

## To the future of Japan, To the land of Japan. Combining "agriculture" and "power generation"!

Solar sharing was invented by CHO Technology Institute's Akira Nagashima, which is a technology to install solar power generation equipment in the upper space of agriculture while setting up pillars on agricultural land and continuing farming.

This invention case was patented in 2004 and is currently being disclosed to the public by "JP 2005-277038 Akira Nagashima Solar Power Generation System".

What kind of agricultural crops are suitable for solar sharing?

The photosynthesis speed of plants increases with increasing light intensity, and when the photosynthetic rate exceeds a certain range, the photosynthesis speed reaches saturation, and even if more light increases, it becomes irrelevant to the change in speed.

Solar sharing is a technique devised using this light saturation point and it is said that if the light shielding ratio is about 30%, it will not affect the growth of crops.

Some plants do not have a light saturation point like maize, but most plants have a light saturation point.

Crops with a light saturation point of 40 klx (kilo lux), which requires more sunshine, can be cultivated by adjusting the arrangement of solar panels.

### Farm type series

### Lineup from double-sided glass considering transmittance to thin type module



To change Japan,  
to utilize farmland

#### PLAN A WS-115M-CI24

24cell  
package

Maximum  
output  
**115w**

Effective conversion  
efficiency  
-JIS standard-  
**16.79%**  
Effective conversion  
efficiency  
-JPEC standard-  
**19.60%**

Double sided glass + double sided power generation module

#### PLAN B WS-260MW-CI54

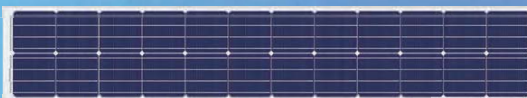
W54cell  
package

Maximum  
output  
**260w**

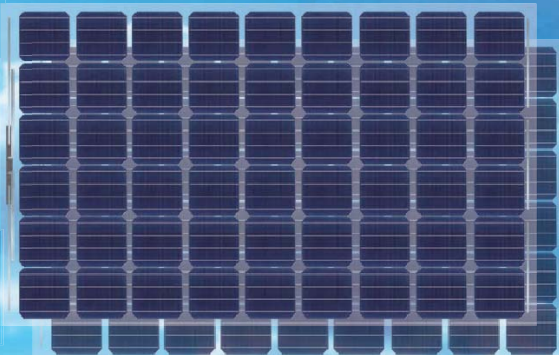
Effective conversion  
efficiency  
-JIS standard-  
**15.80%**  
Effective conversion  
efficiency  
-JPEC standard-  
**19.70%**

- Dimensions (mm): L1662 x W990 x D5
- Frame: None / double sided glass
- Weight: 19.6 kg

#### Sosa Mega Solar Sharing First Power Station Module



- External dimensions (mm): L1956 x W350 x D35
- Frame Color: Silver
- Weight: 9.2 kg



#### Economic emphasis High output module

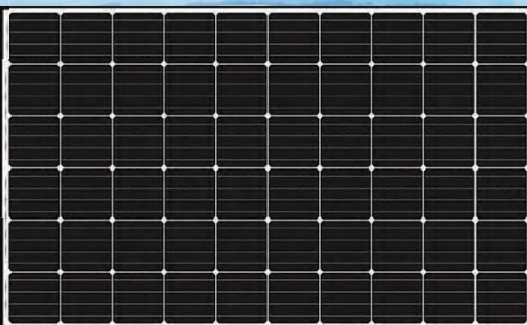
#### PLAN C WS-300M-CI60-BW

60cell  
package

Maximum  
output  
**300w**

Effective conversion  
efficiency  
-JIS standard-  
**18.47%**  
Effective conversion  
efficiency  
-JPEC standard-  
**20.40%**

- Dimensions (mm): L1640 x W990 x D40
- Frame Color: Black
- Weight: 18.6 kg



#### DELTA:RPIH6J

The model of PCS may be changed.

Rated  
output  
**5.9kW**

Maximum  
conversion  
efficiency  
**96.5%**





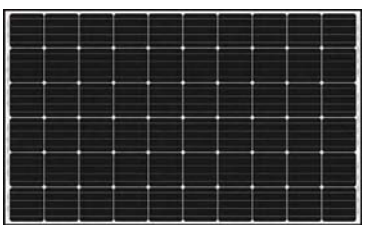
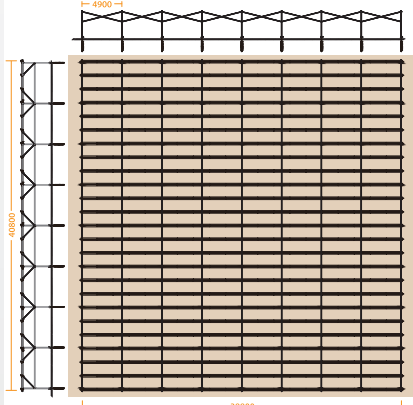
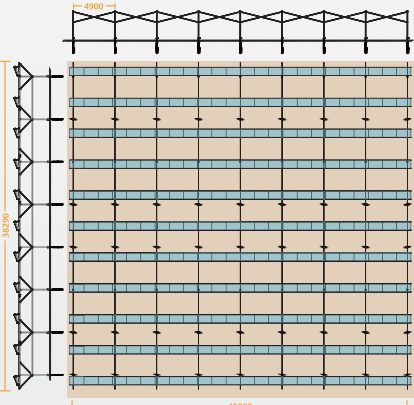
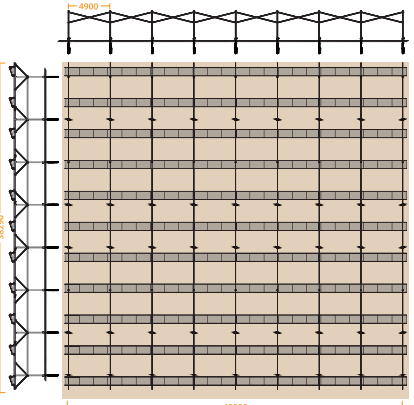
#### Aluminum mounting system

GL  
**4000mm**  
Module  
installation  
angle  
**20°**

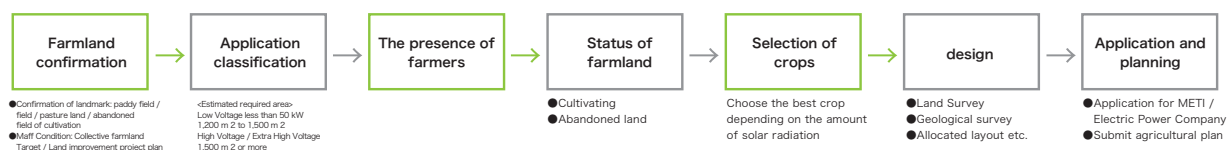
Wind  
speed  
**38m/s**  
Snow  
cover  
amount  
**45cm**

1.6 m screw pile construction method: N value 3 to 10

## WWB Solar, for consultation about solar sharing

PLAN A Shading Ratio Approx. <b>21%</b>	PLAN B Shading Ratio Approx. <b>23%</b>	PLAN C Shading Ratio Approx. <b>28%</b>
WS-115M-CI24	WS-260MW-CI54	WS-300M-CI60-BW
		
Sosa Mega Solar Sharing First Power Station Module		
<b>57.5kW system</b>	<b>68.65kW+10% system</b>	<b>79.2kW system</b>
		
<b>Plan A package contents</b> Module / Maxar single crystal 24 cells 115 W x 500 pcs Power Conditioner / Delta Electronics 5.9 kW x 8 units (Model may be changed by chance) Mounting structure / Maxar dedicated aluminum stand (pile foundation) 25 rows x 20 columns Other / string cable	<b>Plan B Light shielding Ratio about 23%</b> <b>WS - 260 M - CI 54</b> 68.65 kW + 10% system <b>Plan B Package Contents</b> Module / Maxar single crystal 54 cell 260 W Frameless double-sided glass (double-sided cell) x 264pcs Power Conditioner / Delta Electronics 5.9 kW x 8 units (Model may be changed by chance) Mounting structure / Maxar dedicated aluminum stand (pile foundation) 11 rows x 24 rows Other / string cable	<b>Plan C Light shielding Ratio about 28%</b> <b>WS - 300 M - CI 60 - BW</b> 79.2 kW system <b>Plan C package contents</b> Module / Maxar single crystal 60 cell 300 W Black frame + back sheet x 264pcs Power Conditioner / Delta Electronics 5.9 kW x 8 units (Model may be changed by chance) Mounting structure / Maxar dedicated aluminum stand (pile foundation) 11 rows x 24 rows Other / string cable

### Points for solar sharing commercialization



### Maxar 115 W module introduced! !



### 匠 璫 Mega Solar Sharing No. 1 Power Plant

- Installation location / Chiba prefecture 匠 璫 市 Iizuka
- Equipment capacity / 1,000 kW (1,198.2 kWp)
- Module / Maxar single crystal 115 W: 10,419 sheets
- Cultivated area / approximately 32,000 square meters
- Power sale start date / March 27, 2017
- Cropped crop / soybeans, wheat



Inauguration ceremony held on April 3, 2017

