



Daily deep charge and discharge makes the ZBM ideal for storing and shifting renewable energy, managing peak grid load and supporting off grid power systems.

## Product Features

### Zinc Bromide Flow Battery

#### A Range of Energy Sources

- Grid energy, renewable energy sources and diesel generation.
- Ideal for telco applications at 42Vdc.

#### Delivers High Energy Density

- Delivers up to 3 kW of continuous power (5 kW peak) and up to 8 kWh of energy.

#### 100% Depth of Discharge

- Ideal for storing and shifting energy.

#### Flexible Voltage

- Can be used in parallel or series configurations, enabling capacity configurations from 8 kWh to MWh-scale.
- 48Vdc for parallel connection.
- 400V to 800V for series connection.
- Charges at 52V to 58V and discharges at 51V to 40V.

#### Low Weight and Easily Transportable

- The ZBM has a total weight of 240kg, 90kg without electrolyte.

#### Inherently Safe Design

- Water-based zinc-bromine electrolyte, is a natural fire retardant.
- No thermal runaway, due to physical separation of cell stack and energy storage tank.

#### 24/7 Battery Management and Data Capture

- Self-monitoring with real-time data capturing and error reporting through the MOD-BUS®.

#### Long Life

- Indefinite shelf life in the warehouse fully discharged.
- High temperature tolerance, full operation range 10 °C to 50 °C.

#### Recyclable

- Made from recyclable materials.

## About RedFlow

RedFlow is a market leader, being one of the first companies to install fully operational and functional zinc-bromide modules (ZBMs), into a range of stationary energy applications.

RedFlow ensure continuous product innovation in our R&D centre, located in Brisbane, Australia. The R&D centre is part of our global presence with RedFlow offices located in the USA, EU and manufacturing in North America.

The ZBM is manufactured by global manufacturing company, Flextronics. Who provide scalable manufacturing capacity with rigorous quality control management. Our ZBM is sold, integrated and maintained through our network of global System Integrators.



FIND OUT MORE  
www.redflow.com

R&D DIVISION



MANUFACTURE BY  
RES CONNECTION

**FLEXTRONICS**

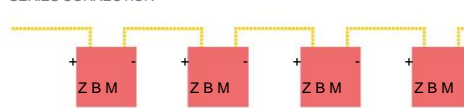
SYSTEM INTEGRATORS



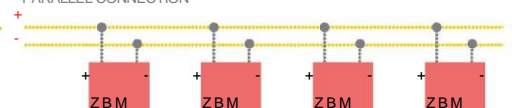
## Flexible Configurations

Can be used in **parallel or series configurations**, enabling capacity configurations **from 8 kWh to MWh-scale**.

SERIES CONNECTION



PARALLEL CONNECTION



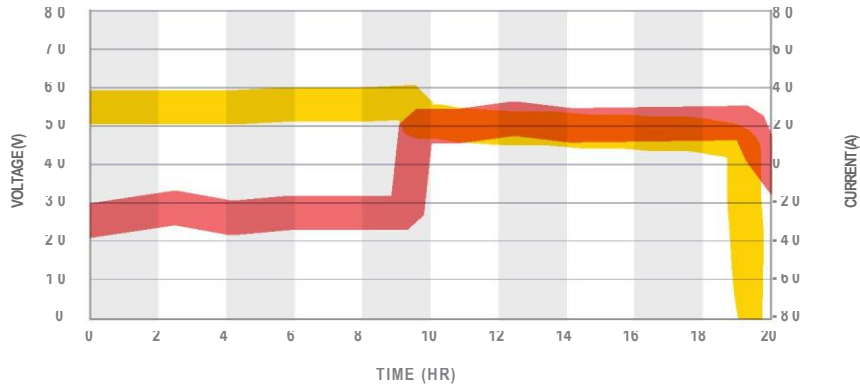
**ZBM: Building Blocks to Advanced Energy Storage**

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TYPICAL ZBM CHARGE AND DISCHARGE CURVE



Battery current

Battery voltage

## Technical Specifications

### Power

3 kW continuous / 5 kW peak

### Energy

8 kWh, 170 Ah (duty cycle dependent)

### Dimensions

845 L x 823 H x 400 W (mm)

33 L x 32 H x 16 W (in)

### Weight

240 kg (500 lb) with electrolyte

90 kg (330 lb) without electrolyte

### Electrolyte Volume

100 L (24Gal)

### Net Energy Efficiency

80% DC-DC Max

### DC Operating Range

40V – 58V

### Internal Operating Temperature

10°C to 50 °C

### Shelf Life

Indefinite shelf life with no temperature effect

### Communication

RS485, MODBUS®

### Certifications

Pending: C-Tick, FCC, UL Certifications

### Safety Data Sheet

DG Class 8 for electrolyte

### Manufactured by

**FLEXTRONICS**



## System Integrator



Contact 1800 to batteries  
1800 8622 8834  
Or email [Darrell@ogps.global](mailto:Darrell@ogps.global)



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