

For Immediate Release

TAIYO YUDEN Adds an Item to Their Lithium Ion Capacitor LITHOSION™ Series

Featuring both long life and high volumetric energy density, contributing to greater reliability and miniaturization



TOKYO, September 19, 2018—TAIYO YUDEN CO., LTD. announced today the addition of LIC1030RS3R8206 ($\phi 10 \text{ mm} \times 30 \text{ mm}$, nominal capacitance 20 F) to our lithium ion capacitor LITHOSION™^{*1} RS Series as the smallest product in volume. Example applications for this new capacitor are peak assistance and backup power supply in servers, smart meters, and drive recorders.

Our lithium ion capacitor LITHOSION™ has a high operating temperature limit of 85°C (at 2.5 to 3.5 V) and a very long life compared to lithium ion rechargeable batteries. In addition, this capacitor also has a high rated voltage of 3.8 V maximum (when the maximum operating temperature is 70°C) and achieves a volumetric energy density more than twice as large as that of electric double layer capacitors. This allows for an increase in the capacitance at the same volume, contributing to miniaturization of devices.

Production of this product will commence at TAIYO YUDEN's subsidiary company, TAIYO YUDEN ENERGY DEVICE CO., LTD. (Maebashi, Gunma prefecture, Japan), in September 2018. The sample price is 800 yen per unit.^{*2}

Technology Background

Servers and drive recorders require an emergency power supply as backup for data protection in the event of an emergency, such as a power failure and accident. On the other hand, smart meters, which require a large amount of energy within a short period of time for wireless data transmission, are equipped with a power storage device for peak assistance as a measure to supplement their power supply. There has been a great need for the miniaturization of those power supplies for backup or peak assistance. One way to achieve this is to use long-life devices with a high energy density.

In response to such demand from the market, TAIYO YUDEN added LIC1030RS3R8206, the smallest product in volume, to our lithium ion capacitor LITHOSION™ RS Series. It has achieved a higher volumetric energy density than that of electric double layer capacitors. With this commercialization, the lithium ion capacitor LITHOSION™ product lineup has been expanded to four items, which allows us to offer a variety of products with different sizes and capacitances in accordance with the devices or applications of our customers.

We will continue to develop our lineup of lithium ion capacitor LITHOSION™ products in response to demand from the market.

*1. LITHOSION is a registered trademark or a trademark in Japan and other countries.

*2. The sample price mentioned in this release is our direct sales price of TAIYO YUDEN CO., LTD.

When considering purchasing via a sales agency, please contact the agency for the sample price.

■ Applications

Peak assistance and backup power supplies in servers, smart meters and drive recorders.

■ The specifications of our lithium ion capacitors are listed in the table below.

Part Number	Nominal Capacitance	Size (φD × L) [mm]	Max. Usable Voltage	Min. Usable Voltage	Internal Resistance [Ω] (max.)	Operating Temperature Range	New Item
LIC1030RS3R8206	20 F	φ10.0 × 30.0	3.8 V (3.5 V)	2.2 V (2.5 V)	0.25	2.2 V to 3.8 V: -30°C to +70°C (2.5 V to 3.5 V: -30°C to +85°C)	★
LIC1235RS3R8406	40 F	φ12.5 × 35.0			0.125		
LIC1840RS3R8107	100 F	φ18.0 × 40.0			0.06		
LIC2540RS3R8277	270 F	φ25.0 × 40.0			0.06		