SmartOnline® SVX 3-Phase UPS System

30kVA – 210kVA

380/400/415V (Ph-Ph) 3-Phase, 4-Wire

A High-Output, True On-Line Power Protection Solution that Expands with Your Data Center

- Modular, Scalable UPS Platform
- Rack-Based Architecture
- Unity (1,0) Output Power Factor
- High Efficiency
- Up to 90kW with Integrated Battery
- Up to 210kW with Matching Battery Cabinet

MODULAR, SCALABLE, COMPACT, POWERFUL

Tripp Lite's SmartOnline SVX Series UPS systems deliver true scalability in a compact form factor and offer the highest level of secure, uninterrupted power protection. Available in three frame sizes in heights from 30U to 42U and capacities ranging from 30kW to 210kW, SVX Series UPS systems seamlessly integrate into any 600 mm wide IT rack environment.

The SVX Series offers multiple variations of power and battery runtime options, scalable to site needs as network or application demands change. Comprised of multiples of 30kVA/30kW power modules, the SVX Series UPS delivers capacity up to 210kW in a simple rack-width frame. Each power module occupies just 3U of rack space for exceptional power density and is rated at unity (1,0) power factor for maximum power to the connected load. As network infrastructure grows, additional 30kW power modules may be added.

Tripp Lite SVX Series Modular UPS Systems

SMALL FRAME (30U)

POWER MODULES: Supports up to 3 total internal SVX30PM 30kVA power modules.

INTERNAL BATTERY MODULES: Supports up to 3 total internal SVXBM battery modules.

EXTERNAL BATTERY CABINETS: Matching 42U battery cabinets available: BP480V370 (fully populated), BP480V370NB (empty).

		SVX30PM POWER MODULES		SVXBM BATTERY MODULES	
SVX Small-Frame UPS Model	Power Capacity	INCLUDED Power Modules	ADDITIONAL Power Modules that can be added	INCLUDED Internal Battery Modules	ADDITIONAL Internal Battery Modules that can be added
SVX30KS1P2B	30kVA/30kW	1	2	2	1
SVX30KS1P3B	30kVA/30kW	1	2	3	0 (frame full)
SVX60KS2P3B	60kVA/60kW	2	1	3	0 (frame full)
SVX90KS3P	90kVA/90kW	3	0 (frame full)	NONE*	NONE*

*Internal battery modules are not supported for small frame 90kVA configurations. External battery installation is required.

MEDIUM FRAME (42U)

POWER MODULES: Supports up to 4 total internal SVX30PM 30kVA power modules. ** 90kVA maximum power capacity; one additional power module may be added for 90kVA N+1 redundancy.

INTERNAL BATTERY MODULES: Supports up to 5 total internal SVXBM battery modules.

EXTERNAL BATTERY CABINETS: Matching 42U battery cabinets available: BP480V370 (fully populated), BP480V370NB (empty).

		SVX30PM POWER MODULES		SVXBM BATTERY MODULES	
SVX Medium-Frame UPS Model	Power Capacity	INCLUDED Power Modules	ADDITIONAL Power Modules that can be added	INCLUDED Internal Battery Modules	ADDITIONAL Internal Battery Modules that can be added
SVX30KM1P2B	30kVA/30kW	1	2	2	3
SVX30KM1P3B	30kVA/30kW	1	2	3	2
SVX30KM1P4B	30kVA/30kW	1	2	4	1
SVX30KM1P5B	30kVA/30kW	1	2	5	0 (frame full)
SVX60KM2P3B	60kVA/60kW	2	1	3	2
SVX60KM2P4B	60kVA/60kW	2	1	4	1
SVX60KM2P5B	60kVA/60kW	2	1	5	0 (frame full)
SVX90KM3P5B	90kVA/90kW	3	1**	5	0 (frame full)

LARGE FRAME (42U)

POWER MODULES: Supports up to 8 total internal SVX30PM 30kVA power modules. *** 210kVA maximum power capacity; one additional power module may be added for 210kVA N+1 redundancy.

INTERNAL BATTERY MODULES: Internal battery modules are not supported for large frame configurations; external battery installation is required.

EXTERNAL BATTERY CABINETS: Matching 42U battery cabinets available: BP480V370 (fully populated), BP480V370NB (empty).

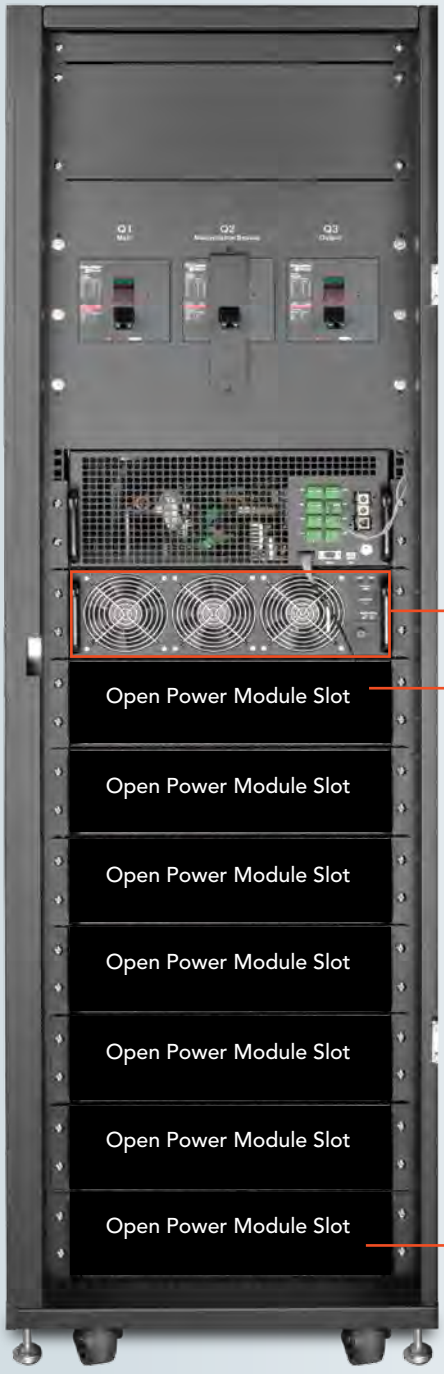
		SVX30PM POWER MODULES		SVXBM BATTERY MODULES	
SVX Large-Frame UPS Model	Power Capacity	INCLUDED Power Modules	ADDITIONAL Power Modules that can be added	INCLUDED Internal Battery Modules	ADDITIONAL Internal Battery Modules that can be added
SVX30KL	30kVA/30kW	1	7	NONE	NONE
SVX60KL	60kVA/60kW	2	6	NONE	NONE
SVX90KL	90kVA/90kW	3	5	NONE	NONE
SVX120KL	120kVA/120kW	4	4	NONE	NONE
SVX150KL	150kVA/150kW	5	3	NONE	NONE
SVX180KL	180kVA/180kW	6	2	NONE	NONE
SVX210KL7P	210kVA/210kW	7	1***	NONE	NONE
SVX210KL8P	210kVA/210kW N+1	8	0 (frame full)	NONE	NONE

N+1 REDUNDANCY

UPS capacity is scalable in 30kW increments, from 30kW to 210kW N+1, with three frame configurations:

- Small frame up to 90kW (30kW to 60kW with internal battery; 90kW without internal battery) or 60kW N+1
- Medium frame up to 90kW N+1 (with internal battery)
- Large frame up to 210kW N+1 (without internal battery)

SVX Series UPS systems must be operated with batteries. Matching battery cabinets are available; compatible third-party batteries may be used.

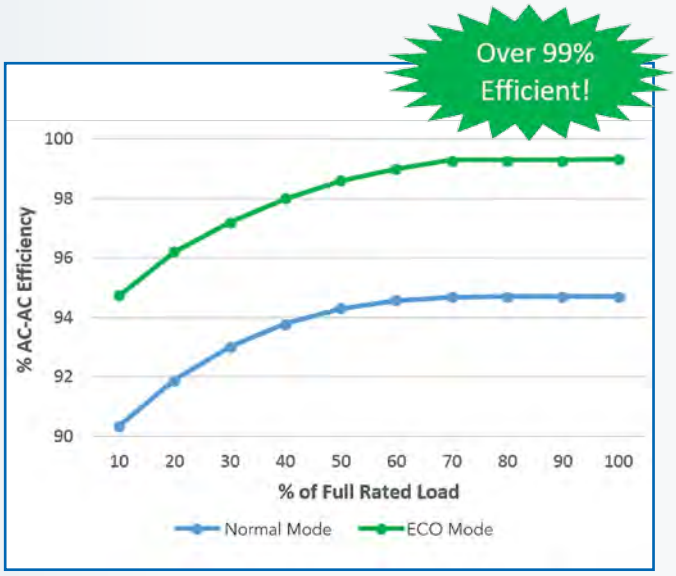


Seven (7) open slots are available for additional user-installable 30kW power modules for up to 210kW capacity with N+1. (Large Frame Shown)

Batteries sold separately.

OVER 99% EFFICIENCY

An SVX Series UPS maintains an efficiency rating of over 95% during normal operation and over 99% in ECO mode, making it one of the most efficient UPS systems in its class. This results in fewer energy losses, lower operating costs and lower cooling costs at the installation site, which translates to a compelling Total Cost of Ownership (TCO).



MODULAR ARCHITECTURE ELIMINATES DOWNTIME

SVX power and battery modules may be removed and swapped out while the UPS is in operation, eliminating costly downtime and ensuring protected equipment remains powered up, even during standard maintenance.

TRANSFORMERLESS DESIGN

The SVX Series has a transformer-free, IGBT rectifier design to deliver low input total harmonic distortion (THDi) and a high input power factor. An attached generator set may be sized 1:1 to the UPS capacity. This also reduces sizing requirements, as well as cost, for installation cabling and input, output and bypass breakers.

INTUITIVE DISPLAY

A multifunctional LCD user interface provides clear, immediate data on UPS status. Additionally, it provides an easy path to UPS setup for specific site or load requirements and direct access to UPS settings, controls and measurements during the UPS operation. For authorised service personnel, the LCD interface doubles as a service screen to assist in troubleshooting and diagnosis.

AUTOMATIC & MANUAL BYPASS

In overload or over-temperature conditions, the UPS automatically transfers to bypass. For scheduled maintenance or planned site events, a manual transfer to bypass may be conducted quickly and safely via the bypass switch. For maximum site safety, SVX Series UPS systems are also equipped with EPO (Emergency Power Off) shutdown.

NETWORK MANAGEMENT CARD INCLUDED

The included WEBCARDLX network interface gives users advanced monitoring and control capabilities. Using HTML5-based architecture, the WEBCARDLX supports multiple protocols, including IPv6, HTTP, HTTPS, SMTP, SNMPv1, SNMPv2c, SNMPv3, Telnet, SSH, FTP and DHCP.

SIMPLIFIED ASSEMBLY & INSTALLATION

The control module and static transfer switch (STS) module are pre-installed in the frame. Power and battery modules lock into open slots in the frame quickly and easily. Air filter replacement is simple and does not require tools; standard filters may be used.

HIGH PERFORMANCE

Because an SVX Series UPS is rated at unity (1,0) power factor, it may be sized for actual power and load requirements. Compared to a similarly sized UPS with a legacy 0,8 power factor, an SVX Series UPS accepts 20% additional loading.

RELIABILITY

SVX Series UPS systems accept dual AC input sources to maintain maximum load support availability. Not only are power modules designed for redundant parallel operation within the UPS system, independent power sources can also feed into the UPS.

Small Frame

Medium/Large Frame

SmartOnline SVX Technical Specifications

		30K	60K	90K	120K	150K	180K	210K
CAPACITY kVA		30	60	90	120	150	180	210
CAPACITY kW		30	60	90	120	150	180	210
TOPOLOGY		Voltage and Frequency Independent (VFI) True On-Line Double Conversion						
INPUT								
Voltage		380/400/415V (Ph-Ph Wye); 220/230/240V (Ph-N)						
Voltage Range		305V – 478V (100% load)						
Phase		3-phase, neutral and ground						
Operating Frequency		50/60 Hz (selectable)						
Frequency Range		40 – 70 Hz +/- 0,1 Hz						
Power Factor		>0,99						
THDi		<3%						
Inverter Bridge		IGBT technology						
OUTPUT								
Voltage		380/400/415V (3-ph, 4-wire, neutral reference to bypass neutral)						
AC Voltage Regulation		<1% (balanced load)						
Frequency		50/60 Hz (selectable)						
Frequency Range		40 – 70 Hz +/- 0,1 Hz						
Overload	**AC Mode**	100% – 110%: 60 min.						
		111% – 125%: 10 min.						
		126% – 150%: 1 min.						
		>150%: 200 ms						
	Battery Mode	100% – 110%: 60 min.						
		111% – 125%: 10 min.						
		126% – 150%: 1 min.						
		>150%: 200 ms						
Crest Factor		3:1						
Harmonic Distortion		1,5% (100% linear load); <4% (100% non-linear load)						
Output Waveform		Pure sine wave						
BYPASS								
Automatic Bypass		Standard						
Manual Maintenance Bypass		Standard						
Transfer Time		≤ 1 ms						
Bypass Voltage Tolerance (Default)		+15%/-20%						
Overload		100% – 110%: 60 min.						
		111% – 125%: 10 min.						
		126% – 150%: 1 min.						
		>150%: 200 ms						
BATTERY								
Battery Type*		Maintenance-free sealed valve-regulated lead acid (VRLA)						
Battery Capacity*		12V 9Ah						
Float Voltage		2,3V/cell						
Boost Voltage		2,35V/cell						
End-of-Discharge Voltage		1,67V/cell						
Battery Storage Time*		6 months (without recharge, stored at 25°C)						
Battery Charger Capacity		8A (2A default)						
Maximum Runtime with Internal Battery Modules, 100% Load		9 min.	7 min.	8 min.	N/A**	N/A**	N/A**	N/A**
* Applies to small- and medium-frame systems with internal battery modules. ** Batteries required for operation; runtime achievable with the addition of matching battery cabinet(s).								
ENVIRONMENT								
Efficiency (Line Mode)		95%						
Efficiency (ECO Mode)		99%						
Operating Temperature		0° to 40°C						
Storage Temperature (Excluding Battery)		-15° to 60°C						
Operating Humidity		0 to 95% (non-condensing)						
Operating Altitude		<1000 m (1% deration per 100 m above 1000 m)						
Audible Noise		< 73 dBA at 1 m						
Protection Degree		IP20						
Colour		RAL 9005 (Jet Black)						
MANAGEMENT								
Multifunctional LCD		Standard						
SNMP		Included free of charge						
Relay Interface		Optional; RELAYCARDSV sold separately						
Emergency Power Off (EPO)		Standard						
STANDARDS								
Safety		IEC/EN 62040-1						
EMC		IEC/EN 62040-2						
Approvals		TUV						

Small Frame (30U) Maximum Configurable Power with Internal Batteries:
60kVA/60kW (90kVA/90kW without Internal Batteries)

SVX30PM = 1 x 3U Power Module

SVXBM = 1 x 3U Internal Battery Module

Total Dimensions (H x W x D): 1475 x 600 x 1100 mm; Shipping Dimensions (H x W x D): 1650 x 750 x 1220 mm

Capacity	Model	Number of Battery Modules	Runtime*	Weight	Shipping Weight
30kVA/30kW	SVX30KS1P2B	2	10 min.	502 kg	573 kg
30kVA/30kW	SVX30KS1P3B	3	17 min.	606 kg	684 kg
60kVA/60kW	SVX60KS2P3B	3	7 min.	641 kg	722 kg
90kVA/90kW	SVX90KS3P	0	—	363 kg	427 kg

* At standard load (70%).

Medium Frame (42U) Maximum Configurable Power with Internal Batteries:
90kVA/90kW

SVX30PM = 1 x 3U Power Module

SVXBM = 1 x 3U Internal Battery Module

Total Dimensions (H x W x D): 2010 x 600 x 1100 mm; Shipping dimensions (H x W x D): 2175 x 750 x 1220 mm

Capacity	Model	Number of Battery Modules	Runtime*	Weight	Shipping Weight
30kVA/30kW	SVX30KM1P2B	2	10 min.	517 kg	596 kg
30kVA/30kW	SVX30KM1P3B	3	17 min.	621 kg	707 kg
30kVA/30kW	SVX30KM1P4B	4	25 min.	725 kg	818 kg
30kVA/30kW	SVX30KM1P5B	5	34 min.	829 kg	929 kg
60kVA/60kW	SVX60KM2P3B	3	7 min.	655 kg	745 kg
60kVA/60kW	SVX60KM2P4B	4	10 min.	759 kg	856 kg
60kVA/60kW	SVX60KM2P5B	5	14 min.	863 kg	967 kg
90kVA/90kW	SVX90KM3P5B	5	8 min.	898 kg	1005 kg

* At standard load (70%).

Large Frame (42U) Maximum Configurable Power without Internal Batteries:
210kVA/210kW

SVX30PM = 1 x 3U Power Module

Total dimensions (H x W x D): 2010 x 600 x 1100 mm; Shipping dimensions (H x W x D): 2175 x 750 x 1220 mm

Capacity	Model	Number of Battery Modules	Runtime	Weight	Shipping Weight
30kVA/30kW	SVX30KL	Matching External Battery Cabinets Available: **BP480V370** Fully populated 42U battery cabinet **BP480V370NB** Empty 42U battery cabinet with interconnecting cables and DC breaker		308 kg	373 kg
60kVA/60kW	SVX60KL			342 kg	411 kg
90kVA/90kW	SVX90KL			377 kg	449 kg
120kVA/120kW	SVX120KL			411 kg	487 kg
150kVA/150kW	SVX150KL			446 kg	525 kg
180kVA/180kW	SVX180KL			480 kg	563 kg
210kVA/210kW	SVX210KL7P			515 kg	601 kg
210kVA/210kW N+1	SVX210KL8P			549 kg	639 kg

A convenient runtime calculator is available for SVX Series UPS systems on tripplite.com.

Tripp Lite Manufactures 4000 Vendor-Neutral IT Infrastructure Solutions!

3-PHASE ACCESSORIES TO COMPLETE YOUR APPLICATION

Our selection of external battery cabinets, remote paralleling cabinets, external maintenance bypass, whip cables and transformers allows you to get more out of your new SVX Series UPS system. Visit **www.tripplite.com** today to see the full line of SVX UPS accessories.

RACK & COOLING SOLUTIONS

Tripp Lite makes more than 150 EIA-compliant rack enclosures, open frame racks, wall-mount racks, close-coupled cooling solutions and rack accessories.

POWER DISTRIBUTION UNITS (PDUs)

Tripp Lite offers more than 200 basic, metered, monitored, switched, ATS and hot-swap PDUs in horizontal (1U/2U) and vertical (0U) form factors.

KVM/CONSOLE SOLUTIONS

Tripp Lite has more than 60 KVM switches, rack consoles and IP console servers, with or without built-in remote access (KVM over IP), built-in LCD monitor, multiuser support and Cat5/UTP cabling.

CABLES & CONNECTIVITY

Choose from hundreds of Tripp Lite cables, adapters and patch panels to connect high-speed data networks and power outlets to switches, routers and servers in high-density environments.

ABOUT TRIPP LITE

Since 1922, Tripp Lite has established a global reputation for quality manufacturing, superior value and excellent service. Tripp Lite makes 4000 products to power, protect and connect electronic equipment, including UPS systems, replacement batteries, power distribution units, rack systems, cooling solutions, surge protectors, KVM switches, cables, display solutions, power strips and inverters. Learn more at **www.tripplite.com**.

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95 Years Manufacturing Excellence.

GREEN SOLUTIONS · RoHS COMPLIANT

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17-03-422 95-34AC