

SMART ENERGY CONTROLLER

SUN2000-10K-MAP0-BE



Asymmetric Load

Three-phase asymmetric output
200% overload



Active Safety

AFCI & RSD (with optimizer)
Connector temperature detection



Future Ready

LUNA S0 or S1
Whole home backup (with SmartGuard)

SUN2000-5/6/8/10/12K-MAP0 Technical Specification

Technical Specification	SUN2000-10K-MAP0-BE
Max. efficiency	98.6%
European weighted efficiency	98.1%
Input (PV)	
Recommended max. PV power	18,000 Wp
Max. input voltage ¹	1,100 V
Operating voltage range ²	160 ~ 1,000 V
Startup voltage	160 V
Rated input voltage	600 V
Max. input current per MPPT	16 A
Max. short-circuit current	22 A
Number of MPP trackers	2
Max. input per MPP tracker	1
Input (DC Battery)	
Compatible battery	LUNA2000-5/10/15-S0 / LUNA2000-7/14/21-S1
Operating voltage range	600 ~ 980 V
Max. operating current	20 A
Max. charging power	12,000 W
Max. discharging power	10,000 W
Output (On Grid)	
Grid connection	Three-phase
Rated output power	10,000 W
Max. apparent power	10,000 VA
Rated output voltage	220 V AC/380 V AC, 230 V AC/400 V AC, 240 V AC/415 V AC 3W/N + PE
Overload capability	110%
Rated AC grid frequency	50 Hz/60 Hz
Max. output current	15.2 A
Adjustable power factor	0.8 leading ... 0.8 lagging
Max. total harmonic distortion	≤ 3%
Output (Off Grid)	
Compatible backup device	SmartGuard-63A-T0 (3 phase)
Rated output power	10,000 W
Rated output voltage	220 V AC/380 V AC, 230 V AC/400 V AC, 240 V AC/415 V AC 3W/N + PE
110% overload	Continuous
150% overload	1 min (3-phase) / 5 min (Single-phase)
200% overload	10 seconds
Automatic switchover time	≤ 20 ms (with SmartGuard-63A-T0)
Protection Feature	
Asymmetric load	Yes, supports 100% three-phase asymmetric load
Input-side disconnection device	Yes
Anti-islanding protection	Yes
DC reverse polarity protection	Yes
Insulation detection	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 detection	Yes
AC overcurrent protection	Yes
AC short-circuit protection	Yes
AC overvoltage protection	Yes
Arc fault protection	Yes
Connector temperature detection	Yes (PV & Battery connectors)
Ripple receiver control	Yes
Battery charging from grid	Yes
General Specification	
Operating temperature range	-25°C - +60°C (-13°F - +140°F)
Relative operating humidity	0 % - 100% RH
Max. operating altitude	4,000 m
Cooling	Natural convection
Noise	≤ 29 dB
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 (Optional)
Weight (incl. mounting brackets)	21 kg
Dimensions (incl. mounting brackets)	490 mm x 460 mm x 130 mm
IP rating	IP66
Nighttime power	< 5.5 W
Optimizer Compatibility	
DC MBUS compatible optimizer	SUN2000-450W-P2, SUN2000-600W-P
Safety	
Grid connection standards	EN/IEC62109-1, EN/IEC62109-2 C10/C11

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

*2 Any DC input voltage beyond the operating voltage range may result in inverter malfunction.

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.