HUAWEI

# SMART ENERGY CONTROLLER

SUN2000-3/3.68/4/4.6/5/6K-LB0




**Active Safety**
Active Arcing Protection

**Higher Yields**
Up to 30% More Energy with Optimizer

**Battery Ready**
Plug & Play Battery Interface

Version No.: 01-202502

## SUN2000-3/3.68/4/4.6/5/6K-LB0

# Technical Specification

| Technical Specification | SUN2000 -3K-LB0 | SUN2000 -3.68K-LB0 | SUN2000 -4K-LB0 | SUN2000 -4.6K-LB0 | SUN2000 -5K-LB0 | SUN2000 -6K-LB0 |
|---|---|---|---|---|---|---|
| Efficiency | | | | | | |
| Max. efficiency | 97.8% | 97.8% | 97.8% | 97.8% | 97.8% | 97.8% |
| European weighted efficiency | 96.6% | 96.8% | 96.8% | 97.0% | 97.1% | 97.2% |
| Input (PV) | | | | | | |
| Recommended max. PV power | 4,500 Wp | 5,520 Wp | 6,000 Wp | 6,900 Wp | 7,500 Wp | 9,000 Wp |
| Max. input voltage [1] | 600 V | | | | | |
| Startup voltage | 50 V | | | | | |
| MPPT operating voltage range | 40 ~ 560 V | | | | | |
| Rated input voltage | 360 V | | | | | |
| Max. input current per MPPT | 16 A | | | | | |
| Max. short-circuit current | 20 A | | | | | |
| Number of MPP trackers | 2 | | | | | |
| Max. inputs per MPP tracker | 1 | | | | | |
| Input (DC Battery) | | | | | | |
| Compatible battery | LUNA2000-5/10/15-S0, LUNA2000-7/14/21-S1 | | | | | |
| Operating voltage range | 350 ~ 560 Vdc | | | | | |
| Max. operating current | 16.5 A | | | | | |
| Max. charge power | 6,000 W | | | | | |
| Max. discharge power | 3,300 W | 3,680 W | 4,400 W | 4,600 W | 5,500 W | 6,600 W |
| Output (On Grid) | | | | | | |
| Grid connection | Single phase | | | | | |
| Rated output power | 3,000 W | 3,680 W | 4,000 W | 4,600 W | 5,000 W | 6,000 W |
| Max. apparent power | 3,300 VA | 3,680 VA | 4,400 VA | 5,000 VA | 5,500 VA | 6,600 VA |
| Rated output voltage | 220 Vac / 230 Vac / 240 Vac | | | | | |
| Rated AC grid frequency | 50 Hz/60 Hz | | | | | |
| Max. output current | 15 A | 16 A | 20 A | 23 A | 25 A | 30 A |
| Adjustable power factor | 0.8 leading ... 0.8 lagging | | | | | |
| Max. total harmonic distortion | ≤ 3% | | | | | |
| Backup power output | Yes (via SmartGuard 63A S0) | | | | | |
| Protection Feature | | | | | | |
| Anti-islanding protection | Yes | | | | | |
| DC reverse polarity protection | Yes | | | | | |
| Insulation monitoring | Yes | | | | | |
| DC surge protection | Yes, compatible with TYPE II protection class according to EN/IEC 61643-11 | | | | | |
| AC surge protection | Yes, compatible with TYPE II protection class according to EN/IEC 61643-11 | | | | | |
| Residual current monitoring | Yes | | | | | |
| AC overcurrent protection | Yes | | | | | |
| AC short-circuit protection | Yes | | | | | |
| AC overvoltage protection | Yes | | | | | |
| Arc fault protection | Yes | | | | | |
| Battery charging from grid | Yes | | | | | |
| General Specification | | | | | | |
| Operating temperature range | - 25 ~ +60 ℃ | | | | | |
| Relative operating humidity | 0%-100% RH | | | | | |
| Operating altitude | 0-4,000 m (Derating above 2,000 m) | | | | | |
| Cooling | Natural convection | | | | | |
| Display | LED indicators; integrated WLAN + FusionSolar app | | | | | |
| Communication | RS485, WLAN via inverter built in WLAN module<br>Ethernet via Smart Dongle-WLAN FE (Optional); 4G / 3G / 2G via Smart Dongle-4G (Optional); EMMA | | | | | |
| Weight (incl. mounting brackets) | < 15 kg | | | | | |
| Dimensions (incl. mounting brackets) | 425 mm x 376.5 mm x 150 mm | | | | | |
| IP rating | IP66 | | | | | |
| Nighttime power | < 3 W | | | | | |
| Optimizer Compatibility | | | | | | |
| DC MBUS compatible optimizer | SUN2000-450W-P2, SUN2000-600W-P | | | | | |
| Standards Compliance (More Available Upon Request) | | | | | | |
| Safety | EN/IEC 62109-1, EN/IEC 62109-2 | | | | | |
| Grid connection standards | G98, G99, G100, EN 50549-1, CEI 0-21, VDE-AR-N-4105, C10/11, P140,<br>UTE C15-712, TOR Erzeuger, IEC61727, IEC62116 | | | | | |

*1 The maximum input voltage is the upper limit of the DC voltage. Any higher input DC voltage would probably damage inverter.

Disclaimer: the preceding values are measured by an internal laboratory of Huawei in a specific environment. The actual values may vary with products, software versions, usage conditions, and environmental factors.