

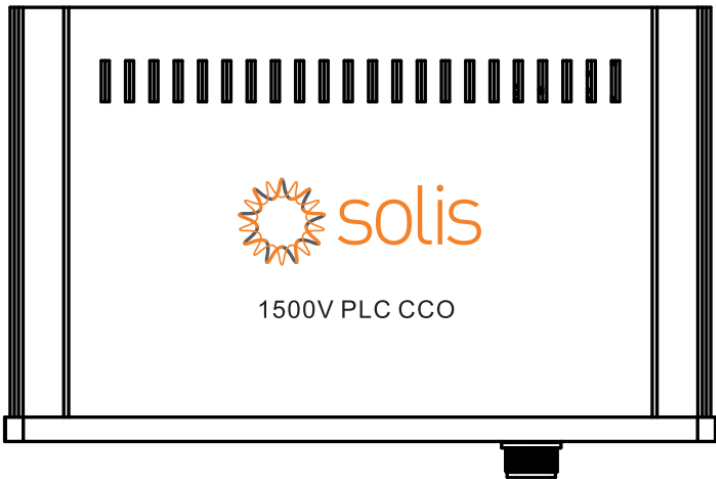


solis 1500V PLC CCO Central Controller Installation Guide

[Home](#) » [solis](#) » solis 1500V PLC CCO Central Controller Installation Guide 



Quick Installation Manual
1500V PLC CCO

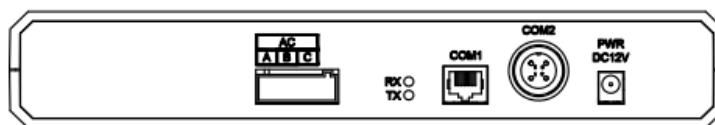
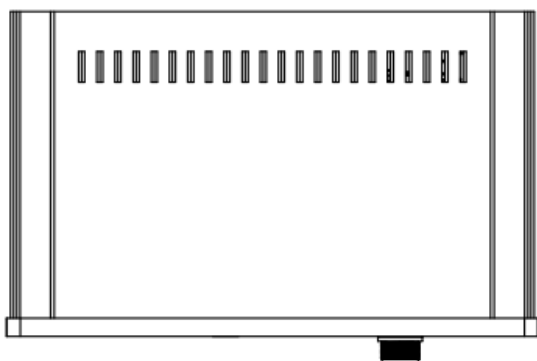


Contents

- [1 Introduction](#)
- [2 Package List](#)
- [3 Warning](#)
- [4 Installation](#)
- [5 Cable Connection](#)
- [6 Working Principle](#)
- [7 Characteristic](#)
- [8 Technical specifications](#)
- [9 Documents / Resources](#)
- [10 Related Posts](#)

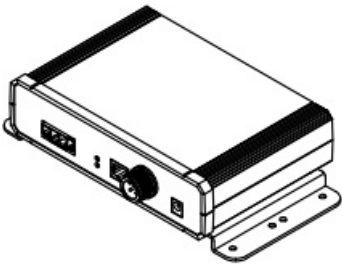


Introduction

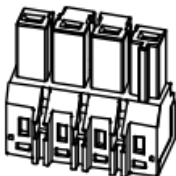
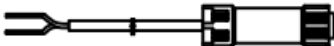
Solis PLC CCO is applied in PV systems to achieve power line communication. Power Line Communication is the transmission of data over the AC Wires of the system.



Package List

The package list is shown below:

		
PLC CCO x1	Fasten screw (M4*10) x4	Fasten screw (ST2.9*25) x4

	
Terminal Plug x1	RS485 Communication terminal x1

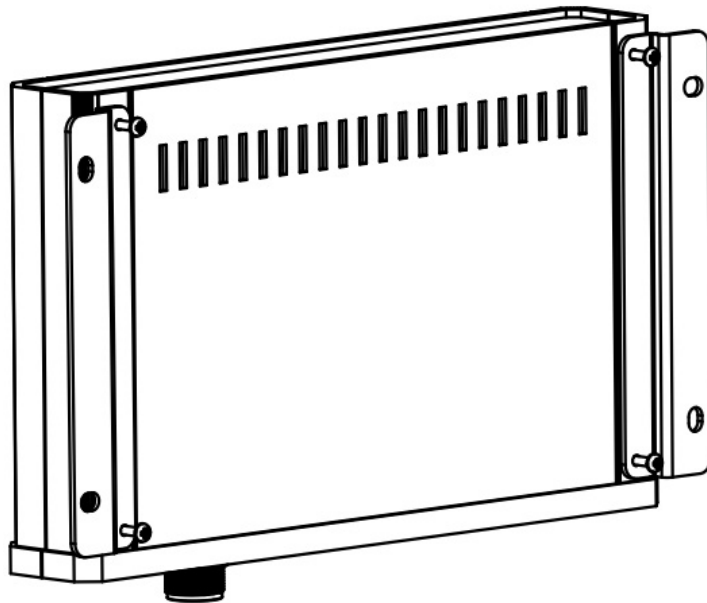
Warning

1. Disconnect any electrical connection and verify no live voltage before installation to prevent potential electrical hazards.
2. Verify Inverter AC Switch is in the "OFF" position.
3. Verify equipment has adequate ventilation to ensure system performance.
4. Ensure the area of operation has no strong electromagnetic sources nearby.
5. Please ensure there is no heat source nearby.
6. Before doing any maintenance work, please ensure the power is off.

Note: All operations must be conducted by professional electrical technicians

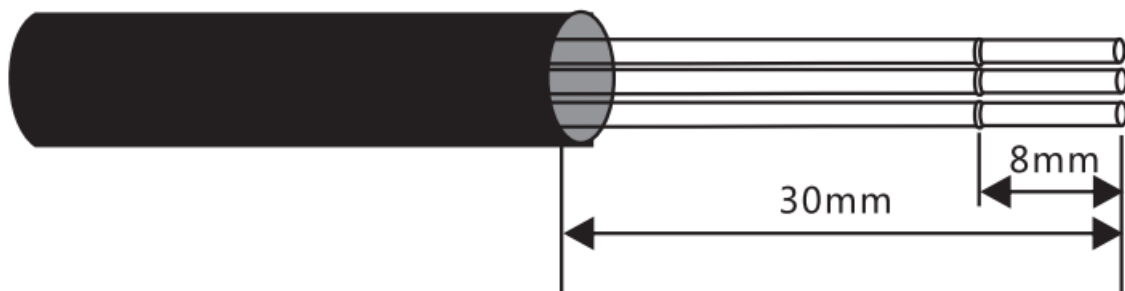
Installation

1. Use the 4 M4 x 10 cross screws to fix unit to the wall.
2. Torque value = 1.2Nm

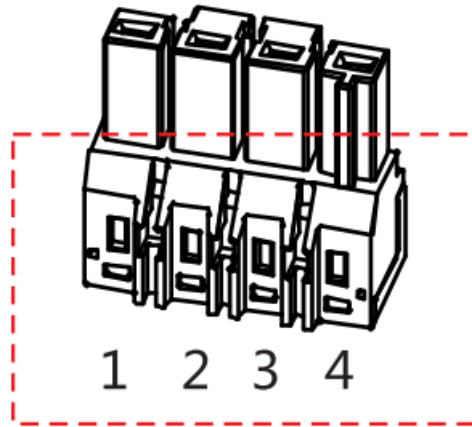


Cable Connection

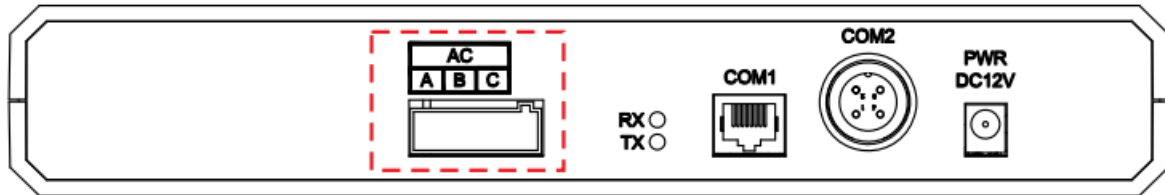
1. Strip off the insulation as shown below.



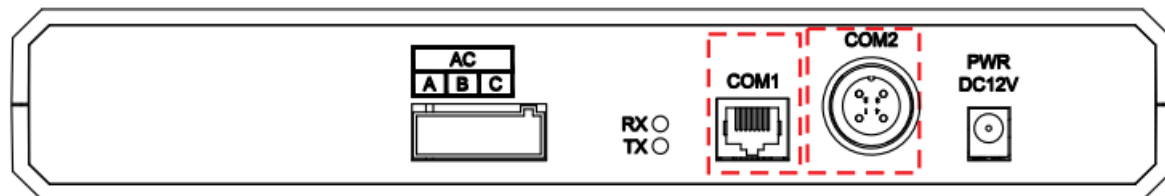
2. Use a slot-type screwdriver to press the position in red and insert the A, B, C to Pin 1,2,3.



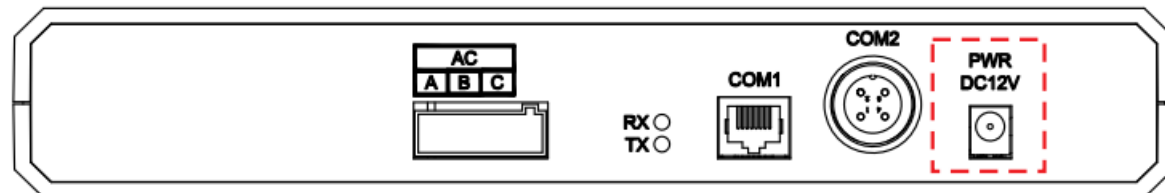
3. Connect the terminal to PLC CCO as shown below.



4. Connect RS485 communication cable to COM1(RJ45) or COM2(4 core connector)

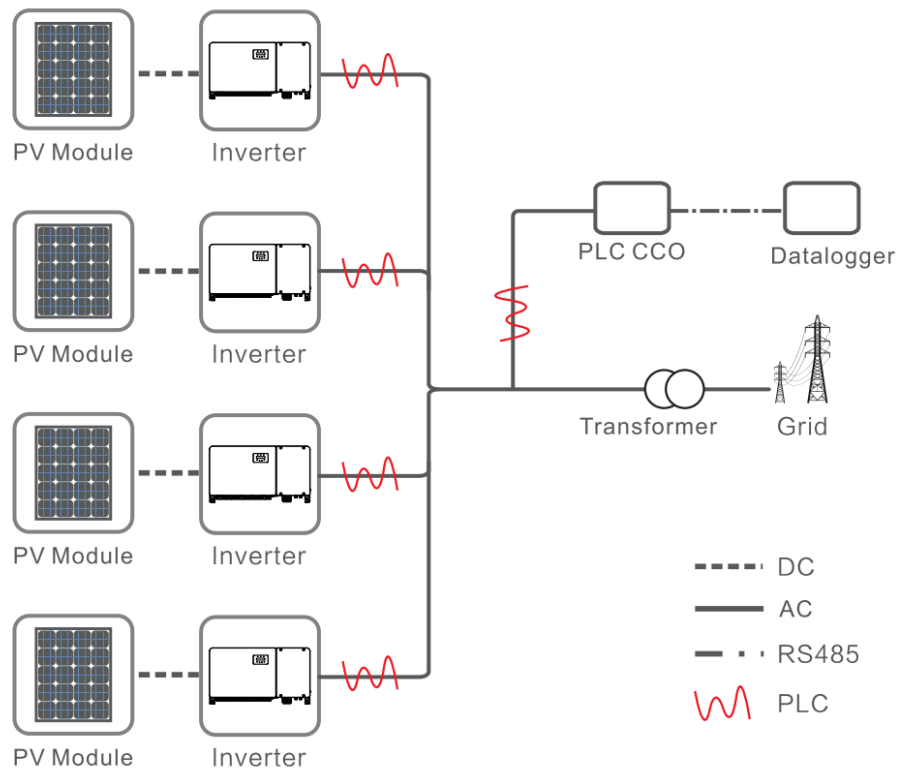


5. Connect 12V power line to PWR DC 12V port on the PLC CCO device.



Working Principle

Solis string inverters integrated with PLC communication module “PLC STA” can conduct PLC through AC power cables and communicate with the PLC CCO. The PLC CCO uses the isolation coupling circuit to isolate low-frequency AC power and protects the internal board. It conducts bi-directional PLC signaling and RS485 signal conversion to communicate with a corresponding data logger. The diagram of the PLC communication system is as follows:





Characteristic

1. Adopt OFDM technology, subcarrier supports BPSK, QPSK, 8QAM, 16QAM, 64QAM modulation method.
2. Integrated with a high-performance ARM CPU, the main frequency reaches 266MHz, satisfying smart grid requirements.
3. Support FEC and CRC function with strong capability of noise reduction and error recovering.
4. Support ad-hoc network and dynamic-route addressing function.

Technical specifications

Product name	1500V PLC CCO
Input voltage of the power adapter	100VAC-240VAC-50Hz/60Hz
Power consumption	< 5W
Input cable voltage of the AC port	380V AC—920V AC
Operating temperature	-25°C—+70°C
Relative humidity (non-condensing)	5%-95%
Altitude	0m-4000m
Protection level	IP20
Installation mode	Hanging installation
Maximum number of PLC STAs that can be connected	60pcs
Maximum transmission rate	115200bit/s
Dimensions (W x H x D)	255mmx165mmx45mm
Weight	485g
Certification	UL, FCC

Documents / Resources

	solis 1500V PLC CCO Central Controller [pdf] Installation Guide 1500V PLC CCO, Central Controller
	solis 1500V PLC CCO [pdf] Installation Guide 1500V PLC CCO, 1500V CCO, PLC CCO, CCO, 1500V PLC, PLC, Central Controller