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Technical Data

021615

PowerStor XLM Family

High power, high energy storage modules









Description

Eaton PowerStor supercapacitors are unique, ultrahigh capacitance devices utilizing electrochemical double layer capacitor (EDLC) construction combined with new, high performance materials. This combination of advanced technologies offers high reliability, high power energy for grid applications such as uninterruptible power supplies (UPS), electrical grid energy storage and other industrial bridge power applications.

Features and benefits

- Up to 20-Year Operating Life
- Low ESR for High Power Density
- Easy rack or cabinet mounting
- UL Recognized
- · Active balancing to maximize lifetime
- · Low standby current for high efficiency
- · Lead free, RoHS compliant

Applications

- Datacenter UPS
- Bridge power
- Hospital UPS
- Hybrid power system with fuel cells
- · Grid storage
- SEMI F47

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







Specifications

| Capacitance | 130F |
|----------------------------------|--------------|
| Maximum working voltage | 62.1V |
| Maximum series connected voltage | 1500V |
| Capacitance tolerance | -0% to +20% |
| Operating temperature range | -40℃ to +65℃ |

Standard Product

| Capacitance¹ (F) | Part Number | Initial DC ESR Maximum¹ (mΩ) | Standby current maximum ² (mA) | Continuous current ' 15 ° C Rise 3 (A) | Maximum current ⁴ (A) | Peak Power maximum ⁵ (kW) | Stored energy ⁶ maximum (Wh) | Thermal Resistance, typical (Rth - [©] C/W) | Mass, typical (kg) |
|------------------|---------------|---------------------------------------|--|---|--|--|--|---|-----------------------|
| 130 | XLM-62R1137-R | 8.0 | 13.3 | N/A | 2000 | 120 | 69.6 | 0.30 | 16 |

- 1. Measured according to IEC 62391 @ 62.1V
- 2. After 72 hour charge and hold, 25°C
- 3. Continuous Current = $\sqrt{\Delta T/(DC\ ESR\ x\ Rth)}$
- 4. Maximum current, 1 second discharge $\frac{1}{2}$ C V / (1 + DC ESR x C)
- 5. Power = Vrated² / 4 / DC ESR
- 6. Energy = $\frac{1}{2}$ C Vrated²/3600

Performance

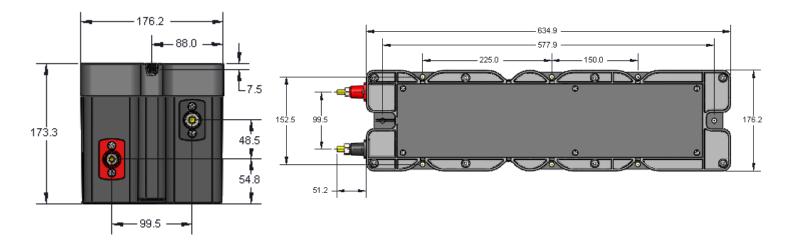
| Parameter | Capacitance Change (% of initial value) | ESR (% of initial specified value) |
|--|--|---------------------------------------|
| Life - 1500 hours at rated voltage, maximum temperture | ≤20% | ≤200% |
| Charge/discharge cycling - 1,000,000 cycles | ≤20% | ≤200% |

^{1.} Cycling between 62V and 31V, 100A, 3s rest

Standards and Certifications

| Agency information | UL810A |
|-------------------------|-------------------------------------|
| Shock and vibrations | Telcordia GR-63 Zone 4 |
| Environmental | IP30, RoHS, lead free, halogen free |
| Altitude, Operating | 10,000 ft / 3,000 meters |
| Altitude, Non-operating | 40,000 ft / 12,000 meters |

Dimensions- mm



Positive Terminal: 5/16"-18 threaded stud Negative Terminal: 3/8"-16 threaded stud

Part numbering system

| XLM | - □ R □ | | | -R |
|-------------|---------------------------|--|------------|----------------|
| Family code | Voltage (V) R= decimal | Capacitance (µF) Value | Multiplier | |
| | 62R1= 62.1V | Example 137= 13 x 10 ⁷ µF or 130F | | RoHS compliant |

Packaging information

Standard packaging 1 piece per box

Part marking

- Manufacturer
- Capacitance (F)
- Max operating voltage (V)
- Family code or part number
- Polarity

Life Support Policy: Bussmann 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



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