

SMART BATTERY

Versatile and adaptable battery that enables a broad range of science experiments

Nanometrics SMART Battery is a highly portable and flexible solution that ensures reliable and consistent power. Built with Lithium-ion battery cells, the SMART Battery maximizes capacity and minimizes size and weight, simplifying power management cost and logistics.

Configurable to meet the power requirements of any experiment, each unit has a capacity of 216 Wh and can be connected in parallel with additional units and/or connected to a solar panel for longer term experiments.

The integrated battery management system controls battery charge and discharge, and protects against short circuits to ensure optimum performance and longevity. The touch-sensitive button and LED provide a quick State-of-Charge (SoC) status.

Part of the Pegasus Ecosystem

This design of the SMART Battery has been custom designed as part of the Pegasus Data Acquisition Ecosystem. It is available as a standalone unit or as part of an integrated solution which also includes the Pegasus Digital Recorder.

TECHNICAL SPECIFICATIONS

Specifications subject to change without notice

Operation

Type: Lithium-ion

Capacity: 216 Wh at 23°C

Nominal Voltage: 14.4 V

End of Charge Voltage: ~16.8 V

End of Discharge Voltage: 11.2 V

Deployment Duration: ~15 days with 3-channel Pegasus and Trillium Compact per battery pack

Maximum Charge Rate: 7.5 A from 0°C to +60°C, up to 250 mA from -20° to 0°C

Battery Management System Protection: short circuit, overcharge, over discharge, over temperature charge, under temperature charge, and over current charge

Accessories: 110/220 V Battery charger

Environmental

Charging Temperature Range:

-20°C to +60°C

Discharging Temperature Range:

-40°C to +60°C

Storage Temperature: Recommended storage temperature between 0°C and 23°C

Interfaces

Output Port: Power supply to Pegasus

Input Port: Charging and parallel pack connection

State-of-Charge (SoC): Coulomb counter

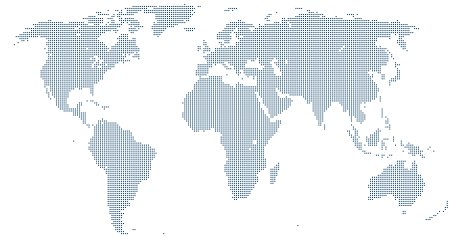
LED: Indicator for status and SoC

Button: Touch-sensitive button to query SoC



One Battery, Any Location

The SMART Battery is certified for safe global shipment and the broad temperature range allows for rapid charging and discharging in global climates.



Certifications

- UN38.3 Lithium Ion Testing
- IATA Dangerous Goods Regulations
- IP68 ingress protection for prolonged immersion to 1 m when connectors mated or capped