Te-Li-Com® Cabinet Series
Model TLi

Revolutionary battery backup solution for Telecom applications

The groundbreaking Te-Li-Com Cabinet Series from Liion revolutionizes backup power for the telecom industry. Integrating A123 Systems' proven and patented Nanophosphate™ lithium ion battery technology within a specially designed cabinet enclosure, Te-Li-Com resolves some of the industry's toughest challenges.

The solution's A123 ALM lithium ion batteries offer significantly higher cycle and calendar life with superior abuse tolerance compared to traditional valve regulated lead acid (VRLA) batteries — making them eco-friendly and exceptionally resilient to heat. Drop-in replacements for 12V7 lead acid batteries, the ALM batteries are pre-installed in a lightweight, durable modular enclosure that delivers far greater flexibility and protection than standard steel battery cabinets.

Benefits At A Glance

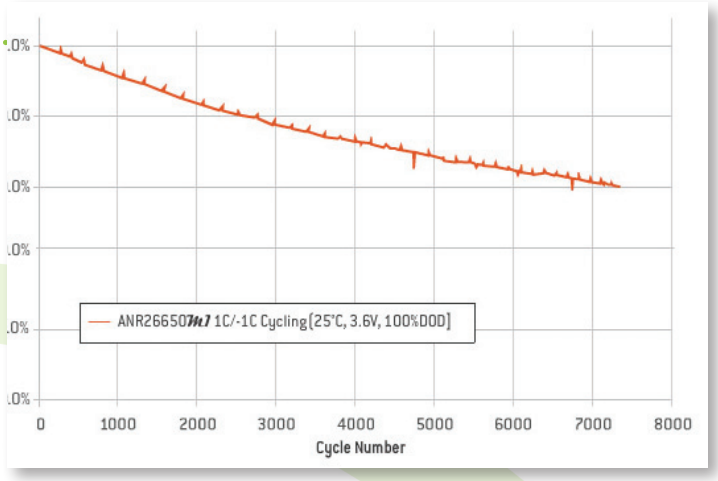
- Patented lithium ion technology delivers significantly longer battery life and up to 85 percent faster recharge time
- Superior abuse tolerance enhances safety compared to traditional VRLA and other lithium ion batteries
- Advanced battery technology significantly reduces heat, often eliminating the need for HVAC
- Flexible, lightweight enclosure is three-fourths the weight of traditional cabinets, while internal batteries weigh half as much as lead acid
- Modular, hot-swappable battery shelves slide in and out for ease of maintenance
- Durable enclosure protects equipment from the elements and security threats, making it ideal for hot climates and remote locations
- Flexible design attaches to any new or existing site, with stand alone pad-mount, pole-mount or wall-mount options
- Cabinet can be customized with an array of options including breaker panels, battery charger, solar power, ambient fan and air conditioning
- Each battery shelf provides 27.6Ah @ 24VDC for a total of 331.2Ah, or 13.8Ah @ 48VDC for a total of 165.6Ah
- Available in 24V and 48V models

Te-Li-Com's superior lithium ion battery technology

Manufactured by A123 Systems, the ALM batteries within the Te-Li-Com are optimized to deliver superior power and efficiency. Because Nanophosphate technology is designed to be highly abuse tolerant while meeting the most demanding requirements for power, energy, operating temperature range, cycle life and calendar life, these batteries offer significant advantages over VRLA and other lithium ion batteries.

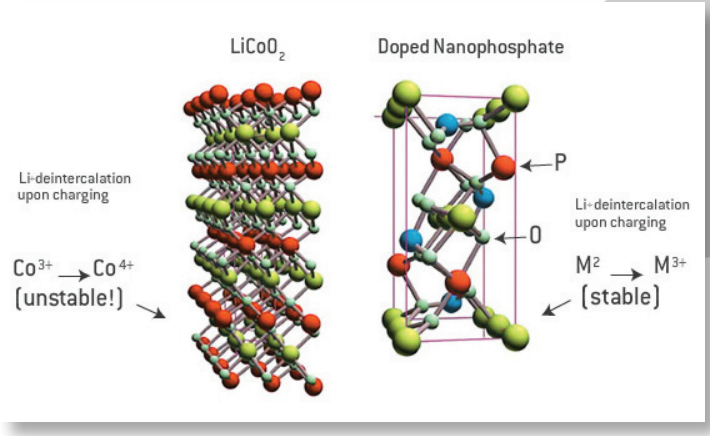
Life

Engineered for excellent cycle life, Nanophosphate batteries are projected to last up to 10 years. Cells can deliver more than 7,000 cycles at 100 percent Depth-of-Discharge (DOD), a feat unmatched by most commercial lithium ion cells. Even when cycled at 10C discharge rates, the cells deliver in excess of 1,000 full DOD cycles.



Safety

Multiple layers of protection are employed at the chemistry, cell and pack level of the Nanophosphate battery to achieve an energy storage solution with superior safety and abuse tolerance compared to metal oxide lithium ion.



Power

Because Nanophosphate is a positive electrode material of remarkable rate capability, Te-Li-Com batteries pulse at discharge rates as high as 100C, delivering superior power by weight or volume in a cost-effective solution. With their low impedance and thermally conductive design, the high-power cells can be continuously discharged at a 35C rate, a marked improvement over other rechargeable battery alternatives.

The Te-Li-Com enclosure: flexible, functional

The Te-Li-Com enclosure features a simplistic yet versatile design with the flexibility to support a wide variety of application needs and installation options. Available in two base configurations (24V and 48V), the innovative solution addresses the challenges faced by the worldwide expansion of cellular and W-Fi markets.

Modular design accommodates up to 12 battery shelves, plus space for additional electronic equipment, with easy expandability.

Lightweight cabinet is three-fourths the weight of standard enclosures, eliminating installation barriers with the flexibility to deploy on pads, poles, walls and rooftops.

Durable enclosure protects equipment even in harsh remote and heat-intensive locations.

Ease of use facilitated by field-replaceable hot-swappable shelves, which easily roll out then slide back into locking position.

Supports numerous application requirements, including off the grid solutions, mountain top towers, pipelines, oil platforms, traffic signals and rooftop W-Fi installations.

Te-Li-Com Batteries versus VRLA Batteries

Te-Li-Com Batteries

- 7,000 cycles
- Quick recharge
- Extremely lightweight
- Very long life
- Low-cost maintenance
- High performance in hot weather
- Great for solar and wind power
- Durable and rugged

VRLA Batteries

- 300 cycles
- Expensive, slow recharge
- Very heavy
- Short life
- Expensive to maintain
- Not conducive to heat
- Not effective with solar
- Chemical container

Technical Specifications

BATTERY SPECIFICATIONS	
Nominal Voltage	12V
Nominal Capacity (to specified voltage)	
5 Hour Rate (9.6V)	0.88A/4.36Ah
1 Hour Rate (9.6V)	4.32A/4.32Ah
1/2 Hour Rate (9.6V)	8.60A/4.30Ah
15 Minute Rate (9.6V)	17.20A/4.30Ah
10 Minute Rate (9.6V)	25.80A/4.30Ah
8 Minute Rate (9.6V)	32.00A/4.26Ah
5 Minute Rate (9.6V)	49.60A/4.16Ah
3 Minute Rate (9.6V)	80.00A/4.00Ah
Internal Resistance	20 mOhms
Max Discharge Current	80A
Max Pulse Discharge Current (<5 sec)	120A
Short Circuit Current	Internal Short Circuit Fuse Protection
Self-Discharge	<2% per month
Operating Temp	
Discharge	-22 to 140 °F (-30 to 60°C)
Charge	-22 to 140°F (-30 to 60°C)
Storage	-58 to 140°F (-50 to 60°C)
Standard Charging	13.6V to 15.0V
Float Charging	13.6V to 14.0V
Charge Current	10A max charge

**Additional sizes and configurations are available. Please call for information.*

24V Te-Li-Com CONFIGURATION				
AMP Hours	Height	Width	Depth	Weight
330	54.88"	36.79"	26.75"	550
302	54.88"	36.79"	26.75"	507
275	48.38"	36.79"	26.75"	465
247	48.38"	36.79"	26.75"	422
220	41.88"	36.79"	26.75"	380
192	41.88"	36.79"	26.75"	337
165	35.38"	36.79"	26.75"	295
137	35.38"	36.79"	26.75"	252
110	28.88"	36.79"	26.75"	210
82	28.88"	36.79"	26.75"	167
55	22.38"	36.79"	26.75"	125
27	22.38"	36.79"	26.75"	82

48V Te-Li-Com CONFIGURATION				
AMP Hours	Height	Width	Depth	Weight
165	54.88"	36.79"	26.75"	550
136	48.38"	36.79"	26.75"	465
110	41.88"	36.79"	26.75"	380
82	35.38"	36.79"	26.75"	295
55	28.88"	36.79"	26.75"	210
27	22.38"	36.79"	26.75"	125

The Liion Te-Li-Com Cabinet Series is available through EnXergy | www.enXergy.com

LiiON, LLC

"We are lithium professionals."

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