

TECHNOLOGY DEVELOPMENT PROJECT FACT SHEET

No. 052: 10kW EV Opportunity Charger

The Electric Fueling Station (EFS) battery charging system allows for high-speed, opportunity charging of an electric vehicle propulsion battery system.

The charger, developed in 2002, provides opportunity refueling for low voltage (36-volt thru 96-volt) battery electric vehicles. Vehicles may include neighborhood electric vehicles, golf carts and utility carts that are used in applications such as commercial fleets, university campuses, golf resorts and military bases.

The charger includes protection to prevent operation in extreme temperatures, and uses temperature compensation in its battery-charging algorithm.

Features include:

- Less than 30 minutes charge time (30-80% SOC)
- BIW 9-pin connector
- Vehicle conversion kits available (not included)

Benefits include:

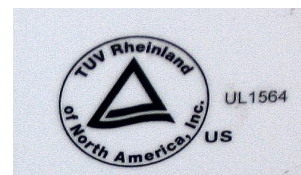
- Reduces charging time
- Increases vehicle performance
- Increases battery life
- Increases operating time
- Allows automatic charging of four different voltages (36V to 100V)
- Allows versatility to charge multiple battery types

The charger user interface consists of four LEDs on the front panel (from top to bottom):

- The charger has been powered up and is ready for use. The vehicle can be connected to the charger. This LED normally blinks.
- Charging is underway. The speed at which the blue light flashes indicates the rate of charge being supplied to the batteries.
- Charging has completed and it is safe to disconnect the vehicle from the charger.
- A fault condition has been identified. Refer to the troubleshooting section of the operations guide for assistance.



OUTPUT	
Output Power (Max.)	10kW
Maximum Output Current	100 Amps
INPUT	
208 VAC, 3-PH / 48 Amps Max. (60A Breaker)	
240 VAC, 1-PH / 50 Amps Max. (70A Breaker)	
60Hz Input Frequency	
GENERAL	
Dimensions (H/W/D)	24" / 20" / 12"
Weight	240 Lbs.
Operating Temperature	-25° C to 50° C
Mounting	Wall or Pedestal



For more information contact the APS Future Fuels Program at 602-250-1509 or futurefuels@aps.com