PowerAll

8 / 10 / 12 kW
5 / 10 / 15 / 20 / 25 / 30 kWh

Single-phase All-in-one ESS



- SOFAR Hybrid inverter
- SOFAR Battery

We've GOT YOU COVERED with CGL insurance.

User-friendly

- Easy installation & extendable capacity
- Modular and stacking integrated design

Flexible applications

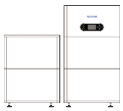
- Multi-function EMS integrated
- Seamless switchover between on and off-grid (4 ms)

Safe & Reliable

- Up to 3 MPPTs with AFCI
- IP66 rated design

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System Parameters						
System Schematic						
Inverter Module	ESI-8/10/12K-S1					
Number of Inverter Modules	1					
Battery Module	BTS 5K					
Number of Battery Modules	1	2	3	4	5	6
Battery Total Energy [1]	5.12 kWh	10.24 kWh	15.36 kWh	20.48 kWh	25.6 kWh	30.72 kWh
IP Rating	IP66					
Operating Temperature Range [2]	-25˚C ~ +50˚C (derating above +45˚C)					
Relative Humidity Range	5%-95%					
Max. Operating Altitude [3]	4000 m (derating above 2000 m)					
Weight	85 kg	135 kg	185 kg	235 kg	285 kg	335 kg
Dimension (W×H×D) [4]	708×920×170 mm	708×1340×170 mm	708×1760×170 mm	708×1340×170 mm 708×940×170 mm	708×1340×170 mm 708×1360×170 mm	708×1760×170 mm 708×1360×170 mm
Base Dimensions (W×H×D)	620×60×170 mm (floor installation), 620×310×170 mm (wall-mounted installation)					
Display	LCD & APP					
Communication	CAN/RS485 / WiFi, Optional: 4G / LAN					
Product Ordering Model	[ESI-8/10/12K-S1 Inverter Module] + N * [BTS 5K Battery Module]					

Inverter Module	ESI-8K-S1	ESI-10K-S1	ESI-12K-S1
PV Input			
Recommended Max. PV Power	16 kWp	20 kWp	24 kWp
Max. Input Voltage	600 Vd.c.		
Start-up Voltage[5]	90 Vd.c.		
Rated Input Voltage	360 Vd.c.		
MPPT Voltage Range	60-550 Vd.c.		
Number of MPPT	3		
Max. Input Current	20/20/20 A		
Max. Isc	25/25/25 A		
Battery			
Voltage Range	120-576 Vd.c.		
Max. Charging Current	50 A		
Max. Discharging Current	50 A		
AC Backup (Output)			
Rated Output Voltage	L+N+PE, 230 Va.c.		
Rated Output Frequency	50 / 60 Hz		
Rated Output Power	8 kW	10 kW	12 kW
Max. Apparent Power	8.8 kVA	11 kVA	13.2 kVA
Peak Output Apparent Power[6]	1.5 times of rated power, 10 s		
Switching Time[7]	4 ms default		
AC Grid (Input and Output)			
Rated Voltage	L+N+PE, 230 Va.c.		
Rated Frequency	50 / 60 Hz		
Rated Output Power	8 kW	10 kW	12 kW
Max. Apparent Power	8.8 kVA	11 kVA	13.2 kVA
Max. Output Current	38.3 A	47.8 A	57.4 A
Max. Input Current	63 A		
Power Factor Range	0.8 lagging - 0.8 leading		
General Parameter			
Dimensions (W×H×D) / Weight	708×440×170 mm / 35 kg		
Battery Module	**BTS 5K**		
Battery Type	$LiFePO_4$ - lithium iron phosphate battery		
Battery Module Energy[1]	5.12 kWh		
Rated Power	2.5 kW		
Topology	Isolation		
Dimensions (W×H×D) / Weight	708×420×170 mm / 50 kg		

[1] Test conditions: 0.2C charging/discharging at 25˚C, 100%DOD. [2] Please refer to the temperature derating curve.
[3] If the altitude is >2000 m, derating is required. Please refer to the derating curve. [4] Dimensions of the inverter and batteries.
[5] Minimum PV voltage to start MPPT operation. [6]Full battery and sun. [7] In the on-grid mode, the nominal power of the hybrid inverter is higher than the total power of the home loads.

*All specifications are subject to change without notice.