Energy Storage

Power-Box SL3/3.68/4.6/5/6K

Single Phase Hybrid Inverter



KEY FEATURES

Flexible

- 16 A max. PV input current
- 150% PV input oversizing
- Support RCD loads

Safe & Reliable

- IP66 protection
- SPD Type II
- Support AFCI (optional)

Powerful

- Backup switch time < 10 ms
- Up to 150% peak output power
- Parallel connection (3 max)

Smart & Easy

- Firmware OTA updates
- 24 / 7 online monitoring
- Quick commissioning via BLE

TECHNICAL PARAMETERS

BYD Energy Storage

Models	Power-Box SL3K	Power-Box SL3.68K	Power-Box SL4.6K	Power-Box SL5K	Power-Box SL6K
Input (PV)					
Max. PV Input Power	4500 Wp	5400 Wp	6900 Wp	7500 Wp	9000 Wp
Max. PV Input Voltage	600 V				
Start-up Voltage	100 V				
MPPT Voltage Range	100 ~ 550 V				
Max. Current per MPPT	16 A				
Max. Short Circuit Current per MPPT	20 A				
Number of MPP Trackers	2				
Number of Strings per MPPT	1/1				
Battery					
Compatible Battery	BYD Battery-Box LV 5.0+				
Battery Voltage	40 ~ 60 V				
Max. Charge / Discharge Current	100 A				
Max. Charge / Discharge Power	5120 W / 3000 W	5120 W / 3680 W	5120 W / 4600 W	5120 W / 5000 W	5120 W / 5000 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	3680 VA	4600 VA	5500 VA	6000 VA
Rated AC Input / Output Current	13 A	16 A	20 A	21.7 A	26.1 A
Max. AC Input / Output Current	21.8 A / 15 A	26.7 A / 16 A	33.5 A / 20.9 A	33.8 A / 25 A	43.6 A / 27.3 A
Rated AC Voltage	1 / N / PE, 230 V				
AC Voltage Range	0.9 Ur ~ 1.1 Ur				
AC Grid Frequency	50 Hz (45 Hz ~ 54 Hz) / 60 Hz (55 Hz ~ 65 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
Max. AC Output Apparent Power	4500 VA, 10 s	5400 VA, 10 s	6900 VA, 10 s	7500 VA, 10 s	7500 VA, 10 s
Back-up Switch Time	< 10 ms	< 10 ms	< 10 ms	< 10 ms	< 10 ms
Max. AC Output Current	13 A	16 A	20 A	21.7 A	26.1 A
Rated Output Voltage	1 / N / PE, 230 V				
Rated Output Grid Frequency	50 Hz / 60 Hz				
THDv	< 3%				
Efficiency					
MPPT Efficiency	99.9%				
Max. Efficiency	97.3%				
EU Efficiency	96.3%				
Protection					
Protection Class	I				
Anti-islanding Protection	Yes				
DC Reverse Polarity Protection	Yes				
Insulation Monitoring	Yes				
DC Surge Protection	Yes				
AC Surge Protection	Yes				
Residual Current Monitoring	Yes				
AC Overcurrent Protection	Yes				
AC Short-circuit Protection	Yes				
Over Voltage Category	DC: II AC: III				
Over-heat Protection	Yes				
AFCI	Yes (Optional)				
General Data					
Operating Temperature Range	-30 °C ~ +60 °C, > 45 °C Derating				
Relative Operating Humidity	0 ~ 95 %RH, Non-Condensing				
Operating Altitude	4000 m, > 2000 m Derating				
Cooling	Natural Converction				
Noise	< 35 dB				
Dimensions	481 mm * 390 mm * 200 mm				
Weight	21.35 kg				
Inverter Topology	High-frequency Isolation				
Display	LED				
Max. Parallel Quantity	3				
Communication	RS485, CAN, WiFi, LAN, Bluetooth				
Ingress Protection	IP66				
Nighttime Power	≤ 10 W				
Standards Compliance					
Safety / EMC Standard	IEC / EN 62109-1 / -2, EN 61000-6-1 / -3				
Grid Connection Standard	G98 or G99, EN 50549-1, NRS 097-2-1, IEC 62116, IEC 61727				

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