

CUSTOMER SUCCESS STORY

LI-ION TAMER PARTNERS WITH AENTRON FOR INCREASED LI-ION SAFETY

About End User (aentron GmbH)

aentron GmbH is based near Munich, Germany and is a developer and manufacturer of electrical energy storage systems with lithium ion technology. aentron provides turnkey solutions for industry and mobility applications such as marine power, Off-Grid and mobile electric machines.



aentron's 48V lithium ion battery module

The Challenge

Similarly to aentron, many other battery and systems integrators are beginning to utilize lithium ion batteries for any number of applications. With large suppliers such as LG, Samsung, and Panasonic accelerating production volumes of li-ion cells, the presence of this technology is increasing and here to stay. However, the inherent safety-risk of thermal runaway can cause loss of property and continuity of service can be mitigated with Li-ion Tamer® products. With the correct safety approaches, especially on large format lithium ion batteries where risks are higher, this inherent risk can be controlled and mitigated.

The Solution

As with other customers, Li-ion Tamer® provided functional hardware to aentron for evaluation purposes. In addition to providing products, we provide services that give our customers the maximum value of our products. These services include the following:



PROJECT:
Battery Health & Safety

END USER/LOCATION:
aentron GmbH, Germany

INDUSTRY:
Lithium-ion Batteries

SOLUTION:
Li-ion Tamer Off-Gas Monitor

“The Li-ion Tamer® off-gas monitor provides a unique perspective on battery health. Their products will supply extra layer of safety we use to give our products a competitive edge in the lithium ion battery market. Working with their team of battery safety experts has been enjoyable and I’m looking forward to collaborating with them to make our product as safe as possible.”

John De Roche
CEO, aentron GmbH

- **UNDERSTAND:**
Discuss with partners their needs and requirements
- **DESTRUCTIVE TESTING:**
Showcase our technology during extreme testing
- **REPORT RESULTS:**
Li-ion Tamer® delivers a report to customers showing the results of the destructive tests
- **COLLABORATE:**
Based on the results, Li-ion Tamer recommends how and where to use its suite of products

aentron integrated the off-gas monitor into a destructive test, where a 24V aentron battery module was purposefully pushed to failure for understanding the best approaches for preventing and mitigating thermal runaway. Li-ion Tamer’s off-gas monitor delivered 30 minutes of early warning during the failure test; creating more than enough time for aentron to take action to circumvent any potential accidents. These results convinced aentron to integrate off-gas monitoring products into future system installations.



li-ion tamer off-gas monitor

aentron (<http://www.aentron.com/>) and Li-ion Tamer® are collaborating on providing a state-of-the-art safety approach to lithium ion batteries by providing redundancy in sensing at the module level. Off-gas monitors will be integrated into battery

modules and provide localized off-gas detection for the earliest possible warning of lithium ion battery failures. aentron will also be providing direct-injection fire suppression techniques which will inject fire suppression into battery modules instead of the typical room-level fire suppression solution available in the market today.

The Outcome

Li-ion Tamer® and aentron GmbH (<http://www.aentron.com/>) will be collaborating on future battery installations to provide better solutions for its customers/partners. aentron will be looking to Li-ion Tamer® to provide a watchful eye on their systems with the newly launched battery module implementable off-gas monitor. The battery system will be installed in Germany as an uninterruptable power supply and will come with safety features such as:

- robust battery enclosure design
- state-of-the-art battery management systems
- integrated fire suppression
- independent monitoring of off-gas events

aentron’s attention to safety differentiates their battery systems from other system integrators. By providing an extra layer of safety with the Li-Tamer® off-gas monitor and integrated fire suppression, their systems will be protected during times when safety is most critical.

While li-ion battery events are rare, they do happen. By recognizing this, we can take the necessary steps to improve our battery safety, handling,

and usage, making the world a safer place. If you need help getting started, contact our lithium ion battery safety experts at info@liiontamer.com for a free battery safety consultation.

Let us help make your technology safer.

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