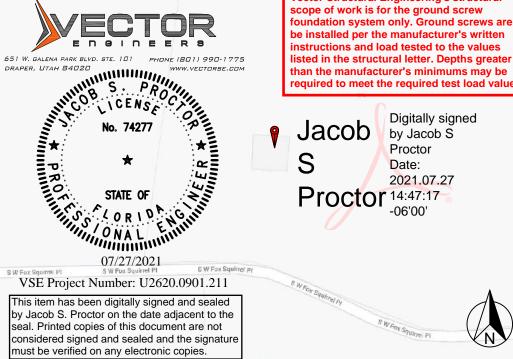
| | INDEX | GENERAL | NOTES: | PROJECT DESCRIPTION: | | |
|-----------|-------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| MSP | Main Service Panel | ALL ELECTRICAL WORK TO BE INSTALLED BY A QU | JALIFIED AND LICENSED | SYSTEM SIZE: DC STC: 10.88 kW | | |
| SSP | Service Sub Panel | ELECTRICAL CONTRACTOR. ALL SOLAR MODULES SHALL BE UL LISTED 1703 & | CEC APPROVED. ALL | AC SIZE: 9.0 kW | | |
| INV | Solar Inverter | INVERTERS SHALL BE UL LISTED 1741 CERTIFIED 8 | & CEC APPROVED. ALL | SOLAR MODULES: (32) LG SOLAR 340W (LG340N1K-V5) INVERTER: (1) SOLAREDGE 6.0kW INVERTER (SE6000H-US ENERGY HUB) | | |
| VLLD | Visible Lockable Labeled Disconnect | ELECTRICAL COMPONENTS AND MATERIALS SHAL PURPOSE AND INSTALLED IN A WORKMAN LIKE MA | | (1) SOLAREDGE 3.0kW INVERTER (SE3000H-US) | | |
| DCD | DC Disconnect | EQUIPMENT SHALL MEET APPROPRIATE NEMA STA | ANDARDS. | OPTIMIZERS: (32) SOLAR EDGE P340 OPTIMIZERS | | |
| J.B | Junction Box | THE ELECTRICAL CONTRACTOR IS ADVISED THAT COMPONENT MANUALS ARE TO BE UNDERSTOOD | | EXISTING MSP BUS: 2x200A | | |
| | 1 | THE CONTRACTOR IS ADVISED TO HAVE ALL SWIT | | EXISTING MAIN BREAKER: 2x200A | | |
| IQB | IQ Combiner Box | AND FUSES REMOVED PRIOR TO INSTALLATION O | | PV BREAKER: N/A | | |
| PVLC | PV Load Center | COMPONENTS. THIS SYSTEM IS INTENDED TO BE OPERATED IN PA | ADALLEL WITH THE LITH ITV | ONE STORY BUILDING | | |
| PM | Performance Meter | SERVICE PROVIDER. ANTI-ISLANDING PROTECTION | | ROOF TYPE: COMPOSITION SHINGLE | | |
| | Power Optimizer / Microinverter | 1741 AND IS INTENDED TO PREVENT THE OPERATIONAL | ON OF THE PV SYSTEM | MOUNTING SYSTEM: IRONRIDGE GROUND MOUNT RACKING | | |
| | PVC/RMC/EMT Type Conduit | WHEN THE UTILITY GRID IS NOT OPERATIONAL. PERMISSION TO OPERATE THE SYSTEM IS NOT AL | ITHORIZED UNTIL FINAL | PARCEL NUMBER: 317S1710070108 LOT AREA: 10.06 ACRES | | |
| | FMT Type Conduit | INSPECTIONS AND APPROVALS ARE OBTAINED FR | ROM THE LOCAL AUTHORITY | LIVING AREA: 3,644 SQFT | | |
| | Setback Line | HAVING JURISDICTION AND THE LOCAL UTILITY SE THE METHOD OF ATTACHMENT CREATES A UNIFIE | | APPLICABLE CODES | | |
| | Setback Line | DEAD LOAD, WIND LOAD, AND SEISMIC REQUIREM | | 2020 Florida Building Codes 7th Edition | | |
| ₩ | (N) Solar PV Module | WILL BE SECURED TO THE EXISTING ROOF AS SPE | | 2020 Florida Building Code - Residential 7th Edition | | |
| | /E\ C-4-184- | STRUCTURAL SHEETS. EXISTING ROOF EQUIPMEN BY THE PV SYSTEM. ALL STRUCTURAL DESIGN AN | | 2020 Florida Building Code - Building 7th Edition 2020 Florida Building Code - Energy 7th Edition | | |
| 0 | (E) Satellite | COMPONENTS ARE THE RESPONSIBILITY OF OTHE | | 2020 Florida Building Code - Test Protocol 7th Edition | | |
| | (E) Solar PV Module | SCOPE OF THIS DOCUMENT. | UT APPROPRIATE FOR SITE | 2020 Florida Building Code - Plumbing 7th Edition | | |
| | | ALL FASTENERS SHALL BE CORROSION RESISTAN CONDITIONS. CONNECTORS SHALL BE TORQUED I | | 2020 Florida Building Code - Mechanical 7th Edition 2020 Florida Building Code - Existing Building 7th Edition | | |
| | (E) Chimney | ENGINEERING RECOMMENDATIONS. | | 2020 Florida Building Code - Fuel Gas 7th Edition | | |
| | | ALL ROOFING REPAIR MUST MAINTAIN EXISTING C AND ALL WORK SHALL BE IN ACCORDANCE WITH T | | 2020 Florida Building Code – Accessibility 7th Edition | | |
| 8 | (E) AC Unit | MANUFACTURER'S INSTALLATION REQUIREMENTS | | 2020 Florida Fire Prevention Code NEC 2017 National Electric Code - NFPA 70 Fair Housing Guidelines | | |
| | | · | | · · · · · · · · · · · · · · · · · · · | | |
| í | SHEET INDEX | PROJECT VICINITY MAP | | PROJECT SATELLITE VIEW | | |
| | TITLE PAGE | | | | | |
| | SITE PLAN | | Vector Structural Engineering's structural | | | |
| | INE DIAGRAM | | scope of work is for the ground screw | | | |
| | CODE REQUIRED SIGNAGE | - WEGIUK | foundation system only. Ground screws are to be installed per the manufacturer's written | | | |
| | MODULE DATA SHEET | Engineers | instructions and load tested to the values | THE HOLD PROPERTY OF THE PARTY | | |
| | PTIMIZER DATA SHEET | 651 W. GALENA PARK BLVD. STE. 101 PHONE (801) 990-1775 DRAPER, UTAH 84020 www.vectorse.com | listed in the structural letter. Depths greater than the manufacturer's minimums may be | | | |
| | NVERTER DATA SHEET | DRAPER, UTAH 84020 WWW.VECTORSE.COM S. PROMINING | required to meet the required test load values. | | | |
| D4 RA | ACKING DATA SHEET | | | | | |



RACKING DATA SHEET

GROUND SCREW DATA SHEET

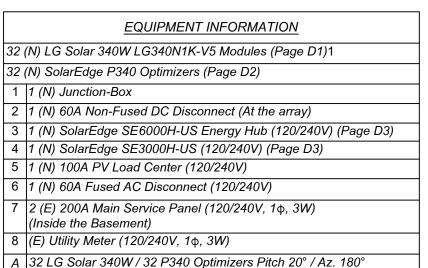
GROUNDING SPECS

ILSCO DATA SHEET

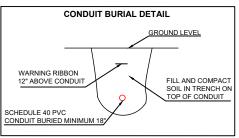
RACKING & MODULE CERTIFICATIONS

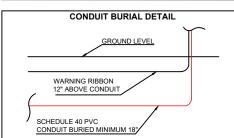


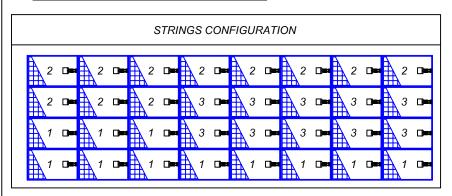
| Project Name | <u>Address</u> | Project Description | Contractor | Contractor Logo | Signature | <u>Note</u> | Drawn By: Unique Solar Design | |
|--------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|-----------|-------------|-------------------------------------------|-------------------------------------|
| Richard Frey | 1042 SW Woodland Ave., Fort White, FL 32038 | 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 1-Solar Edge 3.0kW Inverter | <u>Green Solar</u> | GreenSolar | | | U N I Q U E S O L A R O D E S I G N | Scale AS INDICATED SHEET NIZE |

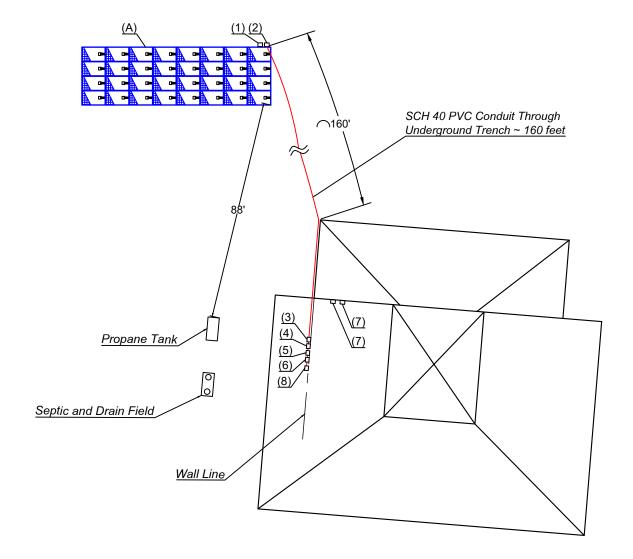


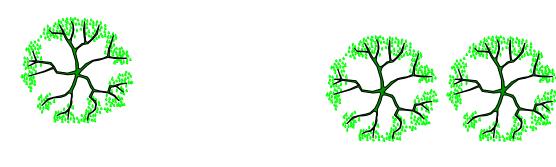
NOTE: PVC conduit and fittings directly buried in earth at a depth not less than 18"



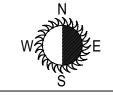








S W Fox Squirrel Pl.



| | SC | 4 <i>LE</i> | |
|---|----|-------------|------|
| | | | |
| 0 | 10 | 20 | 30ft |

| Project Name | Address | Project Description | Contractor | Contractor Logo | <u>Signature</u> | <u>Note</u> | Drawn By: Unique Solar Design | General No | otes |
|--------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|------------------|-------------|-------------------------------|---------------|-------------------------------------------|
| Richard Frey | 1042 SW Woodland Ave., Fort White, FL 32038 | 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 1-Solar Edge 3.0kW Inverter | Green Solar | Powered by GreenSolar | <u> </u> | , make | UNIQUE SOLARO | JULY 11, 2021 | SHEET SIZE 11" X 17" ANSI B SHEET NUMBER |

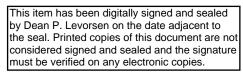
| | EQUIPMENT INFORMATION | | | | | |
|----|--------------------------------------------------------------|--|--|--|--|--|
| 1 | 32 (N) LG Solar 340W LG340N1K-V5 Modules (Page D1) | | | | | |
| 2 | 32 (N) SolarEdge P340 Optimizers (Page D2) | | | | | |
| 3 | 1 (N) Junction-Box | | | | | |
| 4 | 1 (N) 60A Non-Fused DC Disconnect (At the array) | | | | | |
| 5 | 5 1 (N) SolarEdge SE6000H-US Energy Hub (120/240V) (Page D3) | | | | | |
| 6 | 1 (N) SolarEdge SE3000H-US (120/240V) (Page D3) | | | | | |
| 7 | 1 (N) 100A PV Load Center (120/240V) | | | | | |
| 8 | 1 (N) 60A Fused AC Disconnect (120/240V) | | | | | |
| 9 | 2 (E) 200A Main Service Panel (120/240V, 1φ, 3W) | | | | | |
| | (Inside the Basement) | | | | | |
| 10 | (E) Utility Meter (120/240V, 1φ, 3W) | | | | | |

| WIRE TAG# | WIRE TYPE/QTY/SIZE COPPER | GRD-SIZE | WIRE AMP | TERMINAL RATING | CONDUIT TYPE | CONDUIT RUN | TEMP. CORRECTION | AMP. ADJ C.C.C | CURRENT |
|--------------|------------------------------------|-------------|-------------|-----------------|----------------------------|------------------------------------------------|---------------------|-------------------|--------------|
| А | PV WIRE (2) #10 | #6, BARE CU | 40A | 90° | OPEN AIR | >3.5 - 12" | 0.71 | 1 | 28.4 > 18.8A |
| В | THWN-2 (6) #8 (3) DC + (3) DC - | #8, EGC CU | 55A | 90° | 1" EMT 1" PVC 1" EMT | ABOVE GROUND UNDER GROUND ALONG THE WALL | 0.71 | 0.8 (6 WIRES) | 31.2 > 18.8A |
| С | THWN-2 (3) #8 (L1,L2,N) | #8, EGC CU | 55A | 90° | 3/4" EMT | ALONG THE WALL | 0.91 | 1 | 50.1 > 31.3A |
| D | THWN-2 (3) #10 (L1,L2,N) | #8, EGC CU | 40A | 90° | 3/4" EMT | ALONG THE WALL | 0.91 | 1 | 36.4 > 15.6A |
| Е | THWN-2 (3) #6 (L1,L2,N) | #8, EGC CU | 75A | 90° | 3/4" EMT | ALONG THE WALL | 0.91 | 1 | 68.3 > 46.9A |

PV SYSTEM OUTPUT CALCULATION

MAX DC OUTPUT: 340W * 32 = 10.88kW MAX AC OUTPUT: 9.0kW

L2



(1st) STRING OF 11 OPTIMIZERS #1 INVERTER (2nd) STRING OF 11 OPTIMIZERS #1 INVERTER (3rd) STRING OF 10 OPTIMIZERS #2 INVERTER

Strings 1 & 2

G N L1 L

String 3



FEED MAIN

OCPD

651 W. GALENA PARK BLVD. STE. 101 PHONE (801) 990-1775

Firm License Number: COA 26626 VSE Project Number: U2620.0901.211

Digitally signed by Dean P Levorsen Dean P Levorsen Date: 2021.07.27 15:26:19 -06'00'

(10) Line Side tap connection with ilsco connectors 200A END (see spec sheet page, D9) FEED MAIN OCPD 200A END **(2**) <u>(9</u>)

TO UTILITY GRID

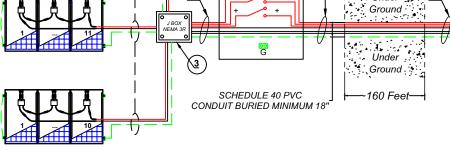
ARRAY A LG SOLAR 340W (11) MODULES WIRED IN (2ND) SERIES OF (11) **OPTIMIZERS**

ARRAY A

LG SOLAR 340W (11) MODULES WIRED

IN (1ST) SERIES OF (11)
OPTIMIZERS

ARRAY A LG SOLAR 340W (10) MODULES WIRED IN (3RD) SERIES OF (10) **OPTIMIZERS**



FILL AND COMPACT

SOIL IN TRENCH ON

TOP OF CONDUIT

WARNING RIBBON

12" ABOVE CONDUIT

Under : B

2x60A Fuses

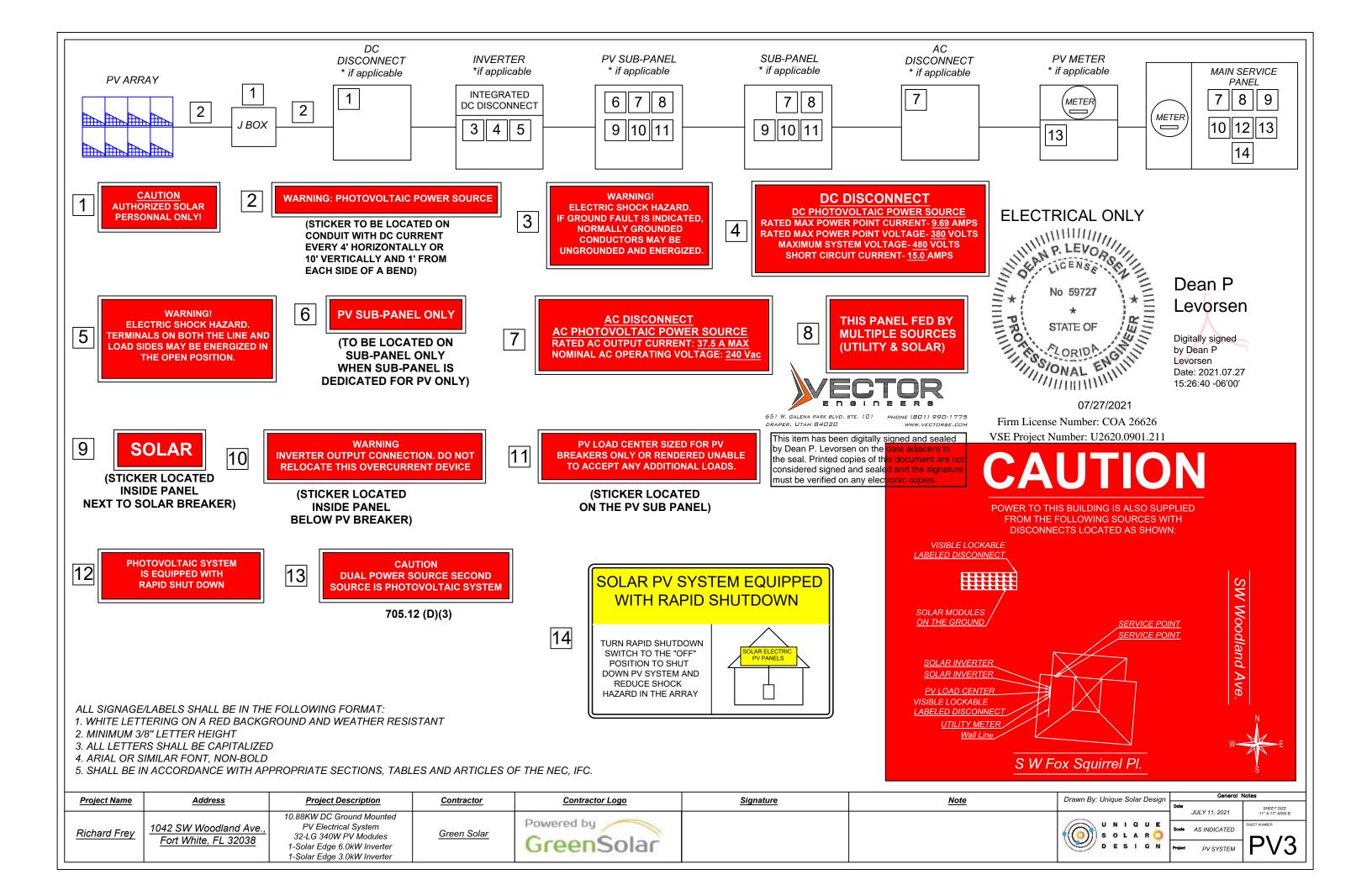
07/27/2021

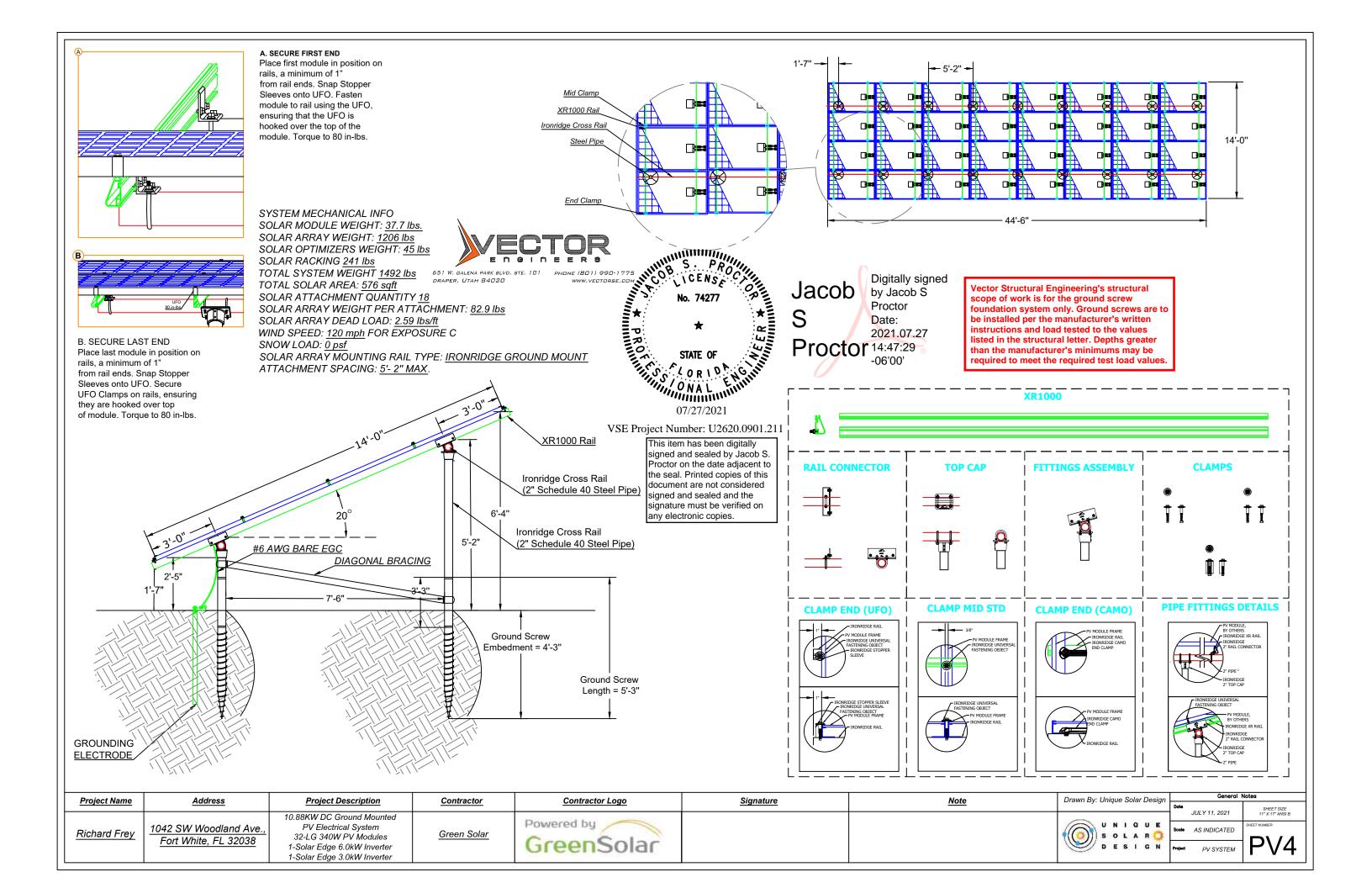
(<u>8</u>)

8' Minimum Embedment Rod at 6' From Equipment Ground Conductor Unless Existing Ground is UFER.

Photovoltaic system is rapid shut down ready

| ı | Project Name | Address | Project Description | Contractor | Contractor Logo | <u>Signature</u> | <u>Note</u> | Drawn By: Unique Solar Design | General N | Notes |
|---|---------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|------------------|-------------|-------------------------------------------|---------------------------------------|--------------------------------|
| | r roject Name | Address | Toject Description | <u>contractor</u> | Contractor Logo | Signature | <u>Note</u> | Draini Dy: Griique Gerai Deelgii | Date | SHEET SIZE 11" X 17" ANSI B |
| | Richard Frey | 1042 SW Woodland Ave., Fort White, FL 32038 | 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 1-Solar Edge 3.0kW Inverter | <u>Green Solar</u> | GreenSolar | | | U N I Q U E S O L A R O D E S I G N | Scale AS INDICATED Project PV SYSTEM | SHEET NUMBER PV2 |





LG NeON®2 Black

LG340N1K-V5 | LG335N1K-V5 | LG330N1K-V5

340W | 335W | 330W

The LG NeON® 2 Black is LG's best selling solar module. It is one of the most powerful and versatile modules on the market today. Featuring LG's Cello Technology, the LG NeON® 2 Black optimizes power output. New updates include an extended performance warranty of 90%, delivering customers a greater sense of reliability and peace of mind.











Features



Roof Aesthetics

LG NeON® 2 Black has been designed with aesthetics in mind using thinner wires that appear all black at a distance. The LG NeON® 2 Black can increase the value of a your home with its modern design.



Better Performance on Sunny Days

LG NeON® 2 Black now performs better on sunny days, thanks to its improved temperature coefficient.



Enhanced Product Warranty

LG provides the product warranty of the LG NeON® 2 Black to an industry-leading 25



Enhanced Performance Warranty

LG NeON® 2 Black has an enhanced performance warranty. After 25 years, LG NeON® 2 Black is guaranteed to perform at minimum 90.0% of initial performance.

LG NeON®2 Black

Preliminary

LG340N1K-V5 | LG335N1K-V5 | LG330N1K-V5

| Cell Properties (Material / Type) | Monocrystalline / N-type |
|-----------------------------------|--------------------------------|
| Cell Maker | l.G |
| Cell Configuration | 60 Cels (6 x 10) |
| Number of Busbars | 1.2 EA |
| Module Dimensions (L x W x H) | 1,586mm × 1,016mm × 40 mm |
| Weight | 17.1 kg |
| Slass (Material) | Tempered Glass with AR coating |
| Backsheet (Color) | Black |
| Frame (Material) | Anadized Aluminium |
| Junction Box (Protection Degree) | IP 68 with 3 Bypass Diodes |
| Cables (Length) | 1,000 mm x 2 EA |
| Connector (Type / Maker) | MC4 / MC |

Electrical Properties (STC*)

| Model | | LG340N1K-V5 | LG335N1K-V5 | LG330N1K-V | |
|-----------------------------|-----|-------------|-------------|------------|--|
| Maximum Power (Pmax) | [W] | 340 | 335 | 330 | |
| MPP Voltage (Vmpp) | [V] | 34.9 | 34.5 | 34.1 | |
| MPP Current (Impp) | [A] | 9.75 | 9.72 | 9.69 | |
| Open Circuit Voltage (Voc) | [V] | 41.2 | 41.1 | 41.0 | |
| Short Circuit Current (Isc) | [A] | 10.35 | 10.31 | 10.27 | |
| Module Efficiency | [%] | 19.8 | 19.6 | 19.3 | |
| Power Tolerance | [%] | 6] 0-+3 | | | |

^{*} STC (Standard Test Condition): Irradiance 1000 W/m, Cell temperature 25 °C, AM 1.5,

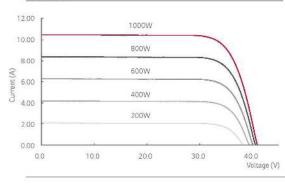
| NMOT* | (°C) | 42 ± 3 | |
|-------|--------|--------|--|
| Pmax | [%/°C] | -0.36 | |
| Voc | [%/°C] | -0.27 | |
| Isc | [%/°C] | 0,03 | |

^{*} NMOT (Nominal Module Operating Temperature) : Irradiance 800 W/m², Ambient temperature 20°C, Wind speed 1 m/s, Spectrum AM 1.5

Electrical Properties (NMOT)

| Model | | LG340N1K-V5 | LG335N1K-V5 | LG330N1K-V5 | |
|-----------------------------|-----|-------------|-------------|-------------|--|
| Maximum Power (Pmax) [W] | | 254 | 250 | 247 | |
| MPP Voltage (Vmpp) | [V] | 32.7 | 32.3 | 31.9 | |
| MPP Current (Impp) | [A] | 7.77 | 7.75 | 7,73 | |
| Open Circuit Voltage (Voc) | [V] | 38.7 | 38.6 | 38.5 | |
| Short Circuit Current (Isc) | [A] | 8.32 | 8.29 | 8.26 | |

I-V Curves



Certifications and Warranty

| | IEC 61215-1/-1-1 / 2:2016, IEC 61730-1/2:2016 |
|-------------------------------|-----------------------------------------------|
| Certifications | ISO 9001, ISO 14001, ISO 50001 |
| | OHSAS 18001 |
| Salt Mist Corrosion Test | IEC 61701 : 2012 Severity 6 |
| Ammonia Corrosion Test | IEC 6271 6 : 201 3 |
| Fire Rating | Class C (UL 790) |
| Solar Module Product Warranty | 25 Years |
| Solar Module Output Warranty | Linear Warranty* |

^{* 1) 1}st years : 98%, 2) After 1st year : 0.33% annual degradation, 3) 90.08% for 25 years

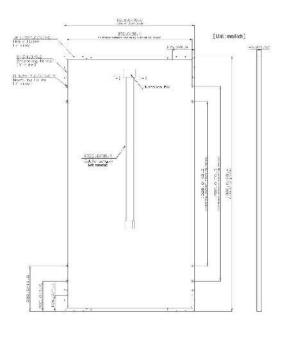
Operating Conditions

| Operating Temperature | [C] | -40 - +90 |
|----------------------------|------|-----------------------|
| Maximum System Voltage | [V] | 1000 (UL), 1000 (IEC) |
| Maximum Series Fuse Rating | [A] | 20 |
| Mechanical Load* (Front) | [Pa] | 5,400 / 113 |
| Mechanical Load* (Rear) | [Pa] | 4,000 / 84 |

Packaging Configuration

| Number of Modules per Pallet | [EA] | 25 |
|-----------------------------------------|------|-----------------------|
| Number of Modules per 40ft HQ Container | [EA] | 650 |
| Packaging Box Dimensions (L x W x H) | [mm] | 1,750 x 1,120 x 1,221 |
| Packaging Box Gross Weight | [kq] | 464 |

Dimensions (mm / inch)



| Project Name | Address | Project Description | Contractor | Contractor Logo | Signature | <u>Note</u> | Drawn By: Unique Solar Design | General | Notes |
|--------------|------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------|-----------------|------------------|-------------|-------------------------------------------|------------------------------------------------------|--------------------------------|
| Froject Name | Address | Froject Description | Contractor | Contractor Logo | <u>Signature</u> | Note | Brawn By: Ornque Goldi Beolgii | Date | SHEET SIZE 11" X 17" ANSI B |
| Richard Frey | 1042 SW Woodland Ave., Fort White, FL 32038 | 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter | Green Solar | GreenSolar | | | U N I Q U E S O L A R O D E S I G N | JULY 11, 2021 Scale AS INDICATED Project PV SYSTEM | 11" X 17" ANSI B SHEET NUMBER |

^{*} Manufacturer Declaration according to IEC 61215 : 2005
* Mechanical Test Loads 5,400 Pa / 4,000 Pa based on IEC 61215-2 : 2016
(Test Load ~ Design Load x Safety Factor(1.5))

Power Optimizer

For North America

P320 / P340 / P370 / P400 / P405 / 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
- 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

solaredge.com



/ Power Optimizer For North America

P320 / P340 / P370 / P400 / P405 / 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) | P405 (for thin film modules) | P505 (for higher current modules) | | | | |
|------------------------------------------------------------------|----------------------------------|-------------------------------------------------|-------------------------------------------------------------|-------------------------------------------|---------------------------------------|--------------------------------------------|--------|--|--|--|
| INPUT | | | | | - | | | | | |
| Rated Input DC Power® | 320 | 340 | 370 | 400 | 405 | 505 | W | | | |
| Absolute Maximum Input Voltage (Voc at lowest temperature) | 19 | 48 | 50 | 80 | 125 th | 839 | Vdc | | | |
| MPPT Operating Range | 8 | - 48 | 8 - 60 | 8 - 80 | 12.5 - 105 | 12.5 - 83 | Vdc | | | |
| Maximum Short Circuit Current (isc) | | 11 | 4 | 10 | 2.1 | 14 | Adc | | | |
| Maximum DC Input Current | | 13.75 | | 12 | .63 | 17.5 | Adc | | | |
| Maximum Efficiency | | | 99 | .5 | | | 96 | | | |
| Weighted Efficiency | | | 98.8 | | | 98.6 | 96 | | | |
| Overvo tage Category | | | | I. | | | | | | |
| OUTPUT DURING OPER | ATION (POWE | R OPTIMIZER C | ONNECTED TO | OPERATING SO | LAREDGE INVER | RTER) | | | | |
| Maximum Output Current | | | 4 | 5 | | | Adc | | | |
| Maximum Output Voltage | | i | 50 | | 8 | 5 | Vdc | | | |
| INVERTER OFF) Safety Output Voltage per Power Optimizer | | 1±0.1 | | | | | | | | |
| STANDARD COMPLIAN | CE | | | | | | - | | | |
| EMC | 0 | FC | CC Parc15 Class B, IFC1 | 1000-6-2, IFC61000-6 | 3 | | T | | | |
| Safety | | | IEC62109-1 (class | Il safety), UL1741 | | | | | | |
| RcHS | | | Y | 3 | | | | | | |
| INSTALLATION SPECIFIC | CATIONS | | | | | | | | | |
| Maximum: Allowed System Voltage | | | 10 | 00 | | | Vdc | | | |
| Compatible inverters | | ALS | olarEdge Single Phase | and Three Phase invi | erters | | | | | |
| Dimensions (W x L x H) | 121 | 9 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 159 x 49.5 / 5,1 x 6.3 x 1.9 | 129 x 162 x 59 / 5.1 x 6.4 x 2.3 | mm/i | | | |
| Weight (including cables) | | 630 / 1.4 | | 750 / 1.7 | 845 / 1.9 | 1064 / 2.3 | gr / b | | | |
| Input Connector | | | MC | AIN | | | | | | |
| Output Wire Type / Connector | | | Double Insi | ılated; MC4 | | | | | | |
| Output Wire Length | 0.95 | /3.0 | | 1.2 , | / 3.9 | | m/ft | | | |
| Input Wire Length | | | 0.16) | 0.52 | | | m/fl | | | |
| Operating Temperature Range | | | -40 - 185/ | -40 - +185 | | | *C/*F | | | |
| Protection Rating | | | IP68 / N | IEMA6P | | | | | | |
| Relative Humidity | | | 0 - | 105 | | | 96 | | | |

- T Rated STC power of the module. Module of up to +5% power tolerance allowed 4 NSC 2017 requires max input voltage be not more than 80V E For other connector types please contact SolarEdge

| PV System De a SolarEdge | esign Using Inverter ⁽⁴⁾⁽⁵⁾ | Single Phase HD-Wave | Single phase | Three Phase 208V | Three Phase 480V | | |
|-------------------------------------------------------|-------------------------------------------|------------------------------------------------|--------------|---------------------|---------------------|---|--|
| Minimum String Length | P320, P340, P370, P400 | 8 | | 10 18 | | | |
| (Power Optimizers) | P405 / P505 | 8 | | 8 14 | | - | |
| Maximum String Length (Power Optimizers) | | 2 | 5 | 25 | 50 ⁽⁴⁾ | | |
| Maximum Power per Szír | ng | 5700 (6000 with SE7600-US - SE11400- US) | 5250 | 5000 ⁽⁷⁾ | 12750 ³⁰ | W | |
| Parallel Strings of Different Lengths or Orientations | | Yes | | | | | |

- M. For detailed string sizing information refer to: http://www.sclaredge.com/sites/cistaut/files/string.sizing.na.pdf

 18. It is not a lowed to mix PADS/PSUS with PADO/PSUS/PADS in one string

 19. A string with more than 30 continuous does not meen NEC rapid shutdown requirements, safety voltage will be above the 30V requirement.

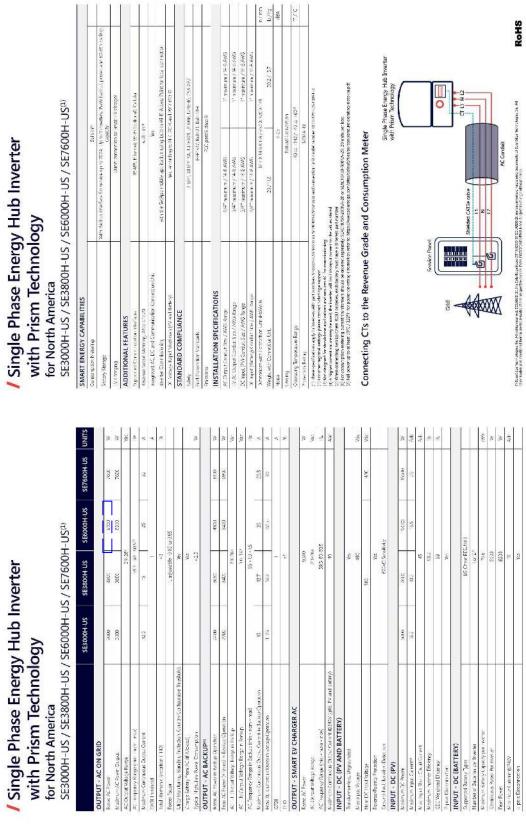
 19. Ear SEP/ARX/SEP/32/US. It is allowed to install up to SEOV by string when 3 strings are connected to the inverter (3 strings per unit for SE43.2KUS) and when
 the maximum power difference between the strings is a to 1,000V

 19. For SEOVINGS-SE3.38/US.SFOR.0KUS. It is allowed to install up to 15.000W per string when 3 strings are connected to the inverter (3 strings per unit for SE65.6KUS/SEI00KUS)
 and when the maximum power difference between the strings is up to 2,000W.

© Solorfidge Technologies Inc. All rights reserved. SOLARIDGE, the Solarlidge loga. OPTIMIZED BY SOLARIDGE are tracemarks or registered trademarks of Solarlidge Technologies, Inc. All other trademarks remnioned herein are trademarks of their respective owners. Date: 12/2218/V01/ENS NAV. Subject to change without notice.

CE ROHS

| Project Name Address Project Description Contractor Contractor Logo Signature Note Drawn By: Unique Solar Designature | | |
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| Richard Frey 1042 SW Woodland Ave., Fort White, FL 32038 Fort White, FL 32038 Solar Edge 6.0kW Inverter 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 10.88kW DC Ground Mounted PV Electrical System 32-LG 340W PV Electrica | Scale AS INDICATED Project DIA SYSTEM | SHEET SIZE 11" X 17" ANSI B EET NUMBER |





SE3000H-US / SE3800H-US / SE5000H-US / SE6000
SE7600H-US / SE10000H-US / SE11400H-US
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solaredge

Optional: Revenue grade (Class 0.5 (0.5% accuracy)

Integrated are fault protection and rapic shutdown for NEC 2014 and 2017, per art 690.11 and 690.12

Euilt in module level monitoring
Outdoor and indoor installation

renter commissioning directly is using the SolarEdge SetApp ter for longer strings

🕴 Extremely small

Specifically designed to work to power optimizers Record-breaking efficiency

/ UL1741 SA cer

| Project Name | <u>Address</u> | Project Description | Contractor | Contractor Logo | <u>Signature</u> | <u>Note</u> | Drawn By: Unique Solar Design | General | Notes |
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| <u> </u> | <u>Audress</u> | Troject Bescription | <u>oona detor</u> | <u>contractor Logo</u> | <u>oignature</u> | <u> </u> | | Date | SHEET SIZE 11" X 17" ANSI B |
| | | 10.88KW DC Ground Mounted | | 122-000-000-000-004-1-004 | | | | JULY 11, 2021 | 11" X 17" ANSI B |
| | 1042 SW Woodland Ave., | PV Electrical System | | Powered by | | | UNIQUE | Scale AS INDICATED | SHEET NUMBER |
| Richard Frey | | 32-LG 340W PV Modules | <u>Green Solar</u> | ~ ~ . ~ | | | | AS INDICATED | |
| | Fort White, FL 32038 | 1-Solar Edge 6.0kW Inverter | | Greensolac | | | DESIGN | Project PV SYSTEM | |
| | | 1-Solar Edge 3.0kW Inverter | | OI CCIIOOIdi | | | | PVSYSIEM | |
| | | 1 Colai Lage C.OKW IIIVerter | | | I . | | | | |

Datashee



Ground Mount System



Mount on all terrains, in no time.

The IronRidge Ground Mount System combines our XR1000 rails with locally-sourced steel pipes to create a cost-effective structure capable of handling any site or terrain challenge.

Installation is simple with only a few structural components and no drilling, welding, or heavy machinery required. In addition, the system works with a variety of foundation options, including concrete piers and driven piles.



Rugged Construction

Engineered steel and aluminum components ensure durability.



Simple Assembly

Just a few simple components and no heavy equipment.



Flexible Architecture

Multiple foundation and array configuration options.



PE Certified

Pre-stamped engineering letters available in most states.



Design Software

Online tool generates engineering values and bill of materials.



20 Year Warranty

Twice the protection offered by competitors.





Top Caps

ÛÛ

M4500

Rail Connectors



Attach Rail Assembly to horizontal pipes.

Diagonal Braces



Provide additional support where required.

Schedule 40 Pipes



Locally-sourced pipes serve as primary structure.

Rail Assembly

horizontal pipes.

Connect vertical and

XR1000 Rails



Curved rails increase spanning capabilities.

Top-Down Clamps



Secure modules to rails and substructure.

Under Clamps



Alternative clamps for preattaching modules to rails.

Accessories



Wire Clips and End Caps provide a finished look.

Resources



Design Assistant

Go from rough layout to fully engineered system. For free. Go to ironridge.com/gm



NABCEP Certified Training

Earn free continuing education credits, while learning more about our systems.

Go to ironridge.com/training

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| Project Name | <u>Address</u> | Project Description | Contractor | Contractor Logo | <u>Signature</u> | <u>Note</u> | Drawn By: Unique Solar Design | General I | Notes |
|--------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|------------------|-------------|-------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------|
| | 1042 SW Woodland Ave., Fort White, FL 32038 | 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 1-Solar Edge 3.0kW Inverter | Green Solar | Powered by GreenSolar | Signature | <u></u> | U N I Q U E S O L A R O | Date JULY 11, 2021 Scale AS INDICATED Project PV SYSTEM | SHEET SIZE 11"X17"ANSI B SHEET NUMBER |

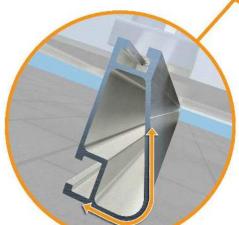


XR Rail Family

Solar Is Not Always Sunny

Over their lifetime, solar panels experience countless extreme weather events. Not just the worst storms in years, but the worst storms in 40 years. High winds capable of ripping panels from a roof, and snowfalls weighing enough to buckle a panel frame.

XR Rails are the structural backbone preventing these results. They resist uplift, protect against buckling and safely and efficiently transfer loads into the building structure. Their superior spanning capability requires fewer roof attachments, reducing the number of roof penetrations and the amount of installation time.



Force-Stabilizing Curve

Sloped roofs generate both vertical and lateral forces on mounting rails which can cause them to bend and twist. The curved shape of XR Rails is specially designed to increase strength in both directions while resisting the twisting. This unique feature ensures greater security during extreme weather and a longer system lifetime.

Compatible with Flat & Pitched Roofs



XR Rails are compatible with FlashFoot and other pitched roof attachments.



IronRidge offers a range of tilt leg options for flat roof mounting applications.

Corrosion-Resistant Materials

All XR Rails are made of marine-grade aluminum alloy, then protected with an anodized finish. Anodizing prevents surface and structural corrosion, while also providing a more attractive appearance.



XR Rail Family

The XR Rail Family offers the strength of a curved rail in three targeted sizes. Each size supports specific design loads, while minimizing material costs. Depending on your location, there is an XR Rail to match.



XR10

XR10 is a sleek, low-profile mounting rail, designed for regions with light or no snow. It achieves 6 foot spans, while remaining light and economical.

- 6' spanning capability
- Moderate load capability
- Clear anodized finishInternal splices available



XR100

XR100 is the ultimate residential mounting rail. It supports a range of wind and snow conditions, while also maximizing spans up to 8 feet.

- · 8' spanning capability
- Heavy load capability
- Clear & black anodized finishInternal splices available



XR1000

XR1000 is a heavyweight among solar mounting rails. It's built to handle extreme climates and spans 12 feet or more for commercial applications.

- 12' spanning capability
- Extreme load capability
- Clear anodized finishInternal splices available

Rail Selection

The following table was prepared in compliance with applicable engineering codes and standards. Values are based on the following criteria: ASCE 7-10, Roof Zone 1, Exposure B, Roof Slope of 7 to 27 degrees and Mean Building Height of 30 ft. Visit IronRidge.com for detailed span tables and certifications.

| Lo | ad | | | Rail | Span | | |
|------------|------------|------|-------|-------|------|--------|-----|
| Snow (PSF) | Wind (MPH) | 4' | 5' 4" | 6' | 8' | 10' | 12' |
| | 100 | | | | | | |
| None | 120 | | | | | | |
| None | 140 | XR10 | | XR100 | | XR1000 | |
| | 160 | | | | | | |
| | 100 | | | | | | |
| 10-20 | 120 | | | | | | |
| | 140 | | | | | | |
| | 160 | | | | | | |
| 30 | 100 | | | | | | |
| 30 | 160 | | | | | | |
| 40 | 100 | | | | | | |
| 40 | 160 | | | | | | |
| 50-70 | 160 | | | | | | |
| 80-90 | 160 | | | | | | |

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| Project Name | <u>Address</u> | Project Description | Contractor | Contractor Logo | <u>Signature</u> | <u>Note</u> | Drawn By: Unique Solar Design | General I | Notes |
|---------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|------------------|-------------|-------------------------------|---------------------------------------|--------------------------------|
| Trojectivanie | <u>Address</u> | <u>r roject Description</u> | Contractor | Contractor Logo | <u>Signature</u> | <u> </u> | | Date JULY 11, 2021 | SHEET SIZE 11" X 17" ANSI B |
| Richard Frey | 1042 SW Woodland Ave., Fort White, FL 32038 | 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 1-Solar Edge 3.0kW Inverter | <u>Green Solar</u> | GreenSolar | | | UNIQUE SOLAR O DESIGN | Scale AS INDICATED Project PV SYSTEM | SHEET NUMBER D5 |



8431 Murphy Drive Middleton, WI 53562 USA

Telephone: 608.836.4400 Facsimile: 608.831.9279 www.intertek.com

Test Verification of Conformity

In the basis of the tests undertaken, the sample(s) of the below product have been found to comply with the requirements of the referenced specifications at the time the tests were carried out.

Applicant Name & Address:

IronRidge, Inc. 1495 Zephyr Ave. Hayward, CA 94544

USA

Product Description:

XR Rails with Integrated Grounding.

Ratings & Principle

Fire Class Resistance Rating:

Characteristics:

-Tilt Mount (Asymmetrical). Class A Fire Rated for Low Slope applications with Type1, 2 and 3, listed photovoltaic modules. Class A Fire Rated for Steep Slope applications when using Type 1 and 2, listed photovoltaic modules. Angle of tilt allowed by the systems is any greater than or

equal to 10 and specified in the installation instructions. A minimum of a 3" anchor and a minimum of a 6" tilt-leg is required. No perimeter guarding is required.

Models:

51-61GD-005, 51-61GD-005B, 51-5000-001 and 51-65-001

Brand Name:

IronRidge Roof Mount

UL 2703 (Section 15.2 and 15.3) Standard for Safety Mounting Systems, Mounting Devices, **Relevant Standards:**

Clamping/Retention Devices, and Ground Lugs for Use with Flat-Plate Photovoltaic Modules and Panels, First Edition dated Jan. 28, 2015 Referencing UL1703 Third Edition dated Nov. 18, 2014, (Section 31.2) Standard for Safety for Flat-Plate Photovoltaic Modules and Panels.

Verification Issuing Office: Intertek Testing Services NA, Inc.

8431 Murphy Drive

Middleton, WI 53562 08/27/2014 to 03/17/2015

Date of Tests:

Test Report Number(s): 101769343MID-001r1, 101769343MID-001a, 101915978MID-001 & 101999492MID-001ar1-cr1.

This verification is part of the full test report(s) and should be read in conjunction with them. This report does not automatically imply product certification.

Completed by:

Chad Naggs

Technician II, Fire Resistance

Reviewed by: Gregory Allen

Engineering Team Lead, Fire Resistance Title:

Signature: Date:

Title:

03/30/2015

Signature: Date: 03/30/2015

This Verification is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek 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 permit copying or distribution of this Verification. Any use of the Intertek 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 Intertek. The observations and test/inspection results referenced in this Verification are relevant only to the sample tested/inspected. This Verification by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

GFT-OP-11a (24-MAR-2014)

O z LIA OMP O OF CERTIFICATE COMPLIANC OF ш ERTIFICA

| Project Name | Address | Project Description | Contractor | Contractor Logo | Signature | Note | Drawn By: Unique Solar Design | General Notes | |
|--------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------|-----------|------|-------------------------------|-------------------------------------------------------------------------------------------------|--|
| | 1042 SW Woodland Ave., Fort White, FL 32038 | 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules 1-Solar Edge 6.0kW Inverter 1-Solar Edge 3.0kW Inverter | Green Solar | Powered by GreenSolar | Signature | Note | U N I Q U E S O L A R O | Dote JULY 11, 2021 SHEET SIZE 11*X17*ANSI B Scole AS INDICATED SHEET NUMBER Project PV SYSTEM | |



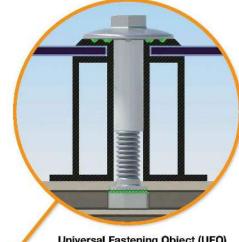
Simplified Grounding for Every Application

The UFO family of components eliminates the need for separate grounding hardware by bonding solar modules directly to IronRidge XR Rails. All system types that feature the UFO family-Flush Mount, Tilt Mount and Ground Mount—are fully listed to the UL 2703 standard.

UFO hardware forms secure electrical bonds with both the module and the rail, resulting in many parallel grounding paths throughout the system. This leads to safer and more reliable installations.



UFO Family of Components



Universal Fastening Object (UFO)

The UFO securely bonds solar modules to XR Rails. It comes assembled and lubricated, and can fit a wide range of module heights.



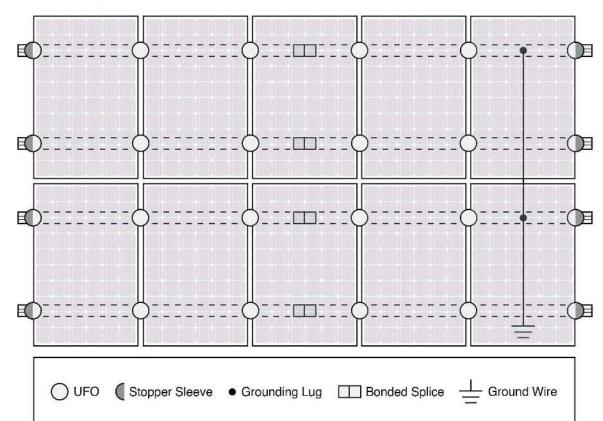
Grounding Lug

A single Grounding Lug connects an entire row of PV modules to the grounding conductor.

Bonded Attachments

The bonding bolt attaches and bonds the L-foot to the rail. It is installed with the same socket as the rest of the

System Diagram



Approved Enphase microinverters can provide equipment grounding of IronRidge systems, eliminating the need for grounding lugs and field installed equipment ground conductors (EGC). A minimum of two microinverters mounted to the same rail and connected to the same Engage cable is required. Refer to installation manuals for additional details.

UL Certification

The IronRidge Flush Mount, Tilt Mount, and Ground Mount Systems have been listed to UL 2703 by Intertek Group plc.

UL 2703 is the standard for evaluating solar mounting systems. It ensures these devices will maintain strong electrical and mechanical connections over an extended period of time in extreme outdoor environments.

Go to IronRidge.com/UFO

| | Cross-System | Compatibility | |
|-----------------------------------------|--------------|-----------------------------------------------------------|-----------------------------------------|
| Feature | Flush Mount | Tilt Mount | Ground Mount |
| XR Rails | • | ~ | XR1000 Only |
| UFO/Stopper | ~ | ~ | ~ |
| Bonded Splice | ~ | ~ | N/A |
| Grounding Lugs | 1 per Row | 1 per Row | 1 per Array |
| Microinverters & Power Optimizers | Darfon - M | 0-72, M250-60, M2 IG240, MIG300, 0 P320, P400, P405 | 1/2/1 |
| Fire Rating | Class A | Class A | N/A |
| Modules | | ted with over 400 lation manuals for | (B) |

| Project Name | <u>Address</u> | Project Description | Contractor | Contractor Logo | Signature | <u>Note</u> | Drawn By: Unique Solar Design | General Notes |
|---------------|------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------|-----------------|------------------|-------------|-------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| 1 Toject Name | Address | Floject Description | Contractor | Contractor Logo | <u>Signature</u> | Note | Drawn by: Onique Goldi Design | Date SHEET SIZE JULY 11, 2021 11" X 17" ANSI B |
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Earth Anchor Installation:

Product Specification

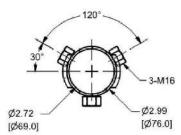
| BASIC INFORMATION | |
|---------------------|------------------------------------|
| Part Number | K10414-XXX |
| Description | 10" Helix Blade Auger |
| Lengths (-079) | 79 inches |
| Auger Diameter | 2.71" [69mm] ID 2.99" [76mm] OD |
| Attachment Hardware | 3X M16 Set Screws (included) |
| Material | #45 Structural Carbon Steel |
| Finish | Hot Dip Galvanized |
| Approximate Weight | 23.1 lbs [10,5 kg] |

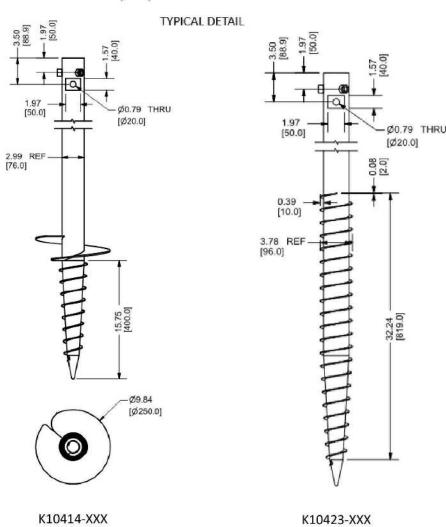
| BASIC INFORMATION | |
|-----------------------|-----------------------------------------|
| Part Number | K10423-XXX |
| Description | Screw Anchor |
| Lengths (-063 -080) | 63 inches 80 inches |
| Auger Diameter | 2.71" [69mm] ID 2.99" [76mm] OD |
| Attachment Hardware | 3X M16 Set Screws |
| Material | #45 Structural Carbon Steel |
| Finish | Hot Dip Galvanized |
| Approximate Weight | 18.1 lbs [8,2 kg] 23.1 lbs [10,5 kg] |



Earth Anchor Installation:

Product Specification







SUNM@DI

4

| Project Name | t Name Address Project Description | | Contractor | Contractor Logo | <u>Signature</u> | <u>Note</u> | Drawn By: Unique Solar Design | General Notes | |
|-----------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------|------------------|--------------|--------------------------------|--------------------|--------------------------------|
| <u>i roject ivame</u> | Audress | | Contractor | Contractor Logo | <u>Signature</u> | <u> Hote</u> | Brawn By: Ornque Colar Boolgii | Date JULY 11, 2021 | SHEET SIZE 11" X 17" ANSI B |
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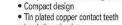


KUP-L-Tap® **Insulation Piercing Connectors Dual Rated**









- Insulation piercing · Perforated end tabs
- · Pre-filled with silicone lubricant
- · Increased safety
- · Horizontal line grid
- Temperature rating 90° C

- 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













| Catalog | Figure | Wire | Range | | Current | t Rating | D | imension | s | Torque | Bolt Head |
|-------------|--------|-------------------|-------------------|-----------------------------|---------|----------|---------|----------|---------|----------|-----------|
| Number | Number | Main | Тар | Volts | CU | AL | L | W | Н | Ft. Lbs. | Size |
| 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 | 3 | 4/0-2 | 2/0-6 | 600 | 195 | 150 | 1-21/32 | 1-7/8 | 2-7/8 | 25 | 1/2 |
| PC-250-4/0 | 2 | 250kcmil-1 | 4/0-6 | 600 | 260 | 205 | 1-7/8 | 2-11/32 | 3-11/32 | 30 | 5/8 |
| PC-350-4/0 | 3 | 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 |
| PC-350-350 | 4 | 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 | 1 | 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 | 1 | 500kcmil-250kcmil | 250kcmil-4 | 600 | 290 | 230 | 2-27/64 | 2-29/32 | 3-3/4 | 55 | 5/8-11/16 |
| PC-500-500 | 1 | 500kcmil-300kcmil | 500kcmil-250kcmil | 600 | 430 | 350 | 3-3/16 | 3-5/8 | 5 | 75 | 7/8-7/8 |
| IPC-750-500 | 1 | 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



INFORMATION SHEET

KUP-L-Tap, Insul-Eater Single Use Insulation Piercing Connectors

1) Specifications:

Conductors - Class B or C Aluminum and or Copper wires Temperature rating - 90°C

| Item ID | Run | Тар | Torque (in-lbs) | Tools (Socket & Box wrenches) | Voltage |
|-----------------|------------------|---------------|--------------------|-------------------------------|-----------------------------|
| IPC-1/0-2 | 1/0 - 8 AWG | #2 - #8 AWG | 192 | 1/2" | 300 (480 grounded Y system) |
| IPC-4/0-6 | 4/0 - #4 AWG | #6 - #14 AWG | 156 | 1/2" | 600 |
| IPC-4/0-2/0 * + | 4/0 - #2 AWG | 2/0 - #6 AWG | 300 | 1/2" | 600 |
| IPC-250-4/0 * # | 250 kcmil-#1 AWG | 4/0 - #6 AWG | 360 | 5/8" | 600 |
| IPC-350-4/0 | 350 kcmil-4/0 | 4/0 - #10 AWG | 300 | 5/8" | 300 (480 grounded Y system) |
| IPC-350-350 | 350 kcmil-4/0 | 350 kcmil-4/0 | 300 | 5/8" | 300 (480 grounded Y system) |
| IPC-500-12 | 500-250 kcmil | #10-#12 AWG | 300 | 5/8" | 300 (480 grounded Y system) |
| IPC-500-250 | 500-250 kcmil | 250 - #4 AWG | 720 | 5/8" & 11/16" | 600 |
| IPC-500-500 * | 500-300 kcmil | 500-250 kcmil | 900 | 7/8" | 600 |
| IPC-750-500 * | 750-500kcmil | 500-350kcmil | 900 | 7/8" | 600 |

^{*} Can be used on bare wire or bare & insulated wire combinations

- * When used on bare conductor, break out the tabs and extend wire 1.5 2" beyond the connector body.
- + Tap side is limited to .528" OD including the insulation.
- # Max OD on the main is .730" inculding insulation

-IPC-250-4/0 & IPC-4/0-2/0- To insure the top and bottom are aligned -There are lines on the side of the connector to help.

2) Installation Instructions For Use as a Run and Tap:

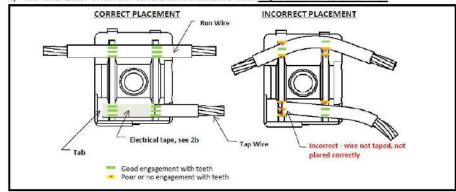
- a) Remove the tab blocking the Main conductor groove with screwdriver or pliers.
- Tap must be broken cleanly to the bottom of the channel.
- b) Cut insulated cable end squarely and apply a crisscrossed layer of UL listed electrical tape over the exposed end of the wire. Tape the exposed wire end with Two pieces of <u>tape</u> measuring approximately three inches long.
- c) Separate the connector halves by loosening the bolt.
- d) Slide the connector over the run conductor.
- e) Insert the <u>tap</u> conductor until it <u>butts</u> up against the <u>tab.</u>

BE SURE THE TAP CONDUCTOR IS ALL THE WAY THROUGH THE CONNECTOR.

- f) Center both conductors over the piercing teeth, and finger tighten the bolt.
- (Refer to the diagram below for correct placement of conductors)
- g) Holding the connector firmly in your hand, tighten the bolt to the torque in the above table.
- Click For YouTube Video

3) Additional Information

- a) Connector can be used on BUILDING CODE (Stranded CLASS B or C) wire either copper and/or aluminum conductors
- b) The Insul-Eater is **fully** insulated without an external cover or tape
- c) The Insul-Eater connector should not be installed when tap conductor is under load



Form 73 Revised 6-15-2016

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| Project Name | Address | Project Description | Contractor | Contractor Logo | Signature | Note | Drawn By: Unique Solar Design | General Notes | |
|--------------|------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------|-----------------|------------------|-------------|-------------------------------|--------------------------------------------------------------------------------|--|
| Richard Frey | Address 1042 SW Woodland Ave., Fort White, FL 32038 | 10.88KW DC Ground Mounted PV Electrical System 32-LG 340W PV Modules | <u>Contractor</u> <u>Green Solar</u> | Powered by | <u>Signature</u> | <u>Note</u> | U N I Q U E S O L A R O | Date JULY 11, 2021 SHEET SIZE 11" X 17" ANSI B Scale AS INDICATED SHEET NUMBER | |
| | <u> </u> | 1-Solar Edge 6.0kW Inverter 1-Solar Edge 3.0kW Inverter | | Greensolar | | | DESIGN | Project PV SYSTEM D9 | |