BEXIE ENERGY

Europe based aftersale
Company HQ in Spain

TECHNICAL DATASHEET

Single-phase Hybrid Inverter

BE3.6-6KW-1PH (LV) // RESIDENTIAL USE // COMMERCIAL USE

Low-voltage single-phase hybrid inverter with power ratings from 3.6 to 6 kW. Dual phase-shift control technology with an optimized charging and discharging process and ultra-fast switching between grid-connected and island modes. Certified for grid connection in Europe and the United Kingdom.



- Fast charging or discharging up to 120A.
- Fanless cooling design, long lifespan and quiet performance.
- Seamless transition to backup mode,<10 ms UPSlevel switching.
- IP65 outdoor and indoor application.
- Feed-in limitation function (zero export).
- PV system oversizing up to 9KW.
- Support for both local and remote communication.

FEATURES

HYBRID READY | AC COUPLING | ON/OFF GRID | SMART MONITORING | BATTERY COMPATIBLE

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BEXIE GROUP designs, manufactures and delivers high-performance solar electric technology worldwide. Our high-efficiency solar cells enable us to produce different types of solar panels with highest efficiency.

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MODEL	BE3.6KW-1PH	BE4.6KW-1PH	BE5KW-1PH	BE6KW-1PH
EFFICIENCY				
Max. Efficiency (PV to AC)	97.3%			
Max. Efficiency (BAT to AC)	94.3%			
Euro. Efficiency (PV to AC)	96.8%			
INPUT (PV)				
Max. PV Input Power	6,300W	9,000W	9,000W	9,000W
Max. PV Voltage	550V			
Start-up Voltage	90V			
MPPT Voltage Range	70V-540V			
Max. Input Current	15A / 15A			
Max. Short Circuit Current	20A / 20A			
Nos. of MPPT	2			
String per MPPT	1 / 1			
INPUT/OUTPUT (BAT)				
Battery Type	Lithium-ion / Lead-acid			
Nominal Battery Voltage	48V			
Battery Voltage Range	40V-65V			
Max. Charge/Discharge Current	60A / 60A	120A / 120A	120A / 120A	120A / 120A
Max. Charge/Discharge Power	3,000W / 3,000W	6,000W / 6,000W	6,000W / 6,000W	6,000W / 6,000W
OUTPUT (GRID)				
Nominal AC Output Power	3,600W	4,600W	5,000W	6,000W
Max. AC Apparent Power	3,960VA	4,600VA	5,500VA	6,000VA
Max. AC Output Power (PF=1)	3,960W	4,600W	5,500W	6,000W
Max. AC Output Current	18A	22A	25A	27.2A
Nominal Grid Voltage	220V / 230V / 240V, L+N+PE			
Grid Voltage Range	150V-300V (Adjustable)			
Nominal Grid Frequency	50Hz / 60Hz			
Grid Frequency Range	45Hz-55Hz / 55Hz-65Hz (Adjustable)			
Power Factor	>0.99 @rated power (Adjustable 0.8 LD-0.8 LG)			
THDI	<3% (Rated Power)			
OUTPUT (BACK UP)				
Nominal Output Power	3,000W	4,600W	5,000W	6,000W
Nominal Output Current	13A	20A	21.7A	26A
Peak Power (>1s)	4,500VA	6,900VA	7,500VA	9,000VA
Nominal Output Voltage	220V / 230V / 240V, L+N+PE			
Nominal Output Frequency	50Hz / 60Hz			
Transfer Time	<10ms			
THDV	<3%@100%R Load			
PROTECTION				
Protection Category	Class I			

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DC Switch	Yes			
Anti-islanding Protection	Yes			
AC Over Current Protection	Yes			
AC Over Voltage Protection	Yes			
AC Short Circuit Protection	Yes			
DC Reverse Protection	Yes			
Surge Arrester	DC Type III, AC Type III			
PV Insulation Detection	Yes			
Leakage Current Protection	Yes			
GENERAL				
Max.Operation Altitude	4,000m (>2,000m derating)			
Protection Degree	IP65			
Operating Temperature Range	-25~60°C (>45°C derating)			
Relative Humidity	0~100%			
Cooling	Natural Cooling			
Mounting	Wall bracket			
Dimensions (WxHxD)	570mm x 495mm x 175mm			
Weight	20kg	25kg	25kg	25kg
PV Connection	MC4/H4			
Battery Connection	Dedicated DC connector			
AC Connection	Dedicated AC connector			
HMI & COM				
Display	LED+APP			
Communication	RS485/CAN (for BMS), RS485, USB, DRM/RS485 (for Meter), Optional: Wi-Fi/GPRS/LAN			
CERTIFICATION				
Grid	IEC 61727, EN 50549-1, G99, CEI 0-21, RD1699/661/647/413, NTS, UNE 217001			
Safety & EMC	IEC 62109-1/2, EN 62109-1/2, IEC 61000			