



1MW - Gangneung, S.Korea

+

**BEYOND YOUR  
EXPECTATIONS  
TOP CLASS**

topsun.kr

## About Topsun




Together with our partners, we create value by providing solutions that better meet the world's. We are the only one in the world has capability to produce 520Wp module.

- Producing high efficiency module over 20%,
- Expert engineers with over 15 years experience in PV industry


<b>Establishment</b>	October 9th 2008
<b>Location(HQ)</b>	32 Jeonjanonggongdanji-gil, Donghwa-myeon, Jangseong-gun, Jeollanam-do, Korea
<b>Mexico Office</b>	Calle 41 #331 entre 42 y 48 Francisco de montejo CP 97180 Merida, Yucatan, Mexico
<b>Japan Office</b>	213-16, Higashidani, Wadayama-cho Asago-shi, Hyogo, Japan
<b>Employees</b>	180 people
<b>Capital</b>	US\$ 4 Million

## Strategy


Our people are key to success.




As a global solar power system supplier, we follow a common global strategy.



This applies to every site, every department and every employee.



It's based on our vision and contains five key programs designed to make us successful.



The focus lies on customer orientation, innovative

Thanks for our customer-oriented solar power solutions we offer real added value and are international solar service and leader in technology.

- Provide complete custom made system solutions for primary global solar markets meeting
- Build the international brand through our solar systems, services and outstanding quality.
- With our operational excellence we build the base for a profitable and sustainable company.

**Vision**



We help our customers realize all the benefits of renewable energy, such as solid financial returns and a positive impact on the environment, through a unique "Commitment to Solar, Commitment to You" approach.



# TOP CLASS 500-525



**WHAT WE OFFER  
YOUR BEST PV  
SUPPLIER**



**WARRANTY - 10 YEARS  
POWER OUTPUT  
90% - 10 YEARS, 80% - 25 YEARS**

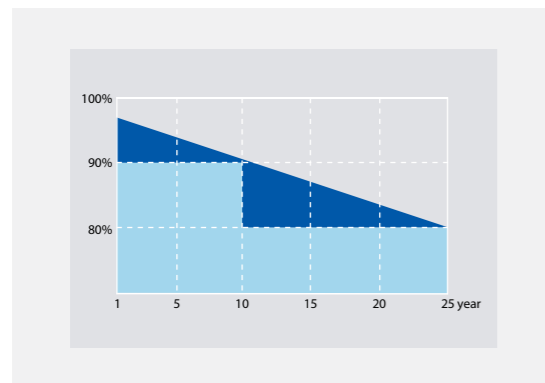


**RELIABLE  
QUALITY**

**TEMPERATURE COEFFICIENTS**

Voltage	-0.308 % / °C
Current	0.032 % / °C
Power	-0.42 % / °C
NOCT Avg	45 °C ±3

## SUPERIOR WARRANTY



## KEY FEATURES

- Monocrystalline modules designed for commercial & solar farm grid-tied applications
- High Power output & highest conversion efficiency
- Ant-reflective and anti-soiling surface reduces power loss from dirt & dust
- Outstanding performance in low-light irradiance environments

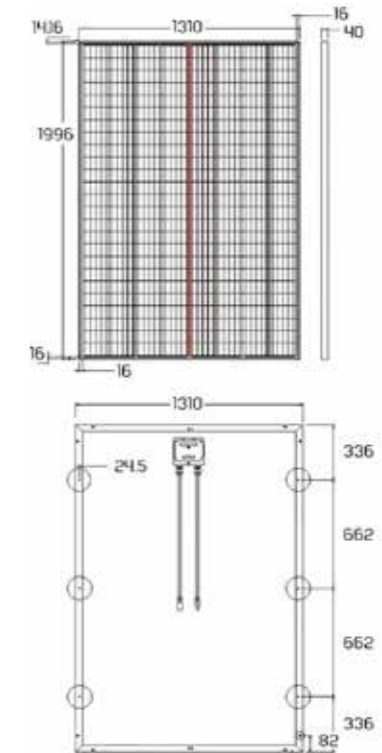
### MECHANICAL PARAMETERS

Solar cells	Mono crystalline cells
Front cover	Low iron tempered glass 4.0mm, AR
Back cover	White polyester
Frame	Silver anodized aluminum alloy (40mm)
Output Cables	12 AWG(4mm <sup>2</sup> ) cables with polarized weatherproof connectors, cable length 1.25m (49.21in.)
Junction box	NEMA IP67 rated; 4 internal bypass diodes
Dimensions	1992(78.58in) * 1302(51.57in) * 36(1.57in)
Approximate Weight	36.5KG(80.47LBS)

### LIMITS

Max. system voltage	DC 1,000 V
Operating module temperature	-40°C TO +85°C
Storm resistance/ Static load	
The standard chunk of Lorem Ips	
Tested to IEC61215 for loads, up to 5400Pa (113psf), hail and wind resistant	

### ENGINEERING DRAWINGS

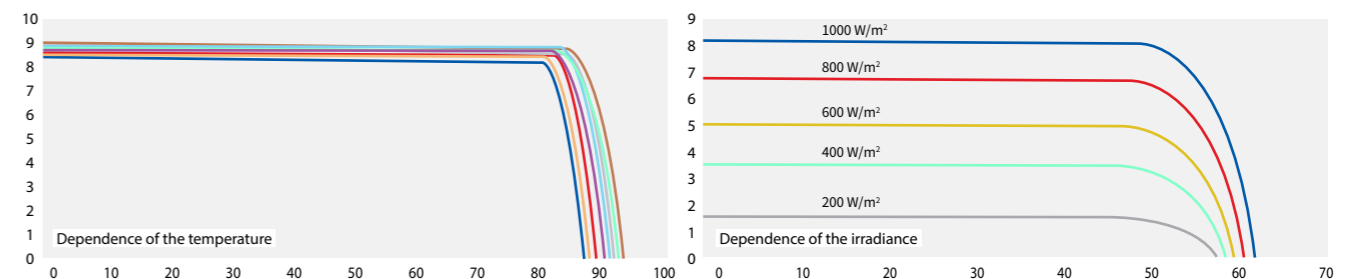


### ELECTRICAL PARAMETERS

	500 W	510 W	515 W	520 W	525 W	530 W
Nominal power[Wp] - P <sub>mpp</sub>	500	510	515	520	525	530
Voltage at nominal power[V] - V <sub>mpp</sub>	53.33	53.4	53.41	53.52	53.69	53.72
Current at nominal power[A] - I <sub>mpp</sub>	9.38	9.56	9.66	9.72	9.78	9.88
Open-circuit voltage[V] - V <sub>oc</sub>	65.18	65.24	65.27	65.3	65.33	65.36
Short-circuit current[A] - I <sub>sc</sub>	9.86	9.98	10.04	10.1	10.16	10.22
Module efficiency level[%]	19.28 %	19.66 %	19.85 %	20.05 %	20.24 %	20.44 %

Performance under standard test conditions (STC) : 1000W/m<sup>2</sup>, 25°C, AM 1.5 / Output tolerance[%] 0~+3%

### I-V CURVE



# ESS

## TOPSUN ESS SOLUTIONS

ESS is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book.

It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with

Lorem Ipsum is simply dummy text of the in printing and typesetting industry the company There are many variation of passages the company.



Take your enterprise Take your enterprise Take your enterprise Take your enterprise Take your enterprise



Take your enterprise Take your enterprise Take your enterprise Take your enterprise Take your enterprise



Take your enterprise Take your enterprise Take your enterprise Take your enterprise Take your ente



Take your enterprise Take your enterprise Take your enterprise Take your enterprise Take your enterprise Take your ente



# WHY TOPSUN?



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NUMBER 01

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TOPSUN ESS :  
NUMBER 02

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NUMBER 03

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TOPSUN ESS :  
NUMBER 04

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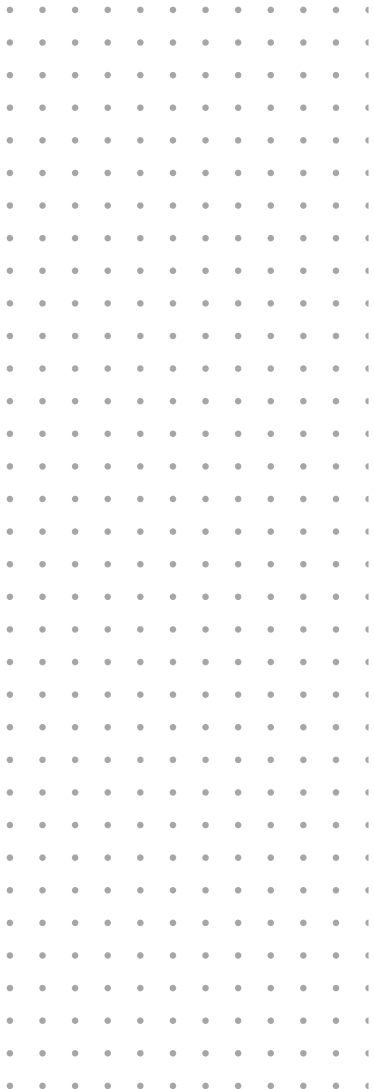
# Installation Case . KOREA





## Installation Case . International





**TOP CLASS**



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