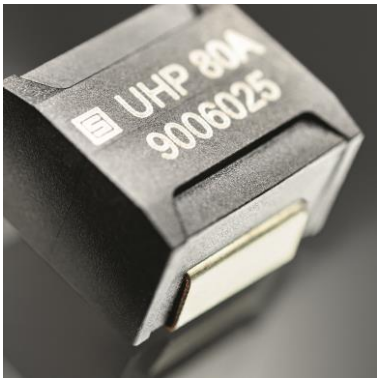
NEWS **M1488**

To:	Owner Sales Manual	Category:	Product news
from:	Markus Häcki	Product group:	Circuit protection
Date:	September 2022	Pages:	2



SMD fuse for very high currents

Safe tripping of high-energy overcurrent in SELV voltage level

- Very high breaking capacity of up to 3000 A
- Safe tripping in 15 s at twice the rated current
- Operating temperature range from -55 °C to 125 °C

Product

With the increased availability of low-cost, high-performance lithium-ion battery cells, there is a growing need to manage higher and higher currents via low-cost, SMD-assembled PCBs.

The dedicated SCHURTER UHP fuse with rated currents of 50 to 100 A ideally meets the requirements for high breaking capacity and fast tripping in the event of overcurrents by galvanically separating these immense energies stored in Li-Ion batteries in a controlled manner.

Market situation

With the success of the smartphone, Li-Ion batteries have gained enormously in importance. They are also the key to the success of the even more energy-intensive electric cars, which rely on this very technology. The price per kilowatt hour of a Li-Ion battery pack has fallen to a tenth in the last decade!

Power ~ Current^2

The higher the current on a PCB, the more power must be converted and also dissipated. It is therefore particularly important for such applications to have a reliable fuse that is capable of galvanically separating the circuit in time in case of an overcurrent. The UHP fuse developed by SCHURTER especially for this purpose disconnects the circuit at twice the rated current within a maximum of 15 seconds and ensures that the circuit board can be built more economically and in a space-saving manner.

High energy short circuit

Li-ion batteries are capable of storing very high amounts of energy and releasing it again within a very short time - for instance in the event of a short circuit. The low internal resistance of the cells can lead to short-circuit currents of up to 3000 A, depending on the configuration. The UHP fuse is built so robustly that it can withstand such high currents at the SELV (Safety Extra Low Voltage) voltage level of up to 63 VDC, and even at 80 VDC it can still provide a performance of up to 2000 A.

Extreme temperature range

The UHP is designed to operate at ambient temperatures from -55 °C to +125 °C. This makes it ideally suited for applications in the automotive sector, but also for other applications with potentially large temperature variations.

Availability and Samples

All articles in the variant table are available in small quantities from stock. Larger quantities on request. More information about available stock of a specific variant may be retrieved by using the Distributor Stock Check in the table of variants on the **Data Sheet [1]**.

Additional Information

This document together with the PR texts, -adverts and -pictures and pricing information are available in **Partner Service [2]**. The **Data Sheet [1]** contains detailed information about the technical specifications, order numbers as well as CAD-Data.

Please do not hesitate to contact us in case of any questions.

Best Regards,

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Links to Sales Information

[1] Technical Data https://www.schurter.com/en/datasheet/UHP

[2] Partner service https://www.schurter.com/en/Home/Services/Partner-Service?SearchText=M1488