BEXIE ENERGY

Europe based aftersale
Company HQ in Spain

TECHNICAL DATASHEET

Three-phase Hybrid Inverter

BE6-20KW-3PH (LV) // RESIDENTIAL USE // COMMERCIAL USE

Low-voltage three-phase hybrid inverter with power ratings from 6 to 20 kW. Designed for efficient solar energy management and battery storage. High performance, intelligent control, and maximum reliability for residential and industrial installations.



- Up to 3 MPPTs with Max. PV Input power of 30KW.
- Up to 380A max. charging/discharging current.
- IP65: Indoor or outdoor installation.
- Intelligent Management, local & remote monitoring.

FEATURES

HIGH POWER | HYBRID READY | ON/OFF GRID | SMART MONITORING | BATTERY COMPATIBLE

+34 985 194 232

www.bexieenergy.com

Calle Peña Santa 68, Polígono Industrial Silvota, 33192, Llanera, Asturias

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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BE6-20KW-3PH (LV)

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MODEL	BE 6KW-3PH-LV	BE 8KW-3PH-LV	BE 10KW-3PH-LV
EFFICIENCY			
Max. Efficiency		97.60%	
Eur. Efficiency		97.00%	
INPUT (PV)			
Max. PV Access Power		40,000W	
Max. PV Usable Power	20,000W	20,000W	30,000W
Max. PV Input Voltage		1,000V	
Start-up Voltage		120V	
MPPT Operating Voltage Range		160V-980V	
Max. Input Current per MPPT	20A / 20A	20A / 20A	20A / 20A / 20A
Max. Short Circuit Current per MPPT	30A / 30A	30A / 30A	30A / 30A / 30A
Nos. of MPPT	2	2	3
String per MPPT	1 / 1	1 / 1	1 / 1 / 1
INPUT/OUTPUT (BAT)			
Battery Type		Lithium-ion / Lead-acid	
No. Of Battery Input		2*	
Battery Rated Voltage		48V	
Battery Voltage Range		40V-60V	
Max. Charge/Discharge Current	380A / 150A	380A / 200A	380A / 250A
Max. Charge/Discharge Power	20,000W / 7,200W	20,000W / 9,600W	20,000W / 12,000W
OUTPUT (GRID)			
Nominal AC Output Power	6,000W	8,000W	10,000W
Max. AC Output Apparent Power	6,600VA	8,800VA	11,000VA
Nominal AC Output Current	3 x 9.1A / 3 x 8.7A / 3 x 8.3A	3 x 12.1A / 3 x 11.6A / 3 x 11.1A	3 x 15.2A / 3 x 14.5A / 3 x 13.9A
Max. AC Output Current	3 x 10A	3 x 13.3A	3 x 16.7A
Max. Single Phase Power	3,200W	4,267W	5,333W
Max. Continuous AC Passthrough (grid to load)		45A	
Nominal Grid Voltage		220V / 380V; 230V / 400V, 240V / 415V 3W+N+PE	
Nominal Grid Frequency		> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)	
Power Factor		> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)	
THDi		<3% @rated power	
OUTPUT (BACK UP)			
Nominal AC Output Power	6,000W	8,000W	10,000W
Max. AC Output Apparent Power	6,600VA	8,800VA	11,000VA
Nominal AC Output Current	3 x 9.1A / 3 x 8.7A / 3 x 8.3A	3 x 12.1A / 3 x 11.6A / 3 x 11.1A	3 x 15.2A / 3 x 14.5A / 3 x 13.9A
Max. AC Output Current	3 x 10A	3 x 13.3A	3 x 16.7A
Peak Output Apparent Power	200%, 10s	200%, 10s	200%, 10s
Nominal Grid Voltage		220V / 380V; 230V / 400V, 240V / 415V 3W+N+PE	

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Three-phase Hybrid Inverter

BE6-20KW-3PH (LV)

BEXIE ENERGY

MODEL	BE 6KW-3PH-LV	BE 8KW-3PH-LV	BE 10KW-3PH-LV
Nominal Grid Frequency		50Hz / 60Hz	
Transfer Time		<10ms (Typical)	
THDV		<3% @100% R Load	
INPUT (GENERATOR)			
Max. Input Power		30,000W	
PROTECTION			
Protection Category		Class I	
DC Switch		Yes	
Anti-islanding Protection		Yes	
AC Overcurrent Protection		Yes	
DC Reverse Protection		Yes	
Overvoltage Protection		Yes	
Surge Arrester		DC Type II, AC Type II	
Insulation Resistance Detection		Yes	
Leakage Current Protection		Yes	
Built-in Battery Breaker		400A, Optionals	
GENERAL			
Max. Operation Altitude		4,000m (>2,000m derating)	
Ingress Protection Degree		IP65	
Operating Temperature Range		-25°C~60°C (>45°C derating)	
Relative Humidity		0~100%	
Cooling Method		Smart Cooling	
Mounting		Wall bracket	
Dimensions (WxHxD)		460mm x 742mm x 266mm	
Weight		50Kg	
HMI & COM			
Display		LED+LCD	
Communication Interface		RS485/CAN (for BMS), RS485 (for Meter), DRMs, CAN, 2*DO, 2*DI, USB (for Wi-Fi/ LAN)	
CERTIFICATION			
Safety		IEC/EN 62109-1/-2	
EMC		IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 62920	
Grid		IEC 61727/62116, IEC 60068, IEC 61683, NRS 097-2-1, EN 50549-1/10	

TECHNICAL DATASHEET

Three-phase Hybrid Inverter

BE6-20KW-3PH (LV)

BEXIE ENERGY

MODEL	BE 12KW-3PH-LV	BE 15KW-3PH-LV	BE 20KW-3PH-LV
EFFICIENCY			
Max. Efficiency		97.60%	
Eur. Efficiency		97.00%	
INPUT (PV)			
Max. PV Access Power		40,000W	
Max. PV Usable Power	30,000W	30,000W	30,000W
Max. PV Input Voltage		1,000V	
Start-up Voltage		120V	
MPPT Operating Voltage Range		160V-980V	
Max. Input Current per MPPT	20A / 20A / 20A	20A / 20A / 20A	20A / 20A / 20A
Max. Short Circuit Current per MPPT	30A / 30A / 30A	30A / 30A / 30A	30A / 30A / 30A
Nos. of MPPT	3	3	3
String per MPPT	1 / 1 / 1	1 / 1 / 1	1 / 1 / 1
INPUT/OUTPUT (BAT)			
Battery Type		Lithium-ion / Lead-acid	
No. Of Battery Input		2*	
Battery Rated Voltage		48V	
Battery Voltage Range		40V-60V	
Max. Charge/Discharge Current	380A / 300A	380A / 350A	380A / 380A
Max. Charge/Discharge Power	20,000W / 14,500W	20,000W / 18,000W	20,000W / 20,000W
OUTPUT (GRID)			
Nominal AC Output Power	12,000W	15,000W	20,000W
Max. AC Output Apparent Power	13,200VA	13,200VA	22,000VA
Nominal AC Output Current	3 x 18.2A / 3 x 17.4A / 3 x 16.7A	3 x 22.7A / 3 x 21.7A / 3 x 20.8A	3 x 30.3A / 3 x 29A / 3 x 27.8A
Max. AC Output Current	3 x 20A	3 x 25A	3 x 33.3A
Max. Single Phase Power	6,400W	8,000W	8,500W
Max. Continuous AC Passthrough (grid to load)		45A	
Nominal Grid Voltage		220V / 380V; 230V / 400V, 240V / 415V 3W+N+PE	
Nominal Grid Frequency		> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)	
Power Factor		> 0.99 @rated power (Adjustable 0.8 LD - 0.8 LG)	
THDi		<3% @rated power	
OUTPUT (BACK UP)			
Nominal AC Output Power	12,000W	15,000W	20,000W
Max. AC Output Apparent Power	13,200VA	16,500VA	22,000VA
Nominal AC Output Current	3 x 18.2A / 3 x 17.4A / 3 x 16.7A	3 x 22.7A / 3 x 21.7A / 3 x 20.8A	3 x 30.3A / 3 x 29A / 3 x 27.8A
Max. AC Output Current	3 x 20A	3 x 25A	3 x 33.3A
Peak Output Apparent Power	200%, 10s	200%, 10s	150%, 10s
Nominal Grid Voltage		220V / 380V; 230V / 400V, 240V / 415V 3W+N+PE	

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BE6-20KW-3PH (LV)

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MODEL	BE 12KW-3PH-LV	BE 15KW-3PH-LV	BE 20KW-3PH-LV
Nominal Grid Frequency		50Hz / 60Hz	
Transfer Time		<10ms (Typical)	
THDV		<3% @100% R Load	
INPUT (GENERATOR)			
Max. Input Power		30,000W	
PROTECTION			
Protection Category		Class I	
DC Switch		Yes	
Anti-islanding Protection		Yes	
AC Overcurrent Protection		Yes	
DC Reverse Protection		Yes	
Overvoltage Protection		Yes	
Surge Arrester		DC Type II, AC Type II	
Insulation Resistance Detection		Yes	
Leakage Current Protection		Yes	
Built-in Battery Breaker		400A, Optionals	
GENERAL			
Max. Operation Altitude		4,000m (>2,000m derating)	
Ingress Protection Degree		IP65	
Operating Temperature Range		-25°C~60°C (>45°C derating)	
Relative Humidity		0~100%	
Cooling Method		Smart Cooling	
Mounting		Wall bracket	
Dimensions (WxHxD)		460mm x 742mm x 266mm	
Weight		50Kg	
HMI & COM			
Display		LED+LCD	
Communication Interface		RS485/CAN (for BMS), RS485 (for Meter), DRMs, CAN, 2*DO, 2*DI, USB (for Wi-Fi/ LAN)	
CERTIFICATION			
Safety		IEC/EN 62109-1/-2	
EMC		IEC/EN 61000-6-1/-2/-3/-4, IEC/EN 62920	
Grid		IEC 61727/62116, IEC 60068, IEC 61683, NRS 097-2-1, EN 50549-1/10	

NOTES

The range of output voltage and frequency may vary depending on different grid codes. Specifications are subject to change without advanced notice. *If only one set of terminals is used, the max battery charge/discharge will be limited to 200A.