

# STRING SOLUTIONS PV INVERTER

Powering A Green Future

# BRAZIL



**KSTAR**

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# Over 28 Years Of Experience From Industry To Residential



## About KSTAR



### ► TECHNOLOGY, INNOVATION AND THE HISTORICAL INDUSTRIAL EXPERIENCE OF KSTAR FROM TODAY AVAILABLE FOR EVERY HOME

Founded in 1993, Shenzhen KSTAR Science & Technology Co., Ltd (Stock Code:002518) is a National Torch Plan Key High-tech Enterprise, and also a pioneer of UPS industry and a total solution provider for Data Center Critical Infrastructure & PV Inverter Systems in Mainland China.

KSTAR is fully committed to the R&D and has been providing high-quality products with full service to over 90 countries and regions worldwide, leading the industrial development with innovation.

### ► Office and service center globally



# KSTAR BluE Power Your Green Life



## One Stop Solution Compatible with any type of Demand

- ▶ Our BluE series covers single phase 1 to 8kw, three phase 3-25kw and up to 20kwh Energy Storage System. This range is predominantly designed for modern house and small commercial energy demands.
- ▶ One App to monitor your power flow for different systems;
- ▶ One Call for pre-sales training & after-sales service;

Better O&M Experience

# New Generation Residential Solutions

- Higher Efficiency
- Dual MPPT
- Remote Control
- VPP Ready
- IP65 Protection Degree
- Type II DC SPD
- CATL Battery Cell
- Fanless Design & Lighter





## **BluE-G Series**

### **Residential Inverter**

### **Range From 1-25KW**



**Higher Efficiency**



**DC/AC Ratio Up to 2**



**Convenient & Light**



**Type II SPD**



**LVRT/HVRT Ability**



**API / VPP Ready**

# BLuE ESS

## ALL-IN-ONE SOLUTION

Application of energy storage system

### Powered by CATL

Lithium Ion batteries have received some negative press in recent years for their use of nickel and cobalt which are mined in countries with a poor record workers rights and use of child labour. There is currently a race to remove these materials from other manufacturers batteries worldwide. The CATL battery has already stopped using these materials and has moved to an LFP chemistry which has 0% cobalt or nickel. This same chemistry is being used in the Tesla Model 3 being supplied to China and EU.

### ALL-IN-ONE

The BLuE ESS includes all the components needed to transform the energy produced by PV panels into usable energy for household consumption or to store it in the integrated battery and use it in the moment of real world.



## TOP PERFORMANCES

Maximum efficiency of energy conversion.

Storage capacity up to 20 kwh



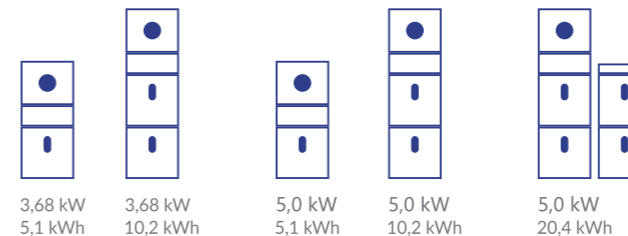
BluE-S Hybrid Inverter



"Plug and Play" - Cable Box



BluE-PACK 5.1



# Energy Management System

## Intelligent energy on your hands



### SOLARMAN Smart home system with APP Remote access to the system

With the app you can monitor production and energy consumption of your home in real time. Set your preferences to optimize your energy independence, the protection against blackouts or energy savings.

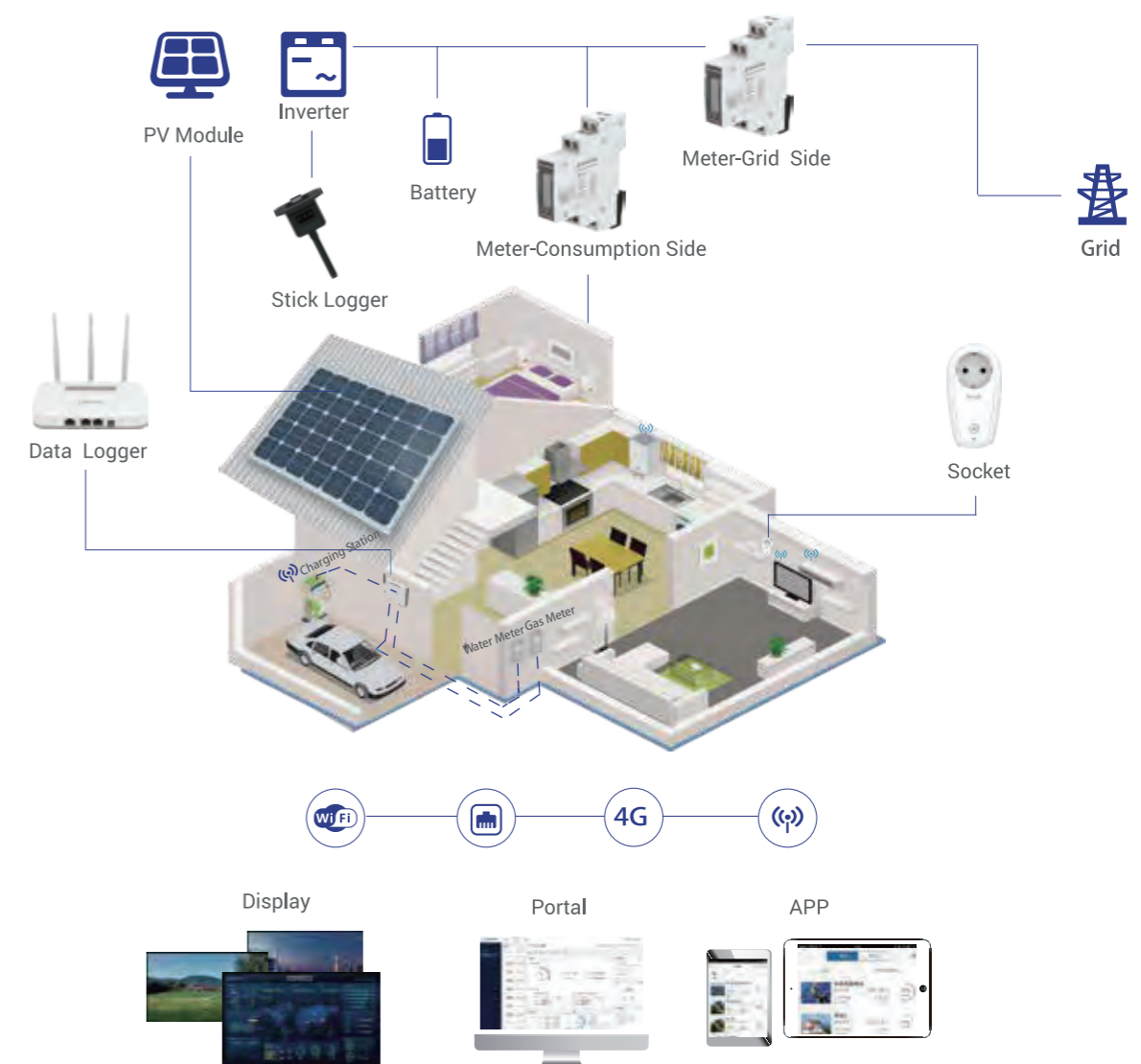


Thanks to instant alerts and access to distance, you can control your plant wherever you are.



# Step Up Modern House Energy Supply

- ▶ Supply your home appliances fully automated.
- ▶ 100% Independence from grid with battery system.
- ▶ Manage the whole system via APP anytime or anywhere.
- ▶ Join the Energy Future-Virtual Power Plant.




# BluE-G SINGLE PHASE SERIES

BluE-G 1000S / BluE-G 1500S /  
BluE-G 2000S / BluE-G 3000S




## PV On-Grid String Inverter

 Max. PV voltage up to 600V  
DC/AC ratio up to 1.5

 Compatible for big capacity PV panel  
WiFi / 4G Plug optional

 Type II DC SPD/Type III AC SPD  
IP65 protection

 High efficiency up to 97.6%  
Smaller and lighter



MODEL	BluE-G 1000S	BluE-G 1500S	BluE-G 2000S	BluE-G 3000S
<b>Input(DC)</b>				
Max. DC Voltage	600Vdc	600Vdc	600Vdc	600Vdc
Nominal Voltage	380Vdc	380Vdc	380Vdc	380Vdc
Start Voltage	60V	80V	80V	80V
MPPT Voltage Range	60V-560V	80V-560V	80V-560V	80V-560V
Number of MPP Tracker	1	1	1	1
Strings Per MPP Tracker	1	1	1	1
Max. input Current Per MPPT	13A	13A	13A	13A
Max. Short-circuit Current Per MPPT	13.6A	13.6A	13.6A	13.6A
<b>Output(AC)</b>				
Nominal AC Output Power	1000W	1500W	2000W	3000W
Max. AC Apparent Power	1100VA	1650VA	2200VA	3300VA
Nominal AC Voltage	230V L-N	230V L-N	230V L-N	230V L-N
AC Grid Frequency Range	60Hz±5Hz	60Hz±5Hz	60Hz±5Hz	60Hz±5Hz
Max. Output Current (A)	5A	7.5A	10A	15A
Power Factor (cosΦ)	0.8 leading to 0.8 lagging			
THDi	<3%			
<b>Efficiency</b>				
Max. Efficiency	97.00%	97.50%	97.50%	97.60%
Euro Efficiency	96.50%	97.00%	97.00%	97.00%
<b>Protection devices</b>				
DC Switch	Yes	Yes	Yes	Yes
Anti-islanding Protection	Yes	Yes	Yes	Yes
Output Over Current	Yes	Yes	Yes	Yes
DC Reverse Polarity Protection	Yes	Yes	Yes	Yes
String Fault Detection	Yes	Yes	Yes	Yes
Surge Protection	DC Type II;AC Type III			
Insulation Detection	Yes	Yes	Yes	Yes
AC Short Circuit Protection	Yes	Yes	Yes	Yes
<b>General Specifications</b>				
Dimensions W x H x D	350*290*120mm			
Weight	7.3kg	8kg	8kg	8kg
<b>Environment</b>				
Operating Temperature Range	-25°C~+60°C			
Cooling Type	Natural			
Max. Operation Altitude	4000m			
Max. Operation Humidity	0-100%			
AC Output Terminal Type	Quick Connector			
IP Class	IP65			
Topology	Transformer-less			
Communication Interface	RS485/WIFI/4G			
Display	LCD			
Certification & Standard	EN/IEC62109-1/2 ; IEC/EN61000-6-2;IEC/EN61000-6-4;IEC62116;IEC61727;EN50549-1			

\*Specifications subject to change without prior notice.




# BluE-G SINGLE PHASE SERIES

BluE-G 3000D / BluE-G 5000D  
BluE-G 6000D / BluE-G 8000D




## PV On-Grid String Inverter

 Max. PV voltage up to 600V  
DC/AC ratio up to 1.5

 Compatible for big capacity PV panel  
WiFi / 4G Plug optional

 Type II DC SPD/Type III AC SPD  
IP65 protection

 High efficiency up to 98.1%  
Smaller and lighter



MODEL	BluE-G 3000D	BluE-G 5000D	BluE-G 6000D	BluE-G 8000D
<b>Input(DC)</b>				
Max. DC Voltage	600V	600V	600V	600V
Nominal Voltage	380V	380V	380V	380V
Start Voltage	100V	100V	100V	100V
MPPT Voltage Range	80V-550V	80V-550V	80V-550V	80V-550V
Number of MPP Tracker	2	2	2	2
Strings Per MPP Tracker	1	1	1	1
Max. Input Current Per MPPT	11A	12.5A	12.5A	15A/25A
Max. Short-circuit Current Per MPPT	13.2A	15.6A	15.6A	18A/31.2A
<b>Output(AC)</b>				
Nominal AC Output Power	3000W	5000W	6000W	8000W
Max. AC Apparent Power	3300VA	5500VA	6000VA	8000VA
Nominal AC Voltage	230V L-N	230V L-N	230V L-N	230V L-N
AC Grid Frequency Range	50Hz / 60Hz±5Hz			
Max. Output Current	15A	25A	27.3A	36.4A
Power Factor(cosφ)	0.8 leading ~ 0.8 lagging			
THDi	<3%			
<b>Efficiency</b>				
Max. Efficiency	97.8%	97.8%	97.8%	98.1%
Euro Efficiency	97.7%	97.9%	97.9%	97.6%
<b>Protection devices</b>				
DC Switch	Yes	Yes	Yes	Yes
Anti-islanding Protection	Yes	Yes	Yes	Yes
Output Over Current	Yes	Yes	Yes	Yes
DC Reverse Polarity Protection	Yes	Yes	Yes	Yes
String Fault Detection	Yes	Yes	Yes	Yes
Surge Protection	DC: Type II / AC: Type III			DC: Type II / AC: Type II/Type III
Insulation Detection	Yes	Yes	Yes	Yes
AC Short Circuit Protection	Yes	Yes	Yes	Yes
<b>General Specifications</b>				
Dimensions W x H x D	380X380X150mm			
Weight	10kg	11kg	11kg	12kg
Operating Temperature Range	-25°C~+60°C			
Cooling Type	Natural			
Max. Operation Altitude	≤4000m			
Max. Operation Humidity	0-100%			
AC Output Terminal Type	Quick Connector			
IP Class	IP65			
Topology	Transformer less			
Communication	RS485/WIFI/4G/USB Optional			
Display	LCD			
Certification & Standard	EN/IEC62109-1/2 ; IEC/EN61000-6-2;IEC/EN61000-6-4;IEC61683;IEC60068;IEC60529;IEC62116; IEC61727;EN50549-1;AS 4777.2;NRS 097;VDE-AR-N-4105;VDE 0126-1-1;CEIO-21;G98;G99;C10/C11;TED749; UNE217001;UNE217002;NB/T32004-2018 ; GB/T19964-2012;INMETRO			

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## BLUE-G THREE PHASE SERIES

BluE-3K / BluE-3.6K / BluE-4K / BluE-5K / BluE-6K / BluE-8K / BluE-10K / BluE-12K

## PV On-Grid String Inverter



Max. PV voltage up to 1100V  
Type II DC /AC SPD



Compatible for big capacity PV panel  
WiFi / 4G Plug optional



DC/AC ratio up to 2  
IP66 protection



High efficiency up to 98.6%  
Smaller and lighter

MODEL	BluE-3KT	BluE-3.6KT	BluE-4KT	BluE-5KT	BluE-6KT	BluE-8KT	BluE-10KT	BluE-12KT
<b>Input(DC)</b>								
Max. DC Voltage	1100V	1100V	1100V	1100V	1100V	1100V	1100V	1100V
Nominal Voltage	620V	620V	620V	620V	620V	620V	620V	620V
Start Voltage	180V	180V	180V	180V	180V	180V	180V	180V
MPPT Voltage Range	140 V~1,000 V	140 V~1,000 V	140 V~1,000 V	140 V~1,000 V	140 V~1,000 V	140 V~1,000 V	140 V~1,000 V	140 V~1,000 V
Number of MPP Tracker	2	2	2	2	2	2	2	2
Strings Per MPP Tracker	1	1	1	1	1	1	1	1
Max. Input Current Per MPPT	15A	15A	15A	15A	15A	15A	15A	15A
Max. Short-circuit Current Per MPPT	20A	20A	20A	20A	20A	20A	20A	20A
<b>Output(AC)</b>								
Nominal AC Output Power	3000W	3600W	4000W	5000W	6000W	8000W	10000W	12000W
Maximum AC Output Power	3300VA	3960VA	4400VA	5500VA	6600VA	8800VA	11000VA	13200VA
Nominal AC Voltage	400V 3L+N							
AC Grid Frequency Range	50 / 60Hz(±5Hz)							
Maximum Output Current	4.8A	5.8A	6.4A	8.0A	9.6A	12.8A	16.0A	19.2A
Power Factor(Φ)	0.8leading-0.8lagging							
THDi	3%							
<b>Efficiency</b>								
Max. Efficiency	98.4%	98.4%	98.4%	98.4%	98.4%	98.6%	98.6%	98.6%
Euro Efficiency	97.5%	97.5%	97.5%	97.5%	97.5%	98.0%	98.1%	98.1%
<b>Protection devices</b>								
DC Switch	Yes							
Output Over Current	Yes							
Anti-islanding Protection	Yes							
DC Reverse Polarity Protection	Yes							
String Fault Detection	Yes							
AC/DC Surge Protection	DC: Type II / AC: Type III / Type II Optional							
Insulation Detection	Yes							
AC Short Circuit Protection	Yes							
<b>General Specifications</b>								
Dimensions W x H x D	380x483x161mm							
Weight	<17kg							
Operating Temperature Range	-25°C~+60°C							
Cooling Type	Natural cooling							
Max. Operation Altitude	4000m							
Max. Operation Humidity	0-100%(No condensation)							
AC Output Terminal Type	Connector							
IP Class	IP66							
Topology	Transformer-less							
Communication	RS485/Wifi/4G							
Display	LCD							
Certification & Standard	EN/IEC62109-1/2 ; IEC/EN61000-6-2;IEC/EN61000-6-4;IEC61683;IEC60068;IEC60529;IEC62116;IEC61727; EN50549-1;AS 4777.2;VDE-AR-N-4105;VDE 0126-1-1;CEI0-21;G98;G99;C10/C11;NB/T32004-2018 ; GB/T19964-2012							

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# BLUE-G THREE PHASE LV SERIES

BluE-12KTL / BluE-15KTL / BluE-20KTL

## PV On-Grid String Inverter



Max. PV voltage up to 800V  
Type II DC /AC SPD



Reactive power control  
WiFi / 4G Plug optional



DC/AC ratio up to 2  
IP66 protection



High efficiency up to 98.6%  
Smaller and lighter

MODEL	BluE-12KTL	BluE-15KTL	BluE-20KTL
<b>Input(DC)</b>			
Max. DC Voltage	800V	800V	800V
Nominal Voltage	370V	370V	370V
Start Voltage	180V	180V	180V
MPPT Voltage Range	200V-750V	200V-750V	200V-750V
Number of MPP Tracker	2	2	2
Strings Per MPP Tracker	2	2	2
Max. Input Current Per MPPT	30A	30A	30A
Max. Short-circuit Current Per MPPT	40A	40A	40A
<b>Output(AC)</b>			
Nominal AC Output Power	12000W	15000W	20000W
Maximum AC Output Power	13200VA	16500VA	22000VA
Nominal AC Voltage	220 3L+N	220 3L+N	220 3L+N
AC Grid Frequency Range	50Hz/60Hz±5Hz	50Hz/60Hz±5Hz	50Hz/60Hz±5Hz
Maximum Output Current	34.6A	43.3A	57.7A
Power Factor(Φ)	0.8leading-0.8lagging		
THDi	3%		
<b>Efficiency</b>			
Max. Efficiency	98.6%	98.6%	98.6%
Euro Efficiency	98.3%	98.3%	98.3%
<b>Protection devices</b>			
DC Switch	Yes		
Output Over Current	Yes		
Anti-islanding Protection	Yes		
DC Reverse Polarity Protection	Yes		
String Fault Detection	Yes		
AC/DC Surge Protection	DC: Type II / AC: Type III / Type II Optional		
Insulation Detection	Yes		
AC Short Circuit Protection	Yes		
<b>General Specifications</b>			
Dimensions W x H x D	380x483x193mm	380x483x227mm	380x483x227mm
Weight	<25kg	<35kg	<35kg
Operating Temperature Range	-25°C~+60°C		
Cooling Type	Fan Cooling		
Max. Operation Altitude	4000m		
Max. Operation Humidity	0-100%(No Condensation)		
AC Output Terminal Type	Connector		
IP Class	IP66		
Topology	Transformer-less		
Communication	RS485/Wifi/4G		
Display	LCD		
Certification & Standard	EN/IEC62109-1/2 ; IEC/EN61000-6-2;IEC/EN61000-6-4;IEC61683;IEC60068;IEC60529;IEC62116;IEC61727;		

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## BLUE-G THREE PHASE SERIES

BluE-15KT / BluE-17KT / BluE-20KT / BluE-25KT

## PV On-Grid String Inverter



Max. PV voltage up to 1100V  
Type II DC /AC SPD



Compatible for big capacity PV panel  
WiFi / 4G Plug optional



DC/AC ratio up to 2  
IP66 protection



High efficiency up to 98.6%  
Smaller and lighter

MODEL	BluE-15KT	BluE-17KT	BluE-20KT	BluE-25KT
<b>Input(DC)</b>				
Max. DC Voltage	1100V	1100V	1100V	1100V
Nominal Voltage	620V	620V	620V	620V
Start Voltage	180V	180V	180V	180V
MPPT Voltage Range	140 V~1,000V	140 V~1,000V	140 V~1,000V	140 V~1,000V
Number of MPP Tracker	2	2	2	2
Strings Per MPP Tracker	2/1	2	2	2
Max. Input Current Per MPPT	30A/15A	30A	30A	30A
Max. Short-circuit Current Per MPPT	40A/20A	40A	40A	40A
<b>Output(AC)</b>				
Nominal AC Output Power	15000W	17000W	20000W	25000W
Maximum AC Output Power	16500VA	18700VA	22000VA	27500VA
Nominal AC Voltage	400V 3L+N			
AC Grid Frequency Range	50Hz / 60Hz(±5Hz)			
Maximum Output Current	23.9A	27.1A	31.9A	39.9A
Power Factor(Φ)	0.8leading-0.8lagging			
THDi	3%			
<b>Efficiency</b>				
Max. Efficiency	98.6%	98.6%	98.6%	98.6%
Euro Efficiency	98.2%	98.3%	98.3%	98.3%
<b>Protection devices</b>				
DC Switch	Yes			
Output Over Current	Yes			
Anti-islanding Protection	Yes			
DC Reverse Polarity Protection	Yes			
String Fault Detection	Yes			
AC/DC Surge Protection	DC: Type II / AC: Type III / Type II Optional			
Insulation Detection	Yes			
AC Short Circuit Protection	Yes			
<b>General Specifications</b>				
Dimensions W x H x D	380x483x193mm			
Weight	25kg			
Operating Temperature Range	-25°C~+60°C			
Cooling Type	Fan Cooling			
Max. Operation Altitude	4000m			
Max. Operation Humidity	0-100%(No Condensation)			
AC Output Terminal Type	Connector			
IP Class	IP66			
Topology	Transformer-less			
Communication	RS485/Wifi/4G			
Display	LCD			
Certification & Standard	EN/IEC62109-1/2 ; IEC/EN61000-6-2;IEC/EN61000-6-4;IEC61683;IEC60068;IEC60529;IEC62116;IEC61727; EN50549-1;AS 4777.2;VDE-AR-N-4105;VDE 0126-1-1;CEI0-21;G98;G99;C10/C11;NB/T32004-2018 ; GB/T19964-2012			

\* Specifications subject to change without prior notice.

# BluE Residential ESS

All In One Energy Storage System



All in One Design  
CATL Battery inside

Safety

Simple

Interconnection

Battery Model		BluE-PACK5.1	
<b>Physical</b>		<b>Operation</b>	
Battery Type	LFP (LiFePO4)	Max. Charge/Discharge Current	50A/80A
System Weight	54KG	Rated DC Power	4096W
Dimension (W x D x H)	540*490*240mm	Max. Charge/Discharge Power	2825W/4096W
IP Protection	IP65	Operating Temperature Range	0 to 50°C charging -10 to 50°C discharging
Warranty	5 Year Product Warranty, 10 Year Performance Warranty	Humidity	0~95% (No condensation)
<b>Electrical</b>		<b>BMS</b>	
Energy Capacity	5.12kwh	Modules Connection	Max. 4
Usable Capacity	4.6kwh	Capacity	100-400Ah
Depth of Discharge (DoD)	90%	Power Consumption	<2W
Nominal Voltage	51.2V	Communication	CAN & RS485
DC Circuit Breaker	125A	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Operating Voltage Range	44.8-56.5V	<b>Certificate</b>	
Internal Resistance	<20mΩ	Safety(Cell)	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973
Cycle Life	10000cycle		

\*Maximum 4 battery pack in parallel.

Hybrid Inverter Model	BluE-S 3680D	BluE-S 5000D
<b>PV String Input</b>		
Max. DC Voltage	580V	580V
Nominal Voltage	400V	400V
MPPT Voltage Range	80V-560V	80V-560V
Start Voltage	130V	130V
Number of MPP Tracker	2	2
Strings Per MPP Tracker	1	1
Max. Input Current Per MPPT	15A	15A
Max. Short-circuit Current Per MPPT	18A	18A
<b>AC Output (Grid)</b>		
Nominal AC Output Power	3680W	5000W
Max. AC Apparent Power	7360VA ( from grid)	7360VA ( from grid)
Max. AC Output Power	3680W	5000W <sup>1</sup>
Nominal AC Voltage	230Vac	230Vac
AC Grid Frequency Range	50 / 60Hz±5Hz	50 / 60Hz±5Hz
Max. Output Current	16A	22A <sup>2</sup>
Max. Input Current	32A	32A
Power Factor (cosΦ)	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%
<b>Battery Input</b>		
Battery Type	LFP (LiFePO4)	LFP (LiFePO4)
Nominal Battery Voltage	48V	48V
Charging Voltage Range	40-60V	40-60V
Max. Charging Current	50A	100A
Max. Discharging Current	80A	100A
Battery Capacity	100-400Ah	100-400Ah
Charging Strategy for Li-ion Battery	Depend on the BMS	Depend on the BMS
<b>AC Output (Backup)</b>		
Max. Output Apparent Power	4000VA	5000VA
Peak Output Apparent Power	6900VA 10sec	6900VA 10sec
Max. Output Current	16A	20A
Nominal Output Voltage	230V	230V
Nominal Output Frequency	50/60Hz	50/60Hz
Output THDv (@Linear Load)	<3% ( Linear Load )	<3% ( Linear Load )
<b>Efficiency</b>		
Max. PV Efficiency	97.6%	97.6%
Euro. PV Efficiency	97.0%	97.0%
<b>Protection</b>		
DC Switch	Bipolar DC Switch (125A/Pole)	Bipolar DC Switch (125A/Pole)
Anti-islanding Protection	Yes	Yes
Output Over Current	Yes	Yes
DC Reverse Polarity Protection	Yes	Yes
String Fault Detection	Yes	Yes
AC/DC Surge Protection	DC Type II;AC Type III	DC Type II;AC Type III
Insulation Detection	Yes	Yes
AC Short Circuit Protection	Yes	Yes
<b>General Specifications</b>		
Dimensions W x H x D	540*590*240mm	
Weight	32kg	
Operating Temperature Range	-25°C~+60°C	
Noise (dB)	<25	
Cooling Type	Natural Convection	
Max. Operation Altitude	2000m	
Operation Humidity	0~95% (No Condensation)	
IP Class	IP65	
Topology	Battery Isolation	
Communication	RS485/CAN2.0/WIFI/4G	
Display	LCD/APP	
Certification & Standard	IEC/EN 62109-1&2;IEC/EN61000-6-1;IEC/EN61000-6-2;EN61000-6-3; IEC/EN61000-6-4;IEC/EN61000-3-11; EN61000-3-12;IEC60529;IEC 60068;IEC61683;IEC62116;IEC61727;EN50549-1; AS 4777.2;NRS 097;VDE-AR-N-4105;CEI0-21;G98;G99;C10/C11	

\*1. Nominal AC output power is 4999W for Australia and 4600W for Germany and South Africa.

\*2. Maximum output current is 21.7A for Australia and 20A for Germany and South Africa.



Commercial &  
Industrial String Solutions  
**KSG SERIES**



**KSG-30K / KSG-50K**  
**KSG-60K / KSG-75K**

## PV On-Grid String Inverter



Max. PV voltage up to 1000V  
Three MPPT



Reactive power controller  
LVRT/HVRT/FRT function



DC/AC Type II SPD optional  
Positive DC fuse optional



High efficiency up to 98.6%  
String monitoring optional

### Technical Specifications

MODEL	KSG-30K	KSG-50K	KSG-60K	KSG-75K
<b>Input</b>				
Max. DC voltage	1000Vdc	1000Vdc	1000Vdc	1100Vdc
MPPT voltage range	250~950Vdc	250~950Vdc	250~950Vdc	200~1000Vdc
Full load MPPT voltage range	400~800Vdc	480~800Vdc	500~800Vdc	550~850Vdc
Rated DC voltage	620Vdc	620Vdc	620Vdc	620Vdc
Min. / start DC voltage	200 / 250Vdc	200 / 250Vdc	200 / 250Vdc	200 / 250Vdc
Number of MPPT	3	3	3	4
Strings per MPPT	2	4	4	4
Max. input current per MPPT	26A	36A	40A	40A
Max.short circuit current	28A	38A	42A	42A
<b>Output</b>				
Rated AC output power	30kW	50kW	60kW	75kW
Max. AC output power	33kW	55kW	66kW	75kW
Rated AC voltage	400/230Vac			
AC voltage range	400/230Vac±20%			
Rated AC grid frequency	50 / 60Hz			
AC grid frequency range	50 / 60Hz(±5Hz)			
Rated output current	44A	72A	87A	113.7A
Max. output current	48A	80A	95A	113.7A
Power factor (cosΦ)	0.8leading-0.8lagging			
THDi	<3%			
AC connection	3W+N+PE/3W+PE			
Topology	Transformer-less			
<b>Efficiency</b>				
Max. efficiency	98.3%	98.6%	98.6%	99.0%
Euro efficiency	98.0%	98.2%	98.2%	98.5%
<b>Protection devices</b>				
AC leakage current fault protection	Yes			
LVRT	Yes			
Ground fault protection	Yes			
Anti-islanding protection	Yes			
DC overvoltage protection	Yes			
DC surge protection	Yes			
AC surge protection	Yes			
DC reverse-polarity protection	Yes			
<b>Physical</b>				
Dimensions W x H x D	636×958×260mm			
Weight	61kg	68kg	70kg	79kg
<b>Environment</b>				
Operating temperature range	-25°C~+60°C			
Noise emission (typical)	<40dB	<60dB	<60dB	<60dB
Cooling type	Natural cooling	Fans	Fans	Fans
Protection rating	IP65			
<b>Features</b>				
LCD display	Yes			
Interfaces	RS485 (WiFi Plug/GPRS Plug optional)			


\* Specifications subject to change without prior notice.




**KSG-120CL**  
**KSG-150UM**



## String Grid-Tied PV Inverter

 1100Vdc, 400/500Vac  
Smart I-V Curve Function

 Optional AFCI Function  
Optional Night SVG Function

 10/12 MPPT Tracker, 20/24 PV Strings Input  
DC and AC Type II SPD

 LED+Bluetooth APP  
Max.DC/AC ratio up to 1.5

### Technical Specifications

MODEL	KSG-120CL	KSG-150UM
<b>Input(DC)</b>		
Max. DC voltage	1100V	1100V
Nominal voltage	620V	780V
Min./Startup voltage	250V	250V
MPPT voltage range	200V-1000V	200V-1000V
MPPT voltage range at full load	550V-850V	550V-850V
Number of MPPT	10	12
No. of Strings per MPPT	2	2
Number of strings input	20	24
Max. input current per MPPT	30A	30A
Max. short-circuit current per MPPT	50A	50A
<b>Output(AC)</b>		
Nominal AC output power	120kW@30°C / 110kW@40°C / 100kW@50°C	150KW@30°C / 136kW@40°C / 120KW@50°C
Max. AC apparent power	121kVA	150kVA
Max. AC output power	121kW	150kW
Nominal AC voltage	320-480Vac / 3W+PE / 3W+N+PE	400-621V / 3W+PE
AC grid frequency range	45-55Hz / 55-65Hz	45-55Hz / 55-65Hz
Rated output current	158.8A	157A
Max. output current	174.6A	173.2A
Power factor (cφ)	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%
<b>Efficiency</b>		
Max. efficiency	98.7%	99.0%
Euro efficiency	98.3%	98.5%
<b>Protection devices</b>		
DC switch	Yes	Yes
Anti-islanding protection	Yes	Yes
Output over current	Yes	Yes
DC reverse polarity protection	Yes	Yes
String fault Detection	Yes	Yes
AC/DC surge protection	Yes	Yes
Insulation detection	Yes	Yes
AC leakage current fault protection	Yes	Yes
I/V Curve scanning	Yes	Yes
Anti-PID function	Optional	Optional
<b>General Specifications</b>		
Dimensions W x H x D (mm)	1055*700*336	1055*700*336mm
Weight(kg)	93	96
Operating temperature range	-25°C~+60°C	
Cooling type	Fan cooling	
Max. operation altitude	4000m ( > 3000m derating )	
Max. operation humidity	0~100%	
Night power consumption	<10W	
IP class	IP66	
Topology	Transformerless	
Communication	RS485 /Bluetooth+APP	
Display	LED	
Certification & Standard	EN/IEC62109-1 ; EN/IEC62109-2 ; IEC/EN61000-6-2;IEC/EN61000-6-4;IEC/EN61000-3-11;IEC/EN61000-3-12; IEC61683;IEC60068;IEC60529;IEC62116;IEC61727;EN50549-1;EN50549-2;NB/T32004-2018 ; GB/T19964-2012	

\*Specifications subject to change without prior notice.






**KSG-200UH**  
**KSG-250UH**



## String Grid-Tied PV Inverter

 1500Vdc, 800Vac  
Smart I-V Curve Function

 12 MPPT ,24 PV Strings Input  
DC and AC Type II SPD

 Optional AFCI Function  
Optional Night SVG Function

 PLC communication  
Max.DC/AC ratio > 1.5

### Technical Specifications

MODEL	KSG200UH	KSG250UH
<b>Input(DC)</b>		
Max. DC voltage	1500V	1500V
Nominal voltage	1080V	1080V
Min./Startup voltage	600V	600V
MPPT voltage range	600V-1500V	600V-1500V
MPPT voltage range at full load	880V-1300V	880V-1300V
Number of MPPT	12	12
No. of Strings per MPPT	2	2
Number of strings input	24	24
Max. input current per MPPT	30A	30A
Max. short-circuit current per MPPT	50A	50A
<b>Output(AC)</b>		
Nominal AC output power	200kW@40°C / 175kW@50°C	250KW 30°C / 225KW 40°C / 200KW 50°C
Max. AC apparent power	200kVA	250kVA
Max. AC output power	200kW	250kW
Nominal AC voltage	800V,640 ~ 920Vac / 3W+PE	800V,640 ~ 920Vac / 3W+PE
AC grid frequency range	50/60Hz±5Hz ( adjustable )	50/60Hz±5Hz ( adjustable )
Rated output current	126.3A	162.4A
Max. output current	144.3A	178.6A
Power factor (cosΦ)	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%
<b>Efficiency</b>		
Max. efficiency	> 99.01%	> 99.01%
Euro efficiency	> 98.52%	> 98.52%
<b>Protection devices</b>		
DC switch	Yes	Yes
Anti-islanding protection	Yes	Yes
Output over current	Yes	Yes
DC reverse polarity protection	Yes	Yes
String fault Detection	Yes	Yes
AC/DC surge protection	Yes	Yes
Insulation detection	Yes	Yes
AC leakage current fault protection	Yes	Yes
I/V Curve scanning	Yes	Yes
PID recovery	Optional	Optional
<b>General Specifications</b>		
Dimensions W x H x D (mm)	1055*700*336	
Weight(kg)	110	
Operating temperature range	-25°C ~ +60°C ( > 50° derating)	
Cooling type	Fan cooling	
Max. operation altitude	4000m ( > 3000m derating )	
Max. operation humidity	0~100%	
Night power consumption	<10W	
IP class	IP66	
Topology	Transformerless	
Communication	RS485 /Bluetooth+APP	
Display	LED	
Certification & Standard	EN/IEC62109-1 ; EN/IEC62109-2 ; IEC/EN61000-6-2;IEC/EN61000-6-4;IEC/EN61000-3-11;IEC/EN61000-3-12; IEC61683;IEC60068;IEC60529;IEC62116;IEC61727;EN50549-1;EN50549-2;NB/T32004-2018 ; GB/T19964-2012	

\*Specifications subject to change without prior notice.

# PROJECT CASES

Some cases of household and industry and Commerce

