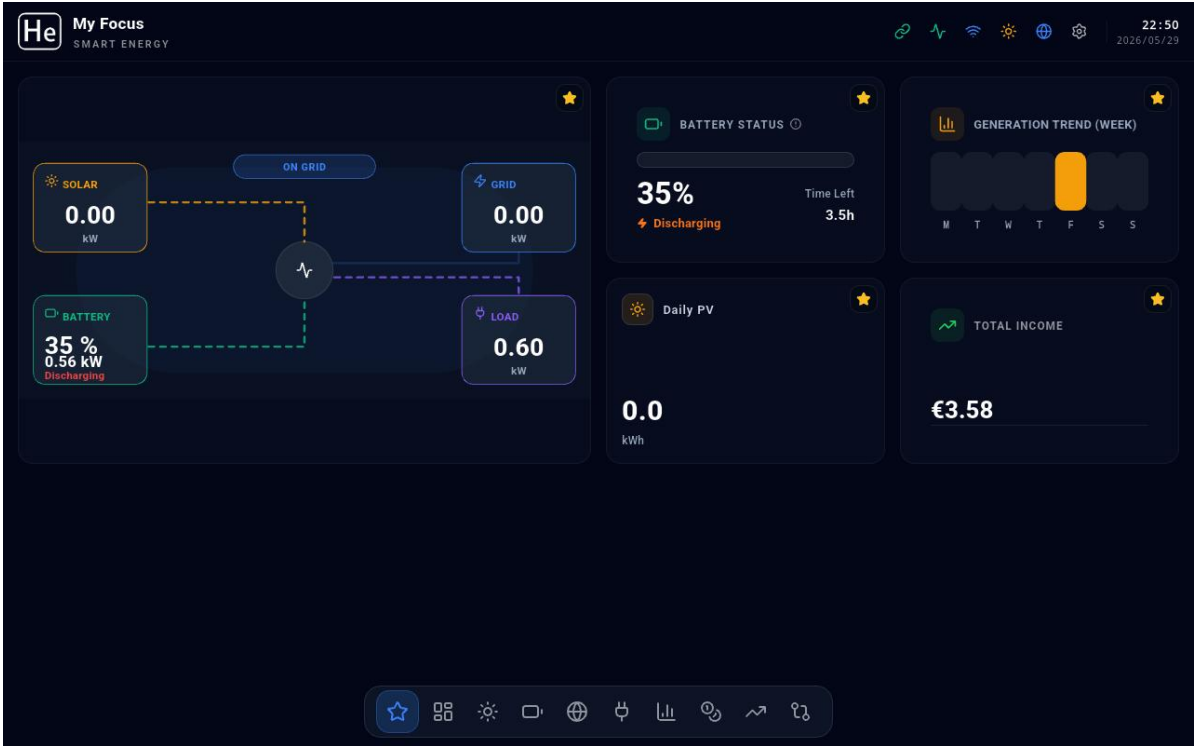


HeliosPad Quick Installation Guide

Residential Energy Monitoring & Control Terminal

Item	Information
Product Model	HeliosPad
Document Version	V1.0
Document Type	Quick Installation Guide
Target Users	Residential Users / Installers / Service Personnel
Company	Helar Energy CO.,LTD
Date	2026/05/29



HeliosPad smart energy touch terminal

Scope: This guide covers quick installation, wiring, first-time setup, and datalogger pairing. For detailed operation, refer to the full HeliosPad User Manual.

Before You Start & Package Contents

Before You Start

- Power off the device before wiring or changing terminals.
- Confirm the power input is DC 12–24V.
- Confirm the inverter supports RS485 communication.
- Prepare tools and verify all accessories before mounting.

Safety Notice: Incorrect wiring may cause communication failure or device damage. Do not connect or remove terminals while the system is powered.

PACKAGE CONTENTS



1 HeliosPad Main Unit



2 Packing Box & Custom Foam Protection



3 Power Adapter



4 7P Terminal Block



5 2P Terminal Blocks



6 Communication Cable Harness



7 USB to TPUNB Wireless Logger



8 RS485 to TPUNB Wireless Logger



9 Wireless Antennas

Note: Package contents may vary depending on product model and configuration. Please refer to the actual package contents.

Figure 1. Package contents overview

Installation Overview

HeliosPad supports wall-mounted installation using a slot plate and a rear mounting plate. Follow the four-step process below before wiring.

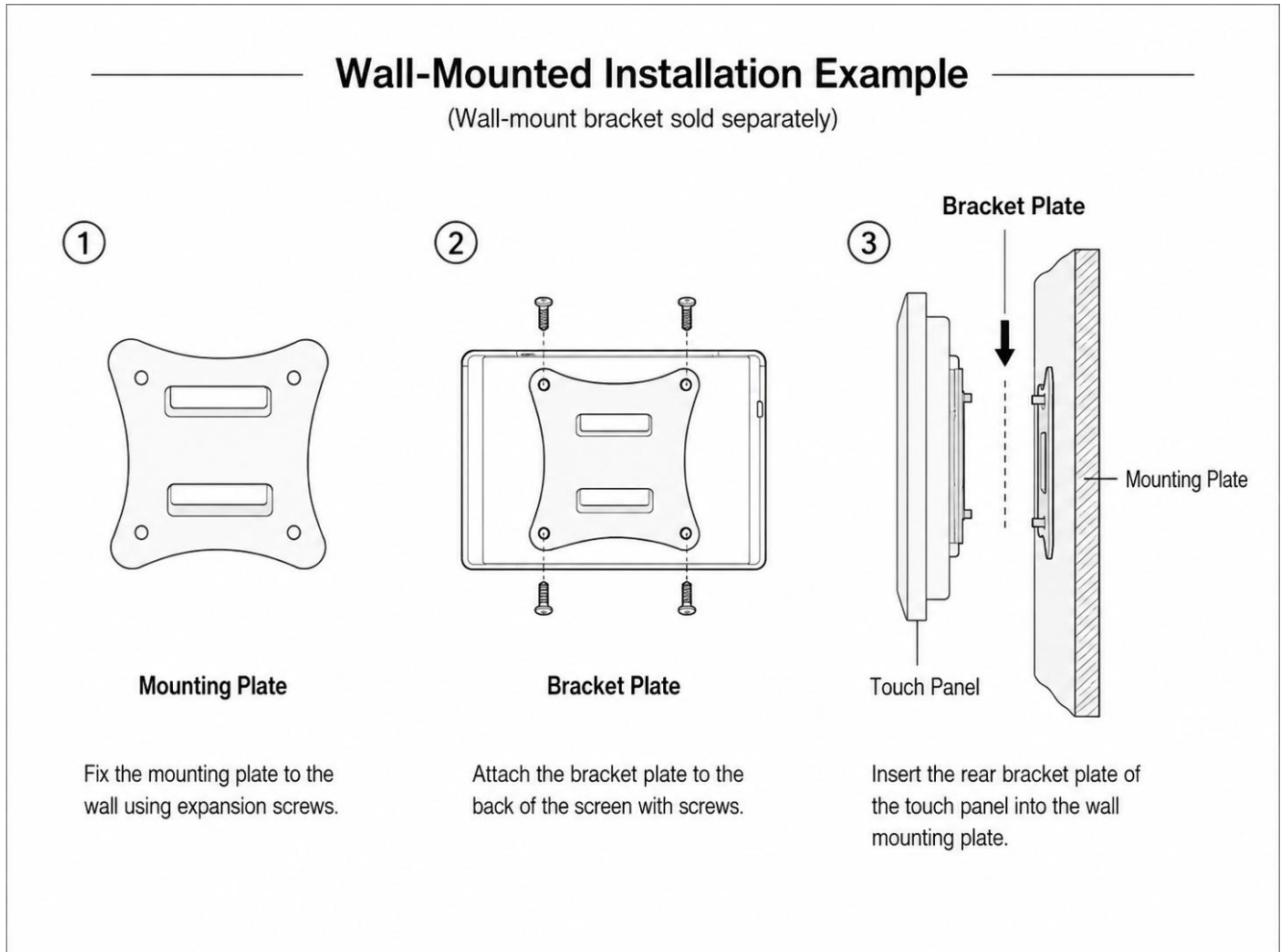


Figure 2. Wall mount installation overview

Check: After installation, the device should be stable and should not move when touched or operated.

Rear Interface & Power Wiring

Use the rear interface diagram to identify the power input, RS485 terminals, USB ports, LED indicators, HDMI, and RJ45-G port.

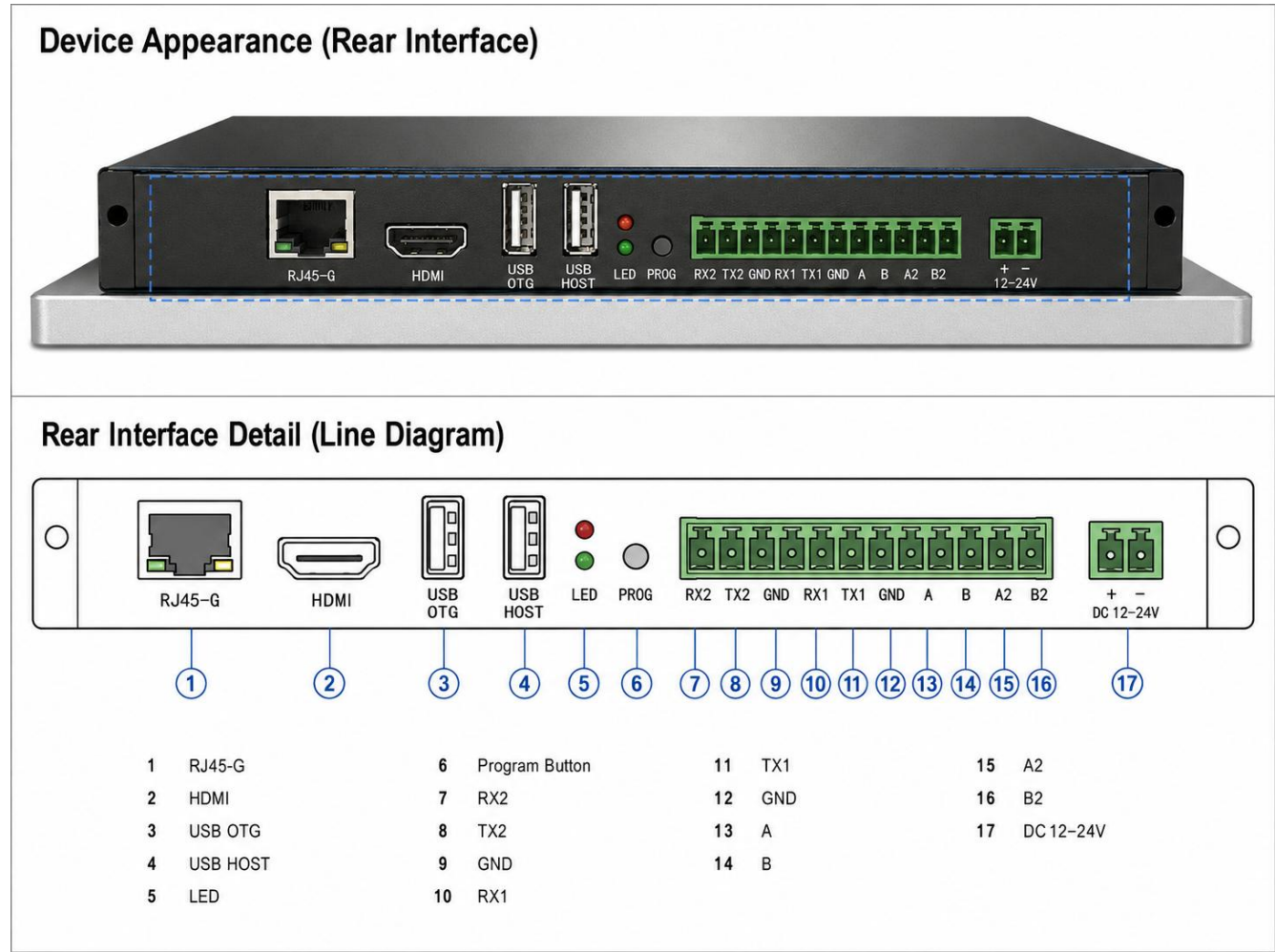
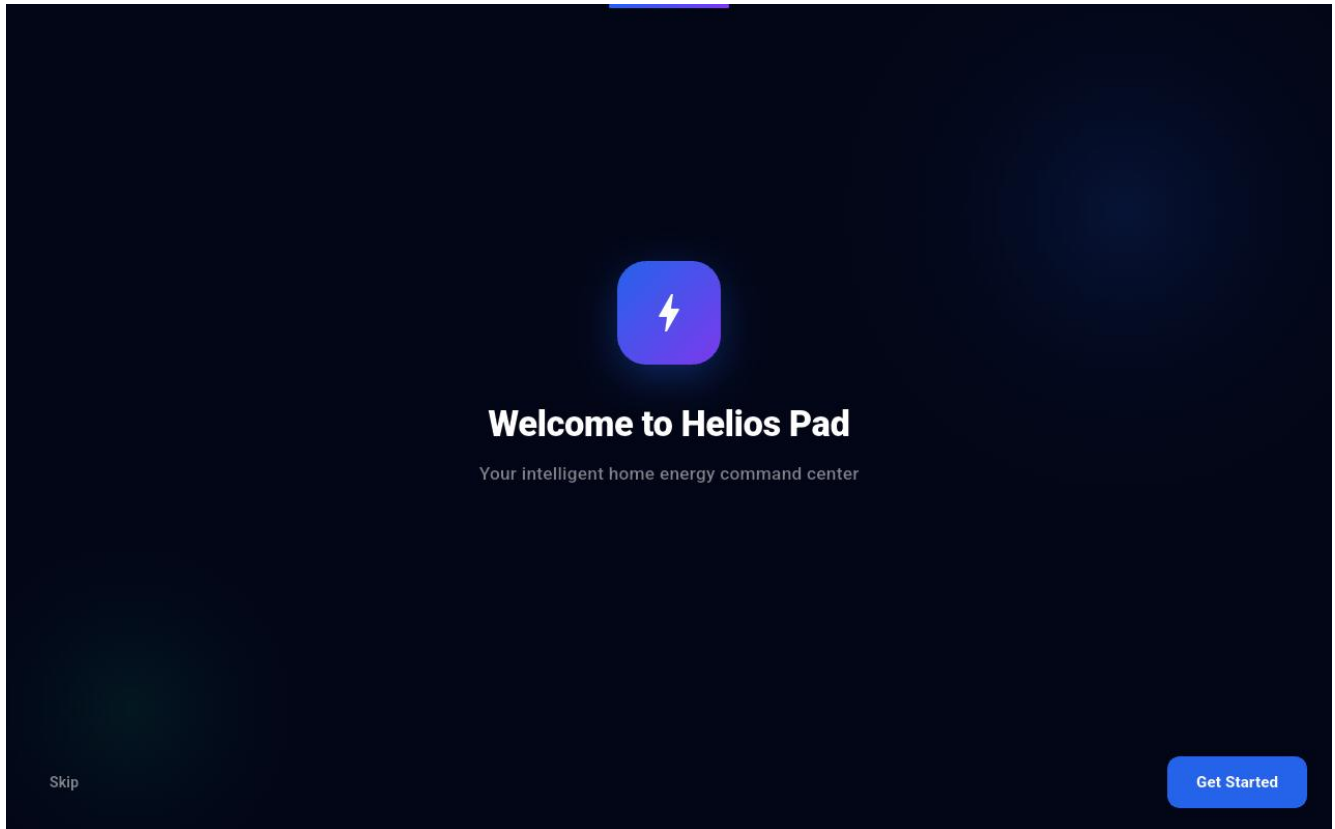


Figure 3. Rear interface layout

Power Input: Connect the power adapter to the DC 12–24V input terminal. Verify polarity and terminal fixation before powering on.

First-Time Startup

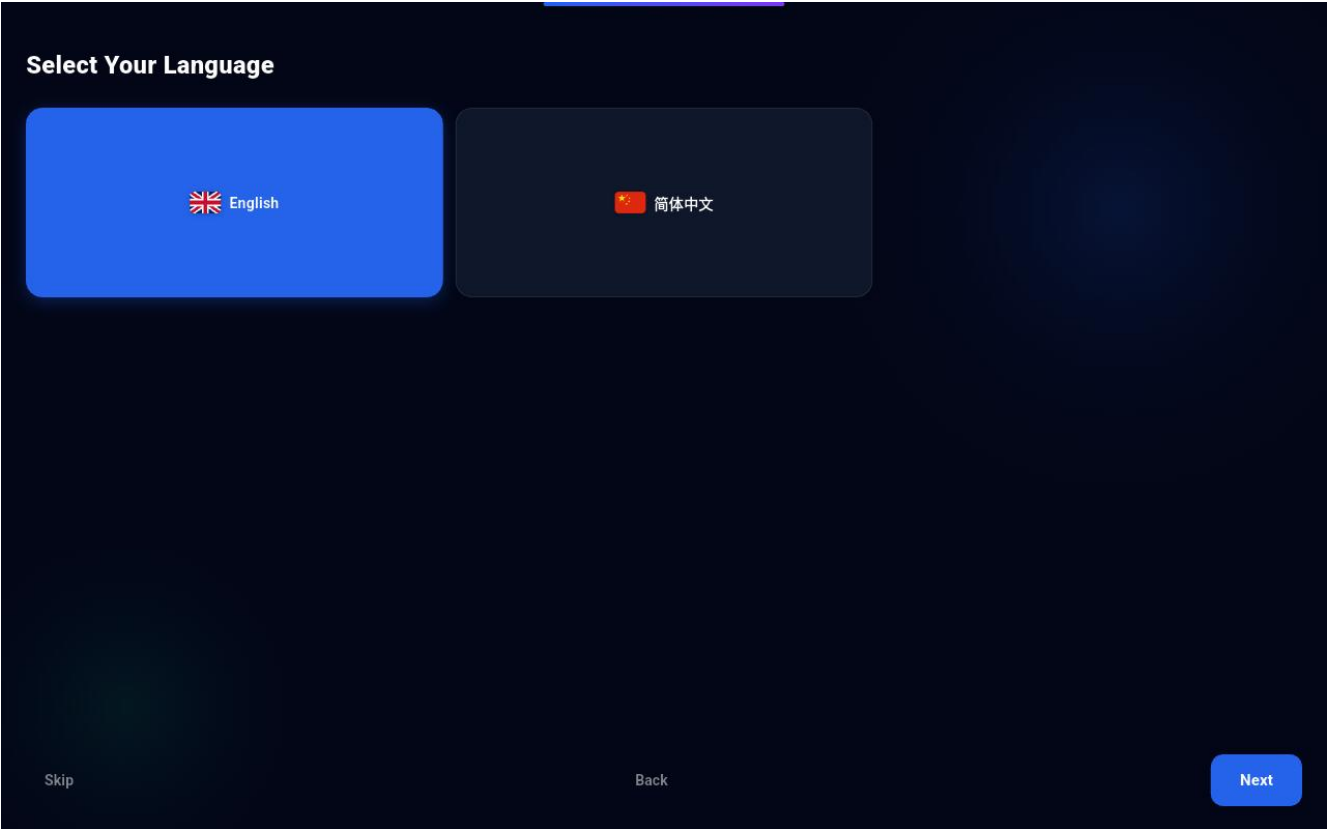
After power-on, the setup wizard guides the user through language selection, time confirmation, inverter selection, communication setup, and device discovery.



1. Tap Get Started

First-Time Startup

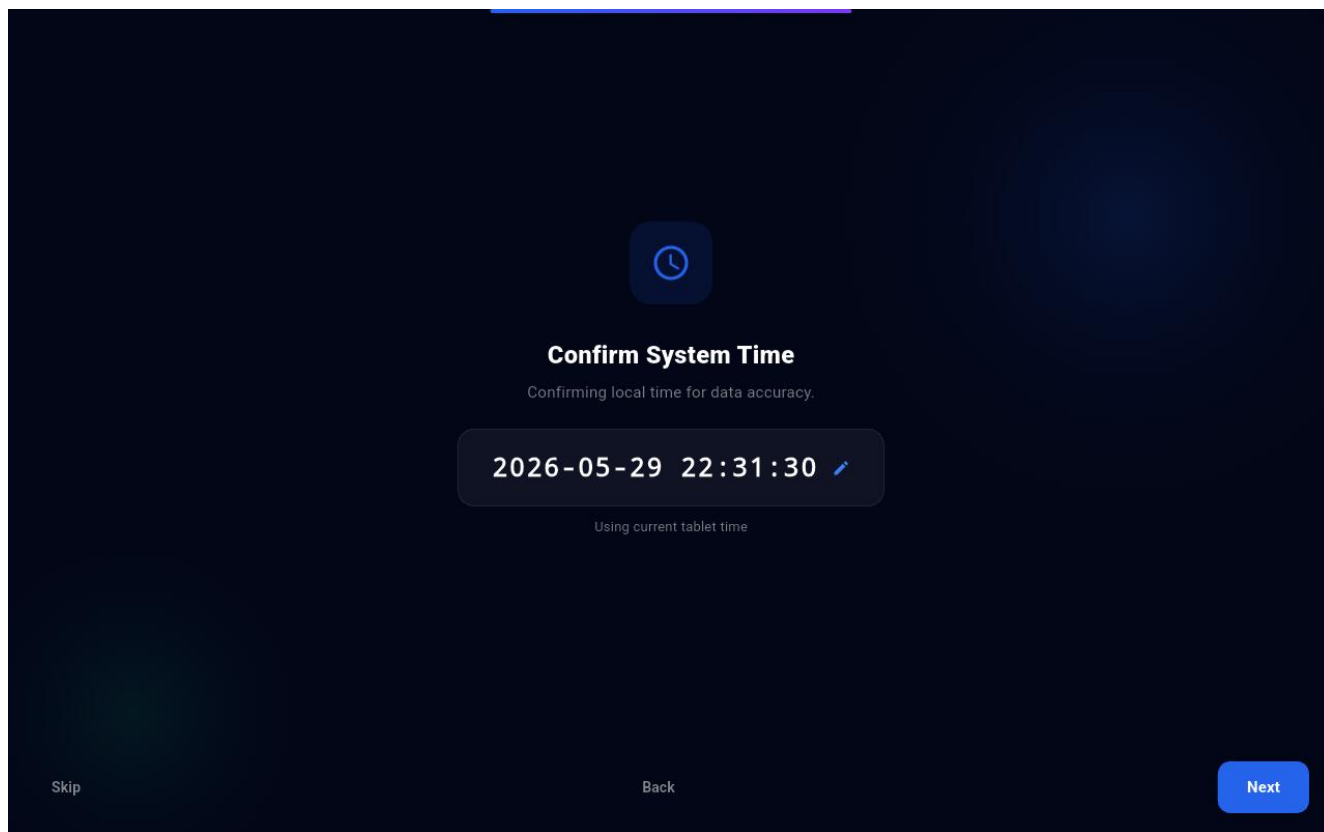
After power-on, the setup wizard guides the user through language selection, time confirmation, inverter selection, communication setup, and device discovery.



2. Select language

First-Time Startup

After power-on, the setup wizard guides the user through language selection, time confirmation, inverter selection, communication setup, and device discovery.

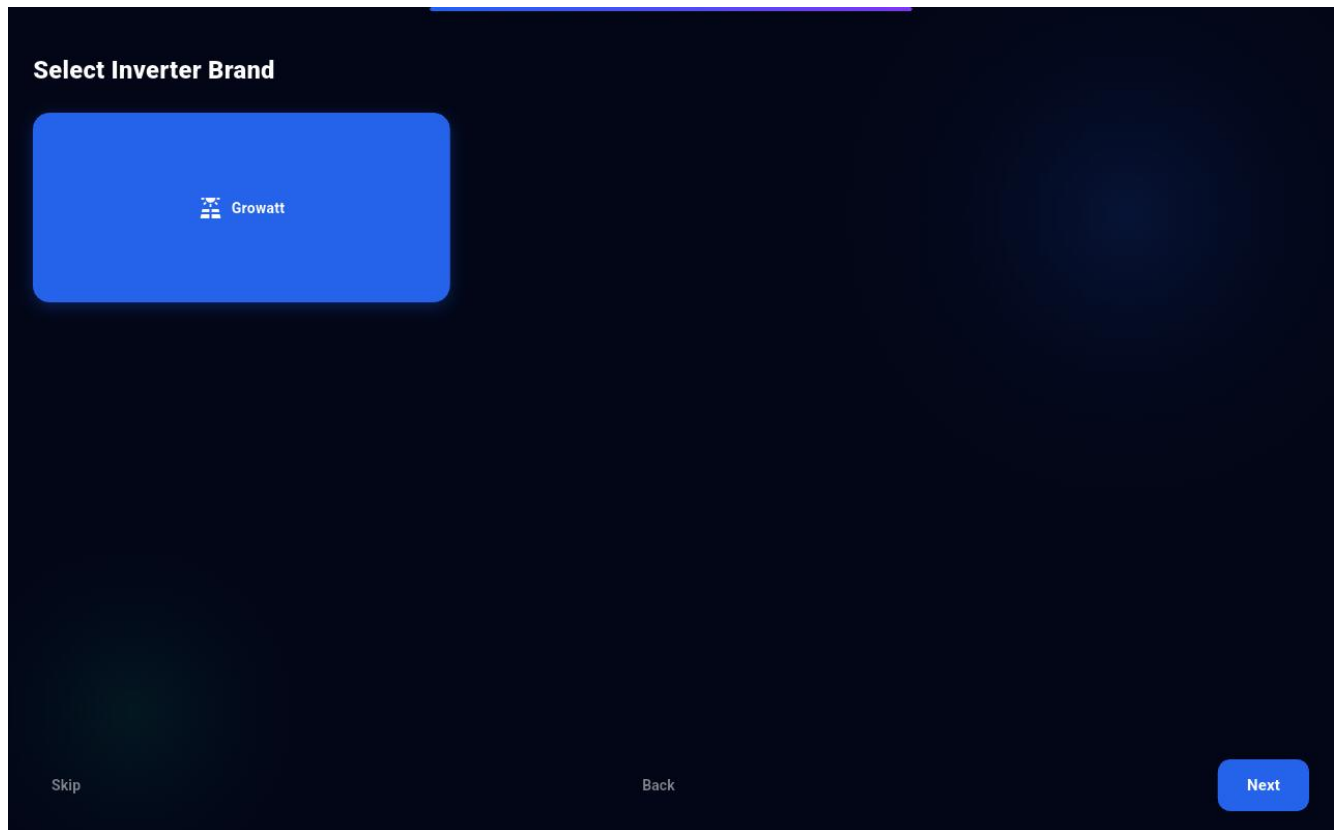


3. Confirm system time

Time Accuracy: Correct system time is required for daily records, tariffs, trend charts, and historical data.

Select Inverter Brand and Model

Select the correct inverter brand and model. This determines the communication protocol and data mapping used by HeliosPad.



Select Inverter Brand

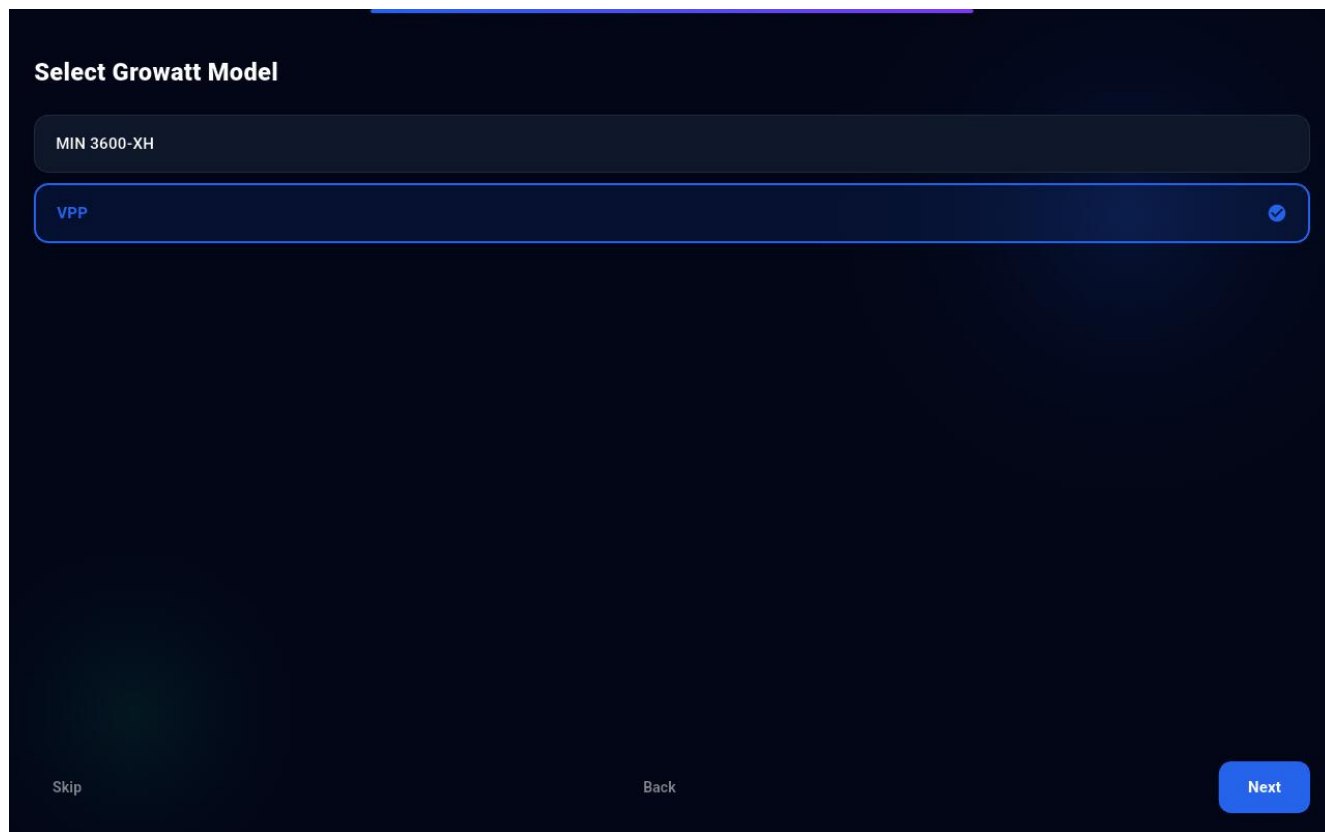
Growatt

Skip Back Next

Brand selected

Select Inverter Brand and Model

Select the correct inverter brand and model. This determines the communication protocol and data mapping used by HeliosPad.



Select Growatt Model

MIN 3600-XH

VPP ✓

Skip Back Next

Model selected

Important: If the wrong model is selected, the dashboard may show missing or incorrect data.

Select Communication Method

Use wireless datalogger?

Choose this when the tablet talks to the inverter through an IOT5060 USB logger and an IOT5060 RS485 logger pair.



Wired RS485

Tablet connects directly to the RS485 adapter.





Wireless Datalogger

Pair USB logger and RS485 logger before installation.

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Wired RS485 selected

Select Communication Method

Use wireless datalogger?

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Wireless Datalogger

Pair USB logger and RS485 logger before installation.

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Wireless datalogger selected

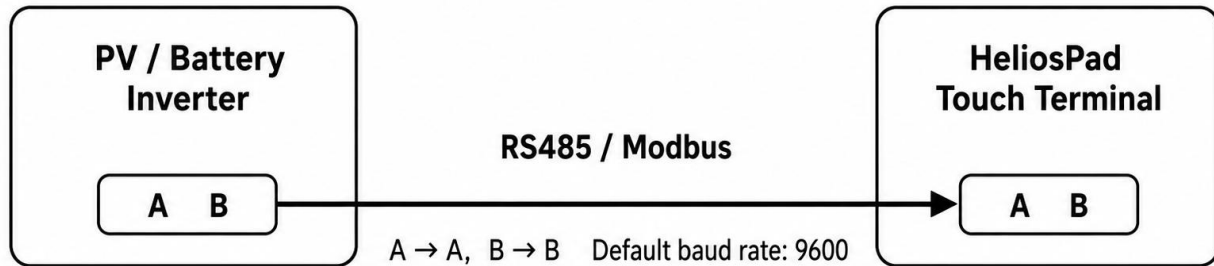
Method	When to Use	Next Step
Wired RS485	Direct RS485 cabling is available.	Connect cable and scan.
Wireless Datalogger	Direct cabling is not convenient.	Pair USB and RS485 loggers.
Decision: Use Wired RS485 when direct cabling is available. Use Wireless Datalogger when cable routing is not convenient.		

HeliosPad Quick Installation Guide

Wired RS485 Setup

For direct cable communication, connect RS485 and continue with Modbus scanning.

RS485 Communication Wiring



Important: Use twisted-pair cable and keep A/B wiring consistent. Incorrect wiring may cause no data communication.

Figure 5. Wired RS485 setup path

- Select Wired RS485.
- Connect RS485 cable between inverter and HeliosPad.
- Confirm A/B wiring and baud rate.
- Tap Next and wait for Modbus scanning.

If no device is detected: Check RS485 wiring, inverter power, selected model, and baud rate.

Wireless Datalogger Pairing

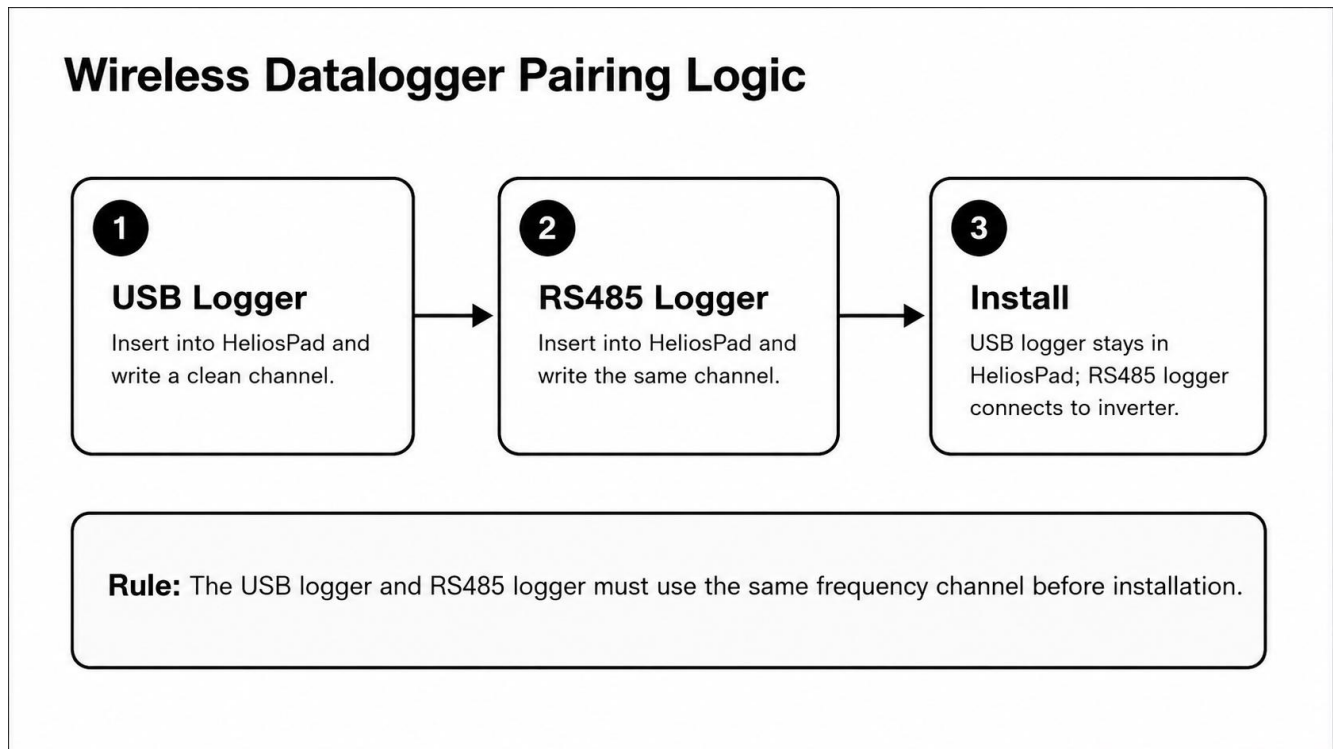


Figure 6. Wireless datalogger pairing logic

Rule: The USB logger and RS485 logger must use the same frequency channel before installation.

Wireless Datalogger Pairing

1 / 2

Wireless datalogger pairing



Insert USB logger into tablet

The tablet will scan nearby IOT5060 channels, choose a quiet frequency, save it, and write it to the USB logger.

Port: `/dev/ttyUSB0`

Baud: `9600`

Frequency: `CH 327 / 475.510 MHz`

Scan & write USB logger

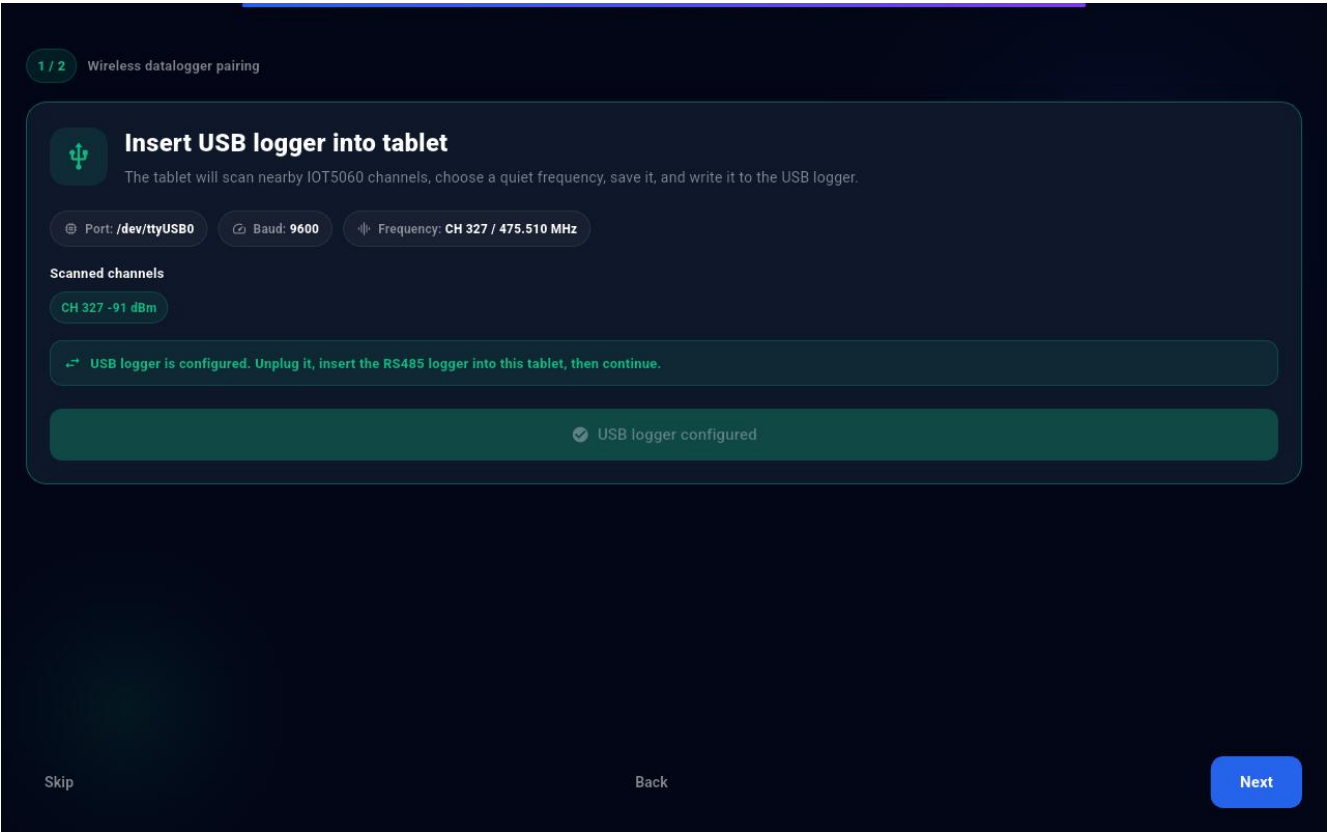
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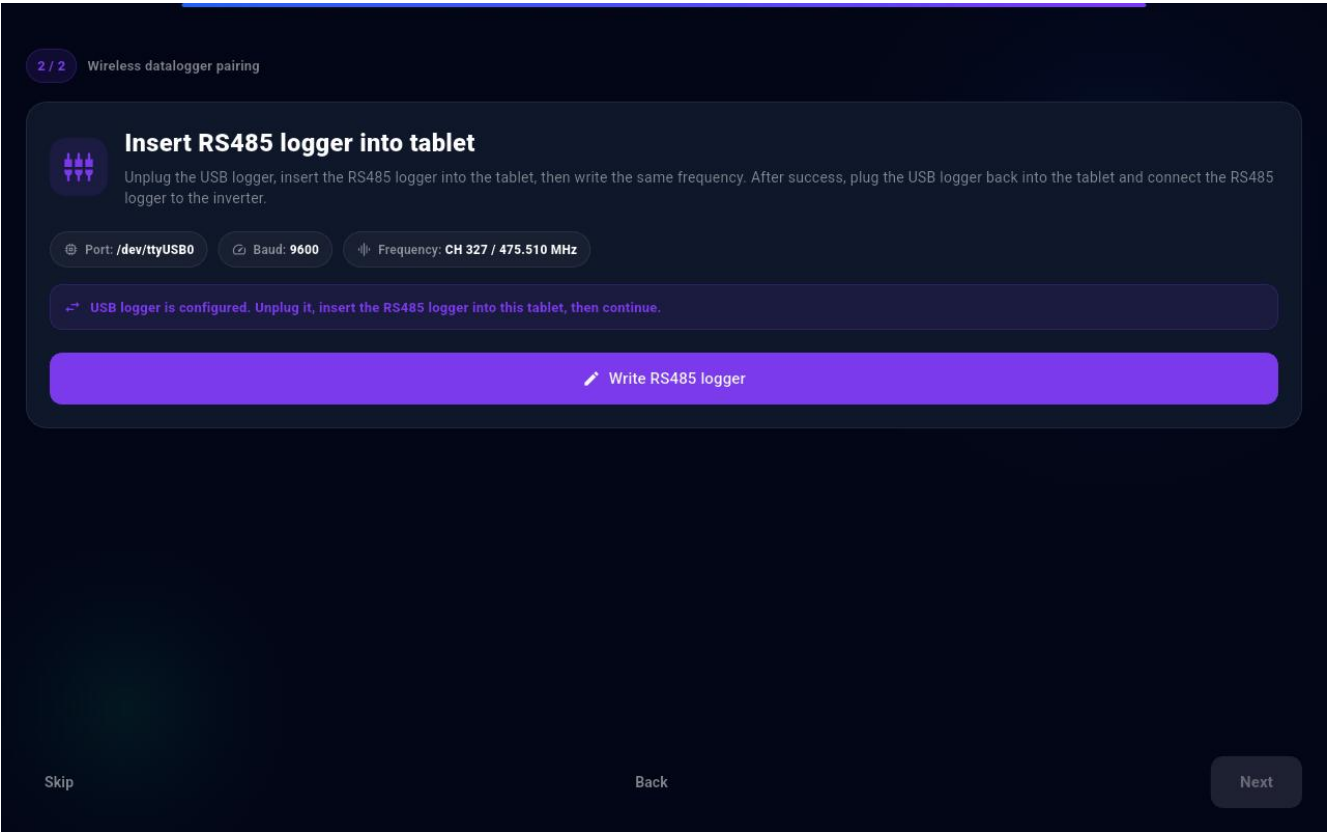
Configure USB logger

Wireless Datalogger Pairing



USB logger configured

Wireless Datalogger Pairing



Configure RS485 logger

Wireless Datalogger Pairing

2 / 2

Wireless datalogger pairing



Insert RS485 logger into tablet

Unplug the USB logger, insert the RS485 logger into the tablet, then write the same frequency. After success, plug the USB logger back into the tablet and connect the RS485 logger to the inverter.

Port: `/dev/ttyUSB0`

Baud: `9600`

Frequency: `CH 327 / 475.510 MHz`

←

Pairing completed. Unplug the RS485 logger, plug the USB logger back into the tablet, then connect the RS485 logger to the inverter.

✓

Pairing completed

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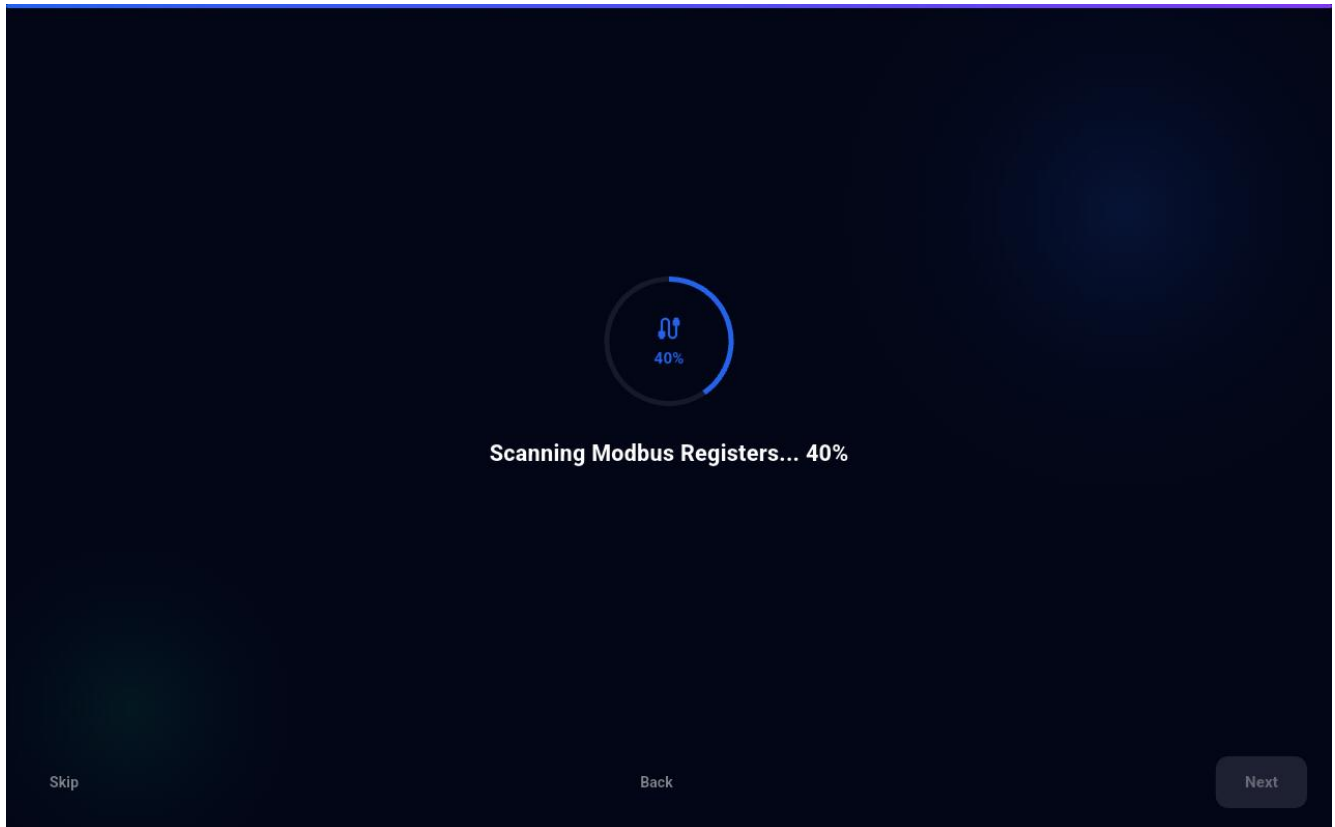
Next

Pairing completed

Rule: The USB logger and RS485 logger must use the same frequency channel. Do not power off the device during writing.

Device Discovery & Tariff Setup

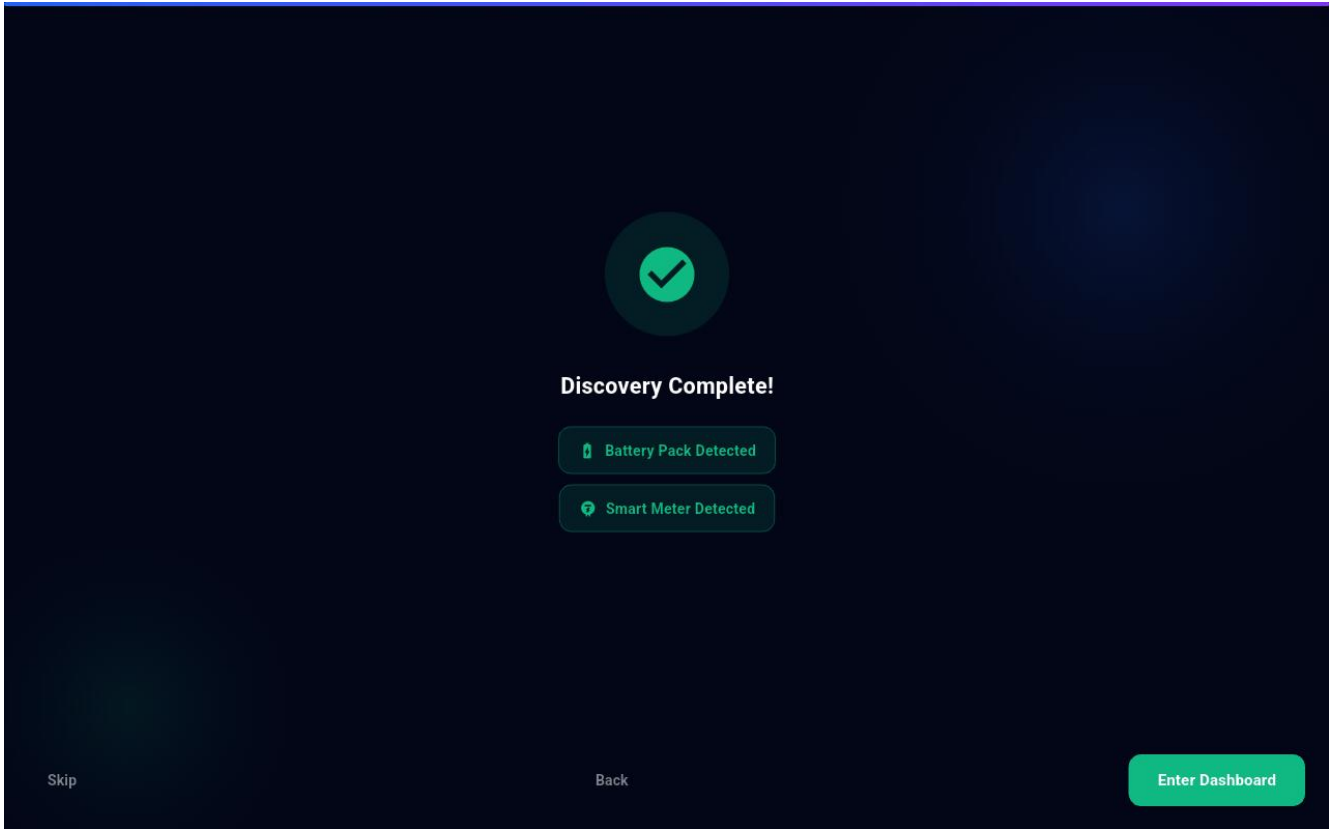
After wiring or pairing, HeliosPad scans Modbus registers and detects connected devices. Then set basic electricity tariff values for savings and income calculation.



Scanning Modbus registers

Device Discovery & Tariff Setup

After wiring or pairing, HeliosPad scans Modbus registers and detects connected devices. Then set basic electricity tariff values for savings and income calculation.



Discovery complete

Device Discovery & Tariff Setup

After wiring or pairing, HeliosPad scans Modbus registers and detects connected devices. Then set basic electricity tariff values for savings and income calculation.

Electricity Tariff Setup

↓

Grid Import Price (Buy)

€0.56

↑

Feed-in Tariff (Sell)

€0.42

Advanced TOU curve editing is available in Settings later.

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Electricity tariff setup

Tariff: Grid import price and feed-in tariff can be modified later in Settings.

Enter Dashboard & Quick Checklist

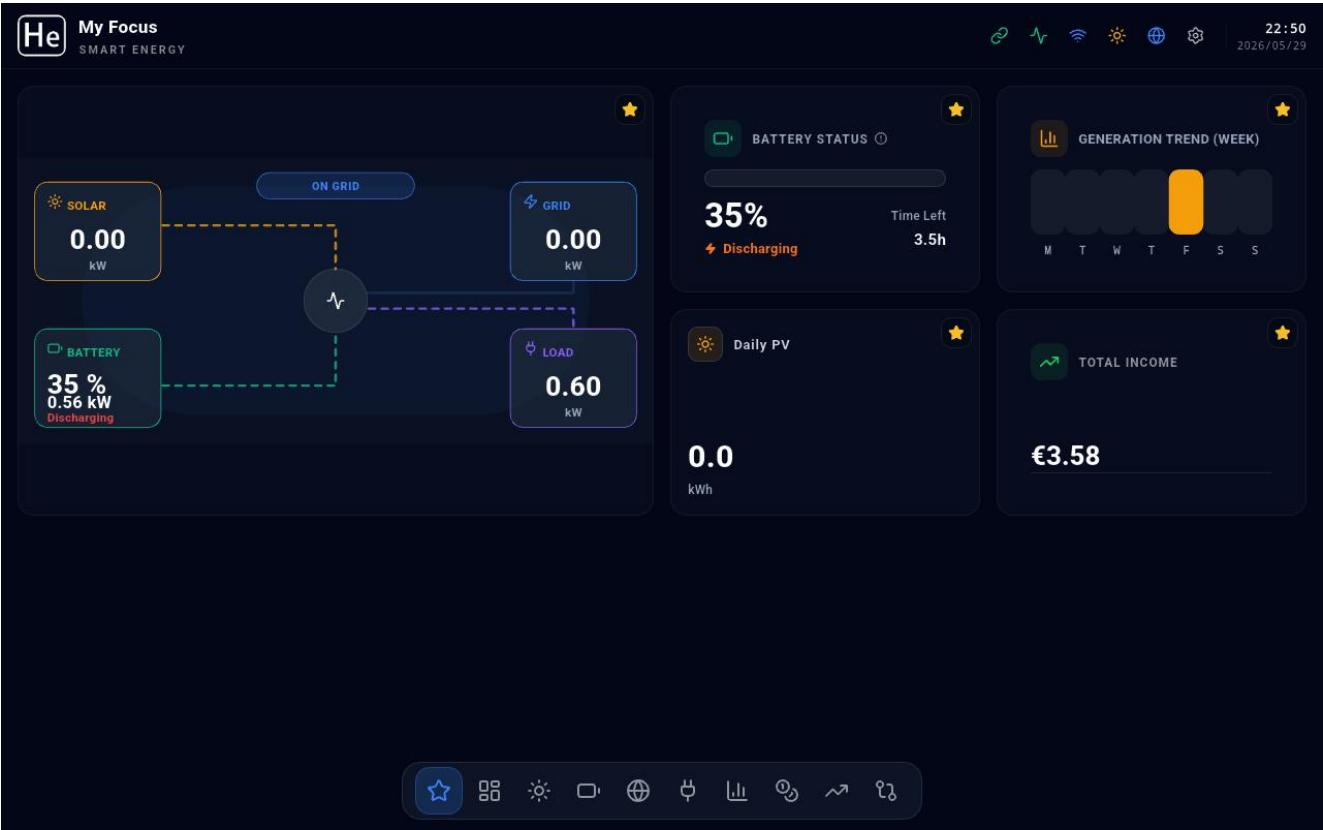


Figure 7. Dashboard after setup

Quick Checklist

☐ HeliosPad is firmly mounted.	☐ DC 12–24V power is connected.
☐ RS485 wiring is correct.	☐ Correct inverter brand and model are selected.
☐ USB and RS485 loggers are paired, if wireless mode is used.	☐ Battery pack is detected.
☐ Smart meter is detected.	☐ Dashboard data is displayed.
Setup Complete: If real-time data appears on the dashboard, installation and communication setup are complete.	