Light Mobility Power System

Technology Overview

As the world starts moving towards electrification of mobility, there is an increase in demand for newer and better technology that can enable us to go further on a single charge. Hydrogen fuel cell can be the solution to that problem.

Right now, the fuel cell market for commercial vehicles (>30kW) is well established. However, there is a void in the light mobility segment (<3kW). Some example of these vehicles include 2 – 3 wheel vehicles and golf cart.

Duralite Power's fuel cell is ready to address this market and revolutionize the light mobility sector.

Technical Specification

Fuel Cell Power System (customizable)

Fuel Cell Rated Power	200 - 3000	W
Voltage	24 or 48	V

Potential Application

- Light mobility power system
- Range extender

Benefits at a glance

Light and Compact

High Power Density

High Endurance

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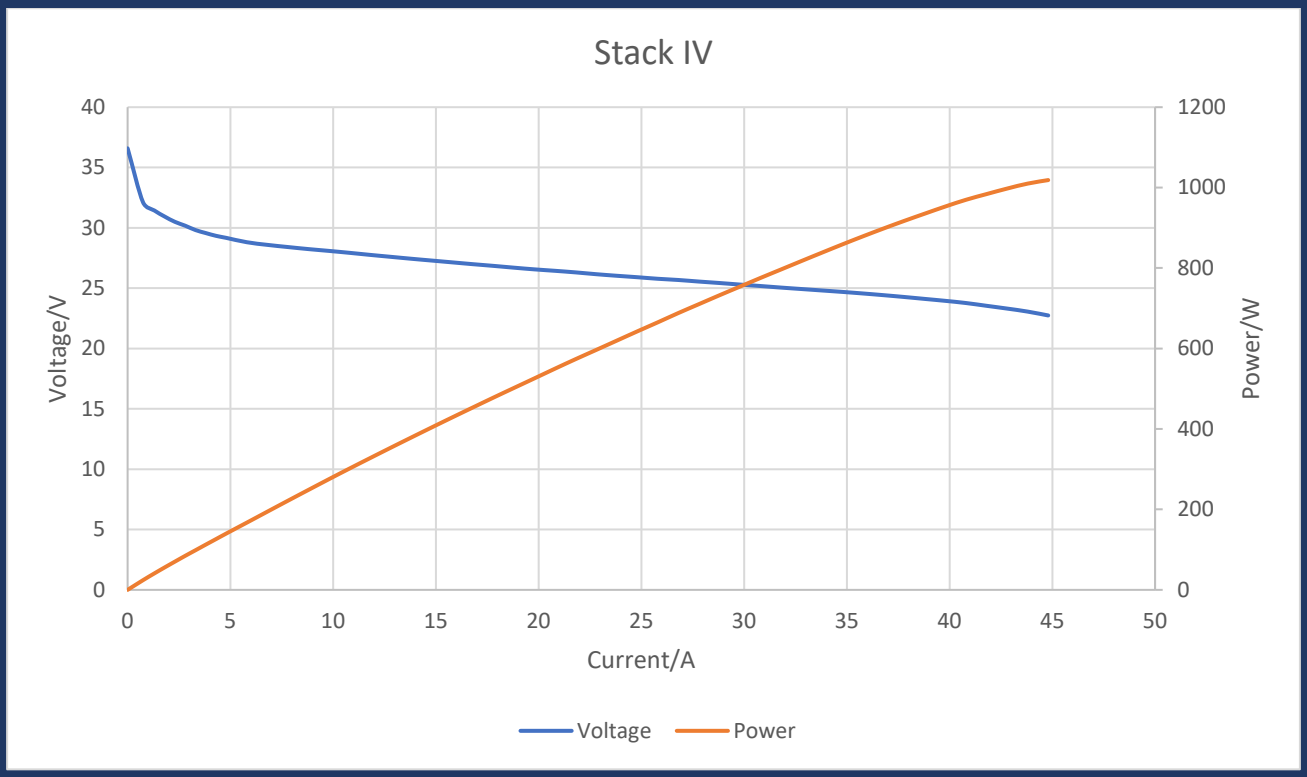
Technical Specification (750W Fuel Cell)

Power Specification	Rated Power	750W
	Rated Current	30A @ 25V
	Hydrogen Pressure	2 barg
Fuel Requirement	Peak consumption	~10L/min
	Hydrogen Purity	Min 99.99%
Physical Specification	Cell Number	40 Cell
	Dimension (L x W x H)	~170mm x 135mm x 150mm
	Weight (excluding control circuit)	~1.5kg

Accessories

- Cooling Fans
- Purge Valves
- XT 90 Power Connection
- OD 6mm PU Tubing Connector (inlet and outlet)
- Fan Holder



Beginning of life test. Test condition: Ambient 22.5°C, RH 70%

Used Case

A customised 900W fuel cell stack was developed to assist Temasek Polytechnic to edge out their opponent in the Shell Eco-Marathon Hydrogen Prototype category to be crowned the champion for 2018 and 2019!

While adhering to the stringent checks, the team manage to achieve stellar results of 404km/m^3

In their first attempt in the Urban category in 2022, the team emerged champion again continuing their unbeaten winning streak!