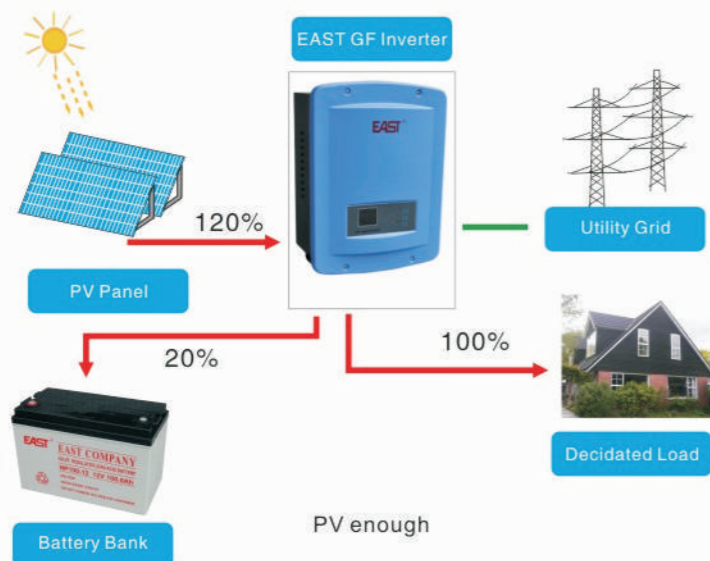
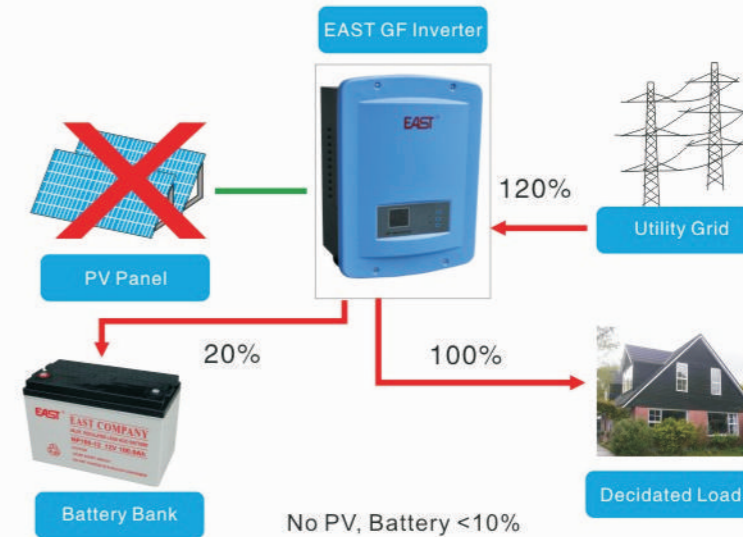


PV PRIORITY

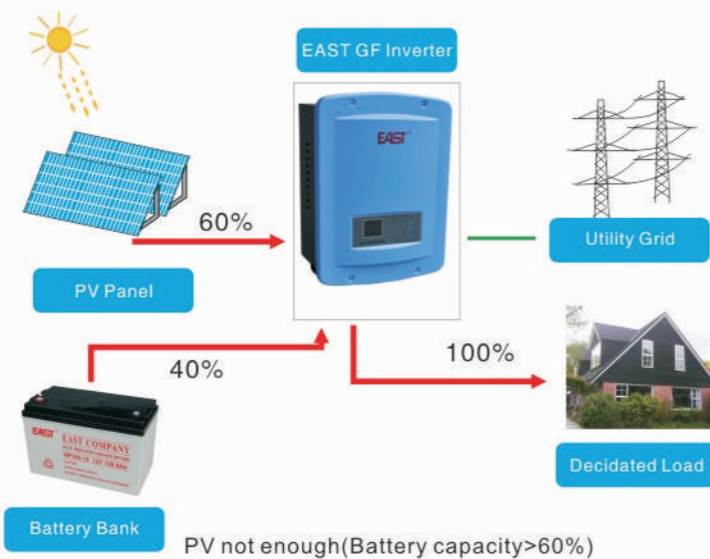
Case1



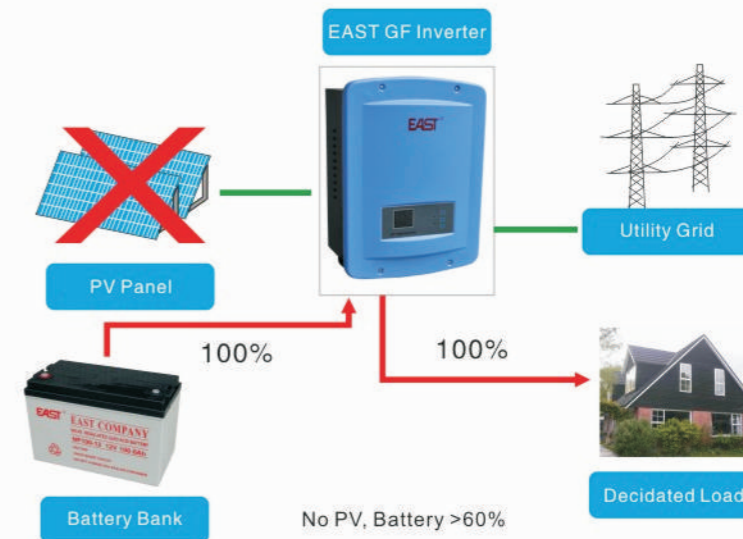
Case4



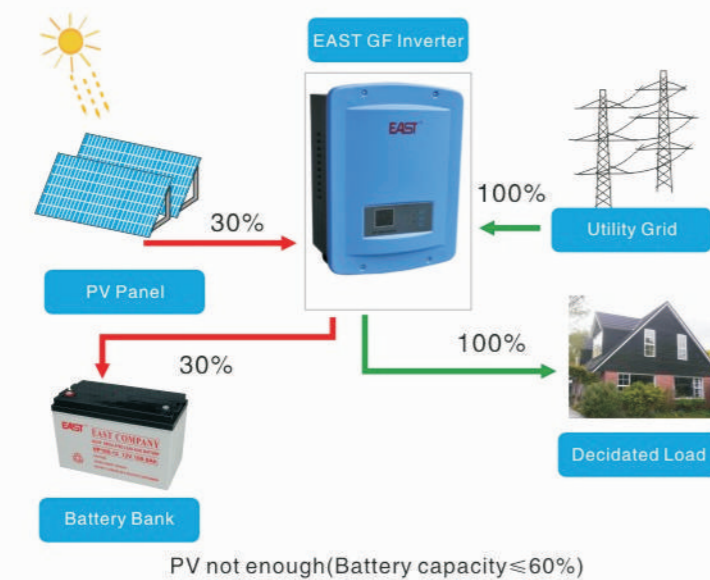
Case2



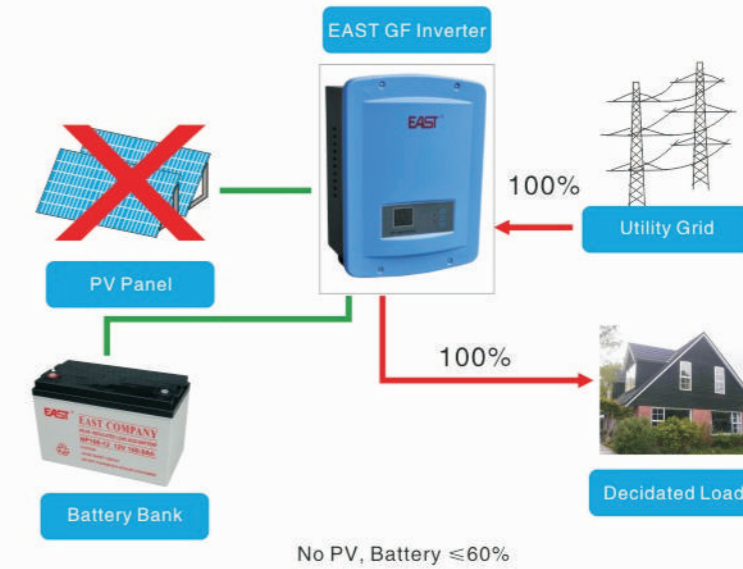
Case5



Case3



Case6



Off-Grid Solar Inverter

with isolated transformer

100W~2400W

PF=1



General Descriptions

EA-GF series products are on the basis of green energy use and equipment electricity need for remote area, combing the electricity characteristics of household appliances, communication station equipment and computer peripheral equipment. They have the function of energy conservation and environment protection. They adopt MCU control technique, having various kinds of function such as multi-setting mode, MPPT control, voltage stabilization on line, short-circuit protection, inverter frequency adaptive, output overload, battery charging management, monitoring etc. EA-GF series products are the ideal power supply delivered with excellent performance, high stability, high reliability and high practical applicability.

Features

- ✓ Multi-setting
 - PV priority mode or AC priority mode
 - Choose the charging current based on the configured capacity of the battery
- ✓ High reliability: Double MCU digital control
 - Independent MPPT (Maximum Power Point Tracking) control microprocessor system
 - Independent inverter microprocessor control system
- ✓ Isolated and pure sine wave technology
- ✓ LCD+LED display
- ✓ Wide input range
- ✓ High-speed synchronous conversion
- ✓ Friendly alarm system
- ✓ Unattended and intelligent monitoring (RS232 or USB,SNMP)
- ✓ Online protection function
- ✓ Intelligent No-load auto shutdown technology (optional)
- ✓ Frequency auto adaptive

Specifications

Model	GF100	GF400	GF500	GF800	GF1000	GF1500	GF2000	GF2400
Power	100W	400W	500W	800W	1000W	1500W	2000W	2400W
Battery voltage	12Vdc	12Vdc / 24Vdc	24Vdc	24Vdc	24Vdc 48Vdc	48Vdc		
Working mode	PV priority / AC priority							
PV								
Input voltage range	12Vdc-25Vdc	12Vdc-25Vdc(12V) 24Vdc-45Vdc(24V)	24Vdc-45Vdc	48Vdc-90Vdc				
Suggested voltage range(Vmp)	15Vdc-17.8Vdc	15Vdc-17.8Vdc(12V) 30Vdc-36Vdc(24V)	30Vdc-36Vdc	60Vdc-71Vdc				
PV current(Imp)	≤20A	≤40A		≤50A	≤60A	≤80A		
Max. charge current	5A/10A/20A	10A/20A/30A/40A				10A/20A/30A/60A		
Conversion efficiency	≥ 98 %							
Display								
Panel indicator	LCD + LED							
AC mode								
Input voltage range	100/110/120/220/230/240VAC ± 25% (Customized)							
Input frequency range	45-65 Hz (Automatically transfer to inverter power when overfrequency)							
Output voltage precision	100/110/120/220/230/240VAC ± 10%							
Input PF. (AC/DC)	≥98%							
Charge current	12A max							
Efficiency (Mains mode)	≥ 96%							
Overload	110% 255s transfer to bypass model; 120% 60s transfer to bypass model; 150% 10s transfer to bypass model;							
Short circuit protection	Input fuse							
Inverter Mode								
Inverter output voltage	100/110/120/220/230/240VAC ± 5%							
Output frequency	50 Hz / 60Hz ± 1% frequency auto sense							
Wave form distortion	Linear load ≤ 5%							
PV-AC transfer time	5 ms typical value; Max.8 ms							
Max.Efficiency	≥ 84.5%							
Inverter overload	110% 255s transfer to bypass model; 120% 60s transfer to bypass model; 150% 10s transfer to bypass model;							
No-load off (Optional)	Load < 5% The system automatically shut down at 1MIN, transfer to bypass power supply							
Short circuit protection	Systems automatically shut down							
Alarm								
Mains abnormal	1/4s; automatic sound elimination after 40s							
Low battery	5/1s							
Overload	1/1s							
Communication interface(Optional)	RS232 / USB / SNMP (Setup available for regular start/shutoff)							
Others								
Surge protection	Optional							
EMC	EN62040-2:2006;EN61000-3-2:2006; EN61000-3-3:2008							
IP class	IP21							
Ambient temperature	0°C ~ 40°C							
Ambient humidity	10% ~ 90%(Non Condensed)							
Noise	≤ 50dB							
Dimension (D*W*H)mm	314 × 147 × 456				380 × 195 × 478			
Packing dimension (D*W*H)mm	380 × 190 × 500				455 × 255 × 522			
Weight(kg)	8.5	11.0	13.0	19.0	20.0	26.0	28.0	30.0
Packing weight(kg)	9.5	12.0	14.0	20.6	21.6	27.6	29.6	31.6

◆ All specifications subject to change without notice.
◆ Custom-made specifications are acceptable.

Off-Grid Solar Inverter

with isolated transformer

3KW~8KW

PF=1



General Descriptions

EA-GF series products are on the basis of green energy use and equipment electricity need for remote area, combing the electricity characteristics of household appliances, communication station equipment and computer peripheral equipment. They have the function of energy conservation and environment protection. They adopt MCU control technique, having various kinds of function such as multi-setting mode, MPPT control, voltage stabilization on line, short-circuit protection, inverter frequency adaptive, output overload, battery charging management, monitoring etc. With display of LCD and LED, all the parameters and running status could be visible. Intelligent monitor is available via RS232 & USB connecting with PC, while remote control via RS485 & SNMP. EA-GF series products are the ideal power supply delivered with excellent performance, high stability, high reliability and high practical applicability.

Features

- ✓ Multi-setting
 - PV priority mode or AC priority mode
 - Choose the charging current based on the configured capacity of the battery
- ✓ High reliability: Double MCU digital control
 - Independent MPPT (Maximum Power Point Tracking) control microprocessor system
 - Independent inverter microprocessor control system
- ✓ Isolated and pure sine wave technology
- ✓ LCD+LED display
- ✓ Wide input range
- ✓ High-speed synchronous conversion
- ✓ Friendly alarm system
- ✓ Unattended and intelligent monitoring (RS232 or USB, RS485, SNMP)
- ✓ Online protection function (inverter overload, short circuit etc.)
- ✓ Intelligent zero load auto shutdown function (optional)
- ✓ Frequency auto adaptive

Specifications

Model	GF3000	GF4000	GF3000	GF5000	GF6000	GF8000
Power	3KW	4KW	3KW	5KW	6KW	8KW
Battery voltage	96Vdc		192Vdc			
Working mode	PV priority / AC priority optional					
PV						
MPPT voltage range	96Vdc - 200Vdc		192Vdc - 400Vdc			
Max. charge current	10-60A		10-40A	10-60A		
PV panels configuration(Suggestion)(Vmp)	120-142Vdc		240-284Vdc			
PV panels configuration(Suggestion)(Imp)	≤60A		≤40A	≤60A		
Conversion efficiency	≥ 98 %					
Display						
Panel indicator	LCD + LED Panel display					
AC mode						
Input voltage range	165Vac - 275Vac					
Input frequency range	40-70 Hz (auto transfer to battery mode, if beyond this range)					
Output voltage range	220VAC ± 5%					
Input power factor	≥0.8					
Max. efficiency	88% (inverter on)					
Overload	110% transfer to bypass in 255s, 120% go to bypass in 60s, 150% go to bypass in 10s.					
Max. charging current	8A		12A			
Short circuit protection	Electronic limited current output or turn bypass, air breaker protection					
Inverter Mode						
output voltage	220Vac ± 5%					
Output frequency	50 Hz / 60Hz ± 1% Frequency self-adjusted					
Output power factor	1					
Distortion	≤ 5% Linear load					
PV-AC Transfer time	0ms					
Max. efficiency	≥92%					
Overload	110% transfer to bypass, in 255s or shut down, 120% go to bypass or shut down in 60s, 150% go to bypass or shut down in 10s.					
Eco mode (optional)	When Load < 5%, system will turn to bypass power supply (utility) in 1min					
Short circuit	Electronic limited current output, turn the bypass or system to be automatic shutdown					
Alarm						
AC fails	1/4s; automatic sound elimination after 40s					
Battery low voltage	5/1s					
Overload	1/1s					
Communication (Optional)						
Communication interface	RS232 / USB / RS485 / SNMP					
Dry contact	PV failure, battery low-voltage, overload, bypass, inverter failure, remote start generator dry contact signal					
Others						
Output connection	Terminal blocks					
Surge protection	Optional					
EMC	Accord with EN62040-2:2006; EN61000-3-2:2006; EN61000-3-3:2008					
IP class	IP20					
Ambient temperature	0°C ~ 40°C					
Ambient humidity	10% ~ 90% (Non Condensed)					
Noise	≤ 50dB					
Working altitude	2000m (Every 100m increase derating 1%)					
Dimension (D*W*H)mm	560 × 265 × 725					
Packing dimension (D*W*H)mm	662 × 360 × 905					
Weight(kg)	76	80	60	67	69	85
Packing weight(kg)	85	89	69	76	78	94

◆ All specifications subject to change without notice.
◆ Custom-made specifications are acceptable.

Off-Grid Solar Inverter

with isolated transformer

10KVA~60KVA(3/3)

PF=0.9



Product overview

EA-GF series products use high speed DSP control unit, advanced high speed IGBT, MOSFET components, with pulse width modulation (SVPWM) technique disturbance type MPPT control, and double conversion system configuration. Under high-speed DSP system control, the system can quickly track panels to do high-power, load change and efficient multi-level control system, even if the mains input voltage and frequency suddenly change, over/under voltage, or power disturbances, it also can ensure provide the load with regulated voltage and frequency power. System has a reliable, environmentally friendly, high intelligence and other characteristics.

Features

Villa, hotel, residential security, large base station, office, small manufacturing enterprises, computing centers, industrial automation equipment, network room, IDC data center, banking equipment, securities, health care, transportation, petrochemical and other solar systems.

● High reliability:

★ High-speed micro-controller DSP digital control technology to achieve real-time control, parameter setting, data detection, self-test function to ensure high reliable operation of the system.

★ With high speed switching characteristic, high voltage, high current, low internal resistance, low dissipation IGBT, MOSFET power components based, to ensure system security and reliability.

● N+1 modularized MPPT tracking system:

★ Multipath MPPT control system access, independent input, operation. More suitable for roof project, to improve power generation efficiency of the panels.

● PV proactive power supply function:

After detects PV energy, system will enter MPPT status automatically, and it will also adjust the power distribution, priority in the use of PV energy.

● Intelligent battery management system:

★ In this system, AC rectifier, MPPT controller controlled by intelligent data exchange and communication system, user can set the battery capacity by themselves; battery configuration can be set by the operator interface, system will automatically adjust the charging current, charging voltage and charging mode.

★ In special cases, international technical engineer can adjust the charging rate and battery number according to the system configuration.

● Plenteous communication interface:

★ RS485, RS232 (standard), SNMP (Option).

★ Input dry contacts to switch on/off inverter, clear abnormal, EPO remotely. Output dry contacts singles for remote alarm.

● Intelligent storage staggering features:

System with intelligent peak load shifting function, the user can set the appropriate time period electricity according to the local electricity policy, to achieve load shifting features directly in order to bring economic value;

Specifications

Model	10KVA	20KVA	30KVA	40KVA	50KVA	60KVA
Rated Power (KW)	9KW	18KW	27KW	36KW	45KW	54KW
Rated Current (A)	15A	30A	45A	60A	76A	91A
Output Power Factor	0.9					
Rated input voltage	380V ± 20%					
Rated output voltage	380V ± 1%					
Battery Voltage	360Vdc					
Battery Quantity/Cell	30/180					
Working Mode	PV, AC replenish					
Max voltage range(Voc)	0V~750Vdc					
Best working voltage(Vmp)	444~550Vdc					
Float charging voltage	428V ± 1%					
Max efficiency	≥ 98%					
Equalize charging voltage	414V ± 1%					
Max current	40A	60A	120A	180A		
PV input ways	1+1 (reserved)		2+1 (reserved)		3+1 (reserved)	
MPPT modular	1+1 (reserved)		2+1 (reserved)		3+1 (reserved)	
Input voltage range	Three phases 380V ± 20% (-10%~+20% can charge the battery)					
Rated frequency	50 Hz / 60Hz (can be set backstage)					
Frequency range	50Hz/60Hz ± 5Hz					
Soft start	0~100% 10s					
Power factor	0.8					
Float charging voltage(20°C)	410V ± 1%					
Max voltage	415V ± 1%					
Max charging current(A)						
Battery capacity allowed	12	25	38	50	62	75
Rated current(A)	15	30	45	60	76	91
Inverter voltage	Three phases four lines +G 380Vac					
Phase voltage setting	220~230~240Vac (can be set backstage)					
Output voltage accuracy	± 1%					
Voltage transients range	± 5%					
Transient recovery time	20ms					
Rated frequency	50Hz/60Hz ± 1%					
Frequency tracking range	50Hz/60Hz ± 3Hz					
Crest factor	3:1					
Wave	Pure sine wave					
THD	≤ 3% (linear load)					
Voltage unbalance degree	± 3% (100%unbalance load)					
Overload	≥ 105%~110%: transfer to bypass 1 hours later, recover when reduce load ≥ 110%~125%: transfer to bypass 10 min later, recover when reduce load ≥ 125%~150%: transfer to bypass 1 min later, recover when reduce load ≥ 150%: transfer to bypass 10 s later, recover when user confirmed ≥ 200%: shutdown immediately, recover when user confirmed					
Short circuit	System current limited, shut down immediately, boot by user					
Max efficiency %	≥ 90%	≥ 91%	≥ 92%	≥ 92%	≥ 93%	≥ 93%
Rated voltage(V)	Three phases four lines +G 380Vac					
Voltage range	± 20%					
Rated frequency(Hz)	50/60Hz ± 5Hz					
Max current	19	38	57	76	95	114
End of discharge	315VDC					
Charging current setting	Factory setting is 0.15C ₁₀ ; user can set 0.05~0.3 C ₁₀					
Battery Intelligent Management	Equalizing charging and float charging automatically transfer; automatic temperature compensation for battery (when battery detection not connected, default environment temperature)					
Staggering depth of discharge settings	1.85V~2.1V; can be set by user					
Inverter/bypass transfer time	0ms					
Inverter/bypass Transfer time	0ms					
Remote Control input	Inverter on, off, abnormal clear, emergency power off					
PC Monitoring Interface	RS232, RS485, SNMP (optional)					
Dry Contact	Bypass input abnormal, rectifier input abnormal, system fault, system warning, low battery, overload, fans fault, generator ON/OFF					
Operation Temperature	0~42°C					
Max. Relative Humidity	90% (non condensed)					
Max. Working Altitude	1000m (100 m higher, 1% derated; max 4000m)					
Cooling Way	Forced ventilation(Fans speed varies with the load)					
Noise(1mvaries with load and temperature) dB	60					
Mean time between failures (MTBF)	200, 000 hours					
Defend grade(EN60529)	IP20					
Power Line Input	Below					
Standard	IEC62040-1-1, EN62109-1:2010, EN62109-2:2011					
Dimensions(W*D*H)mm	600 x 700 x 1750					
Packing dimensions(W*D*H)mm	690 x 790 x 1850					
weight	220	250	300	320	345	360