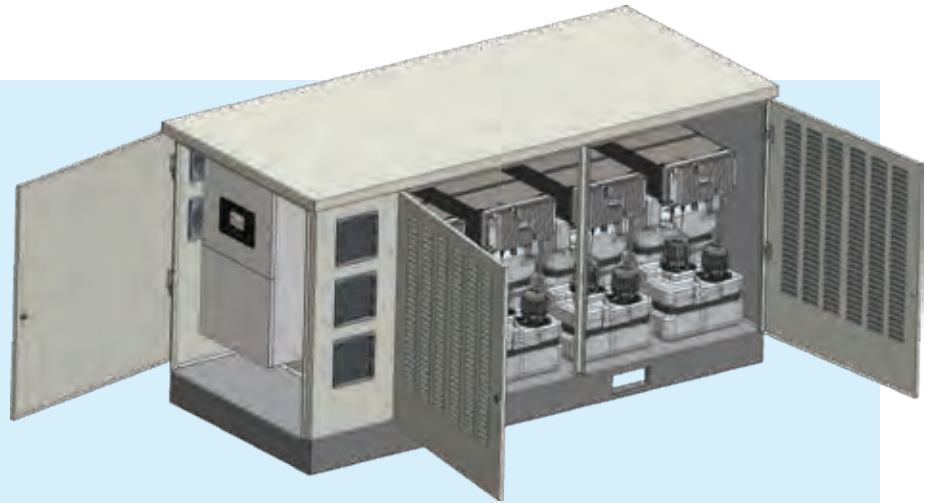


QuadPod

The QuadPod is Redflow's small yet scalable energy storage solution. Capable of delivering up to 40 kWh of energy from the 4 ZBM flow batteries housed and pre-wired in the custom designed enclosure.

The solution provides battery management, electrical protection and optional power conditioning, enabling safe and reliable energy delivery.



BUILT-IN HYBRID INVERTER

Available as a nominal 40 kWh/12 kW at 48 Vdc base unit. Designed for customised use or with the option of a selected hybrid inverter built-in, simplifying integration with other generating sources such as PV solar, wind or backup generator.

BUILDING BLOCKS

- + Compatible with selected battery/hybrid inverters for off-grid and on-grid applications.
- + Compatible with AC or DC-coupled architecture.
- + Integrated units can be coupled to existing PV systems (AC-coupled).

HARDWARE PROTECTION

- + IP55 outdoor suitable enclosure.
- + Isolation circuit breakers on individual batteries.
- + Integrated inverter also individually isolated.
- + Protection inherent in the ZBM3 batteries included (refer to the ZBM3 datasheet).
- + Fire suppression not required. Non-flammable electrolyte is not subject to thermal runaway (tested to UL9540a). Fire test reports available upon request.

ELECTRICAL RATINGS

- + **Base unit:** 40 kWh/12 kW at 48 Vdc (nominal).
- + **Integrated units:** 40 kWh/12 kW 3-phase, 50 Hz, 230/400 Vac or 40 kWh/12 kW split-phase, 60 Hz, 120/240/208 Vac (US only).

ON-GRID CONNECTION

- + Suitable AC connection required to QuadPod.
- + Smart meter required at site.
- + Grid-export capable (selected inverters comply to regulatory approval in AU, US and ZA).
- + Black start capable (optional addition).

OFF-GRID CONNECTION

- + Can operate independent of grid network connection.
- + Black start capable (optional addition).

COMMUNICATION

- + **Remote monitoring:** Redflow Cloud or local monitoring via a required internet connection.
- + **Supported protocols:** JSON, TCP/IP, Modbus over TCP/IP or RS485, CAN.
- + **EMS and third-party monitoring:** Ethernet, CAN, Serial (RS485).
- + **Inverter communication:** Ethernet, RS485, or CAN and with WiFi or cellular monitoring.

SITE PREPARATION

- + **Foundation:** Level concrete plinth suitable for weight loading, max foundation slope 0.5°.
- + **Access:** On 2 sides not against a wall or fence (for ventilation). Clearances outlined in technical specifications.



MEDIUM TO LONG DURATION



CONSTANT POWER



NON-FLAMMABLE

Technical Specifications

TECHNOLOGY

- + **Battery type:** Zinc-bromine flow battery.
- + **Architecture:** 4 parallel connected ZBM 10 kWh batteries.
- + **Battery management:** Incl. Battery Management System (BMS).

PERFORMANCE

- + **Rated discharge power:** 20 kW (peak) @ 48 Vdc or 12 kW (continuous) @ 230/400 Vac
- + **Rated discharge energy:** 40 kWh
- + **Duration:** 3.5 - 12 hours (incl. hibernation capability)
- + **Depth of Discharge:** 100%

ENVIRONMENTAL

- + **Ambient temperature:** 10 °C to 45 °C (50 °F to 113 °F). Additional insulation and heating kit can be fitted for ambients from 0 °C.
- + **Enclosure:** IP55/NEMA 3R
- + **Humidity:** 5 %RH to 95 %RH (non-condensing)
- + **Altitude:** Up to 2000 m (6500 ft).

PHYSICAL

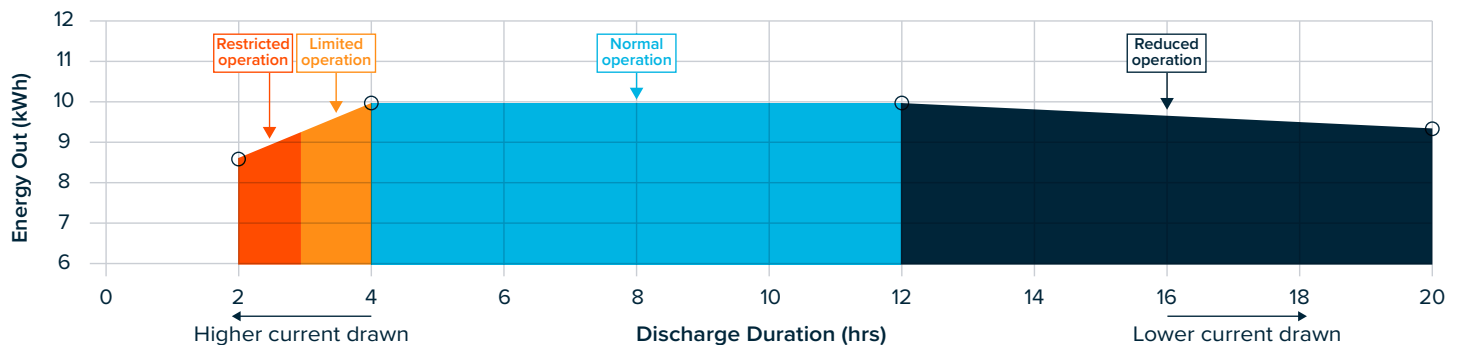
- + **Dimensions (L x W x H):** 2270 x 1150 x 1250 mm (89½" x 45¼" x 49¼")
- + **Mass:** 1500 kg (approximate) (3310 lb)
- + **Clearances:** Front and Rear – 0.5 m (20"),
Right Side – 0.5 m (20"), Left Side – 1.2 m (48")
- + **Handling:** Forklift, crane
- + **Transport:** Open truck/flatbed transport
- + **Mounting points:** M16 (as per IBH and Energy Pod200)

STANDARDS

- + Certification to UL1973 in progress and UL9540a completed.
- + Selected hybrid inverters comply to regulatory approvals in AU, US and ZA. Others to be determined if required.



ZBM STACK ENERGY OUTPUT VS DISCHARGE DURATION



About Redflow

Redflow Limited, a publicly listed Australian company (ASX: RFX), produces zinc-bromine flow batteries for stationary energy storage applications. Redflow batteries are designed for high cycle-rate, long time-base energy storage, and are scalable from small commercial systems through to grid-scale deployments. Redflow's smart, self-protecting batteries offer unique advantages including secure remote management, 100 per cent daily depth of discharge, tolerance of high ambient temperatures, a simple recycling path, no propensity for thermal runaway and sustained energy delivery throughout their operating life.



Sales contact:

P +61 7 3376 0008

E sales@redflow.com