

sunMAX™

EUROPEAN MARKET DATASHEET





sunMAX™ Residential Solar Solution

The sunMAX Residential Solar Solution provides a complete product solution including hardware and software. The sunMAX hardware offers advantages such as simplified installations, optimal performance using microinverters, railless mounting, and integrated equipment kits. The sunMAX software makes it easier to sell and design systems, includes mobile tools to assist with installation, and provides remote monitoring (and shutoff) capabilities.

sunMAX Hardware

- Designed to Use Microinverters on Each Solar Panel
 - Maximizes the power output of each panel individually
 - Increased safety
- AC Cabling with Built-In Connectors
 - No wiring; simply plug one panel into the next
 - Increased safety
- Railless Mounting System
 - Integrated mounting system clamps directly onto roof mounts
 - No need to install rails or racks on top of the mounts
- Wireless Monitoring Gateway
 - Wirelessly communicates status and performance of each panel to the sunMAX cloud-based monitoring software
- Integrated Equipment Kit
 - Pre-assembled into 8 sub-assemblies, compared to more than 20 part numbers for the typical residential solar project

sunMAX Software

- Design installations with the sunMAX Design Tool
 - Design a system for the customer's roof
 - Create a customer proposal
 - Generate a complete bill of materials for ordering equipment
- Use the sunMAX Install mobile app for installation
 - Set up and configure equipment
 - Scan QR codes on each panel for faster integration
- Monitor sunMAX site performance via Ubiquiti-hosted cloud platform
 - Desktop apps monitor the status and performance of the system, panel by panel
 - sunMAX software reports hourly/daily/monthly/yearly energy production levels using clear, easy-to-read graphs

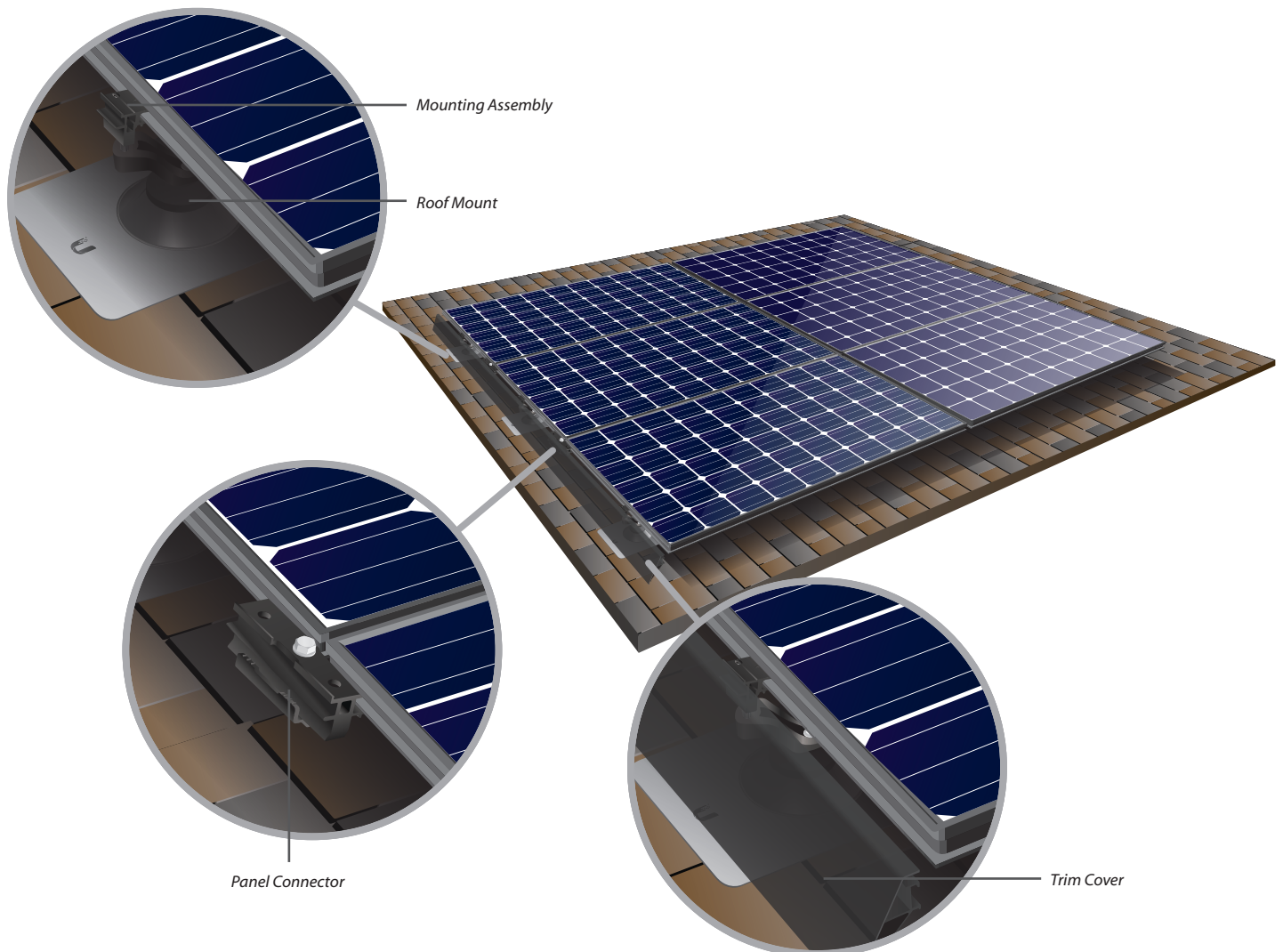
Mounting and Trim Components

| Part Number | Description |
|------------------|----------------------------------|
| SM-SP-260W-DC-EU | Solar Panel |
| SM-RM-C | Roof Mount Kit |
| SM-RM-T | Tile Roof Accessory Kit |
| SM-MA | Mounting Assembly |
| SM-PC | Panel Connector |
| SM-CM | Connector Mount |
| SM-TC-2P | Trim Cover Kit, 2-Panel Portrait |
| SM-TC-1P | Trim Cover Kit, 1-Panel Portrait |
| SM-TC-L | Trim Cover Kit, Landscape |



4x4 Landscape Orientation

6-Panel Array Example - Portrait Mode (Top View)



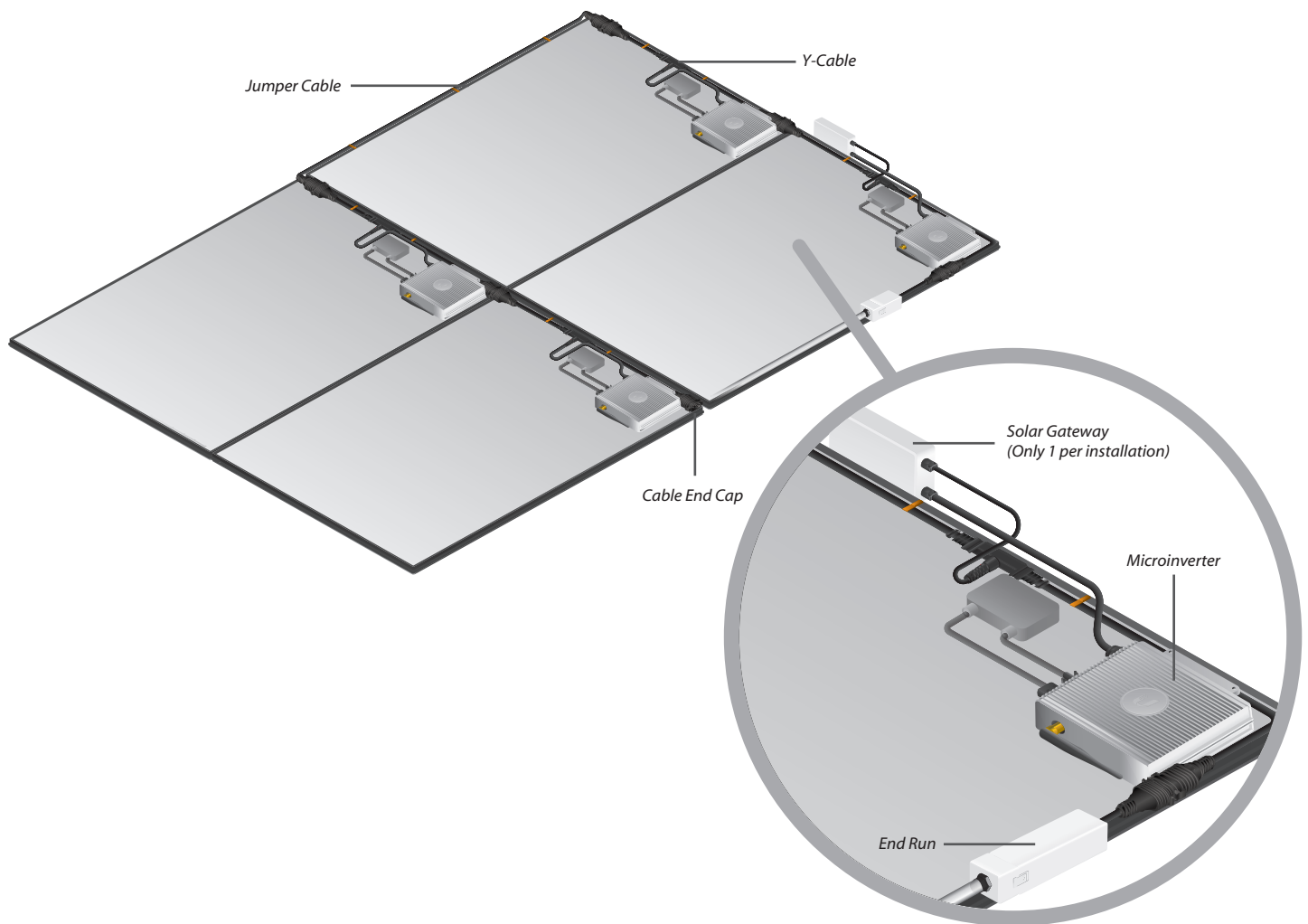


Bottom View of Panel Assembled with Microinverter

Wiring and Mechanical Components

| Part Number | Description |
|------------------|------------------------|
| SM-SP-260W-DC-EU | Solar Panel |
| SM-MI-250-EU | Microinverter |
| SM-JC-3C | Jumper Cables |
| SM-EC-EU | End Run Kit |
| SM-SG | Solar Gateway |
| SM-YC-P3 | Y-Cable, Portrait |
| SM-YC-L3 | Y-Cable, Landscape |
| SM-CC | Cable Support Clip Kit |

4-Panel Array Example - Portrait Mode (Bottom View)



Software

Design

The sunMAX design tool allows service providers to input a customer’s address and obtain a satellite image of the customer’s roof to design a solar power system specific to its location. A bill of materials with pricing is generated based on the defined layout. sunMAX also features a Permitting Package Application to quickly gather and present information about the customer’s install. The information is submitted to Ubiquiti’s design team to create a permit package for delivery to the local authorities prior to the sunMAX system installation.

sunlink.ubnt.com

Install

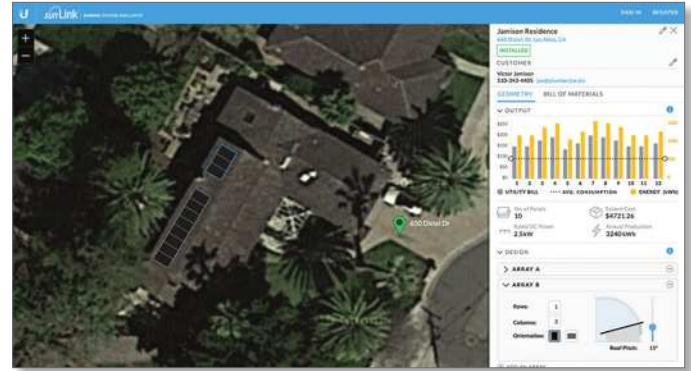
The sunMAX Install mobile app for Android devices is designed to enable solar installers the ability to provision devices and set up service for new customers. Provisioning can be done using a mobile device to scan product QR codes.



Monitor

The sunMAX solution includes monitoring functionality at sunmax.ubnt.com. Service providers can see a list of all customer sites and get details on any specific location. The software reports hourly, daily, monthly, and yearly energy production levels using clear, easy-to-read graphs.

sunmax.ubnt.com



Use the sunMAX design tool to determine the materials required for your solar installation.



Use the sunMAX mobile app to scan product QR codes and provision devices.

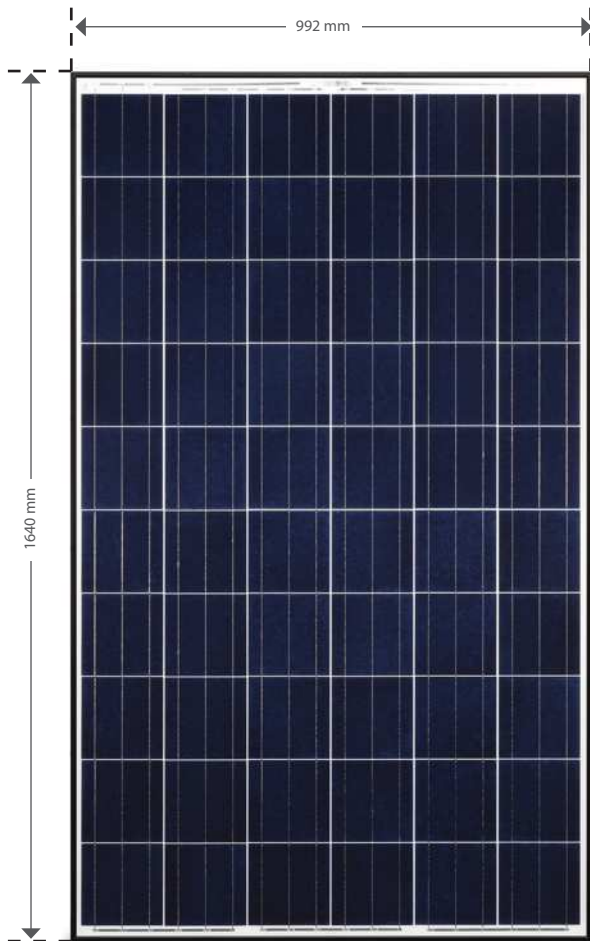
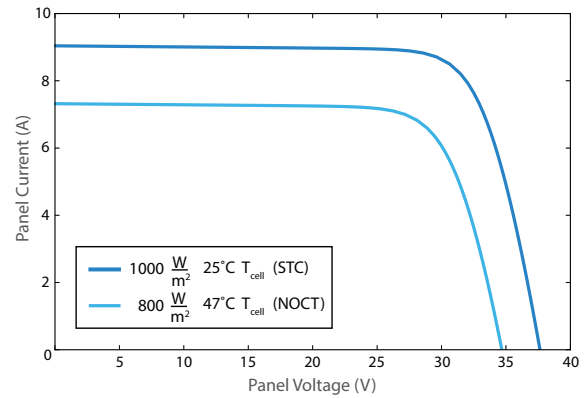


Service providers can review customers’ energy production and power at sunmax.ubnt.com.

Solar Panel

Model: SM-SP-260W-DC-EU

Ubiquiti Networks sunMAX Solar Panels can be installed in landscape, portrait, or a combination of both. The Solar Panel includes holes to mount the Microinverter (SM-MI-250-EU) and cabling to connect it. The panels are also ready to receive sunMAX Jumper Cables (SM-JC) to connect power from adjacent columns or rows. Panels are mounted using sunMAX Mounting Assemblies (SM-MA) and interlocked using the sunMAX Panel Connectors (SM-PC).



Solar Panel Specifications

| SM-SP-260W-DC-EU | | |
|--|--|--|
| Dimensions | 1640 x 992 x 40 mm | |
| Weight | 19.8 kg | |
| Number of Cells | 60 pcs, 6x10 Connected In Series | |
| Cell Type and Size | 3 Busbar Multi-Crystalline (156 x 156 mm) | |
| Operating Temperature | -32 to 65° C | |
| Temperature Coefficient of Voltage (β) | -0.34 \pm 0.01 % / °C | |
| Temperature Coefficient of Current (α) | +0.07 \pm 0.02 % / °C | |
| Temperature Coefficient of Power (γ) | -0.46 \pm 0.02 % / °C | |
| Normal Operating Cell Temperature (NOCT) | 47° C \pm 2° | |
| Efficiency Reduction at 200 W/m ² , 25° C | <5% | |
| Mechanical Load ¹ | \pm 2400 Pa, +5400 Pa | |
| Hailstone Impact Resistance | 25 mm @ 80 km/h | |
| Junction Box / Cable | IP65 Rated; 4.0 mm ² Universal PV Wire, MC4+ Style Connectors | |
| Basic Structure | Front | 3.2 mm Tempered Solar Glass; With AR Coating |
| | Back | Composite Film |
| | Frame | Anodized Aluminum Alloy |
| Certifications and Standards | IEC 61215, IEC 61730, UL1703, ULC/ORD-C1703-01 CAN/CSA-C61215-08 CAN /CSA-C22.2 No. 61730 Application Class A, Safety Class II | |

| Characteristics ² | | |
|------------------------------|--------|--|
| Nominal Power | 260W | |
| Voltage Voc | 38.18V | |
| Current Isc | 9.03A | |
| Voltage Vmp | 30.82V | |
| Current Imp | 8.57A | |

¹ Refer to panel installation instructions for maximum loading conditions

² Under Standard Test Condition (STC) Irradiance of 1000 W/m², Cell Temperature of 25°C, and AM=1.5

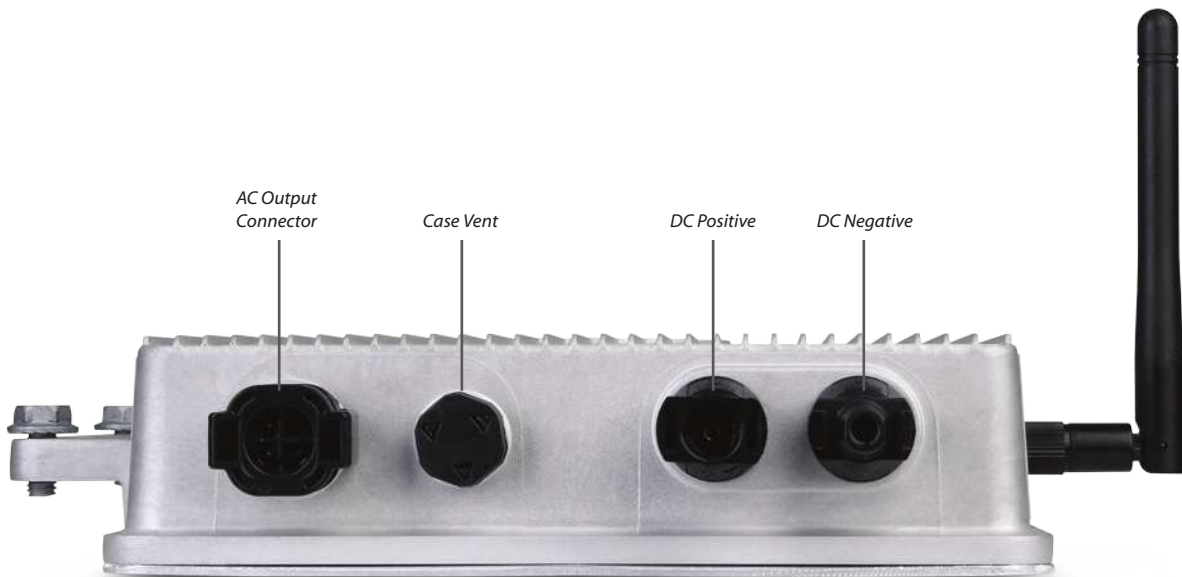
Microinverter

Model: SM-MI-250-EU

Ubiquiti Networks sunMAX Microinverter integrates into the sunMAX Solar Panel as an independent power generation unit. The Microinverter converts the DC power from the solar panel into AC power that can be connected directly to your home. Ubiquiti's cloud-based sunMAX software provides monitoring capability for desktops and mobile devices.

The Microinverter provides multiple benefits including:

- Maximizes power for individual solar panels
- Eliminates high-voltage DC wiring for a safer solar installation
- Lower installation cost
- Higher overall system reliability



Microinverter Specifications

| SM-MI-250-EU | |
|--------------------------------|--|
| Dimensions | 198 x 231 x 43.1 mm |
| Weight | 1.5 kg |
| Cooling | Natural Convection |
| Operating Temperature | -32 to 65° C |
| Storage Temperature | -40 to 85° C |
| Enclosure Environmental Rating | IP65 |
| Communication | Bluetooth Low Energy (BLE) |
| Grounding | PV Positive is bonded to earth ground |
| Certifications and Standards | EN 50438 with IEC 61727, G831-1 & G591, VDE-AR-N-4105, ÖVEÖNorm E 8001-4-712A1 C10 11, UTE C15-712-1, RD1699+RD413, RD661, G83 2 |

| DC Input Data | |
|-------------------------------|----------|
| Recommended Input Power (STC) | 240-300W |
| Max. Input DC Voltage | 45V |
| Peak Power Tracking Voltage | 23-36V |
| Min. / Max. Start Voltage | 25-45V |
| Max. DC Short Circuit Current | 9A |

| Efficiency | |
|-----------------------------|-------|
| Europe Efficiency | 95.0% |
| Peak Inverter Efficiency | 95.5% |
| Nighttime Power Consumption | 120mW |

| AC Output Data | |
|--------------------------------------|---------------------------|
| Peak Output Power | 250W |
| Rated (Continuous) Output Power | 250W |
| Rated (Continuous) Output Current | 1.09A |
| Nominal Voltage/Range | 230V (184-264V) |
| Nominal Frequency/Range | 50 Hz (47-52 Hz) |
| Power Factor | > 0.95 |
| Value of Harmonic Distortion | < 5% |
| Maximum Units Per 20A Branch Circuit | 15 |
| AC Internal Fusing | 6.3A fuse on each AC pole |

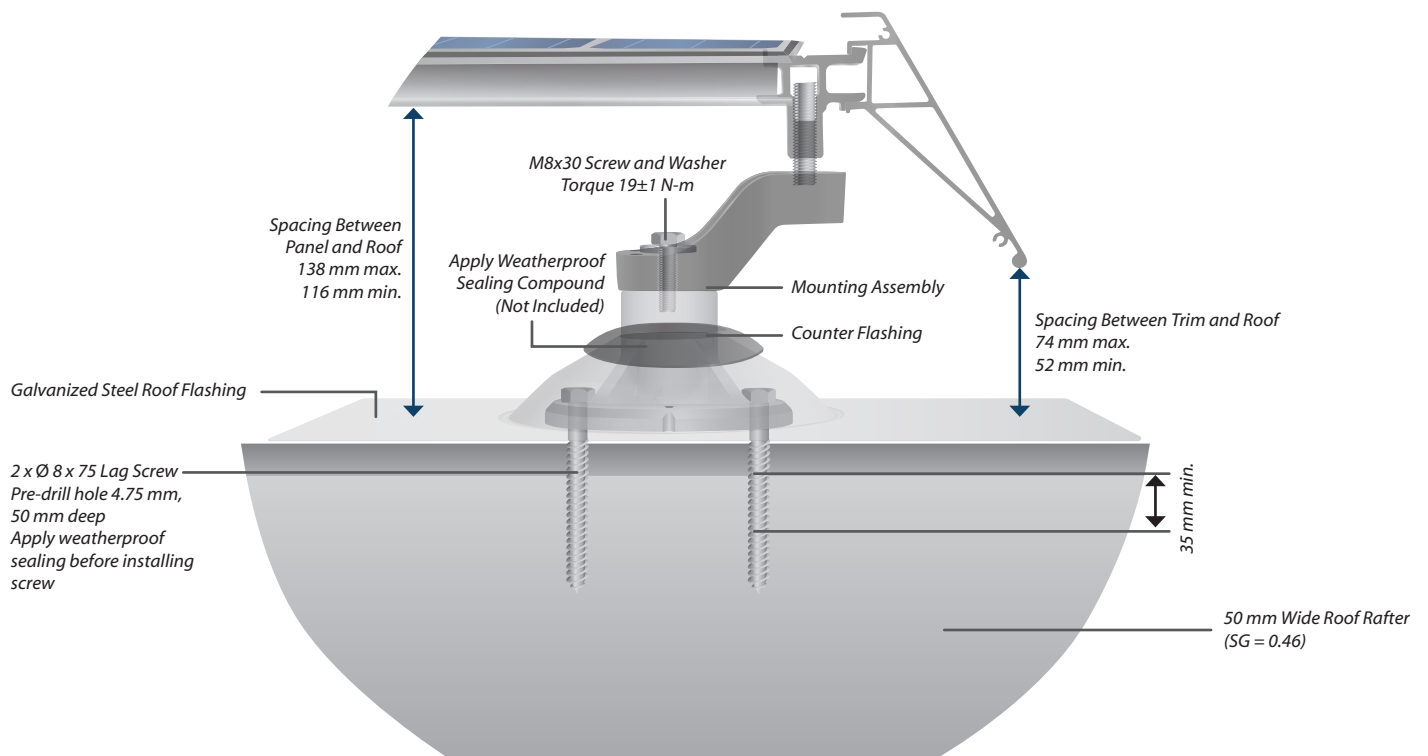
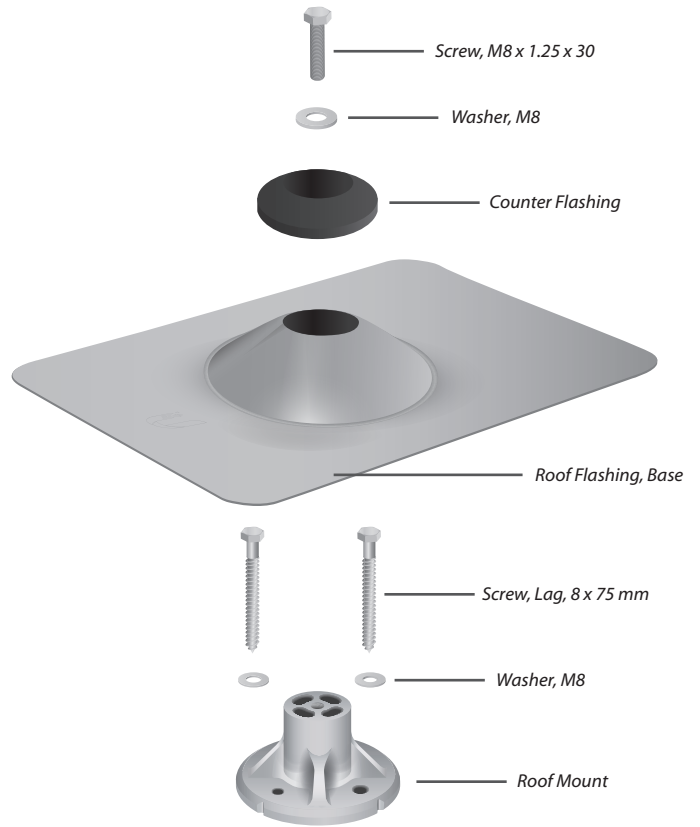
Roof Mount Kit

Model: SM-RM-C

The Roof Mount Kit is the structural mount secured to the roof structure and serves as a base for the Tile Accessory Kit, model SM-RM-T. The Roof Mount Kit utilizes roof flashing to ensure a watertight connection to the roof's surface during installation.

The Roof Mount Kit is sold in bulk with a quantity of 10 mounting kits. Below are the components of each kit:

| Part | Qty. |
|------------------------|------|
| Roof Mount | 10 |
| Washer, M8 | 20 |
| Screw, Lag, 8 x 75 mm | 20 |
| Roof Flashing, Base | 10 |
| Screw, M8 x 1.25 x 30 | 10 |
| Washer, 8.4 x 24 x 2.5 | 10 |
| Counter Flashing | 10 |



Mounting System Specifications

| SM-RM-C | |
|---|---|
| Allowable Roof Slope | 0 to 45° |
| Maximum Mount Span | Up to 1220 mm |
| Maximum Cantilever | 400 mm Portrait, 500 mm Landscape |
| Building Height | < 18.3 m |
| Maximum Windspeed | 240 km/h ¹ |
| Panel Orientation | Landscape and Portrait |
| Wind Exposure | Category B, C, D |
| Maximum Ground Snow Load | 3590 Pa |
| System Dead Load | 11.6 kg Per Mount ² |
| Height Adjustability | 0 - 21 mm |
| Panel Connectors | 2 or 4-Way Integrated Grounding Couplers |
| Cables Support Clips | Black UV-Resistant Polycarbonate |
| Trim Skirt | Available in 3 Different Lengths |
| Cabling | IP67 Rated UL |
| Component Materials | Aluminum and Steel |
| Component Finishes | Black Coatings |
| Hardware | Geomet-Plated Steel |
| Certifications | UL2703 (Pending) |
| Fire Certification | Class A Rating for Steep Slope Roofs per UL2703 |
| Withdrawal Force within Dry Douglas Fir (SG=0.46) with 35 mm Rafter Penetration | 11,800 N |
| Maximum Side Load | 1000 N |
| Flashings | IBC Compliant Flashings, Galvanized Steel |
| Lag Screws | (2) Steel 8 x 75 mm |

¹ See installation instructions for restrictions

² Based on two mounts per panel

Tile Accessory Kit

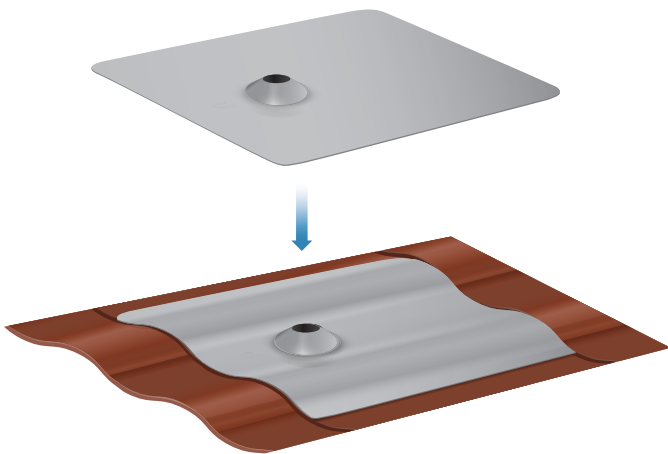
Model: SM-RM-T

The Tile Accessory Kit includes the extra components needed when mounting the panel hardware on a tile roof. The kit can accommodate either flat or shaped tile by forming the upper flashing. Two roof flashings should be used (one above and one below the tile) to assure a watertight connection. This kit is used in conjunction with the SM-RM-C Roof Mount Kit.

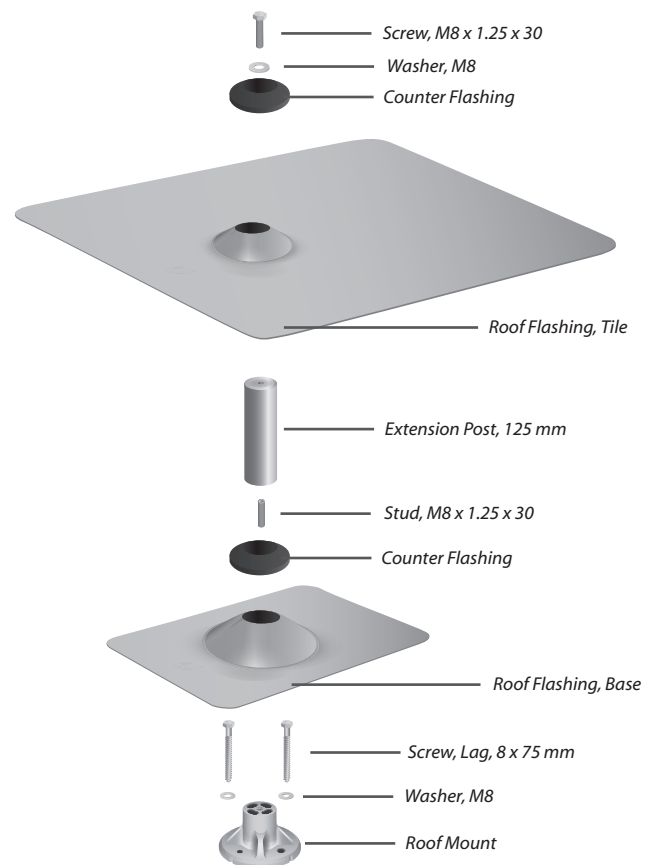
The Tile Accessory Kit is sold in bulk with a quantity of 10 mounting kits. Below are the components of each kit:

| Part | Qty. |
|------------------------|------|
| Extension Post, 125 mm | 10 |
| Stud, M8 x 1.25 x 30 | 10 |
| Roof Flashing, Tile | 10 |
| Counter Flashing | 20 |

Form Roof Flashing to Tile



Residential Mount Kit and Tile Accessory Kit Combined



Mounting System Specifications

| SM-RM-T | |
|---|---|
| Allowable Roof Slope | 0 to 45° |
| Maximum Mount Span | Up to 1220 mm |
| Maximum Cantilever | 400 mm Portrait, 500 mm Landscape |
| Building Height | < 18.3 m |
| Maximum Windspeed | 240 km/h ¹ |
| Panel Orientation | Landscape and Portrait |
| Wind Exposure | Category B, C, D |
| Maximum Ground Snow Load | 3590 Pa |
| System Dead Load | 11.6 kg Per Mount ² |
| Height Adjustability | 0 - 21 mm |
| Panel Connectors | 2 or 4-Way Integrated Grounding Couplers |
| Cables Support Clips | Black UV-Resistant Polycarbonate |
| Trim Skirt | Available in 3 Different Lengths |
| Cabling | IP67 Rated UL |
| Component Materials | Aluminum and Steel |
| Component Finishes | Black Coatings |
| Hardware | Geomet-Plated Steel |
| Certifications | UL2703 (Pending) |
| Fire Certification | Class A Rating for Steep Slope Roofs per UL2703 |
| Withdrawal Force within Dry Douglas Fir (SG=0.46) with 35 mm Rafter Penetration | 11,800 N |
| Maximum Side Load | 1000 N |

¹ See installation instructions for restrictions

² Based on two mounts per panel

Solar Gateway

Model: SM-SG

The Ubiquiti Networks sunMAX Solar Gateway communicates with all Microinverters in an array using Bluetooth and then broadcasts data via Ethernet.



Solar Gateway Installed



Solar Gateway Specifications

| SM-SG | |
|-----------------------------|---|
| Dimensions | 206 x 87 x 54 mm Excludes Approx. 550 mm Cable Length |
| Weight | 0.37 kg |
| Enclosure Characteristics | Polycarbonate, UV-Resistant, IP65 |
| Shock and Vibration | IEC 68-2-6 |
| Processor | MediaTek SoC |
| Memory | 256 MB |
| Storage | 1 GB Flash |
| Networking Interface | (1) 10/100/1000 Mbps RJ45 Ethernet Port |
| LEDs | 3 LEDs: Power, Web Connectivity, and Microinverter Connectivity |
| Button | Factory Reset Button |
| Max. Power Consumption (HW) | 7W |
| Power Source | AC |
| Power Supply | 90-264 VAC, 47-63 Hz |
| ESD/EMP Protection | Rating for ESD (\pm 24KV) |
| Operating Temperature | -20 to 50° C |
| Operating Humidity | 5 to 95% Noncondensing |
| Certifications | FCC/CE/IC/UL |

Mounting Assembly

Model: SM-MA

The Mounting Assembly is used to support panels off roof mounts. Mounting assemblies are always located along the horizontal edges of panels. Typically there is at least one mounting assembly at the top and bottom of each panel. Sold in quantities of 10.

| SM-MA | |
|------------|--------------------------------------|
| Dimensions | 53.6 x 104.9 ¹ x 104.4 mm |
| Weight | 0.23 kg |



Panel Connector

Model: SM-PC

The Panel Connector is used to connect adjacent panels structurally and electrically bond them together. There is always one at the top and the bottom between every panel that is side by side. Sold in quantities of 10.

| SM-PC | |
|------------|----------------------|
| Dimensions | 125 x 50.3 x 43.3 mm |
| Weight | 0.35 kg |



Connector Mount

Model: SM-CM

The Connector Mount is used to connect panels side by side (one on bottom and one on top) structurally in locations where the Mounting Assembly would coincide with a Panel Connector location. The Connector Mount is used in place of a Mounting Assembly and Panel Connector in that location. Sold in quantities of 10.

| SM-CM | |
|------------|----------------------------------|
| Dimensions | 125 x 96 ¹ x 104.4 mm |
| Weight | 0.39 kg |



¹ Adjustable height dimension ±12 mm

Jumper Cables (3-Conductor)

Model: SM-JC-3C

The Ubiquiti Networks sunMAX Jumper Cable connects power cables on panels from adjacent rows (portrait) or columns (landscape). Sold in quantities of 5.



| SM-JC-3C | |
|------------|---------------------|
| Dimensions | 1275 mm |
| Weight | 0.36 kg |
| Cable | 12 AWG, 3-Conductor |

Y-Cable Kit, Portrait (3 Conductor)

Model: SM-YC-P3

The Ubiquiti Networks sunMAX Y-Cable (Portrait) connects panels and devices such as the Solar Gateway and Microinverter in a portrait-panel configuration. Sold in quantities of 5.



| SM-YC-P3 | |
|------------|--------------------------|
| Dimensions | 1030 mm with 500 mm drop |
| Weight | 0.37 kg |
| Cable | 12 AWG, 3 Conductor |

Y-Cable Kit, Landscape (3 Conductor)

Model: SM-YC-L3

The Ubiquiti Networks sunMAX Y-Cable (Landscape) connects panels and devices such as the Solar Gateway and Microinverter in a landscape-panel configuration. Sold in quantities of 5.



| SM-YC-L3 | |
|------------|--------------------------|
| Dimensions | 1688 mm with 920 mm drop |
| Weight | 0.68 kg |
| Cable | 12 AWG, 3 Conductor |

End Run Kit

Model: SM-EC-EU

The End Run provides easy adaptation of cabling from the array to the electrical panel feeding the grid. It connects the open-ended Y-cable in your solar array to the house-side wiring that feeds into the electrical panel on the outside of your home. The End Run Kit includes the End Run, a Cabling End Cap, and a Grounding Kit (stud and nut).



| SM-EC-EU | |
|-------------|------------------|
| Dimensions | 425 x 50 x 39 mm |
| Weight | 350 g |
| Thread Size | M20 x 1.5 |

Cable Support Clips Kit

Model: SM-CC-50

The Cable Support Clips hook and snap onto the solar panel's edge from underneath to support and secure Jumper Cables and Y-Cables. Sold in quantities of 50.



| SM-CC | |
|------------|-----------------|
| Dimensions | 68 x 25 x 14 mm |
| Weight | 5 g |

Trim Cover Kits

The Trim Cover Kit is used to enhance the visual appearance along the entire front edge of an array and also helps to ease installation of the panels.



Four Landscape Trim Covers Installed

Trim Cover Kit, Landscape

Model: SM-TC-L

The SM-TC-L Trim Cover Kit is used for installations using the landscape orientation. One cover kit is used per column in a landscape installation. Sold in quantities of 5.

| SM-TC-L | |
|------------|------------------------|
| Dimensions | 128.2 x 33.3 x 1659 mm |
| Weight | 2.61 kg |



Trim Cover Kit, 2-Panel Portrait

Model: SM-TC-2P

The SM-TC-2P Trim Cover Kit spans the width of two panels installed in a portrait installation. It is best to use these whenever possible and use the single-panel version only as needed. Sold in quantities of 5.

| SM-TC-2P | |
|------------|------------------------|
| Dimensions | 128.2 x 33.3 x 2006 mm |
| Weight | 3.20 kg |



Trim Cover Kit, 1-Panel Portrait

Model: SM-TC-1P

The SM-TC-1P Trim Cover Kit spans the width of a single panel in portrait installations. Sold in quantities of 5.

| SM-TC-1P | |
|------------|------------------------|
| Dimensions | 128.2 x 33.3 x 1003 mm |
| Weight | 1.61 kg |

