Micro Power Builds Surgical Battery Packs for Hydrogen Peroxide Sterilization

Micro Power Electronics, Inc. announces the capability to manufacture rechargeable lithium-ion battery packs that can be sterilized via hydrogen peroxide gas without performance degradation. These battery packs provide surgical instrument manufacturers with the maximum power for a cordless surgical device.

The sterilization of rechargeable lithium-ion batteries with hydrogen peroxide gas enables hospitals to utilize a popular sterilization process while providing surgeons with the most power for their surgical tools. After two years of extensive research and development, Micro Power is the first battery pack manufacturer to offer lithium-ion battery packs designed to perform after sterilization with hydrogen peroxide gas.

“We are pleased to offer lithium-ion battery packs that can be repeatedly sterilized by hospitals. Powered surgical instruments using lithium-ion chemistry can deliver eight times the power over older nickel chemistry,” said Robin Tichy, medical marketing manager for Micro Power.

Micro Power offers rechargeable lithium-ion battery packs capable delivering up to 24V, 100A of current, 10 Amp-hours of capacity, fuel gauging for state-of-charge indication, and a serial communication bus for integration with surgical tools.

In the last two years, Micro Power performed extensive research and testing to overcome the electrical, environmental, mechanical, and chemical challenges in producing these battery packs. Once the design guidelines were developed, Micro Power tested and evaluated lithium-ion batteries by repeatedly subjecting them to the sterilization process, and subsequently manufactured prototypes for verification of performance after sterilization.

Since OEMs consider product safety and power delivery of utmost importance, safety and performance was proven with an array of tests including electrical, environmental, and mechanical tests. Micro Power is currently shipping lithium-ion battery packs that are sterilized with hydrogen peroxide gas.

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