

LEGEND SVG

Precision. Speed. Profit.

Unlock the full potential of your grid with next-gen SVG.

Traditional PF correction is too slow for modern loads. The Static Var Generator acts as a digital “smart source”, instantly neutralizing reactive power before it hits your bill.

- **Instant correction**: real-time VSC phase alignment.
- **Unity power factor**: eliminate utility penalties permanently.
- **Maximum efficiency**: recover lost capacity in your existing cables and transformers.

Don’t just manage your power. Master it.

Benefits

The Legend is engineered to deliver peace of mind and measurable operational improvements to your facility.

Real-time power factor correction: unlike capacitor banks, SVG reacts instantly (in milliseconds), keeping your power factor close to 1 under dynamic loads.

Elimination of utility penalties: by maintaining a near-unity power factor, you avoid extra charges from the utility company.

Increased system capacity: reducing reactive current frees up capacity in your cables, transformers, and generators, allowing you to connect more loads without upgrades.

Improved voltage stability: SVG stabilizes voltage fluctuations, which protects sensitive equipment and improves overall system reliability.

Higher energy efficiency & lower losses: by minimizing reactive power flow, you reduce I^2R losses in the network, leading to better efficiency and lower operating costs.

Features

Superior Power Quality & Performance

Dynamic power factor optimization: smoothly compensates both lagging and leading reactive power (configurable from 0.6 to 0.6). Unlike passive systems that risk over-compensation during low-load periods, the Legend actively monitors your network and injects the exact compensation needed in under 25 µs.

Dynamic Force PF regulation: enables the precise targeting of a Displacement Power Factor (ranging from 0.6 lagging to 0.6 leading), actively converting leading capacitive networks into stable, inductive lagging profiles.

Next-generation 3-level architecture: delivers high efficiency, superior waveform quality, and network stabilization, including automatic correction for unbalanced three-phase utility loads.

Broad system compatibility: designed for seamless integration with both 3-Phase 3-Wire and 4-Wire systems.

Unmatched versatility: broad voltage tolerance (157V – 528V) ensures stable PF correction in any electrical environment.

Scalability & space efficiency

Modular, high-capacity output: delivers 103kVAR per power module and scales seamlessly up to 2494kVAR in parallel operation to grow alongside your power demands of facility.

Integrated parallel communication: enables autonomous synchronization across multiple units without the need for parallel CT wiring, significantly reducing installation cabling and accelerating system commissioning.

Zero-downtime upgrades: equipped with hot-scalable power modules, allowing you to expand capacity or perform maintenance without shutting down critical operations.

Maximized floor space: the high-power-density design delivers massive compensation power in a fraction of the physical footprint required by traditional, bulky LC (inductor-capacitor) banks.

Proactive safety & unmatched ROI

Total system safety & resonance immunity: eliminates the severe electrical resonance risks associated with traditional passive filters. Because the SVG operates as an active current source, it cannot create harmonic resonance with the grid. Intelligent, closed-loop control and real-time harmonic monitoring provide built-in self-protection, ensuring safe, stable reactive power compensation without amplifying existing network distortion.

Overload-proof reliability: guarantees continuous, safe operation even under heavy demand, ensuring your facility never experiences an overload failure.

Maximized ROI & low maintenance: built for longevity without the wear-prone mechanical components of traditional systems. This active system lowers energy costs, requires minimal maintenance, and ensures strict utility grid compliance to prevent power factor penalties.

Intuitive operation & control

Advanced user interface: features a user-friendly 10” colorful LCD touch screen for effortless monitoring, parameter adjustments, and system diagnostics.

Flexible control modes: accommodates your specific setup by offering both open and closed-loop control, depending on whether your CT location is on the source side or the load side.

Advanced system tracking: simplify configuration and monitor performance trends through a comprehensive 1,200-entry event log for detailed historical analysis.

Universal connectivity: ensure broad compatibility with standard management systems via Ethernet (Modbus TCP), RS-485 (J-Bus/Modbus RTU), and standard USB interfaces.

Comprehensive control & safety: features integrated I/O contacts (1 input, 3 outputs) and a dedicated Emergency Power Off (EPO) interface for secure system management.

All-in-one design: built-in control module eliminates the need for any external controllers.

LEGEND SVG 70 - LEGEND SVG 100 TECHNICAL DATA SHEET

MODEL		LEGEND SVG 70	LEGEND SVG 100
SIZE (kVAR)		69	103
ELECTRICAL SPECIFICATIONS	Rated voltage	3 Phase 4 Wires: 157V - 460V (Line to Line)	
		3 Phase 3 Wires: 157V - 528V (Line to Line)	
	Phases	Three-phase	
	Frequency	50/60 ±3 Hz (auto-detect)	
	Harmonic correction	From the 2nd to the 25th	
	Power factor correction	Compensates for leading or lagging power factor loads. Adjustable from 0.6 lagging power factor to 0.6 leading power factor	
	Load balancing	Between two phases and between phase and neutral	
	Response time	25 µs	
ENVIRONMENTAL PARAMETERS	Operating temperature	-10°C to +40°C without derating	
	Relative humidity	≤ 95% (no condensation)	
	Altitude (a.s.l.)	≤ 2000 m at rated load current, above 2000m altitude rated load current reduced by 1% per 100m	
	Audible noise at 1 m.	<65 dBA	
GENERAL	Dimensions (WxDxH) mm	IP31: 521 x 180 x 945	
		IP30: 521 x 180 x 886	
	Weight (kg)	Master: 49.5	
		Slave: 47.5	
	Protection class	IP30/IP31	
	Connections	4-wire/3-wire	
	Installation	Wall mounting	
	Type	Monolithic	
	Parallel connection up to (kVAR)	2494	
	Max. parallel modules	24	
	CT configuration	Source side CT: closed loop control - load side CT: open loop control	
CONNECTIVITY	Built-in communication ports	USB, RS485, Modbus RTU, EPO Ethernet port and dry relay contacts (1 in/3 out)	
	User interface	10'' colour LCD touch screen display	
	Software	Data monitoring and storage software	
REGULATIONS	Standards	EN61000-6-4, EN55011, CISPR 11, IEC 61000-3-12, IEC 61000-3-11,	
		IEC 61000-6-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4,	
		IEC 61000-4-5, IEC 61000-4-6, IEC 62477-1, EN 61000-4-8, EN61000-4-34	
		EN 61000-3-4, IEEE 519-1992, EN60146	
	Marking	CE, UKCA	

LEGEND SVG 400 - LEGEND SVG 800 TECHNICAL DATA SHEET

MODEL		LEGEND SVG 400	LEGEND SVG 800
SIZE (kVAR)		415	831
ELECTRICAL SPECIFICATIONS	Rated voltage	3 Phase 4 Wires: 157V - 460V (Line to Line)	
		3 Phase 3 Wires: 157V - 528V (Line to Line)	
	Phases	Three-phase	
	Frequency	50/60 ±3 Hz (auto-detect)	
	Harmonic correction	From the 2nd to the 25th	
	Power factor correction	Compensates for leading or lagging power factor loads. Adjustable from 0.6 lagging power factor to 0.6 leading power factor	
	Load balancing	Between two phases and between phase and neutral	
	Response time	25 µs	
ENVIRONMENTAL PARAMETERS	Operating temperature	-10°C to +40°C at rated load current, > +40 °C at reduced load current	
	Relative humidity	≤ 95% (no condensation)	
	Altitude (a.s.l.)	≤ 2000 m at rated load current, above 2000m altitude rated load current reduced by 1% per 100m	
	Audible noise at 1 m.	<65 dBA	
GENERAL	Cabinet Dimensions (WxDxH) mm	650 x 896 x 1500	650 x 896 x 1950
	Cabinet weight (kg)	165	211
	Module Dimensions (WxDxH) mm	Hot-swappable: 500 x 775 x 130 Terminal block: 500 x 791 x 130	
	Module weight (kg)	44	
	Protection class	Cabinet: IP20	
		Module: IP30	
	Connections	4-wire/3-wire	
	Installation	Floor standing	
	Type	Modular	
	Parallel connection up to (kVAR)	2494	
	Max. no. of modules per system (69 or 103 A in a mixed config-uration)	Up to 4	Up to 8
	Max. parallel systems	6	3
	CT configuration	Source side CT: closed loop control - load side CT: open loop control	
CONNECTIVITY	Built-in communication ports	USB, RS485, Modbus RTU, EPO Ethernet port and dry relay contacts (1 in/3 out)	
	User interface	10'' colour LCD touch screen display	
	Software	Data monitoring and storage software	
REGULATIONS	Standards	EN61000-3-4, IEEE 519-1992, EN60146	
		EN61000-6-4, EN55011, IEC 61000-3-12, IEC 61000-3-11,	
		IEC 61000-6-2, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4,	
		IEC 62477-1, IEC 61000-4-5, IEC 61000-4-6,	
		EN 61000-4-8, EN61000-4-34	
	Marking	CE, UKCA	