

SmartOnline S3MX Series 3-Phase 380/400/415V 160kVA 144kW On-Line Double-Conversion UPS

MODEL NUMBER: **S3M160KX**



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® S3M160KX 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 160kVA 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 double-conversion UPS system has a very small footprint of just 0.56 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 S3M160KX uses external scalable battery cabinets, such as 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 160kVA
- 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

- Fit 160kVA UPS in best-in-class footprint to save space for revenue-generating equipment
- Back up critical IT equipment and data in network, telecom, financial and light industrial applications
- Maintain data-center operations during all power conditions

Package Includes

- S3M160KX SmartOnline S3MX Series 3-Phase 380/400/415V 160kVA 144kW On-Line Double-Conversion UPS
- P100200KIT parallel cable kit
- RS-232 cable
- Owner's manual

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 S3M160KX units in parallel using separate/shared battery cabinets for increased capacity and fault tolerance (N+1 redundancy).

Specifications

OVERVIEW	
UPC Code	037332225443
UPS Type	On-Line
INPUT	
Input Phase	3-Phase
Rated input current (Maximum Load)	275A
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	400A (3 pole)
Power Factor (Input)	.99PF (100% load)
THDi	<3% (100% load)
OUTPUT	
Output Capacity (VA)	160000
Output Capacity (kVA)	160
Output Capacity (Watts)	144000
Output Capacity (kW)	144.00
Output Capacity Details	Supports up to 100% load continuously in double conversion mode; Supports up to 110% load for 60 minutes, up 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 less than 100%; Configuration options support up to 2 S3M160KX 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

Primary UPS Depth (mm)	996
Primary UPS Height (mm)	1,455
Primary UPS Width (mm)	567
Shipping Dimensions (hwd / in.)	63.40 x 27.80 x 44.30
Shipping Dimensions (hwd / cm)	161.04 x 70.61 x 112.52
Shipping Weight (lbs.)	739.70
Shipping Weight (kg)	335.52
UPS Housing Material	Steel
UPS Power Module Dimensions (Height x Width x Depth, mm)	1455 x 567 x 995
UPS Power Module Dimensions (hwd, cm)	145.54 x 56.69 x 99.57
UPS Power Module Dimensions (hwd, in.)	57.3 x 22.32 x 39.20
UPS Power Module Weight (kg)	308.99
UPS Power Module Weight (lbs.)	681.2
ENVIRONMENTAL	
Operating Temperature Range	0C to +40C (32-104F)
Storage Temperature Range	-15C to 60C (5 to +140F) 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	<73dBA at 1meter
Operating Elevation (m)	< 1000m (Capacity de-rates by 1% for every 100m over 1000m)
COMMUNICATIONS	
Network Management Cards	WEBCARDLX; MODBUSCARDSV ; RELAYCARDSV
Network Monitoring Port Description	Card accessory slot supports network management interface WEBCARDLX card or a programmable I/O RELAYCARDSV relay 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 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); 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