

## QC50 DC Fast Charger

Efacec has extensive experience in power electronics design and industrial product manufacturing, which allows for innovative product development and engineering. Currently, the Efacec Electric Vehicle (EV) charging family in the USA features DC Fast Charging for CHAdeMO and SAE Combo compliant vehicles. Efacec has been developing solutions and products for the different EV charging market segments since 2008. Efacec is a member of CHAdeMO and has received the certification for its DC Fast Chargers. The QC 50 is also ETL listed for both CHAdeMO and SAE Combo DC Fast Charging.

### Product description

The Efacec QC50 DC Fast Charger can be used to charge all EVs with CHAdeMO and SAE J1772 Combo charging standard compliance. Depending on the EV, it takes up to 30 minutes to charge from a low battery state.

The DC Fast Charger is user-friendly and safe. After user identification, just couple the charger's DC output plug into the EV for automatic starting. The battery charging state is displayed, and the charging cycle finishes automatically or can be interrupted by the user.

Configuration customization is available. Choices include both single and dual DC outputs in a single cabinet to handle both CHAdeMO and SAE Combo vehicles. We offer a bundled solution with a remote wired charging kiosk and standard charging cabinet. The charging kiosk bundle allows for true customization of the user-facing appearance and payment interface.

The DC Fast Charger's unique power electronics design results in top specifications for conductive DC fast charging. It produces high power output while still maintaining top power factor, THD and efficiency ratings. The DC Fast Charger is highly recommended for service stations, EV service workshops and public EV Infrastructure.

### Key features

- Supports up to (500 VDC @ 125 A) 62.5 KW
- CHAdeMO standard certification
- SAE J1772 Combo compliant
- Stand-alone or network-integrated charger

### Customizations

- Charging kiosk design
- Communication options
- Payment solutions

### Applications

- Filling stations, service stations
- EV Service Workshops
- EV Infrastructure Operators
- Car dealerships
- Parking lots
- Office buildings
- Supermarkets and convenience stores

Choose the color of your energy!



Dual-connector design supports both SAE and CHAdeMO connectors



## Technical Specifications

### Nominal Input

Phases / Lines	3 phases + neutral + PE
Voltage	480 ± 10% VAC
Current (max. w/ Vmax output, I <sub>max</sub> output)	79 A
Power	65.5 KVA
Frequency	50/60 Hz
Efficiency	96%
Power factor	0.98
THD Input current	12.3%

### DC Output

Voltage	50 to 500 VDC
Current	0 to 125 A
Nominal Power (@ 400 V output)	50 KW
Communication with EV	CHAdEMO: JEVS G104 - CAN SAE - CCS: PLC
Plug	CHAdEMO: JEVS G105 SAE - CCS: J1772 Combo

### Insulation

Input   Output   Ground	1500 VAC
Control Circuit   Ground	500 VAC

### Enclosure

Size (WxDxH)	31.5" x 31.5" x 82.67"
Weight	1,760 lbs
Protection degree	NEMA 3R
Cooling	Forced Ventilation

### HMI and Command unit

Contactless card specification	Calypso Mifare
LCD display and numeric keypad	(Others optional)
Emergency stop	
Communication protocol (others on demand)	Web services over IP; Router 3G (GSM or CDMA) OCPP; Efacec; Mobi.E; MHI; others

### Environment conditions

Temperature	-13 to +122°F
Humidity	5 to 95%
Place of installation	Outdoor
Sound noise	53 dB
Altitude (above sea level)	Up to 3280 ft

### Standards

EN 61851; EN61000; CHAdEMO; UL2202, 2231-1, 2231-2; ADA; SAE J1772



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