

**Application to the Fair Haven Historic Preservation Commission**  
Fair Haven, New Jersey

Date: 12-29-21

Property Address: 40 Fair Haven Rd Block: 27 Lot: 8

Applicant Telephone: (day) 973-452-6890  
(evening) \_\_\_\_\_

Address: 40 Fair Haven Rd, Fair Haven,  
NJ 07704

Relationship of applicant to property (tenant, owner, contract purchaser) contractor

Project to be reviewed: (Provide general description of each modification or improvement)

Install rooftop solar: 22 panels / 7.37 kW  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**PLEASE NOTE**

This application must be submitted to the Construction Code Official and the Historic Preservation Commission by delivering it to Fair Haven Borough Hall no later than 4:00 p.m. ten (10) days before the meeting so that it may be listed on the agenda.

- Meetings of the Historic Preservation Commission are held on the fourth Tuesday of each month unless otherwise noted.
- Drawings and sketches must be presented along with this application for all proposed construction, changes or signs.
- Photos of present conditions of all facades seen from the street must also be presented.
- Failure to provide drawings, sketches or photos with this form will result in this application not being heard.
- Applicant must sign this application.

**CERTIFICATION**

I hereby certify that either I personally or my legally empowered representative will attend the meeting of the Historic Preservation Commission on 1/25/21 (date) at 7:00 p.m. in Borough Hall, Fair Haven.

Signed:   
(Applicant)

# FAIR HAVEN HISTORIC PRESERVATION COMMISSION

## **Meetings – Fourth Tuesday – 7:00 p.m.**

Borough Hall – Downstairs  
748 River Road

In 1993, recognizing the historical and cultural value of our architecture, and to preserve and protect that architecture, the Fair Haven Borough Council established by ordinance a historic district and a Historic Preservation Commission.

The responsibility for regulating and enforcing the ordinance resides with the Historic Preservation Commission, which makes recommendations to the Planning Board, the Zoning Board and the Construction Code Official.

The Commission's goal is to preserve the character of the historic district by encouraging retention and repair of the design elements of the historic buildings in the district, ensuring that changes in exterior appearance through alteration, addition or replacement are accomplished with respect and consideration for the building and its environment. The Commission also reviews plans for new construction and demolition of buildings within the district as a whole. Fence construction and business signage are also subject to review. The purpose of review is to preserve the past by making it compatible with and relevant to the present.

To review the changes proposed on your property, the Commission asks that you fill out the enclosed application and attach drawings or sketches, current photos and a list of the materials to be used. Please submit the completed application to Borough Hall by 4:00 p.m., 10 days before a scheduled meeting of the Commission. The Commission meets on the fourth Tuesday of each month at 7:00 p.m., in the downstairs council chambers. Remember that any change, which requires a building permit may be subject to review by the Commission.

You are always welcome to come to a Commission meeting for an informal discussion of your preliminary plans. We look forward to working with you. Please feel free to call with your questions.

<b>Chair:</b>	<b>Arthur Pavluk, III</b>	<b>732-493-2800</b>
<b>Vice-Chair:</b>	<b>Pat Drummond</b>	<b>732-842-3427</b>

## GENERAL NOTES

1. All drawings must be correct to the minimum sealed indicated
2. All drawings must be dated. The Historic District Commission will reserve the right to maintain samples in file until the work is completed.
3. The Commission considers the following criteria in reviewing an application:
  - Height
  - Proportion of buildings' front facades
  - Rhythm of solids to voids in front façade
  - Rhythm of spacing of buildings on street
  - Rhythm of entrance and/or porch projections
  - Relationship of textures
  - Relationship of architectural details
  - Relationship of roof details
  - Walls of continuity
  - Relationship of landscaping
  - Scale
  - Directional expression of front elevation

# SOLAR INDIVIDUAL PERMIT PACKAGE

## PAUL SZERLIP

### 7.370 kW GRID TIED PHOTOVOLTAIC SYSTEM

(732) 233-7442  
 40 FAIR HAVEN RD  
 FAIR HAVEN NJ 07704

AHJ: FAIR HAVEN BOROUGH  
 UTILITY: JERSEY CENTRAL POWER & LT CO

#### CODE INFORMATION

##### APPLICABLE CODES, LAWS AND REGULATIONS

2018 INTERNATIONAL BUILDING CODE - NJ EDITION (IBC)  
 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)  
 2018 INTERNATIONAL FIRE CODE - ORDINANCE 2165 (IFC)  
 2018 INTERNATIONAL FUEL GAS CODE (IFGC)  
 2018 INTERNATIONAL MECHANICAL CODE (IMC)  
 2018 INTERNATIONAL PLUMBING CODE (IPC)  
 2018 INTERNATIONAL PROPERTY MAINTENANCE CODE (IPMC)  
 2018 INTERNATIONAL RESIDENTIAL CODE (IRC)  
 2017 NATIONAL ELECTRIC CODE (NEC)

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#### SATELLITE IMAGE

PROJECT LOCATION



#### JOB NOTES

##### SCOPE OF WORK

- (N) 7.370 kW PHOTOVOLTAIC SYSTEM
- (22) 335W (Model SPR-X21-335-BLK-E-AC) PV MODULES
- POINT OF INTERCONNECTION AT MAIN SERVICE PANEL WITH LINE SIDE TAP
- TRENCHING REQUIRED - 90FT OF SOIL/GRASS

STAMPED FOR  
 EXISTING ROOF AND  
 ATTCHMENT ONLY

#### SHEET INDEX

##### PV SOLAR ARCHITECTURAL DRAWINGS

PVA-0 COVER SHEET  
 PVA-1 ARRAY LAYOUT

##### PV SOLAR STRUCTURAL DRAWINGS

PVS-1 MOUNTING DETAILS

##### PV SOLAR ELECTRICAL DRAWINGS

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 PVE-2 ELECTRICAL CALCULATION  
 PVE-3 ELECTRICAL DATA & SPECIFICATIONS  
 PVE-4 EQUINOX GROUNDING DETAILS  
 PVE-5 BRANCH DIAGRAM

PAUL SZERLIP  
 7.370 kW GRID-TIED PHOTOVOLTAIC SYSTEM

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SOLAR INDIVIDUAL PERMIT PACKAGE  
 COVER SHEET

##### REVISIONS

REV	DESCRIPTION	DATE	DB
1	MODULE TYPE CHANGE	12/19/21	JB

DRAWN BY:

*Jefferson Balba*  
 JEFFERSON BALBA

INSTALLER: SPRI - NEW JERSEY

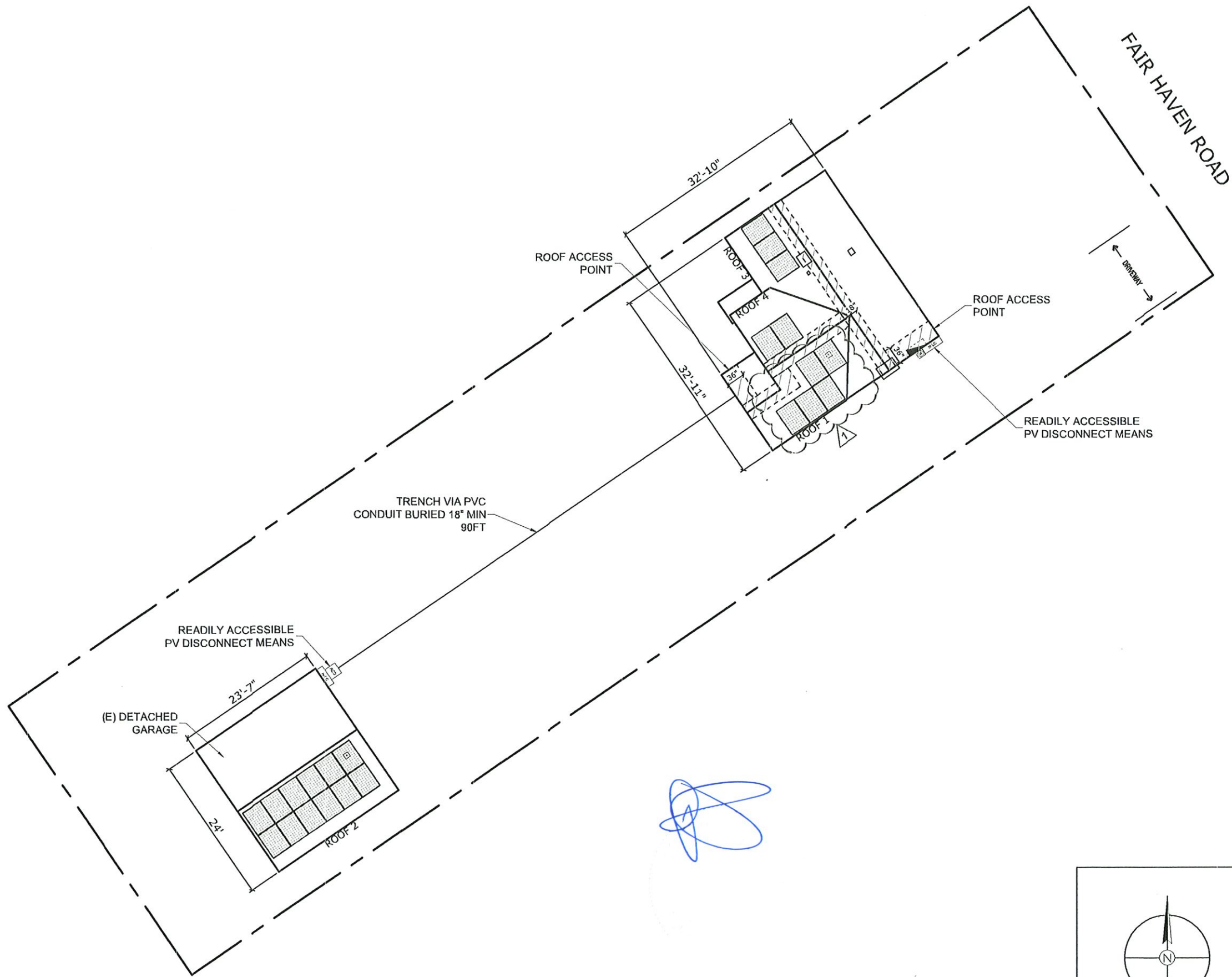
PROJECT: RP-205608

DATE DRAWN: 12-19-2021

SCALE: NTS

SHEET

PVA-0



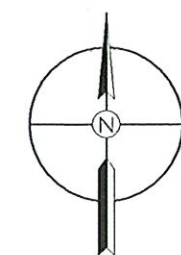
LEGEND

	JUNCTION BOX
	CONDUIT
	UTILITY SERVICE POINT
	UTILITY METER
	PROPERTY LINE
	FIRE ACCESS PATHWAY
	NEW LOAD CENTER
	AC DISCONNECT

TOTAL ROOF AREA: 1723 SQ. FT.  
 TOTAL ARRAY AREA: 394 SQ. FT.  
 TOTAL PERCENTAGE OF ROOF COVERED BY SOLAR: 23%

NOTE:  
 1. FIELD ADJUSTMENTS OF FEWER THAN 6" MAY BE ALLOWED BASED ON SITE CONDITIONS AND MEASUREMENTS.

ROOF	1	2	3	4		
MODULE QTY.	5	12	3	2		
AZIMUTH	146°	146°	236°	326°		
PITCH	5.5:12	7:12	8:12	5.5:12		



CONTRACT MODULE & QUANTITY	22 SPR-X21-335-BLK-E-AC (240)
MICROINVERTER TYPE & QUANTITY	22 IQ7XS-96-ACM-US (240)
ROOF TYPE	COMP SHINGLE
ROOF ATTACHMENT QUANTITY	52
STORY HOME TYPE	2 - STORY
TOTAL ARRAY AREA	394 SQ.FT.

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SOLAR INDIVIDUAL PERMIT PACKAGE  
 ARRAY LAYOUT

REVISIONS			
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INSTALLER	SPRI - NEW JERSEY
PROJECT	RP-205608
DATE DRAWN	12-19-2021
SCALE	15/256' = 1'-0"

SHEET  
**PVA-1**

TABLE 1 – ARRAYS INFORMATION

	ROOF PITCH	ROOFING TYPE	ATTACHMENT TYPE	NO. OF STORIES	FRAMING TYPE (in.)	MAX. RAFTER SPAN (ft.)	PENETRATION PATTERN (in.)	MAX. ATTACHMENT SPACING (in.)	MAX. RAIL OVERHANG (in.)
ROOF 1	25°	Comp Shingle	Pegasus L-foot	2	2x6 Rafter @ 24" OC	9'	Staggered	48"	16"
ROOF 2	30°	Comp Shingle	Pegasus L-foot	1	2x6 Rafter @ 16" OC	11'	Staggered	48"	16"
ROOF 3	34°	Comp Shingle	Pegasus L-foot	2	2x6 Rafter @ 16" OC	8.83'	Staggered	48"	16"
ROOF 4	25°	Comp Shingle	Pegasus L-foot	2	2x6 Rafter @ 24" OC	9'	Staggered	48"	16"
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--

CHECK TABLE 2 FOR PENETRATION PATTERN GUIDE

FIG 1.1: ROOF 1 STRUCTURAL FRAMING DETAIL

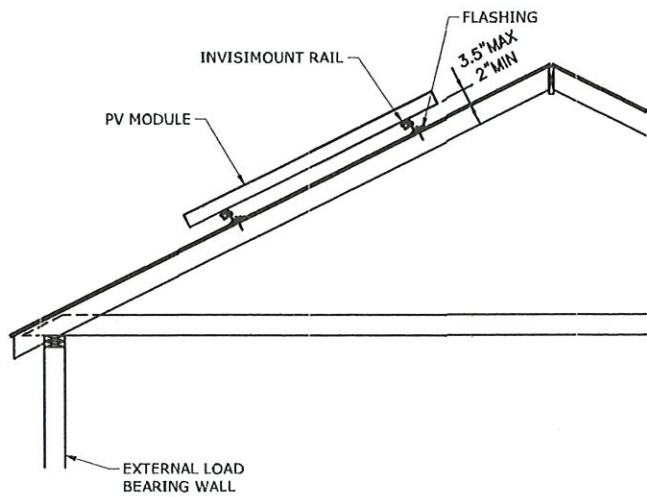


FIG 1.2: ROOF 2 STRUCTURAL FRAMING DETAIL

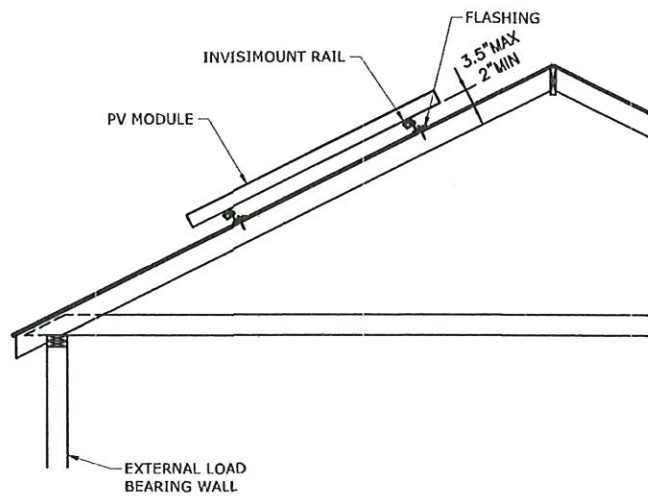


FIGURE 2: INVISIMOUNT ROOF ATTACHMENT DETAILS @ TRUSS / RAFTERS

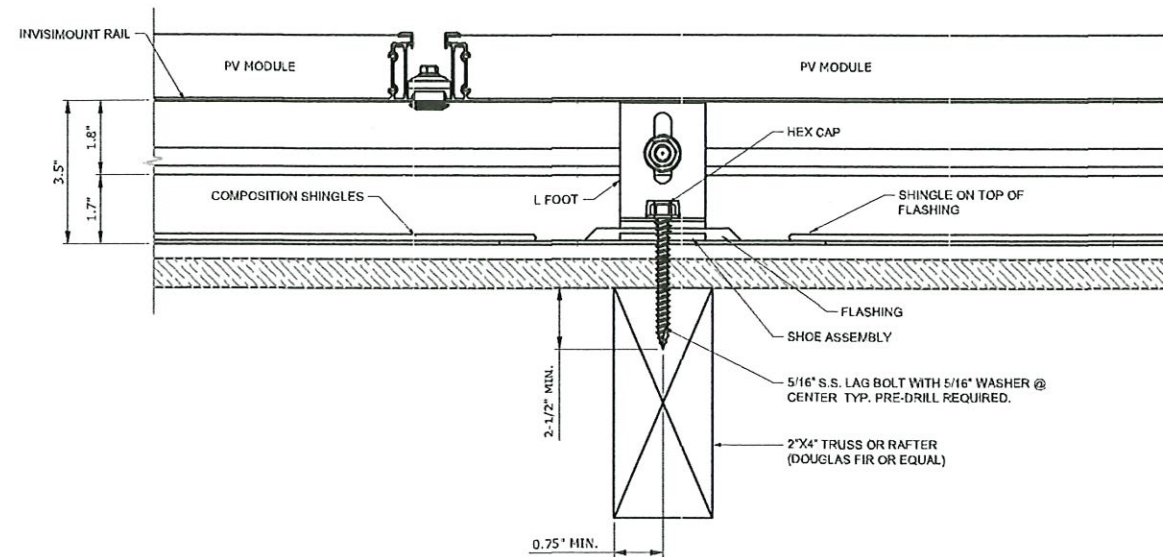


FIG 1.3: ROOF 3 STRUCTURAL FRAMING DETAIL

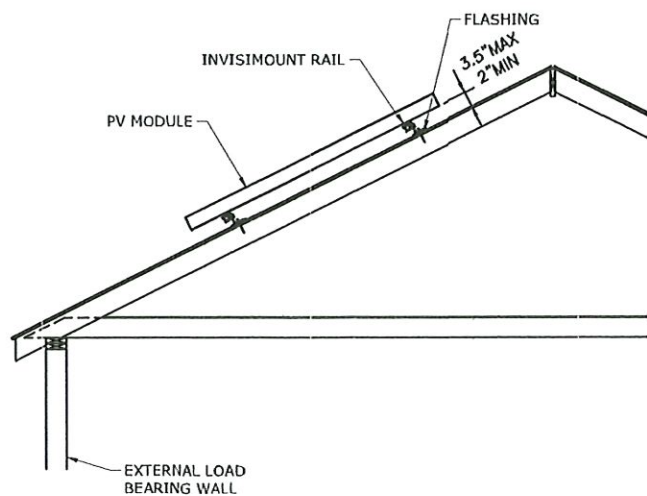


FIG 1.4: ROOF 4 STRUCTURAL FRAMING DETAIL

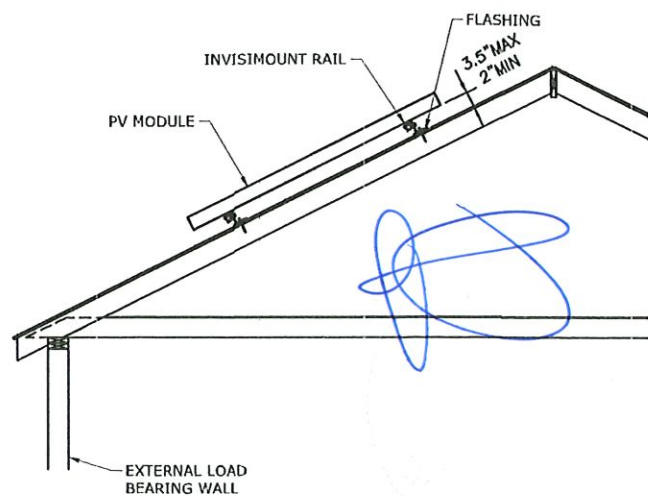


TABLE 2: PENETRATION GUIDE FOR INSTALL

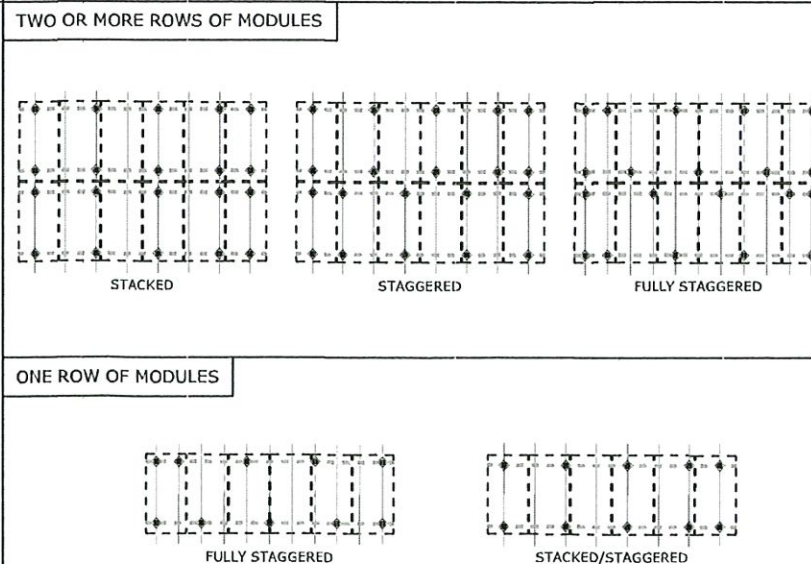
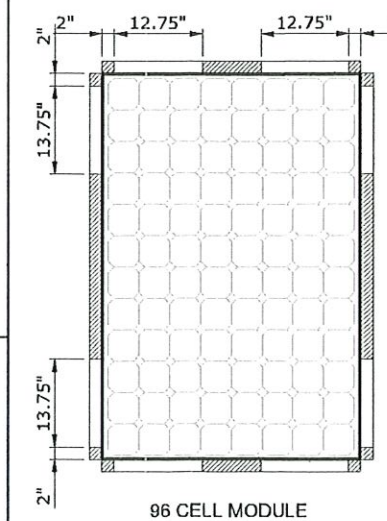


FIGURE 3: MOUNTING CLAMP POSITIONING DETAILS



\*RAILS SHALL BE POSITIONED IN THE NON-CROSS HATCHED REGIONS

\*CHECK TABLE 1 FOR MAX. PENETRATION SPACING AND PENETRATION PATTERN FOR EACH ARRAY.

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SOLAR INDIVIDUAL PERMIT PACKAGE  
STRUCTURAL INFORMATION  
AND MOUNTING DETAILS

REVISIONS

REV	DESCRIPTION	DATE	DB
1	MODULE TYPE CHANGE	12/19/21	JB

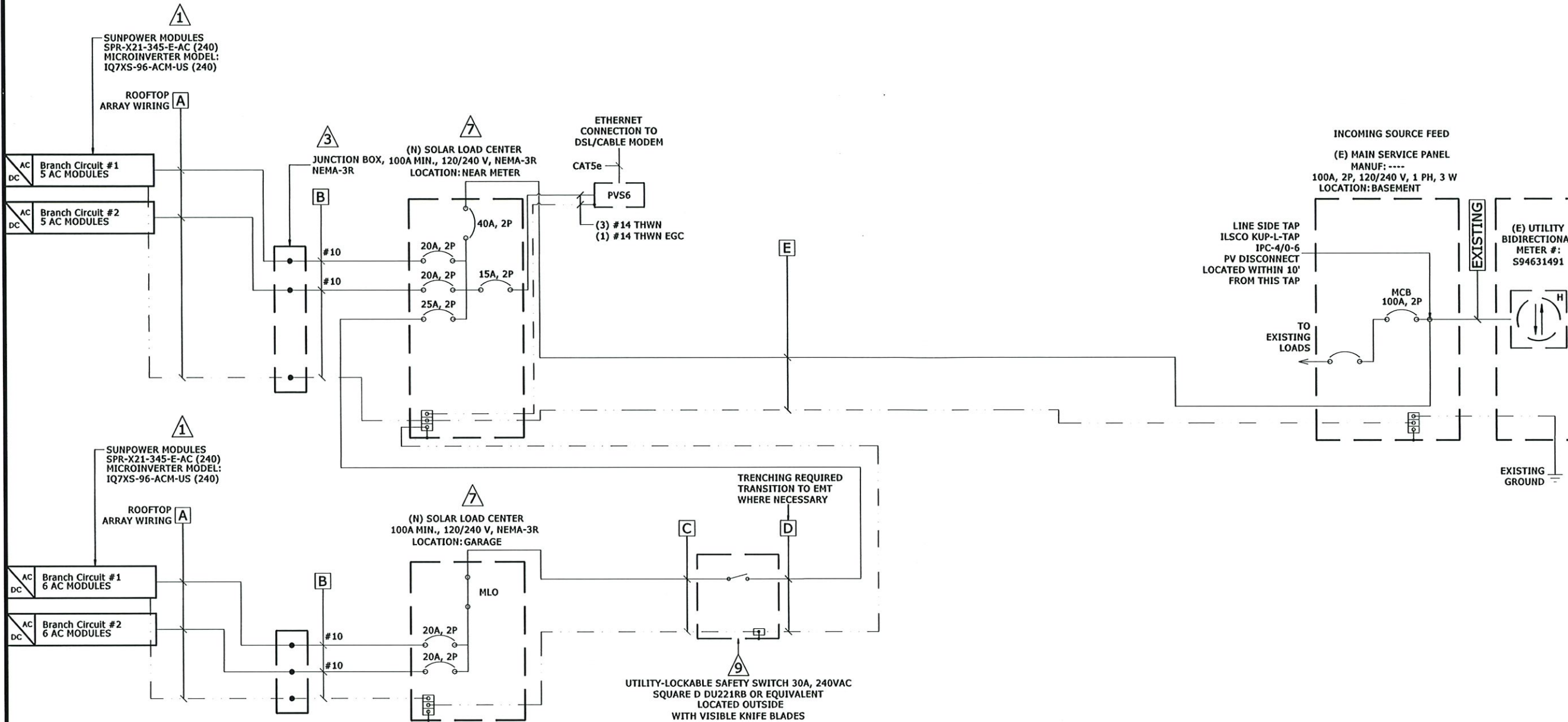
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JEFFERSON BALBA

INSTALLER	SPRI - NEW JERSEY
PROJECT	RP-205608
DATE DRAWN	12-19-2021
SCALE	NTS

SHEET

PVS-1

FIGURE A: SINGLE LINE DIAGRAM - 7.370 kW



TAG	DESCRIPTION	ACM	TAG	DESCRIPTION & CONDUCTOR TYPE	CONDUCTOR SIZE (AWG)	NUMBER OF CONDUCTORS	CONDUIT/CABLE TYPE	CONDUIT SIZE
1	SOLAR AC MODULE / BRANCH	ACM						
2	DC / DC CONVERTERS	NO						
3	SOURCE CIRCUIT JUNCTION BOX	YES						
4	SEPARATE DC DISCONNECT	NO	A	SUNPOWER PROVIDED AC MODULES EXTENSION CABLE, LISTED AS AN ASSEMBLY	#12	2	BRANCH CIRCUIT FROM PV ARRAY TO JUNCTION BOX	--
5	INTERNAL INVERTER DC DISCONNECT	NO		EGC: BARE CU	#6	1		
6	STRING INVERTER	NO	B	THWN-2	#10	8	EMT	3/4"
7	SOLAR LOAD CENTER	YES		EGC: THWN-2	#10	1		
8	PV PRODUCTION METER	NO	C	THWN-2	#10	3	EMT	3/4"
9	SEPARATE AC DISCONNECT	NO		EGC: THWN-2	#10	1	SCH 40 PVC	1"
			D	THWN-2	#8	3		
			E	THWN-2	#6	3	EMT	3/4"
				EGC: THWN-2	#6	1		

**PV CERTIFICATIONS AND COMPLIANCE**

- UL 1741 / IEEE-1547
- UL 1741 AC MODULE (TYPE 2 FIRE RATED)
- UL 62109-1 / IEC 62109-2
- UL LISTED PV RAPID SHUTDOWN EQUIPMENT

**ENABLES INSTALLATION IN ACCORDANCE WITH:**

- NEC 690.6 (AC MODULE)
- NEC 690.12 RAPID SHUTDOWN (INSIDE AND OUTSIDE THE ARRAY)
- NEC 690.15 AC CONNECTORS, 690.33(A)-(E)(1)

- ELECTRICAL NOTES**
- PROPER LISTING EXPECTED FOR CONDITIONS OF USE ON ALL LUGS, FITTINGS, CRIMPS, ETC.
  - ALL CONDUIT BEND RADII TO CONFORM TO THE NEC MINIMUM BEND RADII REQUIREMENTS.
  - MINIMUM CLEARANCE SHALL BE MAINTAINED PER NEC FOR ALL NEW EQUIPMENT TO BE INSTALLED.
  - EXISTING GROUNDING ELECTRODE SYSTEM MUST MEET NEC AND LOCAL UTILITY REQUIREMENTS.
  - COPPER CONDUCTORS SHALL BE USED UNLESS SPECIFIED.
  - TYPE NM (ROMEX) CONDUCTORS ARE ALLOWED FOR INTERNAL AND ATTIC RUNS AND SHALL BE INSTALLED MEETING NEC REQUIREMENTS.
  - IF MAIN SERVICE PANEL IS TO BE UPGRADED, IT WILL BE PERMITTED AND INSTALLED BY 3RD PARTY.
  - AC WIRING SHALL UPSIZE IF VOLTAGE DROP EXCEEDS 2%.
  - RUN CONDUCTORS IN EXISTING CONDUIT WHEN AVAILABLE PROVIDED IT HAS NO OTHER CONDUCTORS RUNNING THROUGH IT.
  - EQUIVALENT SPECIFICATION ON CABLES AND ELECTRICAL EQUIPMENT SPECIFIED ARE ACCEPTABLE.
  - AS DC POWER IS INTERNAL TO THE MODULE, GROUNDING ELECTRODE CONDUCTOR (GEC) FOR THE MODULE OR ARRAY IS NOT REQUIRED.

- AC MODULES NOTES**
- DC CIRCUIT IS ISOLATED AND INSULATED FROM GROUND AND MEETS THE REQUIREMENT OF NEC 690.35.
  - SUNPOWER PROVIDED CABLES COMES WITH TWO (2) #12 AWG WIRE AND THIS IS BY DESIGN. NEUTRAL AND ADDITIONAL GROUND WIRE IS NOT REQUIRED FOR PROVIDED TRUNK AND EXTENSION CABLES.
  - SUNPOWER AC MODULES HAVE BEEN TESTED AND CERTIFIED TO UL 2703 FOR INTEGRATED GROUNDING AND HENCE A SEPARATE GROUND WIRE IS NOT REQUIRED WITHIN THE ARRAY.
  - USE ROW-TO-ROW GROUNDING CLIP PROVIDED TO GROUND ROWS OF MODULE. BOND SUB-ARRAYS BY RUNNING #6 AWG BARE CU WIRE AND GROUND LUGS AT A SINGLE POINT ON EACH SUB-ARRAY AND THEN TO THE JUNCTION BOX. REFER TO PVE-4 FOR ADDITIONAL DETAILS.

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SOLAR INDIVIDUAL PERMIT PACKAGE  
ELECTRICAL SINGLE-LINE DIAGRAM  
& SPECIFICATIONS

**REVISIONS**

REV	DESCRIPTION	DATE	DB
1	MODULE TYPE CHANGE	12/19/21	JB

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INSTALLER	SPRI - NEW JERSEY
PROJECT	RP-205608
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SHEET	PVE-1

ELECTRICAL CALCULATIONS

<b>SUBPANEL TO GRID-TIE WIRING</b>	<b>#8</b>
VOLTAGE	240 V
SUM OF BRANCHES: $I_{OUT\_TOTAL} =$	28.82 A
MINIMUM WIRE AMPACITY: $I_{MAX} = I_{OUT} \times 1.25$	36.03 A
<b>CONDUCTOR DE-RATING</b>	
MAXIMUM AMBIENT TEMPERATURE	36 °C
TEMPERATURE USED FOR AMPACITY DE-RATING	36 °C
TEMPERATURE DE-RATING COEFFICIENT	0.91
FILL DE-RATING COEFFICIENT	1.00
$I_{WREMIN} = I_{MAX} / TEMP\_COEFF / FILL\_COEFF$	39.59 A
WIRE SIZE AMPACITY	55 A
CONDUCTOR SIZE	<b>#8</b>
CONDUCTOR SIZE ADJUSTED FOR VOLTAGE DROP	<b>#8</b>
ONE WAY CIRCUIT LENGTH	15 FT.
VOLTAGE DROP	0.28%
<b>OVERCURRENT PROTECTION</b>	<b>40A, 2P</b>
MINIMUM OCPD = $I_{OUT} \times 1.25$	36.03 A

	BRANCH 1	BRANCH 2	BRANCH 3	BRANCH 4		
<b>ROOF JCT BOX TO SUBPANEL WIRING</b>	<b>#10</b>	<b>#10</b>	<b>#10</b>	<b>#10</b>		
NUMBER OF MODULES	5	5	6	6		
VOLTAGE	240 V	240 V	240 V	240 V		
RATED AC OUTPUT CURRENT: $I_{OUT} =$	6.55 A	6.55 A	7.86 A	7.86 A		
MINIMUM WIRE AMPACITY: $I_{MAX} = I_{OUT} \times 1.25$	8.19 A	8.19 A	9.83 A	9.83 A		
<b>CONDUCTOR DE-RATING</b>						
MAXIMUM AMBIENT TEMPERATURE	36 °C	36 °C	36 °C	36 °C		
TEMPERATURE ADDER	22 °C	22 °C	22 °C	22 °C		
TEMPERATURE USED FOR AMPACITY DE-RATING	58 °C	58 °C	58 °C	58 °C		
TEMPERATURE DE-RATING COEFFICIENT	0.71	0.71	0.71	0.71		
FILL DE-RATING COEFFICIENT	0.7	0.7	0.7	0.7		
$I_{WREMIN} = I_{MAX} / TEMP\_COEFF / FILL\_COEFF$	16.47 A	16.47 A	19.77 A	19.77 A		
WIRE SIZE AMPACITY	40 A	40 A	40 A	40 A		
CONDUCTOR SIZE	<b>#10</b>	<b>#10</b>	<b>#10</b>	<b>#10</b>		
CONDUCTOR SIZE ADJUSTED FOR VOLTAGE DROP	<b>#10</b>	<b>#10</b>	<b>#10</b>	<b>#10</b>		
ONE WAY CIRCUIT LENGTH	45 FT.	45 FT.	155 FT.	155 FT.		
CALCULATED VOLTAGE DROP	0.30%	0.30%	1.26%	1.26%		
<b>OVERCURRENT PROTECTION</b>	<b>20A, 2P</b>	<b>20A, 2P</b>	<b>20A, 2P</b>	<b>20A, 2P</b>		
MINIMUM OCPD = $I_{OUT} \times 1.25$	8.19 A	8.19 A	9.83 A	9.83 A		

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ELECTRICAL CALCULATION

REVISIONS

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SHEET  
**PVE-2**



ELECTRICAL DATA & SPECIFICATIONS

**PHOTOVOLTAIC POINT OF INTERCONNECTION**

WARNING: DUAL POWER SOURCE. SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

MAXIMUM RATED AC OUTPUT CURRENT:	28.82 A	AMPS
MAXIMUM OPERATING AC VOLTAGE:	240 V	VOLTS

SIGNAGE LOCATIONS:

- MAIN SERVICE PANEL
- INDOOR / OUTDOOR SUBPANEL

**PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN**

SIGNAGE LOCATIONS:

- MAIN SERVICE PANEL

**PV SOLAR BREAKER**  
DO NOT RELOCATE THIS OVERCURRENT DEVICE

SIGNAGE LOCATIONS:

- MAIN SERVICE PANEL
- NEW INDOOR / OUTDOOR LOAD CENTER
- INDOOR / OUTDOOR SUBPANEL

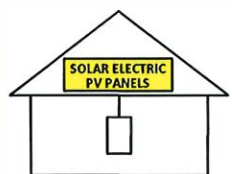
**RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM**

SIGNAGE LOCATIONS:

- LABEL SHALL BE LOCATED ON OR NO MORE THAN 1M (3FT) FROM THE SWITCH

**SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN**

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



SIGNAGE LOCATIONS:

- SHALL BE LOCATED ON OR NO MORE THAN 1 M (3 FT) FROM THE SERVICE DISCONNECTING MEANS TO WHICH THE PV SYSTEMS ARE CONNECTED.

**PHOTOVOLTAIC SYSTEM AC DISCONNECT**

RATED AC OUTPUT CURRENT:	28.82 A	AMPS
NOMINAL OPERATING AC VOLTAGE:	240 V	VOLTS

SIGNAGE LOCATIONS:

- INDOOR / OUTDOOR AC DISCONNECT

SIGNAGE NOTES

1. MATERIAL USED FOR THE SIGNAGE SHALL BE REFLECTIVE, WEATHER RESISTANT AND SUITABLE FOR THE ENVIRONMENT.
2. ALL SIGNAGE SHALL HAVE ALL CAPITAL LETTERS WITH MINIMUM 3/8" LETTER HEIGHT, WHITE ON RED BACKGROUND.
3. MAIN SERVICE DISCONNECT MARKING SHALL BE PLACED ADJACENT TO MAIN SERVICE DISCONNECT IN A LOCATION CLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED.
4. MARKING IS REQUIRED ON ALL INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES, AND JUNCTION BOXES TO ALERT THE FIRE SERVICE TO AVOID CUTTING THEM. MARKINGS SHALL BE PLACED EVERY 10', AT TURNS AND ABOVE AND/OR BELOW PENETRATIONS, AND AT ALL DC COMBINER AND JUNCTION BOXES.
5. DO NOT USE SCREWS FOR SIGNAGE ATTACHMENT. USE ONLY APPROVED ADHESIVE.

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SHEET  
**PVE-3**

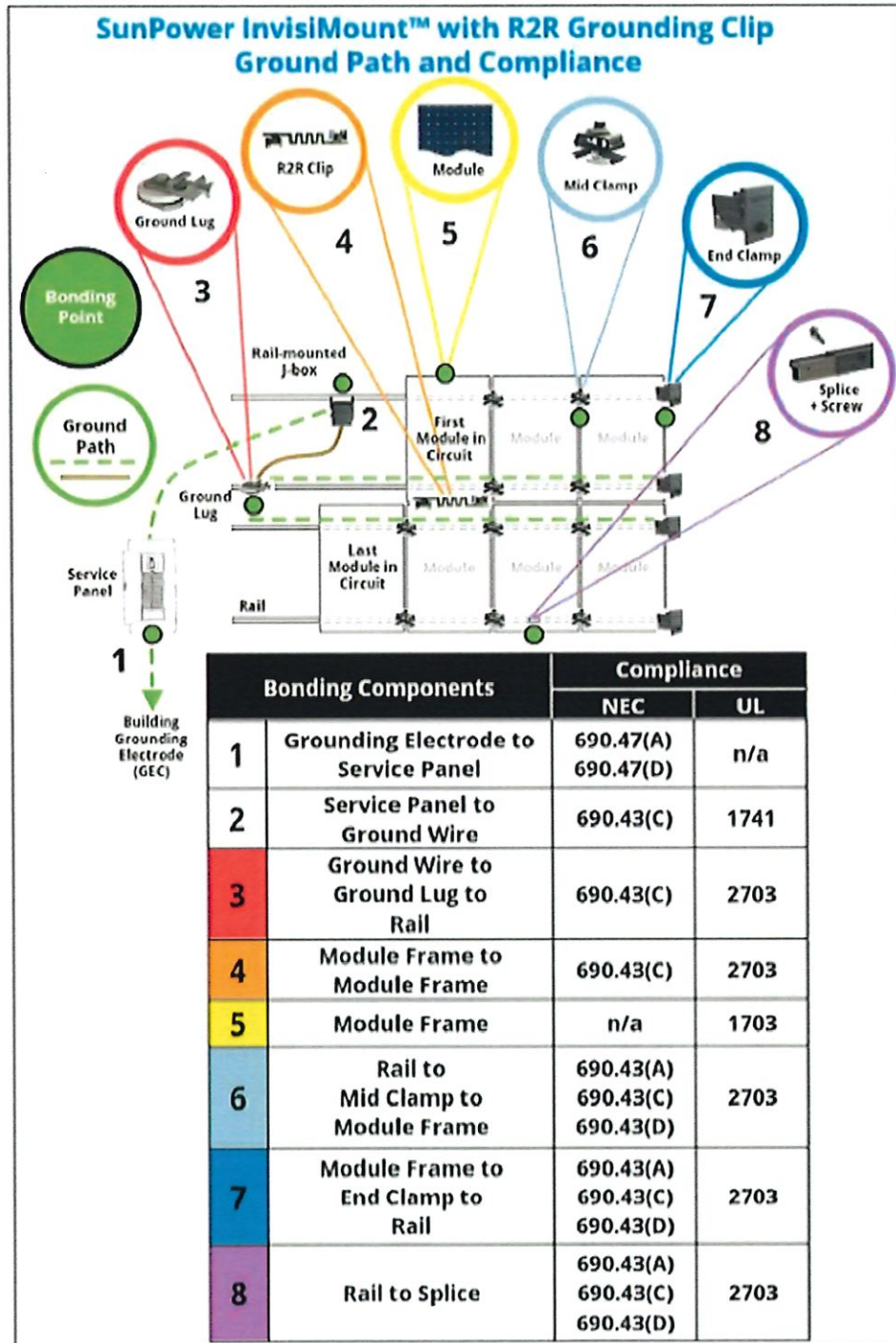
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INSTALLER	SPRI - NEW JERSEY
PROJECT	RP-205608
DATE DRAWN	12-19-2021
SCALE	NTS

SHEET **PVE-4**



Document #506368 Rev11

15

SunPower Proprietary

FIGURE 1: SUNPOWER EQUINOX GROUNDING DETAILS

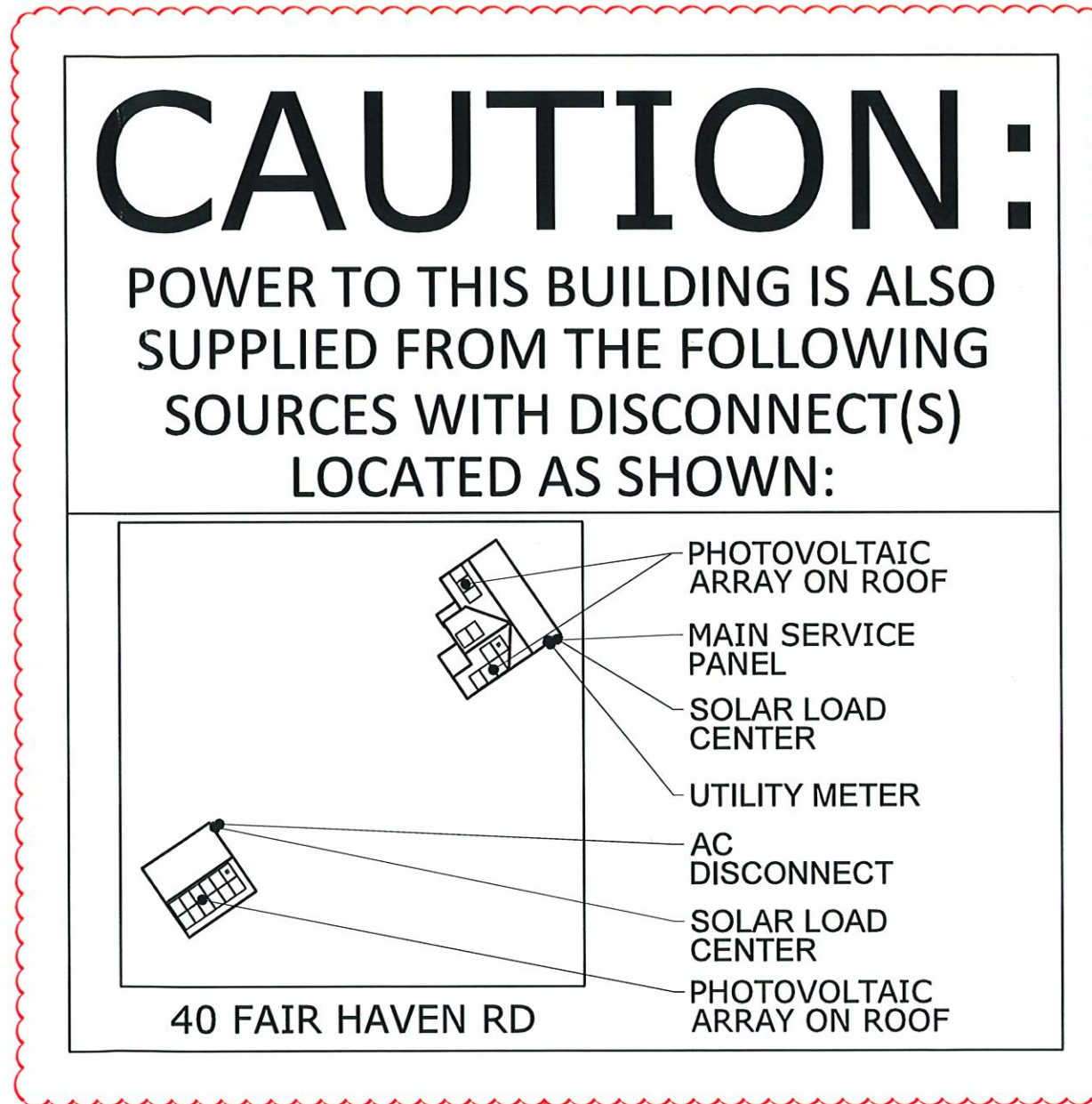
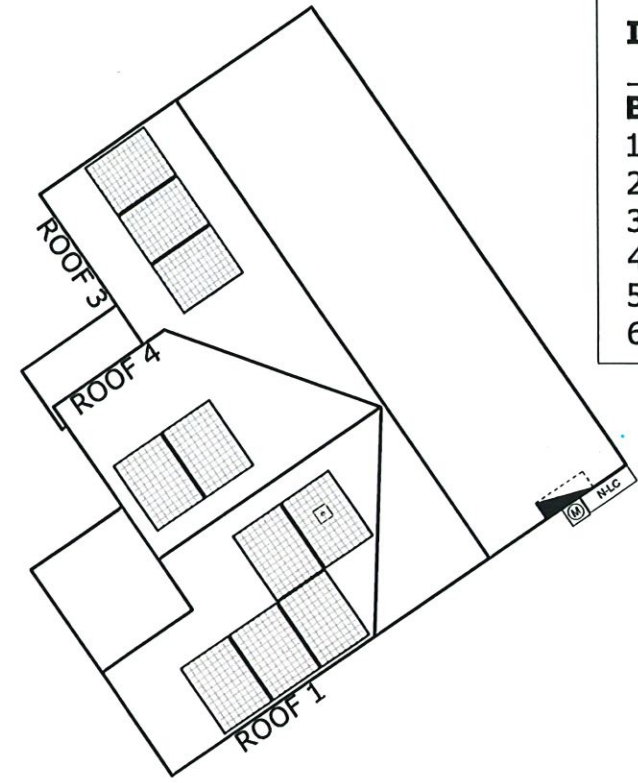
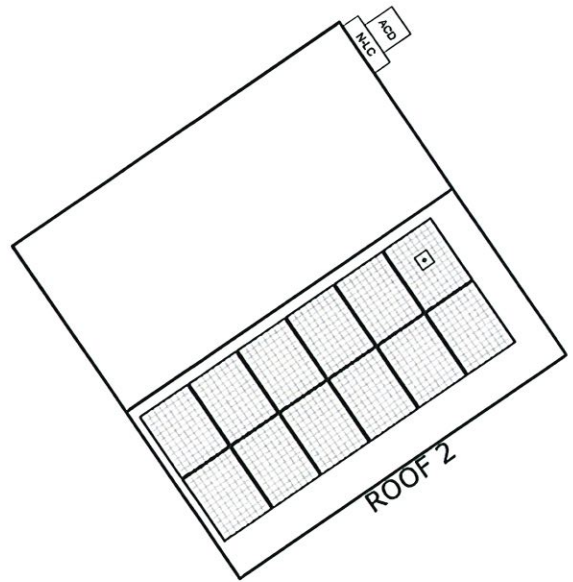
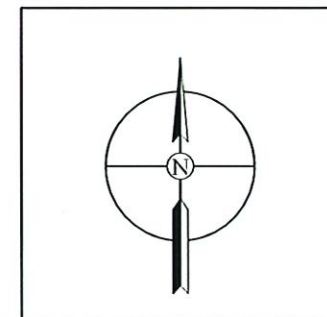


FIGURE 2: PLACARD IDENTIFYING LOCATION OF DISCONNECTS AND POWER SOURCES



**INSTALLER NAME:**  
 \_\_\_\_\_  
**BRANCH VOLTAGES:**  
 1.  
 2.  
 3.  
 4.  
 5.  
 6.

ROOF	1	2	3	4		
MODULE QTY.	5	12	3	2		
AZIMUTH	146°	146°	236°	326°		
PITCH	5.5:12	7:12	8:12	5.5:12		



**SUNPOWER®**  
 CORPORATION, SYSTEMS  
 1414 HARBOUR WAY SOUTH  
 RICHMOND, CA 94804  
 (510) 540-0550

SPRI - NEW JERSEY  
 9 CORPORATE DR.  
 CRANBURY, NJ 08512

PAUL SZERLIP  
 7.370 KW GRID-TIED PHOTOVOLTAIC SYSTEM  
 40 FAIR HAVEN RD  
 FAIR HAVEN NJ 07704  
 SOLAR INDIVIDUAL PERMIT PACKAGE  
 BRANCH DIAGRAM

REVISIONS

REV	DESCRIPTION	DATE	DB
1	MODULE TYPE CHANGE	12/19/21	JB

DRAWN BY: *J. Balba*  
 JEFERSON BALBA

INSTALLER	SPRI - NEW JERSEY
PROJECT	RP-205608
DATE DRAWN	12-19-2021
SCALE	23/256" = 1'-0"

SHEET **PVE-5**



# SUNPOWER®

X-Series: X21-350-BLK | X21-335-BLK | X20-327-BLK

## SunPower® Residential AC Module

Built specifically for use with the SunPower Equinox™ system, the only fully integrated solution designed, engineered and warranted by one manufacturer.



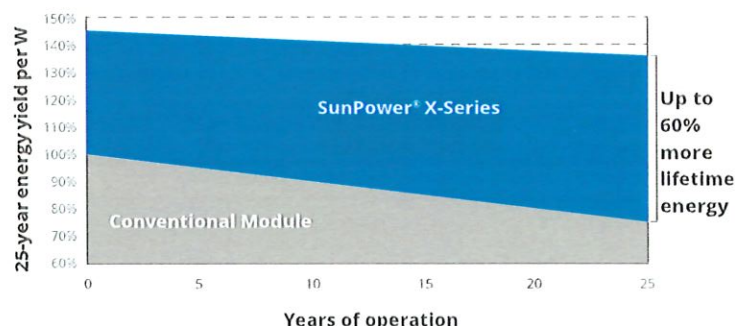
### Maximum Power. Minimalist Design.

Industry-leading efficiency means more power and savings per available space. With fewer modules required and hidden microinverters, less is truly more.

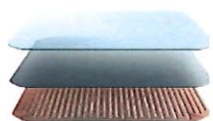


### Highest Lifetime Energy and Savings.

Designed to deliver 60% more energy over 25 years in real-world conditions like partial shade and high temperatures.<sup>1</sup>

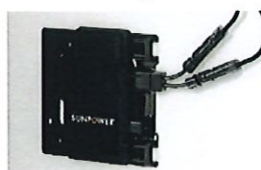


### Fundamentally Different. And Better.



The SunPower® Maxeon® Solar Cell

- Enables highest-efficiency modules available.<sup>2</sup>
- Unmatched reliability<sup>3</sup>
- Patented solid metal foundation prevents breakage and corrosion



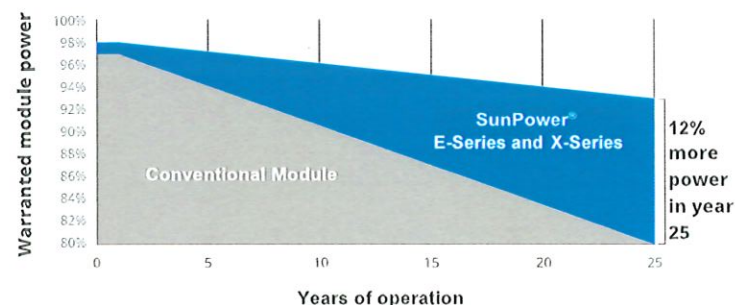
Factory-integrated Microinverter

- Simpler, faster installation
- Integrated wire management, rapid shutdown
- Engineered and calibrated by SunPower for SunPower modules



### Best Reliability. Best Warranty.

With more than 25 million modules deployed around the world, SunPower technology is proven to last. That's why we stand behind our module and microinverter with the industry's best 25-year Combined Power and Product Warranty, including the highest Power Warranty in solar.



### X-Series: X21-350-BLK | X21-335-BLK | X20-327-BLK SunPower® Residential AC Module

AC Electrical Data	
Inverter Model: Type E (IQ 7XS)	@240 VAC
Peak Output Power	320 VA
Max. Continuous Output Power	315 VA
Nom. (L-L) Voltage/Range <sup>2</sup> (V)	240 / 211-264
Max. Continuous Output Current (A)	1.31
Max. Units per 20 A (LL) Branch Circuit <sup>3</sup>	12 (single phase)
CEC Weighted Efficiency	97.5%
Nom. Frequency	60 Hz
Extended Frequency Range	47-68 Hz
AC Short Circuit Fault Current Over 3 Cycles	5.8 A rms
Overvoltage Class AC Port	III
AC Port Backfeed Current	18 mA
Power Factor Setting	1.0
Power Factor (adjustable)	0.7 lead. / 0.7 lag.
No active phase balancing for three-phase installations	

DC Power Data			
	X21-350-BLK-E-AC	X21-335-BLK-E-AC	X20-327-BLK-E-AC
Nom. Power <sup>4</sup> (Pnom)	350 W	335 W	327 W
Power Tol.	+5/-0%	+5/-0%	+5/-0%
Module Efficiency	21.5%	21.0%	20.4%
Temp. Coef. (Power)	-0.29%/°C	-0.29%/°C	-0.29%/°C
Shade Tol.	<ul style="list-style-type: none"> <li>• Three bypass diodes</li> <li>• Integrated module-level maximum power point tracking</li> </ul>		

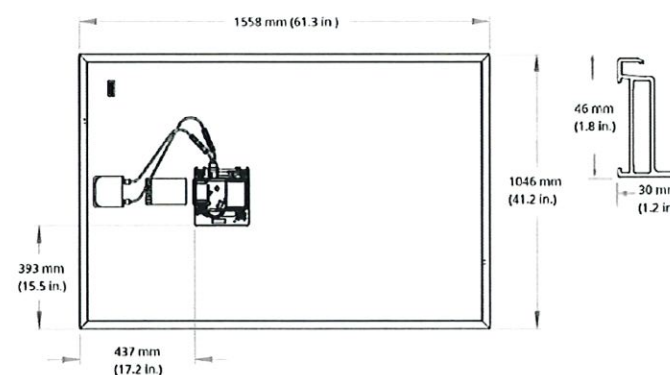
Tested Operating Conditions	
Operating Temp.	-40°F to +185°F (-40°C to +85°C)
Max. Ambient Temp.	122°F (50°C)
Max. Test Load <sup>2</sup>	Wind: 154 psf, 7400 Pa, 754 kg/m <sup>2</sup> back Snow: 208 psf, 10000 Pa, 1019 kg/m <sup>2</sup> front
Design Load	Wind: 62 psf, 3000 Pa, 305 kg/m <sup>2</sup> back Snow: 125 psf, 6000 Pa, 611 kg/m <sup>2</sup> front
Impact Resistance	1 inch (25 mm) diameter hail at 52 mph (23 m/s)

Mechanical Data	
Solar Cells	96 Monocrystalline Maxeon Gen III
Front Glass	High-transmission tempered glass with anti-reflective coating
Environmental Rating	Outdoor rated
Frame	Class 1 black anodized (highest AAMA rating)
Weight	42.9 lbs (18.5 kg)
Recommended Max. Module Spacing	1.3 in. (33 mm)

1 SunPower 350 W compared to a conventional module on same size arrays (260 W, 16% efficient, approx. 1.6 m<sup>2</sup>). All more energy per watt based on third party module characterization and PVSim, 0.75%/yr slower degradation (Compton, Z. et al., "SunPower Module Degradation Rate," SunPower white paper, 2013).  
 2 Based on search of datasheet values from websites of top 10 manufacturers per IHS, as of January 2017.  
 3 #1 ranking from the PV Reliability Initiative for Solar Modules, Part 3: Field Performance, Morgan, 2015.  
 4 Compton, Z. et al., "SunPower Module Degradation Rate," SunPower white paper, 2013.  
 5 Standard Test Conditions (1000 W/m<sup>2</sup> irradiance, AM 1.5, 25°C), NREL calibration standard: 50MS current, LACCSEF and voltage. All DC voltage is fully contained within the module.  
 6 This product is UL Listed as FVISE and conforms with NEC 2014 and NEC 2017 (690.12) and C22.1-2015 rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according to manufacturer's instructions.  
 7 Please read the safety and installation instructions for more information regarding load ratings and mounting configurations.

See [www.sunpower.com/facts](http://www.sunpower.com/facts) for more reference information. For more details, see extended datasheet [www.sunpower.com/datasheets](http://www.sunpower.com/datasheets) Specifications included in this datasheet are subject to change without notice.  
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Warranties, Certifications, and Compliance	
Warranties	<ul style="list-style-type: none"> <li>• 25-year limited power warranty</li> <li>• 25-year limited product warranty</li> </ul>
Certifications and Compliance	<ul style="list-style-type: none"> <li>• UL 1703</li> <li>• UL 1741 / IEEE-1547</li> <li>• UL 1741 AC Module (Type 2 fire rated)</li> <li>• UL 62109-1 / IEC 62109-2</li> <li>• FCC Part 15 Class B</li> <li>• ICES-0003 Class B</li> <li>• CAN/CSA-C22.2 NO. 107.1-01</li> <li>• CA Rule 21 (UL 1741 SA)<sup>1</sup> (includes Volt/Var and Reactive Power Priority)</li> <li>• UL Listed PV Rapid Shutdown Equipment<sup>6</sup></li> </ul> <p>Enables installation in accordance with:</p> <ul style="list-style-type: none"> <li>• NEC 690.6 (AC module)</li> <li>• NEC 690.12 Rapid Shutdown (inside and outside the array)</li> <li>• NEC 690.15 AC Connectors, 690.33(A)-(E)(1)</li> </ul> <p>When used with InvisiMount racking and InvisiMount accessories (UL 2703):</p> <ul style="list-style-type: none"> <li>• Module grounding and bonding through InvisiMount</li> <li>• Class A fire rated</li> </ul> <p>When used with AC module Q Cables and accessories (UL 6703 and UL 2238)<sup>7</sup>:</p> <ul style="list-style-type: none"> <li>• Rated for load break disconnect</li> </ul>
PID Test	Potential-induced degradation free



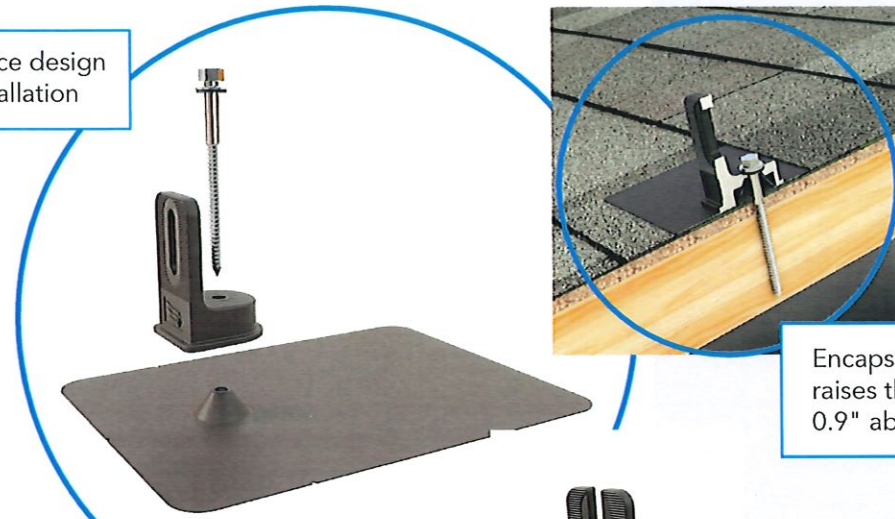
# SUNPOWER®

Please read the Safety and Installation Instructions for details.

531946 Rev.C

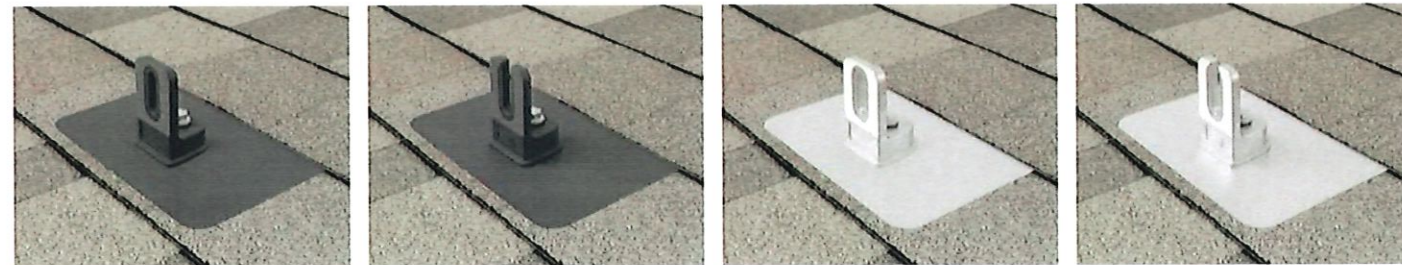
# COMP MOUNTS

Simple 3-piece design for rapid installation



Encapsulating design raises the water seal 0.9" above roof deck

One-piece flashing with elevated cone – No press-fits or deck-level EPDM washers to fail



## WATERTIGHT FOR LIFE

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



### 25-year Warranty

Manufactured with advanced materials and coatings to outlast the roof itself



### Superior Waterproofing

Tested to AC286 without sealant 0.9" elevated water seal



### Code Compliant

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

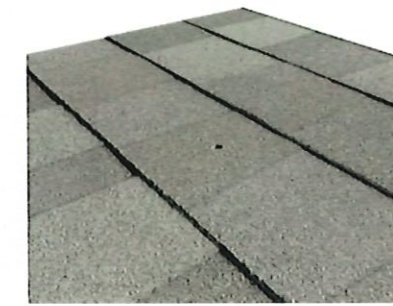


### All-In-One Kit Packaging

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

# COMP MOUNTS

1. Drill pilot hole in center of rafter.



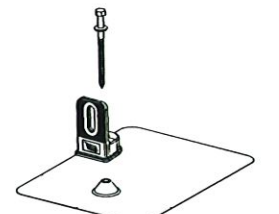
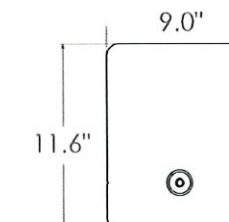
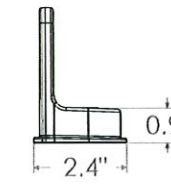
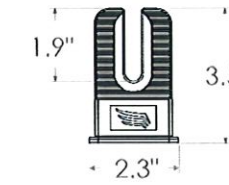
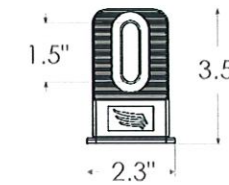
2. Optional: Apply a "U-shape" of sealant to underside of flashing and position under 2nd shingle course, cone over pilot hole.



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



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



Specifications	Comp Mount Install Kits				
	PSCR-CBB0	PSCR-UBB0	SPCR-CBBH	PSCR-CMM0	PSCR-UMM0
SKU	PSCR-CBB0	PSCR-UBB0	SPCR-CBBH	PSCR-CMM0	PSCR-UMM0
Finish	Black L-Foot and Black Flashing			Mill L-Foot and Mill Flashing	
L-Foot Type	Closed Slot	Open Slot	Closed Slot	Closed Slot	Open Slot
Kit Contents	L-Foot, Flashing, 5/16" x 4-1/2" SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16" x 4-1/2" SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16" x 4-1/2" SS Lag with metalized EPDM washer and M10 Hex Bolt	L-Foot, Flashing, 5/16" x 4-1/2" SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16" x 4-1/2" SS Lag with metalized EPDM washer
Roof Type	Composition Shingle				
Certifications	IBC, ASCE/SEI 7-16, AC286				
Install Application	Railed Systems				
Compatible Rail	Most				
Flashing Material	Painted Galvalume Plus			Galvalume Plus	
L-Foot Material	Aluminum				
Kit Quantity	24				
	72				

# SunPower® InvisiMount™ | Residential Mounting System

## Simple and Fast Installation

- Integrated module-to-rail grounding
- Pre-assembled mid and end clamps
- Levitating mid clamp for easy placement
- Mid clamp width facilitates consistent, even module spacing
- UL 2703 Listed integrated grounding

## Flexible Design

- Addresses nearly all sloped residential roofs
- Design in landscape and portrait with up to 8' rail span
- Pre-drilled rails and rail splice
- Rails enable easy obstacle management

## Customer-Preferred Aesthetics

- #1 module and #1 mounting aesthetics
- Best-in-class system aesthetics
- Premium, low-profile design
- Black anodized components
- Hidden mid clamps and capped, flush end clamps

## Part of Superior System

- Built for use with SunPower DC and AC modules
- Best-in-class system reliability and aesthetics
- New optional rooftop transition flashing, rail-mounted J-box, and wire management rail clips
- Combine with SunPower modules and SunPower EnergyLink® monitoring app



## Elegant Simplicity

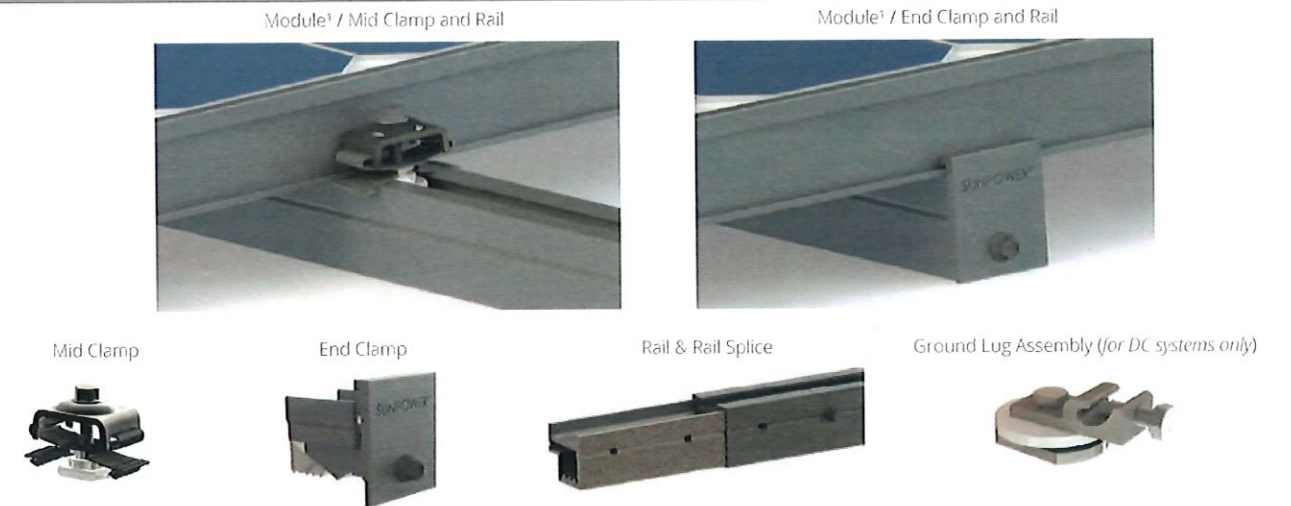
SunPower® InvisiMount™ is a SunPower-designed rail-based mounting system. The InvisiMount system addresses residential sloped roofs and combines faster installation time, design flexibility, and superior aesthetics. The InvisiMount product was specifically envisioned and engineered to pair with SunPower modules. The resulting system-level approach amplifies the aesthetic and installation benefits—for homeowners and for installers.

sunpower.com



# SunPower® InvisiMount™ | Residential Mounting System

## InvisiMount Components



InvisiMount Component Details		
Mid clamp	Black oxide stainless steel 300 series	63 g (2.2 oz)
End clamp	Black anodized aluminum 6000 series	110 g (3.88 oz)
Rail	Black anodized aluminum 6000 series	830 g/m (9 oz/ft)
Rail splice	Aluminum alloy 6000 series	830 g/m (9 oz/ft)
Rail bolt	M10-1.5 x 25 mm; DIN 933 SS304	nominal
Rail nut	M10-1.5; DIN 6923 SS304	nominal
Ground lug assembly	SS304; A2-70 bolt; tin-plated copper lug	106.5 g/m (3.75 oz)

InvisiMount Operating Conditions	
Temperature	-40° C to 90° C (-40° F to 194° F)
Max. Load (LRFD)	• 3000 Pa uplift • 6000 Pa downforce

Roof Attachment Hardware Supported by Design Tool	
Application	• Composition Shingle Rafter Attachment • Composition Shingle Roof Decking Attachment • Curved and Flat Tile Roof Attachment • Universal interface for other roof attachments

InvisiMount Component LRFD Capacities <sup>2</sup>		
Mid clamp	Uplift	664 lbf
	Shear	540 lbf
End clamp	Uplift	899 lbf
	Shear	220 lbf
Rail	Moment: upward	548 lbf-ft
	Moment: downward	580 lbf-ft
Rail splice	Moment: upward	548 lbf-ft
	Moment: downward	580 lbf-ft
L-foot	Uplift	1000 lbf
	Shear	390 lbf

InvisiMount Warranties And Certifications	
Warranties	• 25-year product warranty • 5-year finish warranty
Certifications	• UL 2703 Listed • Class A Fire Rated

Roof Attachment Hardware Warranties	
Refer to roof attachment hardware manufacturer's documentation.	

<sup>1</sup> Mod... software interoperability.

<sup>2</sup> SunPower recommends that all Equinox™, InvisiMount™, and AC module systems always be designed using the SunPower Design Tool. If a designer decides to instead use the component capacities listed in this document to design a system, note that the capacities shown are Load and Resistance Factor Design (LRFD) design loads, and are NOT to be used for Allowable Stress Design (ASD) calculations; and that a licensed Professional Engineer (PE) must then stamp all calculations. Should you have any questions please contact SunPower Technical Support at 1-800-SUNPOWER (1-800-786-7693).



# SunPower® Monitoring | Residential SunPower PV Supervisor

## Improve Support, Reduce Costs

An intuitive monitoring website enables you to:

- See a visual map of customer sites
- Remotely manage hundreds of sites
- Remotely diagnose and troubleshoot system issues
- Drill down for the status of individual devices

## Add Value for Customers

With mySunPower™ monitoring customers can:

- Track their energy production by day, month, year and in different weather conditions
- See their energy use and estimated bill savings
- Maximize their savings with automatic system alerts and tips
- Customize storage settings and easily monitor and track available battery power
- Receive elective system reports

## SunPower® Monitoring—Plug-and-Play Installation

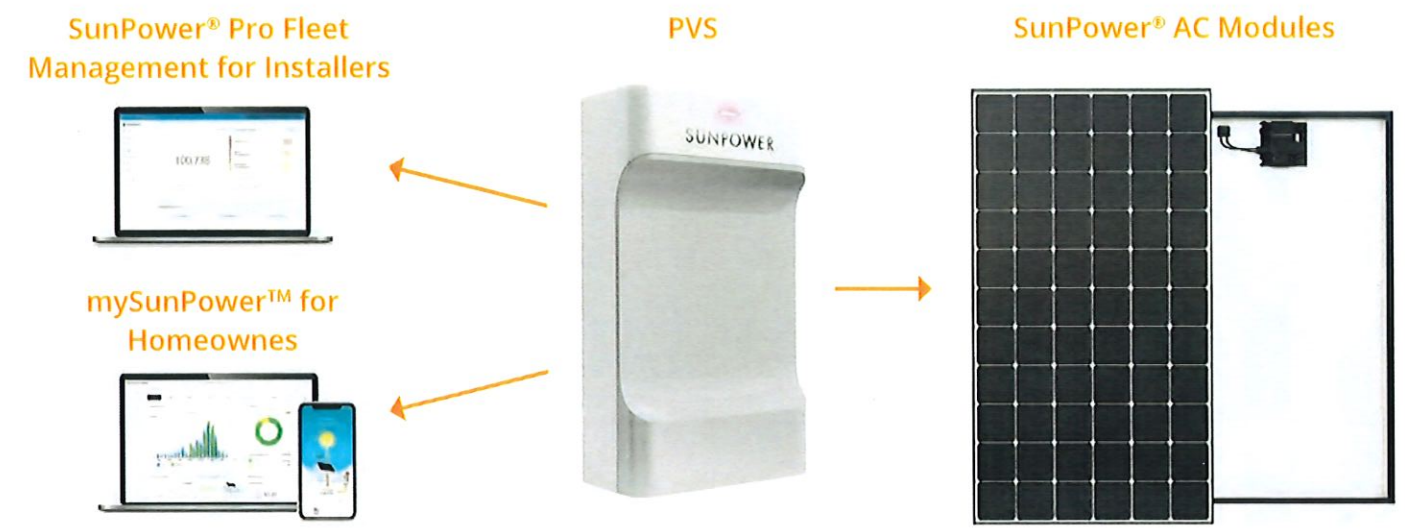
This complete solution for residential monitoring and control includes the SunPower® PV Supervisor (PVS) which improves the installation process, overall system reliability, and customer experience:

- Compact footprint for improved aesthetics
- Robust cloud connectivity and comprehensive local connectivity
- Flexible configuration of devices during installation
- Consumption metering
- Revenue-quality production metering
- Web-based commissioning
- Remote diagnostics of PVS and inverters
- Durable UL Type 3R enclosure helps reduce maintenance costs
- Easy integration with SunPower eBOS

## Robust Cloud Connectivity

Multiple options to maintain optimal connectivity:

- Hardwired Ethernet
- WiFi
- Cellular backup



Site Requirements	
<b>Number of modules supported per PVS</b>	• 85 (SunPower AC modules)
<b>Internet access</b>	• High-speed internet access via accessible router or switch
<b>Power</b>	• 100–240 VAC (L–N), 50 or 60 Hz • 208 VAC (L–L in phase 3), 60 Hz

Mechanical	
<b>Weight</b>	• 5.5 lb (2.5 kg)
<b>Dimensions</b>	• 11.8 × 8.0 × 4.2 in. (30.5 × 20.5 × 10.8 cm)
<b>Enclosure rating</b>	• UL 50E Type 3R

Operating Conditions	
<b>Temperature</b>	• –22°F to +140°F (–30°C to +60°C)
<b>Humidity (max.)</b>	• 95%, non-condensing

Warranty and Certifications	
<b>Warranty</b>	• 10-year Limited Warranty
<b>Certifications</b>	• UL, cUL, CE, UL 61010-1 and -2, FCC Part 15 (Class B)

Communication	
<b>RS-485</b>	• Supports string inverters, external meters, and other auxiliary devices
<b>Integrated metering</b>	• One channel of revenue-quality production metering • Two channels of consumption metering
<b>Ethernet</b>	• 1 LAN (or optional WAN) port
<b>PLC</b>	• Supports SunPower AC modules
<b>WiFi</b>	• 802.11b/g/n 2.4 GHz and 5 GHz
<b>Cellular</b>	• LTE Cat-M1/3G UMTS
<b>ZigBee</b>	• IEEE 802.15.4 MAC, 2.4 GHz ISM band
<b>Data storage</b>	• 60 days
<b>Upgrades</b>	• Automatic firmware upgrades

Web and Mobile Device Support	
<b>Customer site</b>	• mysunpower.com
<b>Partner site</b>	• monitor.sunpower.com
<b>Browsers</b>	• Firefox, Safari, and Chrome
<b>Mobile devices</b>	• iPhone®, iPad®, and Android™
<b>Customer app</b>	<ol style="list-style-type: none"> <li>1 Create account online at mysunpower.com</li> <li>2 On a mobile device, download the SunPower Monitoring app from Apple App Store or Google Play™ Store</li> <li>3 Sign in using account email and password</li> </ol>

[sunpower.com](http://sunpower.com)

SUNPOWER®



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## DU222RB

Safety switch, general duty, non fusible, 60A, 2 poles, 10 hp, 240 VAC, NEMA 3R, bolt-on provision

Product availability : Stock - Normally stocked in distribution facility



Price\* : 353.00 USD



### Main

Product	Single Throw Safety Switch
Current Rating	60 A
Certifications	UL listed file E2875
Enclosure Rating	NEMA 3R
Disconnect Type	Non-fusible disconnect switch
Factory Installed Neutral	None
Mounting Type	Surface
Number of Poles	2
Electrical Connection	Lugs
Duty Rating	General duty
Voltage Rating	240 V AC
Wire Size	AWG 12...AWG 3 aluminium AWG 14...AWG 3 copper

### Complementary

Short-circuit withstand	200 kA
Maximum Horse Power Rating	10 hp 240 V AC 60 Hz 1 phase NEC 430.52
Tightening torque	35 lbf.in (3.95 N.m) 0.00...0.01 in <sup>2</sup> (2.08...5.26 mm <sup>2</sup> ) AWG 14...AWG 10) 35 lbf.in (3.95 N.m) AWG 14...AWG 10) 45 lbf.in (5.08 N.m) 0.01 in <sup>2</sup> (8.37 mm <sup>2</sup> ) AWG 8) 45 lbf.in (5.08 N.m) 0.02...0.03 in <sup>2</sup> (12.3...21.12 mm <sup>2</sup> ) AWG 6...AWG 4) 50 lbf.in (5.65 N.m) 0.04 in <sup>2</sup> (26.67 mm <sup>2</sup> ) AWG 3)
Height	9.63 in (244.60 mm)
Width	7.75 in (196.85 mm)
Maximum Depth	3.75 in (95.25 mm)

\* Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price

Mar 28, 2021

## D222NRB

Safety Switch , 60A, Fusible, Cartridge (Class H, K or R), 2-Pole



by Schneider Electric

List Price \$326.00 USD

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



### Technical Characteristics

Terminal Type	Lugs
Type of Duty	General Duty
Maximum Voltage Rating	240VAC
Wire Size	#10 to #2 AWG(Al) - #14 to #2 AWG(Cu)
Depth	4.83 Inches
Height	14.88 Inches
Width	6.63 Inches
Action	Single Throw
Ampere Rating	60A
Approvals	UL Listed File: E2875
Enclosure Rating	NEMA 3R
Enclosure Type	Rainproof and Sleet/Ice proof (Indoor/Outdoor)
Enclosure Material	Galvannealed Steel
Factory Installed Neutral	Yes
Fuse Type	Cartridge (Class H, K or R)
Disconnect Type	Fusible
Short Circuit Current Rating	100kA (max. depending on fuse type)
Mounting Type	Surface
Number of Poles	2-Pole

### Shipping and Ordering

Category	00106 - Safety Switch, General Duty, 30 - 200 Amp, NEMA3R
Discount Schedule	DE1A
GTIN	00785901460640
Package Quantity	1
Weight	8.35 lbs.
Availability Code	Stock Item: This item is normally stocked in our distribution facility.
Returnability	Y
Country of Origin	US

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

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**TYPE IPC**



**Features**

- Body is molded from tough, resilient glass-filled nylon
  - Compact design
  - Tin plated copper contact teeth
  - Insulation piercing
  - Perforated end tabs
  - Pre-filled with silicone lubricant
  - Versatile
  - Increased safety
- Horizontal line grid
  - Temperature rating 90° C

**Benefits**

- Provides high degree of breakage resistance and long dependable use
- Saves space
- Easily penetrates most types of insulation
- No need to strip the conductor which saves installation time
- Break out easily by hand
- Prevents oxidation and moisture from entering the contact area
- Can be used as a splice or tap connector
- Contains no external energized parts. Can be installed "hot" on energized conductors providing tap conductor is not under load.
- Provides a visual guide for proper installation of conductors

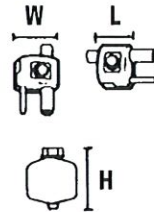


Fig. 1



Fig. 2



Fig. 3



Fig. 4



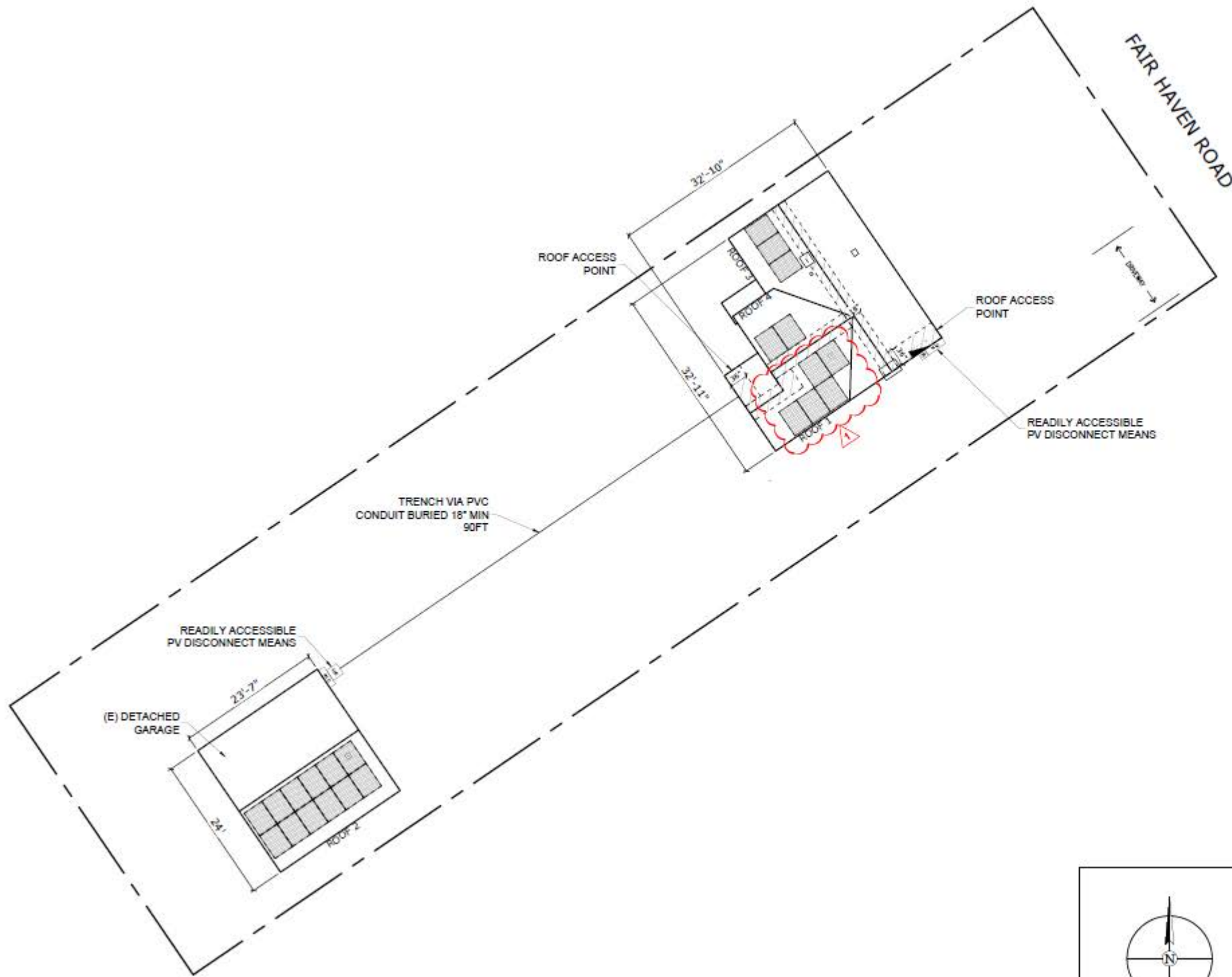
Catalog Number	Figure Number	Wire Range		Volts	Current Rating		Dimensions			Torque Ft. Lbs.	Bolt Head Size
		Main	Tap		CU	AL	L	W	H		
IPC-1/0-2	3	1/0-8	2-8	300 (480 Grounded Y System)	130	100	1-7/32	1-15/32	2-5/16	16	1/2
IPC-4/0-6	2	4/0-4	6-14	600	75	60	1-27/64	1	1-7/8	13	1/2
IPC-4/0-2/0		4/0-2	2/0-6	600	195	150	1-21/32	1-7/8	2-7/8	25	1/2
IPC-250-4/0		250kcmil-1	4/0-6	600	260	205	1-7/8	2-11/32	3-11/32	30	5/8
IPC-350-4/0		350kcmil-4/0	4/0-10	300 (480 Grounded Y System)	260	205	1-43/64	2-7/16	3-1/8	25	5/8
IPC-350-350		350kcmil-4/0	350kcmil-4/0	300 (480 Grounded Y System)	350	280	2-43/64	2-23/32	3-1/4	25	5/8
IPC-500-12		500kcmil-250kcmil	10-12	300 (480 Grounded Y System)	40	35	1-43/64	2-7/16	3-1/4	25	5/8
IPC-500-250		500kcmil-250kcmil	250kcmil-4	600	290	230	2-27/64	2-29/32	3-3/4	55	5/8-11/16
IPC-500-500		500kcmil-300kcmil	500kcmil-250kcmil	600	430	350	3-3/16	3-5/8	5	75	7/8-7/8
IPC-750-500		750kcmil-500kcmil	500kcmil-350kcmil	600	430	350	3-3/16	3-5/8	5	75	7/8-7/8

All wire sizes, unless noted otherwise, are American Wire Gauge (AWG)

Tested to UL 486A/B, UL File E6207







LEGEND	
□	JUNCTION BOX
—	CONDUIT
▬	UTILITY SERVICE POINT
Ⓜ	UTILITY METER
- - -	PROPERTY LINE
▨	FIRE ACCESS PATHWAY
Ⓝ	NEW LOAD CENTER
Ⓜ	AC DISCONNECT

TOTAL ROOF AREA: 1723 SQ. FT.  
 TOTAL ARRAY AREA: 394 SQ. FT.  
 TOTAL PERCENTAGE OF ROOF COVERED BY SOLAR: 23%

NOTE:  
 1. FIELD ADJUSTMENTS OF FEWER THAN 6" MAY BE ALLOWED BASED ON SITE CONDITIONS AND MEASUREMENTS.

ROOF	1	2	3	4		
MODULE QTY.	5	12	3	2		
AZIMUTH	146°	146°	236°	326°		
PITCH	5.5:12	7:12	8:12	5.5:12		

CONTRACT MODULE & QUANTITY	22 SPR-X21-335-BLK-E-AC (240)
MICROINVERTER TYPE & QUANTITY	22 IQ7XS-96-ACM-US (240) ⚠
ROOF TYPE	COMP SHINGLE
ROOF ATTACHMENT QUANTITY	52
STORY HOME TYPE	2 - STORY
TOTAL ARRAY AREA	394 SQ.FT.

**SUNPOWER®**  
 CORPORATION, SYSTEMS  
 1414 HARBOUR WAY SOUTH  
 RICHMOND, CA 94804  
 (510) 540-0550

SPR1 - NEW JERSEY  
 9 CORPORATE DR.  
 CRANBURY, NJ 08512

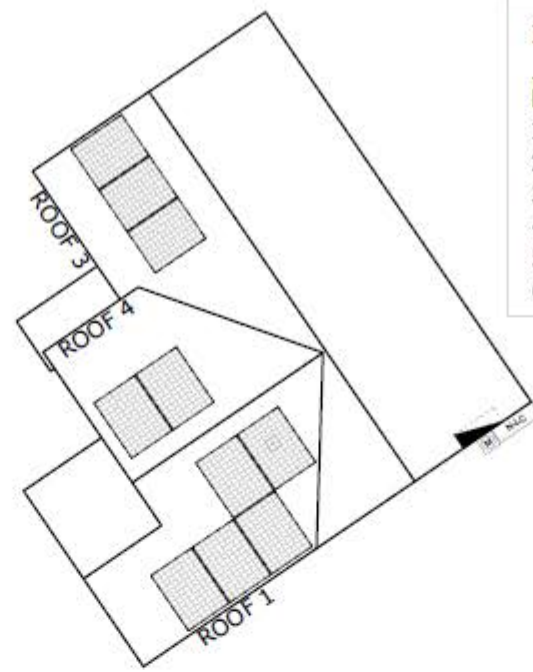
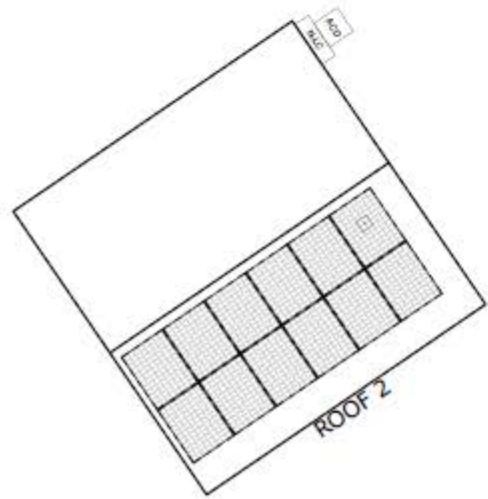


PAUL SZERLIP  
 7.370 kW GRID-TIED PHOTOVOLTAIC SYSTEM  
 40 FAIR HAVEN RD  
 FAIR HAVEN NJ 07704  
 SOLAR INDIVIDUAL PERMIT PACKAGE  
 ARRAY LAYOUT

REVISIONS			
REV	DESCRIPTION	DATE	DR
1	MODULE TYPE CHANGE	12/19/21	JS

DRAWN BY:	JEFFERSON BALBA
INSTALLER	SPR1 - NEW JERSEY
PROJECT	SP-205668
DATE DRAWN	12-19-2021
SCALE	1/8" = 1'-0"
SHEET	

PVA-1



**INSTALLER NAME:**

**BRANCH VOLTAGES:**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

ROOF	1	2	3	4		
MODULE QTY.	5	12	3	2		
AZIMUTH	146°	146°	236°	326°		
PITCH	5.5:12	7:12	8:12	5.5:12		

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**PAUL SZERLIP**  
7.370 kW GRID-TIED PHOTOVOLTAIC SYSTEM

40 FAIR HAVEN RD  
FAIR HAVEN NJ 07704

SOLAR INDIVIDUAL PERMIT PACKAGE  
BRANCH DIAGRAM

**REVISIONS**

REV	DESCRIPTION	DATE	DR
1	MODULE TYPE CHANGE	12/16/21	JS

DRAWN BY: *Jefferson Saliba*  
JEFFERSON SALIBA

INSTALLER	SPR1 - NEW JERSEY
PROJECT	SP-200608
DATE DRAWN	12-16-2021
SCALE	1/2" = 1'-0"

SHEET **PVE-5**

