Vishay BCcomponents



## Q: WHAT ARE THE DIFFERENCES BETWEEN CONVENTIONAL ELECTROLYTIC CAPACITORS AND OUR 220 EDLC PRODUCTS?

**A:** 220 EDLC series products are available in energy and power versions. The total capacitance is much higher than in conventional capacitor technologies because of the <u>very high surface</u>, which comes from the active carbon on the foil.

# Q: WHAT ARE THE ADVANTAGES OF 220 EDLC CAPACITORS OVER OTHER ENERGY STORAGE DEVICES?

A: In addition to safe and reliable operation, EDLCs can be charged and discharged in a very short time (seconds) and for over one million cycles. The devices' operating temperature range is from -40 °C to +85 °C.

### **Q: WHY ARE 220 EDLC CAPACITORS SENSITIVE TO HUMIDITY?**

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A: The best performance for EDLC capacitors is achieved in water-free environments. Any trace of water deteriorates product performance.

Water penetrating from the environment into the product cell is electrically hydrolyzed and causes internal gas generation, which may destroy the product.

### **Q: WHAT ARE THE STORAGE CONDITIONS FOR 220 EDLCS?**

A: All standard EDLC capacitors are sensitive to humidity. Storage at room temperature and relative humidity (RH) up to 75 % is possible, although the ideal condition is less than 40 % RH.

Operation at high temperatures (e.g. 75 °C) and high humidity (e.g. 85 % or 90 %) is not recommended due to a deterioration in life expectancy.

### **Q: WHAT ARE THE MOST PROMISING APPLICATIONS FOR 220 EDLC ENYCAP CAPACITORS?**

**A:** Applications that require long operational lifetime, reliable performance in a wide range of temperatures, and a rapid charge and discharge characteristic.

These include all kinds of UPS systems for automotive and industrial applications, e.g. start / stop systems, energy harvesting, and recuperation systems.