

An aerial photograph of a large-scale floating photovoltaic (PV) system. The solar panels are arranged in neat, parallel rows on a body of water. The panels are a deep blue color, and the water is a lighter blue. In the background, there is a green landscape with some buildings and a clear blue sky. The image is framed by a large, orange, downward-pointing arrow shape on the right side.

# FLOATING PV SYSTEM

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# SF-FPV

## Floating Solar PV mounting system

### Overview:

Floating PV system is tailor-made for man-made water bodies(reservoirs, hydropower reservoirs etc.), industrial ponds(cooling ponds, wastewater-treatment ponds, mining and quarries water bodies), agriculture ponds, lakes, continental sea and offshore environment etc.This design platform benefits for solar yield and the reduction of land occupied compared to ground mounting system. Sun Floating FPV systems have designed three-type patterns of pure-floats-FPV, aluminum-floats-FPV and steel-floats-FPV for the needs of customers. It features of high efficiency and lower cost of solar project installation

### Advantages of floating PV system

- 1.Convenient operation and maintenance to uncovered panels
- 2.Save water resources by reducing water evaporation;positive effect on water quality of less algae growth
- 3.Big arrays scalable in any size for large lakes and other water bodies
- 4.High-efficient and convenient installation for shorter construction period
- 5.Higher returns of PV investment  
Higher power energy yield by lower module temperatures  
Save the land and shorten payback period of investment for lower leasing and installing cost



# Range of application

man-made water bodies(reservoirs, hydropower reservoirs etc.), industrial ponds(cooling ponds, wastewater-treatment ponds, mining and quarries water bodies), agriculture ponds, lakes, continental sea and offshore environment etc



man-made water bodies



industrial ponds



agriculture ponds



lakes



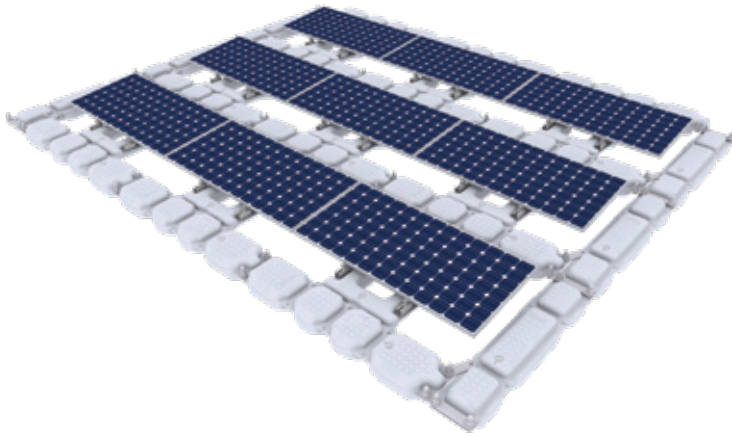
continental sea



offshore environment etc

# SF-FPV

## Product advantages



1. Environmentally friendly HDPE material ( BS6920) and long lifespan for use
2. Excellent material performance of tensile strength and impact resistance
3. High corrosion resistance, anti-ultraviolet, anti-freezing and other erosion.
4. Multi-module and free-combined design for multi-solutions to complex water bodies
5. Multi-sizes of solar panels suitable for our products
6. Easy installation, convenient maintenance and short construction cycle.
7. 10 years warranty and more than 25 years duration for products.

## Technical Specification

Product	Floating PV System
Application	Reservoirs, lakes, continental sea etc.
Panel Tilt Angle	5°, 10°, 15°/Custom
Extreme Wind Speed (M/S)	45m/s
Snow Load	900 N/m <sup>2</sup>
Average Water Depth(M)	≥1m
Panel Design	Framed/frameless
Layout Requirements	Landscape/single row/double rows
Length of PV Panels	1640mm-2384mm
Width of PV Panels	992mm-1303mm
Design Standards	JIS C8955:2017, AS/NZS 1170, DIN 1055; International Building Code: IBC 2009; California Building Code: CBC 2010; ASCE/SEI 7-10
Buoys	HDPE
Brackets	AL6005-T5/Q235B
Fasteners	SUS304
Buoyancy	This design is with 4 floats for combination. the buoyancy of short-float is more than 159kg/mm <sup>2</sup> ; the middle 163kg/mm <sup>2</sup> ; the long 182kg/mm <sup>2</sup> ; and main float to panels more than 120kg/mm <sup>2</sup>
Quality Guarantee	10 years warranty and more than 25 years duration for products.

# Production Process

## Floating PV mounting system



Raw material



Machine



Production



molding



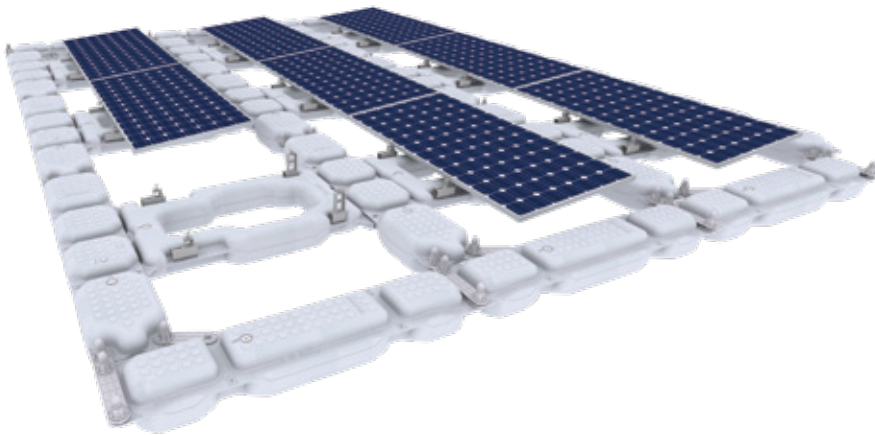
Packing



delivery

# SF-FPV

## Components



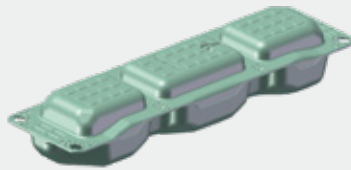
Main Floater



M8\*60 Hex Bolt Kit



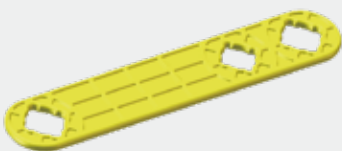
Portrait Walkway Floater A



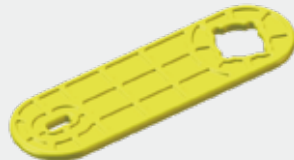
Portrait Walkway Floater B



Landscape Walkway Floater



Connecting Plate A



Connecting Plate B



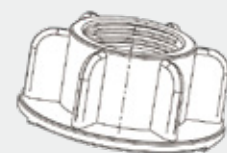
Connecting Plate C



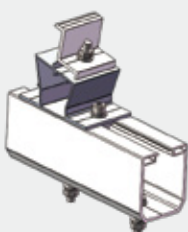
90 Washer



M8 Washer



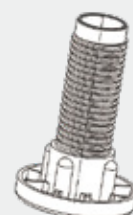
∅ 85\*36 Nut



Back Support Leg 5 Degree



M8 Washer



∅ 75\*140 Bolt

# Project Reference





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