

GMSF2-12KWE

Energy Storage Inverter Series



Single Phase | 2-12KW | Off-Grid

- Wide compatibility with components and battery types
- Built-in MPPT for dynamically tracking MPPT
- Achieving an efficiency of up to 99%



Strong grid &
load adaptability



Battery under-voltage &
over-voltage protection



High temperature
protection



Residential Off-grid Inverter with MPPT

Product Model	GMSF2KWE	GMSF3KWE	GMSF4KWE	GMSF5KWE	GMSF6KWE	GMSF8KWE	GMSF10KWE	GMSF12KWE
Rated Power	2kW	3kW	4kW	5kW	6kW	8kW	10kW	12kW
Max. Power	6kW	9kW	12kW	15kW	18kW	24kW	30kW	36kW
Rated Battery Voltage	12/24/48V	12/24/48V	24/48V	24/48V	24/48V	48V	48V	48V
MPPT Control Module	GMSF2KWE	GMSF3KWE	GMSF4KWE	GMSF5KWE	GMSF6KWE	GMSF8KWE	GMSF10KWE	GMSF12KWE
Charge Current	80A							
PV Module Input	1 circuit (80A)							
PV Input Operating Voltage	15V-180V (12V System); 30V-180V (24V System); 60V-230V (48V System)							
Max. PV Array Power	60A : 720W (12V System) 1440W (24V System) ; 3840W (48V System)							
Max. Charge Current (adjustable)	OFF/30A/60A							
Control Module Efficiency	≈99%							
Unattended mode	MPPT Control Module continues to charge battery from PV module even when device is switched off							
Input	GMSF2KWE	GMSF3KWE	GMSF4KWE	GMSF5KWE	GMSF6KWE	GMSF8KWE	GMSF10KWE	GMSF12KWE
DC Input Voltage Range	10.5VDC-15VDC(12V voltage unit) (lead acid battery)							
Mains AC Input Voltage Range	110Vac: (80-130)Vac; 220Vac: (160-260)Vac/(130-280)Vac(Adjustable)							
Mains AC Input Frequency	45HZ-65HZ automatic match							
Mains AC Charge Current (adjustable)	ON/OFF(Adjustable)							
Output	GMSF2KWE	GMSF3KWE	GMSF4KWE	GMSF5KWE	GMSF6KWE	GMSF8KWE	GMSF10KWE	GMSF12KWE
Inverter output voltage waveform	Pure sine wave							
Inverter output Efficiency	≈90%							
Inverter output voltage	200V/210V/220V/230V/240V(Adjustable)							
Inverter output Frequency	50Hz/60Hz (Adjustable)							
AC output voltage	110VAC±10%/220VAC±10%							
AC output Frequency	Automatic tracking							
Energy loss under power saving mode	5W							
Operating Mode	Mains AC priority mode, battery priority mode, ECO mode, unattended mode, power generation mode							
Battery Parameter	Lead acid battery/ LiFePO ₄ battery/ NiCoMn battery/ Gel battery/ Customer self-defined							
Battery defining parameter	Constant-voltage charging setting, float-voltage charging setting, battery recovery voltage setting, mains AC recovery voltage setting, low voltage alarm setting, low voltage protection setting							
Battery charging mode	Lead acid battery: constant current, constant voltage, float charging LiFePO ₄ battery: constant current, constant voltage							
Lithium type battery selection	LiFePO battery: 3.2V per unit NiCoMn battery: 3.7V per unit							
Protection	Battery low voltage protection / Battery high voltage protection / Overload protection / Over heating protection,etc							
Display	LCD display Mains AC status, DC-AC status, charging status, alarm							
Operating display	Operating status, input & output voltage, PV module operating information, inverter operating information and etc.							
Language	English/Chinese (Adjustable)							
Other	GMSF2KWE	GMSF3KWE	GMSF4KWE	GMSF5KWE	GMSF6KWE	GMSF8KWE	GMSF10KWE	GMSF12KWE
Switch Time	<5ms							
Cooling Method	Smart temperature control system							
Communication	RS232/RS485 (optional)							
Operating Temperature	(-10°C~40°C)							
Operating Altitude	≤3000m							
Product Dimensions	495×320×220mm				560×390×200mm			
Package Dimensions	600×380×290mm				715×420×316mm			
Net Weight (kg) (Approx)	16.5kg	19.5kg	22kg	25kg	28kg	31.5kg	36kg	40kg
Gross Weight (kg) (with wooden crate)(Approx)	19.5kg	22kg	25kg	28kg	31kg	36kg	41kg	45kg

