Tripp Lite
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SmartOnline 80kVA Modular 3-Phase UPS System, On-line Double-Conversion UPS for North America

MODEL NUMBER: **SU80K**

Highlights

- 80,000 VA (80kVA) tower UPS with 4 hot-swappable power modules
- N+1 redundant modular architecture helps ensure 100% availability
- 1+1 parallel capability allows for system redundancy or increased capacity
- Low THDi saves installation costs by allowing 1:1 generator sizing
- 3-phase hardwire (120/208VAC) input/output. Wide input voltage correction range (94-150VAC/163-260VAC)
- On-line, double-conversion operation with zero transfer time; IGBT technology; extremely efficient operation (up to 96%)
- Runtime is expandable via external battery cabinet options

Package Includes

- SU80K UPS System
- PowerAlert Software and cabling
- Parallel cable (for 1+1 operation)
- Instruction manual and startup checklist
- Warranty information

Description

Tripp Lite's SU80K (80kVA) 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 an N+1 configuration, the SU80K features four self-contained, redundant 20kVA power modules that can be hot-swapped (with the load powered) if maintenance is required. Connect two SU80K models in parallel (1+1 configuration) to provide fail-safe redundancy (two 80kVA models supporting a 80kVA load) or to increase capacity (two 80kVA models supporting a 160kVA load).

The SU80K provides mission-critical equipment with the highest level of power protection available. Large capacity 80,000VA/64,000W 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 offers compatibility with all equipment types. The SU80K's high input power factor, advanced IGBT inverter technology and Digital Signal Processor (DSP) technology create less than 3% input Total Harmonic Distortion (THDi). With SU80K's low THDi, generators run cooler and last longer, allowing managers to save installation costs by installing a generator with a capacity equal to their equipment load (a 1:1 ratio). Extremely efficient operation (up to 96%) saves money by lowering electricity consumption. Hardwire input and output connections support a variety of permanent or PDU style power connections. The SU80K features 120/208V AC, 3-phase, 4-wire (plus ground), wye input and output. It also features a wide input voltage correction range: 94-150/163-260VAC. Frequency is 50 or 60 Hz (auto-selectable). The SU80K features a single small-footprint tower power module. A stand-alone hardwired external battery module (Models BP480V26B or BP480V40C with matching battery cabinets, available separately) is required for operation and to provide battery backup support. Additional external BP480V26B or BP480V40C battery modules can be connected for extended runtime. Other battery cabinets for extended runtime solutions also available; contact Tripp Lite for more information. A manual bypass breaker as well as an automatic bypass function ensure 100% availability of connected equipment by safely passing through AC power if the UPS requires maintenance. A built-in RS-232 communication port works with included PowerAlert Software to provide shutdown commands and reporting on a single server. An accessory slot accepts an optional internal SNMP card (Model SNMPWEBCARD) for remote shutdowns, reboots and more. Front panel combination LCD/LED display alerts users to a variety of UPS operational modes and conditions. The LCD display includes a real-time event log screen with up to 500 events listed. A dynamic battery management screen optimizes battery function to lengthen service life and 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) dry-contact interface supports remote emergency shutdown in large facilities. A start-up service program is recommended to enhance the reliability of the installation.

Features

- N+1 configuration: four self-contained, redundant 20kVA power modules can be hot-swapped (with the load powered) if maintenance is required
- 1+1 configuration: connect two SU80K models in parallel to provide fail-safe redundancy or to increase capacity
- High input power factor, advanced IGBT inverter technology and Digital Signal Processor (DSP) technology create low input Total Harmonic Distortion (THDi)
- Extremely efficient operation (up to 96%) saves money by lowering electricity consumption
- 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
- 80,000VA/64,000W power capacity with 3-phase, hardwire 120/208VAC input/output connections
- Features a wide input voltage correction range: 94-150/163-260VAC
- Precision +/-1% output voltage regulation
- A stand-alone hardwired external battery module (Models BP480V26B and BP480V40C, available separately from Tripp Lite) is required for operation and to provide battery backup support. Additional external battery modules can be connected for extended runtime.
- 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 allows cold restart of UPS
- Built-in RS-232 communication port works with included PowerAlert Software to provide shutdown commands and reporting on a single server
- Accessory slot accepts an optional internal SNMP card (model # SNMPWEBCARD) for remote shutdowns, reboots and more
- 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
- Start-up service program is recommended to enhance the reliability of the installation

Specifications

General Info	
Product Group	UPS SYSTEMS
OUTPUT	
Output Volt Amp Capacity (VA)	80000
Output kVA Capacity (kVA)	80
Output Watt Capacity (Watts)	64000
Output kW Capacity (kW)	64
Power Factor	0.8
Crest Factor	3:1
Nominal Output Voltage(s) Supported	120/208V; 3-Phase Wye
Frequency Compatibility	50 / 60 Hz
Output Voltage Regulation (Line Mode)	+/-1%

Output Voltage Regulation (Battery Mode)	+/-1%
UPS Output Receptacles	Hardwire
Output AC Waveform (AC Mode)	Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
INPUT	
Nominal Input Voltage(s) Supported	120/208V AC (3ph wye)
Nominal Input Voltage Description	3-Phase Wye, 4 wire (L1, L2, L3, N, G)
UPS Input Connection Type	Hardwire
Input Phase	3-Phase
BATTERY	
Expandable Battery Runtime	Battery set sold separate
External Battery Pack Compatibility	BP480V103; BP480V140; BP480V26B; BP480V40C; BP480V55; BP480V78; BP480V200; BP480V300; BP480V400; BP480V500
Expandable Runtime Description	External battery pack wiring is contractor supplied
DC System Voltage (VDC)	+/- 240
Battery Recharge Rate (Included Batteries)	2 - 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 150 / 260 (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 94 / 163 (3-Phase, 4-Wire, wye)
LEDS ALARMS & SWITCHES	
LED Indicators	4-LED Display: Displays normal AC input, on battery power, bypass input and fault conditions
Audible Alarm	Alarms warn against a variety of operational conditions: low-battery, overload, shutdown, bypass and more
Alarm Cancel Operation	Power-fail alarm can be silenced using alarm-cancel switch
Switches	ON button turns UPS's inverter ON. OFF button turns UPS's inverter OFF. LCD Display Control Buttons browses through and selects items displayed on LCD screen. Emergency Power Off button turns UPS output OFF and disables Bypass output. Manual Bypass breaker bypasses the UPS's inverter during maintenance.
SURGE / NOISE SUPPRESSION	
EMI / RFI AC Noise Suppression	Yes
AC Suppression Joule Rating	4675

AC Suppression Response Time	Instantaneous
PHYSICAL	
Installation Form Factors Supported with Included Accessories	Tower
Primary Form Factor	Tower
UPS Power Module Dimensions (hwd, in.)	66.8 x 20.5 x 38.8
UPS Power Module Dimensions (hwd, cm)	169.7 x 52.1 x 98.6
UPS Power Module Weight (lbs.)	1444
UPS Power Module Weight (kg)	655
UPS Shipping Dimensions (hwd / in.)	76.1 x 28.5 x 48.3
UPS Shipping Dimensions (hwd / cm)	193.3 x 72.4 x 122.7
Shipping Weight (lbs.)	1642.5
Shipping Weight (kg)	745
Cooling Method	Fans
UPS Housing Material	Steel
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)	18665
COMMUNICATIONS	
Communications Interface	DB9 Serial; Slot for SNMP/Web interface
PowerAlert Software	Included
Communications Cable	DB9 cabling included
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 during undervoltages as low as 94 / 163V 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 150 / 260V AC (3-Phase, 4-Wire, wye). Above this point, output is maintained utilizing battery reserves.
SPECIAL FEATURES	

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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
CERTIFICATIONS	
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI); ROHS (Restriction of Hazardous Substances)
WARRANTY	
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