BEXIE ENERGY

Europe based aftersale
Company HQ in Spain

TECHNICAL DATASHEET

Three-phase Hybrid Inverter

BE12-30KW-3PH (HV) // RESIDENTIAL USE // COMMERCIAL USE // INDUSTRIAL USE

High-voltage three-phase hybrid inverter with power ratings from 12 to 30 kW and up to three independent MPPT trackers for maximum flexibility in photovoltaic array design. The perfect solution for high-power residential, commercial, and small-scale industrial installations requiring high-voltage battery storage and autonomous operation.



- Fast charging or discharging up to 2x75A.
- Seamless transition to backup mode.
- IP66 outdoor and indoor application.
- Feed-in limitation function (zero export).
- PV system oversizing up to 45kW.
- Support for both local and remote communication.

FEATURES

HIGH POWER | HYBRID READY | 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	BE12KW-3PH	BE15KW-3PH	BE20KW-3PH	BE25KW-3PH	BE30KW-3PH
EFFICIENCY					
Max. Efficiency (PV to AC)	98.20%	98.20%	98.20%	98.40%	98.40%
Max. Efficiency (BAT to AC)			98.00%		
Euro. Efficiency (PV to AC)			97.90%		
INPUT (PV)					
Max. PV Input Power	30,000W	30,000W	30,000W	45,000W	45,000W
Max. PV Voltage			1,000V		
Start-up Voltage			150V		
MPPT Voltage Range			160V-950V		
Max. Input Current	32A / 32A	32A / 32A	32A / 32A	32A / 32A / 32A	32A / 32A / 32A
Max. Short Circuit Current	40A / 40A	40A / 40A	40A / 40A	40A / 40A / 40A	40A / 40A / 40A
Nos. of MPPT	2	2	2	3	3
String per MPPT	2 / 2	2 / 2	2 / 2	2 / 2 / 2	2 / 2 / 2
INPUT/OUTPUT (BAT)					
Battery Type			Lithium-ion / Lead-acid		
Nominal Battery Voltage	230V-800V	285V-800V	380V-800V	190V-800V	230V-800V
Battery Voltage Range			120V-800V		
Max. Charge/Discharge Current	60A / 60A	60A / 60A	60A / 60A	2 x 75A / 2 x 75A	2 x 75A / 2 x 75A
Max. Charge/Discharge Power	30,000W / 14,400W	30,000W / 18,000W	30,000W / 24,000W	45,000W / 30,000W	45,000W / 36,000W
OUTPUT (GRID)					
Nominal Output Power	12,000W	15,000W	20,000W	25,000W	30,000W
Max. AC Output Apparent Power	13,200VA	16,500VA	22,000VA	27,500VA	33,000VA
Max. AC Output Power (PF=1)	13,200W	16,500W	22,000W	27,500W	33,000W
Max. AC Output Current	3 x 20A	3 x 25A	3 x 33.3A	3 x 41.7A	3 x 50A
Max. Single Phase power	10,000W	10,000W	10,000W	11,000W	11,000W
Max. Input Power	36,000W	40,000W	40,000W	45,000W	45,000W
Max. Input Current	3 x 54.5A	3 x 60.6A	3 x 60.6A	3 x 68.2A	3 x 68.2A
Nominal Grid Voltage			380V / 400V / 415 V, 3W+N+PE		
Grid Voltage Range			277V-520V (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)		

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OUTPUT (BACK UP)					
Nominal Output Power	12,000W	15,000W	20,000W	25,000W	30,000W
Nominal Output Current	3 x 18.2A	3 x 22.7A	3 x 22.7A	3 x 37.9A	3 x 45.5A
Peak Output Apparent Power (5min)	14,400VA	18,000VA	24,000VA	30,000VA	36,000VA
Peak Output Apparent Power (10s)	18,000VA	22,500VA	30,000VA	37,500VA	45,000VA
Nominal Output Voltage	380V / 400V / 415V, 3W+N+PE				
Nominal Output Frequency	50Hz / 60Hz				
Transfer Time	10ms typical				
THDV	<3% @100% R Load				
PROTECTION					
Protection Category	Class I				
DC Switch	Yes				
Anti-islanding Protection	Yes				
AC Over Current Protection	Yes				
DC/AC Overvoltage Protection	DC Type II, AC Type III				
AC Short Circuit Protection	Yes				
DC Reverse Protection	Yes				
Surge Arrester	DC Type II, AC Type II				
Insulation Resistance Detection	Yes				
Leakage Current Protection	Yes				
GENERAL					
Max.Operation Altitude	4,000m (>2,000m derating)				
Ingress Protection Degree	IP66				
Operating Temperature Range	-25~60°C (>45°C derating)				
Relative Humidity	0~100%				
Cooling Method	Natural Cooling	Natural Cooling	Natural Cooling	Smart Fan Cooling	Smart Fan Cooling
Mounting	Wall bracket				
Dimensions (WxHxD)	660mm x 596mm x 235mm				
Weight	45kg	45kg	45kg	55kg	55kg
PV Connection Way	MC4/H4				
HMI & COM					
Display	Bluetooth & APP + LED				

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Communication	RS485/CAN (for BMS), RS485, DRM/RS485 (for Meter), Optional: Wi-Fi / LAN, 2 x DO, 2 x DI				
CERTIFICATION					
Grid	VDE 4105, EN 50549-1, CEI 0-21, RD 1699/661/647/413,UNE 217002, IEC 61727/62116				
Safety & EMC	IEC/EN 62109-1&2 & IEC/EN 61000				

NOTES

For single battery port connected, the maximum charge power is 25,500W. When two ports are used, the power can reach 45,000W.