**ZBM2 Flow Battery**

The world’s smallest flow battery, monitored & managed online

---

**Why Redflow zinc-bromine flow battery technology?**

**COMPETITIVE CAPEX**

100% of the capacity is usable over lifetime, with no capacity fading therefore no oversizing required.

**EXCELLENT LONGEVITY**

Warranted electrode stack lifetime 36,500 kWh energy delivered or 10 years (whichever comes first).¹

**LONG SHELF LIFE**

Sustains regular outages without battery damage and can be suspended, stored or hibernated from 0% to 100% state of charge.

**RECYCLE OR REPROCESS**

Excellent sustainability for all Redflow battery components and electrolyte.

**CONSTANT POWER**

Charge 100% of the capacity with constant power, due to a flat voltage curve and simple one stage charge profile.

**COMPACT AND HIGH ENERGY DENSITY**

0.34m² (3.7ft²) with warranted electrode stack throughput of 36,500kWh.

**GREATER SAFETY**

Fire retardant electrolyte, no thermal runaway due to separated tank and stack.

**INBUILT THERMAL MANAGEMENT**

For the majority of systems air conditioning is not required. Lifetime and safety are not affected by temperature, within operating and storage limits.

**INTUITIVE WEB BASED MANAGEMENT SYSTEM**

24/7 remote self-monitoring with real-time data capture accessed via the web, through the MODBUS communications system.

---

Designed and developed in Australia by REDFLOW.

ZBM2 manufactured in Thailand by REDFLOW.

Installed by Redflow’s global network of accredited installation partners find out more via www.redflow.com/system-integrators.

---

¹ For 80% depth of discharge.
ZBM2 Technical Specifications

**VOLTAGE:** 48 Volt DC nominal batteries (typical operating range 40-57V)

**CAPACITY:** Maximum 10kWh energy output per daily cycle. No reserved battery capacity requirement – full 10kWh cycle depth available

**DIMENSIONS:** 845L x 823H x 400W (mm); 33L x 32H x 16W (in)

**WEIGHT:** 240kg (530 lb) with electrolyte; 90kg (198 lb) without electrolyte

**ELECTROLYTE VOLUME:** 100L (26Gal)

**STACK ENERGY EFFICIENCY:** 80% DC-DC Max

**OPERATING ELECTROLYTE TEMPERATURE RANGE:** 15°C to 50°C (59°F to 122°F), ZBM2 can operate at ambient temperatures outside this range depending on enclosure design.

**COMMUNICATION:** MODBUS-TCP, CANBUS

**SAFETY DATA SHEET:** DG Class 8 for electrolyte

**POWER RATING:**
- 3kW (5kW peak)
- 3kW continuous: current up to 75A (40V disconnection point)\(^1\,\,2\)
- 5kW duration depending on the State of Charge (SOC): current up to 125A (40V disconnection point)\(^3\,\,4\)

**REGULATORY COMPLIANCE MARKS:**

**WARRANTY:**
- Electrode stack: 36,500 kWh of energy delivered or 10 years (whichever comes first)\(^1\)

---

Note: This is a summary document. For full details see ZBM Installation and Operation Manual and Warranty documentation.

1. See full warranty document for details, T&Cs apply.
2. Average results at 25°C and standard atmospheric pressure for a typical battery.
3. Values reported for ZBM2 at 100% state of health (SOH) and at 25°C.
4. Redflow internal testing shows a 5kW supply for approximately 75 minutes before disconnection, for a ZBM2 starting at 100% state of charge (SOC).