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S-02	ARRAY B LAYOUT
S-03	ARRAY C LAYOUT
S-04	ARRAY D LAYOUT
S-05	ARRAY E LAYOUT
S-02	ASSEMBLY DETAILS
R-01	RESOURCES
R-02	RESOURCES

AUTHORITIES HAVING JURISDICTION:
BUILDING: HARNETT
ZONING: HARNETT
ELECTRICAL: HARNETT
UTILITY: DEP

REFERENCE CODES:

ELECTRICAL CODE:	2017 NEC
BUILDING CODE(S):	2018 IRC WITH NORTH CAROLINA AMENDMENTS
FIRE CODE:	2018 IFC WITH NORTH CAROLINA AMENDMENTS
ENGINEERING:	ASCE 7-10

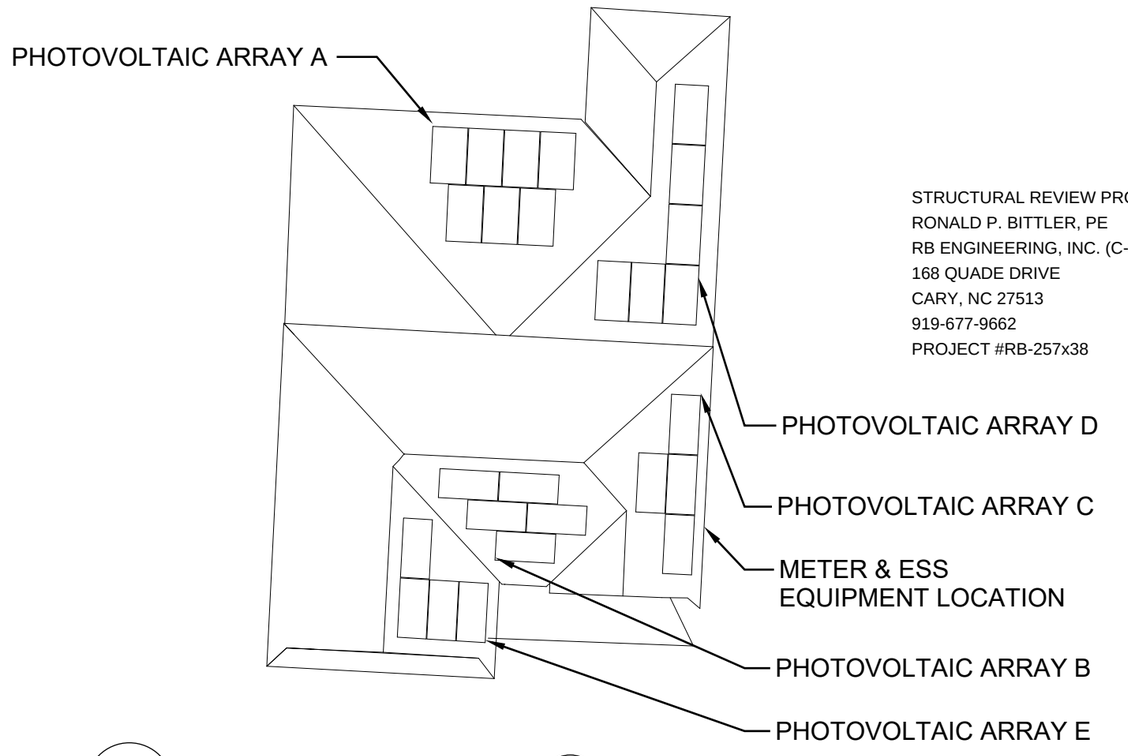
DESIGN CRITERIA:

GROUND SNOW LOAD:	15 PSF
DESIGN WIND SPEED:	120 MPH
DESIGN EXPOSURE CATEGORY:	B
DEAD LOAD:	2.50 PSF
AVERAGE HIGH TEMPERATURE:	34°C
ASHRAE LOW TEMPERATURE:	-9°C

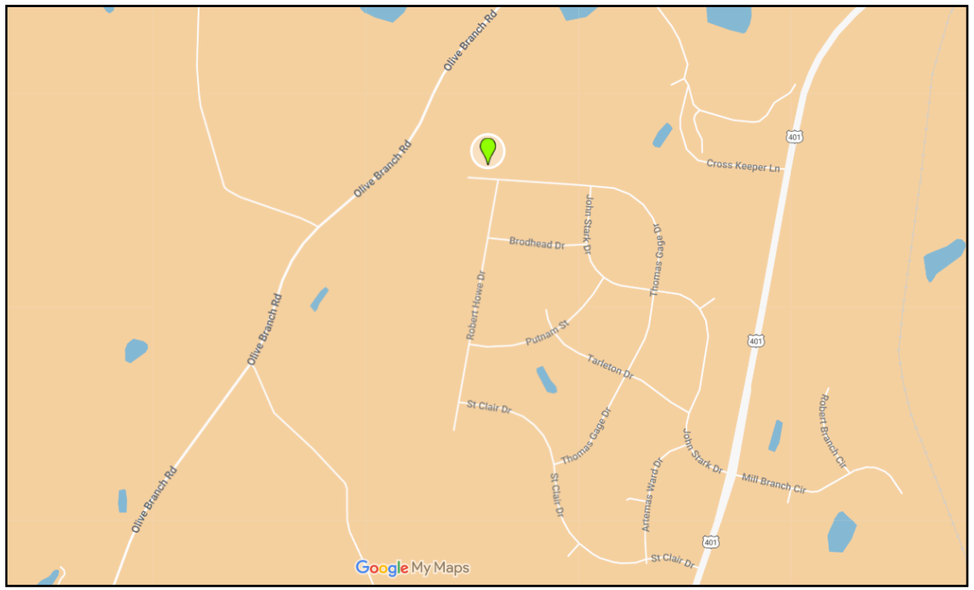
SYSTEM ATTRIBUTES	QTY
APTOS 460	26
MAC-800	14

SYSTEM SIZE
10.724 kW-AC/ 11.960 kW-DC

NAME	EMAIL	PHONE	TITLE
ROBERT PARKER	ROBERT.PARKER@CAPEFEARSOLARSYSTEMS.COM	910-232-6288	CHIEF OPERATING OFFICER
DANIEL CAVANAGH	DANIEL.CAVANAGH@CAPEFEARSOLARSYSTEMS.COM	910-599-0428	RESIDENTIAL PROJECT MANAGER
WILLIAM PARKER	WILLIAM.PARKER@CAPEFEARSOLARSYSTEMS.COM	910-777-3749	COMMERCIAL PROJECT ASSOCIATE
MICHAEL HORAN	MICHAEL.HORAN@CAPEFEARSOLARSYSTEMS.COM	336-404-0511	PROJECT DEVELOPMENT COORDINATOR
JOHN NOVAK	JOHN.NOVAK@CAPEFEARSOLARSYSTEMS.COM	910-622-7361	SOLAR DESIGNER
DEREK MADRID	DEREK.MADRID@CAPEFEARSOLARSYSTEMS.COM	910-574-4229	SOLAR SITE SURVEYOR



01 G-01 **SITE SKETCH**
SCALE: 1:240



02 G-01 **LOCATION MAP (VICINITY)**

STRUCTURAL REVIEW PROVIDED BY:
RONALD P. BITTLER, PE
RB ENGINEERING, INC. (C-2499)
168 QUADE DRIVE
CARY, NC 27513
919-677-9662
PROJECT #RB-257x38

Ron Bittler, PE

Digitally signed by Ron Bittler, PE
DN: cn=Ron Bittler, PE, o, ou, email=rbittler@rbengineering.com, c=US
Date: 2025.08.20 08:36:20 -04'00'

CAPE FEAR SOLAR SYSTEMS
910 S. 2nd St.
Wilmington, NC 28401
910-409-5533
GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

11.96 kW DC PV SYSTEM
ANNETTE NAURAINE
696 Thomas Gage Dr, Fuquay-Varina, NC 27526

COVER

NORTH CAROLINA PROFESSIONAL SEAL 025811 ENGINEER RONALD P. BITTLER

STRUCTURAL
08.20.2025

REVISION LIST

#	REV. DATE	DESC.

DATE:	August 19, 2025
DRAWN BY:	SAM

Sheet No.

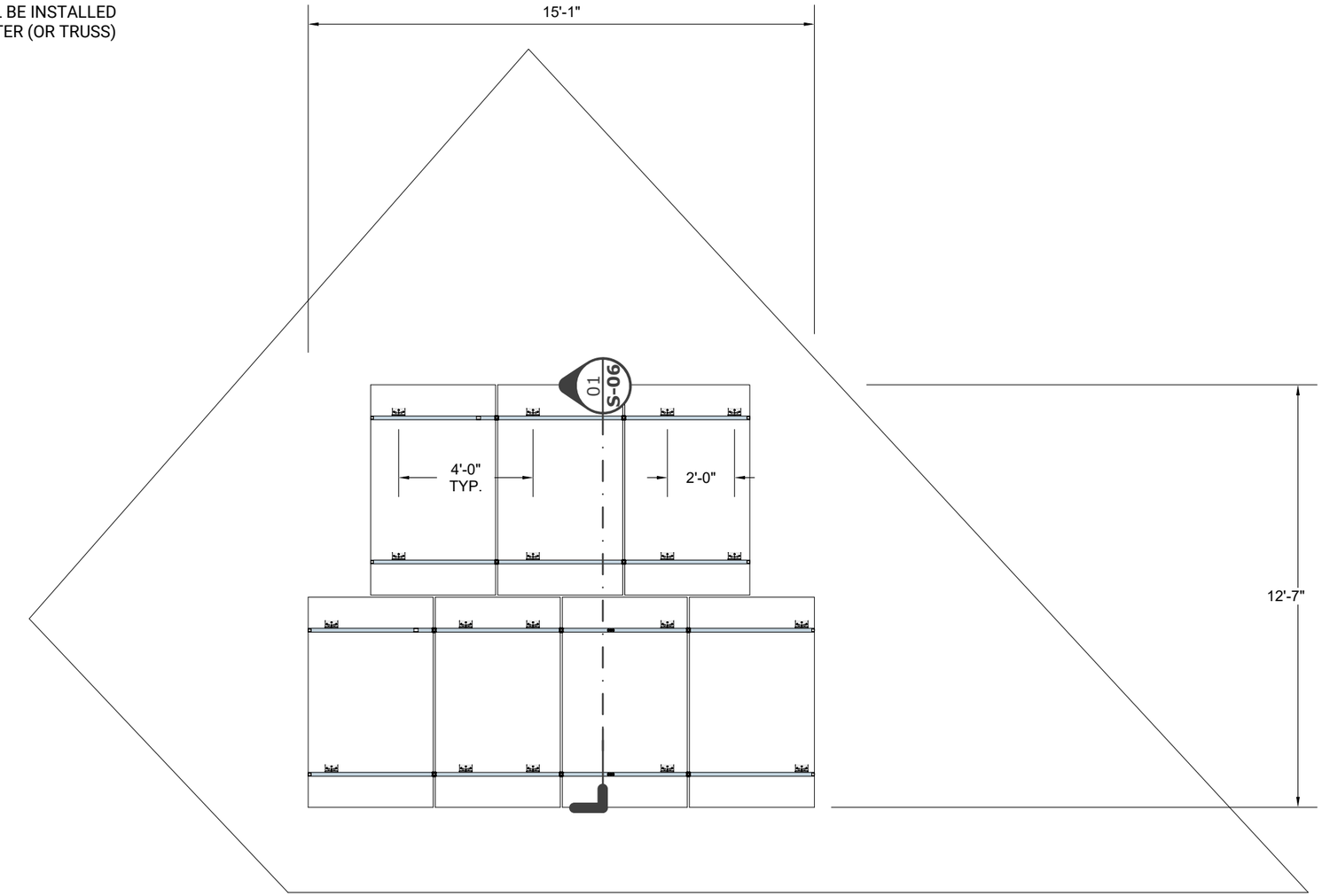
G-01

STRUCTURAL NOTES

1. ROOF MOUNT RACKING SYSTEM & PV ARRAY TO BE INSTALLED IN STRICT ACCORDANCE WITH THESE DRAWINGS & MFG'S RECOMMENDATIONS. MINOR SPACING MODIFICATIONS ARE ACCEPTABLE TO ACCOMODATE EXISTING ROOF STRUCTURE MEMBERS

2. EXISTING ROOF STRUCTURE HAS BEEN INCLUDED IN THE STRUCTURAL EVALUATION AND FOUND SUITABLE FOR THIS INSTALLATION

3. ALL ATTACHMENT BOLTS SHALL BE INSTALLED IN THE MIDDLE THIRD OF THE RAFTER (OR TRUSS) THICKNESS



01 / S-01 **PLAN - ARRAY A LAYOUT**
SCALE: 1/4" = 1'

CAPE FEAR SOLAR SYSTEMS
910 S. 2nd St.
Wilmington, NC 28401
910-409-5533

GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

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ANNETTE NAURAINE
696 Thomas Gage Dr, Fuquay-Varina, NC 27526

ARRAY A LAYOUT

NORTH CAROLINA PROFESSIONAL SEAL 025611 ENGINEER RONALD P. BITTLER

08.20.2025

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DATE:	**August 19, 2025**
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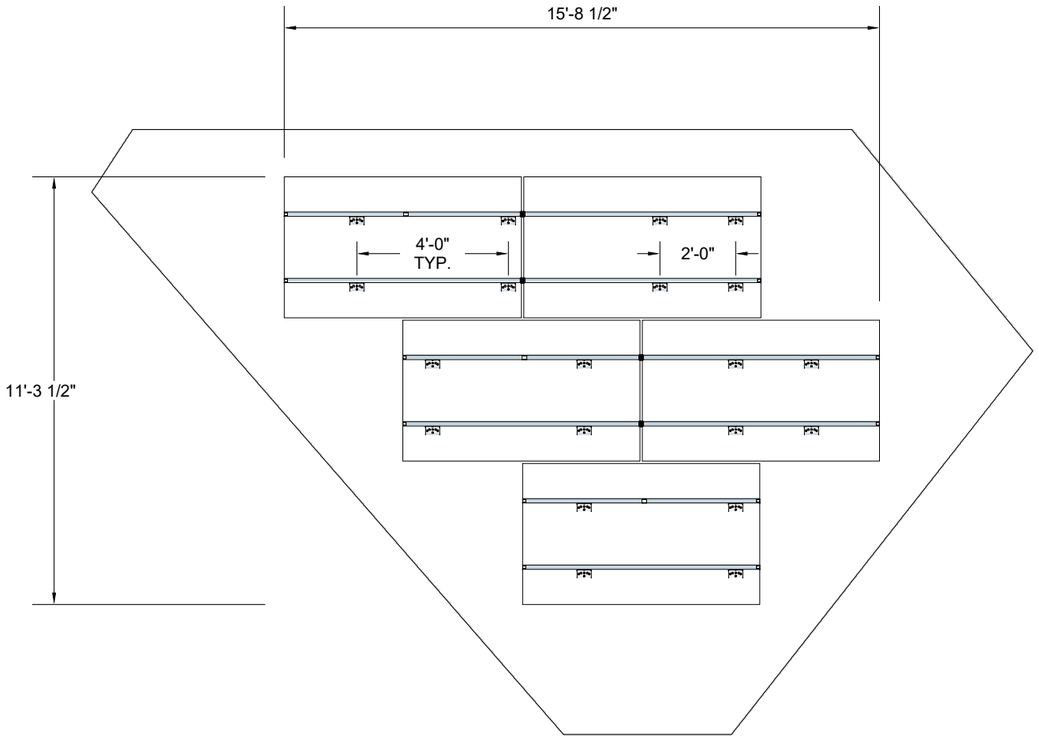
Sheet No.

S-01



01 / **S-02** **PLAN - ARRAY B LAYOUT**
SCALE: 1/4" = 1'

CAPE FEAR SOLAR SYSTEMS
910 S. 2nd St.
Wilmington, NC 28401
910-409-5533

GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

11.96 kW DC PV SYSTEM
ANNETTE NAURAINE
696 Thomas Gage Dr, Fuquay-Varina, NC 27526

ARRAY B LAYOUT

NORTH CAROLINA PROFESSIONAL SEAL 025311 ENGINEER RONALD P. BITTLER

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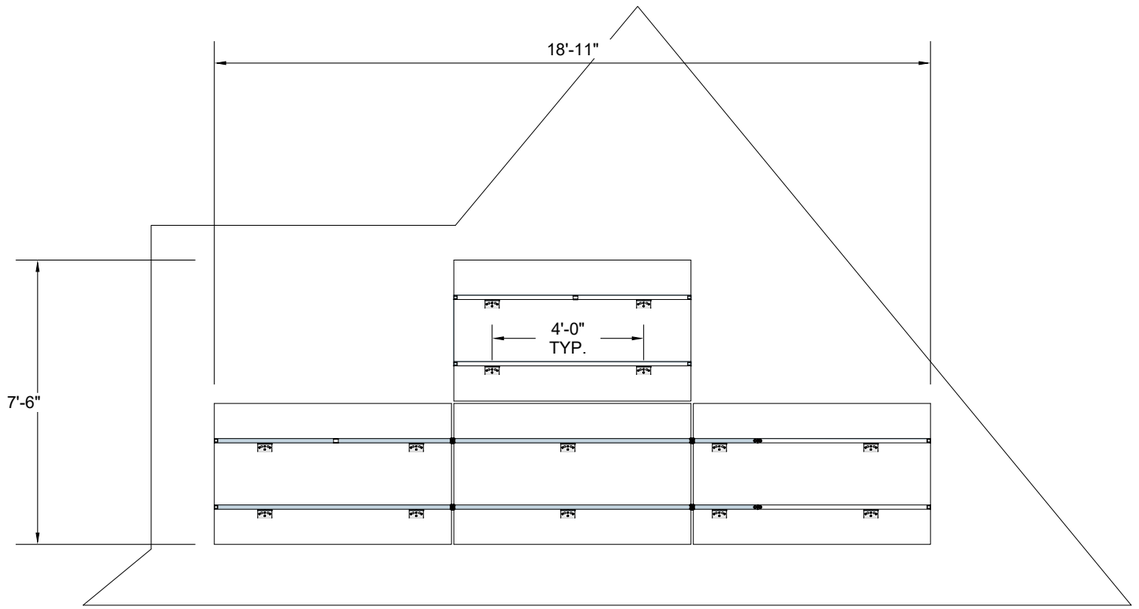
Sheet No.

S-02



01
S-03

PLAN - ARRAY C LAYOUT
SCALE: 1/4" = 1'

CAPE FEAR SOLAR SYSTEMS
910 S. 2nd St.
Wilmington, NC 28401
910-409-5533

GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

11.96 kW DC PV SYSTEM
ANNETTE NAURAINE
696 Thomas Gage Dr, Fuquay-Varina, NC 27526

ARRAY C LAYOUT

NORTH CAROLINA PROFESSIONAL SEAL 025611 ENGINEER RONALD P. BITTLER

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DATE:	**August 19, 2025**
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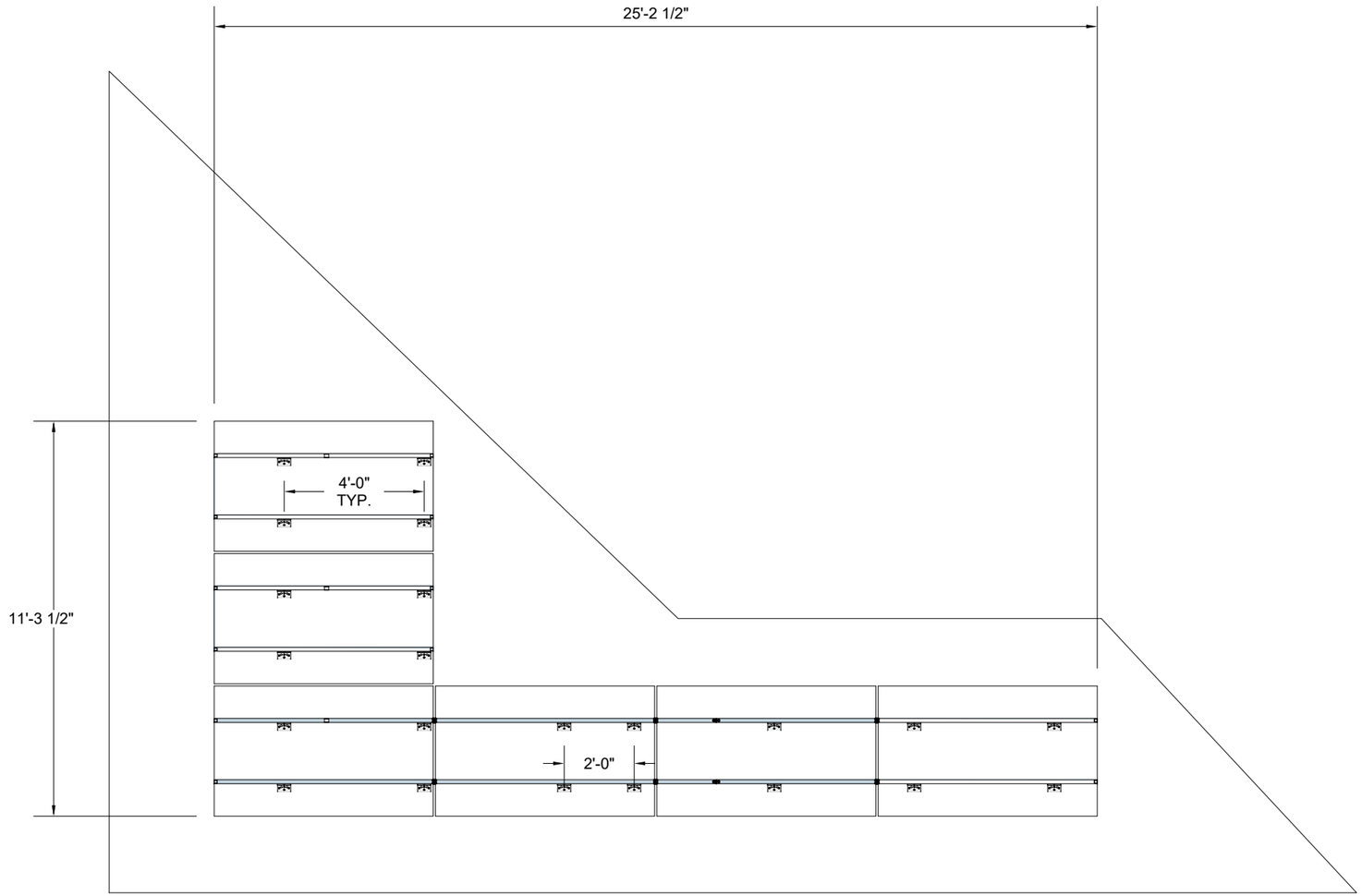
Sheet No.

S-03



01
S-04

PLAN - ARRAY D LAYOUT
SCALE: 1/4" = 1'

CAPE FEAR SOLAR SYSTEMS
910 S. 2nd St.
Wilmington, NC 28401
910-409-5533

GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

11.96 kW DC PV SYSTEM
ANNETTE NAURAINE
696 Thomas Gage Dr, Fuquay-Varina, NC 27526

ARRAY D LAYOUT

NORTH CAROLINA PROFESSIONAL SEAL 025611 ENGINEER RONALD P. BITTLER

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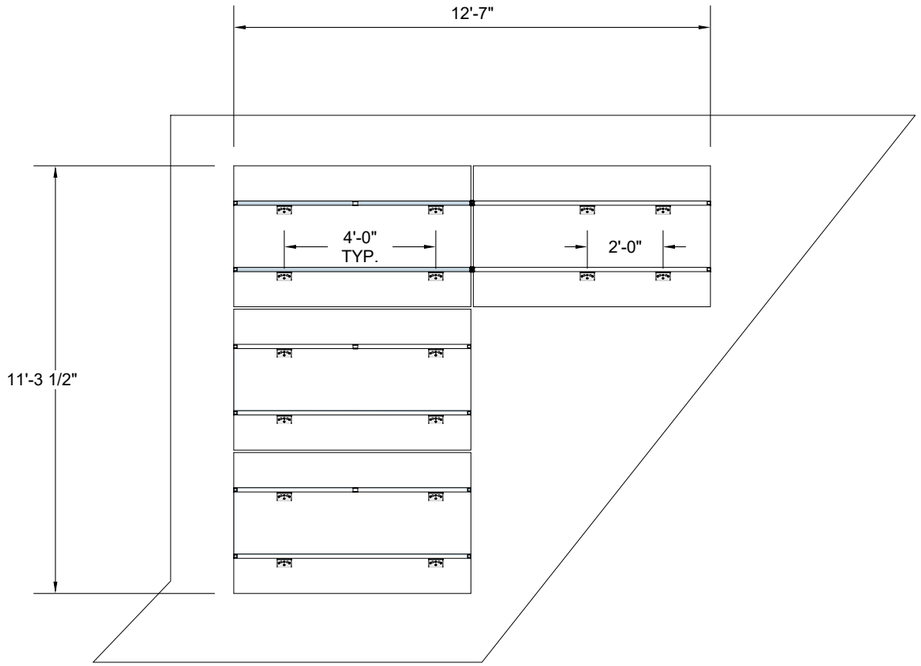
Sheet No.

S-04



01 **PLAN - ARRAY E LAYOUT**
S-05 **SCALE: 1/4" = 1'**

CAPE FEAR SOLAR SYSTEMS
910 S. 2nd St.
Wilmington, NC 28401
910-409-5533

GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

11.96 kW DC PV SYSTEM
ANNETTE NAURAINE
696 Thomas Gage Dr, Fuquay-Varina, NC 27526

ARRAY E LAYOUT

NORTH CAROLINA PROFESSIONAL SEAL 025611 ENGINEER RONALD P. BITTLER

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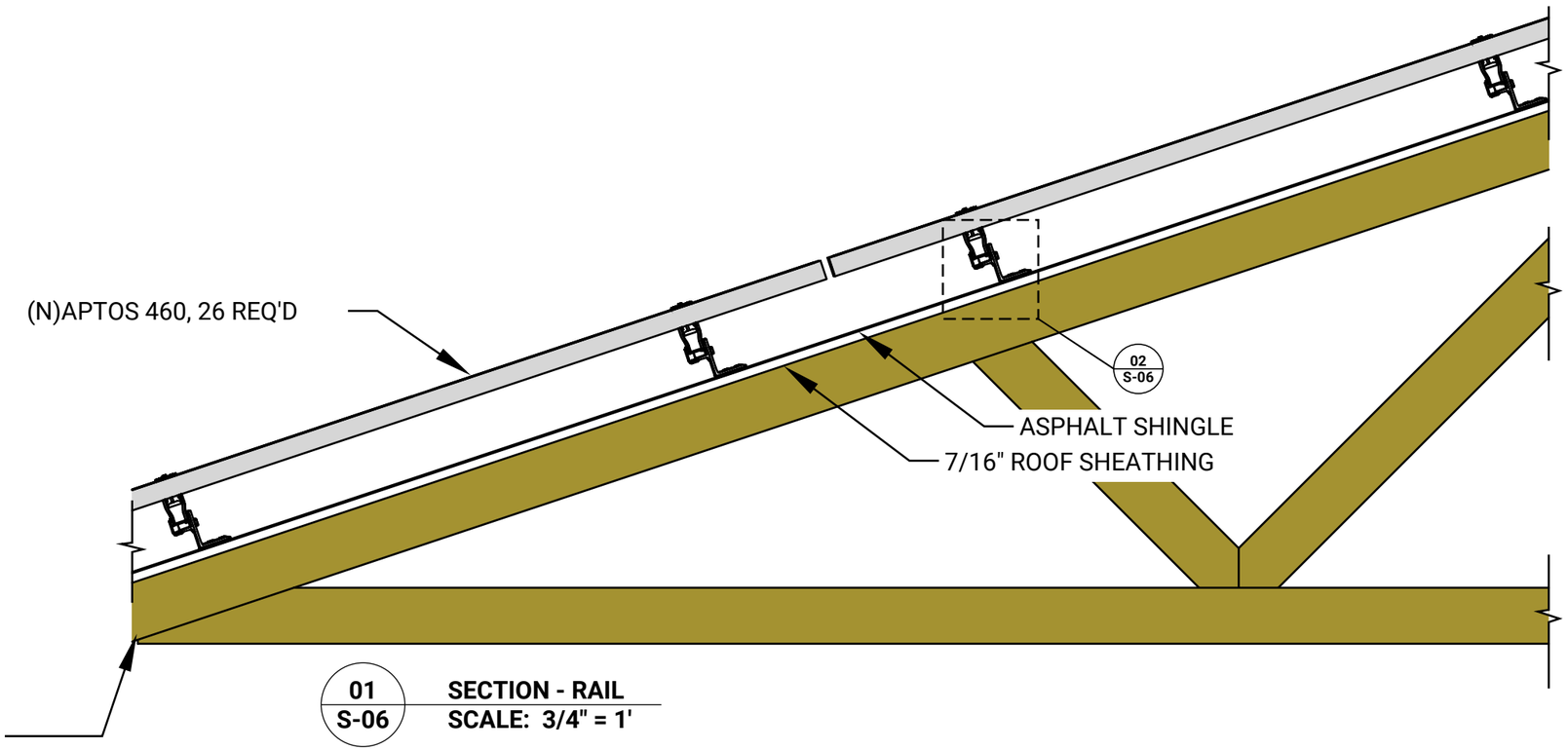
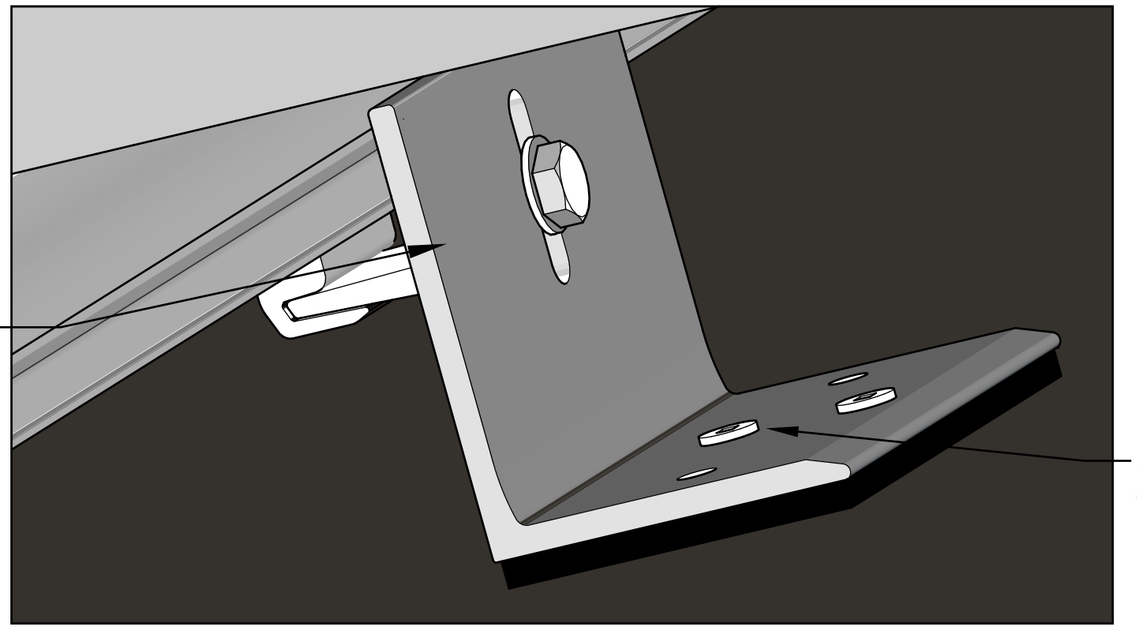
Sheet No.

S-05



01 / S-06 **SECTION - RAIL**
SCALE: 3/4" = 1'



02 / S-06 **DETAIL - ANCHORFOOT**
SCALE: 3" = 1'

CAPE FEAR SOLAR SYSTEMS
910 S. 2nd St.
Wilmington, NC 28401
910-409-5533

GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

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ANNETTE NAURAINE
696 Thomas Gage Dr, Fuquay-Varina, NC 27526

ASSEMBLY DETAILS

NORTH CAROLINA PROFESSIONAL SEAL 025611 ENGINEER RONALD P. BITTLER

08.20.2025

REVISION LIST

#	REV. DATE	DESC.

DATE:	**August 19, 2025**
DRAWN BY:	**SAM**

Sheet No.

S-06

DNA™ 144

Solar for Innovators

Residential I Commercial

Designed & Engineered in Silicon Valley

440W I 435W I 430W

Our DNA™ Split Cell Series impressively combines advanced solar technologies to maximize performance. Our patented Dual Nano Absorber (DNA™) Technology allows the panel to operate at high-efficencies in extreme temperatures. Contact our sales team today to learn more about our line of high-efficienty solar panels.

- Patented DNA™ technology boosts power performance & module efficiency
- Advanced split cell technology with 9 ultra-thin busbars allows for less resistance and more photon capture
- Ideal solution for applications affected by shading
- All-black design for pristine aesthetics
  No excessive silver bussing or ribbons
- Robust product design is resilient in extreme weather. Up to 5400 Pa snow load and 210 mph wind speeds

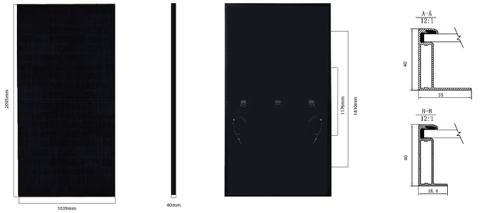
30 Year Warranty | 3X IEC Standards | RETC Top Performer

Linear Performance Warranty

3140 De La Cruz Blvd., Ste 200
Santa Clara, CA 95054
www.aptossolar.com
info@aptossolar.com

DNA™ 144

Solar for Innovators



Electrical Specifiactions

	DNA-144-MF36-440W	DNA-144-MF36-435W	DNA-144-MF36-430W
STCrated Output P_{max} (W)	440W	435W	430W
Module Efficiency	20.21%	19.98%	19.76%
Open Circuit Voltage V_{OC} (V)	49.9	49.7	49.5
Short Circuit Current I_{SC} (A)	11.33	11.26	11.19
Rated Voltage V_{mpp} (V)	41.0	40.8	40.6
Rated Voltage I_{mpp} (A)	10.74	10.67	10.60

Standard Test Conditions for front-face of panel: 1000 W/m², 25°C, measurement uncertainty ≤3%

Temperature Coefficients

Temperature Coefficients P_{max}	-0.36%
Temperature Coefficients I_{SC}	+0.05%/°C
Temperature Coefficients V_{OC}	-0.29%/°C
Normal Operating Cell Temperature (NOCT)	44°C

Test Operating Conditions

Maximum Series Fuse	20A
Maximum System Voltage	1,000 VDC (UL&IEC)
Maximum Load Capacity (Per UL 1703)	5400 PA Snow Load / 210mph Wind Rating
Fire Performance Class	Class C/Type 1

Packaging Configuration

Number of Modules per Pallet	27
Number of Pallets per 40ft. Container	22
Pallet Dimensions	2110 X 1120 X 2365
Pallet Weight (kg)	680
Container Weight (kg)	14960

Mechanical Properties

Cell Type	Monocrystalline
Glass	3.2mm, anti-reflection coating, high transmission, low iron, tempered glass
Frame	Anodized Aluminum Alloy
Junction Box	IP68
Dimensions	2095 X 1039 X 40mm
Output Cable	4mm2 (EU)12AWG,39.37in(1200mm)
Weight	53.13lbs.(24.1kg)
Cable Length	1200mm
Encapsulant	POE

I-V Curve

Certifications

UL61730-1, UL61730-2

Aptos Solar Technology reserves the right to make specification changes without notice

MAC™ 800 R

Solar for Innovators

Maximize AC Power Output

The high-performance MAC-800R dual unit microinverter is engineered for maximum AC power output when paired with Aptos Solar Technology's high-power solar panels. The MAC-800R is built for simple system integration and is compatible with third-party devices.

The MAC-800R is equipped and ready for system monitoring and trend tracking through Aptos Solar Technology's cloud based software.

High-performance 2:1 Microinverter

Up to 800W

Maximum AC Power Output

- Up to 800W
- 10% more AC power output than competing products

Superior Long-term Reliability

- Industry leading 25-year warranty
- Over 7MW of long-term reliability testing hours spread across 28 countries
- NEMA6 (IP67) enclosure rated for protection in harsh outdoor conditions

Streamlined Installation

- Fully integrated trunk cables
- Compatible with 120 & 144 cell PV panels with daisy-chain interconnection
- Battery integration ready

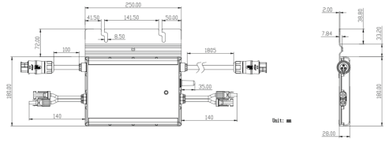
Built for Safety

- Built-in rapid shutdown feature in compliance with National Electrical Code (NEC)
- 6,000V surge protection feature

3140 De La Cruz Blvd., Ste 200
Santa Clara, CA 95054
www.aptossolar.com I info@aptossolar.com

MAC™ 800 R

Solar for Innovators



Input Data (DC)

Commonly used module power (W)	320W-540W+
Maximum input voltage(V)	60
voltage range(V)	16-60
Start-up voltage(V)	22
Maximum input current(A)	2*12.5

Mechanical Data

Ambient temperature range (°C)	-40 to +65
Dimensions (W X H X D mm)	250 X 170 X 28
Weight (kG)	3.0
Enclosure rating	Outdoor-NEMA (IP67)
Cooling	Natural convection - No fans

Output Data (AC)

Peak output power(VA)	800	
Maximum continuous output power(VA)	766	
Maximum continuous output current (A)	3.19	3.68
Nominal output voltage/range(V)[1]	240/211-264	208/183-228
Nominal frequency/range (Hz)[1]	60/55-65	
Power factor (adjustable)	>0.99 default 0.8 leading...0.8 lagging	
Total harmonic distortion	<3%	
Maximum units per branch[2]	5/4	

Efficiency

CEC peak efficiency	96.7%
CEC weighted efficiency	96.5%
Nominal MPPT efficiency	99.8%
Nighttime power consumption (mW)	<50

Loading Quantity

Container	1 X 20'GP	1 X 40'GP/ 1 X 40'HQ
Pallet No.	10	22
Carton No.	480	1008
Total quantity	2400	5040

Features

Communication	2.4GHz Proprietary RF(Nordic)
Monitoring	AST Cloud [3]
Warranty	25 Years
Compliance	UL 1741, IEEE 1547, UL 1741 SA (240Vac), CA Rule 21 (240Vac), CSA C22.2 No. 107.1-16, FCC Part 15B, FCC Part 15C
PV Rapid Shutdown	Conforms with NEC-2017 and NEC-2020 Article 690.12 and CEC-2021 Sec 64-218 Rapid Shutdown of PV Systems

*1 Nominal voltage/frequency range can be changed due to the requirements of local power department.
*2 Refer to local requirements for exact number of microinverters per branch.
*3 Aptos Monitoring System.

Aptos Solar Technology reserves the right to make specification changes without notice

FRANKLINWH

aGate

Intelligent energy management system

The aGate serves as the controller for all home power sources by interconnecting solar, grid, batteries, and a standby generator to supply electricity to the home. It seamlessly transitions the home supply from grid power to backup power so that always-on appliances, such as the refrigerator and network router, will not be affected when the grid goes down.

The aGate can be installed at the service entrance, connected to the main load center, or used as a load center.

Robust

- Micro-grid interconnect device (MID)
- EMS Integrated PV and grid metering
- UL1741 certified PCS function & 280A busbar to avoid Main Panel Upgrades
- 12-year limited warranty

Hassle-free

- Precise control of electricity usage through Smart Circuits Module
- Standby generator integration via generator module
- Remarkable black start function ensures battery charge after a prolonged outage or extended trip
- Vehicle to loads (V2L) function to power essential home appliances during an emergency
- Commissioning through the aGate Wifi hotspot or Bluetooth

Flexible

- Compatible with micro and string solar inverter
- Indoor and outdoor / wall-mounted

Easy installation

- Built-in design Smart Circuits and Generator Modules
- Conduit entry options from the bottom, left, or right

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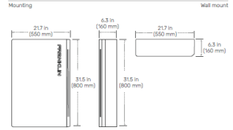
DATASHEET

PERFORMANCE SPECIFICATIONS

Model Number	aGate X
Coupling	AC-coupled
Nominal AC Voltage	120 / 208 V, 120 / 240 V, 60 Hz
Phase	2 W+N+PE
aPower Over Current Protection Device	125 A Max
Solar Input Over Current Protection Device	80 A Max
Backup Load Port Over Current Protection Device	200 A Max
Generator Over Current Protection Device[1]	200 A Max
Smart Circuits Over Current Protection Device[2]	Opt. a 1 × 80 A Max @ 208 V / 240 V & 1 × 50 A Max @ 208 V / 240 V Opt. b 1 × 80 A Max @ 208 V / 240 V & 2 × 50 A Max @ 120 V
Maximum Supply Fault Current	22 kA
Busbar Rating	280 A
Work Modes	Self-Consumption, Time of Use, Emergency Backup
Communications	Ethernet / 4G / Wifi /Bluetooth
User Interface	FranklinWH App
Warranty	12-year limited

MECHANICAL SPECIFICATIONS

Dimensions (H × W × D)	31.5 in × 21.7 in × 6.3 in (800 mm × 550 mm × 160 mm)
Weight	38.6 lb (17.5 kg)
Mounting	Wall mount



1. Generator Module is optional.
2. Smart Circuit Module is optional.

COMPLIANCE INFORMATION

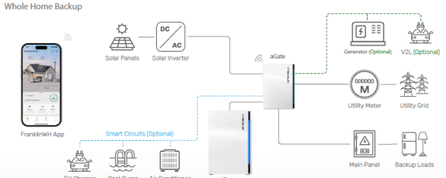
Certifications	UL 1741, UL 1741 PCS, UL-67, UL 869A, UL 916, CAN / CSA C22.2 No. 107.1-16, CSA C22.2 No. 29, CSA C22.2 No. 0.19
Seismic	AC 156, OSHPD, IEEE 693-2005 (high)
Environmental	California Proposition 65 RoHS Directive 2011 / EU
Emissions	FCC Part 15 Class B, ICES 003

ENVIRONMENTAL SPECIFICATIONS

Enclosure Type	NEMA 3R
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Operating Humidity (RH)	Up to 100% RH, condensing
Altitude	Maximum 9,843 ft (3,000 m)
Environment	Indoor and outdoor rated

Franklin Home Power Solution

Whole Home Backup



Address: 1731 Technology Dr., Suite 530 San Jose, CA 95110 Telephone: +1 888-837-2655 Email: info@franklinwh.com Website: www.franklinwh.com

WWW.FRANKLINWH.COM

FRANKLINWH

aPower

AC-coupled battery

Store solar generated power while the sun is shining. Use the stored energy when needed to lower electric bills. Run heavy loads such as air conditioners and water heaters as usual even during grid outages. Provide homeowner peace of mind by fully charging before severe weather events.

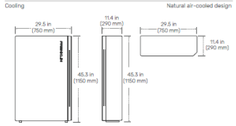
- Safe LFP chemistry
- Built-in inverter
- 13.6 kWh per unit, up to 204 kWh (15 units) per aGate
- 5 kW continuous / 10 kW peak for 10s (discharge)
- Normal operations down to -4°F (-20°C)
- IP67 protection
- Single aPower capable of starting a 4-Ton AC
- First-of-its-kind 208 V compliant battery for multi-family housing

PERFORMANCE SPECIFICATIONS

Model Number	aPower X
Battery Chemistry	Lithium Iron Phosphate (LFP)
Usable System Energy	13.6 kWh per unit, up to 15 units' per aSite
Aggregate Throughput	43 MWh
Real Power (charge)	5 kW continuous, 7.6 kW peak for 30 minutes
Real Power (discharge)	5 kW continuous, 10 kW peak for 10 seconds
Load Start Capability	118 A, LRA[1]
Nominal AC Voltage	120 / 208 V, 120 / 240 V, 60 Hz
Coupling	AC-coupled
Phase	2 W+N+PE
Round Trip Efficiency	89%[2]
Work Modes	Self-Consumption, Time of Use, Emergency Backup
Noise Emission	< 30 dB (A)[3]
User Interface	FranklinWH App
Warranty	12 years

MECHANICAL SPECIFICATIONS

Dimensions (H × W × D)	45.3 in × 29.5 in × 11.4 in (1150 mm × 750 mm × 290 mm)
Weight	395 lb (179 kg)
Mounting	Wall mount or floor mount
Cooling	Natural air-cooled design



COMPLIANCE INFORMATION

Certifications	UL 9540, UL 9540A, UL 1741, UL 1973, IEEE 1547, IEEE 1547.1, UN 38.3,CAN/CSA C22.2 No. 107.1-16
Seismic	AC 156, OSHPD, IEEE 693-2005 (high)
Environmental	California Proposition 65 RoHS Directive 2011 / EU
Emissions	FCC Part 15 Class B, ICES 003

ENVIRONMENTAL SPECIFICATIONS

Ingress Protection	IP67 (Battery and power converter system), IP56 (Wiring compartment)
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Operating Humidity (RH)	Up to 100% RH, condensing
Altitude	Maximum 9,843 ft (3,000 m)
Environment	Indoor and outdoor rated

1. For 120 / 208V applications, max. 4 aPowers per aGate can be connected in parallel. Please contact us if you have large capacity requirements.
2. Load start capability may vary.

3. At beginning of life, AC to battery to AC. 50% power rating.
4. 5 kW discharge power, no fan running.

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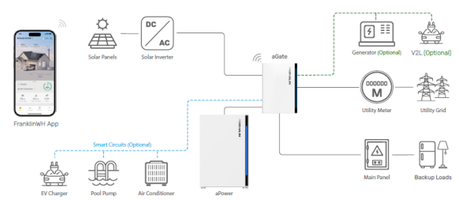
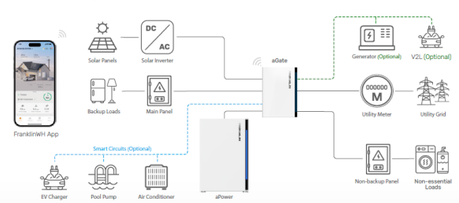
DATASHEET

Franklin Home Power Solution

Whole Home Backup



Partial Home Backup



Address: 1731 Technology Dr., Suite 530 San Jose, CA 95110 Telephone: +1 888-837-2655 Email: info@franklinwh.com Website: www.franklinwh.com

WWW.FRANKLINWH.COM

FRANKLINWH

CAPE FEAR SOLAR SYSTEMS
910 S. 2nd St.
Wilmington, NC 28401
910-409-5533

GC LIC. NO. : 65677
ELEC. LIC. NO. : U-33321

11.96 kW DC PV SYSTEM
ANNETTE NAURAINE
696 Thomas Gage Dr, Fuquay-Varina, NC 27526

RESOURCES

REVISION LIST

#	REV. DATE	DESC.

DATE:	August 19, 2025
DRAWN BY:	SAM

Sheet No.

R-01

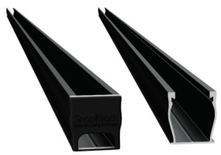
SnapNrack
Solar Mounting Solutions

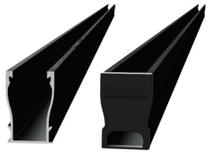
Ultra Rail

UR-40
UR-60

SnapNrack Ultra Rail System

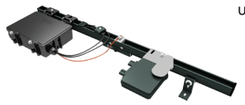
A sleek, straightforward rail solution for mounting solar modules on all roof types. Ultra Rail features two rail profiles; UR-40 is a lightweight rail profile that is suitable for most geographic regions and maintains all the great features of SnapNrack rail, while UR-60 is a heavier duty rail profile that provides a larger rail channel and increased span capabilities. Both are compatible with all existing mounts, module clamps, and accessories for ease of install.





The Entire System is a Snap to Install

- New Ultra Rail Mounts include snap-in brackets for attaching rail
- Compatible with all the SnapNrack Mid Clamps and End Clamps customers love
- Universal End Clamps and snap-in End Caps provide a clean look to the array edge



Unparalleled Wire Management

- Open rail channel provides room for running wires resulting in a long-lasting quality install
- Industry best wire management offering includes Junction Boxes, Universal Wire Clamps, MLPE Attachment Kits, and Conduit Clamps
- System is fully bonded and listed to UL 2703 Standard

Heavy Duty UR-60 Rail

- UR-60 rail profile provides increased span capabilities for high wind speeds and snow loads
- Taller, stronger rail profile includes profile-specific rail splice and end cap
- All existing mounts, module clamps, and accessories are retained for the same great install experience

The Ultimate Value in Rooftop Solar

- Industry leading Wire Management Solutions
- Mounts available for all roof types
- Single Tool Installation
- All SnapNrack Module Clamps & Accessories are compatible with both rail profiles

Start Installing Ultra Rail Today

RESOURCES snapnrack.com/resources
DESIGN snapnrack.com/configurator
WHERE TO BUY snapnrack.com/where-to-buy

Quality. Innovative. Superior.

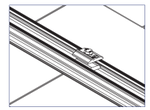
SnapNrack Solar Mounting Solutions are engineered to optimize material use and labor resources and improve overall installation quality and safety.

877-732-2860 www.snapnrack.com contact@snapnrack.com

Grounding Specifications

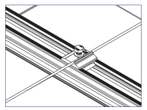
snapnrack.com

INSTALLATION INSTRUCTIONS - SNAPNRACK GROUND LUG



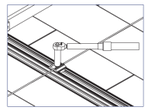
1) Snap the SnapNrack Ground Lug into the rail channel on **one rail per module row.**

Install Note:
SnapNrack Ground Lug may be used in side or top channel, and may be rotated 90 degrees relative to slot to facilitate running copper across top of rails.



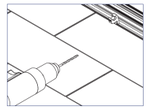
2) Place grounding conductor into slot underneath split ring washer.

Install Note:
SnapNrack Ground Lug only Listed for use with 6-12 AWG solid copper conductor.



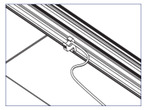
3) Tighten hardware to 16 ft-lbs.

INSTALLATION INSTRUCTIONS - ILSCO LAY-IN LUG

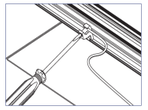


1) Drill and deburr a 1/4" hole in the back side of the rail for the Ilsco lug to attach to, place the bolt through the hole, and attach the lug assembly on **one rail per module row.**

Install Note:
Torque rail connection to 35 in-lbs.



2) Place grounding conductor into slot.



3) Tighten set screw per Ilsco's recommendation (see below).

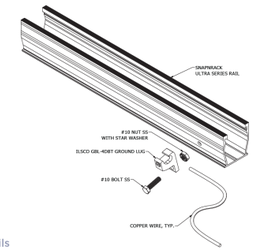
Install Note:
Torque set screw to 20 in-lbs for #10-#14 solid and stranded copper, 25 in-lbs for #8 stranded copper, and 35 in-lbs for #4-#6 stranded copper.

Note:
- System has been evaluated to a maximum overcurrent device (OCD) protection level of 20 Amps.
- Universal End Clamp (UEC) does not bond module to rail. Be sure to separately ground any modules that are only secured by UECs, especially during servicing.
- SnapNrack recommends that bare copper never come into contact with aluminum.
- SnapNrack Ground Lug: torque bolt to 16 ft-lbs. The Ground Lug may be used in side or top channel. It may be rotated 90 degrees relative to slot to facilitate running copper across top of rails.
- Grounding with a standard Ilsco GBL-4DBT Lug is a listed alternate and requires drilling of a hole in the rail.
- Ilsco hardware connection to rail: 5 ft-lbs. Torque for lug set screw: #10-#14 solid and stranded copper- 20 in-lbs, #8 stranded copper- 25 in-lbs, #4-#6 stranded copper- 35 in-lbs.

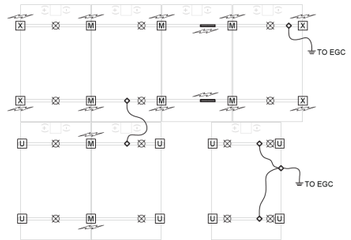
Grounding Specifications

snapnrack.com

Ilsco Lay-in Lug Assembly



Ground Path Details

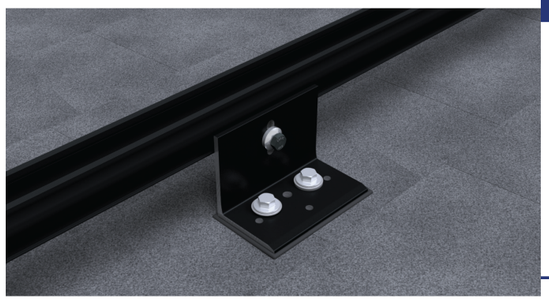


RAIL | RAIL SPLICE | MOUNT | GROUND LUG | M = MODULE CLAMP
GROUND PATH | EQUIPMENT GROUNDING CONDUCTOR | M = MIDCLAMP, X = X-END CLAMP, U = UNIVERSAL END CLAMP

SnapNrack

Ultra Rail

AnchorFoot™



Deck Mounting, *re-imagined.*

- Flexible direct to deck mounting & rafter mounting options
- Pre-installed butyl for easy worry-free sealing
- Compatible with proprietary DeckAnchor™ fasteners cutting the number of deck fasteners in half, from 4 to 2
- Single Tool installation & snap-in features as with all SnapNrack products

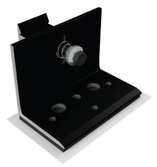
Start Installing AnchorFoot™ Today!

SnapNrack AnchorFoot™ & DeckAnchor™

are the latest innovation designed to reduce the number of roof fasteners when mounting direct to deck and provide maximum flexibility to mount anywhere on the roof. Engineered with butyl, now installers do not have to add sealant to the bottom of the mount, simplifying the installation process and further protecting the roof.

AnchorFoot™

- Pre-installed butyl for easy peel & stick installation allows for no disruption to composition shingles
- Industry-leading .200" thick butyl allows installation over shingles without cutting pieces
- Flexible direct to deck mounting options with (2) DeckAnchors or (4) #14 wood screws
- Flexible rafter mounting options with (1) 5/16" lag or (2) #14 wood screws
- Ships pre-assembled with Ultra Rail Mounting Clamp for easy rail attachment
- Rated for UL2703 Bonding & Grounding with TAS 100A Wind Driven Rain Testing for waterproof certification



DeckAnchor

- Proprietary fastening technology to reduce the number of screws for direct to deck mounting
- Familiar ½" hex head to maintain the SnapNrack tradition of a single tool install
- Wide threads securely grip the wood deck and significantly reduces the potential for over-tightening
- TAS 100A Wind Driven Rain Testing + ASTM D1761 Screw Capacities

Quality. Performance. Innovation.

SnapNrack solutions are focused on simplifying the installation experience through intuitive products and the best wire management in the industry.

SnapNrack

877-732-2860 www.snapnrack.com contact@snapnrack.com

pe.eaton.com

Eaton general duty cartridge fuse safety switch

DG222NRB

UPC:782113144221

Dimensions:
- **Height:** 14.37 IN
- **Length:** 7.35 IN
- **Width:** 8.4 IN

Weight:10 LB

Notes: Maximum hp ratings apply only when dual element fuses are used. 3-Phase hp rating shown is a grounded B phase rating, UL listed.

Warranties:
- Eaton Selling Policy 25-000, one (1) year from the date of installation of the Product or eighteen (18) months from the date of shipment of the Product, whichever occurs first.

Specifications:
- **Type:** General duty, cartridge fused
- **Amperage Rating:** 60A
- **Enclosure:** NEMA 3R
- **Enclosure Material:** Painted galvanized steel
- **Fuse Class Provision:** Class H fuses
- **Fuse Configuration:** Fusible with neutral
- **Number Of Poles:** Two-pole
- **Number Of Wires:** Three-wire
- **Product Category:** General duty safety switch
- **Voltage Rating:** 240V

Supporting documents:
- Eatons Volume 2-Commercial Distribution
- Eaton Specification Sheet - DG222NRB

Certifications:
- UL Listed

Product compliance: No Data

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RESOURCES

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DATE:	**August 19, 2025**
DRAWN BY:	**SAM**

Sheet No.

R-02