Commercial EV charging: Fast vs Rapid vs Ultra-rapid – which is right for your site?



What’s the difference between fast, rapid and ultra-rapid EV charging?

Fast EV charging (7-22kw)

Fast chargers are designed for locations where vehicles are parked for several hours.

Typical use cases include:

- Office and business parks
- Staff and visitor car parks
- Hotel and leisure venues
- Education and healthcare sites

A fast charger can deliver a full or near-full charge over a working day or overnight stay. From a commercial perspective, they’re cost effective, easier to install and place less strain on existing electrical infrastructure.

Rapid EV charging (25-50kw)

Rapid chargers suit locations where drivers expect a shorter stop and quicker turnaround. They offer a strong balance between charging speed and installation cost.

Typical use cases include:

- Retail parks and supermarkets
- Public charging locations
- Fleet depots with scheduled downtime

Rapid chargers can typically add significant range in under an hour, making them ideal when customer convenience and charger availability matters.

Ultra-rapid EV charging (100kw+)

Ultra rapid chargers are built for speed. They are designed to deliver large amounts of energy in a short time and support high volumes of users.

These chargers are usually found at

- Motorway services and major road networks
- High-traffic public charging hubs
- Strategic fleet or logistic sites

While ultra-rapid charging offers the fastest experience for drivers, it comes with higher installation costs and often requires substantial grid capacity upgrades.

Which EV charger is right for your commercial site?

The right solution depends on:

- How long vehicles stay parked
- How many users you expect per day
- Available electrical capacity
- Future expansion plans

For example, installing ultra-rapid chargers at a workplace where cars are parked all day rarely makes financial or environmental sense. Equally, fast chargers at a busy site can lead to queues and a poor user experience.

The ECCUK view

There’s no universal ‘best’ EV charger – only the best charger for your site.

Successful commercial EV charging installations start with understanding usage, power and long-term objectives. When fast, rapid and ultra-rapid chargers are deployed in the right places, EV charging becomes reliable, scalable and a sustainable asset.