

xantrex[™]
A MISSION CRITICAL ELECTRONICS BRAND

THE WORLD'S MOST DURABLE FLEXIBLE SOLAR PANELS

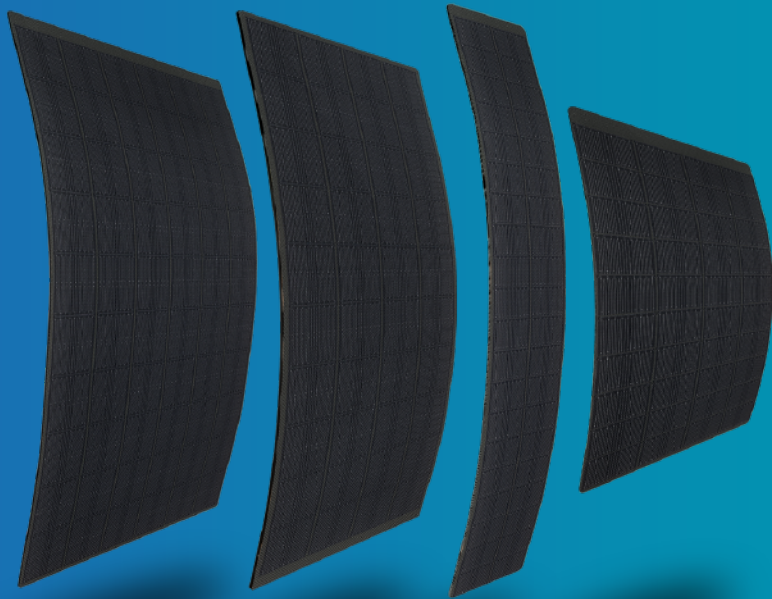


xantrex[™]
SOLAR





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Available in

**110W, 220W,
110W Slim, 330W**



Maintenance free, renewable solutions to maximize battery life and prolong battery life

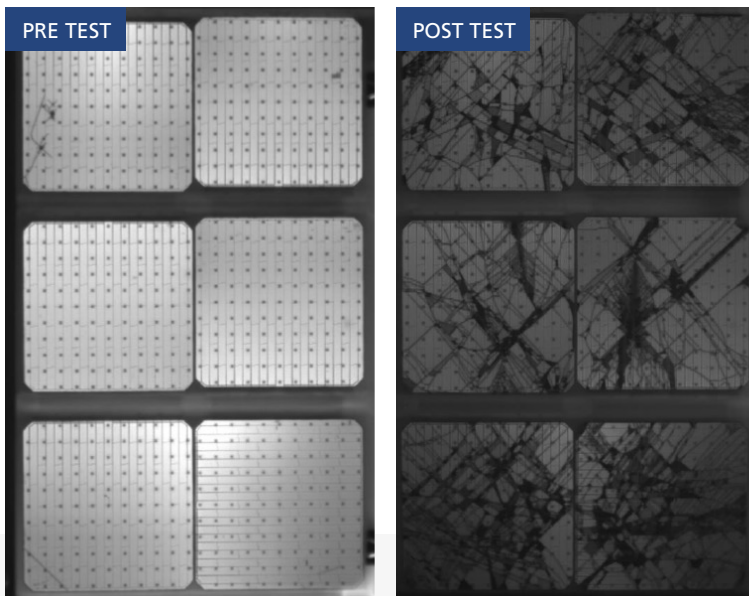
-  State-Of-The-Art Mesh-Grid Technology
-  Enhanced Performance In Low Light Conditions
-  Highly Durable In Extreme Weather Conditions
-  Peel-And-Stick Drill-Less Mounting Installation

Want a noise-free, emission-free, no-cost renewable source of energy to extend the runtime of your onboard electronics? Xantrex Solar Max flexible panels convert the sun's rays into electricity through their state-of-the-art mesh grid technology and charge your boat's batteries, thereby prolonging your power supply.

The Solar Max panels are extremely durable no matter what you throw at them, literally! In the next few pages, you will see the results of a variety of tests the Xantrex Solar Max panels were put through to demonstrate their high power output despite extensive damage.

Premium performance that exceed all expectations

Solar max panels are designed to provide long-lasting durability and performance in the most marine extreme conditions.



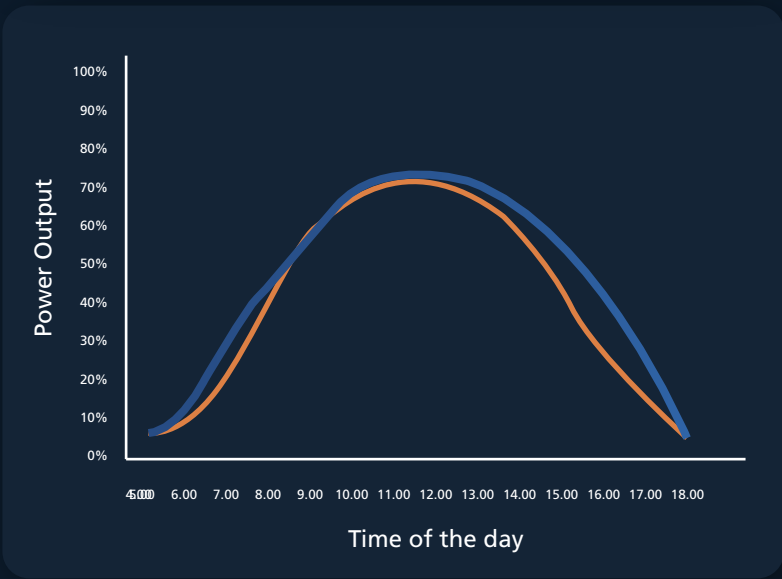
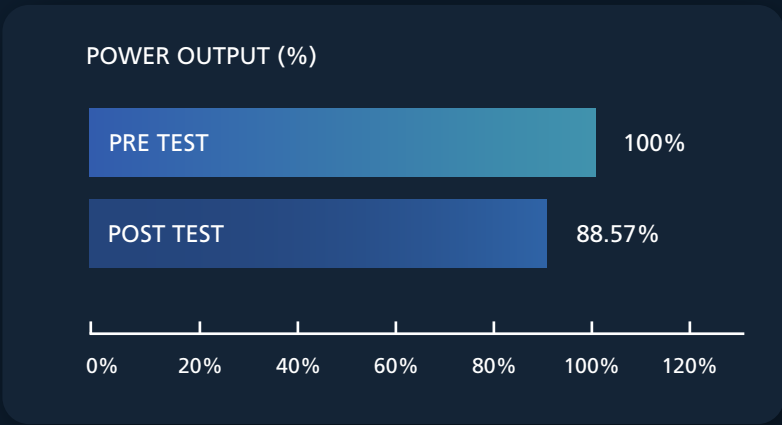
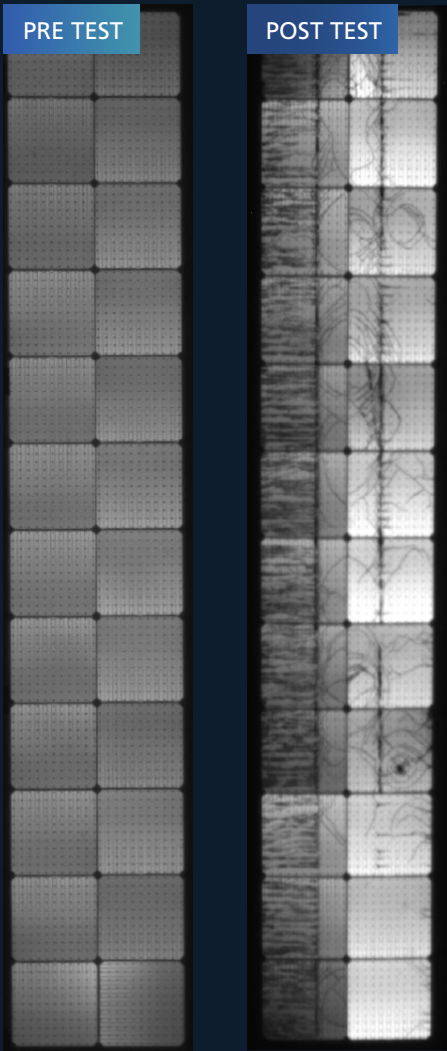
TEST INCLUDED

- Repeatedly throwing the panel on the ground
- Hitting the panel against a wall
- Severely bending the panel
- Walking/stomping on the panel

	Short Circuit Current	Open-circuit voltage	Fill Factor	Max Power
PRE	9.098	3.809	0.775	26.852
POST	8.746	3.662	0.640	20.508
DROP%	3.87%	3.87%	17.36%	23.63%

RESULTS

Even after severe treatment, the Xantrex Solar Max Flex panel continued to work well and only dropped in power by 23% despite extreme cell cracks. Due to the Xantrex Solar Max panel's unique mesh-grid technology with over 2,100 points of contact in each cell, cell cracks have minimal impact on power output. Similar cell cracks experienced in a competitor's flex panels would result in panel failure.



■ Xantrex Solar Max
 ■ Competitor Flex Panel

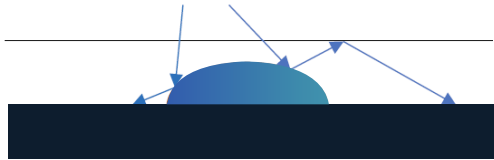
90% power output in-spite of severe damage
(Including broken and shattered cells)

88% power output in spite of severe damage
(Including broken and shattered cells)

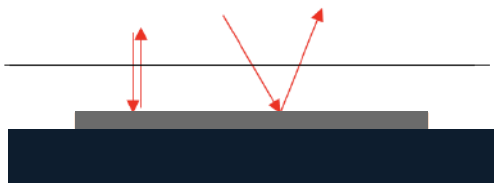
20% Bonus Energy Harvesting

Customer can generate up to 20% additional energy over the day by the mesh-grid technology to capture lower sun angles in early morning/late afternoon.

This is very useful in maximizing energy harvest on limited roof-top space.



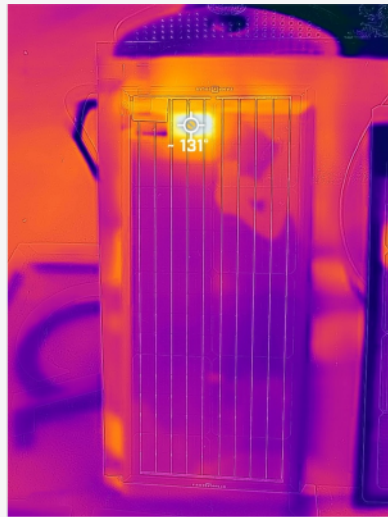
Solar Max Low Light Angle capturing technology



Competitor Flex Panels with flat busbar technology



Competitor's Solar Panel



Xantrex Solar Panel

PARTIAL SHADING

Partial shading causes uneven distribution of current. Current cannot flow around the shaded cell, causing a significant build-up effect of current, overheating the cell, and causing a burn damage/fire-hazard risk.

It becomes so hot you could cook an egg on it. **Unlike the Xantrex Solar Max**, competitor panel design does not prevent this partial-shading effect on the panels.

Superior Shading Performance

Competitor Flex Panels

- Shading has a dramatic impact on GoPower flex panels
- Competitor panel outputs only 6% of power when an entire row of cells is shaded



0 Cells Shaded



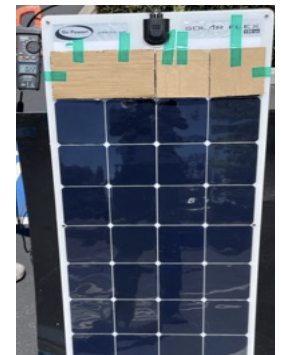
1 Cell Shaded



2 Cells Shaded



3 Cells Shaded



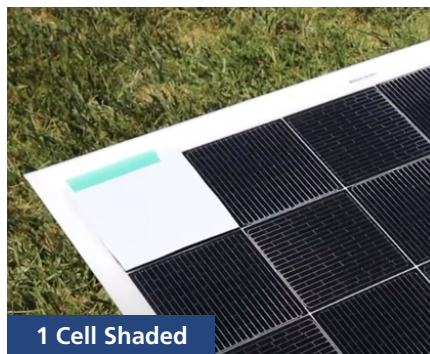
4 Cells Shaded

Solar Max Flex Panels

- Shading has limited impact on Solar Max flex panels
- Xantrex Solar Max Flex panel still outputs 72% of power when an entire row of cells is shaded



0 Cells Shaded

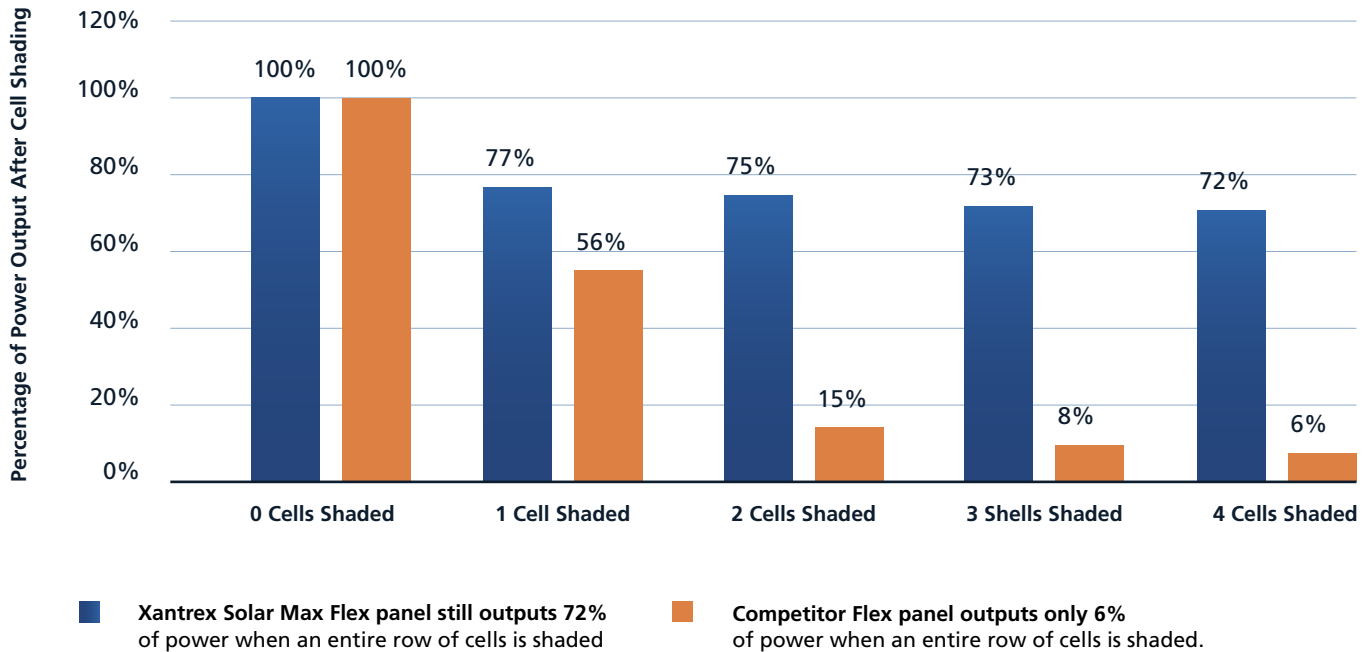


1 Cell Shaded



4 Cells Shaded

Xantrex Solar Max Flex vs Competitor Shading Performance



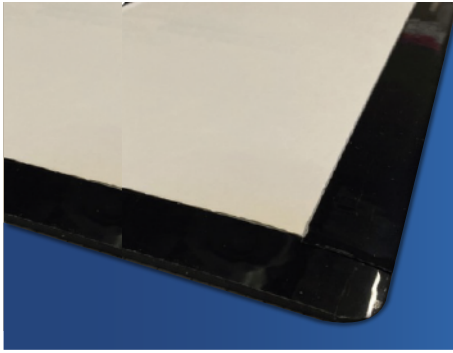
Peel & Stick Fast and Easy Installation



Besides durability, boaters are usually hesitant about adding solar panels to their setup because they worry about how difficult and time consuming installation would be. That's where Xantrex Solar Max panels shine thanks to their peel and stick design using premium 3M adhesive.

Xantrex Solar Max panel can achieve a 180-degree arc of flexibility thanks to its state-of-the-art mesh-grid technology with over 2100 points of contact per cell. This feature allows boaters to install the panel on a wide variety of surfaces and locations on the boat.

There is no need to drill holes in your boat! All you have to do is peel the liner of the panel and stick it to a clean surface, whether that be metal or bimini top.



- Fast and easy install. Peel liner and apply on clean surface.
- Dual 3M adhesive tapes for wider operating temperature range.
- Avoids drilling holes in the roof to ensure that the panel is securely mounted and will not fly off (tested in 155mph wind tunnel).

Note: Solar Max requires 3M 4411 Edge Tape around the top edge of the panel to provide some extra edge protection and adhesiveness. Dicor (self-leveling) sealing is also acceptable.

Rachel & Josh Voyages of Agapé – YouTubers

Agapé relies entirely on Xantrex solar, lithium, and electronics to charge everything from computers and navigational equipment to our water maker. Each system is critical and when you are in some of the world's most remote locations you have to trust the gear onboard. We have relied on Xantrex since the beginning and their quality products have kept us out here doing what we love.



Charge Controller



Solar panels are connected to the batteries through a Charge Controller that regulates the power coming from the solar panel and ensures it is the right voltage for the type of battery being charged. Xantrex Solar Max panels pair best with Xantrex MPPT Charge Controller because it maximizes daily energy harvest even in cloudy environments. What's more, Xantrex MPPT charge controller has dual-bank battery charging that simultaneously charges house and starter batteries of various chemistries: AGM, Gel-Flooded or Lithium-ion!

MPPT Charge controllers use an algorithm to remove power from a solar array at the most efficient voltage resulting in a far more efficient charge (up to 30% more)

Optional Add-Ons



**Freedom XC Pro Marine
Inverter/Charger**



**Freedom X Bluetooth
Remote Panel**



**DC Battery Cables
+ Fuse Kits**



Lithium-Ion Batteries

PRODUCT	PART ID
Freedom XC Pro Marine 2000	818-2015
Freedom XC Pro Marine 3000	818-3015
FREEDOM X Bluetooth Remote Panel	808-0817-02
DC Battery Cables + Fuse Kit	809-0840
105 Ah 12V Lithium Ion Battery	883-0105-12
125 Ah 12V Lithium Ion Battery	883-0125-12
240 Ah 12V Lithium Ion Battery	883-0240-12
110W Solar Max Flexible Panel	784-0110
110W Slim Solar Max Flexible Panel	784-0110S
220W Solar Max Flexible Panel	784-0220
330W Solar Max Flexible Panel	784-0330
Xantrex MPPT Charge Controller	710-3024-01
Xantrex MPPT Remote Panel	710-0010

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