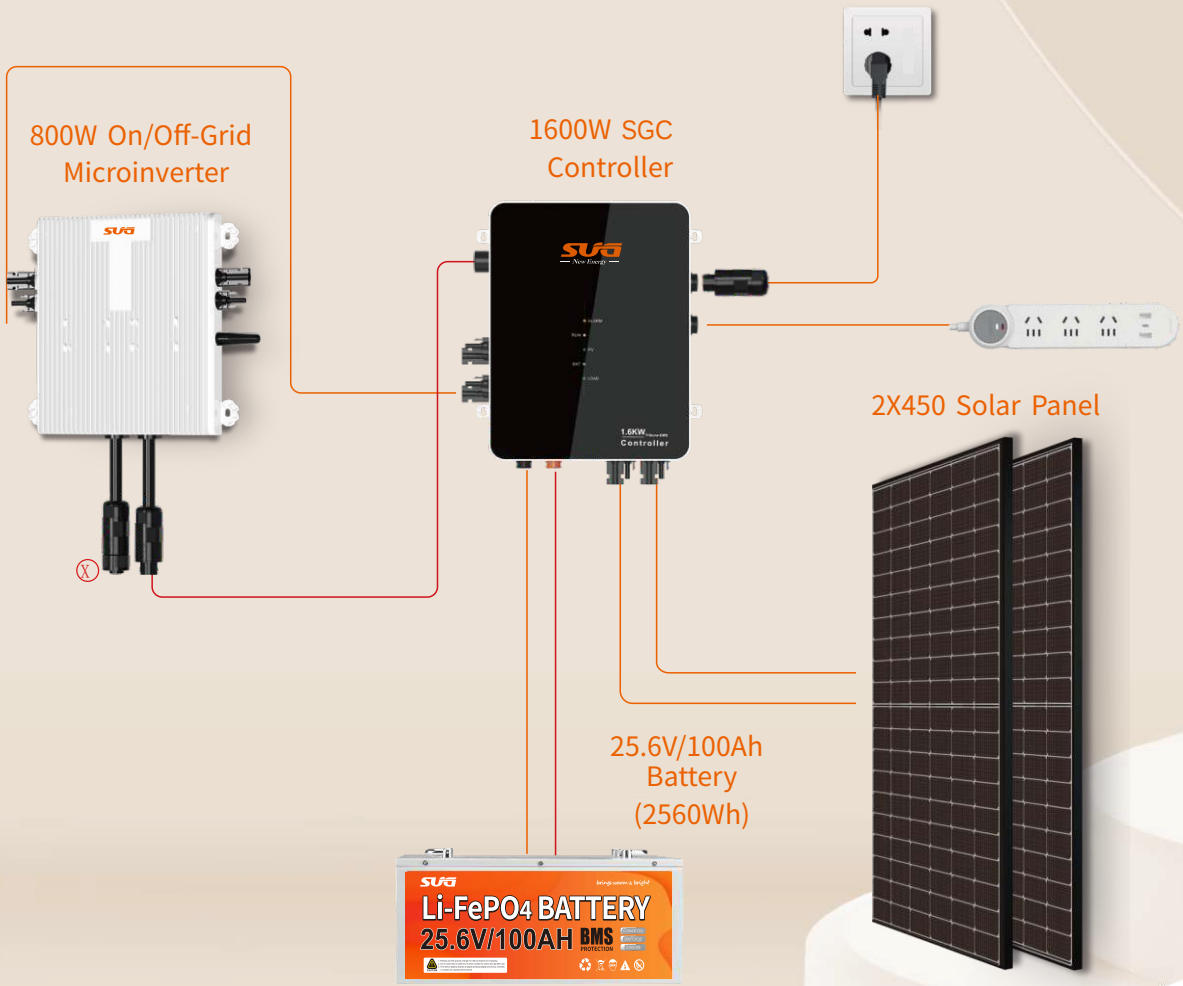


Microinverter Energy Storage System

ZERO FEED IN & UPS FUNCTION

ON/OFF GRID	ZERO FEED-IN	UPS FUNCTION

Controller

SGC1.6~4.8KW Controller

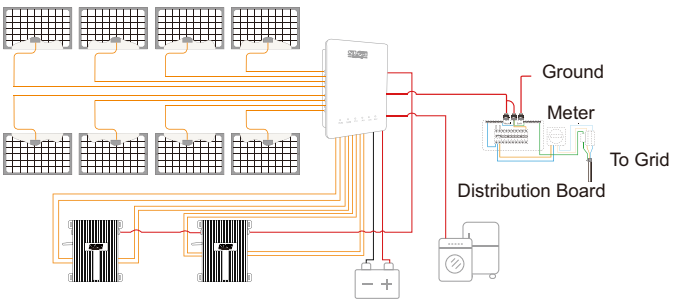
- SGC-4.8KW
- SGC-2.4KW
- SGC-1.6KW

Description:

The SGC series energy controller has a powerful and advanced system which integrates (MPPT+AC) battery charging and energy management functions for on/off grid PV systems with a maximum 4KW power output. It works with our SMI series microinverters to magically create a residential solar storage system that will support battery mode operation without main power. Furthermore, the adaptive function of the wide voltage battery enables customers to choose from various types of batteries: wide voltage (24V/36V/48V), different types of batteries (Lead-acid batteries, lithium batteries, or others). The shell is designed with high-performance aluminum alloy die-casting sealing, so that it can keep running in harsh natural environments.

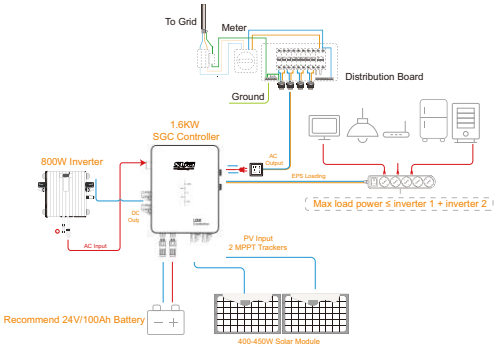
Features:

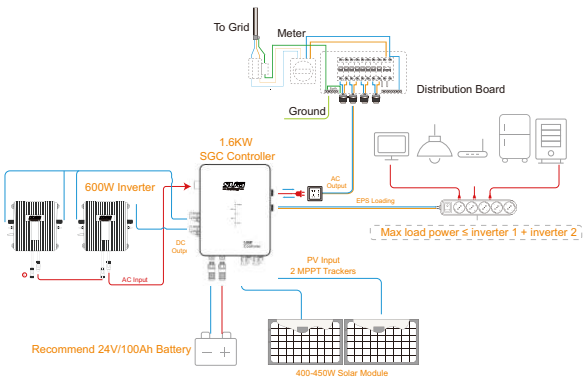
- 4 Independent MPPT trackers, maximize each solar panel output
- Automatic battery voltage detection in 24V/36V/48V
- Suitable for different battery types
- MPPT tracking efficiency >99.9%, peak conversion efficiency >99%
- With UPS function, keep your home devices running properly
- 6 LED lights clearly show all work status
- Reverse polarity protection of solar panel and battery
- Overcharge and overload protection
- Flexibly monitor your solar harvest via APP



4.8kW Controller
Pair up with 4-in-1 Microinverters

1.6kW Controller
Pair up with 2-in-1 Microinverters





Controller

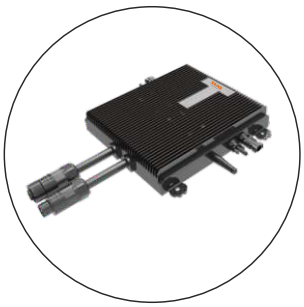
Model	SGC 4.8KW	SGC 2.4KW	SGC 1.6KW
MPPT Solar Charger			
Number of MPPT Trackers	4	3	2
PV Operating Voltage		20-60V	
MPPT Operating Voltage Range		25-50V	
Max. PV Open Circuit Voltage		60Vdc	
Max. PV Array Power	4 x 1 Tracker 1200W	3 x 1 Tracker 800W	2 x 1 Tracker 800W
Max. Charging Current	100A	67A	67A
Max. DC Load Current	4 x 30A	3 x 30A	2 x 30A
Self Consumption		2W	
MPPT Tracking Efficiency		99.9%	
Conversion Efficiency		98%	
Protection	Overload, Reverse Connection, Short Circuit, High voltage, High Temperature Protection		
AC Charger（Optional）			
Input Voltage	110V-260V	Not available	Not available
Charge Current	10A@48V	Not available	Not available
Charge Current Adjustable	0-10A	Not available	Not available
Customized Charge Time	Set Up the Charge Time by APP	Not available	Not available
Battery			
Battery Type	Sealed, AGM, Gel, Flooded, Lithium, Lithium carbonate, User-defined		
Battery Voltage	Standard 48V	Standard 36V	Standard 24V
Battery Voltage Range		10V-60V	
Customized Discharge Time		Set Up the Discharge Time by APP	
Communication			
Communication Port		RS485	
Energy Management			
Input Power from Microinverter	4.8KW	2.4KW	1.6KW
Qty of Microinverter	2pcs SMI-2KW;4pcs SMI-1.2KW;	1pc SMI-2KW;2pcs SMI-1.2KW;	1pc SMI-1.2KW;2pcs SMI-800W
AC Loading (Back-up)	4KW 230Vac@2pcs SMI-2KW	2.4KW 230Vac@2pcs SMI-1.2KW	1.2KW 230Vac@1pc SMI-1.2KW
Loading Peak Power (Back-up)	12KW (with 2pcs SMI-2KW)	7.2KW (with 2pcs SMI-1.2KW)	3.6KW (with 1pc SMI-1.2KW)
AC Output (On-grid)	4KW 230Vac@2pcs SMI-2KW	2.4KW 230Vac@2pcs SMI-1.2KW	1.2KW 230Vac@1pc SMI-1.2KW
Output Power Factor (Adjustable)		>0.99 Default, 0.8 Leading...0.8 Lagging...	
UPS Switch Time		<10mS	
Level of Harmonics Distortion		THD <3%	
Protection	Overload, Short Circuit, Battery Low Voltage, Battery Reverse Polarity, Lsland Protection		
Mechanical			
Net Weight	6KG	4.5KG	4.2KG
Dimensions	380*357*82 MM	232*301*90 MM	232*301*90 MM
Cooling		Natural Convection-No Fans	
Enclosure		IP65	
Environment			
Ambient Temperature		-25~65℃ (Derating from 45℃)	
Storage Temperature		-40℃~+85℃	
Humidity		100% Non-Condensing	
Warranty		3 Years	
Certification			
Safety		CE and UL	

- Support off-grid operation and battery mode operation without mains power

Microinverters

Microinverters
SMI Series 2PV input

- SMI-600W2E1P
- SMI-800W2E1P
- SMI-1KW2E1P
- SMI-1.2KW2E1P



Features:

- Solar panels output voltage <60VDC, which decreases the risk of an electrical fire.
- One panel would match one MPPT, increasing 5-15% power in production compared to string inverters.
- Keeping each panel to work individually avoids the impact of partial shadows on the entire solar system.
- Independently tracking each of the solar panels' production makes it easy to identify each solar panel's performance.
- Flexible application allows it to switch to off-grid mode to supply AC power to home devices.
- Lightweight and compact with plug-and-play connectors, it is easy to install.
- Monitor the running station anytime, anywhere using the app.

25 years design period

It can operate independently from the network

Easy to install

Microinverters

Model	SMI-600W2E1P	SMI-800W2E1P	SMI-1KW2E1P	SMI-1.2KW2E1P
PV Input Data				
Number of MPPT Trackers	2			
Suggested Modules Range	300W~400W	350W~450W	400W~450W	550W~600W
Max. Input DC Voltage	60V			
MPPT Operating Voltage Range	25~50V			
Startup Voltage	20V			
Overvoltage Class DC Port	II			
DC Port Backfeed Current	0 A			
Max. Input Current	2 × 18 A			
PV Array Requirement	2x1 Ungrouned array; No Additional PV side protection required			
AC Output Data				
Peak Output Power	1800W	2400W	3000W	3600W
Max. Continuous Output Power	600W	800W	1000W	1200W
Max. Continuous Output Current	2.7A(5A@120V)	3.6A(6.79A@120V)	4.55A (8.3A@120V)	5.45A (10A@120V)
Nominal Output Voltage	220/230Vac(187-278Vac) / 120V(60-144Vac)			
Nominal Frequency/Range	50HZ/60HZ			
Extended Frequency/Range	45~55Hz / 55~65Hz			
AC Short Circuit Current	7.5A (13.7A@120V)			
Max. Units Per Branch Circuit	3 PCS			
Overvoltage Class AC Port	III			
Power Factor(Adjustable)	>0.99 Default, 0.8 Leading...0.8 Lagging...			
Level of Harmonics Distortion	<3%			
AC Protection Required	AC Output Side Need 63A Circuit Breaker(on grid mode)			
Efficiency				
CEC Weighted Efficiency	95%			
Peak Inverter Efficiency	96.50%			
Static MPPT Efficiency	99%			
Night Time Power Consumption	< 50mW			
Mechanical Data				
Operating Ambient Temperature Range	-40 °C to +65 °C(-40 °F to +149 ° F)			
Storage Ambinet Temperature	-40 °C to +85 °C(-40 °F to +185° F)			
Relative Humidity Range	4% to 100% (condensing)			
Connector Type: DC	MC4			
Dimensions(W*H*D)	218*245*42mm			
Weight	4.5KG			
Cooling	Natural Convection-No Fans			
Approved for Wet Locations	Yes			
Enclosure Rating	IP67			
AC Cable Length(Customizable)	Standard 2.4m(customized available)			
Features				
Communication	WIFI			
Monitoring	Support Remote Web Page Monitoring and Mobile APP by TENTEK Cloud			
Compliance	Inmetro, UL1741, VDE4105, VDE0126, CE,EN50549...			

- Support off-grid operation and battery mode operation without mains power

New Energy

MICROINVERTER CONTROLLER