# Level 1 ev charger wattage

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Most people are familiar with octane ratings (regular, mid-grade, premium) at stations for gas-powered cars and how those different levels relate to their cars" performance. Electric vehicles (EVs) have their own system that helps drivers and EV businesses figure out which EV charging solution they need.

But what is a Level 1 charger and how can it be used for powering up passenger EVs? Read on for all the details.

A Level 1 charging station consists of a nozzle cord and a standard household electrical outlet. In that respect, it"s more helpful to think of Level 1 charging as an easy-to-use alternative than a comprehensive EV charging station. It"s easy to recreate inside a garage or a parking structure and requires little to no special equipment, which makes it an affordable way to charge a passenger EV.

Most passenger EVs come with a built-in SAE J1772 charge port, more commonly known as the J port, which allows them to plug into standard electrical outlets for Level 1 charging and use Level 2 charging stations. (Teslas have a different charging port, but Tesla drivers can purchase a J port adapter if they want to plug into a standard outlet or use a non-Tesla Level 2 charger.)

Level 1 chargers are the slowest of the three charger levels, which is why the majority of public EV charging stations are not a bunch of 120-volt outlets rigged up together on a wall. Faster, more convenient EV charging requires a specialized set of hardware and software components.

What is a Level 1 charger for then, if it takes so long? Level 1 charging may take a while, but it still makes sense in residential settings, and some worksites may opt to have a set of 120-volt outlets available for employees to use with their own charging cables. Level 1 charging may also work well for plug-in hybrid vehicles, which tend to have smaller batteries and charge more quickly.

The main draw of Level 1 charging stations is affordability and ease: A homeowner can simply park their EV in a garage and plug it into an existing outlet. Drivers with short commutes or those who don"t use a personal vehicle often can get by with using Level 1 chargers most of the time.

The drawback, besides the slow charging time, is remembering to plug in every night. For those without a garage, having to set up at an outlet with a charging cord can also be a hassle.

Most single-family residences with garages will already have 120-volt plugs they can use, and the charging cable comes with the EV purchase. If a multi-family property manager wants to add some 120-volt outlets inside a parking garage, it can cost between $125 to $300, depending on the outlet location.

Since most Level 1 charging happens in or near people"s homes, the cost of the charge becomes a part of their electricity bill and will vary from driver to driver, depending on location, current energy prices, and their EV model.

Now that you know all about Level 1 chargers, you may be wondering how they compare to other charging levels. As noted, Level 1 charging is much slower than Level 2 and Level 3 charging and is used in residential settings, where EV drivers have plenty of time to stick around and wait for their car to be fully charged.

On the other hand, Level 2 charging stations can provide about 40 km (~25 miles) of range per hour of charging, but they are not as easy to set up at home. Level 2 charging requires the installation of a Level 2 EV charger, usually with a 240-volt outlet. Private residences would need an electrician to install a higher-voltage outlet, which could mean adding a circuit to their electric board. Most public EV charging stations are Level 2 charging stations because most EVs can connect to them via a J port, same as they would to a cable for Level 1 charging. Passenger EVs can use Level 1 and Level 2 charging stations interchangeably.