Stock Code:002518

KSTAR

HEADQUARTERS

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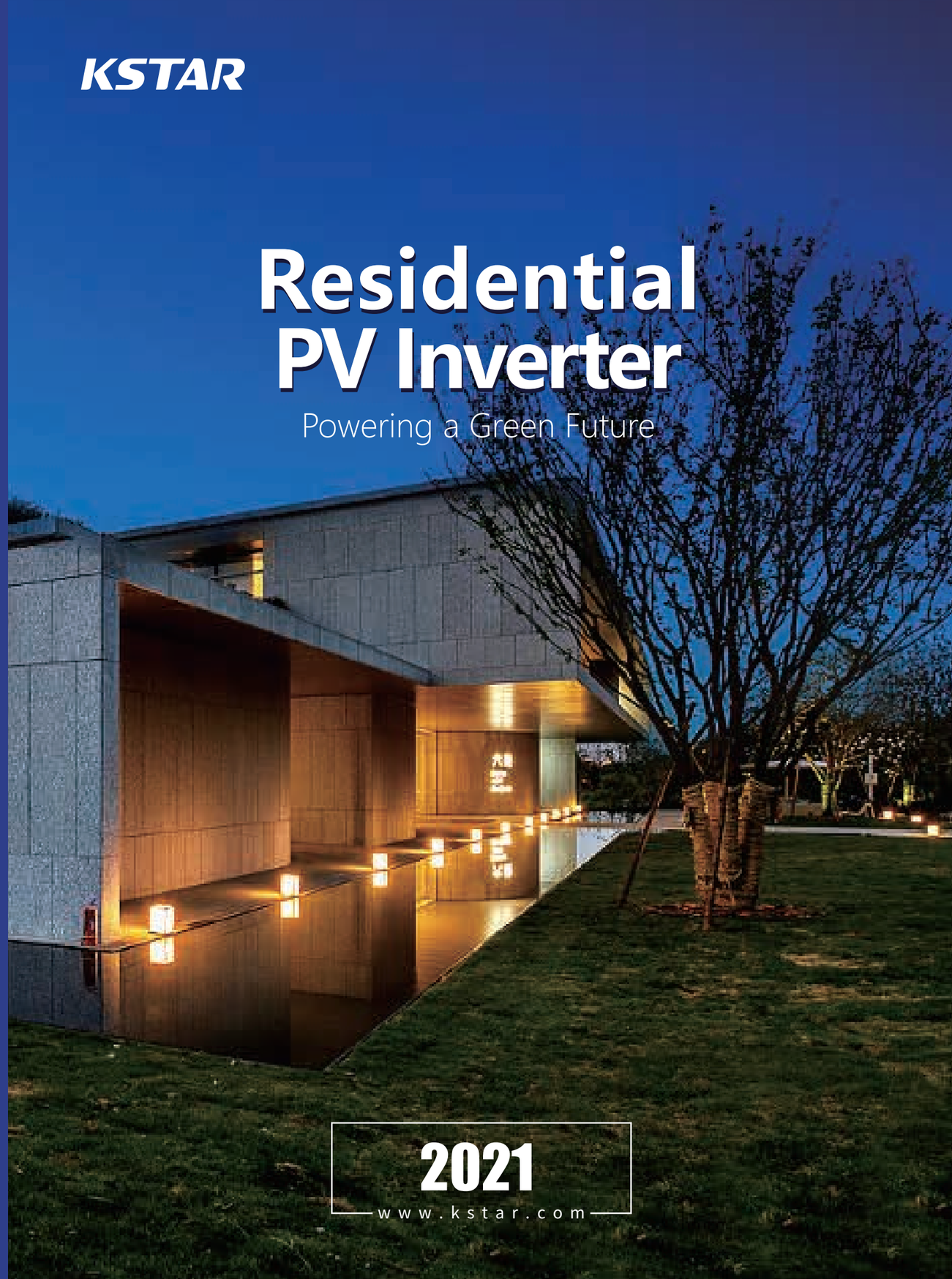
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Version number: KSD/S 2021-01

KSTAR

Residential PV Inverter

Powering a Green Future



2021

www.kstar.com

Over 28 Years Of Experience From Industry To Residential



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About KSTAR

1993
Enter Offline UPS
Company established

1995
Entery into US
and EU markets

2000
Opened Guanlan
Industrial Factory

2004
Enter High-power
Online UPS

2009
Estabilish 1st PV Inverter

2010
Listed in Shenzhen
Stock Exchange

2013
Opened Guangming
Industrial Pack

2015
Certified by National Quality
Management System

2018
Establish Joint Venture
Factory with CATL

2019
CATL & 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



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 materals 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

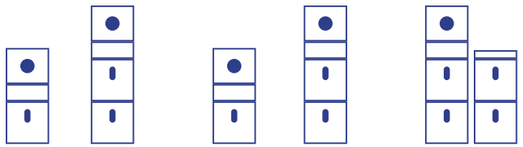
Maximum efficiency of energy conversion.
Storage capacity up to 20 kwh



BluE-S Hybrid Inverter

“Plug and Play” - Cable Box

BluE-PACK 5.1



3,68 kW
5,1 kWh

3,68 kW
10,2 kWh

5,0 kW
5,1 kWh

5,0 kW
10,2 kWh

5,0 kW
20,4 kWh



Battery Model	BluE-PACK5.1
Physical	
Battery Type	LFP (LiFePO4)
System Weight	58KG
Dimension (W x D x H)	540*500*240mm
IP Protection	IP65
Warranty	5 Year Product Warranty, 10 Year Performance Warranty
Electrical	
Energy Capacity	5.12kwh
Usable Capacity	4.6kwh
Depth of Discharge (DoD)	90%
Nominal Voltage	51.2V
Max. Short-circuit Current (Fuse)	125A
Operating Voltage Range	44.8-56.5V
Internal Resistance	<20mΩ
Cycle Life	10000cycle
Operation	
Max. Charge/Discharge Current	50A/80A
Rated DC Power	4096W
Max. Charge/Discharge Power	2825W/4096W
Operating Temperature Range	0 to 50℃ charging -10 to 50℃ discharging
Humidity	0~95% (No condensation)
BMS	
Modules Connection	4
Capacity	100-400Ah
Power Consumption	<2W
Communication	CAN & RS485
Monitoring Parameters	System voltage, current, cell voltage, cell temperature, PCBA temperature measurement
Certificate	
Safety(Cell)	Pack: IEC/EN 62619;UN38.3 Cell: IEC/EN 62619;UN38.3;UL1973

***Maximum 4 battery pack in parallel.**

Hybrid Inverter Model	BluE-S 3680D	BluE-S 5000D
PV String Input		
Max. DC Voltage	580	580
Nominal Voltage	400	400
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
AC Output (Grid)		
Nominal AC Output Power	3680W	4999W
Max. AC Apparent Power	7360VA (from grid)	7360VA (from grid)
Max. AC Output Power	3680W	4999W[1]
Nominal AC Voltage	230Vac	230Vac
AC Grid Frequency Range	50 / 60Hz±5Hz	50 / 60Hz±5Hz
Max. Output Current	16A	22A[2]
Max. Input Current	32A	32A
Power Factor (cosΦ)	0.8leading-0.8lagging	0.8leading-0.8lagging
THDi	<3%	<3%
Battery Input		
Battery Type	LFP (LiFePO4)	LFP (LiFePO4)
Nominal Battery Voltage	48V	48V
Max. 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
AC Output (Backup)		
Max. Output Apparent Power	4000VA	5000VA
Peak Output Apparent Power	6900VA 10sec	6900VA 10sec
Max. Output Current	16A	20A
Nominal Output Voltage	230V±0.2%	230V±0.2%
Nominal Output Frequency	50/60Hz±0.2%	50/60Hz±0.2%
Output THDv (@Linear Load)	<2% (Linear Load)	<2% (Linear Load)
Efficiency		
Max. PV Efficiency	97.6%	97.6%
Euro. PV Efficiency	97.0%	97.0%
Protection		
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
General Specifications		
Dimensions W x H x D	540*590*240mm	
Weight	32kg	
Operating Temperature Range	-25℃~+60℃	
Noise (dB)	<25	
Cooling Type	Natural Convection	
Max. Operation Altitude	2000m	
Max. 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.