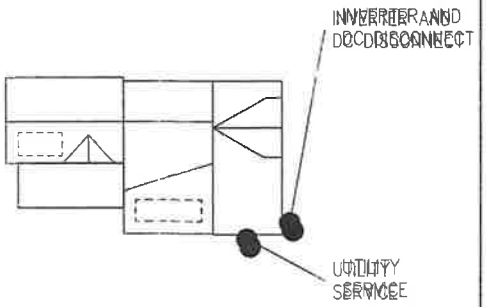
CAUTION

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN:

- Address: 314 W 5th St



SOLAR PHOTOVOLTAIC ARRAY(S)

PHOTOVOLTAIC BACK-FED CIRCUIT BREAKER IN MAIN ELECTRICAL PANEL IS AN A/C DISCONNECT PER NEC 690.17

OPERATING VOLTAGE = 240V JB-897204-00

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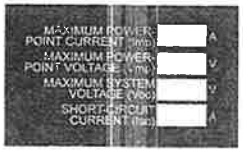
PAGE NAME:
SITE PLAN PLACARD

DESIGN:
Aranxa Tikal Macias

SHEET: REV: DATE:
PV 8 a 9/9/2017

TESLA

Label Location:
(DC) (INV)
Per Code:
NEC 690.14.C.2



Label Location:
(DC) (INV)
Per Code:
NEC 690.53

Label Location:
(DC) (INV)
Per Code:
NEC 690.5(C)

Label Location:
(DC) (CB)
Per Code:
NEC 690.17(4)

Label Location:
(AC) (POI)
Per Code:
NEC 690.14.C.2

Label Location:
(AC) (POI)
Per Code:
NEC 690.54

Label Location:
(AC)(POI)
Per Code:
NEC 690.17.E

Label Location:
(POI)
Per Code:
NEC 690.17.4; NEC 690.54

Label Location:
(POI)
Per Code:
NEC 690.64.B.4

Label Location:
(D) (POI)
Per Code:
NEC 690.64.B.4

Label Location:
(POI)
Per Code:
NEC 690.64.B.7

Label Location:
(DC) (INV)
Per Code:
NEC 690.35(F)
TO BE USED WHEN
INVERTER IS
UNGROUNDED

Label Location:
(C)
Per Code:
2012 IFC
NEC 690.31.G.3

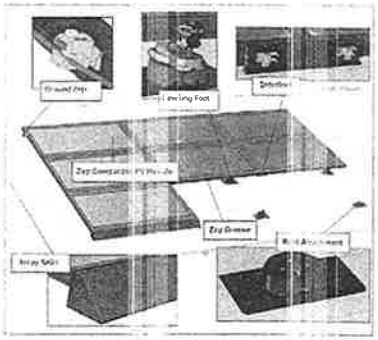
(AC): AC Disconnect
(C): Conduit
(CB): Combiner Box
(D): Distribution Panel
(DC): DC Disconnect
(IC): Interior Run Conduit
(INV): Inverter With Integrated DC Disconnect
(LC): Load Center
(M): Utility Meter
(POI): Point of Interconnection

	Label Set		

SolarCity | Zep Solar Next-Level PV Mounting Technology

Zep System

for composition shingle roofs



Description

- PV mounting solution for composition shingle roofs
- Works with all Zep Compatible Modules
- Auto bonding UL-listed hardware creates structural and electrical bond
- Zep System has a UL 1703 Class "A" Fire Rating when installed using modules from any manufacturer certified as "Type 1" or "Type 2"

Specifications

- Designed for pitched roofs
- Installs in portrait and landscape orientations
- Zep System supports module wind uplift and snow load pressures to 50 psf per UL 1703
- Wind tunnel report to ASCE 7-05 and 7-10 standards
- Zep System grounding products are UL listed to UL 2703 and UL 467
- Zep System bonding products are UL listed to UL 2703
- Engineered for spans up to 72" and cantilevers up to 24"
- Zep wire management products listed to UL 1565 for wire positioning devices
- Attachment method UL listed to UL 2582 for Wind Driven Rain

zepsolar.com

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SolarCity | ZepSolar Next-Level PV Mounting Technology

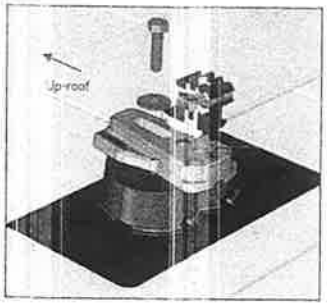
Components

Leveling Foot

Part No 850-1172
ETL listed to UL 467

Comp Mount

Part No 850-1382
Listed to UL 2582
Mounting Block Listed to UL 2703



Interlock

Part No 850-1388
Listed to UL 2703

Ground Zep V2

Part No 850-1511
Listed to UL 467 and UL 2703

DC Wire Clip

Part No 850-1448
Listed to UL 1565

Array Skirt, Grip, End Caps

Part Nos 850-0113, 850-1421, 850-1460, 850-1467
Listed to UL 1565

zepsolar.com

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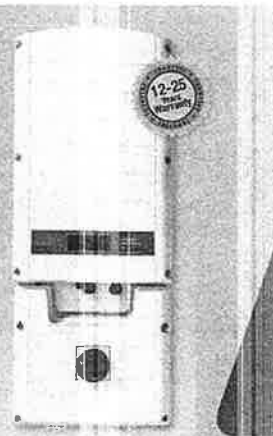
solaredge

SolarEdge Single Phase Inverters

For North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US /
SE7600A-US / SE10000A-US / SE11400A-US

INVERTERS



The best choice for SolarEdge enabled systems

- Specifically designed to work with power optimizers
- Integrated arc fault protection for NEC 2011 690.11 compliance
- Rapid shutdown for NEC 2014 690.12
- Superior efficiency (98%)
- Small, lightweight and easy to install on provided bracket
- Built-in module-level monitoring
- Internet connection through Ethernet or Wireless
- Outdoor and indoor installation
- Fixed voltage inverter, DC/AC conversion only
- Pre-assembled Safety Switch for faster installation
- Optional – revenue grade data, ANSI C12.1

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Single Phase Inverters for North America

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US /
SE7600A-US / SE10000A-US / SE11400A-US

	SE3000A-US	SE3800A-US	SE5000A-US	SE6000A-US	SE7600A-US	SE10000A-US	SE11400A-US	
OUTPUT								
Nominal AC Power Output	3000	3800	5000	6000	7600	10000	11400	W
Max. AC Power Output	3300	4150	5400 @ 208V 5450 @ 240V	6000 @ 208V 6000 @ 240V	8350 @ 208V 8350 @ 240V	10800 @ 208V 10800 @ 240V	12000 @ 208V 12000 @ 240V	W
AC Output Voltage Min.-Nom.-Max.	✓	✓	✓	✓	✓	✓	✓	
AC Frequency Min.-Nom.-Max.	59.3 - 60 - 60.5 (with HI country setting 57 - 60 - 60.5)							Hz
Max. Continuous Output Current	12.5	16	16 @ 208V 21 @ 240V	24	32	42 @ 208V 47.5 @ 240V	48.5	A
GFDI	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							
INPUT								
Maximum DC Power (STC)	4050	5100	6750	8100	10250	13500	15350	W
Transformer less, Ungrounded	Yes							
Max. Input Voltage	350							Vdc
Nom. DC Input Voltage	325 @ 208V / 350 @ 240V							Vdc
Max. Input Current	9.5	13	16.5 @ 208V 20 @ 240V	18	23	30.5 @ 208V 33 @ 240V	34.5	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600kΩ Sensitivity							
Maximum Inverter Efficiency	97.7	98.2	98.3	98.3	98	98	98	%
CEC Weighted Efficiency	97.5	98	97 @ 208V 98 @ 240V	97.5	97.5	97 @ 208V 97.5 @ 240V	97.5	%
Nighttime Power Consumption	< 2.5					< 4		W
ADDITIONAL FEATURES								
Supported Communication Interfaces	RS485, Ethernet, ZigBee (optional), Cellular (optional)							
Revenue Grade Data, ANSI C12.1	Optional							
Rapid Shutdown - NEC 2014 690.12	Automatic Rapid Shutdown upon AC Grid Disconnect							
STANDARD COMPLIANCE								
Safety	UL1741, UL1741 SA, UL3699B, IEC62109-1, CSA 22.2							
Grid Connection Standards	IEEE1547, Rule 21, Rule 14 (HI)							
Emissions	FCC part 15 class B							
INSTALLATION SPECIFICATIONS								
AC output conduit size / AWG range	3/4" minimum / 14-6 AWG				3/4" minimum / 14-4 AWG			
DC input conduit size / # of strings / AWG range	3/4" minimum / 1-2 strings / 14-6 AWG				3/4" minimum / 1-3 strings / 14-6 AWG			
Dimensions with Safety Switch (HxWxD)	30.5 x 12.5 x 10.5 / 775 x 315 x 260				30.5 x 12.5 x 7.5 / 775 x 315 x 190		30.5 x 12.5 x 10.5 / 775 x 315 x 260	in / mm
Weight with Safety Switch	51.2 / 23.2				54.7 / 24.7		88.4 / 40.1	lb / kg
Cooling	Natural Convection				Fans (user replaceable)			
Noise	< 25				< 50			dBA
Min. - Max. Operating Temperature	-13 to +140 / -25 to +60 (-40 to +60 version available)							°F / °C
Protection Rating	NEMA 3R							

RoHS

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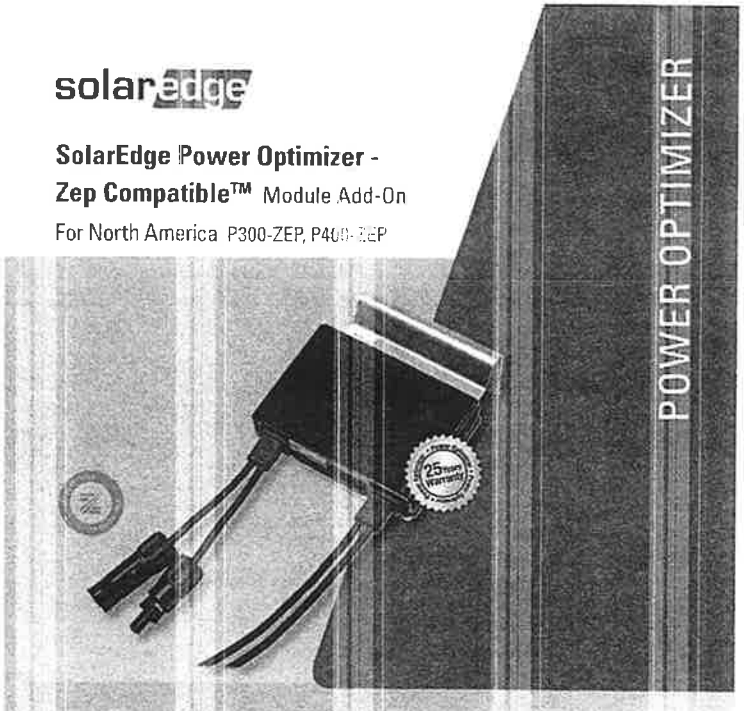
SolarEdge Power Optimizer - Zep Compatible™ Module Add-On

For North America P300-ZEP, P400-ZEP



Compatible with Zep Groove framed modules

- Certified Zep Compatible™ bracket
- Attaches to module frame without screws - reduces on-roof labor and mounting costs
- Power optimizer equipment grounded through the bracket
- 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
- Next generation maintenance with module-level monitoring
- Module-level voltage shutdown for installer and firefighter safety

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SolarEdge Power Optimizer - Zep Compatible™

Module Add-On For North America P400-ZEP

	P300-ZEP (for 60-cell PV modules)		P400-ZEP (for 72 & 96-cell modules)	
INPUT				
[illegible]	300		[illegible]	W
[illegible]	48		[illegible]	Vdc
MPPT Operating Range	[illegible]		[illegible]	Vdc
Maximum Short Circuit Current (Isc)	10		[illegible]	Adc
Maximum DC Input Current	12.5		[illegible]	Adc
Maximum Efficiency		99.5		%
Weighted Efficiency		98.8		%
Overvoltage Category		II		
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING INVERTER)				
Maximum Output Current		[illegible]		Adc
Maximum Output Voltage		[illegible]		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM INVERTER OR INVERTER OFF)				
Safety Output Voltage per Power Optimizer		1		Vdc
STANDARD COMPLIANCE				
EMC		FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3		
Safety		[illegible] (class II safety), UL1741		
RoHS		Yes		
INSTALLATION SPECIFICATIONS				
Maximum Allowed System Voltage	1000			Vdc
[illegible]	[illegible]		[illegible]	mm / in
[illegible]	[illegible]		[illegible]	mm / in
[illegible]	[illegible]		[illegible]	kg / lb
Input Connector		MC4 Compatible		
Output Connector		[illegible] MC4 Compatible		
Output Wire Length	[illegible]		[illegible]	m / ft
Operating Temperature Range		[illegible]		°C / °F
Protection Rating		[illegible]		
Relative Humidity		0 - 100		%

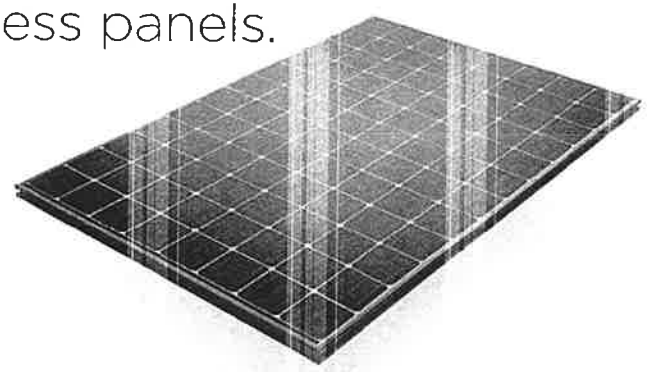
PV SYSTEM DESIGN USING A SOLAREDGE INVERTER	SINGLE PHASE HD-WAVE	SINGLE PHASE	THREE PHASE 208V	THREE PHASE 480V	
Minimum String Length (Power Optimizers)	8		10	18	
Maximum String Length (Power Optimizers)	25		25	50	
Maximum Power per String	5700 (6000 with SE7600H-US)	5250	6000	12750	W
Parallel Strings of Different Lengths or Orientations		Yes			

CE ETL

SC325

SolarCity

More power, less panels.



With a sunlight to electricity conversion efficiency of over 19.4% the panel ranks amongst the highest in the industry. That means our panels can harvest more energy from the sun, which means it takes fewer of our panels to power your home. Plus, they generate more power output during the hottest times of the day, even in warmer climates.

More power per panel
Our 325W panel generates 50% more power than a standard 270W panel.

More energy every year
More yearly energy (kWh) compared to other panels as they perform better in the heat.

Outstanding durability
With more than 20 additional tests performed beyond what is currently mandated, these panels far exceed industry standards.

More layers, more power
Manufactured by Panasonic for SolarCity, the panel uses Heterojunction cell technology, which adds a layer of thin film silicon on top of high efficiency, crystalline silicon.

Leading warranty
Our panels rank among the best in warranty coverage, with workmanship that extends to 25 years.

RoHS | UL Listed | CE

ELECTRICAL AND MECHANICAL CHARACTERISTICS

ELECTRICAL DATA

TEMPERATURE CHARACTERISTICS

AT NOCT (NORMAL OPERATING CONDITIONS)

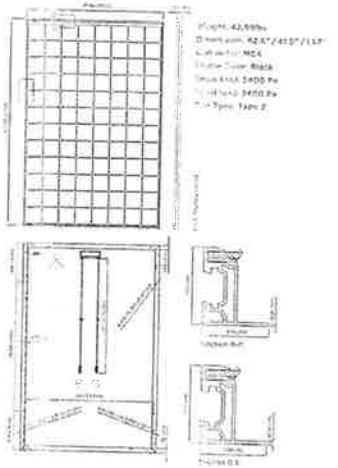
AT LOW IRRADIANCE (20%)

LIMITED WARRANTY
10 years (+/-10% of Pmin)
25 years (80% of Pmin)
25 years

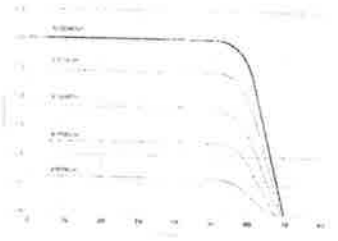
MATERIALS
5 inch diffused polycrystalline cells
AR coated tempered glass
Black anodized aluminum
MC4

⚠ CAUTION! Please read the installation manual carefully before using the products.

MECHANICAL DATA



DEPENDENCE ON IRRADIANCE



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