



12kW 48V Solar Hybrid Inverter

Whole Home Backup(200A) UL 1741 Certification

This series of hybrid inverters efficiently convert solar energy into alternating current, store excess energy in batteries, or feed it back into the power grid. There are three different current outputs available: **8kw/10kw/12kw**, which provides unparalleled flexibility for off-grid, grid-tied, or hybrid solar systems.

Equipped with **AC-coupled** functionality and a robust **200A whole-home backup capability**, it ensures uninterrupted power supply during outages. Its **IP65-rated** enclosure makes it ideal for both indoor and outdoor installations, providing durable, weather-resistant performance in any environment.

200A

Whole Home Backup

MPPT

Built-in 2-way MPPT



Support Split-phase/ Three-phase



Supports lead acid battery and Li-ion battery



Supports 6 different voltage levels

6

Up to 6 Inverters parallel



Support CAN, USB and RS485 communication



2 Charging modes and 2 output modes



LCD large screen dynamic flow diagram design



Wifi Monitoring



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Technical Specifications

Product Model	SGS-12K18MAX
Inverter Output	
Rated Output Power	@240V 12000W,@208V 10400W.
Max. Peak Power	1.5 times rated power (10s)
Rated Output Voltage	120/240Vac(Split-phase) 120/208V (Three-phase)
Output Voltage Error	50A
Load Motor Capacity	6HP
Rated AC Frequency	50/60Hz
Waveform	Pure Sine Wave
Parallel capacity	6
Battery	
Battery Type	Li-ion Battery / Lead-Acid Battery / User Defined
Rated Battery Voltage	48Vdc
Voltage Range	40-60Vdc
Max. Grid Charging Current	200A
Max. Generator Charging Current	200A
Max. Hybrid Charging Current	240A
PV Input	
No. of MPPT Trackers	2
Max. PV array power	9000W/9000W
Max. Input Current	32A/32A
Short current Isc	40A/40A
Max. Open Circuit Voltage	550Vdc/550Vdc
MPPT Voltage Range	125-450Vdc/125-450Vdc
MPPT Tracking Efficiency	99.9%
Grid / Generator Input	
Input Voltage Range	90-140Vac
Frequency Range	50/60Hz
Continuous Grid Passthrough Current	200A
Protection	
Integrated	Reverse polarity protection DC switch rating for each MPPT Output over-voltage protection varistor, Output over current protection, Ground fault monitoring, Grid monitoring, Pole sensitive
Interface	
Communication port	RS485 / CAN / USB / Dry contact
External Modules(Optional)	Wi-Fi / GPRS
General Data	
Dimensions	33.07*17.32*10.24 inches (840*440*260mm)
Weight	105.82 lbs(48kg)
Protection Degree	IP65
Operating Temperature Range	-13°F to 140°F,>113°F derated (-25 to +60°C, >45°C derated)
Noise	<60dB
Self-comsumption	<100W
Cooling Method	Heat sink + intelligent fan cooling
Certified Specifications	
Safety standards	1741SB,DCArc-FaultCircuitProtection,UL1699B:2018,CSA C22.2#107.1,CALIFORNIA Rule21, IEEE1547:2018,IEEE 1547.1:2020,HawaiianHECOSRD-IEEE-1547.1:2020Ed.2.0,
EMC	UI1FCC 15 class B
RoHS	Yes

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