



SOFAR

POWERALL

3 / 3.6 / 4 / 4.6 / 5 / 6 kW

5 / 10 / 15 / 20 / 25 / 30 kWh

SINGLE-PHASE

- Modular and integrated DC-coupled energy storage
- Flexible battery capacity expansion
- User-friendly one-button battery operation
- Compatible with high current PV panels

TWO MPPTS

- Maximal battery energy with pack optimization
- Extremely low battery self-consumption in sleep mode
- Switchover time to critical loads less than 10 ms

System Parameters

System schematic						
Rated output power (W)	3000 – 6000					
Number of batteries (n)	1	2	3	4	5	6
Battery capacity (kWh) ¹	5.12	10.24	15.36	20.48	25.6	30.27
Usable energy (kWh) ²	4.75	9.5	14.25	19	23.75	28.5
Degree of protection	IP65					
Ambient temperature range ³	-10°C – 50°C					
Allowable relative humidity range	5 – 95%					
Max. operating altitude ⁴	4000 m					
Weight (kg)	74.5	125.5	176.5	228.5	279.5	330.5
Dimension (mm)	708*170*890	708*170*1310	708*170*1730	708*170*1310 708*170*900	708*170*1310 708*170*1320	708*170*1730 708*170*1320
Display	LCD					
Communication	RS485 / Bluetooth / Ethernet / WiFi, optional: 4G					
Product ordering model	[ESI 3-6K-S1 Inverter Module] + n * [BTS 5K Battery Module]					

Inverter Module

Module	ESI 3K-S1	ESI 3.68K-S1	ESI 4K-S1	ESI 4.6K-S1	ESI 5K-S1	ESI 6K-S1
Rated battery voltage (V)	400					
Max. charge/discharge current (A)	20					
Recommended max. PV input power (Wp)	4500	5400	6000	6900	7500	9000
Max. input voltage (V)	550					
Rated input voltage (V)	360					
MPPT operating voltage range (V)	85 – 520					
Number of MPPTs	2					
Max. input current per MPPT (A)	16/16					
Rated grid voltage	L/N/PE, 230 Vac, 50 / 60 Hz					
Grid voltage range	180 – 276 Vac (according to local standard)					
Rated AC power (W)	3000	3680	4000	4600	5000	6000
Max. AC power output to utility grid (VA)	3300	3680	4400	4600	5500	6600
Rated voltage, frequency (off-grid)	220/230 V, 50/60 Hz					
Max. apparent power (off-grid) (VA)	3000	3680	4000	4600	5000	6000
Peak output power, duration (off-grid) (VA) ⁵	4500, 10 s	5520, 10 s	6000, 10 s	6900, 10 s	7500, 10 s	9000, 10 s
Switchover time	<10 ms					
Topology	Transformerless					
Dimension (mm)	708*170*410					
Weight (kg)	22.5					

Efficiency

Max. efficiency	97.7%	97.8%
European efficiency	97.0%	97.1%

Battery Module

Model	BTS 5K
Battery type	LFP
Battery module energy (kWh) ¹	5
Depth of discharge	0 – 90% adjustable
Rated power (W)	2500
Power control unit	Transformer isolation
Dimension (mm)	708*170*420
Weight (kg)	50

Standards

EMC	EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12
Safety standards	IEC 62109-1/2, IEC 62040 – 1, IEC 62116, IEC 61727, IEC 61683, IEC 60068 (1,2,14,30), UN38.3, IEC62619, SAA
Grid standards	VDE-AR-N 4105, VDE V 0126-1-1, AS/NZS 4777, CEI 0-21, G98/G99, TR321, TR322, EN 50438/EN 50549 UTE C15-712-1, NRS 097-2-1, UNE 206 007-1

¹ Test conditions: 0.2C charge/discharge at 25°C, 100% DoD.

² Based on the battery cell.

³ Please refer to the temperature derating curve.

⁴ If the altitude is >2000 m, derating is required. Please refer to the derating curve.

⁵ In a system with sufficient PV and battery power.