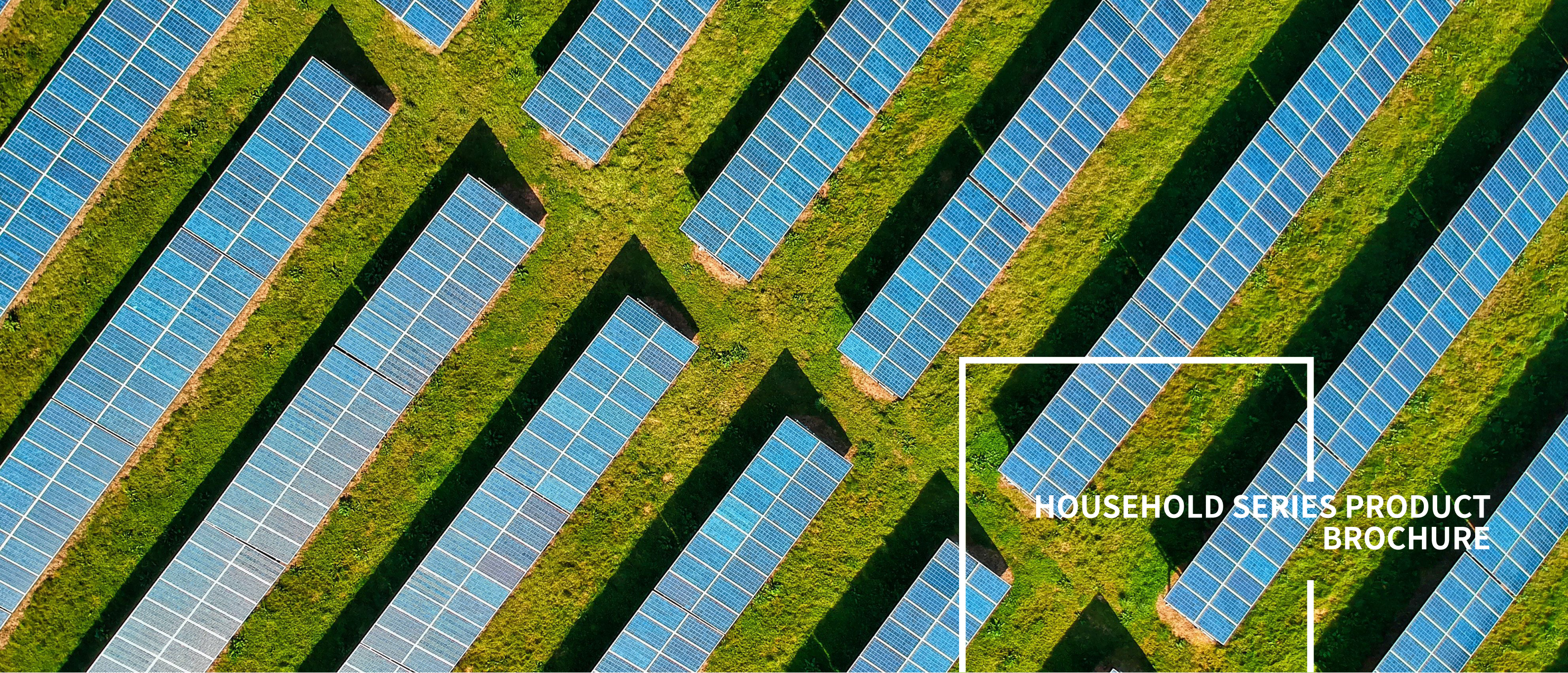




**HOUSEHOLD SERIES PRODUCT
BROCHURE**

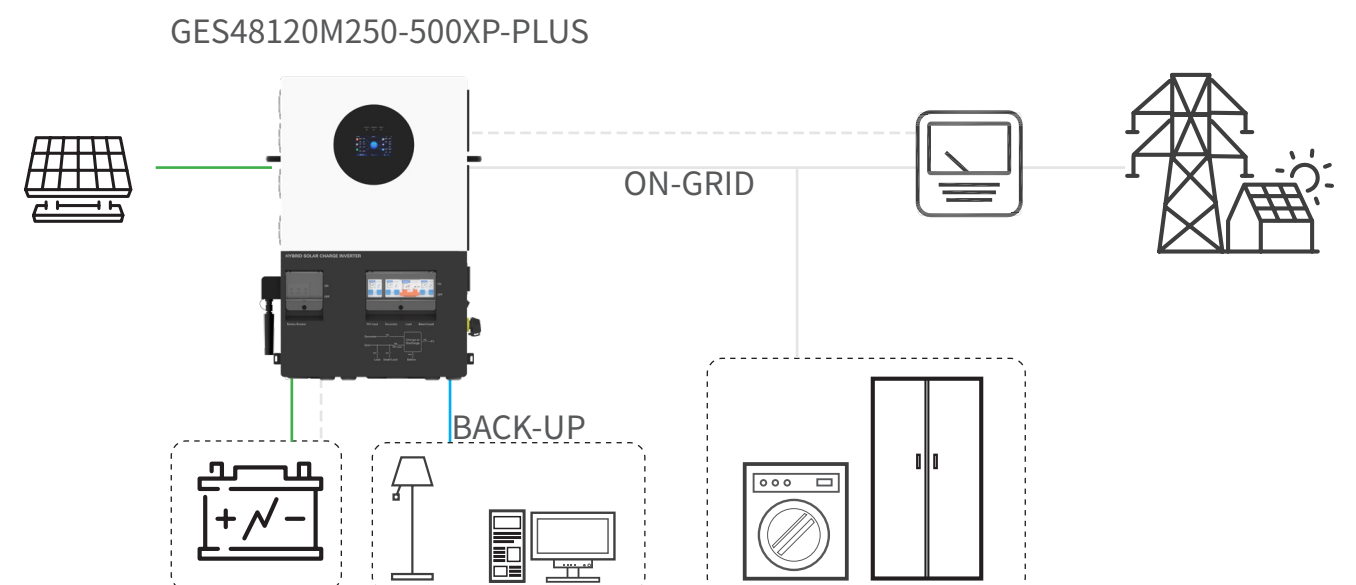


Residential Hybrid Inverter Solutions

3.6~16kW Residential Hybrid Inverters, covering Single-Phase / Split-Phase / Three-Phase models.

Maximize solar self-consumption and reduce electricity bills; provide backup power during outages for uninterrupted home use.

Focused on zero-carbon efficiency, delivering customized residential energy storage solutions.





12KW|SPI48120V150-500P



EU Series Products

Single-Phase

SPI2436V120-500

SPI4862V100-500P

SPI48120V150-500P

Three-Phase

TPE48160V300-1000P

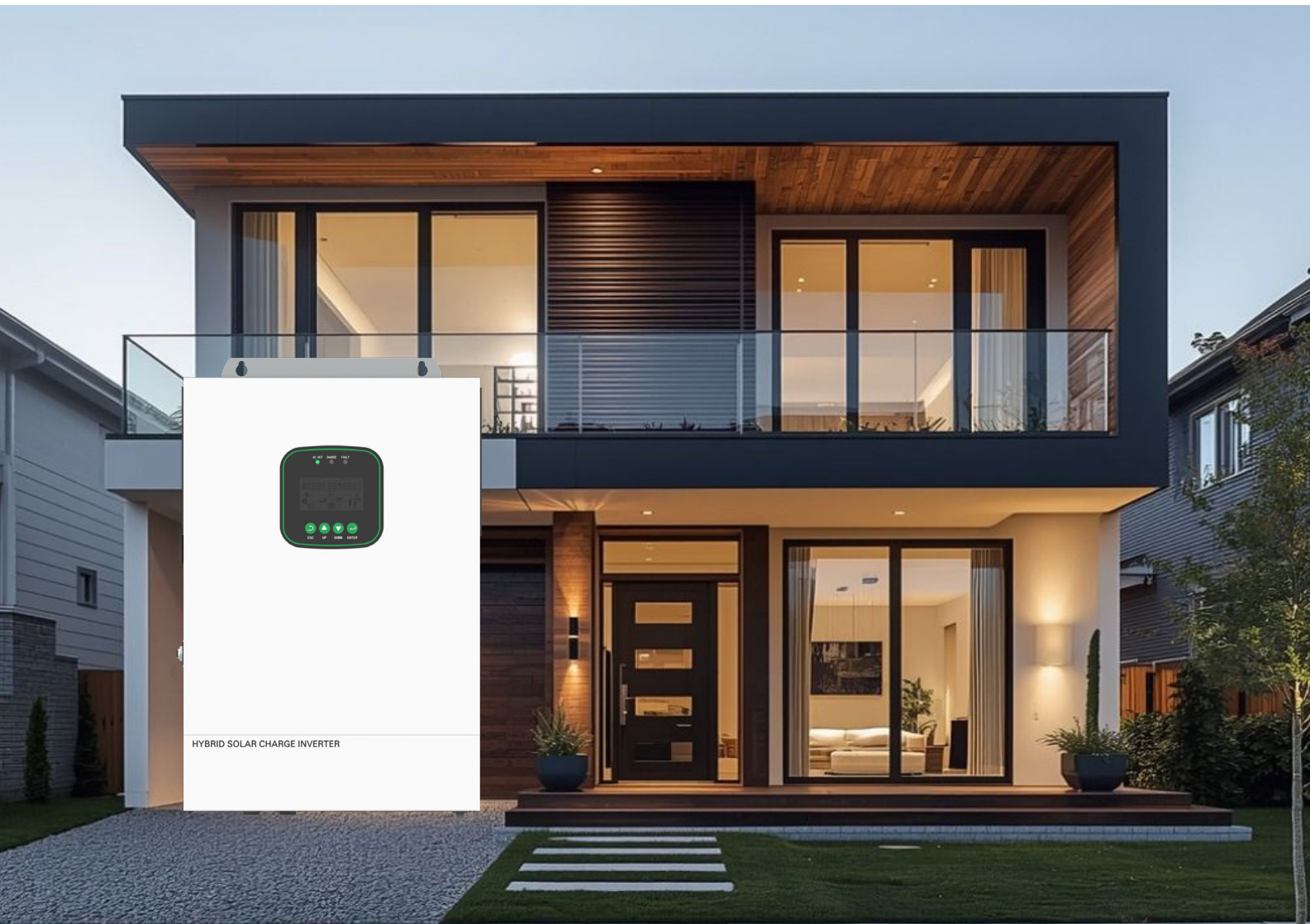
EU Series Products

Quick Selection Guide

Product Info		Inverter Output		Battery		PV Module		Output Mode		
Series	Model	Rated Power	Parallel Capable	Battery Voltage	Charge Current	Max PV Open Circuit Voltage	MPPT Channels / Current	Off-Grid	Battery-less	On-Grid
Single-Phase	SPI2436V120-500	3.6kW	No	24V	120A	500V	1 Channel / 27A / 6kW	✓	✓	✓
Single-Phase	SPI4862V100-500P	6.2kW	1 to 6 Units	48V	100A	500V	1 Channel / 27A / 6.5kW	✓	✓	✓
Single-Phase	SPI48120V150-500P	12kW	1 to 6 Units	48V	150A	500V	2 Channels / 27A×2 / 18kW	✓	✓	✓
Three-Phase	TPE48160V300-1000P	16kW	1 to 6 Units	48V	300A	1000V	2 Channels / 36A×2 / 32kW	✓	✓	✓

EU- Residential Hybrid Inverter

SPI2436V120-500



SPI2436V120-500

3600W / Single-Phase

Product Features

- ▶ CT Anti-Backflow, Zero Feed-in Protection
- ▶ 200% Surge Peak Output for 5s, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ Single Channel 27A / 6000W, 500V High Open-Circuit Voltage
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 140A Continuous Discharge, 120A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, PV + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation



3600W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	6000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	120A
AC Input	
AC Input Range	170~280Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	30Aac
Max AC Charge Current	80Adc
AC Output	
Rated AC Output Power	3600W
Max AC Output Power	3600VA
Peak Power / Duration	7200VA/5s
Rated Output Voltage	230Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93%
Battery Parameters	
Rated Battery Voltage	28.8Vdc
Min Start Voltage	22V
Battery Voltage Range	20~33Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/140A
Charge Voltage Range	20~33Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	30A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	428×280×110mm
Weight	8.2kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	CE(IEC62109-1,2) IEC61000, C2
Features	
Parallel Units	Not Supported
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

EU- Residential Hybrid Inverter

SPI4862V100-500P



SPI4862V100-500P

6200W / Single-Phase / Parallel

Product Features

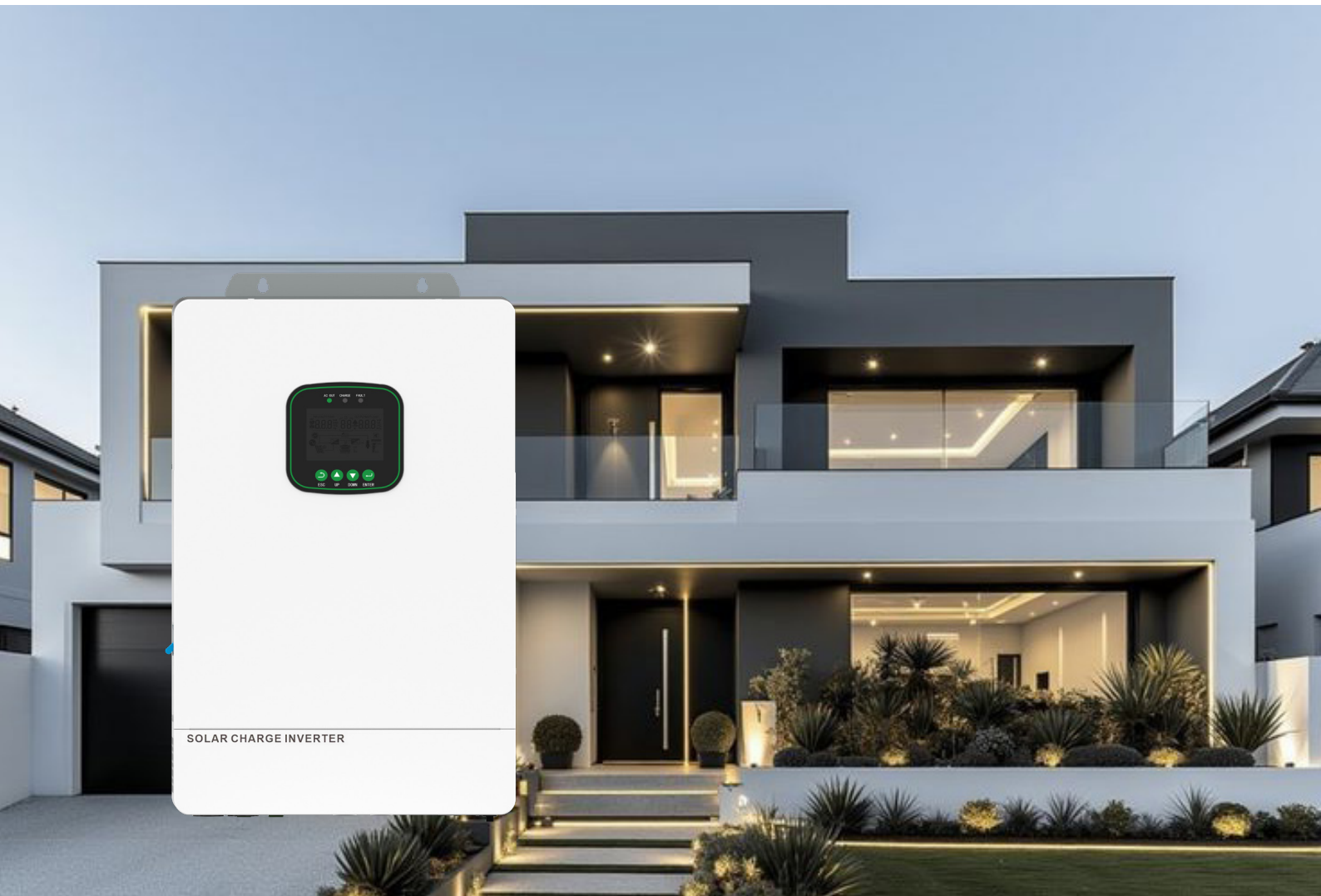
- ▶ CT Anti-Backflow, Zero Feed-in Protection
- ▶ 200% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Load
- ▶ Peak Shaving, Smart Tariff Management
- ▶ Single Channel 27A / 6500W, 500V High Open-Circuit Voltage
- ▶ 6-Unit Parallel Expansion, Up to 37.2kW per Three-Phase Group
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 135A Continuous Discharge, 100A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation



6200W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	6500W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	100A
AC Input	
AC Input Range	170~280Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	40Aac
Max AC Charge Current	80Adc
AC Output	
Rated AC Output Power	6200W
Max AC Output Power	6200VA
Peak Power / Duration	12000VA/5s
Rated Output Voltage	230Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>94.5%
Battery Parameters	
Rated Battery Voltage	51.2Vdc
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	100A/135A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	40A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	428×280×110mm
Weight	8.2kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	CE(IEC62109-1,2) IEC61000, C2
Features	
Parallel Units	1 to 6 Units
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

EU- Residential Hybrid Inverter

SPI48120V150-500P



SPI48120V150-500P

12000W / Single-Phase / Parallel

Product Features

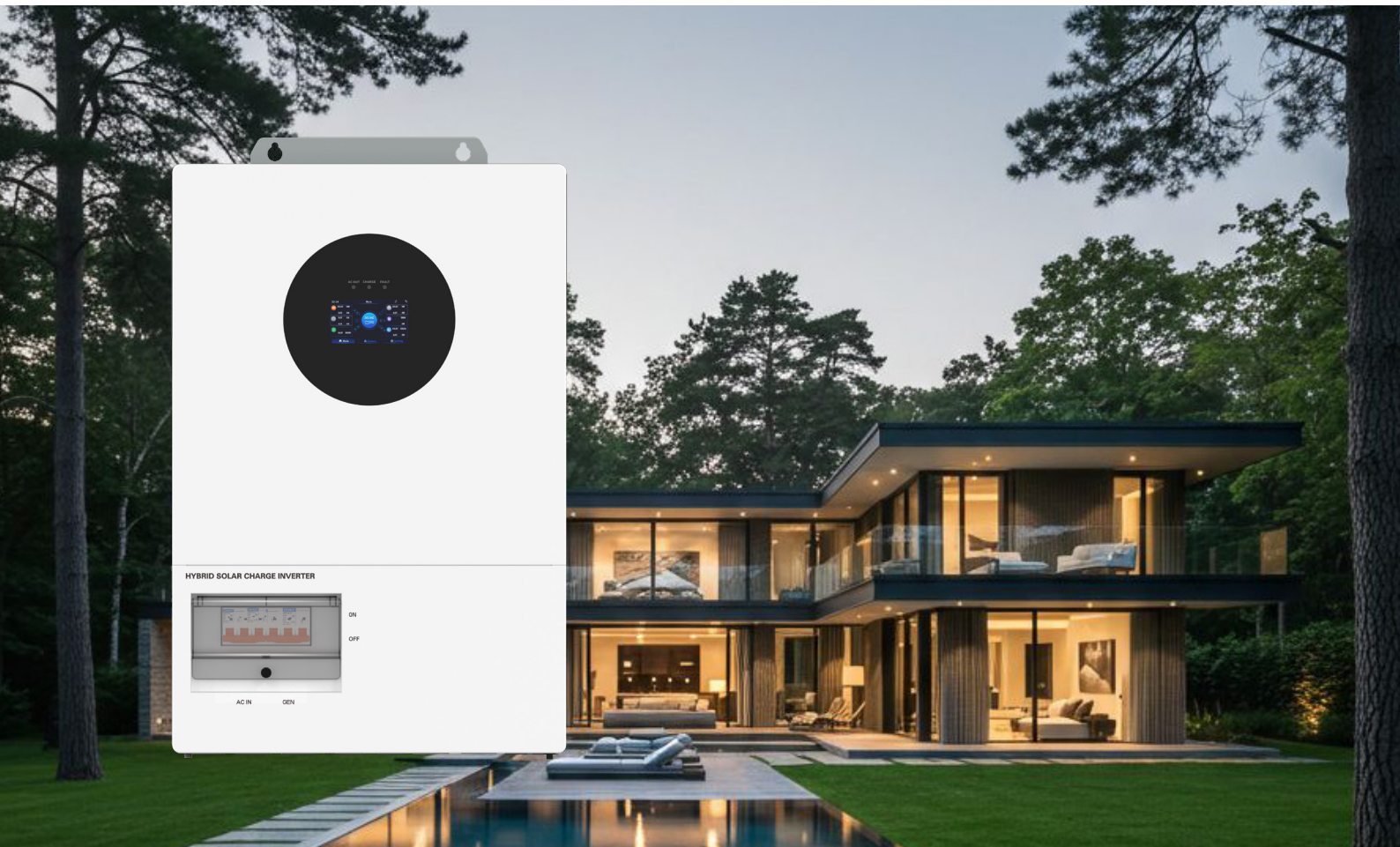
- ▶ CT Anti-Backflow, Zero Feed-in Protection
- ▶ 200% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 18kW Dual MPPT, 27A / 9000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 72kW per Three-Phase Group
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 260A Continuous Discharge, 150A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation



12000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	9000W+9000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	27A
Max PV Charging Current	150A
AC Input	
AC Input Range	170~280Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	60Aac
Max AC Charge Current	150Adc
AC Output	
Rated AC Output Power	12000W
Max AC Output Power	12000VA
Peak Power / Duration	24000VA/5s
Rated Output Voltage	230Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>94.5%
Battery Parameters	
Rated Battery Voltage	51.2Vdc
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	150A/260A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	540×350×120mm
Weight	19.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	CE(IEC62109-1,2) IEC61000, C2
Features	
Parallel Units	1 to 6 Units
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

EU- Residential Hybrid Inverter

TPE48160V300-1000P



TPE48160V300-1000P

16000W / Three-Phase / Parallel

Product Features

- ▶ Three-Phase Independent CT Anti-Backflow + AC Coupling
- ▶ 200% Surge Peak,150% Unbalanced Load Capacity
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 32kW Dual MPPT, 32A/16000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 96kW
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 340A Continuous Discharge, 300A Max Charge
- ▶ Independent Diesel Generator Interface, Dry Contact Start/Stop Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Triple PV/Grid/Generator Source Battery Activation
- ▶ Touch Color Screen, Customizable Parameters
- ▶ AFCI+RSD+ISO Triple Protection



16000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	16000W+16000W
Max DC Input Voltage	1000V
Start Voltage	160V
PV Input Voltage Range	160~1000V
MPPT Voltage Range	160~850V
MPPT Channels	2
Max MPPT Input Current	36A+36A
Max PV Charging Current	300A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	170~280Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	60A
Max AC Charge Current	200Adc
AC Output	
Rated AC Output Power	16000W
Max AC Output Power	16000VA
Peak Power	32000VA/5s
Rated Output Voltage	3L/N/PE 230/400Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+L3+N+PE
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	300A/340A
Charge Voltage Range	40~58.6Vdc
Generator	
Rated Input Voltage	3L/N/PE 230/400Vac
Input Voltage Range	90~280Vac
Frequency Range	40~70Hz
Max Charge Current	200A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	63A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	720×482×149mm
Weight	30kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	CE(IEC62109-1,2) IEC61000, C2
Features	
Parallel Units	1 to 6 Units
Phases	Three-Phase
Communication Ports	USB/RS485/WiFi
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Three-Phase Independent CT Anti-Backflow
Special Functions	AFCI+RSD+ISO Triple Protection / 150% Unbalanced Load Capacity

US Series Products

Single-Phase

- SPI2436M120-500
- SPI4836M80-300P
- SPI4862M120-500P
- SPI4865M150-300P

Split-Phase

- GES4862M120-500
- GES4880M160-500P
- GES48100M220-500P
- GES48120M250-500XP
- GES48160M300-500XP
- GES4880M160-500P-PLUS
- GES48120M250-500XP-PLUS
- GES48160M300-500XP-PLUS

Three-Phase

- TPE48160M250-500XP

12KW|GES48120M250-500XP-PLUS

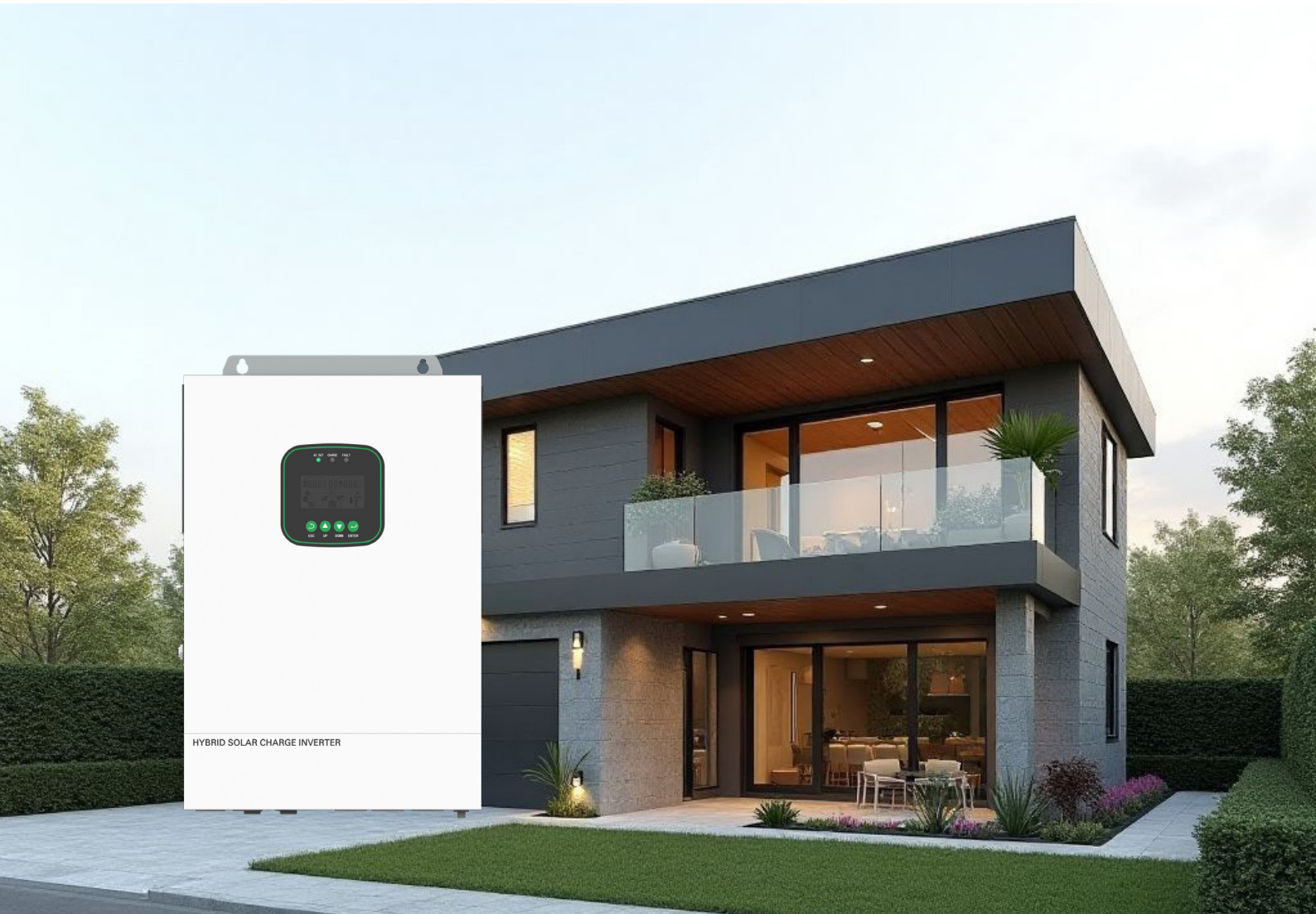
US Series Products

Quick Selection Guide

Product Info		Inverter Output		Battery		PV Module		Output Mode		
Series	Model	Rated Power	Parallel Capable	Battery Voltage	Charge Current	Max PV Open Circuit Voltage	MPPT Channels / Current	Off-Grid	Battery-less	On-Grid
Single-Phase	SPI2436M120-500	3.6kW	No	24V	120A	500V	1 Channel / 27A / 6kW	✓	✓	✓
Single-Phase	SPI4836M80-300P	3.6kW	1 to 6 Units	48V	80A	300V	1 Channel / 27A / 6kW	✓	✓	✓
Single-Phase	SPI4862M120-500P	6.2kW	1 to 6 Units	48V	120A	500V	1 Channel / 27A / 9kW	✓	✓	✓
Single-Phase	SPI4865M150-300P	6.5kW	1 to 6 Units	48V	150A	300V	2 Channels / 22A×2 / 9kW	✓	✓	✓
Split-Phase	GES4862M120-500	6.2kW	No	48V	120A	500V	1 Channel / 27A / 9kW	✓	✓	✓
Split-Phase	GES4880M160-500P	8kW	1 to 6 Units	48V	160A	500V	2 Channels / 18A×2 / 10kW	✓	✓	✓
Split-Phase	GES48100M220-500P	10kW	1 to 6 Units	48V	220A	500V	2 Channels / 22A×2 / 12kW	✓	✓	✓
Split-Phase	GES48120M250-500XP	12kW	1 to 6 Units	48V	250A	500V	2 Channels / 32A×2 / 24kW	✓	✓	✓
Split-Phase	GES48160M300-500XP	16kW	1 to 6 Units	48V	300A	500V	2 Channels / 36A×2 / 24kW	✓	✓	✓
Split-Phase	GES4880M160-500P-PLUS	8kW	1 to 6 Units	48V	160A	500V	2 Channels / 18A×2 / 12kW	✓	✓	✓
Split-Phase	GES48120M250-500XP-PLUS	12kW	1 to 6 Units	48V	250A	500V	2 Channels / 32A×2 / 24kW	✓	✓	✓
Split-Phase	GES48160M300-500XP-PLUS	16kW	1 to 6 Units	48V	300A	500V	2 Channels / 36A×2 / 24kW	✓	✓	✓
Three-Phase	TPE48160M250-500XP	16kW	1 to 6 Units	48V	300A	500V	2 Channels / 32A×2 / 24kW	✓	✓	✓

US- Residential Hybrid Inverter

SPI2436M120-500



SPI2436M120-500

3600W / Single-Phase

Product Features

- ▶ CT Anti-Backflow, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Load
- ▶ Peak Shaving, Smart Tariff Management
- ▶ Single Channel 27A / 6000W, 500V High Open-Circuit Voltage
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 140A Continuous Discharge, 120A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation



3600W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	6000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	120A
AC Input	
AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	40Aac
Max AC Charge Current	80Adc
AC Output	
Rated AC Output Power	3600W
Max AC Output Power	3600VA
Peak Power / Duration	5400VA/5s
Rated Output Voltage	120Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92%
Battery Parameters	
Rated Battery Voltage	28.8Vdc
Min Start Voltage	22V
Battery Voltage Range	20~33Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/140A
Charge Voltage Range	20~33Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	40A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	428×280×110mm
Weight	8.2kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	Not Supported
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

SPI4836M80-300P



SPI4836M80-300P

3600W / Single-Phase / Parallel

Product Features

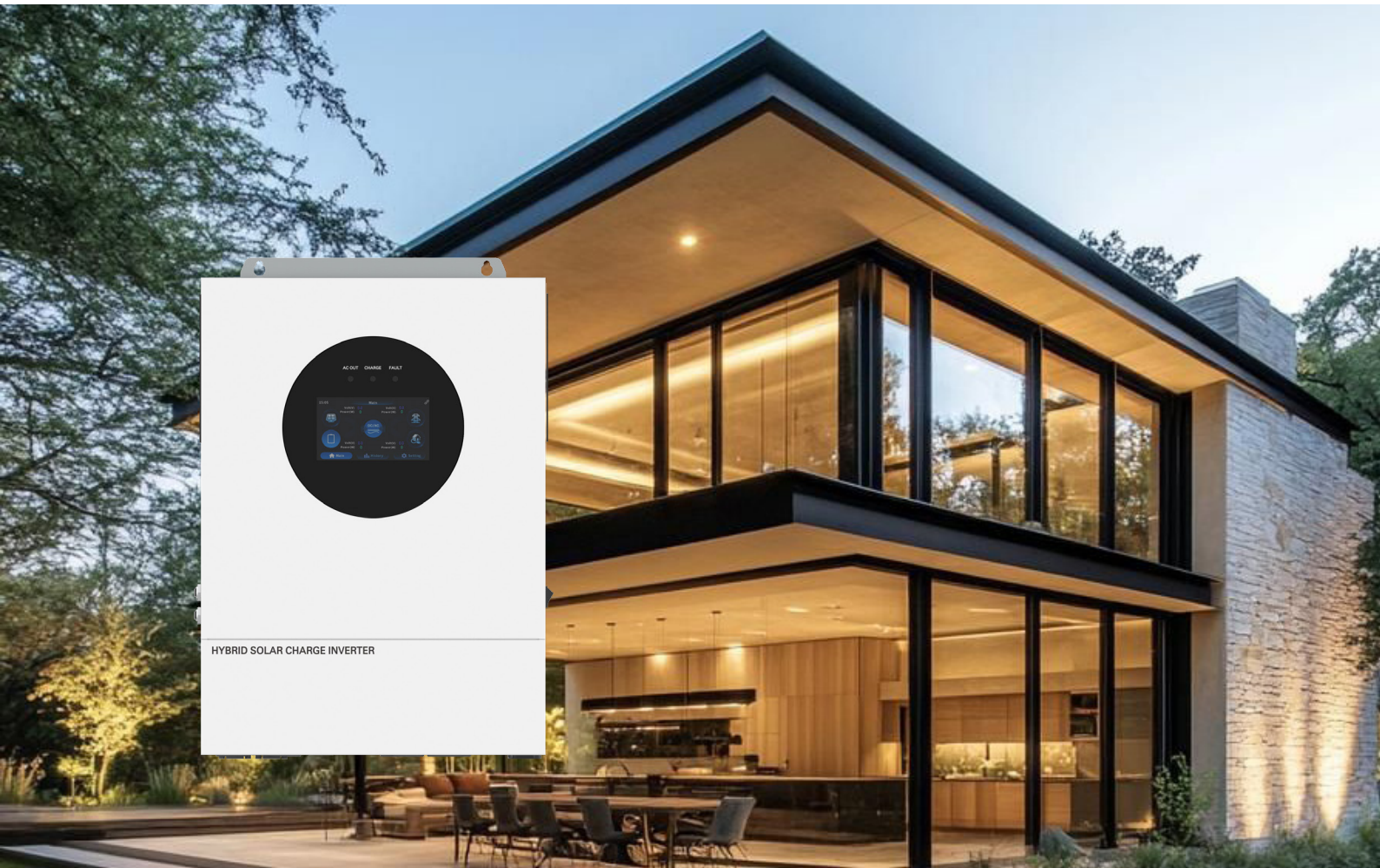
- ▶ CT Anti-Backflow, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Load
- ▶ Peak Shaving, Smart Tariff Management
- ▶ Single Channel 27A / 6000W, 300V High Open-Circuit Voltage
- ▶ 6-Unit Parallel, Up to 21.6kW per Split-Phase / Three-Phase Group
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 85A Continuous Discharge, 80A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation



3600W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	6000W
Max DC Input Voltage	300V
Start Voltage	120V
PV Input Voltage Range	90~300V
MPPT Voltage Range	90~260V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	80A
AC Input	
AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	40Aac
Max AC Charge Current	60Adc
AC Output	
Rated AC Output Power	3600W
Max AC Output Power	3600VA
Peak Power / Duration	5400VA/5s
Rated Output Voltage	120Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92.3%
Battery Parameters	
Rated Battery Voltage	48Vdc
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	80A/85A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	40A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	428×280×110mm
Weight	7.8kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

SPI4862M120-500P



SPI4862M120-500P

6200W / Single-Phase / Parallel

Product Features

- ▶ CT Anti-Backflow, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ Single Channel 27A / 9000W, 500V High Open-Circuit Voltage
- ▶ 6-Unit Parallel, Up to 37.2kW per Split-Phase / Three-Phase Group
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 140A Continuous Discharge, 120A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation
- ▶ Touch Color Screen



6200W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	9000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	120A
AC Input	
AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	60Aac
Max AC Charge Current	100Adc
AC Output	
Rated AC Output Power	6200W
Max AC Output Power	6200VA
Peak Power / Duration	9300VA/5s
Rated Output Voltage	120Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92%
Battery Parameters	
Rated Battery Voltage	51.2Vdc
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/140A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	60A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	420×330×122mm
Weight	12kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi/CAN
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

SPI4865M150-300P



SPI4865M150-300P

6500W / Single-Phase / Parallel

Product Features

- ▶ CT Anti-Backflow, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 9kW Dual MPPT, 22A / 4500W per Channel
- ▶ 6-Unit Parallel, Up to 39kW per Split-Phase / Three-Phase Group
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 153A Continuous Discharge, 120A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation



6500W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	4500W+4500W
Max DC Input Voltage	300V
Start Voltage	120V
PV Input Voltage Range	90~300V
MPPT Voltage Range	90~260V
MPPT Channels	2
Max MPPT Input Current	22A
Max PV Charging Current	150A
AC Input	
AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max AC Input Current	60Aac
Max AC Charge Current	120Adc
AC Output	
Rated AC Output Power	6500W
Max AC Output Power	6500VA
Peak Power / Duration	9750VA/5s
Rated Output Voltage	120Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92%
Battery Parameters	
Rated Battery Voltage	48Vdc
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/153A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Battery Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	540×350×120mm
Weight	18.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Single-Phase
Communication Ports	USB/RS485/WiFi
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

GES4862M120-500



GES4862M120-500

6200W / Split-Phase

Product Features

- ▶ CT Anti-Backflow + AC Coupling, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ Single Channel 27A / 9000W, 500V High Open-Circuit Voltage
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 140A Continuous Discharge, 120A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation
- ▶ Touch Color Screen



6200W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	9000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	1
Max MPPT Input Current	27A
Max PV Charging Current	120A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	40Aac
Max AC Charge Current	100Adc
AC Output	
Rated Output Power (Per Phase)	6200W
Rated Output (Same Phase)	4800W
Peak Power (Per Phase)	9300VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>92.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	120A/140A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	40A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	420×330×122mm
Weight	12kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	Not Supported
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

GES4880M160-500P



GES4880M160-500P

8000W / Split-Phase / Parallel

Product Features

- ▶ CT Anti-Backflow + AC Coupling, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 10kW Dual MPPT, 18A / 5000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 48kW Three-Phase System
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 180A Continuous Discharge, 160A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation
- ▶ Touch Color Screen



8000W Residential Hybrid Inverter Specifications

8000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	5000W+5000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	18A+18A
Max PV Charging Current	160A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	50Aac
Max AC Charge Current	120Adc
AC Output	
Rated Output Power (Per Phase)	8000W
Rated Output (Same Phase)	6000W
Peak Power (Per Phase)	12000VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	160A/180A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	50A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	580x359x127mm
Weight	15.9kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

GES48100M220-500P



GES48100M220-500P 10000W / Split-Phase / Parallel Product Features

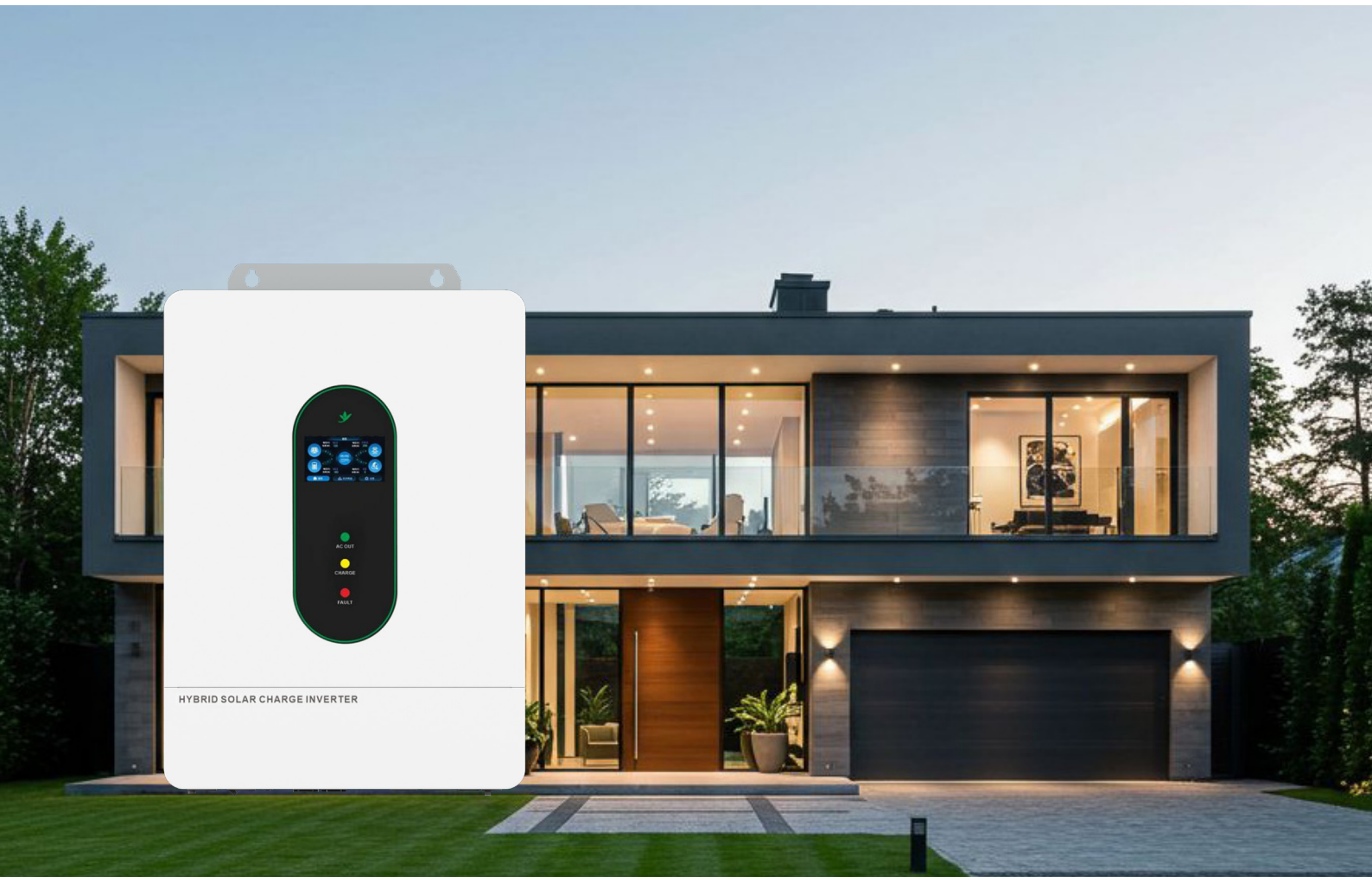
- ▶ CT Anti-Backflow + AC Coupling, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 12kW Dual MPPT, 22A / 6000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 60kW
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 220A Continuous Discharge, 220A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation
- ▶ Touch Color Screen



10000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	6000W+6000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	22A+22A
Max PV Charging Current	220A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	60Aac
Max AC Charge Current	120Adc
AC Output	
Rated Output Power (Per Phase)	10000W
Rated Output (Same Phase)	7200W
Peak Power (Per Phase)	15000VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	220A/220A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	620×450×132mm
Weight	23.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

GES48120M250-500XP



GES48120M250-500XP

12000W / Split-Phase / Parallel

Product Features

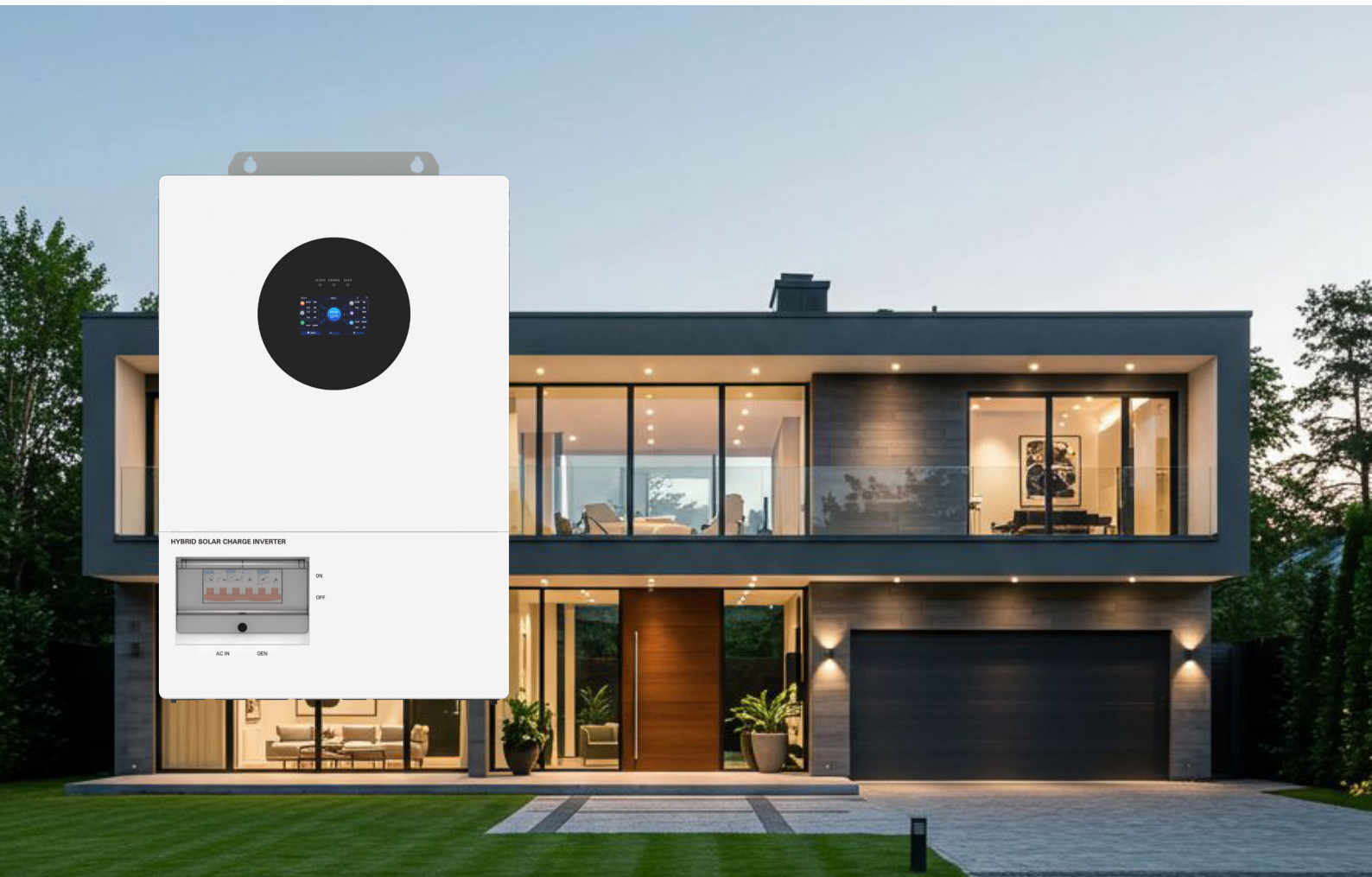
- ▶ CT Anti-Backflow + AC Coupling, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 24kW Dual MPPT, 32A / 12000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 72kW
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 270A Continuous Discharge, 250A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation
- ▶ Touch Color Screen



12000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	32A+32A
Max PV Charging Current	250A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	60Aac
Max AC Charge Current	160Adc
AC Output	
Rated Output Power (Per Phase)	12000W
Rated Output (Same Phase)	7200W
Peak Power (Per Phase)	18000VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	250A/270A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	620×450×132mm
Weight	23.8kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

GES48160M300-500XP



GES48160M300-500XP

16000W / Split-Phase / Parallel

Product Features

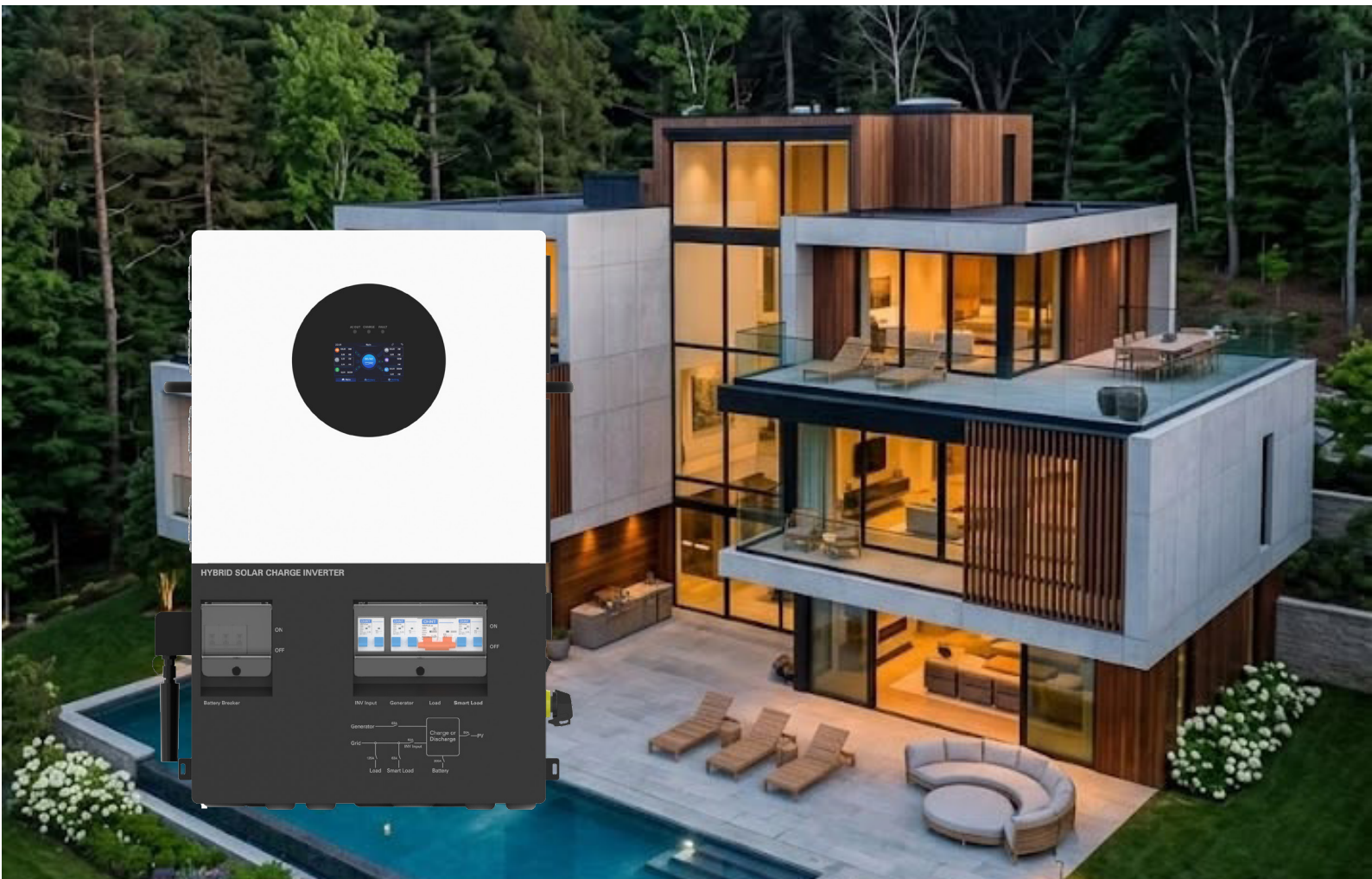
- ▶ CT Anti-Backflow + AC Coupling, Zero Feed-in Protection
- ▶ 150% Surge Peak Output for 5 Seconds, Withstands Continuous Impact Loads
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 24kW Dual MPPT, 36A / 12000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 72kW
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 340A Continuous Discharge, 300A Max Charge
- ▶ Dry Contact Diesel Generator Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Dual PV / Grid Source Battery Activation
- ▶ Touch Color Screen



16000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	36A+36A
Max PV Charging Current	300A
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	90Aac
Max AC Charge Current	200Adc
AC Output	
Rated Output Power (Per Phase)	16000W
Rated Output (Same Phase)	9600W
Peak Power (Per Phase)	24000VA
Rated Output Voltage	120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Efficiency	
Max Efficiency (Battery to Load)	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	300A/340A
Charge Voltage Range	40~60Vdc
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	100A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	720×482×149mm
Weight	37.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	USB/RS485/WiFi/CAN
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes

US- Residential Hybrid Inverter

GES4880M160-500P-PLUS



GES4880M160-500P-PLUS

8000W / Split-Phase / Parallel

Product Features

- ▶ Whole-Home Backup
- ▶ CT Anti-Backflow + AC Coupling, Zero Feed-in Protection
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 12kW Dual MPPT, 18A / 6000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 48kW for Medium-to-Large Off-Grid Projects
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 180A Continuous Discharge, 160A Max Charge
- ▶ Independent Diesel Generator Interface, Dry Contact Start/Stop + Generator Efficiency Boost
- ▶ Independent SmartLoad Output, Microinverter Input Compatible
- ▶ AFCI+RSD+ISO Triple Safety Protection
- ▶ Touch Color Screen



8000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	6000W+6000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	18A+18A
Max PV Charging Current	160A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	200A
Max AC Charge Current	120Adc
AC Output	
Rated AC Output Power	8000W
Max AC Output Power	8000VA
Peak Power	12000VA/5s
Rated Output Voltage	L1/L2/N 120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Load Port	
Load Output Rated Current	60Adc
Smart Load Output Rated Current	60Adc
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	160A/180A
Charge Voltage Range	40~60Vdc
Generator	
Rated Input Voltage	L1/L2/N 120/240Vac
Input Voltage Range	85~140Vac
Frequency Range	40~70Hz
Max Charge Current	160A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	50A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Circuit Breaker
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	760×485×160.8mm
Weight	35.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 EMC: FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	CAN/USB/WiFi/RS485
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes
Special Functions	AFCI+RSD+ISO Triple Protection / SmartLoad Independent Output / Microinverter Compatible

US- Residential Hybrid Inverter

GES48120M250-500XP-PLUS



GES48120M250-500XP-PLUS

12000W / Split-Phase / Parallel

Product Features

- ▶ Whole-Home Backup
- ▶ CT Anti-Backflow + AC Coupling, Zero Feed-in Protection
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 24kW Dual MPPT, 32A / 12000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 72kW for Medium-to-Large Off-Grid Projects
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 270A Continuous Discharge, 250A Max Charge
- ▶ Independent Diesel Generator Interface, Dry Contact Start/Stop + Generator Efficiency Boost
- ▶ Independent SmartLoad Output, Microinverter Input Compatible
- ▶ AFCI+RSD+ISO Triple Safety Protection
- ▶ Touch Color Screen



12000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	32A+32A
Max PV Charging Current	250A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	200A
Max AC Charge Current	160Adc
AC Output	
Rated AC Output Power	12000W
Max AC Output Power	12000VA
Peak Power	18000VA/5s
Rated Output Voltage	L1/L2/N 120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Load Port	
Load Output Rated Current	125Adc
Smart Load Output Rated Current	60Adc
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	250A/270A
Charge Voltage Range	40~60Vdc
Generator	
Rated Input Voltage	L1/L2/N 120/240Vac
Input Voltage Range	85~140Vac
Frequency Range	40~70Hz
Max Charge Current	160A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	63A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Circuit Breaker
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	760×485×160.8mm
Weight	35.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 EMC: FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	CAN/USB/WiFi/RS485
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes
Special Functions	AFCI+RSD+ISO Triple Protection / SmartLoad Independent Output / Microinverter Compatible

US- Residential Hybrid Inverter

GES48160M300-500XP-PLUS



GES48160M300-500XP-PLUS

16000W / Split-Phase / Parallel

Product Features

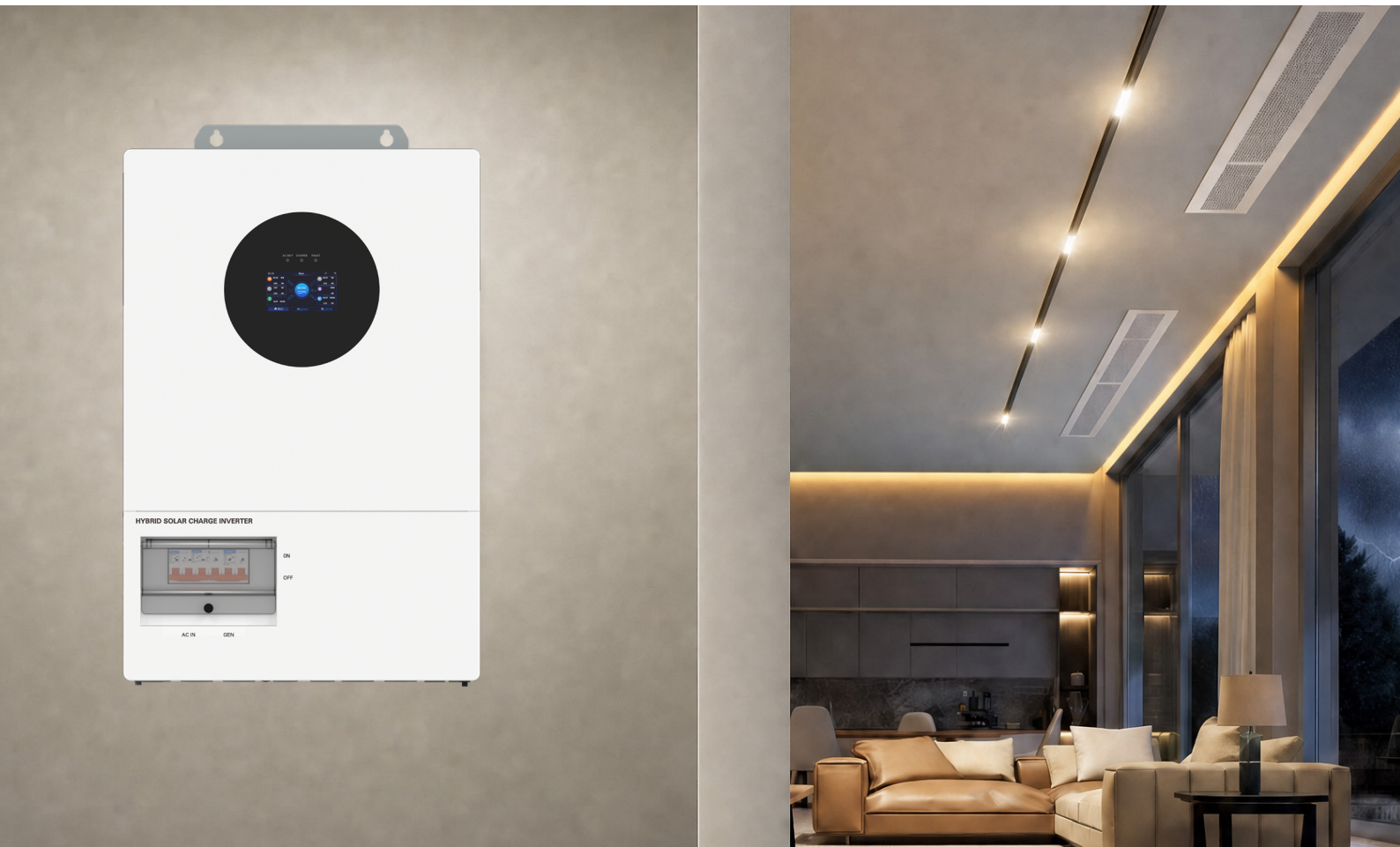
- ▶ Whole-Home Backup
- ▶ CT Anti-Backflow + AC Coupling, Zero Feed-in Protection
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 24kW Dual MPPT, 36A / 12000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 96kW for Medium-to-Large Off-Grid Projects
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 340A Continuous Discharge, 300A Max Charge
- ▶ Independent Diesel Generator Interface, Dry Contact Start/Stop + Generator Efficiency Boost
- ▶ Independent SmartLoad Output, Microinverter Input Compatible
- ▶ AFCI+RSD+ISO Triple Safety Protection
- ▶ Touch Color Screen



16000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	36A+36A
Max PV Charging Current	300A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	200A
Max AC Charge Current	200Adc
AC Output	
Rated AC Output Power	16000W
Max AC Output Power	16000VA
Peak Power	24000VA/5s
Rated Output Voltage	L1/L2/N 120/240Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+N+PE
Load Port	
Load Output Rated Current	125Adc
Smart Load Output Rated Current	60Adc
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	300A/340A
Charge Voltage Range	40~60Vdc
Generator	
Rated Input Voltage	L1/L2/N 120/240Vac
Input Voltage Range	85~140Vac
Frequency Range	40~70Hz
Max Charge Current	200A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	100A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Circuit Breaker
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	760×485×160.8mm
Weight	35.5kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 EMC: FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Split-Phase
Communication Ports	CAN/USB/WiFi/RS485
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Yes
Special Functions	AFCI+RSD+ISO Triple Protection / SmartLoad Independent Output / Microinverter Compatible

US- Residential Hybrid Inverter

TPE48160M300-500XP



TPE48160M300-500XP

16000W / Three-Phase / Parallel

Product Features

- ▶ Three-Phase Independent CT Anti-Backflow + AC Coupling
- ▶ 150% Surge Peak for 5 Seconds,100% Unbalanced Load Capacity
- ▶ Peak Shaving, Smart Tariff Management
- ▶ 24kW Dual MPPT, 32A/12000W per Channel
- ▶ 6-Unit Parallel Expansion, Up to 96kW
- ▶ 10ms UPS Transfer, Uninterrupted Power for Critical Loads
- ▶ Battery 340A Continuous Discharge, 300A Max Charge
- ▶ Independent Diesel Generator Interface, Dry Contact Start/Stop Control
- ▶ Battery-less Operation, Solar + Grid Direct Supply
- ▶ Triple PV/Grid/Generator Source Battery Activation
- ▶ Touch Color Screen, Customizable Parameters
- ▶ AFCI+RSD+ISO Triple Protection



16000W Residential Hybrid Inverter Specifications	
DC Input (PV)	
Max DC Input Power	12000W+12000W
Max DC Input Voltage	500V
Start Voltage	120V
PV Input Voltage Range	90~500V
MPPT Voltage Range	90~450V
MPPT Channels	2
Max MPPT Input Current	32A+32A
Max PV Charging Current	300A
AFCI Function	
Rated Output Voltage	12Vdc
Rated Output Current	1Adc
AC Input	
Per-Phase AC Input Range	85~140Vac
Frequency Range	47~55Hz/57~65Hz
Max Per-Phase AC Input Current	60A
Max AC Charge Current	200Adc
AC Output	
Rated AC Output Power	16000W
Max AC Output Power	16000VA
Peak Power	24000VA/5s
Rated Output Voltage	3L/N/PE 120/208Vac
Output Frequency	50/60Hz
Power Factor	1
AC Connection Type	L1+L2+L3+N+PE
Efficiency	
Max Efficiency	>93.5%
Battery Parameters	
Rated Battery Voltage	51.2V
Min Start Voltage	44V
Battery Voltage Range	40~60Vdc
Battery Type	Lead-Acid / Lithium
Max Charge / Discharge Current	300A/340A
Charge Voltage Range	40~60Vdc
Generator	
Rated Input Voltage	3L/N/PE 120/208Vac
Input Voltage Range	85~140Vac
Frequency Range	40~70Hz
Max Charge Current	200A
Transfer Time (Generator to Inverter)	10ms (Typical)
Overload Protection	63A Circuit Breaker
Protection	
Grid Overload Protection	Circuit Breaker
Grid Breaker Rating	63A
AC Reverse Feed Protection	Yes
Charge Short Circuit Protection	Fuse
AC Output Short Circuit Protection	Yes
Wiring Protection	Yes
Transfer Time	10ms (Typical)
General Data	
Dimensions (W × D × H)	720×482×149mm
Weight	30kg
Operating Temperature	-10° C to 55° C (Derating above 45° C)
Storage Temperature	-25° C~60° C
Humidity Range	5%~95%
Cooling Method	Forced Air Cooling (Variable Speed)
Protection Class	IP21
Noise	≤ 60dB
Altitude	4000m (2000m ≤ No Derating)
Safety / EMC Certification	UL1741 / CSA C22.2#107.1 EMC: FCC Part15 Class B
Features	
Parallel Units	1 to 6 Units
Phases	Three-Phase
Communication Ports	USB/RS485/WiFi
AC Coupling	Yes
Dry Contact Control	Yes
Battery-less Operation	Yes
Remote Diagnostics / OTA	Yes
CT Anti-Backflow	Three-Phase Independent CT Anti-Backflow
Special Functions	AFCI+RSD+ISO Triple Protection / 100% Unbalanced Load Capacity