DONGGUAN SHENGYANG INDUSTRIAL CO., LTD

SY-WMVC Smart Grid Tie Microinverter

User Manual

Thanks for choosing Smart Microinverters of Shengyang Industrial Co., Ltd. Read the following instruction carefully before installation and operating, install and operate as specified by this user manual strictly to ensure your safe and benefit.

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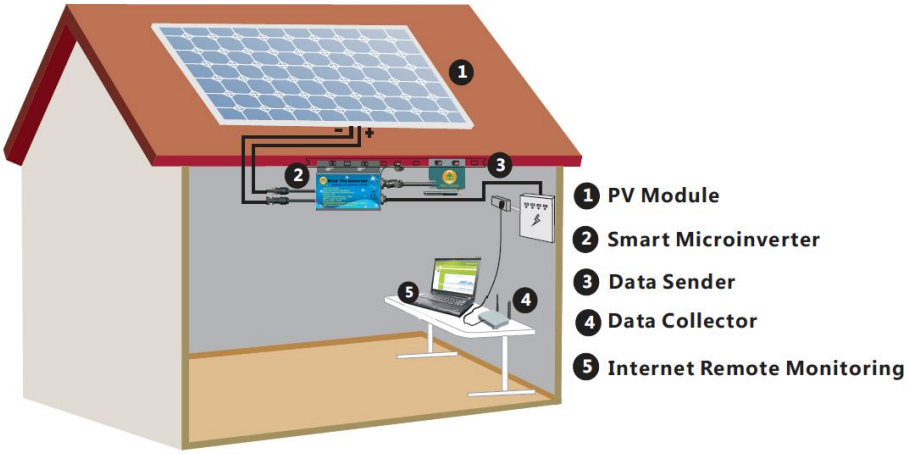
Smart Microinverter System Diagram



The four key elements of a Smart Microinverter System are:

❶ PV Module
❷ The Shengyang Smart Microinverter
❸ The Data Sender
❹ The Data Collector

Grid-connected PV system

Grid-tied PV systems consist of PV panels, grid-tied inverters, junction boxes, etc. The Smart Microinverters convert the DC from your solar panels and convert it into alternating current (AC) energy used in homes and businesses.

Remote Monitoring

The Data Sender collects performance information for each inverter in a user's system and transmits this data to the Data Collector and displays it on website, where users can view and manage the inverters' performance of their solar power system, or view through Data Collector directly.

NOTE: The DATA SENDER and the DATA COLLECTOR are optional elements. Before installing these elements, read all instructions and cautionary markings in their corresponding user manuals.

Warranty

Warranty Conditions

Warranty Period: 15-year limited warranty period.

Warranty Evidence: The B/L,Tracking no, and a completed warranty card.

Shengyang grants an implied warranty of 1 year to the inverter from date of purchase for repair or replace the Defective Product free of charge includes freight cost. Furthermore, Shengyang provides an additional limited warranty for 14 years for repair or replace the Defective Product free of charge but non-free of freight charge. If your device has a defect or malfunction during the warranty period, please also contact our customer service staff or your retailer or installer.

Warranty claims are excluded for:

• Alterations or repairs to the unit without prior authorization
• Improper use or operation of device
• Improper and non-standard installation
• operating the equipment with defective safety devices
• Impact of foreign objects and force majeure (lightning, surge, storm, fire)
• Inadequate or nonexistent ventilation of the device
• disregarding of safety regulations
• shipping damage
• The Product has been improperly stored or was damaged while in possession of the Dealer or end user;

Technical Parameters

Compatible with 72 cells solar panel which Vmp is 35-37V and Voc is 44-46V.

Power	200W	230W	250W	300W
Solar panels	≥200W	≥230W	≥250W	≥300W
DC input range	24-45VDC			
MPPT Voltage	28-36VDC			
DC MAX current	10A	15A	15A	15A
AC output range	120VAC(90-140VAC) or 230VAC(190-260VAC)			
Frequency range	50Hz/60Hz(Auto control)			
Power Factor	>98.5%			
THD	<5%			
Phase Shift	<1%			
Efficiency	120VAC(90-140VAC)			
Peak Efficiency	>95%	>95%	>95%	>95%
Stable Efficiency	>92%	>91%	>91%	>91%
Efficiency	230VAC(190-260VAC)			
Peak Efficiency	>95%	>95%	>95%	>95%
Stable Efficiency	>93%	>92%	>92%	>92%
Protection	Islanding; Short-circuit; Converse Connection; Low Voltage; Over Voltage; Over Temperature Protection			
Work Temperature	-25℃-60℃			
Grade of Waterproof	IP67			
Show	Bi-color LED indicator			
Cooling	Natural convection: no fans			
Stand-by Power	1-2W			
EMC	EN61000-6-3:2007 EN61000-6-1:2007			
Grid Disturbance	EN 50178+EN 62109-1+VDE0126-1-12			
Grid Detection	DIN VDE 1026 UL1741			
Certificate	CE			
Mounting Dimension	80CM(length)			

Remark: The maximum PV Panel open circuit voltage CANNOT be more than 46V.

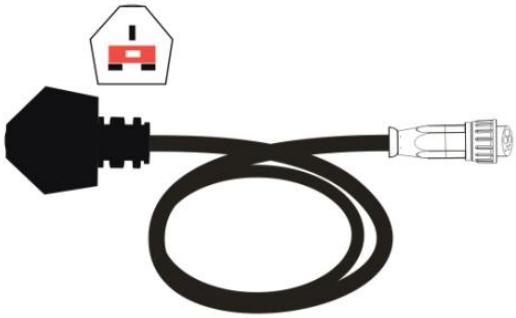
Packing Specification

Packing Accessory	Microinverter, AC Cord, User Manual(Warranty Card)
Mechanical Size	16.5 x 7.5 x 5.5CM
Net Weight/PCS	1.6KGS/PCS
Inner Box (L x W x H)	26.5 x 20 x 11 CM
Carton(L x W x H)	42.5 x 28 x 36 CM, 6pcs/CTN, 10/13KGS

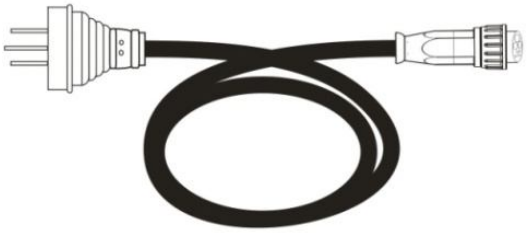
Cables

1. AC Power Cord

European Standard



UK Standard

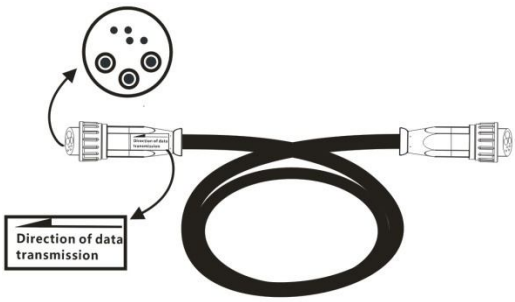


Australia Standard

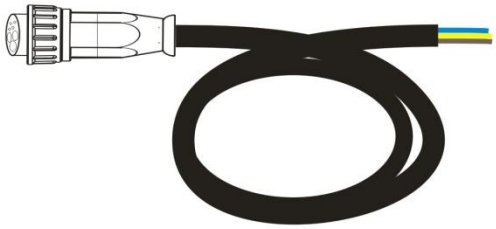
US Standard

2. Parallel Power Cable

Please note that directionality of connecting cables between inverters.

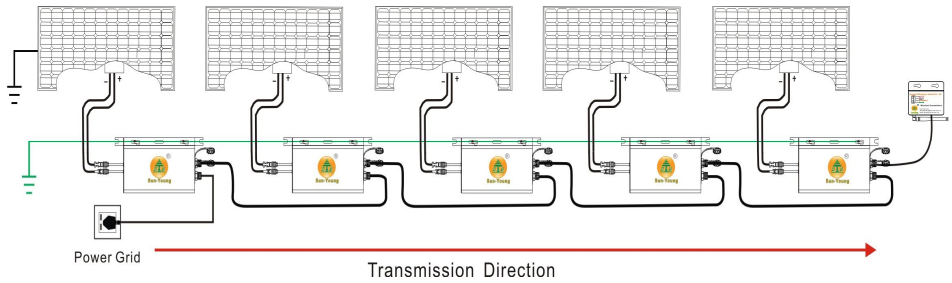


3. Extension Power Cable



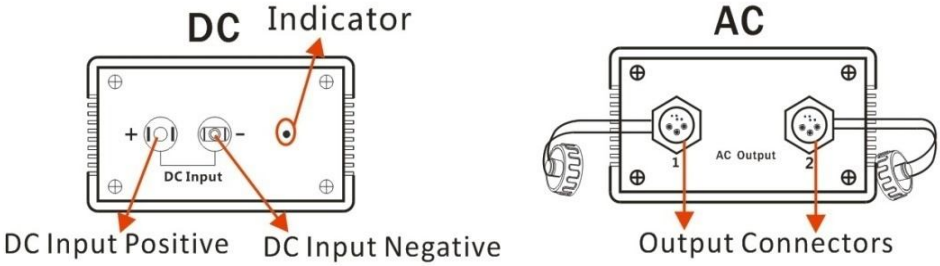
4. Transmission Direction of Parallel Power Cable

When connecting for system, data transmission direction start from inverter which closest to grid to RF data sender. Please pay attention to cable direction, un-correct cable connection will lead to the RF data sender cannot receive inverter data correctly.



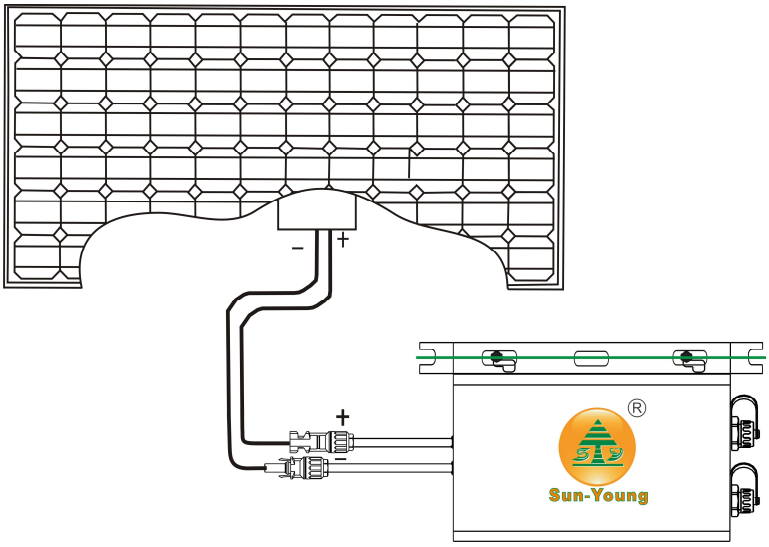
Install

1. Diagrammatize DC input and AC output terminals,



2. Attach the Smart Microinverter to the racking or fix onto the wall,

3. Properly connect the positive and negative of solar panel and Smart Microinverter,



4. AC power cable connects with Smart Microinverter and residential power grid which refers to low voltage civilian single-phase power grid.