PowerStor XL60 Series

2.7V Supercapacitor cells



Description

Eaton PowerStor supercapacitors are unique, ultra-high capacitance devices utilizing electrochemical double layer capacitor (EDLC) construction combined with new, high performance materials.This combination of advanced technologies allows Eaton to offer a wide variety of capacitor solutions tailored to specific applications. The XL60 Series supercapacitor cells offers high energy and power in a standardized form factor. Terminal design is optimized for high reliability and low contact resistance.

Features and benefits

- Long life energy storage, up to 20 years
- Ultra low ESR for very high power density
- Wide operating temperature range
- Maintenance free
- Cost effective backup power and large energy recapture
- Low operating costs
- High efficiency (>98%) under broad environmental conditions
- High reliability, green solution

Applications

- Backup power
- Peak power shaving, pulse power
- Engine starting
- Energy capture and re-use (Hybrids) for automotive, trucks, mining and construction, equipment, cranes
- Remote power for sensors, LEDs, switches



PowerStor is now part of Eaton
Same great products plus even more.

The PowerStor brand of supercapacitors (formerly of the Bussmann Division of Cooper Industries) is now part of Eaton's Electrical Group, Electronics Division.

Powering Business Worldwide

Specifications

Capacitance	3000F
Maximum working voltage	2.7V
Surge voltage	2.85V
Capacitance tolerance	-0% to +20%
Operating temperature range	-40°C to 65°C @ 2.7V
Extended operating temperature range	-40°C to 85°C (with voltage derating to 2.3V @ 85°C)

Standard Product

Capacitance (F)	Part Number	Max. initial DC ESR (mΩ) (Equivalent Series Resistance)	Continuous current 15°C rise (A)[1]	Peak power (kW)[2]	Max leakage current (mA)[3]	Max current (A)[4]	Stored energy (Wh)[5]	Typical thermal resistance (Rth - °C/W)	Typical mass (g)
3000	XL60-2R7308W-R	0.23	140	7.9	5.0	2400	3.0	3.2	525
3000	XL60-2R7308T-R	0.23	140	7.9	5.0	2400	3.0	3.2	535

1. Continuous Current = $\sqrt{\Delta T/(DC\ ESR \times Rth)}$
2. Peak Power = V^2/ DC ESR / 4
3. After 72 hour charge and hold, 25°C
4. Max Current, 1 sec discharge = 1⁄2 C V / (1+DC ESRxC)
5. Stored Energy = 1⁄2 C V^2 / 3600

Performance

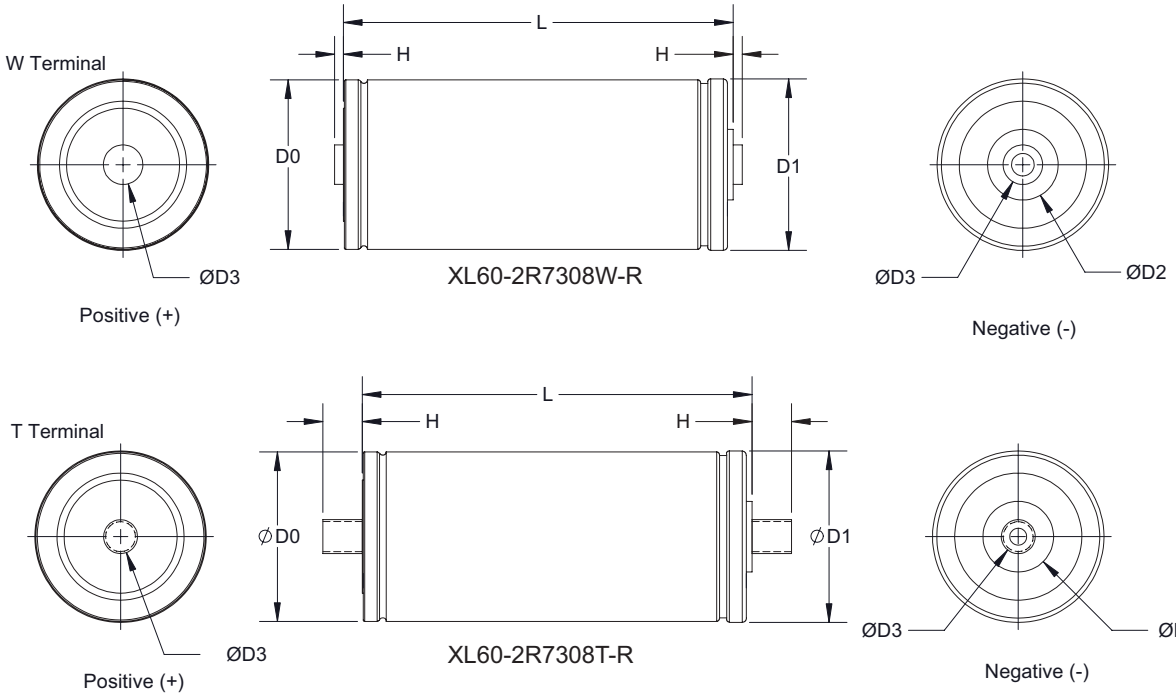
Parameter	Capacitance Change (% of initial value)	ESR (% of max. initial value)
Life — 1500 hours @ rated voltage and maximum operating temperature	≤ 20%	≤ 100%
Life — 10 years @ rated voltage and 25°C	≤ 20%	≤ 100%
Shelf life, uncharged, up to 35°C — 3 years	≤ 5%	≤ 10%
Charge/discharge cycling1 — 1,000,000	≤ 20%	≤ 100%

1. Cycling between 2.7V and 1.35V, 100A, 3s rest

Standards and Certifications

Agency information	UL Recognized, Guide BBBG2, File MH46887
Shock and vibration	IEC 61373 Category 1, Class B, IEC 60068-2-6
Safety	UL 810A
Environmental	RoHS compliant, lead free, halogen free
Altitude, Operating	10,000 ft
Altitude, Non-operating	40,000 ft

Dimensions (mm)



Part Number	D0 (±0.3)	D1 (±0.7)	D2 (±0.1)	D3 (±0.1)	H (±0.125)	L (±0.5)
XL60-2R7308W-R	60.3	60.7	25.0	Ø14.0	3.18	138.0
XL60-2R7308T-R	60.3	60.7	25.0	M12, P1.75	14.0	138.0

Packaging Information

- Standard packaging: 20 pieces per box

Part Marking

- Manufacturer
- Capacitance (F)
- Nominal Working Voltage (V)
- Series code (or part number)
- Polarity

Life Support Policy: Eaton does not authorize the use of any of its products for use in life support devices or systems without the express written approval of an officer of the Company. Life support systems are devices which support or sustain life, and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.

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LifeElectronics
Живое партнерство

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ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- *Конкурентоспособные цены и скидки постоянным клиентам.*
- *Специальные условия для постоянных клиентов.*
- *Подбор аналогов.*
- *Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.*

- *Приемлемые сроки поставки, возможна ускоренная поставка.*
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- *Комплексную поставку.*
- *Работу по проектам и поставку образцов.*
- *Формирование склада под заказчика.*

- *Сертификаты соответствия на поставляемую продукцию (по желанию клиента).*
- *Тестирование поставляемой продукции.*
- *Поставку компонентов, требующих военную и космическую приемку.*
- *Входной контроль качества.*
- *Наличие сертификата ISO.*

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

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- *Регистрацию проекта у производителя компонентов.*
- *Техническую поддержку проекта.*
- *Защиту от снятия компонента с производства.*
- *Оценку стоимости проекта по компонентам.*
- *Изготовление тестовой платы монтаж и пусконаладочные работы.*

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