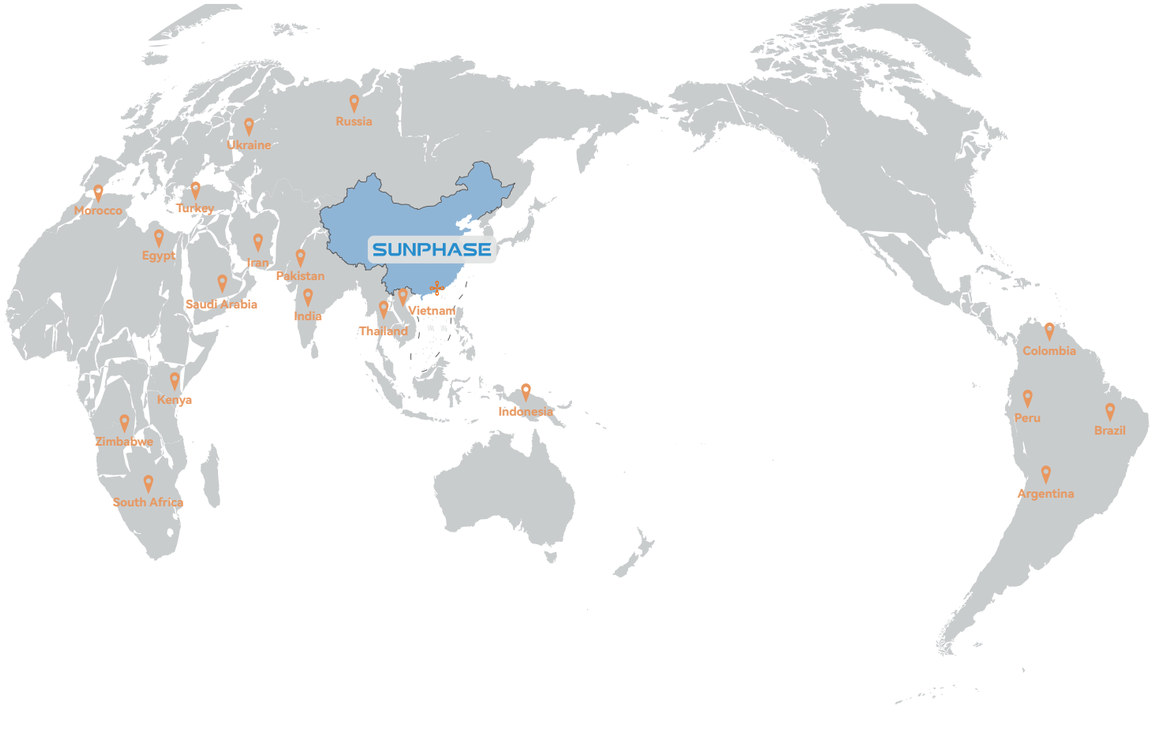

SUNPHASE

Solar Inverter Catalog

Shenzhen Sunphase Electric Co., Ltd.

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Variable Frequency Drive

General Purpose Drive

Dedicated Drive

Solar Pump Inverter

IP20 Solar Pump Inverter

IP65 Solar Pump Controller

Solar Inverter

Off Grid Solar Inverter

Hybrid Solar Inverter

Shenzhen Sunphase Electric Co., Ltd.

Company Profile

Shenzhen Sunphase Electric Co., Ltd. is a national high-tech enterprise specializing in the R&D, manufacturing, sales and services of variable frequency drive and solar inverter.
The product range includes general purpose VFD, dedicated drive, IP20 solar pump inverter, IP65 solar pump controller, off grid solar inverter and etc, the power ratings from 0.4kW~630kW and all product comply with CE certificates and IEC test reports. It has been widely used in applications such as machine tools, plastic, printing and packaging, textile, air compressor, elevator, wire drawing machine, solar pumping and etc.
Company primarily focus on global export business, has established partnership with brand channel partners and OEM strategic partners across global markets, with the trust and support of the partners and customers, its products have been exported to over 60 countries and regions.

Vision

To be a leading provider of VFD and solar inverter products and solutions

Mission

To deliver high-quality products and services that enhance the competitiveness of global customers

Values

Pragmatism · Striving · Collaboration · Win-Win

Honer Certificate

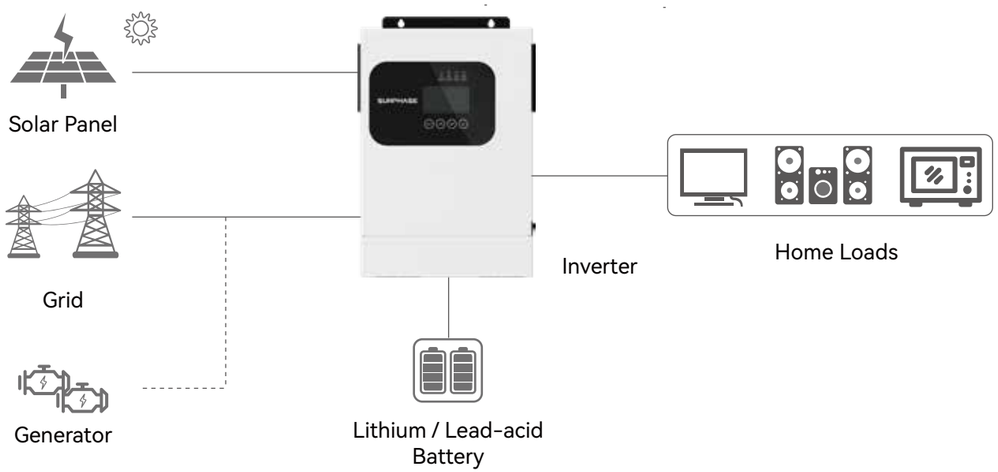
Sl100 Series Off Grid Solar Inverter

Sl100-12-1.2

Feature

- Built-in 50A Solar Charger
- PV Input Voltage Range 17-115V
- Pure Sine Wave
- LCD Display
- BMS Support Lithium/ Lead-acid Battery
- Lithium Battery Activation
- PF Power Factor 1.0
- Detachable Dust Cover

System Diagram



Specification

Model	Sl100-12-1.2
AC Input	
Rated Input Voltage (VAC)	208/220/230/240; L+N+PE
Voltage Range (VAC)	90-280±3(normal mode); 170-280±3(UPS mode)
Frequency (Hz)	50/60(Auto Adaptive)
AC Output	
Rated Capacity (kW)	1.2
Surage Power (kVA)	2.4
Voltage (VAC)	208/220/230/240
Power Factor (PF)	1
Frequency	50/60Hz±0.1%
Switch Time (ms)	10 (APP/UPS/GEN mode)
Wave Form	Pure Sine Wave
Overload Capacity(Battery Mode)	60s@102%-120% load; 10s@120%-200% load
Max. Efficiency (Battery Mode)	90%@12VDC
Parallel Quantity	NA
Charger (PV/AC)	
Solar Charger Type	MPPT
Max PV input Current/Input Power	18A / 800W
MPPT Range@Operating Votage (VDC)	17-115
Max PV Open Circuit Voltage(VDC)	115
Max PV Charge Current(A)	50
Max AC Charge Current(A)	50
Max. Charge Current (PV+AC)(A)	100
Battery	
Rated Voltage (VDC)	12
Floating Charge Voltage(VDC)	13.8
Overcharge Protection (VDC)	15
Battery Type	Lead-acid/Lithium
Interface	
HMI	LCD
Interface	RS232 / RS485 (optional) / CAN (optional)
Monitoring	NA
General Data	
Ingress Protection	IP21
Operating Temperature	-10℃-60℃
Relative Humidity	5%-95% (Non-condensing)
Storage Temperature	-15℃-60℃
Net Weight (kg)	3.5
Dimensions (H*W*D)	301*217*97mm
Max. Operating Altitude	4000m (Derating above 1000m)

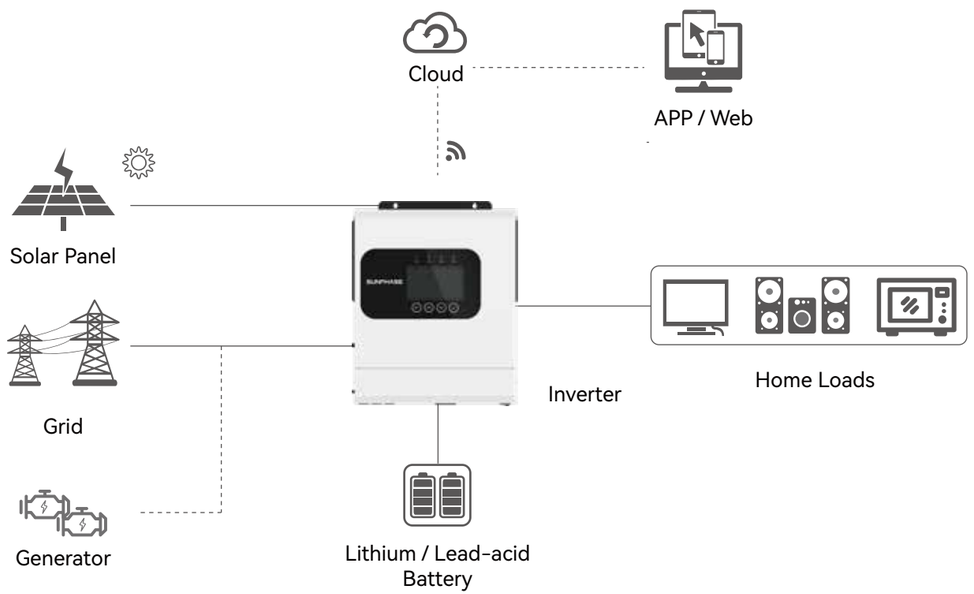
SI200 Series Off Grid Solar Inverter

SI200-24-3.6
SI200-48-6.5

Feature

- Built-in 100A Solar Charger
- Wide PV Input Voltage Range 40-500V
- Feed-in to Grid
- DUAL — Dual AC Output
- BMS — Support Lithium/ Lead-acid Battery
- Lithium Battery Activation
- 27A MAX PV Input
- WiFi Optional
- 9 Inverters in Parallel* (for 6.5kW)
- 5 Inch Display

System Diagram



Specification

Model	SI200-24-3.6	SI200-48-6.5
AC Input		
Rated Input Voltage (VAC)	208/220/230/240; L+N+PE	
Voltage Range (VAC)	90-280±3(normal mode); 170-280±3(UPS mode)	
Frequency (Hz)	50/60(Auto Adaptive)	
AC Output		
Rated Capacity (kW)	3.6	6.5
Surage Power (kVA)	7.2	12
Voltage (VAC)	208/220/230/240	
Power Factor (PF)	1	
Frequency	50/60Hz±0.1%	
Switch Time (ms)	10(APP/UPS mode)/20(GEN mode)	10(normal mode)/10(UPS mode)
Wave Form	Pure Sine Wave	
Overload Capacity(Battery Mode)	60s@102%-110% load; 10s@110%-130%load; 3s@130%-150% load; 0.2s@ > 150% load	1min@102%-110%load; 10s@ > 110%load
Max. Efficiency (Battery Mode)	92.7%@24VDC	94%@24VDC
Parallel Quantity	NA	
Charger (PV/AC)		
Solar Charger Type	MPPT	
Max PV input Current/Input Power	18A/5000W	27A/9000W
MPPT Range@Operating Votage (VDC)	40-450	60-450
Max PV Open Circuit Voltage(VDC)	500	
Max PV Charge Current(A)	100	120
Max AC Charge Current(A)	100	120
Max. Charge Current (PV+AC)(A)	100	120
Battery		
Rated Voltage (VDC)	24	48
Floating Charge Voltage(VDC)	27	54
Overcharge Protection (VDC)	30.5	61
Battery Type	Lithium and Lead-acid	
Interface		
HMI	LCD	
Interface	RS232/RS485/CAN	
Monitoring	Wifi(optional/built-in/external)	
General Data		
Ingress Protection	IP21	
Operating Temperature	-10℃-60℃	
Relative Humidity	5%-95% (Non-condensing)	
Storage Temperature	-15℃-60℃	
Net Weight (kg)	6.2	8.4
Dimensions (H*W*D)	420*284*94mm	410*336*110mm
Max. Operating Altitude	4000m (Derating above 1000m)	

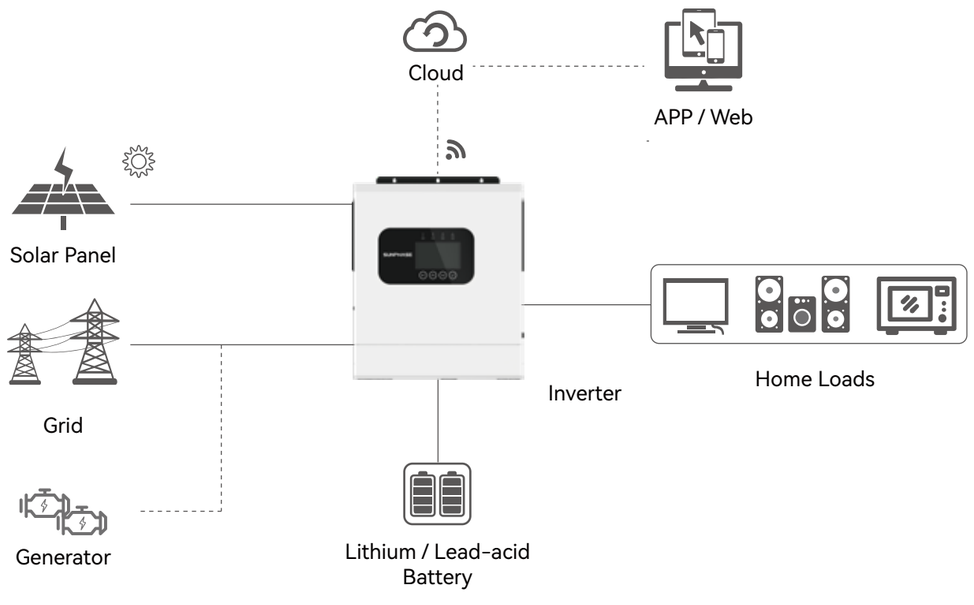
SI300 Series Off Grid Solar Inverter

SI300-48-12

Feature

- Built-in 160A Solar Charger
- Wide PV Input Voltage Range 60-500V
- Feed-in to Grid
- DUAL — Dual AC Output
- BMS — Support Lithium/ Lead-acid Battery
- Lithium Battery Activation
- 45 — 45A MAX PV Input
- WiFi Monitoring(optional)
- Dual MPPTs Input
- 5 Inch Display

System Diagram



Specification

Model	SI300-48-12
AC Input	
Rated Input Voltage (VAC)	220/230/240; L+N+PE
Voltage Range (VAC)	90-280±3(normal mode); 170-280±3(UPS mode)
Frequency (Hz)	50/60(Auto Adaptive)
AC Output	
Rated Capacity (kW)	12
Surage Power (kVA)	24
Voltage (VAC)	220/230/240
Power Factor (PF)	1
Frequency	50/60Hz±0.1%
Switch Time (ms)	10(APP/UPS mode)/20(GEN mode)
Wave Form	Pure Sine Wave
Overload Capacity(Battery Mode)	1min@102%-125%load 10s@ > 125%load
Max. Efficiency (Battery Mode)	94%@48VDC
Parallel Quantity	NA
Charger (PV/AC)	
Solar Charger Type	Dual MPPTs
Max PV input Current/Input Power	Using One MPPT: 27A/9kW Using Two MPPTs: 27A/Per MPPT, 15kW/Total
MPPT Range@Operating Votage (VDC)	60-450
Max PV Open Circuit Voltage(VDC)	500
Max PV Charge Current(A)	160
Max AC Charge Current(A)	160
Max. Charge Current (PV+AC)(A)	160
Battery	
Rated Voltage (VDC)	48
Floating Charge Voltage(VDC)	54
Overcharge Protection (VDC)	61
Battery Type	Lithium and Lead-acid
Interface	
HMI	LCD
Interface	RS232/RS485/CAN
Monitoring	WIFI(built-in)
General Data	
Ingress Protection	IP21
Operating Temperature	-10℃-60℃
Relative Humidity	5%-95% (Non-condensing)
Storage Temperature	-15℃-60℃
Net Weight (kg)	15
Dimensions (H*W*D)	495*425*120mm

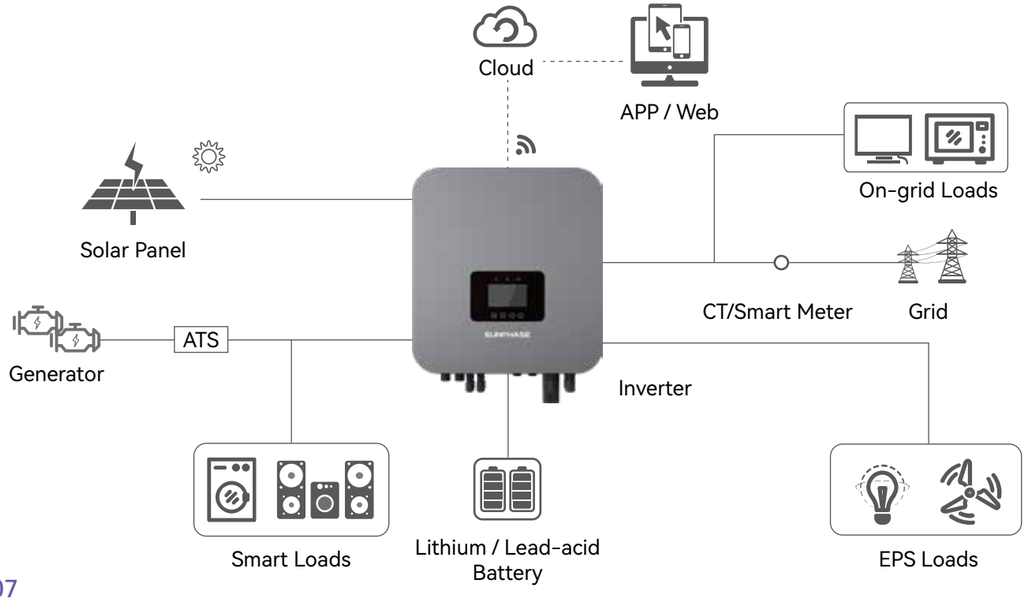
SI600 Series Hybrid Solar Inverter

SI600-48-3.0
SI600-48-3.68
SI600-48-4.0
SI600-48-5.0
SI600-48-6.0

Feature

- Wide MPPT range
- 19A MPPT input current per string
- 2 MPPT trackers
- IP66 protection level
- Type II SPD on DC/AC
- Support generator and smart loads
- 3 invertes in parallel
- Touch screen

System Diagram



Specification

Model	SI600-48-3.0	SI600-48-3.68	SI600-48-4.0	SI600-48-5.0	SI600-48-6.0
PV Input					
Max PV input Power (kW)	4.5	5.5	6.0	7.5	9.0
Max PV Open Circuit Voltage (V)	550				
MPPT Range@Operating Votage (VDC)	80-520				
Full Power MPPT Voltage Range (VDC)	117-500	145-500	158-500	197-500	250-500
Start-up Voltage (VDC)	100				
Max Input Current per MPPT (A)	19/19				
Max Short-circuit Current (A)	25/25				
MPPT Tracker/Strings	2/1				
Nominal Input Voltage (V)	360				
AC Output (On-Grid)					
Nominal Output Power to Grid (kW) Max. Apparent Power from/to Grid (kVA)	3	3.68	4	5	6
Grid Max. Apparent Current, Nominal Output Current & Max. Output Current (A)	13.1	16	17.4	21.8	26.1
Nominal Voltage/Frequency	230V(176V~280V), 50/60Hz, L+N+PE				
Adjustable Power Factor	0.8leading-0.8lagging				
THDI	<2%				
AC Output (Back Up)					
Nominal Output Power (kW) Max. Apparent Power(kVA)	3	3.68	4	5	6
Nominal/Max Output Current (A)	13.1	16	17.4	21.8	26.1
Nominal Voltage/Frequency	230V(176V~238V), 50/60Hz, L+N+PE				
Automatic Switch Time(ms)	<20				
THDu	<2%				
Overload Capacity	110%, 10s/150%, 5s/180%, 1s/200%, 100ms				
Efficiency					
Max/Europe/MPPT Efficiency	96.13%/95.50%/99.99%				
Max Battery Charge/Discharge Efficiency	94.60%				
Battery					
Recommended Battery Voltage/Range(V)	48/40-60				
Max. Charging Voltage(V)	60				
Max. Charging/Discharging Current(A)	80/80	80/80	80/80	120/120	120/120
Battery Type	Lithium and Lead Acid Battery				
Protection					
DC Switch, DC Reverse Polarity, Overvoltage, Sort Circuit, Ground Fault Monitoring, Insulation Resistance Monitoring, Peak/Valley Time Setting					
DC/AC Surge Protection	Type Ⅱ				
General Data					
HMI, BMS, EMS/Meter, Communication	Touch LCD & APP, RS485; CAN, RS485, WiFi/LAN				
Ingress Protection	IP66				
Relative Humidity	0-95%(Non-condensing)				
Operating Temperature Range	-25-60 ℃				
Max. Operating Altitude/Cooling	4000m(Derating above 3000m)/Natural				
Noise Emission	≤ 29dB				
Self-consumption(W)	<15				
Net Weight(kg)	23.5	23.5	23.5	24	24
Standard Compliance					
Safety Regulation, EMC	IEC/EN62109-1/-2, IEC/EN61000-6-1/-2/-3/-4				
Grid Regulation	IEC61727; IEC62116; Europe: EN50549; Belgium: C10/11; Spain: UNE217002; Italy: CEI 021; South Africa: NRS 097				