

3-Phase 208/220/120/127V 10kVA/kW Double-Conversion UPS - Unity PF, 2 Internal Battery Strings

MODEL NUMBER: **S3M10K2B**



On-line UPS supports the continuous availability of critical loads in a compact footprint without compromising runtime, reliability or functionality.

Features

Battery Backup and VFI Operation Protect Critical Loads

The SmartOnline® S3M10K2B IGBT UPS supports the continuous availability of your most important operational and IT equipment 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 10kVA/kW of clean, continuous power, this 3-phase UPS system is ideally suited for critical applications in banking, education, healthcare, government and manufacturing sectors.

Best-in-Class Footprint for Easy Integration into Your Network Application

The UPS market's smallest footprint for 3-phase 208V systems lets you install the S3M10K2B in spaces that would otherwise have required expensive retrofitting. By achieving its compact size without compromising runtime, reliability or functionality, the S3M10K2B is recommended for data centers, colocation facilities and edge computing environments that require high efficiency, high performance and clean, reliable power protection, while preserving as much space as possible for revenue-generating server racks.

Efficient Operation and Design Reduces Cost of Ownership

ENERGY STAR 2.0-certified technology provides high operational efficiency to save on utility and cooling costs, as well as protect the environment. This UPS achieves up to 94% efficiency in double-conversion mode and up to 98% in ECO mode, reducing your power and cooling costs. Unity output power factor (1.0) lets you support more equipment. A low THDi (<1%) improves generator compatibility. A low THDv (1%) and active power factor correction with DSP control 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. Automatic 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

Two internal battery modules provide 22 minutes of support at half load and nine minutes at full load with zero transfer time. Adding external battery cabinets, such as BP24V09K and BP240V09 (sold separately), provides extended runtime and supports critical loads uninterrupted during successive utility network

Highlights

- Best-in-class footprint saves space in server room for revenue-generating equipment
- ENERGY STAR 2.0-certified efficiency, up to 98% in ECO, and up to 94% Online helps reduce utility and cooling costs
- Unity output power factor (1.0) allows support of more equipment without overloading
- Optional WEBCARDLXMINI network card allows cost-effective remote management 24/7
- Parallel capability provides increased capacity and redundancy up to 4 units

Applications

- Fit 10kVA/kW UPS and batteries 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 server-room operations during all power conditions, including short blackouts

Package Includes

- S3M10K2B UPS
- RS-232 Cable (Male/Female), 5 ft. (1.5 m)
- Parallel Cable (Male/Female), 5 ft. (1.5 m)
- USB Cable, 5 ft. (1.5 m)
- Battery Cable Anderson Connectors Set to Terminate a Battery Cable (2 Black, 2 White, 2 Red and several metal terminals)
- Cable Glands (x6) for Cable Landing Box (waterproof fasteners)
- Dry Contact Connector (Green)
- Owner's Manual

outages. A one-touch cold-start button powers up the UPS with battery power only.

Intuitive LCD Interface Delivers Important Performance Information at a Glance

The large five-inch touchscreen LCD panel displays critical operating conditions and diagnostic data, including battery and load status. Four LEDs provide information about AC, bypass, battery and fault status.

Remote Network Monitoring and Control Available 24 Hours a Day

The optional Java-free WEBCARDLXMINI 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. WEBCARDLXMINI also supports EnviroSense2 (sold separately), which monitors temperature, humidity and other environmental factors. Three MODBUS ports (RS-485, USB, RS-232) may also be used to monitor and manage the UPS. A Remote Emergency Power Off (REPO) port allows shutdown from a safe distance during emergencies.

Parallel Capability Provides Additional Capacity

Connect up to four S3M10K2B units in parallel using separate/shared battery cabinets for 40kVA maximum capacity or N+N fault tolerance redundancy.

Specifications

| OVERVIEW | |
|------------------------------------|--|
| UPC Code | 037332247773 |
| UPS Type | On-Line |
| INPUT | |
| Input Phase | 3-Phase |
| Rated input current (Maximum Load) | 37.6A (166VAC); 35.5A (176VAC) |
| Nominal Input Voltage(s) Supported | 120/208V 3-PH Wye; 127/220V 3-PH Wye |
| Nominal Input Voltage Description | 3-Phase Wye, 4 wire (L1, L2, L3, N, G) |
| UPS Input Connection Type | Hardwire |
| Input Circuit Breakers | 50A 3 pole magnetic breaker |
| Power Factor (Input) | >0.99 (maximum resistive load) |
| THDi | <2% (100% non-linear load), <5% (100% non-linear load) |
| OUTPUT | |
| Output Capacity (VA) | 10000 |
| Output Capacity (kVA) | 10 |
| Output Capacity (Watts) | 10000 |
| Output Capacity (kW) | 10 |
| Output Capacity Details | Supports parallel connection of up to 4 S3M10K2B systems for 40kVA max capacity or N+N fault tolerance redundancy; Supports up to 100% load continuously, 110% load for 60 minutes, 125% load for up to 10 minutes, 150% load for up to 1 minute and over 150% transfers to bypass mode; Automatic inverter restart is available when the load level recovers to 95% or less after overload-related transfer to bypass |

| | |
|---|---|
| Power Factor | 1.0 |
| Crest Factor | 3:1 |
| Nominal Voltage Details | Factory default output voltage is 120/208V; Less than $\pm 1^\circ$ Max Phase Angle Deviation; Less than $\pm 3\%$ Max Voltage Unbalance Deviation |
| Frequency Compatibility | 50 / 60 Hz |
| Frequency Compatibility Details | Auto-selectable frequency configuration |
| Output Voltage Regulation (Line Mode) | $\pm 1\%$ |
| Output Voltage Regulation (Economy Line Mode) | $\pm 10\%$ |
| Output Circuit Breakers | 50A 3 pole magnetic breaker |
| Output AC Waveform (AC Mode) | Pure Sine wave |
| Output AC Waveform (Battery Mode) | Pure Sine wave |
| Nominal Output Voltage(s) Supported | 120/208V 3-PH Wye; 127/220V 3-PH Wye |
| Output Receptacles | Hardwire |
| Individually Controllable Load Banks | No |
| BATTERY | |
| Runtime Full Load (min.) | 9 min. (10kW) |
| Runtime Half Load (min.) | 22 min. (5kW) |
| Expandable Runtime | Yes |
| Expandable Runtime Description | External battery pack cabling supplied by contractor or installer |
| External Battery Pack Compatibility | BP240V09-NIB ; BP240V09K |
| DC System Voltage (VDC) | ± 120 VDC |
| Battery Recharge Rate (Included Batteries) | Up to 8 hours to 90%; Battery charge current adjustable from 1 to 20A (2.7A factory default) |
| Typical Battery Lifespan | Lifespan depends on ambient temperature, and battery maintenance |
| VOLTAGE REGULATION | |
| Voltage Regulation Description | Online, double-conversion power conditioning maintains $\pm 1\%$ output voltage regulation |
| Overvoltage Correction | Maintains continuous operation without using battery power during overvoltages up to 275 VAC |
| Undervoltage Correction | Maintains continuous operation without using battery power during brownout/undervoltage conditions to 125Vac |
| USER INTERFACE, ALERTS & CONTROLS | |

| | |
|---|---|
| Front Panel LCD Display | Large touchscreen color LCD display (5in/ 12.7cm) enables comprehensive local monitoring, diagnostics and control through an advanced, intuitive and user-friendly interface. The display has seven sub-screens: HOME, STATUS, ALARM, SETTING, MAINT, COMMON and ABOUT. Each of these screens is intuitive and comprehensive providing specifics from voltages, frequencies, battery charge status, system operating mode (online, standby, ECO, Battery, fault) status, specific measurement in every operating mode, current and event history to enable diagnostics and system fault troubleshooting. It is powerful local management tool at your fingertips. LCD supports English, Spanish and French. |
| Switches | POWER button turns UPS system on and off; EPO (Emergency Power Off) button turns UPS output off and disables Bypass output, and Cold Start Button turns UPS on with batteries in battery mode. |
| Alarm Cancel Operation | Alarm can be silenced in sub-screen ALARM by muting the buzzer. |
| Audible Alarm | Alarms signal a variety of operational conditions: low-battery, overload, shutdown, bypass and more |
| LED Indicators | Four LEDs indicate AC mode (Green), Bypass (Yellow), Battery (Yellow) and Fault (Red) modes |
| SURGE / NOISE SUPPRESSION | |
| EMI / RFI AC Noise Suppression | Yes |
| AC Suppression Response Time | Instantaneous |
| PHYSICAL | |
| Primary Form Factor | Tower |
| Cooling Method | Fans |
| Installation Form Factors Supported with Included Accessories | Tower |
| Primary UPS Depth (mm) | 900 |
| Primary UPS Height (mm) | 868 |
| Primary UPS Width (mm) | 250 |
| Shipping Dimensions (hwd / in.) | 41.61 x 14.37 x 39.92 |
| Shipping Weight (kg) | 211.83 |
| UPS Housing Material | Steel |
| UPS Power Module Dimensions (hwd, in.) | 34.17 x 9.84 x 35.43 |
| Unit Dimensions (hwd / in.) | 34.170 x 9.840 x 35.430 |
| Unit Weight (lbs.) | 412 |
| Unit Weight (kg) | 186.88 |
| ENVIRONMENTAL | |
| Operating Temperature Range | 32° to 104°F (0° to 40°C) |
| Storage Temperature Range | 32° to 95° F (0° to 35°C) (with batteries installed) 5° to 140° F (-15° to 60°C) (without batteries) |
| Relative Humidity | Up to 95%, non-condensing |
| AC Mode BTU / Hr. (Full Load) | 2457 |
| AC Economy Mode BTU / Hr. (Full Load) | 450 |

| | |
|---|--|
| AC Mode Efficiency Rating (100% Load) | 93% |
| AC Economy Mode Efficiency Rating (100% Load) | 97.3% |
| Operating Elevation (ft.) | 0 to 3280 feet, derates 1% per 328 ft above 3280 ft |
| Audible Noise | Less than 58dBA at 1m |
| Operating Elevation (m) | 0 to 1000m, but derates 1% per 100 m above 1000 m |
| COMMUNICATIONS | |
| Network Management Cards | WEBCARDLX; WEBCARDLXMINI |
| Network Monitoring Port Description | Additional built-in set of INPUT and OUTPUT contacts support remote notification of Online Mode operation, Battery Mode operation, Bypass Mode operation, Abnormal Bypass Mode Source, Battery Test Failure and Low Battery conditions |
| PowerAlert Software | Available via free download from https://tripplite.eaton.com/products/power-alert |
| Communications Cable | DB9 (RS-232) cabling included USB cable included Paralleling UPS cable included |
| Communications Interface | DB9 Serial; EPO (emergency power off); RS-232; Slot for SNMP/Web interface; USB-B |
| LINE / BATTERY TRANSFER | |
| Transfer Time | Online mode: transfer time (0 ms.); (AC to battery; Inverter to Bypass, 0 ms) |
| Low Voltage Transfer to Battery Power (Setpoint) | Maintains continuous operation without using battery power during brownout/undervoltage conditions down to 125VAC (at <50% load). Below this point, output is maintained utilizing reserve battery power |
| High Voltage Transfer to Battery Power (Setpoint) | Maintains continuous operation without using battery power during overvoltages to 275VAC. Above this point, output is maintained utilizing reserve battery power |
| FEATURES & SPECIFICATIONS | |
| Cold Start (Startup in Battery Mode During a Power Failure) | Cold-Start dedicated button on the back of the UPS |
| High Availability UPS Features | Auto Probe Monitoring and Reboot (requires WEBCARDLXMINI); Automatic inverter bypass; Manual bypass switch; On-Line/Double-Conversion; On-Line (VFI) Operation; Pure sine wave output; Remote management; Sine wave output; Surge/noise protection; Zero transfer time |
| Green Energy-Saving Features | High efficiency economy mode operation; Schedulable daily hours of economy mode operation |
| Grounding Details | Yes |
| IP68 Rated | No |
| IP20 Rated | No |
| APPLICATIONS | |
| UPS Applications | Mission Critical Applications |
| STANDARDS & COMPLIANCE | |
| Product Certifications | RETIE (Colombia); CSA (Canada); UL 1778 |
| Product Compliance | RoHS; CE (Europe); ENERGY STAR Qualified; REACH; FCC Part 15 Class A (USA) |

TRIPP-LITE

by **EAT•N**

1000 Eaton Boulevard
Cleveland, OH 44122
United States

| 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 |

TRIPP-LITE

by **EAT•N**

© 2023 Eaton. All Rights Reserved.
Eaton is a registered trademark. All other trademarks
are the property of their respective owners.