

# APPLICATION FOR BUILDING PERMIT

The Village of Irvington | 85 Main St | Irvington NY 10533

Application Number:	980	Date:	12/14/2022
Job Location:	29 DEARMAN CLOSE	Parcel ID:	2.111-59-47.14
Property Owner:	Eric Siegel	Property Class:	RES VACANT LAND
Occupancy:	One/ Two Family	Zoning:	
Common Name:			

<b>Applicant</b>	<b>Contractor</b>
Stacie Varian	Stacie Varian
Tesla Energy Operations	Tesla Energy Operations
1073 Rt 94 Unit 4New Windsor NY 12553	1073 Rt 94 Unit 4 New Windsor NY 12553
8452756011	8452756011

## Description of Work

Type of Work:	Solar Panels	Applicant is:	Contractor
Work Requested by:	The Owner	In association with:	
Cost of Work (Est.):	47666.00	Property Class:	RES VACANT LAND

## Description of Work

***New 17 kw solar PV array consisting of 40 panels plus (2) 13.5 kWh Energy Storage System.***

**Please Note:** Completing the application does not constitute a permit to commence construction. To obtain your permit follow the instructions on the instruction page provided on page 3.



Job Location: 29 DEARMAN CLOSE

Parcel Id: 2.111-59-47.14

### AFFIDAVIT OF APPLICANT

I **Stacie Varian** being duly sworn, depose and says: That s/he does business as: **Tesla Energy Operations** with offices at: **1073 Rt 94 Unit 4 New Windsor NY 12553** and that s/he is:

- ☐ The owner of the property described herein.
- ☐ The \_\_\_\_\_ of the New York Corporation \_\_\_\_\_ with offices at: \_\_\_\_\_ duly authorized by resolution of the Board of Directors, and that said corporation is duly authorized by the owner to make this application.
- ☐ A general partner of \_\_\_\_\_ with offices \_\_\_\_\_ and that said Partnership is duly authorized by the Owner to make this application.
- ☐ The Lessee of the premises, duly authorized by the owner to make this application.
- ☐ The Architect of Engineer duly authorized by the owner to make this application.
- ☒ The contractor authorized by the owner to make this application.

That the information contained in this application and on the accompanying drawings is true to the best of his knowledge and belief. The undersigned hereby agrees to comply with all the requirements of the New York State Uniform Fire Prevention and Building Code, the Village of Irvington Building Code, Zoning Ordinance and all other laws pertaining to same, in the construction applied for, whether or not shown on plans or specify in this application.

Sworn to before me this 14 day of Feb of 2023

Amy M Conn

Stacie Varian

Notary Public / Commission of Deeds

AMY M. CONN  
NOTARY PUBLIC, STATE OF NEW YORK  
Registration No. 01CO6327155  
Qualified in Orange County  
Commission Expires June 29, 2023

Applicant's Signature

### OWNER'S AUTHORIZATION

I **Eric Siegel** as the owner of the subject premises and have authorized the contractor named above to perform the work under the subject application.

Owner phone number (917) 847-9553 Owner email address SIEGELEA@GMAIL.COM

- ☒ I hereby acknowledge that it is my responsibility as the **property owner** to ensure that if the permit (if issued) receives a Final Certificate of Approval from the Building Department and further that if a Final Certificate of Approval is not obtained upon completion of the construction, a property violation may be placed on the property for which this permit is being requested.

State of New York County of New York

Sworn to before me this 24th day of January of 2023

Myra R. Cohen  
Notary Public / Commission of Deeds

MYRA R. COHEN  
Notary Public, State of New York  
No. 01CO4992681  
Qualified in Nassau County  
Certificate Filed in New York County  
Commission Expires March 2, 2026

Eric Siegel  
Applicant's Signature



# APPLICATION FOR ELECTRICAL PERMIT

The Village of Irvington | 85 Main St | Irvington NY 10533

This application is hereby made by the undersigned a licensed electrician, representing the owner, to do electrical work subject to all rules and regulation of New York State, the New York Board of Fire Underwriters and the Board of Trustees of the Village of Irvington.

Application No.: 457

Date: 02/14/2023

Job Location: 29 DEARMAN CLOSE

Parcel ID: 2.111-59-47.14

Common Name:

Property Class: RES VACANT LAND

Occupancy:

Zoning:

Applicant	Property owner
Stacie Varian	Eric Siegel
1073 Rt 94 Unit 4 New Windsor NY 12553	29 Dearman Close IRVINGTON NY 10533
svarian@tesla.com	siegelea@gmail.com
4087637754	
License No. 1814 Expires:	

**Description of Work:** New 17 kw solar OV array consisting of 40 panels plus (2) 13.5 kWh Energy Storage System.

	Outlets		Fixtures		Motors		Heaters	
Location	Sidewall	Switch	INCADE	FLUORE	No.	H.P.Each	No.	Watts
Outside								
Basement								
1st Floor								
2nd Floor								
3rd Floor								
Other								

Associated Building Permit Number:

Electrical Inspection Agency: State Wide Inspections


Frank Saladino being duly sworn, deposes and says:

That (s) he is a duly authorized agent of the owner of the premises mentioned in this application, including the accompanying plans, drawings, and statements (if any) are true, and that this application is true and complete statement, an accordance with the laws and regulations of all proposed work to be done on this property. I further swear that I will abide by all the rules and regulations of all proposed work to be done on this property. I further swear that I will abide by all rules and regulations of the Building Inspector whether specifically stated herein or on the plans or not. I will hold the Village of Irvington and their officials harmless from any liability of any injury or damage to persons or property for the issuance of any license or permits.

A copy of the following information is required with every application:

- A valid Westchester County Electrician's License
- General Liability Insurance (listing the Village of Irvington as Additional Insured)
- Workers Compensation Policy
- Fee of \$85

Signature of Licensed Electrician





**STATE WIDE INSPECTION SERVICES, INC.***Service With Integrity*1080 Main Street, Fishkill, NY. 12524 | Email: OFFICE@SWISNY.COM  
tel 845.202.7224 | fax 914.219.1062 | SWISNY.com | SWISTRaining.COM

Office Use		Elect. Permit #						Date		
		Bldg Permit #						Sq Ft		
		Plumbing Permit #								
		Final Certificate #								
City / Village		Zip		Building Dept.				County		
Address		Cross Street			Section		Block		Lot	
Owner Name / Address (If different than above)						Contact Number				
Basement		1st Fl.	2nd Fl.	3rd Fl.	More Than 3 Fl.	Garage	Attic	Outside	Residential	Commercial
Receptacles	Special Recept Amt    Amps	GFCI	AFCI	Switches	Dimmers	Smoke Alarms	C / O Detector	Hood	Trash Compact	
Range (s)	Cooktop (s)	Oven (s)	Dishwashers	Refrigerator	Disposal	Microwave	Luminaires	Generator	Transfer Switch	
<b>SERVICE</b>										
Amperage	#Panels	1P	3P	# Meters	# Disconnect	Underground Overhead	New Upgrade	Reconnect Disconnect	Repair	
Utility ID#		Con Ed			NYSEG		Central Hudson		Orange / Rockland	
<b>PHOTOVOLTAIC SYSTEM</b>										
PV Modules	Inverters	AC Disconnect	Junction Box	Combiner Box	Load Center	PV Monitor	Energy Storage System		DC Disconnect	
Legalization				Safety Inspection				Consultation		
Scope of Work										
<div>SWIS</div>										
This application is valid for one (1) year from the date received by SWIS. This application is intended to cover the above listed items to be inspected, if at any time of inspection additional items have been installed, you are authorized to make the inspection and adjust the fee for the additional items inspected. The applicant declares that there is no open applications for the above address with any other inspection company. The applicant, owner or authorized agent agrees to all the above terms and conditions as set forth for the application.										
Email Address						Name				
License #				Date		Signature				
Address				City / State				Zip Code		
Company						Phone #				



## VILLAGE OF IRVINGTON

### BUILDING DEPARTMENT

85 MAIN STREET

IRVINGTON, NEW YORK 10533

TEL: (914) 591-8335 • FAX: (914) 591-5870



## PHOTOVOLTAIC (PV SOLAR) RESIDENTIAL SYSTEMS PERMIT APPLICATION CHECK LIST

Revised June 7, 2017

It is suggested that all applicants applying for a permit read and understand the manufacture installation instructions prior to applying for a building permit and attached ARB guide lines and Village code for Solar Energy Equipment.

### REQUIREMENTS TO APPLY FOR A PHOTOVOLTAIC (PV SOLAR) SYSTEM PERMIT

- ☒ 1) Apply on line at [www.irvingtonny.gov](http://www.irvingtonny.gov) for a mechanical permit, under building permits and along with your application, submit to the building department the following;
- ☒ 2) Owners phone number and email address entered in the online permit application
- ☒ 3) Evidence of Workers Compensation Insurance (on a C-105 or equivalent)
- ☒ 4) Evidence of Liability Insurance naming the Village of Irvington additional insured
- ☒ 5) A copy of the contractors Westchester County Department of Consumer Protection License
- ☒ 6) Pursuant to 9-12-A. provide evidence of notice to adjacent properties owners not less than 10 days prior to the meeting (see attached code section for more details)
- ☒ 7) Submit permit fee: **(all fees must be paid at time of submission)**
  - ☒ \$85 application fee
  - ☐ \$200 for systems up to 5 kilowatts
  - ☐ \$450 for systems above 5 kilowatts and less than 10 kilowatts
  - ☒ \$700 for systems above 10 kilowatts and less than 20 kilowatts
  - ☐ \$700 plus \$250 per additional 10 kilowatts above 20 for systems above 20 kilowatts
  - ☐ \$75 Certificate of Completion inspection and fee
- ☒ 8) An affidavit from a NYS licensed professional detailing and certifying that the existing structure meets or exceeds the minimum load requirement's as per TABLE R301.2(1) for wind and load before and after installation of the proposed equipment or the proposed upgrades to the existing structure to accomplish the aforesaid.
- ☒ 9) Drawings (signed and sealed by a NYS licensed professional) of the roof plan showing the following criteria;
  - a. ☒ Showing all proposed PV panels on all proposed roof surfaces.
  - b. ☒ Showing all equipment on all elevations including
  - c. ☒ Show / list all roof connectors and flashing details
  - d. ☒ Show compliance with section R902.4 (fire classification in accordance with UL1703 and 3' from any lot line)
  - e. ☒ Show compliance with sections R324.3.1 through R324.7.2.5 and NFPA 70 (installation)
  - f. ☒ Show compliance with section R324.7 (access and pathways) (see attachment)
  - g. ☒ Show compliance with section R324.7.2.1-6. (roof access points) (see attachment)
  - h. ☒ Show compliance with section R324.7.3 (ground access areas) (see attachment)
  - i. ☒ Show compliance with section R324.7.4 (single ridge roofs *when applicable*) (see attachment)
  - j. ☒ Show compliance with section R324.7.5 (hip roofs *when applicable*) (see attachment)
  - k. ☒ Show compliance with section R324.7.6 (roof with valleys *when applicable*) (see attachment)
  - l. ☒ Show compliance with section R324.7.7 (allowance for smoke ventilation operations) (see attachment)
  - m. ☒ Show a Fire Department AC disconnect, located outside by the Utility meter on all systems.
- ☒ 10) Provide a drawing or manufactures cut sheets of array mounting hardware and interconnection diagram and specifications.
- ☒ 11) Provide a drawing or manufactures cut sheets of the unit mount and roof penetration's flashing system.
- ☒ 12) 3 wire diagram showing all proposed equipment as governed by the National Electrical Code (NEC)
- ☒ 13) Provide a diagram showing all proposed labels and labeling locations including: Solar AC Disconnect, Inverter Output, Connection Warning, Dual Power Source Warning, Solar AC Combiner Panel, Solar PV Circuits Only, Solar Production meter. (see attachment)
- ☒ 14) Provide snow guards on panels were snow has the potential of sliding of the panel into a neighbor's property
- ☒ 15) Pictures of dwelling showing photo shopped arrays on the structure.
- ☒ 16) Provide a drawing or photo shop picture of all proposed equipment on all effected elevations (including FD emergency disconnect switch)
- ☒ 17) A Fire Department AC disconnect, located outside by the Utility meter on all systems.



# VILLAGE OF IRVINGTON

## BUILDING DEPARTMENT

85 MAIN STREET

IRVINGTON, NEW YORK 10533

TEL: (914) 591-8335 • FAX: (914) 591-5870



- ☒ 18) Separate Electrical Permit application by a Westchester County Department of Licensing, licensed Electrician with required insurances and the appropriate fee (must be filed by the licensed contractor, see village application for further details).
- ☒ 19) Submit signed check list with submission and appropriate building permit fee.
- ☒ 20) Applicant has provided seven copies of the entire submittal for Architectural Review Board approval.

### Applicant Affidavit:

Applicants Name: Stacie Varian

Applicants Address: 1073 Rt 94 Unit 4  
New Windsor, NY 12553

Applicants Phone # 408-763-7754

Applicants Email svarian@tesla.com

**Applicant Name:** Stacie Varian of Tesla Energy Operations **Signature:** Stacie Varian **Date:** 2/14/23 **By signing this affidavit I attest to have read the attached Solar Energy Equipment Code and the Solar Equipment Guidelines manufactures installation instructions and that all information asked for above has been submitted and that the submitted information is correct.**

### General Contractor Affidavit:

Contractors Name: Tesla Energy Operations

Contractors Address: 1073 Rt 94 Unit 4  
New Windsor, NY 12553

Contractors Phone # 408-763-7754

Contractors Email svarian@tesla.com

**General Contractor Name:** Tesla Energy Operations **Signature:** Stacie Varian **Date:** 2/14/23 **By signing this affidavit I attest to being the general contractor of record for this application and will be responsible for oversight and direct supervision of same, and will maintain a valid Westchester County Department of Consumer Protection License, a valid for Workers Compensation Policy and a General Liability Policy listing the Village of Irvington as Certificate Holder and additional insured with no conditions until such time I apply for and receive a Certificate of Completion.**

### Electrical Contractor Affidavit:

Electrical Contractors Name: Frank Saladino of Tesla Energy Operations

Electrical Contractors Address: 1073 Rt 94 Unit 4  
New Windsor, NY 12553

Electrical Contractors Phone # 408-763-7754

Electrical Contractors Email fsaladino@tesla.com

**Electrical Contractor Name:** Frank Saladino of Tesla Energy Operations **Signature:** [Signature] **Date:** 2/14/23 **By signing this affidavit I attest to being the electrical contractor of record for this application and will be responsible for oversight and direct supervision of same, and will maintain a valid Westchester County Electrical License, a valid for Workers Compensation Policy and a General Liability Policy listing the Village of Irvington as Certificate Holder and additional insured with no conditions until such time I apply for and receive a Certificate of Completion.**

Note: Applications for all exterior elevation changes including photovoltaic solar systems are required to apply for, make a presentation in front of, and receive approval from the Village of Irvington Architectural Review Board (ARB) prior to issuance of a building permit. The ARB meetings are the second and fourth Mondays of the month, with a deadline for submissions one week prior to the meetings (see village web site for confirmation of meetings). Seven sets of copies of the entire application are required to be submitted at the deadline with appropriate fee at the time of submission.

Note: The following list above is given to assist in the application process. It is not intended to be a replacement for the Building or Zoning Code, County or State Regulations, or Consolidate Edison Requirements. Unique and Special projects may require additional information.

**\*Hours of Construction: Monday-Friday 7AM-7PM; Saturday 9AM-5PM; Sunday and holiday's construction is prohibited**

**\*Only completed applications will be accepted with attached insurance certificates and County license**



# NOTICE OF APPLICATION AND HEARING

Board of Architectural Review

Clerk's Office

Village of Irvington

Westchester County, New York

CERTIFIED MAIL

Date of Mailing 2/14/23

## NOTICE:

Pursuant to 9-12 of the code of the Village of Irvington notice to adjacent neighbors (as defined below) is required 10 days prior a meeting where an application for Solar Panels to the Village of Irvington Architectural Board is asking to be heard.

Date of Meeting: 3/27/23  
Time of Meeting: Meeting starts at 8pm  
Location of Meeting: Trustees Meeting Room  
85 Main St. Irvington, NY 10533

Applicant Name	<u>Stacie Varian</u>	Owners Name	<u>Eric Siegel</u>
Applicant Mailing Address	<u>1073 Rt 94 Unit 4</u> <u>New Windsor, NY 12553</u>	Owner Mailing Address	<u>29 Dearman Cl</u> <u>Irvington, NY 10533</u>
Applicant Phone Number	<u>408-763-7754</u>	Owners Phone Number	<u>917-847-9553</u>
Applicant Email Address	<u>svarian@tesla.com</u>	Owners Email Address	<u>siegelea@gmail.com</u>

Address of Proposed Solar Panels:

Street Address 29 Dearman Cl. Irvington, NY 10533

To Adjacent Neighbors of: Eric Siegel  
29 Dearman Cl. Irvington, NY 10533

Please take notice that the applicant named above is requesting the Board of Architectural Review of the Village of Irvington to grant a permit for the installation of **Solar Energy Equipment** to the address listed above.

Plans of the proposed work are available in the office of the Irvington Building Department for public inspection during regular business hours 5 days prior to the scheduled meeting.

### 9-12. SolarEnergyEquipment.

*For any application for a building permit for solar energy equipment, written notice of the application and the date, time and place of the meeting at which it will be considered must be given to all adjacent property\* owners not less than 10 days prior to the meeting date. Notice shall be by a method of mail or a delivery service company providing proof of mailing or delivery or by personal service of such notice on the property owners, evidenced by their signature as acknowledgment of receipt of such notice on a form supplied or similar to one supplied by the Village Clerk. Proof of service of the notice shall be filed prior to or at the meeting at which the application is considered.*

*("Adjacent property" refers to any neighbor that shares a property line with the subject property as well as neighbors across any street from the subject property.)*



# U.S. Postal Service<sup>TM</sup> CERTIFIED MAIL<sup>®</sup> RECEIPT

Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com).

Irvington, NY 10533

Certified Mail Fee \$4.15  
\$  
Extra Services & Fees (check box, add fee as appropriate)  
☐ Return Receipt (hardcopy) \$0.00  
☐ Return Receipt (electronic) \$0.00  
☐ Certified Mail Restricted Delivery \$0.00  
☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.63  
\$  
Total Postage and Fees \$4.78  
\$

0049  
04

Postmark  
Here

02/23/2023

Sent To Antonelli Daniel  
Street and Apt. No., or PO Box No. 27 Deelman Ct.  
City, State, ZIP+4<sup>®</sup> Irvington, NY 10533

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

# U.S. Postal Service<sup>TM</sup> CERTIFIED MAIL<sup>®</sup> RECEIPT

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☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.63  
\$  
Total Postage and Fees \$4.78  
\$

0049  
04

Postmark  
Here

02/23/2023

Sent To Anthony Petiti  
Street and Apt. No., or PO Box No. 31 Deelman Ct.  
City, State, ZIP+4<sup>®</sup> Irvington, NY 10533

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

# U.S. Postal Service<sup>TM</sup> CERTIFIED MAIL<sup>®</sup> RECEIPT

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☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.63  
\$  
Total Postage and Fees \$4.78  
\$

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04

Postmark  
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02/23/2023

Sent To Deelman Homeowners Association  
Street and Apt. No., or PO Box No. P.O. Box 172  
City, State, ZIP+4<sup>®</sup> Irvington, NY 10533

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions

# U.S. Postal Service<sup>TM</sup> CERTIFIED MAIL<sup>®</sup> RECEIPT

Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com).

Irvington, NY 10533

Certified Mail Fee \$4.15  
\$  
Extra Services & Fees (check box, add fee as appropriate)  
☐ Return Receipt (hardcopy) \$0.00  
☐ Return Receipt (electronic) \$0.00  
☐ Certified Mail Restricted Delivery \$0.00  
☐ Adult Signature Required \$0.00  
☐ Adult Signature Restricted Delivery \$0.00

Postage \$0.63  
\$  
Total Postage and Fees \$4.78  
\$

0049  
04

Postmark  
Here

02/23/2023

Sent To School District No 2  
Street and Apt. No., or PO Box No. 40 N Broadway  
City, State, ZIP+4<sup>®</sup> Irvington, NY 10533

PS Form 3800, April 2015 PSN 7530-02-000-9047

See Reverse for Instructions





February 18, 2022

RE: CERTIFICATION LETTER

Project/Job # 1055036

Project Address: Siegel Residence  
29 Dearman Ct Pd  
Irvington, NY 10533

AHJ Irvington Village  
SC Office New Windsor

**Design Criteria:**

- Applicable Codes = 2020 RCNYS/BCNYS/EBCNYS with 2020 NYSUCS, ASCE 7-16, and 2018 NDS
- Risk Category = II
- Wind Speed = 120 mph (3-s Gust - Vult), Exposure Category C, Partially/Fully Enclosed Method
- Ground Snow Load = 35 psf
- MP1: 2x12 Stick Frame @ 24" OC, Comp Roof, Roof DL = 15 psf, Roof LL/SL = 24.3 psf (Non-PV), Roof LL/SL = 22.7 psf (PV)
- MP2: 2x12 Stick Frame @ 24" OC, Comp Roof, Roof DL = 15 psf, Roof LL/SL = 24.3 psf (Non-PV), Roof LL/SL = 22.7 psf (PV)
- MP3: 2x12 Stick Frame @ 24" OC, Comp Roof, Roof DL = 15 psf, Roof LL/SL = 24.3 psf (Non-PV), Roof LL/SL = 22.7 psf (PV)
- MP4: 2x12 Stick Frame @ 24" OC, Comp Roof, Roof DL = 15 psf, Roof LL/SL = 24.3 psf (Non-PV), Roof LL/SL = 22.7 psf (PV)

Note: Per IBC 1613.1; Seismic check is not required because  $S_s = 0.295 < 0.4g$  and Seismic Design Category (SDC) = B < D

To Whom It May Concern,

A jobsite survey of the existing framing system of the address indicated above was performed by a site survey team from Tesla. Structural evaluation was based on site observations and the design criteria listed above.

Based on this evaluation, I certify that the alteration to the existing structure by installation of the PV system meets the prescriptive compliance requirements of the applicable existing building and/or new building provisions adopted/referenced above.

Additionally, I certify that the PV module assembly including all standoffs supporting it have been reviewed to be in accordance with the manufacturer's specifications and to meet and/or exceed all requirements set forth by the referenced codes for loading.

The PV assembly hardware specifications are contained in the plans/docs submitted for approval.



NY

By Yuri at 6:41:05 PM, 2/18/2022



**HARDWARE DESIGN AND STRUCTURAL ANALYSIS RESULTS SUMMARY TABLES**

Landscape Hardware	Hardware - Landscape Modules' Standoff Specifications					
	X-X Spacing	X-X Cantilever	Y-Y Spacing	Y-Y Cantilever	Configuration	Uplift DCR
MP1	72"	24"	41"	NA	Staggered	61.5%
MP2	72"	24"	41"	NA	Staggered	61.5%
MP3	72"	24"	41"	NA	Staggered	61.5%
MP4	72"	24"	41"	NA	Staggered	61.5%

Portrait Hardware	Hardware - Portrait Modules' Standoff Specifications					
	X-X Spacing	X-X Cantilever	Y-Y Spacing	Y-Y Cantilever	Configuration	Uplift DCR
MP1	48"	18"	82"	NA	Staggered	82.7%
MP2	48"	18"	82"	NA	Staggered	82.7%
MP3	48"	18"	82"	NA	Staggered	82.7%
MP4	48"	18"	82"	NA	Staggered	82.7%

Mounting Plane	Structure Information			Qualification Results
	Type	Pitch	Spacing	Member Evaluation Results
MP1	Stick Frame	14°	24" O.C.	Member Impact Check OK
MP2	Stick Frame	14°	24" O.C.	Member Impact Check OK
MP3	Stick Frame	14°	24" O.C.	Member Impact Check OK
MP4	Stick Frame	14°	24" O.C.	Member Impact Check OK





## LICENSED PROFESSIONAL AFFIDAVIT for RESIDENTIAL SOLAR SYSTEMS

TO BE SUBMITTED AS PART OF THE PERMIT APPLICATION

### AFFIDAVIT OF ARCHITECT OR ENGINEER

State of New York } ss.:  
County of Westchester }

I the undersigned, under penalty of perjury, do hereby affirm:

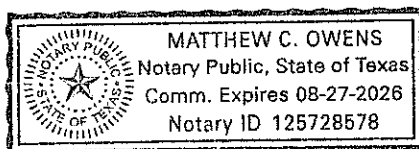
1. I am an the (architect)(engineer) duly licensed in the State of New York
2. I am the NYS licensed design professional named in the Application for which a Building Permit for a residential solar system located at 29 Dearman Ct., Irvington, New York 10533.
3. I have inspected the existing building and structure and find that the existing structure with the proposed solar panel installation and connections to the existing roof meet the minimum criteria set forth in;  
Applicable Codes: 2020 ~~2015~~ Residential Code of New York State  
Design Roof Load: 30 psf live load, 115 psf dead load, 45 psf total load  
Design Wind Load: 120 mph, 35psf  
OR have proposed additional measures to insure compliance with above.
4. I have reviewed the following submitted drawings and/or manufacture specifications as part of the submission  
List applicable plans with revision dates: \_\_\_\_\_ (rev date) \_\_\_\_\_  
\_\_\_\_\_ (rev date) \_\_\_\_\_  
\_\_\_\_\_ (rev date) \_\_\_\_\_  
\_\_\_\_\_ (rev date) \_\_\_\_\_  
\_\_\_\_\_ (rev date) \_\_\_\_\_
5. The plans, drawings and specifications which the Building Permit is requested and listed above, as submitted (a)-were prepared by me or under my supervision, and (b)-to the best of my knowledge comply with the requirements of the Residential Building Code of New York State as adopted by the Village of Irvington, applicable design loads and all other applicable laws, rules and regulations governing building construction.

NY  
Signature \_\_\_\_\_  
Yurianto Yurianto, P.E.  
~~(Architect)~~ (Engineer)



Sworn to before me this  
1st day of February, 2023.

Matthew C. Owens  
Notary Public





George Latimer  
Westchester County Executive

Westchester  
gov.com

James Maisano  
Director, Consumer Protection

## Department of Consumer Protection Home Improvement License

TESLA ENERGY OPERATIONS INC

15 TARKETT ROAD - #4

NEW WINDSOR, NY-12553

This license is issued in accordance with Article XVI of the Westchester County Consumer Protection Code and is valid only upon presence of the official department seal. Proof of citizenship or immigration status is not required for issuance of this license.  
NOT FOR FEDERAL PURPOSES

License Number

WC-31199-H18

Date of Expiration

10/31/2024





Westchester County Electrical Licensing Board  
Westchester County Consumer Protection  
**Master Electrician License 2023**



Frank J Saladino  
D.O.B: 11/3/1970  
Company:  
Tesla Energy Operations, Inc  
15 Tarkett Drive Unit 4  
New Windsor, NY 12553

License No. 1814  
Expires on:12/31/2023

  
Peter Borducci





**CERTIFICATE OF INSURANCE COVERAGE**  
under the NYS DISABILITY AND PAID FAMILY LEAVE BENEFITS LAW

**PART 1. To be completed by Disability and Paid Family Leave Benefits Carrier or Licensed Insurance Agent of that Carrier**

1a. Legal Name & Address of Insured (use street address only) Tesla Energy Operations, Inc. 901 Page Ave. Fremont, Ca 94538  Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., Wrap-Up Policy)	1b. Business Telephone Number of Insured  1c. Federal Employer Identification Number of Insured or Social Security Number 02-0781046
2. Name and Address of Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder) Village of Irvington 85 Main St. Irvington, NY 10533	3a. Name of Insurance Carrier <b>New York Life Group Insurance Company of NY</b>  3b. Policy Number of Entity Listed in Box "1a" NYD075811 3c. Policy effective period 1/1/2023 to 1/1/2024
4. Policy provides the following benefits: <input checked="" type="checkbox"/> A. Both disability and paid family leave benefits. <input type="checkbox"/> B. Disability benefits only. <input type="checkbox"/> C. Paid family leave benefits only. 5. Policy covers: <input checked="" type="checkbox"/> A. All of the employer's employees eligible under the NYS Disability and Paid Family Leave Benefits Law. <input type="checkbox"/> B. Only the following class or classes of employer's employees: _____ Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has NYS Disability and/or Paid Family Leave Benefits insurance coverage as described above. <p style="text-align: center;"><i>Marceline E. Reilly</i></p> <p>Date Signed December 29, 2022638 By _____ (Signature of insurance carrier's authorized representative or NYS Licensed Insurance Agent of that insurance carrier)</p> <p>Telephone Number <u>1-866-761-4236</u> Name and Title <u>Underwriting Director</u></p> <p>IMPORTANT: If Boxes 4A and 5A are checked, and this form is signed by the insurance carrier's authorized representative or NYS Licensed Insurance Agent of that carrier, this certificate is COMPLETE. Mail it directly to the certificate holder. If Box 4B, 4C or 5B is checked, this certificate is NOT COMPLETE for purposes of Section 220, Subd. 8 of the NYS Disability and Paid Family Leave Benefits Law. It must be mailed for completion to the Workers' Compensation Board, Plans Acceptance Unit, PO Box 5200, Binghamton, NY 13902-5200.</p>	

**PART 2. To be completed by the NYS Workers' Compensation Board (Only if Box 4B, 4C or 5B of Part 1 has been checked)**

<b>State of New York</b> <b>Workers' Compensation Board</b>	
According to information maintained by the NYS Workers' Compensation Board, the above-named employer has complied with the NYS Disability and Paid Family Leave Benefits Law with respect to all of his/her employees.	
Date Signed _____	By _____ (Signature of Authorized NYS Workers' Compensation Board Employee)
Telephone Number _____	Name and Title _____

**Please Note:** Only insurance carriers licensed to write NYS disability and paid family leave benefits insurance policies and NYS licensed insurance agents of those insurance carriers are authorized to issue Form DB-120.1. **Insurance brokers are NOT authorized to issue this form.**







## CERTIFICATE OF NYS WORKERS' COMPENSATION INSURANCE COVERAGE

<p>1a. Legal Name &amp; Address of Insured (use street address only)</p> <p>Tesla Energy Operations, Inc. 1 Tesla Road Austin, TX 78725</p> <p>Work Location of Insured (Only required if coverage is specifically limited to certain locations in New York State, i.e., a Wrap-Up Policy)</p>	<p>1b. Business Telephone Number of Insured 650-963-5100</p> <p>1c. NYS Unemployment Insurance Employer Registration Number of Insured 49-892777</p> <p>1d. Federal Employer Identification Number of Insured or Social Security Number 02-0781046</p>
<p>2. Name and Address of Entity Requesting Proof of Coverage (Entity Being Listed as the Certificate Holder)</p> <p>Village of Irvington 85 Main Street Irvington, NY 10533</p>	<p>3a. Name of Insurance Carrier American Zurich Insurance Company</p> <p>3b. Policy Number of Entity Listed in Box "1a" WC 1074583-05</p> <p>3c. Policy effective period 10/31/2022 to 10/31/2023</p> <p>3d. The Proprietor, Partners or Executive Officers are <input checked="" type="checkbox"/> included. (Only check box if all partners/officers included) all <input type="checkbox"/> excluded or certain partners/officers excluded.</p>

This certifies that the insurance carrier indicated above in box "3" insures the business referenced above in box "1a" for workers' compensation under the New York State Workers' Compensation Law. **(To use this form, New York (NY) must be listed under Item 3A on the INFORMATION PAGE of the workers' compensation insurance policy).** The Insurance Carrier or its licensed agent will send this Certificate of Insurance to the entity listed above as the certificate holder in box "2".

The insurance carrier must notify the above certificate holder and the Workers' Compensation Board within 10 days IF a policy is canceled due to nonpayment of premiums or within 30 days IF there are reasons other than nonpayment of premiums that cancel the policy or eliminate the insured from the coverage indicated on this Certificate. (These notices may be sent by regular mail.) **Otherwise, this Certificate is valid for one year after this form is approved by the insurance carrier or its licensed agent, or until the policy expiration date listed in box "3c", whichever is earlier.**

This certificate is issued as a matter of information only and confers no rights upon the certificate holder. This certificate does not amend, extend or alter the coverage afforded by the policy listed, nor does it confer any rights or responsibilities beyond those contained in the referenced policy.

This certificate may be used as evidence of a Workers' Compensation contract of insurance only while the underlying policy is in effect.

**Please Note: Upon cancellation of the workers' compensation policy indicated on this form, if the business continues to be named on a permit, license or contract issued by a certificate holder, the business must provide that certificate holder with a new Certificate of Workers' Compensation Coverage or other authorized proof that the business is complying with the mandatory coverage requirements of the New York State Workers' Compensation Law.**

**Under penalty of perjury, I certify that I am an authorized representative or licensed agent of the insurance carrier referenced above and that the named insured has the coverage as depicted on this form.**

Approved by: Susan B. Kendziora  
(Print name of authorized representative or licensed agent of insurance carrier)

Approved by: *Susan B. Kendziora* 11/01/2022  
(Signature) (Date)

Title: Vice President - Underwriting Services

Telephone Number of authorized representative or licensed agent of insurance carrier: 800-382-2150

**Please Note: Only insurance carriers and their licensed agents are authorized to issue Form C-105.2. Insurance brokers are NOT authorized to issue it.**





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
10/31/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> MARSH RISK & INSURANCE SERVICES FOUR EMBARCADERO CENTER, SUITE 1100 CALIFORNIA LICENSE NO. 0437153 SAN FRANCISCO, CA 94111 Attn: SanFrancisco.Certs@marsh.com / FAX 212-948-0398 CN104275261-STND-10M-22-23	<b>CONTACT</b> NAME: ... PHONE (A/C, No. Ext): E-MAIL: ADDRESS:  <b>INSURER(S) AFFORDING COVERAGE</b> <b>INSURER A:</b> Zurich American Insurance Company <b>INSURER B:</b> N/A <b>INSURER C:</b> American Zurich Insurance Company <b>INSURER D:</b> N/A <b>INSURER E:</b> <b>INSURER F:</b>	<b>FAX (A/C, No):</b>  <b>NAIC #</b> 16535 N/A 40142 N/A
<b>INSURED</b> Tesla Energy Operations, Inc. 1 Tesla Road Austin, TX 78725		

## COVERAGES

CERTIFICATE NUMBER:

SEA-003419074-34

REVISION NUMBER: 18

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<b>COMMERCIAL GENERAL LIABILITY</b> <input checked="" type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> SIR: \$1,000,000 <input checked="" type="checkbox"/> Tort Contrac Liab, No XCU Excl GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X		GLO 1074588-05 'Includes Host Liquor Liability'	10/31/2022	10/31/2023	EACH OCCURRENCE \$ 5,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 2,500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 5,000,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 5,000,000
A	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			BAP 1074586-05	10/31/2022	10/31/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 5,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
C A A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N	N/A	WC 1074583-05 (AOS) WC 1074584-05 (MA,WI) CA XSWC EWS 1074585-05 (\$50M is XS '\$10M SIR; \$1M EE/EA is XS \$10M SIR')	10/31/2022 10/31/2022 10/31/2022	10/31/2023 10/31/2023 10/31/2023	<input checked="" type="checkbox"/> PER STATUTE <input checked="" type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

## DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Village of Irvington is included as Additional Insured on the General Liability policy per the attached endorsement, but only with respect to liability arising out of the Named Insured's operations.

## CERTIFICATE HOLDER

Village of Irvington  
85 Main Street  
Irvington, NY 10533

## CANCELLATION

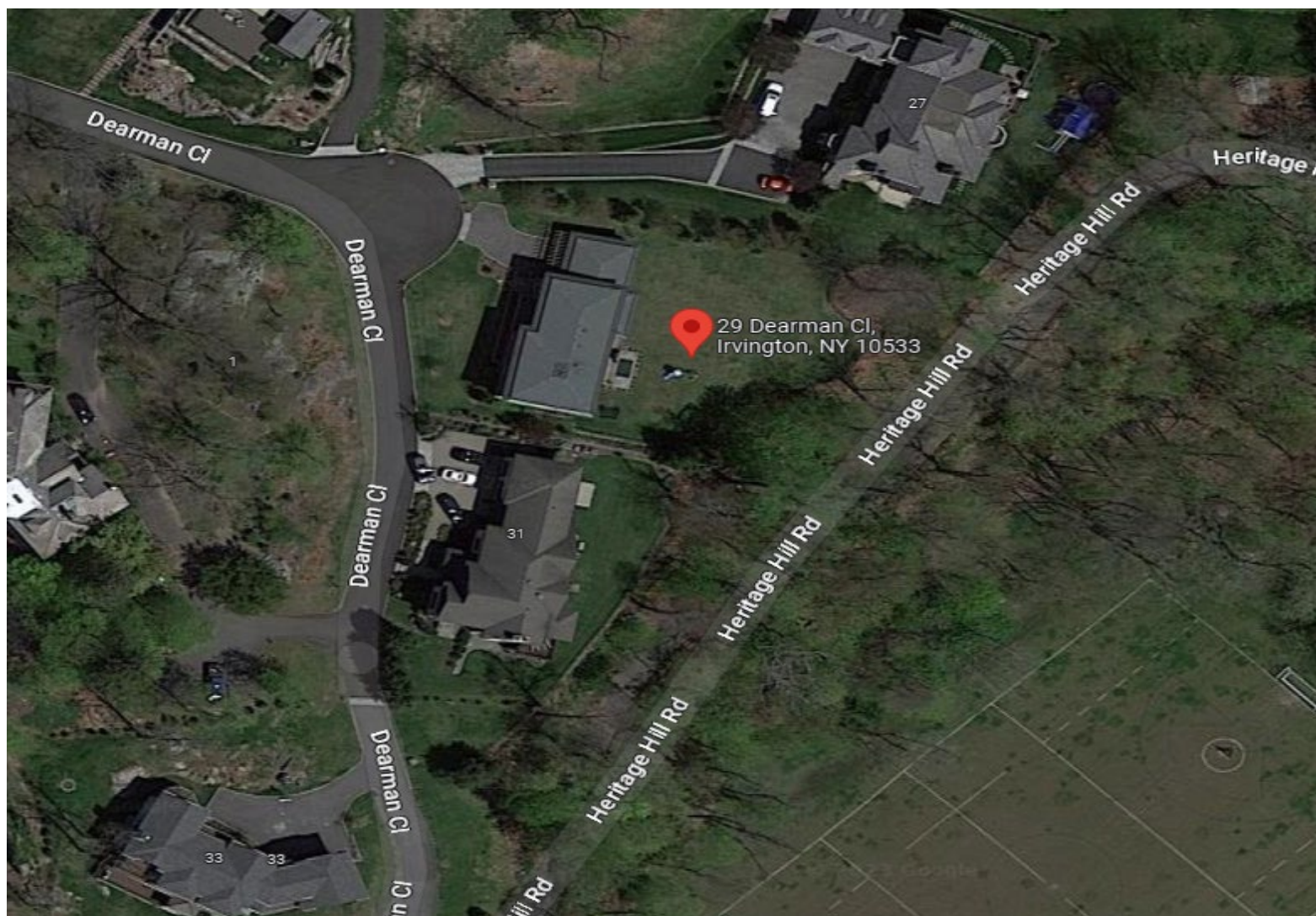
SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

*Marsh Risk & Insurance Services*

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<div>ABBREVIATIONS</div> <div>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, RAIN TIGHT</div>		<div>ELECTRICAL NOTES</div> <div>1. THIS SYSTEM IS GRID-INTERTIED VIA A UL-LISTED POWER-CONDITIONING INVERTER. 2. A NATIONALLY – RECOGNIZED TESTING LABORATORY SHALL LIST ALL EQUIPMENT IN COMPLIANCE WITH ART. 110.3. 3. 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. 4. EACH UNGROUNDED CONDUCTOR OF THE MULTI WIRE BRANCH CIRCUIT WILL BE IDENTIFIED BY PHASE AND SYSTEM PER ART. 210.5. 5. CIRCUITS OVER 250V TO GROUND SHALL COMPLY WITH ART. 250.97, 250.92(B). 6. 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). 7. ALL WIRES SHALL BE PROVIDED WITH STRAIN RELIEF AT ALL ENTRY INTO BOXES AS REQUIRED BY UL LISTING. 8. MODULE FRAMES SHALL BE GROUNDED AT THE UL – LISTED LOCATION PROVIDED BY THE MANUFACTURER USING UL LISTED GROUNDING HARDWARE. 9. MODULE FRAMES, RAIL, AND POSTS SHALL BE BONDED WITH EQUIPMENT GROUND CONDUCTORS.</div>		<div>JURISDICTION NOTES</div> <div>ALL WORK TO COMPLY WITH SECTION R327 OF THE 2020 RESIDENTIAL CODE OF NYS.</div>																													
<div>LICENSE</div>		<div>GENERAL NOTES</div> <div>1. ALL WORK SHALL COMPLY WITH THE 2020 NYS UNIFORM CODE. 2. ALL ELECTRICAL WORK SHALL COMPLY WITH THE 2017 NATIONAL ELECTRIC CODE. 3. ALL WORK SHALL COMPLY WITH THE 2020 NYS FIRE CODE. 4. ALL WORK SHALL COMPLY WITH THE 2020 BUILDING CODE OF NYS. 5. ALL WORK SHALL COMPLY WITH THE 2020 RESIDENTIAL CODE OF NYS. 6. ALL WORK SHALL COMPLY WITH THE 2020 EXISTING BUILDING CODE OF NYS.</div>		<div>VICINITY MAP</div> <div></div>			<div>INDEX</div> <div><div>Sheet 1COVER SHEET</div><div>Sheet 2SITE PLAN</div><div>Sheet 3STRUCTURAL VIEWS</div><div>Sheet 4POWERWALL MOUNTING DETAILS</div><div>Sheet 5UPLIFT CALCULATIONS</div><div>Sheet 6THREE LINE DIAGRAM</div><div>Sheet 7PV RENDERINGS</div><div>Sheet 8BOS LOCATION</div><div>Sheet 9ESS LOCATION</div><div>CutsheetsAttached</div></div> <div><table><tr><th>REV</th><th>BY</th><th>DATE</th><th>COMMENTS</th></tr><tr><td>REV A</td><td>NAME</td><td>DATE</td><td>COMMENTS</td></tr><tr><td>REV B</td><td>DG</td><td>6/15/2022</td><td>ADDED PV RENDERINGS</td></tr><tr><td>REV C</td><td>UAI</td><td>12/5/2022</td><td>PW's relocated to the same wall with utility meter</td></tr><tr><td>*</td><td>*</td><td>*</td><td>*</td></tr><tr><td>*</td><td>*</td><td>*</td><td>*</td></tr></table></div>			REV	BY	DATE	COMMENTS	REV A	NAME	DATE	COMMENTS	REV B	DG	6/15/2022	ADDED PV RENDERINGS	REV C	UAI	12/5/2022	PW's relocated to the same wall with utility meter	*	*	*	*	*	*	*	*
REV	BY	DATE	COMMENTS																														
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REV C	UAI	12/5/2022	PW's relocated to the same wall with utility meter																														
*	*	*	*																														
*	*	*	*																														
<div>MODULE GROUNDING METHOD: ZEP SOLAR</div> <div>AHJ: Irvington Village</div> <div>UTILITY: Consolidated Edison</div>		<div>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.</div>		<div>JOB NUMBER: JB-1055036 00</div> <div>MOUNTING SYSTEM: ZS Comp V4 w Flashing-Insert</div> <div>MODULES: (40) Tesla # T425S</div> <div>INVERTER: Multiple Inverters</div>		<div>CUSTOMER: Eric Siegel 29 Dearman Ct Irvington, NY 10533</div> <div>9178479553</div>		<div>DESCRIPTION: 17 KW PV ARRAY 27 KWH ENERGY STORAGE SYSTEM</div> <div>PAGE NAME: COVER SHEET</div>		<div>DESIGN: Usman Ali Iftikhar</div> <div>SHEET: 1REV: CDATE: 12/5/2022</div>		<div>TESLA</div>																					



PV CIRCUIT BREAKER OR SWITCH  
MUST BE  
LABELED '89L' OR 'GENERATOR  
DISCONNECT SWITCH'

ESS UNITS WILL BE 3FT. FROM FROM ALL  
WINDOWS AND DOORS.

ESS UNITS WILL BE 10FT. FROM EACH OTHER  
PER UL9540A TESTING DOCUMENTATION.



By Yuri at 8:10:22 PM, 12/6/2022

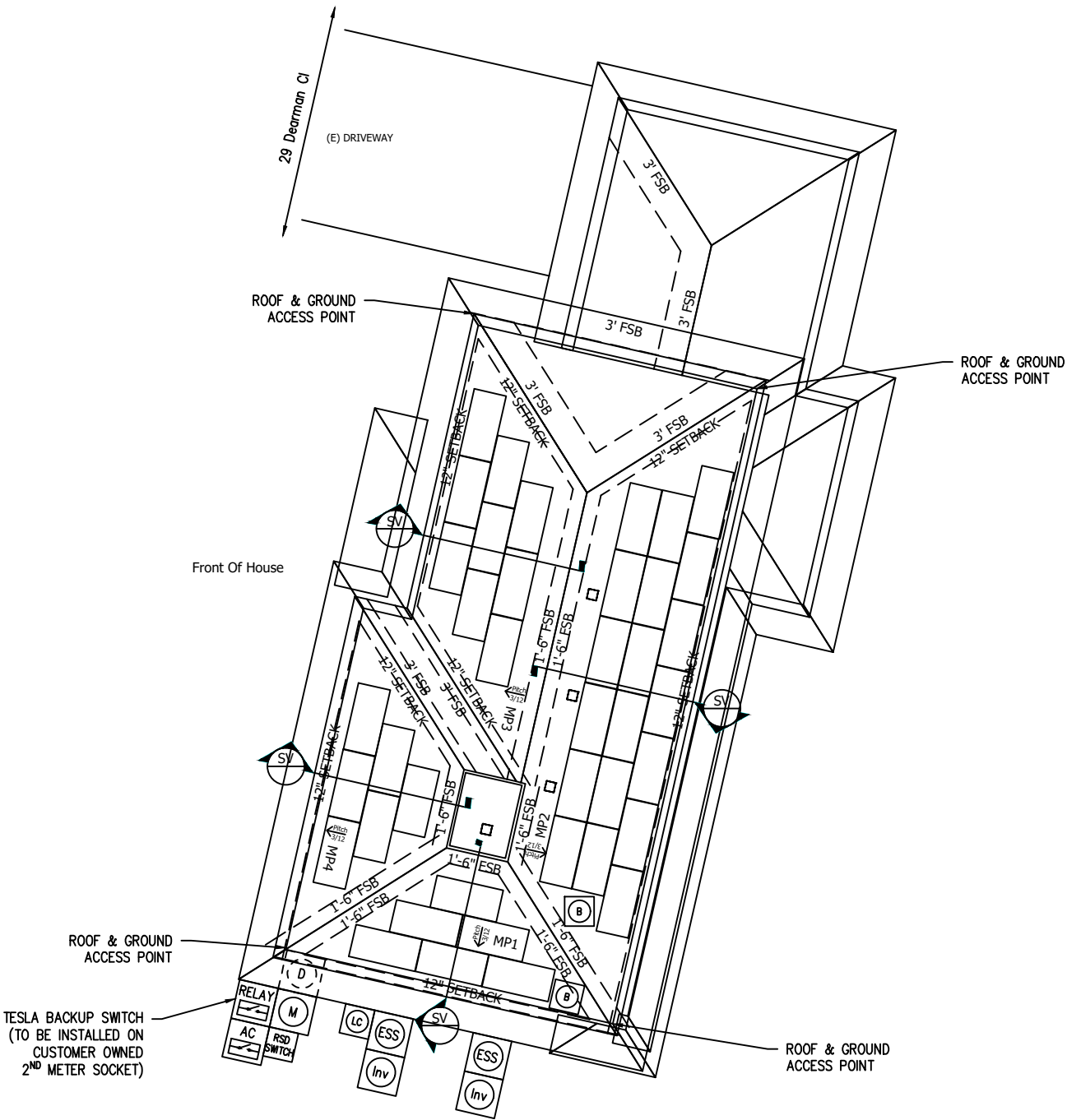
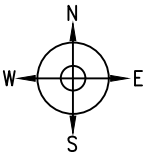
MP1	PITCH: 14° (3:12) ARRAY PITCH: 14° (3:12) AZIMUTH: 193 ARRAY AZIMUTH: 193 MATERIAL: Comp Shingle STORY: 2 Stories
MP2	PITCH: 14° (3:12) ARRAY PITCH: 14° (3:12) AZIMUTH: 103 ARRAY AZIMUTH: 103 MATERIAL: Comp Shingle STORY: 2 Stories
MP3	PITCH: 14° (3:12) ARRAY PITCH: 14° (3:12) AZIMUTH: 283 ARRAY AZIMUTH: 283 MATERIAL: Comp Shingle STORY: 2 Stories
MP4	PITCH: 14° (3:12) ARRAY PITCH: 14° (3:12) AZIMUTH: 283 ARRAY AZIMUTH: 283 MATERIAL: Comp Shingle STORY: 2 Stories

LEGEND

(M)	(E) UTILITY METER & WARNING LABEL
(Inv)	INVERTER W/ INTEGRATED DC DISCO & WARNING LABELS
RELAY	AUTOMATIC RELAY
DC	DC DISCONNECT & WARNING LABELS
AC	AC DISCONNECT & WARNING LABELS
(B)	DC JUNCTION/COMBINER BOX & LABELS
(ESS)	ENERGY STORAGE SYSTEM FOR STAND ALONE OPERATION
(D)	DISTRIBUTION PANEL & LABELS
(LC)	LOAD CENTER & WARNING LABELS
(M)	DEDICATED PV SYSTEM METER
(RSD)	RAPID SHUTDOWN
○	STANDOFF LOCATIONS
—	CONDUIT RUN ON EXTERIOR
- - -	CONDUIT RUN ON INTERIOR
—	GATE/FENCE
○	HEAT PRODUCING VENTS ARE RED
- - -	INTERIOR EQUIPMENT IS DASHED

SITE PLAN

Scale:1/16" = 1'



TOTAL ARRAY AREA (SF): 953  
TOTAL ROOF AREA (SF): 5053  
TOTAL ARRAY AREA IS  $\approx$  18.86  
PERCENT OF TOTAL ROOF AREA

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-1055036 00  
MOUNTING SYSTEM:  
ZS Comp V4 w Flashing-Insert  
MODULES:  
(40) Tesla # T425S  
INVERTER:  
Multiple Inverters

CUSTOMER:  
Eric Siegel  
29 Dearman Ct Pd  
Irvington, NY 10533  
Account number:  
9178479553 51-1702-2298-1400-2

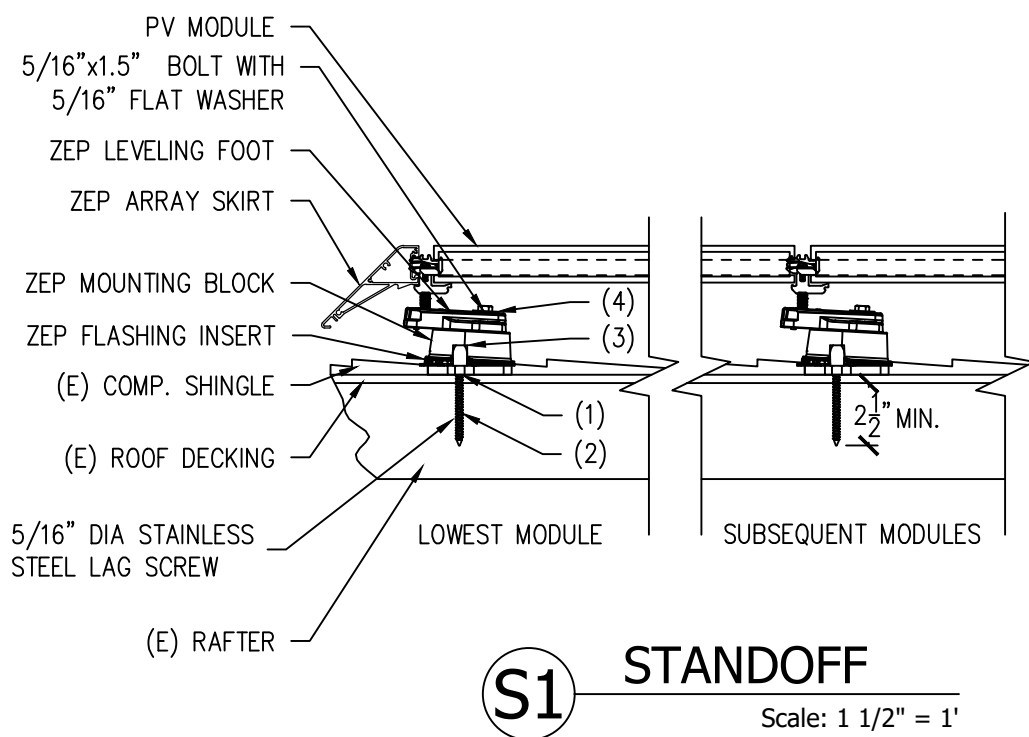
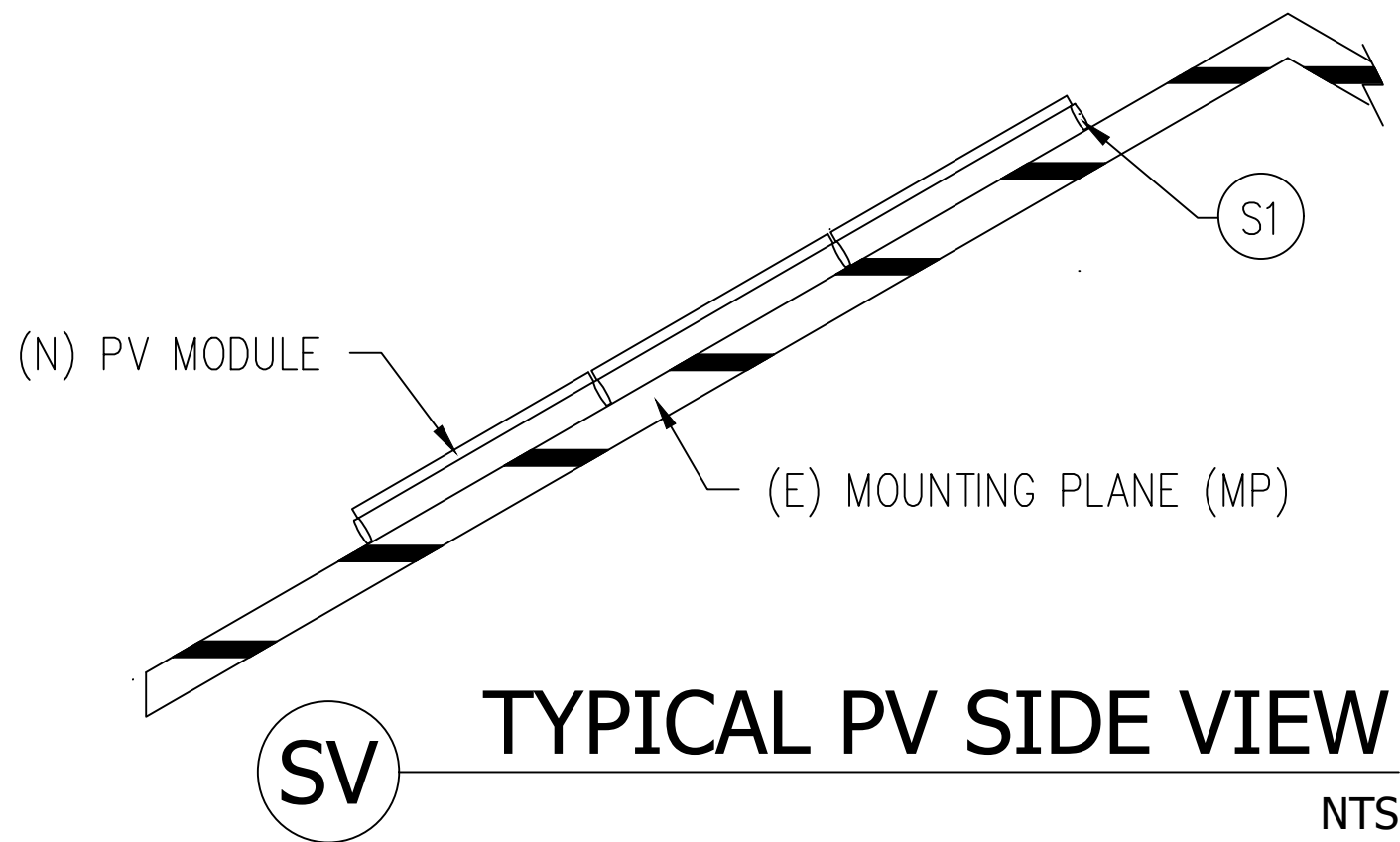
DESCRIPTION:  
17 KW PV ARRAY  
27 KWH ENERGY STORAGE SYSTEM  
PAGE NAME:  
SITE PLAN

DESIGN:  
Usman Ali Iftikhar

SHEET: 2  
REV: C  
DATE: 12/5/2022

TESLA





- INSTALLATION ORDER
- (1) LOCATE RAFTER, MARK HOLE LOCATION, AND DRILL PILOT HOLE.
  - (2) ATTACH FLASHING INSERT TO MOUNTING BLOCK AND ATTACH TO RAFTER USING LAG SCREW.
  - (3) INJECT SEALANT INTO FLASHING INSERT PORT, WHICH SPREADS SEALANT EVENLY OVER THE ROOF PENETRATION.
  - (4) INSTALL LEVELING FOOT ON TOP OF MOUNTING BLOCK & SECURELY FASTEN WITH BOLT.



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-1055036 00	CUSTOMER: Eric Siegel 29 Dearman Ct Pd Irvington, NY 10533  9178479553	DESCRIPTION: 17 KW PV ARRAY 27 KWH ENERGY STORAGE SYSTEM  PAGE NAME: STRUCTURAL VIEWS	DESIGN: Usman Ali Iftikhar  SHEET: 3 REV: C DATE: 12/5/2022	
	MOUNTING SYSTEM: ZS Comp V4 w Flashing-Insert				
	MODULES: (40) Tesla # T425S				
	INVERTER: Multiple Inverters				



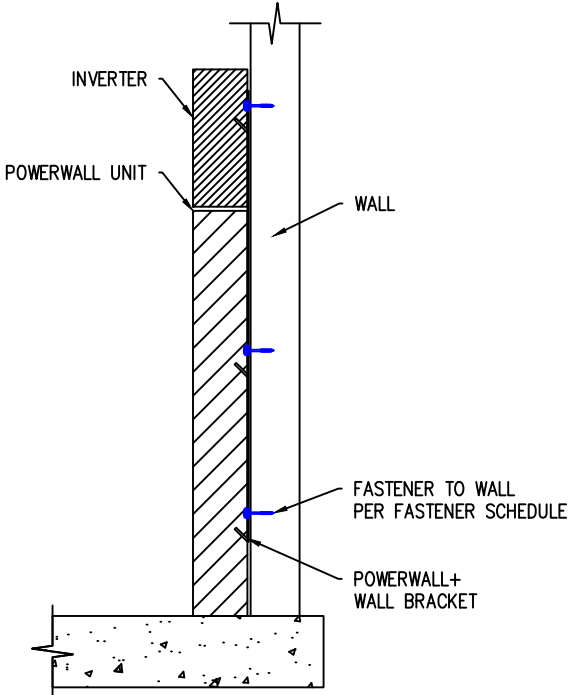
POWERWALL INSTALLATION INFORMATION:

1. POWERWALLS TO BE INSTALLED PER FASTENER SCHEDULE BASED ON WALL TYPE AND SITE SPECIFIC CONDITIONS.
2. DO NOT MOUNT BELOW OR ABOVE WINDOWS OF THE SAME STORY.
3. IF LOCATION NEEDS TO BE CHANGED, PLEASE CONTACT DESIGN TEAM.
4. ANY UNUSUAL FRAMING NEAR THE POWERWALL THAT MAY COMPROMISE THE WALL STRUCTURAL INTEGRITY SHALL BE RELAYED TO THE DESIGN TEAM PRIOR TO INSTALL.
5. WHEN INSTALLING POWERWALL+ THE INVERTER IS A SINGLE UNIT AND CANNOT BE STACKED. WHEN INSTALLING A STACKED ARRANGMENT, ONLY ONE POWERWALL+ AND ONE ADDITIONAL POWERWALL CAN BE INSTALLED. THE LARGEST STACKING CONFIGURATIONS ALLOWED BY THE MOUNTING BRACKETS ARE 3 POWERWALL UNITS OR 1 POWERWALL+ AND 1 POWERWALL UNIT

POWERWALL FASTENER SCHEDULE <sup>1</sup>						
WALL TYPE	MODEL	DIAMETER	EMBEDMENT	FASTENERS PER CORNER	ESR#	UNISTRUT REQUIRED?
WOOD STUD	WOOD SCREW	¼"	2½"	1	NA	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
CONCRETE OR CMU	CONCRETE SCREW	¼"	1½"	2 <sup>2</sup>	NA	NA
CONCRETE OR CMU	SIMPSON TITEN HD	⅜"	2¾"	2 <sup>3</sup>	ESR-2713 (CONCRETE) ESR-1056 (CMU)	NA
CONCRETE OR CMU	HILTI KH-EZ	⅜"	1⅝"	2 <sup>3</sup>	ESR-3027 (CONCRETE) ESR-3056 (CMU)	NA
BRICK	HILTI KWIK CONN II	¼"	1¾"	1	NA	NA
BRICK	HIT MESH SLEEVE	¼"	3⅝"	1	ESR-4143 (BRICK)	NA
COLD FORMED STEEL	SHEET METAL SCREWS	¼"	1½"	3 <sup>4</sup>	NA	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

1. INSTALLER TO CHOOSE FASTENER BASED ON FIELD CONDITIONS, WALL TYPE, AND EASE OF INSTALL
2. 1 CONCRETE & CMU NON-ESR FASTENER CAN BE USED WHEN UNIT(S) ARE MOUNTED ON THE GROUND AND SEISMIC S<sub>s</sub> (SRA AT SHORT PERIOD) IS AT OR BELOW S<sub>s</sub> = 1.25.
3. 1 CONCRETE & CMU ESR FASTENER CAN BE USED WHEN UNIT(S) ARE MOUNTED ON THE GROUND AND SEISMIC S<sub>s</sub> (SRA AT SHORT PERIOD) IS AT OR BELOW S<sub>s</sub> = 2.5 AND REGIONAL WIND SPEED (3-SECOND GUST) IS AT OR BELOW 170MPH
4. COLD FORMED STEEL MINIMUM 25 GAUGE REQUIRES 3 FASTENERS PER CORNER, BUT 1 FASTENER PER CORNER CAN BE USED WHEN STEEL STUDS ARE 8 GAUGE OR THICKER

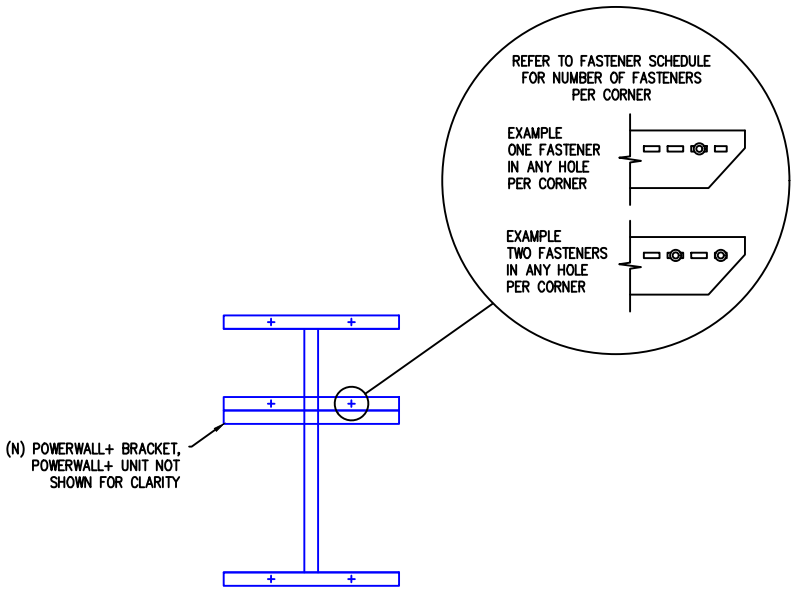
☒ WHEN BOX IS CHECKED DIVERSITECH PAD ACP24362 IS APPROVED FOR A SINGLE OUTDOOR POWERWALL GROUND MOUNT AND DIVERSITECH PAD ACP36362 IS APPROVED FOR UP TO 2 STACKED USING A POWERWALL+ AND A POWERWALL UNIT OR 2 POWERWALL UNITS



WALL ATTACHMENT: GROUND MOUNT  
SIDE VIEW ONE POWERWALL+ NTS



By Yuri at 8:10:28 PM, 12/6/2022



ATTACHMENT: FRONT VIEW  
POWERWALL+ NTS

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JOB NUMBER:	JB-1055036 00
MOUNTING SYSTEM:	ZS Comp V4 w Flashing-Insert
MODULES:	(40) Tesla # T425S
INVERTER:	Multiple Inverters

CUSTOMER:  
Eric Siegel  
29 Dearman Cl Pd  
Irvington, NY 10533  
  
9178479553

DESCRIPTION:  
17 KW PV ARRAY  
27 KWH ENERGY STORAGE SYSTEM  
  
PAGE NAME:  
POWERWALL MOUNTING DETAILS

DESIGN:  
Usman Ali Iftikhar

SHEET: 4 REV: C DATE: 12/5/2022







Jobsite Specific Design Criteria			
Design Code		ASCE 7-16	
Risk Category		II	Table 1.5-1
Ultimate Wind Speed	V-Ult	120	Fig. 1609A
Exposure Category		C	Section 26.7
Ground Snow Load	pg	35	Table 7-1
Edge Zone Width	a	6.7 ft	Fig. 30.3-2A to I

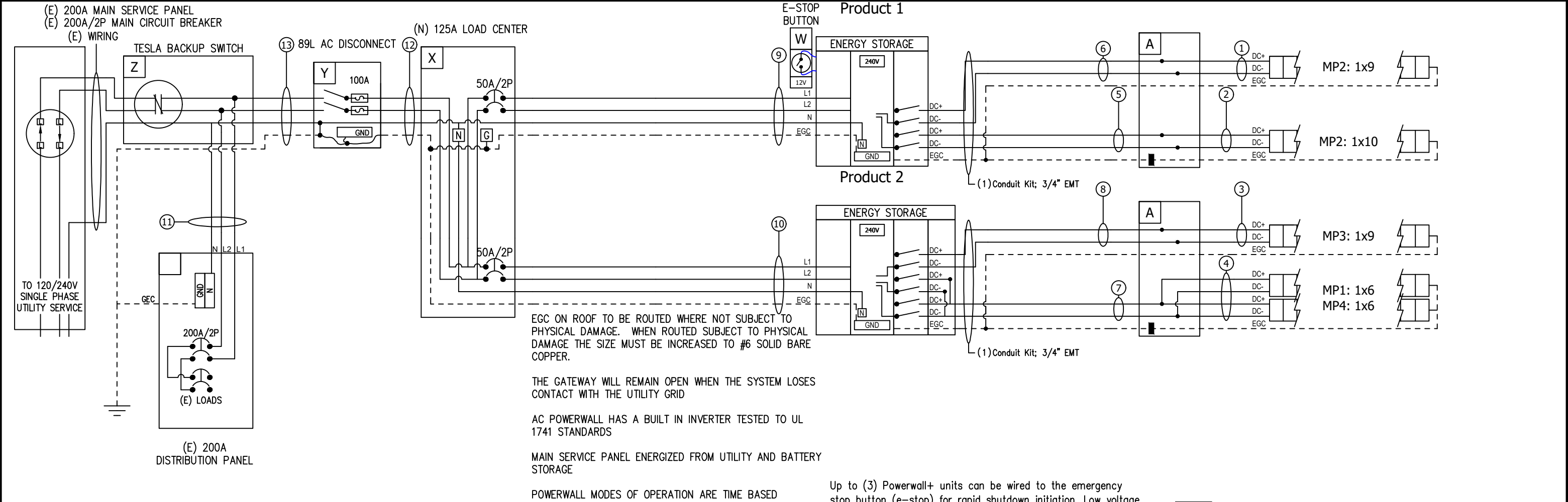
MP Specific Design Information				
MP Name	MP1	MP2	MP3	MP4
Roofing	Comp Shingle	Comp Shingle	Comp Shingle	Comp Shingle
Standoff	ZS Comp V4 w Flashing-Insert	ZS Comp V4 w Flashing-Insert	ZS Comp V4 w Flashing-Insert	ZS Comp V4 w Flashing-Insert
Pitch	14	14	14	14
SL/RLL: PV	22.6	22.6	22.6	22.6
SL/RLL: Non-PV	24.3	24.3	24.3	24.3

Standoff Spacing and Layout				
MP Name	MP1	MP2	MP3	MP4
Landscape X-Spacing	72	72	72	72
Landscape X-Cantilever	24	24	24	24
Landscape Y-Spacing	41	41	41	41
Landscape Y-Cantilever	-	-	-	-
Portrait X-Spacing	48	48	48	48
Portrait X-Cantilever	18	18	18	18
Portrait Y-Spacing	82	82	82	82
Portrait Y-Cantilever	-	-	-	-
Layout	Staggered	Staggered	Staggered	Staggered

X and Y are maximums that are always relative to the structure framing that supports the PV. X is across rafters and Y is along rafters.



	MAIN PANEL SPECS	GENERAL NOTES	PRODUCT SPECS		MODULE SPECS	LICENSE
	Panel Number: Meter Number: 009673529 Underground Service Entrance Account number: 51-1702-2298-1400-2	Inv 1: DC Ungrounded Inv 2: DC Ungrounded Tie-In: Supply Side Connection	1	- (1) Powerwall+ [240V] #1850000-00-C / PVI Assy. 1538000-25-F	- (40) Tesla # T425S PV Module, 425W, 397 PTC, 40MM, Black Frame, MC4/MC4-EVO2, ZEP, 1000V  Voc: 48.65      Vpmax:      41.05 Isc AND Imp ARE SHOWN IN THE DC STRINGS IDENTIFIER	
			2	- (1) Powerwall+ [240V] #1850000-00-C / PVI Assy. 1538000-35-F		
			3			



Voc* = MAX VOC AT MIN TEMP			CONTROL OR BACK UP ONLY.			Stop button (0 stop) for rapid shutdown indication. Low voltage wiring of connection(s) to additional units is not shown.			GD	Please see MCI wiring detail page for more information			
POI	Z	(1) Ground Rod 5/8" x 8", Copper	⑨	10ft	(1) AWG #8, THWN-2, Black — (1) AWG #8, THWN-2, White	AAC			A	(2) Tesla 4J 4-String Combiner Box UNFUSED, GROUNDED, Black, Diag DIN Rail with Bracket/ Cord Grip			DC
		(1) 1624171-00-G Backup Switch			(1) AWG #8, THWN-2, Red					Vmp = 240 VAC Imp= 32 AAC			
		(1) Eaton 204 MS68 B-Line Meter Socket, 200A, AW Hub top, Overhead, 4 jaws, Ring type			(1) AWG #8, THWN-2, Green EGC								
Y		(3) ILSCO # IPC 4/0-2/0 Insulation Piercing Connector; Main 4/0-2, Tap 2/0-6	⑩	10ft	(1) AWG #8, THWN-2, Black — (1) AWG #8, THWN-2, White	AAC			PV	(21) Tesla MCI, 650V, 12A			
		(1) CUTLER-HAMMER # DG100RB Class R Fuse Kit			(1) AWG #8, THWN-2, Red					Vmp = 240 VAC Imp= 32 AAC			
		(2) FERRAZ SHAWMUT # TR100R Fuse; 100A, 250V, Class RK5			(1) AWG #8, THWN-2, Green EGC								
X		(1) CUTLER-HAMMER # DG100NB Ground/Neutral Kit; 60-100A, General Duty (DG)	⑪	2ft	(3) AWG #2/0, THWN-2, Black	AAC							
		(1) CUTLER-HAMMER # DG223NRB Disconnect; 100A, 240Vac, Fusible, NEMA 3R			(1) AWG #4, THWN-2, Green					Vmp = 240 VAC Imp= 32 AAC			
					(1) Conduit Kit; 3/4" EMT								
W		(1) SQUARE D # HOM1224L125PRB Load Center; 125A, Convertible, NEMA3R, 12sp/24Cir, 120v/240v, 10kAIC, Surface	⑫	2ft	(1) Conduit	AAC							
		(2) SQUARE D # HOM250 Breaker; 50A/2P, 2 Spaces			2" PVC; Schedule 80					Vmp = 240 VAC Imp= 32 AAC			
		(1) UL 508 Emergency Stop Device - NEMA 4X			(1) AWG #3, THWN-2, White								
		(1) AWG #3, THWN-2, Red	⑬	10ft	(1) AWG #3, THWN-2, Black	AAC							
		(1) AWG #8, THWN-2, Green — (1) Conduit Kit; 1-1/4" EMT			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #3, THWN-2, White											
		(1) AWG #3, THWN-2, Red	⑭	10ft	(1) AWG #3, THWN-2, Black	AAC							
		(1) AWG #3, THWN-2, Black			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #6, Solid Bare Copper — (1) Conduit Kit; 1" EMT											
		(1) AWG #10, THWN-2, Black	⑮	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	⑯	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	⑰	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	⑱	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	⑲	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	⑳	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉑	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉒	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉓	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉔	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉕	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉖	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉗	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉘	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉙	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉚	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉛	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉜	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉝	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉞	10ft	(1) AWG #10, THWN-2, Red	AAC							
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		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㉟	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊱	10ft	(1) AWG #10, THWN-2, Red	AAC							
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		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊳	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊴	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊵	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊶	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊷	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊸	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊹	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊺	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊻	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊼	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
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		(1) AWG #10, THWN-2, Red	㊽	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊾	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											
		(1) AWG #10, THWN-2, Red	㊿	10ft	(1) AWG #10, THWN-2, Red	AAC							
		(1) AWG #10, THWN-2, Red			Vmp = 240 VAC Imp= 32 AAC								
		(1) AWG #10, THWN-2, Black											

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	MOUNTING SYSTEM: ZS Comp V4 w Flashing-Insert				
	MODULES: (40) Tesla # T425S				
	INVERTER: Multiple Inverters				





ARIEL RENDERING  
OF MODULES

GROUND RENDERINGS OF MODULES



Boil\_room\_photo\_015\_1658975788095.jpg

CLEARER VIEW OF MP1  
AND MP2



29 Dearman Ct  
Irvington, NY



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MODULES:	(40) Tesla # T425S
INVERTER:	Multiple Inverters

CUSTOMER:	Eric Siegel 29 Dearman Ct Pd Irvington, NY 10533
	9178479553

DESCRIPTION:	17 KW PV ARRAY 27 KWH ENERGY STORAGE SYSTEM
PAGE NAME:	PV RENDERINGS

DESIGN:	Usman Ali Iftikhar
SHEET:	7
REV:	C
DATE:	12/5/2022







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MODULES:  
(40) Tesla # T425S

INVERTER:  
Multiple Inverters

CUSTOMER:  
Eric Siegel  
29 Dearman Ct Pd  
Irvington, NY 10533

9178479553

DESCRIPTION:  
17 KW PV ARRAY  
27 KWH ENERGY STORAGE SYSTEM

PAGE NAME:  
BOS LOCATION

DESIGN:  
Usman Ali Iftikhar

SHEET: 8 REV: C DATE: 12/5/2022

TESLA





ESS UNITS WILL BE 3FT. FROM FROM ALL WINDOWS AND DOORS.

ESS UNITS WILL BE 10FT. FROM EACH OTHER PER UL9540A TESTING DOCUMENTATION.

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	MOUNTING SYSTEM: ZS Comp V4 w Flashing-Insert				
	MODULES: (40) Tesla # T425S				
	INVERTER: Multiple Inverters				



WARNING: PHOTOVOLTAIC POWER SOURCE

Label Location:  
(C)(CB)(JB)  
Per Code:  
NEC 690.31.G.3

PHOTOVOLTAIC DC  
DISCONNECT

Label Location:  
(DC) (INV)  
Per Code:  
NEC 690.13.B

MAXIMUM VOLTAGE   
MAXIMUM CIRCUIT CURRENT   
MAX RATED OUTPUT CURRENT  
OF THE CHARGE CONTROLLER  
OR DC-TO-DC CONVERTER  
(IF INSTALLED)

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

WARNING

ELECTRIC SHOCK HAZARD  
IF A GROUND FAULT IS INDICATED  
NORMALLY GROUNDED  
CONDUCTORS MAY BE  
UNGROUND AND ENERGIZED

Label Location:  
(DC) (INV)  
Per Code:  
690.41.B

PHOTOVOLTAIC AC  
DISCONNECT

Label Location:  
(AC) (POI)  
Per Code:  
NEC 690.13.B

MAXIMUM AC  A  
OPERATING CURRENT  
MAXIMUM AC  V  
OPERATING VOLTAGE

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

WARNING

ELECTRIC SHOCK HAZARD  
DO NOT TOUCH TERMINALS  
TERMINALS ON BOTH LINE AND  
LOAD SIDES MAY BE ENERGIZED  
IN THE OPEN POSITION

Label Location:  
(AC)(POI)  
Per Code:  
NEC 690.13.B

CAUTION  
DUAL POWER SOURCE  
SECOND SOURCE IS  
PHOTOVOLTAIC SYSTEM

Label Location:  
(POI)  
Per Code:  
NEC 705.12.B.3

WARNING  
INVERTER OUTPUT  
CONNECTION  
DO NOT RELOCATE  
THIS OVERCURRENT  
DEVICE

Label Location:  
(POI)  
Per Code:  
NEC 705.12.B.2.3.b

PHOTOVOLTAIC SYSTEM  
EQUIPPED WITH RAPID  
SHUTDOWN

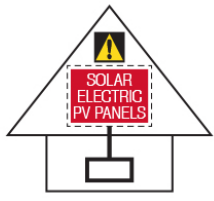
Label Location:  
(INV)  
Per Code:  
NEC 690.56.C.3

WARNING  
ELECTRIC SHOCK HAZARD  
THE DC CONDUCTORS OF THIS  
PHOTOVOLTAIC SYSTEM ARE  
UNGROUND AND  
MAY BE ENERGIZED

Label Location:  
(DC) (INV)

SOLAR PV SYSTEM  
EQUIPPED WITH RAPID  
SHUTDOWN

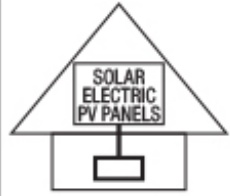
TURN RAPID  
SHUTDOWN SWITCH  
TO THE "OFF"  
POSITION TO SHUT  
DOWN CONDUCTORS  
OUTSIDE THE ARRAY.  
CONDUCTORS WITHIN  
THE ARRAY REMAIN  
ENERGIZED IN SUNLIGHT



Label Location:  
ABB/Delta Solivia Inverter  
Per Code:  
690.56(C)(1)(b)

SOLAR PV SYSTEM  
EQUIPPED WITH RAPID  
SHUTDOWN

TURN RAPID  
SHUTDOWN  
SWITCH TO THE  
"OFF" POSITION TO  
SHUT DOWN PV  
SYSTEM AND REDUCE  
SHOCK HAZARD  
IN THE ARRAY.



Label Location:  
SolarEdge and,Delta M-Series and,Telsa Inverter  
Per Code:  
690.56(C)(1)(a)

(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



BACKUP LOAD CENTER

Label Location:  
(BLC)  
Per Code:  
NEC 408.4

CAUTION  
DO NOT ADD NEW LOADS

Label Location:  
(BLC)  
Per Code:  
NEC 220

CAUTION  
THIS PANEL HAS SPICED FEED-  
THROUGH CONDUCTORS.  
LOCATION OF DISCONNECT AT ENERGY  
STORAGE BACKUP LOAD PANEL

Label Location:  
(MSP)  
Per Code:  
NEC 312.8.A(3)

CAUTION  
DUAL POWER SOURCE  
SECOND SOURCE IS  
ENERGY STORAGE SYSTEM

Label Location:  
(MSP)  
Per Code:  
NEC 705.12(B)(3)

ENERGY STORAGE SYSTEM ON SITE  
LOCATED WITHIN LINE OF SIGHT

Label Location:  
(MSP)  
Per Code:

ENERGY STORAGE SYSTEM ON SITE  
LOCATED ON ADJACENT WALL

Label Location:  
(MSP)  
Per Code:

ENERGY STORAGE SYSTEM ON SITE  
LOCATED ON OPPOSITE WALL

Label Location:  
(MSP)  
Per Code:

ENERGY STORAGE SYSTEM ON SITE  
LOCATED INSIDE

Label Location:  
(MSP)  
Per Code:

CAUTION  
TRI POWER SOURCE  
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM  
THIRD SOURCE IS ENERGY STORAGE SYSTEM

Label Location:  
(MSP)  
Per Code:  
NEC 705.12(B)(3)

WARNING  
THIS EQUIPMENT FED BY  
MULTIPLE SOURCES. TOTAL  
RATING OF ALL OVER CURRENT  
DEVICES, EXCLUDING MAIN  
SUPPLY OVERCURRENT DEVICE,  
SHALL NOT EXCEED AMPACITY  
OF BUSBAR.

Label Location:  
(MSP)  
Per Code:  
NEC 705.12.B.2.3.c

NOMINAL ESS VOLTAGE: 120/240V  
MAX AVAILABLE SHORT-  
CIRCUIT FROM ESS: 32A  
ARC FAULT CLEARING  
TIME FROM ESS: 67ms  
DATE OF  
CALCULATION:

Label Location:  
(MSP)  
Per Code:  
Per 706.7(D) label to be marked in field

(AC): AC Disconnect  
(BLC): Backup Load Center  
(MSP): Main Service Panel



# MCI WIRING DETAIL



## GENERAL NOTES

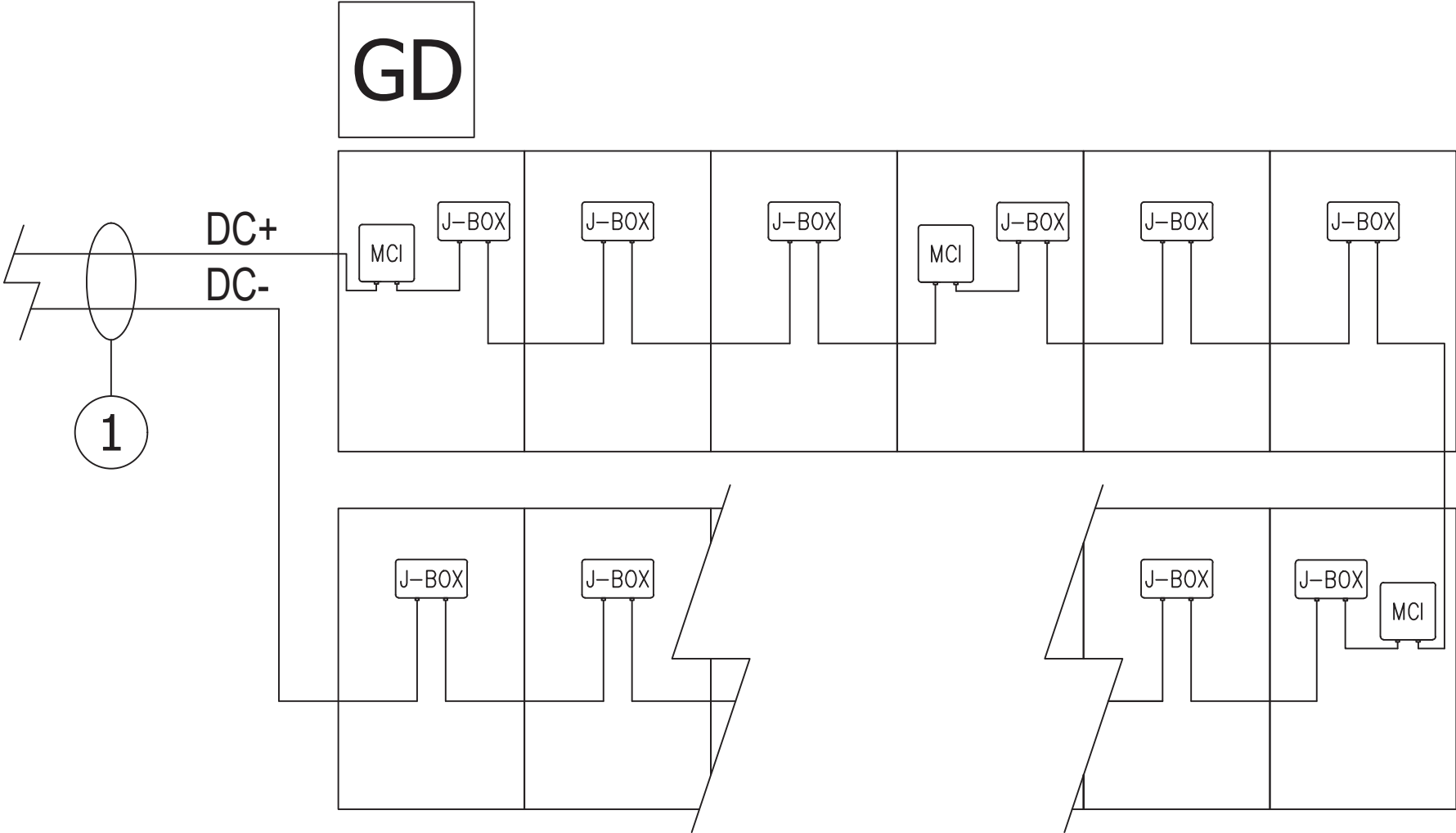
- DRAWING OF STANDARD MCI WIRING DETAIL FOR ANY GIVEN STRING LENGTH
- IF INITIATED, RAPID SHUTDOWN OCCURS WITHIN 30 SECONDS OF ACTIVATION AND LIMITS VOLTAGE ON THE ROOF TO NO GREATER THAN 165V (690.12.B.2.1)
- MID CIRCUIT INTERRUPTER (MCI) IS A UL 1741 PVRSE CERTIFIED RAPID SHUTDOWN DEVICE (RSD)

## RETROFIT PV MODULES

- MCIS ARE LOCATED AT ROOF LEVEL, JUST UNDER THE PV MODULES IN ACCORDANCE WITH 690.12 REQUIREMENTS
- THE QUANTITY OF MCIS PER STRING IS DETERMINED BY STRING LENGTH
  - NUMBER OF MODULES BETWEEN MCI UNITS = 0–3
  - MAXIMUM NUMBER OF MODULES PER MCI UNIT = 3
  - MINIMUM NUMBER MCI UNITS = MODULE COUNT/3

\*Exception: Tesla (Longi) modules installed in locations where the max Voc for 3 modules at low design temperature exceeds 165V shall be limited to 2 modules between MCIs.

PLEASE REFER TO MCI CUTSHEET AND PVRSA INSERT FOR MORE INFORMATION



① (2) AWG, PV Wire, 600V, Black

DC



# MCI WIRING DETAIL

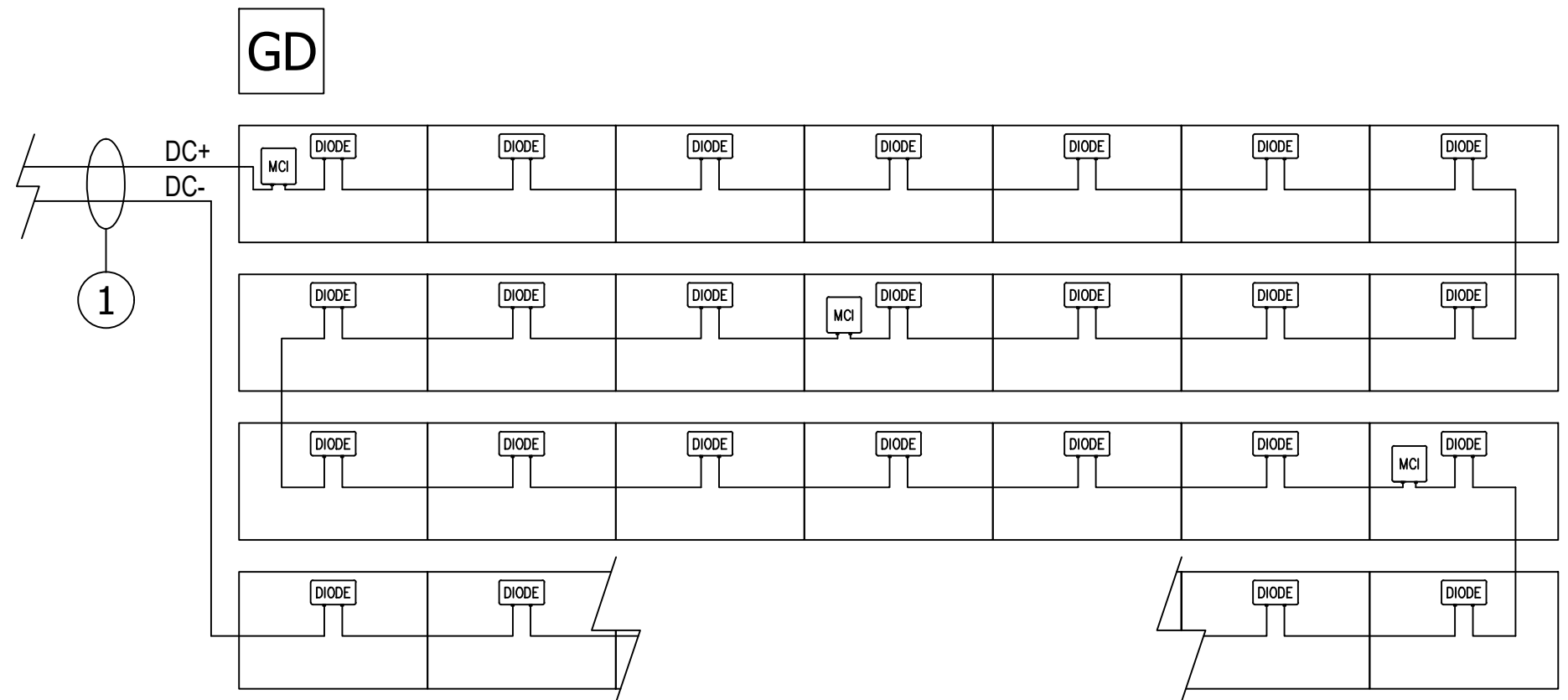
## GENERAL NOTES

- DRAWING OF STANDARD MCI WIRING DETAIL FOR ANY GIVEN STRING LENGTH
- IF INITIATED, RAPID SHUTDOWN OCCURS WITHIN 30 SECONDS OF ACTIVATION AND LIMITS VOLTAGE ON THE ROOF TO NO GREATER THAN 165V (690.12.B.2.1)
- MID CIRCUIT INTERRUPTER (MCI) IS A UL 1741 PVRSE CERTIFIED RAPID SHUTDOWN DEVICE (RSD)

## SOLAR ROOF TILES

- MCIS ARE LOCATED AT DECK LEVEL, JUST UNDER THE TILES IN ACCORDANCE WITH 690.12 REQUIREMENTS
- THE QUANTITY OF MCIS PER STRING IS DETERMINED BY STRING LENGTH
  - NUMBER OF TILES BETWEEN MCI UNITS = 0–10
  - MAXIMUM NUMBER OF TILES PER MCI UNIT = 10
  - MINIMUM NUMBER MCI UNITS = TILE COUNT/10

PLEASE REFER TO MCI CUTSHEET AND PVRSA INSERT FOR MORE INFORMATION



① (2) AWG, PV Wire, 600V, Black

DC



# BACKUP SWITCH

The Tesla Backup Switch controls connection to the grid in a Powerwall system, and can be easily installed behind the utility meter or in a standalone meter panel downstream of the utility meter.

The Backup Switch automatically detects grid outages, providing a seamless transition to backup power. It communicates directly with Powerwall, allowing home energy usage monitoring from any mobile device with the Tesla app.



## PERFORMANCE SPECIFICATIONS

Model Number	1624171-xx-y
Continuous Load Rating	200A, 120/240V Split phase
Short Circuit Current Rating	22 kA with breaker <sup>1</sup>
Communication	CAN
Product Compatibility	Powerwall 2 with Backup Gateway 2, Powerwall+
Expected Service Life	21 years
Warranty	10 years

<sup>1</sup> Breaker size must be equal to or greater than the available fault current.

## COMPLIANCE INFORMATION

Safety Standards	USA: UL 414, UL 2735, UL 916 CA Prop 65
Emissions	FCC, ICES

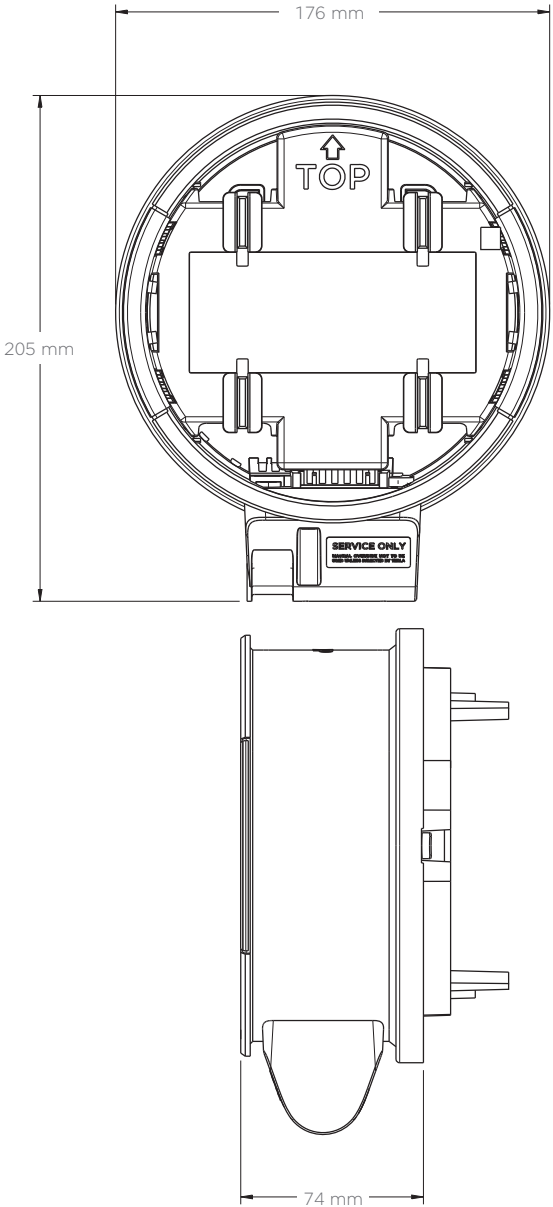
## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°C to 50°C (-40°F to 122°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Enclosure Rating	NEMA 3R
Pollution Rating	PD3

## MECHANICAL SPECIFICATIONS

Dimensions	176 mm x 205 mm x 74 mm (6.9 in x 8.1 in x 2.9 in)
Weight	2.8 lbs
Meter and Socket Compatibility	ANSI Type 2S, ringless or ring type
External Service Interface	Contactors manual override <sup>2</sup> Reset button
Conduit Compatibility	1/2-inch NPT

<sup>2</sup> Manually overrides the contactor position during a service event.







TESLA

POWERWALL+

Powerwall+ is an integrated solar battery system that stores energy from solar production. Powerwall+ has two separate inverters, one for battery and one for solar, that are optimized to work together. Its integrated design and streamlined installation allow for simple connection to any home, and improved surge power capability brings whole home backup in a smaller package. Smart system controls enable owners to customize system behavior to suit their renewable energy needs.

KEY FEATURES

- Integrated battery, inverter, and system controller for a more compact install
- A suite of application modes, including self-powered, time-based control, and backup modes
- Wi-Fi, Ethernet, and LTE connectivity with easy over-the-air updates

POWERWALL+

PHOTOVOLTAIC (PV) AND BATTERY ENERGY STORAGE SYSTEM (BESS) SPECIFICATIONS

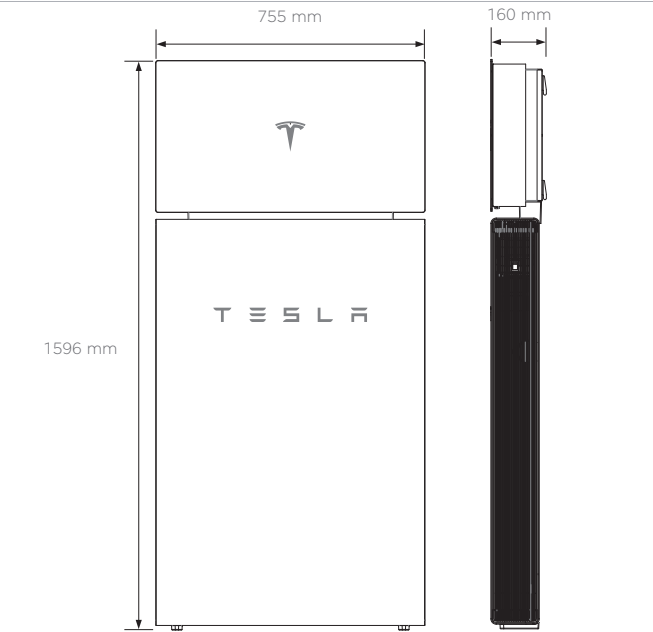
Powerwall+ Model Number	1850000-xx-y
Solar Assembly Model Number	1538000-xx-y
Nominal Battery Energy	13.5 kWh
Nominal Grid Voltage (Input / Output)	120/240 VAC
Grid Voltage Range	211.2 - 264 VAC
Frequency	60 Hz
Phase	240 VAC: 2W+N+GND
Maximum Continuous Power On-Grid	7.6 kVA full sun / 5.8 kVA no sun <sup>1</sup>
Maximum Continuous Power Off-Grid	9.6 kW full sun / 7 kW no sun <sup>1</sup>
Peak Off-Grid Power (10 s)	22 kW full sun / 10 kW no sun <sup>1</sup>
Maximum Continuous Current On-Grid	32 A output
Maximum Continuous Current Off-Grid	40 A output
Load Start Capability	98 - 118 A LRA <sup>2</sup>
PV Maximum Input Voltage	600 VDC
PV DC Input Voltage Range	60 - 550 VDC
PV DC MPPT Voltage Range	60 - 480 VDC
MPPTs	4
Input Connectors per MPPT	1-2-1-2
Maximum Current per MPPT (I <sub>mp</sub> )	13 A <sup>3</sup>
Maximum Short Circuit Current per MPPT (I <sub>sc</sub> )	17 A <sup>3</sup>
Allowable DC/AC Ratio	1.7
Overcurrent Protection Device	50 A breaker
Maximum Supply Fault Current	10 kA
Output Power Factor Rating	+/- 0.9 to 1 <sup>4</sup>
Round Trip Efficiency	90% <sup>5</sup>
Solar Generation CEC Efficiency	97.5% at 208 V 98.0% at 240 V
Customer Interface	Tesla Mobile App
Internet Connectivity	Wi-Fi, Ethernet, Cellular LTE/4G <sup>6</sup>
PV AC Metering	Revenue grade (+/-0.5%)
Protections	Integrated arc fault circuit interrupter (AFCI), PV Rapid Shutdown
Warranty	10 years

COMPLIANCE INFORMATION

PV Certifications	UL 1699B, UL 1741, UL 3741, UL 1741 SA, UL 1998 (US), IEEE 1547, IEEE 1547.1
Battery Energy Storage System Certifications	UL 1642, UL 1741, UL 1741 PCS, UL 1741 SA, UL 1973, UL 9540, IEEE 1547, IEEE 1547.1, UN 38.3
Grid Connection	United States
Emissions	FCC Part 15 Class B
Environmental	RoHS Directive 2011/65/EU
Seismic	AC156, IEEE 693-2005 (high)

MECHANICAL SPECIFICATIONS

Dimensions	1596 x 755 x 160 mm (62.8 x 29.7 x 6.3 in)
Total Weight	140 kg (310 lb) <sup>7</sup>
Battery Assembly	118 kg (261 lb)
Solar Assembly	22 kg (49 lb)
Mounting options	Floor or wall mount



ENVIRONMENTAL SPECIFICATIONS

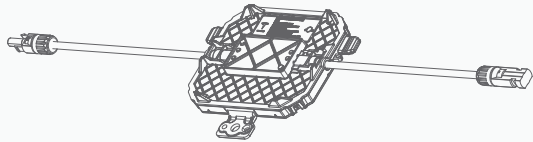
Operating Temperature	-20°C to 50°C (-4°F to 122°F) <sup>8</sup>
Recommended Temperature	0°C to 30°C (32°F to 86°F)
Operating Humidity (RH)	Up to 100%, condensing
Storage Conditions	-20°C to 30°C (-4°F to 86°F) Up to 95% RH, non-condensing State of Energy (SoE): 25% initial
Maximum Elevation	3000 m (9843 ft)
Environment	Indoor and outdoor rated
Enclosure Type	Type 3R
Solar Assembly Ingress Rating	IP55 (Wiring Compartment)
Battery Assembly Ingress Rating	IP56 (Wiring Compartment) IP67 (Battery & Power Electronics)
Noise Level @ 1 m	< 40 db(A) optimal, < 50 db(A) maximum

<sup>1</sup>Values provided for 25°C (77°F).  
<sup>2</sup>Load start capability may vary.  
<sup>3</sup>Where the DC input current exceeds an MPPT rating, jumpers can be used to allow a single MPPT to intake additional DC current up to 26 A I<sub>mp</sub> / 34 A I<sub>sc</sub>.  
<sup>4</sup>Power factor rating at max real power.  
<sup>5</sup>AC to battery to AC, at beginning of life.  
<sup>6</sup>Cellular connectivity subject to network service coverage and signal strength.  
<sup>7</sup>The total weight does not include the Powerwall+ bracket, which weighs an additional 9 kg (20 lb).  
<sup>8</sup>Performance may be de-rated at operating temperatures below 10°C (50°F) or greater than 43°C (109°F).



SOLAR SHUTDOWN DEVICE

The Tesla Solar Shutdown Device is a Mid-Circuit Interrupter (MCI) and is part of the PV system rapid shutdown (RSD) function in accordance with Article 690 of the applicable NEC. When paired with Powerwall+, solar array shutdown is initiated by pushing the System Shutdown Switch if one is present.



ELECTRICAL SPECIFICATIONS

Model Number	MCI-1
Nominal Input DC Current Rating ( $I_{MP}$ )	12 A
Maximum Input Short Circuit Current ( $I_{SC}$ )	15 A
Maximum System Voltage	600 V DC

RSD MODULE PERFORMANCE

Maximum Number of Devices per String	5
Control	Power Line Excitation
Passive State	Normally open
Maximum Power Consumption	7 W
Warranty	25 years

COMPLIANCE INFORMATION

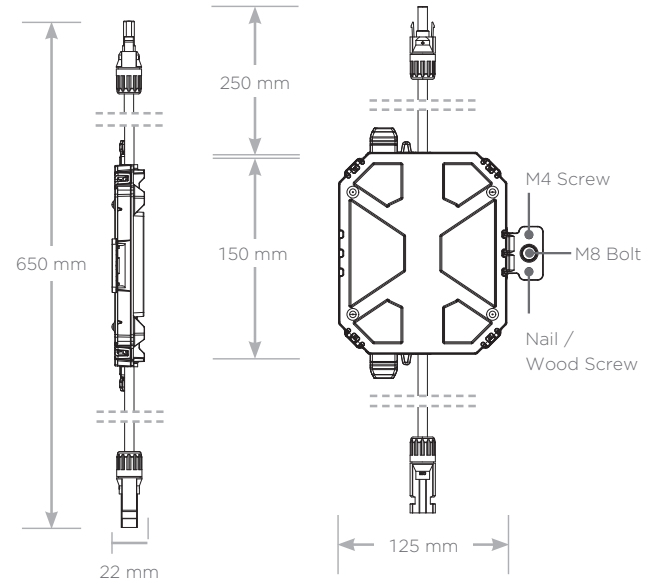
Certifications	UL 1741 PVRSE, UL 3741, PVRSA (Photovoltaic Rapid Shutdown Array)
RSD Initiation Method	External System Shutdown Switch
Compatible Equipment	See Compatibility Table below

ENVIRONMENTAL SPECIFICATIONS

Ambient Temperature	-40°C to 50°C (-40°F to 122°F)
Storage Temperature	-30°C to 60°C (-22°F to 140°F)
Enclosure Rating	NEMA 4 / IP65

MECHANICAL SPECIFICATIONS

Electrical Connections	MC4 Connector
Housing	Plastic
Dimensions	125 mm x 150 mm x 22 mm (5 in x 6 in x 1 in)
Weight	350 g (0.77 lb)
Mounting Options	ZEP Home Run Clip M4 Screw (#10) M8 Bolt (5/16") Nail / Wood screw



UL 3741 PV HAZARD CONTROL (AND PVRSA) COMPATIBILITY

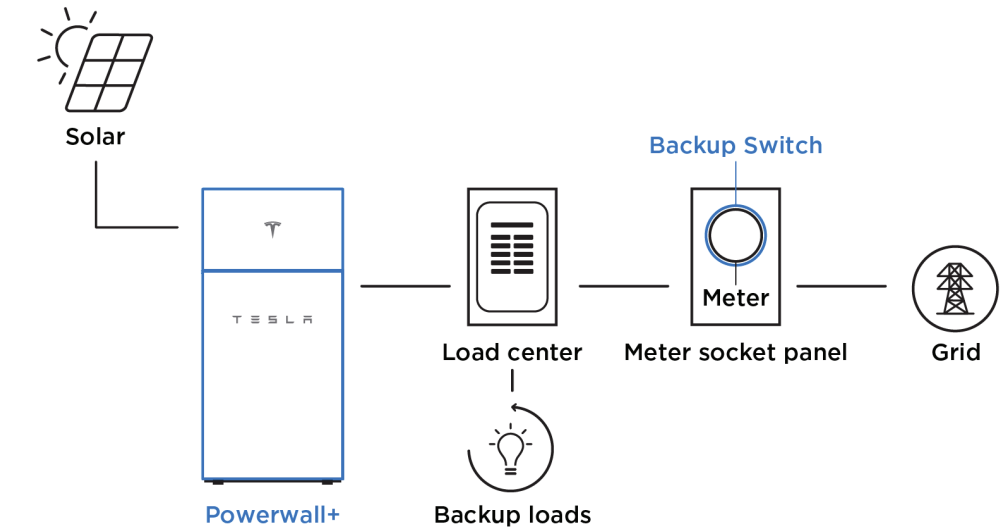
Tesla Solar Roof and Tesla/Zep ZS Arrays using the following modules are certified to UL 3741 and UL 1741 PVRSA when installed with the Powerwall+ and Solar Shutdown Devices. See the Powerwall+ Installation Manual for detailed instructions and for guidance on installing Powerwall+ and Solar Shutdown Devices with other modules.

Brand	Model	Required Solar Shutdown Devices
Tesla	Solar Roof V3	1 Solar Shutdown Device per 10 modules
Tesla	Tesla TxxxS (where xxx = 405 to 450 W, increments of 5)	1 Solar Shutdown Device per 3 modules <sup>1</sup>
Tesla	Tesla TxxxH (where xxx = 395 to 415 W, increments of 5)	1 Solar Shutdown Device per 3 modules
Hanwha	Q.PEAK DUO BLK-G5	1 Solar Shutdown Device per 3 modules
Hanwha	Q.PEAK DUO BLK-G6+	1 Solar Shutdown Device per 3 modules

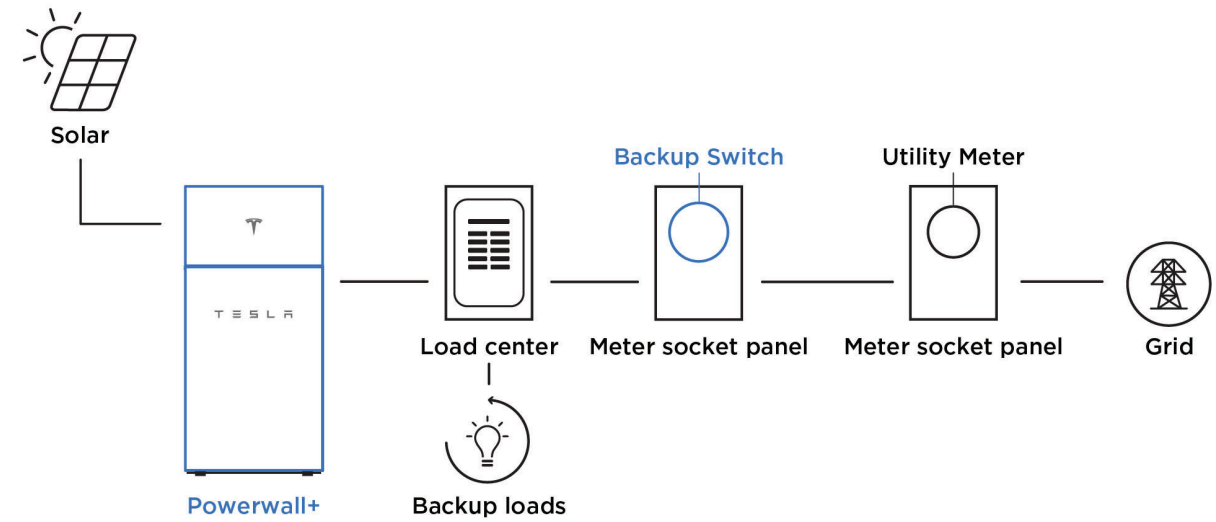
<sup>1</sup>**Exception:** Tesla solar modules installed in locations where the max Voc for three modules at low design temperatures exceeds 165 V shall be limited to two modules between Solar Shutdown Devices.

SYSTEM LAYOUTS

Powerwall+ with Backup Switch Installed Behind Utility Meter

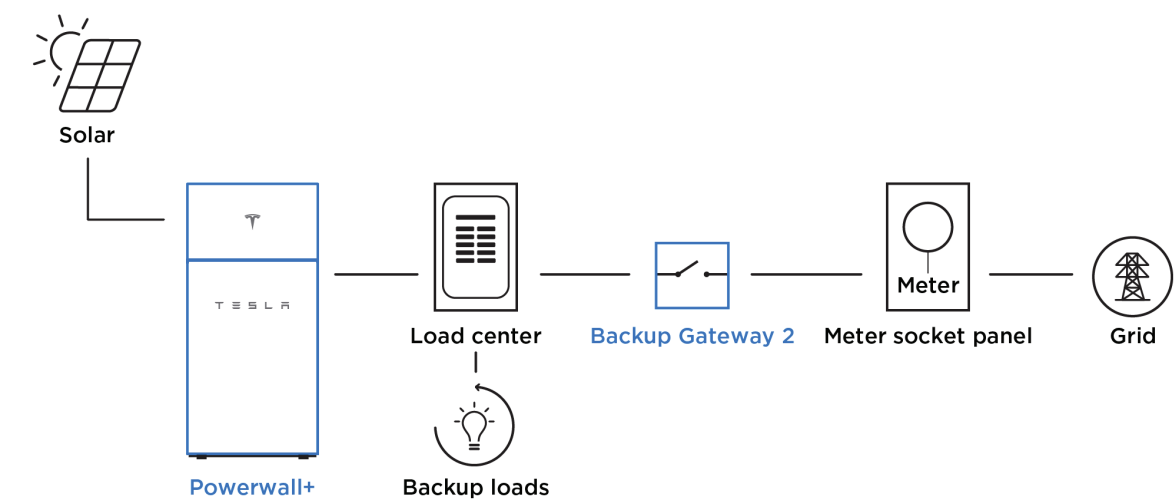


Powerwall+ with Backup Switch Installed Downstream of Utility Meter

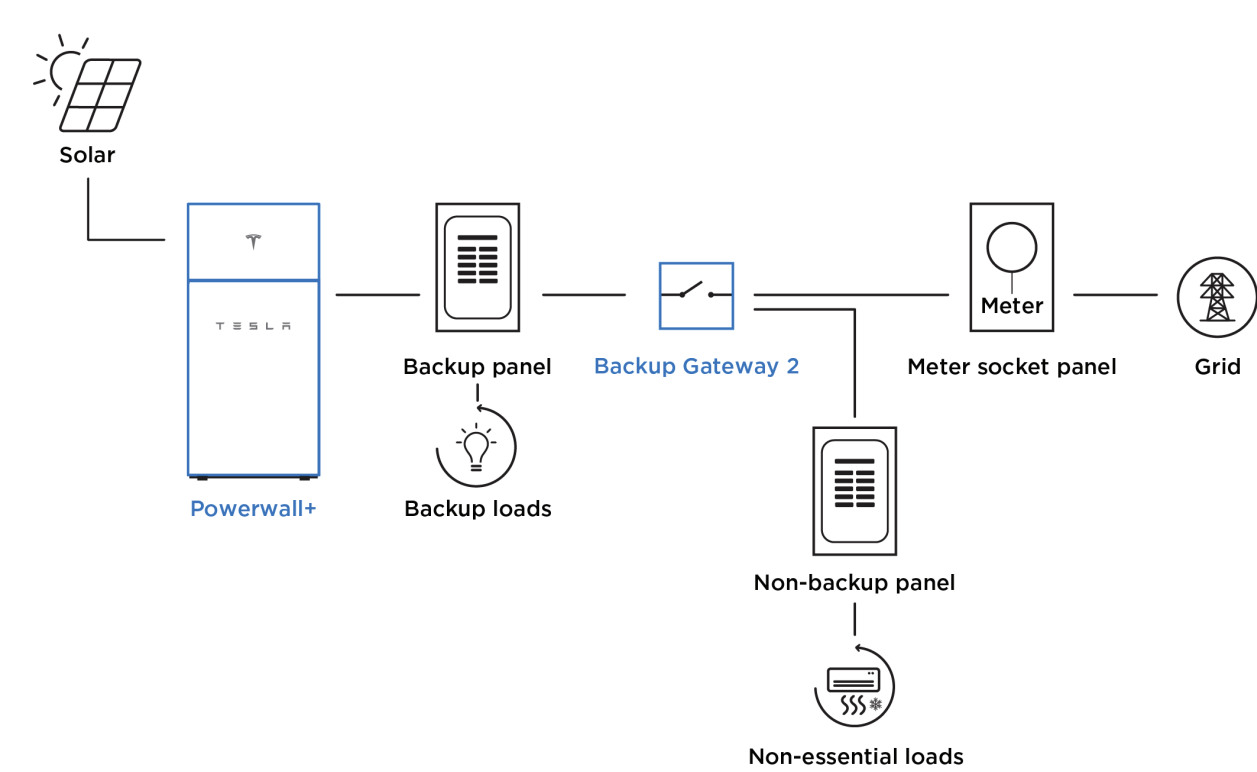




Powerwall+ with Backup Gateway 2 for Whole Home Backup



Powerwall+ with Backup Gateway 2 for Partial Home Backup





# Tesla Photovoltaic Module

T420S, T425S, and T430S

### Maximum Power

The Tesla module is one of the most powerful residential photovoltaic modules available. Our system requires up to 20 percent fewer modules to achieve the same power as a standard system. The module boasts a high conversion efficiency and a half-cell architecture that improves shade tolerance.

### Beautiful Solar

Featuring our proprietary Zep Groove design, the all-black module connects easily with Tesla ZS components to keep panels close to your roof and close to each other for a blended aesthetic with simple drop-in and precision quarter-turn connections.

### Reliability

Tesla modules are subject to automotive-grade engineering scrutiny and quality assurance, far exceeding industry standards. Modules are certified to IEC / UL 61730 - 1, IEC / UL 61730 - 2 and IEC 61215.



## Module Specifications

### Electrical Characteristics

Power Class	T420S		T425S		T430S	
Test Method	STC	NOCT	STC	NOCT	STC	NOCT
Max Power, P <sub>MAX</sub> (W)	420	313.7	425	317.4	430	321.1
Open Circuit Voltage, V <sub>OC</sub> (V)	48.5	45.47	48.65	45.61	48.8	45.75
Short Circuit Current, I <sub>SC</sub> (A)	11.16	9.02	11.24	9.09	11.32	9.15
Max Power Voltage, V <sub>MP</sub> (V)	40.90	38.08	41.05	38.22	41.20	38.36
Max Power Current, I <sub>MP</sub> (A)	10.27	8.24	10.36	8.3	10.44	8.37
Module Efficiency (%)	19.3		19.6		19.8	
STC	1000 W/m², 25°C, AM1.5					
NOCT	800 W/m², 20°C, AM1.5, wind speed 1m/s					

### Mechanical Loading

Front Side Test Load	6120 Pa   128 lb/ft <sup>2</sup>
Rear Side Test Load	5190 Pa   108 lb/ ft <sup>2</sup>
Front Side Design Load	4080 Pa   85 lb/ft <sup>2</sup>
Rear Side Design Load	3460 Pa   72 lb/ft <sup>2</sup>
Hailstone Test	25 mm Hailstone at 23 m/s

### Mechanical Parameters

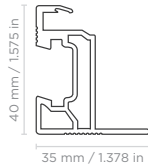
Cell Orientation	144 (6 x 24)
Junction Box	IP68, 3 diodes
Cable	4 mm <sup>2</sup>   12 AWG, 1400 mm   55.1 in. Length
Connector	Staubli MC4 or EVO2
Glass	3.2 mm ARC Glass
Frame	Black Anodized Aluminum Alloy
Weight	25.3 kg   55.8 lb
Dimension	2094 mm x 1038 mm x 40 mm 82.4 in x 40.9 in x 1.57 in

### Operation Parameters

Operational Temperature	-40°C up to +85°C
Power Output Tolerance	-0 /+5 W
V <sub>OC</sub> & I <sub>SC</sub> Tolerance	+/- 3%
Max System Voltage	DC 1000 V (IEC/UL)
Max Series Fuse Rating	20 A
NOCT	45.7 +/- 2°C
Safety Class	Class II
Fire Rating	UL Type 1 or 2

### Temperature Rating (STC)

Temperature Coefficient of I <sub>sc</sub>	+0.040% / °C
Temperature Coefficient of V <sub>OC</sub>	-0.260% / °C
Temperature Coefficient of P <sub>MAX</sub> (W)	-0.331% / °C



40 +/- 0.5 mm  
1.57 +/- 0.020 in

1038 +/- 2 mm | 40.9 +/- 0.08 in

2094 +/- 2 mm | 82.4 +/- 0.08 in

1256 mm | 49.4 in

984mm | 38.7 in

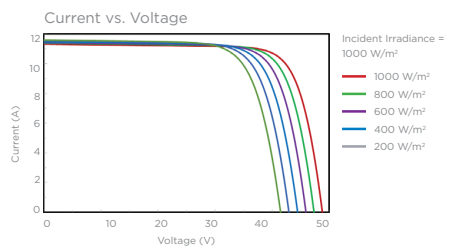
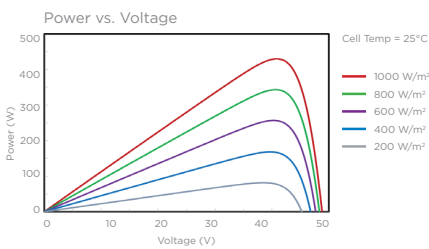
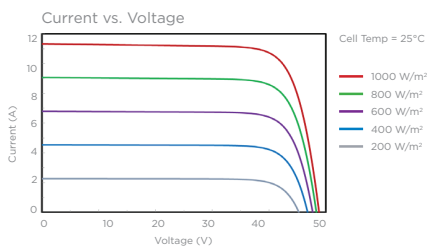
### Linear Power Warranty



### Limited Warranty

Materials and Processing	25 years
Extra Linear Power Output	25 years

The maximum Pmax degradation is 2% in the 1st year and 0.54% annually from the 2nd to 25th year.





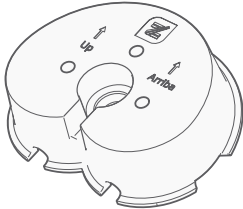
# ROOFING SYSTEM SPECIFICATIONS



DESCRIPTION	PV mounting solution for composition shingle roofs.
	Works with all Zep Compatible Modules.
	Auto bonding UL-listed hardware creates structural and electrical bond.
SPECIFICATIONS	Designed for pitched roofs.
	Installs in portrait and landscape orientations.
	Engineered for spans up to 72” and cantilevers up to 24”.
	ZS Comp has a UL 1703 Class “A” Fire Rating when installed using modules from any manufacturer certified as “Type 1” or “Type 2”.
	Attachment method UL listed to UL 2582 for Wind Driven Rain.
	ZS Comp supports 50 psf (2400 Pa) front and up to 72 psf (3450 Pa) rear side design load rating for Portrait module orientation per UL 2703.
	ZS Comp supports 50 psf (2400 Pa) front side and up to 72 psf (3450 Pa) rear side design load rating for Landscape module orientation.
	Engineered for compliance with ASCE 7-05, 7-10, and 7-16 wind load requirements.
Zep wire management products listed to UL 1565 for wire positioning devices.	
ZS Comp grounding products are listed to UL 2703 and UL 467.	
ZS Comp bonding products are listed to UL 2703.	

MOUNTING BLOCK

Listed to UL 2703  
Part #850-1633



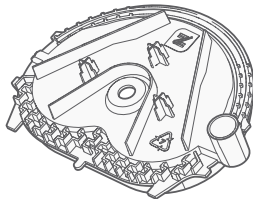
CAPTURED WASHER LAG

Part #850-1631-002 and #850-1631-004



FLASHING INSERT

Listed to UL 2703 and UL 2582 for Wind Driven Rain  
Part #850-1628



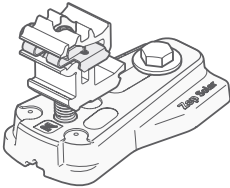
GROUND ZEP

Listed to UL 2703  
Part #850-1511



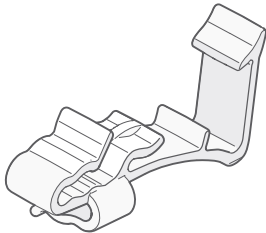
LEVELING FOOT

Listed to UL 2703  
Part #850-1397



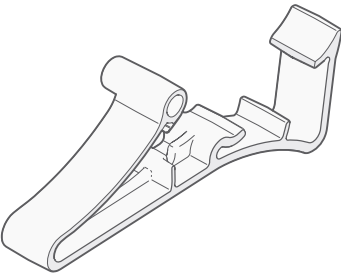
DC WIRE CLIP

Listed to UL 1565  
Part #850-1509



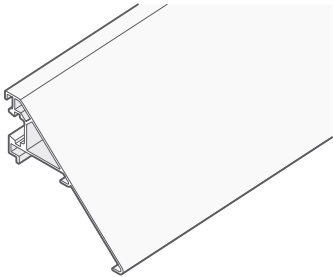
HOME RUN CLIP

Listed to UL 1565  
Part #850-1510



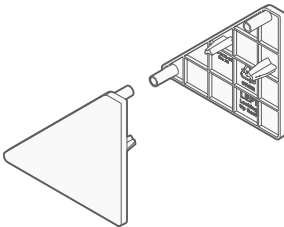
ARRAY SKIRT

Listed to UL 2703  
Part #850-1608



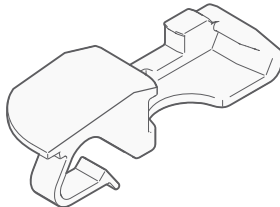
END CAP

Listed to UL 2703  
Part #850-1586 (Left)  
Part #850-1588 (Right)



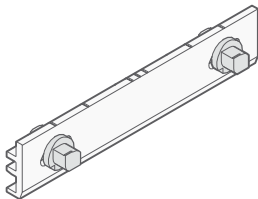
SKIRT GRIP

Listed to UL 2703  
Part #850-1606



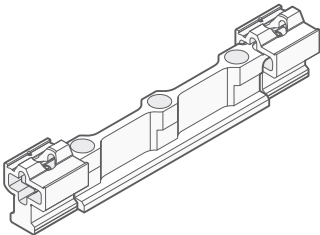
INTERLOCK

Listed to UL 2703  
Part #850-1613



HYBRID INTERLOCK

Listed to UL 2703  
Part #850-1281





PV HAZARD CONTROL SYSTEM | ZS PVHCS

UL 3741 REPORT DATE 10-20-21 (APPLICABLE TO ZS COMP, ZS SPAN, ZS RAMP, AND ZS SEAM)  
PV RAPID SHUTDOWN ARRAY, UL 1741 CATEGORY QIJR

WARNING: To reduce the risk of injury, read all instructions.

PV HAZARD CONTROL EQUIPMENT AND COMPONENTS

Function	Manufacturer	Model No.	Firmware Versions and Checksums	Certification Standard
PVRSE Mid Circuit Interrupter (MCI)	Tesla	MCI-1	N/A	UL 1741 PVRSE
Inverter or Powerwall+	Tesla	7.6 kW: 1538000 <sup>1</sup> 3.8 kW: 1534000 <sup>1</sup> 7.6 kW: 1850000 <sup>1</sup>	V4, CEA4F802 V4, FF7BE4E1 V4, CEA4F802	UL 1741, 1998 PVRSS/PVRSE
PV Module	Hanwha/ Q-CELLS  Tesla	Q.PEAK DUO BLK-G5/SC310-320 Q.PEAK DUO BLK G6+/SC330-345 Tesla TxxxS (xxx = 405 to 450) Tesla TxxxH (xxx = 395 to 415)	N/A	UL 1703 UL 61730
PVHCS Initiator (PV Inverter)	Dedicated PV system AC circuit breaker or AC disconnect switch, labeled per NEC 690.12 requirements.			N/A
PVHCS Initiator (Powerwall+)	Emergency stop device (NISD)- Listed "Emergency Stop Button" or "Emergency Stop Device" or "Emergency Stop Unit".			UL 508 or UL 60947 Parts 1, 5-1 and 5-5

<sup>1</sup> Applies to variations of this part number with suffix of two numbers and one letter.


Note: PVHCS installation requirements may reduce the effective equipment and component ratings below the individual equipment and component PVRSE ratings in order to achieve PVHCS shock hazard reduction requirements.

PVHCS INSTALLATION REQUIREMENTS

Max System Voltage	600 Vdc
PVHCS Maximum Circuit Voltage (Array Internal Voltage After Actuation)	165 Vdc (cold weather open circuit)
Max Series-Connected Modules Between MCIs: *Exception: Tesla S-Series (TxxxS) modules installed in locations where the max VOC for 3 modules at low design temperature exceeds 165V shall be limited to 2 modules between MCIs.	3*

OTHER INSTALLATION INSTRUCTIONS

1. An MCI must be connected to one end of each series string or mounting plane sub-array string.
2. Verification that MCIs are installed with 3 or fewer modules between MCIs shall be documented for inspection, by voltage measurement logs and/or as-built string layout diagrams.
3. For PV Inverter: The PVHCS initiator (AC breaker or switch) shall be sized and installed in accordance with NEC requirements. The specific part shall be identified on the as-built system drawings.
4. For Powerwall+: The PVHCS emergency stop initiator shall have the following minimum ratings: Outdoor (Type 3R or higher), 12V, 1A, and shall be installed in accordance with NEC requirements. The specific part shall be identified on the as-built system drawings. Refer to the Powerwall+ installation manual for further details.



CERTIFIED

SAFETY US

E515336

Certification Mark of UL on the installation instructions is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The Certification Mark for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

PV HAZARD CONTROL SYSTEM PVHCS | CERTIFICATION

UL 3741 REPORT DATE 8-12-21  
PV RAPID SHUTDOWN ARRAY, UL 1741 CATEGORY QIJR, REPORT DATE: 2021-06-11 (REV 8-10-21)

WARNING: To reduce the risk of injury, read all instructions.

PV HAZARD CONTROL EQUIPMENT AND COMPONENTS

Function	Manufacturer	Model No.	Firmware Versions and Checksums	Certification Standard
PVRSE Mid Circuit Interrupter (MCI)	Tesla	MCI-1 1550379 <sup>1</sup>	N/A	UL 1741 PVRSE
Inverter or Powerwall+	Tesla	7.6 kW: 1538000 <sup>1</sup> 3.8 kW: 1534000 <sup>1</sup> 7.6 kW: 1850000 <sup>1</sup>	V4, CEA4F802 V4, FF7BE4E1 V4, CEA4F802	UL 1741, 1998 PVRSS/PVRSE
PV Module	Tesla	SR60T1, SR72T1 SR72T2	N/A	UL 61730
Diode Harness (Not applicable to SR72T2)	Tesla	SRDTH	N/A	UL 9703
PV Wire Jumper(s)	Tesla	SR-BJ2X, SR-BJ3X, SR-BJ4X, SR-BJMini	N/A	UL 9703
Pass-Through Box	Tesla	SRPTB-4	N/A	UL 1741
PVHCS Initiator : (PV Inverter)	Dedicated PV system AC circuit breaker or AC disconnect switch, labeled per NEC 690.12 requirements.			N/A
PVHCS Initiator : (Powerwall+)	Emergency stop device (NISD)- Listed "Emergency Stop Button" or "Emergency Stop Device" or "Emergency Stop Unit"			UL 508 or UL 60947 Parts 1, 5-1 and 5-5

<sup>1</sup> Applies to variations of this part number with suffix of two numbers and one letter.


Note: PVHCS installation requirements may reduce the effective equipment and component ratings below the individual equipment and component PVRSE ratings in order to achieve PVHCS shock hazard reduction requirements.

PVHCS INSTALLATION REQUIREMENTS

Max System Voltage	600 Vdc
PVHCS Maximum Circuit Voltage (Array Internal Voltage After Actuation)	165 Vdc (cold weather open circuit)
Max Series-Connected Panels between MCIs	10

OTHER INSTALLATION INSTRUCTIONS

1. An MCI must be connected to one end of each series string or mounting plane sub-array string.
2. Verification that MCIs are installed with 10 or fewer modules between MCIs shall be documented for inspection, by voltage measurement logs and/or as-built string layout diagrams.
3. For PV Inverter: The PVHCS initiator (AC breaker or switch) shall be sized and installed in accordance with NEC requirements. The specific part shall be identified on the as-built system drawings.
4. For Powerwall+: The PVHCS emergency stop initiator shall have the following minimum ratings: Outdoor (Type 3R or higher), 12V, 1A, and shall be installed in accordance with NEC requirements. The specific part shall be identified on the as-built system drawings. Refer to the Powerwall+ installation manual for further details.



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