

## RFB40 SERIES - 6 kW, 40 kWh

Delectrik's Redox Flow Battery (RFB) is an energy storage system for use in small-scale stationary applications such as telecom, micro-grids and other critical applications.

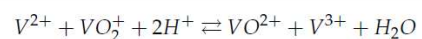
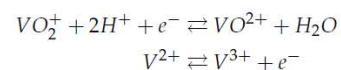
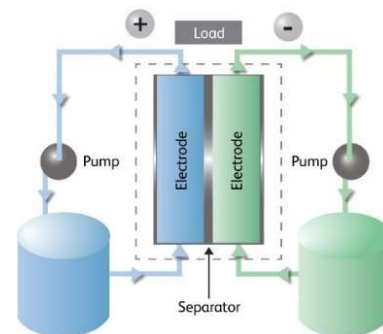


### Redox Flow Battery Technology

Delectrik's RFB is based on vanadium redox chemistry and falls into the general class of redox flow batteries. This class of battery employs an electrolyte where energy is stored and a cell stack where energy conversion occurs. Energy is stored chemically in different ionic forms of vanadium in a dilute acid electrolyte. The electrolyte is pumped from separate plastic storage tanks into flow cells across a membrane where one form of electrolyte is electrochemically oxidized, and the other is electrochemically reduced. This creates a current that is collected by electrodes and made available to an external circuit. The reaction is reversible allowing the battery to be charged and discharged.

### Key Features

- Long life (>20yrs) with unlimited charge-discharge cycles
- Outdoor system with integrated power electronics and controls solution
- Lowest total cost of ownership
- Multiple units can be paralleled
- Safe and Environmentally friendly
- Seamless renewables and grid integration
- Durable operations in rugged, remote outdoor environments up to 50°C ambient

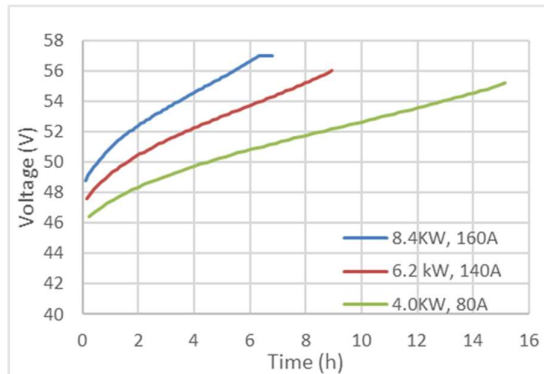


### RFB40 Series System Specification

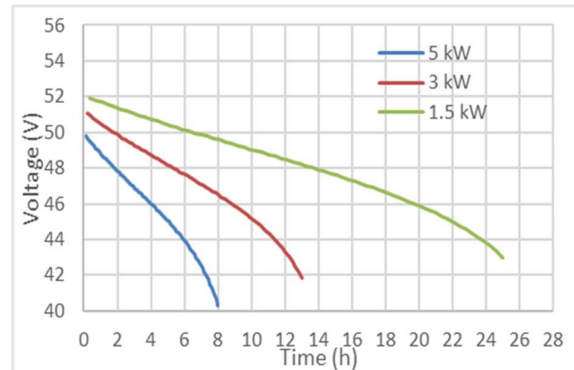
<b>Voltage Range</b>	48V (39V – 57V)
<b>Output Energy Capacity</b>	40 kWh
<b>Output Power - Continuous</b>	6 kW
<b>Output Power - Instantaneous</b>	10 kW
<b>DOD</b>	100%
<b>Cycle Life</b>	Unlimited
<b>Charge Power</b>	8.5 kW
<b>DC-DC Efficiency (Round Trip)</b>	70% - 75%
<b>Ambient Temperature</b>	-5°C – 50°C
<b>Monitoring</b>	GPRS – RS232
<b>Footprint</b>	3.2 m <sup>2</sup>
<b>Dimensions (W x D x H)</b>	2.3 m x 1.4m x 2.1m
<b>Total Installed Weight (With Electrolyte)</b>	3400 Kg

## Charge and Discharge Characteristics

Charge after 100% Discharge



Discharge after 100% Charge



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