SOFAR POWERALL

5 / 6 kW
5 / 10 / 15 / 20 / 25 / 30 kWh

SINGLE-PHASE DUAL-MPPTS

Product advantages

- Modular and integrated design for easy transportation and installation
- Maximal battery energy with pack optimization
- Flexible battery capacity expansion
- Extremely low battery self-consumption in sleep mode
- User-friendly one-button battery operation
- Switchover time to critical loads less than 10 ms
- Compatible with high current PV panels

Datasheet

System Parameters

System schematic						
Rated output power	3000-6000W					
Number of batteries	1	2	3	4	5	6
Battery capacity [1]	5.12kWh	10.24kWh	15.36kWh	20.48kWh	25.6kWh	30.72kWh
Usable energy [2]	4.75kWh	9.5kWh	14.25kWh	19kWh	23.75kWh	28.5kWh
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	74.5kg	125.5kg	176.5kg	228.5kg	279.5kg	330.5kg
Dimension (W*H*D)	708*170*890mm	708*170*1310mm	708*170*1730mm	708*170*1310mm + 708*170*900mm	708*170*1310mm + 708*170*1320mm	708*170*1730mm + 708*170*1320mm
Display	LCD & APP + Bluetooth					
Communication	Rs485, CAN2.0, WiFi, optional: Ethernet, 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	400V					
Max. charge/discharge current	20A					
Recommended max. PV input power	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	9000Wp
Max. input voltage	550V					
Rated input voltage	360V					
MPPT operating voltage range	85-520V					
Number of MPPTs	2					
Max. short circuit current	22.5 / 22.5A					
Rated grid voltage	L/N/PE, 230 V, 50 Hz / 60 Hz					
Grid voltage range	180 Vac-276 Vac (according to local standard)					
Rated AC power	3000W	3680W	4000W	4600W	5000W	6000W
Max. AC power output to utility grid	3300VA	3680VA	4400VA	4600VA	5500VA	6600VA
Rated voltage, frequency (off-grid)	220/230 V, 50/60 Hz					
Rated power (off-grid)	3000W	3680W	4000W	4600W	5000W	6000W
Max. apparent power (off-grid)	3000VA	3680VA	4000VA	4600VA	5000VA	6000VA
Peak output power, duration (off-grid) [5]	4500VA, 10 s	5520VA, 10 s	6000VA, 10 s	6900VA, 10 s	7500VA, 10 s	9000VA, 10 s
Switchover time	<10 ms					
Topology	Transformerless					
Dimension (W*H*D)	708*170*410mm					
Weight	22.5kg					

Efficiency

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

Battery Module

Model	BTS 5K
Battery type	LFP
Battery module energy [1]	5.12kWh
Depth of discharge	0-90% adjustable
Nominal power	2500W
Power control unit	Transformer isolation
Dimension (W*H*D)	708*170*420mm
Weight	50kg

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, 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.

* All specifications are subject to change without notice.