Solar Panels: Top 3 Brands

A solar panel turns sunlight into electricity that your backup power station can store. Set the panel in the sun, plug it into the power station, and the battery refills itself — free, silent, and with no gas to buy.

What a solar panel actually does

- **Sunlight in, electricity out.** The dark blue surface is covered in tiny cells that react to sunlight and produce electric current. No moving parts, no noise, nothing to pour in.
- **The panel does not store power.** It only makes electricity while the sun shines. The backup power station is the part that stores it — think of the panel as the faucet and the power station as the bucket.
- **Panels are sold by watts (W).** A 200W panel can make up to 200 watts in perfect lab sunlight. In your yard on a bright Florida day, expect more like 70 to 80 percent of that. That is normal, not a defect.

Portable panels vs rooftop panels

- **Portable (folding) panels — what this guide covers.** They fold up like a briefcase, set up in the yard or driveway in a minute, and plug straight into a backup power station. No electrician, no permits, no holes in your roof.
- **Rooftop panels** are a permanent home installation — bolted to the roof, wired into your house, installed by licensed contractors with permits. They cost thousands and are a different project entirely.

1. EcoFlow

The technology leader — EcoFlow's panels squeeze the most electricity from the same sunlight, and they pair perfectly with EcoFlow power stations. Prices change

often — check before you buy.

- **220W Bifacial (NextGen)** — the sweet spot (about $279 to $299). **Bifacial** means it catches sunlight on both sides — the back picks up light bouncing off the ground for up to 25% extra power. Folds up with its own kickstand case.
- **160W Portable (NextGen)** — the light one (about $219). Newer TOPCon cells for high efficiency in a smaller fold.
- **400W Portable** — the big one (about $499 to $599). Serious refilling power for large stations like the DELTA 3 Max. Heavier at about 35 pounds.
- **Who it is for:** anyone who wants the most power per square foot, and especially anyone who already owns an EcoFlow power station.

2. Jackery

The best-known name in portable power — Jackery's SolarSaga panels are the toughest of the three, built to live outdoors. Prices change often.

- **SolarSaga 200W** — the sweet spot (about $379 to $429). Also bifacial, about 24% efficient, and rated IP68 waterproof — the highest weather rating here. It can sit out in a downpour. Under 15 pounds.
- **SolarSaga 100 Prime** — the small one (about $199). A 100W panel for small stations and short outages.
- **SolarSaga 500X** — the big one (about $799). 500 watts from one panel — pairs with Jackery's largest stations.
- **One honest note:** Jackery uses its own plug shape on some stations, so a Jackery panel is the simplest match for a Jackery power station.
- **Who it is for:** anyone who will leave panels outside in real weather, and anyone who already owns a Jackery power station.

3. Bluetti

The value pick with a clever advantage — Bluetti panels use standard plugs, so they work with almost any brand's power station. Prices change often.

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- **PV200** — the sweet spot (about $449). 200W, about 23% efficient, folds into four sections with a carry handle and built-in kickstands. Tough ETFE coating resists scratches.
- **PV120** — the small one (about $279 to $299). 120W for small stations.
- **PV350** — the big one (about $849). 350W for large stations.
- **Who it is for:** anyone who wants the most flexibility — the standard MC4 connectors mean a Bluetti panel can plug into EcoFlow, Jackery (with an adapter), Bluetti, and most other stations. Also the best choice if price matters most.

How panels refill your power station — simple math

- **Panel watts × sun hours ≈ watt-hours per day.** A 200W panel in 5 hours of good Florida sun makes roughly 1,000Wh in a day — enough to refill a medium (1,000Wh) power station from empty.
- **Florida gets about 5 peak sun hours a day** on average. Most of your power comes between about 10 AM and 3 PM.
- **Match the panel to the station's solar limit.** Every power station lists a maximum solar input. A bigger panel than the limit buys you nothing; the station simply caps it.
- **You can use two panels.** Two 200W panels refill twice as fast as one, as long as the total stays under the station's limit.

Sun placement basics

- **Face the panel south.** In Florida the sun spends the day in the southern sky.
- **Tilt it toward the sun.** The built-in kickstands let you angle it — steeper in winter, flatter in summer.
- **No shade — not even a little.** A shadow across one corner can cut a panel's output in half. Keep it clear of trees, fences, and the house's shadow.
- **Keep the glass clean.** Dust, pollen, and leaves block sunlight. A wipe with a damp cloth now and then keeps output up.

- **Move it if you can.** Nudging the panel to follow the sun adds meaningful power over the day.

What NOT to expect

A cloudy day can cut output to a small fraction of the rated watts. Panels make no power at night — that is what the stored battery is for. And no portable panel setup will run your central air conditioner or electric stove. Panels plus a power station cover the essentials: fridge, phones, lights, fans, internet, and medical devices like a CPAP.

> **Sean will build your whole system with you.** The panel and the power station have to match — the right watts, the right plugs, the right size for your fridge and your outage plan. Sean comes to you, sets it all up as one working system, and shows you exactly how it runs your home when the power goes out. Call Sean: (813) 770-6082.

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