



reddot award 2016
winner

Higher Revenue

- High efficiency inverter topology, Max. Efficiency 98.6%, European Efficiency 98.0%

Simple & Easy

- 10.6kg, allows one person simple installation
- Optimized AC connector for quick wiring
- Supports one-click inverter configuration
- Supports one-click remote I-V curve diagnosis

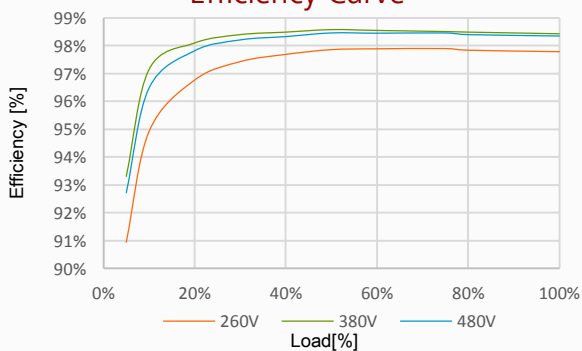
Battery Ready

- Integrated energy storage interface

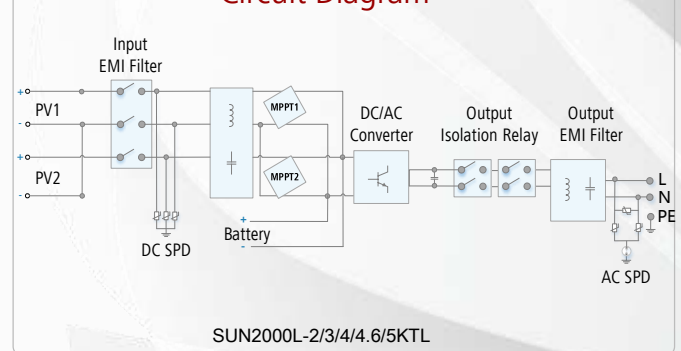
Safe & Reliable

- IP65, Natural cooling
- Integrated lightning protection for both DC and AC

Efficiency Curve



Circuit Diagram



SUN2000L-2/3/4/4.6/5KTL

Technical Specification	SUN2000L-2KTL	SUN2000L-3KTL	SUN2000L-4KTL	SUN2000L-4.6KTL	SUN2000L-5KTL
Efficiency					
Max. efficiency	98.4%	98.5 %	98.6 %	98.6 %	98.6 %
European weighted efficiency	97.0 %	97.6 %	97.9 %	98 %	98 %
Input					
Recommended max. PV power	2660 Wp	3990 Wp	5400 Wp	6210 Wp	6750 Wp
Max. input voltage	600 V				
Operating voltage range ¹	90 V~ 600 V				
Start-up voltage	120 V				
Full power MPPT voltage range	120V~480 V	160 V~480 V	210 V~480 V	260 V~480 V	260 V~480 V
Rated input voltage	380 V				
Max. input current per MPPT	11 A				
Number of MPP trackers	2				
Max. number of inputs per MPPT	1				
Output					
Grid connection	Single phase				
Rated output power	2000 W	3000 W	4000 W	4600 W	5000 W ²
Maximum apparent power	2200 VA	3300 VA	4400 VA	5000 VA ³	5500 VA ⁴
Rated output voltage	220 V / 230 V / 240 V				
Rated AC grid frequency	50 Hz / 60 Hz				
Maximum output current	10 A	15 A	20 A	23 A ⁵	25 A ⁵
Adjustable power factor	0.8 leading ... 0.8 lagging				
Max. total harmonic distortion	≤ 3 %				
Protection					
Anti-Islanding protection	Yes				
DC reverse polarity protection	Yes				
Insulation monitoring	Yes				
DC lightning protection	Yes				
AC lightning protection	Yes				
Residual current monitoring	Yes				
AC overcurrent protection	Yes				
AC short-circuit protection	Yes				
AC over-voltage protection	Yes				
Over-heat protection	Yes				
General Data					
Operating temperature range	-30 ~ +60 °C (Derating above 45°C @ Rated output power)				
Relative operating humidity	0 %RH~ 100 %RH				
Operating altitude	0-4000 m (Derating above 2000m)				
Cooling	Natural Convection				
Display	LED Indicators				
Communication	RS485, WLAN				
Weight (incl. mounting bracket)	10.6 kg				
Dimension (incl. mounting bracket)	375X375X161.5 mm				
Degree of protection	IP65				
Battery Compatibility					
Battery	LG Chem RESU 7H_R / 10H_R				
Voltage range	350~450 Vdc				
Max. current	10 A				
Communication	RS485				
Standards Compliance					
Safety	EN/IEC 62109-1, EN/IEC 62109-2				
Grid connection standards	G83/2,G59/3, EN 50438, CEI 0-21, VDE-AR-N-4105, UTE C 15-712-1, AS 4777				

*1. Only applicable for PV string. The maximum input voltage and operating voltage upper limit will be reduced to 495 V when inverter connects and works with battery.

*2. AS4777:4990W. *3. VDE-AR-N 4105:4600VA / AS4777:4990VA. *4. AS4777:4990VA. *5. AS4777:21.7A.

Smart PV Optimizer



Higher Revenue

- Max. efficiency 99.6%, weighted efficiency 99.0%
- Module-level MPP tracking, increase power yield by 5%-30%
- Allows more panels on each roof to achieve higher system yields

Simple & Easy

- Supports installation in shade prone areas and in different directions
- Quick frame mount at warehouse, less rooftop installation time
- Supports remote module-level monitoring & I-V curve diagnosis

Safe & Reliable

- IP68, support outdoor application
- Communication through DC Power Line Communication
- Single module shutdown capability to secure people and assets safety

Technical Specification	SUN2000P-375W
	Input
Rated input power	375 W
Absolute maximum input voltage	80 V
MPPT operating voltage range	10-80 V
Max. input current	12 A
Max. efficiency	99.6 %
Weighted efficiency	99 %
Overvoltage category	II
	Output
Max. output voltage	80 V
Max. output current	15 A
Output bypass	Yes
	Standard Compliance
Safety	IEC62109-1 (class II safety)
RoHS	Yes
	General Specification
Maximum allowed system voltage	1000 V
Communication	PLC
Dimensions (W x L x H)	125*85*25.5 mm
Weight (including cables)	0.7 kg
Installation Part	PV module frame / Aluminum extrusion profile Optional
Input connector	MC4
Output connector	MC4
Output wire length	47 in / 1.2 m
Operating temperature/humidity range	-40 to 85 °C / 0-100 %
Protection rating	IP68
	PV System Design Using A SUN2000L Inverter
Minimum String Length	According to inverter design rules & PV module datasheet
Maximum String Length	
Maximum Power per String	

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Smart PV Safety Box (Preliminary Version)



Simple & Easy

- Communicate with optimizers through Power Line communication
- Support module-level real time monitoring & management

Safe & Reliable

- Single module shutdown capability to secure people and assets safety
- IP65, support outdoor application

Technical Specification	SmartPSB2000L
DC Input	
Maximum input voltage	1100 V
Number of inputs	2
Maximum input current per input	15 A
DC Output	
Maximum output voltage	1100 V
Number of outputs	2
Maximum output current per output	15 A
Features	
Module-level remote management	Yes
Onsite master module shutdown	Yes
Remote auto module shutdown	Yes
General Specification	
Dimensions (H x W x D)	148 x 148 x 38 mm
Weight	3 kg
Display	LED
Communication	PLC, RS485
Input type	HH4
Operating temperature range	-30 to 60 °C
Protection rating	IP65



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