HUAWEI

SMART ENERGY CONTROLLER

SUN2000-8/10K-LC0

Active Safety
Active Arcing Protection

Higher Yields
Up to 30% More Energy with Optimizer

Battery Ready
Plug & Play, Whole-house power backup

Version No.: 202506

SUN2000-8/10K-LC0

Technical Specification

Technical Specification	SUN2000-8K-LC0	SUN2000-10K-LC0
Efficiency		
Max. efficiency	98.1%	
European weighted efficiency	97.5%	
Input (PV)		
Recommended max. PV power [1]	12,000 Wp	15,000 Wp
Max. input voltage	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	
Max. number of inputs	3	
Number of MPP trackers	3	
Input (DC Battery)		
Compatible battery	LUNA2000-5/10/15-S0, LUNA2000-7/14/21-S1	
Operating voltage range	350 ~ 560 Vdc	
Max. operating current	25 A	
Max. charge power	8,000 W	10,000 W
Max. discharge power	8,000 W	10,000 W
Output (On Grid)		
Grid connection	Single-phase	
Rated output power	8,000 W	10,000 W
Max. apparent power	8,800 VA	10,000 VA
Rated output voltage	220 Vac / 230 Vac / 240 Vac, L / N + PE	
Max. output current	40.0 A	45.5 A
Rated AC grid frequency	50 Hz/60 Hz	
Adjustable power factor	0.8 leading ... 0.8 lagging	
Max. total harmonic distortion	≤ 3%	
Backup power output	Yes (via SmartGuard-63A-S0)	
Features & Protection		
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 unit	Yes	
AC overcurrent protection	Yes	
AC short-circuit protection	Yes	
AC overvoltage protection	Yes	
Over-heat protection	Yes	
Arc fault protection	Yes	
Battery charging from grid	Yes	
General Data		
Operating temperature range	–25°C to +60°C (-13 °F ~ 140 °F)	
Relative operating humidity	0%-100% RH	
Operating altitude	0-4,000 m (Derating above 2,000 m)	
Cooling	Natural convection	Smart Air Cooling
Display	LED indicators; integrated WLAN + FusionSolar app	
Communication	RS485, WLAN / Ethernet via Smart Dongle-WLAN-FE (Optional) 4G / 3G / 2G via Smart Dongle-4G (Optional), EMMA	
Weight	14.5 kg	15 kg
Dimensions (W x H x D) (incl. mounting plate)	425 mm x 376.5 mm x 150 mm	
Degree of protection	IP66	
Optimizer Compatibility		
Compatible optimizer [2]	SUN2000-450W-P2, SUN2000-600W-P, MERC-600W-PA0	
Standards Compliance (More Available Upon Request)		
Certificates	EN/IEC 62109-1, EN/IEC 62109-2	
Grid connection standards	EN 50549-1, UNE 217001/RD244, UNE 217002, NTS, VDE 0126-1-1, ABNT, P140, NRS 097-2-1, IEC 61000-2-2, PEA, MEA, G99, IEC 61727, IEC 62116, IEC 63027, IEEE 1547, Resolution PGC No.07	

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

*2 SUN2000-450W-P2/600W-P, MERC-600W-PA0 can NOT be used in mixture under the same Smart Energy/PV Controller.

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.