



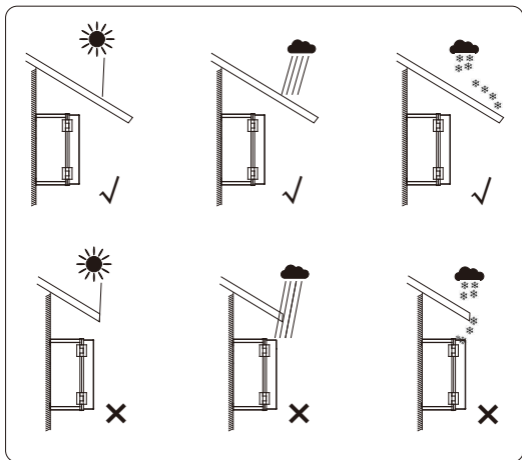
# Transmitter-PLC Outdoor Kit Quick Installation Guide

Rev2.4 2023/08/10



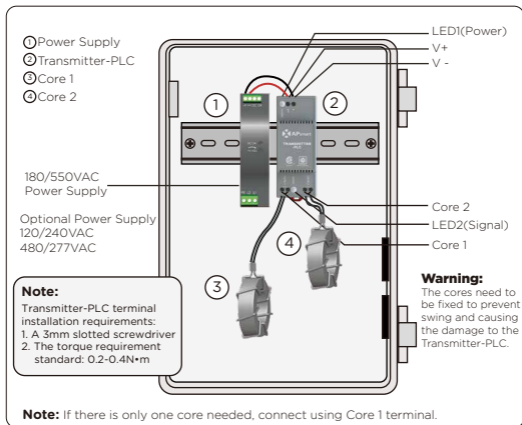
This installation guide is for customers who have purchased Transmitter-PLC-Outdoor Kit. If you have not purchased our outdoor kit, the following content is used as a reference.

# Transmitter-PLC-Outdoor Kit Installation



**Warning:** If the Transmitter-PLC-Outdoor Kit is installed outside, it should be protected under shelter from direct sunlight or bad weather conditions (like snow, rain, lightning, etc). Fully shielded installation locations are preferred.

# Transmitter-PLC Installation



Power supply must be on same AC branch circuit as inverter to meet rapid shutdown requirements.

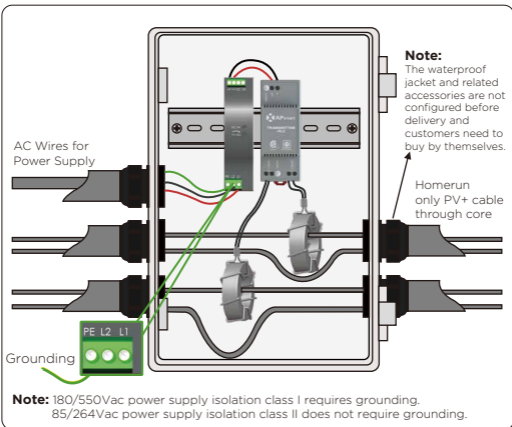
During operation, the Power LED should be lit and the Signal LED should be blinking. When Transmitter fails to work, the Signal LED will not be blinking. If the Power LED is also not lit, check the power supply first.

**Note:** Install RSD before powering on the Transmitter.

- Mount Transmitter-PLC and power supply on DIN rail
- Connect DC leads from power supply to transmitter-PLC
- Connect dual core(Core 1 and Core 2) to transmitter-PLC

Place rapid shutdown system label no more than 1m (3ft) from Transmitter or AC disconnect if not at same location.

## Transmitter-PLC Wiring



**Note:** Install RSD before powering on Transmitter.

- **Pass either positive or negative cables through cores**

(either both positive cables or both negative cables. Do not use one positive and one negative cable.)

- **Connect wires to AC side of Power supply**

Max.Number of Strings Per Core :

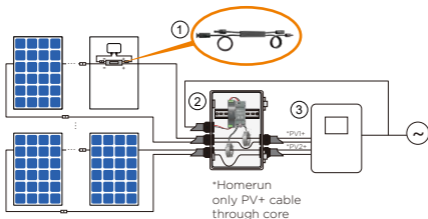
DC Cable Diameter(without connector)	Φ5.9mm	Φ6.35mm	Φ7mm	Φ8.6mm
29mm Core	<15	<15	<14	<10
11mm Core	<6	<5	<4	<2

Max String Length: **30 modules**

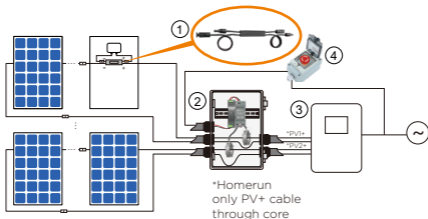
Max Current Per Core: **160A (29mm) / 75A (11mm)**

Max Cable Length From Inverter (+) to Inverter (-): **1500ft (450m)**

## System Wiring Diagram



- ① RSD
- ② Transmitter-PLC Outdoor Kit
- ③ Inverter



- ① RSD
- ② Transmitter-PLC Outdoor Kit
- ③ Inverter
- ④ Emergency stop button box (optional): Press the emergency stop button, the transmitter AC power supply is disconnected, the RSD closes the output, and the system rapid shutdown.

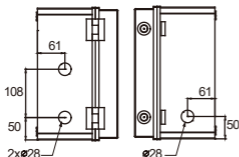
**Note:**

1. Do not place the RSD (including DC connectors) where exposed to the sun, rain or snow, even gap between modules. Allow a minimum of 3/4”(1.5cm.) between the roof and the bottom of the RSD to allow proper air flow.
2. Please use the same type of DC connector as the RSD in the system. The RSD damage caused by using different type of DC connector will not be covered by the warranty.

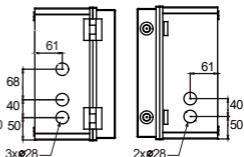
## Outdoor Kit Drilling Guide

### Drilling Guide for .75" Conduit

Single Core

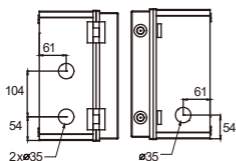


Dual Core

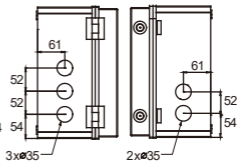


### Drilling Guide for 1" Conduit

Single Core



Dual Core



**Note:** The Outdoor Kit was not punched before delivery and customer need to make it themselves according to the actual situation. The figure is only for reference.

# Troubleshooting

## **Check that the system conforms to the design rules:**

- Up to 30 modules per string
- String length up to 1500ft (total cable length from + to - )
- DC cables through Core must be the same polarity(all positive or all negative)
- Power LED should be lit and Signal LED should be blinking during operation
- Verify that Core wiring is correct
- Power cycle Transmitter-PLC if Signal LED is unlit



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Product information is subject to change without notice. (Please download manuals at [APsmartglobal.com](http://APsmartglobal.com))