

powerRFB
volterion



SYSTEM

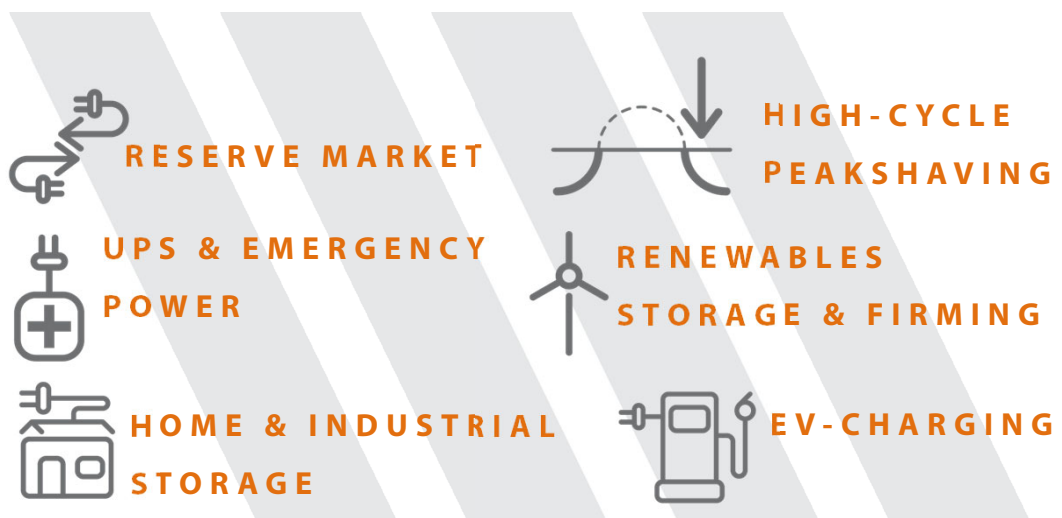
volterion changes the way we manage and store power

Forward-thinking utilities, industrial players, system integrators and public-sector supporters are driving a massive expansion of new energy storage solutions aimed at enabling the grid of the future and optimizing power management. Efficient and intelligent smart charging and storage solutions are needed to speed up the process of sustainable electrification.

The volterion energy storage systems allow for continuous operation at full capacity over more than 20 000 cycles, last longer due to the innovative stack technology and enable the most demanding range of highCYCLE – highPOWER uses with minimal maintenance requirements. The system is fully scalable to multi MW and provides significant economic and performance benefits.

The extreme cycle stability and associated long life benefits compared to traditional batteries allow for enduring, reliable stationary storage solutions. Together with our partners we are targeting new applications with three to five-year return on investment.

APPS



Redox Storage Solutions BV
's-Gravendreef 23
2902LJ Capelle aan den IJssel
The Netherlands

Contact:
M: +31.624.221.806
xaviervanderputten@redoxstorage.com
www.redoxstorage.com

Distributed by:
Redox
Storage Solutions

ELECTRICAL

VOLTAGE (nominal)	48 V _{DC} (40–64V)
POWER (constant)	2.5 5 10 kW
POWER (peak)	3.75 7.5 15 kW
CAPACITY	13 kWh _{nom}
CYCLES (typical)	20 000+
DISCHARGE DEPTH	100%
SELF DISCHARGE RATE (electrolyte)	1 % per year
ELECTROLYTE	all-vanadium (1.6 mol/l)

HOUSING

DIMENSIONS	L 120 cm x W 80 cm x H 195 cm
TOTAL WEIGHT (incl. electrolyte)	1500 kg
TANK VOLUME (electrolyte)	660 l
MATERIAL	stainless steel
IP-CLASS	IP56

GENERAL

STACK TECHNOLOGY	proprietary welding solution no gaskets
BATTERY MANAGEMENT	proprietary development
ACCESS & MONITORING	web-based cloud services modbus TCP webserver
CONNECTIONS (DC)	3 x 350 A
AUXILIARY SUPPLY	110–230 V _{AC} 50 / 60 Hz
CERTIFICATION	CE-certified

ENVIRONMENTAL

AMBIENT TEMPERATURE	0–40 °C
HUMIDITY (non condensing)	max. 95 %
SAFETY	aqueous non-flammable non-explosive
RECYCLABILITY	highly recyclable

OPTIONAL

BALANCING UNIT (integrated)	automated electrolyte reconditioning
BALANCING UNIT (external)	reconditioning of several powerRFBs
VISUALIZATION	display 7 "
COOLING	external water/glycol cooling (high-cycle / high ambient temperatures)