

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