

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

TOMASSINI, LEE PV SYSTEM
149 W PK LN .
SANFORD, NC, 27332
APN: 039587 1028 26

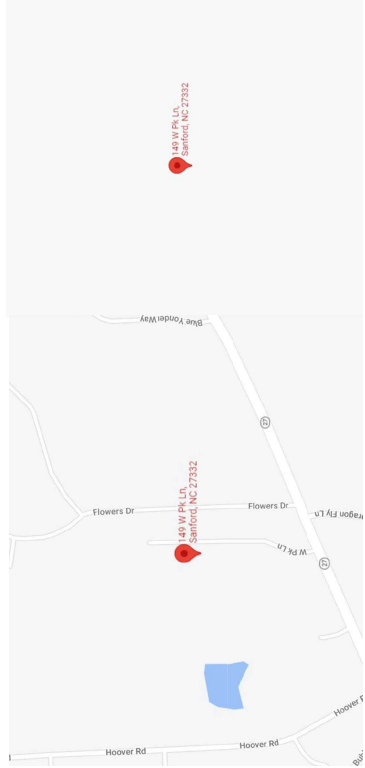
JURISDICTION: HARNETT COUNTY (NC)
GENERAL INFORMATION

SYSTEM SIZE: 7,200 kW-DC-STC
 6,000 kW-AC
ROOF PITCHED: 22 DEGREES
INVERTER: (1) SOLAREEDGE SE6000H-US W/ P401 OPTIMIZERS
MODULES: (18) Q PEAK DUO BIK ML G10+ 400W
STRINGS: (2) x 9 MODULE SERIES STRINGS
 200A
ELECTRICAL SERVICE RATING: 35A
PV SYSTEM OVERCURRENT RATING: EATON DG222UR8 (60A / 2P)
PV SYSTEM DISCONNECT SWITCH: COMP SHINGLE
ROOF TYPE: ENGINEERED TRUSS
ROOF FRAMING: K2 SYSTEMS
RACKING: MIN. 5/16" x 3 1/2 LAG SCREWS EA. STANDOFF
ATTACHMENT METHOD:

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PV EQUIPMENT SPECIFICATIONS	
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AERIAL MAP
 SCALE: NTS



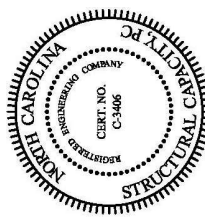
VICINITY MAP
 SCALE: NTS

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.



ENGINEER SEAL ARE FOR STRUCTURAL ITEMS ONLY



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

TOMASSINI, LEE RESIDENCE
 149 W PK LN., SANFORD, NC, 27332
 LAT:35.326788, LON:-79.067648
 TSP150816

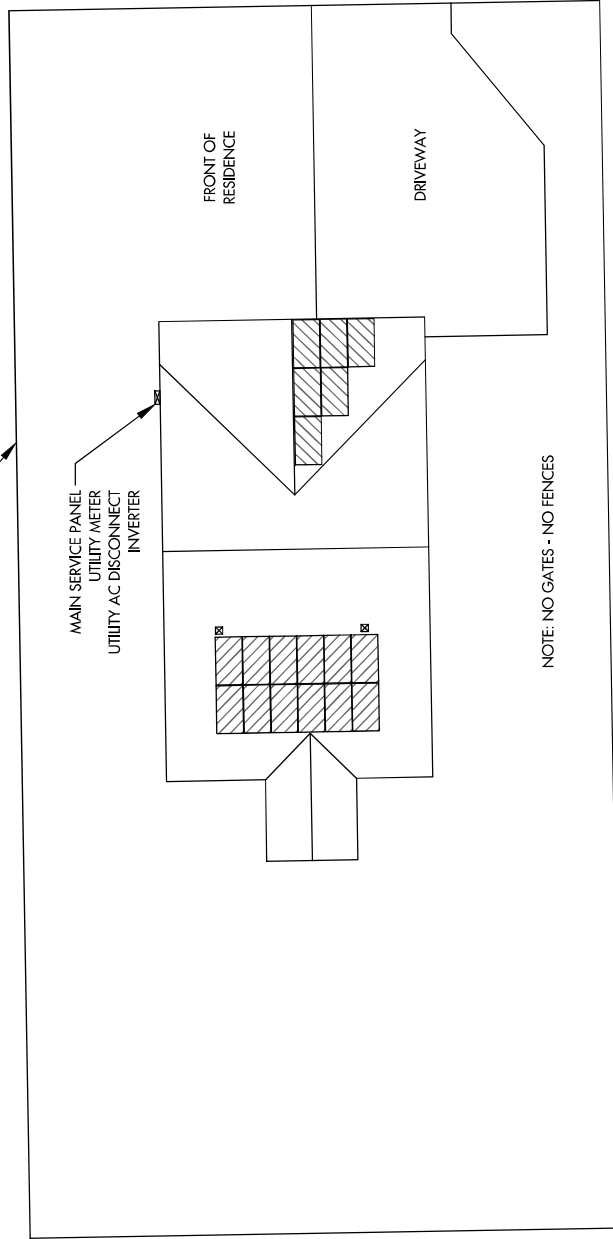
(18) Q PEAK DUO BIK ML G10+ 400W
 (1) SOLAREEDGE SE6000H-US
 7,200 kW DC SYSTEM SIZE
 6,000 kW AC SYSTEM SIZE

DATE: 12/12/2022
 REV:A
 DRAWN BY: CA

COVER PAGE
PV 1
 SEAL:



PROPERTY BOUNDARY TYP.



149 W PK LN

FRONT OF RESIDENCE

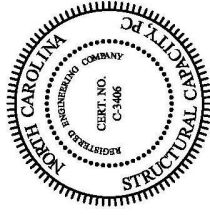
DRIVEWAY

MAIN SERVICE PANEL
UTILITY METER
UTILITY AC DISCONNECT
INVERTER

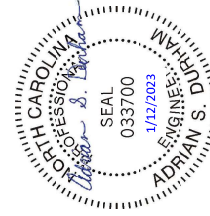
NOTE: NO GATES - NO FENCES

PROJECT NOTES

1. UTILITY SHALL HAVE 2-HR 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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LAT:35.326788, LON:-79.067648
TSPI 50816

(18) Q PEAK DUO BIK ML G10+ 400W
(1) SOLAREGE SE6000H-US
7.200 KW DC SYSTEM SIZE
6.000 KW AC SYSTEM SIZE

SCALE: 1/16" = 1'-0"
DATE: 12/12/2022
REV: A
DRAWN BY: CA

SITE PLAN
PV 2

SEAL:

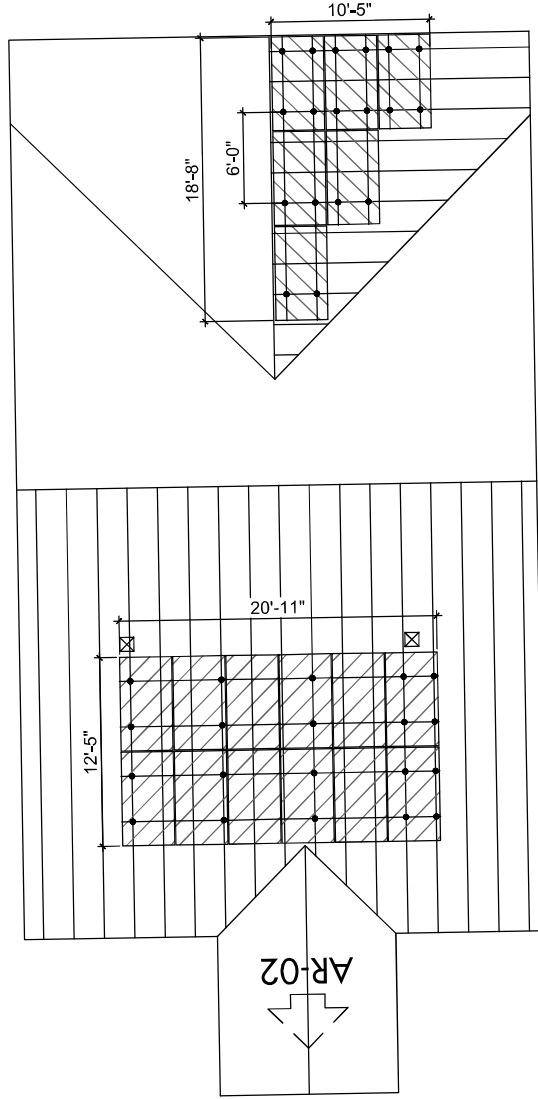
ARRAY INFORMATION

AR-01

QUANTITY: 6
 MOUNTING TYPE: FLUSH
 ARRAY TILT: 22°
 AZIMUTH: 178°
 ATTACHMENT SPACING: 4'
 ROOF TYPE: COMP SHINGLE

AR-02

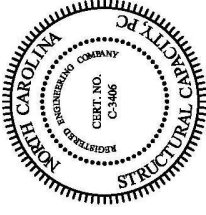
QUANTITY: 12
 MOUNTING TYPE: FLUSH
 ARRAY TILT: 22°
 AZIMUTH: 268°
 ATTACHMENT SPACING: 4'
 ROOF TYPE: COMP SHINGLE



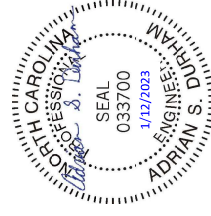
AR-01

AR-02

- NOTES**
- ROOF VENTS, SKYLIGHTS, WILL NOT BE COVERED UPON PV INSTALLATION
 - TOTAL ROOF AREA = 2153 SQ-FT
 - TOTAL ARRAY AREA = 380.18 SQ-FT
 - ARRAY COVERAGE = 17.66%



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(18) Q PEAK DUO BIK ML G10+ 400W
 (1) SOLAREGE SE6000H-US
 7.200 kW DC SYSTEM SIZE
 6.000 kW AC SYSTEM SIZE

SCALE: 31/256" = 1'-0"
 DATE: 12/12/2022
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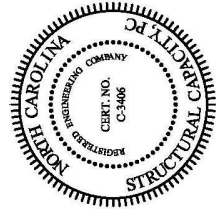
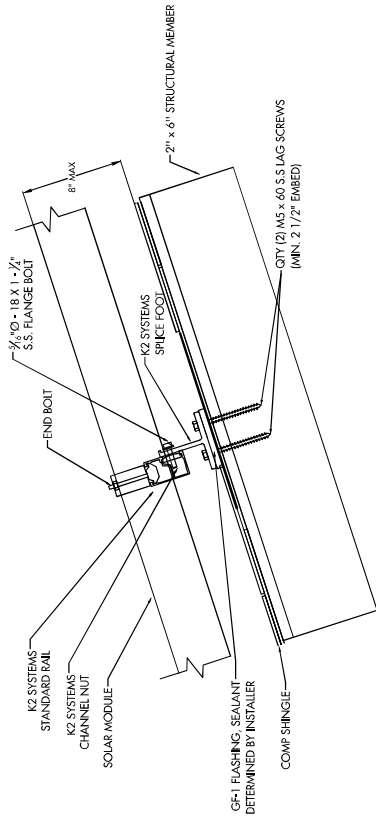
PV LAYOUT
PV 3

SEAL:

MODULE & RACKING INFORMATION
 MODULE: G 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

ARRAY 01: 6 MODULES
UPLIFT = 3801.75 LBS.
POINT LOAD = 17.33 LBS. PER MOUNTING POINT
PULLOUT STRENGTH = 9450.00 LBS.
DISTRIBUTED LOAD = 2.46 PSF
MODULE & RACKING WEIGHT = 312.00 LBS

ARRAY 02: 12 MODULES
UPLIFT = 7603.50 LBS.
POINT LOAD = 31.20 LBS. PER MOUNTING POINT
PULLOUT STRENGTH = 10500.00 LBS.
DISTRIBUTED LOAD = 2.46 PSF
MODULE & RACKING WEIGHT = 624.00 LBS



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(18) G PEAK DUO BLK ML G10+ 400W
 (1) SOLAREGE SE6000H-US
 7.200 kW DC SYSTEM SIZE
 6.000 kW AC SYSTEM SIZE

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DETAILS
PV 4

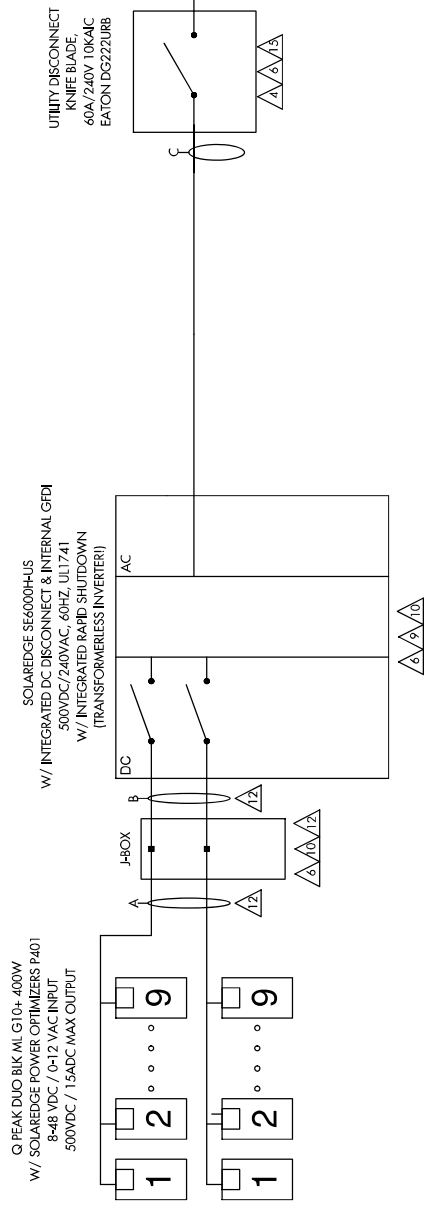
SEAL:

MAIN SERVICE PANEL

BUS RATING	=	200A
MAX. CURRENT RATING	=	240A (200A X 1.2)
SOLAR BACKFEED	=	31A
MAIN BREAKER	=	200A
TOTAL	=	231A

WIRE SCHEDULE

- PV MODULE
 - Q PEAK DUO BIK 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
- A - (4) #10 AWG-CU PV WIRE (HR)
 - (1) #10 AWG-CU BARE COPPER WIRE (HR)
 - 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
- D - (3) #6 AWG-CU THWN-2 WIRE (HR)
 - (1) # AWG-CU THWN-2 WIRE (GND)
 - 3/4" EMT



NOTE:

- NMEC 250-51 - IF A CONCRETE ENCASED ELECTRODE IS NOT PRESENT, THEN AT LEAST 20' OF 2AWG BARE COPPER IN DIRECT CONTACT WITH THE EARTH AT A DEPTH BELOW THE EARTH'S SURFACE OF NOT LESS THAN THIRTY INCHES SHALL BE INSTALLED IN A CONTINUOUS TRENCH THAT IS AT LEAST TWO 8" GROUND RODS ONE AT EACH END OF THE 2AWG CONDUCTOR

WIRE SIZE CALCULATIONS

TEMP CORRECTION FACTOR: 0.87 (43° AMBIENT)
 ROOFTOP TEMP CORRECTION FACTOR: 1.00 (43° ADJUSTED)
 [2° ABOVE ROOFTOP / 0° TEMP ADJUSTERS - 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 = 25A (PER INVERTER SPECS)
 MIN. INVERTER OCP = 31.25A (25A X 1.25)
 INVERTER OCP = 35A
 #8 - AWG CU AMPACITY = 47.85A (55A X 1 X 0.87)

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 LAT:35.326788, LON:-79.067648
 TSP150816

DATE: 12/12/2022
 REV: A
 DRAWN BY: CA

ONE LINE
PV 5

SEAL:

MAIN SERVICE PANEL

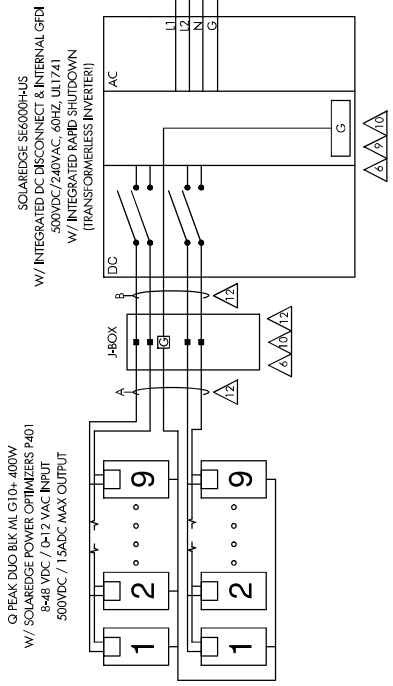
BUS RATING	=	200A
MAX. CURRENT RATING	=	240A (200A X 1.2)
SOLAR BACKFEED MAIN BREAKER	=	31A
TOTAL	=	200A
	=	231A

WIRE SCHEDULE

- PV MODULE
 - Q PEAK DUO BIK 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
- A - (4) #10 AWG-CU PV WIRE (HR)
 - (1) #10 AWG-CU BARE COPPER WIRE (HR)
 - 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
- D - (3) #6 AWG-CU THWN-2 WIRE (HR)
 - (1) #6 AWG-CU THWN-2 WIRE (GND)
 - 3/4" EMT

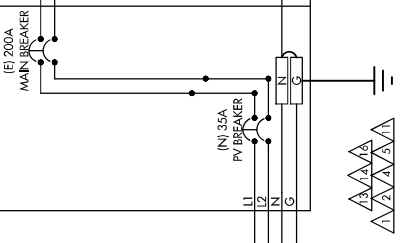
NOTE:

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UTILITY DISCONNECT
KNIFE BLADE
40A/240V/10KAC
EATON DQ2220RB

(E) 200A MAIN SERVICE PANEL
1Ø, 3W, 120/240V, 60HZ



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 = 25A (PER INVERTER SPECS)
MIN. INVERTER OCP = 31.25A (25A X 1.25)
INVERTER OCP = 35A
#8 - AWG CU AMPACITY = 47.85A (55A X 1 X 0.87)

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(18) Q PEAK DUO BIK ML G10+ 400W
(1) SOLAREGE SE6000H-US
7.200 kW DC SYSTEM SIZE
6.000 kW AC SYSTEM SIZE

DATE: 12/12/2022
REV:A
DRAWN BY: CA

THREE LINE
PV 6
SEAL:

CAUTION
PHOTOVOLTAIC SYSTEM CIRCUITS IS BACKED

LOCATION: BACKED BREAKER
CODE REF: NEC 705.12(A)

WARNING
INVERTER OUTPUT CONNECTION:
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

LOCATION: BACKED BREAKER
CODE REF: 2017 NEC 705.12(D)(3)(a)

WARNING
A GENERATOR SOURCE IS CONNECTED TO THE SURVEY
(UTILITY) SIDE OF THE MAIN SERVICE DISCONNECT. FOLLOW
THE PROPER LOCKOUT/TAG-OUT PROCEDURES TO ENSURE
THE MAIN SERVICE DISCONNECT IS OPENED PRIOR TO PERFORMING WORK ON THIS SYSTEM.

LOCATION: (IF APPLICABLE)
SERVICE METER
LOAD PANEL
CODE REF: UTILITY

PHOTOVOLTAIC AC DISCONNECT
RATED AC OPERATING CURRENT: 25A AC
NOMINAL OPERATING AC VOLTAGE: 240VAC

LOCATION: MAIN PANEL
AC DISCONNECT(S)
CODE REF: NEC 690.54

**RAPID SHUTDOWN
SWITCH FOR
SOLAR PV SYSTEM**

LOCATION: MAIN PANEL (EXTERIOR)
PV BREAKER (INTERIOR)
CODE REF: NEC 690.56(C)(2)

WARNING
ELECTRICAL SHOCK HAZARD
TERMINALS ON BOTH LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

LOCATION: COMBINE PANEL
AC DISCONNECT
JUNCTION BOX
INVERTER(S)
CODE REF: NEC 690.13(B)

**PHOTOVOLTAIC
SYSTEM METER**

LOCATION: DEDICATED kWh METER
CODE REF: NEC 690.4(B) UTILITY

WARNING
PHOTOVOLTAIC SYSTEM
COMBINE PANEL
DO NOT ADD LOADS

LOCATION: AC COMBINE PANEL
CODE REF: NEC 690.13(B)

PHOTOVOLTAIC SYSTEM DC DISCONNECT
MAXIMUM VOLTAGE: 480VDC
MAXIMUM CIRCUIT CURRENT: 15,000DC
MAX. CHARGED OUTPUT CURRENT OF
THE CHARGE CONTROLLER OR DC-
TO-DC CONVERTER (IF INSTALLED): 15,000DC

LOCATION: DC DISCONNECT
INVERTER
CODE REF: UTILITY

WARNING
ELECTRICAL SHOCK HAZARD
TERMINALS ON BOTH LINE AND
LOAD SIDES MAY BE ENERGIZED
IN THE OPEN POSITION

LOCATION: DC DISCONNECT, COMBINE BOX
CODE REF: NEC 690.13(B)

**SOLAR PV SYSTEM EQUIPPED
WITH RAPID SHUTDOWN**

THIS RAPID SHUTDOWN
SWITCH TO SHUT DOWN
THE SYSTEM AND REMOVE
SHOCK HAZARD IN THE
AREA.

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

WARNING PHOTOVOLTAIC POWER SOURCE

LOCATION: DC COMBINE
JUNCTION BOX
NO MORE THAN 10 FT
CODE REF: NEC 690.31(D)(2)
REFLECTIVE AND WEATHER RESISTANT
LETTERS ON RED BACKGROUND
ENCLOSURES, AND CABLE ASSEMBLIES
MOUNTED ON ROOFING ASSEMBLIES AND WITHIN 1 FOOT ABOVE AND BELOW PENETRATIONS OF
ROOFING ASSEMBLIES, WALLS OR BARBERS.

CAUTION
DUAL POWER SOURCE
SECOND SOURCE IS
PHOTOVOLTAIC

LOCATION: SERVICE METER
MAIN PANEL

WARNING
INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS
OVERCURRENT DEVICE

LOCATION: (IF APPLICABLE)
SERVICE PANEL
CODE REF: NEC 705.12(T)

**PHOTOVOLTAIC SYSTEM
UTILITY DISCONNECT SYSTEM**

LOCATION: AC DISCONNECT
CODE REF: UTILITY

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)

**PHOTOVOLTAIC
SYSTEM METER**

LOCATION: DEDICATED kWh METER
CODE REF: NEC 690.4(B) UTILITY

**PHOTOVOLTAIC SYSTEM
UTILITY DISCONNECT SYSTEM**

LOCATION: AC DISCONNECT
CODE REF: UTILITY

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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7.200 kW DC SYSTEM SIZE
6.000 kW AC SYSTEM SIZE

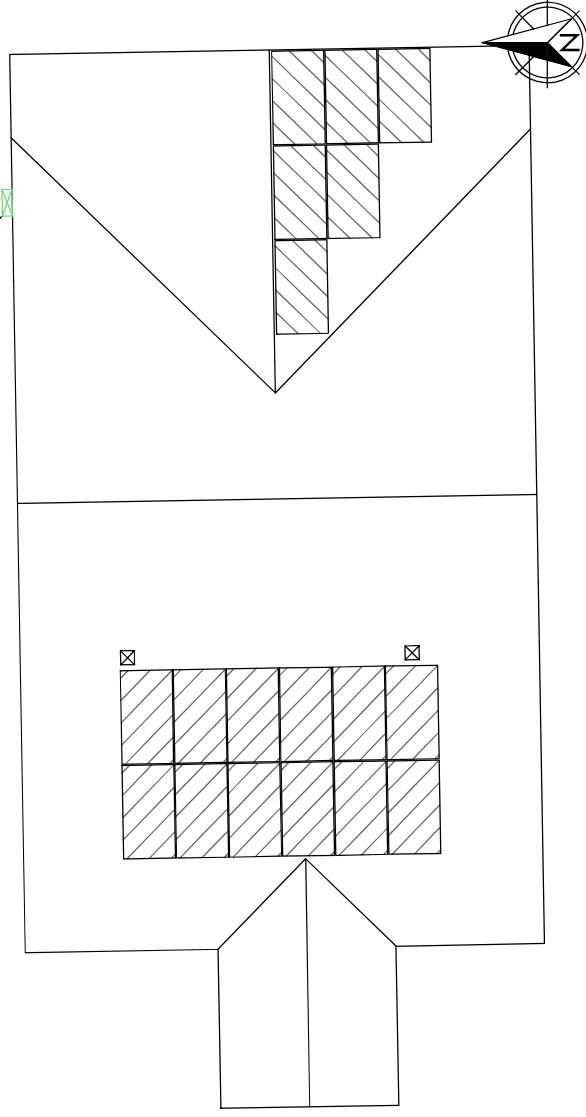
DATE: 12/12/2022
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LABELS
PV 7
SEAL:

CAUTION

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

MAIN SERVICE PANEL
UTILITY METER
UTILITY AC DISCONNECT
INVERTER



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



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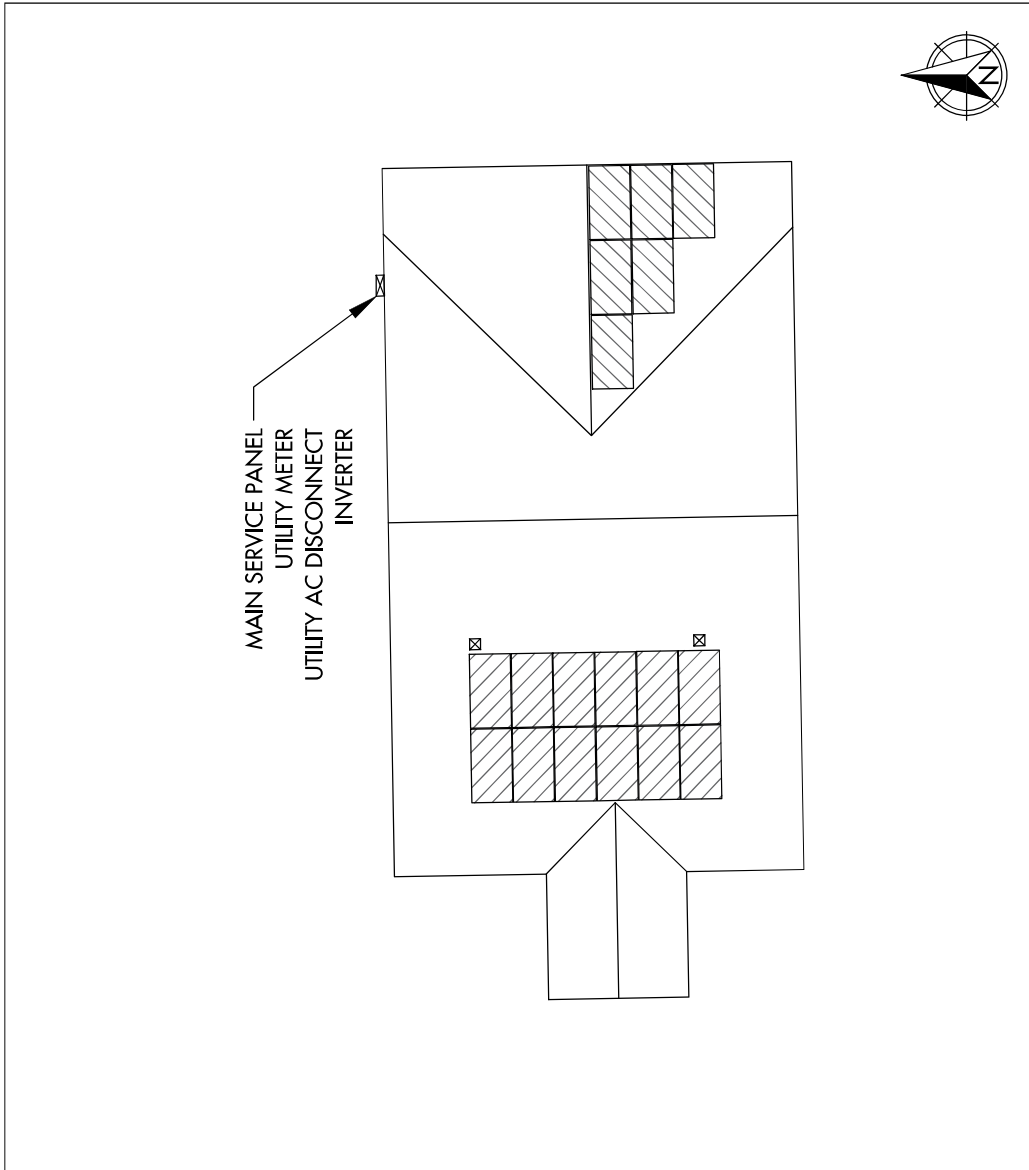
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7.200 kW DC SYSTEM SIZE
6.000 kW AC SYSTEM SIZE

DATE: 12/12/2022
REV: A
DRAWN BY: CA

PLACARD
PV 8

SEAL:

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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 LAT:35.326788, LON:-79.067648
 TSPI 50816

(18) Q PEAK DUO BIK ML G10+ 400W
 (1) SOLAREGE SE6000H-US
 7.200 kW DC SYSTEM SIZE
 6.000 kW AC SYSTEM SIZE

DATE: 12/12/2022
 REV: A
 DRAWN BY: CA

SEAL:
 SAFETY PLAN
PV 9

INVERTERS

Single Phase Inverter with HD-Wave Technology for North America

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

12-25 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 Setup
- ✓ Small, lightweight, and easy to install both outdoors or indoors
- ✓ Built-in module-level monitoring
- ✓ Final voltage inverter for longer strings
- ✓ Integrated arc fault protection and rapid shutdown for NEC 2017 and NEC 2020 per article 690.11 and 690.12



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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

APPLICABLE TO INVERTERS	SE3000H US	SE3800H US	SE5000H US	SE6000H US	SE7600H US	SE10000H US	SE11400H US
Model Number	SE3000HUS	SE3800HUS	SE5000HUS	SE6000HUS	SE7600HUS	SE10000HUS	SE11400HUS

OUTPUT	3000	3800	5000	6000	7600	10000	11400
Max AC Power Output	3000	3800	5000	6000	7600	10000	11400
Maximum AC Power Output	3000	3800	5000	6000	7600	10000	11400
AC Output Voltage Min-Nom-Max	✓	✓	✓	✓	✓	✓	✓
AC Output Voltage Min-Nom-Max	✓	✓	✓	✓	✓	✓	✓
AC Output Voltage Min-Nom-Max	✓	✓	✓	✓	✓	✓	✓
Maximum Continuous Output Current @200V	13.5	16	21	25	32	41	51.5
Maximum Continuous Output Current @208V		16	21	24	31	40	48.5
Power Factor			1	1	1	1	1
Utility Monitoring	✓	✓	✓	✓	✓	✓	✓
Anti-Islanding Protection	✓	✓	✓	✓	✓	✓	✓
Ground Fault Detection	✓	✓	✓	✓	✓	✓	✓
Max. Input Short-Circuit Current	55	65	85	100	130	170	215
Ground Fault Protection	✓	✓	✓	✓	✓	✓	✓
Maximum Inverter Efficiency	99	99	99	99	99	99	99
CEC Weighted Efficiency	97.8	97.8	97.8	97.8	97.8	97.8	97.8
Nighttime Power Consumption	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
UL1741 SA Certified	✓	✓	✓	✓	✓	✓	✓
Maximum DC Power @200V	4650	5800	7750	9300	11800	15450	18500
Maximum DC Power @208V	4650	5800	7750	9300	11800	15450	18500
Maximum Input Voltage	600	600	600	600	600	600	600
Maximum Input Current @200V	23.2	27.7	36.2	43.3	55.3	72.2	89.2
Maximum Input Current @208V	23.2	27.7	36.2	43.3	55.3	72.2	89.2
Max. Input Short-Circuit Current	90	105	140	170	215	270	330
Ground Fault Protection	✓	✓	✓	✓	✓	✓	✓
Maximum Inverter Efficiency	99	99	99	99	99	99	99
CEC Weighted Efficiency	97.8	97.8	97.8	97.8	97.8	97.8	97.8

(1) For other regional settings please contact SolarEdge support.

(2) Inverter output voltage may vary from the nominal and is not covered by the stated value.

/ Single Phase Inverter with HD-Wave Technology for North America

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

ADDITIONAL FEATURES	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US
Relevant Grid Interop. ANSI C12.20			Optional				
Comprehensive metering	Optional	Optional	Optional	Optional	Optional	Optional	Optional
With the SolarEdge mobile application using Bluetooth (WIFI Access Point for local connection)	Optional	Optional	Optional	Optional	Optional	Optional	Optional
High Voltage Capacity (NEMA 4X, NEMA 3W)	Optional	Optional	Optional	Optional	Optional	Optional	Optional
200V and 240V VFD	Optional	Optional	Optional	Optional	Optional	Optional	Optional
Automatic Rapid Shutdown option, AC Grid Disconnect	Optional	Optional	Optional	Optional	Optional	Optional	Optional

STANDARD COMPLIANCE	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US
Utility Connection Standards	UL1741, UL1742, SA, UL, IEEE 1547, IEEE 1547.7, IEEE 1547.8, IEEE 1547.9, IEEE 1547.10, IEEE 1547.11, IEEE 1547.12, IEEE 1547.13, IEEE 1547.14, IEEE 1547.15, IEEE 1547.16, IEEE 1547.17, IEEE 1547.18, IEEE 1547.19, IEEE 1547.20, IEEE 1547.21, IEEE 1547.22, IEEE 1547.23, IEEE 1547.24, IEEE 1547.25, IEEE 1547.26, IEEE 1547.27, IEEE 1547.28, IEEE 1547.29, IEEE 1547.30, IEEE 1547.31, IEEE 1547.32, IEEE 1547.33, IEEE 1547.34, IEEE 1547.35, IEEE 1547.36, IEEE 1547.37, IEEE 1547.38, IEEE 1547.39, IEEE 1547.40, IEEE 1547.41, IEEE 1547.42, IEEE 1547.43, IEEE 1547.44, IEEE 1547.45, IEEE 1547.46, IEEE 1547.47, IEEE 1547.48, IEEE 1547.49, IEEE 1547.50, IEEE 1547.51, IEEE 1547.52, IEEE 1547.53, IEEE 1547.54, IEEE 1547.55, IEEE 1547.56, IEEE 1547.57, IEEE 1547.58, IEEE 1547.59, IEEE 1547.60, IEEE 1547.61, IEEE 1547.62, IEEE 1547.63, IEEE 1547.64, IEEE 1547.65, IEEE 1547.66, IEEE 1547.67, IEEE 1547.68, IEEE 1547.69, IEEE 1547.70, IEEE 1547.71, IEEE 1547.72, IEEE 1547.73, IEEE 1547.74, IEEE 1547.75, IEEE 1547.76, IEEE 1547.77, IEEE 1547.78, IEEE 1547.79, IEEE 1547.80, IEEE 1547.81, IEEE 1547.82, IEEE 1547.83, IEEE 1547.84, IEEE 1547.85, IEEE 1547.86, IEEE 1547.87, IEEE 1547.88, IEEE 1547.89, IEEE 1547.90, IEEE 1547.91, IEEE 1547.92, IEEE 1547.93, IEEE 1547.94, IEEE 1547.95, IEEE 1547.96, IEEE 1547.97, IEEE 1547.98, IEEE 1547.99, IEEE 1548.00, IEEE 1548.01, IEEE 1548.02, IEEE 1548.03, IEEE 1548.04, IEEE 1548.05, IEEE 1548.06, IEEE 1548.07, IEEE 1548.08, IEEE 1548.09, IEEE 1548.10, IEEE 1548.11, IEEE 1548.12, IEEE 1548.13, IEEE 1548.14, IEEE 1548.15, IEEE 1548.16, IEEE 1548.17, IEEE 1548.18, IEEE 1548.19, IEEE 1548.20, IEEE 1548.21, IEEE 1548.22, IEEE 1548.23, IEEE 1548.24, IEEE 1548.25, IEEE 1548.26, IEEE 1548.27, IEEE 1548.28, IEEE 1548.29, IEEE 1548.30, IEEE 1548.31, IEEE 1548.32, IEEE 1548.33, IEEE 1548.34, IEEE 1548.35, IEEE 1548.36, IEEE 1548.37, IEEE 1548.38, IEEE 1548.39, IEEE 1548.40, IEEE 1548.41, IEEE 1548.42, IEEE 1548.43, IEEE 1548.44, IEEE 1548.45, IEEE 1548.46, IEEE 1548.47, IEEE 1548.48, IEEE 1548.49, IEEE 1548.50, IEEE 1548.51, IEEE 1548.52, IEEE 1548.53, IEEE 1548.54, IEEE 1548.55, IEEE 1548.56, IEEE 1548.57, IEEE 1548.58, IEEE 1548.59, IEEE 1548.60, IEEE 1548.61, IEEE 1548.62, IEEE 1548.63, IEEE 1548.64, IEEE 1548.65, IEEE 1548.66, IEEE 1548.67, IEEE 1548.68, IEEE 1548.69, IEEE 1548.70, IEEE 1548.71, IEEE 1548.72, IEEE 1548.73, IEEE 1548.74, IEEE 1548.75, IEEE 1548.76, IEEE 1548.77, IEEE 1548.78, IEEE 1548.79, IEEE 1548.80, IEEE 1548.81, IEEE 1548.82, IEEE 1548.83, IEEE 1548.84, IEEE 1548.85, IEEE 1548.86, IEEE 1548.87, IEEE 1548.88, IEEE 1548.89, IEEE 1548.90, IEEE 1548.91, IEEE 1548.92, IEEE 1548.93, IEEE 1548.94, IEEE 1548.95, IEEE 1548.96, IEEE 1548.97, IEEE 1548.98, IEEE 1548.99, IEEE 1549.00, IEEE 1549.01, IEEE 1549.02, IEEE 1549.03, IEEE 1549.04, IEEE 1549.05, IEEE 1549.06, IEEE 1549.07, IEEE 1549.08, IEEE 1549.09, IEEE 1549.10, IEEE 1549.11, IEEE 1549.12, IEEE 1549.13, IEEE 1549.14, IEEE 1549.15, IEEE 1549.16, IEEE 1549.17, IEEE 1549.18, IEEE 1549.19, IEEE 1549.20, IEEE 1549.21, IEEE 1549.22, IEEE 1549.23, IEEE 1549.24, IEEE 1549.25, IEEE 1549.26, IEEE 1549.27, IEEE 1549.28, IEEE 1549.29, IEEE 1549.30, IEEE 1549.31, IEEE 1549.32, IEEE 1549.33, IEEE 1549.34, IEEE 1549.35, IEEE 1549.36, IEEE 1549.37, IEEE 1549.38, IEEE 1549.39, IEEE 1549.40, IEEE 1549.41, IEEE 1549.42, IEEE 1549.43, IEEE 1549.44, IEEE 1549.45, IEEE 1549.46, IEEE 1549.47, IEEE 1549.48, IEEE 1549.49, IEEE 1549.50, IEEE 1549.51, IEEE 1549.52, IEEE 1549.53, IEEE 1549.54, IEEE 1549.55, IEEE 1549.56, IEEE 1549.57, IEEE 1549.58, IEEE 1549.59, IEEE 1549.60, IEEE 1549.61, IEEE 1549.62, IEEE 1549.63, IEEE 1549.64, IEEE 1549.65, IEEE 1549.66, IEEE 1549.67, IEEE 1549.68, IEEE 1549.69, IEEE 1549.70, IEEE 1549.71, IEEE 1549.72, IEEE 1549.73, IEEE 1549.74, IEEE 1549.75, IEEE 1549.76, IEEE 1549.77, IEEE 1549.78, IEEE 1549.79, IEEE 1549.80, IEEE 1549.81, IEEE 1549.82, IEEE 1549.83, IEEE 1549.84, IEEE 1549.85, IEEE 1549.86, IEEE 1549.87, IEEE 1549.88, IEEE 1549.89, IEEE 1549.90, IEEE 1549.91, IEEE 1549.92, IEEE 1549.93, IEEE 1549.94, IEEE 1549.95, IEEE 1549.96, IEEE 1549.97, IEEE 1549.98, IEEE 1549.99, IEEE 1550.00						
EMI/EMC	FCC Part 15, Class B	FCC Part 15, Class B	FCC Part 15, Class B	FCC Part 15, Class B	FCC Part 15, Class B	FCC Part 15, Class B	FCC Part 15, Class B

INSTALLATION SPECIFICATIONS	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US
AC Output Cord Size (I & II)	1" Maximum / 1/4" AWG	1" Maximum / 3/8" AWG	1" Maximum / 1/2" AWG	1" Maximum / 5/8" AWG	1" Maximum / 3/4" AWG	1" Maximum / 1" AWG	1" Maximum / 1 1/4" AWG
AC Output Cord Size (I & III)	1" Maximum / 1/4" AWG	1" Maximum / 3/8" AWG	1" Maximum / 1/2" AWG	1" Maximum / 5/8" AWG	1" Maximum / 3/4" AWG	1" Maximum / 1" AWG	1" Maximum / 1 1/4" AWG
Dimension with Safety Switch (MMX02)	177 x 46 x 68	177 x 46 x 68	177 x 46 x 68	177 x 46 x 68	177 x 46 x 68	177 x 46 x 68	177 x 46 x 68
Dimension with Safety Switch (MMX03)	227 x 110	227 x 110	227 x 110	227 x 110	227 x 110	227 x 110	227 x 110
Weight with Safety Switch	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Weight	4.25	4.25	4.25	4.25	4.25	4.25	4.25
Operating Temperature Range	-40 to +107 / -40 to +43	-40 to +107 / -40 to +43	-40 to +107 / -40 to +43	-40 to +107 / -40 to +43	-40 to +107 / -40 to +43	-40 to +107 / -40 to +43	-40 to +107 / -40 to +43
Humidity Rating	30% to 90% (non-condensing)	30% to 90% (non-condensing)	30% to 90% (non-condensing)	30% to 90% (non-condensing)	30% to 90% (non-condensing)	30% to 90% (non-condensing)	30% to 90% (non-condensing)
Maximum DC Voltage (V)	600	600	600	600	600	600	600
Maximum DC Current (A)	15.5	19.4	25.5	31.1	39.5	51.7	62.5
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240	240	240	240
Maximum AC Current (A)	13.5	16	21	25	32	41	51.5
Maximum AC Power (W)	3240	3840	5040	6040	7680	9840	12348
Maximum AC Energy (Wh)	32.4	38.4	50.4	60.4	76.8	98.4	123.48
Maximum AC Voltage (V)	240	240	240	240</			



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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 (PVRS), 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 -A0B or -TFL
 CP 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 the implementation of the NEC 2017 rapid shutdown value of 80V max inside of 30 seconds (see the implementation of NEC 2017 rapid shutdown requirements).
 (2) 1-PH Inverters
 SE3000A-US / SE3800A-US / SE6000A-US / SE7600A-US / SE10000A-US / SE11400A-US / SE3000H-US / SE3800H-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

Date	Engineer / Reviewer	Description
5/17/2021 G. Pineda/CAJ	Dishant Patel Mukund Kaha	Added New 3-PH Inverter model SE30KUS, SE38KUS, SE63KUS and SE120KUS. Updated power optimizers from "P" followed by 001 to 500" 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"

Brand Name(s)
Relevant Standard(s)
 SolarEdge
 UL 1741, UL 1741 CRD for rapid shutdown
 National Electric Code, 2020, Section 690.12 requirement for rapid shutdown
 3933 US Route 11, Cortland, NY 13045

NETL disclaimer: Different for each NETL - Example: This verification is for the exclusive use of NETL. Client and all parties involved in the agreement who rely on the Client or manufacturer are the agreement. For any claim, expense or damage occasioned by the use of this verification, only the Client & manufacturer shall be liable. This verification is not intended to certify or guarantee the product. The manufacturer and test results referenced from this verification are relevant only to the sample tested. This verification is not intended to certify or guarantee the product or service as it has never been under an NETL certification program.

Signature: 
 Name: Mukund Bans
 Position: Staff Engineer
 Date: 5/17/2021



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

TOMASSINI, LEE RESIDENCE
 149 W PK LN., SANFORD, NC, 27332
 LAT:35.326788, LON:-79.067648
 TSP1 50816

(18) Q PEAK DUO BIK ML G10+ 400W
 (1) SOLAREGE SE6000H-US
 7.200 kW DC SYSTEM SIZE
 6.000 kW AC SYSTEM SIZE

DATE: 12/12/2022
 REV: A
 DRAWN BY: CA

EQUIPMENT SPECIFICATIONS
PV 11
 SEAL:

POWER OPTIMIZER

Power Optimizer

For North America

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

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

25 YEAR WARRANTY



PV power optimization at the module-level

- ✓ Specifically designed to work with SolarEdge inverters
- ✓ Up to 7% more energy
- ✓ Superior efficiency (98.5%)
- ✓ 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 (PVRS)
- ✓ Module level voltage shutdown for installer and firefighter safety

solaredge.com



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

TOMASSINI, LEE RESIDENCE
149 W PK LN., SANFORD, NC, 27332
LAT:35.326788, LON:-79.067648
TSPI 50816

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 and 72 cell modules)	P370 (for high power 80 and 72 cell modules)	P400 (for 72 cell modules)	P401 (for high power 72 cell modules)	P405 (for high-voltage modules)	P485 (for high-voltage modules)	P505 (for higher current modules)
Rated PVDC Power*	120	140	170	400	400	485	485	505
Maximum Input Voltage	48	60	60	60	60	120 ³	120 ³	120 ³
Maximum Input Current	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
MPTT (Maximum Power Tracking Temperature)	11	11	11	11	11	11	11	11
Maximum Short-Circuit Current (I _{sc})	11	11	11	11	11	11	11	11
Maximum Efficiency	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5
Overvoltage Category	III							
Output	OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)							
Maximum Output Current	15							
Maximum Output Voltage	44V							
Output	OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)							
Standby Output Voltage per Power Optimizer	1.1-0.1							
STANDARD COMPLIANCE								
UL	ULC, UL1741 Class 2, UL1741 Class 3, UL1741 Class 4, UL1741 Class 5, UL1741 Class 6, UL1741 Class 7, UL1741 Class 8, UL1741 Class 9, UL1741 Class 10, UL1741 Class 11, UL1741 Class 12, UL1741 Class 13, UL1741 Class 14, UL1741 Class 15, UL1741 Class 16, UL1741 Class 17, UL1741 Class 18, UL1741 Class 19, UL1741 Class 20, UL1741 Class 21, UL1741 Class 22, UL1741 Class 23, UL1741 Class 24, UL1741 Class 25, UL1741 Class 26, UL1741 Class 27, UL1741 Class 28, UL1741 Class 29, UL1741 Class 30, UL1741 Class 31, UL1741 Class 32, UL1741 Class 33, UL1741 Class 34, UL1741 Class 35, UL1741 Class 36, UL1741 Class 37, UL1741 Class 38, UL1741 Class 39, UL1741 Class 40, UL1741 Class 41, UL1741 Class 42, UL1741 Class 43, UL1741 Class 44, UL1741 Class 45, UL1741 Class 46, UL1741 Class 47, UL1741 Class 48, UL1741 Class 49, UL1741 Class 50, UL1741 Class 51, UL1741 Class 52, UL1741 Class 53, UL1741 Class 54, UL1741 Class 55, UL1741 Class 56, UL1741 Class 57, UL1741 Class 58, UL1741 Class 59, UL1741 Class 60, UL1741 Class 61, UL1741 Class 62, UL1741 Class 63, UL1741 Class 64, UL1741 Class 65, UL1741 Class 66, UL1741 Class 67, UL1741 Class 68, UL1741 Class 69, UL1741 Class 70, UL1741 Class 71, UL1741 Class 72, UL1741 Class 73, UL1741 Class 74, UL1741 Class 75, UL1741 Class 76, UL1741 Class 77, UL1741 Class 78, UL1741 Class 79, UL1741 Class 80, UL1741 Class 81, UL1741 Class 82, UL1741 Class 83, UL1741 Class 84, UL1741 Class 85, UL1741 Class 86, UL1741 Class 87, UL1741 Class 88, UL1741 Class 89, UL1741 Class 90, UL1741 Class 91, UL1741 Class 92, UL1741 Class 93, UL1741 Class 94, UL1741 Class 95, UL1741 Class 96, UL1741 Class 97, UL1741 Class 98, UL1741 Class 99, UL1741 Class 100							
INSTALLATION SPECIFICATIONS								
Input Voltage	100V							
Compatible Inverters	All SolarEdge Single Phase and Three Phase Inverters							
Dimensions (W x L x H)	129 x 103 x 45 / 129 x 103 x 45 / 129 x 103 x 45 / 129 x 103 x 45 / 129 x 103 x 45 / 129 x 103 x 45 / 129 x 103 x 45 / 129 x 103 x 45 / 129 x 103 x 45							
Weight (including cables)	0.98 / 1.14							
Input Connector	MC4							
Input Wire Length	0.96 / 1.02							
Cable Type / Connector	Twisted Pair / MC4							
Operating Temperature	-40 to +85 / -40 to +85							
Humidity	100% / NEMA4X							
Protection Rating	IP67							
Relative Humidity	0-100%							
Input Power	11.8W							
Output Power	7.2W							
Efficiency	61%							

1) Rated power of the module at STC will not exceed the output of SolarEdge LLC Power Optimizer with up to 10% power tolerance as stated.
 2) NEC 2017 requires surge protection device (SPD) for PV systems.
 3) Maximum input current per module is limited by the input current of the inverter.
 4) For dual module per panel connecting a single module to the inverter input connector with the supplied pair of wires, install one P405 dual section power optimizer connected to the inverter input connector and one P401 per module to the inverter input connector.
 5) The maximum input current per module is limited by the input current of the inverter.
 6) The maximum input current per module is limited by the input current of the inverter.
 7) The maximum input current per module is limited by the input current of the inverter.
 8) The maximum input current per module is limited by the input current of the inverter.
 9) The maximum input current per module is limited by the input current of the inverter.
 10) The maximum input current per module is limited by the input current of the inverter.

PV System Design Using a SolarEdge Inverter	Single Phase 1P-1Wire	Single phase 1P-2Wire	Three Phase for 200V grid	Three Phase for 277/480V grid
Minimum String Length	1200, 1340, 1510, 1600, 1660	10	10	10
Maximum String Length	2565, 2685, 2935	8	8	8
Maximum String Length (Power Optimizer)	5700 (6000 with 10%)	23	23	23
Maximum PV Power per String	57000 (60000 with 10%)	2300	2300	2300
Maximum PV Power per String (Power Optimizer)	57000 (60000 with 10%)	2300	2300	2300
Maximum PV Power per String (Power Optimizer)	57000 (60000 with 10%)	2300	2300	2300

1) The maximum power of the module at STC will not exceed the output of SolarEdge LLC Power Optimizer with up to 10% power tolerance as stated.
 2) NEC 2017 requires surge protection device (SPD) for PV systems.
 3) Maximum input current per module is limited by the input current of the inverter.
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EQUIPMENT SPECIFICATIONS

PV 12

SEAL:

DATE: 12/12/2022
REV: A
DRAWN BY: CA

(18) Q PEAK DUO BIK ML G10+ 400W
(1) SOLAREDGE SE6000H-US
7.200 kW DC SYSTEM SIZE
6.000 kW AC SYSTEM SIZE

solaredge.com



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

TOMASSINI, LEE RESIDENCE
149 W PK LN., SANFORD, NC, 27332
LAT:35.326788, LON:-79.067648
TSPI 50816



TITAN SOLAR PANEL



25 Year Warranty



Q CELLS Yield Security

BREAKING THE 20% EFFICIENCY BARRIER
Q-ANTIM DUO Z technology with nano gpp 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 requirements 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 Technology, Hot-Spot Protect and Traceable Quality Tr-Q™.

EXTREME WEATHER RATING
High-tech aluminum alloy frames, verified for high snow (5400 Pa) and wind loads (6000 Pa).

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

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

¹ IFT test conditions according to IEC / TS 62804-3:2015, method A, (1500 V, 96 h)
² See data sheet on rear for further information.



Q PEAK DUO BLK ML-G10+ 395-400

THE IDEAL SOLUTION FOR:
Rooftop arrays on residential buildings

TITAN SOLAR POWER
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MECHANICAL SPECIFICATION

FORMAT 76.0 in x 41.1 in x 1.26 in (including frame)
(879 mm x 1045 mm x 32 mm)

WEIGHT 40.5 lbs (20.2 kg)
13.7 lbs (6.2 kg) (without junction box and connector)

FRONT COVER Composite film, 40% transmittance, UV-stabilized, self-cleaning, anti-reflective technology

BACK COVER Composite film

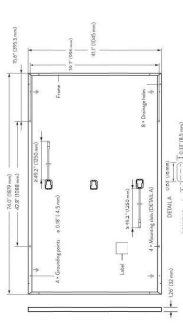
FRAME Black anodized aluminum

CELL 6 x 22 monocrystalline Q-ANTIM solar half cells

JUNCTION BOX 209.5, 98.8 in x 1.26 x 2.36 in x 0.59-0.71 in
(53.10 mm x 32.50 mm x 15.18 mm), IP67, with bypass diodes

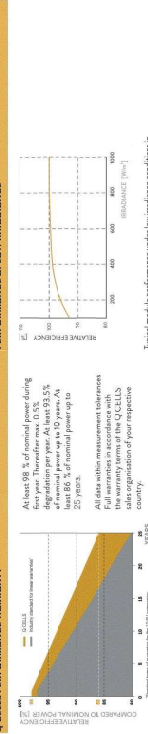
CABLE 4 mm² solar cable (C1) 49.2 in (1250 mm), C13-49.2 in (1250 mm)

CONNECTOR Staßlitt MC4-LRP8



ELECTRICAL CHARACTERISTICS

POWER CLASS	305	390	395	400	405
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC (POWER TOLERANCE ±5 W / ±0.3 W)					
POWER AT MPP	390	395	395	400	405
SHORT CIRCUIT CURRENT	I_{sc} [A]	11.04	11.07	11.10	11.14
OPEN CIRCUIT VOLTAGE	V_{oc} [V]	45.39	45.23	45.27	45.30
CURRENT AT MPP	I_{mp} [A]	10.69	10.65	10.71	10.77
VOLTAGE AT MPP	V_{mp} [V]	36.36	36.62	36.68	37.13
EFFICIENCY	η [%]	21.86	22.01	22.04	22.06
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²					
POWER AT MPP	P_{max} [W]	292.6	296.3	296.3	300.1
SHORT CIRCUIT CURRENT	I_{sc} [A]	8.90	8.92	8.95	8.97
OPEN CIRCUIT VOLTAGE	V_{oc} [V]	42.62	42.65	42.69	42.72
CURRENT AT MPP	I_{mp} [A]	8.35	8.41	8.46	8.51
VOLTAGE AT MPP	V_{mp} [V]	34.59	34.81	34.93	35.25
¹ Measurement tolerance P_{max} ±3%, I_{sc} , V_{oc} ±1%, I_{mp} ±1%, V_{mp} ±1%, according to IEC 62000-3-1:2000(W/M), NMOT specification M1.1.5					
Q CELLS PERFORMANCE WARRANTY					



PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{sys} [V]	1000 (IEC) / 1000 (UL)	PV module classification
Maximum Series Fuse Rating [A (DC)]	20	Fuse Rating based on ANSI / UL 6750
Max. Design Load Push / Pull [lb (ft)]	75 (6600 Pa) / 85 (2660 Pa)	Permitted Module Temperature
Max. Test Load, Push / Pull [lb (ft)]	113 (6400 Pa) / 84 (4000 Pa)	on Government Duty

See Installation Manual

QUALIFICATIONS AND CERTIFICATES

UL 6700, CE compliant, Quality Controlled PV, TÜV Rheinland, U.S. Patent No. 8,919,235 (solar cell), GCPV Certifications pending

PACKAGING INFORMATION

Orientation	Dimensions (mm)	Weight (kg)
Horizontal	76.4 in x 43.3 in x 1.26 in	16.56 lbs
Vertical	194.0 in x 110.0 in x 1.26 in	75.1 kg

Note: Installation instructions must be followed. See the installation and operating manual for further information on approved installation and use of this product.



400 Spectrum Center Drive, Suite 4400, Irvine, CA 92618, USA
TEL: +1 949 248 5996
EMAIL: info@titansolar.com

(18) Q PEAK DUO BLK ML-G10+ 400W
(1) SOLAREGE SE6000H-US
7.200 kW DC SYSTEM SIZE
6.000 kW AC SYSTEM SIZE

DATE: 12/12/2022
REV: A
DRAWN BY: CA

EQUIPMENT SPECIFICATIONS
PV 13

SEAL:

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, Mtl
2	K2 FlexFlash Buryl	
3	M5 x 60 lag screws	
4	T-Bolt 6 Hex Nut Set	

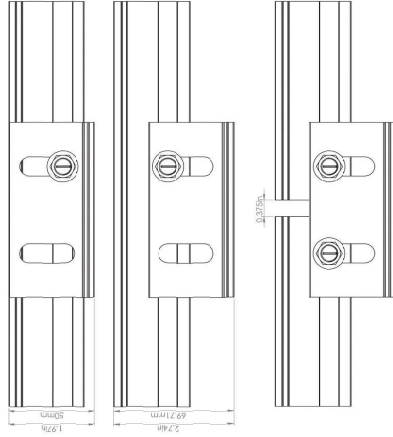
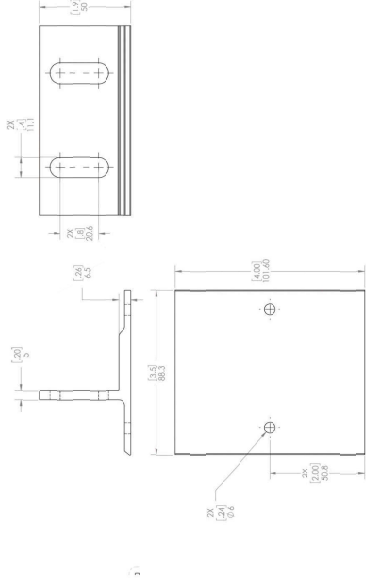
Technical Data	
Roof Type	Splice Foot X
Material	Composition shingle
Finish	Aluminum with stainless steel hardware
Roof Connection	Mill
Code Compliance	M5 x 60 lag screws
Compatibility	UL 2703
	CrossRail 44-X, 48-X, 48-XL, 80

k2-systems.com

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Formerly Everest Solar Systems



Units: [in] mm



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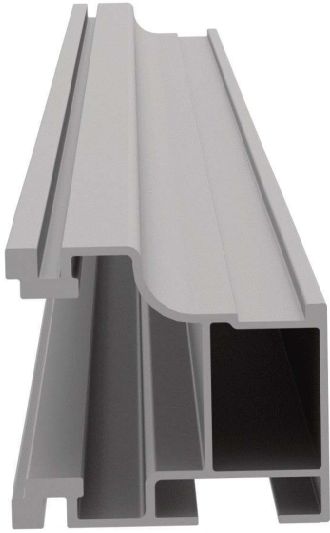
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(1) SOLAREGE SE6000H-US
7,200 kW DC SYSTEM SIZE
6,000 kW AC SYSTEM SIZE

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SEAL:

EQUIPMENT
SPECIFICATIONS
PV 14

Mounting systems for solar technology



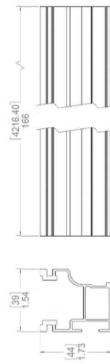
NEW PRODUCT

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-solersystems.com
 CrossRail 44-X Product Sheet US01 | 0820 - Subject to change - Product illustrations are exemplary and may differ from the original.

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EQUIPMENT
 SPECIFICATIONS
PV 15



85

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



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EQUIPMENT
SPECIFICATIONS
PV 16