

SOFAR POWERALL

3 / 3.68 / 4 / 4.6 / 5 / 6 kW
5 / 10 / 15 / 20 / 25 / 30 kWh

SINGLE-PHASE DUAL MPPT



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 total energy[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]	4000m					
Weight	74.5kg	125.5kg	176.5kg	228.5kg	279.5kg	330.5kg
Dimension (W*H*D)	708*890*170mm	708*1310*170mm	708*1730*170mm	708*1310*170mm 708*900*170mm	708*1310*170mm 708*1320*170mm	708*1730*170mm 708*1320*170mm
Display	LCD & APP+Bluetooth					
Communication	RS485/CAN/WiFi, Optional: Ethernet/4G					
Product ordering model	[ESI 3-6K-S1 Inverter Module] + N * [BTS 5K Battery Module]					

Inverter Module

Model	ESI 3K-S1	ESI 3.68K-S1	ESI 4K-S1	ESI 4.6K-S1	ESI 5K-S1	ESI 5K-S1-A*	ESI 6K-S1
Rated battery voltage	400V						
Max. charging/discharging current	20A						
Max. PV input power	4500Wp	5400Wp	6000Wp	6900Wp	7500Wp	7500Wp	9000Wp
Max. input voltage	550V						
Rated input voltage	360V						
MPPT operating voltage range	85-520V						
Number of MPPTs	2						
Max. input current per MPPT	16A/16A						
Max. short circuit current	22.5A/22.5A						
Rated grid voltage	L/N/PE, 230V, 50Hz/60Hz						
Grid voltage range	180Vac-276Vac (According to local standard)						
Rated AC power	3000W	3680W	4000W	4600W	5000W	5000W	6000W
Max. AC power output to utility grid	3300VA	3680VA	4400VA	4600VA	5500VA	5000VA	6600VA
Rated voltage, frequency (off-grid)	220/230/240V, 50/60Hz						
Rated power (off-grid)	3000W	3680W	4000W	4600W	5000W	5000W	6000W
Max. apparent power (off-grid)	3000VA	3680VA	4000VA	4600VA	5000VA	5000VA	6000VA
Peak output power, duration (off-grid)[5]	4500VA, 10S	5520VA, 10S	6000VA, 10S	6900VA, 10S	7500VA, 10S	7500VA, 10S	9000VA, 10S
Switch time	<10ms						
Max efficiency of solar inverter	97.7%	97.7%	97.7%	97.8%	97.8%	97.8%	97.8%
European efficiency of solar inverter	97%	97%	97%	97.1%	97.1%	97.1%	97.1%
Topology	Transformerless						
Dimension (W*H*D)	708*410*170mm						
Weight	22.5kg						

Battery Module

Model	BTS 5K
Battery type	LFP[6]
Battery module energy	5.12kWh
Rated Power	2500W
Topology	Transformer isolation
Dimension (W*H*D)	708*420*170mm
Weight	50kg

Standard EN 61000-6-2, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12, IEC 62109-1/2, IEC 62040-1, IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), UN38.3, IEC 62619, VDE-AR-N 4105, VDE V 0126-1-1, AS/NZS 4777, CEI 0-21, C10/11, C98/C99, TR321, TR322, EN 50438/EN50549, UTE C15-712-1, NRS 097-2-1, UNE 206 007-1

[1] Test conditions: 0.2C charging/discharging 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. [6] Please refer to document "SOFAR inverter Model compatible battery list"

* All specifications are subject to change without notice.