

GOODWE



Quick Installation Guide

Photovoltaic (PV) Rapid Shutdown Equipment

(GTP-F2L-20 | GTP-F2M-20)

V1.2-2024-07-01

This manual describes the product information, system wiring, installation, electrical connection, and troubleshooting about the Photovoltaic (PV) Rapid Shutdown Equipment (Transmitter for short).

01 Safety Precaution

General Disclaimer

- The information in this guide is subject to change due to product updates or other reasons. This guide cannot replace the safety instructions or labels on the device unless otherwise specified. All descriptions here are for guidance only.
- Before installations, read through the documents of the device, inverter, and PV module to learn about the product and the precautions.
- All operations should be performed by trained and knowledgeable technicians who are familiar with local standards and safety regulations.
- Use insulating tools and wear personal protective equipment when installing or operating the device to ensure personal safety.
- Check the deliverables for correct model, complete contents, and intact appearance. Contact after-sales service if any damage is found or any component is missing.
- Strictly follow the installation, operation, and configuration instructions in this manual. The manufacturer shall not be liable for device damage or personal injury if you do not follow the instructions. For more warranty information, please visit <https://www.goodwe.com/support-service/warranty-related>.

Safety Disclaimer

- Make sure the voltage and the current of the PV module match the device specifications.
- Disconnect all the power supply in the rapid shutdown system before installations.
- Place the initiator of the rapid shutdown system outdoors for easier access.
- Do not touch any live components when the rapid shutdown system is working. Otherwise, the device damage or personal injury may occur.
- To avoid interfering the rapid shutdown function, do not install transmitters from other manufacturers to the PV cable during the use of the device.
- It is recommended to use the corresponding GoodWe rapid shutdown device.
- Power on the the rapid shutdown receiver before the transmitter.
- Place the rapid shutdown system label no more than 1m from the transmitter or initiator.

EU Declaration of Conformity

GoodWe Technologies Co., Ltd. hereby declares that the inverter without wireless communication modules sold in the European market meets the requirements of the following directives:

- Electromagnetic compatibility Directive 2014/30/EU (EMC)
- Electrical Apparatus Low Voltage Directive 2014/35/EU (LVD)
- Restrictions of Hazardous Substances Directive 2011/65/EU and (EU) 2015/863 (RoHS)
- Waste Electrical and Electronic Equipment 2012/19/EU
- Registration, Evaluation, Authorization and Restriction of Chemicals (EC) No 1907/2006 (REACH)

You can download the EU Declaration of Conformity on www.goodwe.com.

02 Technical Parameters

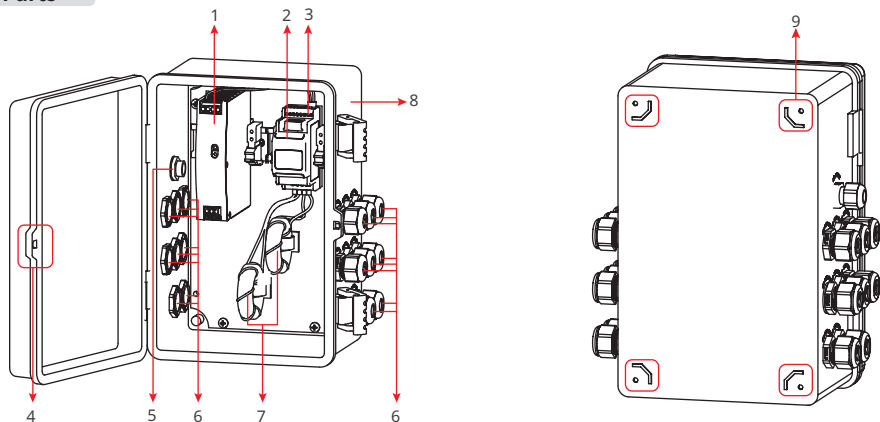
Technical Data	GTP-F2L-20	GTP-F2M-20
Main Electrical Data		
Power Supply Input Voltage (Vac)	100-240	200-480
Transmitter Input Voltage (Vdc)	12	
Transmitter Input Current (DC) (A)	0.8	
Communication	SunSpec PLC	
Core Data		
Number of Core	150A Core×2	150A Core×2
Max. Current (A)	150×2	150×2
Max. System Voltage (Vdc)	1500	
Core Line Length (mm/in)	150mm (5.91 in)	
Internal Dimensions /Outside Dimensions (mm/in)	30/60mm (1.18/2.36 in)	
Max Number of Strings In Core*1	30(Max. 15 Per Core)	30(Max. 15 Per Core)
Environmental		
Operating Temperature (°C/°F)	-40 to +60°C (-40 to 140 °F)	
Enclosure Environmental Rating	IP65/UL Type 4	
Mechanical		
Dimensions (W×H×D mm/in)	253×328×179mm (9.96×12.91×7.05 in)	
Mounting Type	Wall Mounted	
Features & Compliance		
Safety Compliance	NEC 2017&2020 (690.12); UL1741; CSA C22.2 No. 330-17	
EMC Compliance	FCC Part 15B, ICES-003, IEC/EN61000-6-1/-2/-3/-4	
*1: According to the cable diameter φ 5.9mm, if cable diameter is more than 5.9 mm, the number of strings per core will be reduced. Care should also be taken not to exceed the allowable current. The product is reserved for 18 strings, more strings need to be installed with additional holes.		

03 Product Introduction

Function Description

The receiver and transmitter can work together to shutdown the PV system rapidly. The transmitter keeps sending signal to the receiver, with which the receiver controls the output of the PV module. In case of an emergency, power off the transmitter to shut down PV system.

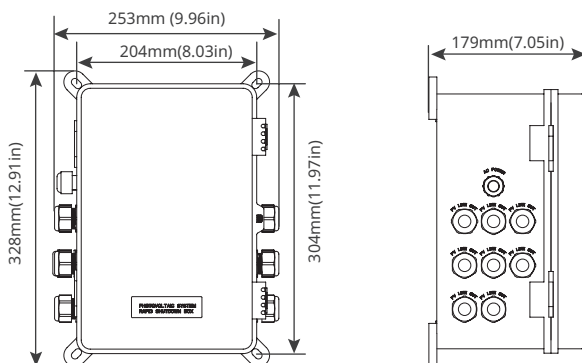
Parts



- | | | |
|--------------------|--------------------------------|---|
| 1. Power supply | 2. Transmitter | 3. Indicator |
| 4. Lock of the box | 5. Cable hole - AC power cable | 6. Cable hole - PV cable ^[1] |
| 7. Core | 8. Waterproof box | 9. Installation hole |

[1] The number of the cable hole may differ depending on producte model.

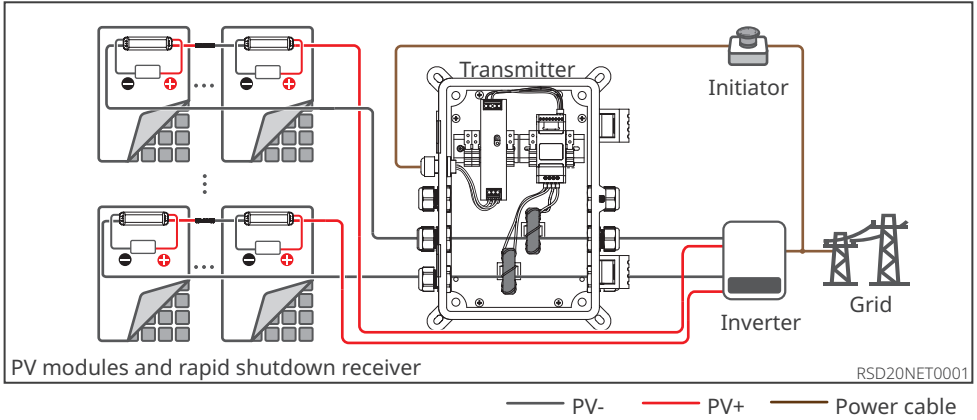
Dimensions



Indicator

Indicator status	Explanation
Off	The device is powered off or in fault status.
Blink	The device is working properly.

04 Wiring System

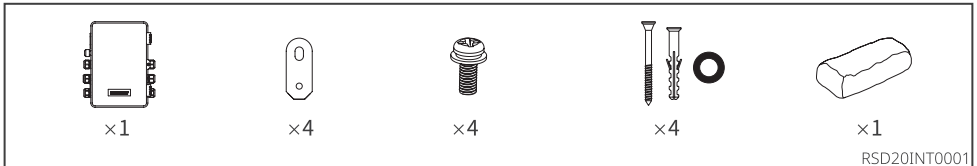


NOTICE

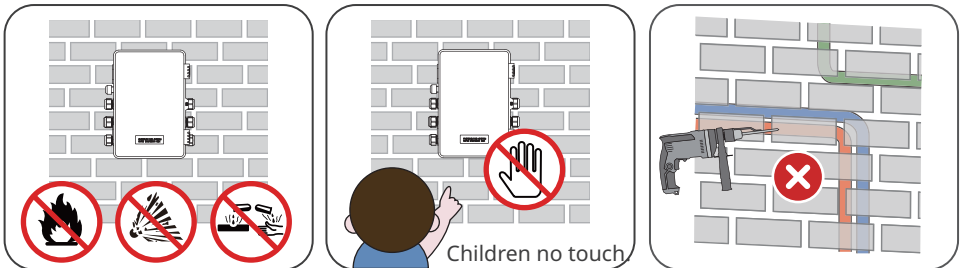
- Pass the negative cable through the core is recommended. Do not pass the positive cable and the negative cable through the same core at the same time.
- Maximum current per core: 150A.
- Maximum length per PV string: 500m.

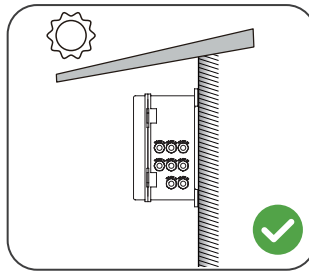
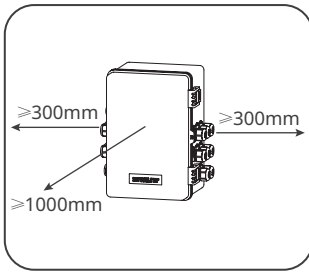
05 Installation and Wiring

Packing List

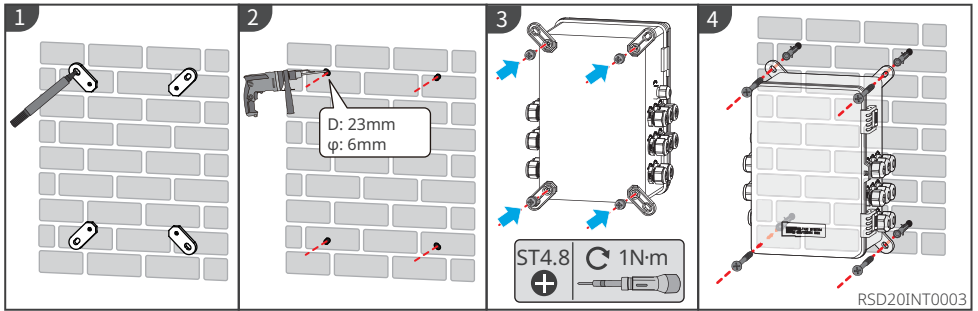


Installation Requirements

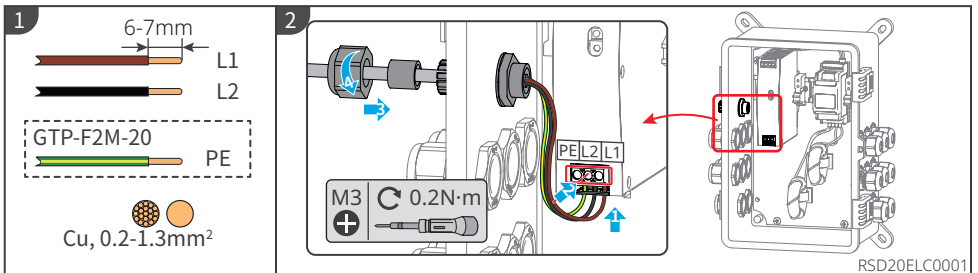




Installation



Power Cable



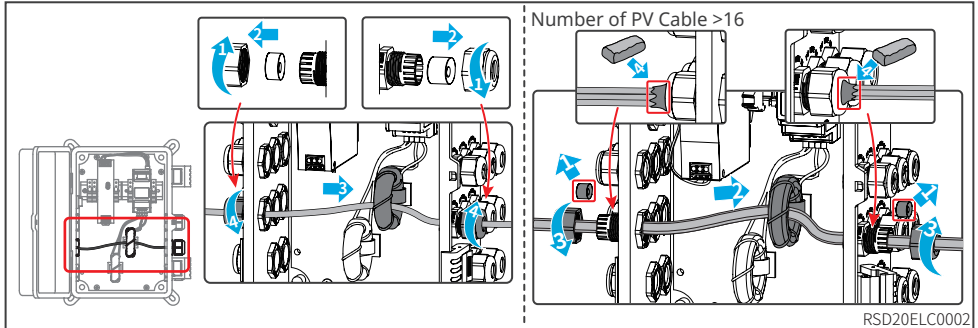
NOTICE

- The grounding cable is only for GTP-F2M-20.
- GoodWe power adapters are recommended. The manufacturer shall not be liable for device damage if other power adapters are used.

PV Cable

NOTICE

- Remove the rubber plug inside the waterproof gland if more than 16 PV cables are used. After removing the rubber plug, at least 3 PV cables are allowed for a single gland.
- If the rubber plug inside the waterproof gland is removed, apply fireproof mud to the gland to ensure enclosure protection class.
- To avoid personal injury or device damage, please prepare a lock to lock the door after installation and cable connections.



05 Troubleshooting


If any of the following faults occur, please deal with them as soon as possible to avoid failure of the rapid shutdown function.


No.	Problems	Solutions
1	Inverter Arc fault	Check the wiring between the PV strings and inverters for proper and continuous connections without breakpoints. And check the device for intact appearance, such as deformation or broken. Contact the dealer or installer if there is any deformation or broken. Contact the after-sales service if the appearance is intact and the problem persists after checking the wiring.
2	Abnormal low power generation or PV voltage	Check the PV panels to make sure there is no foreign matters, dust, or dirty. Check the voltage and current value per input strings. If the voltage or current value is significantly low, check the wiring between the PV strings and inverters for proper and continuous connections without breakpoints, and check the device for intact appearance, such as deformation or broken. Contact the dealer or installer if there is any deformation or broken. Contact the after-sales service if the appearance is intact and the problem persists after checking the wiring.
3	Failure to turn off the device properly.	Check if there are other transmitters working in the PV system or attach to the inverter. Check the device for abnormal heat or intact appearance, such as deformation or broken. Contact the dealer or installer if there is any deformation or broken. Contact the after-sales service if the appearance is intact and the problem persists after checking the wiring.
4	Indicators off	Check the device for proper power input wiring and AC power supply. Contact the after-sales service if the problem persists after checking the wiring.




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Local Contacts