

HYBRID BI-DIRECTION SOLAR INVERTER

EA3.6KHD

- Solar, battery and utility power sources
- Flexible & programmable operating modes
- Smart energy management
- Soft-switching technology, DSP control technology
- High Efficiency 96%
- Backflow prevention
- Flexible adaptation of Lithium battery
- Battery management
- Intelligent real-time monitoring
- Small footprint, light weight, simplified installation



EAST[®]
SINCE 1989

SPECIFICATIONS

MODEL	EA3.6KHD
Rated power	3600 W
Operating mode	Flexible setting via upper computer software or LCD interface
PV INPUT	
Max. input power	4500 W
Max. input voltage	500 Vdc
Rated input voltage	360 Vdc
Start-up voltage	115 Vdc
Max. input current	18 A
MPPT voltage range (Full load)	120 ~ 450 Vdc (250 ~ 450 Vdc)
Number of MPPTs	1
AC OUTPUT	
Rated AC power	3600 VA / 3600 W
Rated output voltage	230 Vac
Output voltage range	170 ~ 280 Vac
Rated output frequency	50 / 60 Hz
Output frequency range	50 ± 5 / 60 ± 5 Hz
Rated output current	15.6 A
Power factor	0.9 (leading) ~ 0.9 (lagging)
THDi	≤ 3%
EPS OUTPUT	
Rated EPS power	3000 VA / 3000 W
Rated EPS voltage	230 Vac (208 / 220 / 240 Vac settable)
Rated EPS current	13.0 A (14.4 A / 13.6 A / 12.5 A))
EPS voltage range	184 ~ 276 Vac
EPS frequency range	50 / 60 Hz ± 1%
THDv	≤ 3% (linear load)
BATTERY	
Battery type	Li-ion, Lead-acid battery
Rated voltage	48 Vdc
Voltage range	40 ~ 58 Vdc
Charging current	Max. 25 A (5 ~ 25 A settable)
AC charge	Support
Rated discharge power	3000 W
Max. discharge current	62.5 A
TRANSFER TIME	
EPS mode → On-grid mode	0 ms
On-grid mode → EPS mode	10 ms
EFFICIENCY	
Max. efficiency	96%
MPPT efficiency	99%
OTHERS	
Protections	Over/under voltage, over/under-frequency, over load, short-circuit, over temperature, PV reverse polarity, leakage current, insulation resistance, islanding, fan fault
Communications	USB / RS485 (standard), SNMP / Wi-Fi / GPRS (optional)
Display	LED & LCD
Standards	EN 62109-1, IEC62109-2, EN 61000-6-2, EN 61000-6-3, VDE-AR-N 4105, DIN VDE 0126-1-1, DIN VDE V 0124-100, CEI 0-21, G83
IP rating	IP20
Operating temperature	0 ~ 40 ℃ (> 40 ℃ derating)
Relative humidity	0 ~ 90%
Altitude	< 1000 m (> 1000 m derating)
Noise level at 1 m	≤ 50 dB
Topology	Transformerless (PV to Grid)
Dimensions (W×D×H) (mm)	410 × 470 × 123
Packaged dimensions (W×D×H) (mm)	508 × 582 × 183
Net weight (kg)	14.4
Gross weight (kg)	16.6

• All specifications are subject to change without notice.



Off-Grid & Hybrid Solar Inverter

| We deliver smart energy for your smart living

CONTACT WITH US

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EAST GROUP CO., LTD.

OFF-GRID SOLAR INVERTER

200 W ~ 3000 W

- Pure sine wave solar inverter
- Compact & easy to use
- Output factor 1.0
- Selectable mains input voltage range
- Configurable energy storage priority / power supply priority via LCD setting
- Compatible with generator
- Auto restart when mains or PV is restored
- No PID attenuation damage for solar panels
- Flexible battery management system
- Mobile APP monitoring



SPECIFICATIONS

MODEL	GF500	GF1000	GF2000	GF2500	GF3000	GF200
Rated power	500 W	1000 W	2000 W	2500 W	3000 W	200 W
Operating modes	Energy storage priority / Power supply priority					
PV INPUT						
Max. input power	700 W	1400 W	2800 W	3500 W	3500 W	3500 W
Max. input voltage	60 Vdc	100 Vdc	150 Vdc	150 Vdc	150 Vdc	150 Vdc
Rated input voltage	48 Vdc	80 Vdc	120 Vdc	120 Vdc	120 Vdc	120 Vdc
Start-up voltage	15 Vdc	30 Vdc	60 Vdc	60 Vdc	60 Vdc	60 Vdc
Max. input current	43 A	43 A	43 A	53 A	53 A	53 A
MPPT voltage range (Full load)	16 ~ 48 Vdc	33 ~ 80 Vdc	65 ~ 120 Vdc			
Number of MPPTs	1					
AC INPUT						
Input voltage	Bypass input range: 0 ~ 132 Vac / 0 ~ 264 Vac Rated input voltage: 100 / 110 / 115 / 120 Vac or 200 / 220 / 230 / 240 Vac (2500 W is only for 110 Vac; 3000 W is only for 220 Vac)					
Input frequency	50 / 60 Hz ± 5% / 10% / 15% (settable)					
OUTPUT						
Output voltage	100 / 110 / 115 / 120 Vac ± 2% or 200 / 220 / 230 / 240 Vac ± 2% (settable) (2500 W is only for 110 Vac; 3000 W is only for 220 Vac)					
Output frequency	50 / 60 Hz ± 1% (auto-sensing)					
Power factor	1					
Waveform	Sinusoidal					
THD	THDu ≤ 3% (Linear load)					
BATTERIES						
Battery type	Lead-acid battery (default), AGM / LIT / GEL / Flood battery (optional)					
Battery voltage	12 Vdc	24 Vdc	48 Vdc			
Charging current	5 ~ 50 A (settable) PV charging: 50 A (max.) AC charging: 20 A (max.)		5 ~ 65 A (settable) PV charging: 65 A (max.) AC charging: 30 A (max.)		3 ~ 65 A (settable) PV charging: 65 A (max.) AC charging: 5 A (max.)	
TRANSFER TIME						
PV ↔ AC	3 ~ 6 ms (typical), ≤ 10 ms (max.)					
EFFICIENCY						
Max. efficiency (resistive load)	≥ 78%	≥ 82%	≥ 85%	≥ 85%	≥ 85%	≥ 75%
MPPT efficiency	≥ 98% (max.)					
OTHERS						
Protections	Over / under voltage, over / under-frequency, output overload, short-circuit, overdischarge, overcharge, overtemperature, battery low voltage, battery reverse polarity, PV reverse polarity, lightning protections					
Communications	RS232 / USB / RS485 (standard), SNMP / Wi-Fi / GPRS (optional)					
Display	LCD & LED					
Standards	IEC 62040-1, IEC 62040-2, EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-4, EN 62109-1, EN 62109-2					
IP rating	IP 21					
Operating temperature	0°C ~ 40°C					-35°C ~ 40°C
Relative humidity	≤ 93%					
Altitude	≤ 1000 m; Above 1000 m, derating 1% for each additional 100 m; Max.4000 m					
Noise level at 1 m	< 50 dB					
Dimensions (W × D × H) (mm)	365.5 × 442 × 210					
Packaged dimensions (W × D × H) (mm)	455 × 520 × 283					
Net weight (kg)	16.6	19.5	30.4	32.8	38.5	13.4
Gross weight (kg)	18.1	21.0	31.9	34.3	40.0	14.9

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OFF-GRID SOLAR INVERTER

10 kVA ~ 120 kVA (3:3)

- Multiple MPPT charger controllers
- Hot-swap MPPT modules for easy maintenance and expansion
- Configurable battery parameters via LCD settings
- Self-regulation for charging voltage and current
- Intelligent AC and PV complementation power supply
- Intelligent staggering power consumption function
- Multiple remote control



SPECIFICATIONS

MODEL	GF10K	GF20K	GF30K	GF40K	GF60K	GF80K	GF100K	GF120K
Rated power	9 kW	18 kW	27 kW	36 kW	54 kW	72 kW	90 kW	108 kW
Operating mode	AC and PV complementation							
PV INPUT								
Max. input power	25 kW		2 × 25 kW		3 × 25 kW	4 × 25 kW	5 × 25 kW	6 × 25 kW
Max. input voltage	750 Vdc							
Rated input voltage	500 Vdc							
Start-up voltage	≥ (battery voltage + 20) Vdc							
Max. input current	60 A		120 A		180 A	240 A	300 A	360 A
MPPT voltage range (Full load)	450 ~ 550 Vdc							
Number of MPPTs	1 + 1 (reserved)		2 + 1 (reserved)		3 + 1 (reserved)	4 + 2 (reserved)	5 + 3 (reserved)	6 + 2 (reserved)
AC INPUT								
Input voltage	380 Vac ± 20% (line voltage), three-phase (rectifier) 380 Vac ± 20% (line voltage) three-phase + N + PE (bypass)							
Input frequency	(50 / 60 Hz) ± 5 Hz							
OUTPUT								
Output voltage	380 / 400 / 415 Vac ± 1% (line voltage), three-phase + N + PE							
Output frequency	(50 / 60 Hz) ± 1 Hz							
Rated output current	20 A	40 A	60 A	80 A	120 A	160 A	200 A	240 A
Waveform	Sinusoidal							
THD	THDu ≤ 3% (linear load)							
BATTERIES								
Battery type	Lead-acid battery / Li-ion battery (optional)							
Battery voltage	360 Vdc							
Charging current	15 A by default, settable based on inverter model and battery capacity							
TRANSFER TIME								
PV ↔ AC	0 ms							
EFFICIENCY								
Max. efficiency	≥ 91%		≥ 92%		≥ 93%			
MPPT efficiency	≥ 98% (max.)							
OTHERS								
Protections	Over / under voltage, over / under-frequency, output overload, short-circuit, overtemperature, battery low voltage, overcharge, PV reverse polarity							
Communications	RS232 / RS485 / dry contacts (standard), SNMP / Wi-Fi / GPRS (optional)							
Display	LCD & LED							
Standards	EN 62040-1, EN 62040-2, IEC 62040-2							
IP rating	IP 20							
Operating temperature	0°C ~ 40°C							
Relative humidity	90% (non-condensing)							
Altitude	1000 m at rated power (derating 1% for each additional 100 m); Max. 4000 m							
Noise level at 1 m	≤ 65 dB (varies with loads and temperature)							
Dimensions (W × D × H) (mm)	450 × 840 × 1100		600 × 700 × 1750			960 × 800 × 1700		
Packaged dimensions (W × D × H) (mm)	560 × 940 × 1300		700 × 800 × 1950			1060 × 900 × 1900		
Net Weight (kg)	210	223	360	410	495	828	834	840
Gross Weight (kg)	230	245	380	430	515	848	854	860

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