

# 16V Supercapacitor Modules

## XVM Series



### Description

Cooper Bussmann 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 Cooper Bussmann to offer a wide variety of capacitor solutions tailored to specific applications.

The 16V XVM Series supercapacitor module offers a means to easily achieve higher voltage, power or discharge time through series or parallel connection of multiple modules.

### Features & Benefits

- Compact size for easy mounting as replacement for, or in conjunction with a 12V battery
- Series or parallel connection of multiple modules for higher voltage, power or discharge time
- High reliability, green solution for pulse or back up power applications
- Maintenance free



### Applications

- Industrial, computer and emergency backup energy
- Battery assist engine starting, especially for cold or frequent starts
- Graceful system shutdown for robotics and electrical switches

Specifications	
Working Voltage	16.2V
Surge Voltage	17V
Capacitance	65F
Capacitance Tolerance	0% to +20% (20°C)
Operating Temperature Range	-40°C to 65°C

Standard Product							
Capacitance (F)*	Part Number	Max Initial DC ESR (mΩ)*	Max Continuous Current (A)	Max Leakage Current (mA)*	Max Power (KW)**	Stored Energy (KWH)***	Typical Mass (kg)
65	XVM-16R2656-R	22	20	23	3.0	2.3	0.75

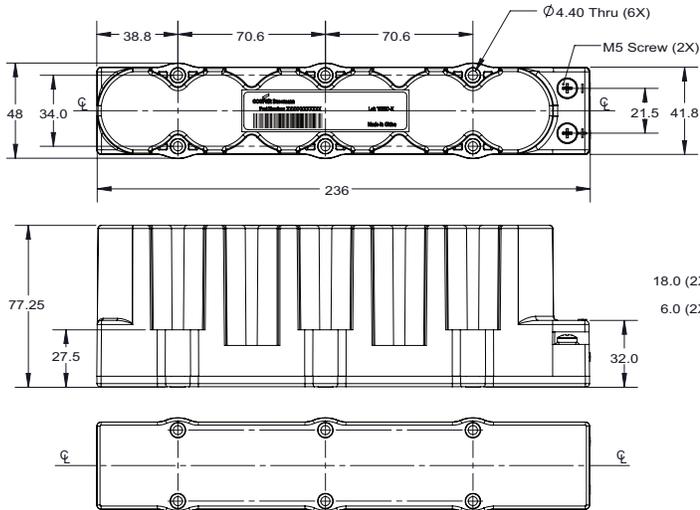
Performance		
Parameter	Capacitance Change (% of Initial Measured Value)	ESR (% of Initial Measured Value)
Life (1000 hrs @ 65°C @ 16.2Vdc)	≤20 %	≤200 %
Storage - Low and High Temperature (1000 hrs @ -40°C to 70°C)	≤20 %	≤200 %

\* Capacitance, ESR and Leakage current are all measured according to IEC 62391-1.

\*\*Max Power =  $V^2 / 4 / \text{DC ESR}$ .

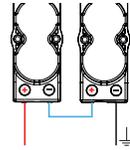
\*\*\* Stored Energy =  $\frac{1}{2} C V^2 / 3600$ .

## Dimensions - mm

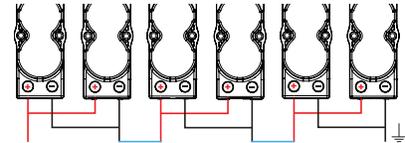
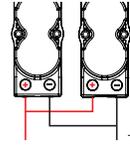


## Wiring Configuration Examples

**Series Applications:**  
32.4V, 32.5F, 20A



**Parallel Applications:**  
16.2V, 130F, 40A



**Series/Parallel Applications:**  
48.6V, 43.3F, 40A

## Environmental

Agency Information: UL 810A Recognized  
Vibration Specification: IEC 60068-2-6  
Shock Specification: IEC 60068-2-27, -29  
Protection Level: IP54  
Cooling: Natural Convection

## Mechanical Specifications

Terminal Screws: M5 Phillips, Nickel-Plated Brass, Max Torque 4N•m (35.4 Lb-In)  
Mounting Points: Six, Brass Reinforced, Accommodate M4 Screws, Minimum Length 27.5mm (1.1 in), Maximum Torque 4N•m (35.4 Lb-In)  
Mounting Orientation: No Restriction

## Packaging Information

- Modules packed individually in a box
- Boxed modules are packed 10 to a carton

## Part Marking

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

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