Gridedge

Sodium Nickel Technology for Energy Storage Applications

UP Range

FZSoNick

GREEN & SAFE SALT BATTERY

AUSTRALIA 1300 474 333

www.gridedge.com.au

FZSoNick Batteries

Sodium Metal Chloride batteries are the latest generation of the secondary batteries developed specifically to the constraints of the heavy industrial applications. They use metal-based cathode and molten Sodium anode to provide exceptionally safe and reliable power backup that is enclosed in the industrial-grade steel case and equipped with integrated Battery Monitoring. Stable chemical reaction, zero maintenance and insensitivity to temperature and storage aging makes them one of the best choices for Oil & Gas, Power Generation, Transmission and Distribution, Communications, Rail and other industrial use.

Eco Friendly | Extreme Temperature | Space Reduction | Recyclable | Weight Reduction | Smart | Maintenance Free | Safe

Availability

- Zero self-discharge when stored, at any state of charge
- Zero ageing in floating or storage condition
- Integrated system (BMS) for monitoring, diagnostics and data logging
- Module level redundancy

Operational

- Up to 80% reduction in footprint and 3 times in weight than conventional batteries
- Status LED on front panel
- Low total cost of ownership (TCO)
- Scalable modules in parallel
- Expandable without limitation on battery age
- Parallel operation with other batteries
- Hot swappable
- Boost charging not required
- No memory effect
- Compatible with most industrial AC and DC UPS

Environment

- No active cooling required.
  Constant performance and 20 years design life at:
  -20°C to +60°C / -4°F to +140°F continuous operation
  -40°C to +75°C / -40°F to +167°F peak
- Suitable for outdoor installation and marine environment
- Module ingress protection of IP55 and up to IP65
- Free of toxic material and 100% recyclable

Safety

- No gassing or emission
- No risk of explosion even in presence of external fire
- Safest among existing high energy density batteries in all conditions: transport, storage and operation
- Embedded DC protection for load disconnection and short circuit protection
- Ready for remote monitoring
- Double stainless steel case

Energy for a sustainable future

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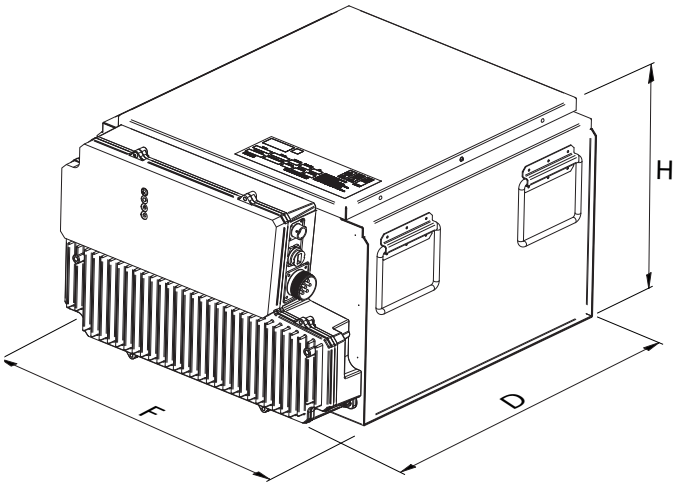
General Characteristics

Operating Temperature Range	-20°C / +60°C -4°F / +140°F continuous
	-40°C / +75°C -40°F / +167°F peak*
Storage duration	Indefinite (-40° / +60°C)
Recharge time (0-90% SOC)	<7 h
(0-100% SOC)	< 12h
Design life	20 years
Ingress protection	IP55 (IP65 as optional)
Max charging current	Self limited up to 0.2C
Short circuit current	6C limited to 100ms
Power connector**	MS3102 to MIL-DTL 5015 Series I
Data connector**	MS3110 to MIL-C-26482 Series I
Cycles	> 4500 Cycles at 80% DoD

*Tested up to 16 hours continuously
** 24UP120, 30UP80, 48UP200: M8 power terminals - RJ45 data connector



Dimensions and Weights

Model	Front	Depth	Height	Weight
24UP120	500 mm / 19.7 in.	337 mm / 13.3 in.	322 mm / 12.7 in.	47 kg / 104 lb
30UP80	500 mm / 19.7 in.	337 mm / 13.3 in.	322 mm / 12.7 in.	43 kg / 95 lb
48UP200	500 mm / 19.7 in.	558 mm / 22.0 in.	322 mm / 12.7 in.	104 kg / 229 lb
110UP80	500 mm / 19.7 in.	522 mm / 20.6 in.	322 mm / 12.7 in.	94 kg / 207 lb
125UP80	500 mm / 19.7 in.	560 mm / 22.0 in.	322 mm / 12.7 in.	104 kg / 229 lb
130UP80	500 mm / 19.7 in.	598 mm /23.6 in.	322 mm / 12.7 in.	108 kg / 238 lb
220UP40	500 mm / 19.7 in.	522 mm / 20.6 in.	322 mm / 12.7 in.	94 kg / 207 lb
250UP40	500 mm / 19.7 in.	560 mm / 22.0 in.	322 mm / 12.7 in.	103 kg / 227 lb

Specific Characteristics per Model

Model	Nominal Voltage	Charge Voltage range	Nominal Capacity at 4 hour rate	Max Continuous Discharge Current	Max Charging current	Interface
24UP120	24 VDC	27-30 VDC	120 Ah / 2800 Wh to 20VDC	90 Amps	24 Amps	RS485 /USB
30UP80	30 VDC	35-40 VDC	80 Ah / 2400 Wh to 26VDC	60 Amps	16 Amps	RS485 /USB
48UP200	48 VDC	54-59 VDC	200 Ah / 9600 Wh to 42VDC	200 Amps	40 Amps	RS485 /USB
110UP80	110 VDC	121-160 VDC	80Ah / 8600 Wh to 94VDC	120 Amps	16 Amps	RS485 /Canbus /USB
125UP80	125 VDC	135-160 VDC	80 Ah / 9600 Wh to 105VDC	120 Amps	16 Amps	RS485 /Canbus /USB
130UP80	130 VDC	141-160 VDC	80 Ah / 9900 Wh to 109VDC	120 Amps	16 Amps	RS485 /Canbus /USB
220UP40	220 VDC	242-300 VDC	40Ah / 8600 Wh to 189VDC	60 Amps	8 Amps	RS485 /Canbus /USB
250UP40	250 VDC	270-300 VDC	40 Ah / 9600 Wh to 210VDC	60 Amps	8 Amps	RS485 /Canbus /USB

FZSONICK Manufacturing

- More than 1 GWh deployed in 50 countries
- Made in Switzerland
- ISO 9001 - Quality Management System
- ISO 14001 - Environmental Management System

Applicable Standards

- EN 61000-6-2 / EN 61000-6-4
- CE
- UL9540A (Safety)
- Design to comply with UL1973 ed.2
- IEC62984 / IEC60529
- Comply with DNV rules for offshore installations

UP range - 2021-08-23

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