



EV CHARGING JARGON BUSTER

With more and more drivers switching to electric vehicles (EV) and businesses implementing electric fleets and EV charging facilities across their locations, we have created an EV charging jargon buster to ensure you're in-the-know about all things EV charging.



Charging Connectors



CHAdeMO

Round, four-pin connectors. Used at rapid charging points, typically gives less power than CCS.



Combined charging system (CCS)

EU standard connectors with two DC pins below a Type 2 connector.



Type 1

Five-pin connectors with a clip for secure attachment to the EV.



Type 2

Seven-pin connectors with a flat top edge. Provides three-phase power.



UK 3 pin

Standard plugs found in UK homes. They can be used to power EVs in an emergency.





Types of Charging

Mode 3 Charging

Dedicated charging equipment is used. Can be used to supply up to 16.1 kW single-phase or 43.7 kW three-phase AC, depending on the connectors selected. Uses specialist connectors in accordance with BS EN 62196-2 (Type 2 and 3 for connecting to charging infrastructure and Type 1 or Type 2 for connecting to vehicles).

Mode 4 Charging

Specialist DC charging equipment, often used for “rapid charging” is capable of delivering up to 170 kW depending on the vehicle connectors used. Uses specialist vehicle connectors eg. CCS and CHADdeMo although some vehicle manufacturers have their own proprietary connectors.

Granny Charging

The slowest and oldest way of charging your EV. A granny charger charges your EV with a typical 13 amp 3-pin socket in the home.

Fast Charging

Offers between 7-22 kW charging capabilities, fast charging takes between 2-4 hours to charge your vehicle, depending on the size of the battery.

Rapid Charging

Offers between 25-350 kW charging capabilities, rapid charging takes between 20-30 minutes to charge your vehicle, depending on the size of the battery.

EV Charging Technicals & General



PME Fault Detection

Protective Multiple Earth (PME) fault detection disconnects the Phase, Neutral & Earth in the event of a PME Fault, making for safer chargepoint installation for the installer and the end user. The incorporation of PME fault detection removes the requirement for an earth rod.



Static Load Management

Static load management (SLM) refers to a set maximum supply current that is dynamically distributed between the EV charging points.



Dynamic Load Balancing

Dynamic load balancing (DLB) continuously monitors changes in energy consumption on your circuit and automatically allocates the available power to different appliances. DLB balances the energy use and adjusts the charging output to your EV in response to changes to the electricity flow, allowing for efficient charging.



OCPP-Compliant

A communication protocol that provides interoperability between the EV chargepoints, the chargepoint operator and the EV driver. OCPP-compliant solutions provide flexibility; chargepoints that are OCPP-compliant can be integrated to any OCPP-compliant back-office management system, meaning that chargepoint operators are not ‘locked in’ to a singular back-office provider.



OZEV

Office for Zero Emission Vehicles, the governing body supporting the road to a Net Zero nation. OZEV is widely associated with the grant funding incentives available to drivers and businesses requiring electric vehicle charging points and infrastructure.



EV Charging Technicals & General



Single-Phase

Single-phase charging allows you to charge your EV at a maximum of 7.4 kW. A single-phase EV charger is commonly installed at a domestic property.



Three-Phase

Three-phase charging allows you to charge your EV at a maximum of 22 kW. A three-phase EV charger is commonly installed in workplace/office settings.



RFID Cards

Radiofrequency identification cards. These can be used to pay for workplace or public charging; drivers simply tap their RFID card on the charger's fascia to begin charging.



Smart Charging

When an EV charger can communicate with the EV to regulate charging behaviour. For example, determining when a charging session takes place.



Tethered EV Charger

An electric vehicle charger with a permanent cable attached.



Back-Office Management System

A portal/system that enables chargepoint operators to manage and monitor their charging activity, behaviour, consumption etc. A back-office management system can also offer additional benefits such as the ability to set multiple user tariffs to generate additional revenue.



CPO

Chargepoint operator - the person/business that operates the electric vehicle charging point/s.

Regulations & Legislation



Part S

Building Regulations Part S provides a requirement for new homes and existing homes undergoing large renovations (of 10 more or dwellings) to have facilities for charging electric vehicles at home that may be parked on associated parking spaces at that home.



ICE Ban

The 2030 ICE ban will end the sales of new petrol and diesel cars in the UK. You will still be able to drive your old car and buy fuel-powered cars on the secondhand market.



The Electric Vehicles (Smart Charge Points) Regulations 2021

The regulations ensure charge points have smart functionality, allowing the charging of an electric vehicle when there is less demand on the grid, or when more renewable electricity is available. The regulations also ensure that charge points meet certain device-level requirements, enabling a minimum level of access, security and information for consumers.