

SmartOnline S3MX Series 3-Phase 380/400/415V 40kVA 36kW On-Line Double-Conversion UPS

MODEL NUMBER: **S3M40KX**



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® S3M40KX 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 40kVA 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 0.24 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.

Supplies Reliable Battery Backup with Expandable Runtime Options

Internal 10Ah batteries provide 14 minutes of support at half load and five minutes at full load with zero transfer time. Adding external battery cabinets, such as BP480V10 (sold separately), provides extended runtime. The S3M40KX 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.

Highlights

- Best-in-class footprint and power density minimize space requirements for up to 40kVA
- Intuitive LCD interface offers key performance, configuration and diagnostics info
- High efficiency (94% on-line, 98% ECO mode) helps reduce operating costs
- Optional WEBCARDLX network management card allows cost-effective remote management
- Parallel capability provides increased capacity

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 server-room operations during all power conditions, including short blackouts

Package Includes

- S3M40KX SmartOnline S3MX Series 3-Phase 380/400/415V 40kVA 36kW On-Line Double-Conversion UPS
- RS-232 cable
- Owner's manual



Network Management Card Offers Remote Monitoring and Control

The optional Java-free WEBCARDLX network management card (sold separately) enables remote management through embedded HTML5 web, SSH/telnet and SNMP interfaces, as well as integration with a wide range of network management systems and DCIM platforms. A Remote Emergency Power Off (REPO) port allows shutdown from a safe distance during emergencies.

Parallel Capability Provides Additional Capacity

Connect up to three S3M40KX units in parallel using separate/shared battery cabinets for increased capacity.

2-Year Warranty Provides Peace of Mind

The S3M40KX is backed by a 2-year warranty, ensuring reliability and performance.

Specifications

OVERVIEW	
UPC Code	037332225399
OUTPUT	
Output Volt Amp Capacity (VA)	40000
Output kVA Capacity (kVA)	40.00
Output Watt Capacity (Watts)	36000
Output kW Capacity (kW)	36.00
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
Nominal Output Voltage(s) Supported	220/380V 3-PH Wye; 230/400V 3-PH Wye; 240/415V 3-PH Wye
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 Receptacles	Hardwire
Output AC Waveform (AC Mode)	Pure Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave



INPUT	
Rated input current (Maximum Load)	61A
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	80A (3 pole)
Input Phase	3-Phase
Power Factor (Input)	.99PF (100% load)
THDi	<3% (100% load)
BATTERY	
Full Load Runtime (min.)	5 min. (36kW)
Half Load Runtime (min.)	14 min. (18kW)
Expandable Battery Runtime	Supports extended runtime with optional external battery packs
External Battery Pack Compatibility	 BP480V10
DC System Voltage (VDC)	+/- 240
Battery Recharge Rate (Included Batteries)	9 hours to 90% (Internal batteries)
Expandable Runtime	Yes
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	
Installation Form Factors Supported with Included Accessories	Tower



Primary Form Factor	Tower
UPS Power Module Dimensions (hwd, in.)	39.37 x 11.81 x 32.08
UPS Power Module Dimensions (hwd, cm)	100.00 x 30.00 x 81.48
UPS Power Module Weight (lbs.)	696
UPS Power Module Weight (kg)	315.70
Shipping Dimensions (hwd / in.)	47.44 x 16.90 x 36.22
Shipping Dimensions (hwd / cm)	120.50 x 42.93 x 92.00
Shipping Weight (lbs.)	709.00
Shipping Weight (kg)	321.60
Cooling Method	Fans
UPS Housing Material	Steel
UPS Power Module Dimensions (Height x Width x Depth, mm)	1000 x 300 x 815
Primary UPS Height (mm)	1,000
Primary UPS Width (mm)	300
Primary UPS Depth (mm)	815
ENVIRONMENTAL	
Operating Temperature Range	0 to +40C (32-104F)
Storage Temperature Range	0 to +35C (32 to 95F) with battery; -15 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	<60dBA at 1meter
Operating Elevation (m)	< 1000m (Capacity de-rates by 1% for every 100m over 1000m)
COMMUNICATIONS	
Communications Interface	DB9 Serial; EPO (emergency power off); Slot for SNMP/Web interface
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
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)	276V (Ph-N), 478V (Ph-Ph) @ 50% or 100% load.



SPECIAL FEATURES	
Grounding Lug	Yes
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Automatic inverter bypass; Manual bypass switch
Green Energy-Saving Features	High efficiency economy mode operation
CERTIFICATIONS	
UPS Certifications	CE
UPS Certification Details	IEC/EN 62040-1:2008+A1 (Safety); IEC/EN 62040-2:2006 (Category C3)
WARRANTY	
Product Warranty Period (International)	2-year limited warranty

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