



SUPERCAPACITORS

(EDLC) FOCUS PRODUCTS



SCAN
OR CLICK FOR
PRODUCT
OVERVIEW

BASIC OVERVIEW

KYOCERA AVX's portfolio of electrochemical double layer capacitors (SuperCapacitors), that include SCC & SCM Series, offer excellent pulse power handling characteristics based on the combination of very high capacitance and very low ESR. Used by themselves or in conjunction with primary or secondary batteries, they provide extended back up time, longer battery life, and provide instantaneous power pulses as needed. These large energy storage devices offer great solutions to power backup, energy harvesting, peak power assist, pulse power applications, and battery replacement/supplementing.

APPLICATIONS

- Smart Metering
- Emergency Memory / Power Backup
- Battery Supplement
- GSM / GPRS Pulse Applications
- Telemetry
- Robotics / Automation
- Engine / Motor Start
- Wind Turbine
- Peak Power Assist
- Uninterruptible Power Supply (UPS)
- Wireless Alarm Systems
- Emergency Lightning
- Handheld Controllers / Scanners
- Electronic Locks
- Wearables
- Hybrid Systems

ADVANTAGES

- Reliable performance and long lifetime when designed in properly
- Wealth of engineering and technical supplier support
- Price competitive
- Favorable lead-times
- Supply chain confidence
- Manufacturing ownership
- Customizability



SCC Series:

- » 2.7V and 3.0V rated voltage offerings
- » 1F to 3000F capacitance range
- » -40°C to +65°C temp range at rated voltage, extended to +85°C with appropriate derating
- » Offer exclusive SCC LE Series featuring special low ESR designed parts
- » Can offer bent leads on radial leaded products



SCM Series:

- » 5.0V to 9.0V rated voltage, not including large/custom modules
- » 0.47F to 500F and more capacitance range
- » Large/custom modules from 9.0V+
- » -40°C to +65°C temp range at rated voltage, extended to +85°C with appropriate derating
- » Offer exclusive High Reliability SCM Series featuring moisture resistance design
- » Custom modules prioritized based on opportunity size

UNIQUE FEATURES

- » Wide capacitance offering ranging from 0.47F to 3000F depending on series
- » High pulse power and large energy storage capabilities
- » Very low ESR and low leakage current ratings
- » Extended primary/secondary battery lifetime usually a minimum of 2x
- » Cycle life for superior than batteries, and faster charge/discharge cycles
- » Supercapacitors are better in temperature range than batteries
- » Customizability of increasing working voltage or capacitance with series/parallel combinations
- » Can deliver parts with bent leads or other custom wire, connector, or solder/weld terminals



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BATTERIES

Operate on a chemical reaction which means they are "slow energy storage"

SUPERCAPACITORS

Store energy in an electric field and are what is know as "fast energy storage"

Battery

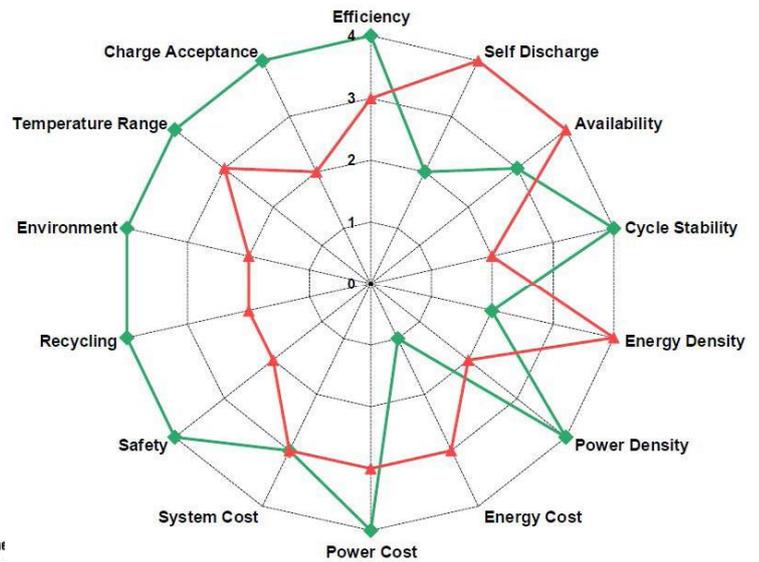
SPECIFIC ENERGY
The total amount of energy an energy storage device holds.

Batteries have higher specific energy and have longer run time.

Supercap

SPECIFIC POWER
The speed at which the power can be discharged.

Supercapacitors have high specific power, meaning the can deliver more current instantaneously.



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