

Container-MVar

MV Filtering That Goes Where the Work Is



Improving Power Quality at Remote Sites Demands Smarter Engineering

Maintaining power quality is critical for renewables and large-scale industrial operations—to protect equipment lifespan, minimize downtime and maximize efficiency. Installing capacitor and filter banks is the clear solution, offering:

- **Improved power factor**
- **Enhanced system capacity**
- **Voltage stabilization**
- **Harmonics mitigation**

But what happens when the site is in a remote environment? Deploying traditional capacitor enclosures can pose logistical challenges. That's where Powerside's Container-MVar comes into play.

Container-MVar: An Easily Transportable MV Capacitor Bank

Container-MVar is a fully engineered, medium-voltage, metal-enclosed capacitor bank (Power-MVar or Synchro-MVar from Powerside) housed entirely in a standard 20' or 40' ISO container. Designed to deliver reactive power support in the field, it arrives **fully assembled with switching, protection and controls in place**—ready to connect with minimal on-site work.

GO THE DISTANCE WITH A PORTABLE CAPACITOR SOLUTION

Container-MVar offers key advantages in the field where logistics and labor are price sensitive:

- Modular and easy to move**
- Fast setup reduces site labor**
- Durable and stackable**
- Easy servicing and maintenance**
- Reduces install costs and timelines**

Durable by Design for Any Environment

The containerized design does more than simplify shipping—it protects the equipment in transit and on-site. Rugged steel construction resists environmental wear and physical impact. Rigging points are built in, and the structure’s rigidity makes it easier to place using pads or piers, even on uneven or temporary surfaces.

Reactive Power Delivered —and Monitored from—Anywhere

Featuring an integrated control and monitoring system within the capacitor bank design, the Container-MVar provides precise reactive power management with local or remote access via Modbus, Ethernet or Profibus. Intelligent switching logic enhances system performance and extends operational life.

Purpose-Built for Your Power Needs

Each unit is tailored to the customer’s requirements—whether fixed or automatic configuration, single or multi-step staging or custom harmonic tuning. Systems are available from 2.4kV to 35kV, making Container-MVar suitable for a wide range of industrial, renewable and utility-scale applications.

BUILT-IN SAFETY AND MONITORING FEATURES

Every Container-MVar unit comes equipped with:

- Key interlock systems
- Arc flash detection and thermal alarms
- Stage-level overcurrent and voltage protection
- Blown fuse indicators
- Harmonic distortion (THDv/THDi) monitoring
- Control power transformer for auxiliary loads



Container-MVar (Housing Power-MVar / Synchro-MVar)		
Voltage	2.4-35 kV (5-38 kV voltage class)	
Capacity	500 kVAR-50 MVAR+	
Network Harmonics	Low/High	
Load Characteristics	Fixed/Variable	
Compensation Type	Fixed/Auto, Unfiltered-Fixed/Auto Filtered	
Switching Type	PowerMVar None/Traditional switching-SynchroMVar Point on Wave (POW)	
Max. # of steps	12 (additional available on request)	
Power factor controller	Microprocessor based with harmonic over-current protection	
Network Connection	3-phase and single phase	
Short Circuit Level	12 kA-61 kA (Asymmetrical momentary)	
Impulse Withstand Voltage	60-150 kV impulse	
Short-time withstand voltage (HiPot)	19 kV-80 kV (1-minute 50/60 Hertz)	
Switching Device	Vacuum Contactor Vacuum switch	SF6 breaker with inrush limiting resistor Vacuum Breaker (Capacitor Rated)
Filter Type	Single-Tuned Multi-Tuned De-Tuned	High-pass C-type
Protection	Over voltage 59 Under voltage 27 Overcurrent 50/51	Over temperature on reactor core Blown fuse indicator
Safety	KIRK Key interlock Discharge timer	Capacitor 4-pole earthing switch Isolation barrier
Control and timing	PLC control with optional local and remote HMI	
Maximum altitude (ASL)	3281 ft/1000m without derating	
Operating temperature (F°/C°)	-40° F to 122° F / -40° C to 50° C	
Enclosure rating	NEMA 1, 12, 3R / IEC IP20, IP42, IP54/Arc flash detection	
Communication	USB, Modbus, Ethernet, Profibus	

Manage reactive power in a portable, efficient and reliable design. Get Container-MVar today.

powerside.com/container-mvar

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