| PROJECT DETAILS | | | | |
|-----------------|--|--|--|--|
| PV Modules | 40 x SOLARIA POWERXT-400R-PM | | | |
| Optimizers | 40 x P401 | | | |
| Inverter | 01 x SE7600H-US (RGM) 01 x SE7600H-US | | | |
| Roof Type | Asphalt Shingles | | | |
| Racking | PSR-B84 Rails (Black) | | | |
| Mounting Type | CompMount Flashing (Black) | | | |
| DC SIZE | 16.0 kW | | | |
| AC SIZE | 15.2 kVA | | | |

| DRAWING INDEX | | | |
|---------------|-------------|-----|--------------------------------------|
| Item | Drawing # | Rev | Description |
| 1 | 22132CC00-0 | А | Drawing Index |
| 2 | 22132CC00-1 | А | Site Layout |
| 3 | 22132CC00-2 | А | String Mapping |
| 4 | 22132CC00-3 | Α | Electrical One Line Diagram |
| 5 | 22132CC00-4 | А | Detailed Electrical Wiring Schematic |
| 6 | 22132CC00-5 | А | PV Labels |
| 7 | 22132CC00-6 | А | Bill of Materials |
| 8 | 22132CC00-7 | А | PV Dead Load |





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enus Marie Camp

1036 Stone Cross Dr Spring Lake NC 28390

NABCEP CERTIFIED

PV Installation Professional

Ali Buttar PVIP #031310-32

| 1 | 04/25/2022 | A |
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| | | |

Customer's Signature

JOB NUMBER

22-132-CC00

PROJECT STATUS

PERMITTING

SHEET

DRAWING INDEX

CC 22132CC00-0

PHOTOVOLTIC NOTES

- 1. THE INSTALLATION OF SOLAR ARRAYS AND PHOTOVOLTAIC POWER SYSTEMS SHALL COMPLY WITH THE FOLLOWING CODES:
- 2020 NATIONAL ELECTRICAL CODE
- 2018 NORTH CAROLINA RESIDENTIAL CODE
- 2018 NORTH CAROLINA BUILDING CODE
- AS ADOPTED BY THE STATE OF NORTH CAROLINA
- ALL OTHER ORDINANCE ADOPTED BY THE LOCAL GOVERNING AGENCIES
- 2. ROOFTOP MOUNTED PHOTOVOLTAIC PANELS AND MODULES SHALL BE TESTED, LISTED AND IDENTIFIED BY RECOGNIZED ELECTRICAL TESTING LABORATORY.
- 3. SOLAR SYSTEM SHALL NOT COVER ANY PLUMBING OR MECHANICAL VENTS
- 4. MODULES AND SUPPORT STRUCTURES SHALL BE GROUNDED
- 5. SOLAR INVERTER SHALL BE LISTED TO UL1741
- 6. ALL CONDUCTORS SHALL BE COPPER AND SHOULD BE 75 AND 90 DEG RATED
- 7. REMOVAL OF AN INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND/OR OUTPUT CIRCUIT GROUNDED CONDUCTORS.
- 8. LIVE PARTS OF PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS OVER 150V TO GROUND SHALL NOT BE ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS WHILE ENERGIZED.
- 9. ALL PV MODULES AND ASSOCIATED EQUIPMENT AND WIRING SHALL BE PROTECTED FROM PHYSICAL DAMAGE.

| A B | |
|-----|------------------|
| | Utility Meter |

| Module Dimension | 04.72 in | | |
|---------------------|----------|---------|--|
| Roofs | Pitch | Azimuth | |
| Α | 38° | 120° | |
| В | 14° | 120° | |
| С | 27° | 210° | |
| | | | |
| | | | |

PANELS MODEL : SOLARIA POWERXT-400R-PM

SYSTEM DETAILS

DC SIZE : 16.0 KW AC SIZE: 15.2 KVA

NUMBER OF PANELS: 40



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PV Installation Professional

Ali Buttar PVIP #031310-32

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Customer's Signature

JOB NUMBER

22-132-CC00

PROJECT STATUS

PERMITTING

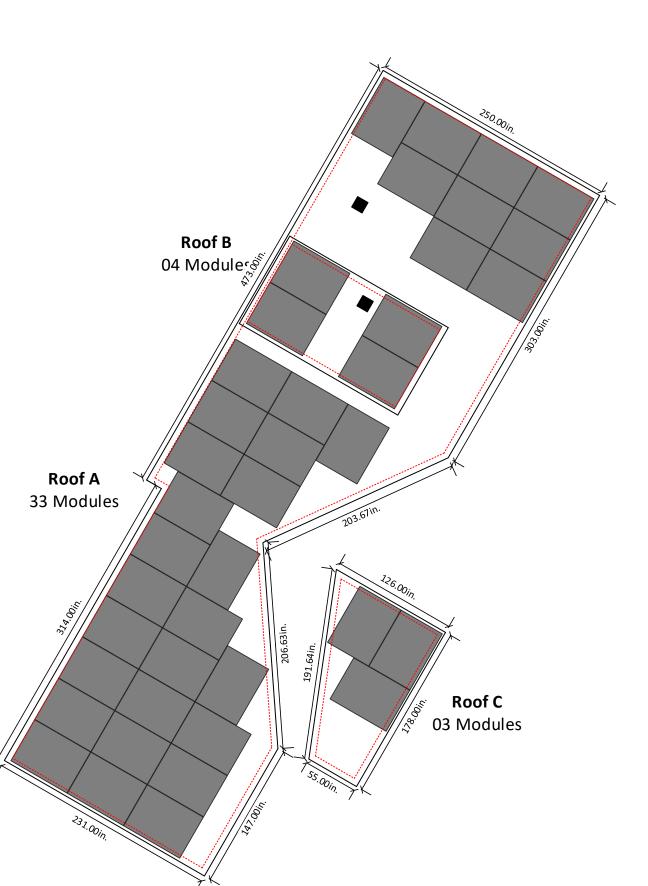
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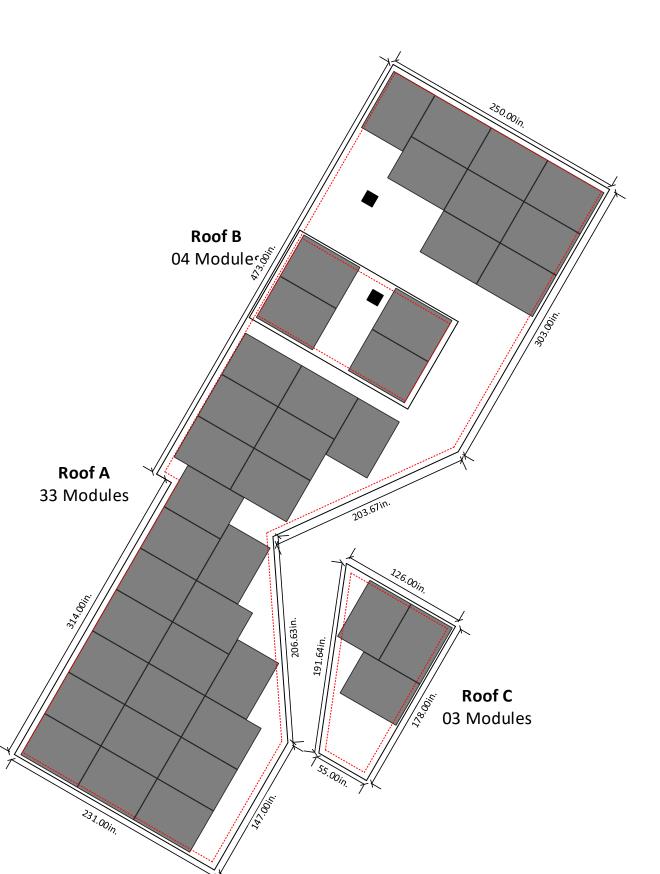
SITE LAYOUT

SCALE: 1/8" - 1' 0"

SITE LAYOUT

CC 22132CC00-1





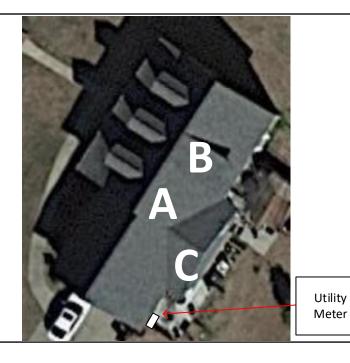
There is one layer of shingles

Roofing material is asphalt shingles

6" clearance from each side of the roof

The roof is located in 119mph wind zone

| String Layout | | | | | |
|--|----------------|------------|-------------------------------------|------|--|
| Inverter-A SE7600H-US(RGM) Inverter-B SE7600H-US | | | | H-US | |
| Strings # | No. of Modules | Color Code | Strings # No. of Modules Color Code | | |
| String 1 | 11 | | String 3 | 11 | |
| String 2 | 09 | | String 4 | 09 | |
| | | | | | |



| Module Dimension | 64.72 in | | |
|---------------------|----------|---------|--|
| Roofs | Pitch | Azimuth | |
| А | 38° | 120° | |
| В | 14° | 120° | |
| С | 27° | 210° | |
| | | | |
| | | | |



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SYSTEM DETAILS

NUMBER OF PANELS : 40
PANELS MODEL : SOLARIA POWERXT-400R-PM

DC SIZE: 16.0 KW AC SIZE: 15.2 KVA





Ali Buttar PVIP #031310-32

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Customer's Signature

JOB NUMBER

22-132-CC00

PROJECT STATUS

PERMITTING

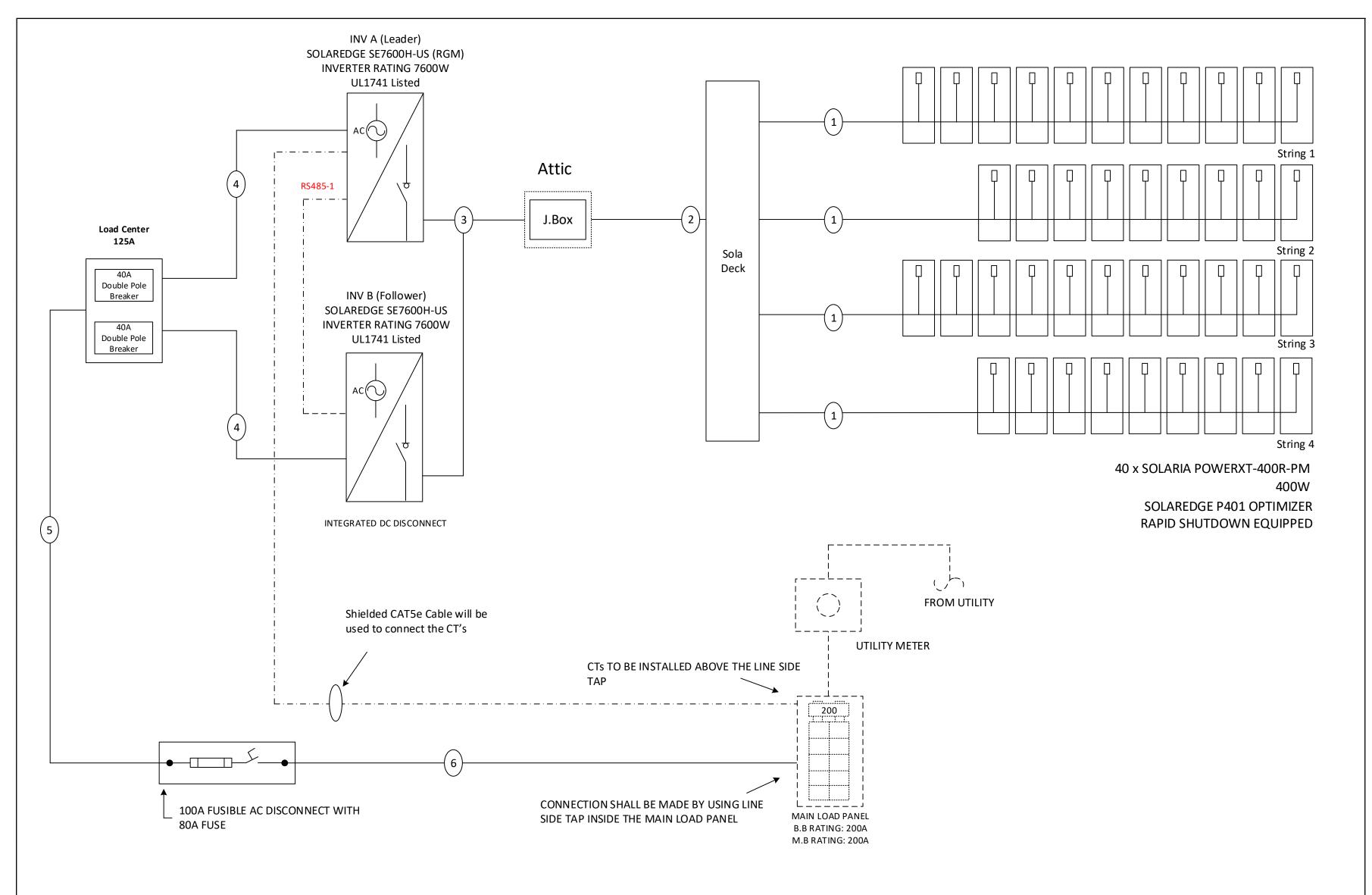
SHEET

STRING MAPPING

CC 22132CC00-2

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

6" clearance from each side of the roof





- System Size: 16,000W DC
- (40) SOLARIA POWERXT-400R-PM
- (40) SOLAREDGE P401 OPTIMIZERS
- (01) SOLAREDGE SE7600H-US (RGM)
- (01) SOLAREDGE SE7600H-US
- Inverter Output: 32A max @ 240 VAC (each)
- Combined AC output max: 15.2 kVA
- Grounding will be done via Pegasus grounding lugs, mid-clamps and NS bonding jumpers to ensure the rail and panels are continuously grounded.
- Rapid Shutdown is included in the Inverter, refer to inverter & optimizer attached datasheets.
- The load center / disconnect will be visible, lockable accessible to utility linesmen and will be properly labelled as per NEC requirements. It will be located on the exterior wall of the building, next to the utility meter.

| STRING 1 & 3: | |
|-----------------------|--|
| 11 x 400W = 4,400W ea | |
| I mpp = 11 Adc | |
| I max = 23.4 Adc | |
| V mpp = 400 Vdc | |
| V oc = 11 Vdc | |
| STRING 2 & 4: | |
| 09 x 400W = 3,600W ea | |
| I mpp = 09 Adc | |
| I max = 23.4 Adc | |
| V mpp = 400 Vdc | |
| V oc = 09 Vdc | |
| | |

| Sr.No | #Wire | Conduit Size | Ground Wire | Amperage |
|-------|------------------|--------------|-------------|----------|
| 1 | 2 x #10 PV | | #10 Bare CU | |
| 2 | 4 x #10 MC Cable | | | 23.4A |
| 3 | 8 x #10 THHN Cu | 3/4" EMT | #10 Green | |
| 4 | 3 x #08 THHN Cu | 3/4" EMT | #10 Green | 40 |
| 5 | 3 x #04 THHN Cu | 1" EMT | #08 Green | 80 |
| 6 | 3 x #04 THHN Cu | 1" EMT | | 80 |



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Professional

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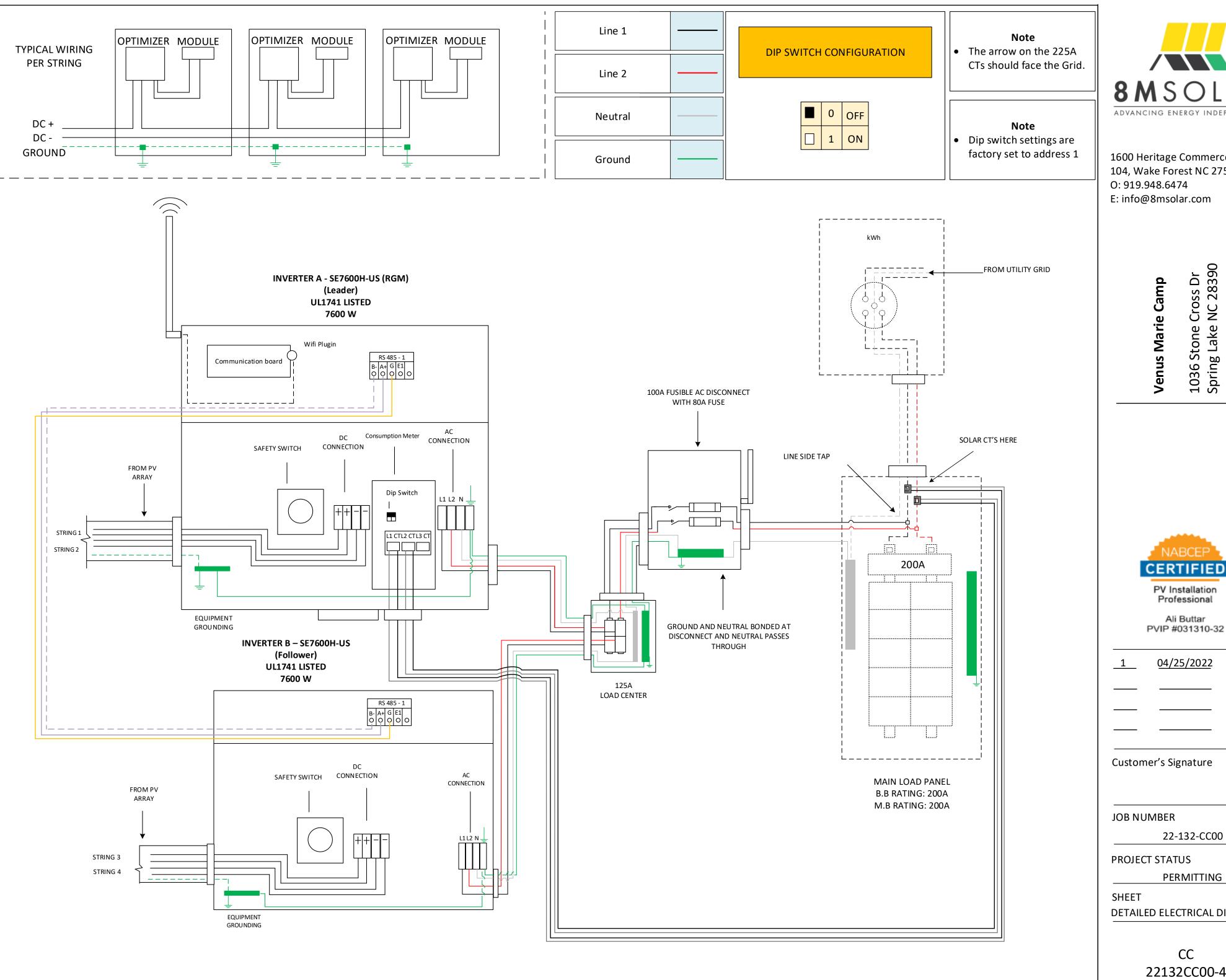
Customer's Signature

JOB NUMBER 22-132-CC00

PROJECT STATUS

PERMITTING
SHEET

ELECTRICAL ONE LINE DIAGRAM





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Professional Ali Buttar

| 1 | 04/25/2022 | A |
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Customer's Signature

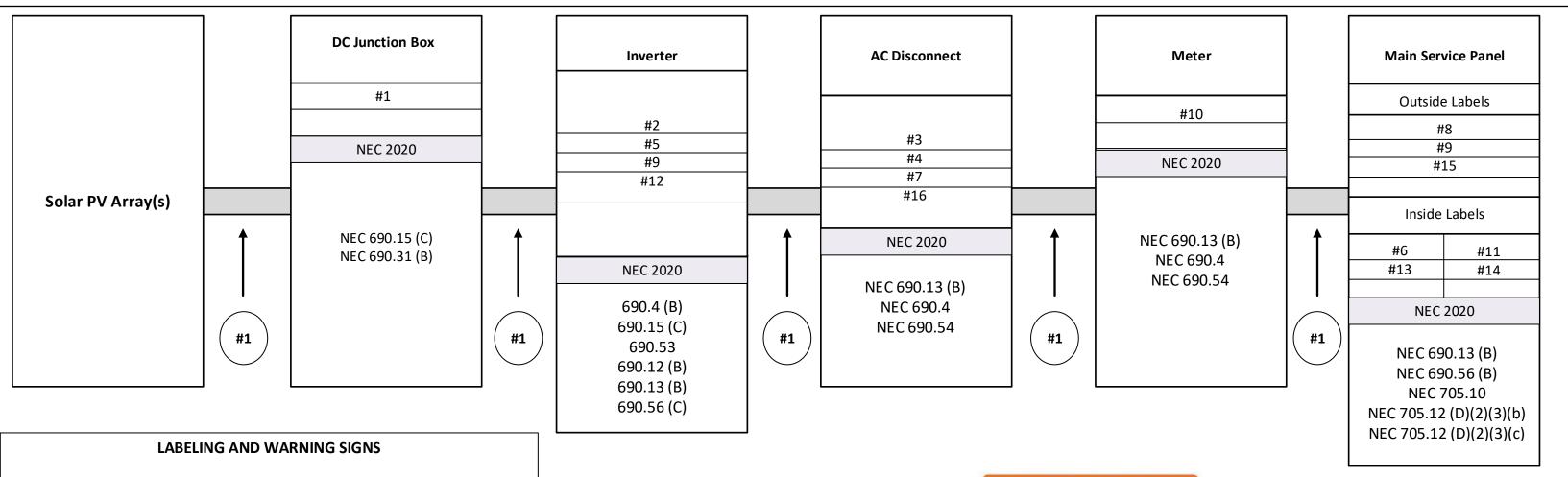
JOB NUMBER

22-132-CC00

PROJECT STATUS

PERMITTING

DETAILED ELECTRICAL DIAGRAM



A. PURPOSE

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

B. MAIN SERVICE DISCONNECT:

1. RESIDENTIAL BUILDINGS- THE MARKING MAY BE PLACED WITHIN

THE

MAIN SERVICE DISCONNECT. THE MARKING SHALL BE PLACED ON THE OUTSIDE COVER IF THE MAIN SERVICE DISCONNECT IS OPERABLE WITH THE SERVICE PANEL CLOSED.

- 2. COMMERCIAL BUILDINGS- THE MARKINGS SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECTCLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED
- 3. MARKINGS, VERBIAGE, FORMAT AND TYPE OF MATERIAL
 - a. VERBIAGE: CAUTION; SOLAR ELECTRIC SYSTEM CONNECTED b. FORMAT:
 - (1) WHITE LETTERING ON A RED BACKGROUND
 - (2) MINIMUM 3/8 INCH LETTER HEIGHT
 - (3) ALL LETTERS SHALL BE CAPITALIZED
 - (4) ARIAL OR SIMILAR FONT, NON-BOLD

c. MATERIAL:

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

C. MARKING REQUIREMENTS ON DC CONDUIT, RACEWAYS, ENCLOSURES, CABLE ASSEMBLIES. DC COMBINERS AND JUNCTION BOXES:

- 1. MARKING: PLACEMENT, VERBIAGE, FORMAT AND TYPE OF MATERIAL.
 - a. PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 (TEN) FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES AND CABLE ASSEMBLIES, AT TURNS ABOVE AND/OR BELOW PENETRATIONS, ALL DC COMBINERS AND JUNCTION

BOXES.

b. VERBIAGE: CAUTION SOLAR CIRCUIT

- c. THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO SECTION B-3.B & C ABOVE
- D. INVERTERS ARE NOT REQUIRED TO HAVE CAUTION MARKINGS

WARNING: PHOTOVOLTAIC POWER SOURCE

#2 PHOTOVOLTAIC

DC DISCONNECT 0.50

#3 PHOTOVOLTAIC AC DISCONNECT 535

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

MAXIMUM VOLTAGE

MAXIMUM CIRCUIT CURRENT

MAX. RATED OUTPUT CURRENT

OF THE CHARGE CONTROLLER OR
DC-TO-DC CONVERTER (IF INSTALLED)

PHOTOVOLTAIC POWER SOURCE OPERATING AC VOLTAGE V MAXIMUM OPERATING AC OUTPUT CURRENT

#7 AC DISCONNECT PHOTOVOLTAIC SYSTEM POWER SOURCE RATED AC OUTPUT CURRENT NOMINAL OPERATING AC VOLTAGE VOLTS

#8 **WARNING**

ELECTRIC SHOCK HAZARD

TERMINALS ON THE LINE AND
LOAD SIDES MAY BE ENERGIZED
PROBLEM IN THE OPEN POSITION 15715

DUAL POWER SUPPLY

SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

#10 **WARNING**

THIS SERVICE METER
IS ALSO SERVED BY A
PHOTOVOLTAIC SYSTEM

#11 **WARNING**

TURN OFF PHOTOVOLTAIC
AC DISCONNECT PRIOR TO
WORKING INSIDE PANEL

BIPOLAR PHOTOVOLTAIC ARRAY DISCONNECTION OF NEUTRAL GROUNDED CONDUCTORS MAY

RESULT IN OVERVOLTAGE ON

ARRAY OR INVERTER

∆WARNING

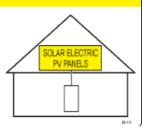
THIS EQUIPMENT FED BY MULTIPLE
SOURCES. TOTAL RATING OF ALL
OVERCURRENT DEVICES, EXCLUDING
MAIN SUPPLY OVERCURRENT
DEVICE, SHALL NOT EXCEED
AMPACITY OF BUSBAR.

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

#15

#16



SOLAR AC DISCONNECT LOCATED AT SOUTH EAST SIDE WALL OF THE HOUSE BESIDE THE UTILITY METER

SERVICE DISCONNECT LOCATED IN THE MAIN LOAD PANEL 8 M S O L A R

ADVANCING ENERGY INDEPENDENCE

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> Venus Marie Camp 1036 Stone Cross Dr Spring Lake NC 28390



PV Installation Professional

Ali Buttar

PVIP #031310-32

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Customer's Signature

JOB NUMBER

22-132-CC00

PROJECT STATUS

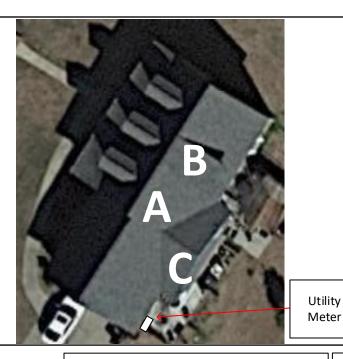
PERMITTING

SHEET

PV LABELS

| Rails and Splices : PSR – B84 | Roof Attachment : Pegasus Comp Mount |
|-------------------------------|--|
| Rafter Spacing : 24 in | There is one layer of shingles Roofing material is asphalt shingles |
| Attachment Span: 4ft | The roof is located in 119mph wind zone |

6" clearance from each side of the roof



| Module Dimension | 64.72 in | |
|---------------------|----------|---------|
| Roofs | Pitch | Azimuth |
| Α | 38° | 120° |
| В | 14° | 120° |
| С | 27° | 210° |
| | | |
| | | |

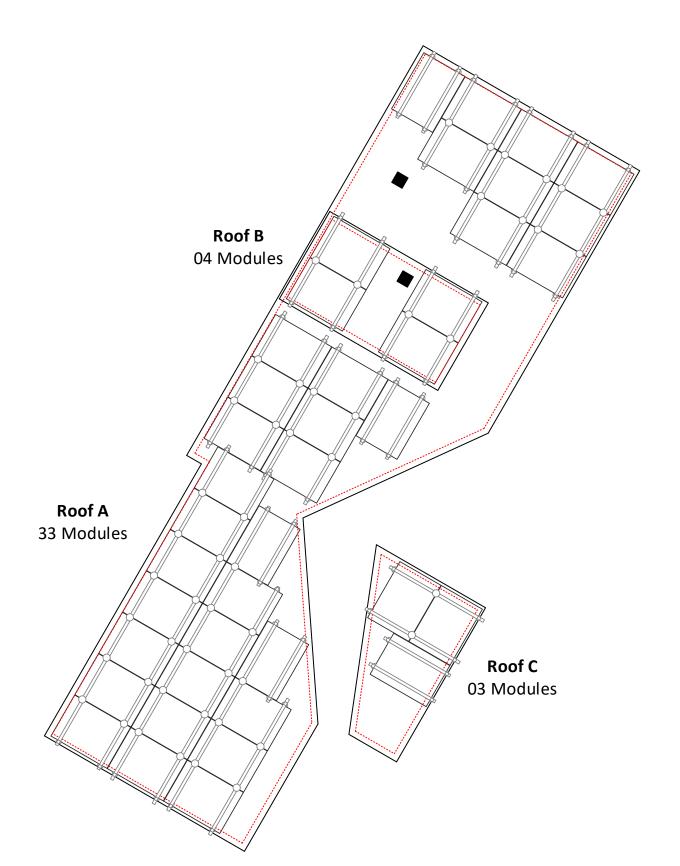


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Venus Marie Camp



| PV LABELS | | _S | | |
|-----------|-------|--------|--|--|
| | Sr No | Code | Qty | 60 x PSR-B84: Pegasus Rail, Black, 84" (7 Feet) 30 x PSR-SPL: Pegasus - Bonded, Structural Splice |
| | 01 | 02-314 | 12 | • 50 x PSR-MCB: Pegasus - Multiclamp, Mid/End, 30 to 40 mm, |
| | 02 | 03-301 | 02 | Black • 64 x PSR-HEC: Pegasus - Hidden End Clamp |
| | 03 | 03-302 | 01 | 40 x PSR-MLP: Pegasus - MLPE Mount |
| | 04 | 02-316 | 01 | 12 x PSR-LUG: Pegasus - Grounding Lug 13 x PSR-NSJ: Pegasus - N-S Bonding Jumper |
| | 05 | 03-308 | 02 | 60 x PSR-WMC: Pegasus - Wire Management Clip |
| | 06 | 03-390 | 01 | 07 x PSR-CBG: Pegasus - Cable Grip 64 x PSR-CAP: Pegasus - End Cap |
| | 07 | 03-306 | 01 | 100 x PSCR-UBBDT: Pegasus Comp Mount - Open Slot, Black L |
| | 08 | 05-215 | 02 | Foot, Black Flashing, Dovetail 3/8" T-Bolt • 80 x Heyco Wire Clips |
| | 09 | 05-211 | 03 | - 80 x neyco wire clips |
| | 10 | 07-359 | 01 | |
| | 11 | 05-372 | 01 | |
| | 12 | 05-103 | 02 | |
| | 13 | 05-108 | 01 | • 40 x SOLARIA POWERXT-400R-PM |
| | 14 | 07-111 | 02 | INVERTER & SUPPORTING ITEMS |
| | 15 | 8M-001 | • 01 x Solar Edge SE7600H-US US000BNI4 (RGM) | |
| | 16 | 8M-002 | 01 | 01 x Solar Edge SE7600H-US US000BNU4 40 x SolarEdge Power Optimizer P401 |

INVERTER & SUPPORTING ITEMS

- 01 x Solar Edge SE7600H-US US000BNI4 (RGM)
- 01 x Solar Edge SE7600H-US US000BNU4
- 40 x SolarEdge Power Optimizer P401
- 01 x SE-WFGW-B-S1-NA with Antenna kit
- 02 x 225A SolarEdge CTs

WIRE

• 500 ft x #10 PV WIRE BLK (Cu)

| NADCED | |
|-----------------|--|
| CERTIFIED | |
| PV Installation | |

Professional

Ali Buttar PVIP #031310-32

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Customer's Signature

JOB NUMBER

22-132-CC00

PROJECT STATUS

PERMITTING

SHEET

BILL OF MATERIAL

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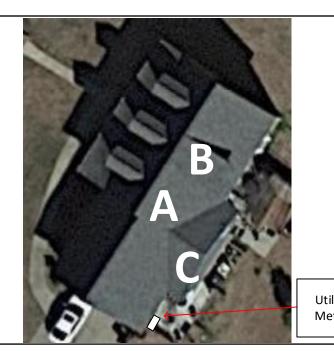
BILL OF MATERIAL SCALE: 1/8" - 1' 0"

PV System Dead Load (Panel + Racking weight) / PV System Area

(No. of panels x Weight of panel(lbs.) +Length of racking(ft.) x 1.17 lb.ft) / (No. of panels x Height x Width) = Total psf

The roof is located in 119mph wind zone

There is one layer of shingles Roofing material is asphalt shingles



| Module Dimension | 47.4 in | |
|---------------------|---------|---------|
| Roofs | Pitch | Azimuth |
| Α | 38° | 120° |
| В | 14° | 120° |
| С | 27° | 210° |
| | | |
| | | |
| | | |

64.72 in



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ROOF A

PV System Dead Load
(Panel + Racking weight) / PV System Area

(33 modules x 48 lbs./modules + 275 ft. of racking x 1.17 lb.ft) / (33 modules x 5.39' x 3.95') = 2.61 psf

ROOF B

PV System Dead Load
(Panel + Racking weight) / PV System Area

(04 modules x 48 lbs./modules + 32 ft. of racking x 1.17 lb.ft) / (04 modules x 5.39' x 3.95') = 2.59 psf

ROOF C

PV System Dead Load
(Panel + Racking weight) / PV System Area

(03 modules x 48 lbs./modules + 27 ft. of racking x 1.17 lb.ft) / (03 modules x 5.39' x 3.95') = 2.64 psf



Ali Buttar PVIP #031310-32

Professional

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JOB NUMBER

22-132-CC00

PROJECT STATUS

PERMITTING

SHEET

PV DEAD LOAD



Solaria PowerXT-400R PM

Achieving over 20% efficiency, Solaria PowerXT solar panels are one of the highest power panels in the residential and commercial solar market. Compared to conventional panels, Solaria PowerXT panels have fewer gaps between the solar cells; this leads to higher power and superior aesthetics. Solaria PowerXT Pure Black™ panels are manufactured with black backsheet and frames, enhancing a home or building's architectural beauty.



High Efficiency, High Power

Solaria PowerXT panels achieve up to 20.2% efficiency. Solaria PowerXT panels are one of the highest power panels available.



High Quality and Reliability

Solder-less cell interconnections are highly reliable and designed to far exceed the industry leading 30 year warranty.



Improved Aesthetics

Compared to conventional panels, Solaria PowerXT panels have a more uniform appearance and superior aesthetics.



Lower System Costs

Solaria PowerXT panels produce more power per square meter area. This reduces installation costs due to fewer balance of system components.



Improved Shading Tolerance

Sub-strings are interconnected in parallel, within each of the four panel quadrants, which dramatically lowers the shading losses and boosts energy yield.



PID Resistant

Solaria PowerXT panels are PID resistant. This insures stable and predictable energy production over time.



About Solaria

Established in 2000, The Solaria Corporation has created one of the industry's most respected IP portfolios, with over 250 issued and pending patents in PV solar cell and module technology. Headquartered in California, Solaria has developed a technology platform that unlocks the potential of solar energy.







| Performance at STC (1000W/m², 25° C, AM 1.5) | | | | |
|--|--|--|--|--|
| 00R-PM | | | | |
| 400 | | | | |
| 20.2 | | | | |
| 51.1 | | | | |
| 9.82 | | | | |
| 42.4 | | | | |
| 9.41 | | | | |
| -0/+3 | | | | |
| | | | | |

Performance at NOCT (800W/m², 20°C Amb, Wind 1 m/s, AM 1.5)

| Max Power (Pmax) | [W] | 295 |
|-----------------------------|-----|------|
| Open Circuit Voltage (Voc) | [V] | 48.1 |
| Short Circuit Current (Isc) | [A] | 7.92 |
| Max Power Voltage (Vmp) | [V] | 40.0 |
| Max Power Current (Imp) | [A] | 7.59 |

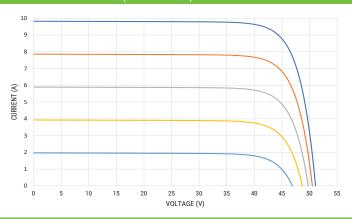
Temperature Characteristics

| NOCT | [°C] | 45 +/-2 |
|----------------------|----------|---------|
| Temp. Coeff. of Pmax | [% / °C] | -0.39 |
| Temp. Coeff. of Voc | [% / °C] | -0.29 |
| Temp. Coeff. of Isc | [% / °C] | 0.04 |

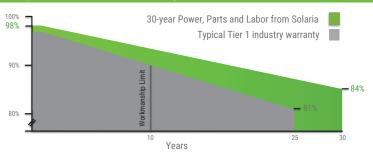
Design Parameters

| Operating temperature | [°C] | -40 to +85 |
|-----------------------|------|------------|
| Max System Voltage | [V] | 1000 |
| Max Fuse Rating | [A] | 20 |
| Bypass Diodes | [#] | 4 |

IV Curves vs. Irradiance (400W Panel)



Comprehensive 30-Year Warranty



Mechanical Characteristics

| Cell Type | Monocrystalline Silicon |
|------------------------|------------------------------|
| Dimensions (L x W x H) | 64.72" x 47.4" x 1.57" |
| | 1644mm x 1204mm x 40mm |
| Weight | 21 kg / 46 lbs |
| Glass Type / Thickness | AR Coated, Tempered / 2.84mm |
| Frame Type | Black Anodized Aluminum |
| Cable Type / Length | 12 AWG PV Wire (UL) / 1000mm |
| Connector Type | MC4 |
| Junction Box | IP68 / 4 diodes |
| Front Load | 5400 Pa / 113 psf* |
| Rear Load | 3600 Pa / 75 psf* |
| ** C | 1 - 1 |

^{*} Refer to Solaria Installation Manual for details

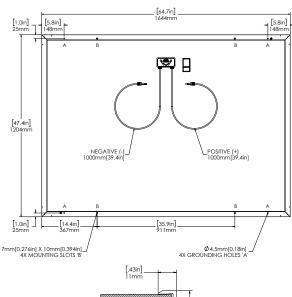
Certifications / Warranty

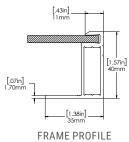
| Certifications | UL 61730 / IEC 61215 / IEC 61730 |
|---------------------|----------------------------------|
| | CEC & FSEC Listed |
| Fire Type (UL 1703) | 1 |
| Warranty | 30 years* |

^{*} Warranty details at www.solaria.com

Packaging

| Stacking Method | Horizontal / Palletized |
|---------------------------|--------------------------|
| Panels/ Pallet | 25 |
| Pallet Dims (L x W x H) | 66.57" x 48.7" x 48.4" |
| | 1720mm x 1260mm x 1235mm |
| Pallet Weight | 575kg / 1268 lbs |
| Pallets / 40-ft Container | 18 |
| Panels / 40-ft Container | 450 |





Single Phase Inverter with HD-Wave Technology

for North America

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





Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking 99% weighted efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014, NEC 2017 and NEC 2020 per article 690.11 and 690.12

- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- Optional: Faster installations with built-in consumption metering (1% accuracy) and production revenue grade metering (0.5% accuracy, ANSI C12.20)



NVERTE

Single Phase Inverter with HD-Wave Technology for North America

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

| MODEL NUMBER | SE3000H-US | SE3800H-US | SE5000H-US | SE6000H-US | SE7600H-US | SE10000H-US | SE11400H-US | |
|--|------------|------------------------------|------------|---------------------------------|------------|-------------|------------------------------|-----|
| APPLICABLE TO INVERTERS WITH PART NUMBER | | SEXXXXH-XXXXXBXX4 | | | | | | |
| OUTPUT | • | | | | | | | |
| Rated AC Power Output | 3000 | 3800 @ 240V 3300 @ 208V | 5000 | 6000 @ 240V 5000 @ 208V | 7600 | 10000 | 11400 @ 240V 10000 @ 208V | VA |
| Maximum AC Power Output | 3000 | 3800 @ 240V 3300 @ 208V | 5000 | 6000 @ 240V 5000 @ 208V | 7600 | 10000 | 11400 @ 240V 10000 @ 208V | VA |
| AC Output Voltage MinNomMax. (211 - 240 - 264) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Vac |
| AC Output Voltage MinNomMax. (183 - 208 - 229) | - | ✓ | - | ✓ | - | - | ✓ | Vac |
| AC Frequency (Nominal) | | | | 59.3 - 60 - 60.5 ⁽¹⁾ | | | | Hz |
| Maximum Continuous Output Current @240V | 12.5 | 16 | 21 | 25 | 32 | 42 | 47.5 | А |
| Maximum Continuous Output Current @208V | - | 16 | - | 24 | - | - | 48.5 | А |
| Power Factor | | | 1 | , Adjustable - 0.85 to | 0.85 | | 1 | |
| GFDI Threshold | | | | 1 | | | | А |
| Utility Monitoring, Islanding Protection, Country Configurable Thresholds | | Yes | | | | | | |
| INPUT | | | | | | | | |
| Maximum DC Power @240V | 4650 | 5900 | 7750 | 9300 | 11800 | 15500 | 17650 | W |
| Maximum DC Power @208V | - | 5100 | - | 7750 | - | - | 15500 | W |
| Transformer-less, Ungrounded | | | | Yes | | | | |
| Maximum Input Voltage | | | | 480 | | | | Vdc |
| Nominal DC Input Voltage | | 3 | 80 | | | 400 | | Vdc |
| Maximum Input Current @240V ⁽²⁾ | 8.5 | 10.5 | 13.5 | 16.5 | 20 | 27 | 30.5 | Adc |
| Maximum Input Current @208V ⁽²⁾ | - | 9 | - | 13.5 | - | - | 27 | Adc |
| Max. Input Short Circuit Current | | | | 45 | - | | | Adc |
| Reverse-Polarity Protection | | | | Yes | | | | |
| Ground-Fault Isolation Detection | | 600kΩ Sensitivity | | | | | | |
| Maximum Inverter Efficiency | 99 | 99 99.2 | | | | | | % |
| CEC Weighted Efficiency | | 99 9 9 0 240V 98.5 @ 208V | | | | | | % |
| Nighttime Power Consumption | | | | < 2.5 | | | * | W |

⁽¹⁾ For other regional settings please contact SolarEdge support

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

Single Phase Inverter with HD-Wave Technology for North America

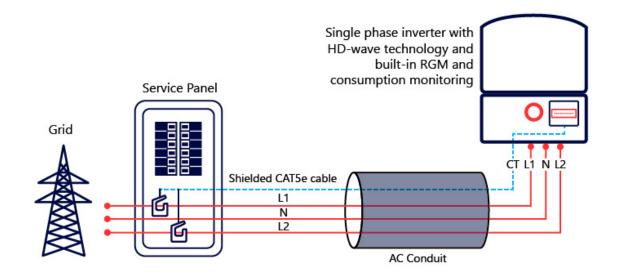
SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US/ SE7600H-US / SE10000H-US / SE11400H-US

| MODEL NUMBER | SE3000H-US | SE3800H-US | SE5000H-US | SE6000H-US | SE7600H-US | SE10000H-US | SE11400H-US | |
|--|------------|--|------------------------|------------------------|---------------------|---------------------|--------------------|---------|
| ADDITIONAL FEATURES | | | 1 | 1 | 1 | • | <u>'</u> | |
| Supported Communication Interfaces | | | RS485, Ethernet, | ZigBee (optional), C | ellular (optional) | | | |
| Revenue Grade Metering, ANSI C12.20 | | Optional(3) | | | | | | |
| Consumption metering | | Optional ⁽³⁾ | | | | | | |
| Inverter Commissioning | | With the SetAp | op mobile applicatio | n using Built-in Wi-Fi | Access Point for Lo | cal Connection | | |
| Rapid Shutdown - NEC 2014, NEC 2017 and NEC 2020, 690.12 | | Automatic Rapid Shutdown upon AC Grid Disconnect | | | | | | |
| STANDARD COMPLIANCE | | | | | | | | |
| Safety | | UL1741, U | L1741 SA, UL1699B, (| CSA C22.2, Canadian | AFCI according to | T.I.L. M-07 | | |
| Grid Connection Standards | | | IEEE' | 1547, Rule 21, Rule 14 | (HI) | | | |
| Emissions | | | | FCC Part 15 Class B | | | | |
| INSTALLATION SPECIFICAT | IONS | | | | | | | |
| AC Output Conduit Size / AWG Range | | 1" | Maximum / 14-6 AV | VG | | 1" Maximum | /14-4 AWG | |
| DC Input Conduit Size / # of Strings / AWG Range | | 1" Maxir | mum / 1-2 strings / 14 | 4-6 AWG | | 1" Maximum / 1-3 s | strings / 14-6 AWG | |
| Dimensions with Safety Switch (HxWxD) | | 17.7 x | 14.6 x 6.8 / 450 x 37 | 0 x 174 | | 21.3 x 14.6 x 7.3 / | 540 x 370 x 185 | in / mm |
| Weight with Safety Switch | 22 | / 10 | 25.1 / 11.4 | 26.2 | / 11.9 | 38.8 / | ′ 17.6 | lb/kg |
| Noise | | < 25 <50 | | | | | | dBA |
| Cooling | | Natural Convection | | | | | | |
| Operating Temperature Range | | -40 to +140 / -40 to +60 ⁽⁴⁾ | | | | | | °F/°C |
| Protection Rating | | NEMA 4X (Inverter with Safety Switch) | | | | | | |

⁽³⁾ Inverter with Revenue Grade Meter P/N: SExxxxH-US000BNC4; Inverter with Revenue Grade Production and Consumption Meter P/N: SExxxxH-US000BNI4 . For consumption metering, current transformers should be ordered separately: SEACT0750-200NA-20 or SEACT0750-400NA-20. 20 units per box

How to Enable Consumption Monitoring

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



⁽⁴⁾ Full power up to at least 50°C / 122°F; for power de-rating information refer to: https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf

Power Optimizer

For North America

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







PV power optimization at the module-level

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

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



/ Power Optimizer

For North America

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

| Optimizer model (typical module compatibility) | P320 (for 60-cell modules) | P340 (for high- power 60-cell modules) | P370 (for higher- power 60 and 72- cell modules) | P400 (for 72 & 96-cell modules) | P401 (for high power 60 and 72 cell modules) | P405 (for high- voltage modules) | P485 (for high- voltage modules) | P505 (for higher current modules) | |
|--|---|---|---|--|--|---|---|--|------------|
| INPUT | | | • | | | | | | |
| Rated Input DC Power ⁽¹⁾ | 320 | 350 | 370 | 400 | 40 | 05 | 485 | 505 | W |
| Absolute Maximum Input Voltage (Voc at lowest temperature) | 4 | 8 | 60 | 80 | 60 | 12 | 5(2) | 83(2) | Vdc |
| MPPT Operating Range | 8 - | 48 | 8 - 60 | 8 - 80 | 8-60 | 12.5 | - 105 | 12.5 - 83 | Vdc |
| Maximum Short Circuit Current (Isc) | 11 | 11.02 | 11 | 10.1 | 11.75 | 1 | 1 | 14 | Adc |
| Maximum DC Input Current | | 13.75 | | 12.5 | 14.65 | 12 | 2.5 | 17.5 | Adc |
| Maximum Efficiency | | | | 99. | .5 | | | | % |
| Weighted Efficiency | | | | 98.8 | | | | 98.6 | % |
| Overvoltage Category | | | | II | | | | | |
| OUTPUT DURING OPER | OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER) | | | | | | | | |
| Maximum Output Current | | | | 15 | , | | | | Adc |
| Maximum Output Voltage | | | 60 | | | | 85 | | Vdc |
| OUTPUT DURING STANI | DBY (POWER | OPTIMIZER | DISCONNECT | ED FROM SO | LAREDGE IN | VERTER OR S | SOLAREDGE | INVERTER O | FF) |
| Safety Output Voltage per Power Optimizer | | | | 1 ± | 0.1 | | | | Vdc |
| STANDARD COMPLIANO | CE | | | | | | | | |
| EMC | | | FCC Pa | art15 Class B, IEC6 | 1000-6-2, IEC6100 | 0-6-3 | | | |
| Safety | | IEC62109-1 (class II safety), UL1741 | | | | | | | |
| Material | | UL94 V-0, UV Resistant | | | | | | | |
| RoHS | Yes | | | | | | | | |
| INSTALLATION SPECIFIC | CATIONS | | | | | | | | |
| Maximum Allowed System Voltage | | | | 100 | 00 | | | | Vdc |
| Compatible inverters | | | All SolarE | dge Single Phase | and Three Phase i | nverters | | | |
| Dimensions (W x L x H) | 129 : | x 153 x 27.5 / 5.1 x | 6 x 1.1 | 129 x 153 x 33.5 / 5.1 x 6 x 1.3 | 129 x 153 x 29.5 / 5.1 x 6 x 1.16 | 129 x 159 x 49.5 | 5 / 5.1 x 6.3 x 1.9 | 129 x 162 x 59 / 5.1 x 6.4 x 2.3 | mm / in |
| Weight (including cables) | | 630 / 1.4 | | 750 / 1.7 | 655 / 1.5 | 845 | / 1.9 | 1064 / 2.3 | gr / lb |
| Input Connector | | | MC | 4(3) | | | Single or dual MC4 ⁽³⁾⁽⁴⁾ | MC4 ⁽³⁾ | |
| Input Wire Length | | 0.16 / 0.52 0.16 or 0.9 /0.52 or 2.95 ⁽⁵⁾ 0.16 / 0.52 | | | | | | m/ft | |
| Output Wire Type / Connector | | | | Double Insul | ated / MC4 | | | | |
| Output Wire Length | 0.9 / | 2.95 | | | 1.2 / | 3.9 | | | m/ft |
| Operating Temperature Range ⁽⁶⁾ | | | | -40 to +85 / | | | | | °C / °F |
| Protection Rating | | | | IP68 / N | | | | | |
| Relative Humidity | | 0 - 100 | | | | | | % | |

- (1) Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed
- (2) NEC 2017 requires max input voltage be not more than 80V
- (3) For other connector types please contact SolarEdge
- (4) For dual version for parallel connection of two modules use P485-4NMDMRM. In the case of an odd number of PV modules in one string, installing one P485 dual version power optimizer connected to one PV module. When connecting a single module seal the unused input connectors with the supplied pair of seals
- (5) Longer inputs wire length are available for use. For 0.9m input wire length order P401-xxx1xxx

 (6) For ambient temperature above +85°C / +185°F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Technical Note for more details

| PV System Design Using a SolarEdge Inverter ⁽⁷⁾⁽⁸⁾ | a | Single Phase HD-Wave | Single phase | Three Phase for 208V grid | Three Phase for 277/480V grid | |
|---|--|---|--------------|---------------------------|-------------------------------|---|
| Minimum String Length | P320, P340, P370, P400, P401 | 8 | 3 | 10 | 18 | |
| (Power Optimizers) | (Power Optimizers) P405, P485, P505 | | 5 | 8 | 14 | |
| Maximum String Length (Power C | Maximum String Length (Power Optimizers) | | 25 | | 50 ⁽⁹⁾ | |
| Maximum Power per String | | 5700 (6000 with SE7600-US - SE11400- US) 5250 | | 6000(10) | 12750(11) | W |
| Parallel Strings of Different Length | s or Orientations | | Υ | es | | |

⁽⁷⁾ For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string_sizing_na.pdf (8) It is not allowed to mix P405/P485/P505 with P320/P340/P370/P400/P401 in one string



⁽⁹⁾ A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement (10) For 208V grid: it is allowed to install up to 6,500W per string when the maximum power difference between each string is 1,000W (11) For 277/480V grid: it is allowed to install up to 15,000W per string when the maximum power difference between each string is 2,000W



Intertek 3933 US Route 11 Cortland, NY 13045 Telephone: 607-753-7311 www.intertek.com

Subject: ETL Evaluation of SolarEdge Products to Rapid Shutdown Requirements

To, whom it may concern

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

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

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

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

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

Applicable products:

(1) Power optimizers:

PB followed by 001 to 350; followed by -AOB or -TFI. OP followed by 001 to 500; followed by -LV, -MV, -IV or -EV. P followed by 001 to 1100.

SP followed by 001 to 350.

When optimizers are connected to 2 or more modules in series, the max input voltage may exceed 80V. Following the implementation of the NEC 2017 rapid shutdown value of 80V max inside of the array at the beginning of 2019, modules exceeding this combined input max voltage will be required to use optimizers with parallel inputs. Also meeting NEC 2020 rapid shutdown requirement.

(2) 1 -PH Inverters

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

Inverter part number may be followed by a suffix.

(3) 3 -PH Inverters



Intertek 3933 US Route 11 Cortland, NY 13045 Telephone: 607-753-7311 www.intertek.com

SE9KUS / SE10KUS / SE14.4KUS / SE16.7kUS / SE17.3kUS / SE20KUS / SE30KUS / SE33.3KUS / SE40KUS / SE43.2KUS / SE50KUS / SE66.6KUS / SE80KUS / SE85KUS / SE100KUS / SE120KUS; when the following label is labeled on the side of the inverter:

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

Brand Name(s) SolarEdge

Relevant Standard(s) UL 1741, UL 1741 CRD for rapid shutdown

National Electric Code, 2020, Section 690.12 requirement for

rapid shutdown

Verification Issuing Office 3933 US Route 11, Cortland, NY 13045

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

Signature:

Name: Mukund Rana Position: Staff Engineer

Date:5/17/2021

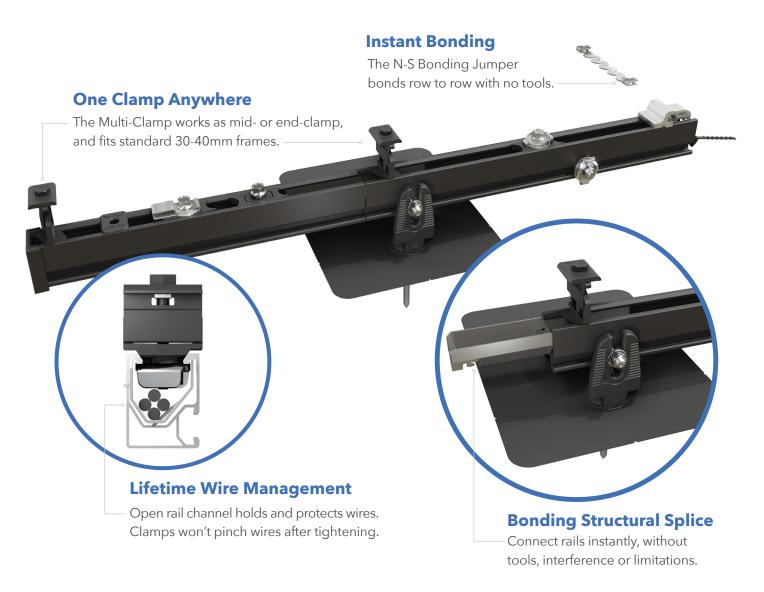




| Date | Engineer / Reviewer | Description |
|----------------------------|------------------------|--|
| 5/17/2021 G104683664CRT | Dishant Patel | Added New 3-PH Inverter model SE50KUS, SE80KUS, SE85KUS and SE120KUS. |
| | Mukund Rana | Updated Power optimizers from "P followed by 001 to 960" to "P followed by 001 to 1100" |
| | | Updated NEC standard from "National Electric Code, 2017, Section 690.12 requirement for rapid shutdown" To "National Electric Code, 2020, Section 690.12 requirement for rapid shutdown" |



RAIL SYSTEM



Next-Level Solar Mounting

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



Simplicity

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



Code Compliant

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



Premium Aesthetics

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



Watertight for Life

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



RAIL SYSTEM









Dovetail T-bolt

Pegasus Rail

Available in 14' and 7' lengths for easy layout and shipping.

Open-channel design holds MC4 connectors, PV wire and trunk cables.

Black and Mill finish



Pegasus Max Rail

Maximum-strength design.

Meets specifications for high
snow-load and hurricane zones.

Black and Mill finish



Splice and Max Splice

Installs by hand.
Works over mounts.

Structurally connects and bonds rails automatically; UL2703 listed as reusable.

Dovetail shape for extra strength.
Uses ½" socket.





Multi-Clamp

Fits 30-40mm PV frames, as mid- or end-clamp.

Twist-locks into position; doesn't pinch wires in rail.

Bonds modules to rail; UL2703 listed as reusable



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

Ground Lug

Holds 6 or 8 AWG wire.

Mounts on top or side of rail.

Assembled on MLPE Mount.

UL2703 listed as reusable.

N-S Bonding Jumper

Installs by hand, eliminates row-to-row copper wire.

UL2703 listed as reusable only with Pegasus Rail.









MLPE Mount

Secures and bonds most micro-inverters and optimizers to rail.

Connectors and wires easily route underneath after installation.

UL2703 listed as reusable.

Cable Grip

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

Eliminates sagging wires.

Wire Clip

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

End Cap and Max End Cap

Fits flush to PV module and hides raw or angled cuts.

Hidden drain quickly clears water from rail.

Certifications:

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



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

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

| LO | AD | | SPA | AN | |
|------------|------------|-----|-----|--------------|------------------|
| SNOW (PSF) | WIND (MPH) | 32" | 4′ | 6′ | 8′ |
| | 120 | | | | |
| 0 | 160 | | | | |
| | 190 | | | | |
| | 140 | | | | |
| 15 | 160 | | | | |
| | 190 | | | | |
| 30 | 160 | | | | |
| 30 | 190 | | | | |
| 45 | 190 | | | | |
| 70 | 190 | | | | |
| 110 | 190 | | | PEGASUS RAIL | PEGASUS MAX RAIL |

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



COMP MOUNT



Simple 3-Piece Design Watertight For Life



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



25-Year Warranty

Manufactured with advanced materials and coatings to outlast the roof itself



Code Compliant

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



Superior Waterproofing

Tested to AC286 without sealant Water seal elevated 0.9" above



All-In-One Kit Packaging

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



COMP MOUNT

1 Drill pilot hole in the center of the rafter.



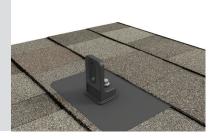
2Optional: Apply a
"u-shape" of sealant to
the underside of the
flashing and position
under 2nd shingle
course, cone over
pilot hole.



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

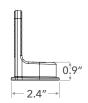


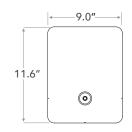
4Drive lag to required depth. Attach rail per rail manufacturer's instructions.



1.5" 3.5"









| SPECIFICATIONS | COMP MOUNT INSTALL KITS | | | | | |
|---------------------|---|---|---|---|---|--|
| SKU | PSCR-CBB0 | PSCR-UBB0 | SPCR-CBBH | PSCR-CMM0 | PSCR-UMM0 | |
| Finish | Blac | k L-Foot And Black Flash | ing | M | 1ill | |
| L-Foot Type | Closed Slot | Open Slot | Closed Slot | Closed Slot | Open Slot | |
| Kit Contents | L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer | L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer and M10 Hex Bolt | L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer | L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer | L-Foot, Flashing, 5/16" x 4 1/2" SS Lag with metalized EPDM washer | |
| Roof Type | | | Composition Shingle | | | |
| Certifications | | I | BC, ASCE/SEI 7-16, AC28 | 36 | | |
| Install Application | Railed Systems | | | | | |
| Compatible Rail | Most | | | | | |
| Kit Quantity | 24 | | | | | |
| Boxes per Pallet | | | 72 | | | |

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

$Accu\text{-}CT^{\circ}$ ACTL-0750 Series

Split-Core Current Transformer Installation Guide



Danger: Hazardous Voltages

Potential shock hazard from dangerous high voltage exists.

The ACTL-0750 series Accu-CT current transformers measure AC line current in circuits up to 600 Vac and nominal currents up to 250 Amps. They are split-core (opening) for ease of installation.

They may be field installed within distribution and control equipment such as panelboards, switchboards, industrial control equipment, energy-monitoring, and energy management equipment, to measure current on the service entrance or branch circuit conductors.

The Accu-CT is used with electric energy meters, like the WattNode meters, or for other current monitoring purposes.

Precautions

- WARNING: This product can expose you to chemicals including disononyl phthalate (DINP), which is known to the State of California to cause cancer. For more information go to: www.P65Warnings.ca.gov.
- Only qualified personnel or licensed electricians should install the current transformer (CT). The line voltages of 120 Vac to 600 Vac can be lethal!
- Install in accordance with ANSI/NFPA 70, "National Electrical Code" (NEC). Follow all local electrical codes.
- The NEC prohibits installation of CTs in equipment where they exceed 75% of the wiring space of any cross-sectional area.
- Do not install CTs where they block ventilation openings.
- Do not install CTs in the area of breaker arc venting.
- The Accu-CT lead wires are considered Class 1 wiring (as defined by the NEC) and must be installed accordingly. They are not suitable for Class 2 wiring methods and should not be connected to Class 2 equipment.
- Verify that the line currents will not exceed the "Maximum Amps" (see the Models table below) under normal operation.
- Do not install the CT where it may be exposed to temperatures below -30°C or above 80°C (-22°F to 176°F), excessive moisture, dust, salt spray, or other contamination.
- The Accu-CT can be damaged by sharp impacts or by being dropped. This can result in reduced accuracy.
- The current transformer cannot measure direct current (DC), and excessive DC will degrade the AC accuracy.
- If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

Pre-Installation Checklist

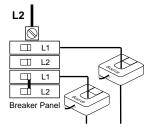
 The CT's rated current should normally be greater than or equal to the maximum current of the measured circuit. Ensure that the fuse or circuit breaker's rating does not exceed the CT's maximum continuous current rating.

- It is preferable to install the CT and meter or monitoring device close to each other. However, you may extend the CT wires by 300 feet (100 m) or more by using shielded twisted-pair cable and by running the CT wires away from high current and line voltage conductors.
- For highest accuracy, try to separate the CTs on different phases by 1.0 inch (25 mm) to minimize magnetic interference.

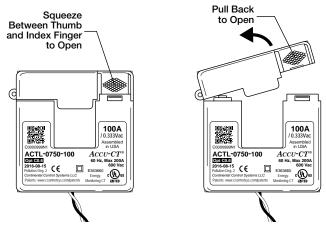
Connecting the Current Transformer

- WARNING: To reduce the risk of electric shock, always open or disconnect the circuit from the power-distribution system (or service) of the building before installing or servicing current transformers.
- Point the SOURCE arrow toward the current source: the utility meter or the circuit breaker for branch circuits.

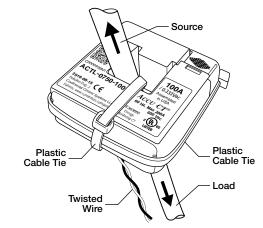
Note: If the CT is mounted backwards, the measured power will be negative.



3) To open the CT, squeeze the knurled panels, then pull and rotate the top open.



- 4) Make sure the mating surfaces are clean. Debris will increase the magnetic gap, decreasing accuracy.
- 5) Place the CT around the conductor and close the CT.



- 6) Optional: Secure the CT to the conductor with a cable tie.
- 7) Optional: For added security, wrap a cable tie around the outside of the CT.
- 8) Route the twisted black and white wires from the CT to the meter or monitoring device. Be sure to secure the CTs and route the lead wires so that they do not directly contact live terminals or busses.
- 9) Connect the white and black wires to the terminals on the meter or monitoring device.

Note: If the white and black wires are reversed, the measured power will be negative.

Note: On a WattNode meter, the white wire should be aligned with the white dot on the label, and the black wire should be aligned with the black dot on the label.

Note: Be careful to match the CT to the voltage phases being measured. Make sure the **\$\phiACT\$** is measuring the current on the **\$\phiA\$** conductor, and the same for phases B and C. Use colored labels or tape to identify the wires.

References

- https://ctlsys.com/warranty-and-return-policy/ Warranty
- https://ctlsys.com/product/accu-ct-actl-0750-split-core-ct/
- https://ctlsys.com/cat/current-transformer/ CT articles
- For information about connecting CTs to WattNode meters, see the appropriate WattNode meter manual.

Specifications

Models

| Model | Rated Amps | Maximum Amps |
|---------------|------------|----------------------|
| ACTL-0750-005 | 5 A | 75 A |
| ACTL-0750-015 | 15 A | 150 A |
| ACTL-0750-020 | 20 A | 150 A |
| ACTL-0750-030 | 30 A | 200 A |
| ACTL-0750-050 | 50 A | 200 A |
| ACTL-0750-070 | 70 A | 200 A |
| ACTL-0750-100 | 100 A | 200 A |
| ACTL-0750-150 | 150 A | 300 A |
| ACTL-0750-200 | 200 A | 350 A ⁽¹⁾ |
| ACTL-0750-250 | 250 A | 400 A ⁽¹⁾ |

Models in BOLD are stock items with shorter lead times.

Electrical

Overvoltage and Measurement Categories:

CAT IV (service entrance): 250 Vac

CAT III: 600 Vac

Line Frequency: 50 to 60 Hz Standard Accuracy (% of reading)

Accuracy: ±0.75% from 1% to 120% of rated primary current

Phase angle: ±0.50 degrees (30 minutes) from 1% to 120% of rated

current

IEEE C57.13 accuracy: class 1.2 from 1% to 120% of rated current IEC 60044-1 accuracy: class 1.0 from 1% to 120% of rated current

Note: The ACTL-0750-250 accuracy may be degraded if you exceed 40°C and 100% of rated current simultaneously.

Revenue Grade Accuracy (% of reading)

With Option C0.6, the Accu-CT is calibrated to meet IEEE/ANSI C57.13-2008 class 0.6 accuracy and IEC 60044-1 class 0.5 S accuracy and each CT is shipped with a certificate of calibration.

Accuracy: ±0.50% from 1% to 120% of rated primary current

Phase angle: ±0.25 degrees (15 minutes) from 1% to 120% of rated current; ±0.50 degrees (30 minutes) below 0°C from 1% to 10% of rated current

IEEE C57.13 accuracy: class 0.6 from 1% to 120% of rated current

IEC 60044-1 accuracy: class 0.5 and 0.5 S from 1% to 120% of rated current

Available Models: Option C0.6 is available for all models except ACTL-0750-005

Note: The ACTL-0750-250 accuracy may be degraded if operated above 40°C and 100% of rated current simultaneously.

Type: Voltage output, integral burden resistor Protection: includes internal clamp zener at 8 Vac

Output Voltage at Rated Amps: 0.33333 Vac (one-third volt)

Optional: 1.000 Vac (add "-1V" to the end of the model number) Wire: 2.4 m (8 feet), 20 AWG (18 AWG prior to March 2021); custom lengths available

Maximum Voltage: 600 Vac

UL Listing: E363660, UL 2808, XOBA

Environmental

Operating Temperature: -30°C to 80°C (-22°F to 176°F) up to 300 A: -30°C to 60°C (-22°F to 140°F) up to 400 A

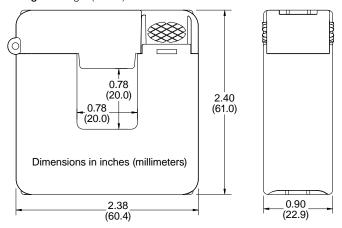
Operating Humidity: Non-condensing, 5 to 95% relative humidity (RH)

Pollution: POLLUTION DEGREE 2 Indoor Use: Suitable for indoor use.

Outdoor Use: Suitable for outdoor use when mounted in a NEMA 3R or 4 (IP 66) rated enclosure, provided the ambient temperature will not exceed 80°C (176°F).

Mechanical

Weight: 201 gm (7.1 oz)



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[&]quot;Maximum Amps" are the maximum continuous currents the CTs can sustain without overheating.

⁽¹⁾For operation above 60°C, limit the maximum amps to 300.





UL50 Type 3R Enclosure • Stamped 18 gauge gal. steel • Powder coated finish • Weather tight

Enclosure Includes:

- Dual ground lug
- · Universal DIN rail
- 1/2". 3/4" & 1" knockouts
- · Wire strain relief clip
- Complete hardware package



INTRODUCED AT SOLAR POWER 2007





PV Roof-Mount Combiner/Enclosure

Benefits

- •The ability to prep the building is now possible
- Replaces several parts used today
- Provides professional looking install
- · Saves time on install
- Allows for easy access
- Guaranteed seal to roof
- Low profile design

For product information contact us at [866] 367-7782

www.commdeck.com



RSTC Enterprises, Inc 2219 Heimstead Road Eau Claire, WI 54703 1 (866) 367 - 7782





SolaDeck Part # 780

Specifications:

18 Gauge Steel Base (1) and Cover (2)
Pre Punched 7 holes in base (1) for roof deck
Pre Punched 4 holes in base (1) and cover (2) for match
Draw Process both parts
Powder Coated to withstand 1000 hours Salt Spray (Primer Gray)
High UV resistance
15" x 15" flashing dimension
Cavity dimension 8"W x 9" L x 2.5"D
Approx. 162 Cubic inch equipment cavity
Norloked steel base plate (3) to drawn base (2)
Three knockout locations .5", .75" and 1"
3" DIN rail installed
Grounding Lug- Installed (In Equipment Cavity)
Wire Strain Relief Clip –Installed (In Equipment Cavity)
Hardware pack withstands 500 hours Salt Spray

- 7 2" Trusshead Screws
- 4 .5" 8-32 thread cutting screws
- 4 #10 Bonded Seal washers
- 1 Foam closed Cell Seal

ETL Listed UL50 Type 3R

Total Weight 6.9 pounds each

Packaging:

Individually bagged and boxed
Box dimension 15.5"w x 16" L x 3" D
White Carton labeled with Cut out template
Print One Color - Black

Master Cartons of 6 Units each
Master Carton dimension 18.75"x16"x16.375"
Master Carton Weight – 42 pounds
18 Master Cartons per skid Approx 800 pounds with skid

D223NRB

Safety Switch, 100A, Fusible, Cartridge (Class H, K or R), 2-Pole





by Schneider Electric

List Price \$480.00 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 | #12 to #1/0 AWG(AI) - #14 to #1/0 AWG(Cu) |
| Depth | 6.50 Inches |
| Height | 17.50 Inches |
| Width | 8.50 Inches |
| Action | Single Throw |
| Ampere Rating | 100A |
| 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 | 00785901460701 |
| Package Quantity | 1 |
| Weight | 15.46 lbs. |
| Availability Code | Stock Item: This item is normally stocked in our distribution facility. |
| Returnability | Υ |
| 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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