DTU-Plus-C

Description

The DTU-Plus-C serves to collect and transmit data from micro-inverters in the Hoymiles microinverter system. It uses Ethernet and 4G technology to communicate with the monitoring platform S-Miles Cloud. It is also equipped with industrial communication interfaces that support various communication schemes for power plants.

The DTU-Plus-C can reduce O&M efforts signi icantly by providing module-level monitoring data and fault alarms in real-time, either on-site or virtually, and enabling remote O&M through the S-Miles Cloud or third-party platforms.

Features

01 Industrial-grade design

- *Quick and easy DIN rail mounting, ideal for industrial application*
- *External antenna offers enhanced signal strength and flexible layout design*
- *Withstand harsh environments*

02 Simple O&M

- *Module-level monitoring and performance management*
- *Support local configuration with S-Miles Toolkit*
- *Support remote O&M including remote upgrading and parameter setting*

03 Reliable and Flexible

- *2.4G wireless solution enables stable communication with HM series of microinverter*
- *Support uploading via Ethernet and 4G*
- *Support of RS485 and Ethernet to communicate with peripherals*

04 Intelligent Monitoring

- *Smart zero export control and export power limit function*
- *Real-time production and consumption data at any time from anywhere*

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Technical Specifications

Model	DTU-Plus-C
Communication to Microinverter	
Type	2.4G
Maximum distance (open space)	200 m
Monitoring data limit from solar panels	100
Communication to S-Miles Cloud	
Ethernet interface	RJ45 × 1, 100 Mbps
3G/ 4G interface	4G: FDD-LTE 3G: WCDMA
Sample rate	Per 15 minutes
Communication Interface	
RS485	COM × 1, 9600 bps, Modbus-RTU
Ethernet	RJ45 × 1, Modbus-TCP
Interaction	
LED	LED indicator × 4
APP	S-Miles Installer
Power Supply (standard)	
Type	DIN rail power supply
Input voltage/frequency	100 ~ 240 V AC / 50 or 60 Hz
Output voltage/current	12 V / 1.25 A
Power consumption	Typ. 3 W / Max. 5 W
Mechanical Data	
Ambient temperature range	-40°C to 65°C (-40°F to 149°F)
Storage temperature range	-40°C to 85°C (-40°F to 185°F)
Dimensions (W × H × D)	36.5 × 93 × 53 mm (1.44 × 3.66 × 2.09 inch)
Weight	99 g (0.2183 lb.)
Installation Method	DIN35 rail mounting
Protection Rating	IP30

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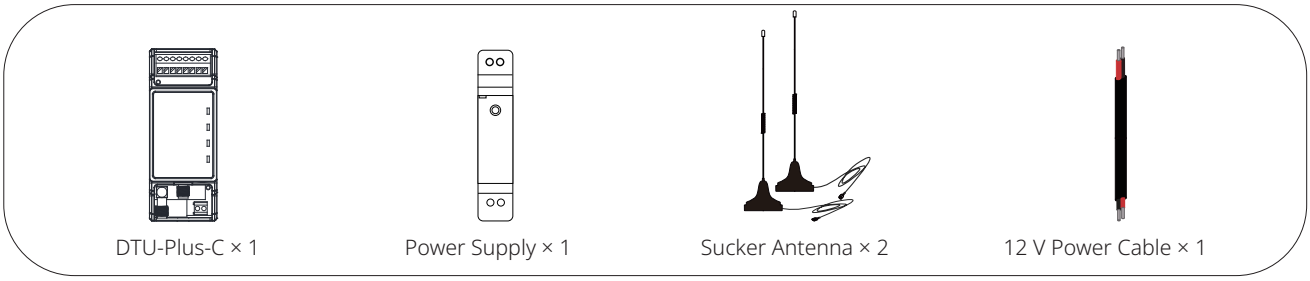
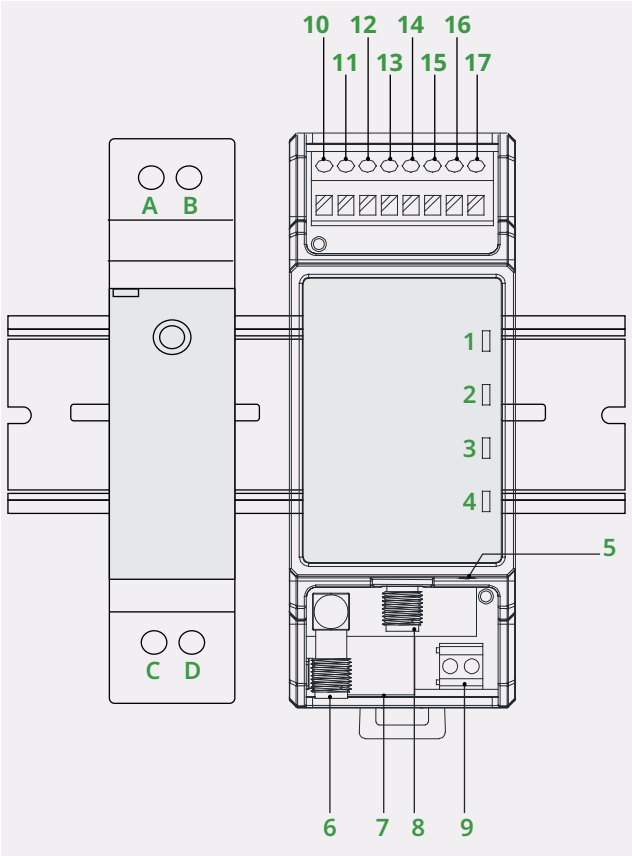
1. System Components



2. Interface Layout

No.	Description
1	DTU Power Indicator
2	DTU Communication Indicator (With Server)
3	DTU Communication Indicator (With Microinverter)
4	DTU Alarm Indicator
5	Reset Button
6	2.4G Antenna Port
7	Ethernet Port
8	4G Antenna Port
9	RS-485 Port (With Meter)
10	RS-485A
11	RS-485B
12	RS-485A
13	RS-485B
14	Reserved Port
15	Reserved Port
16	DTU Power Input (+12 V)
17	DTU Power Input (GND)
A	Switching Power Supply DC Output (+12 V)
B	Switching Power Supply DC Output (GND)
C	Switching Power Supply AC Input (N)
D	Switching Power Supply AC Input (L)



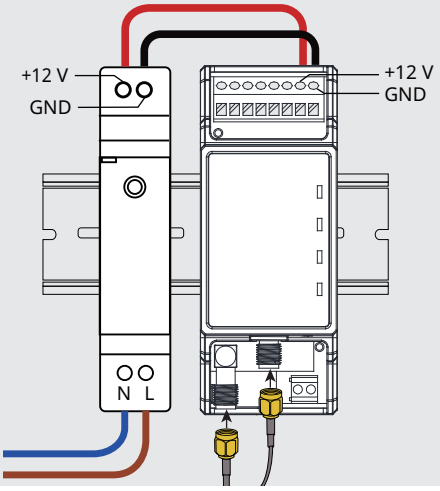
3. Procedure

A) Mount the DTU-Plus-C and the 12 V power supply onto the 35 mm DIN rail.

B) Connect the 12 V power cable from the switching power supply to the DTU-Plus-C.

C) Connect the sucker antenna's coaxial cables to the DTU-Plus-C' antenna connectors and securely screw them in place.

D) Connect the AC power cable to the power input on the switching power supply.



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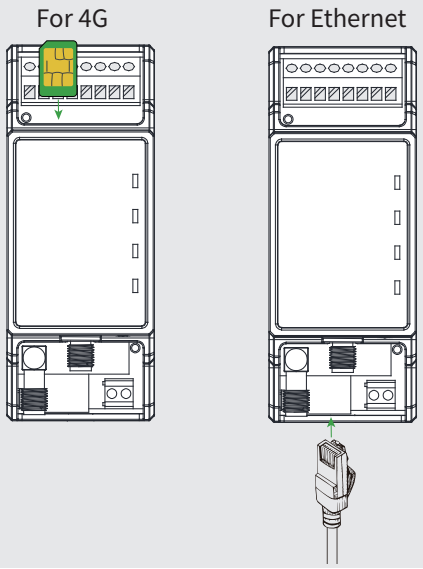
4. Network Configuration

A) Insert the SIM 4G card into the SIM slot or plug the Ethernet cable into the DTU-Plus-C (depending on the type of network connection you have chosen).



B) Use the smartphone/tablet/laptop to open the Installer App and login.

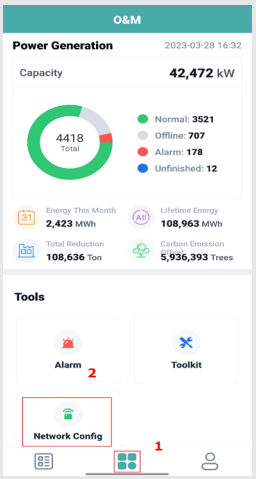
Go to the **O&M** section on the bottom of the page.

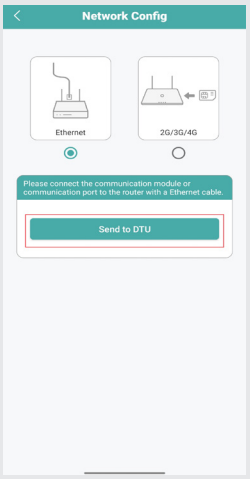
Tap the **Network Config** icon to access the network configuration page.

C) On the network configuration page, select **Ethernet** or **3G/4G** (depending on your chosen method of connection).

Tap the **Sent to DTU** button.

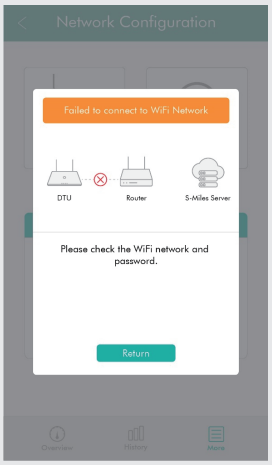
When the pop-up window appears, tap the **Confirm** button.

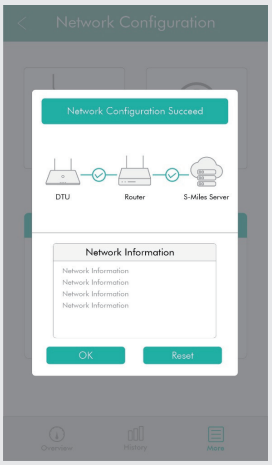




D) The network configuration takes about ONE minute, please be patient.

E) If the DTU-Plus-C is unable to establish a network connection, troubleshoot the issue as instructed.





5. Online Setup

To complete the DTU installation, create an online account by following the detailed steps in the "Quick Installation Guide for S-Miles Cloud Online Registration."

6. Warning

Warning

- The installation and replacement of the DTU-Plus-C must be carried out by qualified persons only.
- The DTU-Plus-C contains components that are not user-serviceable. Do not attempt to repair the DTU-Plus-C on your own. If DTU-Plus-C fails, contact Hoymiles Customer Support. Unauthorized disassembly of the DTU-Plus-C is strictly prohibited will void the warranty.

*Product information is subject to change without notice. (Please download reference manuals at **www.hoymiles.com**.)*

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FCC Statement

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

Note : This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates,uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

ISED RSS Warning/ISED RF Exposure Statement

ISED RSS Warning:

This device complies with Innovation, Science and Economic Development Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and

(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence.L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ISED RF exposure statement:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Le rayonnement de la classe b repecte ISED fixaient un environnement non contrôlés.Installation et mise en œuvre de ce matériel devrait avec échangeur distance minimale entre 20 cm ton corps.Lanceurs ou ne peuvent pas coexister cette antenne ou capteurs avec d'autres.

This radio transmitter IC:24490-DTUPLUSC has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Cet émetteur de radio IC:24490-DTUPLUSC a été approuvé par innovation, sciences et développement économique Canada pour l'utilisation des types d'antennes énumérés ci - dessous avec le gain maximal autorisé indiqué. Les types d'antennes qui ne sont pas inclus dans cette liste et dont le gain est supérieur au gain maximal de l'un des types énumérés sont strictement interdits pour une utilisation avec cet appareil.

WIFI	LoRa	WWAN
Antenna Type:PCB	Antenna Type:Dipole	Antenna Type:Dipole
Antenna Gain:1.79dBi	Antenna Gain:2.53dBi	Antenna Gain: B2/B25: 4.58dBi, B4: 3.94dBi, B5/B26: 5.12dBi, B12: 0.36dBi, B13: 1.21dBi
input impedance:50Ohm	input impedance:50Ohm	input impedance:50Ohm