



Product Datasheet

Version 1.5

Smart PV PLC Transceiver FR-PVMS-HKB



Scan code to learn more

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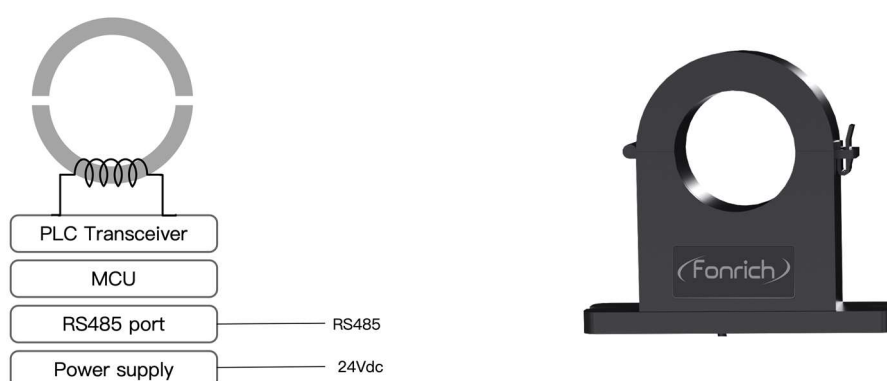
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Key Features

- PV module rapid shutdown meets NEC 2017 & 2020 (690.12) requirements
- Bidirectional PLC communication with smart PV module safety protection devices
- RS485 Modbus RTU port to connect with the smart PV monitor
- Non-electrical contact with PV cable, safely and easily installation
- Up to 32 PV modules per string, max support 32 PV strings and 512 PV modules

Schematic Diagram

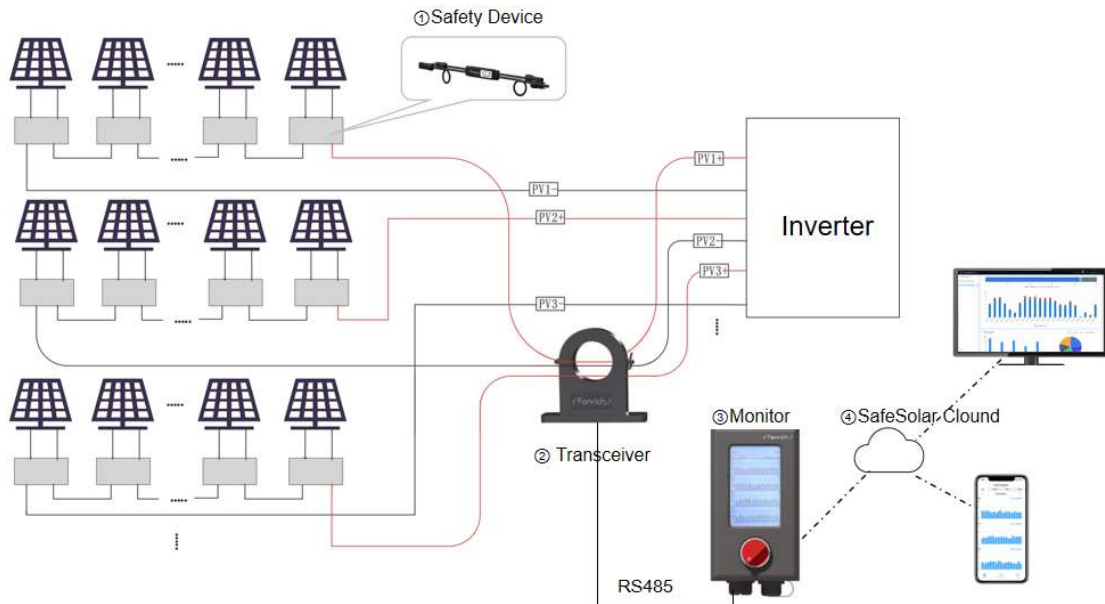


Specifications

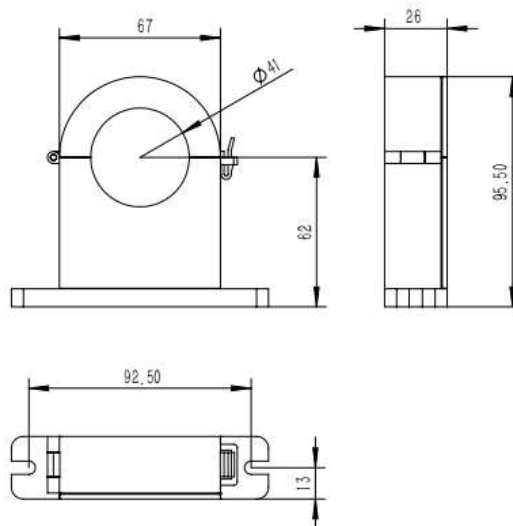
Item	Specification	Unit	Comment
Electrical Data			
Range of power supply voltage	15~24	Vdc	
Max power consumption	2.0	W	
Environmental Data			
Pollution degree	PD3		
Operating ambient temperature range	-40 ~ 70	°C	
Relative humidity range	4%~100%		
Ingress protection	IP67		
PLC Communication Performance Data			
Max PV modules under one PLC transceiver	512		
Max PV strings under one PLC transceiver	32		
Max cable loop length each string	1600	m	
Modbus Port Data			
RS485 speed	4800, 9600, 19200, 38400	bps	
Data format	8N1		

Compliance			
Communication compliance	PLC		
Safety compliance	NEC 2017 & 2020 (690.12); UL1741; CSA C22.2 No. 330-17; IEC/EN62109-1		
Arc fault detection and protection	UL1699B		
EMC compliance	EN IEC 61000-6-1:2019 EN IEC 61000-6-3:2021 EN IEC 61000-6-8:2020		

Typical Application Wiring Diagram



Mechanical Drawing (mm)



Revision Log

Version	Revision	Date
1.0	First edition	2021.5.31
1.1	Increase reverse current	2021.7.12
1.2	Separate datasheet of system to dedicated ones	2022.4.22
1.3	Add EMC standard	2022.6.13
1.4	Modify the product name to “Smart PV PLC Transceiver”	2022.7.21
1.5	The number of group strings increased to 32	2022.12.4
1.6	Increase the loop length to 1600 meters	2023.3.17

Contact us

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