IPSUN SOLAR

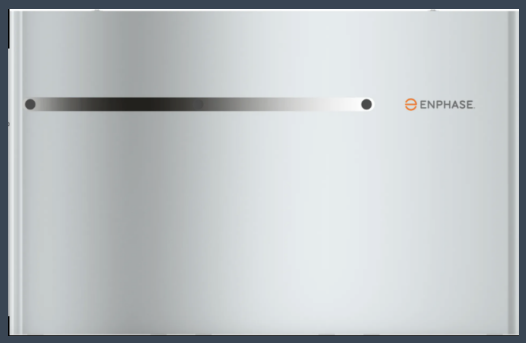
Enphase Encharge Battery Guide

ENPHASE

Enphase
Gold
Installer

Enphase Encharge

Ipsun Solar is proud to offer an innovative energy storage solution from one of the biggest names in solar, Enphase Energy. Their Encharge battery is the perfect companion for storing energy generated by your solar panels.



Battery Technology

The Encharge 10 all-in-one AC-coupled storage system, comprised of three base Encharge 3 storage units, provides a total usable energy capacity of 10.1kWh and twelve embedded grid-forming microinverters. Connect multiple Encharge 10 storage systems to maximize backup potential for whole home backup.

Lithium-ion is the most popular solar back up battery type for home storage systems. Lithium-ion has many advantages: it has high roundtrip efficiency, superior energy density, and a lifespan of at least 10 years.

The two most common chemistries of lithium-ion batteries are Lithium Iron Phosphate (LFP) and Nickel Manganese Cobalt (NMC). NMC batteries have a higher risk of thermal runaway, which can lead to fire and even explosion if punctured. LFPs are safer than NMCs because they stay cooler, eliminating the risk of thermal runaway fires.

Enphase Encharge has LFP technology; It is the most sustainable chemistry available and the first microinverter-based storage system to meet the performance criteria of the UL 9540A unit level test for thermal runaway fire propagation in residential indoor wall-mounted systems.

How much of your home do you want to be backed up?

___ Small Backup

Only small essential appliances: a few lights, refrigerator, wifi router, cell phone charging

___ Partial Home Backup

Essential household appliances: lights, refrigerator, freezer, wifi router, security system, microwave, laptop, television, coffee maker

___ Full Home Backup

Backup for most/all appliances in a home with a 200A service: lights, refrigerator, freezer, wifi router, security system, microwave, laptop, television, coffee maker, HVAC, well/sump pumps, electric oven, medical devices

Sizing your Energy Storage Solution

To provide the most clear-cut solution to your energy storage needs, we ask that you please answer the following questions and take a few pictures of the potential battery location.

We appreciate your assistance in preparing your battery system while we continue to do business in these unprecedented times of virtual meetings.

The Enphase Batteries are not small. We want to make sure there is enough room to install the batteries on your property. Please refer to the dimension listed below and determine one or two locations for the Encharge 10 and Empower switch.

The equipment can go inside or outside; however, the closer to the main service panel, the better.

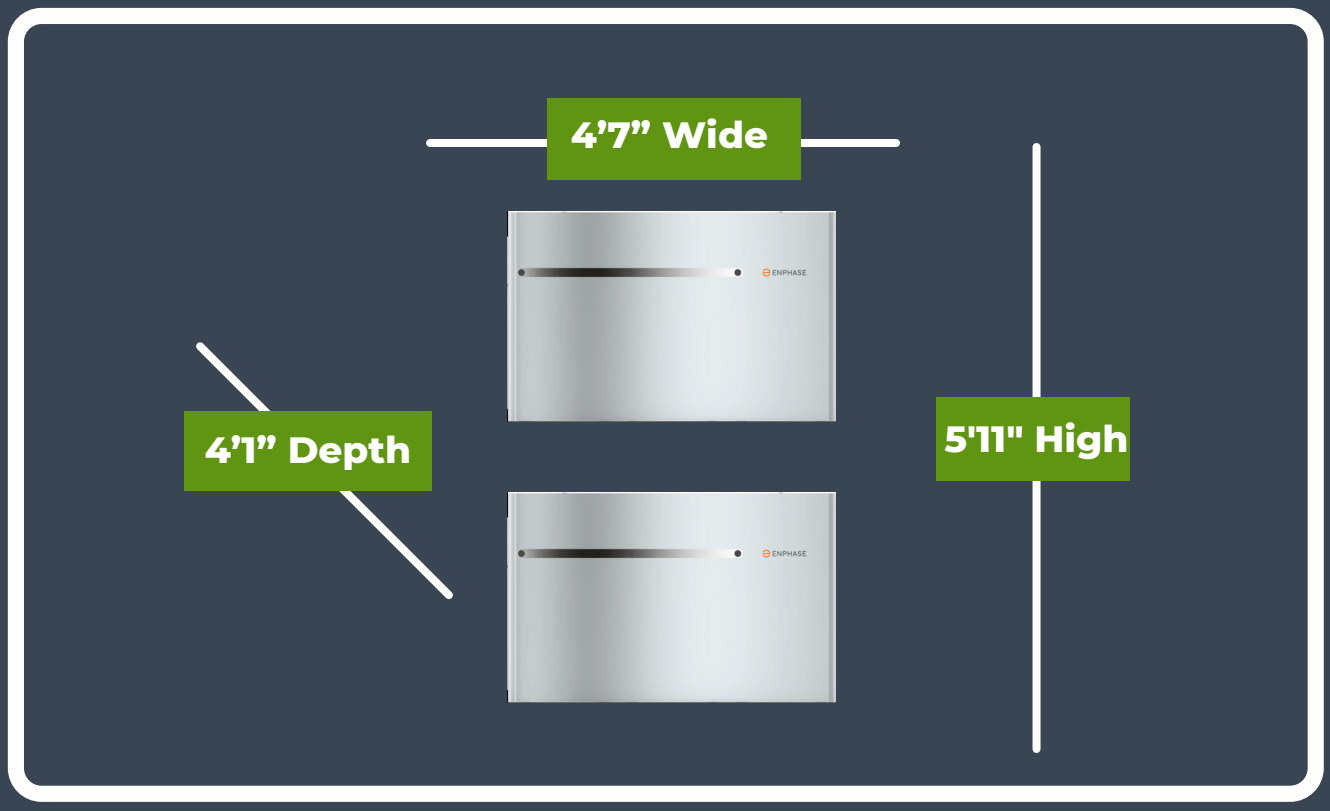
Enphase Encharge Dimensions:

Enpower	Encharge 10	Encharge 3	IQ Combiner 3C
19.7" x 36" x 9.7" 85 lbs	42.13" x 26.14" x 12.56" Three 97.4 lb base units + 48.7 lbs cover and mounting bracket. Total: 341 lbs	14.45" x 26.14" x 12.56" One 97.4 lb base unit + 17.2 lbs cover and mounting bracket. Total: 114.6 lbs	14.75" x 19.5" x 6.63" Height is 21.06" with mounting bracket 16.5 lbs

Here is the required space for the Encharge 10.

The batteries can stack horizontally or vertically.

Please send a picture of the potential location



Each home is unique and electrical circuits vary depending on the amount of power required. To create a custom design with a solution that will work best for your situation, Ipsun Solar will need to see a clear picture of your main service panel(s).

Please send a picture of your main service panel where the numbers on each breaker are clearly visible.

How many main service panel(s) aka breaker boxes are in your home? Sub-panels?

___ Main service panel
1__
2__
3__

___ Sub-panel
1__
2__
3__

If you want to protect your family from blackouts, there's really just one thing you need to consider when selecting a solar and storage system... reliability. It doesn't matter how much power you have in your battery or how pretty the battery looks. When there's a power outage, your home power backup system absolutely, positively must work flawlessly.

Enphase Encharge and Solar

Enphase is the only company in the world to place a microinverter under every solar panel and multiple microinverters in every battery. If a micro on the roof fails, your system keeps producing power. If a micro in the battery fails, you can still get energy out of the battery. It's like having a backup for your backup, and it's the best way to ensure power will be there when you need it most.

Vertically Integrated Solar + Storage:

Single app to control every aspect of solar and energy storage, including panel level monitoring. Same hardware/software on the roof as on the ground – so it's updating software at the same time, no nuisance errors like with the Powerwall.

Better Chemistry:

Cobalt-free lithium iron phosphate (LFP) battery won't explode if you puncture it unlike nickel-manganese-cobalt (NMC).

Distributed Architecture:

No single point of failure on the roof or on the ground. Solar has micros at the panel level, and each battery has 4 micros-inverters in it, so if one goes down the solar keeps running, and if one micro in the battery goes down the battery keeps running (the Powerwall has 1 inverter)

Modularity:

Up to 4 Encharge 10 units can be stacked per system or some combination between the small 3.36kWh unit and the larger 10.1kWh unit. Easily add another battery anytime. You can pick up a battery and walk it across the room. The Powerewall requires a refrigerator dolly!

Passive Cooling:

Designed to cool passively, without any mechanical pieces to maintain over time. No fans to create noise and vibrations in the system like the Powerwall.