SMART ENERGY CONTROLLER

Model: 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.: 01-202504

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					
Start-up voltage	50 V					
MPPT operating voltage range [3]	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 W	3,680 VA	4,400 VA	5,000 VA	5,500 VA	6,600 VA
Rated output voltage	220 V AC/230 V AC/240 V AC					
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°C to +60°C (–13°F to +140°F)					
Relative operating humidity	0%–100% RH					
Operating altitude	0-4,000 m (Derated above 2000 m)					
Cooling	Natural convection					
Display	LED Indicators; Integrated WLAN + FusionSolar App					
Communication	RS485, WLAN via inverter built in WLAN module Ethernet via Smart Dongle-WLAN FE (Optional); 4G / 3G / 2G via Smart Dongle-4G (Optional); SA4H-A02					
Weight (incl. mounting brackets)	< 15 kg					
Dimensions (incl. mounting plate)	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, 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.

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