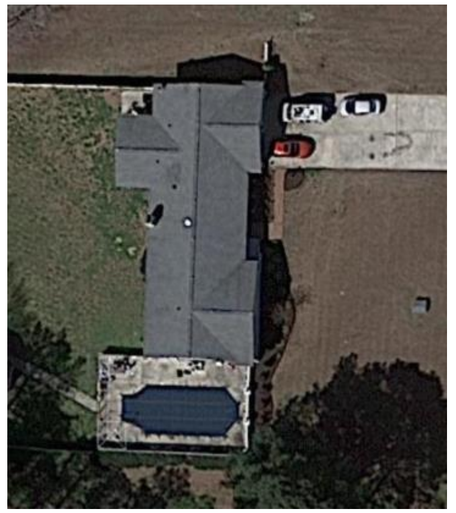
PROJECT DETAILS	
PV Modules	36 x REC ALPHA BLACK 375W
Optimizers	36 x P401
Inverter	1 x SE11400H-US (RGM)
Roof Type	Asphalt Shingles
Racking	PSR-B84 Rails (Black)
Mounting Type	CompMount Flashing (Black)
DC SIZE	13.5 kW
AC SIZE	11.4 kVA

DRAWING INDEX

Item	Drawing #	Rev	Description
1	22273SM00-0	A	Drawing Index
2	22273SM00-1	A	Site Layout
3	22273SM00-2	A	String Mapping
4	22273SM00-3	A	Electrical One Line Diagram
5	22273SM00-4	A	Detailed Electrical Wiring Schematic
6	22273SM00-5	A	PV Labels
7	22273SM00-6	A	Bill of Materials
8	22273SM00-7	A	PV Dead Load

TOP VIEW OF BUILDING



NOTICE TO CONTRACTOR
All construction must 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

08/17/2022

Harnett COUNTY NORTH CAROLINA

PHOTOVOLTIC NOTES

1. THE INSTALLATION OF SOLAR ARRAYS AND PHOTOVOLTAIC POWER SYSTEMS SHALL COMPLY WITH THE FOLLOWING CODES:
- 2020 NATIONAL ELECTRICAL CODE
- 2018 NORTH CAROLINA RESIDENTIAL CODE
- 2018 NORTH CAROLINA BUILDING CODE
- AS ADOPTED BY THE STATE OF NORTH CAROLINA
- ALL OTHER ORDINANCE ADOPTED BY THE LOCAL GOVERNING AGENCIES

2. ROOFTOP MOUNTED PHOTOVOLTAIC PANELS AND MODULES SHALL BE TESTED, LISTED AND IDENTIFIED BY RECOGNIZED ELECTRICAL TESTING LABORATORY.

3. SOLAR SYSTEM SHALL NOT COVER ANY PLUMBING OR MECHANICAL VENTS

4. MODULES AND SUPPORT STRUCTURES SHALL BE GROUNDED

5. SOLAR INVERTER SHALL BE LISTED TO UL1741

6. ALL CONDUCTORS SHALL BE COPPER AND SHOULD BE 75 AND 90 DEG RATED

7. REMOVAL OF AN INTERACTIVE INVERTER OR OTHER EQUIPMENT SHALL NOT DISCONNECT THE BONDING CONNECTION BETWEEN THE GROUNDING ELECTRODE CONDUCTOR AND THE PHOTOVOLTAIC SOURCE AND/OR OUTPUT CIRCUIT GROUNDED CONDUCTORS.

8. LIVE PARTS OF PV SOURCE CIRCUITS AND PV OUTPUT CIRCUITS OVER 150V TO GROUND SHALL NOT BE ACCESSIBLE TO OTHER THAN QUALIFIED PERSONS WHILE ENERGIZED.

9. ALL PV MODULES AND ASSOCIATED EQUIPMENT AND WIRING SHALL BE PROTECTED FROM PHYSICAL DAMAGE.

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ADVANCING ENERGY INDEPENDENCE

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Fuquay Varina NC 27526

NABCEP CERTIFIED
PV Installation Professional
Ali Buttar
PVIP #031310-32

A	07/29/2022		

Customer's Signature

JOB NUMBER
22-273-SM00

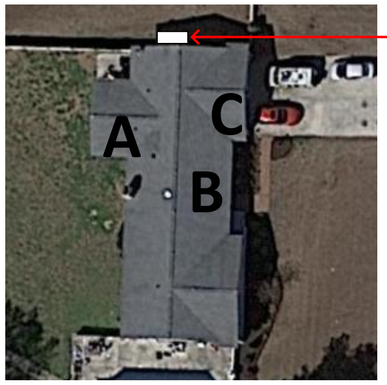
PROJECT STATUS
PERMITTING

SHEET
DRAWING INDEX

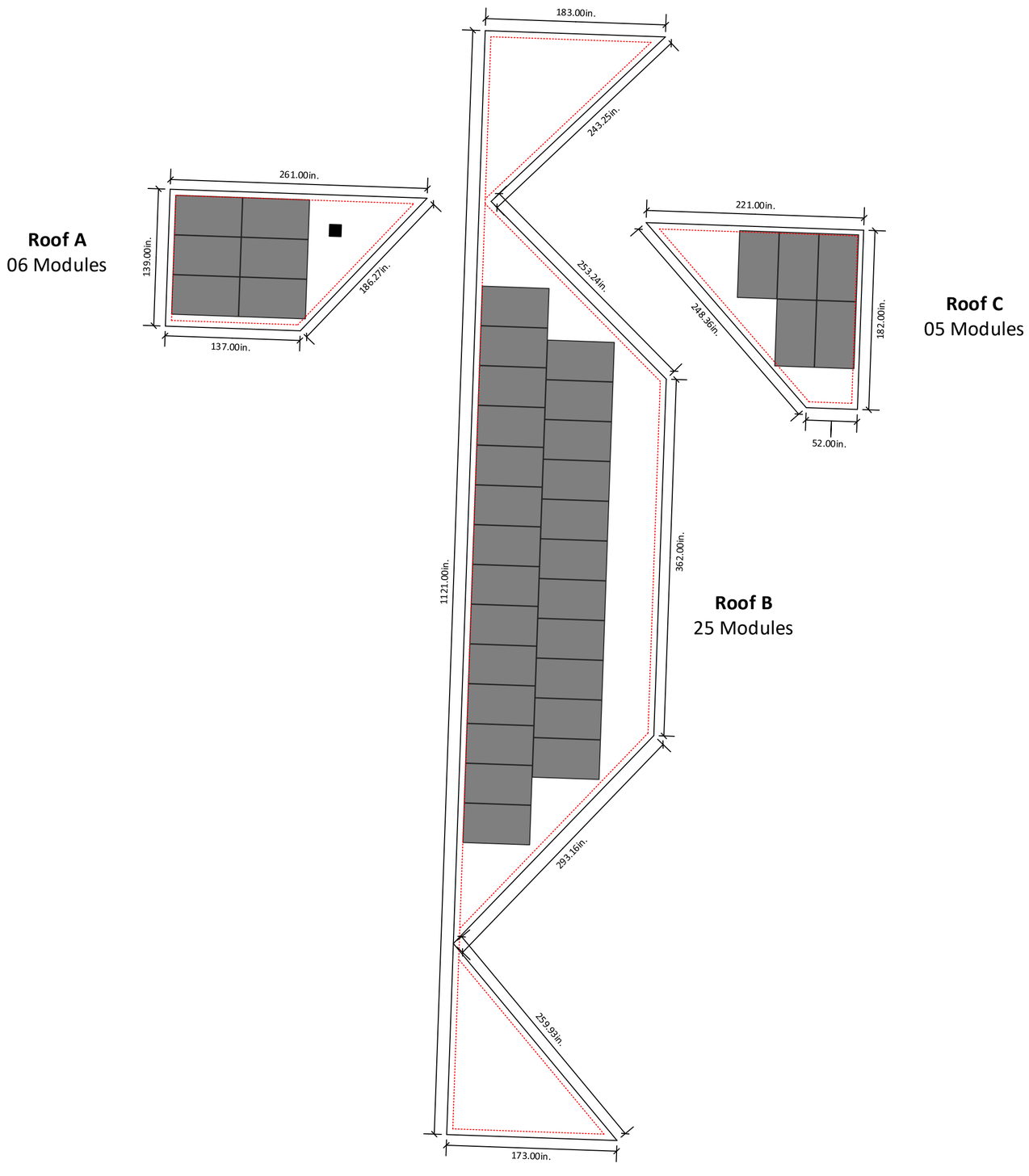
SM
22273SM00-0

There is one layer of shingles
Roofing material is asphalt shingles

The roof is located in 116mph wind zone



Module Dimension	67.8 in. × 40.0 in.	
Roofs	Pitch	Azimuth
A	18°	182°
B	18°	92°
C	18°	182°



Roof A
06 Modules

Roof B
25 Modules

Roof C
05 Modules

SYSTEM DETAILS

NUMBER OF PANELS : 36
PANELS MODEL : REC ALPHA BLACK 375W
DC SIZE : 13.5 kW
AC SIZE : 11.4 kVA

6" clearance from each side of the roof

SITE LAYOUT
SCALE: 1/8" - 1' 0"

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A	07/29/2022	

Customer's Signature

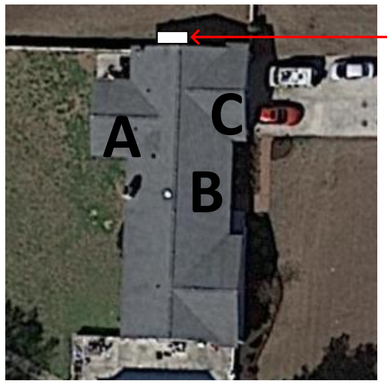
JOB NUMBER
22-273-SM00

PROJECT STATUS
PERMITTING

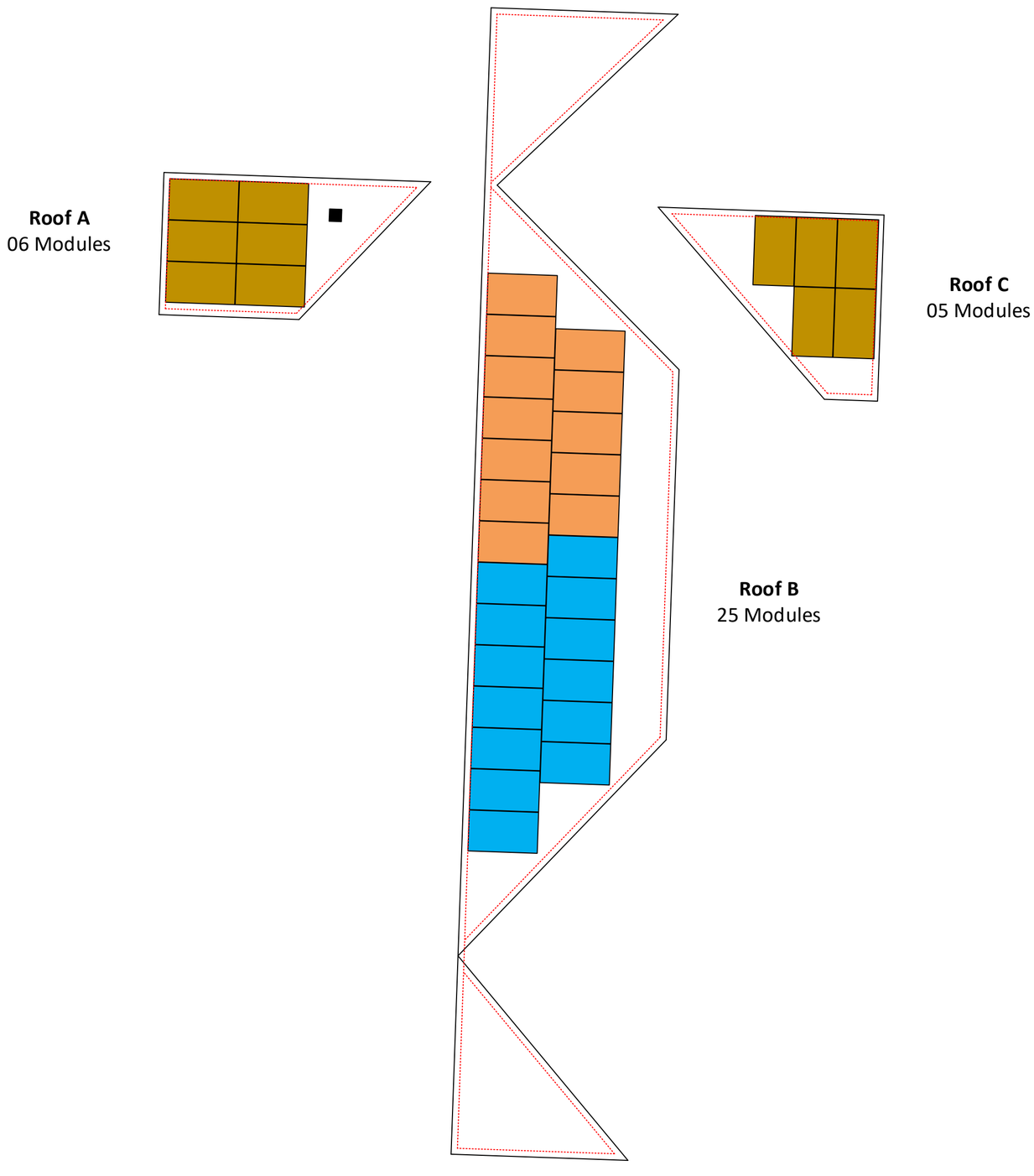
SHEET
SITE LAYOUT

SM
22273SM00-1

String Layout					
Inverter SE11400H-US (RGM)					
Strings #	No. of Modules	Color Code	Strings #	No. of Modules	Color Code
String 1	13				
String 2	12				
String 3	11				



Module Dimension	67.8 in. × 40.0 in.	
Roofs	Pitch	Azimuth
A	18°	182°
B	18°	92°
C	18°	182°



SYSTEM DETAILS

NUMBER OF PANELS : 36
PANELS MODEL : REC ALPHA BLACK 375W
DC SIZE : 13.5 kW
AC SIZE : 11.4 kVA

6" clearance from each side of the roof

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

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A	07/29/2022	

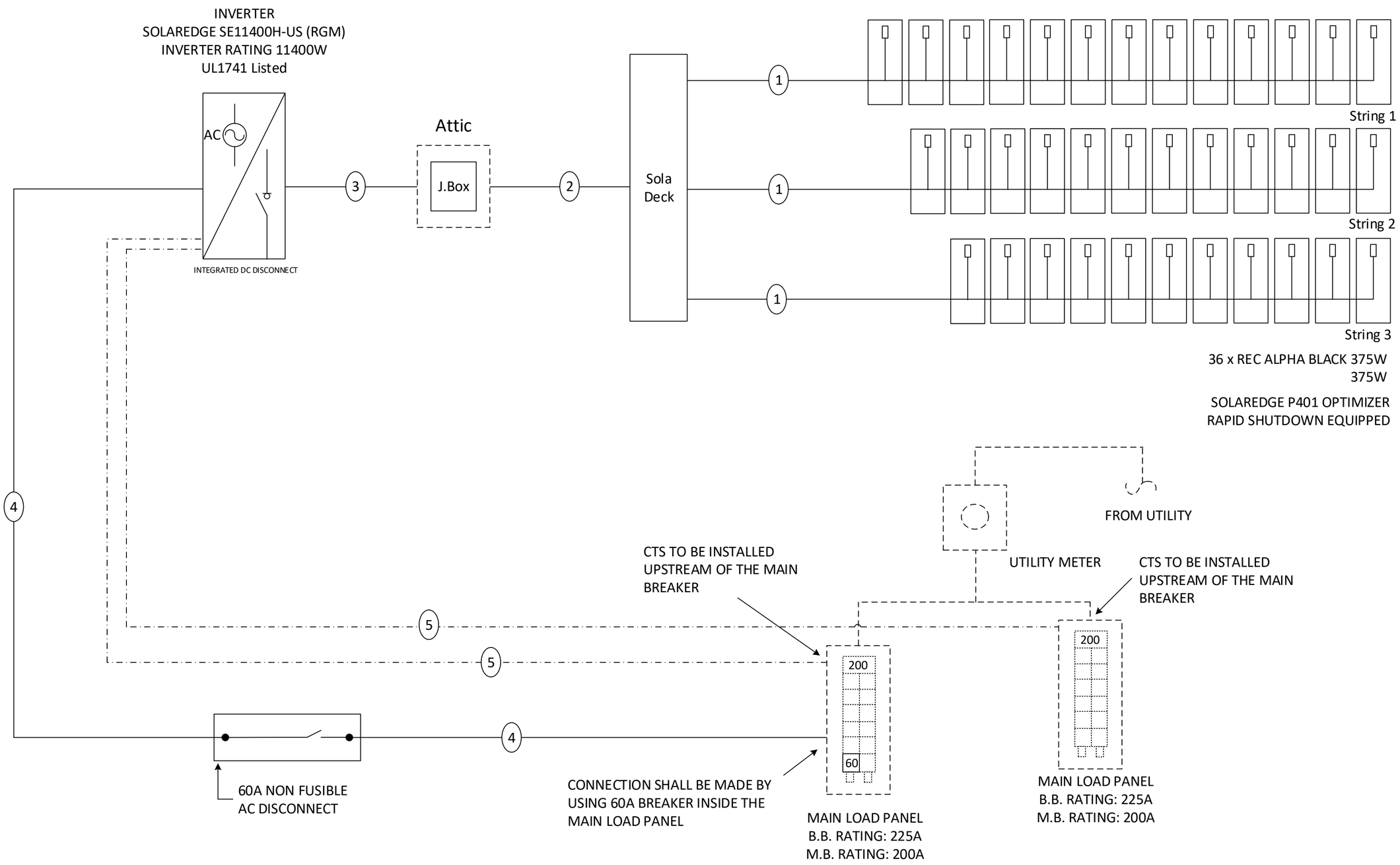
Customer's Signature

JOB NUMBER
22-273-SM00

PROJECT STATUS
PERMITTING

SHEET
STRING MAPPING

SM
22273SM00-2



ELECTRICAL NOTES

- System Size: 13,500W DC
- (36) REC ALPHA BLACK 375W
- (36) SOLAREDGE P401 OPTIMIZERS
- (01) SOLAREDGE SE11400H-US (RGM)
- Output: 47.5A max @ 240 VAC
- 11.4 kVA AC output max

- Grounding will be done via Pegasus grounding lugs, mid-clamps and NS bonding jumpers to ensure the rail and panels are continuously grounded.
- Rapid Shutdown is included in the Inverter, refer to inverter & optimizer attached datasheets.
- The load center / disconnect will be visible, lockable accessible to utility linesmen and will be properly labelled as per NEC requirements. It will be located on the exterior wall of the building, next to the utility meter.

STRING 1:
13 x 375W = 4,875W ea
I mpp = 12.187 Adc
I max = 23.4 Adc
V mpp = 400 Vdc
V oc = 13 Vdc

STRING 2:
12 x 375W = 4,500W ea
I mpp = 11.25 Adc
I max = 23.4 Adc
V mpp = 400 Vdc
V oc = 12 Vdc

STRING 3:
11 x 375W = 4,125W ea
I mpp = 10.31 Adc
I max = 23.4 Adc
V mpp = 400 Vdc
V oc = 11 Vdc

Note: 60A breaker should be connected at the end of the bus bar of main load panel for solar connection

Sr.No	#Wire	Conduit Size	Ground Wire	Amperage
1	2 x #10 PV		#10 Bare CU	
2	3 x #10 MC Cable			23.4A
3	6 x #10 THHN Cu	3/4" EMT	#10 Green	
4	3 x #6 THHN Cu	3/4" EMT	#8 Green	59.37A
5	Shielded CAT5e			

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A	07/29/2022	

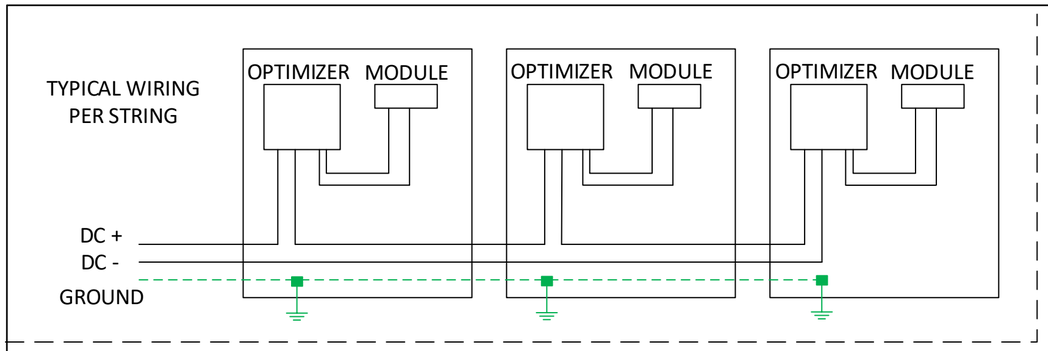
Customer's Signature

JOB NUMBER
22-273-SM00

PROJECT STATUS
PERMITTING

SHEET
ELECTRICAL ONE LINE DIAGRAM

SM
22273SM00-3



Line 1	
Line 2	
Neutral	
Ground	

DIP SWITCH CONFIGURATION

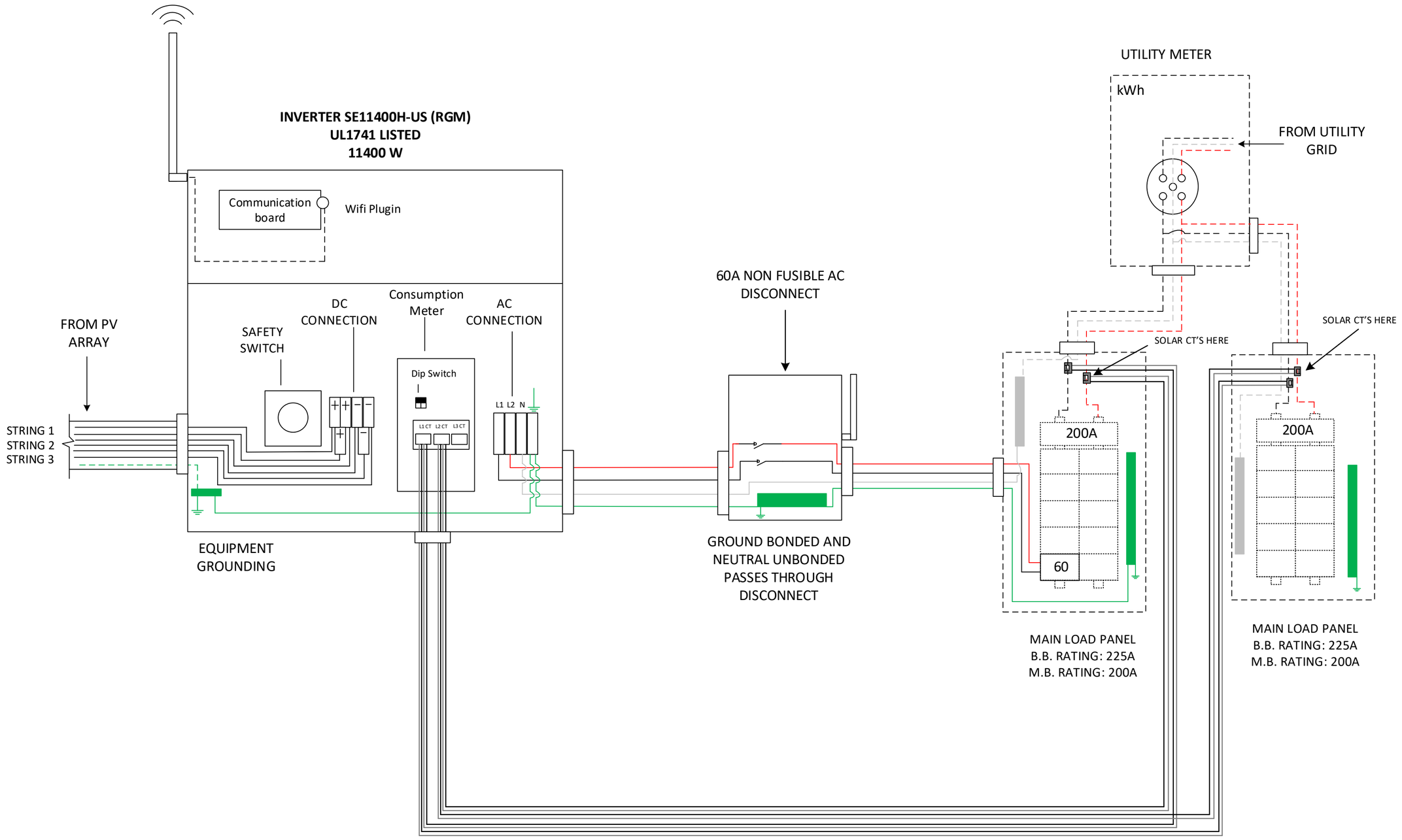
■	0	OFF
□	1	ON

Note

- The arrow on the 225A CTs should face the grid.

Note

- Dip switch settings are factory set to address 1



Note: 60A breaker should be connected at the end of the bus bar of main load panel for solar connection

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A	07/29/2022	

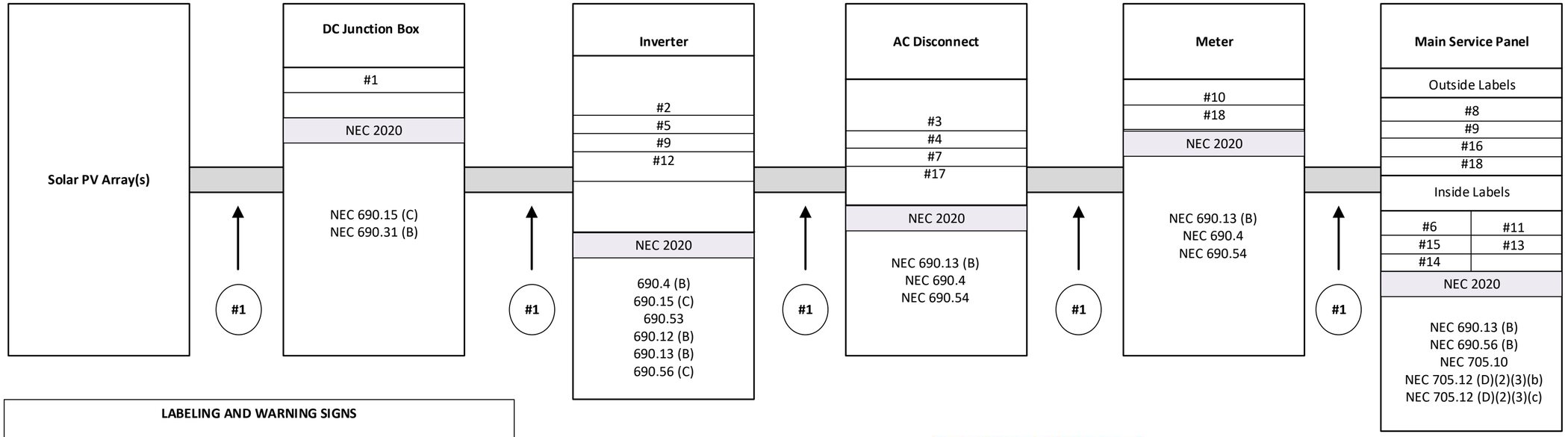
Customer's Signature

JOB NUMBER
22-273-SM00

PROJECT STATUS
PERMITTING

SHEET
DETAILED ELECTRICAL DIAGRAM

SM
22273SM00-4



LABELING AND WARNING SIGNS

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

B. MAIN SERVICE DISCONNECT:

1. RESIDENTIAL BUILDINGS- THE MARKING MAY BE PLACED WITHIN THE MAIN SERVICE DISCONNECT. THE MARKING SHALL BE PLACED ON THE OUTSIDE COVER IF THE MAIN SERVICE DISCONNECT IS OPERABLE WITH THE SERVICE PANEL CLOSED.

2. COMMERCIAL BUILDINGS- THE MARKINGS SHALL BE PLACED ADJACENT TO THE MAIN SERVICE DISCONNECTCLEARLY VISIBLE FROM THE LOCATION WHERE THE LEVER IS OPERATED

3. MARKINGS, VERBIAGE, FORMAT AND TYPE OF MATERIAL

a. VERBIAGE: CAUTION; SOLAR ELECTRIC SYSTEM CONNECTED
b. FORMAT:

(1) WHITE LETTERING ON A RED BACKGROUND
(2) MINIMUM 3/8 INCH LETTER HEIGHT
(3) ALL LETTERS SHALL BE CAPITALIZED
(4) ARIAL OR SIMILAR FONT, NON-BOLD

c. MATERIAL:

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

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

1. MARKING: PLACEMENT, VERBIAGE, FORMAT AND TYPE OF MATERIAL.

a. PLACEMENT: MARKINGS SHALL BE PLACED EVERY 10 (TEN) FEET ON ALL INTERIOR AND EXTERIOR DC CONDUITS, RACEWAYS, ENCLOSURES AND CABLE ASSEMBLIES, AT TURNS ABOVE AND/OR BELOW PENETRATIONS, ALL DC COMBINERS AND JUNCTION BOXES.
b. VERBIAGE: CAUTION SOLAR CIRCUIT
c. THE FORMAT AND TYPE OF MATERIAL SHALL ADHERE TO SECTION B-3.B & C ABOVE

D. INVERTERS ARE NOT REQUIRED TO HAVE CAUTION MARKINGS

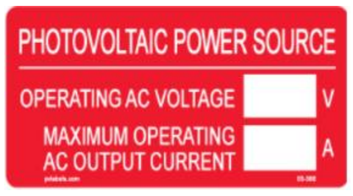
#1


#2


#3


#4


#5


#6


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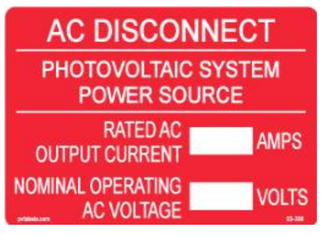

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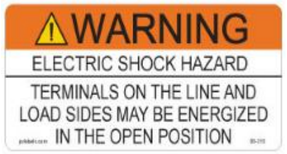


#9

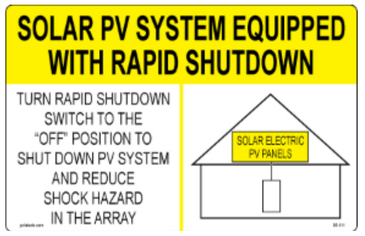

#10


#11


#12


#13


#14


#15


#16
SOLAR AC DISCONNECT LOCATED AT NORTH SIDE WALL OF THE HOUSE BESIDE THE UTILITY METER

#17
SERVICE DISCONNECT LOCATED IN THE MAIN LOAD PANEL

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PV Installation Professional
Ali Buttar
PVIP #031310-32

A	07/29/2022	

Customer's Signature

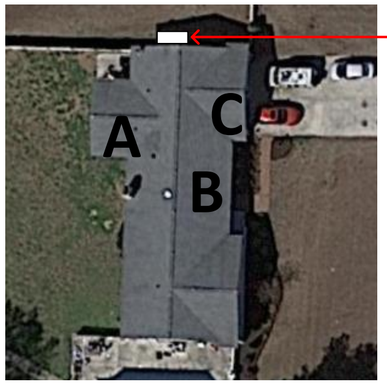
JOB NUMBER
22-273-SM00

PROJECT STATUS
PERMITTING

SHEET
PV LABELS

SM
22273SM00-5

Rails and Splices : PSR-B84 (BLACK)	Roof Attachment : Pegasus Comp Mount
Rafter Spacing : 16 in	There is one layer of shingles Roofing material is asphalt shingles
Attachment Span: 4ft	The roof is located in 116mph wind zone



Module Dimension	67.8 in. / 40.0 in.	
Roofs	Pitch	Azimuth
A	18°	182°
B	18°	92°
C	18°	182°

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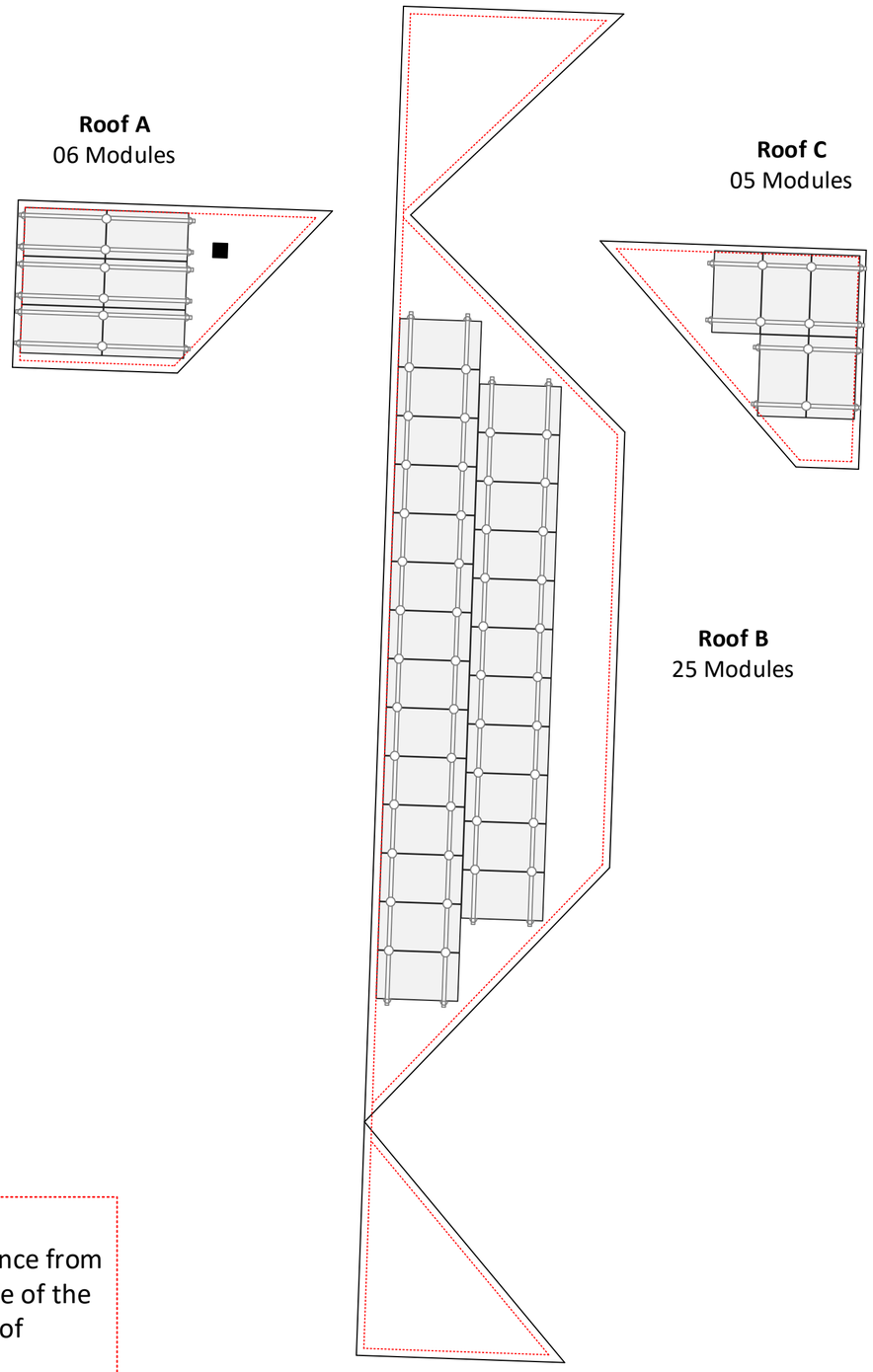
Roof A
06 Modules

Roof C
05 Modules

Roof B
25 Modules



6" clearance from each side of the roof

PV LABELS		
Sr No	Code	Qty
01	02-314	12
02	03-301	01
03	03-302	01
04	02-316	01
05	03-308	01
06	03-390	01
07	03-306	01
08	05-215	01
09	05-211	02
10	07-359	01
11	05-372	01
12	05-103	01
13	05-342	01
14	05-108	01
15	07-111	01
16	8M-001	01
17	8M-002	01

- 44 x PSR-B84: Pegasus Rail, Black, 84" (7 Feet)
- 30 x PSR-SPL: Pegasus - Bonded, Structural Splice
- 58 x PSR-MCB: Pegasus - Multiclamp, Mid/End, 30 to 40 mm, Black
- 28 x PSR-HEC: Pegasus - Hidden End Clamp
- 36 x PSR-MLP: Pegasus - MLPE Mount
- 09 x PSR-LUG: Pegasus - Grounding Lug
- 06 x PSR-NSJ: Pegasus - N-S Bonding Jumper
- 54 x PSR-WMC: Pegasus - Wire Management Clip
- 06 x PSR-CBG: Pegasus - Cable Grip
- 28 x PSR-CAP: Pegasus - End Cap
- 74 x PSCR-UBBDT: Pegasus Comp Mount - Open Slot, Black L Foot, Black Flashing, Dovetail 3/8" T-Bolt
- 72 x Heyco Wire Clips

SOLAR MODULES
- 36 x REC ALPHA BLACK 375W

INVERTER & SUPPORTING ITEMS
- 01 x SolarEdge SE11400H-US US000BNI4 (RGM)
- 36 x SolarEdge Power Optimizer P401
- 01 x SE-WFGW-B-S1-NA with Antenna kit
- 04 x SolarEdge 225A CTs

WIRE
- 500 ft x #10 PV WIRE BLK (Cu)

N

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

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Ali Buttar
PVIP #031310-32

A	07/29/2022	

Customer's Signature

JOB NUMBER
22-273-SM00

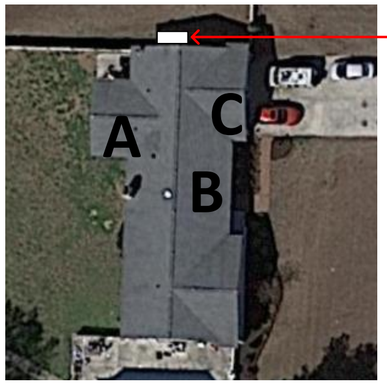
PROJECT STATUS
PERMITTING

SHEET
BILL OF MATERIAL

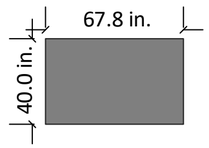
SM
22273SM00-6

PV System Dead Load
(Panel + Racking weight) / PV System Area
(No. of panels x Weight of panel(lbs.) +Length of racking(ft.) x 1.17 lb.ft) /
(No. of panels x Height x Width) = Total psf

The roof is located in 116mph wind zone	There is one layer of shingles Roofing material is asphalt shingles



Module Dimension



Roofs	Pitch	Azimuth
A	18°	182°
B	18°	92°
C	18°	182°

ROOF A

PV System Dead Load
(Panel + Racking weight) / PV System Area
(06 panels x 43 lbs./panel + 68 ft. of racking x 1.17 lb.ft) /
(06 panels x 5.65' x 3.33') = 2.98 psf

ROOF B

PV System Dead Load
(Panel + Racking weight) / PV System Area
(25 panels x 43 lbs./panel + 168 ft. of racking x 1.17 lb.ft) /
(25 panels x 5.65' x 3.33') = 2.70 psf

ROOF C

PV System Dead Load
(Panel + Racking weight) / PV System Area
(05 panels x 43 lbs./panel + 34 ft. of racking x 1.17 lb.ft) /
(05 panels x 5.65' x 3.33') = 2.70 psf

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A	07/29/2022	

Customer's Signature

JOB NUMBER
22-273-SM00

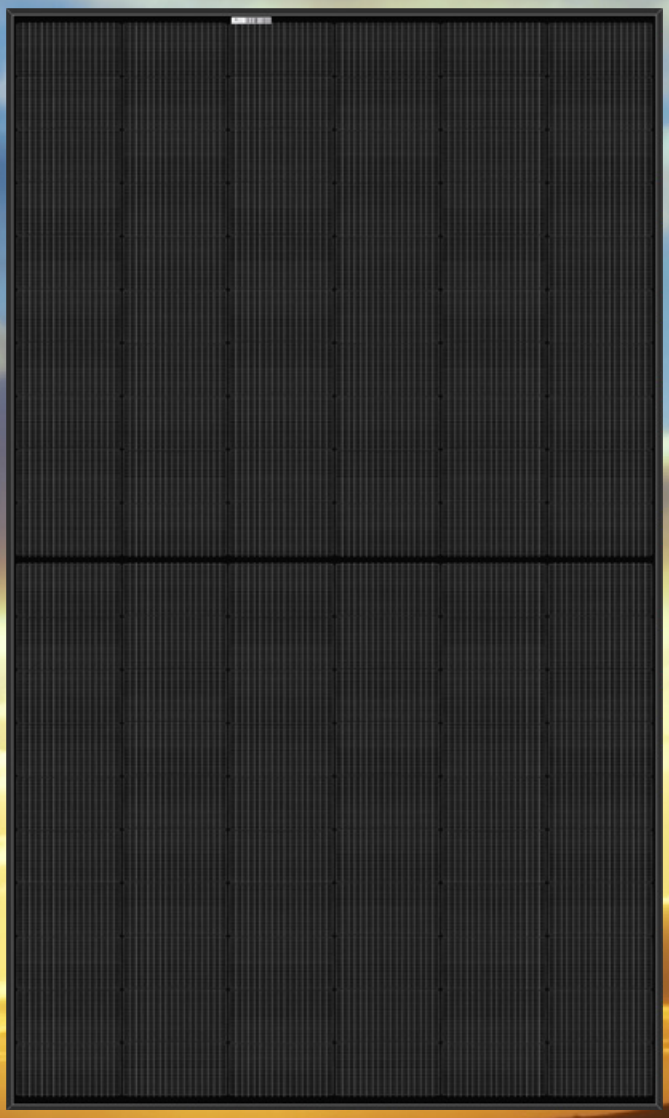
PROJECT STATUS
PERMITTING

SHEET
PV DEAD LOAD

SM
22273SM00-7

SOLAR'S MOST TRUSTED

REC



REC ALPHα BLACK SERIES

PRODUCT SPECIFICATIONS

375 WP

19.9 W/FT²

PRODUCT REC 25 YEAR PROTRUST WARRANTY PERFORMANCE LABOR

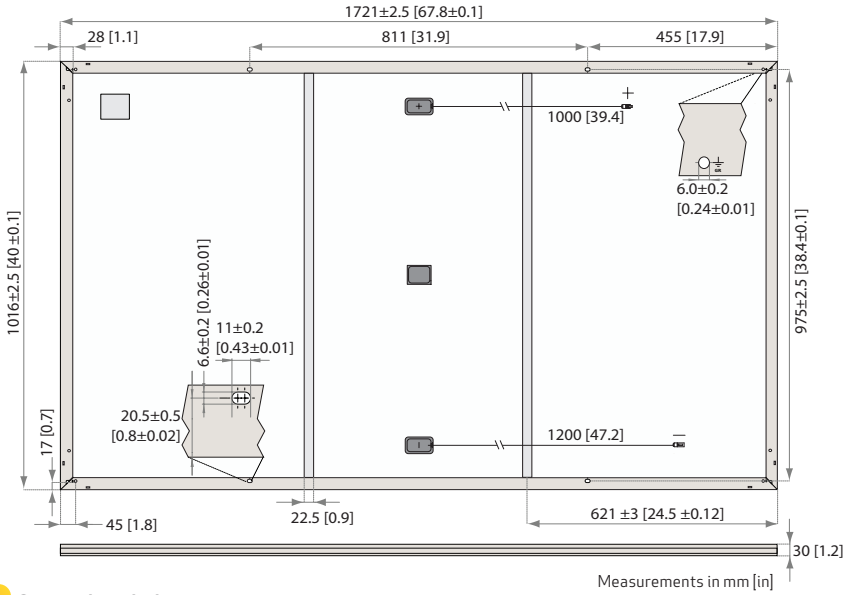
ELIGIBLE

inter solar award 2020 WINNER

EXPERIENCE α PERFORMANCE

REC
SOLAR'S MOST TRUSTED

PRODUCT SPECIFICATIONS



Measurements in mm [in]

GENERAL DATA

Cell type:	120 half-cut cells with REC heterojunction bifacial cell technology 6 strings of 20 cells in series	Connectors:	Stäubli MC4 PV-KBT4/KST4, 12 AWG (4 mm²) in accordance with IEC 62852 IP68 only when connected
Glass:	0.13 in (3.2 mm) solar glass with anti-reflection surface treatment	Cable:	12 AWG (4 mm²) PV wire, 39 + 47 in (1 + 1.2 m) in accordance with EN 50618
Backsheet:	Highly resistant polymeric construction (black)	Dimensions:	67.8 x 40 x 1.2 in (1721 x 1016 x 30 mm)
Frame:	Anodized aluminum (black)	Weight:	43 lbs (19.5 kg)
Junction box:	3-part, 3 bypass diodes, IP68 rated in accordance with IEC 62790	Origin:	Made in Singapore

ELECTRICAL DATA

	Product Code*: RECxxxAA Black				
STC					
Power Output - P_{MAX} (Wp)	355	360	365	370	375
Watt Class Sorting - (W)	-0/+5	-0/+5	-0/+5	-0/+5	-0/+5
Nominal Power Voltage - V_{MPP} (V)	36.4	36.7	37.1	37.4	37.8
Nominal Power Current - I_{MPP} (A)	9.77	9.82	9.85	9.90	9.94
Open Circuit Voltage - V_{OC} (V)	43.6	43.9	44.0	44.1	44.2
Short Circuit Current - I_{SC} (A)	10.47	10.49	10.52	10.55	10.58
Power Density (W/sq ft)	18.9	19.1	19.4	19.7	19.9
Panel Efficiency (%)	20.3	20.6	20.9	21.2	21.4
NMOT					
Power Output - P_{MAX} (Wp)	271	274	278	282	286
Nominal Power Voltage - V_{MPP} (V)	34.3	34.6	35.0	35.2	35.6
Nominal Power Current - I_{MPP} (A)	7.89	7.93	7.96	8.00	8.03
Open Circuit Voltage - V_{OC} (V)	41.1	41.4	41.5	41.6	41.6
Short Circuit Current - I_{SC} (A)	8.46	8.47	8.50	8.52	8.55

Values at standard test conditions (STC: air mass AM 1.5, irradiance 10.75 W/sq ft (1000 W/m²), temperature 77°F (25°C), based on a production spread with a tolerance of P_{MAX}, V_{OC} & I_{SC} ±3% within one watt class. Nominal module operating temperature (NMOT: air mass AM 1.5, irradiance 800 W/m², temperature 68°F (20°C), windspeed 3.3 ft/s (1 m/s). * Where xxx indicates the nominal power class (P_{MAX}) at STC above.

CERTIFICATIONS

IEC 61215:2016, IEC 61730:2016, UL 61730	
IEC 62804	PID
IEC 61701	Salt Mist
IEC 62716	Ammonia Resistance
UL 1703	Fire Type 2
IEC 62782	Dynamic Mechanical Load
IEC 61215-2:2016	Hailstone (35mm)
AS4040.2 NCC 2016	Cyclic Wind Load
ISO 14001:2004, ISO 9001:2015, OHSAS 18001:2007, IEC 62941	

WARRANTY

	Standard	REC ProTrust	
Installed by an REC Certified Solar Professional	No	Yes	Yes
System Size	All	≤25 kW	25-500 kW
Product Warranty (yrs)	20	25	25
Power Warranty (yrs)	25	25	25
Labor Warranty (yrs)	0	25	10
Power in Year 1	98%	98%	98%
Annual Degradation	0.25%	0.25%	0.25%
Power in Year 25	92%	92%	92%

See warranty documents for details. Conditions apply.

MAXIMUM RATINGS

Operational temperature:	-40 ... +185°F (-40 ... +85°C)
Maximum system voltage:	1000 V
Maximum test load (front):	+7000 Pa (146 lbs/sq ft)*
Maximum test load (rear):	-4000 Pa (83.5 lbs/sq ft)*
Max series fuse rating:	25 A
Max reverse current:	25 A

* See installation manual for mounting instructions.
Design load = Test load / 1.5 (safety factor)

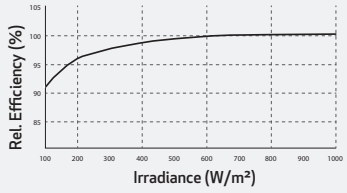
TEMPERATURE RATINGS*

Nominal Module Operating Temperature:	44°C (±2°C)
Temperature coefficient of P_{MAX}:	-0.26 %/°C
Temperature coefficient of V_{OC}:	-0.24 %/°C
Temperature coefficient of I_{SC}:	0.04 %/°C

*The temperature coefficients stated are linear values

LOW LIGHT BEHAVIOUR

Typical low irradiance performance of module at STC:



Specifications subject to change without notice.

Ref: PM-DS-12-02-Rev- F 01.21

Founded in 1996, REC Group is an international pioneering solar energy company dedicated to empowering consumers with clean, affordable solar power. As Solar's Most Trusted, REC is committed to high quality, innovation, and a low carbon footprint in the solar materials and solar panels it manufactures. Headquartered in Norway with operational headquarters in Singapore, REC also has regional hubs in North America, Europe, and Asia-Pacific.

REC
www.recgroup.com

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 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, NEC 2017 and NEC 2020 per article 690.11 and 690.12
- UL1741 SA certified, for CPUC Rule 21 grid compliance
- Small, lightweight, and easy to install both outdoors or indoors
- Built-in module-level monitoring
- Optional: Faster installations with built-in consumption metering (1% accuracy) and production revenue grade metering (0.5% accuracy, ANSI C12.20)

solaredge

/ Single Phase Inverter with HD-Wave Technology

for North America

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

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXXBXX4							
OUTPUT								
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V	VA
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓	Vac
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓	Vac
AC Frequency (Nominal)	59.3 - 60 - 60.5(1)							Hz
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5	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				400			Vdc
Maximum Input Current @240V(2)	8.5	10.5	13.5	16.5	20	27	30.5	Adc
Maximum Input Current @208V(2)	-	9	-	13.5	-	-	27	Adc
Max. Input Short Circuit Current	45							Adc
Reverse-Polarity Protection	Yes							
Ground-Fault Isolation Detection	600kΩ Sensitivity							
Maximum Inverter Efficiency	99	99.2						%
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

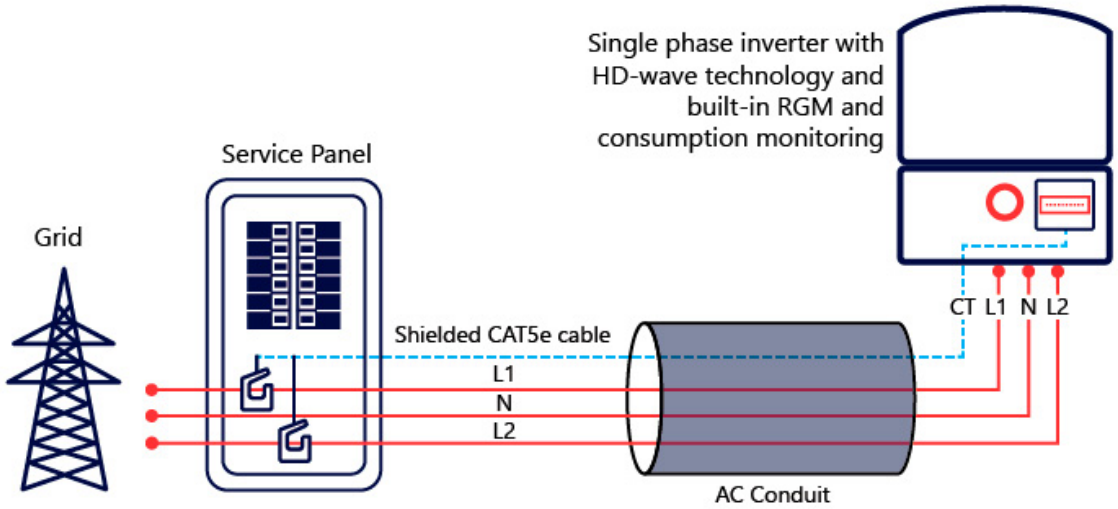
MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US	
ADDITIONAL FEATURES								
Supported Communication Interfaces	RS485, Ethernet, ZigBee (optional), Cellular (optional)							
Revenue Grade Metering, ANSI C12.20	Optional[3]							
Consumption metering								
Inverter Commissioning	With the SetApp mobile application using Built-in Wi-Fi Access Point for Local Connection							
Rapid Shutdown - NEC 2014, NEC 2017 and NEC 2020, 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 (HI)							
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		in / mm
Weight with Safety Switch	22 / 10		25.1 / 11.4	26.2 / 11.9		38.8 / 17.6		lb / kg
Noise	< 25				<50			dBA
Cooling	Natural Convection							
Operating Temperature Range	-40 to +140 / -40 to +60[4]							°F / °C
Protection Rating	NEMA 4X (Inverter with Safety Switch)							

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

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

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



RoHS

Power Optimizer

For North America

P370 / P400 / P401 / 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

/ Power Optimizer

For North America

P370 / P400 / P401 / P485 / P505

Optimizer model (typical module compatibility)	P370 (for higher-power 60 and 72-cell modules)	P400 (for 72 & 96-cell modules)	P401 (for high power 60 and 72 cell modules)	P485 (for high-voltage modules)	P505 (for higher current modules)	
INPUT						
Rated Input DC Power[1]	370	400	430	485	505	W
Absolute Maximum Input Voltage (Voc at lowest temperature)	60	80	60	125[2]	83[2]	Vdc
MPPT Operating Range	8 - 60	8 - 80	8-60	12.5 - 105	12.5 - 83	Vdc
Maximum Short Circuit Current (Isc)	11	10.1	12.5	11	14	Adc
Maximum DC Input Current	13.75	12.5	14.65	12.5	17.5	
Maximum Efficiency	99.5					%
Weighted Efficiency	98.8					%
Overvoltage Category	II					
OUTPUT DURING OPERATION (POWER OPTIMIZER CONNECTED TO OPERATING SOLAREDGE INVERTER)						
Maximum Output Current	15					Adc
Maximum Output Voltage	60			80		Vdc
OUTPUT DURING STANDBY (POWER OPTIMIZER DISCONNECTED FROM SOLAREDGE INVERTER OR SOLAREDGE INVERTER OFF)						
Safety Output Voltage per Power Optimizer	1 ± 0.1					Vdc
STANDARD COMPLIANCE						
EMC	FCC Part 15 Class B, IEC61000-6-2, IEC61000-6-3					
Safety	IEC62109-1 (class II safety), UL1741, NEC/PVRSS					
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[3]			MC4[3]	MC4[3]	
Input Wire Length	0.16 / 0.5					m / ft
Output Wire Type / Connector	Double Insulated / MC4					
Output Wire Length	1.2 / 3.9					m / ft
Operating Temperature Range[4]	-40 to +85 / -40 to +185					˚C / ˚F
Protection Rating	IP68 / Type6B					
Relative Humidity	0 - 100					%

(1) Rated power of the module at STC will not exceed the optimizer "Rated Input DC Power". Modules with up to +5% power tolerance are allowed
(2) NEC 2017 requires max input voltage be not more than 80V
(3) For other connector types please contact SolarEdge
(4) Longer inputs wire lengths are available for use. For 0.9m input wire length order P401-xxxLxxx
(5) For ambient temperature above +85°C / +185°F power de-rating is applied. Refer to Power Optimizers Temperature De-Rating Technical Note for more details: https://www.solaredge.com/sites/default/files/se-temperature-derating-note-na.pdf

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)	P370, P400, P401	8		10	18	
	P485, P505	6		8	14	
Maximum String Length (Power Optimizers)		25		25	50	
Maximum Power per String		5700[8] (6000 with SE7600-US - SE11400-US)	5250[8]	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 P485/P505 with 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 6,500W 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

Intertek RoHS

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

Subject: ETL Evaluation of SolarEdge Products to Rapid Shutdown Requirements

To, whom it may concern

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

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

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

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

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

Applicable products:

(1) Power optimizers:

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

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

(2) 1 -PH Inverters

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

Inverter part number may be followed by a suffix.

(3) 3 -PH Inverters

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

SE9KUS / SE10KUS / SE14.4KUS/ SE16.7kUS / SE17.3kUS / SE20KUS/ 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 National Electric Code, 2020, Section 690.12 requirement for rapid shutdown
Verification Issuing Office	3933 US Route 11, Cortland, NY 13045

Signature: 

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

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

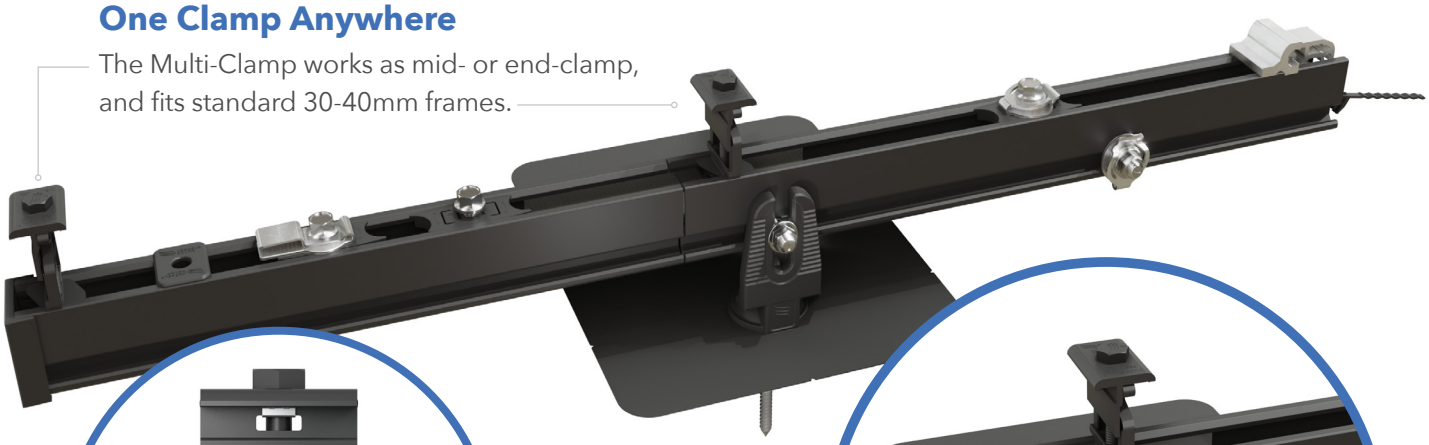
Date	Engineer / Reviewer	Description
5/17/2021 G104683664CRT	Dishant Patel	Added New 3-PH Inverter model SE50KUS, SE80KUS, SE85KUS and SE120KUS.
	Mukund Rana	Updated Power optimizers from "P followed by 001 to 960" to "P followed by 001 to 1100" Updated NEC standard from "National Electric Code, 2017,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

PEGASUS SOLAR™
A Better Day on the Job

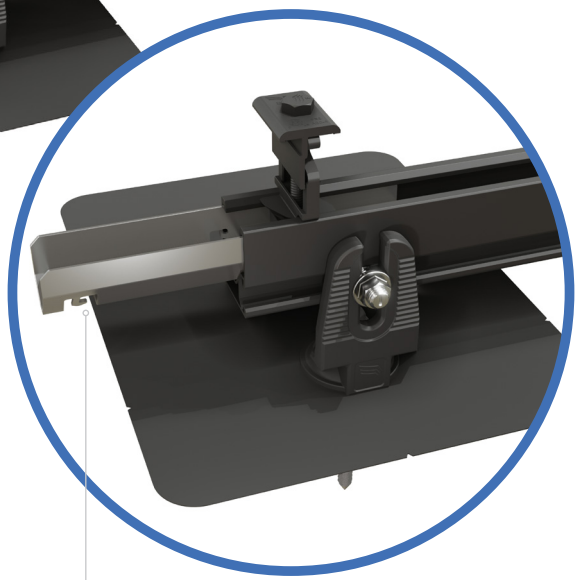
RAIL SYSTEM

Instant Bonding
The N-S Bonding Jumper bonds row to row with no tools.

One Clamp Anywhere
The Multi-Clamp works as mid- or end-clamp, and fits standard 30-40mm frames.



Lifetime Wire Management
Open rail channel holds and protects wires. Clamps won't pinch wires after tightening.



Bonding Structural Splice
Connect rails instantly, without tools, interference or limitations.

Next-Level Solar Mounting

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

Simplicity

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

Code Compliant

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

Premium Aesthetics

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

Watertight for Life

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

Pegasus Solar Inc | 506 West Ohio Avenue, Richmond, CA 94804 | T: 510.210.3797 | **www.pegasussolar.com**

RAIL SYSTEM

Pegasus Rail

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

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

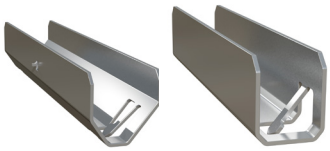
Black and Mill finish

Pegasus Max Rail

Maximum-strength design.

Meets specifications for high snow-load and hurricane zones.

Black and Mill finish

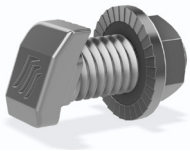


Splice and Max Splice

Installs by hand.

Works over mounts.

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



Dovetail T-bolt

Dovetail shape for extra strength.

Uses ½″ socket.

Multi-Clamp

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

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

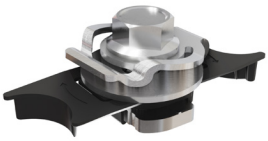
Bonds modules to rail; UL2703 listed as reusable

Hidden End Clamp

Offers premium edge appearance.

Preinstalled pull-tab grips rail edge, allowing easy, one-hand installation.

Tucks away for reuse.



Ground Lug

Holds 6 or 8 AWG wire.

Mounts on top or side of rail.

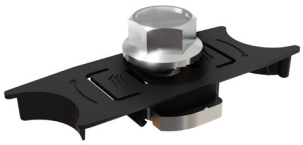
Assembled on MLPE Mount.

UL2703 listed as reusable.

N-S Bonding Jumper

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

UL2703 listed as reusable only with Pegasus Rail.

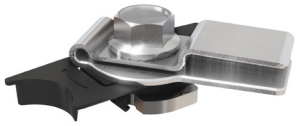


MLPE Mount

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

Connectors and wires easily route underneath after installation.

UL2703 listed as reusable.



Cable Grip

Secures four PV wires or two trunk cables.

Stainless-steel backing provides durable grip.

Eliminates sagging wires.

Wire Clip

Hand operable.

Holds wires in channel.

Won't slip.

End Cap and Max End Cap

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

Hidden drain quickly clears water from rail.

Certifications:

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

LOAD		SPAN			
SNOW (PSF)	WIND (MPH)	32″	4′	6′	8′
0	120				
	160				
	190				
15	140				
	160				
	190				
30	160				
	190				
45	190				
70	190				
110	190				

PEGASUS RAIL PEGASUS MAX RAIL

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

FREE
PEGASUS SOLAR
Design Tool

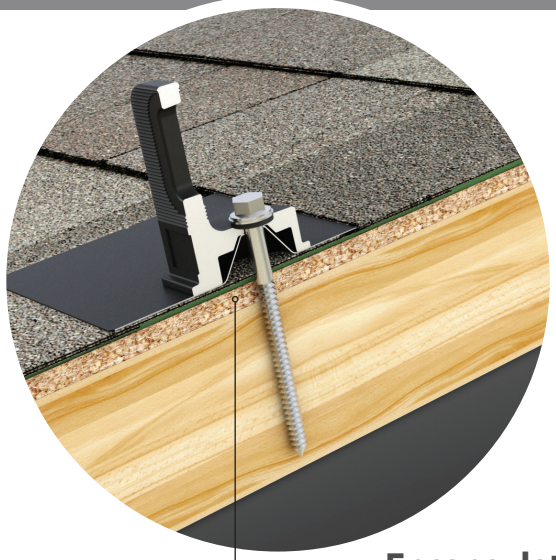
Quickly calculate the most efficient layout, spans and materials needed to suit your job. Visit the Pegasus Customer Portal. **pegasussolar.com/portal**

Pegasus Solar Inc | 506 West Ohio Avenue, Richmond, CA 94804 | T: 510.210.3797 | **www.pegasussolar.com**

PEGASUS SOLAR™
A Better Day on the Job

COMP MOUNT

One-Piece Flashing with Elevated Cone
No press-fits or deck-level EPDM washers to fail



Encapsulating Design
Raises the water seal 0.9" Above roof deck

Simple 3-Piece Design Watertight For Life

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

25-Year Warranty
Manufactured with advanced materials and coatings to outlast the roof itself

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

Superior Waterproofing
Tested to AC286 without sealant
Water seal elevated 0.9" above

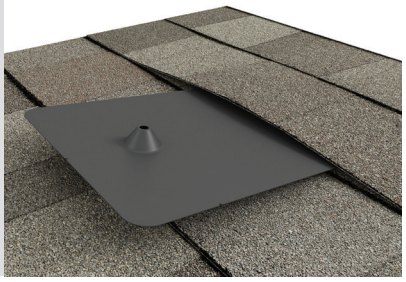
All-In-One Kit Packaging
Flashings, L-Feet and SS lags with bonded EPDM washers are included in each 24-pack

Pegasus Solar Inc | 506 West Ohio Avenue, Richmond, CA 94804 | T: 510.210.3797 | **www.pegasussolar.com**

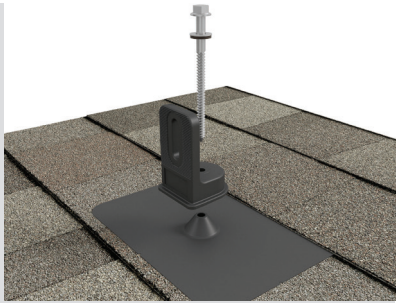
COMP MOUNT

1
Drill pilot hole in the center of the rafter.

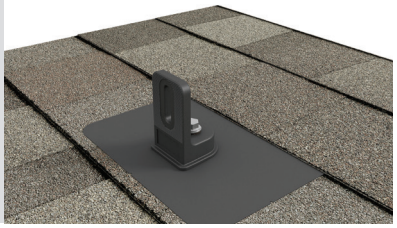
2
Optional: Apply a "u-shape" of sealant to the underside of the flashing and position under 2nd shingle course, cone over pilot hole.

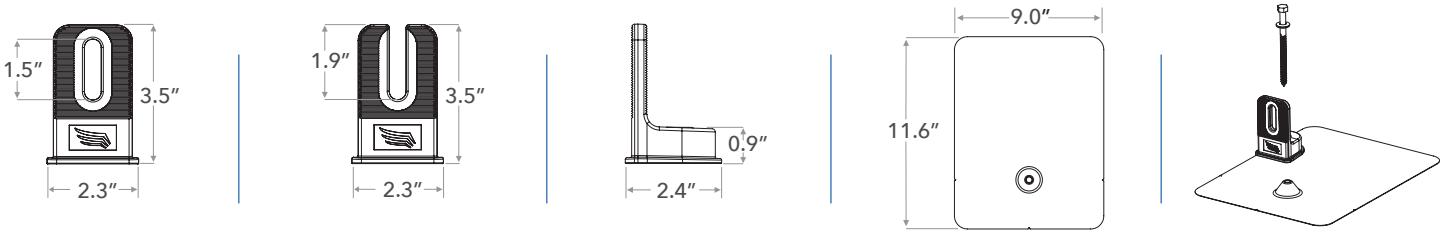


3
Place L-Foot over cone and install lag with washer through L-Foot.



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





SPECIFICATIONS	COMP MOUNT INSTALL KITS				
SKU	PSCR-CBB0	PSCR-UBB0	SPCR-CBBH	PSCR-CMM0	PSCR-UMM0
Finish	Black L-Foot And Black Flashing			Mill	
L-Foot Type	Closed Slot	Open Slot	Closed Slot	Closed Slot	Open Slot
Kit Contents	L-Foot, Flashing, 5/16″ x 4 1/2″ SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16″ x 4 1/2″ SS Lag with metalized EPDM washer and M10 Hex Bolt	L-Foot, Flashing, 5/16″ x 4 1/2″ SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16″ x 4 1/2″ SS Lag with metalized EPDM washer	L-Foot, Flashing, 5/16″ x 4 1/2″ SS Lag with metalized EPDM washer
Roof Type	Composition Shingle				
Certifications	IBC, ASCE/SEI 7-16, AC286				
Install Application	Railed Systems				
Compatible Rail	Most				
Kit Quantity	24				
Boxes per Pallet	72				

Accu-CT® ACTL-0750 Series

Split-Core Current Transformer Installation Guide

> **Danger: Hazardous Voltages**
>
> Potential shock hazard from dangerous high voltage exists.

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

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

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

Precautions

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

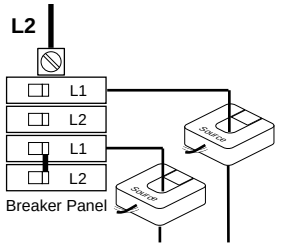
Pre-Installation Checklist

- The CT's rated current should normally be greater than or equal to the maximum current of the measured circuit. Ensure that the fuse or circuit breaker's rating does not exceed the CT's maximum continuous current rating.
- It is preferable to install the CT and meter or monitoring device close to each other. However, you may extend the CT wires by 300 feet (100 m) or more by using shielded twisted-pair cable and by running the CT wires away from high current and line voltage conductors.
- For highest accuracy, try to separate the CTs on different phases by 1.0 inch (25 mm) to minimize magnetic interference.

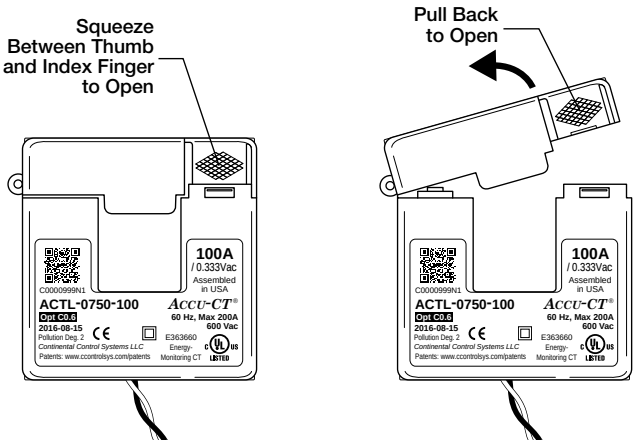
Connecting the Current Transformer

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

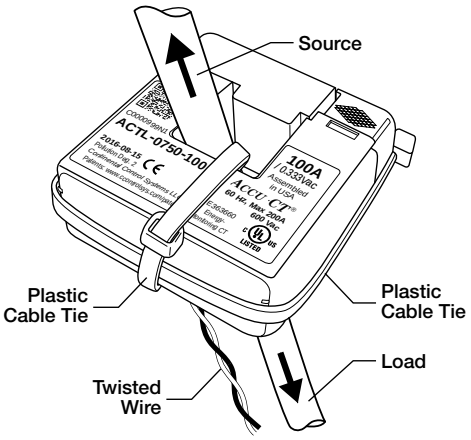
   Note: If the CT is mounted backwards, the measured power will be negative.



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



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



6) *Optional:* Secure the CT to the conductor with a cable tie.

7) *Optional:* For added security, wrap a cable tie around the outside of the CT.

8) Route the twisted black and white wires from the CT to the meter or monitoring device. **Be sure to secure the CTs and route the lead wires so that they do not directly contact live terminals or busses.**

9) Connect the white and black wires to the terminals on the meter or monitoring device.

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

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

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

References

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

Specifications

Models

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

Models in **BOLD** *are stock items with shorter lead times.*

"Maximum Amps" are the maximum continuous currents the CTs can sustain without overheating.

[1]For operation above 60°C, limit the maximum amps to 300.

Electrical

Overvoltage and Measurement Categories:

CAT IV (service entrance): 250 Vac

CAT III: 600 Vac

Line Frequency: 50 to 60 Hz

Standard Accuracy (% of reading)

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

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

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

IEC 60044-1 accuracy: class 1.0 from 1% to 120% of rated current

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

Revenue Grade Accuracy (% of reading)

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

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

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

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

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

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

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

Type: Voltage output, integral burden resistor

Protection: includes internal clamp zener at 8 Vac

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

Optional: 1.000 Vac (add "**-1V**" to the end of the model number)

Wire: 2.4 m (8 feet), 20 AWG (18 AWG prior to March 2021); custom lengths available

Maximum Voltage: 600 Vac

UL Listing: E363660, UL 2808, XOBA

Environmental

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

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

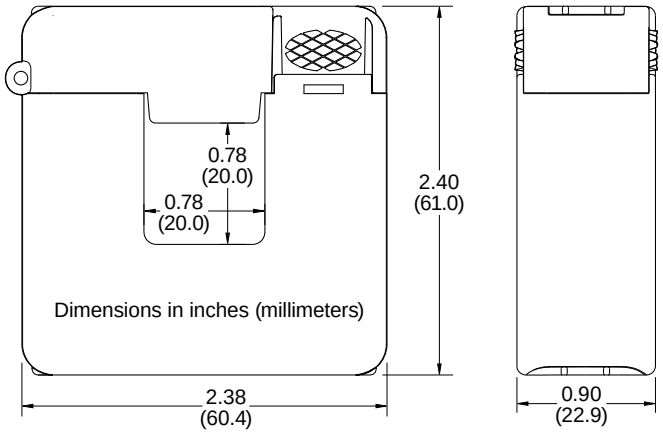
Pollution: POLLUTION DEGREE 2

Indoor Use: Suitable for indoor use.

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

Mechanical

Weight: 201 gm (7.1 oz)



+1 (303) 444-7422
https://www.ctlsys.com
Revision Date: 2021-02-23

SolaDeck

PV ROOF-MOUNT ENCLOSURE

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

INTRODUCED AT

SOLAR POWER 2007

PV Roof-Mount Combiner/Enclosure

Enclosure Includes:

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

Benefits

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

For product information contact us at

(866) 367-7782

www.commdeck.com

R.S.T.C. ENTERPRISES Incorporated

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

SolaDeck Part # 780

Specifications:

18 Gauge Steel Base (1) and Cover (2)
Pre Punched 7 holes in base (1) for roof deck
Pre Punched 4 holes in base (1) and cover (2) for match
Draw Process both parts
Powder Coated to withstand 1000 hours Salt Spray (Primer Gray)
High UV resistance
15" x 15" flashing dimension
Cavity dimension 8"W x 9" L x 2.5"D
Approx. 162 Cubic inch equipment cavity
Norloked steel base plate (3) to drawn base (2)
Three knockout locations .5", .75" and 1"
3" DIN rail installed
Grounding Lug- Installed (In Equipment Cavity)
Wire Strain Relief Clip –Installed (In Equipment Cavity)
Hardware pack withstands 500 hours Salt Spray
- **7 - 2" Trusshead Screws**
- **4 - .5" 8-32 thread cutting screws**
- **4 - #10 Bonded Seal washers**
- **1 – Foam closed Cell Seal**

ETL Listed UL50 Type 3R

Total Weight 6.9 pounds each

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

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

2219 Heimstead Road, Eau Claire, WI 54703
Phone: 715/830-9997 Fax: 715/830-9976 866/FOR-RSTC (367-7782)

Product data sheet
Characteristics

QOU260
QOU Miniature Circuit Breaker, 60A, 2P, 120/240V, 10kA

Product availability: Stock - Normally stocked in distribution facility

Main

Product or component type	Miniature circuit-breaker
Range of product	QOU
Circuit breaker type	Standard
Circuit breaker application	HACR and Switching Duty rated

Complementary

Line Rated Current	60 A
Number of Poles	2P
Interrupt Rating	10 KA 120/240 V AC 10 KA 120 V AC 5 kA 48 V DC
Electrical connection	Slotted box lugs, line side Slotted box lugs, load side
[Ue] rated operational voltage	120/240 V AC 120 V AC 48 V DC
Mounting mode	Unit mount
AWG gauge	AWG 14...AWG 2 aluminium/copper
Height	102.87 mm (4.05 in)
Depth	74.93 mm (2.95 in)
Width	38.10 mm (1.5 in)
Tightening torque	5.08 N.m (45 lbf.in) AWG 14...AWG 2)

Environment

Product certifications	UL listed CSA IEC

Ordering and shipping details

Category	00900 - QOU BREAKERS & SWITCH
Discount Schedule	DE2
GTIN	00785901418801
Package weight(Lbs)	0.36 kg (0.8 lb(US))
Returnability	Yes
Country of origin	MX

Offer Sustainability

Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Compliant EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS Declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
Halogen content performance	Halogen free product

Contractual warranty

Warranty	18 months

Product data sheet

Specifications

Safety switch, general duty, non fusible, 60A, 2 poles, 10 hp, 240 VAC, NEMA 3R, bolt-on provision

DU222RB

Product availability : Stock - Normally stocked in distribution facility

Price* : 353.00 USD

Main

Product	Single Throw Safety Switch
Duty Rating	General duty
Device Application	Residential
Disconnect Type	Non-fusible disconnect switch
Factory Installed Neutral	None
Phase	3 phase
Number of Poles	2
Current Rating	60 A
Voltage Rating	240 V AC
Enclosure Rating NEMA	NEMA 3R
Maximum Horse Power Rating	10 hp 240 V at AC 60 Hz for 1 phase conforming to NEC 430.52

Complementary

Mounting Type	Surface
Electrical Connection	Lugs
Wiring configuration	2 wires
Wire Size	AWG 12...AWG 3 aluminium AWG 14...AWG 3 copper
Tightening torque	35 lbf.in (3.95 N.m) 0.00…0.01 in² (2.08…5.26 mm²) (AWG 14...AWG 10) 35 lbf.in (3.95 N.m) (AWG 14...AWG 10) 45 lbf.in (5.08 N.m) 0.01 in² (8.37 mm²) (AWG 8) 45 lbf.in (5.08 N.m) 0.02…0.03 in² (12.3…21.12 mm²) (AWG 6...AWG 4) 50 lbf.in (5.65 N.m) 0.04 in² (26.67 mm²) (AWG 3)
Depth	3.75 in (95.25 mm)
Width	7.75 in (196.85 mm)
Height	9.63 in (244.60 mm)
Net Weight	16.98 lb(US) (7.7 kg)

Environment

Certifications	UL listed file E2875

* Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Ordering and shipping details

Category	00106-D & DU SW,NEMA3R, 30-200A
Discount Schedule	DE1A
GTIN	785901491491
Nbr. of units in pkg.	1
Package weight(Lbs)	4.65 lb(US) (2.109 kg)
Returnability	Yes
Country of origin	MX

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	5.30 in (13.462 cm)
Package 1 width	7.20 in (18.288 cm)
Package 1 Length	10.00 in (25.4 cm)
Unit Type of Package 2	PAL
Number of Units in Package 2	120
Package 2 Weight	610.00 lb(US) (276.691 kg)
Package 2 Height	36.50 in (92.71 cm)
Package 2 width	40.00 in (101.6 cm)
Package 2 Length	48.00 in (121.92 cm)
Unit Type of Package 3	CAR
Number of Units in Package 3	5
Package 3 Weight	24.60 lb(US) (11.158 kg)
Package 3 Height	10.70 in (27.178 cm)
Package 3 width	10.20 in (25.908 cm)
Package 3 Length	23.50 in (59.69 cm)

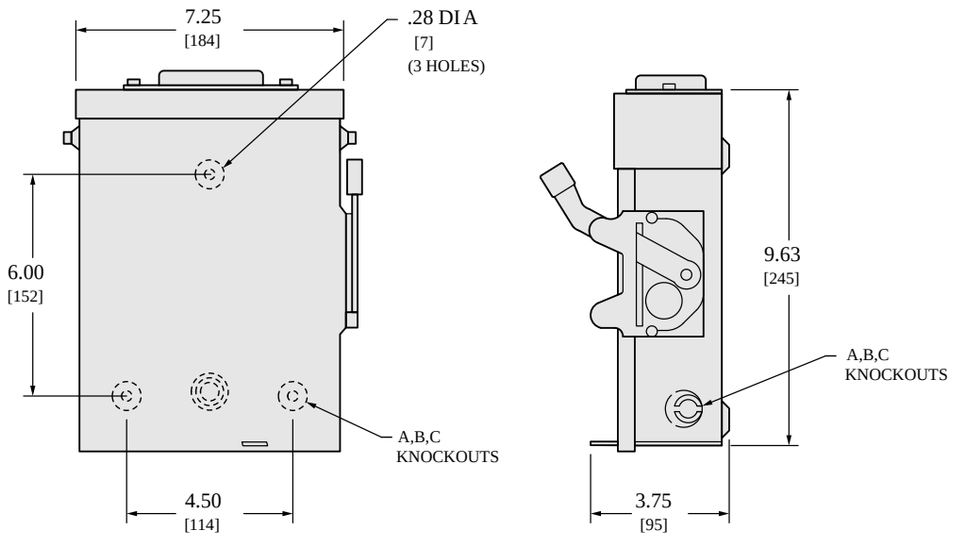
Offer Sustainability

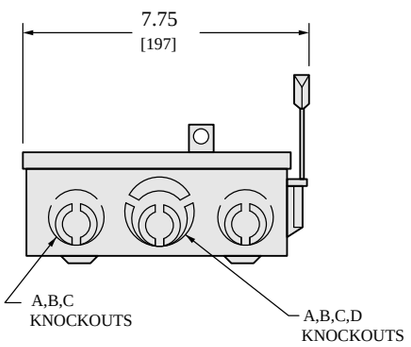
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
REACh free of SVHC	Yes
EU RoHS Directive	Compliant EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope)
Environmental Disclosure	Product Environmental Profile
PVC free	Yes

Contractual warranty

Warranty	18 months

Dimensions





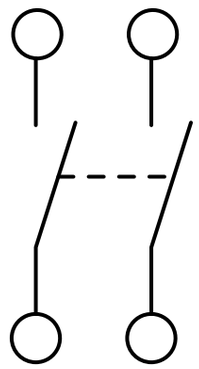
NEMA TYPE 3R

IN.
[mm]

KNOCKOUTS				
SYMBOL	A	B	C	D
CONDUIT SIZE (IN.)	.50	.75	1	1.25

TOP OF NEMA TYPE 3R SWITCHES HAVE PROVISIONS FOR MAXIMUM 2 1/2" BOLT-ON HUB.
ALL DIMENSIONS ARE APPROXIMATE. REFER TO TECHNICAL DRAWINGS AND DOCUMENTATION.

Wiring Diagram



DU222RB