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## Model #: SU20K3/3

### SmartOnline 3-Phase UPS System - 3-Phase on-line, double-conversion protection for mission critical applications



#### Highlights

- 20,000 VA (20kVA) tower UPS with internal batteries
- Saves valuable space: power and battery components combined into a single small-footprint module
- Simplifies runtime scalability: convenient front-panel battery access for expandable runtime with additional internal battery packs
- 3-phase hardwire input and output (120/208VAC). Wide input voltage correction range (88 - 144V AC / 166 - 250V AC)
- IGBT technology and zero transfer time, on-line, double-conversion operation
- 3 communication ports, SNMP card slot and EPO jack

#### Description

Tripp Lite's SU20K3/3 20kVA SmartOnline 3-Phase Intelligent, True On-Line UPS System has been redesigned to save valuable space and simplify runtime scalability. Power and battery components are combined into a single, small-footprint module (the smallest in its class). A robust internal battery runtime capability can be easily extended by installing additional optional internal battery packs through the convenient front panel access door.

The SU20K3/3 provides mission-critical equipment with the highest level of power protection available. Large capacity 20,000VA/16,000 watt 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 offers compatibility with all equipment types. IGBT inverter technology produces output power with <3% THD (total harmonic distortion), allowing connected equipment to perform at its peak. A 3:1 crest factor safely supports a variety of equipment, even those with wildly-fluctuating power demands. Extremely efficient operation saves money by lowering electricity consumption. Hardwire input and output connections support a variety of permanent or PDU style power connections. SU20K3/3 features 120/208V AC, 3-phase, 4-wire (plus ground), wye input and output. It also features a wide input voltage correction range: 88-144/166-250V AC. Frequency is 50 or 60 Hz (auto-selectable). SU20K3/3 includes internal power and battery components in a single small-footprint tower module. Battery support can be extended with additional internal battery packs. A manual bypass switch as well as an automatic bypass function ensure 100% availability of connected equipment by safely passing through AC power when the UPS requires maintenance. Three built-in communication ports (RS-232, contact closure and AS-400) work with included PowerAlert Software to simultaneously provide shutdown commands and reporting on multiple servers without the need for costly accessories. An accessory slot accepts an optional internal SNMP card (model # SNMPWEBCARD) for remote shutdowns, reboots and more. A Battery Start Switch allows cold restart of UPS during a prolonged blackout to utilize its batteries for periodic system access or data retrieval. An Emergency Power Off button turns UPS output OFF and disables Bypass output. Built-in Emergency Power Off (EPO) interface supports remote emergency shutdown in large facilities. Front panel combination LCD/LED display alerts users to a variety of UPS operational modes and conditions. A 1-year limited repair warranty is included. A start-up service program is recommended to enhance the reliability of the installation.

#### Applications

Ideal for protecting critical 120/208V equipment in computing, networking or telecommunications environments.

## Package Includes

- SU20K3/3 UPS System (power and battery components in one module)
- PowerAlert Software and cabling
- Warranty information
- Instruction manual

## Features

- Saves valuable space: power and battery components combined into a single small-footprint module
- Simplifies runtime scalability: convenient front-panel battery access for expandable runtime with additional internal battery packs
- True on-line, double conversion UPS with IGBT technology provides pure, sine wave AC output at all times
- Maintains continuous operation through blackouts, voltage fluctuations and surges with zero transfer time
- Removes harmonic distortion, electrical impulses, frequency variations and other hard-to-solve power problems
- 20,000VA / 16,000 watt power capacity with 3-phase, hardwire 120/208V AC input/output connections
- Features a wide input voltage correction range: 88 - 144 / 166 - 250V AC
- Included internal batteries provide 17 minutes runtime at half load (8,000 watts) and 5 minutes runtime at full load (16,000 watts)
- 3:1 crest factor safely supports a variety of equipment, even those with wildly-fluctuating power demands
- Extend runtime by installing optional internal battery packs (model # SURBC2030) through the front panel access door. SU20K3/3 includes 2 internal battery packs and accepts 2 additional internal battery packs. A standalone battery module compartment with a 4 battery pack capacity and daisy-chain capability (model # SUBF2030) is available to further extend runtime.
- 3 communication ports (RS-232, contact closure and AS-400)
- Slot for optional SNMP card (model # SNMPWEBCARD)
- Manual bypass switch as well as an automatic bypass function ensures 100% availability of connected equipment by safely passing through AC power when the UPS system requires maintenance
- Battery Start Switch allows cold restart of UPS during a prolonged blackout to utilize its batteries for periodic system access or data retrieval
- Emergency Power Off button turns UPS output OFF and disables Bypass output
- PowerAlert Universal UPS Power Management Software and 6 ft. communication cable included
- 1-year limited repair warranty
- Start-up service program is recommended to enhance the reliability of the installation
- Built-in Emergency Power Off (EPO) interface supports remote emergency shutdown in large facilities
- Combination LED/LCD display

## Specifications

SYSTEM OVERVIEW	
<b>Voltage compatibility</b>	120/208V AC, 3-phase, 4-wire (plus ground), wye
<b>Frequency compatibility</b>	50/60 Hz (auto-selectable)
OUTPUT	
<b>Output VA</b>	20,000 (20kVA)
<b>Output watts</b>	16000
<b>Output nominal voltage</b>	120/208V AC, 3-phase, 4-wire (plus ground), wye
<b>Output voltage regulation</b>	Maintains pure sine wave output at all times, regulated within 2% of nominal output voltage, less than 3% total harmonic distortion (using IGBT Inverter)
<b>Output frequency regulation</b>	Regulates line frequency at 50 or 60 Hz, +/- 3 Hz
<b>Outlet quantity / type</b>	Hardwire
INPUT	
<b>Maximum input amps</b>	60A
<b>Input connection type</b>	Hardwire
<b>Recommended electrical service</b>	120/208V AC (3-Phase, 4 Wire, wye)

<b>BATTERY</b>	
<b>Full load runtime</b>	Included internal batteries: 5 min. (16,000 watts). Runtime can be extended with additional internal battery packs (model # SURBC2030).
<b>Half load runtime</b>	Included internal batteries: 17 min. (8,000 watts). Runtime can be extended with additional internal battery packs (model # SURBC2030).
<b>Expandable battery runtime</b>	Supports extended runtime with optional internal battery packs (model # SURBC2030). Accepts 2 additional internal battery packs. Build to order expandable runtime systems are available. Standalone external battery module (SUBF2030) and built-to-order systems also available.
<b>DC system voltage</b>	240V DC
<b>Typical battery lifespan</b>	3 - 6 years, depending on usage
<b>Battery recharge rate</b>	2 - 4 hours to 90%
<b>VOLTAGE REGULATION</b>	
<b>Voltage regulation description</b>	On-line, double-conversion process gives this UPS the ability to maintain output voltage within +/-2% of nominal voltage at all times
<b>Overvoltage correction</b>	Maintains continuous operation without using battery power during overvoltages to 144 / 250V AC (3-Phase, 4-Wire, wye), reducing output within 2% of nominal
<b>Brownout correction</b>	Maintains continuous operation without using battery power during brownout / undervoltage conditions to 88 / 166V AC (3-Phase, 4-Wire, wye)
<b>LEDS ALARMS &amp; SWITCHES</b>	
<b>Front panel LEDs</b>	7 LED DISPLAY: AC input, bypass input, AC-DC charger, DC-AC inverter, AC output, bypass operation and battery operation. SELECTABLE LCD DISPLAY: indicates a wide range of UPS operational and fault/warning conditions including operational mode, alarm/shutdown conditions, input/output voltage/frequency, battery voltage, load percentage and more.
<b>Alarms</b>	Alarms warn against a variety of operational conditions: low battery, overload, shutdown, bypass and more
<b>Switches</b>	ON button turns UPS's inverter ON. OFF button turns UPS's inverter OFF. Select Button browses through items displayed on LCD screen. Enter button selects items displayed on LCD screen. Select and Enter buttons used simultaneously mute UPS alarms. Battery Start Switch cold starts the inverter. Emergency Power Off button turns UPS output OFF and disables Bypass output. Manual Bypass switch bypasses the UPS's inverter during maintenance.
<b>SURGE / NOISE SUPPRESSION</b>	
<b>AC surge suppression</b>	480 joules
<b>AC suppression response time</b>	Instantaneous
<b>EMI / RFI AC noise suppression</b>	Yes
<b>PHYSICAL</b>	
<b>Shipping weight (lbs)</b>	609
<b>Shipping weight (kg)</b>	276
<b>Shipping Dimensions (HWD/in)</b>	43 x 28 x 44.5
<b>Shipping Dimensions (HWD/cm)</b>	109.2 x 71.1 x 113
<b>Unit weight (lbs)</b>	520
<b>Unit weight (kg)</b>	236
<b>Unit Dimensions (HWD/in)</b>	35.3 x 19.3 x 36
<b>Unit Dimensions (HWD/cm)</b>	89.7 x 49 x 91.4

<b>Material of construction</b>	Steel
<b>Form factors supported</b>	Tower
<b>Cooling method</b>	Built-in cooling fans
<b>Battery Access</b>	Front panel internal battery access
<b>ENVIRONMENTAL</b>	
<b>Operating Temperature</b>	+32 to +104 degrees Fahrenheit, 0 to +40 degrees Celsius
<b>Storage Temperature</b>	-36 to +104 degrees Fahrenheit, -20 to +40 degrees Celsius
<b>Relative Humidity</b>	5 to 95%, non-condensing
<b>COMMUNICATIONS</b>	
<b>Network monitoring port</b>	Includes 3 built-in communications ports (RS-232, contact closure and AS-400)
<b>Software and cabling included</b>	Includes PowerAlert UPS monitoring software for all common network and standalone operating systems. Cabling included.
<b>SNMP compatibility</b>	Built-in accessory slot accommodates internal SNMP card (model # SNMPWEBCARD) and other network accessories
<b>LINE / BATTERY TRANSFER</b>	
<b>Transfer time from line power to battery mode</b>	Zero transfer time. True on-line UPS continuously converts incoming AC to DC, then back to AC. When line power is interrupted, UPS maintains continuous output from battery reserves with absolutely no disruption in output AC power.
<b>Low voltage transfer to battery power</b>	Maintains continuous operation during undervoltages as low as 88 / 166V AC (3-Phase, 4-Wire, wye). Below this point, output is maintained utilizing battery reserves.
<b>High voltage transfer to battery power</b>	Maintains continuous operation during overvoltages as high as 144 / 250V AC (3-Phase, 4-Wire, wye). Above this point, output is maintained utilizing battery reserves.
<b>CERTIFICATIONS</b>	
<b>Certifications</b>	Tested to UL (USA), cUL (Canada), NOM (Mexico), Class A (Emissions)
<b>WARRANTY</b>	
<b>Product warranty</b>	<a href="#">1-year limited repair warranty</a> is included. <a href="#">Start-up service program</a> is recommended.
<b>SPECIAL FEATURES</b>	
<b>EPO port</b>	Includes dedicated EPO (emergency power off) interface and cabling
<b>Cold Start</b>	Yes, inverter can be cold-started (with use of Battery Start Switch) to enable temporary AC output during a power failure
<b>Appearance</b>	Attractive black steel tower housing
<b>BATTERY PACK ACCESSORY (optional)</b>	
<b>Battery Pack Accessory (optional)</b>	SURBC2030 (optional internal battery pack) and SUBF2030 (optional standalone external battery module)

More information, including related products, owner's manuals, and additional technical specifications, can be found online at [www.tripplite.com/products/model.cfm?txtModelID=3605](http://www.tripplite.com/products/model.cfm?txtModelID=3605).