HMS-1000W-2T Series Microinverter Quick Installation Guide

* *Applicable for HMS-600W/700W/800W/900W/1000W-2T Microinverters*

Warning:
- *Read this guide thoroughly before installation.*
- *Operation personnel must wear proper personal protective equipment (PPE).*
- *Avoid working with live wires. Ensure that AC and DC wires are not charged before any connection work.*
- *Adhere to the applicable codes and regulations of the installation site. Hoymiles is not liable for damages resulting from improper installation and use.*

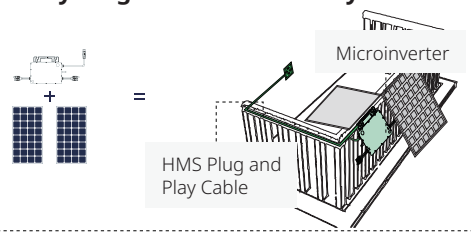
Danger:
- *This installation must be carried out with all devices from the grid.*
- *To avoid damaging the microinverter or potential fire hazards, ensure all terminals are securely tightened with the correct torque when connecting AC and DC cables.*

Notice:
HMS-1000W series microinverter can be operated on the following grids:
- *Single-phase, 230 V, with Neutral*
- *Three-phase, 230 V / 400 V, with Neutral*

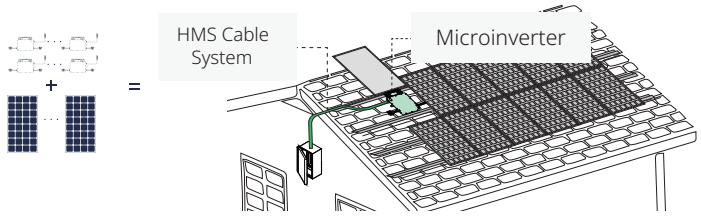
0 Product Application

The HMS-1000W series can be used in both single-microinverter and multi-microinverter systems.
- A single-microinverter system is a solar power setup with one microinverter and two PV modules, designed for installation on a balcony or an outdoor area.
- A multi-microinverter system consists of multiple microinverters, each microinverter is paired with two PV modules, providing optimized performance.

Balcony-Single-Microinverter System



Rooftop-Multi-Microinverter System

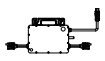


✶ *The product proportions have been modified to improve the depiction of the structure.*

1 Preparation

1 Check the Parts and Tools

Scope of Deliver



Microinverter | Guide & Map

Tools Required

PPE | Electrical Drill | M8 Screws | Cable Tie | Diagonal Cutter | Wire Stripper | Torque Wrench | Crimping Tool | HMS Disconnect Tool

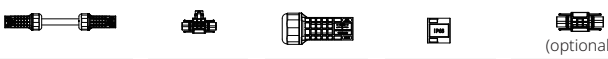
** Choose the correct installation tools based on site conditions, as tools for balcony systems and rooftop systems differ.*

Parts Required

Single-Micro-inverter System

HMS Field Connector | AC Cable | or | Plug and Play Body

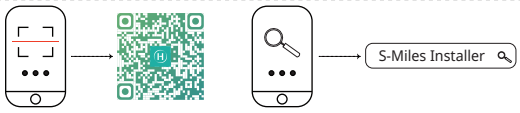
Multi-Micro-inverter System



HMS Connection Cable | HMS Trunk Connector | HMS Cable Connector | HMS Sealing Cap | HMS Extension Connector (optional) | AC Cable

2 Download the Application

Download the S-Miles Installer Application. To download,
- Scan the QR code located on the right side.
- Search for "Hoymiles Installer" on App Store or Google Play.



3 Plan the Microinverters

For a single-microinverter system, the entire system consists of one microinverter and two PV modules.

For a multi-microinverter system, define the number of microinverters per AC output line based on the capacity of the AC cables.

Multi-Microinverter System—Maximum Microinverter Numbers per Line (230 V)					
Model	HMS-600W-2T	HMS-700W-2T	HMS-800W-2T	HMS-900W-2T	HMS-1000W-2T
2.5 mm²	9	7	6	6	5

Warning:
AC cable ampacity determines the limits, which may vary. Check local codes for the actual limitations.

2 Mechanical Installing

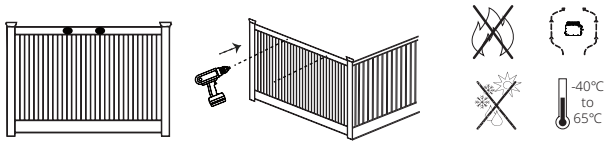
Method One - Single-Microinverter System

a. Position the Microinverter

a. Plan and mark the position of microinverter.

b. Drill holes with an electrical drill.

Warning:
Factors to consider:
- *Handrail should be structurally stable and can support the microinverter's weight.*
- *Avoid uneven, slanted, or rough surfaces.*

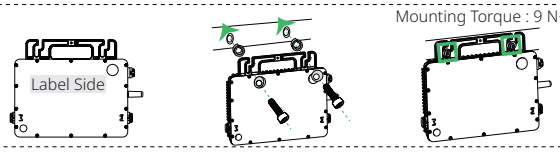


b. Fix the Microinverter

a. Mount and align the microinverter (label side up) with the drilling holes.

b. Fix the microinverter with screws (Torque: 9 N·m).

Warning:
Given the complexity of balcony installations, consider handrail stability, weight limitations, appropriate mounting methods, and compliance with balcony regulations, and seek professional advice if necessary.



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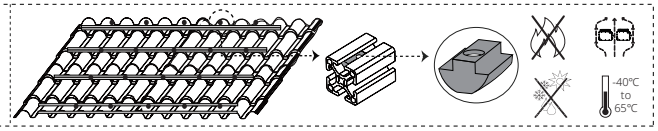
Method Two - Multi-Microinverter System

a. Position the Microinverter

a. Plan and mark the position of each microinverter on the racking.

b. Slide all sliding T-nuts, placing them in the marked locations along the racking until they are fully seated.

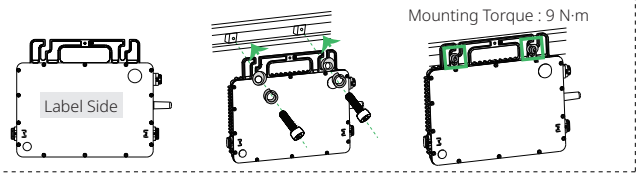


b. Attach the Microinverters to the Racking

a. Place the microinverter (label side up) onto the racking.

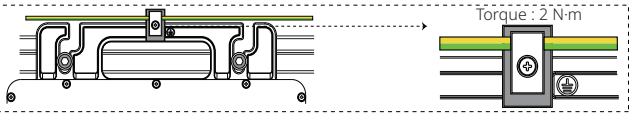
> ⚠ *Warning:*
> *Always install the microinverter beneath the PV module to avoid direct exposure to rain UV, and other harmful weather events.*

b. Secure the microinverter to the racking (Torque: 9 N•m).



Additional Grounding (if necessary)

The AC cables already include earth wires for direct grounding. Use the grounding brackets on the right If external grounding is required.

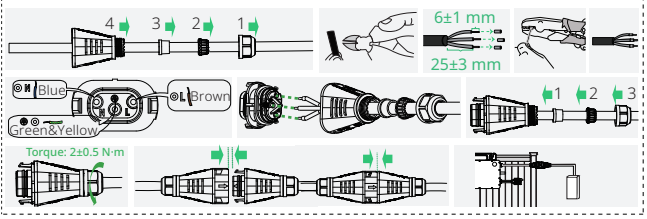


3 AC Side Electrical Installation

Method One - Single-Microinverter System

- Use the HMS Filed Connector to connect the microinverter to the distribution box.
- Or use the Plug and Play Cable to connect the microinverter to the socket.

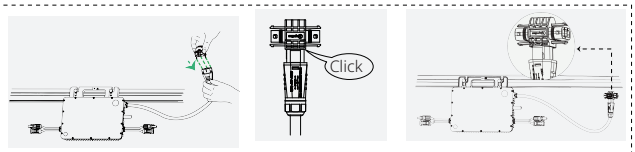
> ⚠ *Notice:*
> *Scan the QR code to access the complete installation guide for the HMS Field Connector.*



Method Two - Multi-Microinverter System

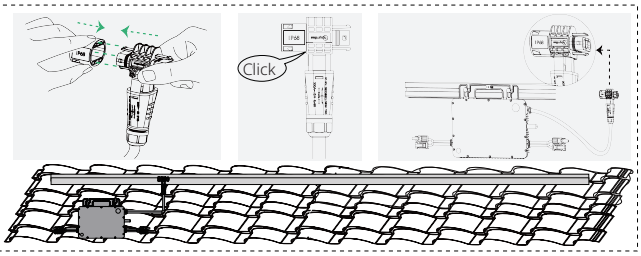
a. Connect the HMS Trunk Connector

Connect the HMS Trunk Connector to the microinverter. Listen for a click as the connectors engage.



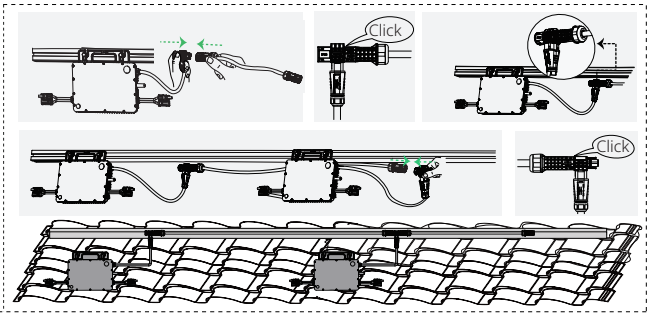
b. Use the Sealing Port

Cover the unused port on the HMS Trunk Connector (located at the beginning of the AC Trunk) with an HMS Sealing Cap. Listen for a click as the sealing cap engages.



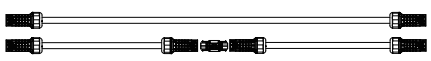
c. Connect Adjacent Microinverters

Use the HMS Connection Cable to connect the adjacent HMS Trunk Connectors. Listen for a click as they engage.



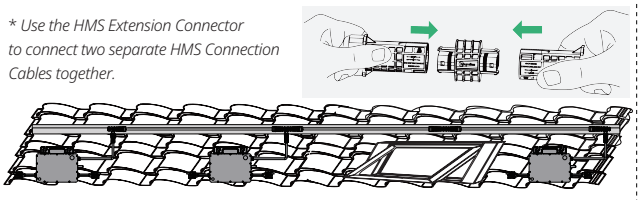
For Rooftop Obstacle Applications

If your microinverters are installed too far apart, Hoymiles offers two solutions: 1) use a longer HMS Connection Cable, 2) connect two HMS Extension Cables together using an HMS Extension Connector.

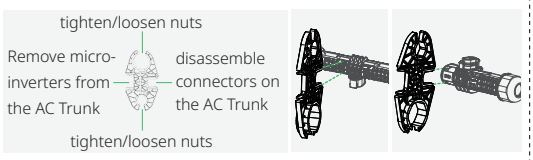


- Hoymiles offers various cable lengths including 1.1 m, 2.3 m, and 4.6 m. If you require a different length, contact Hoymiles sales.
- The HMS Extension Connector can connect two HMS Connection Cables while it's not typically required. Order it from Hoymiles if needed.
- Adhere to local standards when designing and installing cables.

** Use the HMS Extension Connector to connect two separate HMS Connection Cables together.*



** To remove the sealing cap or connectors you must use an HMS Disconnect Tool.*



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d. Make the AC End Cable

a. Before stripping the cable, check and ensure that the HMS Cable Connector can be separated into six parts.

Notice:
Specifications for the desired AC cable:

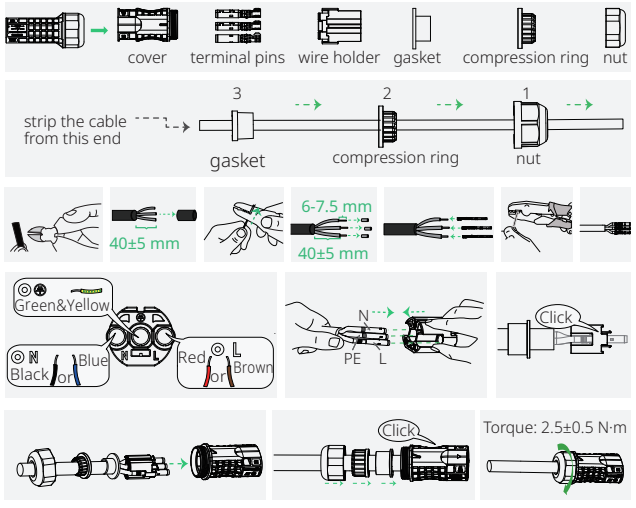
Wire Type	Outdoor Use, Copper Wire
Core	Three
Maximum Voltage	600 V
Cross-Section	⩽16.5 mm

b. Push the parts through the AC cable in the correct order.

c. Strip off 40±5 mm of the outer jacket with a diagonal cutter. Then, use a wire stripper to strip the insulation, exposing 6-7.5 mm of the conductor.

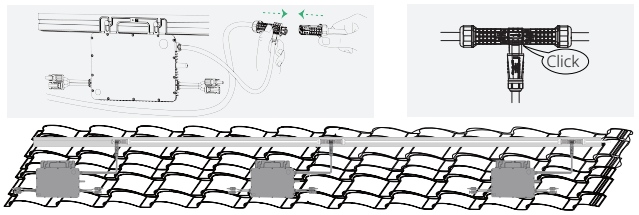
d. Insert the conductor into the terminal pin, crimp the connection, and push the crimped cable through the wire holder.

e. Plug the fixed cable into the HMS Cable Connector. Then firmly tighten the nut using the HMS Disconnect Tool.



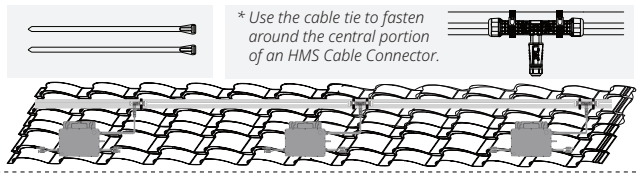
e. Connect the AC End Cable

Connect the AC End Cable to the last HMS Trunk Cable Connector in a series of cables. Listen for a click as they engage.



f. Manage the AC Trunk

Use the cable ties to attach all cables to the racking.

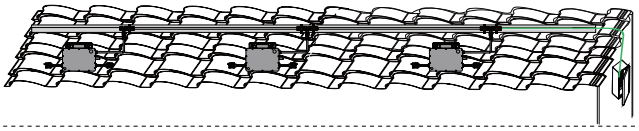


g. Connect to the Distribution Box

Connect the other end of the AC End Cable to the distribution box.

Warning:
Adhere to local wiring codes for wiring safety.

Wire Colors	
L	Brown
N	Blue
PE	Green&Yellow



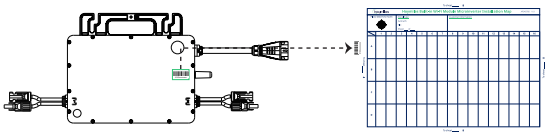
4 DC Side Electrical Installation

1 Complete the Installation Map

a. Peel off the removable serial number label (located near the antenna) from each microinverter.

b. Affix the label to the respective location on the installation map.

c. Record the Wi-Fi AP Initial Password of each microinverter for later configuration.

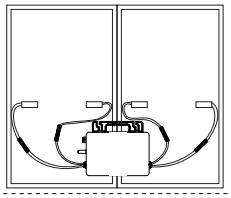


2 Connect the PV Modules

a. Mount the PV modules above the microinverters.

b. Connect the DC leads of PV modules to the corresponding DC inputs on the microinverters.

Warning:
Before installing the PV modules, ensure that all microinverters and inter-wiring connections are properly set up.



**To enhance the clarity of the structure, the product proportions and installation locations have been adjusted accordingly.*

5 Start-up

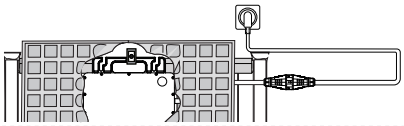
a. Energize the System

For the single-microinverter system, connect the other end of Plug and Play Cable to the socket.

For the multi-microinverter system,

a. Turn ON the AC disconnect or circuit breaker for each AC output line.

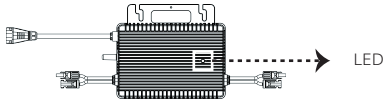
b. Turn ON the main utility-grid AC circuit breaker. Wait five minutes for the system to start producing power.



**The product proportions have been adjusted to enhance the illustration of the structure.*

b. Check the LED Status

Check the LED on the connector side of the microinverter.



LED	indicates
Five green flashes (0.3s gap)	Startup success
Fast green flashing (1s gap)	Producing power
Red flashing (1s gap)	Not producing power, AC grid fault (voltage or frequency is not within specification)

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6 Commissioning

Notice:

The HMS-1000W series microinverters offer two methods for data viewing:

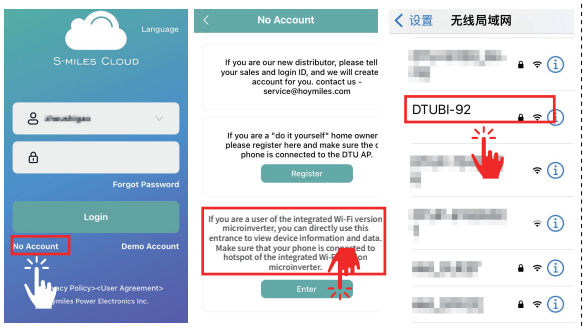
- ***Direct Connection:*** *Log into the App without an account, and connect to the microinverter's wireless signal to access various local data and set up your own power station.*
- ***Remote Connection:*** *Log into your account, input the device's serial number code, then you can view device data and commence with station setup.*

Notice:

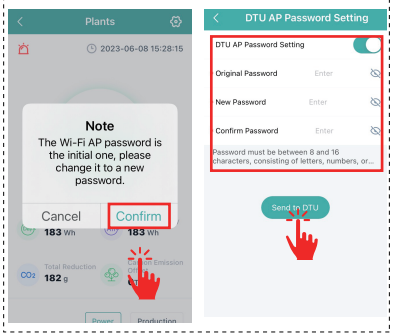
- *The screenshots provided here are for reference only. The actual screens may vary.*
- *The microinverter's network name includes "DTUBI" followed by the product serial number. Microinverter's network password is printed on a label attached to the microinverter itself.*

Method One - Direct Connection

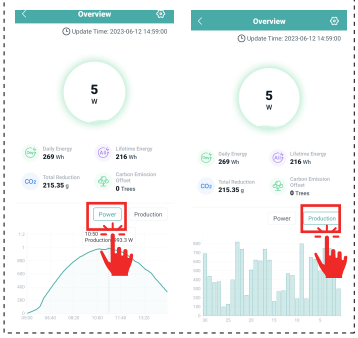
a. Connect to the Internet



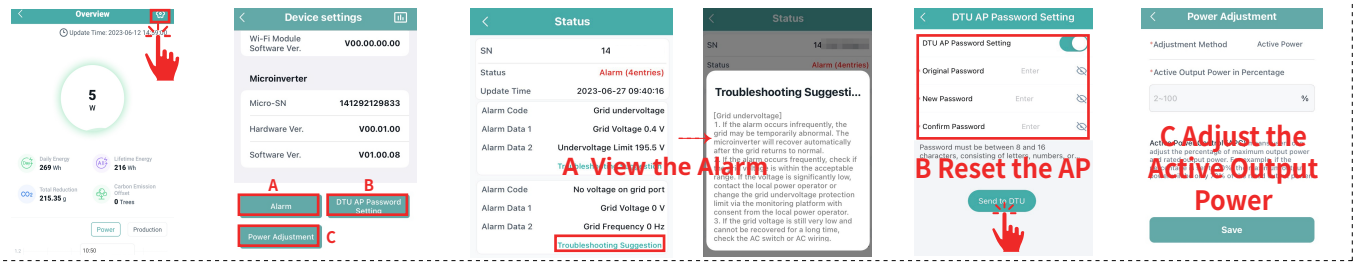
b. Reset the AP Password



c. View the Power Generation

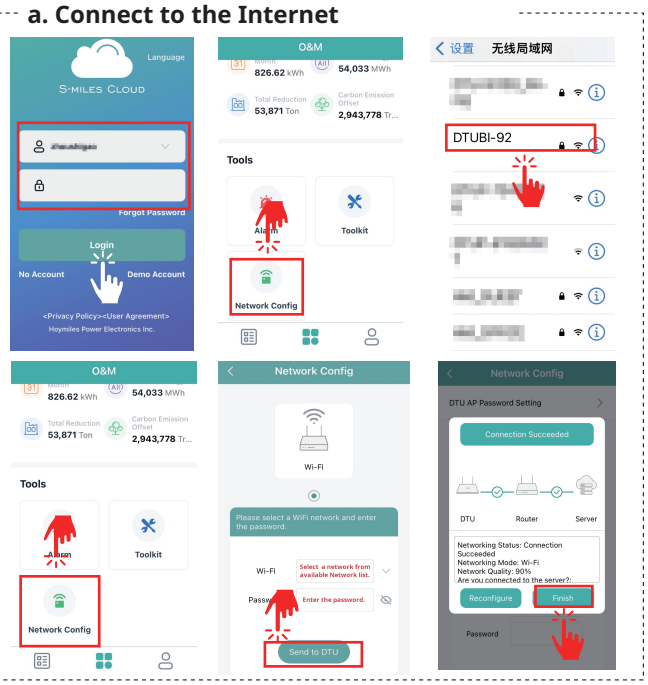


d. View the Other Information

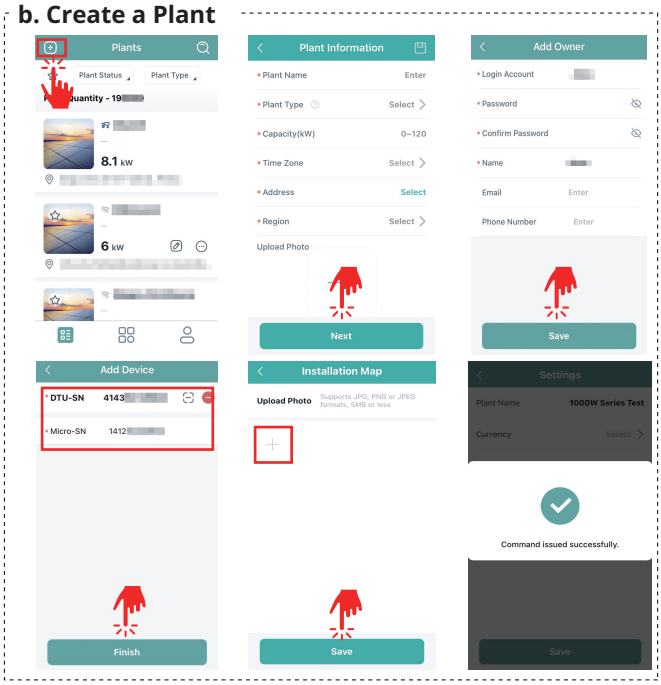


Method Two - Remote Connection

a. Connect to the Internet

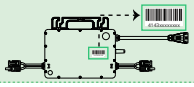


b. Create a Plant

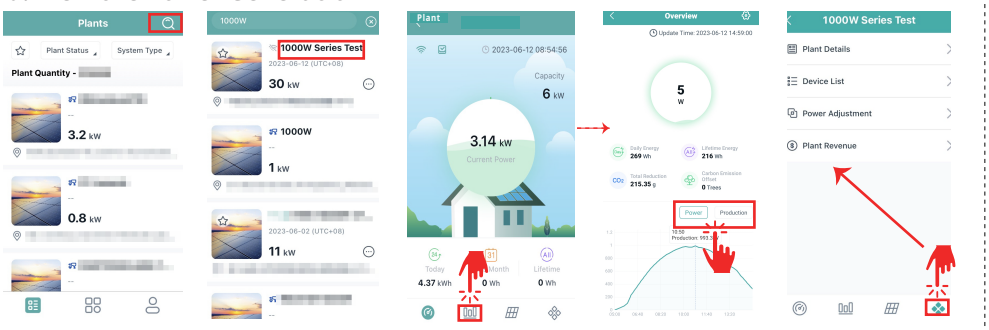


Notice:

To add the devices, enter the microinverter serial number (SN) or scan the barcode on the Add Devices page. The barcode that needs to be scanned is located on the left side of the microinverter, as indicated by the green box in the drawing.



d. View the Power Generation



Scan the QR code to access more information.