

# SmartOnline 40kVA Modular 3-Phase UPS System, On-line Double-Conversion International UPS

MODEL NUMBER: **SU40KX** 





#### Description

Tripp Lite's SU40KX (40kVA) SmartOnline Modular 3-Phase Intelligent, True On-Line UPS System provides 100% system availability with N+1 modular architecture and 1+1 parallel capability. In N+1 configuration, the SU40KX provides two self-contained, redundant 20kVA power modules that can be hotswapped (load remaining powered) if maintenance is required. In 1+1 configuration, two SU40KX models connected in parallel can provide fail-safe redundancy (two 40kVA models supporting a 40kVA load) or increased capacity (two 40kVA models supporting an 80kVA load). Large capacity 40,000VA/32,000W UPS continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Perfectly regulated, continuous sine wave output with zero transfer time assures compatibility with all equipment types. High input power factor, advanced IGBT inverter technology and Digital Signal Processor (DSP) technology produce less than 3% input total harmonic distortion (THDi). With low THDi, generators run cooler and last longer, allowing managers to save installation costs by installing a generator with a capacity equal to the equipment load (1:1 ratio). Extremely efficient operation (up to 97%) saves money by lowering electricity consumption. Hardwire input and output connections. Frequency is 50 or 60 Hz (auto-selectable). The SU40KX combines internal power and battery modules in a single small-footprint tower compartment. Typical half-load/full-load runtimes are 13 min./5.5 min. Battery runtime can be extended with optional stand-alone hardwired external battery modules (Models BP480V26B and BP480V40C, available separately). A manual bypass breaker and an automatic bypass function ensure 100% availability of connected equipment by safely passing through AC power if the UPS requires maintenance.

## **Features**

- N+1 configuration: If maintenance is required, two self-contained, redundant 20kVA power modules can be hot-swapped with the load remaining powered
- 1+1 configuration: Two SU40KX can be connected in parallel to provide either fail-safe redundancy or increased capacity

# **Highlights**

- 40,000 VA (40kVA) 3-phase tower UPS
- N+1 redundant modular architecture helps assure 100% availability
- 1+1 parallel capability allows for system redundancy or increased capacity
- Low THDi reduces installation costs by permitting 1:1 generator sizing
- 3-phase hardwire (220/380V, 230/400V or 240/415V AC, 3phase, 4-wire + ground, wye) input/output
- IGBT technology and zero transfer time, on-line doubleconversion operation
- Runtime is expandable via external battery cabinet options

### **Package Includes**

- SU40KX UPS System
- DB9 Serial cable
- · Instruction manual
- Warranty information



- High input power factor, advanced IGBT inverter technology and Digital Signal Processor (DSP) technology produce low input total harmonic distortion (THDi)
- Low THDi (less than 3%) reduces installation costs by allowing 1:1 generator sizing
- · Extremely efficient operation (up to 97%) saves money by reducing electricity consumption
- True on-line, double-conversion UPS with IGBT technology provides pure sine wave AC output at all times
- Maintains continuous operation with zero transfer time through blackouts, voltage fluctuations and surges
- Removes harmonic distortion, electrical impulses, frequency variations and other hard-to-solve power problems
- 40,000VA/32,000W power capacity with 3-phase, hardwire input/output connections
- Wide input voltage correction range: 173-300V/276-477V AC
- Precision +/-1% output voltage regulation
- Internal power and battery modules are combined in a single small-footprint tower compartment. Typical half-load/full-load runtimes are 13 min./5.5 min. Battery runtime can be extended with optional standalone hardwired external battery modules (Models BP480V26B and BP480V40C, available separately)
- Front panel combination LCD/LED display includes a real-time event log screen with up to 500 events listed
- Dynamic battery management screen optimizes battery function to lengthen service life and allow cold restart of the UPS
- Serial port enables data-saving unattended shutdown when used with Tripp Lite's PowerAlert software, available via FREE download from <a href="mailto:tripplite.eaton.com/products/power-alert">tripplite.eaton.com/products/power-alert</a>
- Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD
- Emergency Power Off button turns UPS output OFF and disables Bypass output
- Built-in Emergency Power Off (EPO) dry-contact interface supports remote emergency shutdown in large facilities

# **Specifications**

OVERVIEW			
UPC Code	037332141378		
UPS Type	On-Line		
INPUT			
Input Phase	3-Phase		
Rated input current (Maximum Load)	48A/50A/53A		
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 (L1, L2, L3, N, G)		
UPS Input Connection Type	Hardwire		
ОИТРИТ			
Output Capacity (VA)	40000		
Output Capacity (kVA)	40		



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Output Capacity (Watts)	32000	
Output Capacity (kW)	32	
Power Factor	0.8	
Crest Factor	3:1	
Frequency Compatibility	50 / 60 Hz	
Output Voltage Regulation (Line Mode)	+/- 1%	
Output Voltage Regulation (Battery Mode)	+/- 1%	
Output AC Waveform (AC Mode)	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		
Runtime Full Load (min.)	5.5 min. (32kw)	
Runtime Half Load (min.)	13 min. (16kw)	
Expandable Runtime	Yes	
Expandable Runtime Description	External battery pack wiring is contractor supplied	
External Battery Pack Compatibility	BP480V200; BP480V26B; BP480V300; BP480V400; <a class="productLink" href="//tripplite.eaton.com/External-Battery-Pack-for-select-Tripp-Lite-3-Phase-UPS-Systems~BP480V40C">BP480V40C</a> ; <a class="productLink" href="//tripplite.eaton.com/External-Battery-Pack-3-Phase-UPS-Systems~BP480V500">BP480V500</a> <a href="//tripplite.eaton.com/External-Battery-Pack-3-Phase-UPS-Systems~BP480V500">BP480V500</a>	
DC System Voltage (VDC)	+/- 240VDC	
Battery Recharge Rate (Included Batteries)	4 hours from 10% to 90%	
Battery Replacement Description	Hot-swappable, replaceable batteries	
VOLTAGE REGULATION		
Voltage Regulation Description	Online, double-conversion power conditioning	
Overvoltage Correction	Maintains continuous operation without using battery power during overvoltages to 276-477 (3-phase, 4-wire, wye), reducing output within 1% of nominal	
Undervoltage Correction	Maintains continuous operation without using battery power during brownout/undervoltage conditions to 173-300 (3-phase, 4-wire, wye)	
USER INTERFACE, ALERTS & CONTROLS		
Switches	ON button turns UPS inverter on. OFF button turns UPS inverter off. LCD Display Control Buttons browse through and select items displayed on LCD screen. EPO (Emergency Power Off) button turns UPS output off and disables Bypass output	
Alarm Cancel Operation	Power-fail alarm can be silenced using alarm-cancel switch	



Audible Alarm	Alarms signal a variety of operational conditions: low-battery, overload, shutdown, bypass and more	
LED Indicators	4-LED Display: Displays normal AC input, on battery power, bypass input and fault conditions	
SURGE / NOISE SUPPRESSION		
EMI / RFI AC Noise Suppression	Yes	
AC Suppression Joule Rating	5950	
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)	856	
Primary UPS Height (mm)	1,163	
Primary UPS Width (mm)	521	
Shipping Dimensions (hwd / in.)	54.50 x 28.50 x 42.50	
Shipping Dimensions (hwd / cm)	138.43 x 72.39 x 107.95	
Shipping Weight (lbs.)	1058.00	
Shipping Weight (kg)	479.90	
UPS Housing Material	Steel	
UPS Power Module Dimensions (hwd, cm)	116.33 x 52.07 x 85.60	
UPS Power Module Dimensions (hwd, in.)	45.8 x 20.5 x 33.7	
UPS Power Module Weight (kg)	411.86	
UPS Power Module Weight (lbs.)	908	
ENVIRONMENTAL		
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius	
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius	
Relative Humidity	0 to 95%, non-condensing	
AC Mode BTU / Hr. (Full Load)	7006	
Battery Mode BTU / Hr. (Full Load)	6975	
COMMUNICATIONS		



Network Management Cards	SNMPWEBCARD; <a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~TLNETCARD">TLNETCARD</a> ; <a class="productLink" href="//tripplite.eaton.com/Web-Management-Accessory-Card~WEBCARDLX">WEBCARDLX</a> ; <a class="productLink" href="//tripplite.eaton.com/MODBUS-Management-Accessory-Card-UPS-Remote-Monitoring-Control-MODBUSCARD">MODBUSCARD</a> ; <a class="productLink" href="//tripplite.eaton.com/Programmable-Relay-I-O-Card~RELAYIOCARD">RELAYIOCARD</a>	
PowerAlert Software	For local monitoring via the UPS's built-in communication ports, download PowerAlert software at https://tripplite.eaton.com/products/power-alert	
Communications Cable	DB9 cabling included	
Communications Interface	DB9 Serial; Slot for SNMP/Web interface	
LINE / BATTERY TRANSFER		
Transfer Time	No transfer time (0 ms.) in online, double-conversion mode	
Low Voltage Transfer to Battery Power (Setpoint)	Maintains continuous operation without using battery power during brownout/undervoltage conditions to 173-300V AC (3-phase, 4-wire, wye). 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 276-477V AC (3-phase, 4-wire, wye), reducing output within 1% of nominal. Above this point, output is maintained utilizing reserve battery power	
FEATURES & SPECIFICATIONS		
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported	
High Availability UPS Features	Automatic inverter bypass; Hot swappable batteries	
Green Energy-Saving Features	High efficiency economy mode operation; Schedulable daily hours of economy mode operation	
WARRANTY & SUPPORT		
Product Warranty Period (International)	2-year limited warranty	
Product Warranty Period (Mexico)	1-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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