

## SmartOnline 3-Phase 120/208V 20kVA 16kW Double-Conversion UPS, Extended Run, 5 internal batteries, Network Card Options, Tower, DB9 Serial, Hardwire

MODEL NUMBER: **SU20K3/3XR5**



### Description

Tripp Lite's SU20K3/3XR5 20kVA SmartOnline 3-Phase Intelligent, True On-Line Extended Runtime 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 SU20K3/3XR5 features a large internal battery compartment that contains more internal batteries than the equivalent standard-run model (SU20K3/3) and more space to add additional optional internal battery packs to extend runtime. The SU20K3/3XR5 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. SU20K3/3XR5 features 120/208V AC, 3-phase, 4-wire (plus ground), wye input and output. It also features a wide input voltage correction range: 96-144/166-250V AC. Frequency is 50 or 60 Hz (auto-selectable). SU20K3/3XR5 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 PowerAlert Software, available via free download, to simultaneously provide shutdown commands and reporting on multiple servers without the need for costly accessories. An accessory slot accepts an

### Highlights

- 20,000 VA (20kVA) EXTENDED RUNTIME tower UPS with 5 internal battery packs
- Offers 17 minutes full load (20kVA) and 42 minutes half load (10kVA)
- 3-phase hardwire input and output (120/208VAC). Wide input voltage correction range (96 - 144V AC / 166 - 250V AC)
- IGBT technology and zero transfer time, on-line, double-conversion operation
- 3 communication ports, Slot for network card options and EPO jack

### Package Includes

- SU20K3/3XR5 UPS System (with 5 internal battery packs)
- PowerAlert Software and cabling
- Warranty information
- Instruction manual

optional internal network management card. 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 start-up service program is recommended to enhance the reliability of the installation.

## Features

- Large internal battery compartment contains more internal batteries than the equivalent standard-run model (SU20K3/3) and more space to add additional optional internal battery packs to extend runtime.
- 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: 96 - 144/166 - 250V AC
- Included internal batteries provide 42 minutes runtime at half load (8,000 watts) and 17 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. SU20K3/3XR5 includes 5 internal battery packs and accepts 3 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)
- Compatible with Tripp Lite UPS management card options TLNETCARD, WEBCARDLX, SNMPWEBCARD, MODBUSCARD and RELAYIOCARD
- 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
- 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



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## Specifications

| OVERVIEW                                 |                                                                |
|------------------------------------------|----------------------------------------------------------------|
| UPC Code                                 | 037332136770                                                   |
| UPS Type                                 | On-Line                                                        |
| INPUT                                    |                                                                |
| Rated input current (Maximum Load)       | 60A (per phase, online)                                        |
| Nominal Input Voltage(s) Supported       | 120/208V 3-PH Wye                                              |
| Nominal Input Voltage Description        | 3-Phase Wye, 4 wire (L1, L2, L3, N, G)                         |
| UPS Input Connection Type                | Hardwire                                                       |
| Input Phase                              | 3-Phase                                                        |
| OUTPUT                                   |                                                                |
| Output Volt Amp Capacity (VA)            | 20000                                                          |
| Output kVA Capacity (kVA)                | 20                                                             |
| Output Watt Capacity (Watts)             | 16000                                                          |
| Output kW Capacity (kW)                  | 16                                                             |
| Power Factor                             | 0.8                                                            |
| Crest Factor                             | 3:1                                                            |
| Frequency Compatibility                  | 50 / 60 Hz                                                     |
| Output Voltage Regulation (Line Mode)    | +/- 2%                                                         |
| Output Voltage Regulation (Battery Mode) | +/- 2%                                                         |
| Output AC Waveform (AC Mode)             | Pure Sine wave                                                 |
| Output AC Waveform (Battery Mode)        | Pure Sine wave                                                 |
| Nominal Output Voltage(s) Supported      | 120V; 208V                                                     |
| Output Receptacles                       | Hardwire                                                       |
| Individually Controllable Load Banks     | No                                                             |
| BATTERY                                  |                                                                |
| Full Load Runtime (min.)                 | 17 min. (16kw)                                                 |
| Half Load Runtime (min.)                 | 42 min. (8kw)                                                  |
| Expandable Battery Runtime               | Supports extended runtime with optional external battery packs |

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|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Installation Form Factors Supported with Included Accessories | Tower                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Primary Form Factor                                           | Tower                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Primary UPS Depth (mm)                                        | 935                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Primary UPS Height (mm)                                       | 1,293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Primary UPS Width (mm)                                        | 495                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Shipping Dimensions (hwd / cm)                                | 151.13 x 111.76 x 71.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Shipping Dimensions (hwd / in.)                               | 59.50 x 44.00 x 28.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Shipping Weight (kg)                                          | 513.92                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Shipping Weight (lbs.)                                        | 1133.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| UPS Housing Material                                          | Steel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| UPS Power Module Dimensions (hwd, cm)                         | 129.29 x 49.53 x 93.47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| UPS Power Module Dimensions (hwd, in.)                        | 50.9 x 19.5 x 36.8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| UPS Power Module Weight (kg)                                  | 444.07                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| UPS Power Module Weight (lbs.)                                | 979                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ENVIRONMENTAL</b>                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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                                             | 5 to 95%, non-condensing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| AC Mode BTU / Hr. (Full Load)                                 | 5355                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Battery Mode BTU / Hr. (Full Load)                            | 4413                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>COMMUNICATIONS</b>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Network Management Cards                                      | <a href="http://www.tripplite.com/SNMP-Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~SNMPWEBCARD">SNMPWEBCARD</a> & <a href="http://www.tripplite.com/Web-Management-Accessory-Card-SmartPro-SmartOnline-UPS-Systems~TLNETCARD">TLNETCARD</a> & <a href="http://www.tripplite.com/Web-Management-Accessory-Card~WEBCARDLX">WEBCARDLX</a> & <a href="http://www.tripplite.com/MODBUS-Management-Accessory-Card-UPS-Remote-Monitoring-Control~MODBUSCARD">MODBUSCARD</a> & <a href="http://www.tripplite.com/Programmable-Relay-I-O-Card~RELAYIOCARD">RELAYIOCARD</a> |
| Network Monitoring Port Description                           | RS232, contact closure and AS400 monitoring ports are supported by 3 separate DB9 ports                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| PowerAlert Software                                           | For local monitoring via the UPS's built-in communication ports, download PowerAlert Local software at <a href="http://www.tripplite.com/poweralert">http://www.tripplite.com/poweralert</a>                                                                                                                                                                                                                                                                                                                                                                                         |
| Communications Cable                                          | DB9 cabling included                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Communications Interface                                      | DB9 Serial; Contact closure; Slot for SNMP/Web interface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>LINE / BATTERY TRANSFER</b>                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Transfer Time                                                 | No transfer time (0 ms.) in online, double-conversion mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |



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|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Low Voltage Transfer to Battery Power (Setpoint)            | Maintains continuous operation during undervoltages as low as 96 / 166V AC (3-Phase, 4-Wire, wye). Below this point, output is maintained utilizing battery reserves.  |
| High Voltage Transfer to Battery Power (Setpoint)           | 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>SPECIAL FEATURES</b>                                     |                                                                                                                                                                        |
| Cold Start (Startup in Battery Mode During a Power Failure) | Cold-start operation supported                                                                                                                                         |
| High Availability UPS Features                              | Automatic inverter bypass; Hot swappable batteries; Auto Probe Monitoring (requires WEBCARDLX); Zero transfer time; On-Line/Double-Conversion                          |
| <b>STANDARDS &amp; COMPLIANCE</b>                           |                                                                                                                                                                        |
| UPS Certifications                                          | Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI)                                                             |
| <b>WARRANTY</b>                                             |                                                                                                                                                                        |
| Product Warranty Period (U.S. & Canada)                     | 1-year limited warranty                                                                                                                                                |
| 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                                  | <u><a href="#">Tripp Lite 3-Phase UPS Factory Warranty</a></u>                                                                                                         |

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