Avi Technologies

Marine Solar

Solar Power Systems for Fishing & Cargo Vessels

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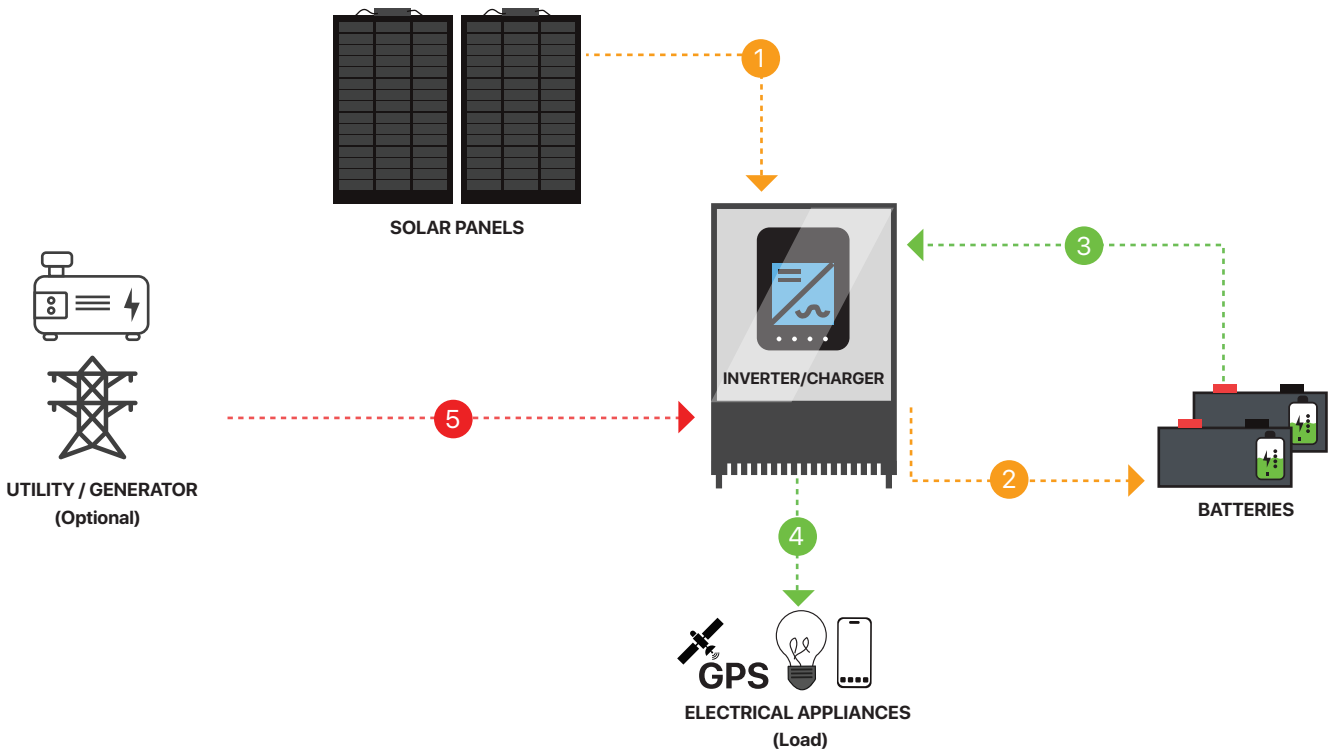
System Information

This solar power kit provides a self-sufficient power solution for your boat, utilizing the renewable energy from the sun to generate electricity, store it in the battery, and convert it into usable AC power through the battery inverter. It offers the convenience of off-grid power while being specifically designed for the marine environment, ensuring durability and reliable performance on your boat.

How the system works



1. Solar panels captures sunlight and convert into DC energy

2. Inverter/Charger stores DC energy in the energy storage batteries

3. Inverter/Charger also converts stored DC energy into AC power

4. Consumer electrical appliances are powered from the AC power

5. Optionally batteries can be charged from AC utility grid/generator during prolonged poor weather

Main Equipment

Flexible Solar Panels

The ultra light-weight flexible solar panels are based on shingled technology and its energy conversion efficiency is relatively high. The durable and flexible marine grade design ensures the solar panels can be easily installed on curved or uneven surfaces of your vessels. Our 2mm thick flexible solar panel comes with an ETFE coating that can resist high temperature, corrosion and impacts in a tough and extreme marine environment.

Flexible Solar Panels are available in a full-black color variant that looks both elegant and stylish on the installed vessel.

Power: 200W
Type: Monocrystalline
Efficiency: 22.62%
Dimensions | Weight: 1550mm x 680mm x 2mm | 3.21 KG
Warranty: Product Workmanship 5 Years / Performance 10 Years

Deep Cycle Battery

The deep cycle battery is specifically designed to withstand the demands and challenges of marine environments. It has a capacity to store the energy generated by the solar panel, allowing you to use the stored power even when sunlight is not available. Deep cycle batteries are known for their ability to be discharged and recharged multiple times, making them suitable for long-lasting power supply on boats.

Rating: 12V200Ah
Dimentions | Weight: 532mm x 207mm x 215mm | 55 KG (Tolerance +/- 3%)
Warranty: 1 Year

Solar Inverter Charger

In any photovoltaic system, Inverters are used to convert DC power to AC power, providing the required voltage and frequency at the output. Meanwhile, Solar Charge Controller gets the electricity from the solar panels and regulate the flow of power to ensure that the batteries are being charged healthily and efficiently. The Solar Inverter Charger is a hybrid inverter which puts the functions of an inverter and a solar charge controller together in one device making it an all-in-one solution.

The Solar Inverter Charger also adapts a multi-core processor design and an advanced MPPT control algorithm which allows multiple charging modes. In addition to that, the comprehensive electronic protection functions ensure the highest levels of safety and stability. This allows you to power your critical AC loads in the vessel such as lights, communication equipment, fans etc. depending on the load capacity.

Input Battery Voltage: 24VDC
Input PV Power: 800W ~ 1200W
Output AC Power: 1200W
Dimentions | Weight: 386mm x 300mm x 126mm | 7.4 KG
Warranty: 1 Year

System Catagories

Category 1

L LARGE BOATS
800W

Flexible PV Modules

Modules:	200W Monocrystalline x 4pcs
Flexing Capacity:	240mm (50 Degrees)

Solar Inverter charger

Battery Input:	24VDC
PV Input:	800W ~ 1200W
AC Output:	1200W

Energy Storage

Deep Cycle GEL Battery:	12V200Ah x 2 NOS
Capacity:	4.8 kWh

Connection accessories

PV Module Fixtures:	18 SS Screws
MC4 Connectors:	2 Pairs
AC Cables:	2Cx6sqmm x 15 meters
DC Cables:	1Cx6sqmm x 50 meters
	1Cx6sqmm x 5 meters
Distribution Box:	1 NOS
DC Breakers:	2 NOS
AC Breakers:	1 NOS
Earthing Cable:	4sqmm x 5 meters

MVR 69,384.90

Estimated daily solar energy production: 3.60 kWh.

Estimated duration for full battery charge: 2 fair weather days.

Our recommended configuration is 1200W Solar Panels for charging daily required battery capacity.

Prices are subject to change for design and installation in areas outside the greater Male' region

SDFC
SME Development Finance Corporation

Leasing options available through SDFC

Category 2

M MEDIUM BOATS 600W

Flexible PV Modules

Modules:	200W Monocrystalline x 3pcs
Flexing Capacity:	240mm (50 Degrees)

Solar Inverter charger

Battery Input:	24VDC
PV Input:	800W ~ 1200W
AC Output:	1200W

Energy Storage

Deep Cycle GEL Battery:	12V200Ah x 2 NOS
Capacity:	4.8 kWh

Connection accessories

PV Module Fixtures:	18 SS Screws
MC4 Connectors:	2 Pairs
AC Cables:	2Cx6sqmm x 15 meters
DC Cables:	1Cx6sqmm x 50 meters
	1Cx6sqmm x 5 meters
Distribution Box:	1 NOS
DC Breakers:	2 NOS
AC Breakers:	1 NOS
Earthing Cable:	4sqmm x 5 meters

MVR 64,952.83

Estimated daily solar energy production: 2.70 kWh.

Estimated duration for full battery charge: 2 fair weather days.

Our recommended configuration is 700W Solar Panels for charging daily required battery capacity.

Prices are subject to change for design and installation in areas outside the greater Male' region

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Category 3

S SMALL BOATS
400W

Flexible PV Modules

Modules:	200W Monocrystalline x 2pcs
Flexing Capacity:	240mm (50 Degrees)

Solar Inverter charger

Battery Input:	24VDC
PV Input:	800W ~ 1200W
AC Output:	1200W

Energy Storage

Deep Cycle GEL Battery:	12V200Ah x 2 NOS
Capacity:	4.8 kWh

Connection accessories

PV Module Fixtures:	18 SS Screws
MC4 Connectors:	2 Pairs
AC Cables:	2Cx6sqmm x 15 meters
DC Cables:	1Cx6sqmm x 50 meters
	1Cx6sqmm x 5 meters
Distribution Box:	1 NOS
DC Breakers:	2 NOS
AC Breakers:	1 NOS
Earthing Cable:	4sqmm x 5 meters

MVR 58,024.53

Estimated daily solar energy production: 1.80 kWh.

Estimated duration for full battery charge: 2 fair weather days.

Our recommended configuration is 700W Solar Panels for charging daily required battery capacity.

Prices are subject to change for design and installation in areas outside the greater Male' region

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About us

Avi Technologies Pvt. Ltd is a company dedicated for electrical engineering related services with renewable energy in mind . Our main specialties are Solar PV Systems, Sub-station Automation, Uninterruptible Power Supply System (UPS) and other renewable energy related services.

Our partnership with record setting solar panel manufactures is only the beginning. Avi Technologies innovates relentlessly to deliver the most advanced products and solutions, financing options and progressive sustainability practices. And our fully-integrated approach to systems, storage and software is fundamentally changing the future of energy.

Our Experience

As a proud local company specialized in renewable energy services, with a 100% local workforce, we have installed more than 8 Megawatts of solar panels across the Maldives. Being the leading service provider, in the past seven years we have developed several renewable energy projects for international companies, local government agencies, private companies and individuals. We are excited to offer more innovative renewable energy solutions to our customers with our experience and knowledge in the industry.

Some of our major clients

Visit our website: https://avitech.com.mv to learn more.

For additional inquiries about our products, contact us at 330 1022.

Contact us

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