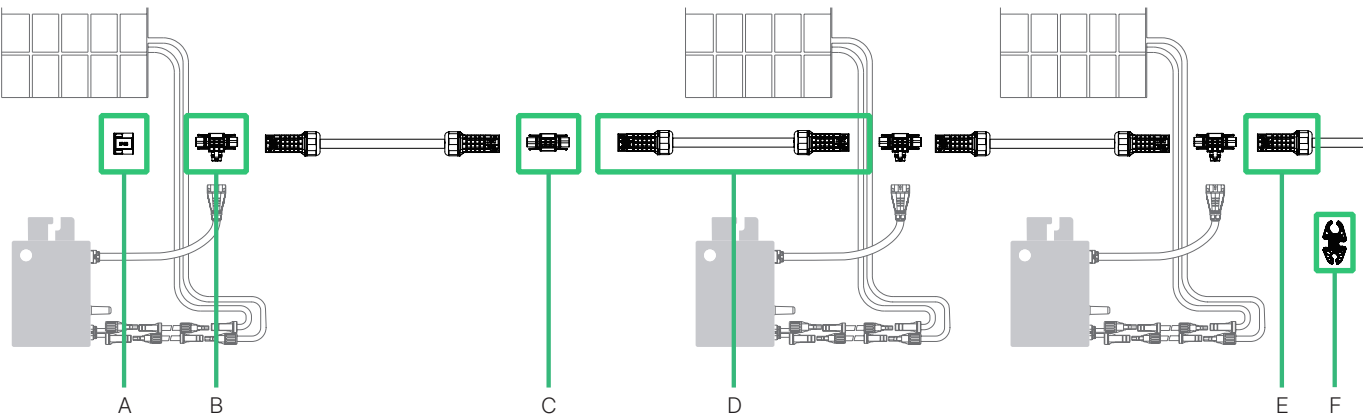


1. Wiring Diagram

Note: To install microinverters, read and follow all warnings and instructions in this guide and in the user manual at www.hoymiles.com/resources/download/.



A Flex-S3 Sealing Cap	D Flex-S3 Connection Cable
B Flex-S3 Trunk Connector	E Flex-S3 Cable Terminal Connector
C Flex-S3 Extension Connector	F Flex-S3 Disconnect Tool

2. Preparation

* Required Tools and Items

Personal Protective Equipment	Electrical Screwdriver (2-9 N·m)	M8 Screws
Diagonal Cutter	Wire Stripper	Crimping Tool (2.5/4/6 mm ²)
Torque Wrench (1.5-3 N·m)	Cable Ties	AC Cable*

Note: We recommend you use an outdoor-rated AC cable with an outer diameter of 16.5 mm or less. Select the cable length based on the distance between your system and the distribution box.

* Recommended Maximum Number of Microinverters per Line

	300 W Microinverter	350 W Microinverter	400 W Microinverter	450 W Microinverter	500 W Microinverter
2.5 mm ²	19 @ 230 V	16 @ 230 V	14 @ 230 V	12 @ 230 V	11 @ 230 V
4 mm ²	26 @ 230 V	22 @ 230 V	19 @ 230 V	17 @ 230 V	15 @ 230 V
6 mm ²	30 @ 230 V	26 @ 230 V	23 @ 230 V	20 @ 230 V	18 @ 230 V

Note: Limits are determined based on AC cable ampacity, which can vary. Check the local codes to determine the exact limits.

3. Mechanical Installation

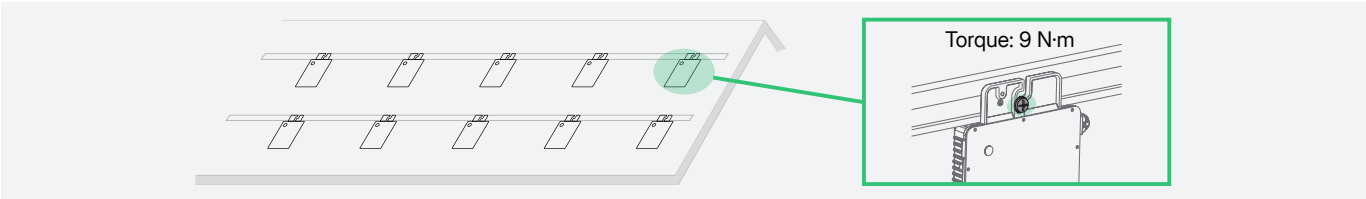
Step 1: Plan and mark the positions of each microinverter on the racking.

- Note:
- Always install microinverters in a well-ventilated location. Leave at least
 - 2 cm around the microinverter for ventilation and heat dissipation.
 - 30 cm between the microinverter and the roof for reliable communication. (If 30 cm isn't possible, leave as much space as you can.)
 - Always mount microinverters beneath PV modules to avoid direct exposure to harmful weather conditions, such as rain and UV.



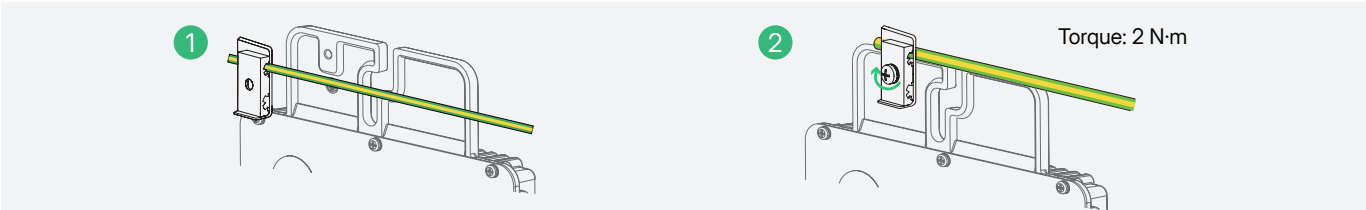
Step 2: Place each microinverter (label side up) on the racking at the marked positions.

Step 3: Secure each microinverter to the racking using M8 screws (Torque: 9 N·m).

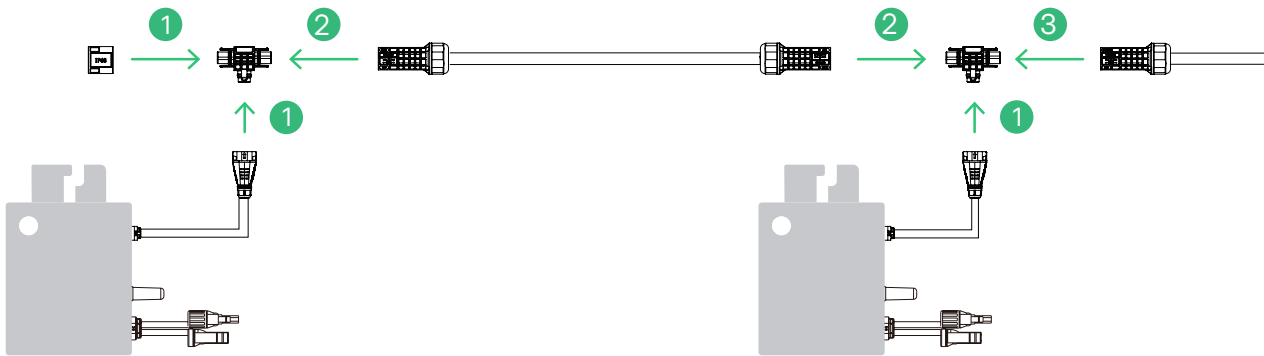


Step 4: (Optional) Additional Grounding

The AC cables already include PE wires for direct grounding. Use the grounding clamps if external grounding is required.



4. AC Electrical Connection



Step 1: Connect the AC trunk connector

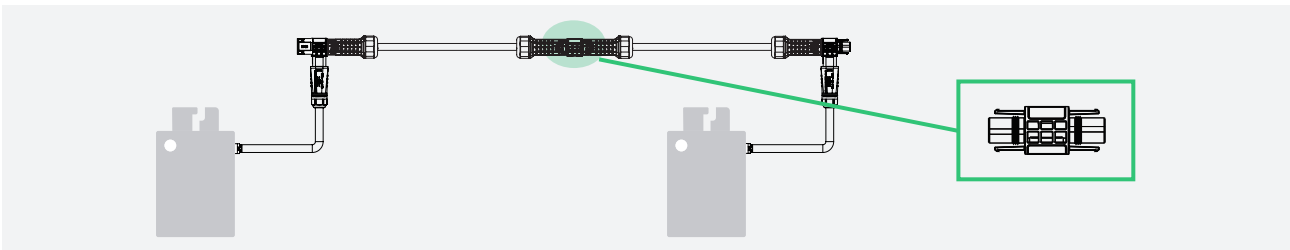
- A) Connect the Flex-S3 Trunk Connector to the microinverter.
- B) Seal the unused port at the beginning of the AC trunk line with a Flex-S3 Sealing Cap. Listen for a click as the sealing cap engages.

Step 2: Connect adjacent microinverters

Use Flex-S3 Connection Cables to connect adjacent microinverters on the AC Trunk one by one. Listen for a click as they engage.

Note: If you need to space microinverters farther apart because of an obstacle, we offer you two solutions.

- * Using a longer Flex-S3 Connection Cable (available lengths: 1.1 m, 2.0 m, 2.3 m, 3.0 m, and 4.6 m). Please contact the Hoymiles sales team at sales@hoymiles.com if you need a specific length.
- * Using a Flex-S3 Extension Connector to join two Flex-S3 Connection Cables to create a longer cable.



Step 3: Connect the AC End Cable

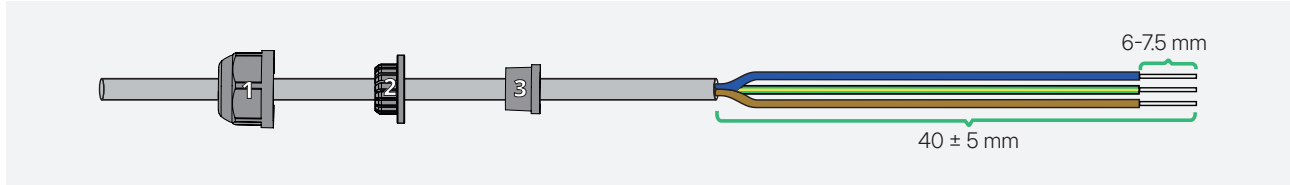
A) Prepare the AC End Cable

a. Disassemble the Flex-S3 Cable Terminal Connector into six parts.

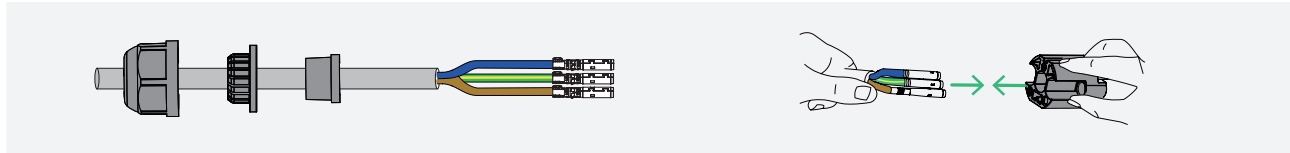


b. Take an AC cable and slide the nut, compression ring, and gasket over the cable in order.

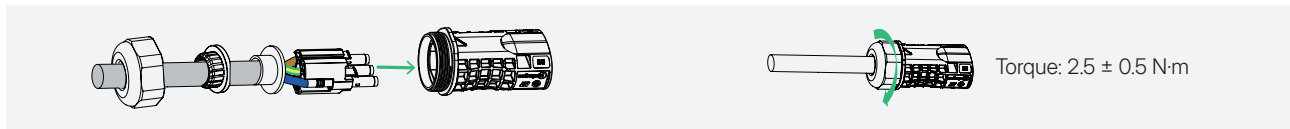
c. Cut the outer jacket by 40 ± 5 mm. Strip insulation to expose 6–7.5 mm of the conductors.



d. Insert the exposed conductors into the terminal pins, crimp them, and push the crimped ends into the connector body.



e. Insert the connector body into the cover. Slide the gasket, compression ring, and nut over the AC cable. Tighten the nut to 2.5 ± 0.5 N·m.

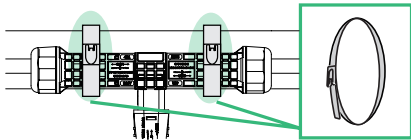


B) Connect the AC End Cable to the final Flex-S3 Trunk Connector. Listen for a click as they engage.

Step 4: Manage the AC trunk

Secure all cables and connectors to the racking with metal cable ties, following local wiring regulations for tie spacing.

Note: The cable ties should be fastened around the center section of the connectors.



Step 5: Connect to the distribution box

Verify the AC End Cable wiring color codes are correct:

L-Brown, N-Blue, and PE-Green&Yellow.

Note: The wiring code may vary. Always follow the local regulations for wiring.

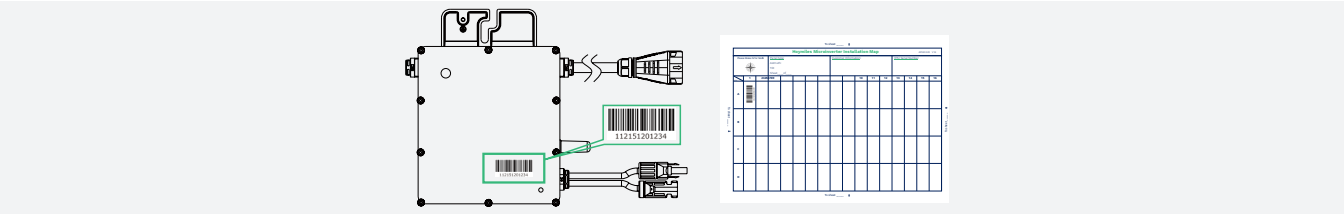


5. DC Electrical Connection

Before You Start

A. Peel off the microinverter's removable SN label.

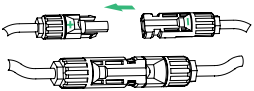
B. Affix the label to the respective location on the installation map (included in the DTU's packaging).



Step 1: Connect the PV modules

A) Connect the microinverter's positive connectors (female MC4 connector with a "–" sign) to the PV module's positive terminals (male MC4 connector).

B) Connect the microinverter's negative connectors (male MC4 connector with a "+" sign) to the PV module's negative terminals (female MC4 connector).



Step 2: Mount the PV modules above the microinverters.

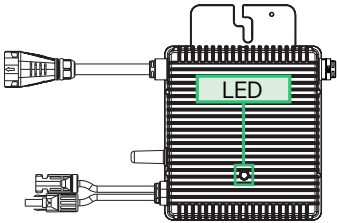
6. Start-up

Step 1: Energize the system

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

B) Turn the main utility-grid AC circuit breaker ON.

Step 2: Check the LED status



LED	Time Gap	Indication
Five green flashes	0.3s	Start-up Success
Fast green flashing	1s	Producing Power
Red flashing	1s	AC Grid Fault

7. Activate Monitoring and Controls

After you have installed the microinverters, follow the procedures in the microinverter user manual, DTU quick install guide, DTU user manual, or S-Miles Cloud user manual to activate system monitoring, set up grid management functions, and complete the installation.



Appendix: Regulatory Compliance Statement



CE Declaration of Conformity

Hoymiles Microinverter (model: HMS-300/350/400/450/500-1T) is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



Operating Frequency (at maximum transmitting power): 863 to 870 MHz, ERP<14 dBm.

EU Declaration of Conformity

Hoymiles Microinverter (model: HMS-300/350/400/450/500-1T) is in compliance with the essential requirements and other relevant provisions of directives 2014/53/EU, 2009/125/EC, 2011/65/EU and (EU)2015/863.

The original EU Declaration of Conformity may be found at www.hoymiles.com.

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