

PowerVar MV

Medium Voltage automatic detuned capacitor banks and harmonic filters

At Power Survey, we custom engineer, design and manufacture Medium Voltage Power Factor Correction banks for a variety of industrial and commercial facilities. Resolving issues with low power factor or harmonics, meeting utility interconnection requirements at renewable power plants, or increasing available system capacity by reducing losses on distribution networks.

Our metal-enclosed capacitor banks are available in standard designs for typical requirements and fast delivery, or fully customized to your requirements. From standard to filtered capacitor banks, our systems are shipped fully tested, ready to install, and include all switching, protection and control sub-systems. Our special "Filter Ready" design adds the ability to convert a capacitor bank into a filtered bank at a later time, in a simpler more cost effective way.

Designed, manufactured and tested by Power Survey, using advanced manufacturing processes and premium materials, PowerVar MV capacitor and filter banks are optimised to provide superior, end-to-end operation and value through every stage of its lifecycle.

PowerVar at a glance

- Custom-engineered, metal-enclosed, multi-bay bolted lineups
- Filter ready design for easy and cost effective conversion
- Systems available up to 100Mvar, 2.4kV through 35kV, 50/60Hz, 60kV BIL through 200 kV BIL
- Single-step, multi-step, and fixed filter banks
- 11 Gauge welded frame to meet ANSI switchgear standard
- Incoming section with air disconnect or load break switch
- Externally-fused one-phase two-bushing or three-phase three-bushing capacitors connected in either ungrounded Wye or Delta
- Fully rated three- or four-pole grounding switches
- Stage unbalance protection relaying including stage lock-out and alarm functions
- Kirk-Key interlock system for sequential operation of the control devices, main disconnect and ground switches
- Power factor controller
- Clear acrylic windows to inspect switch blade position and blown fuse indication
- Available in Type 1 indoor and Type 3R or 4X outdoor enclosure types

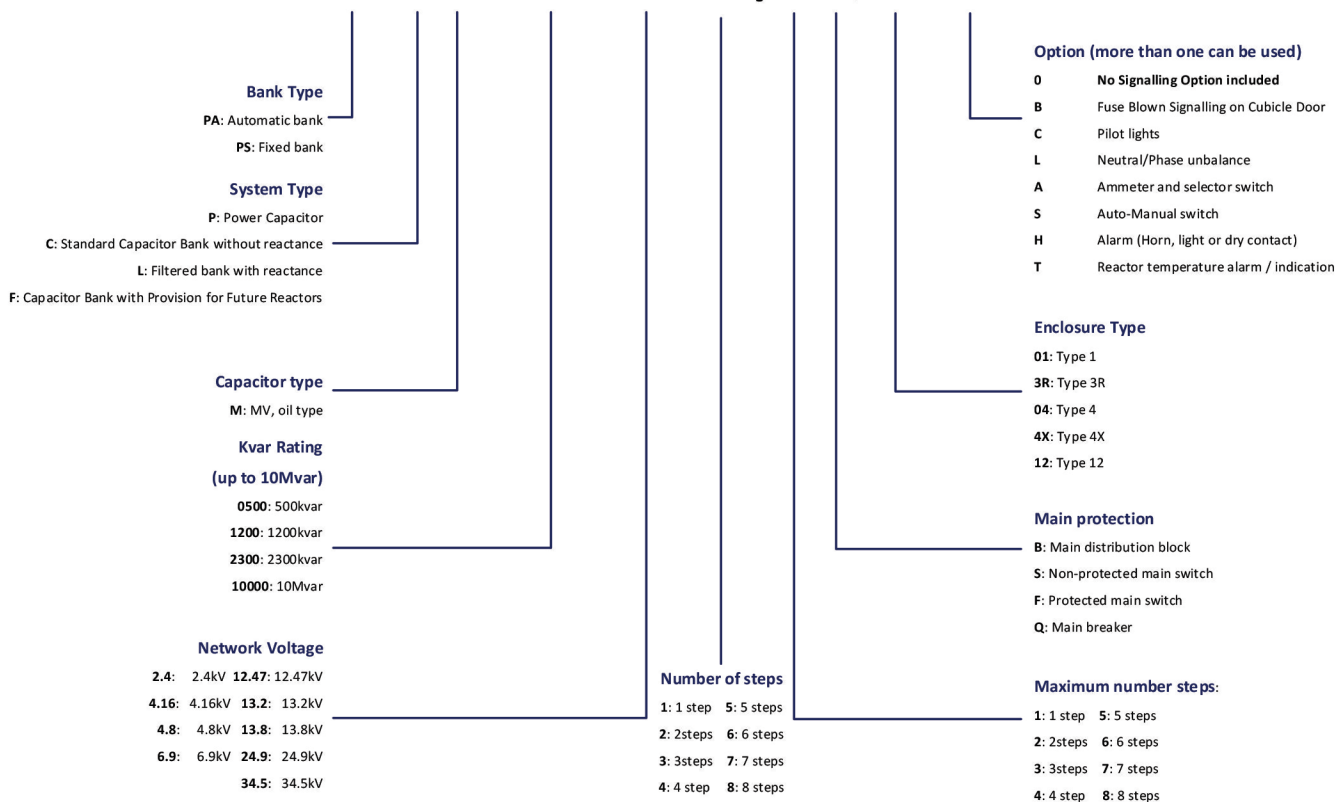


General Specifications

Bank Configuration	Single Step/Multiple Step/Fixed Step Multi-tuned/Single-Tuned	Operating temperature range	-50°C to +55°C (-58°F to 131°F)
Filter Types	Notch (Band-Pass), High-Pass, C-High-Pass, Multi-Tuned, Double-Tuned	Maximum altitude without de-rating	1,000 m (3,300')
Operating Voltage (line-to-line)	2.4kV – 38kV; 50 Hertz 60 Hertz	Enclosure	NEMA 1, 3R, 4X, 12 IEC IP10, IP14, IP56, IP52 Arc Resistant Enclosure Designs NEC Class 1 & 2 Div. II
Reactive power output	25 kvar – 100 Mvar (higher output possible)	Seismic	Design for up to Zone 4
Tune frequency (Hz)	85 Hz to 2100 Hz, (1.4 th to 35 th harmonic)	Wind	Design for up to 305.7 km/h (190 mph)
High-Pass (damping) resistor rating	1 Ω to 1000 Ω 10kW/Phase - 200kW/Phase	Snow Load	Design for up to 7 meters (22.96 feet)
Short circuit (asymmetrical momentary)	16kA - 61kA	Capacitor fusing	Internally fused; externally fused
Impulse withstand voltage (Basic Insulation Level)	60kV – 200 KV (third party tested)	Control Mode	Power Factor Correction; Voltage support
Short-time withstand voltage (1 minute 50/60 Hertz)	19kV – 80kV	Protection	Over/under voltage, over/under frequency, instantaneous over current, time over current, neutral/phase current unbalance

Configurations

PA L M 12002.4 .2 /2 Q 3R- B



Your Representative:



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