



- High energy density at 10kWh
- 48 Volt DC nominal batteries
- Power Rating 3kW (5kW peak)



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

BEST IN CLASS LCOS

Warranted electrode stack lifetime 36,500 kWh energy delivered or 10 years (whichever comes first)³

UNLIMITED SHELF LIFE

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

RECYCLE OR REPURPOSE

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

No fire suppression system necessary or safety abuse testing required

NO ACTIVE COOLING REQUIRED

Lifetime, safety and performance are not affected by temperature

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, developed and dedicated R&D in Australia by **REDFLOW**

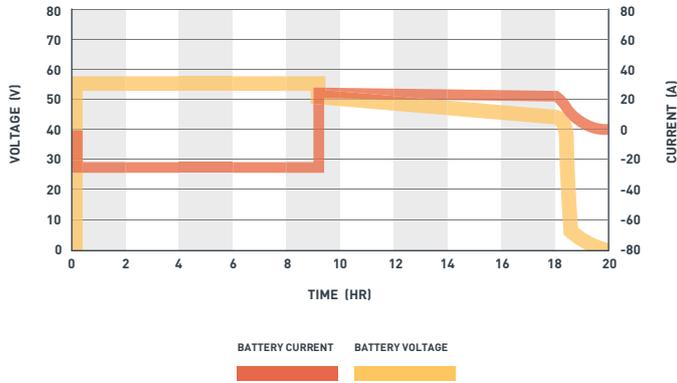
ZBM2 manufactured in Thailand

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

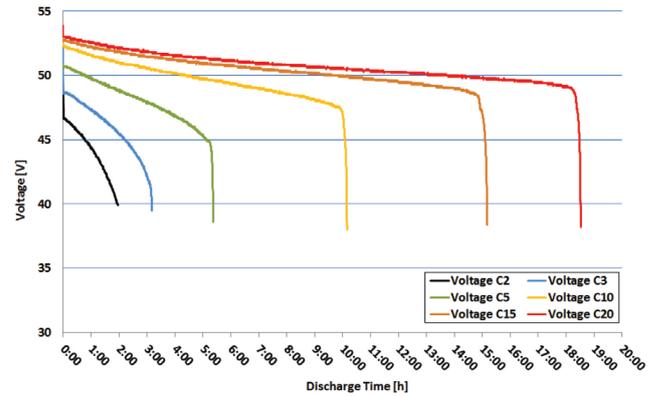
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Typical Charge and Discharge Curves

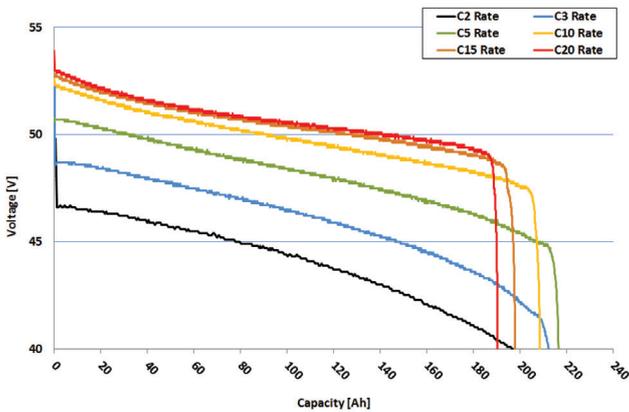
BATTERY VOLTAGE VS BATTERY CURRENT



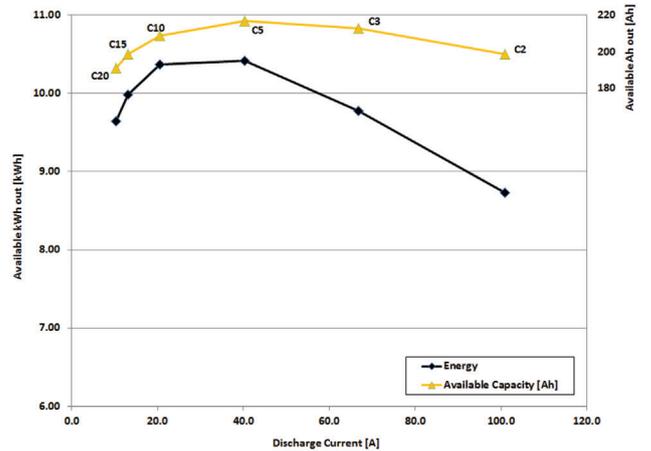
DISCHARGE CURVES



DISCHARGE - CAPACITY CURVES



ENERGY - CAPACITY CURVES



ZBM2 Technical Specifications

VOLTAGE: 48 Volt DC nominal batteries (typical operating range 40-60V)

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]

NET ENERGY EFFICIENCY: 80% DC-DC Max

OPERATING ELECTROLYTE TEMPERATURE RANGE: 15°C to 50°C (59°F to 122°F), ZBM2 can typically operate at ambient temperatures outside this range for extended periods

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
 + 5kW duration depending on the State of Charge (SOC):
 current up to 125A (40V disconnection point)^{1,2}

REGULATORY COMPLIANCE MARKS:

WARRANTY:
 + Electrode stack: 36, 500 kWh of energy delivered
 or 10 years (whichever comes first)³

¹ Values reported for ZBM2 at 100% state of health (SOH) and room temperature
² Redflow internal testing shows a 5kW supply for approximately 45 minutes before disconnection, for a ZBM2 starting at 100% state of charge (SOC)
³ See full warranty document for details, T's and C's apply



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