Energy Storage

Power-Box SH3/3.7/4.6/5/6K
Single Phase Hybrid Inverter

KEY FEATURES

Energy Management

- Max. efficiency 97.7%
- Max. PV input current 16 A * 2
- 200% PV input oversizing
- Max. battery charge / discharge current 35 A

Safe & Convenient

- SPD type : DC II / AC III
- Working noise < 25 dB
- Quick installation and easy debugging

Powerful Backup

- THDv < 2%
- 200% peak output power
- Seamless on-grid / off-grid switching

Smart O & M

- Firmware OTA updates
- 24 / 7 online monitoring
- Smart remote diagnosis

BYD Energy Storage

TECHNICAL PARAMETERS

Models	Power-Box SH3K	Power-Box SH3.7K	Power-Box SH4.6K	Power-Box SH5K	Power-Box SH6K
Input (PV)					
Max. PV Input Power	6000 Wp	7360 Wp	8280 Wp	9000 Wp	9000 Wp
Max. PV Input Voltage	600 V				
Start-up Voltage	120 V				
MPPT Voltage Range	80 ~ 550 V				
Max. Current per MPPT	16 A				
Max. Short Circuit Current per MPPT	24 A				
Number of MPP Trackers	2				
Number of Strings per MPPT	1/1				
Battery					
Compatible Battery	BYD Battery-Box HVE				
Battery Voltage	80 ~ 480 V				
Max. Charge / Discharge Current	35 A				
Max. Charge / Discharge Power	3000 W	3680 W	4600 W	5000 W	6000 W
AC Input / Output (Grid)					
Rated AC Input / Output Power	3000 W	3680 W	4600 W	5000 W	6000 W
Max. AC Input / Output Apparent Power	3300 VA	4050 VA	4600 VA	5500 VA	6600 VA
Rated AC Input / Output Current	13 A	16 A	20 A	21.7 A	26.1 A
Max. AC Input / Output Current	26 A / 15 A	32 A / 18 A	40 A / 20.9 A	44 A / 25 A	52 A / 30 A
Rated AC Voltage Range	1 / N / PE, 220 V / 230 V / 240 V				
AC Voltage Range	0.9 Ur ~ 1.1 Ur				
AC Grid Frequency	50 Hz (47.5 Hz ~ 52.5 Hz) / 60 Hz (57 Hz ~ 63 Hz)				
Power Factor	0.99, 0.8 leading ~ 0.8 lagging adjustable				
THDi	< 3%				
AC Output (Backup)					
Rated AC Output Power	3000 W	3680 W	4600 W	5000 W	6000 W
Peak Output Power	6000 VA, 10 s	7360 VA, 10 s	9200 VA, 10 s	10000 VA, 10 s	12000 VA, 10 s
Back-up Switch Time	< 13 ms	< 13 ms	< 13 ms	< 13 ms	< 13 ms
Max. AC Output Current	13 A	16 A	20 A	22 A	26 A
Rated Output Voltage	1 / N / PE, 220 V / 230 V / 240 V				
Rated Output Grid Frequency	50 Hz / 60 Hz				
THDv	< 2%				
Efficiency					
MPPT Efficiency	99.90%				
Max. Efficiency	97.70%				
EU Efficiency	96.60%				
Protection					
Protection Class	I				
Anti-islanding Protection	Yes				
DC Reverse Polarity Protection	Yes				
Insulation Monitoring	Yes				
DC Surge Protection	II				
AC Surge Protection	III				
Residual Current Monitoring	Yes				
AC Overcurrent Protection	Yes				
DC Overvoltage Protection	Yes				
DC Undervoltage Protection	Yes				
AC Short-circuit Protection	Yes				
Over Voltage Category	DC : II / AC : III				
Battery Reverse Charging From Grid	Yes				
Ground Fault	Yes				
Over-heat Protection	Yes				
General Data					
Operating Temperature Range	-25 ℃ ~ +60 ℃				
Relative Operating Humidity	0 ~ 100 %RH, Non-Condensing				
Operating Altitude	4000 m				
Cooling	Natural Convection				
Noise	< 25 dB				
Dimensions	480 mm * 480 mm * 180 mm				
Weight	20 kg				
Inverter Topology	Non-isolated				
Display	LED				
Parallel Operation	3				
Communication	WiFi, LAN, Bluetooth, RS485, CAN				
Ingress Protection	IP65				
Nighttime Power	< 13 W				
Standards Compliance					
Safety / EMC Standard	EN / IEC 62109-1 / 2, EN / IEC 62040-1, EN / IEC 62477-1, EN IEC 61000-6, EN IEC 61000-3				
Grid Connection Standard	AS / NZS 4777.2				

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