SUN2000-12/15/17/20/25K-MB0

Smart Energy Controller









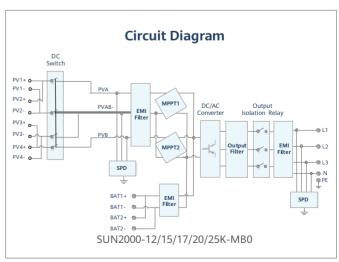
Up to 30% More Energy with Optimizer



2 Battery Terminals;

Compatible with LUNA2000-S0 and S1 $\,$





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Technical Specification

			Ltt: -:			
			Efficiency			
Max. efficiency	98.4 %	98.4 %	98.4 %	98.4 %	98.4 %	
European weighted efficiency	97.9 %	98.0 %	98.1 %	98.1 %	98.2 %	
			DC Input			
Recommended max. PV power	18,000 Wp	22,500 Wp	25,500 Wp	30,000 Wp	37,500 Wp	
Max. input voltage ²	10,000 11	22,300 ** p	1,100 V	30,000 WP	37,300 VVP	
Max. input voltage Max. input current per MPPT	30 A (two strings) / 20 A (single string)					
Max. short-circuit current		30 A (LV	40 A	z string)		
Start-up voltage		200 V				
MPPT operating voltage range ³			200 V ~ 1,000 V			
Full-load MPPT voltage range	370 V ~ 800 V	410 V ~ 800 V	440 V ~ 800 V	480 V ~ 800 V	530 V ~ 800 V	
Rated input voltage	370 V 000 V	410 0 000 0	600 V	400 V 000 V	330 V 000 V	
Max. number of inputs			4			
Number of MPP trackers			2			
variber of with trackers		6 . 6. 1 . 5				
			nergy Storage Sy	stem Terminal		
Commotible Conset String ESS			LUNA2000-5/10/15-S0			
Compatible Smart String ESS	LUNA2000-7/14/21-S1 (Available from 30/11/2023)					
Number of terminals			2			
Max. charging power		21 kW (Sir	ngle string) / 25 kW (Tw	o strings)		
Max. discharging power	13.2 kW	16.5 kW	18.7 kW	22.0 kW	25.0 kW	
Max. operating current			26.25 A (per string)			
Operating voltage range			600 V ~ 980 V			
			Output			
2	40.000 111	45.000.111	Output	20.000.111	25 222 11:	
Rated output power	12,000 W	15,000 W	17,000 W	20,000 W	25,000 W	
Max. apparent power	13,200 VA	16,500 VA	18,700 VA	22,000 VA	27,500 VA	
Max. active power (cosφ = 1)	13,200 W	16,500 W	18,700 W	22,000 W	27,500 W	
Rated output voltage	10.2 4 / 200 1/	220 Vac / 380 Vac, 230			20.0 4 / 200 ; ;	
Dated autout arms:	18.2 A / 380 Vac	22.8 A / 380 Vac	25.8 A / 380 Vac	30.4 A / 380 Vac	38.0 A / 380 Va	
Rated output current	17.3 A / 400 Vac	21.7 A / 400 Vac	24.5 A / 400 Vac	28.9 A / 400 Vac	36.1 A / 400 Va	
	16.7 A / 415 Vac	20.9 A / 415 Vac	23.7 A / 415 Vac	27.8 A / 415 Vac	34.8 A / 415 Va	
	20.2 A / 380 Vac	25.2 A / 380 Vac	28.6 A / 380 Vac	33.6 A / 380 Vac	42.0 A / 380 Va	
Max. output current	19.1 A / 400 Vac	23.9 A / 400 Vac	27.1 A / 400 Vac	31.9 A / 400 Vac	39.9 A / 400 Va	
D-4-4 AC::4 C	18.5 A / 415 Vac	23.1 A / 415 Vac	26.1 A / 415 Vac	30.8 A / 415 Vac	38.5 A / 415 Va	
Rated AC grid frequency	50 Hz / 60 Hz					
Adjustable power factor	0.8 leading 0.8 lagging					
Max. total harmonic distortion			< 3 %			
		Fe	ature & Protection	on		
Overvoltage category	PV II / AC III					
nput-side disconnection device	Yes					
Anti-islanding protection	Yes					
AC over-current protection	Yes					
DC reverse-polarity protection	Yes					
DC surge protection	TYPE II					
AC surge protection	Yes, compatible with TYPE II protection class according to EN/IEC 61643-11					
DC insulation resistance detection	Yes					
Residual current monitoring unit	Yes					
Arc fault protection	Yes					
ntegrated PID recovery 4	Yes					
g. acca recovery						
			General Data			
Operation temperature range	-25 °C ~ +60 °C (-13 °F ~ 140 °F)					
Relative humidity	0 % RH ~ 100 % RH					
Max. operating altitude	4,000 m (13,123 ft.) (Derating above 2,000 m)					
Cooling	Smart air cooling					
Display	LED indicators, Integrated WLAN + FusionSolar APP					
Communication	RS485; WLAN / Ethernet via Smart Dongle-WLAN-FE (Optional)					
Communication	4G / 3G / 2G via Smart Dongle-4G (Optional); EMMA (Optional; available from 30/11/2023)					
Weight	21 kg					
Dimensions (W x H x D)	546 x 460 x 228 mm (21.5 x 18.1 x 9.0 inch)					
Protection level			IP66			
Max. number of paralleled unit			2			
(with Smart String ESS)			3			
		Ont	imizor Compatib	ility		
	Optimizer Compatibility SUN2000-450W-P2, SUN2000-600W-P, MERC-1100W-P, MERC-1300W-P					
Compatible optimizer		SUN2000-450W-P2, SUN	2000-600W-P, MERC-1	100W-P, MERC-1300W-F)	
	ς	tandard Complia	nce (more availa	ble upon request	.)	
	3		IEC62109-1, EN/IEC6210		,	
Cartificates						
Certificates	IEC61727 IEC62110 I	EC61683, EN50530, ABN			/\//IDD TIC DL:I:	

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,

^{*1} For Thailand, only SUN2000-12K-MB0 & SUN2000-15K-MB0 & SUN2000-20K-MB0 are available.

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

*3 Any DC input voltage beyond the operating voltage range may result in inverter improper operating.

*4 SUN2000-12~25KTL-MB0 raises potential between PV- and ground to above zero through integrated PID recovery function to recover module degradation from PID. Supported module types include: P-type (mono, poly).