XLM-62R1137A-R Supercapacitors

62 V Module

Description

Eaton supercapacitors are high reliability, high power, ultra-high capacitance energy storage devices utilizing electrochemical double layer capacitor (EDLC) construction combined with proprietary materials and processes. This combination of advanced technologies allows Eaton to offer a wide variety of capacitor solutions tailored to applications for backup power, pulse power and hybrid power systems. They can be applied as the sole energy storage or in combination with batteries to optimize cost, life time and run time. System requirements can range from a few microwatts to megawatts. All products feature low ESR for high power density with environmentally friendly materials for a green power solution. Eaton supercapacitors are maintenance-free with design lifetimes up to 20 years and operating temperatures down to -40 °C and up to +85 °C.

Features

- Up to 20-year operating life
- Low ESR for high power density
- Long cycle life
- RoHS compliant
- Passive balancing to maximize lifetime
- Typical efficiency >98%
- Maintenance free
- Easy rack mounting

Applications

- Datacenter UPS
- Bridge power
- Hospital UPS
- Hybrid power system with fuel cells
- Grid storage
- Semiconductor equipment (SEMI F47 compliant)

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Ratings

Capacitance	130 F
Maximum working voltage	62.1 V
Capacitance tolerance	0% to +20% (+20 °C)
Operating temperature range	-40 °C to +65 °C

Specifications

Capacitance (F)	Part Number	Initial maximum DC ESR[1] (mΩ)	Standby current[1] (mA) @ +20 °C 72 hour	Maximum current[5] (A)	Peak power[2] (kW)	Total stored energy[3] (Wh)	Usable power[4] (kW)	Typical thermal resistance[6] Rth (°C/W)
130	XLM-62R1137A-R	6.7	128	2000	140	69.6	69.1	0.5

1. Measured according to IEC 62391 @ 62.1 V
2. Power = $Vrated^2/4/DC\ ESR$
3. Energy = $½C*Vrated^2/3600$
4. Usable power = $0.12*Vrated^2/DC\ ESR$
5. Maximum current, 1 second discharge = 1/2C*V/(1 + DC ESR*C)
6. Thermal resistance (Rth) cell body temperature to ambient in open air in degrees C per Watt (°C/W)

Performance

Parameter (F)	Capacitance change (% of initial value)	ESR (% of maximum initial value)
Life (1500 hours @ +65 °C/62.1 Vdc)	≤ 20%	≤ 200%
Life (10 years @ +25 °C/62.1 Vdc)	≤ 20%	≤ 200%
Cycling (1M cycles +25 °C)[1]	≤ 20%	≤ 200%
Storage – 3 years (uncharged, +30 °C)	≤ 3%	≤ 10%

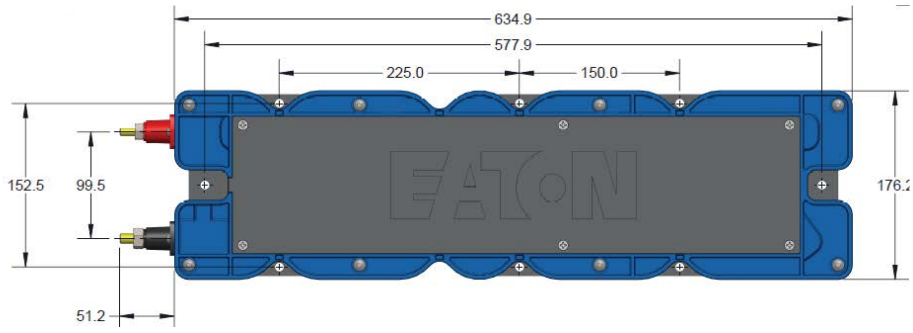
1. Cycle: Vrated to ½ Vrated, 100 A

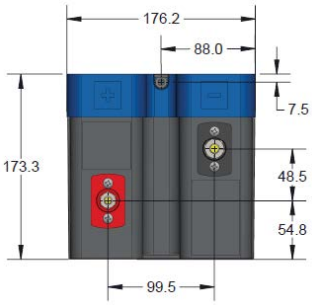
Standards and certifications

Agency information	UL810A file number: MH46887
Shock and vibration	Telcordia GR-63 Zone 4
Environmental	IP30, RoHS,
Altitude, Operating	10,000 ft / 3,000 meters
Altitude, Non-operating	40,000 ft / 12,000 meters

Dimensions (mm) and Mass (kg)

Part Number	W	L	H	Typical Mass (kg)
XLM-62R1137A-R	176	635	173	16
Tolerance	± 1.0			





Positive Terminal: 5/16" – 18 threaded stud

Negative Terminal: 3/8" – 16 threaded stud

Part numbering system

XLM	– 62R1	13	7	A	-R
Family Code	Voltage (V) R= decimal	Capacitance (µF)			
		Value	Multiplier	Passive balancing	
XLM = Family code	62R1= 62.1 V	Example 130=13 x 10^7 µF or 130 F			Standard product

Packaging information

- Standard packaging: 1piece per box

Part marking

- Capacitance (F)
- Nominal working voltage (V)
- Family code (lot number & serial #)
- Polarity marking

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