SmartOnline S3MX Series 3-Phase 380/400/415V 80kVA 72kW On-Line Double-Conversion UPS

MODEL NUMBER: **S3M80KX**







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 Loads The SmartOnline® S3M80KX 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 80kVA 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 Application This on-line double-conversion UPS system has a very small footprint of just 0.28 square meters. It requires less valuable space in your facility, and you can install the UPS system in spaces that would previously have required expensive retrofitting.

Efficient Operation and Design Reduces Cost of Ownership This 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 Options The S3M80KX 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. The UPS system automatically restarts after a lengthy power outage.

Intuitive LCD Interface Delivers Important Performance Information at a Glance The interactive front-panel LCD interface displays critical operating conditions and diagnostic data, including operating mode, input/output voltage, load, battery voltage, backup runtime and fault conditions. Four LEDs provide information about line, bypass, battery and fault status.

Optional WEBCARDLX Network Interface Offers 24/7 Remote Access for Monitoring and Control The optional WEBCARDLX (sold separately) with the latest version of PowerAlert Device

Highlights

- Best-in-class footprint and power density minimize space requirements for up to 80kVA
- Intuitive LCD interface offers key performance, configuration and diagnostics info
- High efficiency (94% on-line, 98% ECO mode) helps reduce operating costs
- Add optional WEBCARDLX with latest version of PADM20 for enhanced remote management
- Parallel capability provides increased capacity and redundancy up to 3 units

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, automation-system and production-line operations during all power conditions

Package Includes

- S3M80KX SmartOnline S3MX Series 3-Phase 380/400/415V 80kVA 72kW On-Line Double-Conversion UPS
- P3080KIT parallel cable kit
- RS-232 cable
- Owner's manual

Manager firmware (PADM20) provides enhanced remote management capabilities, including customizable dashboard graphs to fit user preferences. The PADM20 upgrade and 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.

Parallel Capability Provides Additional Capacity and Redundancy up to 3 Units Connect up to three S3M80KX units in parallel using separate/shared battery cabinets for increased capacity.

Specifications

OVERVIEW	
UPC Code	037332225412
UPS Type	On-Line
INPUT	
Input Phase	3-Phase
Rated input current (Maximum Load)	122.2A
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	6 x 30A fuses/Phase
Power Factor (Input)	.99PF (100% load)
THDi	<3% (100% load)
OUTPUT	
Output Capacity (VA)	80000
Output Capacity (kVA)	80
Output Capacity (Watts)	72000
Output Capacity (kW)	72.00
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 less than 70%; Configuration options support up to 3 S3M30KX systems wired in parallel for increased capacity or fault-tolerant, 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)	+/-11V 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	No
BATTERY	
Expandable Runtime	Yes
External Battery Pack Compatibility	BP480V100; BP480V100-NIB; BP480V40; 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 & 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)	790
Primary UPS Height (mm)	1,010
Primary UPS Width (mm)	360
Shipping Dimensions (hwd / in.)	47.24 x 18.89 x 35.82
Shipping Dimensions (hwd / cm)	119.99 x 47.98 x 90.98

Shipping Weight (lbs.)	297.00
Shipping Weight (kg)	134.72
UPS Housing Material	Steel
UPS Power Module Dimensions (Height x Width x Depth, mm)	1010 x 360x 790
UPS Power Module Dimensions (hwd, cm)	100.99 x 35.99 x 78.99
UPS Power Module Dimensions (hwd, in.)	39.76 x 14.17 x 31.10
UPS Power Module Weight (kg)	112.94
UPS Power Module Weight (lbs.)	249
Unit Weight (lbs.)	249
Unit Weight (kg)	112.94
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
Operating Elevation	0-3280 ft. (0-1000 m)
Audible Noise	<75BA at 1meter
COMMUNICATIONS	
Network Management Cards	WEBCARDLX; WEBCARDLXE ; MODBUSCARDSV; RELAYCARDSV
Network Monitoring Port Description	Card accessory slot supports network management interface or programmable I/O 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 < 10ms.
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 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); 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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