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December 12, 2022
Revised March 22, 2023

Titan Solar Power
210 North Sunway Drive
Gilbert, AZ 85233

Scott
Wyssling, PE

Digitally signed by Scott Wyssling, PE
DN: C=US, S=Utah, L=Alpine, O=Wyssling
Consulting, OU=Engineering, CN="Scott
Wyssling, PE",
E=swyssling@wysslingconsulting.com
Reason: I am the author of this document
Location: your signing location here
Date: 2023.03.22 10:46:35-06'00'
Foxit PDF Editor Version: 11.1.0

Re: Engineering Services
Lawrence Residence
12 Newhope Court, Cameron, NC
8.400 kW System

To Whom It May Concern:

We have received information regarding solar panel installation on the roof of the above referenced structure. Our evaluation of the structure is to verify the existing capacity of the roof system and its ability to support the additional loads imposed by the proposed solar system.

A. Site Assessment Information

1. Site visit documentation identifying attic information including size and spacing of framing for the existing roof structure.
2. Design drawings of the proposed system including a site plan, roof plan and connection details for the solar panels. This information will be utilized for approval and construction of the proposed system.

B. Description of Structure:

Roof Framing: Prefabricated wood trusses at 24" on center. All top chord members are constructed of 2x6 dimensional lumber and all other member constructed of 2x4 dimensional lumber.
Roof Material: Composite Asphalt Shingles
Roof Slope: 40 & 45 degrees
Attic Access: Accessible
Foundation: Permanent

C. Loading Criteria Used

- **Dead Load**
 - Existing Roofing and framing = 7 psf
 - New Solar Panels and Racking = 3 psf
 - TOTAL = 10 PSF
- **Live Load** = 20 psf (reducible) – 0 psf at locations of solar panels
- **Ground Snow Load** = 15 psf
- **Wind Load** based on ASCE 7-10
 - Ultimate Wind Speed = 119 mph (based on Risk Category II)
 - Exposure Category C

Analysis performed of the existing roof structure utilizing the above loading criteria is in accordance with the 2018 NCRC, including provisions allowing existing structures to not require strengthening if the new loads do not exceed existing design loads by 105% for gravity elements and 110% for seismic elements. This analysis indicates that the existing framing will support the additional panel loading without damage, if installed correctly.

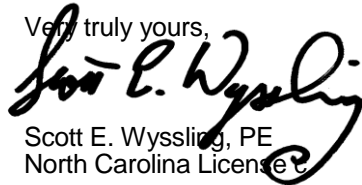
D. Solar Panel Anchorage

1. The solar panels shall be mounted in accordance with the most recent K2 Systems installation manual. If during solar panel installation, the roof framing members appear unstable or deflect non-uniformly, our office should be notified before proceeding with the installation.
2. The maximum allowable withdrawal force for a M5 x 60mm lag screw is 213 lbs per inch of penetration as identified in the National Design Standards (NDS) of timber construction specifications. Based on a minimum penetration depth of 1-5/8", the allowable capacity per connection is greater than the design withdrawal force (demand). Considering the variable factors for the existing roof framing and installation tolerances, the connection using two (2) M5 x 60mm lag screw with a minimum of 1-5/8" embedment will be adequate and will include a sufficient factor of safety.
3. Considering the wind speed, roof slopes, size and spacing of framing members, and condition of the roof, the panel supports shall be placed no greater than 48" on center.

Based on the above evaluation, this office certifies that with the racking and mounting specified, the existing roof system will adequately support the additional loading imposed by the solar system. This evaluation is in conformance with the 2018 NCRC, current industry standards, and is based on information supplied to us at the time of this report.

Should you have any questions regarding the above or if you require further information do not hesitate to contact me.

Very truly yours,



Scott E. Wyssling, PE
North Carolina License #



Wyssling Consulting, PLLC
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North Carolina COA # P-2308

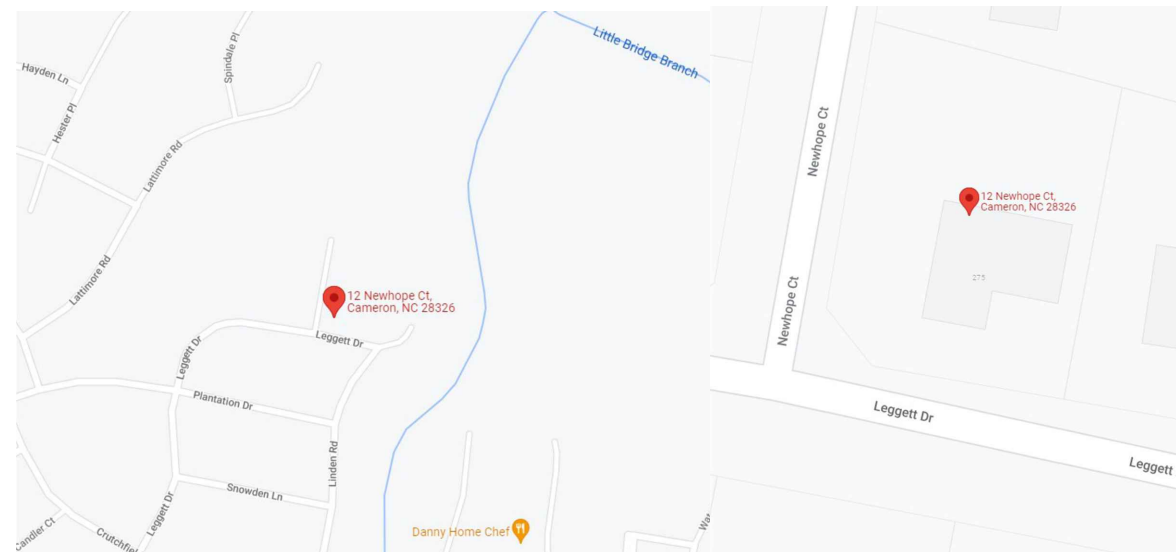
Signed 3/22/2023

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Building Codes: 2017 NEC, 2018 NORTH CAROLINA RESIDENTIAL CODE, 2018 NORTH CAROLINA FIRE CODE, 2018 NORTH CAROLINA BUILDING CODE and AHJ Amendments

VICINITY MAP

SCALE: NTS



AERIAL MAP

SCALE: NTS

3/22/2023



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North Carolina COA # P-2308
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LAWRENCE, DARRELL PV SYSTEM
12 NEWHOPE CT .
CAMERON, NC, 28326
APN: 09956504 0282 94

JURISDICTION: HARNETT COUNTY (NC)

GENERAL INFORMATION

| | |
|-------------------------------|--|
| SYSTEM SIZE: | 8.400 kW-DC-STC |
| | 7.600 kW-AC |
| ROOF PITCHED: | 40 DEGREES |
| INVERTER: | (1) SOLAREEDGE SE7600H-US W/ P340 OPTIMIZERS |
| MODULES: | (21) Q PEAK DUO BLK ML G10+ 400W |
| STRINGS: | (1) x 10 (1) x 11 MODULE SERIES STRINGS |
| ELECTRICAL SERVICE RATING: | 200A |
| PV SYSTEM OVERCURRENT RATING: | 40A |
| PV SYSTEM DISCONNECT SWITCH: | EATON DG222URB (60A / 2P) |
| ROOF TYPE: | COMP SHINGLE |
| ROOF FRAMING: | MANUFACTURED/ENGINEERED TRUSS |
| RACKING: | K2 SYSTEMS |
| ATTACHMENT METHOD: | MIN. M5x60mm LAG SCREWS EA. STANDOFF |

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| REQUIRED INFORMATION | SHEET NAME | SHEET NUMBER |
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| RACKING LOAD & UPLIFT CALCULATIONS | PV LAYOUT | PV 3 |
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| ARRAY & INVERTER ELECTRICAL SPECIFICATIONS | 1 & 3 LINE | PV 5 & 6 |
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| DATA SHEETS & ADDITIONAL INFORMATION | SUPPLEMENTAL MATERIAL | |

NOTES

EQUIPMENT LOCATION

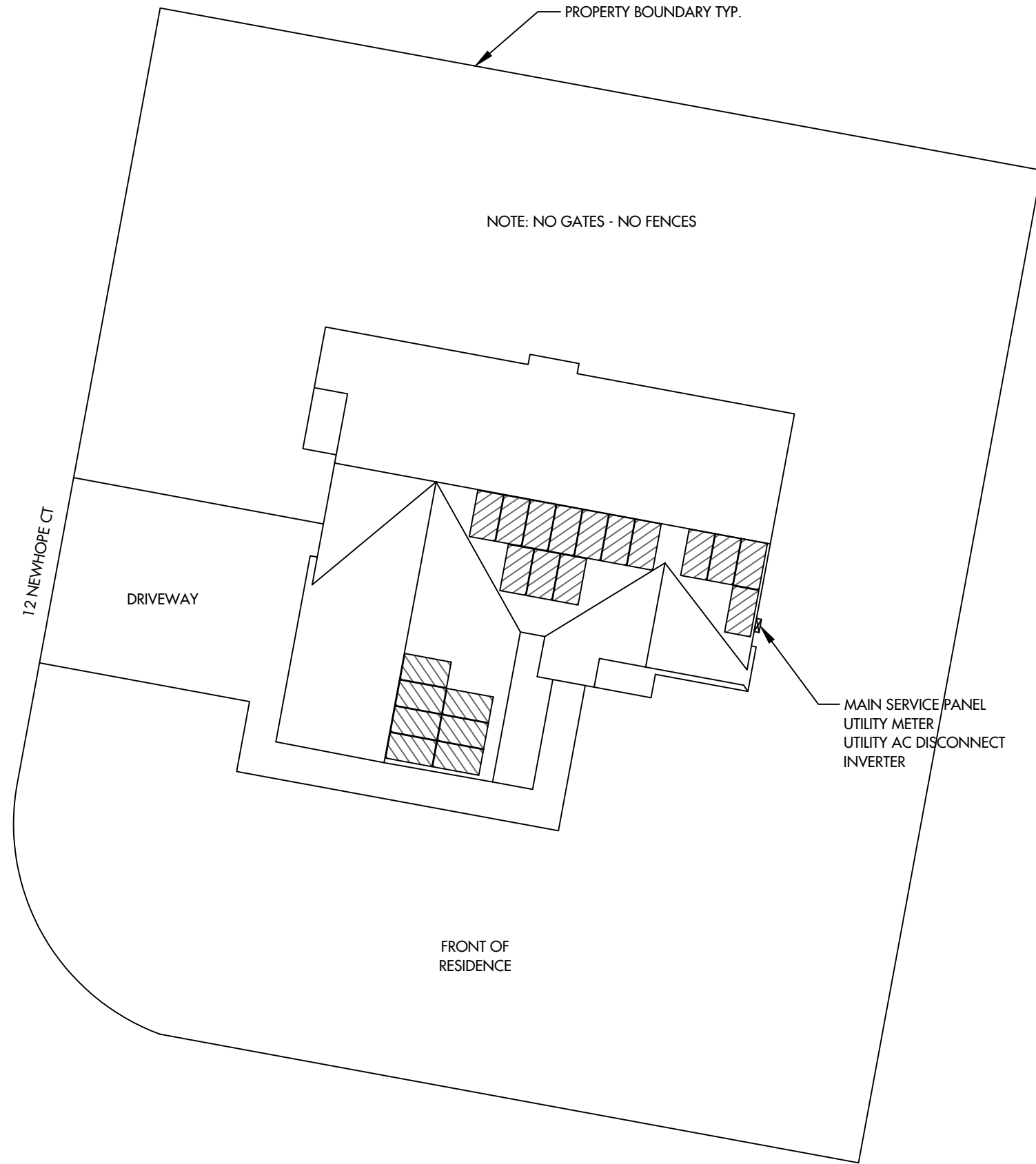
- ALL EQUIPMENT SHALL MEET MINIMUM SETBACKS AS REQUIRED BY NEC 110.26.
- WIRING SYSTEMS INSTALLED IN DIRECT SUNLIGHT MUST BE RATED FOR EXPECTED OPERATING TEMPERATURE AS SPECIFIED BY NEC 690.31(A),(C) AND NEC TABLES 310.15(B)(2)(A) AND 310.15(B)(3)(C).
- JUNCTION AND PULL BOXES PERMITTED INSTALLED UNDER PV MODULES ACCORDING TO NEC 690.34.
- ADDITIONAL AC DISCONNECT(S) SHALL BE PROVIDED WHERE THE INVERTER IS NOT WITHIN SIGHT OF THE AC SERVICING DISCONNECT.
- ALL EQUIPMENT SHALL BE INSTALLED ACCESSIBLE TO QUALIFIED PERSONNEL ACCORDING TO NEC APPLICABLE CODES.
- ALL COMPONENTS ARE LISTED FOR THEIR PURPOSE AND RATED FOR OUTDOOR USAGE WHEN APPROPRIATE.

WIRING & CONDUIT NOTES

- ALL CONDUITS AND WIRE WILL BE LISTED AND APPROVED FOR THEIR PURPOSE. CONDUIT AND WIRE SPECIFICATIONS ARE BASED ON MINIMUM CODE REQUIREMENTS AND ARE NOT MEANT TO LIMIT UP-SIZING.
- CONDUCTORS SIZED ACCORDING TO NEC 690.8, NEC 690.7.
- DC WIRING LIMITED TO MODULE FOOTPRINT. MICRO INVERTER WIRING SYSTEMS SHALL BE LOCATED AND SECURED UNDER THE ARRAY WITH SUITABLE WIRING CLIPS.
- AC CONDUCTORS COLORED OR MARKED AS FOLLOWS: PHASE A OR L1- BLACK, PHASE B OR L2 RED, OR OTHER CONVENTION IF THREE PHASE, PHASE C OR L3-BLUE, YELLOW, ORANGE, OR OTHER CONVENTION NEUTRAL- WHITE OR GREY IN 4-WIRE DELTA CONNECTED SYSTEMS THE PHASE WITH THE HIGHER VOLTAGE TO BE MARKED ORANGE NEC 110.15.

GENERAL NOTES

- MODULES ARE LISTED UNDER UL 1703 AND CONFORM TO THE STANDARDS.
- INVERTERS ARE LISTED UNDER UL 1741 AND CONFORM TO THE STANDARDS.
- DRAWINGS ARE DIAGRAMMATIC, INDICATING GENERAL ARRANGEMENT OF THE PV SYSTEM AND THE ACTUAL SITE CONDITION MIGHT VARY.
- WORKING CLEARANCES AROUND THE NEW PV ELECTRICAL EQUIPMENT WILL BE MAINTAINED IN ACCORDANCE WITH NEC 110.26.
- ALL GROUND WIRING CONNECTED TO THE MAIN SERVICE GROUNDING IN MAIN SERVICE PANEL/SERVICE COMPONENT.
- ALL CONDUCTORS SHALL BE 600V, 75° C STANDARD COPPER UNLESS OTHERWISE NOTED.
- WHEN REQUIRED, A LADDER SHALL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REGULATIONS.
- THE SYSTEM WILL NOT BE INTERCONNECTED BY THE CONTRACTOR UNTIL APPROVAL FROM THE LOCAL JURISDICTION AND/OR THE UTILITY.
- ROOF ACCESS POINT SHALL BE LOCATED IN AREAS THAT DO NOT REQUIRE THE PLACEMENT OF GROUND LADDERS OVER OPENINGS SUCH AS WINDOWS WHERE THE ACCESS POINT DOES NOT CONFLICT WITH OVERHEAD OBSTRUCTIONS SUCH AS TREES, WIRES OR SIGNS.
- PV ARRAY COMBINER/JUNCTION BOX PROVIDES TRANSITION FROM ARRAY WIRING TO CONDUIT WIRING.



PROJECT NOTES

1. UTILITY SHALL HAVE 24HR UNRESTRICTED ACCESS TO ALL PHOTOVOLTAIC COMPONENTS LOCATED AT SES EQUIPMENT
2. NO LOCKED GATES, DOGS, ETC SHALL IMPEDE ACCESS TO SES EQUIPMENT
3. WORKSPACE IN FRONT OF AC ELECTRICAL SYSTEM COMPONENTS SHALL BE IN ACCORDANCE WITH CENTRAL ELECTRIC MEMBERSHIP CORPORATION AND NEC REQUIREMENTS.



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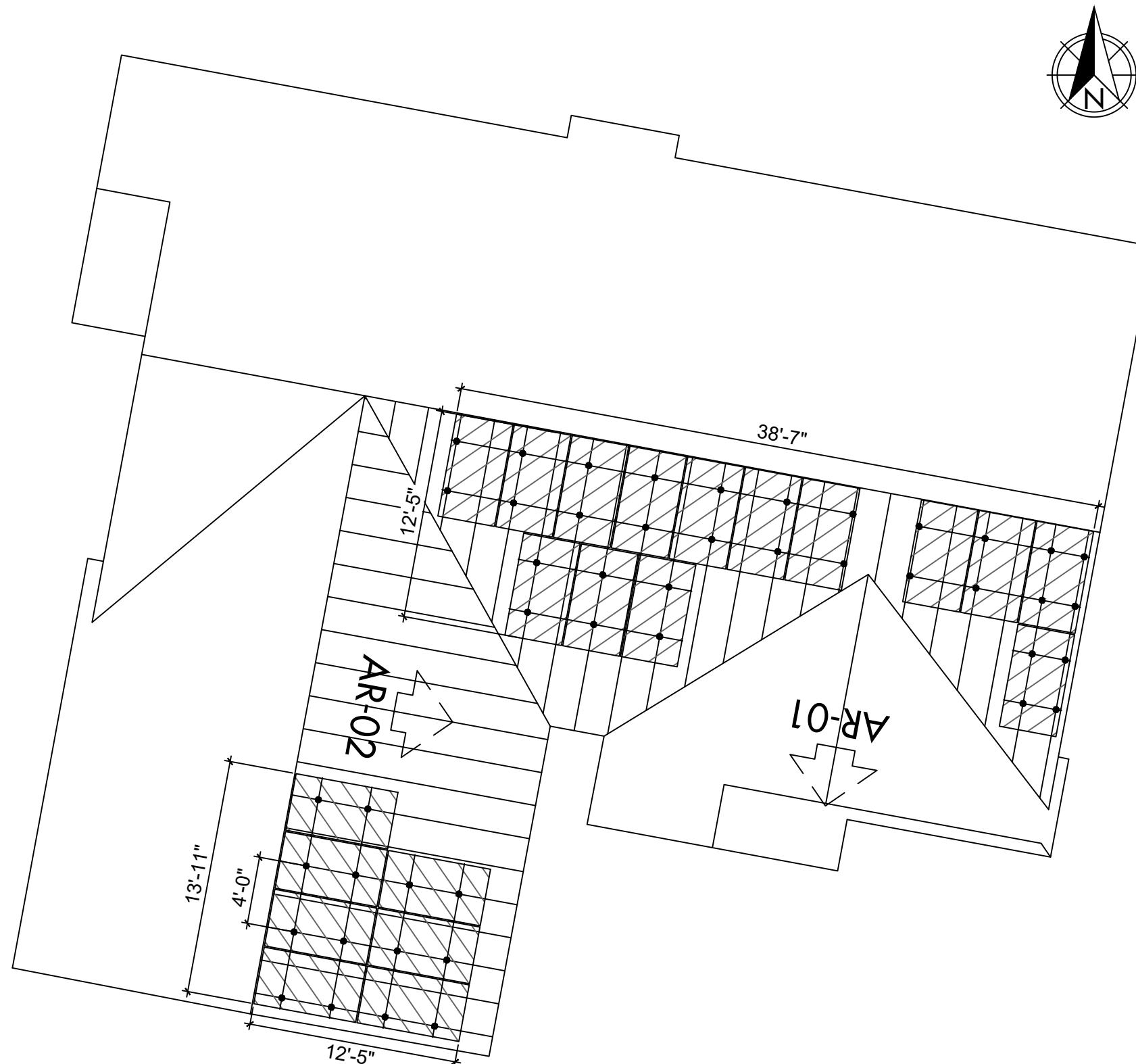
ARRAY INFORMATION

AR-01

QUANTITY: 14
MOUNTING TYPE: FLUSH
ARRAY TILT: 40°
AZIMUTH: 190°
ATTACHMENT SPACING: 4'
ROOF TYPE: COMP SHINGLE

AR-02

QUANTITY: 7
MOUNTING TYPE: FLUSH
ARRAY TILT: 45°
AZIMUTH: 100°
ATTACHMENT SPACING: 4'
ROOF TYPE: COMP SHINGLE



NOTES

- ROOF VENTS, SKYLIGHTS, WILL NOT BE COVERED UPON PV INSTALLATION
- TOTAL ROOF AREA = 3794 SQ-FT
- TOTAL ARRAY AREA = 443.54 SQ-FT
- ARRAY COVERAGE = 11.69%



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LAWRENCE, DARRELL RESIDENCE
12 NEWHOPE CT, CAMERON, NC, 28326
LAT:35.266638, LON:-79.028569
TSP149350

(21) Q PEAK DUO BLK ML G10+ 400W
(1) SOLAREEDGE SE7600H-US
8.400 kW DC SYSTEM SIZE
7.600 kW AC SYSTEM SIZE

SCALE: 33/256" = 1'-0"
DATE: 3/22/2023
REV:A
DRAWN BY: CA

SEAL:

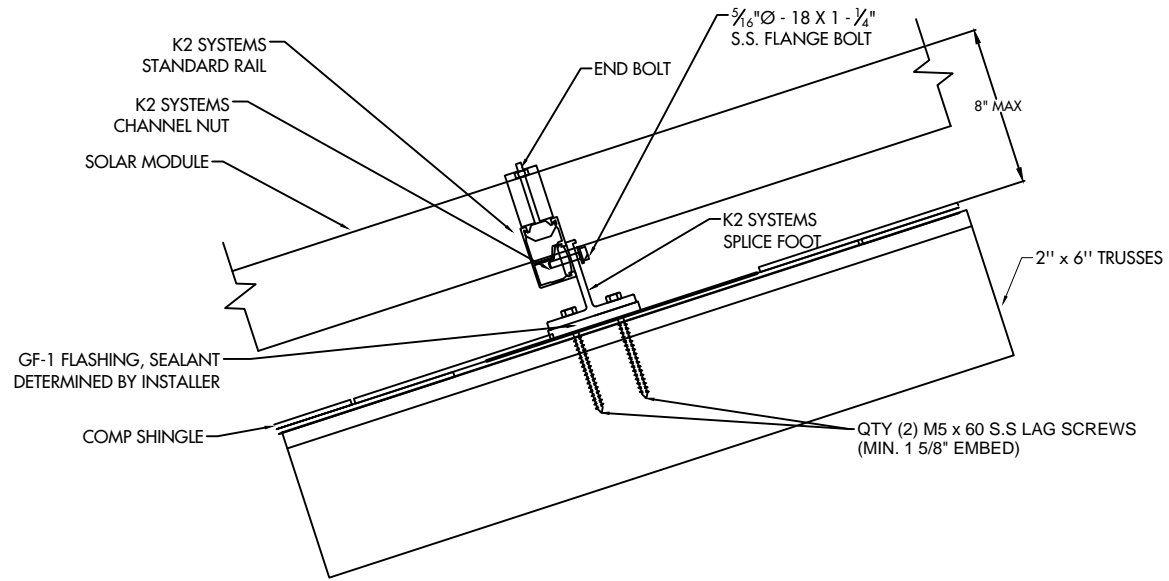
PV LAYOUT
PV 3

MODULE & RACKING INFORMATION

MODULE: Q PEAK DUO BLK ML G10+ 400W
MODULE WEIGHT: 48.50 LBS
MODULE DIMENSIONS: 74"x 41.1" x 1.5"
RACKING/RAIL: K2 SYSTEMS / K2 SYSTEMS

ROOF & FRAMING INFORMATION

MATERIAL: COMP SHINGLE
RAFTER/TRUSS SIZE: 2" x 6"
RAFTER/TRUSS SPACING: 2'



ARRAY 01: 14 MODULES

UPLIFT = 8870.75 LBS.
POINT LOAD = 26.00 LBS. PER MOUNTING POINT
PULLOUT STRENGTH = 14700.00 LBS.
DISTRIBUTED LOAD = 2.46 PSF
MODULE & RACKING WEIGHT = 728.00 LBS

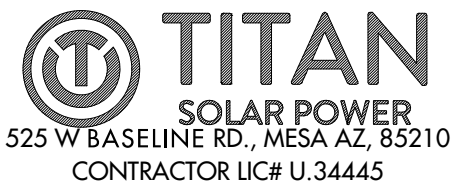
ARRAY 02: 7 MODULES

UPLIFT = 4435.38 LBS.
POINT LOAD = 26.00 LBS. PER MOUNTING POINT
PULLOUT STRENGTH = 7350.00 LBS.
DISTRIBUTED LOAD = 2.46 PSF
MODULE & RACKING WEIGHT = 364.00 LBS



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(1) SOLAREEDGE SE7600H-US
8.400 kW DC SYSTEM SIZE
7.600 kW AC SYSTEM SIZE

DATE: 3/22/2023
REV:A
DRAWN BY: CA

SEAL:

DETAILS
PV 4

PV MODULE

Q PEAK DUO BLK ML G10+ 400W
 W = 400 W
 ISC = 11.14 ADC
 VOC = 45.30 VDC
 IMP = 10.77 ADC
 VMP = 37.13 VDC
 TVOC = -0.270% / °C

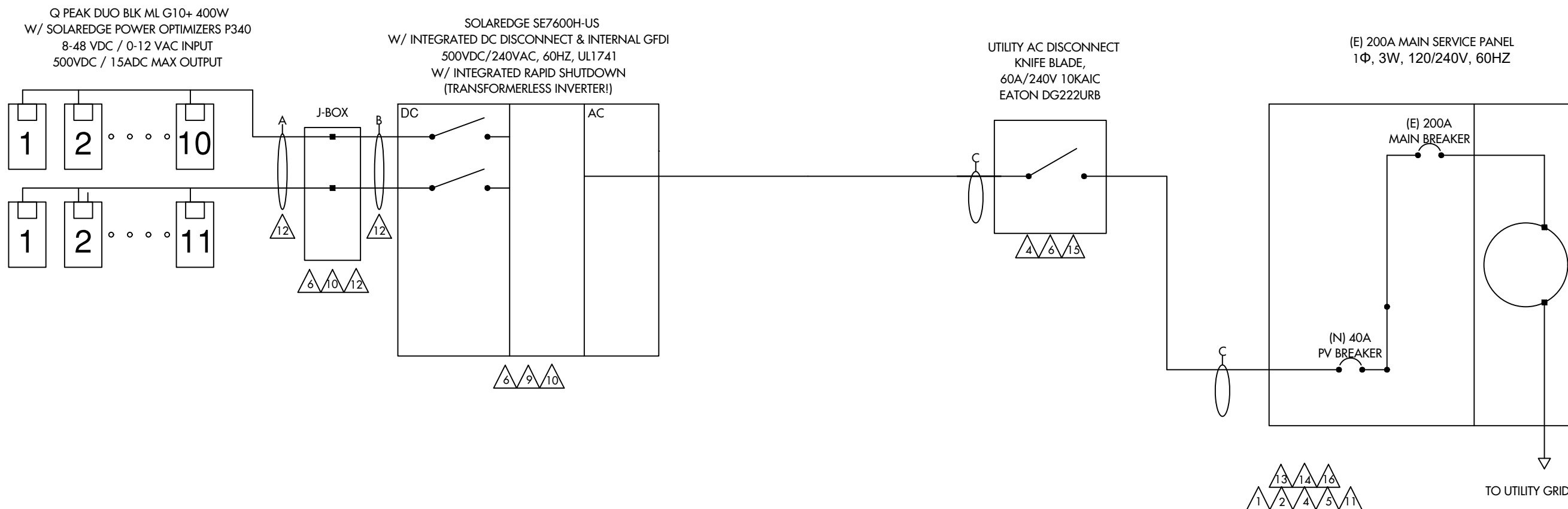
WIRE SCHEDULE

A - (4) #10 AWG-CU PV WIRE (HR)
 (1) #10 AWG-CU BARE COPPER WIRE (GND)
 IN FREE AIR
 B - (4) #10 AWG-CU THWN-2 WIRE (HR)
 (1) #10 AWG-CU THWN-2 WIRE (GND)
 3/4" EMT

C - (3) #8 AWG-CU THWN-2 WIRE (HR)
 (1) #8 AWG-CU THWN-2 WIRE (GND)
 3/4" EMT

MAIN SERVICE PANEL

BUS RATING = 200A
 MAX. CURRENT RATING = 240A (200A X 1.2)
 SOLAR BACKFEED = 40A
 MAIN BREAKER = 200A
 TOTAL = 240A

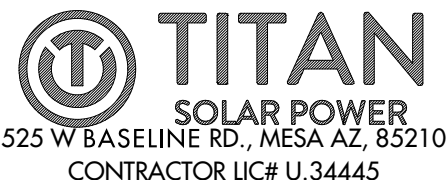


WIRE SIZE CALCULATIONS

TEMP CORRECTION FACTOR: 0.87 (43° AMBIENT)
 ROOFTOP TEMP CORRECTION FACTOR: 1.00 (43° ADJUSTED)
 (2" ABOVE ROOFTOP / 0° TEMP ADDERS - AS OCCURS)
 (TEMP DATA TAKEN FROM ASHRAE 2% AVG HIGH TEMP)

DC WIRING
 CONDUIT FILL FACTOR = 0.80
 OPTIMIZER MAX. CURRENT = 18.75A DC (15.00A X 1 X 1.25)
 #10- AWG CU. AMPACITY = 47.85A (55A X 0.87)
 FREE AIR
 #10 - AWG CU. AMPACITY = 27.84A (40A X 0.87 X 0.80)
 ROOFTOP CONDUIT

AC WIRING
 CONDUIT FILL FACTOR = 1 (3) CONDUCTORS
 MAX. INVERTER CURRENT = 32A (PER INVERTER SPECS)
 MIN. INVERTER OCP = 40A (32A X 1.25)
 INVERTER OCP = 40A
 #8 - AWG CU AMPACITY = 47.85A (55A X 1 X 0.87)



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 TSP149350

(21) Q PEAK DUO BLK ML G10+ 400W
 (1) SOLAREdge SE7600H-US
 8.400 kW DC SYSTEM SIZE
 7.600 kW AC SYSTEM SIZE

DATE: 3/22/2023
 REV:A
 DRAWN BY: CA

SEAL:

ONE LINE
PV 5

PV MODULE

Q PEAK DUO BLK ML G10+ 400W
 W = 400 W
 ISC = 11.14 ADC
 VOC = 45.30 VDC
 IMP = 10.77 ADC
 VMP = 37.13 VDC
 TVOC = -0.270% / °C

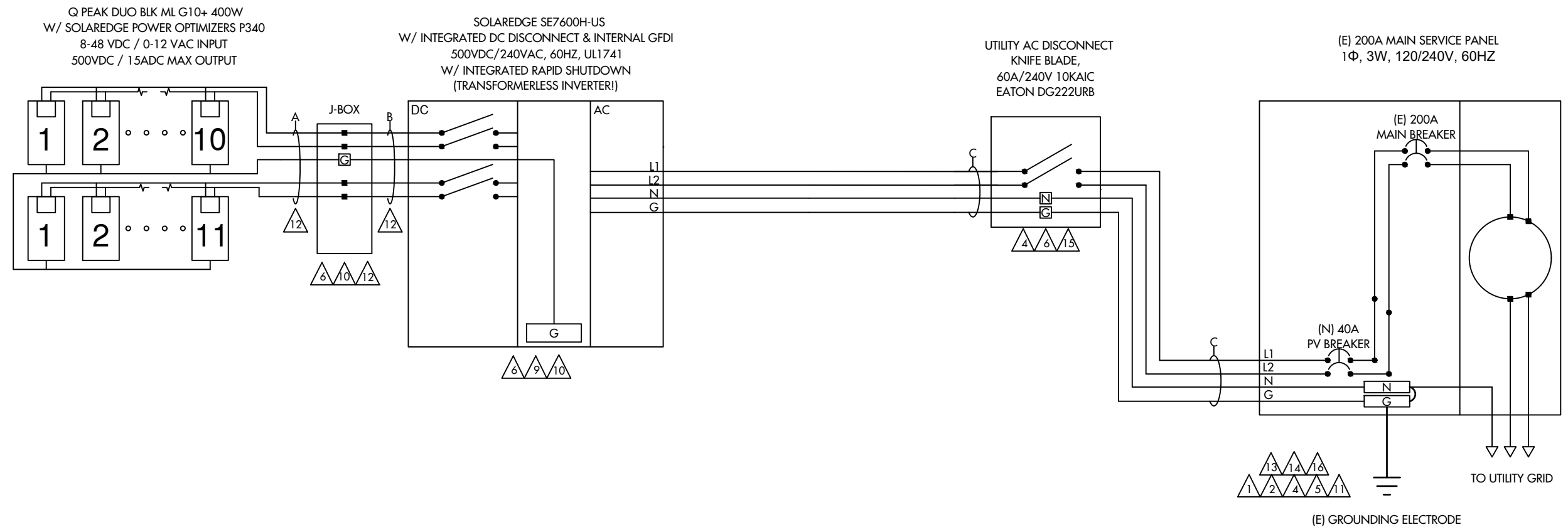
WIRE SCHEDULE

A - (4) #10 AWG-CU PV WIRE (HR)
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 IN FREE AIR
 B - (4) #10 AWG-CU THWN-2 WIRE (HR)
 (1) #10 AWG-CU THWN-2 WIRE (GND)
 3/4" EMT

C - (3) #8 AWG-CU THWN-2 WIRE (HR)
 (1) #8 AWG-CU THWN-2 WIRE (GND)
 3/4" EMT

MAIN SERVICE PANEL

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 MAX. CURRENT RATING = 240A (200A X 1.2)
 SOLAR BACKFEED = 40A
 MAIN BREAKER = 200A
 TOTAL = 240A

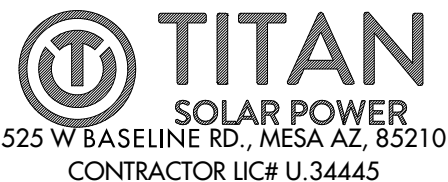


WIRE SIZE CALCULATIONS

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 ROOFTOP CONDUIT

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 (1) SOLAREEDGE SE7600H-US
 8.400 kW DC SYSTEM SIZE
 7.600 kW AC SYSTEM SIZE

DATE: 3/22/2023
 REV:A
 DRAWN BY: CA

SEAL:

THREE LINE
PV 6

1 **CAUTION**
PHOTOVOLTAIC SYSTEM CIRCUIT IS BACKFED
LOCATION: BACKFED BREAKER
CODE REF: NEC 705.12(4)

2 **WARNING**
INVERTER OUTPUT CONNECTION:
DO NOT RELOCATE THIS
OVERCURRENT DEVICE
LOCATION: BACKFED BREAKER
CODE REF: 2017 NEC 705.12(2)(3)(b)

3 **WARNING**
A GENERATION SOURCE IS CONNECTED TO THE SUPPLY
(UTILITY) SIDE OF THE MAIN SERVICE DISCONNECT. FOLLOW
THE PROPER LOCK-OUT/TAG-OUT PROCEDURES TO ENSURE
THE PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT SWITCH IS
OPENED PRIOR TO PERFORMING WORK ON THIS DEVICE
LOCATION: (IF APPLICABLE)
SUPPLY SIDE TAP
LOAD PANEL
CODE REF: UTILITY

4 **PHOTOVOLTAIC AC DISCONNECT**
RATED AC OPERATING CURRENT: 32A AC
NOMINAL OPERATING AC VOLTAGE: 240VAC
LOCATION: MAIN PANEL
AC DISCONNECT(S)
CODE REF: NEC 690.54

5 **RAPID SHUTDOWN
SWITCH FOR
SOLAR PV SYSTEM**
LOCATION: MAIN PANEL (EXTERIOR)
PV BREAKER (INTERIOR)
CODE REF: NEC 690.56(C)(3)

6 **WARNING**
ELECTRICAL SHOCK HAZARD
TERMINALS ON BOTH LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION
LOCATION: COMBINER PANEL
AC DISCONNECT
JUNCTION BOX
INVERTER(S)
CODE REF: NEC 690.13(B)

7 **PHOTOVOLTAIC
SYSTEM METER**
LOCATION: DEDICATED KWH METER
CODE REF: NEC 690.4(B) UTILITY

8 **WARNING**
PHOTOVOLTAIC SYSTEM
COMBINER PANEL
DO NOT ADD LOADS
LOCATION: AC COMBINER PANEL
CODE REF: NEC 690.13(B)

9 **PHOTOVOLTAIC SYSTEM DC DISCONNECT**
MAXIMUM VOLTAGE: 480VDC
MAXIMUM CIRCUIT CURRENT: 15.0ADC
MAX. RATED OUTPUT CURRENT OF
THE CHARGE CONTROLLER OR DC-
TO-DC- CONVERTER (IF INSTALLED) 15.0ADC
LOCATION: DC DISCONNECT
INVERTER
CODE REF: UTILITY

10 **WARNING**
ELECTRICAL SHOCK HAZARD
TERMINALS ON BOTH LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION
DC VOLTAGE IS ALWAYS PRESENT
WHEN SOLAR MODULES ARE
EXPOSED TO SUNLIGHT
LOCATION: DC DISCONNECT, COMBINE BOX
CODE REF: NEC 690.13(B)

11 **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.
LOCATION: MAIN SERVICE (OUTSIDE COVER)
CODE REF: NEC 690.12
NEC 690.56(C)(1)(a)
YELLOW STICKER

12 **WARNING PHOTOVOLTAIC POWER SOURCE**
LOCATION: DC CONDUIT
JUNCTION BOX
NO MORE THAN 10FT
CODE REF: NEC 690.31(G)(3)
NEC 690.31(G)(4)
REFLECTIVE AND WEATHER RESISTANT

LABEL REQUIRES CAPITALIZED LETTERS WITH A MINIMUM HEIGHT OF 3/8 INCH, WHITE LETTERS ON RED BACKGROUND
LABELS SHALL BE PLACED ON INTERIOR AND EXTERIOR DC CONDUIT, RACEWAYS, ENCLOSURES, AND CABLE ASSEMBLIES
EVERY 10 FEET, WITHIN 1 FOOT OF TURNS OR BENDS AND WITHIN 1 FOOT ABOVE AND BELOW PENETRATIONS OF
ROOF/CEILING ASSEMBLIES, WALLS OR BARRIERS.

13 **CAUTION**
DUAL POWER SOURCE
SECOND SOURCE IS
PHOTOVOLTAIC
LOCATION: SERVICE METER
MAIN PANEL

14 **WARNING**
INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE
LOCATION: (IF APPLICABLE)
SERVICE PANEL
CODE REF: NEC 705.12(7)

15 **PHOTOVOLTAIC SYSTEM
UTILITY DISCONNECT SYSTEM**
LOCATION: AC DISCONNECT
CODE REF: UTILITY

16 **PV SOLAR BREAKER**
DO NOT RELOCATE THIS
OVERCURRENT DEVICE
LOCATION: MAIN PANEL:(EXTERIOR)
PV BREAKER: (INTERIOR)
CODE REF: NEC 705.12(B)(2)(3)(B)



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(1) SOLAREEDGE SE7600H-US
8.400 kW DC SYSTEM SIZE
7.600 kW AC SYSTEM SIZE

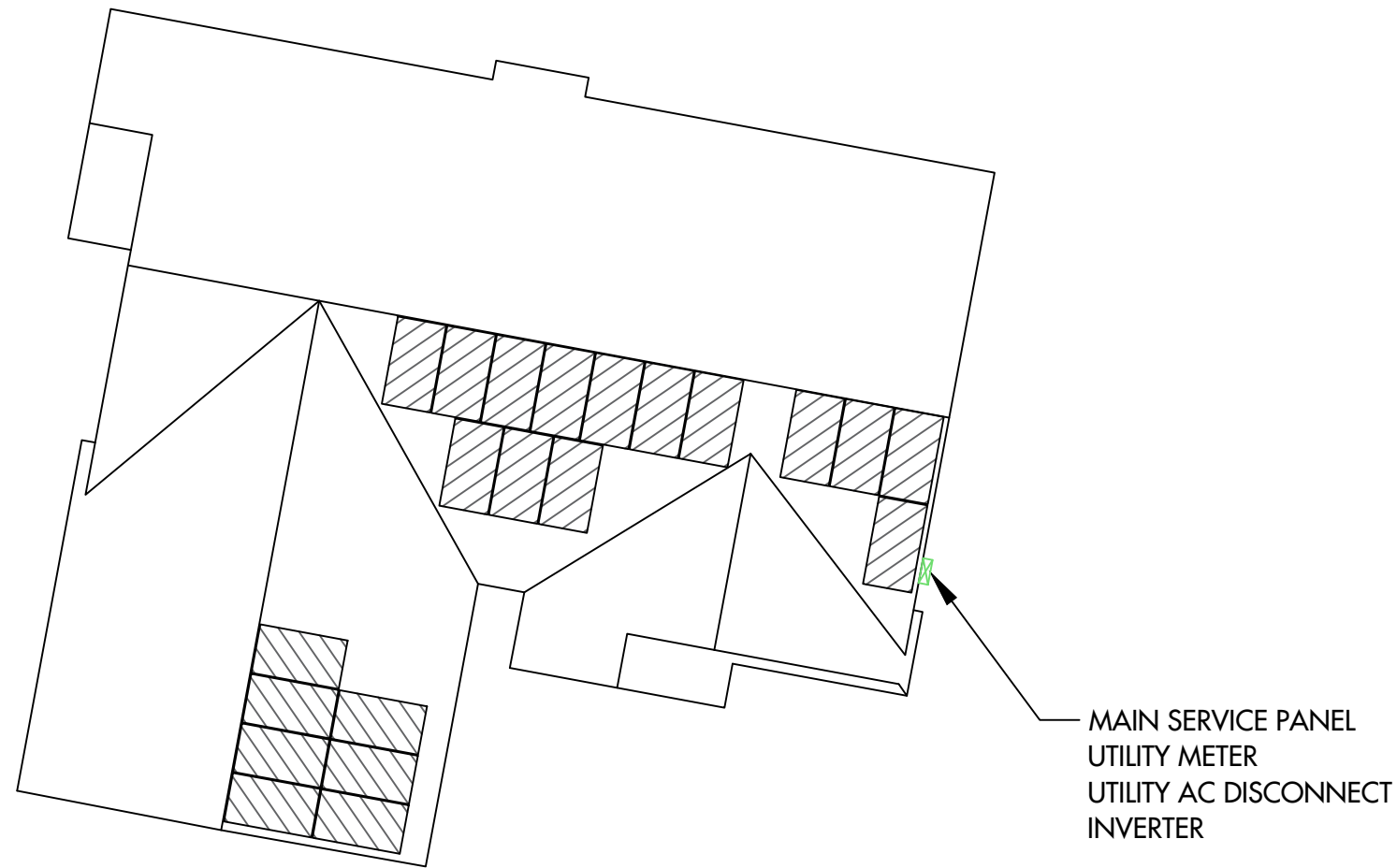
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DRAWN BY: CA

SEAL:

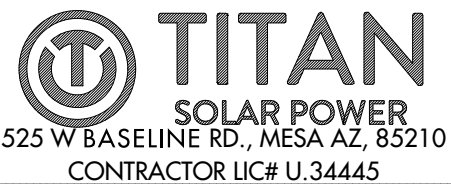
LABELS
PV 7

CAUTION

POWER TO THIS BUILDING IS
SUPPLIED FROM THE FOLLOWING
SOURCES WITH DISCONNECTS AS
SHOWN:



DIRECTORY PLAQUE IN
ACCORDANCE WITH
NEC690.56(A)(B), 705.10



LAWRENCE, DARRELL RESIDENCE
12 NEWHOPE CT , CAMERON, NC, 28326
LAT:35.266638, LON:-79.028569
TSP149350

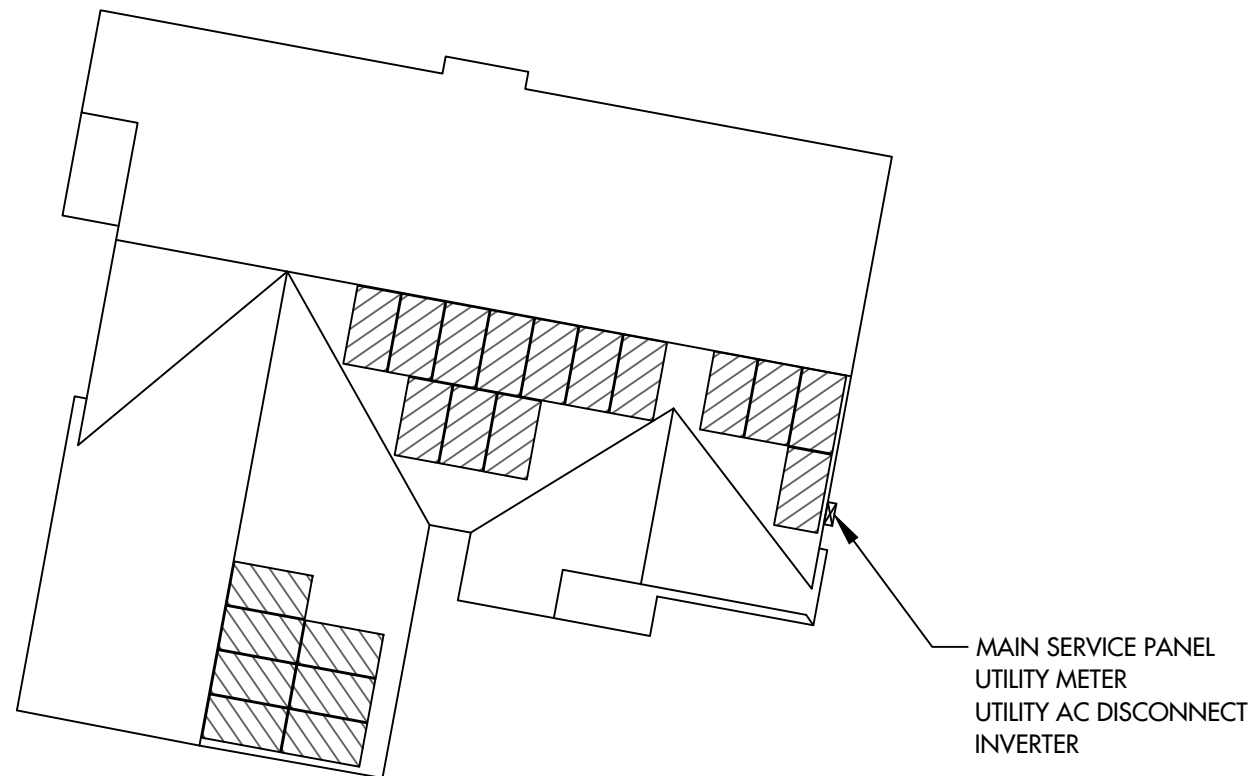
(21) Q PEAK DUO BLK ML G10+ 400W
(1) SOLAREGE SE7600H-US
8.400 kW DC SYSTEM SIZE
7.600 kW AC SYSTEM SIZE

DATE: 3/22/2023
REV: A
DRAWN BY: CA

SEAL:

PLACARD
PV 8

JOB SAFETY PLAN



LOCATION OF NEAREST URGENT CARE FACILITY

NAME:

ADDRESS:

PHONE NUMBER:

NOTES:

- INSTALLER SHALL DRAW IN DESIGNATED SAFETY AREA AROUND HOME
- INSTALLER SHALL UPDATE NAME, ADDRESS, AND PHONE NUMBER OF NEAREST URGENT CARE FACILITY RELATIVE TO THE JOB SITE BEFORE STARTING WORK.

| PRINT NAME | INITIAL | YES | NO |
|------------|---------|-----|----|
| | | | |
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| | | | |

Single Phase Inverter with HD-Wave Technology

for North America

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

INVERTERS

12-25
YEAR
WARRANTY



Optimized installation with HD-Wave technology

- Specifically designed to work with power optimizers
- Record-breaking 99% weighted efficiency
- Quick and easy inverter commissioning directly from a smartphone using the SolarEdge SetApp
- Fixed voltage inverter for longer strings
- Integrated arc fault protection and rapid shutdown for NEC 2014 and 2017, per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- Optional: Faster installations with built-in consumption metering (1% accuracy) and production revenue grade metering (0.5% accuracy, ANSI C12.20)

solaredge.com



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 | SEXXXH-XXXXBXX4 | | | | | | | |
| 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 Min.-Nom.-Max. (211 - 240 - 264) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Vac |
| AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229) | - | ✓ | - | ✓ | - | - | ✓ | Vac |
| AC Frequency (Nominal) | 59.3 - 60.5 ¹⁾ | | | | | | | Hz |
| Maximum Continuous Output Current @240V | 12.5 | 16 | 21 | 25 | 32 | 42 | 47.5 | A |
| Maximum Continuous Output Current @208V | - | 16 | - | 24 | - | - | 48.5 | A |
| Power Factor | 1, Adjustable - 0.85 to 0.85 | | | | | | | |
| GFDI Threshold | 1 | | | | | | | A |
| Utility Monitoring, Islanding Protection, Country Configurable Thresholds | Yes | | | | | | | |
| 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 | 380 | | | | | | | Vdc |
| Maximum Input Current @240V ²⁾ | 8.5 | 10.5 | 13.5 | 16.5 | 20 | 27 | 30.5 | A _{dc} |
| Maximum Input Current @208V ²⁾ | - | 9 | - | 13.5 | - | - | 27 | A _{dc} |
| Max. Input Short Circuit Current | 45 | | | | | | | A _{dc} |
| Reverse-Polarity Protection | Yes | | | | | | | |
| Ground-Fault Isolation Detection | 600ka Sensitivity | | | | | | | |
| Maximum Inverter Efficiency | 99 | | | 99.2 | | | | % |
| CEC Weighted Efficiency | | | 99 | | | | 99 @ 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

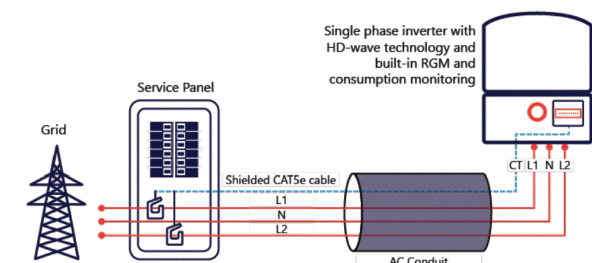
SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US / SE7600H-US / SE10000H-US / SE11400H-US

| MODEL NUMBER | SE3000H-US | SE3800H-US | SE5000H-US | SE6000H-US | SE7600H-US | SE10000H-US | SE11400H-US | |
|--|---|-------------|-------------|-------------|-------------------------------------|-------------|-------------|---------|
| ADDITIONAL FEATURES | | | | | | | | |
| Supported Communication Interfaces | RS485, Ethernet, ZigBee (optional), Cellular (optional) | | | | | | | |
| Revenue Grade Metering, ANSI C12.20 | Optional ¹⁾ | | | | | | | |
| Consumption metering | With the SetApp mobile application using Built-in Wi-Fi Access Point for Local Connection | | | | | | | |
| Inverter Commissioning | Automatic Rapid Shutdown upon AC Grid Disconnect | | | | | | | |
| Rapid Shutdown - NEC 2014 and 2017 690.12 | Automatic Rapid Shutdown upon AC Grid Disconnect | | | | | | | |
| STANDARD COMPLIANCE | | | | | | | | |
| Safety | UL1741, UL1741 SA, UL1699B, CSA C22.2, Canadian AFCI according to T.I.L. M-07 | | | | | | | |
| Grid Connection Standards | IEEE1547, Rule 21, Rule 14 (H) | | | | | | | |
| Emissions | FCC Part 15 Class B | | | | | | | |
| INSTALLATION SPECIFICATIONS | | | | | | | | |
| AC Output Conduit Size / AWG Range | 1" Maximum / 14-6 AWG | | | | 1" Maximum / 14-4 AWG | | | |
| DC Input Conduit Size / # of Strings / AWG Range | 1" Maximum / 1-2 strings / 14-6 AWG | | | | 1" Maximum / 1-3 strings / 14-6 AWG | | | |
| Dimensions with Safety Switch (HxWxD) | 17.7 x 14.6 x 6.8 / 450 x 370 x 174 | | | | 21.3 x 14.6 x 7.3 / 540 x 370 x 185 | | | |
| Weight with Safety Switch | 22 / 10 | 25.1 / 11.4 | 26.2 / 11.9 | 38.8 / 17.6 | | | | |
| Noise | < 25 | | | | | | | dBA |
| Cooling | Natural Convection | | | | | | | |
| Operating Temperature Range | -40 to +140 / -40 to +60 ²⁾ | | | | | | | °F / °C |
| Protection Rating | NEMA 4X (Inverter with Safety Switch) | | | | | | | |

¹⁾ Inverter with Revenue Grade Meter P/N: SExxxH-US000BNC4. Inverter with Revenue Grade Production and Consumption Meter P/N: SExxxH-US000BN4. For consumption metering, current transformers should be ordered separately. SEACT0750-200NA-20 or SEACT0750-400NA-20. 20 units per box
²⁾ Full power up to at least 50°C / 122°F; for power de-rating information refer to: <https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf>

How to Enable Consumption Monitoring

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



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TITAN
SOLAR POWER
525 W BASELINE RD., MESA AZ, 85210
CONTRACTOR LIC# U.34445

LAWRENCE, DARRELL RESIDENCE
12 NEWHOPE CT, CAMERON, NC, 28326
LAT:35.266638, LON:-79.028569
TSP149350

(21) Q PEAK DUO BLK ML G10+ 400W
(1) SOLAREEDGE SE7600H-US
8.400 kW DC SYSTEM SIZE
7.600 kW AC SYSTEM SIZE

DATE: 3/22/2023
REV: A
DRAWN BY: CA

SEAL:

EQUIPMENT
SPECIFICATIONS
PV 10



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



Total Quality. Assured.

SE9KUS / SE10KUS / SE14.4KUS/ SE16.7kUS / SE17.3KUS / SE20KUS/ SE24KUS / 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
Verification Issuing Office National Electric Code, 2020, Section 690.12 requirement for rapid shutdown
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:

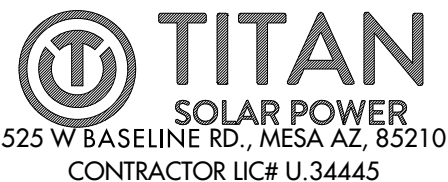
Name: Mukund Rana
Position: Staff Engineer
Date: 5/17/2021



Total Quality. Assured.

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

| 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" |



LAWRENCE, DARRELL RESIDENCE
12 NEWHOPE CT , CAMERON, NC, 28326
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TSP149350

(21) Q PEAK DUO BLK ML G10+ 400W
(1) SOLAREEDGE SE7600H-US
8.400 kW DC SYSTEM SIZE
7.600 kW AC SYSTEM SIZE

DATE: 3/22/2023
REV: A
DRAWN BY: CA

SEAL:

EQUIPMENT SPECIFICATIONS
PV 11

Power Optimizer

For North America

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



POWER OPTIMIZER

PV power optimization at the module-level

- Specifically designed to work with SolarEdge inverters
- Up to 25% more energy
- Superior efficiency (99.5%)
- Mitigates all types of module mismatch losses, from manufacturing tolerance to partial shading
- Flexible system design for maximum space utilization
- Fast installation with a single bolt
- Next generation maintenance with module-level monitoring
- Meets NEC requirements for arc fault protection (AFCI) and Photovoltaic Rapid Shutdown System (PVRSS)
- Module-level voltage shutdown for installer and firefighter safety

solaredge.com



Power Optimizer For North America

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

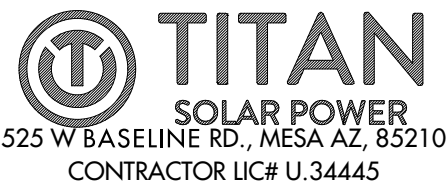
| Optimizer model (typical module compatibility) | P320 (for 60-cell modules) | P340 (for high-power 60-cell modules) | P370 (for higher-power 60 and 72-cell modules) | P400 (for 72 & 96-cell modules) | P401 (for high-power 60 and 72 cell modules) | P405 (for high-voltage modules) | P485 (for high-voltage modules) | P505 (for higher current modules) | |
|---|--|---------------------------------------|--|------------------------------------|--|---------------------------------|---------------------------------|-----------------------------------|---------|
| INPUT | | | | | | | | | |
| Rated Input DC Power ⁽¹⁾ | 320 | 340 | 370 | 400 | 405 | 485 | 505 | | W |
| Absolute Maximum Input Voltage (Voc at lowest temperature) | 48 | 60 | 80 | 60 | 125 ⁽²⁾ | 83 ⁽³⁾ | | | Vdc |
| MPPT Operating Range | 8 - 48 | 8 - 60 | 8 - 80 | 8-60 | 12.5 - 105 | 12.5 - 83 | | | Vdc |
| Maximum Short-Circuit Current (IsC) | 11 | 10.1 | 11.75 | 11 | 14 | | | | Adc |
| Maximum Efficiency | 99.5 | | | | | | | | % |
| Weighted Efficiency | 98.8 | | | | | | | | % |
| Overvoltage Category | I | | | | | | | | |
| OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREEDGE INVERTER) | | | | | | | | | |
| Maximum Output Current | 15 | | | | | | | | Adc |
| Maximum Output Voltage | 60 | | | | | | | | Vdc |
| OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREEDGE INVERTER OR SOLAREEDGE INVERTER OFF) | | | | | | | | | |
| Safety Output Voltage per Power Optimizer | 1 ± 0.1 | | | | | | | | Vdc |
| STANDARD COMPLIANCE | | | | | | | | | |
| EMC | FCC Part15 Class 3, IEC61000-5-2, IEC61000-6-3 | | | | | | | | |
| Safety | IEC62109-1 (class I safety), U_1741 | | | | | | | | |
| Material | UL94 V-0, UV Resistant | | | | | | | | |
| RoHS | Yes | | | | | | | | |
| INSTALLATION SPECIFICATIONS | | | | | | | | | |
| Maximum Allowed System Voltage | 1000 | | | | | | | | Vdc |
| Compatible Inverters | All SolarEdge Single Phase and Three Phase Inverters | | | | | | | | |
| Dimensions (W x L x H) | 129 x 153 x 27.5 / 5.1 x 6 x 1.1 | 129 x 153 x 33.5 / 5.1 x 6 x 1.3 | 129 x 153 x 29.5 / 5.1 x 6 x 1.16 | 129 x 159 x 49.5 / 5.1 x 6.3 x 1.9 | 129 x 162 x 59 / 5.1 x 6.4 x 2.3 | | | | mm / in |
| Weight (including cables) | 630 / 1.4 | 750 / 1.7 | 655 / 1.5 | 845 / 1.9 | 1064 / 2.3 | | | | gr / lb |
| Input Connector | MC4 ⁽⁴⁾ | | | | | | | | |
| Input Wire Length | 0.16 / 0.52 | | | | | | | | m / ft |
| Output Wire Type / Connector | Double Insulated / MC4 | | | | | | | | |
| Output Wire Length | 0.9 / 2.95 | 1.2 / 3.9 | | | | | | | m / ft |
| Operating Temperature Range ⁽⁵⁾ | -40 - +85 / -40 - +185 | | | | | | | | °C / °F |
| Protection Rating | IP68 / NEMA6P | | | | | | | | |
| Relative Humidity | C - 100 | | | | | | | | % |

(1) Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed.
 (2) NEC 2017 requires max input voltage be not more than 80V.
 (3) For other connector types please contact SolarEdge.
 (4) For dual version for parallel connection of two modules use P485-4NMDMRM. In the case of an odd number of PV modules in one string, installing one P485 dual version power optimizer connected to one PV module. When connecting a single module seal the unused input connectors with the supplied pair of seals.
 (5) For ambient temperature above +85°C / +185°F power derating is applied. Refer to Power Optimizers Temperature Derating Technical Note for more details.

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

(6) For detailed string sizing information refer to: http://www.solaredge.com/sites/default/files/string_sizing_na.pdf
 (7) It is not allowed to mix P405/P485/P505 with P320/P340/P370/P400/P401 in one string.
 (8) A string with more than 30 optimizers does not meet NEC rapid shutdown requirements; safety voltage will be above the 30V requirement.
 (9) For 208V grid, it is allowed to install up to 7,200W per string when the maximum power difference between each string is 1,000W.
 (10) For 277/480V grid, it is allowed to install up to 15,000W per string when the maximum power difference between each string is 2,000W.

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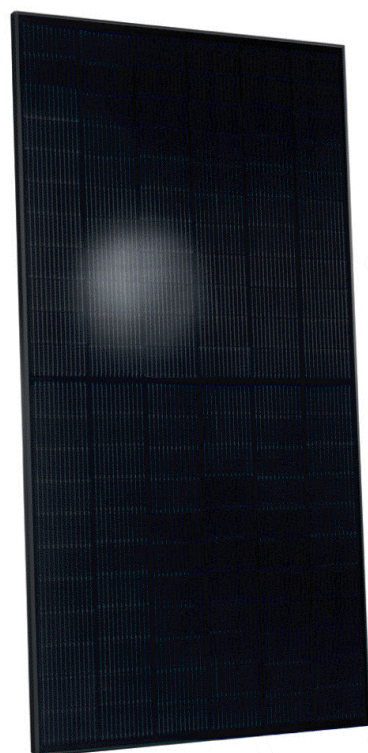
DATE: 3/22/2023
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EQUIPMENT SPECIFICATIONS
PV 12



TITAN SOLAR PANEL



Q CELLS

BREAKING THE 20% EFFICIENCY BARRIER
Q. ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 20.9%.

INDUSTRY'S MOST THOROUGH TESTING
Q CELLS is the first solar module manufacturer to pass the most comprehensive quality programme in the industry:
The new "Quality Controlled PV" of the independent certification institute TÜV Rheinland.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID Technology, Anti PID Technology¹, Hot-Spot Protect and Traceable Quality Tra.Q™.

EXTREME WEATHER RATING
High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).

A RELIABLE INVESTMENT
Inclusive 25-year product warranty and 25-year linear performance warranty².

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

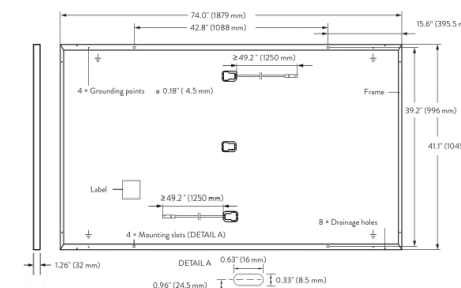
¹ APT test conditions according to IEC / TS 62804-1:2015, method A (-1500 V, 96 h)
² See data sheet on rear for further information.

Q PEAK DUO BLK ML-G10+
395-400 **ENDURING HIGH PERFORMANCE**

THE IDEAL SOLUTION FOR:
Rooftop arrays on residential buildings

MECHANICAL SPECIFICATION

| | |
|--------------|---|
| FORMAT | 74.0 in × 41.1 in × 1.26 in (including frame) (1879 mm × 1045 mm × 32 mm) |
| WEIGHT | 48.5 lbs (22.0 kg) |
| FRONT COVER | 0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology |
| BACK COVER | Composite film |
| FRAME | Black anodized aluminum |
| CELL | 6 × 22 monocrystalline Q. ANTUM solar half cells |
| JUNCTION BOX | 2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes |
| CABLE | 4 mm ² Solar cable; (+) ≥ 49.2 in (1250 mm), (-) ≥ 49.2 in (1250 mm) |
| CONNECTOR | Stäubli MC4; IP68 |

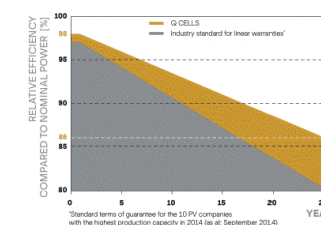


ELECTRICAL CHARACTERISTICS

| POWER CLASS | | 385 | 390 | 395 | 400 | 405 |
|--|----------------------|-------|-------|-------|-------|-------|
| MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5 W / -0 W) | | | | | | |
| POWER AT MPP | P _{MPP} [W] | 385 | 390 | 395 | 400 | 405 |
| SHORT CIRCUIT CURRENT | I _{SC} [A] | 11.04 | 11.07 | 11.10 | 11.14 | 11.17 |
| OPEN CIRCUIT VOLTAGE | V _{OC} [V] | 45.19 | 45.23 | 45.27 | 45.30 | 45.34 |
| CURRENT AT MPP | I _{MPP} [A] | 10.59 | 10.65 | 10.71 | 10.77 | 10.83 |
| VOLTAGE AT MPP | V _{MPP} [V] | 36.36 | 36.62 | 36.88 | 37.13 | 37.39 |
| EFFICIENCY | η [%] | ≥19.6 | ≥19.9 | ≥20.1 | ≥20.4 | ≥20.6 |
| MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ² | | | | | | |
| POWER AT MPP | P _{MPP} [W] | 288.8 | 292.6 | 296.3 | 300.1 | 303.8 |
| SHORT CIRCUIT CURRENT | I _{SC} [A] | 8.90 | 8.92 | 8.95 | 8.97 | 9.00 |
| OPEN CIRCUIT VOLTAGE | V _{OC} [V] | 42.62 | 42.65 | 42.69 | 42.72 | 42.76 |
| CURRENT AT MPP | I _{MPP} [A] | 8.35 | 8.41 | 8.46 | 8.51 | 8.57 |
| VOLTAGE AT MPP | V _{MPP} [V] | 34.59 | 34.81 | 35.03 | 35.25 | 35.46 |

¹ Measurement tolerances P_{MPP} ±3%; I_{SC}, V_{OC} ±5% at STC: 1000 W/m², 25 ±2 °C, AM 1.5 according to IEC 60904-3 • 7800 W/m², NMOT, spectrum AM 1.5

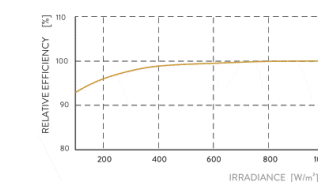
Q CELLS PERFORMANCE WARRANTY



At least 98 % of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86 % of nominal power up to 25 years.

All data within measurement tolerances Full warranties in accordance with the warranty terms of the Q CELLS sales organisation of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²)

TEMPERATURE COEFFICIENTS

| | | | | | |
|---|---------|-------|--|-----------|-----------------------|
| TEMPERATURE COEFFICIENT OF I _{SC} | α [%/K] | +0.04 | TEMPERATURE COEFFICIENT OF V _{OC} | β [%/K] | -0.27 |
| TEMPERATURE COEFFICIENT OF P _{MPP} | γ [%/K] | -0.34 | NOMINAL MODULE OPERATING TEMPERATURE | NMOT [°F] | 109 ± 5.4 (43 ± 3 °C) |

PROPERTIES FOR SYSTEM DESIGN

| | | | |
|---|------------------------------|---|--|
| Maximum System Voltage V _{sys} [V] | 1000 (IEC) / 1000 (UL) | PV module classification | Class II |
| Maximum Series Fuse Rating [A DC] | 20 | Fire Rating based on ANSI / UL 61730 | TYPE 2 |
| Max. Design Load, Push / Pull ³ [lbs/ft ²] | 75 (3600 Pa) / 55 (2660 Pa) | Permitted Module Temperature on Continuous Duty | -40 °F up to +185 °F (-40 °C up to +85 °C) |
| Max. Test Load, Push / Pull ³ [lbs/ft ²] | 113 (5400 Pa) / 84 (4000 Pa) | | |

³ See Installation Manual

QUALIFICATIONS AND CERTIFICATES

UL 61730, CE-compliant, Quality Controlled PV - TÜV Rheinland, IEC 61215:2016, IEC 61730:2016, U.S. Patent No. 9,893,215 (solar cells), QCPV Certification ongoing.



PACKAGING INFORMATION

| | | | | | | | |
|----------------------|--------------------|--------------------|--------------------|--------------------|------------|------------|------------|
| Horizontal packaging | 76.4 in 1940 mm | 43.3 in 1100 mm | 48.0 in 1220 mm | 1656 lbs 751 kg | 24 pallets | 24 pallets | 32 modules |
|----------------------|--------------------|--------------------|--------------------|--------------------|------------|------------|------------|

Note: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Q CELLS

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TEL: +1 949 748 5996
EMAIL: sales@q-cells.com

TITAN SOLAR PANEL

525 W Baseline Rd., Mesa, AZ, 85210
TEL: 855.SAY.SOLAR
EMAIL: info@titansolarpower.com



TITAN SOLAR POWER
525 W BASELINE RD., MESA AZ, 85210
CONTRACTOR LIC# U.34445

LAWRENCE, DARRELL RESIDENCE
12 NEWHOPE CT, CAMERON, NC, 28326
LAT:35.266638, LON:-79.028569
TSP149350

(21) Q PEAK DUO BLK ML G10+ 400W
(1) SOLAREEDGE SE7600H-US
8.400 kW DC SYSTEM SIZE
7.600 kW AC SYSTEM SIZE

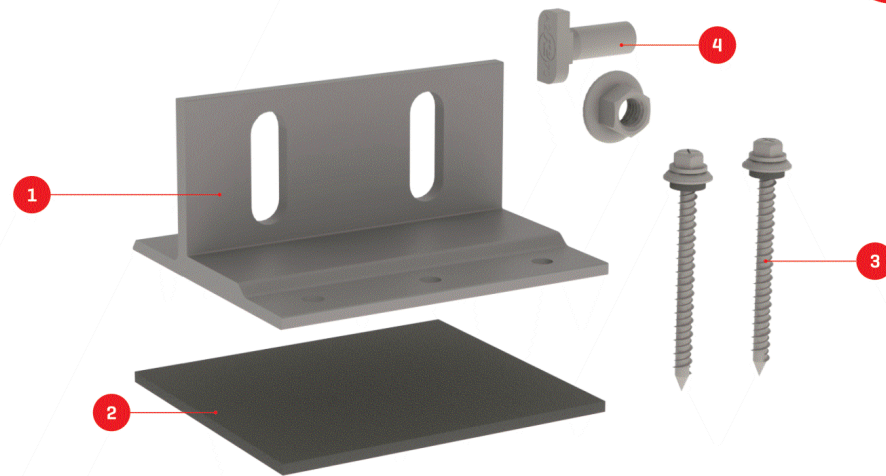
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EQUIPMENT SPECIFICATIONS
PV 13

Specifications subject to technical change © Q CELLS Q PEAK DUO BLK ML-G10+-385-405-2021-05_Rev01_NA

We support PV systems
Formerly Everest Solar Systems



Splice Foot X

Patent Pending

TECHNICAL SHEET

| Item Number | Description | Part Number |
|-------------|----------------------|-----------------------------------|
| 1 | Splice Foot X | 4000113 Splice Foot X Kit, Mill |
| 2 | K2 FlexFlash Butyl | |
| 3 | M5 x 60 lag screws | |
| 4 | T-Bolt & Hex Nut Set | |

Technical Data

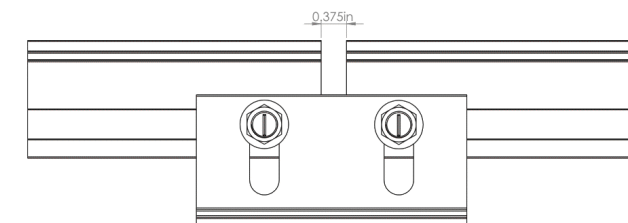
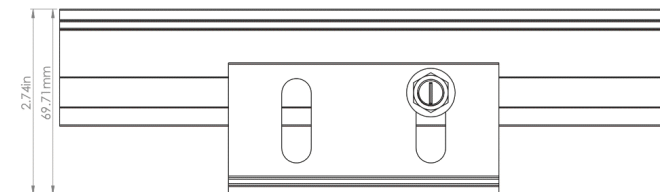
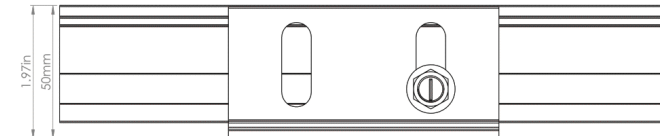
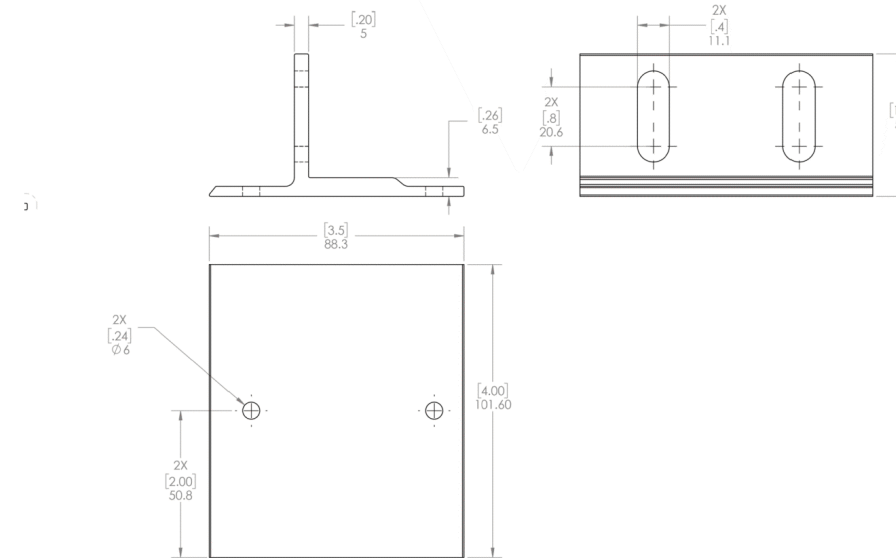
| Splice Foot X | |
|-----------------|--|
| Roof Type | Composition shingle |
| Material | Aluminum with stainless steel hardware |
| Finish | Mill |
| Roof Connection | M5 x 60 lag screws |
| Code Compliance | UL 2703 |
| Compatibility | CrossRail 44-X, 48-X, 48-XL, 80 |

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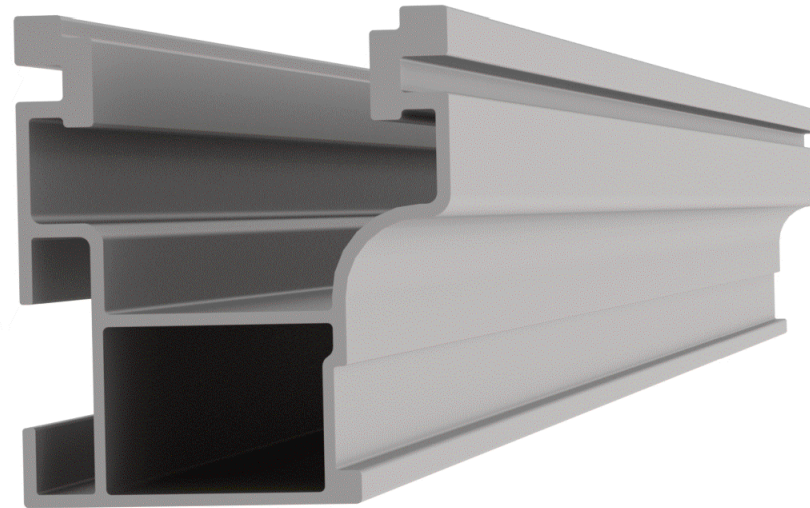
Units: [in] mm



k2-systems.com



NEW!



NEW PRODUCT

CrossRail 44-X

- ▶ Optimized rail profile
- ▶ One rail for all markets
- ▶ Built-in wire management
- ▶ Maintains same structural integrity as 48-X
- ▶ Tested up to 200 mph winds
- ▶ Tested up to 100 PSF snow loads

| Part Number | Description |
|-------------|-----------------------------|
| 4000019 | CrossRail 44-X 166", Mill |
| 4000020 | CrossRail 44-X 166", Dark |
| 4000021 | CrossRail 44-X 180", Mill |
| 4000022 | CrossRail 44-X 180", Dark |
| 4000051 | RailConn Set, CR 44-X, Mill |
| 4000052 | RailConn Set, CR 44-X, Dark |
| 4000067 | End Cap, Black, CR 44-X |



www.everest-solarsystems.com
 CrossRail 44-X Product Sheet US01 | 0520 · Subject to change · Product illustrations are exemplary and may differ from the original.

Recommended OCPD Size per Grid

| Inverter | Maximum Output Current (A) | Minimum Fuse Rating (A) | Maximum Fuse Rating (A) |
|-------------|----------------------------|-------------------------|-------------------------|
| SE3000H-US | 12.5 | 20 | 50 |
| SE3800H-US | 16 | 20 | 50 |
| SE5000H-US | 24 @ 208V 21 @ 240V | 30 | 50 |
| SE6000H-US | 24 @ 208V 25 @ 240V | 30 @ 208V 35 @ 240V | 50 |
| SE7600H-US | 32 | 40 | 50 |
| SE10000H-US | 42 | 60 | 80 |
| SE11400H-US | 48.5 @ 208V 47.5 @ 240V | 70 @ 208V 60 @ 240V | 80 |

SolarEdge Single Phase Inverter with HD-Wave Technology Installation MAN-01-00541-1.1