SmartOnline SVTX Series 3-Phase 380/400/415V 20kVA 18kW On-Line Double-Conversion UPS, Tower, Extended Run, SNMP Option

MODEL NUMBER: **SVT20KX**

Economical, entry-level 3-phase UPS system protects connected mission-critical equipment against damage, downtime and data loss due to blackouts, brownouts, power surges and line noise.

Highlights

- On-line double-conversion topology, VFI operation
- Automatic and Manual Bypass for enhanced reliability
- Optional ECO mode for high-efficiency operation
- Add optional WEBCARDLX with latest version of PADM20 for enhanced remote management
- Paralleling for capacity up to 3 units

Package Includes

- SVT20KX SmartOnline SVTX Series 3-Phase 380/400/415V 20kVA 18kW On-Line Double-Conversion UPS
- (2) RS-232 cables
- 6-pin current sharing cable
- Owner's manual

Description

The SVT20KX SmartOnline® SVTX Series 3-Phase 380/400/415V 20kVA 18kW On-Line Double-Conversion UPS with IGBT technology provides battery backup and AC power protection against power disturbances that can damage electronics or destroy data. It's recommended for critical IT or corporate infrastructure, telecom, LAN/WAN, security and emergency, financial and light industrial applications. The SVT20KX's Voltage and Frequency Independent (VFI) design allows continuous operation at any supported voltage at either 50 or 60 Hz. Zero transfer time to battery mode ensures no disruption to the attached loads. Automatic and Manual Bypass keeps connected equipment powered even during overloads and UPS maintenance.

IGBT inverter technology produces output power with less than 2% total harmonic distortion (THD) to keep connected equipment functioning at its peak. A 3:1 crest factor safely supports a variety of loads, even those with wildly fluctuating power demands.

Managing the SVT20KX is simplified through the interactive front-panel LCD interface, which displays critical operating conditions and diagnostic data, such as load levels, available runtime, alarm status, battery charge, and voltage and frequency values. Four LEDs indicate bypass, line, battery and fault modes. A built-in card slot supports WEBCARDLX or RELAYCARDSV for network interface and remote monitoring and control. The SVT20KX's reduced size and small footprint save valuable space.

Features

VFI True On-Line Double-Conversion 3-Phase UPS System Provides fully regulated sine wave AC output for critical telecom, network, security, financial, corporate and light industrial applications+/-1% output voltage regulation in online and battery modesHigh 0.9 power factor offers 20kVA/18kW output capacity, allowing for more connected devicesSelectable 380/400/415V output voltageWide input voltage window (305–478V) minimizes battery use and prolongs battery life

Reliable Battery Backup with Expandable Runtime Supports half load for 11 min. and full load for 4 min.Zero transfer time suitable for advanced network applicationsExpandable runtime with optional external battery packs, such as BP240V135Restarts automatically after lengthy power outages

IGBT Inverter Technology Produces output power with less than 2% THD to keep connected equipment functioning at its peakLow <6% THDi input rating and advanced IGBT rectifier enables 1:1 Generator Sizing, eliminating costly oversizing requirements for generators, breakers and cables

Paralleling Capability Connect up to 3 units in parallel configuration for increased capacity

Automatic and Manual Bypass Increases system reliabilityAllows maintenance without removing power from attached loads

ECO Mode Operates at efficiency levels as high as 98.8% when input line conditions are favorable

SNMP/Web Capability Slot for WEBCARDLX network interface or RELAYCARDSV relay card for remote monitoring and control optionsOptional WEBCARDLX (sold separately) with the latest version of PowerAlert Device Manager firmware (PADM20) provides enhanced remote management capabilitiesPADM20 and PowerAlert Element Manager (PAEM) form a powerful tool for expanding maintenance functions in large installations, including firmware update checks and backup and restoration of device configurations

Communications PortsDB9 and EPO ports offer local monitoring and shutdown options

Small-Footprint Tower Design Reduced-size black tower case saves valuable floor spaceMatching external battery cabinets enable extended runtime options

Specifications

OVERVIEW	
UPC Code	037332195890
UPS Type	On-Line
INPUT	
Input Phase	3-Phase
Rated input current (Maximum Load)	34.4A
Nominal Input Voltage(s) Supported	220/380V 3-PH Wye; 230/400V 3-PH Wye; 240/415V 3-PH Wye
Nominal Input Voltage Description	3-Phase Wye, 4 wire plus ground (L1, L2, L3, N, G)
UPS Input Connection Type	Hardwire
Input Circuit Breakers	63A (3 pole)
Power Factor (Input)	.99PF (100% load)
THDi	<6% (100% load)
OUTPUT	
Output Capacity (VA)	20000
Output Capacity (kVA)	20
Output Capacity (Watts)	18000
Output Capacity (kW)	18
Output Capacity Details	Supports up to 100% load continuously in double conversion mode; Supports 100-110% load for 10 minutes, 110 to 130% load for 1 minute and greater than 130% for 1 second before switching to bypass mode; Inverter mode is automatically restored as load levels are reduced to 70% or less; Configuration options support up to 3 SVT20KX systems wired in parallel for increased capacity.
Power Factor	0.9
Crest Factor	3:1
Frequency Compatibility	50 / 60 Hz

Frequency Compatibility Details	Automatic frequency selection
Output Voltage Regulation (Line Mode)	+/- 1%
Output Voltage Regulation (Economy Line Mode)	+/-11V of selected nominal output voltage (220V: 209-231V; 230V: 219-241; 240V: 229-251V)
Output Voltage Regulation (Battery Mode)	+/- 2%
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
Nominal Output Voltage(s) Supported	220/380V 3-PH Wye; 230/400V 3-PH Wye; 240/415V 3-PH Wye
Output Receptacles	Hardwire
Individually Controllable Load Banks	No
BATTERY	
Runtime Full Load (min.)	4 min. (18kW)
Runtime Half Load (min.)	11 min. (9000W)
Expandable Runtime	Yes
External Battery Pack Compatibility	BP240V135
DC System Voltage (VDC)	240
Battery Recharge Rate (Included Batteries)	4 hours to 90% (Internal batteries)
VOLTAGE REGULATION	
Voltage Regulation Description	Online, double-conversion power conditioning maintains output within 1% of the selected nominal voltage in online mode
Overvoltage Correction	Corrects overvoltage conditions to 520V (50% load) and 478V (100% load)
Undervoltage Correction	Corrects brownout conditions to 110V (50% load) / 305V (100% load)
USER INTERFACE, ALERTS & CONTROLS	
Front Panel LCD Display	LCD DISPLAY: offers a variety of graphical, text and numeric information to indicate a wide range of UPS operation and fault / warning conditions, including current operating mode, alarm status, load level, battery charge, input / output voltage & frequency, estimated runtime and more (see user manual for a detailed listing)
Switches	ON / ENTER BUTTON: turns the UPS on and confirms a selection from the settings menu; OFF / ESC BUTTON: turns off the UPS and returns to the previous item in the settings menu; TEST / UP BUTTON: initiates UPS self-test operation and advances to the next item in the settings menu; MUTE / DOWN BUTTON: silences the audible alarm and advances to the previous item in the settings menu; Press TEST/UP & MUTE/DOWN buttons simultaneously for 1 second to enter or exit the settings menu (See user manual for detailed information)
Audible Alarm	Alarms warn users of a variety of operational conditions: BYPASS MODE (beeps every 2 seconds), BATTERY MODE (beeps every 4 seconds), FAULT MODE (beeps continuously), OVERLOAD (beeps twice per second), OTHER WARNINGS (beeps once per second), FAULT (beeps continuously); All alarms can be silenced, except OVERLOAD & OTHER WARNINGS conditions
LED Indicators	4 LEDs report BYPASS / LINE / BATTERY / FAULT modes
PHYSICAL	

Primary Form Factor	Tower
Cooling Method	Fans
Installation Form Factors Supported with Included Accessories	Tower
Primary UPS Depth (mm)	813
Primary UPS Height (mm)	861
Primary UPS Width (mm)	249
Shipping Dimensions (hwd / in.)	41.74 x 14.96 x 36.22
Shipping Dimensions (hwd / cm)	106.02 x 38.00 x 92.00
Shipping Weight (lbs.)	427.00
Shipping Weight (kg)	193.68
UPS Housing Material	Steel
UPS Power Module Dimensions (Height x Width x Depth, mm)	862 x 250 x 813
UPS Power Module Dimensions (hwd, cm)	86.11 x 24.89 x 81.28
UPS Power Module Dimensions (hwd, in.)	33.9 x 9.8 x 32
UPS Power Module Weight (kg)	177.81
UPS Power Module Weight (lbs.)	392
Unit Weight (lbs.)	392.42
Unit Weight (kg)	178.00
ENVIRONMENTAL	
Operating Temperature Range	32° to 104°F (0° to 40°C)
Storage Temperature Range	32° to 95°F (0° to 35°C) with battery; 5° to 140°F (-15° to 60°C) without battery
Relative Humidity	5 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	6079
Operating Elevation	0-3280 ft. (0-1000 m)
Audible Noise	<65dBA front side 1M
COMMUNICATIONS	
Network Management Cards	WEBCARDLX; WEBCARDLXE ; MODBUSCARDSV; RELAYCARDSV
Network Monitoring Port Description	Card accessory slot also supports network interface and relay card options
Communications Cable	DB9 cabling included
Communications Interface	DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface
LINE / BATTERY TRANSFER	

Transfer Time	Zero transfer time in ONLINE MODE (0ms); ECONOMY MODE: 7ms from AC to Battery mode / 0.6ms from Battery to AC mode
Low Voltage Transfer to Battery Power (Setpoint)	110V (50% load) / 305V (100% load)
High Voltage Transfer to Battery Power (Setpoint)	520V (50% load) / 478V (100% load)
FEATURES & SPECIFICATIONS	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Automatic inverter bypass; Manual bypass switch; Auto Probe Monitoring (requires WEBCARDLXE); Zero transfer time; On-Line/Double-Conversion
Green Energy-Saving Features	High efficiency economy mode operation
Grounding Details	Yes
IP68 Rated	No
IP20 Rated	No
APPLICATIONS	
UPS Applications	Mission Critical Applications
STANDARDS & COMPLIANCE	
Product Certifications	IEC/EN 62040
Product Compliance	RoHS; CE (Europe)
WARRANTY & SUPPORT	
Product Warranty Period (U.S. & Canada)	1-year limited warranty
Product Warranty Period (International)	2-year limited warranty
Product Warranty Period (Mexico)	2-year limited warranty
Product Warranty Period (Puerto Rico)	2-year limited warranty
3-Phase Warranty Statement	Tripp Lite 3-Phase UPS Factory Warranty

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