

## Level 2 EV Chargers

At **EV-Chargers™**, our mission is to make the purchase of EV chargers simpler. We strive to make the purchase process easier by simplifying the jargon, so you can get the right ev charger based on your needs. We supply the widest range of chargers and 3 pin and 4 pin plug types so you can find a portable ev charger that fits your existing set-up at home. Our EV charger selector tool gets you the right product in three clicks! <https://evchargersusa.com/ev-charger-selector-tool/>

Level 2 EV charging has gained large popularity in the last few years. The use of level 2 portable EV chargers has grown as electric vehicle owners want to improve their range per charge, get to a full charge quicker and maximize the existing 240 volt charging capability they have at home. This has been driven by plug-in hybrid vehicles with larger ranges and more pure electric vehicles, which have larger batteries.

### **Tell me about level 2 ev charging, I keep reading about it...**

Level 2 ev charging is basically a more powerful charge to level 1 ev charging. It is the fastest available charge for your electric vehicle at home.

### **Level 2 ev charging costs more, how much more?**

Level 2 ev chargers will typically cost \$150-\$250 more than level 1 ev chargers. It is typically worth it since you will be able to charge faster and reach a full charge in significantly less time. This can reduce range anxiety when people drive without a full battery or the need for stopping in the middle of your trip to find a commercial EV charging station.

### **So I should go with a level 2 charger...**

Yes. For most cars, batteries are getting bigger and people are getting busier, so they need more miles of range per hour of charging, quicker. At home, Level 2 ev chargers provide that.

### **How much faster is level 2 charging**

There are some nuances to the speed of level 2 charging since it depends on the type of plug providing the charge. For example, NEMA 14-50 level 2 ev chargers and NEMA 6-50 level 2 ev chargers are much faster than NEMA 14-30 level 2 ev chargers since they deliver more power. In a nutshell, plugs with denominations ending in 50 are rated to deliver up to 50 amps whereas with a 30 they are rated to accept 30 amps, which means less kilowatts per hour are delivered to the battery. The table below summarizes the mileage impact:

Charge Type	Amps/ Voltage	Miles of range per hour of charge	Setting
Level 1	12-20 amps 120 V	4-6 miles	Residential
Level 2	20-50 amps 250 V	20-60 miles	Residential and Commercial
Level 3 (DC Fast)	400 to 900 V	60-100 miles	Commercial

### **So how do I check what level 2 ev charging I can run at home**

Check at home to see if you have any of the following plug types. These are all capable of giving your electric vehicle a level 2 electric charge - NEMA 6-20, NEMA 6-30, NEMA 14-30, NEMA L14-30, NEMA

6-10 and NEMA 14-50. NEMA 10-50 and NEMA 10-30 J1722 ev chargers are unsafe and against electrical code since they are not grounded.

**There are a lot of expensive wall boxes or wall chargers that have level 2 charging. Is that the same as portable (aka mobile electric vehicle charging)** Yes. Both portable EV chargers and wall chargers are capable of the same chargers since they are limited by the same issue – the power supply availability at home.

#### **When should I consider level 1 instead of level 2 ev charging**

We would generally recommend a level 1 charger in a limited set of circumstances:-

- As a direct replacement for your vehicle manufacturer charger (typically supplied with the car)
- As a second source of charging in case your level 2 power source is being used
- If you are on a tight budget
- If you have a plug-in hybrid with a small battery (<20 kWh). A level 1 charger can charge this in 6-8 hours which is acceptable for most people
- If you have a car with a battery that has a small acceptance rate. Acceptance rate is the charging speed that the battery can charge (accept power) at. Some cars have very small acceptance rates (3.6 kw/per hour). 14-50 and other level 2 ev charger types provide for example 9.6 kWh and 7.2 kWh charges which is wasted since the battery can only accept 3.6 kWh

At **EV-Chargers™**, we created a proprietary selector tool to find the right charging options for your car. Simply fill out the drop down menu and in three clicks, you can get the right ev charger for you with approximate charging speeds. Click this link to get straight to our EV selector tool <https://evchargersusa.com/ev-charger-selector-tool/>