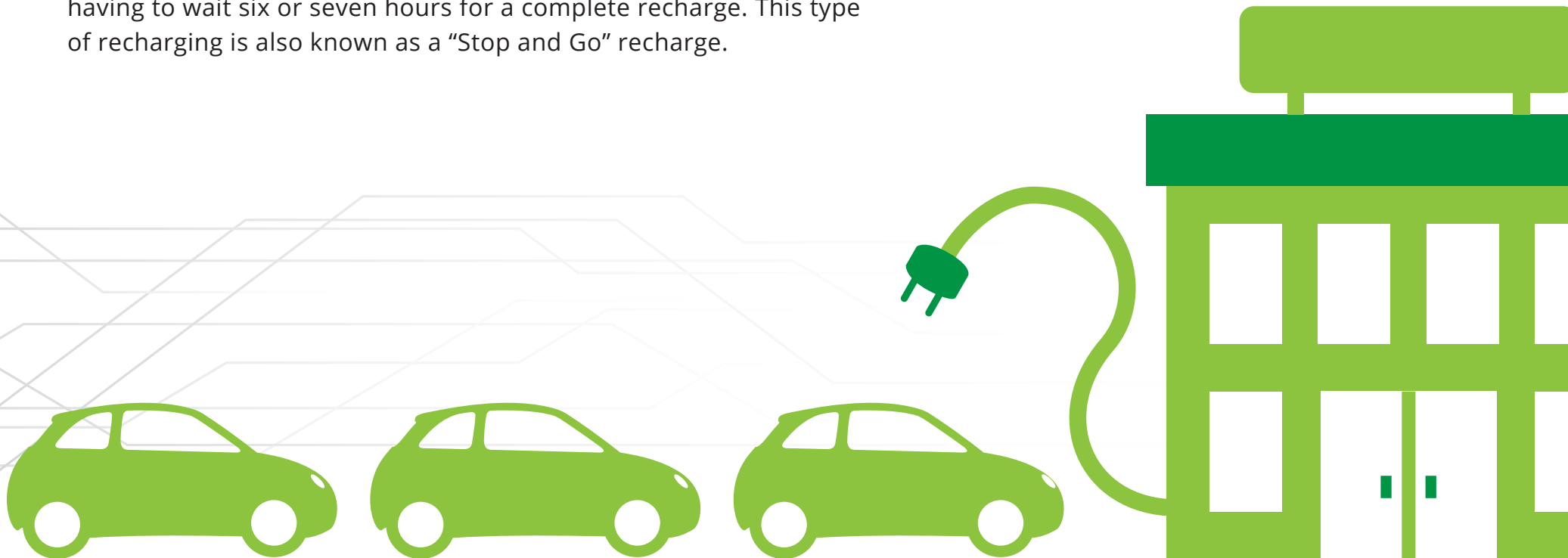


Fast Charger 50 kW 400 V DC

Rapid recharge is done through a power charger of around 50 kW or more. It cannot be installed at home since it requires an electrical input of 600 V. The concept is based on the fact that a battery usually charges up to 80% in 20 or 30 minutes and that the last 20% requires prolonged connection time. This Fast Charger is placed in businesses making deliveries with fleets of vehicles or on roads linking distant destinations in order to allow the owner to recharge his car without having to wait six or seven hours for a complete recharge. This type of recharging is also known as a “Stop and Go” recharge.



SUMMARY DESCRIPTION

From a technical point of view, all charging stations are similar and made of identical components. It is the options and integration that provide a company with an axis of differentiation and why one charging station is appreciated on the market over another. Our customer is positioned more as an integrator than a manufacturer of the EVduty Fast Charger.

ELMEC integrates the entire programming aspect, payment applications and aesthetics of its product. The purchased charging station is delivered, equipped with Ethernet and USB connectors allowing the customer to program it. It can be connected to a payment system via WiFi or cellular network.

The EVduty Fast Charger is therefore a modular concept adapted for commercial and public charging. The output power is 50 kW for an input voltage of 600 V and an intensity of 80 A (three-phase) and can even be modified to provide more or less power. It therefore allows an 80% recharge of the capacity of the battery in about 20 to 30 minutes. The 50 kW Fast Charger is designed to operate in temperatures ranging from -20 °C to 40 °C and is integrated in a Nema type 3 casing measuring 60 x 36 x 12 inches.

The casing enclosing the Fast Charger can be installed inside a building with a 600 V electrical input or in an outdoor casing, called charging station, equipped with a 600 V electrical input. The CHAdeMO connectors or Combo are installed outdoors in the charging station in order to protect the cables from bad weather and vandalism. The charging station can be located up to 50 feet from the 50 kW Fast Charger.

Since there is still no single standard applied to all automakers, the charging stations can be equipped with two types of connectors, the COMBO1 and the CHAdeMO. ELMEC has opted for two connectors. The charging station comes with two 25 to 60 foot cables.

