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GoodWe Third-Generation Data Logger-EzLogger3000C Introduction

With the rapid development of smart grids, GoodWe provides the more powerful third-generation C&I smart data logger EzLogger3000C to meet the technical requirements of different markets worldwide. This device can easily handle data acquisition, transmission, and communication protocol conversion, seamlessly connecting to cloud services. It enables real-time monitoring, remote control, and efficient power dispatching of power plants.

Part 1：Introduction

The EzLogger3000C is designed for PV system monitoring and management platforms. It collects data from inverters, environmental monitoring instruments, smart meters, and other sources. Collected data is transmitted to either GoodWe SEMS Cloud or a third-party cloud platform for system monitoring, operation, and maintenance. Below is a simplified diagram illustrating the EzLogger3000C in the PV system:

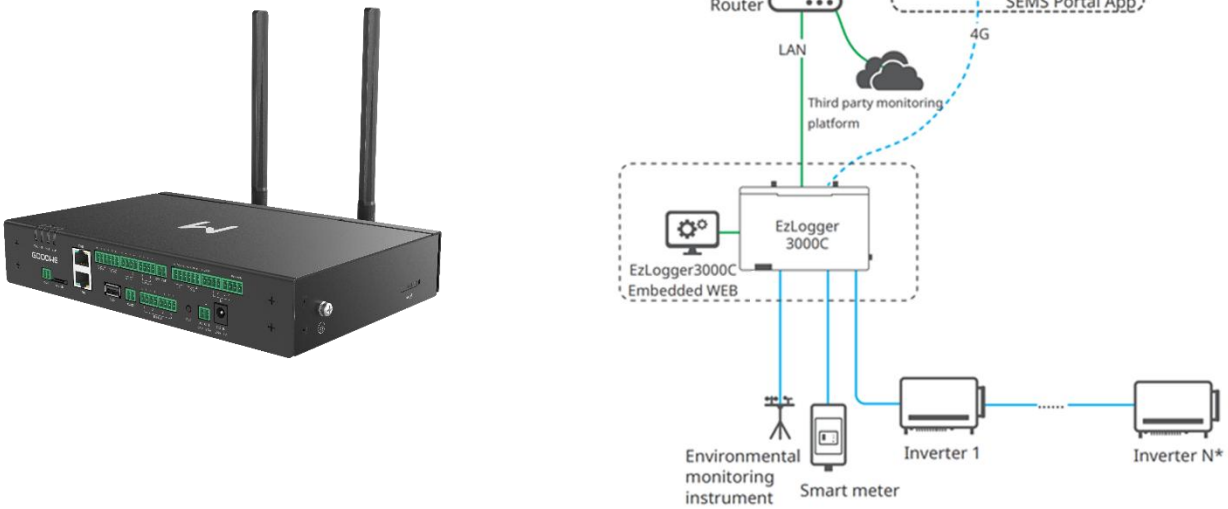

Fig 1 EzLogger3000C Appearance and System Overview

Note:

1. Each RS-485 port can connect up to 20 inverters, and with 4 available ports, a total of 80 inverters can be connected if no other devices occupy the ports. In addition, the maximum number of devices that can be connected to other types of ports is 20. In total, a maximum of 100 devices can be connected.

2.4G is an optional feature and only supports connection to SEMS.

3. The following interface and features may be adjusted without prior notice; please refer to the actual version for confirmation.

Part 2：New Features

1. Embedded WEB

The EzLogger3000C has a built-in web interface, so users don't need to download software. They can configure data collection via Ethernet or Hotspot. Upon first accessing the webpage, users are guided through setup for quick device integration. The homepage includes monitoring windows for viewing system power, energy generation, and device connections.

There are two methods to access into the EzLogger3000C embedded web:

Method 1

1. Connect an Ethernet cable from the EzLogger3000C's EHT2 port to the PC.
2. Set the PC's IP address to match the Ezlogger3000's network segment (e.g., if the Ezlogger3000C's IP is 172.18.0.12, set your PC's IP to 172.18.0.X, where X ≠ 12).
3. Open a browser and enter the Ezlogger3000C's IP address (https://172.18.0.12:443) to access the web interface.

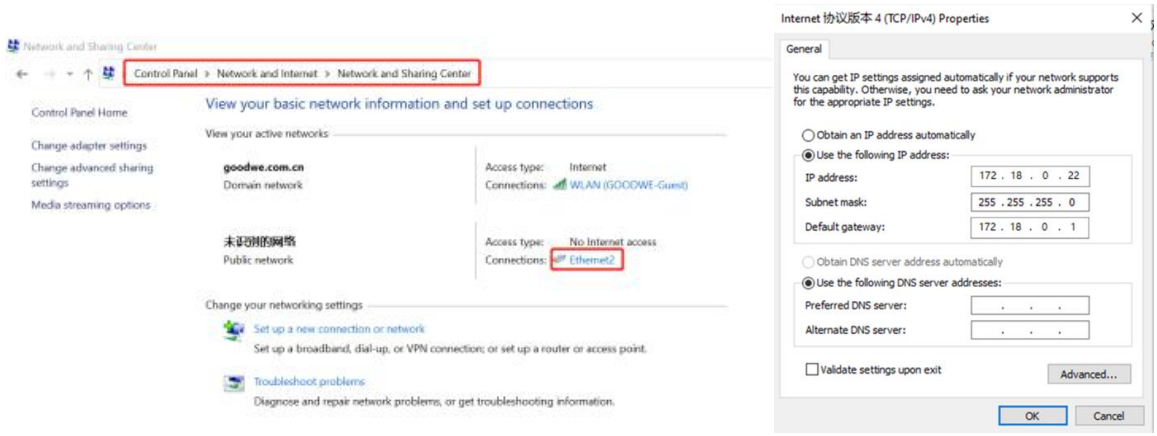

Fig 2 PC network setting.

Method 2

1. Open Wi-Fi settings on your PC and find the hotspot named 'Log-xxxxxxxx' (where xxxxxxxx is the serial number of the Ezlogger3000C).
2. Connect to this hotspot using the initial password: 12345678.
3. Open a web browser and enter the fixed IP address and port number (https://172.18.0.12:443) to access the web interface.

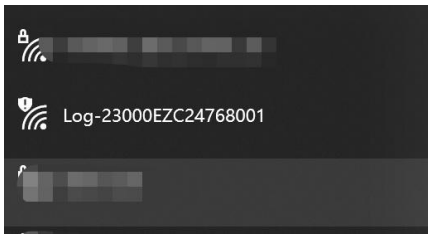

Fig 3 Select the correct hotspot.

Then, Use the following credentials to reset the password and then log in:

- Username: admin
- Initial Password: 123456

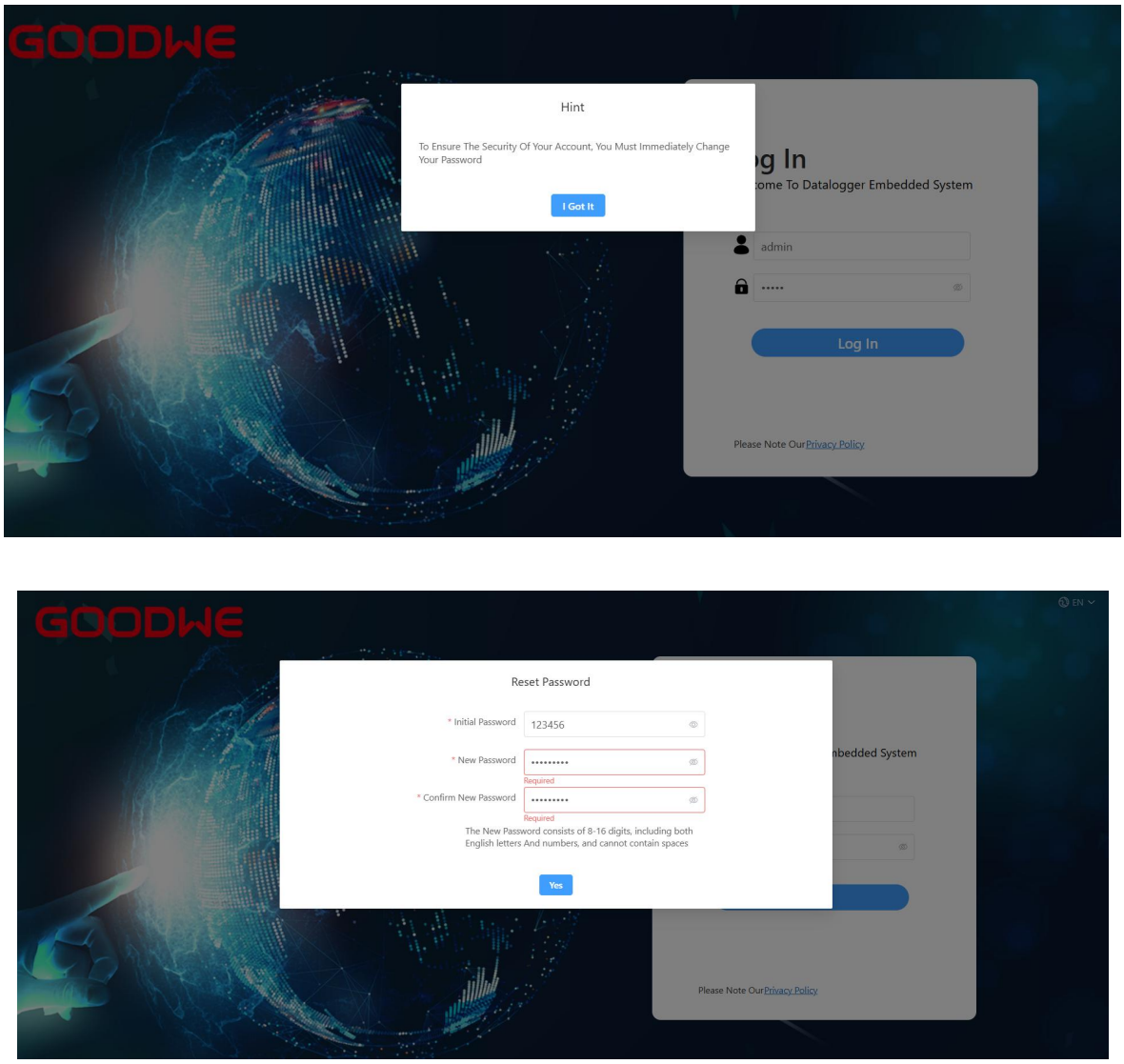

Fig 4 EzLogger3000C login interface

Users can also configure the EzLogger3000C via their mobile phones using a local Wi-Fi connection. First, connect to the data logger's Wi-Fi network on the phone. Then, open the SolarGo app, tap the Wi-Fi name, and users will be directed to the configuration page.

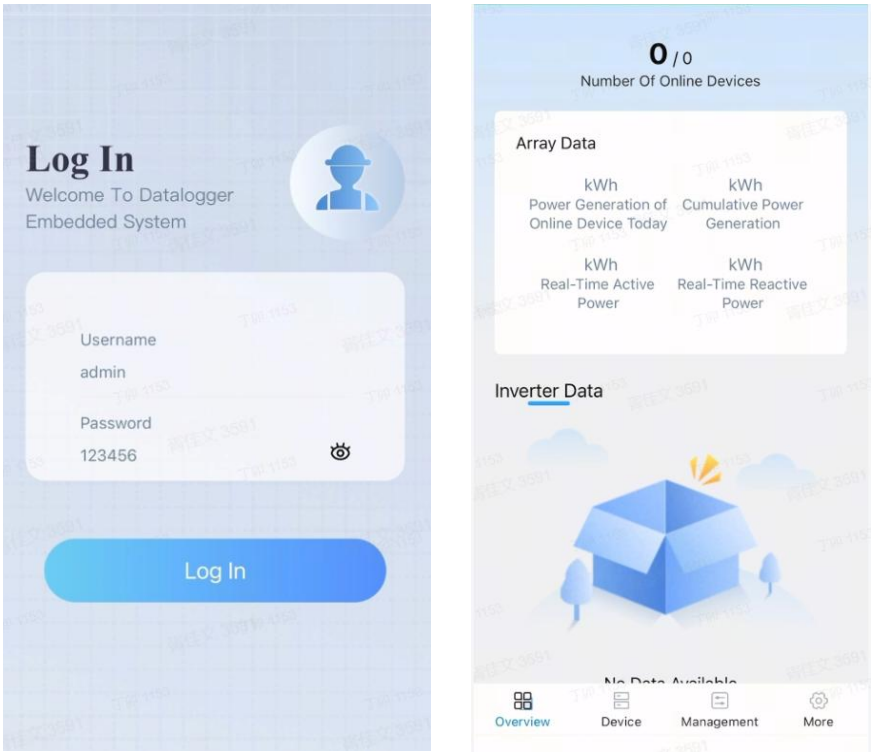

Fig 5 The interface of Embedded Web on the mobile phone

2. Batch Setting

EzLogger3000C can batch upgrade inverter firmware and read operating data for adjustments. It supports parameter settings for multiple inverters, including grid, protection, characteristic, and power adjustment parameters. For details, please refer to the manual.

3. Easy operation and maintenance

Users can upgrade the EzLogger3000C via the web terminal or by inserting a USB flash drive into the data logger, following the manual's instructions. The device also supports importing and exporting configuration files. When replacing the data logger, the configuration file from the old device can be easily imported into the new one, saving operation and maintenance time.

4. Breakpoint Resume

The MicroSD card in EzLogger3000C stores device operations and logs, supporting breakpoint resumption. Communication issues can lead to data loss, but the device temporarily stores 30 days' worth of data from connected inverters, which uploads to the SEMS platform when communication is restored.

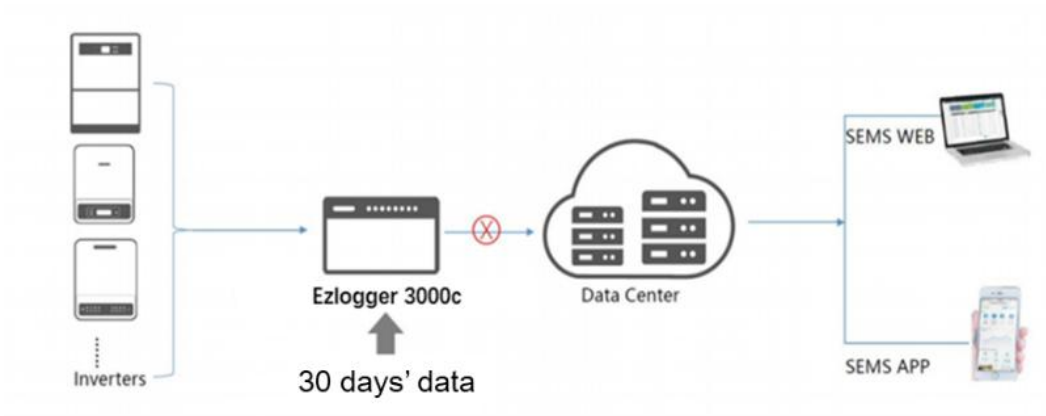

Fig 6 Diagram of breakpoint resume

5. Powerful Third-Party Data Forwarding Function

The EzLogger3000C supports data forwarding with multiple protocols to meet users' needs on third-party platforms. It currently supports IEC104, Modbus-TCP, IEEE2030.5 in North America, and Output Control in Japan. Additionally, it can send power generation data, alarm messages, and device status via FTP or email, either periodically or on a schedule, keeping users informed in real time.

6. Various Ports to Support multiple Functions

The ports of the EzLogger3000C are as shown below:

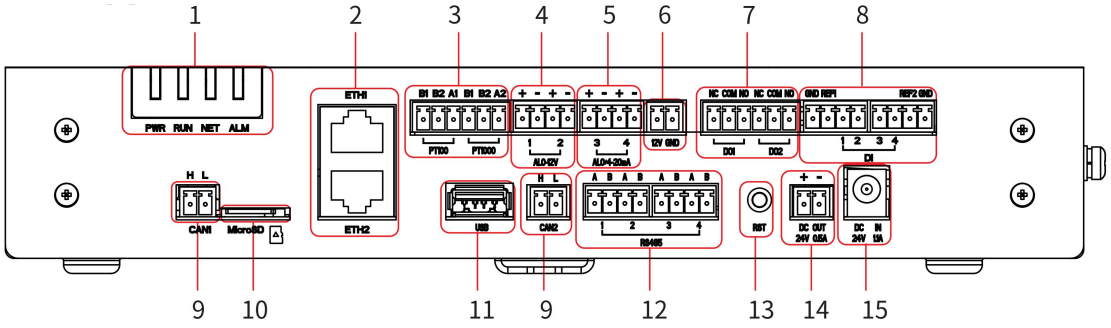

Fig 7 The Port Appearance

Besides connecting the inverter to the EzLogger3000C via RS485, users can connect other devices using the appropriate ports as specified in the manual and achieve the following functions through proper configuration:

1) Temperature Detection:

Supports two-wire or three-wire PT100/PT1000 temperature sensors.

2) Remote Shutdown:

When an abnormal situation occurs, the inverter can be remotely shut down with one click, stopping the

power output and disconnecting from the grid to ensure the safety of the photovoltaic system and maintain grid stability

a. Japan OVGR&RPR: Any DI port
b. Remote Shutdown: AI1+ or AI2+, and 12V output port

3) Power Adjustment:

Electricity usage includes peak and off-peak periods, causing power imbalances. During peak times, the load on grid-connected equipment increases. To maintain grid stability, it's essential to adjust peak power usage to reduce consumption or prevent excess electricity from being fed into the grid. Various countries have implemented measures to address this issue.

a. Australia DERD (Demand Response Enabling Device): DI1/DI2/DI3/DI4/REF1/REF2 port
b. Germany RCR (Ripple Control Receiver): DI1/DI2/DI3/DI4/REFI/REF2 port
c. Korea DER_AVM: RS485-4
d. Power-Limited Grid-Connected: 1 RS485 connection to a smart meter

7. Multiple connection for different inverters

The EzLogger3000C supports the connection of various GoodWe inverter models on the same RS485 COM port, greatly enhancing system configuration flexibility. For the specific list, please refer to the appendix at the end of this article

The table below compares the previous generation data logger, Ezlogger Pro, with the EzLogger3000C:

	EzLogger Pro	EzLogger3000C
Port	COM×4, DI×4	COM×4, DI×4, DO×2, AI×4
PT100, PT1000	x	✔
3rd party communication	IEC104	Modbus TCP, IEC104
Hot spot/LAN configuration	LAN	Hot spot/LAN
Configuration tool	Promate	WEB
Batch setting	x	✔
Breakpoint resume for 30 days	x	✔
3rd party meter	x	✔Need to do compatible test
4G	x	✔optional
Multiple connection for different inverters	x	✔

Table 2

Part 3：Solutions

The following solutions can be achieved by using EzLogger3000C with multiple inverters:

1. **Three Phase Multi-Inverter Load Monitoring and Power-limited Solution**

(1*EzLogger3000C+1*GM330 with CTs)

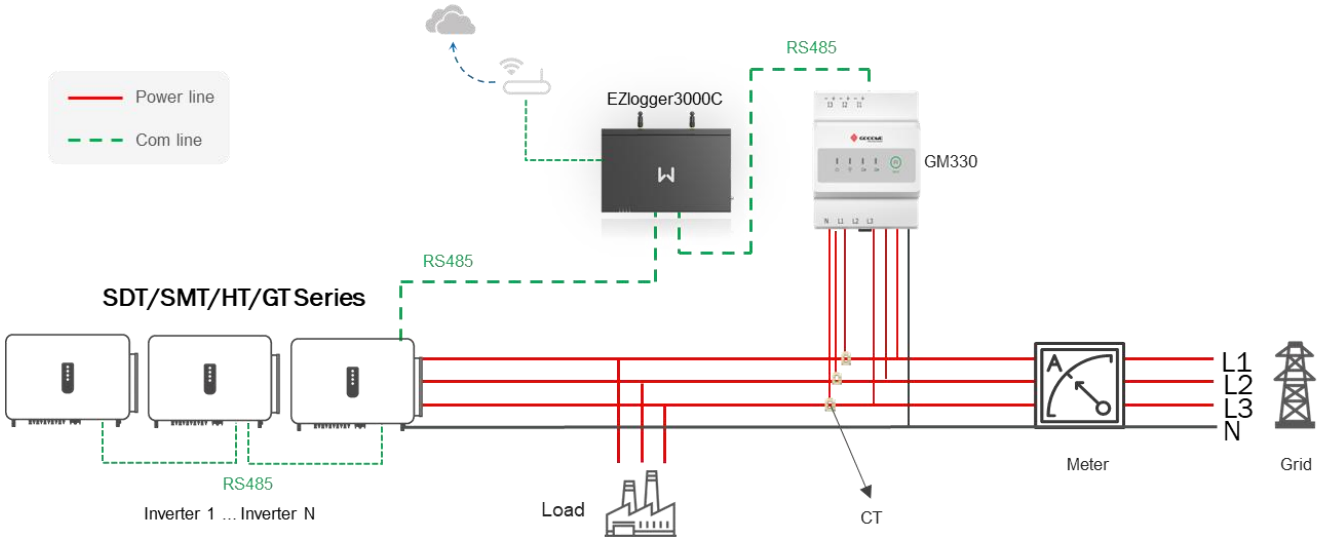

Fig 8 System Diagram

2. **HV side Export Power Limit Solution**

(1*EzLogger3000C+1*Acrel DTSD1352-CT with CTs)

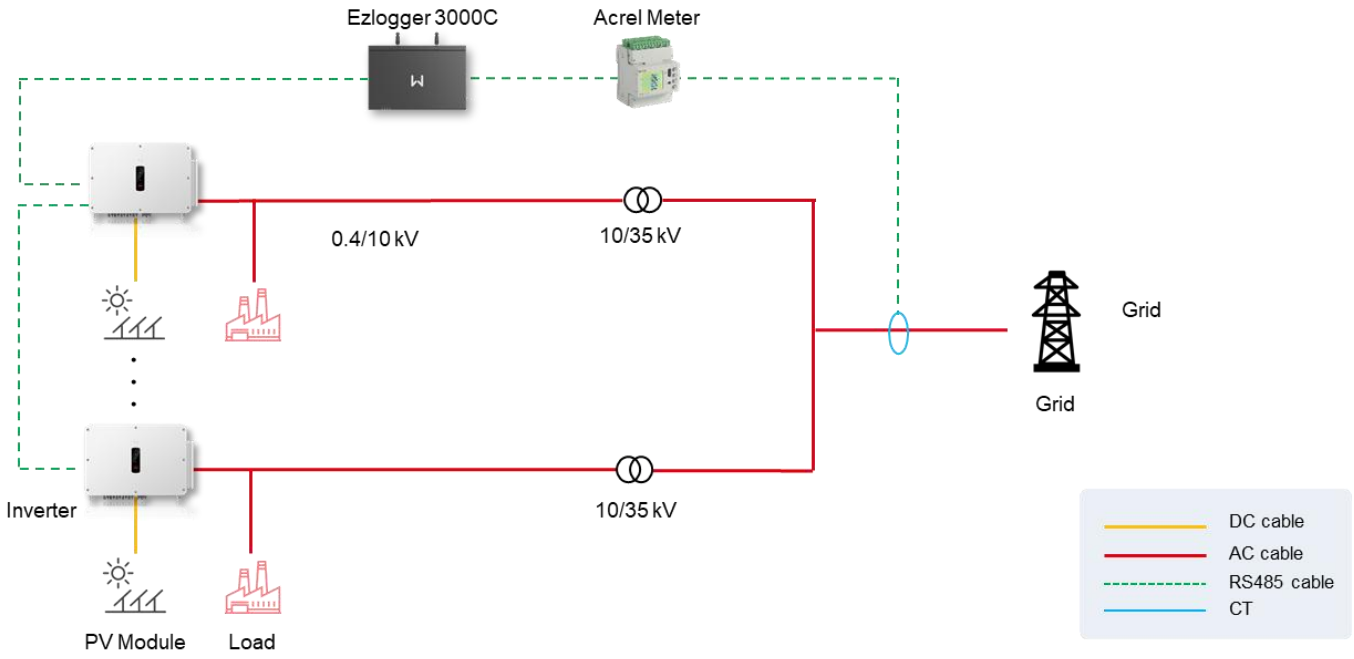

Fig 9 System Diagram

Appendix- Compatibility List

1. EzLogger3000C supports the following series and supports mixed connection

Inverter Model*
UT series
HT series (225~250kW)
HT series (100~136kW)
GT series
SMT series (75/80kW)
SMT-US/LVSMT-US series
SMT series (50/60kW)
SDT G3 series

*Other models are currently under development. This table is not regularly updated and may not reflect the most current version.

2. Support third-party meters

3rd party meter*1
Schneider IEM3255*2
Janitza UMG604
PRISMA_310A Lite/ 310A*2
MIKRO DPM680
Mitsubishi ME110SS
ITR 2.0 B
Acrel DTSD1352-CT

*1 The third-party meter requires testing for compatibility. For any question, please consult the respective user manual or contact GOODWE technical support for assistance.

*2 Currently does not support Export Power Limit.

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