

PROVENTIA POWER BATTERIES



HIGH-VOLTAGE LTO BATTERY SYSTEMS

Proventia's modular high-voltage LTO battery packs (3M, 6M, and 7M) are designed for high-power applications and can be configured from 24V up to 1000V. Standard packs are available in configurations of 3, 6, or 7 modules. Engineered for durability, these packs perform excellently in extreme temperatures.



KEY FEATURES

- Compact and robust construction
- IP67 rating
- Stainless steel housing
- Remote monitoring available
- Integrated thermal runaway detection
- Pressure equalizer vent for added safety
- Water-glycol cooling integrated into the enclosure to minimize leaks

BENEFITS

- High C-rates (up to 10...40C)
- Very safe and stable Lithium Titanate Oxide chemistry (LTO)
- Superior lifetime (>20,000 cycles)
- Wide operational temperature window (-30...+60°C)
- Rapidly charges to over 80% capacity in 6 minutes
- Repeated charging and discharging are possible even at -30°C
- Wide usable SOC range
 - Excellent input/output characteristics over a wide SOC range of 0-100%, making it possible to reduce the nominal battery capacity or the number of batteries necessary for a system

CONTACT US

Interested in our products and services?
Give us a call or send an email!



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TECHNICAL SPECIFICATIONS

Lifetime	> 20000 cycles ¹
Cell type	Prismatic LTO
Maximum continuous current	200A ²
Maximum charge current	500A (10s) ³
Maximum discharge current	800A (10s) ³
Self discharge	2% (1800days) ⁴

¹ SH080% - Cycle characteristics depend on cycle and usage conditions.

² The cell temperature should not exceed the maximum operating temperature.

³ 10 seconds use, SOC50% in 25degC - BOL

⁴ 25degC starting state of charge 50%

OPERATING CONDITIONS

Discharging temperature range	-30...60°C
Discharging temperature range	-30...60°C
Storage temperature (max recommended)	-40...60°C

SYSTEM LEVEL DESIGN AND VALIDATION

- IEC 62619 (Industrial li-ion battery safety)
- IEC 60664-1:2020 Clearance and creepage
- IEC 62485-6 (Safe operation of traction batteries)
- DNV GL-CG-0339 Class B (Mechanical loads)
- UN 38.3
- ISO16750-3 (Mechanical loads on component level)

TYPICAL APPLICATIONS

- Fuel cell
- Hybrid
- Fast Charge
- Peak Shaving

ELECTRICAL CHARACTERISTICS	3M	6M	7M	2x7M
Nominal Voltage [V]	166	331	386	772
Capacity [kWh]	3,3	6,6	7,7	15,4
Continuous power [kW]	32	63	74	148
Peak Power [kW]	133	265	310	620
PHYSICAL CHARACTERISTICS	3M	6M	7M	2x7M
Width [mm]	700	700	700	700
Length [mm]	635	1065	1210	1210
Height [mm]	184	184	184	368
Weight [kg]	115	205	235	470