

BSE100KH3

Hybrid Inverter

100KW

- Support 4 inverters working in parallel, extend to 400kW
- Support 10 MPPT inputs, up to 20 strings can be connected
- 110% continuous AC overloading capacity
- Smaller, lighter, easy to install and transport
- Support UPS function and black start
- Support remote control of DG
- Grid-support functions



Preliminary Version
Release BSEXXX-2024-04-Rev 02-EN

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Datasheet		BSE100KH3
Input Data (PV)		
Max. recommended PV power(for module STC)	156kW	
Start voltage	195V	
Max. Input Voltage	1100V	
MPPT nominal voltage/range	550V,180V~800V	
Max. input current per MPP tracker	32A	
Max. short-circuit current per MPP tracker	40A	
No. of PV strings per MPP tracker	2	
No. of MPP trackers	10	
Output Data (AC)		
AC nominal power	100kW	
Max. AC apparent power	110kVA	
Nominal AC voltage/range	380/400/415V,-15%~+10%	
Nominal AC grid frequency/range	50/60Hz,45-55Hz/55-65Hz	
Max. output current	166.7A	
Adjustable power factor	-1...+1	
THDi	<3%	
AC grid connection type	3P3W+PE/3P4W+PE	
Input Data (AC)		
AC nominal power	100kW/200kW	
Max. AC apparent power	110kVA/200kVA	
Nominal AC voltage/range	380/400/415V,-15%~+10%	
Nominal AC grid frequency/range	50/60Hz,45-55Hz/55-65Hz	
Max. input current	166.7A/303A	
Battery Data (DC)		
Continuous charging and discharging power	113.5kW	
Battery voltage range	600-1000V (for 3P3W) / 680-1000V (for 3P4W)	
Recommended battery voltage	768V	
Max charging and discharging current	167A	
BMS communication	RS485/CAN	
Backup Power (AC)*		
Rated AC output power	100kW	
Max. AC apparent power	120kVA	
Rated AC output voltage	220V/230V/240V(L-N),380V/400V/415V(L-L)	
Nominal AC output frequency	50/60 Hz	
Load connection	3W+N+PE	
Max. output current	181.8A	
THDv	<3% (Linear load)	
Load unbalance	100% three-phase unbalanced	
Overload capacity	≤110%：Continues; 110%~120%：<1min; >120%：200ms	
On/off grid transfer time	≤20ms	
Efficiency		
Max. efficiency	98.2%	
Protection Devices		
PV reverse polarity protection	Yes	
Battery reverse protection	Yes	
AC/DC surge protection	Type II	
Insulation resistance monitoring	Yes	
Ground fault monitoring	Yes	
Grid monitoring	Yes	
Residual-current monitoring unit	Yes	
AC short-circuit protection	Yes	
Strings monitoring	Yes	
Anti-islanding protection	Yes	
PID protection	Yes	
AFCl function	Opt	
General		
Dimensions (W / H / D)	820/1350/510mm	
Weight	160kg	
Operating temperature range	-30 °C~60 °C (> 50°C, derating)	
Relative humidity	0~100%	
Altitude	4000m	
Topology	Transformerless	
Cooling	Smart air cooling	
IP degree	IP66	
Display	OLED+LED/WiFi+APP	
Interfaces: RS485/CAN/USB	Yes	
Interfaces: WIFI/LAN	Opt	
Warranty (5/10 years)	Yes/Opt	
EN 62920-2017, IEC/EN 62477-1, IEC/EN 62109-1, IEC/EN 62109-2, IEC 62116, IEC 61727, G99:2020, EN 50549-1, VDE 4105, NRS 097-2-1		

* The parameter of backup power is only available for BSE100KH3 model. * BLUESUN SOLAR CO., LTD All rights reserved. Subject to change without notice.