

Serving inspiration
with every generation



KSTAR
Powering the Future

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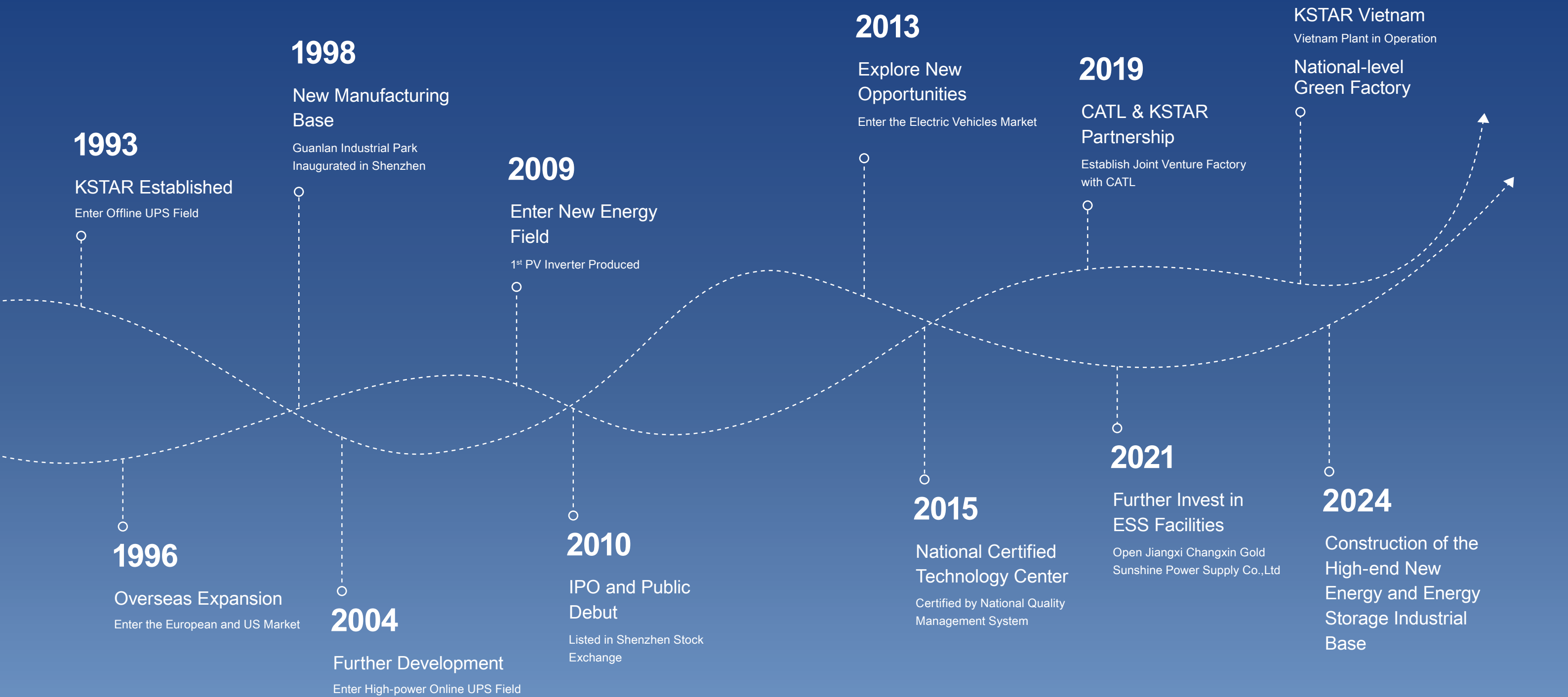
K-Home



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2025

ABOUT KSTAR



Serving inspiration with every generation



180+

Countries & Regions

60GW

PV Installation

30+

Years History

KSTAR, a leading global new energy solution provider founded in 1993, excels in key solar markets worldwide. Our expertise spans the spectrum, delivering cutting-edge PV inverters and energy storage systems for residential, commercial & industrial, and large-scale utility needs.

Backed by 30+ years of experience in electrical and electronic technology, KSTAR is committed to superior new energy

solutions for a diverse clientele in 180 countries and regions, with an impressive 60GW of KSTAR products already installed globally.

We are always generating superior solutions for energy and more. Let's power the future together.

Thriving Three Decades: Your Industrial Partner and Green Home Expert



BluE-S Series Residential ESS

Single Phase / All-in-one Hybrid System / 3.68–6 kW

Save Your Energy Bill

- ▶ Optimized Time-of-use Profile
- ▶ 10000 Cycles Lifespan
- ▶ VPP Ready

Whole Home Energy Solution

- ▶ Support On-grid and Off-grid Switching
- ▶ AC-coupling or DC-coupling System
- ▶ Backup Power Support

Comprehensive Safety

- ▶ Alarm and Protection
- ▶ Online Monitoring
- ▶ Compliant with Global Grid Standards



Battery Model		BluE-PACK 5.1	
Physical		Operation	
Battery Type	LFP (LiFePO4)	Max. Charge / Discharge Current	50 A / 80 A
Weight	54 kg	Rated DC power	4096 W
Dimensions (W x H x D)	540 x 490 x 240 mm	Max. Charge / Discharge Power	2825 W / 4096 W
IP Protection	IP 65	Operating Temperature Range	-10 to 50°C (Charging); -10 to 50°C (Discharging) ¹⁾
Warranty	5 Year Product Warranty	Humidity	0 ~ 95% (No condensation)
	10 Year Performance Warranty	BMS	
Electrical		Modules Connection	Max. 4
Energy Capacity	5.12 kWh	Capacity	100 / 200 / 300 / 400 Ah
Usable Capacity	4.6 kWh	Power Consumption	< 2 W
Depth of Discharge (DoD)	90%	Communication	CAN & RS-485
Nominal Voltage	51.2 V	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
DC Circuit Breaker	125 A		
Operating Voltage Range	44.8 ~ 56.5 V	Certificate	
Internal Resistance	< 20 mΩ	Safety (Cell)	Pack: IEC/EN 62619; UN 38.3
Cycle Life	10000 cycle		Cell: IEC/EN 62619; UN 38.3; UL 1973

1) The operating temperature parameters only apply to battery pack models with heating function. For battery pack models without heating function, the operating temperature range will be: 0 to 50°C(Charging), -10 to 50°C (Discharging).
2) Minimum voltage for inverter to start power output.
3) Nominal AC output power is 4999 W for Australia and 4600 W for Germany and South Africa.
4) Max. AC apparent power is 3680 VA for the UK.
5) Max. AC apparent power is 4999 VA for Australia, 5000 VA for Belgium and 4600 VA for Germany and South Africa.
6) Maximum output current is 21.7 A for Australia and 20 A for Germany and South Africa.

Hybrid Inverter Model	BluE-S 3680D-M1	BluE-S 5000D-M1	BluE-S 6000D-M1
PV Input			
Recommended Max. PV Array Input Power @STC	5.5 kWp	7.5 kWp	9 kWp
Max. DC Voltage	580 V		
Nominal Voltage	400 V		
MPPT Voltage Range	80 V ~ 560 V		
Start Voltage ²⁾	150 V		
Number of MPPT Tracker	2		
Strings per MPPT Tracker	1		
Max. Input Current per MPPT	15 A		
Max. Short-circuit Current per MPPT	18 A		
AC Output (Grid)			
Nominal AC Output Power	3680 W	5000 W ³⁾	6000 W
Max. AC Apparent Power	7360 VA ⁴⁾	7360 VA ⁵⁾	7360 VA
Max. AC Output Power	3680 W	5000 W ³⁾	6000 W
Nominal AC Voltage	230 Vac		
AC Grid Frequency Range	50 / 60 Hz ±5Hz		
Max. Output Current	16 A	22 A ⁶⁾	25 A
Max. Input Current	32 A		
Power Factor (cosΦ)	0.8 leading - 0.8 lagging		
THDi	< 3%		
Battery Input			
Battery Type	LFP (LiFePO4)		
Nominal Battery Voltage	48 V		
Charging Voltage Range	40 ~ 60 V		
Max. Charging Current	50 A	100 A	100 A
Max. Discharging Current	80 A	100 A	100 A
Battery Capacity	100 ~ 400 Ah		
Charging Strategy for Li-ion Battery	Depend on the BMS		
AC Output (Backup)			
Max. Output Apparent Power	4000 VA	5000 VA	5000 VA
Peak Output Apparent Power	6900 VA 10sec		
Max. Output Current	16 A	20 A	20 A
Nominal Output Voltage	230 V		
Nominal Output Frequency	50 / 60Hz		
Output THDv (@Linear Load)	< 3% (Linear Load)		
Efficiency			
Max. PV Efficiency	97.6%		
Euro. PV Efficiency	97.0%		
Protection			
DC Switch	Bipolar DC Switch (125 A / Pole)		
Anti-islanding Protection	Yes		
Output Over Current Protection	Yes		
DC Reverse Polarity Protection	Yes		
String Fault Detection	Yes		
AC / DC Surge Protection	DC Type II; AC Type III		
Insulation Detection	Yes		
AC Short Circuit Protection	Yes		
General Specifications			
Dimensions (W x H x D)	540 x 590 x 240 mm		
Weight	32 kg		
Operating Temperature Range	-25°C ~+ 60°C		
Noise (dB)	< 25		
Cooling Type	Natural Convection		
Max. Operating Altitude	2000 m		
Operating Humidity	0 ~ 95% (No Condensation)		
IP Class	IP65		
Topology	Battery Isolation		
Communication	RS-485 / CAN 2.0 / WIFI / 4G		
Display	LCD / APP		
Certification & Standard	IEC/EN 62109-1&2; IEC/EN 61000-6-1; IEC/EN 61000-6-2; EN 61000-6-3; IEC/EN 61000-6-4; IEC/EN 61000-3-11; EN 61000-3-12; IEC 60529; IEC 60068; IEC 61683; IEC 62116; IEC 61727; EN 50549-1; AS 4777.2; NRS 097; VDE-AR-N-4105; CEI 0-21; G98/G99; C10/11		

BluE-S Series Residential ESS

NEW

Three Phase / All-in-one Hybrid System / 4–6 kW

Save Your Energy Bill

- ▶ Optimized Time-of-use Profile
- ▶ 10000 Cycles Lifespan
- ▶ VPP Ready

Whole Home Energy Solution

- ▶ Support On-grid and Off-grid Switching
- ▶ AC-coupling or DC-coupling System
- ▶ Optional Generator Connection

Comprehensive Safety

- ▶ Alarm and Protection
- ▶ Online Monitoring
- ▶ Compliant with Global Grid Standards



Battery Model		BluE-PACK 5.1	
Physical		Operation	
Battery type	LFP (LiFePO4)	Max. Charge / Discharge Current	50 A / 80 A
Weight	54 kg	Rated DC power	4096 W
Dimensions (W x H x D)	540 x 490 x 240 mm	Max. Charge / Discharge Power	2825 W / 4096 W
IP Protection	IP65	Operating Temperature Range	-10 to 50°C (Charging); -10 to 50°C (Discharging) ¹⁾
Warranty	5 Year Product Warranty, 10 Year Performance Warranty	Humidity	0 ~ 95% (No condensation)
Electrical		BMS	
Energy Capacity	5.12 kWh	Modules Connection	Max. 4
Usable Capacity	4.6 kWh	Capacity	100 / 200 / 300 / 400 Ah
Depth of Discharge (DoD)	90%	Power Consumption	< 2 W
Nominal Voltage	51.2 V	Communication	CAN & RS-485
DC Circuit Breaker	125 A	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Operating Voltage Range	44.8 ~ 56.5 V	Certificate	
Internal Resistance	< 20mΩ	Safety (Cell)	Pack: IEC/EN 62619; UN 38.3 Cell: IEC/EN 62619; UN 38.3; UL 1973
Cycle Life	10000 cycle		

Hybrid Inverter Model	E4KT	E5KT	E6KT
PV Input			
Recommended Max. PV Array Input Power @STC	8 kWp	10 kWp	12 kWp
Max. DC Voltage	1000 V		
Nominal Voltage	720 V		
MPPT Voltage Range	140 V ~ 950 V		
MPPT Voltage Range (Full Load)	200 V ~ 850 V	230V ~ 850 V	250 V ~ 850 V
Start Voltage ²⁾	200 V		
Number of MPPT	2		
Strings per MPPT	1		
Max. Input Current per MPPT	15A		
Max. Short-circuit Current per MPPT	20 A		
AC Output (Grid)			
Nominal AC Output Power	4 kW	5 kW	6 kW
Max. AC Apparent Power	4.4 kVA	5.5 kVA	6.6 kVA
Nominal AC Voltage	400 Vac		
AC Grid Frequency Range	50 / 60Hz ±5Hz		
Nominal Output Current	5.8 A	7.3 A	8.7 A
Max. Output Current	6.4 A	8 A	9.6 A
Power Factor (cosΦ)	0.8 leading - 0.8 lagging		
THDi	<3%		
Battery Input			
Battery Type	LFP (LiFePO4)		
Nominal Battery Voltage	51.2 V	51.2 V	51.2 V
Charging Voltage Range	44 ~ 58 V		
Max. Charging Current	80 A	100 A	100 A
Max. Discharging Current	80 A	100 A	120 A
Battery Capacity	100 / 200 / 300 / 400 Ah		
AC Output (Backup)			
Nominal AC Output Power	4 kW	5 kW	6 kW
Max. AC Output Power	4 kVA	5 kVA	6 kVA
Nominal Output Current	5.8 A	7.3A	8.7 A
Max. Output Current	5.8 A	7.3 A	8.7 A
Nominal Output Voltage	400 V		
Nominal Output Frequency	50 / 60Hz		
Output THDv (@Linear Load)	< 2% (Linear Load)		
Efficiency			
Max. PV Efficiency	97.60%		
Euro. PV Efficiency	97.00%		
Protection			
Anti-islanding Protection	Yes		
Output Over Current Protection	Yes		
DC Reverse Polarity Protection	Yes		
String Fault Detection	Yes		
AC / DC Surge Protection	DC Type II; AC Type III		
Insulation Detection	Yes		
AC Short Circuit Protection	Yes		
General Specifications			
Dimensions (W x H x D)	540 x 980 x 240 mm		
Weight	47 kg		
Operating Temperature Range	-25°C ~+ 60°C		
Cooling Type	Natural Convection		
Max. Operation Altitude	2000 m		
Operation Humidity	0 ~ 95% (No Condensation)		
IP Class	IP66		
Topology	Battery Isolation		
Communication	RS-485 / CAN2.0 / WIFI / 4G		
Display	LCD / APP		

1) The operating temperature parameters only apply to battery pack models equipped with heating function. For battery pack models without heating function, the operating temperature range will be: 0 to 50°C(Charging), -10 to 50°C (Discharging).
2) Minimum voltage for inverter to start power output.

BluE-S Series Residential ESS

Three Phase / All-in-one Hybrid System / 8–12 kW

Save Your Energy Bill

- ▶ Optimized Time-of-use Profile
- ▶ 10000 Cycles Lifespan
- ▶ VPP Ready

Whole Home Energy Solution

- ▶ Support On-grid and Off-grid Switching
- ▶ AC-coupling or DC-coupling System
- ▶ Optional Generator Connection

Comprehensive Safety

- ▶ Alarm and Protection
- ▶ Online Monitoring
- ▶ Compliant with Global Grid Standards



Battery Model		BluE-PACK 5.1	
Physical		Operation	
Battery Type	LFP (LiFePO4)	Max. Charge / Discharge Current	50 A / 80 A
Weight	54 kg	Rated DC power	4096 W
Dimensions (W x H x D)	540 x 490 x 240 mm	Max. Charge / Discharge Power	2825 W / 4096 W
IP Protection	IP65	Operating Temperature Range	-10 to 50°C (Charging); -10 to 50°C (Discharging) ¹⁾
Warranty	5 Year Product Warranty, 10 Year Performance Warranty	Humidity	0 ~ 95% (No condensation)
Electrical		BMS	
Energy Capacity	5.12 kWh	Modules Connection	Max. 8
Usable Capacity	4.6 kWh	Capacity	200 / 400 / 600 / 800 Ah
Depth of Discharge (DoD)	90%	Power Consumption	< 2 W
Nominal Voltage	51.2 V	Communication	CAN & RS-485
DC Circuit Breaker	125 A	Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Operating Voltage Range	44.8 ~ 56.5 V	Certificate	
Internal Resistance	< 20 mΩ	Safety (Cell)	Pack: IEC/EN 62619; UN 38.3 Cell: IEC/EN 62619; UN 38.3; UL 1973
Cycle Life	10000 cycle		

Hybrid Inverter Model	E8KT	E10KT	E12KT
PV String Input			
Recommended Max. PV Array Input Power @STC	16 kWp	20 kWp	20 kWp
Max. DC Voltage	1100 V		
Nominal Voltage	720 V		
MPPT Voltage Range	140 V ~ 1000 V		
MPPT Voltage Range (Full Load)	380 V ~ 850 V	420 V ~ 850 V	480 V ~ 850 V
Start Voltage ¹⁾	200 V		
Number of MPPT	2		
Strings per MPPT	1		
Max. Input Current per MPPT	15 A		
Max. Short-circuit Current per MPPT	20 A		
AC Output (Grid)			
Nominal AC Output Power	8 kW	10 kW	12 kW
Max. AC Apparent Power	8.8 kVA	11 kVA ²⁾	13.2 kVA
Nominal AC Voltage	400 Vac		
AC Grid Frequency Range	50 / 60Hz ±5Hz		
Nominal Output Current	11.6 A	14.5 A	17.4 A
Max. Output Current	12.8 A	16 A ²⁾	19.2 A
Power Factor (cosΦ)	0.8 leading - 0.8 lagging		
THDi	< 3%		
Battery Input			
Battery Type	LFP (LiFePO4)		
Nominal Battery Voltage	51.2 V		
Charging Voltage Range	44 ~ 58 V		
Max. Charging Current	160 A		
Max. Discharging Current	160 A	200 A	200 A
Battery Capacity	200 / 400 / 600 / 800 Ah		
AC Output (Backup)			
Nominal AC Output Power	7.36 kW	9.2 kW	9.2 kW
Max. AC Output Power	8 kVA	10 kVA	10 kVA
Nominal Output Current	10.7 A	13.3 A	13.3 A
Max. Output Current	11.6 A	14.5 A	14.5 A
Nominal Output Voltage	400 V		
Nominal Output Frequency	50 / 60 Hz		
Output THDv (@Linear Load)	< 2% (Linear Load)		
Efficiency			
Max. PV Efficiency	97.60%		
Euro. PV Efficiency	97.00%		
Protection			
Anti-islanding Protection	Yes		
Output Over Current Protection	Yes		
DC Reverse Polarity Protection	Yes		
String Fault Detection	Yes		
DC / AC Surge Protection	DC Type II; AC Type III		
Insulation Detection	Yes		
AC Short Circuit Protection	Yes		
General Specifications			
Dimensions (W x H x D)	540 x 980 x 240 mm		
Weight	49 kg		
Operating Temperature Range	-25°C ~+ 60°C		
Cooling Type	Natural Convection		
Max. Operating Altitude	2000 m		
Operating Humidity	0 ~ 95% (No Condensation)		
IP Class	IP66		
Topology	Battery Isolation		
Communication	RS-485 / CAN 2.0 / WIFI / 4G		
Display	LCD / APP		
Certification & Standard	IEC/EN 62109-1&2; IEC/EN 61000-6-1; IEC/EN 61000-6-2; EN 61000-6-3; IEC/EN 61000-6-4; IEC/EN 61000-3-11; EN 61000-3-12; IEC 60529; IEC 60068; IEC 61683; IEC 62116; IEC 61727; EN 50549-1; VDE-AR-N 4105; C10/11; VDE 0126-1-1; CEI 0-21; NC Rfg; G98; EIFS; NTS&UNE 217001		

1) Minimum voltage for inverter to start power output.
2) According to the C10/11 of Synergrid, the maximum AC output power is 10 kVA and the maximum AC output current is 14.5A.
The applicable hybrid inverter model is E10KTBE.

BluE-S Series (US)

Residential ESS

All-in-one Hybrid System / 8–15 kW

Save Your Energy Bill

- ▶ Optimized Time-of-use Profile
- ▶ 10000 Cycles Lifespan
- ▶ VPP Ready

Whole Home Energy Solution

- ▶ Support On-grid and Off-grid Switching
- ▶ AC-coupling or DC-coupling System
- ▶ Optional generator connection

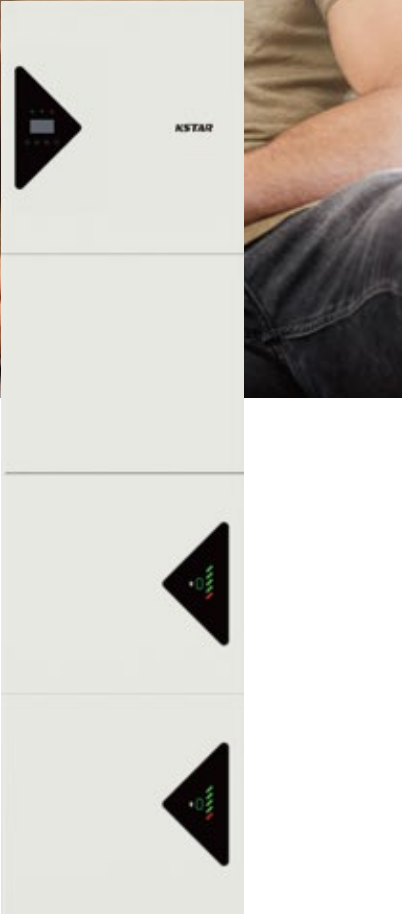
Comprehensive Safety

- ▶ Alarm and Protection
- ▶ Online Monitoring
- ▶ AFCI & RSD Compliant

Battery Model		BP 48100 PF
Battery Specification		
Battery Capacity	5 kWh	
Usable Capacity	4.5 kWh - Discharge Capacity from 100% to Min SoE	
Battery Type	LFP (LiFePO4)	
Rated Voltage	51.2 V	
Operating Voltage Range	44.8 V ~ 56.5 V	
Communication Interface	CAN & RS-485	
Warranty	10 years performance warranty	
Operations		
Maximum Continuous Charging Current	50 A	
Maximum Continuous Discharging Current	80 A	
Operating Temperature Range	-10°C → 50°C	
Storage Temperature Range	-10°C → 55°C	
Altitude	2000 m	
Relative Humidity	0% ~ 90%	
Cooling Strategy	Natural Cooling	

BMS		
Capacity	200 / 400 / 600 / 800 Ah	
Monitored Item	Current; Cell Voltage; Battery Voltage Accuracy; Ambient Temperature;	
LED User Interface	LED Indication for Battery Status (On, Operational, Standby, Fault , Capacity of SOC)	
Physical		
Weight	56.5 Kg	
Dimensions (W x H x D)	540 x 490 x 240 mm	
Certificate		
Safety	Cell	UL 9540 A
	Battery Pack	FCC Part 15 Class B UL 9540 A; UL 1973 (UL1973)
Certificate	FCC Part 15 Class B; UL 1973; Class 9; UN38.3, IP66 / NEMA 3R	

*Note: 1. Conformity to UL 1741 (Third Edition, September 28, 2021) includes compliance with applicable requirements of UL 1741SB (Supplement SB), IEEE Std 1547TM-2018, 1EEEE Std 1547.1TM-2020 and the SRDs of Hawaiian Electric Co. (HECO) SRD-V2.0. The interoperability is verified with IEEE 2030.5-2018 communication protocol.
2. The products have been verified with PVRss function according to NEC-2020 (NFPA 70) Article 690.12 and CEC-2021(CSA C22.1:21)Sec 64-218.
3. The functional safety has been evaluated according to applicable requirement of UL 1998 (Edition 3) and UL 991 (Edition 3) as required by the end products standard.



Hybrid Inverter Model	E8KD		E10KD		E12KD	E15KD
PV Input						
Recommended Max. PV Array	16 kWp		16 kWp		16 kWp	16 kWp
Input Power @STC						
Max. PV Input Voltage			500 Vdc			
MPPT Voltage Range			120 ~ 425 Vdc			
Start Voltage			120 V			
Nominal Voltage			380 Vdc			
MPPT Voltage Range With Full Load	200 ~ 425 V		240 ~ 425 V		200 ~ 425 V	240 ~ 425 V
Number of MPPT Tracker	2		2		3	3
Max. Input Current	30 A*2		30 A*2		30 A*3	30 A*3
Max. Short-circuit Current	40 A*2		40 A*2		40 A*3	40 A*3
AC Output (On Grid)						
Nominal (L-L) Output Voltage			240 / 208 V			
Output Voltage Range			160 V~ 300 Vac (L~L)			
Output Frequency			50 / 60Hz (±5Hz), (Adjustable)			
Nominal Output Current	33.4 A		41.7 A		50 A	62.5 A
Max. Output Power	8 kVA		10 kVA		12 kVA	15 kVA
Nominal Output Power	8 kW		10 kW		12 kW	15 kW
Output Connection			Split phase, 2/3 phase, single phase, transformerless			
Power Factor (cosΦ)			0.8 leading - 0.8 lagging (Adjustable)			
THDi			< 3%			
AC Output (Backup Grid -Tied)						
Rated Output Current			150 Aa.c.			
Max. Output Current			200 Aa.c.			
Rated Continuous Output Power			36,000 W			
Max. Output Power			48,000 W			
Backup Load Overcurrent Protection			200 Aa.c.			
AC Output (Backup Off-Grid)						
Nominal (L-L) Output Voltage			240 / 208 V			
Nominal Output Frequency			50 / 60 Hz (±0.2%)			
Nominal Output Current	33.4 A (RMS)		41.7 A (RMS)		50 A (RMS)	50 A (RMS)
Nominal Output Power(Daytime)	8 kW		10 kW		12 kW	12 kW
Max. Output Power(Daytime)	8 kVA		10 kVA		12 kVA	12 kVA
Nominal Output Power(Nighttime)	8 kW		10 kW		11.4 kW	11.4 kW
Max. Output Power(Nighttime)	8 kVA		10 kVA		12 kVA	12 kVA
THDv			< 2% (Linear load)			
On / Off Gird Switching Time			< 20 ms			
Over Current Protection			200 A / pole			
Battery Input						
Battery Type			Lithium battery			
Battery Nominal Voltage			51.2 V			
Battery Voltage Range			44 ~ 57 V			
Depth of Discharge			90% DOD (10% ~ 90% Adjustable)			
Max. Discharging Current	200 A		200 A		240 A	
Max. Charging Current	160 A (Adjustable)		160 A (Adjustable)		160 A (Adjustable)	240 A
Max. Discharging Power	8 kW		10 kW		12 kW	160 A (Adjustable)
Max. Charging Power	8 kW		8 kW		10 kW	12 kW
Battery Switch			Single - pole DC switch (2*200 A / Pole)			10 kW
Capacity			200 / 400 / 600 / 800 Ah			
Efficiency						
CEC Efficiency			97% (@240 V) / 96%(@208 V)			
MPPT Efficiency			> 99.9%			
General Specifications						
Cooling Type			Intelligent air cooling			
Communication Port			RS-485 / CAN 2.0 / WIFI			
Protection Class			Class II			
Operating Temperature Range			-20°C~-+55°C (Rated power@40°C)			
Storage Humidity Range			0 ~ 95% (No Condensation)			
Operating Altitude			2000 m			
Overvoltage Type			II (DC side) ; IV (AC side)			
IP Class			IP66 / 4X			
Weight			73 kg			
Dimensions (W x H x D)			540 x 1050 x 240 mm			
Protection & Certifications						
Certifications	Electronics Certified Safety by CSA Labs to NEC & UL Specs - NEC 690.4B & NEC 705.4/6; CSA C22.2 No. 107.1-16; Grid Sell Back — UL 1741 - 2010/2018 ; IEEE 1547a - 2003/2014 ; FCC 15 Class B ; UL 1741; UL1741 CRD; UL 1741SB; CA Rule21 ; HECO Rule 14 H; UL 1699B; CSA C22.2 No.292-18; CSA C22.2 No.330-17;					
Protection	PV DC Disconnect Switch — NEC 240.15 Ground Fault Detection — NEC 690.5 PV Rapid Shutdown Control — NEC 690.12 PV Arc Fault Detection — NEC 690.11				PV Input Lightning Protection PV String Input Reverse Polarity Protection AC Output Breakers Battery Breaker / Disconnect Surge Protection	

BluE-G Series

Single Phase / On-grid / 1–3 kW

- 

Max. PV Voltage up to 600 V
DC / AC Ratio up to 1.5
- 

Compatible for Big Capacity PV Panel
WiFi / 4G Plug Optional
- 

Type III DC SPD / Type III AC SPD
IP66 Protection
- 

High Efficiency up to 97.6%
Smaller and Lighter



MODEL	BluE-G 1000S-M1	BluE-G 1500S-M1	BluE-G 2000S-M1	BluE-G 3000S-G2-M1
Input (DC)				
Max. DC Voltage	600 Vdc			
Nominal Voltage	380 Vdc			
Start Voltage ¹⁾	60 V	80 V	80 V	80 V
MPPT Voltage Range	60 V ~ 560 V	80 V ~ 560 V	80 V ~ 560 V	80 V ~ 560 V
Number of MPPT	1			
Strings per MPPT	1			
Max. input Current per MPPT	13 A			
Max. Short-circuit Current per MPPT	15.6 A			
Output (AC)				
Nominal AC Output Power	1000 W	1500 W	2000 W	3000 W
Max. AC Apparent Power	1100 VA	1650 VA	2200 VA	3300 VA
Nominal AC Voltage	230V L-N			
AC Grid Frequency Range	50Hz / 60 Hz (±5Hz)			
Max. Output Current (A)	4.8 A	7.2 A	9.6 A	14.4 A
Power Factor (cosΦ)	0.8 leading - 0.8 lagging			
THDi	< 3%			
Efficiency				
Max. Efficiency	97.00%	97.50%	97.50%	97.60%
Euro Efficiency	96.50%	97.00%	97.00%	97.00%
Protection devices				
DC Switch	Yes			
Anti-islanding Protection	Yes			
Output Over Current Protection	Yes			
DC Reverse Polarity Protection	Yes			
DC / AC Surge Protection	DC Type III; AC Type III			
Insulation Detection	Yes			
AC Short Circuit Protection	Yes			
General Specifications				
Dimensions (W x H x D)	350 x 290 x 120 mm			
Weight	7.3 kg	8 kg	8 kg	8 kg
Environment				
Operating Temperature Range	-25°C ~+ 60°C			
Cooling Type	Natural convection			
Max. Operating Altitude	4000 m			
Max. Operating Humidity	0 ~ 100%			
AC Output Terminal Type	Quick Connector			
IP Class	IP66			
Topology	Transformerless			
Communication Interface	RS-485 / WIFI / 4G			
Display	LCD / Bluetooth + App			
Certification & Standard	EN/IEC 62109-1/2; IEC/EN 61000-6-2; IEC/EN 61000-6-4; IEC 62116; IEC 61727; EN 50549-1			

1) Minimum voltage for inverter to start power output.

BluE-G Series

Single Phase / On-grid / 3–8 kW



Max. PV Voltage up to 600 V
DC / AC Ratio up to 1.5



Compatible for Big Capacity PV Panel
WiFi / 4G Plug Optional



Type III DC SPD / Type III AC SPD
IP65 Protection



High Efficiency up to 98.3%
Smaller and Lighter

MODEL	BluE-G 3600D-M1	BluE-G 4000D-M1	BluE-G 5000D-M1	BluE-G 6000D-M1	BluE-G 8000D
Input (DC)					
Max. DC Voltage	600 V				
Nominal Voltage	380 V				
Start Voltage ⁸⁾	120 V	120 V	120 V	120 V	100 V
MPPT Voltage Range	80 V ~ 560 V	80 V ~ 560 V	80 V ~ 560 V	80 V ~ 560 V	80 V ~ 540 V
Number of MPPT	2				
Strings per MPPT	1				
Max. Input Current per MPPT	15 A	15 A	15 A	15 A	26 A / 16 A ¹⁾
Max. Short-circuit Current per MPPT	18 A	18 A	18 A	18 A	31 A / 19 A
Output (AC)					
Nominal AC Output Power	3600 W	4000 W	5000 W ²⁾	6000 W	8000 W
Max. AC Apparent Power	3960 VA ³⁾	4400 VA	5500 VA ⁴⁾	6000 VA	8000 VA
Nominal AC Voltage	230V L-N				
AC Grid Frequency Range	50 Hz / 60 Hz (±5Hz)				
Max. Output Current	17 A ⁵⁾	19 A	24 A ⁶⁾	26 A	35 A
Power Factor (cosΦ)	0.8 leading - 0.8 lagging				
THDi	< 3%				
Efficiency					
Max. Efficiency	98.1%	98.3%	98.3%	98.3%	98.3%
Euro Efficiency	97.7%	97.9%	97.9%	97.9%	97.9%
Protection devices					
DC Switch	Yes				
Anti-islanding Protection	Yes				
Output Over Current Protection	Yes				
DC Reverse Polarity Protection	Yes				
DC / AC Surge Protection	DC Type III; AC Type III				
Insulation Detection	Yes				
AC Short Circuit Protection	Yes				
General Specifications					
Dimensions (W x H x D)	380 x 380 x 150 mm				
Weight	10 kg	11 kg	11 kg	11 kg	13 kg
Operating Temperature Range	-25°C ~+ 60°C				
Cooling Type	Natural convection				Fan cooling
Max. Operating Altitude	≤ 4000 m				
Max. Operating Humidity	0 ~ 100%				
AC Output Terminal Type	Quick Connector				
IP Class	IP65				
Topology	Transformerless				
Communication	RS-485 / WIFI / 4G				
Display	LCD / Bluetooth + App				
Certification & Standard	EN/IEC 62109-1/2 ; IEC/EN 61000-6-2; IEC/EN 61000-6-4; IEC 61683; IEC 60068; IEC 60529; IEC 62116; IEC 61727; EN 50549-1; AS 4777.2; NRS 097; VDE-AR-N-4105; VDE 0126-1-1; CEI 0-21; G98/G99; C10/11; UNE 217001; UNE 217002; NB/T 32004-2018 ; GB/T 19964-2012; INMETRO ⁷⁾				

1) The maximum current of PV1 is 26 A , So PV1 can be expanded into two Strings by using Y-connectors.
2) Nominal AC output power is 4999 W for Australia and 4600 W for Germany and South Africa.
3) Max. AC apparent power is 3680 VA for the UK.
4) Max. AC apparent power is 4999 VA for Australia, 5000 VA for Belgium and 4600 VA for Germany and South Africa.
5) Maximum output current is 16 A for England.
6) Maximum output current is 21.7 A for Australia and 20 A for Germany and South Africa.
7) For BluE-G 8000D: EN/IEC 62109-1/2 ; IEC/EN 61000-6-2; IEC/EN 61000-6-4; IEC 61683; IEC 60068; IEC 60529; IEC 62116; IEC 61727; INMETRO.
8) Minimum voltage for inverter to start power output.

BlueGlow Series

NEW

Single Phase / On-grid / 7–12 kW

Max. PV Voltage up to 600 V
Type II DC / Type III AC SPD

Reactive Power Control
WiFi / 4G Plug Optional

DC / AC Ratio up to 1.5
AFCI Optional

High Efficiency up to 97.5%
Smaller and Lighter

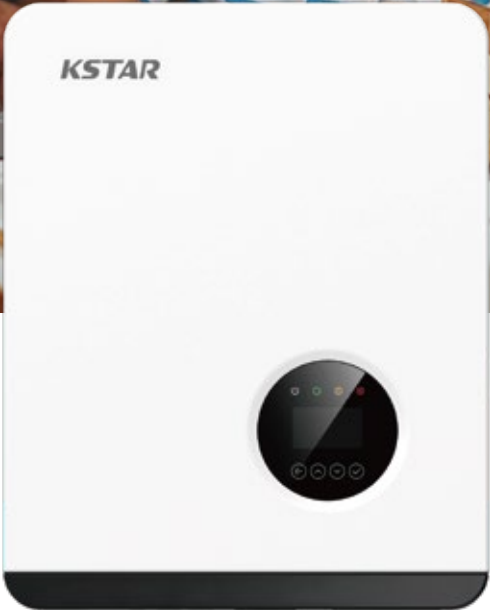
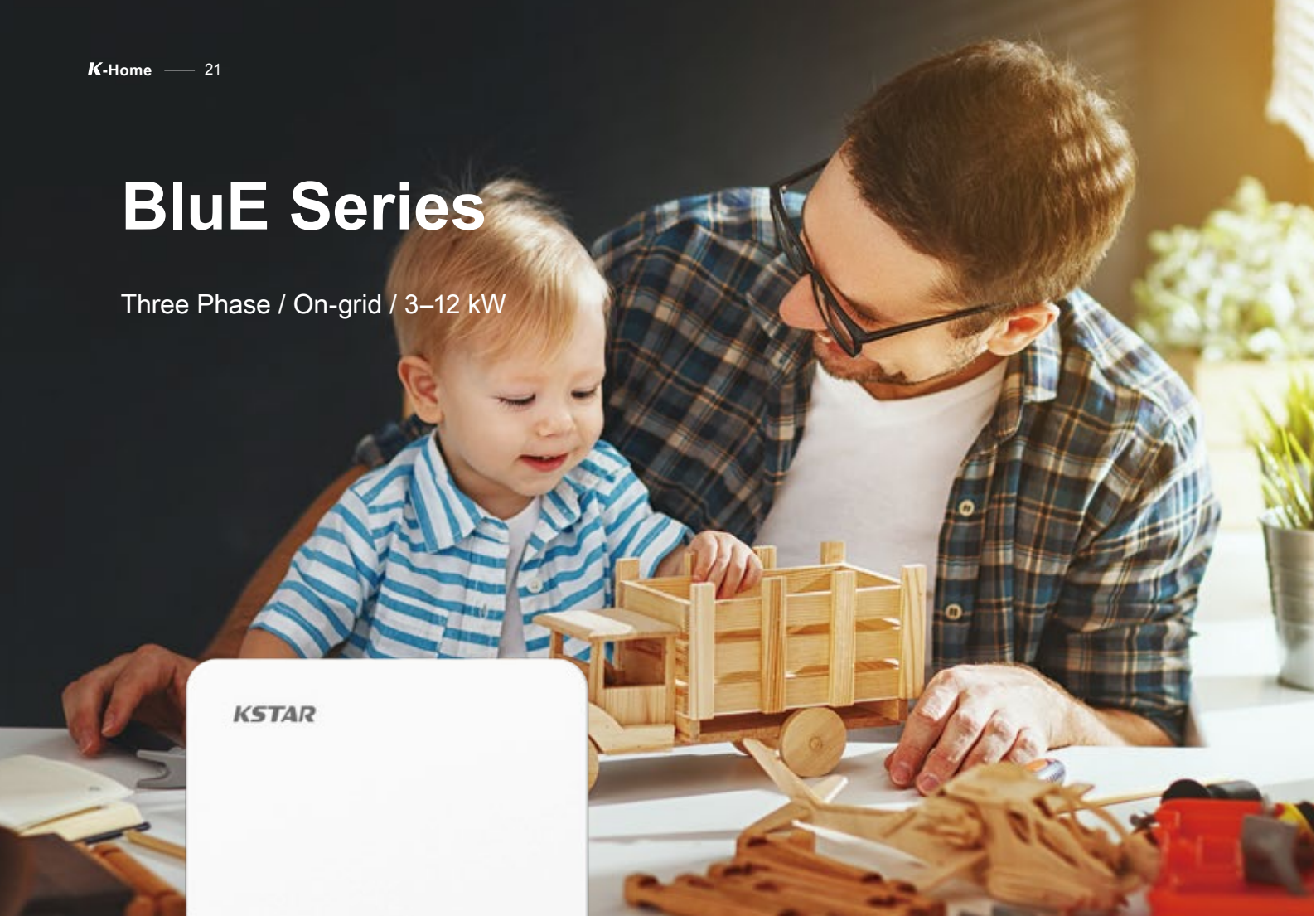


MODEL	G7K	G8K	G9K	G10K	G11K	G12K
Input (DC)						
Recommended Max. PV Array Input Power @STC	10.5 kWp	12 kWp	13.5 kWp	15 kWp	16.5 kWp	18 kWp
Max. DC Voltage	600 V					
Nominal Voltage	360 V					
Start Voltage	80 V					
MPPT Voltage Range	60 V ~ 550 V					
MPPT Voltage Range at Full Load	170 ~ 480	200 ~ 480	220 ~ 480	250 ~ 480	270 ~ 480	290 ~ 480
Number of MPPT	3					
No. of Strings per MPPT	1					
No. of Strings per Input	3					
Max. Input Current per MPPT	15A*3					
Max. Short-circuit Current per MPPT	20A*3					
Output (AC)						
Nominal AC Output Power	7000 W	8000 W	9000 W	10000 W	11000 W	12000 W
Max. AC Apparent Power	7000 VA	8000 VA	9000 VA	10000 VA	11000 VA	12000 VA
Max. AC Output Power	7000 W	8000 W	9000 W	10000 W	11000 W	12000 W
Nominal AC Voltage	220 V					
AC Grid Frequency Range	50Hz / 60 Hz (±5Hz)					
Rated Output Current	31.8 A	36.4 A	40.9 A	45.5 A	50 A	54.5 A
Maximum Output Current	31.8 A	36.4 A	40.9 A	45.5 A	50 A	54.5 A
Power Factor (Φ)	0.8 leading - 0.8 lagging					
THDi	3%					
Efficiency						
Max. Efficiency	98.1%					
Euro Efficiency	97.5%					
Protection Devices						
DC Switch	Yes					
Output Over Current Protection	Yes					
Anti-islanding Protection	Yes					
DC Reverse Polarity Protection	Yes					
String Fault Detection	Yes					
Overvoltage Category	DC Type II; AC Type III					
Insulation Detection	Yes					
AC Short Circuit Protection	Yes					
AFCI Protection	Option					
General Specifications						
Dimensions (W x H x D)	380 x 483 x 161 mm			380 x 483 x 193 mm		
Weight	14.5 kg		15 kg		18 kg	
Operating Temperature Range	-25°C ~+ 60°C					
Cooling Type	Fan Cooling					
Max. Operating Altitude	≤ 4000 m					
Max. Operating Humidity	0 - 100% (No Condensation)					
IP Class	IP66					
Topology	Transformerless					
Communication	RS-485 / WIFI / GPRS / Bluetooth					
Display	LCD / Bluetooth + App					

* This page is for reference only, please refer to the actual contract. The product will be available in the second quarter of 2024

BluE Series

Three Phase / On-grid / 3–12 kW



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

 DC / AC Ratio up to 1.3
IP66 Protection

 Compatible for Big Capacity PV Panel
WiFi / 4G Plug Optional

 High Efficiency up to 98.6%
Smaller and Lighter

MODEL	BluE-3KT-M1	BluE-4KT-M1	BluE-5KT-M1	BluE-6KT-M1	BluE-8KT-M1	BluE-10KT-M1	BluE-12KT-M1
Input (DC)							
Max. DC Voltage				1100 V			
Nominal Voltage				650 V			
Start Voltage ¹⁾				250 V			
MPPT Voltage Range				140 V ~ 1000 V			
Number of MPPT				2			
Strings per MPPT				1			
Max. Input Current per MPPT				15 A			
Max. Short-circuit Current per MPPT				20 A			
Output (AC)							
Nominal AC Output Power	3000 W	4000 W	5000 W	6000 W	8000 W	10000 W	12000 W
Maximum AC Output Power	3300 VA	4400 VA	5500 VA	6600 VA	8800 VA	11000 VA ²⁾	13200 VA
Nominal AC Voltage	400 / 230 V, 3P+N+PE						
AC Grid Frequency Range	50 / 60 Hz (±5Hz)						
Maximum Output Current	4.8 A	6.4 A	8.0 A	9.6 A	12.8 A	16.0 A ²⁾	19.2A
Power Factor (Φ)	0.8 leading - 0.8 lagging						
THDi	3%						
Efficiency							
Max. Efficiency	98.4%	98.4%	98.4%	98.4%	98.6%	98.6%	98.6%
Euro Efficiency	97.5%	97.5%	97.5%	97.5%	98.0%	98.1%	98.1%
Protection devices							
DC Switch				Yes			
Output Over Current Protection				Yes			
Anti-islanding Protection				Yes			
DC Reverse Polarity Protection				Yes			
String Fault Detection				Yes			
DC / AC Surge Protection				DC Type II; AC Type III; Type II Optional			
Insulation Detection				Yes			
AC Short Circuit Protection				Yes			
General Specifications							
Dimensions (W x H x D)				380 x 483 x 161 mm			
Weight				< 17 kg			
Operating Temperature Range				-25°C ~+ 60°C			
Cooling Type				Natural cooling			
Max. Operating Altitude				4000 m			
Max. Operating Humidity				0 ~ 100% (No condensation)			
AC Output Terminal Type				Connector			
IP Class				IP66			
Topology				Transformerless			
Communication				RS-485 / Wifi / 4G			
Display				LCD			
Certification & Standard	EN/IEC 62109-1/2; IEC/EN 61000-6-2; IEC/EN6 1000-6-4; IEC 61683; IEC 60068; IEC 60529; IEC 62116; IEC 61727; EN 50549-1; VDE-AR-N-4105; VDE 0126-1-1; CEI 0-21; G98/G99 ; C10/11; NB/T 32004-2018 ; GB/T 19964-2012						

1) Minimum voltage for inverter to start power output.
2) According to the C10/11 of Synergrid, the maximum AC output power is 10 kVA and therefore the maximum AC output current is 14.5A.

BluE Series

Three Phase / On-grid / 15–25 kW

- Max. PV Voltage up to 1100 V
Type II DC / AC SPD
- Compatible for Big Capacity PV Panel
WiFi / 4G Plug Optional
- DC / AC Ratio up to 1.3
IP66 Protection
- High Efficiency up to 98.6%
Smaller and Lighter



MODEL	BluE-15KT-M1	BluE-17KT-M1	BluE-20KT-M1	BluE-25KT-M1
Input (DC)				
Max. DC Voltage	1100 V			
Nominal Voltage	650 V			
Start Voltage	250 V			
MPPT Voltage Range	140 V ~ 1000 V			
Number of MPPT Tracker	2			
Strings per MPPT Tracker	2 / 1	2	2	2
Max. input Current per MPPT	30 A / 15 A	30 A	30 A	30 A
Max. Short-circuit Current per MPPT	40 A / 20 A	40 A	40 A	40 A
Output (AC)				
Nominal AC Output Power	15000 W	17000 W	20000 W	25000 W
Max. AC Output Power	16500 VA	18700 VA	22000 VA	27500 VA
Nominal AC Voltage	400 / 230 V, 3P+N+PE			
AC Grid Frequency Range	50 / 60 Hz (±5Hz)			
Max. Output Current	23.9 A	27.1 A	31.9 A	39.9 A
Power Factor (cosΦ)	0.8 leading - 0.8 lagging			
THDi	3%			
Efficiency				
Max. Efficiency	98.6%			
Euro Efficiency	98.2%	98.3%	98.3%	98.3%
Protection Devices				
DC Switch	Yes			
Anti-islanding Protection	Yes			
Output Over Current 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			
General Specifications				
Dimensions (W x H x D)	380 x 483 x 193 mm			
Weight	20.7 kg			
Operating Temperature Range	-25°C ~+ 60°C			
Cooling Type	Fan Cooling			
Max. Operating Altitude	4000 m			
Max. Operating Humidity	0 ~ 100% (No condensation)			
AC Output Terminal Type	Connector			
IP Class	IP66			
Topology	Transformerless			
Communication Interface	RS-485 / WIFI / 4G			
Display	LCD			
Certification & Standard	EN/IEC 62109-1/2 ; IEC/EN 61000-6-2; IEC/EN 61000-6-4; IEC 61683; IEC 60068; IEC 60529; IEC 62116; IEC 61727; EN 50549-1; VDE-AR-N-4105; VDE 0126-1-1; CEI 0-21; G99; C10/11; NB/T 32004-2018 ; GB/T 19964-2012			

BluE Series (LV)

Three Phase / On-grid / 12–20 kW



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

 DC/AC ratio up to 2
IP66 protection

 Reactive power control
WiFi / 4G Plug optional

 High efficiency up to 98.6%
Smaller and lighter

MODEL	BluE-12KTL-M1		BluE-15KTL-M1	BluE-20KTL-M2
Input (DC)				
Max. DC Voltage	800 V			
Nominal Voltage	370 V			
Start Voltage	250 V			
MPPT Voltage Range	200 V ~ 750 V			
Number of MPPT Tracker	2			
Strings per MPPT Tracker	2			
Max. input Current per MPPT	30 A			
Max. Short-circuit Current per MPPT	40 A			
Output (AC)				
Nominal AC Output Power	12000 W	15000 W	20000 W	
Max. AC Output Power	13200 VA	16500 VA	22000 VA	
Nominal AC Voltage	220 V 3L+N			
AC Grid Frequency Range	50 / 60 Hz (±5Hz)			
Max. Output Current	34.6 A	43.3 A	57.7A	
Power Factor (cosΦ)	0.8 leading - 0.8 lagging			
THDi	3%			
Efficiency				
Max. Efficiency	98.6%			
Euro Efficiency	98.3%			
Protection Devices				
DC Switch	Yes			
Anti-islanding Protection	Yes			
Output Over Current 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			
General Specifications				
Dimensions (W x H x D)	380 x 483 x 193 mm	380 x 483 x 223 mm	380 x 483 x 227 mm	
Weight	20.7 kg	25.5 kg	32.5 kg	
Operating Temperature Range	-25°C ~+60°C			
Cooling Type	Fan Cooling			
Max. Operating Altitude	4000 m			
Max. Operating Humidity	0 ~ 100% (No Condensation)			
AC Output Terminal Type	Connector			
IP Class	IP66			
Topology	Transformer-less			
Communication Interface	RS-485 / Wifi / 4G			
Display	LCD			
Certification & Standard	EN/IEC62109-1/2 ; IEC/EN61000-6-2; IEC/EN61000-6-4; IEC61683; IEC60068; IEC60529; IEC62116; IEC61727;			

GreenFlow AC Charger (Coming Soon)

Single Phase (7kW) / Three Phase (11 / 22 kW) / Wall-mounted

User-friendly Experience

- ▶ Start/end Charging via an RFID Card or Smart Mobile App
- ▶ OTA Updates

Secure and Robust

- ▶ Suitable for Outdoor Environment
- ▶ Embedded RCD

Smart Charging

- ▶ Scheduled Pre-set Charging
- ▶ Compatible with Most EVs



MODEL	CAS7	CAT11	CAT22
Input Wiring	1P+N+PE	3P+N+PE	3P+N+PE
Rated Power	7 kW	11 kW	22 kW
Rated Input Voltage	230V AC±15%	380V AC±15%	380V AC±15%
Rated Current	32 A	16 A	32 A
Dimensions (W x H x D)	216 x 268 x 105 mm		
Material	PC + ASA		
Frequency	50 ~ 60 Hz		
Color	White + Gray		
Cable Length	5 m		
Connector	Type 2		
Metering	On-Board Measurement		
LED	RGB LED		
RFID Card Reader	Mifare ISO / IEC14443 Type A		
Activation Method	Plug n' Play & RFID Card & App		
App Function	Remote start & stop, Scheduled Charging, Real-time Monitoring, Data Display, Power Adjusting		
Data Collector	Built-in Antenna		
Wi-Fi+Bluetooth	Standard		
RCD	6mA DC + 30mA Type A		
IP Rating	IP65		
IK Rating	IK10		
Certifications	CE (in progress) UKCA (planning)		
EMC	Class B		
IEC Standard	EN IEC 61851-1:2019 IEC61851-1:2017 IEC61851-21-2:2021		
Safety	Over-voltage protection, under-voltage protection, short circuit protection,grounding protection, over temperature protection, lightning protection		
Warranty	2 Years		
Temperature	-30°C ~+ 50°C		
Operating Humidity	5% ~ 95%		
Operating Altitude	< 2000 m		

LSW-5 Stick Logger (WiFi)

By collecting operating data and power generation of inverter, stick logger (WiFi) can run a long-term and efficient monitoring of PV system. Meanwhile, remote monitoring cloud platform provides powerful data support for the logger. The WiFi module is integrated inside the logger which enables transmitting the data to the monitoring platform via WiFi.



MODEL	LSW-5
Wireless Parameters	
Working Frequency	2.412 GHz ~ 2.472 GHz
Transmitting Power	802.11b: +17+/-1.5dBm (@11Mbps)
	802.11g: +15+/-1.5dBm (@54Mbps)
	802.11n: +14+/-1.5dBm (@HT20,MCS7)
Antenna Option	External WiFi Stick Antenna
Hardware Parameters	
Data Interface	RS-485
Working Voltage	DC 5 V ~ DC 12 V
Working Power	1.5 W
Indicator Light	One connected to inverter
	One connected to router
	One heartbeat indicator light
Data Storage	Default: 8 MByte Flash
Working Temperature	-30°C -+ 70°C
Working Humidity	Relative humidity: 10% ~ 90%, No Condensation
Storage Temperature	-45°C -+ 90°C
Storage Humidity	< 40%
IP Grade	IP65
External Interface	DB 9
Software AT+Instruction set Parameters	
Number of Connections	One
Serial Communication Rate	Default: 9600 bps (1200 ~ 115200 bps Optional)
Data Transmission Interval	Default: 5 mins (1 ~ 15 mins Optional)
Configuration	AT+Instruction Set
	Localweb Configuration
	Remote Server
Firmware Upgrade	Local Web Upgrade
	Remote Update
Working Mode	AP+STA
Others	Real-time Control, Data Resuming

* It is recommended to use Stick logger (WiFi) for residential systems. And Stick Logger (Ethernet/4G) is optional.

SDM630MCT40mA Smart Meter

DIN Rail Energy Meter for Single and Three Phase Electrical Systems

- ▶ Measures kWh kVArh, kW, kVA, P, F, PF, Hz, dmd, V, A, THD,etc.
- ▶ Bi-directional measurement IMP & EXP
- ▶ Two pulse outputs
- ▶ RS-485 Modbus
- ▶ Din rail mounting 35mm
- ▶ 40 mA CT connection
- ▶ Better than Class 1 / B accuracy



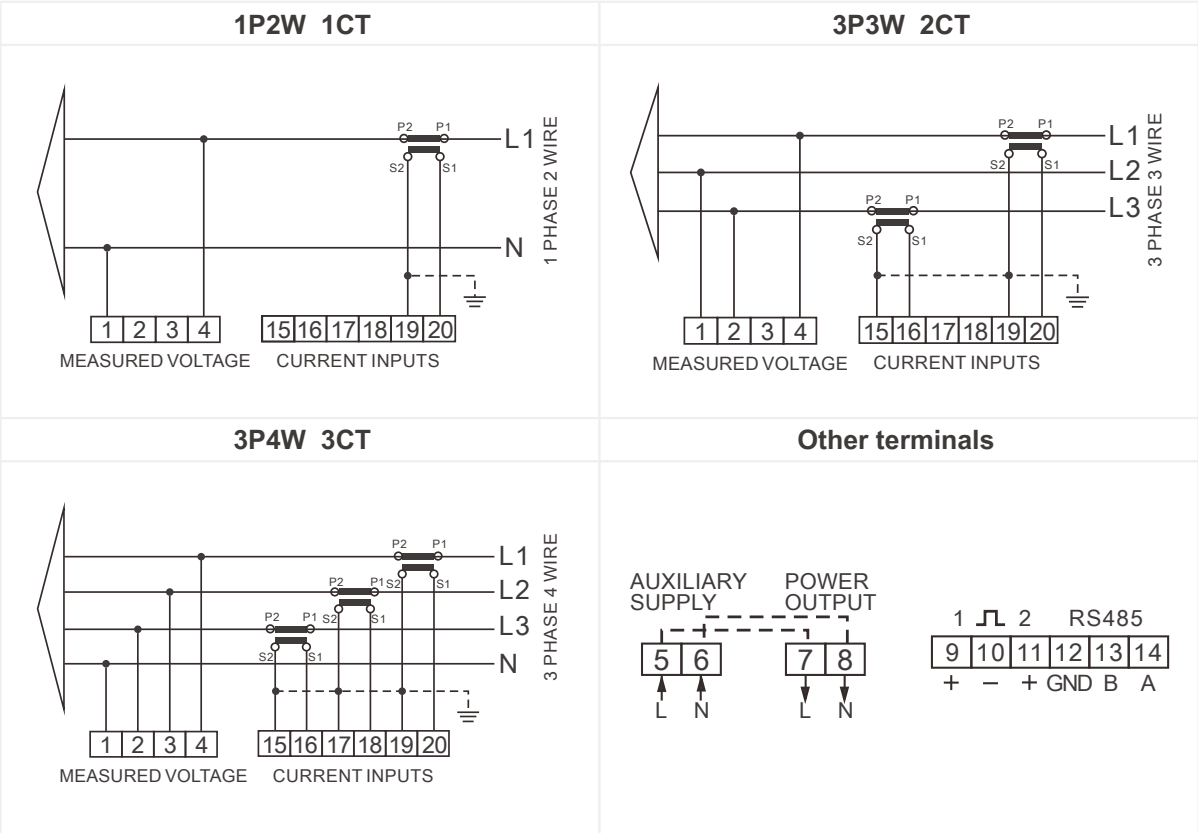
MODEL	SDM630MCT40mA
Measurement Accuracy	
Type of Measurement	RMS including harmonics on three phase AC system (3P,3P+N)
Power	0.5% of range maximum
Active Energy	IEC 62053 - 22 Class 0.5S, IEC 62053 - 21 Class 1.0
Reactive Energy	IEC 62053-23 Class 2
Frequency	0.2% of mid-frequency
Current	0.5% of range maximum
Voltage	0.5% of range maximum
Power Factor	1 % of unity (0.01)
Input	
CT Secondary / Primary	40 mA / 120 A
Rated Voltage (Un)	380 / 400 V a.c.
Operating Voltage Range	173 to 480 V a.c. (L-L)
Communications	
Communication Protocol	Modbus RTU
Communication Address	1 ~ 247
Transmission Distance	1000 m Maximum
Transmission Speed	1200 bps ~ 38400 bps
Parity	None (default), Odd, Even
Stop Bits	1
Response Time	< 100 ms

* SDM630MCT40mA smart meter is recommended to be used along with residential string inverters and ESS hybrid inverters.

** It has included three 120A/40mA Current Transformers. For system larger than 80 kW, users need to purchase larger capacity CT that meets the following requirements:

1. The selected CT's primary rating should be larger than the maximum current passing through the system's AC busbar.
2. Maximum Current = system capacity / 230 / 3

*** Please consult Kstar for more details.



One click away from 24/7 technical support

- | | |
|--|-------------------------------------|
| Remote Energy Monitoring and Analytics | Integration with Smart Home Systems |
| Fault Detection and Maintenance | Comprehensive Data Visualization |
| Grid Interaction and Net Metering | Detailed Configuration Settings |
| Enhanced System Lifespan | Collaborative Monitoring |
| | Extended Historical Data Analysis |



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At KSTAR, we understand that technical service is the cornerstone of a reliable and efficient solar solution. Our commitment to unparalleled technical support ensures that your solar investment operates at peak performance throughout its lifecycle.

Illuminate Tomorrow:
Technical Support Today,
Tomorrow, Always.



01 Residential ESS Project
in Europe



02 Residential ESS Project
in Europe



03 Residential Solar Project
in Brazil



04 Residential ESS Project
in Belgium



05 Residential ESS Project
in Bulgaria



06 Residential Solar Project
in Brazil



07 Residential ESS Project
in Italy



08 Residential ESS Project
in the Netherlands



09 Residential Solar Project
in Brazil



10 Residential ESS Project
in Italy



11 Residential ESS Project
in Italy