

Portable Fuel Cell Charger

Technology Overview

Personal Mobility Devices (PMDs) such as e-scooters and e-bikes provide convenient and environmentally friendly choices for the first and last mile trips of city commuters. Currently, PMDs sharing service providers have to collect all their devices at the end of day for overnight charging, and deploy them back after the devices are fully charged. This is time-consuming and uneconomical in business operation. The portable fuel cell charger provides a convenient way to recharge the PMD batteries on the spot, and can largely reduce the operational cost of the service provider.

Features & Specifications

The portable fuel cell charger integrates the latest lightweight air-cooled PEM hydrogen fuel cell technology and ergonomic design into a stand-alone power unit. It can provide adjustable and stable power supply to charge batteries in different electronic devices. The key parameters are listed below:

Maximum Power Output:	1 kW
Output Voltage:	DC12-48 V
Energy:	2 kWh
Weight:	18 kg
Dimension (L x H x D):	45 x 90 x 20 cm



Customer Benefits

- No power cabling required, can be setup anywhere
- Portable
- Can easily top-up by replacing hydrogen cylinder
- Exhaust-free
- Quiet operation
- Lightweight

Potential Applications

This technology can be applied in:

- Mobile charger for PMDs
- Outdoor power source
- Emergency power
- Backup power
- Off-grid power system

Collaborator

GrabTaxi Holding Pte. Ltd.