Building Codes: 2017 NEC W/NC AMENDMENTS NEC, 2018 NORTH CAROLINA RESIDENTIAL CODE, AND 2018 NORTH CAROLINA FIRE CODE and AHJ Amendments

NOTICE TO CONTRACTOR
All construction to comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
12/14/2022
Harnett COUNTY NORTH CAROLINA

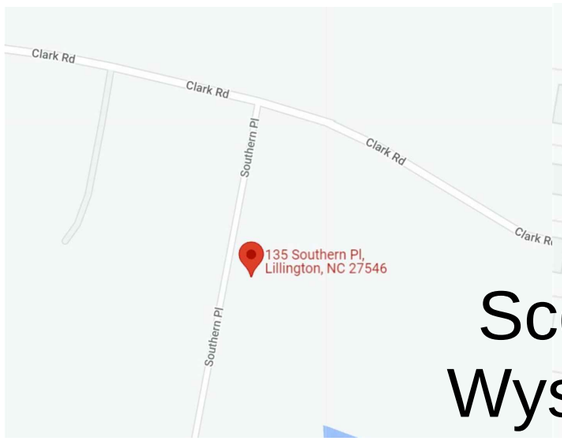
CUPEC, CLAY PV SYSTEM
135 SOUTHERN PLACE .
LILLINGTON, NC, 27546
APN: 130527 0012 34
JURISDICTION: HARNETT COUNTY (NC)

GENERAL INFORMATION

SYSTEM SIZE:	10.400 kW-DC-STC 7.540 kW-AC
ROOF PITCHED:	26 DEGREES
INVERTER:	(26) ENPHASE IQ8PLUS-72-2-US
MODULES:	(26) Q PEAK DUO BLK ML G10+ 400W
STRINGS:	INV 1: (2) x 13 PARALLEL MODULE 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. 5/16" x 3 ½ LAG SCREWS EA. STANDOFF

TABLE OF CONTENTS

VICINITY MAP
SCALE: NTS



AERIAL MAP
SCALE: NTS

Scott Wysslin g, PE

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NORTH CAROLINA PROFESSIONAL SEAL 046546 ENGINEER SCOTT E. WYSSLING

Wyssling Consulting, PLLC
76 N Meadowbrook Drive Alpine UT 84004
North Carolina COA # P-2308

Signed 11/15/2022

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NOTES

EQUIPMENT LOCATION

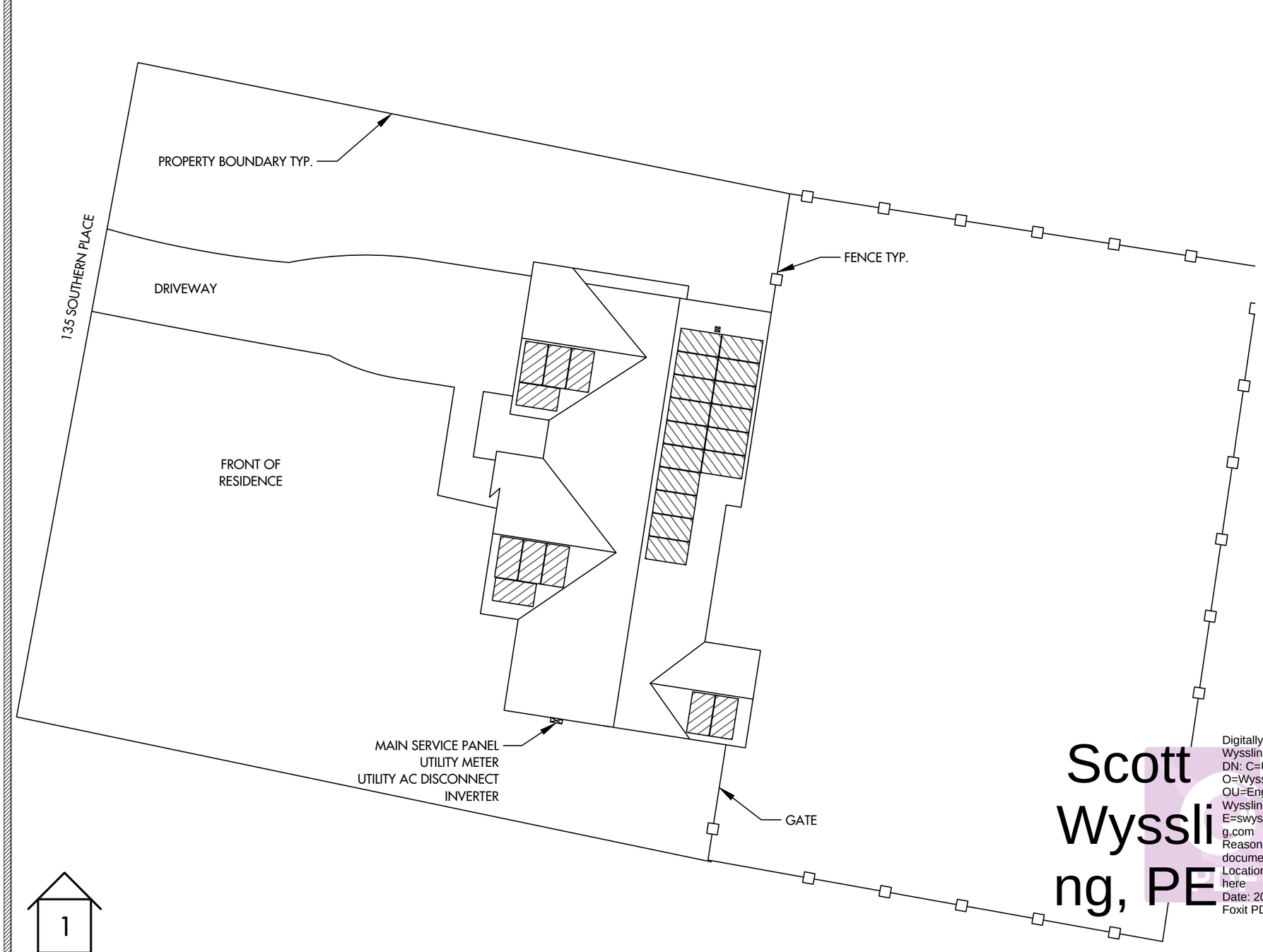
1. ALL EQUIPMENT SHALL MEET MINIMUM SETBACKS AS REQUIRED BY NEC 110.26.
2. WIRING SYSTEMS INSTALLED IN DIRECT SUNLIGHT MUST BE RATED FOR EXPECTED OPERATING TEMPERATURE AS SPECIFIED BY NEC690.31(A),(C) AND NEC TABLES 310.15(B)(2)(A) AND 310.15(B)(3)(C).
3. JUNCTION AND PULL BOXES PERMITTED INSTALLED UNDER PV MODULES ACCORDING TO NEC 690.34.
4. ADDITIONAL AC DISCONNECT(S) SHALL BE PROVIDED WHERE THE INVERTER IS NOT WITHIN SIGHT OF THE AC SERVICING DISCONNECT.
5. ALL EQUIPMENT SHALL BE INSTALLED ACCESSIBLE TO QUALIFIED PERSONNEL ACCORDING TO NEC APPLICABLE CODES.
6. ALL COMPONENTS ARE LISTED FOR THEIR PURPOSE AND RATED FOR OUTDOOR USAGE WHEN APPROPRIATE.

WIRING & CONDUIT NOTES

1. 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.
2. CONDUCTORS SIZED ACCORDING TO NEC 690.8, NEC 690.7.
3. DC WIRING LIMITED TO MODULE FOOTPRINT. MICRO INVERTER WIRING SYSTEMS SHALL BE LOCATED AND SECURED UNDER THE ARRAY WITH SUITABLE WIRING CLIPS.
4. AC CONDUCTORS COLORED OR MARKED AS FOLLOWS: PHASE A OR L1- BLACK, PHASE B OR L-2 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

1. MODULES ARE LISTED UNDER UL 1703 AND CONFORM TO THE STANDARDS.
2. INVERTERS ARE LISTED UNDER UL 1741 AND CONFORM TO THE STANDARDS.
3. DRAWINGS ARE DIAGRAMMATIC, INDICATING GENERAL ARRANGEMENT OF THE PV SYSTEM AND THE ACTUAL SITE CONDITION MIGHT VARY.
4. WORKING CLEARANCES AROUND THE NEW PV ELECTRICAL EQUIPMENT WILL BE MAINTAINED IN ACCORDANCE WITH NEC 110.26.
5. ALL GROUND WIRING CONNECTED TO THE MAIN SERVICE GROUNDING IN MAIN SERVICE PANEL/SERVICE COMPONENT.
6. ALL CONDUCTORS SHALL BE 600V, 75° C STANDARD COPPER UNLESS OTHERWISE NOTED.
7. WHEN REQUIRED, A LADDER SHALL BE IN PLACE FOR INSPECTION IN COMPLIANCE WITH OSHA REGULATIONS.
8. THE SYSTEM WILL NOT BE INTERCONNECTED BY THE CONTRACTOR UNTIL APPROVAL FROM THE LOCAL JURISDICTION AND/OR THE UTILITY.
9. 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.
10. 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 SOUTH RIVER ELECTRIC MEMBERSHIP CORPORATION AND NEC REQUIREMENTS.

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1

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

CUPEC, CLAY RESIDENCE
135 SOUTHERN PLACE , LILLINGTON, NC, 27546
LAT:35.338055, LON:-78.915807
TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

SCALE: 1/16" = 1'-0"
DATE: 11/9/2022
REV: A
DRAWN BY: AW

SEAL:

SITE PLAN
PV 2

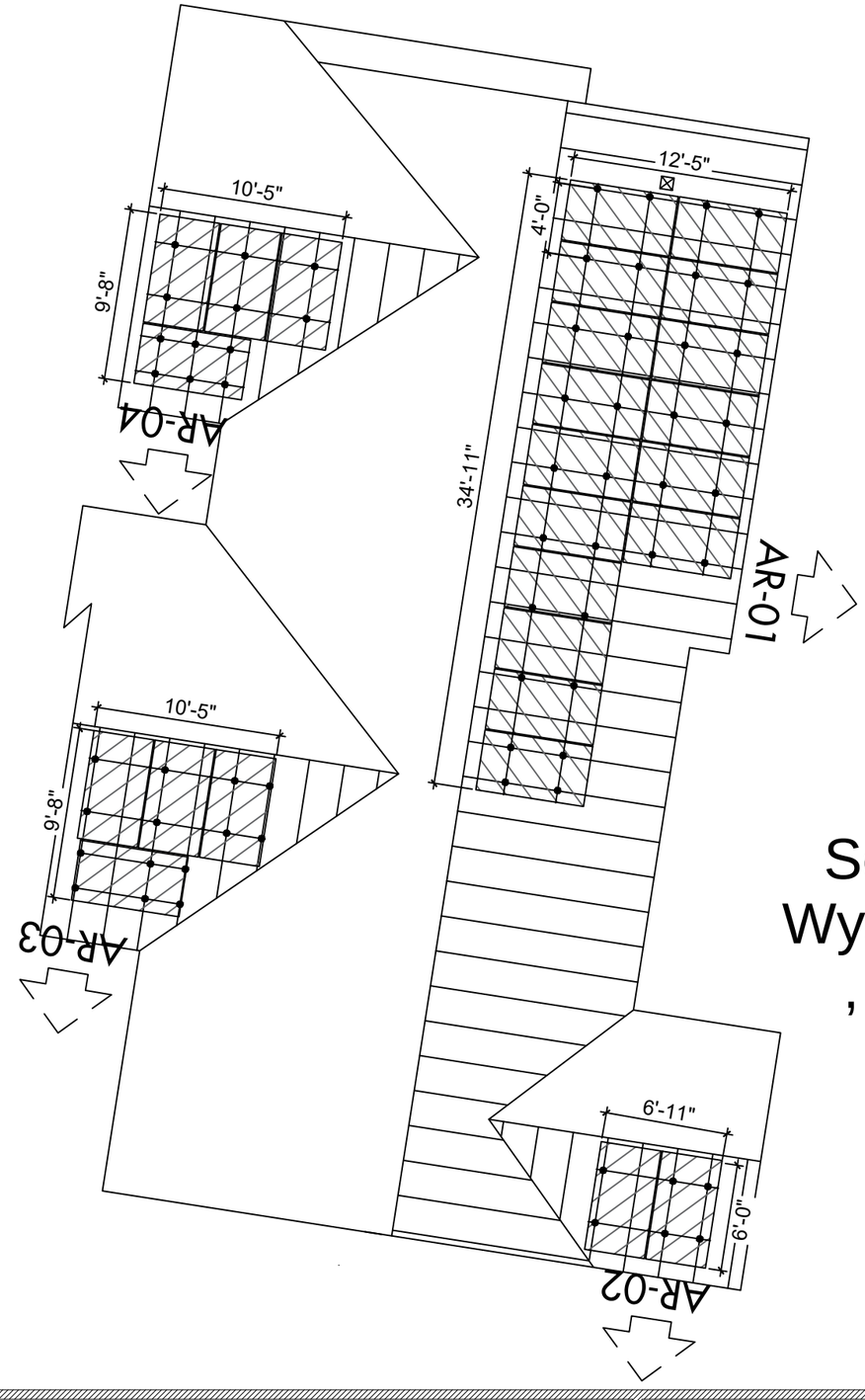
ARRAY INFORMATION

AR-01
QUANTITY: 16
MOUNTING TYPE: FLUSH
ARRAY TILT: 26°
AZIMUTH: 103°
ATTACHMENT SPACING: 4'
ROOF TYPE: COMP SHINGLE

AR-02
QUANTITY: 2
MOUNTING TYPE: FLUSH
ARRAY TILT: 26°
AZIMUTH: 188°
ATTACHMENT SPACING: 4'
ROOF TYPE: COMP SHINGLE

AR-03
QUANTITY: 4
MOUNTING TYPE: FLUSH
ARRAY TILT: 26°
AZIMUTH: 188°
ATTACHMENT SPACING: 4'
ROOF TYPE: COMP SHINGLE

AR-04
QUANTITY: 4
MOUNTING TYPE: FLUSH
ARRAY TILT: 26°
AZIMUTH: 188°
ATTACHMENT SPACING: 4'
ROOF TYPE: COMP SHINGLE



NOTES
- ROOF VENTS, SKYLIGHTS, WILL NOT BE COVERED UPON PV INSTALLATION
- TOTAL ROOF AREA = 2341.73 SQ-FT
- TOTAL ARRAY AREA = 549.14 SQ-FT
- ARRAY COVERAGE = 23.45%

Scott Wyssling, PE

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NORTH CAROLINA PROFESSIONAL SEAL 046546 ENGINEER SCOTT E. WYSSLING

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76 N Meadowbrook Drive Alpine UT 84004
North Carolina COA # P-2308

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135 SOUTHERN PLACE , LILLINGTON, NC, 27546
LAT:35.338055, LON:-78.915807
TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

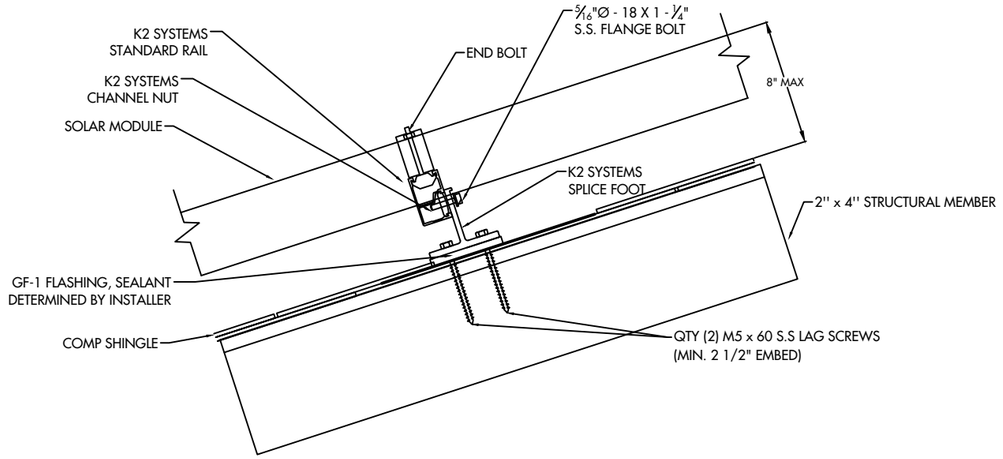
SCALE: 15/128" = 1'-0"
DATE: 11/9/2022
REV:A
DRAWN BY: AW

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 4''
RAFTER/TRUSS SPACING: 2'



ARRAY 01: 16 MODULES
UPLIFT = 10138.00 LBS.
POINT LOAD = 26.00 LBS. PER MOUNTING POINT
PULLOUT STRENGTH = 16800.00 LBS.
DISTRIBUTED LOAD = 2.46 PSF
MODULE & RACKING WEIGHT = 832.00 LBS

ARRAY 04: 4 MODULES
UPLIFT = 2534.50 LBS.
POINT LOAD = 17.33 LBS. PER MOUNTING POINT
PULLOUT STRENGTH = 6300.00 LBS.
DISTRIBUTED LOAD = 2.46 PSF
MODULE & RACKING WEIGHT = 208.00 LBS

ARRAY 02: 2 MODULES
UPLIFT = 1267.25 LBS.
POINT LOAD = 17.33 LBS. PER MOUNTING POINT
PULLOUT STRENGTH = 3150.00 LBS.
DISTRIBUTED LOAD = 2.46 PSF
MODULE & RACKING WEIGHT = 104.00 LBS

ARRAY 03: 4 MODULES
UPLIFT = 2534.50 LBS.
POINT LOAD = 14.86 LBS. PER MOUNTING POINT
PULLOUT STRENGTH = 7350.00 LBS.
DISTRIBUTED LOAD = 2.46 PSF
MODULE & RACKING WEIGHT = 208.00 LBS

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North Carolina COA # P-2308

Signed 11/15/2022

Scott Wyssling, PE

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CONTRACTOR LIC# U.34445

CUPEC, CLAY RESIDENCE
135 SOUTHERN PLACE , LILLINGTON, NC, 27546
LAT:35.338055, LON:-78.915807
TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

DATE: 11/9/2022
REV:A
DRAWN BY: AW

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

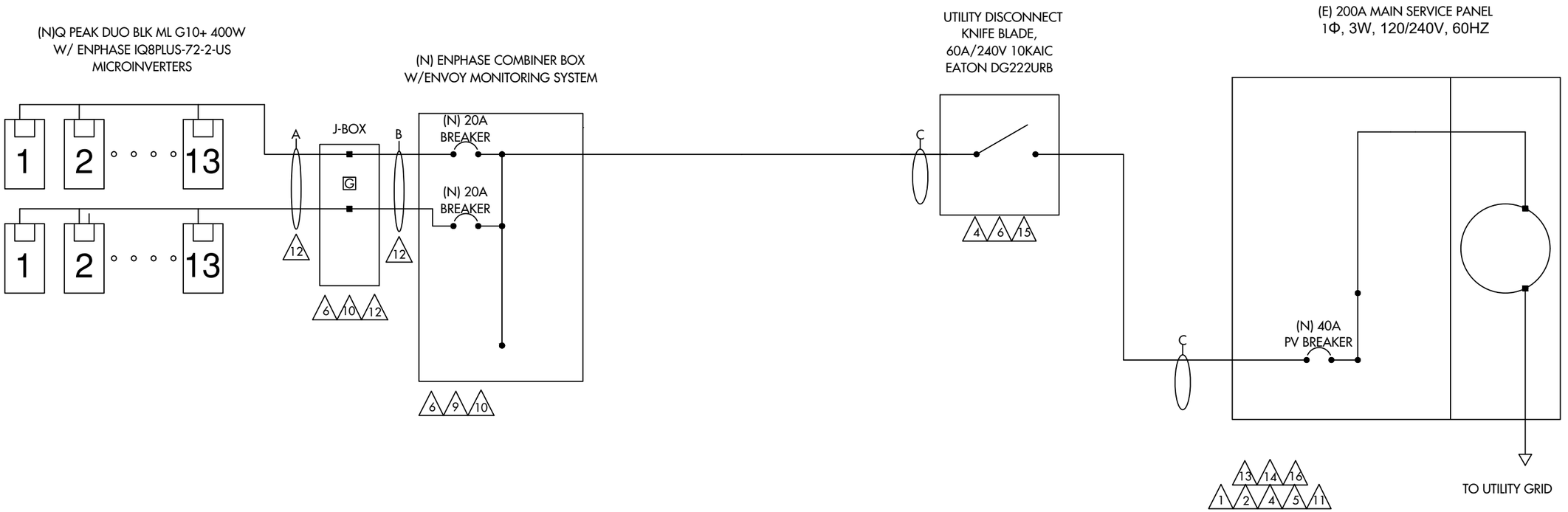
WIRE SCHEDULE

A - (4) #12 AWG-CU ENPHASE Q-CABLE (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

NOTE:
SUPPLY/LINE SIDE CONNECTION
NO MAIN BREAKER
NO 120% RULE
6 HANDLE RULE



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 FREE AIR	=	47.85A (55A X 0.87)
#10 - AWG CU. AMPACITY ROOFTOP CONDUIT	=	27.84A (40A X 0.87 X 0.80)

AC WIRING

CONDUIT FILL FACTOR	=	1 (3) CONDUCTORS
MAX. INVERTER CURRENT	=	31.46A (PER INVERTER SPECS)
MIN. INVERTER OCP	=	39.325A (31.46A X 1.25)
INVERTER OCP	=	40A
#8 - AWG CU AMPACITY	=	47.85A (55A X 1 X 0.87)

TITAN SOLAR POWER
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CONTRACTOR LIC# U.34445

CUPEC, CLAY RESIDENCE
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LAT:35.338055, LON:-78.915807
TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

DATE: 11/9/2022
REV:A
DRAWN BY: AW

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

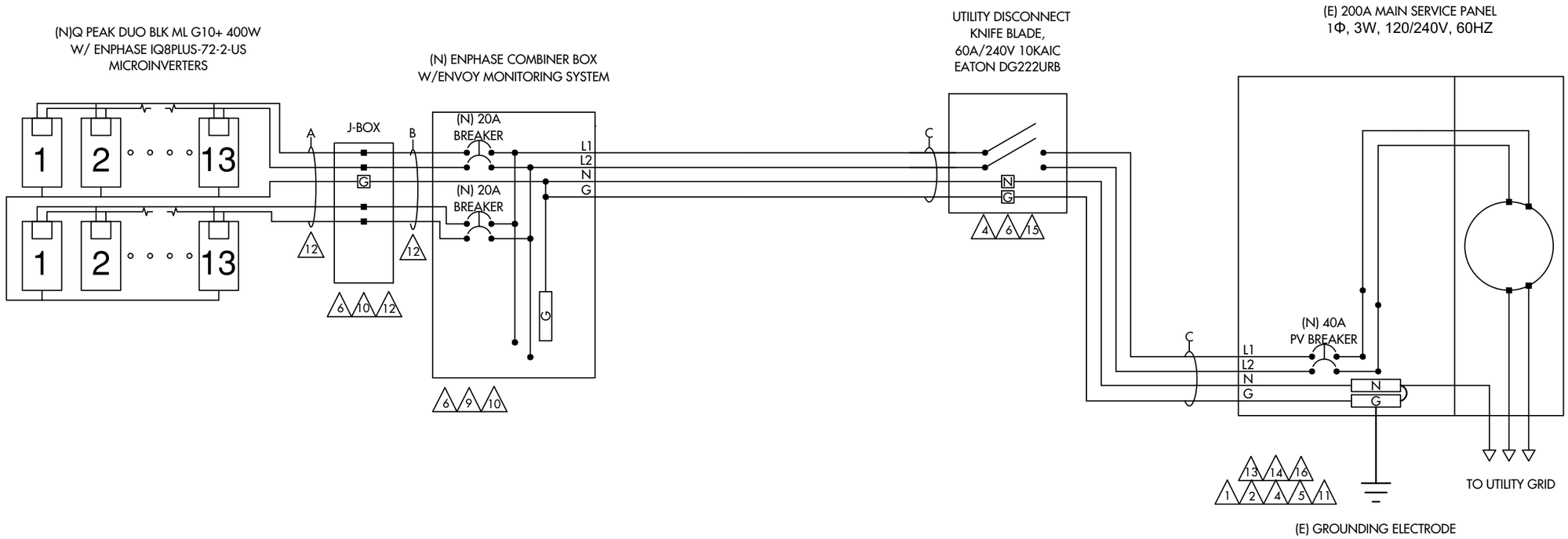
WIRE SCHEDULE

A - (4) #12 AWG-CU ENPHASE Q-CABLE (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

NOTE:
SUPPLY/LINE SIDE CONNECTION
NO MAIN BREAKER
NO 120% RULE
6 HANDLE RULE



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 FREE AIR	=	47.85A (55A X 0.87)
#10 - AWG CU. AMPACITY ROOFTOP CONDUIT	=	27.84A (40A X 0.87 X 0.80)

AC WIRING

CONDUIT FILL FACTOR	=	1 (3) CONDUCTORS
MAX. INVERTER CURRENT	=	31.46A (PER INVERTER SPECS)
MIN. INVERTER OCP	=	39.325A (31.46A X 1.25)
INVERTER OCP	=	40A
#8 - AWG CU AMPACITY	=	47.85A (55A X 1 X 0.87)

TITAN SOLAR POWER
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CUPEC, CLAY RESIDENCE
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TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

DATE: 11/9/2022
REV:A
DRAWN BY: AW

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 SCOURCE 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: 31.46A
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

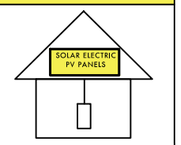
DC VOLTAGE IS ALWAYS PRESENT WHEN SOLAR MODULES ARE EXPOSED TO SUNLIGHT

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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TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

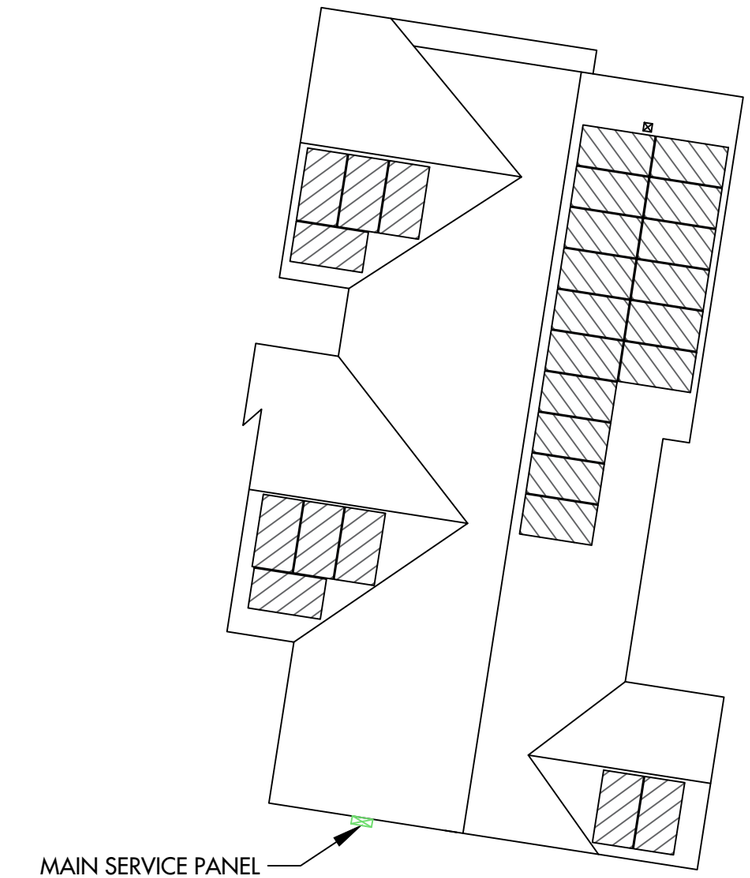
DATE: 11/9/2022
REV: A
DRAWN BY: AW

SEAL:

LABELS
PV 7

CAUTION

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



MAIN SERVICE PANEL
UTILITY METER
UTILITY AC DISCONNECT
INVERTER

N

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

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LAT:35.338055, LON:-78.915807
TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

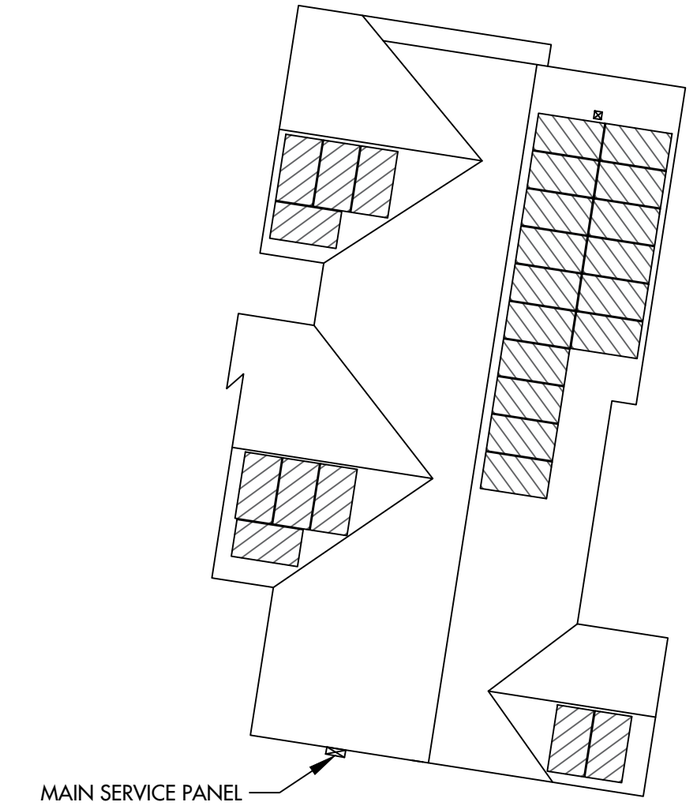
DATE: 11/9/2022
REV: A
DRAWN BY: AW

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

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

CUPEC, CLAY RESIDENCE
135 SOUTHERN PLACE , LILLINGTON, NC, 27546
LAT:35.338055, LON:-78.915807
TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

DATE: 11/9/2022
REV: A
DRAWN BY: AW

SEAL:

SAFETY PLAN
PV 9

ENPHASE

DATA SHEET

IQ8 Series Microinverters

Our newest IQ8 Microinverters are the industry's first microgrid-forming, software-defined microinverters with split-phase power conversion capability to convert DC power to AC power efficiently. The brain of the semiconductor-based microinverter is our proprietary application-specific integrated circuit (ASIC) which enables the microinverter to operate in grid-tied or off-grid modes. This chip is built in advanced 55nm technology with high speed digital logic and has super-fast response times to changing loads and grid events, alleviating constraints on battery sizing for home energy systems.

Part of the Enphase Energy System, IQ8 Series Microinverters integrate with the Enphase IQ Battery, Enphase IQ Gateway, and the Enphase App monitoring and analysis software.

Enphase 25 year limited warranty

IQ8 Series Microinverters redefine reliability standards with more than one million cumulative hours of power-on testing, enabling an industry-leading limited warranty of up to 25 years.

Connect PV modules quickly and easily to IQ8 Series Microinverters using the included Q-DCC-2 adapter cable with plug-n-play MC4 connectors.

UL CERTIFIED SAFETY

IQ8 Series Microinverters are UL Listed as PV Rapid Shut Down Equipment and conform with various regulations, when installed according to manufacturer's instructions.

Easy to install

- Lightweight and compact with plug-n-play connectors
- Power Line Communication (PLC) between components
- Faster installation with simple two-wire cabling

High productivity and reliability

- Produce power even when the grid is down*
- More than one million cumulative hours of testing
- Class II double-insulated enclosure
- Optimized for the latest high-powered PV modules

Microgrid-forming

- Complies with the latest advanced grid support**
- Remote automatic updates for the latest grid requirements
- Configurable to support a wide range of grid profiles
- Meets CA Rule 21 (UL 1741-SA) requirements

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IQ8SE-DS-0001-01-EN-US-2022-03-17

* Only when installed with IQ System Controller 2, meets UL 1741. IQ8H-208V operates only in grid-tied mode.
** IQ8 Series Microinverters supports split phase, 240V. IQ8H-208 supports split phase, 208V only.

IQ8 Series Microinverters

INPUT DATA (DC)		IQ8-60-2-US	IQ8PLUS-72-2-US	IQ8M-72-2-US	IQ8A-72-2-US	IQ8H-240-72-2-US	IQ8H-208-72-2-US[1]
Commonly used module pairings[2]	W	235 – 350	235 – 440	260 – 460	295 – 500	320 – 540+	295 – 500+
Module compatibility		60-cell/120 half-cell	60-cell/120 half-cell, 66-cell/132 half-cell and 72-cell/144 half-cell				
MPPT voltage range	V	27 – 37	29 – 45	33 – 45	36 – 45	38 – 45	38 – 45
Operating range	V	25 – 48	25 – 58				
Min/max start voltage	V	30 / 48	30 / 58				
Max input DC voltage	V	50	60				
Max DC current[3] [module Isc]	A	15					
Overvoltage class DC port		II					
DC port backfeed current	mA	0					
PV array configuration		1x1 Ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit					
OUTPUT DATA (AC)		**IQ8-60-2-US**	**IQ8PLUS-72-2-US**	**IQ8M-72-2-US**	**IQ8A-72-2-US**	**IQ8H-240-72-2-US**	**IQ8H-208-72-2-US[1]**
Peak output power	VA	245	300	330	366	384	366
Max continuous output power	VA	240	290	325	349	380	360
Nominal (L-L) voltage/range[4]	V	240 / 211 – 264					208 / 183 – 250
Max continuous output current	A	1.0	1.21	1.35	1.45	1.58	1.73
Nominal frequency	Hz	60					
Extended frequency range	Hz	50 – 68					
AC short circuit fault current over 3 cycles	Arms	2					4.4
Max units per 20 A (L-L) branch circuit[5]		16	13	11	11	10	9
Total harmonic distortion		<5%					
Overvoltage class AC port		III					
AC port backfeed current	mA	30					
Power factor setting		1.0					
Grid-tied power factor (adjustable)		0.85 leading – 0.85 lagging					
Peak efficiency	%	97.5	97.6	97.6	97.6	97.6	97.4
CEC weighted efficiency	%	97	97	97	97.5	97	97
Night-time power consumption	mW	60					
MECHANICAL DATA							
Ambient temperature range		-40°C to +60°C (-40°F to +140°F)					
Relative humidity range		4% to 100% (condensing)					
DC Connector type		MC4					
Dimensions (HxWxD)		212 mm (8.3") x 175 mm (6.9") x 30.2 mm (1.2")					
Weight		1.08 kg (2.38 lbs)					
Cooling		Natural convection – no fans					
Approved for wet locations		Yes					
Pollution degree		PD3					
Enclosure		Class II double-insulated, corrosion resistant polymeric enclosure					
Environ. category / UV exposure rating		NEMA Type 6 / outdoor					
COMPLIANCE							
Certifications		CA Rule 21 (UL 1741-SA), UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC 2014, NEC 2017, and NEC 2020 section 690.12 and C22.1-2018 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according to manufacturer's instructions.					

(1) The IQ8H-208 variant will be operating in grid-tied mode only at 208V AC. (2) No enforced DC/AC ratio. See the compatibility calculator at https://link.enphase.com/module-compatibility (3) Maximum continuous input DC current is 10.6A (4) Nominal voltage range can be extended beyond nominal if required by the utility. (5) Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

IQ8SE-DS-0001-01-EN-US-2022-03-17

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(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

DATE: 11/9/2022
REV: A
DRAWN BY: AW

SEAL:

EQUIPMENT SPECIFICATIONS
PV 10

Data Sheet
Enphase Networking

Enphase IQ Combiner 4/4C

X-IQ-AM1-240-4
X-IQ-AM1-240-4C

X-IQ-AM1-240-4C

X-IQ-AM1-240-4

The **Enphase IQ Combiner 4/4C** with Enphase IQ Gateway and integrated LTE-M1 cell modem (included only with IQ Combiner 4C) consolidates interconnection equipment into a single enclosure and streamlines IQ microinverters and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and Eaton BR series busbar assembly.

Smart

- Includes IQ Gateway for communication and control
- Includes Enphase Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05), included only with IQ Combiner 4C
- Includes solar shield to match Enphase IQ Battery aesthetics and deflect heat
- Flexible networking supports Wi-Fi, Ethernet, or cellular
- Optional AC receptacle available for PLC bridge
- Provides production metering and consumption monitoring

Simple

- Centered mounting brackets support single stud mounting
- Supports bottom, back and side conduit entry
- Up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)
- 80A total PV or storage branch circuits

Reliable

- Durable NRTL-certified NEMA type 3R enclosure
- Five-year limited warranty
- Two years labor reimbursement program coverage included for both the IQ Combiner SKU's
- UL listed

LISTED

To learn more about Enphase offerings, visit **enphase.com**

ENPHASE

Enphase IQ Combiner 4/4C

MODEL NUMBER	
IQ Combiner 4 (X-IQ-AM1-240-4)	IQ Combiner 4 with Enphase IQ Gateway printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 +/- 0.5%) and consumption monitoring (+/- 2.5%). Includes a silver solar shield to match the IQ Battery system and IQ System Controller 2 and to deflect heat.
IQ Combiner 4C (X-IQ-AM1-240-4C)	IQ Combiner 4C with Enphase IQ Gateway printed circuit board for integrated revenue grade PV production metering (ANSI C12.20 +/- 0.5%) and consumption monitoring (+/- 2.5%). Includes Enphase Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05), a plug-and-play industrial-grade cell modem for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area.) Includes a silver solar shield to match the IQ Battery and IQ System Controller and to deflect heat.
ACCESSORIES AND REPLACEMENT PARTS	(not included, order separately)
Ensemble Communications Kit COMMS-CELLMODEM-M1-06 CELLMODEM-M1-06-SP-05 CELLMODEM-M1-06-AT-05	- Includes COMMS-KIT-01 and CELLMODEM-M1-06-SP-05 with 5-year Sprint data plan for Ensemble sites - 4G based LTE-M1 cellular modem with 5-year Sprint data plan - 4G based LTE-M1 cellular modem with 5-year AT&T data plan
Circuit Breakers BRK-10A-2-240V BRK-15A-2-240V BRK-20A-2P-240V BRK-15A-2P-240V-B BRK-20A-2P-240V-B	Supports Eaton BR210, BR215, BR220, BR230, BR240, BR250, and BR260 circuit breakers. Circuit breaker, 2 pole, 10A, Eaton BR210 Circuit breaker, 2 pole, 15A, Eaton BR215 Circuit breaker, 2 pole, 20A, Eaton BR220 Circuit breaker, 2 pole, 15A, Eaton BR215B with hold down kit support Circuit breaker, 2 pole, 20A, Eaton BR220B with hold down kit support
EPLC-01	Power line carrier (communication bridge pair), quantity - one pair
XA-SOLARSHIELD-ES	Replacement solar shield for IQ Combiner 4/4C
XA-PLUG-120-3	Accessory receptacle for Power Line Carrier in IQ Combiner 4/4C (required for EPLC-01)
XA-ENV-PCBA-3	Replacement IQ Gateway printed circuit board (PCB) for Combiner 4/4C
X-IQ-NA-HD-125A	Hold down kit for Eaton circuit breaker with screws.
ELECTRICAL SPECIFICATIONS	
Rating	Continuous duty
System voltage	120/240 VAC, 60 Hz
Eaton BR series busbar rating	125 A
Max. continuous current rating	65 A
Max. continuous current rating (input from PV/storage)	64 A
Max. fuse/circuit rating (output)	90 A
Branch circuits (solar and/or storage)	Up to four 2-pole Eaton BR series Distributed Generation (DG) breakers only (not included)
Max. total branch circuit breaker rating (input)	80A of distributed generation / 95A with IQ Gateway breaker included
Production metering CT	200 A solid core pre-installed and wired to IQ Gateway
Consumption monitoring CT (CT-200-SPLIT)	A pair of 200 A split core current transformers
MECHANICAL DATA	
Dimensions (WxHxD)	37.5 x 49.5 x 16.8 cm (14.75" x 19.5" x 6.63"). Height is 21.06" (53.5 cm) with mounting brackets.
Weight	7.5 kg (16.5 lbs)
Ambient temperature range	-40° C to +46° C (-40° to 115° F)
Cooling	Natural convection, plus heat shield
Enclosure environmental rating	Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction
Wire sizes	• 20 A to 50 A breaker inputs: 14 to 4 AWG copper conductors • 60 A breaker branch input: 4 to 1/0 AWG copper conductors • Main lug combined output: 10 to 2/0 AWG copper conductors • Neutral and ground: 14 to 1/0 copper conductors Always follow local code requirements for conductor sizing.
Altitude	To 2000 meters (6,560 feet)
INTERNET CONNECTION OPTIONS	
Integrated Wi-Fi	802.11b/g/n
Cellular	CELLMODEM-M1-06-SP-05, CELLMODEM-M1-06-AT-05 (4G based LTE-M1 cellular modem). Note that an Enphase Mobile Connect cellular modem is required for all Ensemble installations.
Ethernet	Optional, 802.3, Cat5E (or Cat 6) UTP Ethernet cable (not included)
COMPLIANCE	
Compliance, IQ Combiner	UL 1741, CAN/CSA C22.2 No. 107.1, 47 CFR, Part 15, Class B, ICES 003 Production metering: ANSI C12.20 accuracy class 0.5 (PV production) Consumption metering: accuracy class 2.5
Compliance, IQ Gateway	UL 60601-1/CANCSA 22.2 No. 61010-1

To learn more about Enphase offerings, visit **enphase.com**

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

CUPEC, CLAY RESIDENCE
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LAT:35.338055, LON:-78.915807
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(26) Q PEAK DUO BLK ML G10+ 400W
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10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

DATE: 11/9/2022
REV: A
DRAWN BY: AW

SEAL:

EQUIPMENT SPECIFICATIONS
PV 11

Data Sheet
Enphase Q Cable Accessories
Region: INDIA

Enphase Q Cable and Accessories

The Enphase Q Cable™ and accessories are part of the sixth generation Enphase IQ System™. These products provide simplicity, reliability, and faster installation times.

Enphase Q Cable

- Two-wire, double-insulated Enphase Q Cable is 50% lighter than the previous generation Enphase cable
- Four-wire (three-phase) option also available
- New cable numbering and plug and play connectors speed up installation and simplify wire management
- Link connectors eliminate cable waste

Field-Wireable Connectors

- Easily connect Q cables on the roof without complex wiring
- Make connections from any open connector and center feed any section of cable within branch limits
- Available in male and female connector types

To learn more about Enphase offerings, visit **enphase.com/in**

ENPHASE.

Enphase Q Cable Accessories

Q CABLE SPECIFICATIONS	
Voltage rating	600V (connector rating up to 250 V)
Cable temperature rating	90° C wet/dry
UV exposure rating	EN ISO 492-2
Environmental protection rating	IEC 60529 IP67
Compliance	RoHS, OIL RES I, CE, UV resistant
Cable insulator rating	H07BQ-F
Flame rating	IEC 60332-1-2

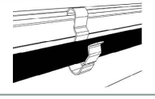
Q CABLE TYPES / ORDERING OPTIONS					
Model Number	**Max Nominal Voltage**	**Ampacity Rating**	**Connector Spacing**	**PV Module Orientation**	**Connector Count per Box**
Q-25-10-240 (single-phase)	250 VAC	25 A	1.3 m	Portrait	240
Q-25-17-240 (single-phase)	250 VAC	25 A	2.0 m	Landscape (60-cell)	240
Q-25-20-200 (single-phase)	250 VAC	25 A	2.3 m	Landscape (72-cell)	200
Q-25-10-3P-200 (three-phase)	250 VAC	25 A	1.3 m	Portrait	200
Q-25-17-3P-160 (three-phase)	250 VAC	25 A	2.0 m	Landscape (60-cell)	160
Q-25-20-3P-160 (three-phase)	250 VAC	25 A	2.3 m	Landscape (72-cell)	160

ENPHASE Q CABLE ACCESSORIES		
Name	**Model Number**	**Description**
Raw Q Cable (single-phase)	Q-25-RAW-300	300 meters cable with no connectors
Raw Q Cable (three-phase)	Q-25-RAW-3P-300	300 meters cable with no connectors
Field-wireable connector (male)	Q-CONN-R-10M	Make connections using single-phase cable
Field-wireable connector (male)	Q-CONN-3P-10M	Make connections using three-phase cable
Field-wireable connector (female)	Q-CONN-R-10F	Make connections from any Q Cable (single-phase) open connector
Field-wireable connector (female)	Q-CONN-3P-10F	Make connections from any Q Cable (three-phase) open connector
Cable Clip	ET-CLIP-100	Used to fasten cabling to the racking or to secure looped cabling
Disconnect tool	Q-DISC-10	Disconnect tool for Q Cable connectors, DC connectors, and AC module mount
Disconnect tool	Q-DISC-3P-10	Disconnect tool for three-phase Field wireable connectors
Q Cable sealing caps (female)	Q-SEAL-10	One needed to cover each unused connector on the cabling
Terminator (single-phase)	Q-TERM-R-10	Terminator cap for unused single-phase cable ends
Terminator (three-phase)	Q-TERM-3P-10	Terminator cap for unused three-phase cable ends
Replacement DC Adaptor (MC4)	Q-DCC-2-INT	DC adaptor to MC4 (max voltage 100 VDC)

TERMINATOR
Terminator cap for unused cable ends, sold in packs of ten (Q-TERM-R-10 / Q-TERM-3P-10))

SEALING CAPS
Sealing caps for unused cable connections, sold in packs of ten (Q-SEAL-10)

DISCONNECT TOOL
Plan to use at least one per installation, sold in packs of ten (Q-DISC-10)
Three-phase model (Q-DISC-3P-10)



CABLE CLIP
Used to fasten cabling to the racking or to secure looped cabling, sold in packs of one hundred (ET-CLIP-100)

To learn more about Enphase offerings, visit **enphase.com/in**

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2018-11-26

ENPHASE.

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

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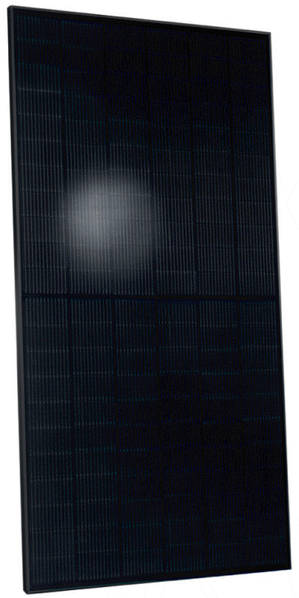
EQUIPMENT SPECIFICATIONS
PV 12

TITAN SOLAR PANEL

25 YR Warranty Product & Performance

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2021

Q CELLS Yield Security



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 CELLS

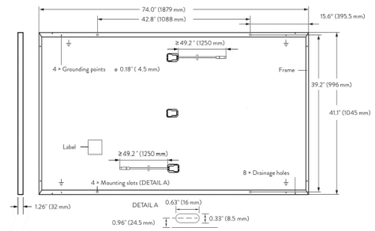
Q PEAK DUO BLK ML-G10+

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 mm² Solar cable; (+) ≥ 49.2 in (1250 mm), (−) ≥ 49.2 in (1250 mm)
CONNECTOR	Stäubli MC4; IP68

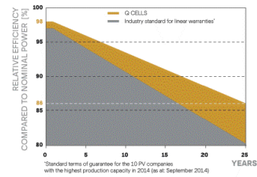


ELECTRICAL CHARACTERISTICS

POWER CLASS				385	390	395	400	405
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC [1] (POWER TOLERANCE +5 W / −0 W)								
MINIMUM	POWER AT MPP	P_{MPP}	[W]	385	390	395	400	405
MINIMUM	SHORT CIRCUIT CURRENT	I_{SC}	[A]	11.04	11.07	11.10	11.14	11.17
MINIMUM	OPEN CIRCUIT VOLTAGE	V_{OC}	[V]	45.19	45.23	45.27	45.30	45.34
MINIMUM	CURRENT AT MPP	I_{MPP}	[A]	10.59	10.65	10.71	10.77	10.83
MINIMUM	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]								
MINIMUM	POWER AT MPP	P_{MPP}	[W]	288.8	292.6	296.3	300.1	303.8
MINIMUM	SHORT CIRCUIT CURRENT	I_{SC}	[A]	8.90	8.92	8.95	8.97	9.00
MINIMUM	OPEN CIRCUIT VOLTAGE	V_{OC}	[V]	42.62	42.65	42.69	42.72	42.76
MINIMUM	CURRENT AT MPP	I_{MPP}	[A]	8.35	8.41	8.46	8.51	8.57
MINIMUM	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 • [2] 800 W/m², NMOT, spectrum AM 1.5

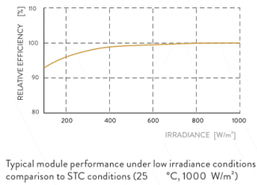
Q CELLS PERFORMANCE WARRANTY



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/ft²]	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/ft²]	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.

C CSP US Certified UL 61730 · CE · TÜVRheinland CERTIFIED www.tuv.com ID 1111220277

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
400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA
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

Specifications subject to technical changes © Q CELLS Q PEAK DUO BLK ML-G10+_385-405_2021-05_Rev01_NA

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

CUPEC, CLAY RESIDENCE
135 SOUTHERN PLACE , LILLINGTON, NC, 27546
LAT:35.338055, LON:-78.915807
TSP146972

(26) Q PEAK DUO BLK ML G10+ 400W
(26) ENPHASE IQ8PLUS-72-2-US
10.400 kW DC SYSTEM SIZE
7.540 kW AC SYSTEM SIZE

DATE: 11/9/2022
REV: A
DRAWN BY: AW

SEAL:

EQUIPMENT SPECIFICATIONS
PV 13

We support PV systems
Formerly Everest Solar Systems

Splice Foot X

Patent Pending

TECHNICAL SHEET

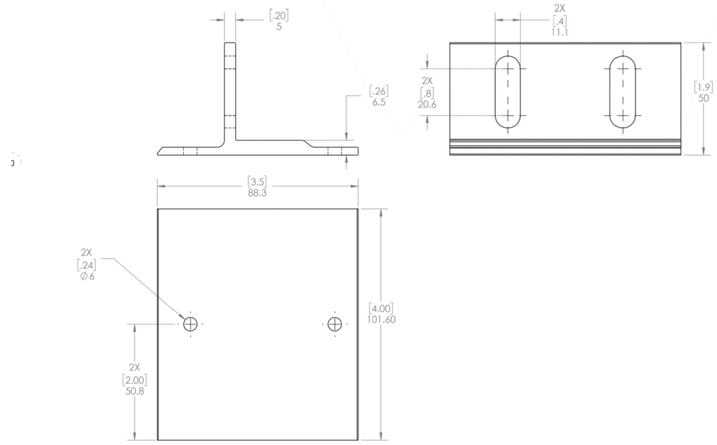
Item Number	Description	Part Number
1	Splice Foot X	4000113 | Splice Foot X Kit, Mill
2	K2 FlexFlash Butyl	
3	M5 x 60 lag screws	
4	T-Bolt & Hex Nut Set	

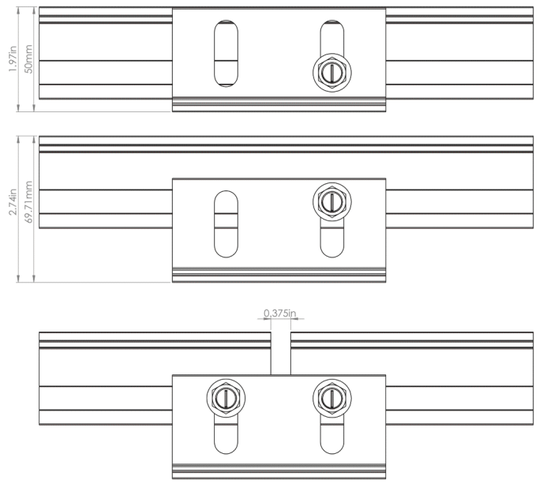
Technical Data

	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

We support PV systems
Formerly Everest Solar Systems

Units: [in] mm





k2-systems.com

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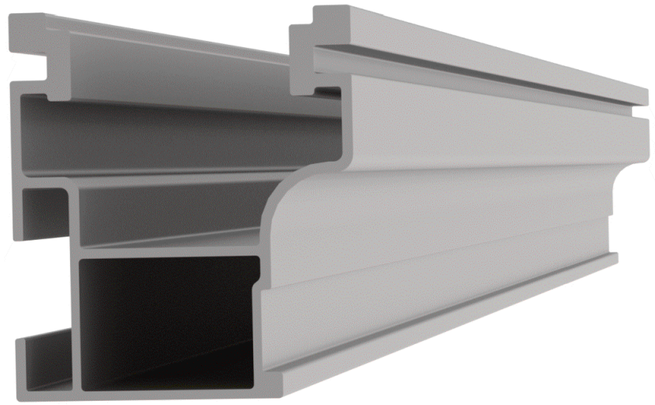
EQUIPMENT SPECIFICATIONS
PV 14

Mounting systems for solar technology

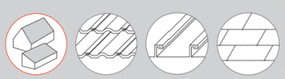
NEW!



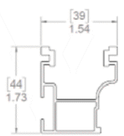
NEW PRODUCT

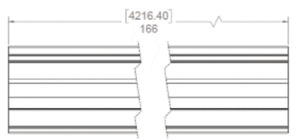
CrossRail 44-X

- 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





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EQUIPMENT SPECIFICATIONS
PV 15