

# XLM-62R1 137-R Supercapacitors

## 62V 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
- Lead free, RoHS compliant
- Active balancing for low standby current and 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	130F
Maximum working voltage	62.1V
Capacitance tolerance	- 0% to +20% (+20°C)
Operating temperature range	-40°C to +65°C

## Specifications

Capacitance (F)	Part Number	Initial Maximum DC ESR <sup>1</sup> (mΩ)	Standby current <sup>1</sup> (mA) @ +20°C 72 Hour	Maximum current <sup>5</sup> (A)	Peak power <sup>2</sup> (kW)	Total stored energy <sup>3</sup> (kW)	Usable power <sup>4</sup> (kW)
130	XLM-62R1137-R	6.7	13.3	2000	140	69.6	69.1

1. Measured according to IEC 62391 @ 62.1V

2. Power =  $V_{rated}^2/4/DC\ ESR$

3. Energy =  $\frac{1}{2}C*V_{rated}^2/3600$

4. Usable power =  $0.12*V_{rated}^2/DC\ ESR$

5. Maximum current, 1 second discharge =  $1/2C*V/(1 + DC\ ESR*C)$

## Performance

Parameter (F)	Capacitance change (% of initial value)	ESR (% of initial value)
Life (1500 hrs @ +65°C/62.1 V DC)	≤ 20%	≤ 200%
Life (10 years @ +25°C/62.1 V DC)	≤ 20%	≤ 200%
Cycling (1M cycles +25°C) <sup>1</sup>	≤ 20%	≤ 200%
Storage – 3 years (uncharged, +30°C)	≤ 3%	≤ 10%

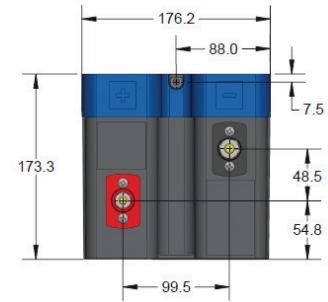
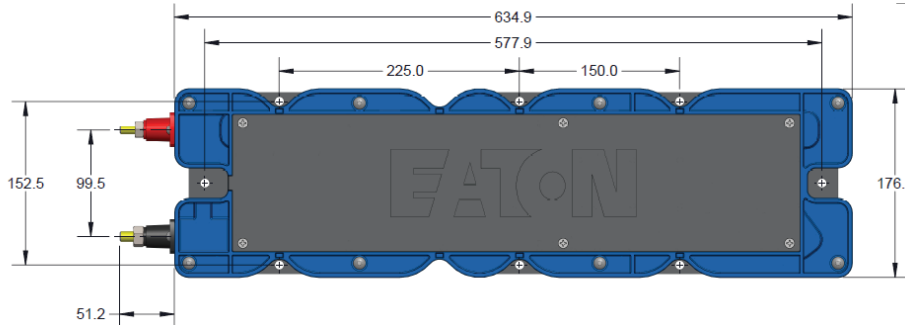
1. Cycle:  $V_{rated}$  to  $\frac{1}{2}V_{rated}$ , 100A

## Standards and certifications

Agency information	UL810A pending
Shock and vibration	Telcordia GR-63 Zone 4
Environmental	IP30, RoHS, Lead free
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-62R1137-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	- □ □ R □	□ □	□	-R
Family Code	Voltage (V) R= decimal	Capacitance (µF)		
		Value	Multiplier	
XLM = Family code	62R1= 62.1V	Example 137=13 x 10 <sup>7</sup> µF or 137F		RoHS compliant

**Packaging information**

- Standard packaging: 1 piece per box

**Part marking**

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

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**Eaton**  
**Electronics Division**  
1000 Eaton Boulevard  
Cleveland, OH 44122  
United States  
www.eaton.com/elx

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