

PROJECT DETAILS	
PV Modules	20 x REC405AA Pure
Optimizers	20 x P401
Inverter	1 x SE7600H-US
Battery	1 x Tesla Powerwall2
Roof Type	Asphalt Shingles
Racking	PSR-B84 Rails (Black)
Mounting Type	CompMount Flashing (Black)
DC SIZE	8.1 kW
AC SIZE	7.6 kVA

DRAWING INDEX			
Item	Drawing #	Rev	Description
1	22301DD00-0	A	Drawing Index
2	22301DD00-1	A	Site Layout
3	22301DD00-2	A	String Mapping
4	22301DD00-3	A	Electrical One Line Diagram
5	22301DD00-4	A	Detailed Electrical Wiring Schematic
6	22301DD00-5	A	PV Labels
7	22301DD00-6	A	Bill of Materials
8	22301DD00-7	A	PV Dead Load

TOP VIEW OF BUILDING



1600 Heritage Commerce Ct Ste 104,  
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**Ashley Davies**  
 302 Curragh Cove  
 Fuquay Varina NC 27526

### PHOTOVOLTIC NOTES

1. THE INSTALLATION OF SOLAR ARRAYS AND PHOTOVOLTAIC POWER SYSTEMS SHALL COMPLY WITH THE FOLLOWING CODES:

- 2020 NATIONAL ELECTRICAL CODE
- 2018 NORTH CAROLINA RESIDENTIAL CODE
- 2018 NORTH CAROLINA BUILDING CODE
- AS ADOPTED BY THE STATE OF NORTH CAROLINA
- ALL OTHER ORDINANCE ADOPTED BY THE LOCAL GOVERNING AGENCIES

2. ROOFTOP MOUNTED PHOTOVOLTAIC PANELS AND MODULES SHALL BE TESTED, LISTED AND IDENTIFIED BY RECOGNIZED ELECTRICAL TESTING LABORATORY.

3. SOLAR SYSTEM SHALL NOT COVER ANY PLUMBING OR MECHANICAL VENTS

4. MODULES AND SUPPORT STRUCTURES SHALL BE GROUNDED

5. SOLAR INVERTER SHALL BE LISTED TO UL1741

6. ALL CONDUCTORS SHALL BE COPPER AND SHOULD BE 75 AND 90 DEG RATED

7. REMOVAL OF AN INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND/OR OUTPUT CIRCUIT GROUNDED CONDUCTORS.

8. LIVE PARTS OF PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS OVER 150V TO GROUND SHALL NOT BE ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS WHILE ENERGIZED.

9. ALL PV MODULES AND ASSOCIATED EQUIPMENT AND WIRING SHALL BE PROTECTED FROM PHYSICAL DAMAGE.



A	08/02/2022	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Customer's Signature

JOB NUMBER  
22-301-DD00

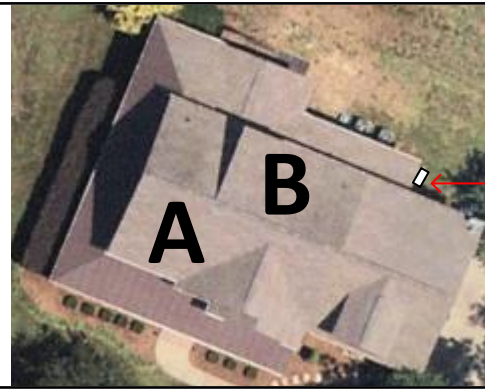
PROJECT STATUS  
PERMITTING

SHEET  
DRAWING INDEX

**DD**  
**22301DD00-0**

There is one layer of shingles  
Roofing material is asphalt shingles

The roof is located in 115mph wind zone



Utility Meter

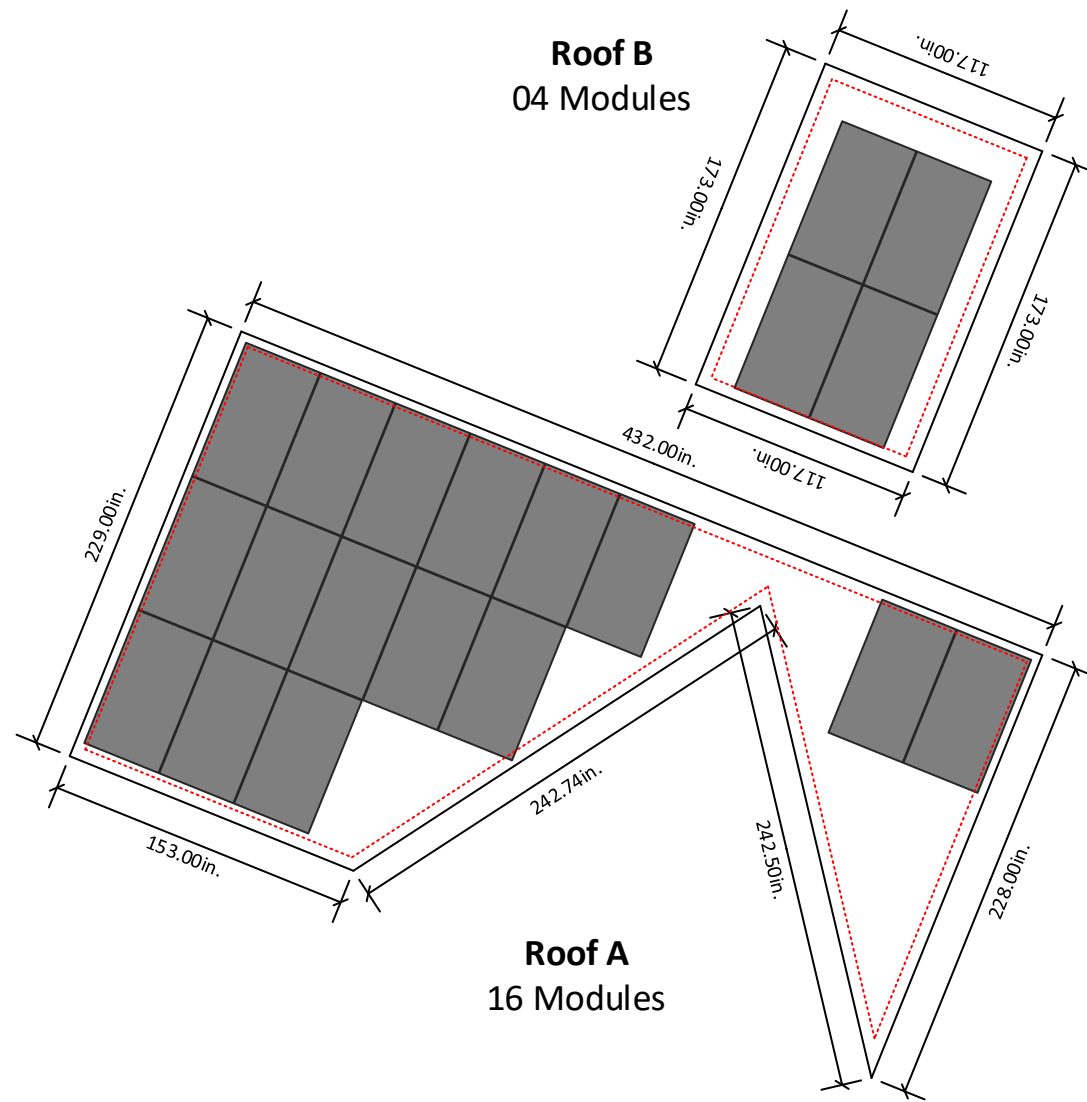
Module Dimension		
Roofs	Pitch	Azimuth
A	45°	202°
B	22°	22°



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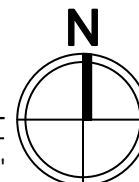
**SYSTEM DETAILS**

NUMBER OF PANELS : 20  
PANELS MODEL : REC405AA PURE  
DC SIZE : 8.1 KW  
AC SIZE : 7.6 KVA



6" clearance  
from each side  
of the roof

**SITE LAYOUT**  
SCALE: 1/8" - 1' 0"



**Ashley Davies**  
302 Curragh Cove  
Fuquay Varina NC 27526



PV Installation  
Professional  
Ali Buttar  
PVIP #031310-32

A	08/02/2022







Customer's Signature

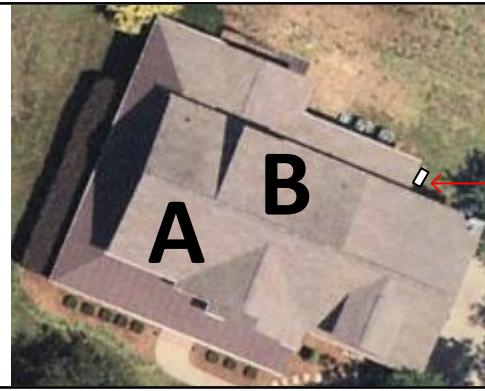
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22-301-DD00

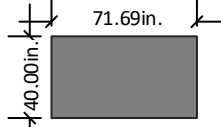
PROJECT STATUS  
PERMITTING

SHEET  
SITE LAYOUT

**DD**  
**22301DD00-1**

String Layout					
Inverter SE7600H-US					
Strings #	No. of Modules	Color Code	Strings #	No. of Modules	Color Code
String 1	11				
String 2	09				
					



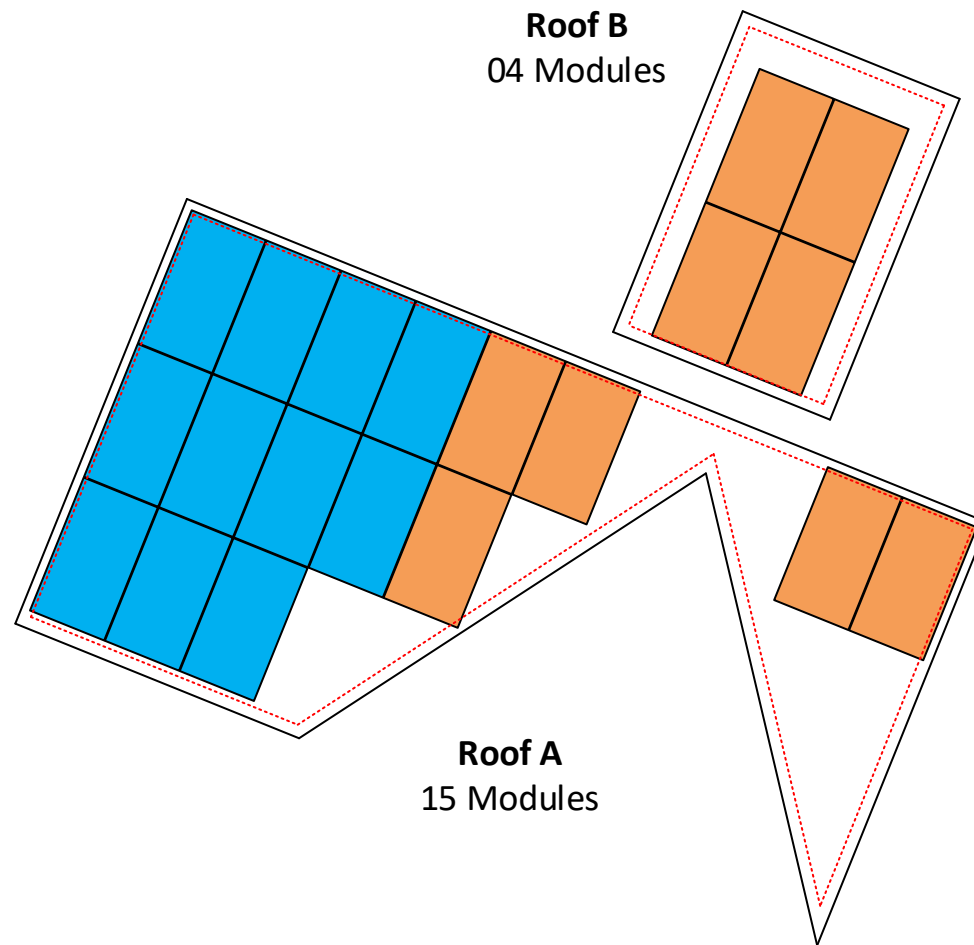
Module Dimension		
	Roofs	Pitch
A	45°	202°
B	22°	22°



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**SYSTEM DETAILS**

NUMBER OF PANELS : 20  
PANELS MODEL : REC405AA PURE  
DC SIZE : 8.1 KW  
AC SIZE : 7.6 KVA



6" clearance  
from each side  
of the roof

STRING MAPPING  
SCALE: 1/8" - 1' 0"



**Ashley Davies**  
302 Curragh Cove  
Fuquay Varina NC 27526



A	08/02/2022

Customer's Signature

JOB NUMBER  
22-301-DD00

PROJECT STATUS  
PERMITTING

SHEET  
STRING MAPPING

DD  
22301DD00-2

A	08/02/2022	

Customer's Signature

JOB NUMBER

22-301-DD00

PROJECT STATUS

PERMITTING

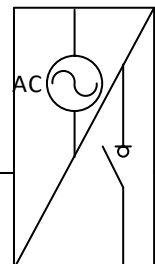
SHEET

ELECTRICAL ONE LINE DIAGRAM

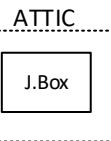
DD

22301DD00-3

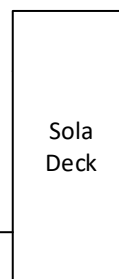
INV SOLAREEDGE SE7600H-US  
INVERTER RATING 7600W  
UL1741 Listed



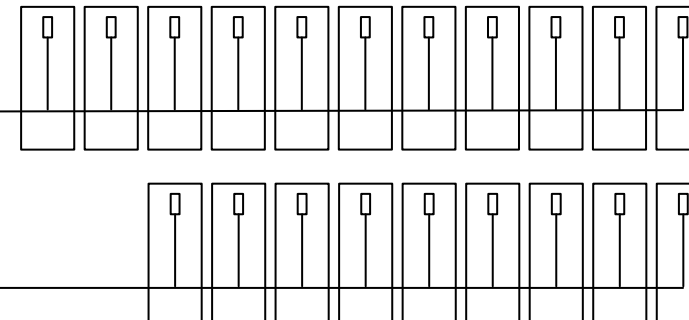
INTEGRATED DC  
DISCONNECT



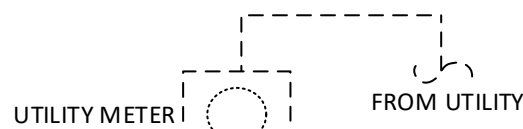
ATTIC  
J.Box



Sola  
Deck



20 x REC405AA Pure  
405W  
SOLAREEDGE P401 OPTIMIZER  
RAPID SHUTDOWN EQUIPPED



UTILITY METER

FROM UTILITY

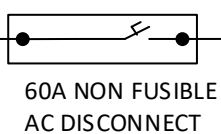
MAIN LOAD PANEL  
M.B RATING: 200A  
B.B RATING: 200A

MAIN LOAD PANEL  
M.B RATING: 200A  
B.B RATING: 200A

MAIN LOAD PANEL  
M.B RATING: 200A  
B.B RATING: 200A

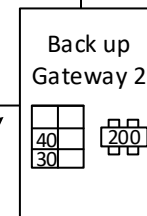
SUB LOAD PANEL  
M.B RATING: 200A  
B.B RATING: 200A

SUB LOAD PANEL  
M.B RATING: 200A  
B.B RATING: 200A

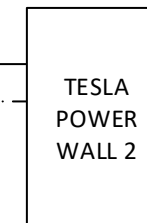


60A NON FUSIBLE  
AC DISCONNECT

CONNECTION SHALL BE MADE BY  
USING A 40A BREAKER INSIDE THE  
BACKUP GATEWAY 2



Back up  
Gateway 2



TESLA  
POWER  
WALL 2

**ELECTRICAL NOTES**

- System Size: 8,100W DC
- (20) REC405AA PURE
- (20) SOLAREEDGE P401 OPTIMIZERS
- (01) SOLAREEDGE SE7600H-US
- Inverter Output: 32A max @ 240 VAC
- 7.6 kVA AC output max

- Grounding will be done via Pegasus grounding mid-clamps and NS bonding jumpers to ensure the rail and panels are continuously grounded.
- Rapid Shutdown is included in the Inverter, refer to inverter & optimizer attached datasheets.
- The load center / disconnect will be visible, lockable accessible to utility line men and will be properly labelled as per NEC requirements. It will be located on the exterior wall of the building, next to the utility meter.

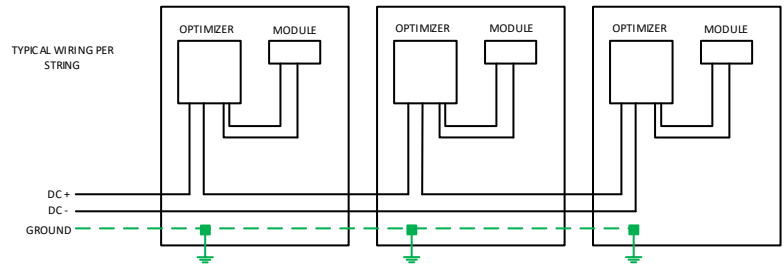
STRING 1:  
11 x 405W = 4,455W ea  
I mpp = 11.13 Adc  
I max = 23.4 Adc  
V mpp = 400 Vdc  
V oc = 11 Vdc

STRING 2:  
09 x 405W = 3,645W ea  
I mpp = 9.11 Adc  
I max = 23.4 Adc  
V mpp = 400 Vdc  
V oc = 09 Vdc

**NOTE:** Appliances / Loads rated for greater than 88LRA will not be backed up by Tesla and will not be energized during an outage.

Sr.No	#Wire	Conduit Size	Ground Wire	Amperage
1	2 x #10 PV		#10 Bare CU	23.4A
2	2 x #10 MC Cable			
3	4 x #10 THHN Cu	3/4" EMT	#10 Green	40
4	3 x #08 THHN Cu	3/4" EMT	#10 Green	30
5	3 x #08 THHN Cu	3/4" EMT	#10 Green	30
6	4-conductor shielded (1 twisted pair) 16 AWG			
7	3 x #3/0 THHN Cu	2" EMT		200

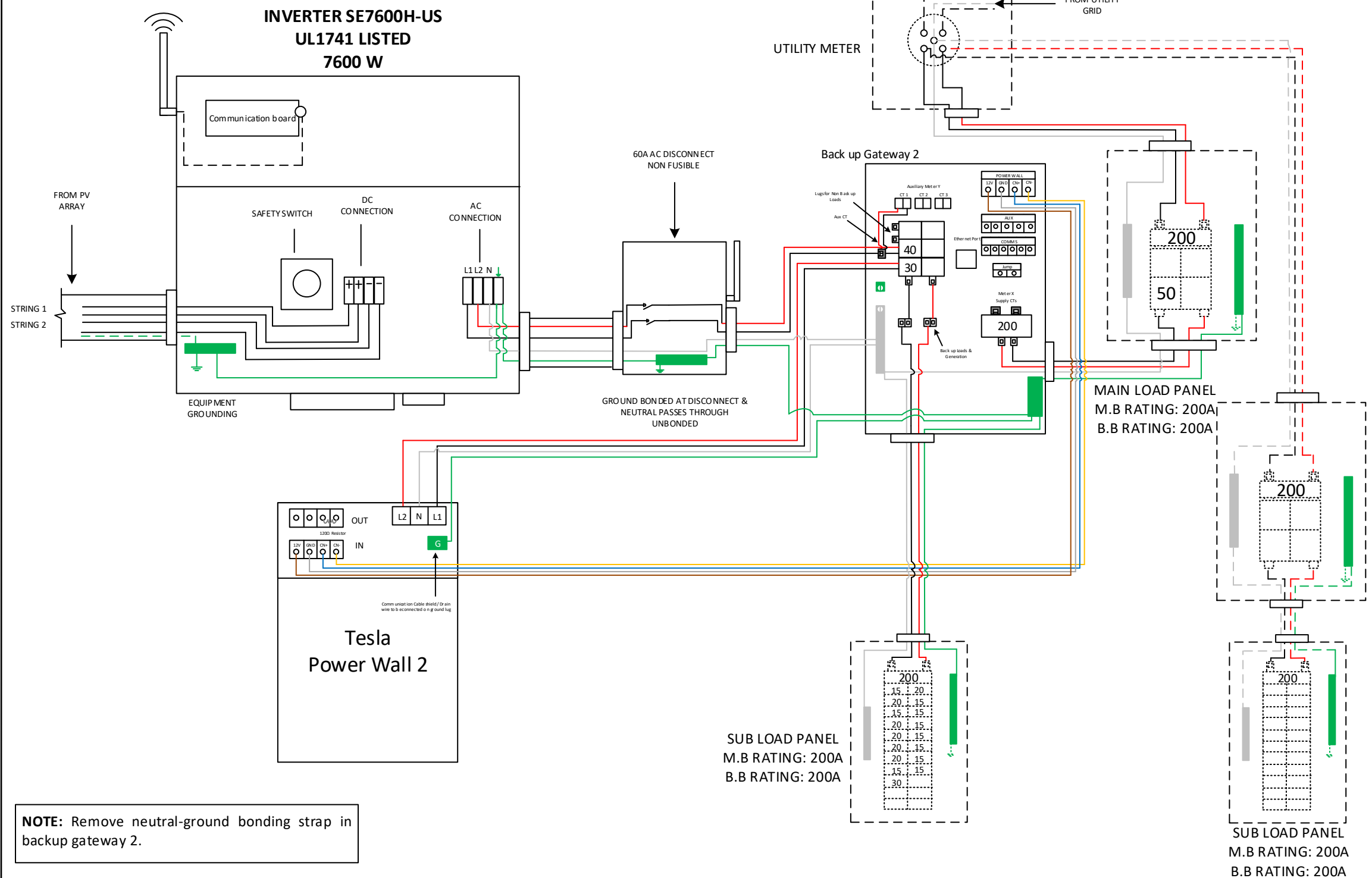




Line 1	
Line 2	
Neutral	
Ground	

- Note**
- The arrow on the CTs should face the inverter.
- Note**
- CT-1 should be installed on Line 1

- Note**
- Accepted Breakers for Gateway: Eaton CSR or BW (100-200A)
- NOTE:** Appliances / Loads rated for greater than 88LRA will not be backed up by Tesla and will not be energized during an outage.



**NOTE:** Remove neutral-ground bonding strap in backup gateway 2.



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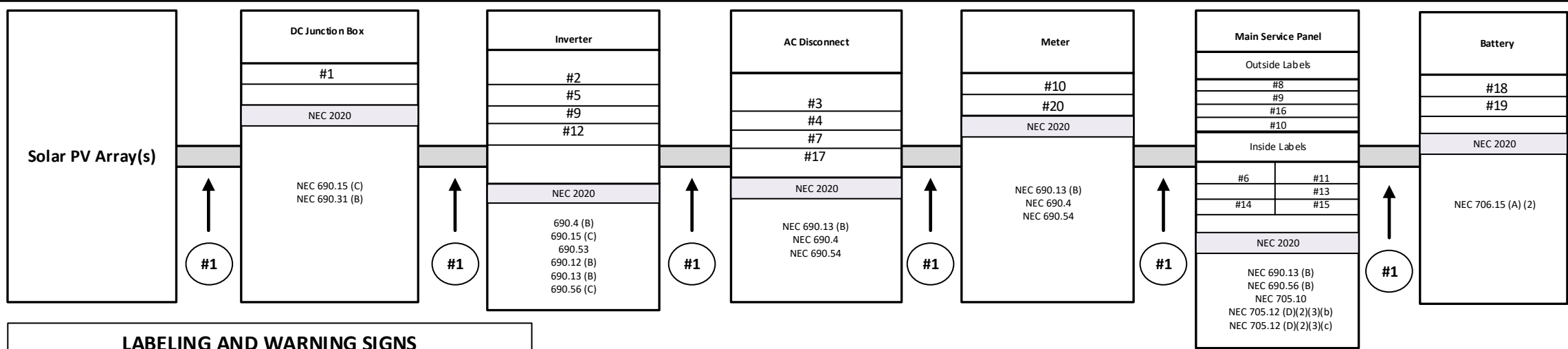
Customer's Signature

JOB NUMBER  
22-301-DD00

PROJECT STATUS  
PERMITTING

SHEET  
DETAILED ELECTRICAL DIAGRAM

**DD**  
**22301DD00-4**



Ashley Davies  
 302 Curragh Cove  
 Fuquay Varina NC 27526



Customer's Signature \_\_\_\_\_

JOB NUMBER \_\_\_\_\_ 22-301-DD00 \_\_\_\_\_

PROJECT STATUS \_\_\_\_\_ PERMITTING \_\_\_\_\_

SHEET \_\_\_\_\_ PV LABELS \_\_\_\_\_

### LABELING AND WARNING SIGNS NEC 2020

**A. PURPOSE**  
 PROVIDE EMERGENCY RESPONDERS WITH APPROPRIATE WARNING AND GUIDANCE WITH RESPECT TO ISOLATING THE SOLAR ELECTRIC SYSTEM. THIS CAN FACILITATE IDENTIFYING ENERGIZED ELECTRICAL LINES THAT CONNECT THE SOLAR PANELS TO THE INVERTER, AS SHOULD NOT BE CUT WHEN VENTING FOR SMOKE REMOVAL.

**B. MAIN SERVICE DISCONNECT:**  
 1. RESIDENTIAL BUILDINGS- THE MARKING MAY BE PLACED WITHIN THE MAIN SERVICE DISCONNECT. THE MARKING SHALL BE PLACED ON THE OUTSIDE COVER IF THE MAIN SERVICE DISCONNECT IS OPERABLE WITH THE SERVICE PANEL CLOSED.

2. COMMERCIAL BUILDINGS- THE MARKINGS SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECT CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED

3. MARKINGS, VERBIAGE, FORMAT AND TYPE OF MATERIAL
- a. VERBIAGE: CAUTION; SOLAR ELECTRIC SYSTEM CONNECTED
  - b. FORMAT:
    - (1) WHITE LETTERING ON A RED BACKGROUND
    - (2) MINIMUM 3/8 INCH LETTER HEIGHT
    - (3) ALL LETTERS SHALL BE CAPITALIZED
    - (4) ARIAL OR SIMILAR FONT, NON-BOLD

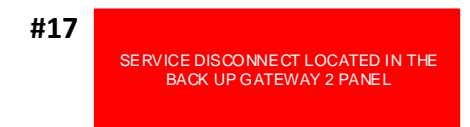
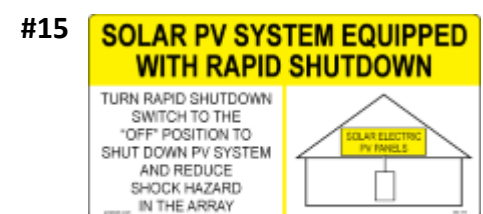
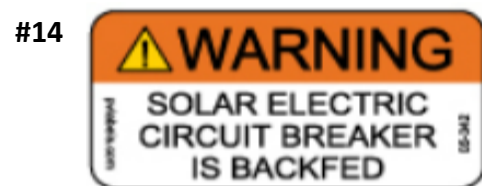
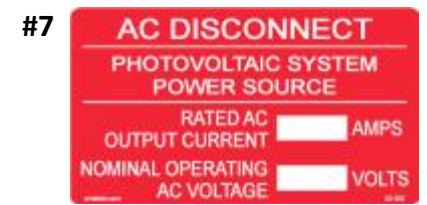
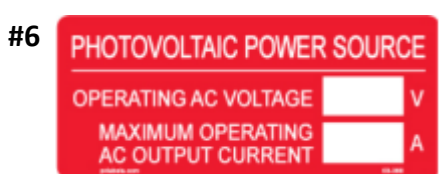
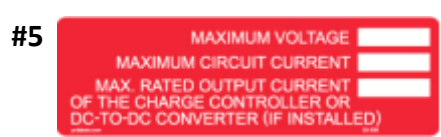
c. MATERIAL:

- (1) REFLECTIVE, WEATHER RESISTANT MATERIAL SUITABLE FOR THE ENVIRONMENT (USE UL-969) AS STANDARD FOR WEATHER RATING); DURABLE ADHESIVE MATERIALS MEET THIS REQUIREMENT.

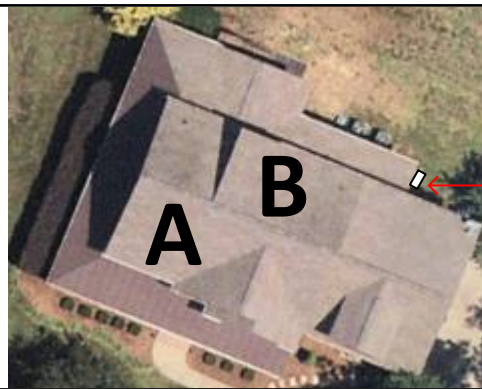
**C. MARKING REQUIREMENTS ON DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, DC COMBINERS AND JUNCTION BOXES;**  
 1. MARKING: PLACEMENT, VERBIAGE, FORMAT AND TYPE OF MATERIAL.

- a. PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 (TEN) FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES AND CABLE ASSEMBLIES, AT TURNS ABOVE AND/OR BELOW PENETRATIONS, ALL DC COMBINERS AND JUNCTION BOXES.
- b. VERBIAGE: CAUTION SOLAR CIRCUIT
- c. THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO SECTION B-3.B & C ABOVE

**D. INVERTERS ARE NOT REQUIRED TO HAVE CAUTION MARKINGS**



Rails and Splices : PSR-B84 (BLACK)	Roof Attachment : Pegasus Comp Mount
Rafter Spacing : 16 in	There is one layer of shingles Roofing material is asphalt shingles
Attachment Span: 4ft	The roof is located in 115mph wind zone



Utility Meter

Module Dimension		
	Roofs	Pitch
A	45°	202°
B	22°	22°



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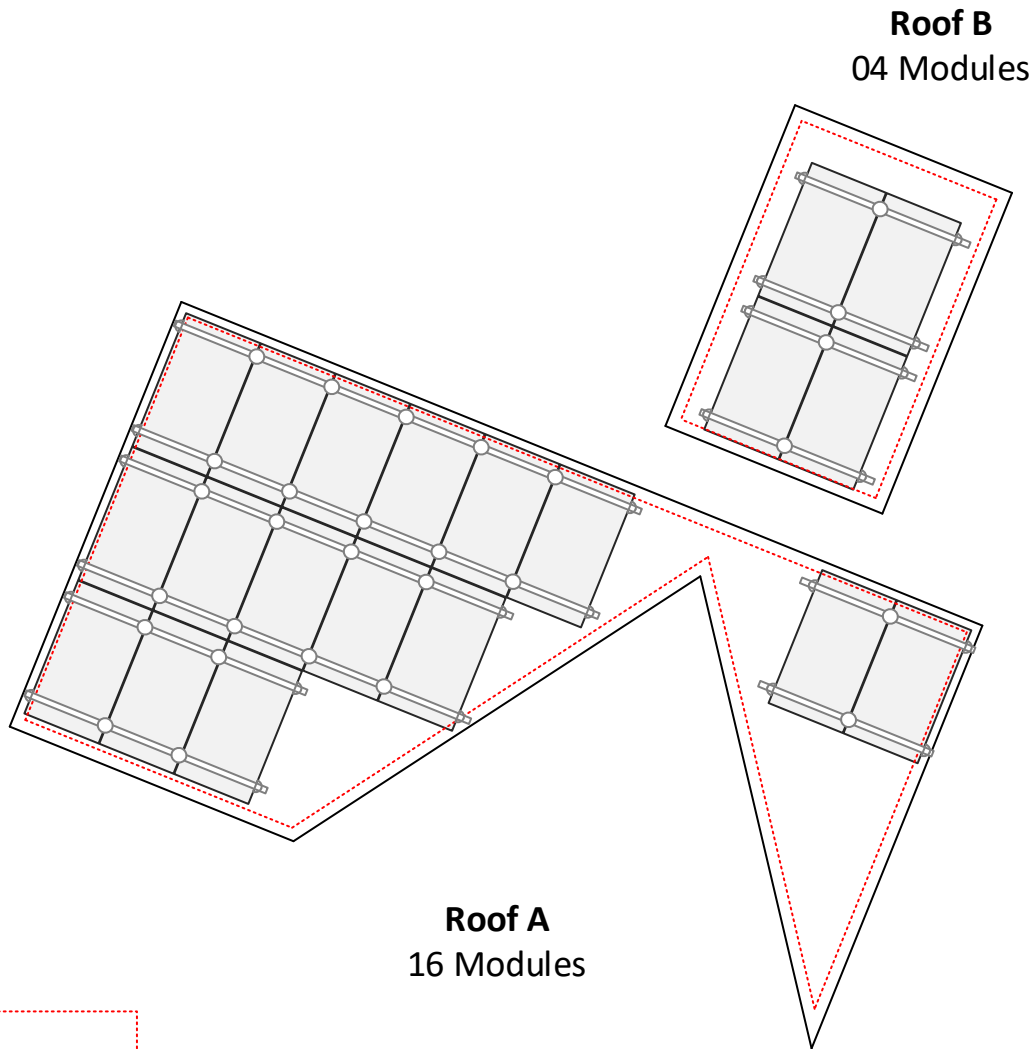
**Ashley Davies**  
302 Curragh Cove  
Fuquay Varina NC 27526

PV LABELS		
Sr No	Code	Qty
01	02-314	12
02	03-301	01
03	03-302	01
04	02-316	01
05	03-308	01
06	03-390	01
07	03-306	01
08	05-215	01
09	05-211	02
10	03-230	01
11	05-372	01
12	05-103	01
13	05-216	01
14	05-342	01
15	07-111	01
16	8M-001	01
17	8M-002	01
18	03-395	01
19	04-304	01

- 22 x PSR-B84: Pegasus Rail, Black, 84" (7 Feet)
- 10 x PSR-SPL: Pegasus - Bonded, Structural Splice
- 28 x PSR-MCB: Pegasus - Multidamp, Mid/End, 30 to 40 mm, Black
- 24 x PSR-HEC: Pegasus - Hidden End Clamp
- 20 x PSR-MLP: Pegasus - MLPE Mount
- 14 x PSR-LUG: Pegasus - Grounding Lug
- 30 x PSR-WMC: Pegasus - Wire Management Clip
- 04 x PSR-CBG: Pegasus - Cable Grip
- 24 x PSR-CAP: Pegasus - End Cap
- 42 x PSCR-UBBDT: Pegasus Comp Mount - Open Slot, Black L Foot, Black Flashing, Dovetail 3/8" T-Bolt
- 40 x Heyco Wire Clips

- SOLAR MODULES**
- 20 x REC405AA Pure
- INVERTER & SUPPORTING ITEMS**
- 01 x SolarEdge SE7600H-US000BNU4
  - 20 x SolarEdge Power Optimizer P401
  - 01 x SE-WFGW-B-S1-NA with Antenna Kit
- WIRE**
- 500 ft x #10 PV WIRE BLK (Cu)

- TESLA**
- 01 x Powerwall2 & Ancillary Equipment
  - 01 x US AC Goodie Bag
  - 01 x PowerWall2 Mounting kit
  - 01 x 02" Conduit Hub Kit
  - 01 x 1.25" Conduit Hub Kit
  - 01 x Backup GateWay 2
  - 01 x Internal Panelboard Kit



6" clearance from each side of the roof

**BILL OF MATERIAL**  
SCALE: 1/8" - 1' 0"



A 08/02/2022

Customer's Signature

JOB NUMBER  
22-301-DD00

PROJECT STATUS  
PERMITTING

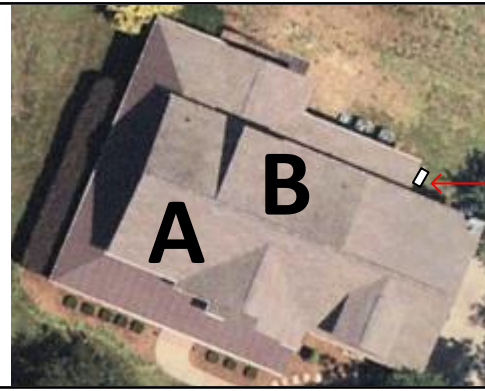
SHEET  
BILL OF MATERIAL

DD  
22301DD00-6

**PV System Dead Load**  
**(Panel + Racking weight) / PV System Area**  
 (No. of panels x Weight of panel(lbs.) +Length of racking(ft.) x 1.17 lb.ft) /  
 (No. of panels x Height x Width) = Total psf

The roof is located in 115mph wind zone

There is one layer of shingles  
 Roofing material is asphalt shingles



Utility Meter

Module Dimension	71.69in.	
	Pitch	Azimuth
Roofs		
A	45°	202°
B	22°	22°



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**ROOF A**

**PV System Dead Load**  
 (Panel + Racking weight) / PV System Area  
 (16 panels x 45 lbs./panel + 108 ft. of racking x 1.17 lb.ft) /  
 (16 panels x 5.97' x 3.33') = 2.65 psf

**ROOF B**

**PV System Dead Load**  
 (Panel + Racking weight) / PV System Area  
 (04 panels x 45 lbs./panel + 27 ft. of racking x 1.17 lb.ft) /  
 (04 panels x 5.97' x 3.33') = 2.65 psf



A 08/02/2022

Customer's Signature

JOB NUMBER  
 22-301-DD00

PROJECT STATUS  
 PERMITTING

SHEET  
 PV DEAD LOAD

**DD**  
**22301DD00-7**

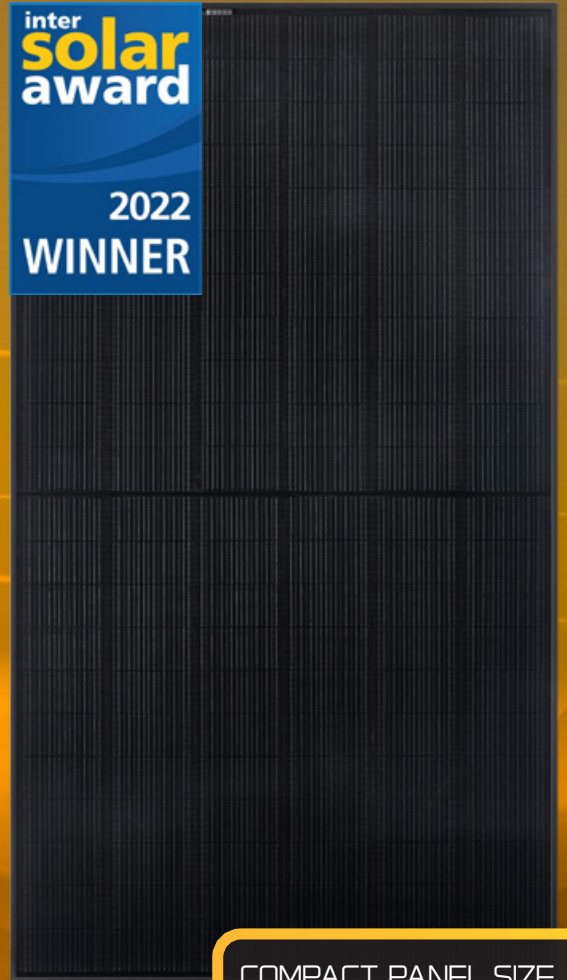


SOLAR'S MOST TRUSTED



inter  
**solar**  
award

2022  
WINNER



COMPACT PANEL SIZE

# REC ALPHA<sup>®</sup> PURE SERIES

PRODUCT SPECIFICATIONS

410 WP  
222  $\frac{W}{M^2}$



ELIGIBLE



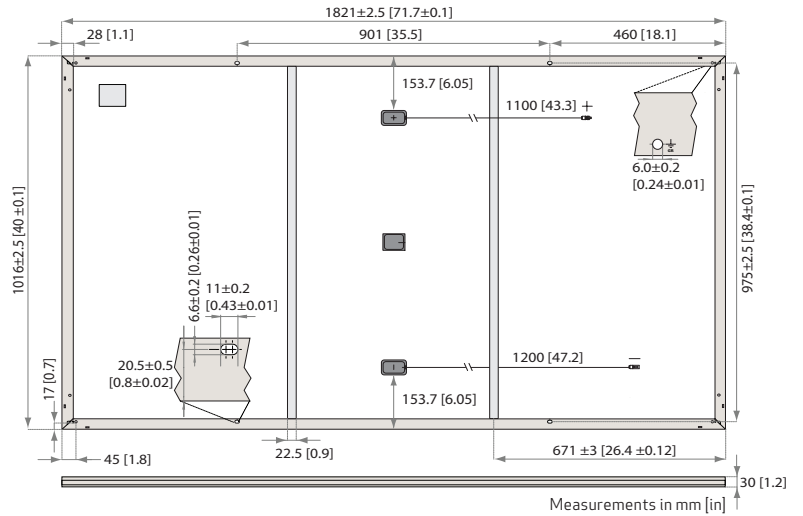


# REC ALPHA PURE SERIES

## PRODUCT SPECIFICATIONS

### GENERAL DATA

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:	Highly resistant polymer (black)
Frame:	Anodized aluminum (black)
Junction box:	3-part, 3 bypass diodes, lead-free IP68 rated, in accordance with IEC 62790
Connectors:	Stäubli MC4 PV-KBT4/KST4 (4 mm <sup>2</sup> ) in accordance with IEC 62852, IP68 only when connected
Cable:	4 mm <sup>2</sup> solar cable, 1.1 m + 1.2 m in accordance with EN 50618
Dimensions:	1821 x 1016 x 30 mm (1.85 m <sup>2</sup> )
Weight:	20.5 kg
Origin:	Made in Singapore



### ELECTRICAL DATA

#### Product Code\*: RECxxxAA Pure

	385	390	395	400	405	410
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 <sub>MPP</sub> (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	9.61
Open Circuit 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	10.22	10.25	10.28	10.30	10.35
Power Density (W/m <sup>2</sup> )	208	211	214	216	219	222
Panel Efficiency (%)	20.8	21.1	21.4	21.6	21.9	22.2

	293	297	301	305	309	312
Power Output - 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
Open Circuit Voltage - V <sub>OC</sub> (V)	45.7	45.8	45.9	46.0	46.1	46.2
Short Circuit Current - I <sub>SC</sub> (A)	8.16	8.20	8.24	8.28	8.32	8.36

Values at standard test conditions (STC: air mass AM 1.5, irradiance 1000 W/m<sup>2</sup>, temperature 25°C), based on a production spread with a tolerance of P<sub>MAX</sub>, V<sub>OC</sub> & I<sub>SC</sub> ±3% within one watt class. Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 800 W/m<sup>2</sup>, temperature 20°C, windspeed 1 m/s). \* Where xxx indicates the nominal power class (P<sub>MAX</sub>) at STC above.

### MAXIMUM RATINGS

Operational temperature:	-40 ... +85°C
Maximum system voltage:	1000 V
Maximum test load (front):	+ 7000 Pa (713 kg/m <sup>2</sup> )*
Maximum test load (rear):	- 4000 Pa (407 kg/m <sup>2</sup> )*
Max series fuse rating:	25 A
Max reverse current:	25 A

\* See installation manual for mounting instructions.  
Design load = Test load / 1.5 (safety factor)

### WARRANTY

	Standard	REC ProTrust	
Installed by an REC Certified Solar Professional	No	Yes	Yes
System Size	All	≤25 kW	25-500 kW
Product Warranty (yrs)	20	25	25
Power Warranty (yrs)	25	25	25
Labor Warranty (yrs)	0	25	10
Power in Year 1	98%	98%	98%
Annual Degradation	0.25%	0.25%	0.25%
Power in Year 25	92%	92%	92%

See warranty documents for details. Conditions apply

### CERTIFICATIONS

IEC 61215:2016, IEC 61730:2016, UL 61730	
IEC 62804	PID
IEC 61701	Salt Mist
IEC 62716	Ammonia Resistance
ISO 11925-2	Ignitability (Class E)
IEC 62782	Dynamic Mechanical Load
IEC 61215-2:2016	Hailstone (35mm)
IEC 62321	Lead-free acc. to RoHS EU 863/2015
ISO 14001, ISO 9001, IEC 45001, IEC 62941	



### TEMPERATURE RATINGS\*

Nominal Module Operating Temperature:	44°C (±2°C)
Temperature coefficient of P <sub>MAX</sub> :	-0.26 %/°C
Temperature coefficient of V <sub>OC</sub> :	-0.24 %/°C
Temperature coefficient of I <sub>SC</sub> :	0.04 %/°C

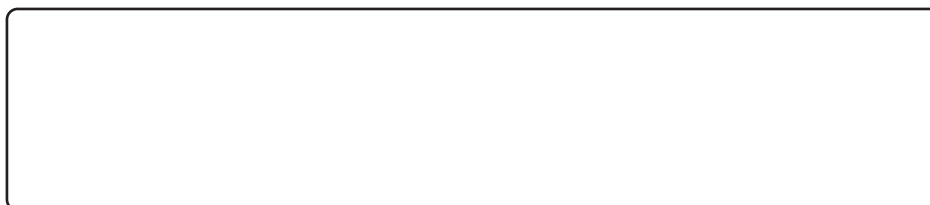
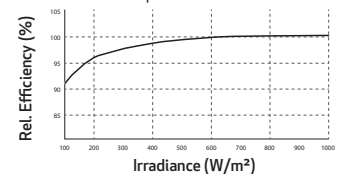
\* The temperature coefficients stated are linear values

### DELIVERY INFORMATION

Panels per pallet:	33
Panels per 40 ft GP/high cube container:	792 (24 pallets)
Panels per 13.6 m truck:	924 (28 pallets)
Panels per 53 ft truck:	891 (27 pallets)

### LOW LIGHT BEHAVIOUR

Typical low irradiance performance of module at STC:



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.



# 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
- / 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
- / UL1741 SA certified, for CPUC Rule 21 grid compliance
- / Small, lightweight, and easy to install both outdoors or indoors
- / Built-in module-level monitoring
- / 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-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXXBXX4							
<b>OUTPUT</b>								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5 <sup>(1)</sup>							Hz
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	A
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5	A
Power Factor	1, Adjustable - 0.85 to 0.85							
GFDI Threshold	1							A
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes							
<b>INPUT</b>								
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650	W
Maximum DC Power @208V	-	5100	-	7750	-	-	15500	W
Transformer-less, Ungrounded	Yes							
Maximum Input Voltage	480							Vdc
Nominal DC Input Voltage	380				400			Vdc
Maximum Input Current @240V <sup>(2)</sup>	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Maximum Input Current @208V <sup>(2)</sup>	-	9	-	13.5	-	-	27	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600k $\Omega$ Sensitivity							
Maximum Inverter Efficiency	99	99.2						%
CEC Weighted Efficiency	99						99 @ 240V 98.5 @ 208V	%
Nighttime Power Consumption	< 2.5							W

<sup>(1)</sup> For other regional settings please contact SolarEdge support

<sup>(2)</sup> A higher current source may be used; the inverter will limit its input current to the values stated

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

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

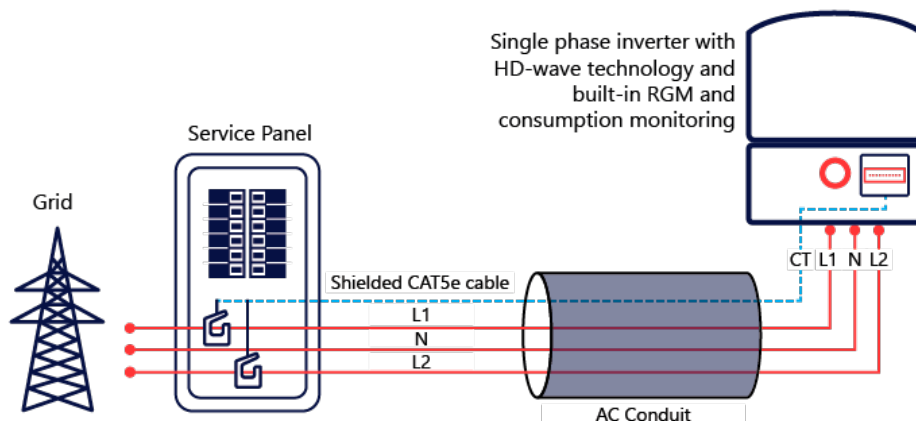
MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US		
<b>ADDITIONAL FEATURES</b>									
Supported Communication Interfaces	RS485, Ethernet, ZigBee (optional), Cellular (optional)								
Revenue Grade Metering, ANSI C12.20	Optional <sup>(3)</sup>								
Consumption 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								
<b>STANDARD COMPLIANCE</b>									
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								
<b>INSTALLATION SPECIFICATIONS</b>									
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" Maximum / 1-2 strings / 14-6 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 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								
Operating Temperature Range	-40 to +140 / -40 to +60 <sup>(4)</sup>								°F / °C
Protection Rating	NEMA 4X (Inverter with Safety Switch)								

<sup>(3)</sup> Inverter with Revenue Grade Meter P/N: SExxxxH-US000BNC4; Inverter with Revenue Grade Production and Consumption Meter P/N: SExxxxH-US000BN14 . For consumption metering, current transformers should be ordered separately: SEACT0750-200NA-20 or SEACT0750-400NA-20. 20 units per box

<sup>(4)</sup> 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>

## 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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# Power Optimizer

For North America

P320 / P340 / P370 / P400 / P401 / P405 / P485 / P505

POWER OPTIMIZER



## PV power optimization at the module-level

- 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
- Next generation maintenance with module-level monitoring
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)
- Module-level voltage shutdown for installer and firefighter safety



# Power Optimizer

## For North America

P320 / P340 / P370 / P400 / P401 / P405 / P485 / P505

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)	P401 (for high power 60 and 72 cell modules)	P405 (for high-voltage modules)	P485 (for high-voltage modules)	P505 (for higher current modules)		
<b>INPUT</b>										
Rated Input DC Power <sup>(1)</sup>	320	340	370	400		405	485	505	W	
Absolute Maximum Input Voltage (Voc at lowest temperature)	48		60	80	60	125 <sup>(2)</sup>		83 <sup>(2)</sup>	Vdc	
MPPT Operating Range	8 - 48		8 - 60	8 - 80	8-60	12.5 - 105		12.5 - 83	Vdc	
Maximum Short Circuit Current (Isc)	11			10.1	11.75	11		14	Adc	
Maximum DC Input Current	13.75			12.5	14.65	12.5		17.5	Adc	
Maximum Efficiency	99.5								%	
Weighted Efficiency	98.8							98.6	%	
Overvoltage Category	II									
<b>OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER)</b>										
Maximum Output Current	15								Adc	
Maximum Output Voltage	60					85			Vdc	
<b>OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF)</b>										
Safety Output Voltage per Power Optimizer	1 ± 0.1								Vdc	
<b>STANDARD COMPLIANCE</b>										
EMC	FCC Part15 Class B, IEC61000-6-2, IEC61000-6-3									
Safety	IEC62109-1 (class II safety), UL1741									
Material	UL94 V-0, UV Resistant									
RoHS	Yes									
<b>INSTALLATION SPECIFICATIONS</b>										
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 153 x 29.5 / 5.1 x 6 x 1.16	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	655 / 1.5	845 / 1.9		1064 / 2.3	gr / lb	
Input Connector	MC4 <sup>(3)</sup>						Single or dual MC4 <sup>(3)(4)</sup>	MC4 <sup>(3)</sup>		
Input Wire Length	0.16 / 0.52								m / ft	
Output Wire Type / Connector	Double Insulated / MC4									
Output Wire Length	0.9 / 2.95			1.2 / 3.9						m / ft
Operating Temperature Range <sup>(5)</sup>	-40 - +85 / -40 - +185								°C / °F	
Protection Rating	IP68 / NEMA6P									
Relative Humidity	0 - 100								%	

(1) Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed

(2) NEC 2017 requires max input voltage be not more than 80V

(3) For other connector types please contact SolarEdge

(4) For dual version for parallel connection of two modules use P485-4NMDMRM. In the case of an odd number of PV modules in one string, installing one P485 dual version power optimizer connected to one PV module. When connecting a single module seal the unused input connectors with the supplied pair of seals.

(5) 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 System Design Using a SolarEdge Inverter <sup>(6)(7)</sup>	Single Phase HD-Wave	Single phase	Three Phase for 208V grid	Three Phase for 277/480V grid	
Minimum String Length (Power Optimizers)	P320, P340, P370, P400, P401	8	10	18	
	P405, P485, P505	6	8	14	
Maximum String Length (Power Optimizers)		25	25	50 <sup>(8)</sup>	
Maximum Power per String	5700 (6000 with SE7600-US - SE11400-US)	5250	6000 <sup>(9)</sup>	12750 <sup>(10)</sup>	W
Parallel Strings of Different Lengths or Orientations	Yes				

(6) For detailed string sizing information refer to: [http://www.solaredge.com/sites/default/files/string\\_sizing\\_na.pdf](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/P401 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 6,500W per string when the maximum power difference between each string is 1,000W

(10) For 277/480V grid: it is allowed to install up to 15,000W per string when the maximum power difference between each string is 2,000W

Subject: ETL Evaluation of SolarEdge Products to NEC 2017 Rapid Shutdown Requirements

To, whom it may concern

This letter represents the testing results of the below listed products to the requirements contained in the following standards:

The evaluation was done on the PV Rapid Shutdown System (PVRSS), and covers installations consisting of optimizers and inverters with part numbers listed below.

The testing done has verified that controlled conductors are limited to:

- Not more than 30 volts and 240 voltamperes within 30 seconds of rapid shutdown initiation outside the array.
- Not more than 80 volts and 240 voltamperes within 30 seconds of rapid shutdown initiation inside the array.

The rapid shutdown initiation is performed by either disconnecting the AC feed to the inverter, or – if the inverter DC Safety switch is readily accessible – by turning off the DC Safety switch.

**Applicable products:**

(1) Power optimizers:

PB followed by 001 to 350; followed by -AOB or -TFI.

OP followed by 001 to 500; followed by -LV, -MV, -IV or -EV.

P followed by 001 to 860.

SP followed by 001 to 350.

When optimizers are connected to 2 or more modules in series, the max input voltage may exceed 80V. Following the implementation of the NEC 2017 rapid shutdown value of 80V max inside of the array at the beginning of 2019, modules exceeding this combined input max voltage will be required to use optimizers with parallel inputs.

(2) 1 -PH Inverters

SE3000A-US / SE3800A-US / SE5000A-US / SE6000A-US / SE7600A-US / SE10000A-US / SE11400A-US / SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US / SE7600H-US / SE10000H-US / SE11400H-US when the following label is labeled on the side of the inverter:

Inverter part number may be followed by a suffix.


(3) 3 -PH Inverters

SE9KUS / SE10KUS / SE14.4KUS / SE20KUS / SE30KUS / SE33.3KUS / SE43.2KUS / SE66.6KUS / SE100KUS; when the following label is labeled on the side of the inverter:

Please note, this Letter Report does not represent authorization for the use of any Intertek certification marks.

<b>Brand Name(s)</b>	SolarEdge
<b>Relevant Standard(s)</b>	UL 1741, UL 1741 CRD for rapid shutdown  National Electric Code, 2017, Section 690.12 requirement for rapid shutdown
<b>Verification Issuing Office</b>	3933 US Route 11, Cortland, NY 13045

*NRTL Disclaimer, Different for each NRTL – Example: "This Verification is for the exclusive use of NRTL's Client and is provided pursuant to the agreement between NRTL and its Client. NRTL's responsibility and liability are limited to the terms and conditions of the agreement. NRTL assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Verification. Only the Client is authorized to copy or distribute this Verification. Any use of the NRTL name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by NRTL. The observations and test results referenced from this Verification are relevant only to the sample tested. This Verification by itself does not imply that the material, product, or service is or has ever been under an NRTL certification program."*

Signature: 

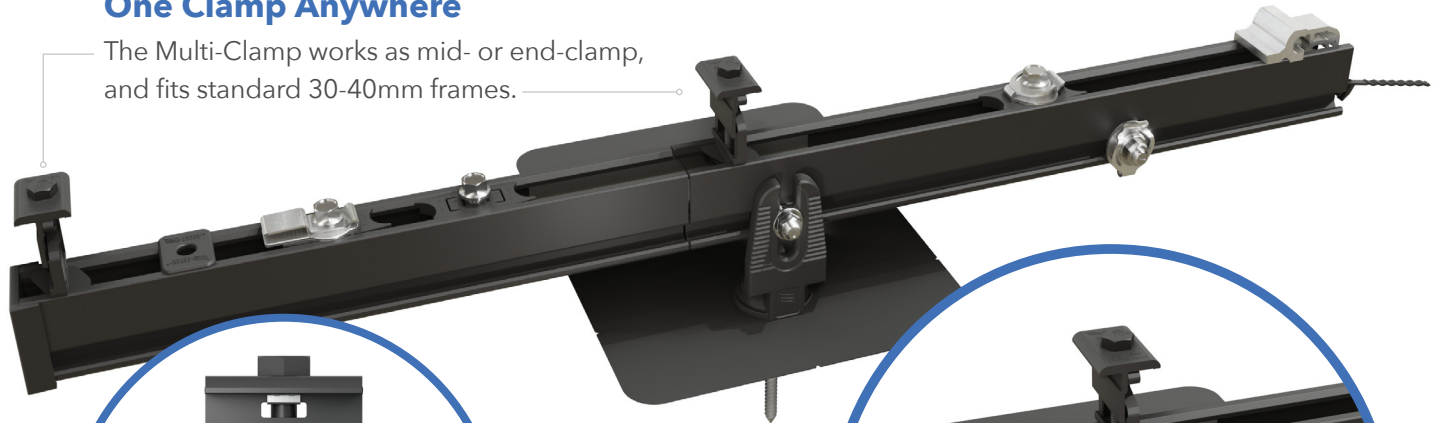
Name: Mukund Rana  
Position: Engineering Team Leader  
Date: 2/11/2020

## One Clamp Anywhere

The Multi-Clamp works as mid- or end-clamp, and fits standard 30-40mm frames.

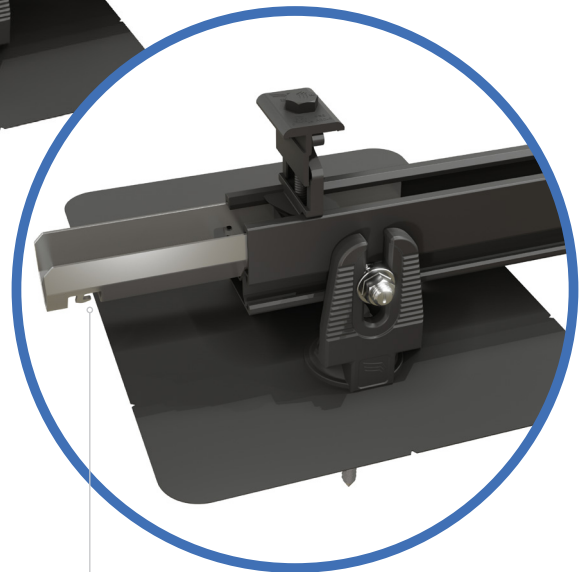
## Instant Bonding

The N-S Bonding Jumper bonds row to row with no tools.



## Lifetime Wire Management

Open rail channel holds and protects wires. Clamps won't pinch wires after tightening.



## Bonding Structural Splice

Connect rails instantly, without tools, interference or limitations.

## Next-Level Solar Mounting

A complete system for hassle-free rooftop installation, from watertight mounts to lifetime wire management.



### Simplicity

1/2" socket for everything.  
One clamp for mid or end.  
No tool splicing and bonding.  
Easy wire management.



### Code Compliant

UL 2703 listed  
LTR-AE-001-2012 listed  
Class A fire rating for any slope  
ASCE 7-16 PE Certified



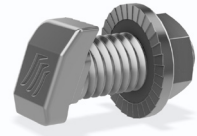
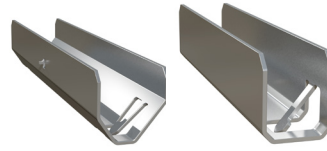
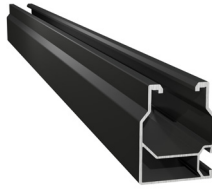
### Premium Aesthetics

The narrowest panel gap available. Optional Hidden End Clamps and End Caps provide a flush look on the edge of the array.



### Watertight for Life

Secured on industry-leading Pegasus Mounts, for composite shingle and tile roofs. Backed by a 25-year warranty.



### Pegasus Rail

Available in 14' and 7' lengths for easy layout and shipping.  
Open-channel design holds MC4 connectors, PV wire and trunk cables.  
Black and Mill finish

### Pegasus Max Rail

Maximum-strength design.  
Meets specifications for high snow-load and hurricane zones.  
Black and Mill finish

### Splice and Max Splice

Installs by hand.  
Works over mounts.  
Structurally connects and bonds rails automatically; UL2703 listed as reusable.

### Dovetail T-bolt

Dovetail shape for extra strength.  
Uses 1/2" socket.



### Multi-Clamp

Fits 30-40mm PV frames, as mid- or end-clamp.  
Twist-locks into position; doesn't pinch wires in rail.  
Bonds modules to rail; UL2703 listed as reusable

### Hidden End Clamp

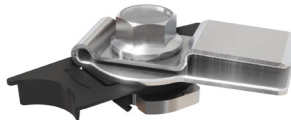
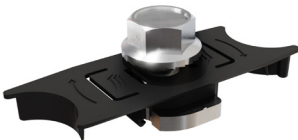
Offers premium edge appearance.  
Preinstalled pull-tab grips rail edge, allowing easy, one-hand installation.  
Tucks away for reuse.

### Ground Lug

Holds 6 or 8 AWG wire.  
Mounts on top or side of rail.  
Assembled on MLPE Mount.  
UL2703 listed as reusable.

### N-S Bonding Jumper

Installs by hand, eliminates row-to-row copper wire.  
UL2703 listed as reusable only with Pegasus Rail.



### MLPE Mount

Secures and bonds most micro-inverters and optimizers to rail.  
Connectors and wires easily route underneath after installation.  
UL2703 listed as reusable.

### Cable Grip

Secures four PV wires or two trunk cables.  
Stainless-steel backing provides durable grip.  
Eliminates sagging wires.

### Wire Clip

Hand operable.  
Holds wires in channel.  
Won't slip.

### End Cap and Max End Cap

Fits flush to PV module and hides raw or angled cuts.  
Hidden drain quickly clears water from rail.

#### Certifications:

- UL 2703, Edition 1
- LTR-AE-001-2012
- ASCE 7-16 PE certified
- Class A fire rating for any slope roof



Quickly calculate the most efficient layout, spans and materials needed to suit your job. Visit the Pegasus Customer Portal. [pegasussolar.com/portal](http://pegasussolar.com/portal)

LOAD		SPAN			
SNOW (PSF)	WIND (MPH)	32"	4'	6'	8'
0	120	PEGASUS RAIL			
	160	PEGASUS RAIL			PEGASUS MAX RAIL
	190	PEGASUS RAIL		PEGASUS MAX RAIL	
15	140	PEGASUS RAIL			PEGASUS MAX RAIL
	160	PEGASUS RAIL		PEGASUS MAX RAIL	
30	160	PEGASUS RAIL		PEGASUS MAX RAIL	
	190	PEGASUS RAIL		PEGASUS MAX RAIL	
45	190	PEGASUS RAIL		PEGASUS MAX RAIL	
70	190	PEGASUS RAIL		PEGASUS MAX RAIL	
110	190	PEGASUS RAIL		PEGASUS MAX RAIL	

For reference only. Spans above are calculated using ASCE 7-16 for a Gable Roof, Exposure Category B, 7-20deg roof angle, 30ft mean roof height with non-exposed modules. For PE certified span tables, visit [www.pegasussolar.com/spans](http://www.pegasussolar.com/spans).

Patents pending. All rights reserved. ©2021 Pegasus Solar Inc.



# COMP MOUNT

## One-Piece Flashing with Elevated Cone

No press-fits or deck-level EPDM washers to fail



## Encapsulating Design

Raises the water seal 0.9" Above roof deck



## Simple 3-Piece Design Watertight For Life

Pegasus solar's comp mounts are a cost effective, high-quality option for rail installations on composition shingle roofs. Designed to last decades, the one-piece flashing with elevated cone means there is simply nothing to fail.



### 25-Year Warranty

Manufactured with advanced materials and coatings to outlast the roof itself



### Code Compliant

Fully IBC/CBC Code Compliant  
Exceeds ASCE 7-16 Standards



### Superior Waterproofing

Tested to AC286 without sealant  
Water seal elevated 0.9" above

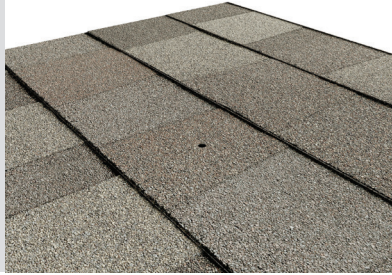


### All-In-One Kit Packaging

Flashings, L-Feet and SS lags with bonded EPDM washers are included in each 24-pack

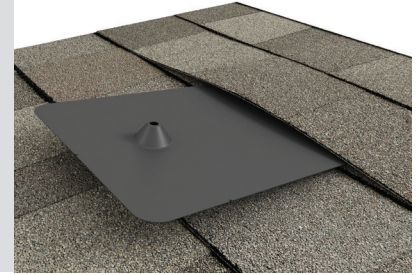
**1**

Drill pilot hole in the center of the rafter.



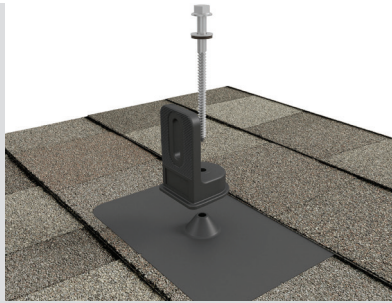
**2**

Optional: Apply a “u-shape” of sealant to the underside of the flashing and position under 2nd shingle course, cone over pilot hole.



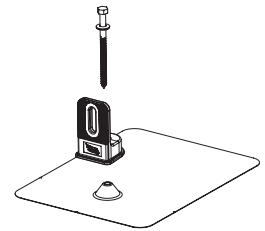
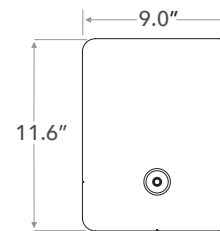
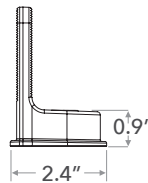
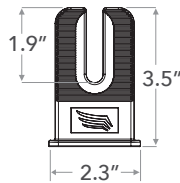
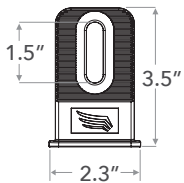
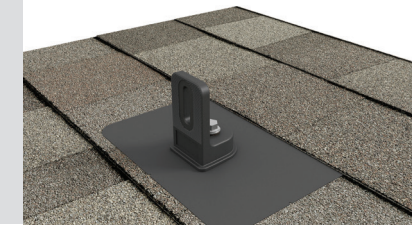
**3**

Place L-Foot over cone and install lag with washer through L-Foot.



**4**

Drive lag to required depth. Attach rail per rail manufacturer’s instructions.



SPECIFICATIONS	COMP MOUNT INSTALL KITS				
SKU	PSCR-CBB0	PSCR-UBB0	SPCR-CBBH	PSCR-CMM0	PSCR-UMM0
Finish	Black L-Foot And Black Flashing			Mill	
L-Foot Type	Closed Slot	Open Slot	Closed Slot	Closed Slot	Open Slot
Kit Contents	L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer and M10 Hex Bolt	L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer
Roof Type	Composition Shingle				
Certifications	IBC, ASCE/SEI 7-16, AC286				
Install Application	Railed Systems				
Compatible Rail	Most				
Kit Quantity	24				
Boxes per Pallet	72				

Protected under US Patent: 10,998,847. Additional patents pending. All rights reserved. ©2021 Pegasus

# POWERWALL

Tesla Powerwall is a fully-integrated AC battery system for residential or light commercial use. Its rechargeable lithium-ion battery pack provides energy storage for solar self-consumption, time-based control, and backup.

Powerwall's electrical interface provides a simple connection to any home or building. Its revolutionary compact design achieves market-leading energy density and is easy to install, enabling owners to quickly realize the benefits of reliable, clean power.



## PERFORMANCE SPECIFICATIONS

<b>AC Voltage (Nominal)</b>	120/240 V
<b>Feed-In Type</b>	Split Phase
<b>Grid Frequency</b>	60 Hz
<b>Total Energy<sup>1</sup></b>	14 kWh
<b>Usable Energy<sup>1</sup></b>	13.5 kWh
<b>Real Power, max continuous</b>	5 kW (charge and discharge)
<b>Real Power, peak (10s, off-grid/backup)</b>	7 kW (charge and discharge)
<b>Apparent Power, max continuous</b>	5.8 kVA (charge and discharge)
<b>Apparent Power, peak (10s, off-grid/backup)</b>	7.2 kVA (charge and discharge)
<b>Load Start Capability</b>	88 - 106 A LRA <sup>2</sup>
<b>Maximum Supply Fault Current</b>	10 kA
<b>Maximum Output Fault Current</b>	32 A
<b>Overcurrent Protection Device</b>	30 A
<b>Imbalance for Split-Phase Loads</b>	100%
<b>Power Factor Output Range</b>	+/- 1.0 adjustable
<b>Power Factor Range (full-rated power)</b>	+/- 0.85
<b>Internal Battery DC Voltage</b>	50 V
<b>Round Trip Efficiency</b>	90% <sup>1,3</sup>
<b>Warranty</b>	10 years

<sup>1</sup>Values provided for 25°C (77°F), 3.3 kW charge/discharge power.

<sup>2</sup>Load start capability may vary.

<sup>3</sup>AC to battery to AC, at beginning of life.

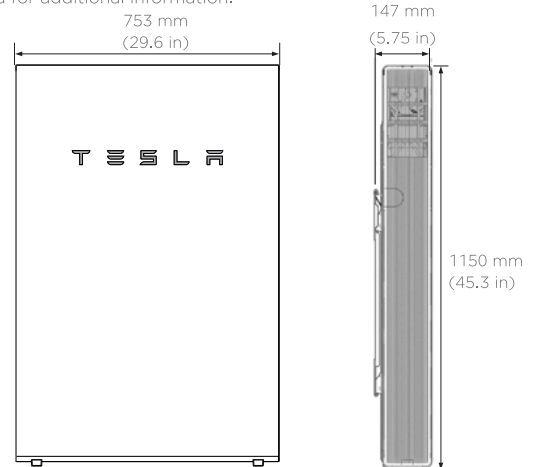
## COMPLIANCE INFORMATION

<b>Certifications</b>	UL 1642, UL 1741, UL 1973, UL 9540, IEEE 1547, UN 38.3
<b>Grid Connection</b>	Worldwide Compatibility
<b>Emissions</b>	FCC Part 15 Class B, ICES 003
<b>Environmental</b>	RoHS Directive 2011/65/EU
<b>Seismic</b>	AC156, IEEE 693-2005 (high)
<b>Fire Testing</b>	Meets the unit level performance criteria of UL 9540A

## MECHANICAL SPECIFICATIONS

<b>Dimensions</b>	1150 mm x 753 mm x 147 mm (45.3 in x 29.6 in x 5.75 in) <sup>4</sup>
<b>Weight</b>	114 kg (251.3 lbs) <sup>4</sup>
<b>Mounting options</b>	Floor or wall mount

<sup>4</sup>Dimensions and weight differ slightly if manufactured before March 2019. Contact Tesla for additional information.



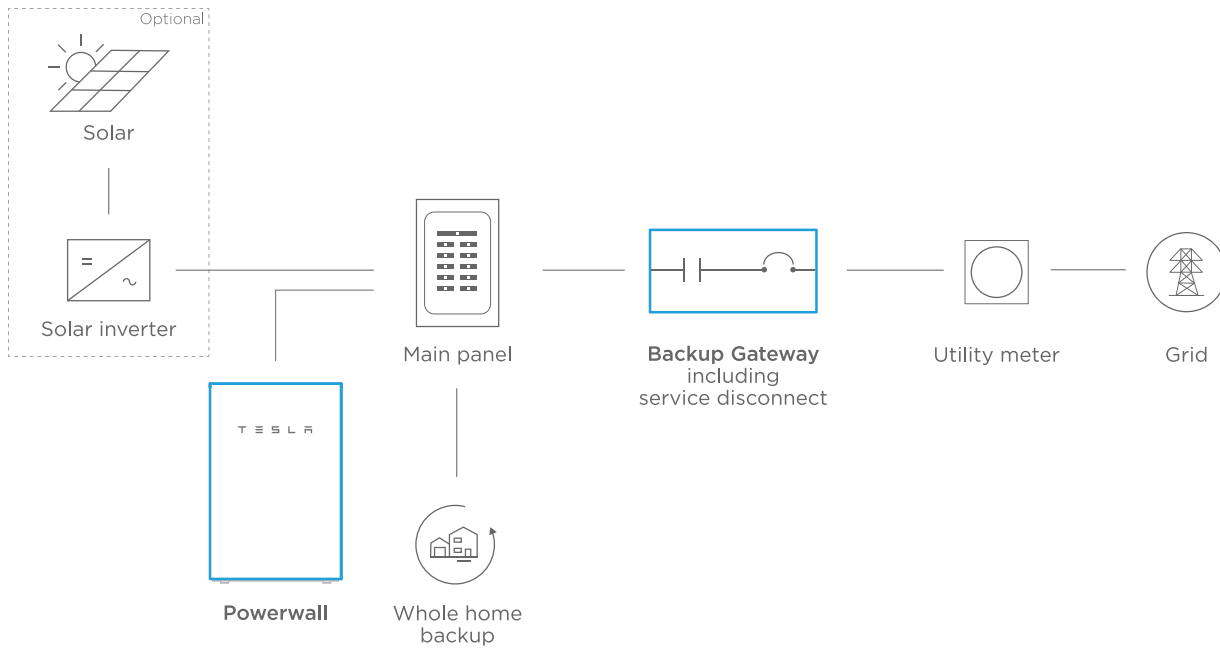
## ENVIRONMENTAL SPECIFICATIONS

<b>Operating Temperature</b>	-20°C to 50°C (-4°F to 122°F) <sup>5</sup>
<b>Recommended Temperature</b>	0°C to 30°C (32°F to 86°F)
<b>Operating Humidity (RH)</b>	Up to 100%, condensing
<b>Storage Conditions</b>	-20°C to 30°C (-4°F to 86°F) Up to 95% RH, non-condensing State of Energy (SoE): 25% initial
<b>Maximum Elevation</b>	3000 m (9843 ft)
<b>Environment</b>	Indoor and outdoor rated
<b>Enclosure Type</b>	NEMA 3R
<b>Ingress Rating</b>	IP67 (Battery & Power Electronics) IP56 (Wiring Compartment)
<b>Wet Location Rating</b>	Yes
<b>Noise Level @ 1m</b>	< 40 dBA at 30°C (86°F)

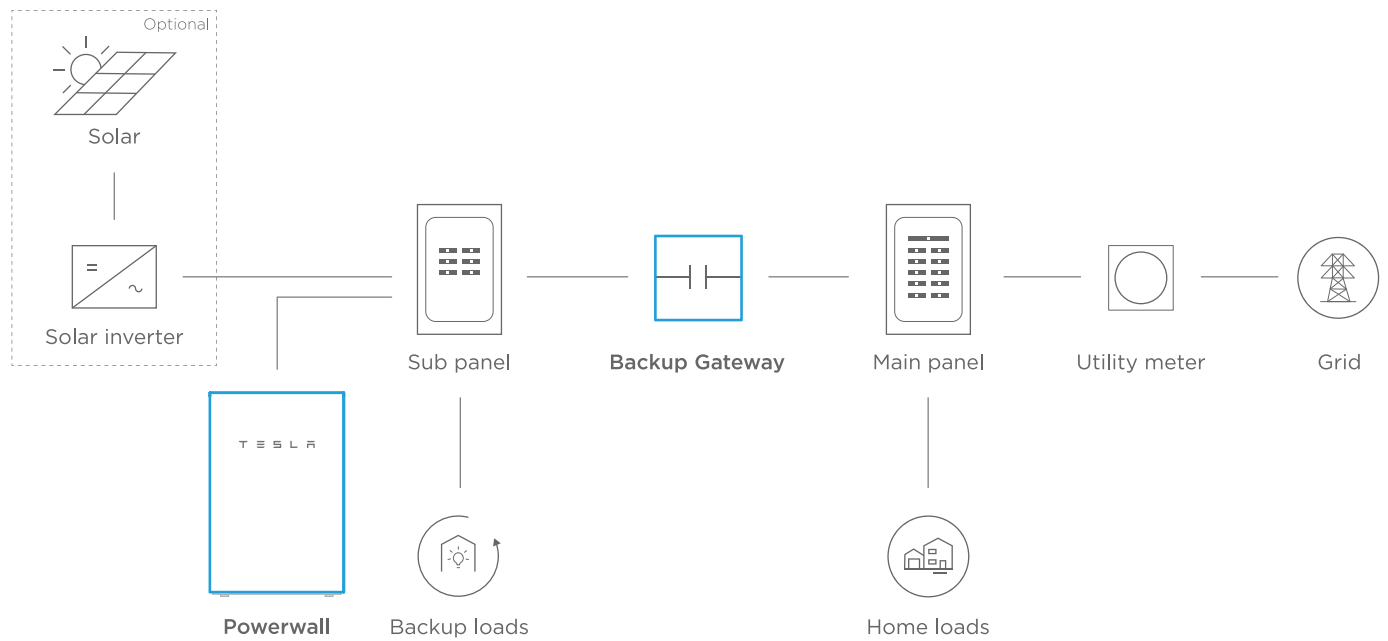
<sup>5</sup>Performance may be de-rated at operating temperatures below 10°C (50°F) or greater than 43°C (109°F).

# TYPICAL SYSTEM LAYOUTS

## WHOLE HOME BACKUP



## PARTIAL HOME BACKUP



# POWERWALL

## Backup Gateway 2

The Backup Gateway 2 for Tesla Powerwall provides energy management and monitoring for solar self-consumption, time-based control, and backup.

The Backup Gateway 2 controls connection to the grid, automatically detecting outages and providing a seamless transition to backup power. When equipped with a main circuit breaker, the Backup Gateway 2 can be installed at the service entrance. When the optional internal panelboard is installed, the Backup Gateway 2 can also function as a load center.

The Backup Gateway 2 communicates directly with Powerwall, allowing you to monitor energy use and manage backup energy reserves from any mobile device with the Tesla app.



### PERFORMANCE SPECIFICATIONS

<b>AC Voltage (Nominal)</b>	120/240V
<b>Feed-In Type</b>	Split Phase
<b>Grid Frequency</b>	60 Hz
<b>Current Rating</b>	200 A
<b>Maximum Input Short Circuit Current</b>	10 kA <sup>1</sup>
<b>Overcurrent Protection Device</b>	100-200A; Service Entrance Rated <sup>1</sup>
<b>Overvoltage Category</b>	Category IV
<b>AC Meter</b>	Revenue accurate (+/- 0.2 %)
<b>Primary Connectivity</b>	Ethernet, Wi-Fi
<b>Secondary Connectivity</b>	Cellular (3G, LTE/4G) <sup>2</sup>
<b>User Interface</b>	Tesla App
<b>Operating Modes</b>	Support for solar self-consumption, time-based control, and backup
<b>Backup Transition</b>	Automatic disconnect for seamless backup
<b>Modularity</b>	Supports up to 10 AC-coupled Powerwalls
<b>Optional Internal Panelboard</b>	200A 6-space / 12 circuit Eaton BR Circuit Breakers
<b>Warranty</b>	10 years

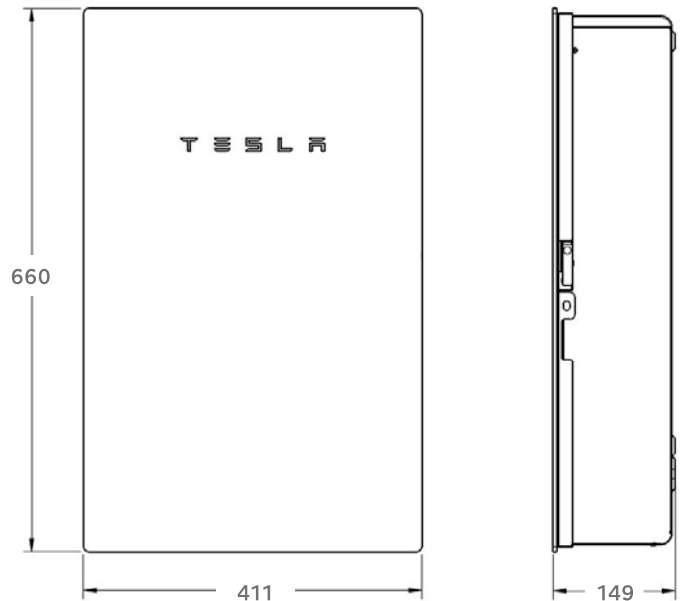
<sup>1</sup> When protected by Class J fuses, Backup Gateway 2 is suitable for use in circuits capable of delivering not more than 22kA symmetrical amperes.  
<sup>2</sup> The customer is expected to provide internet connectivity for Backup Gateway 2; cellular should not be used as the primary mode of connectivity. Cellular connectivity subject to network operator service coverage and signal strength.

### COMPLIANCE INFORMATION

<b>Certifications</b>	UL 67, UL 869A, UL 916, UL 1741 PCS CSA 22.2 0.19, CSA 22.2 205
<b>Emissions</b>	FCC Part 15, ICES 003

### MECHANICAL SPECIFICATIONS

<b>Dimensions</b>	660 mm x 411 mm x 149 mm (26 in x 16 in x 6 in)
<b>Weight</b>	20.4 kg (45 lb)
<b>Mounting options</b>	Wall mount, Semi-flush mount



### ENVIRONMENTAL SPECIFICATIONS

<b>Operating Temperature</b>	-20°C to 50°C (-4°F to 122°F)
<b>Operating Humidity (RH)</b>	Up to 100%, condensing
<b>Maximum Elevation</b>	3000 m (9843 ft)
<b>Environment</b>	Indoor and outdoor rated
<b>Enclosure Type</b>	NEMA 3R





Product availability: Stock - Normally stocked in distribution facility



### Main

Product or component type	Miniature circuit-breaker
Range of product	QOU
Circuit breaker type	Standard
Circuit breaker application	HACR and Switching Duty rated

### Complementary

Line Rated Current	40 A
Number of Poles	2P
Interrupt Rating	10 KA 120/240 V AC 10 KA 120 V AC 5 kA 48 V DC
Electrical connection	Slotted box lugs, line side Slotted box lugs, load side
[Ue] rated operational voltage	120/240 V AC 120 V AC 48 V DC
Mounting mode	Unit mount
AWG gauge	AWG 14...AWG 2 aluminium/copper
Height	102.87 mm (4.05 in)
Depth	74.93 mm (2.95 in)
Width	38.10 mm (1.5 in)
Tightening torque	5.08 N.m (45 lbf.in) AWG 14...AWG 2)

### Environment

Product certifications	CSA UL listed IEC
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### Ordering and shipping details

Category	00900 - QOU BREAKERS & SWITCH
Discount Schedule	DE2
GTIN	00785901418740
Package weight(Lbs)	0.34 kg (0.75 lb(US))
Returnability	Yes
Country of origin	MX

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Compliant <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	No need of specific recycling operations
Halogen content performance	Halogen free product

## Contractual warranty

Warranty	18 months
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by Schneider Electric

List Price \$353.00 USD

Availability **Stock Item: This item is normally stocked in our distribution facility.**

### Technical Characteristics

Number of Poles	2-Pole
Terminal Type	Lugs
Type of Duty	General Duty
Maximum Voltage Rating	240VAC
Wire Size	#10 to #2 AWG(Al) - #14 to #2 AWG(Cu)
Action	Single Throw
Ampere Rating	60A
Approvals	UL Listed File Number E2875
Enclosure Rating	NEMA 3R
Enclosure Type	Rainproof and Sleet/Ice proof (Indoor/Outdoor)
Factory Installed Neutral	No
Disconnect Type	Non-Fusible
Mounting Type	Surface

### Shipping and Ordering

Category	00106 - Safety Switch, General Duty, 30 - 200 Amp, NEMA3R
Discount Schedule	DE1A
GTIN	00785901491491
Package Quantity	1
Weight	4.7 lbs.
Availability Code	Stock Item: This item is normally stocked in our distribution facility.
Returnability	Y
Country of Origin	MX

As standards, specifications, and designs change from time to time, please ask for confirmation of the information given in this document.