



reddot award 2016  
winner

## Higher Revenue

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

## Battery Ready

- Integrated energy storage interface

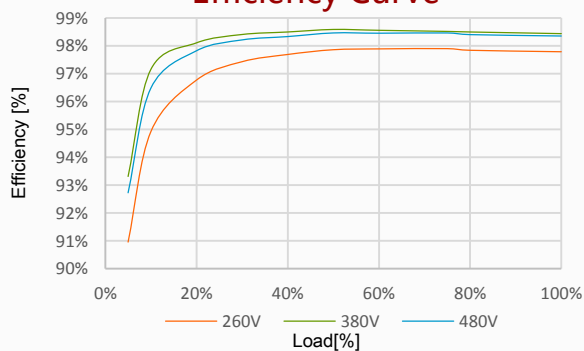
## Simple & Easy

- 10.6kg, allows one person simple installation
- Optimized AC connector for quick wiring
- Supports one-click inverter configuration

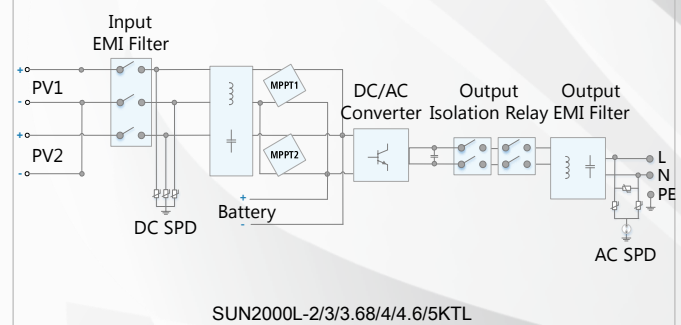
## Safe & Reliable

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

### Efficiency Curve



### Circuit Diagram



# SUN2000L-2/3/3.68/4/4.6/5KTL

Technical Specification	SUN2000L-2KTL	SUN2000L-3KTL	SUN2000L-3.68KTL	SUN2000L-4KTL	SUN2000L-4.6KTL	SUN2000L-5KTL
<b>Efficiency</b>						
Max. efficiency	98.4%	98.5 %	98.5 %	98.6 %	98.6 %	98.6 %
European weighted efficiency	97.0 %	97.6 %	97.8%	97.9 %	98 %	98 %
<b>Input</b>						
Recommended max. PV power	2660 Wp	3990 Wp	4968 Wp	5400 Wp	6210 Wp	6750 Wp
Max. input voltage	600 V					
Operating voltage range <sup>1</sup>	90 V~ 600 V					
Start-up voltage	120 V					
Full power MPPT voltage range	120V~480 V	160 V~480 V	190 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					
<b>Output</b>						
Rated output power	2000 W	3000 W	3680 W	4000 W	4600 W	5000 W <sup>2</sup>
Maximum apparent power	2200 VA	3300 VA	3680 VA	4400 VA	5000 VA <sup>3</sup>	5500 VA <sup>4</sup>
Rated output voltage	220 V / 230 V / 240 V					
Rated AC grid frequency	50 Hz / 60 Hz					
Maximum output current	10 A	15 A	16 A	20 A	23 A <sup>5</sup>	25 A <sup>5</sup>
Adjustable power factor	0.8 leading ... 0.8 lagging					
Max. total harmonic distortion	≤ 3 %					
<b>Protection</b>						
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					
<b>General Data</b>						
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					
<b>Battery Compatibility</b>						
Battery	LG Chem RESU 7H_R / 10H_R					
Voltage range	350~450 Vdc					
Max. current	10 A					
Communication	RS485					
<b>Standards Compliance</b>						
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.

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# Smart PV Optimizer



## Higher Revenue

- Max. efficiency 99.6%, weighted efficiency 99.0%
- 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

## 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
	<b>Input</b>
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
	<b>Output</b>
Max. output voltage	80 V
Max. output current	15 A
Output bypass	Yes
	<b>Standard Compliance</b>
Safety	IEC62109-1 (class II safety)
RoHS	Yes
	<b>General Specification</b>
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
<b>DC Input</b>	
Maximum input voltage	1100 V
Number of inputs	2
Maximum input current per input	15 A
<b>DC Output</b>	
Maximum output voltage	1100 V
Number of outputs	2
Maximum output current per output	15 A
<b>Features</b>	
Module-level remote management	Yes
Onsite master module shutdown	Yes
Remote auto module shutdown	Yes
<b>General Specification</b>	
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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# NetEco 1000S Inverter Management System



## Smart

- Easy data accesses on mobile devices
- Proactive reports of yields and alarms

## Simple

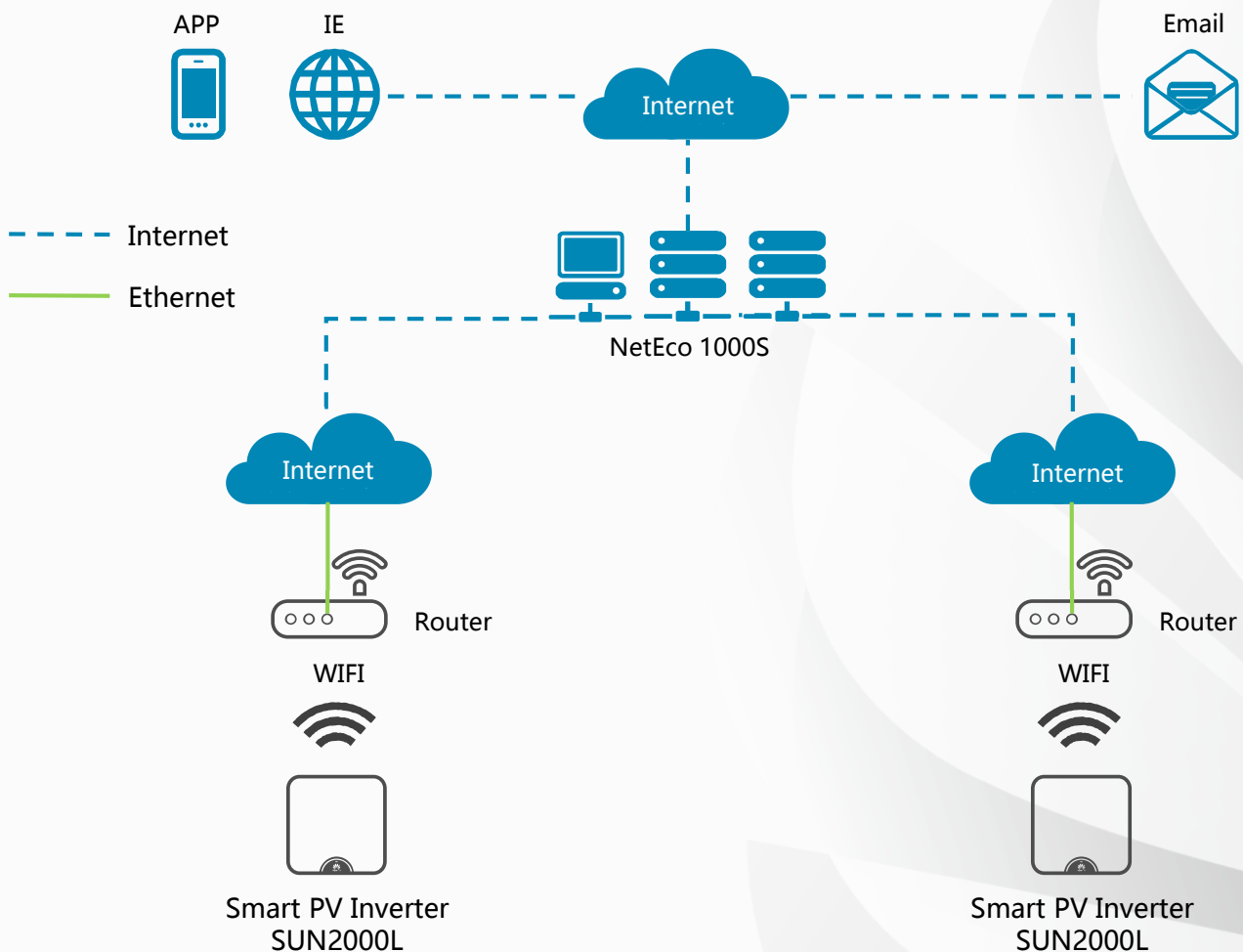
- One-click installation and register
- Fault alarms via E-mail

## Stable

- Centralized management
- Up to 25 years data storage



## Network Structure



# NetEco 1000S Inverter Management System



## NetEco 1000S Function List

Num.	Function	Description
1	APP	<ul style="list-style-type: none"><li>➤ Supports Android 4.0 and iOS 5.0 or above</li><li>➤ Graphical display of the alarm, power and other information</li></ul>
2	Alarm Management	<ul style="list-style-type: none"><li>➤ Collect, store and browse history alarm, current alarm, unrecovered alarm and recovered alarm</li></ul>
3	Real-time Monitoring	<ul style="list-style-type: none"><li>➤ Browse detailed real-time device Information, include the alarm, KPI and device state</li><li>➤ Support remote control</li></ul>
4	KPI Management	<ul style="list-style-type: none"><li>➤ Browse the KPI</li><li>➤ Analyze the power, and inverter data compare</li></ul>
5	Device Management	<ul style="list-style-type: none"><li>➤ Device parameter setting</li><li>➤ Device software update, and support remote update the software</li></ul>
6	User rights Management	<ul style="list-style-type: none"><li>➤ According to the user role, provide different permissions</li></ul>
7	Remote Notifications of Alarms and Reports	<ul style="list-style-type: none"><li>➤ Through configuration on the server sending rules, the alarms and reports could be sent to user's email automatically</li></ul>



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