SmartOnline S3MX Series 3-Phase 380/400/415V 120kVA 108kW On-Line Double-Conversion UPS

MODEL NUMBER: S3M120KX



Highly efficient 94% on-line UPS with compact design protects mission-critical equipment against downtime due to power disturbances.

Features

Battery Backup and VFI Operation Protect Critical LoadsThe SmartOnline® S3M120KX IGBT UPS supports the continuous availability of your most important loads through all power conditions, providing a compact backup power platform that's easy to manage and inexpensive to operate. Sophisticated voltage and frequency independent (VFI) operation and advanced IGBT rectifier technology with DSP control deliver reliable output power quality. Providing up to 120kVA of clean, continuous power, this 3-phase UPS system is perfect for critical applications in IT, communications, corporate, commercial, retail, financial, security, transportation, emergency and light industrial environments.

Best-in-Class Footprint for Easy Integration into Your Network ApplicationThis on-line doubleconversion UPS system has a very small footprint of just 0.54 square meters. It requires less valuable space in your data center, and you can install the UPS system in spaces that would previously have required expensive retrofitting.

Efficient Operation and Design Reduces Cost of OwnershipThis IGBT UPS benefits from highly efficient transformer-free double-conversion technology that delivers operating cost savings. It achieves 94% efficiency in double-conversion mode and up to 98% in ECO mode, reducing your power and cooling costs. A low THDi (<3%) improves generator compatibility. A low THDv (2%) and active power factor correction improve output performance. The hardware and firmware platform design reduces the number of unique boards, improving mean time to repair (MTTR) and resulting in reduced downtime. Built-in static and maintenance bypass transfer UPS load to utility power during faults, overloads and maintenance, which also avoids costly system downtime.

External Batteries Supply Reliable Backup with Expandable Runtime OptionsThe S3M120KX uses external scalable battery cabinets, such as BP480V40, BP480V65 and BP480V100 (sold separately), to provide up to three hours of backup support in case of a power failure. Add the optional TEMPC100200 thermostat kit to enable temperature-compensated charging for optimized battery lifespan. The UPS system automatically restarts after a lengthy power outage.

Intuitive Color Touchscreen Display Delivers Important Performance Information at a GlanceThe large (25.4 cm/10 inches) front-panel color interface enables comprehensive local monitoring and control capability. It displays critical operating conditions and diagnostic data, such as phase load levels, available runtime, alarm status, battery charge, and voltage and frequency values. Six LEDs indicate bypass, on-

Highlights

- Best-in-class footprint and power density minimize space requirements for up to 120kVA
- Large (25.4 cm/10 in.) color touchscreen display enables user-friendly local management
- High efficiency (94% on-line, 98% ECO mode) helps reduce operating costs
- Optional WEBCARDLX with latest version of PADM20 supports Auto Probe feature
- Parallel capability provides increased capacity and fault tolerance

Applications

- Save space in tight data center environments with best-in-class small footprint
- Back up essential equipment in network, telecom, financial and light industrial applications
- Maintain critical data-center during all power conditions

Package Includes

- S3M120KX SmartOnline S3MX Series 3-Phase 380/400/415V 120kVA 108kW On-Line Double-Conversion UPS
- P100200KIT parallel cable kit
- RS-232 cable
- Owner's manual

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line, inverter, battery and alarm/fault modes.

Network Management Card Offers Remote Monitoring and ControlThe optional WEBCARDLX (sold separately) with the latest version of PowerAlert Device Manager firmware (PADM20) provides enhanced remote management capabilities, including customizable dashboard graphs to fit user preferences. The PADM20 upgrade and Tripp Lite's PowerAlert Element Manager (PAEM) software form a powerful tool for expanding maintenance functions in large installations, including firmware update checks and backup and restoration of device configurations. Auto Probe allows a UPS with switched loads to automatically reboot devices if a network communication failure is detected. This preserves uptime and minimizes the time and expense associated with on-site support.

Parallel Capability Provides Additional CapacityConnect two S3M120KX units in parallel using separate/shared battery cabinets for increased capacity and fault tolerance (N+1 redundancy).

Specifications

OVERVIEW		
UPC Code	037332225436	
UPS Type	On-Line	
INPUT		
Rated input current (Maximum Load)	220A	
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	250A (3 pole)	
Input Phase	3-Phase	
Power Factor (Input)	.99PF (100% load)	
THDi	<3% (100% load)	
OUTPUT		
Output Capacity (VA)	120000	
Output Capacity (kVA)	120	
Output Capacity (Watts)	108000	
Output Capacity (kW)	108.00	
Output Capacity Details	Supports up to 100% load continuously in double conversion mode; Supports up to 110% load for 60 minutes, up to to 125% load for 10 minutes, up to 150% load for 1min and greater than 150% for 1 milliseconds before switching to bypass mode; Inverter mode is automatically restored as load levels are reduced to 100% or less; Configuration options support up to 2 S3M120KX systems wired in parallel for increased capacity, or redundancy (N+1) to increase fault-tolerant and redundant operation	
Power Factor	0,9	
Crest Factor	3:1	
Frequency Compatibility	50 / 60 Hz; Supports 50 to 60 Hz and 60 to 50 Hz conversion	

Frequency Compatibility Details	Automatic frequency selection	
Output Voltage Regulation (Line Mode)	+/- 1%	
Output Voltage Regulation (Economy Line Mode)	+/-15V of nominal	
Output Voltage Regulation (Battery Mode)	+/- 1%	
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	Yes	
BATTERY		
Expandable Runtime	Yes	
External Battery Pack Compatibility	BP480V100; <a class="productLink" href="//tripplite.eaton.com/external-ups-battery-pack-40-100-Ah-no-
battery~BP480V100-NIB">BP480V100-NIB ; BP480V40; <a <br="" class="productLink">href="//tripplite.eaton.com/external-ups-battery-pack-40-Ah-no-battery~BP480V40-NIB">BP480V40- NIB ; BP480V65	
DC System Voltage (VDC)	+/- 240	
Battery Recharge Rate (Included Batteries)	9 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	
USER INTERFACE, ALERTS & CON	TROLS	
Front Panel LCD Display	Large (25.4cm/10 in) color touchscreen display enables comprehensive local monitoring, diagnostics and control through an advanced, intuitive and user-friendly interface. The display has six sub-screens: HOME, CONTROL, MEASUREMENTS, SETUP, INFORMATION and EVENT. Each of these screens is intuitive and comprehensive providing specifics from input and output phase loads, voltages, frequencies, battery charge status, system operating mode (online, standby, ECO, Battery, fault) status, specific measurement in every operating mode, current and event history of up to 500 events to enable diagnostics and system fault troubleshooting. It is powerful local management tool at your fingertips.	
Audible Alarm	Alarms warn users of a variety of operational conditions: There are audible alarms for all modes of operation, as well as fault modes. Please refer to the owner's manual for a full list of audible alarms. Here are a few: Bypass Mode (beeps every 1 min), Battery Mode (beeps every 2 seconds), Low Battery Mode (beeps every 0.5 seconds), UPS Fault Mode (beeps continuously), and UPS alarm (beeps every 1 seconds).	
LED Indicators	6 LEDs report BYPASS / LINE / INV/ BATTERY / FAULT/ALARM modes	
PHYSICAL		
Primary Form Factor	Tower	
Cooling Method	Fans	
Installation Form Factors Supported with Included Accessories	Tower	

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Primary UPS Depth (mm)	996
Primary UPS Height (mm)	1,015
Primary UPS Width (mm)	567
Shipping Dimensions (hwd / in.)	46.50 x 27.80 x 44.30
Shipping Dimensions (hwd / cm)	118.11 x 70.61 x 112.52
Shipping Weight (lbs.)	569.89
Shipping Weight (kg)	258.50
UPS Housing Material	Steel
UPS Power Module Dimensions (Height x Width x Depth, mm)	1015 x 567 x 945
UPS Power Module Dimensions (hwd, cm)	101.50 x 56.69 x 99.57
UPS Power Module Dimensions (hwd, in.)	39.96 x 22.32 x 39.20
UPS Power Module Weight (kg)	232.24
UPS Power Module Weight (lbs.)	512
ENVIRONMENTAL	
Operating Temperature Range	32° to 104°F (0° to 40°C)
Storage Temperature Range	5° to 140°F (-15° to 60°C) without battery
Relative Humidity	5 to 95%, non-condensing
Operating Elevation (ft.)	< 3280ft (Capacity de-rates by 1% for every 328ft over 3280ft)
Audible Noise	<70dBA at 1meter
Operating Elevation (m)	< 1000m (Capacity de-rates by 1% for every 100m over 1000m)
COMMUNICATIONS	
Network Management Cards	<a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-
Card~WEBCARDLX">WEBCARDLX ; <a <br="" class="productLink">href="//tripplite.eaton.com/Programmable-RS-485-Management-Accessory-Card-for-Select-3-Phase-UPS- Systems~MODBUSCARDSV">MODBUSCARDSV ; RELAYCARDSV
Network Monitoring Port Description	Card accessory slot supports network management interface WEBCARDLX card or programmable I/O relay RELAYCARDSV card options
Communications Cable	DB9/RS-232 cable included
Communications Interface	DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface
LINE / BATTERY TRANSFER	
Transfer Time	Zero transfer time Online to Battery, Inverter to Bypass 0ms (Synchronous), and Inverter to ECO mode < 20ms.
Low Voltage Transfer to Battery Power (Setpoint)	120V(Ph-N), 208V (Ph-Ph) @ 50% load / 176V (Ph-N), 305V (Ph-Ph) @ 100% load.
High Voltage Transfer to Battery Power (Setpoint)	276 (Ph-N), 478V (Ph-Ph) @ 50% or 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 WEBCARDLX); Zero transfer time; On-Line/Double-Conversion	
Green Energy-Saving Features	High efficiency economy mode operation	
Grounding Lug	Yes	
IP68 Rated	No	
IP20 Rated	No	
STANDARDS & COMPLIANCE		
Product Certifications	IEC/EN 62040	
Product Compliance	RoHS; CE (Europe); UKCA	
WARRANTY & SUPPORT		
Product Warranty Period (U.S. & Canada)	2-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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