



BUSINESS BROCHURE

Solar Inverter

BRIZMONT ENERGY LIMITED

 +234 809 6130 197 / +234 806 4365 373

Mail: brizmontel@brizmontenergy.com / info@brizmontenergy.com

Add: No 7, Bujumbura Street, Wuse II, Abuja

Ver: 2024 2.2



Company Profile

Brizmont Energy Limited is a renewable energy company which engages in the production, sales, installation, and after-sale service of renewables and sustainable energy production.

VISION

To be a global industry leader in renewable energy and power, empowering communities and businesses with clean, reliable, and durable power.

MISSION

To provide innovative, sustainable, affordable, reliable, and ever- cleaner energy to Africa and the World at large for a sustainable future through advanced solar technology and energy storage systems.

WHY CHOOSE OUR RENEWABLE ENERGY PRODUCTS?

- Guaranteed uninterrupted Power Supply.
- Independent power supply.
- You completely avoid the rising electricity tariffs.
- Little or no maintenance is required on all our products.
- Our products provide you absolute freedom to disassemble and reinstall in any location of your choosing at little or zero cost.

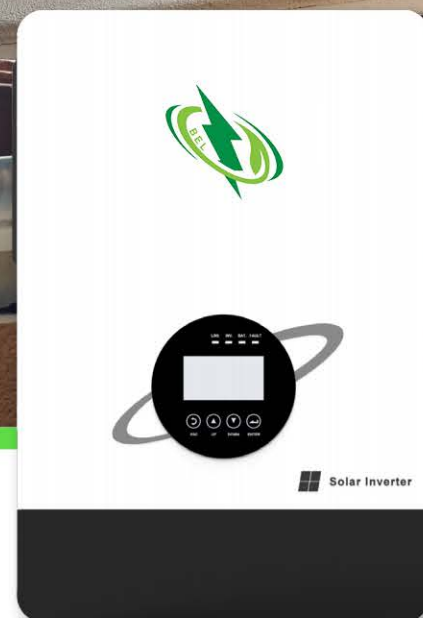
Complete Manufacturing System





OFF-GRID SOLAR INVERTER

1200VA / 1200W



FEATURES

- ◆ Rated power 1.2kW, power factor 1.
- ◆ MPPT ranges 20V~100V, 125Voc.
- ◆ High frequency inverter with small size and light weight.
- ◆ Pure sine wave AC output.
- ◆ Solar and utility grid can power loads at the same time.
- ◆ With RS485 for BMS communication.
- ◆ Configurable AGM FLD LIB battery types via LCD setting.

Technical Data

Model		GSM-1.2K
AC Input		
Rated Input Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE	
Voltage Range (VAC)	90~280V Settable (Appliance/Generator mode); 170~264V Settable (UPS mode)	
Frequency (Hz)	40~70Hz, Default	
Power Factor (PF)	≥0.95	
AC Output		
Rated Capacity (kW)	1.2KW	
Voltage (VAC)	208 / 220 / 230 / 240; L + N + PE	
Voltage Regulation	≤ ±5%	
Power Factor (PF)	1	
Frequency Range	Line Mode: Synchronized range; Battery Mode: 50/60Hz	
Transfer Time	Line Mode to Battery Mode 10ms(Typical); Line Mode to Battery Mode 10ms(Typical)	
Harmonic Distortion	≤3% (Linear Load); ≤5% (Non-linear Load PF=0.7)	
Overload Capacity (Battery Mode)	10min@102%~120%Load, 1min@120%~150%Load 10s@150%~200%Load, 10s@>200%Load	
Max. Efficiency (Battery Mode)	90.5%@12VDC	
Charger (PV / AC)		
Solar Charger Type	MPPT	
Max PV Input Current / Input Power	14A / 1000W	
MPPT Range@Operating Voltage (VDC)	20~100	
Max PV Open Circuit Voltage (VDC)	105	
Max PV Charge Current (A)	60	
Max AC Charge Current (A)	60	
Max. Charge Current (PV + AC) (A)	120	
Battery		
Numbers	1	
Charging Mode	Two stage/three stage charging	
Charging Current	2-120A Settable	
Interface		
HMI	LCD	
Interface	RS232	
Monitoring	WiFi (Optional)	
General Data		
Ingress Protection	IP21	
Operating Temperature	-10 °C ~ 50 °C	
Relative Humidity	20% ~ 95% (Non-condensing)	
Storage Temperature	-15 °C ~ 60 °C	
Net Weight (kg)	5	
Dimensions (W*H*D)	330*228*90mm	
Max. Operating Altitude	4000m (Derating above 1000m)	

Product specifications are subject to change without prior notice.



OFF-GRID SOLAR INVERTER

1500W ~ 2500W



FEATURES

- ◆ Lithium battery activation function.
- ◆ Compatible work with lifepo4 battery via RS485 (Except 12V models) .
- ◆ Pure sine wave; Power factor 1.0.
- ◆ PV Input Voltage 500Vdc Max; Built-in MPPT 60A/100A/120A.
- ◆ Capable to work without battery (Except 12V models) .
- ◆ Detachable dust cover for harsh environment.
- ◆ WiFi remote monitoring optional.
- ◆ Support multiple output priority: UTL,SOL,SBU, SUB.
- ◆ EQ function to optimize battery performance and extend lifecycle.

Technical Data

MODEL	GSM-1.5KW-12V		GSM-1.5KW-24V		GSM-2.5KW	
Capacity	1500VA/1500W		1500VA/1500W		2500VA/2500W	
Parallel Capability	No					
Lithium Battery activation	YES (By PV only)					
Lithium Battery Communication	NO		Yes (RS485)			
Input						
Nominal Voltage	230 Vac					
Acceptable Voltage Range	170 - 280 Vac (For Personal Computer) ; 90 - 280 Vac (For Home Appliances)					
Frequency	50/60 Hz (Auto Sensing)					
Output						
Nominal Voltage	220Vac / 230Vac ±5%					
Surge Power	3000VA				5000VA	
Frequency	50/60 Hz					
Waveform	Pure Sine Wave					
Transfer Time	10ms (For Personal Computers), 20ms (For Home Appliances)					
Peak Efficiency (PV to INV)	96%					
Peak Efficiency (BAT to INV)	93%					
Overload Protection	5s @>= 140% Load; 10s @100% ~ 140% Load					
Crest Factor	3 : 1					
Admissible Power Factor	0.6 ~ 1 (inductive or capacitive)					
Battery						
Battery Voltage	12VDC		24VDC		24VDC	
Floating charge Voltage	13.5VDC		27VDC		27VDC	
Overcharge Protection	16.5VDC		33VDC		33VDC	
Charging Method	CC / CV					
Solar Charge & AC Charge						
Solar Charger Type	MPPT					
Max.PV Array Power	2000W		2000W		3000W	
Max.PV Array Open Circuit Voltage	500VDC					
PV Array MPPT Voltage Range	30VDC~500VDC		60VDC~500VDC		60VDC~500VDC	
Max.Solar Input Current	15A					
Max.Solar Charge Current	100A		60A		100A	
Max.AC Charge Current	60A					
Max.Charge Current(PV+AC)	100A		60A		100A	
Physical						
Dimensions,DxWxH(mm)	330*278*98		358*295*100			
Package Dimensions,D xWx H(mm)	400*365*174		465*380*175			
Net Weight(Kg)	3.8		6		6.5	
Communication interface	RJ45 OR WIFI		RS232/RS485			
ENVIRONMENT						
Operating Temperature Range	- 10 °C to 50 °C					
Storage Temperature	- 15 °C to 50 °C					
Humidity	5% to 95% Relative Humidity (Non-condensing)					

Product specifications are subject to change without further notice.



OFF-GRID SOLAR INVERTER

3600VA / 3600W



FEATURES

- ◆ Wide range of accepted input voltages.
- ◆ Smart design and unique lithium battery wake-up function.
- ◆ Support WFI/GPRS remote monitoring, setting and upgrade.
- ◆ Built-in MPPT controller, PV array input voltage can be up to 500v.
- ◆ Flexible working modes with settable AC/Solar Input priority and output priority.
- ◆ Advanced battery management; supports lithium batteries and lead-acid batteries.
- ◆ Support mirco grid system with seperate generator input terminal, and can remote control generator.

Technical Data

MODEL	GSM-3.6K	GSM-B-3.6K	GSM-BT-3.6K
Rate Power	3600W/3600VA	3600W/3600VA	3600W/3600VA
Surge Power	Bypass 5700VA	Bypass 5700VA	Bypass 5700VA
Parallel Function	NO	NO	NO
BMS	NO	YES	YES
Touch Screen	NO	NO	YES
Input			
Main Topology	L+N+PE		
Nominal Voltage	230Vac, 50/60Hz±0.1%		
Power Factor	1		
Input Voltage Range	90~280Vac±3V(Normal mode) / 170~280Vac±3V(UPS mode)		
Frequency Range	40~70Hz±0.1% (Auto Sensing)		
Output			
Output Voltage	208Vac / 220Vac / 230Vac / 240Vac±5%, 50/60Hz±0.1%		
Transfer Time	10ms (For Personal Computers), 10ms (For Home Appliances)		
Overlord Capacity (Battery Mode)	1min@102%~110%Load; 10s@110%~130%Load; 3s@130%~150%Load; 0.2s@>150% Load		
Peak Efficiency (Battery Mode)	92.70%		
Standby Power	<60W		
Waveform	Pure sine wave		
Battery			
Battery Voltage	24VDC		
Start Voltage	23VDC		
Constant Charging Voltage (adjustable)	28.2VDC		
Overcharge Voltage	30.5VDC		
Float Charging Voltage (adjustable)	27VDC		
Charge			
Charging method	MPPT		
Maximum input current	18A		
Max. PV Array Power	5000W		
PV Array Voltage Range	500VDC		
Charging current	2-100A (adjustable)		
Max Charging Current (AC charger)	100A		
Max Charging Current (solar charger)	100A		
Tracking efficiency	99.5% max		
MPPT Range	40~430VDC		
Display			
LCD	Operating mode/load/input/output, etc		
Interface			
RS232	5PIN / Pitch2.0mm, Baud 2400		
Expansion Slots	2X5 PIN / Pitch2.54mm ; SNMP card、USB、Dry junction card、Lithium battery BMS communication card、WIFI (5KW)		
Parallel interface (optional)	/		
Environment			
Temperature and humidity	-10℃~50℃ (Derating when ambient temperature>40 ℃) ; 20%~95% (No condensation)		
Noise	≤50dB		
Storage temperature	-15~60℃		
Altitude	The altitude should not exceed 1000m, with a reduction of 1000m or more and a maximum of 4000m. Refer to IEC62040		
Physical			
Dimension D*W*H (mm)	595*390*215		
Net weight (KG)	7.4		
Gross weight (KG)	8.5		

Product specifications are subject to change without prior notice.



OFF-GRID SOLAR INVERTER

5000VA / 5000W



FEATURES

- ◆ Wide range of accepted input voltages.
- ◆ Smart design and unique lithium battery wake-up function.
- ◆ Support WFI/GPRS remote monitoring, setting and upgrade.
- ◆ Built-in MPPT controller, PV array input voltage can be up to 500v.
- ◆ Flexible working modes with settable AC/Solar Input priority and output priority.
- ◆ Advanced battery management; supports lithium batteries and lead-acid batteries.
- ◆ Support mirco grid system with seperate generator input terminal, and can remote control generator.

Technical Data

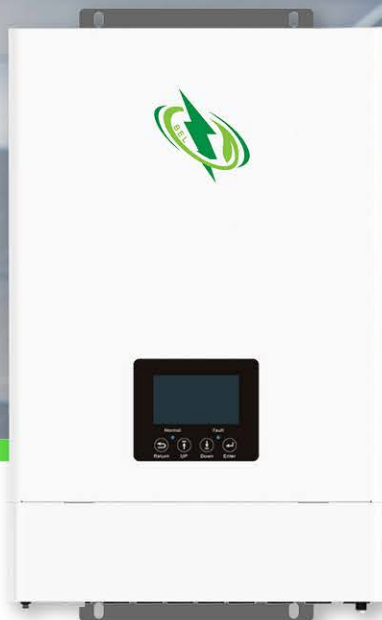
MODEL	GSMP-5K	GSMP-B-5K	GSMP-BT-5K
Rate Power	5000W/5000VA	5000W/5000VA	5000W/5000VA
Surge Power	Bypass 9200VA	Bypass 9200VA	Bypass 9200VA
Parallel Function	YES	YES	YES
BMS	NO	YES	YES
Touch Screen	NO	NO	YES
Input			
Main Topology	L+N+PE		
Nominal Voltage	230Vac, 50/60Hz±0.1%		
Power Factor	1		
Input Voltage Range	90~280Vac±3V(Normal mode) / 170~280Vac±3V(UPS mode)		
Frequency Range	40~70Hz±0.1% (Auto Sensing)		
Output			
Output Voltage	208Vac / 220Vac / 230Vac / 240Vac±5%, 50/60Hz±0.1%		
Transfer Time	10ms (For Personal Computers), 10ms (For Home Appliances)		
Overlord Capacity (Battery Mode)	1min@102%~110%Load; 10s@110%~130%Load; 3s@130%~150%Load; 0.2s@>150% Load		
Peak Efficiency (Battery Mode)	94.00%		
Standby Power	<60W		
Waveform	Pure sine wave		
Battery			
Battery Voltage	48VDC		
Start Voltage	46VDC		
Constant Charging Voltage (adjustable)	56.4VDC		
Overcharge Voltage	60.4VDC		
Float Charging Voltage (adjustable)	54VDC		
Charge			
Charging method	MPPT		
Maximum input current	18A		
Max. PV Array Power	6000W		
PV Array Voltage Range	120V-500VDC		
Charging current	2-80A(adjustable)		
Max Charging Current (AC charger)	80A		
Max Charging Current (solar charger)	80A		
Tracking efficiency	99.5% max		
MPPT Range	120~430VDC		
Display			
LCD	Operating mode/load/input/output, etc		
Interface			
RS232	5PIN / Pitch2.0mm, Baud 2400		
Expansion Slots	2X5 PIN / Pitch2.54mm; SNMP card、USB、Dry junction card、Lithium battery BMS communication card、WIFI (5KW)		
Parallel interface (optional)	DB9, Parallel card		
Environment			
Temperature and humidity	-10℃~50℃ (Derating when ambient temperature>40 ℃) ;20%~95% (No condensation)		
Noise	≤50dB		
Storage temperature	-15~60℃		
Altitude	The altitude should not exceed 1000m, with a reduction of 1000m or more and a maximum of 4000m. Refer to IEC62040		
Physical			
Dimension D*W*H (mm)	595*390*215		
Net weight (KG)	8.5		
Gross weight (KG)	9.7		

Product specifications are subject to change without prior notice.



HYBRID SOLAR INVERTER

5000W ~ 6000W



FEATURES

- ◆ Pure sine wave solar inverter.
- ◆ Output power factor 0.99.
- ◆ Parallel operation up to 10 units.
- ◆ High PV input voltage range.
- ◆ Battery independent design.
- ◆ Built-in 100A MPPT solar charger and anti-dusk kit for harsh environment.
- ◆ Battery equalization function to optimize battery performance and extend lifecycle.

Technical Data

INPUT (PV DC)		MGSP 5000W		MGSP 6000W	
Max. PV array power(W)		8000 (4000/4000)		8000 (4000/4000)	
Rated PV input voltage(V)				320	
Number of independent MPPT inputs				2	
PV input voltage range(V)				100~480	
MPPT voltage range(V)				120~385	
Start-up voltage(V)				100	
Max. PV input current per MPPT(A)				17/17	
Max. PV short-circuit current input per MPPT(A)				25/25	
Battery					
Compatible battery type		Lithium-ion/Lead-Acid			
Rated battery voltage(V)		48			
Battery voltage range(V)		38.4~60			
Max. charging/discharging current(A)		110		140	
Max. discharging/discharging power(W)		5000		6000	
Recomand capacity of battery per inverter		>200AH		>200AH	
Force wake up battery from PV function				YES	
Force wake up battery from Grid function				YES	
Grid					
Rated AC voltage(V)		230			
Rated AC frequency(Hz)		50/60			
Rated AC output current(A)		22		26.5	
Rated AC output power(W)		5000		6000	
Max. AC input current(A)		35		39.5	
Max. AC input power(W)		9000		9000	
PF		0.99			
THDI		<5%			
Rated AC current of BYPASS relays(A)		40			
UPS					
Rated output power(W)		5000		6000	
Rated output voltage(V)		230			
Rated output current(A)		22		26.5	
Rated output frequency(Hz)		50/60			
Surge power, duration		2Pn, <2S			
Switching time		<15ms@Single/ <30ms@Parallel			
Wave form		Sine wave			
THDV		0.03			
Efficiency					
Max. MPPT efficiency		0.99			
Max. efficiency		0.93			
EU efficiency		/			
Max. charging efficiency		0.93			
Max. discharging efficiency		0.93			
Protection					
Over current/voltage protection		YES			
AC Short-circuit current protection		YES			
Grid monitoring		YES			
AC Surge protection Type III		YES			
Battery reverse polarity protection		YES			
General					
Dimensions(W*H*D)		303*505*135mm/11.9*19.9*5.3inch			
Weight		14.5kg/32lbs			
Ingress protection rating		IP20			
Operating environment temperature range		0~50°C			
Storage temperature range		-15~60°C			
Relative humidity		5%~95%			
Display & Communication interface		LCD+LED, RS485/Wi-Fi/CAN			
Warranty		2 Years			
Cooling method		FAN			
Topology		Transformer-less			
Altitude		<2000m			
Noise emission(typical)		<50dB			
Standards & Certification		IEC 62109-1, IEC 62109-2, IEC 61000			

Product specifications are subject to change without prior notice.



HYBRID SOLAR INVERTER

6000VA / 6000W (IP66)



FEATURES

- ◆ Smart Load Control.
- ◆ Suitable for grid-tied and off-grid applications.
- ◆ Supports multiple energy management strategies.
- ◆ A variety of protection functions, safe and reliable
- ◆ With the integrated energy management system(EMS)
- ◆ With two maximum power point trackers (MPPT), the conversion efficiency is higher.
- ◆ Advanced battery management system, compatible with li-ion and lead-acid batteries.

Technical Data

Model		GSHN6KS
PV INPUT		
Max. PV Input Power		9000 Wp
Max. PV Input Voltage		d.c. 550V
MPPT Voltage Range		d.c. 80-520V
Max. PV Input Current		d.c. 2*19A
Min. Start-up Voltage		d.c. 100V
Isc PV (Absolute Max.)		d.c. 2*25A
BATTERY INPUT		
Rated Battery Voltage		d.c. 48V
Battery Voltage Range		d.c. 40 ~ 60V
Max. Battery Charge Current		d.c. 120A
Max. Battery Discharge Current		d.c. 120A
Battery Type		Li-ion / Lead-Acid
GRID OUTPUT		
Rated Grid Voltage		a.c. 230V
Rated Grid Frequency		50Hz / 60Hz
Rated Grid Output Active Power		6000 W
Rated Grid Output Apparent Power		6000 VA
Max. Grid Output Apparent Power		6000 VA
Max. Grid Output Current		a.c. 26.1A
GENERATOR INPUT		
Rated Voltage		a.c. 230V
Rated Frequency		50Hz / 60Hz
Generator Input Voltage Range		a.c. 176-280 Vac
Rated Input Apparent Power		6000 VA
Max. Input Apparent Power		6000 VA
Max. Input Current		a.c. 26.1A
EPS OUTPUT		
Rated Output Frequency		50Hz / 60Hz
Rated Output Apparent Power		6000 VA
Max. Output Apparent Power		6000 VA
Max. Output Current		a.c. 26.1A
GENERAL INFO		
Adjustable Cos (Φ)		0.8ind...0.8cap
Operating Temperature Range		-25°C...60°C
Inverter Topology		Non-Isolated
Enclosure		IP66
Protection Class		I
Overvoltage Category		II (PV), III (MAINS)
Weight (kg)		24
Size (mm)		485*527*230

Product specifications are subject to change without prior notice.



OFF-GRID SOLAR INVERTER

6200VA / 6200W



FEATURES

- ◆ Compatible work with lifepo4 battery.
- ◆ Parallel operation up to 12 units in 1 phase or 3 phase.
- ◆ Direct Plug WIFI Dongle Supported-No additional cables required, just plug and play.
- ◆ Pure sine wave; Power factor 1.0.
- ◆ PV input 500Vdc Max; Built-in MPPT 120A.
- ◆ Capable to work without battery.
- ◆ Detachable dust cover for harsh environment.
- ◆ WiFi remote monitoring optional.
- ◆ Support multiple output priority:UTL,SOL,SBU,SUB.
- ◆ EQ function to optimize battery performance and extend lifecycle.

Technical Data

MODEL	GSMP-6.2KW
Capacity	6200VA/6200W
Parallel Capability	YES, 12 Units
Lithium Battery activation	YES (By PV or Utility)
Lithium Battery Communication	Yes (RS485)
Input	
Nominal Voltage	230 Vac
Acceptable Voltage Range	170 - 280 Vac (For Personal Computer); 90 - 280 Vac (For Home Appliances)
Frequency	50/60 Hz (Auto Sensing)
Output	
Nominal Voltage	220Vac / 230Vac $\pm$ 5%
Surge Power	12400VA
Frequency	50/60 Hz
Waveform	Pure Sine Wave
Transfer Time	10ms (For Personal Computers) , 20ms (For Home Appliances)
Peak Efficiency	94%
Overload Protection	5s @ $\geq$ 140% Load; 10s @100% ~ 140% Load
Crest Factor	3:1
Admissible Power Factor	0.6 ~ 1 (inductive or capacitive)
Battery	
Battery Voltage	48VDC
Floating charge Voltage	54VDC
Overcharge Protection	63VDC
Charging Method	CC / CV
Solar Charge & AC Charge	
Solar Charger Type	MPPT
Max.PV Array Power	6500W
Max.PV Array Open Circuit Voltage	500VDC
PV Array MPPT Voltage Range	60VDC~500VDC
Max.Solar Input Current	27A
Max.Solar Charge Current	120A
Max.AC Charge Current	80A
Max.Charge Current	120A
Physical	
Dimensions,DxWxH(mm)	450*300*130
Package Dimensions,D xWx H(mm)	540*390*210
Net Weight(Kg)	12
Communication interface	RS232/RS485
ENVIRONMENT	
Operating Temperature Range	- 10 $^{\circ}$ C to 50 $^{\circ}$ C
Storage Temperature	- 15 $^{\circ}$ C to 50 $^{\circ}$ C
Humidity	5% to 95% Relative Humidity (Non-condensing)

Product specifications are subject to change without further notice.



OFF-GRID SOLAR INVERTER

6500VA / 6500W (Dual Output)



FEATURES

- ◆ Dual output function, flexible backup.
- ◆ Wide range of accepted input voltages.
- ◆ Smart design and unique lithium battery wake-up function.
- ◆ Support WFI/GPRS remote monitoring, setting and upgrade.
- ◆ Built-in MPPT controller, PV array input voltage can be up to 500V.
- ◆ Flexible working modes with settable AC/Solar Input priority and output priority.
- ◆ Advanced battery management; supports lithium batteries and lead-acid batteries.
- ◆ Support micro grid system with separate generator input terminal, and can remote control generator.

Technical Data

Model	GSM-B-TWIN 6.5KW
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)	6.5
Surge Power (kVA)	12
Voltage (VAC)	208 / 220 / 230 / 240
Power Factor (PF)	1
Frequency	50/60Hz±0.1%
Switch Time (ms)	10 (normal mode) / 10 (UPS mode)
Wave Form	Pure Sine Wave
Overload Capacity (Battery Mode)	10min@102%~120%Load, 1min@120%~150%Load 10S@150%~200%Load, 5s@ > 200%Load
Max. Efficiency (Battery Mode)	93%@48VDC
Charger (PV / AC)	
Solar Charger Type	MPPT
Max PV Input Current / Input Power	28A / 9000W
MPPT Range@Operating Voltage (VDC)	60~450
Max PV Open Circuit Voltage (VDC)	500
Max PV Charge Current (A)	120
Max AC Charge Current (A)	120
Max. Charge Current (PV + AC) (A)	120
Battery	
Rated Voltage (VDC)	48
Floating Charge Voltage (VDC)	54
Overcharge Protection (VDC)	61
Battery Type	Lithium and Lead-acid
Interface	
HMI	LCD
Interface	RS485 / USB / Dry Contact / CT / Meter
Monitoring	WiFi (Optional)
General Data	
Ingress Protection	IP21
Operating Temperature	-10 °C ~ 50 °C
Relative Humidity	5% ~ 95% (Non-condensing)
Storage Temperature	-15 °C ~ 60 °C
Net Weight (kg)	10
Dimensions (W*H*D)	595*390*215 mm
Max. Operating Altitude	4000m (Derating above 1000m)

Product specifications are subject to change without prior notice.



OFF-GRID SOLAR INVERTER

8500W ~ 11000W



FEATURES

- ◆ Dual AC output; Built-in 2 MPPT; Parallel max up to 6 units.
- ◆ Lithium battery activation function by PV or Utility.
- ◆ Compatible work with LiFePO4 battery via RS485.
- ◆ Pure Sine Wave; Power factor 1.0.
- ◆ PV Input 500Vdc Max; Built-in MPPT 140A/160A.
- ◆ Capable to work without battery.
- ◆ Detachable dust cover for harsh environment.
- ◆ Wifi remote monitoring optional.
- ◆ Support multiple output priority:UTL,SOL,SBU,SUB.
- ◆ EQ function to optimize battery performance and extend lifecycle.

Technical Data

MODEL	GSMP-8.5KW	GSMP-11KW
Capacity	8.5KVA/8.5KW	11KVA/11KW
Maximum PV input Power	10KW	11KW
Twin AC Output Function	YES	YES
Maximum Main Output Power	8.5KVA/8.5KW	11KVA/11KW
Maximum Second Output Power	5KVA/5KW	5KVA/5KW
Maximum Total Output Power	8.5KVA/8.5KW	11KVA/11KW
Parallel Capability	YES, 6 Units	YES, 6 Units
Lithium Battery Communication	Yes (RS485)	Yes (RS485)
Lithium Battery Activation	Yes, (By PV or Utility)	Yes, (By PV or Utility)
Input		
Nominal Voltage	230 Vac	
Acceptable Voltage Range	170 - 280 Vac (For Personal Computer); 90 - 280 Vac (For Home Appliances)	
Frequency	50/60 Hz (Auto Sensing)	
Output		
Nominal Voltage	220Vac / 230Vac / 240Vac	
Surge Power	17000VA	22000VA
Frequency	50/60 Hz	
Waveform	Pure Sine Wave	
Transfer Time	10ms (For Personal Computers) , 20ms (For Home Appliances)	
Peak Efficiency (PV to INV)	96%	
Peak Efficiency (BAT to INV)	93%	
Overload Protection	5s @ >= 140% Load; 10s @100% ~ 140% Load	
Crest Factor	3:1	
Admissible Power Factor	0.6 ~ 1 (inductive or capacitive)	
Grid-tie Operation	NO	
Battery		
Battery Voltage	48VDC	
Maximum Discharge Current	180A	220A
Floating charge Voltage	54VDC	
Overcharge Protection	63VDC	
Charging Method	CC / CV	
Solar Charge & AC Charge		
Solar Charger Type	MPPT	
Max.PV Array Power	5000W*2	
Max.PV Array Open Circuit Voltage	500VDC	
PV Array MPPT Voltage Range	60VDC~500VDC	
Max.Solar Input Current	18A*2	
Max.Solar Charge Current	140A	160A
Max.AC Charge Current	120A	120A
Max.Charge Current(PV+AC)	140A	160A
Physical		
Dimensions,DxWxH(mm)	540*415*122	540*415*122
Net Weight(Kgs)	14.5	15.5
Communication interface	RS232/RS485/Dry-contact	
LCD	YES	
ENVIRONMENT		
Operating Temperature Range	- 10 °C to 50 °C	
Storage Temperature	- 15 °C to 50 °C	
Humidity	5% to 95% Relative Humidity (Non-condensing)	

Product specifications are subject to change without further notice.



GSMI SERIES MICRO SOLAR INVERTER

300W ~ 350W ~ 400W



FEATURES

- ◆ IP65~IP67 waterproof level.
- ◆ Integrated AC bus cable, Ready-To-Use.
- ◆ WIFI communication and cloud monitoring.
- ◆ Output voltage is automatically recognized.
- ◆ Compatible with a variety of conventional solar panels.
- ◆ Unique reverse transmission technology gives priority to the load.
- ◆ Excellent low light lock function (APL) and higher conversion efficiency.

Technical Data

Model	GSMI-300W		GSMI-350W		GSMI-400W	
Input Data (DC, PV)						
Number of Input MC4 Connector	1 sets					
MPPT Voltage Range	16V-48V					
Operation Voltage Range	20V-50V					
Maximum Input Voltage	50V					
Startup Voltage	22V					
Maximum Input Power	300W		350W		400W	
Maximum input Current	12A		14A		16A	
Output Data(AC)						
Single-Phase Grid Type	120V&230V					
Rated Output Power	300W		350W		400W	
Maximum Output Power	300W		350W		400W	
Nominal Output Current	@120VAC:2.5A/@230VAC:1.3A @120VAC:2.9A/@230VAC:1.5A @120VAC:3.3A/@230VAC:1.7A					
Nominal Output Voltage	120VAC /230VAC					
Default Output Voltage Range	@120VAC:80V-160V /@230VAC:180V-270V					
Nominal Output Frequency	50Hz / 60Hz					
Default Output Frequency Range	@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz					
Power Factor	>0.99%					
Total Harmonic Distortion	THD <5%					
Maximum Units per Branch	@120VAC:5units /@230VAC: 10units					
Efficiency						
Peak Efficiency	95%					
Nominal MPPT Efficiency	99.5%					
Night Power Consumption	<1w					
Mechanical Data						
Operating Ambient Temperature Range	-40°C to +65°C					
Storage Temperature Range	-40°C to +85°C					
Dimensions(W*H *D)	240mmx185mm x 45mm (not include connectors and cable)					
Weight	1.6kg					
Max Current of AC Bus Cable	20A					
Waterproof Grade	IP66					
Cooling Mode	Natural Convection- No Fans					
Other Features						
Communication	WIFI(Cloud monitoring)					
Transformer Design	High Frequency Transformers,Galvanically Isolated					
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.					
Protection Functions	Isolated Island Protection,Voltage Protection,Frequency Protection, Temperature Protection,Current Protection, etc.					
Design Compliance	EN IEC61000-3-2:2019+A1:2021,EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021,EN IEC55014-2:2021.					

Product specifications are subject to change without prior notice.



GSMI SERIES MICRO SOLAR INVERTER

600W ~ 700W ~ 800W



FEATURES

- ◆ IP65~IP67 waterproof level.
- ◆ Integrated AC bus cable, Ready-To-Use.
- ◆ WIFI communication and cloud monitoring.
- ◆ Output voltage is automatically recognized.
- ◆ Compatible with a variety of conventional solar panels.
- ◆ Unique reverse transmission technology gives priority to the load.
- ◆ Excellent low light lock function (APL) and higher conversion efficiency.

Technical Data

Model	GSMI-600W		GSMI-700W	GSMI-800W
Input Data (DC, PV)				
Number of Input MC4 Connector	2 sets			
MPPT Voltage Range	22V-48V			
Operation Voltage Range	18V-60V			
Maximum Input Voltage	60V			
Startup Voltage	22V			
Maximum Input Power	600W	700W	800W	
Maximum input Current	12A*2	14A*2	16A*2	
Output Data(AC)				
Single-Phase Grid Type	120V&230V			
Rated Output Power	600W	700W	800W	
Maximum Output Power	600W	700W	800W	
Nominal Output Current	@120VAC:5A/@230VAC:2.6A @120VAC:5.8A/@230VAC:3A @120VAC:6.6A/@230VAC:3.4A			
Nominal Output Voltage	120VAC /230VAC			
Default Output Voltage Range	@120VAC:80V-160V /@230VAC:180V-270V			
Nominal Output Frequency	50Hz / 60Hz			
Default Output Frequency Range	@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz			
Power Factor	>0.99%			
Total Harmonic Distortion	THD <5%			
Maximum Units per Branch	@120VAC:3units /@230VAC: 6units			
Efficiency				
Peak Efficiency	95%			
Nominal MPPT Efficiency	99.5%			
Night Power Consumption	<1w			
Mechanical Data				
Operating Ambient Temperature Range	-40°C to +65°C			
Storage Temperature Range	-40°C to +85°C			
Dimensions(W*H *D)	310mmx185mm x 45mm (not include connectors and cable)			
Weight	2kg			
Max Current of AC Bus Cable	20A			
Waterproof Grade	IP66			
Cooling Mode	Natural Convection- No Fans			
Other Features				
Communication	WIFI(Cloud monitoring)			
Transformer Design	High Frequency Transformers,Galvanically Isolated			
Integrated Ground	Equipment ground is provided by the PE in the AC cable. No additional ground is required.			
Protection Functions	Isolated Island Protection,Voltage Protection,Frequency Protection, Temperature Protection,Current Protection, etc.			
Design Compliance	EN IEC61000-3-2:2019+A1:2021,EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021,EN IEC55014-2:2021.			

Product specifications are subject to change without prior notice.



GSMI SERIES MICRO SOLAR INVERTER

1200W ~ 1400W ~ 1600W ~ 2000W

FEATURES

- ◆ IP65~IP67 waterproof level.
- ◆ Integrated AC bus cable, Ready-To-Use.
- ◆ WIFI communication and cloud monitoring.
- ◆ Output voltage is automatically recognized.
- ◆ Compatible with a variety of conventional solar panels.
- ◆ Unique reverse transmission technology gives priority to the load.
- ◆ Excellent low light lock function (APL) and higher conversion efficiency.



Technical Data

Model	GSMI-1200W		GSMI-1400W		GSMI-1600W		GSMI-2000W	
Input Data (DC, PV)								
Number of Input MC4 Connector	4 sets							
MPPT Voltage Range	22V-48V							
Operation Voltage Range	18V-60V							
Maximum Input Voltage	60V							
Startup Voltage	22V							
Maximum Input Power	1200W		1400W		1600W		2000W	
Maximum input Current	12A*4		14A*4		15A*4		16A*4	
Output Data(AC)								
Single-Phase Grid Type	120V&230V							
Rated Output Power	1200W		1400W		1600W		2000W	
Maximum Output Power	1200W		1400W		1600W		2000W	
Nominal Output Current	@120VAC:10A/@230VAC:5.2A @120VAC:13.3A/@230VAC:6.9A				@120VAC:11.6A/@230VAC:6A @120VAC:16.6/@230VAC:8.6A			
Nominal Output Voltage	120VAC /230VAC							
Default Output Voltage Range	@120VAC:80V-160V /@230VAC:180V-270V							
Nominal Output Frequency	50Hz / 60Hz							
Default Output Frequency Range	@50Hz:48Hz-51Hz/@60Hz:58Hz-61Hz							
Power Factor	>0.99%							
Total Harmonic Distortion	THD <5%							
Maximum Units per Branch	1200W@120VAC:2units /@230VAC:3units(AC cable 3*1.5mm²) 1400W/1600@120VAC:1units /@230VAC:2units(AC cable 3*1.5mm²) 2000W@120VAC:1units /@230VAC:1units(AC cable 3*1.5mm²)							
Efficiency								
Peak Efficiency	95%							
Nominal MPPT Efficiency	99.5%							
Night Power Consumption	<1w							
Mechanical Data								
Operating Ambient Temperature Range	-40°C to +65°C							
Storage Temperature Range	-40°C to +85°C							
Dimensions(W*H *D)	255mmx340mm x 45mm (not include connectors and cable)							
Weight	3.65kg							
Max Current of AC Bus Cable	20A							
Waterproof Grade	IP66							
Cooling Mode	Natural Convection- No Fans							
Other Features								
Communication	WIFI(Cloud monitoring)							
Transformer Design	High Frequency Transformers,Galvanically Isolated							
Integrated Ground	Equipment ground is provided by the PE in the AC cable.No additional ground is required.							
Protection Functions	Isolated Island Protection,Voltage Protection,Frequency Protection, Temperature Protection,Current Protection, etc.							
Design Compliance	EN IEC61000-3-2:2019+A1:2021,EN 61000-3-3:2013+A1:2019+A2:2021, EN IEC55014-2:2021,EN IEC55014-2:2021.							

Product specifications are subject to change without prior notice.



ALL IN ONE SOLAR SYSTEM

3000W ~ 5000W



FEATURES

- ◆ High energy density, Long cycle life
- ◆ Certain energies are high, Good safety performance.
- ◆ Rapid charge and discharge, Low self-discharge rate.
- ◆ Parallel connection up to 15, Large capacity, long life.
- ◆ Can be wall hanging, can be stacked.
- ◆ Excellent high and low temperature performance

Technical Data

MODEL	GSWT-3KW		GSWT-5KW
Rated Power	3000VA/3000W		5000VA/5000W
INPUT			
Voltage	230 VAc		
Selectable Voltage Range	170-280 VAC (For Personal Computers) ; 90-280 VAC (For Home Appliances)		
Frequency Range	50 Hz/60 Hz (Auto sensing)		
OUTPUT			
ACVoltage Regulation (Batt. Mode)	230VAC±5%		
Surge Power	6000VA	10000VA	
Efficiency (Peak)	up to 93.5%		
Transfer Time	10 ms (For Personal Computers) ; 20 ms(For Home Appliances)		
Waveform	Pure sine wave		
BATTERY			
Battery Voltage	24VDC	48VDC	
Floating Charge Voltage	27VDC	54VDC	
Overcharge Protection	33VDC	63VDC	
SOLAR CHARGER & AC CHARGER			
Maximum PV Array Open Circuit Voltage	150VDC	500VDC	
Maximum PV Array Power	2500W	5000W	
MPPT Range @ Operating Voltage	40~150VDC	120~450VDC	
Maximum Solar Charge Current	100A	100A	
Maximum AC Charge Current	80A	80A	
Maximum Charge Current	100A	100A	
PHYSICAL			
Dimension, D x W X H (mm)	860*515*150		
Net Weight (kgs)	60		
Communication Interface	USB/RS232		
ENVIRONMENT			
Humidity	5% to 95% Relative Humidity (Non-condensing)		
Operating Temperature	-10°C to 50°C		
Storage Temperature	-15°C to 60°C		
LITHIUM BATTERY			
Batteries materials	Lithium iron phosphate		
Series parallel mode (s series,P parallel)	16S1P		
Nominal voltage	51.2V		
Nominal capacity	100Ah		
Color	Optional		
Charging way	CP/VP		
Charging current	0.2C(standard)		
Maximum charging current	Max 0.5C@25°C		
Charge cut-off voltage	58.4V/CELL		
Discharge way	CP/VP		
Discharge current	1C		
Maximum discharge current	Max 1C@25°C		
Discharge cut-off voltage	44.8V		
Display	LCD		
Charging operating temperature	Charging0~+50°C		
Discharge operating temperature	Discharge-20~+55°C		

Product specifications are subject to change without prior notice.



PORTABLE POWER STATION

600W / 537.6WH



FEATURES

- ◆ Lifecycle > 4000 times, with longer Service Life.
- ◆ Three charging modes: it can be charged by AC electricity, Py Module, and Automobile Cigarette lighter.
- ◆ Intelligent Battery Management System (BMS), multiple safety protection for over current, over voltage, over charger, over discharge, over temperature, short circuit etc.
- ◆ Rich types of interfaces, more convenient for charging and discharging.

Technical Data

Model	600L
Capacity	537.6WH
AC Voltage	220V
Frequency	50HZ
Rated Power	600w
Peak Power	1200w
THD	≤3%
Battery Cell	LiFePO4 (32700 3.2V 6AH)
Working Temp.	Discharging Temp. -10~40°C / Charging Temp. 0~40°C
Charging Voltage	11-30v
Wall Charging Power	Standard 126 (Optional 300w)
DC Charging Power	MAX30V 200W
Charging Method	
Wall Charging Time	Standard charge 6-7h / Quick charge 2h 80%(Optional)
Solar Charging Time	7-8h 80% (max 200w)
Generator Charging Time	Standard charge 6-7h / Quick charge 2h 80%(Optional)
Car Charging Time	7-8h 80%(12V 8A)
Control Panel	
Main Switch	YES
AC	600w*2
AC-2(30A)	/
AC Power Switch	YES
USB-A	5V 2.4A(12w) *2
USB-A(Quick Charge)	12V 1.5A(18wmax) *1
USB-C	100W*1
Cigarette Lighter	120W*1 (12V 10A)
DC	12V 5A*2
Wireless Charging	Optional as cost adder
AC Charging Port	300W*1
Solar Charging Port	200W*1
Parallel Port	/
LCD Screen	Black& White Screen: 1. Remaining power (1% step) 2. output power 3. input power 4. Warning 5. defect code 6. working status icon
Bidirectional inverter convert technology (AC-DC)	Quick charge yes / Slow charge no
MPPT	Including
Illuminating Light	Yes
Overload Protection	/
12V DC Charge Switch	yes
Function	
Parallel	/
UPS	/
Power the car (with adaptor)	YES
LCD Display Accuracy	1%
Fault code on LCD	YES
Dimension and Pacakges	
Unit Dimension	320*230*260mm
Package Dimension	430*265*300mm
Unit Weight	8KG
Package Weight	9.5KG
40HQ Loading QTY	2052
Accessories	Adaptor, Manual, Car charger wire
Certification	UN38.3, CE, EMC
Life Cycle	4000 Cycle

Product specifications are subject to change without prior notice.