

Uninterruptible Power Supply (UPS)



Image shown may not reflect actual product

Cat[®] UPSB 500

300 / 400 / 500 kVA

60 Hz 480 Volt 3-phase

Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost effectiveness.

FEATURES

PRODUCT FEATURES

- Double conversion topology
- Integrated battery management system
- Up to 94% total system efficiency
- Transient protection
- High-speed voltage regulation
- Top cable entry
- Low input current distortion
- Simple installation
- Galvanic Isolation
- Parallel capable

RELIABLE POWER PROTECTION FOR CRITICAL APPLICATIONS

The Cat double conversion battery UPS system provide clean, stable power to sensitive loads, ensuring critical power protection, optimum performance, and extended life of the protected equipment.

SUPERIOR DESIGN

Superior system design and the use of robust digital components throughout the system yield a reliable and trouble-free UPS system.

HIGH AVAILABILITY

The UPS has been designed for continuous operation. Redundant components and cooling are available for increased reliability, and the UPS is fault tolerant with built in 100% rated static bypass switch.

UPGRADEABLE POWER LEVELS

The Cat[®] UPS 500 is field upgradeable from 300 kVA to 500 kVA to provide additional power requirements without the expense of additional equipment or installation costs.

SIMPLE AND SECURE PARALLELING TECHNOLOGY

Paralleling technology for redundancy or capacity up to 6 modules can be paralleled with a maximum capacity of 2500 kVA. Easy cable landing is facilitated by a system level wrap around the maintenance bypass.

WORLDWIDE PRODUCT SUPPORT

Cat dealers provide extensive post sale support including maintenance and repair agreements. Factory qualified technicians are trained to support every aspect of your Cat UPS system.

FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

STANDARD EQUIPMENT

Graphical User Interface

- Animated Mimic Diagrams
 - System level and module level
 - Indicates major component status, power flow, breaker position
- Alarm / Event Log
 - Time/date stamps all alarms and events on rolling log
- Detailed Component Status
 - Indicates operating status and values for input, battery, rectifier, inverter and output
- Trending
 - Illustrates selected parameters on a time scaled graph
- Operator Instructions
 - Detail essential UPS operating procedures
- Customizable Names
 - Customer assigned names to specific Circuit Breakers
- Network / Web enabled
 - Viewable and navigable directly over a network or Internet using a standard browser

OPTIONAL EQUIPMENT

- 600V Input/Output
Option available via input/output transformers. Transformers installed in a matched transformer enclosure for installation adjacent to the UPS.
- External Maintenance Bypass
Option available via input/output transformers. Transformers installed in a matched transformer enclosure for installation adjacent to the UPS.
- External Sync
Option available via input/output transformers. Transformers installed in a matched transformer enclosure for installation adjacent to the UPS.
- Communications
SNMP protocol over 10/100 MB Ethernet
Modbus / JBus
 - 11 Alarm Cabinets
 - 9 Control Cabinets

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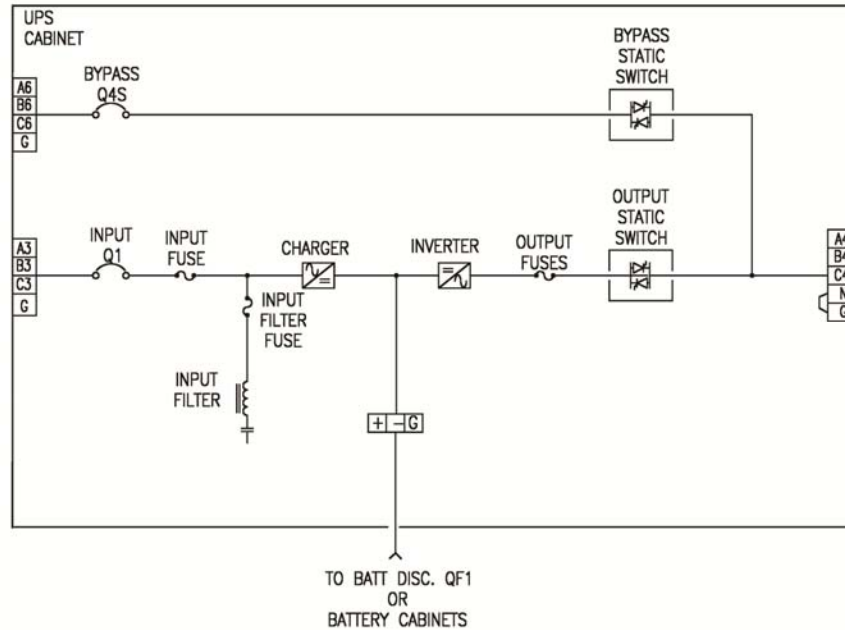
TECHNICAL DATA

Rated Power kVA (kW)	300 (270)	400 (360)	500 (450)
Normal AC input			
Input Voltage (V)	480V, 3PH, 3Wire + ground and 600V, 3PH, 3Wire + ground		
Frequency	60 Hz		
Power Factor	0.9		
Nominal current input at 480V/600V	371 / 322 Amps	508 / 441 Amps	656 / 569 Amps
Maximum current input at 480V/600V	453 / 404 Amps	590 / 523 Amps	738 / 652 Amps
Current Distortion (THDI)	10%	8%	7%
Output			
Output Voltage 480V/600V	3 PH, 3 Wire plus ground / 3 PH 4 wire plus ground		
Frequency	60Hz		
Power Factor	0.9 Lagging		
Nominal output current at 480V/600V	361 / 289 Amps	481 / 385 Amps	601 / 481 Amps
Voltage Regulation	±1% Balanced Load ±4% Unbalanced Load		
Voltage Distortion	< 2% (Linear Load) , < 4% (Non-linear Load)		
Inverter Overload	125% for 10 mins, 150% for 1 min.		
Overall Efficiency			
Double conversion mode	94%		93%
Environmental			
Storage temperature	0° - 50°C		
Operating Temperature	0° - 40°C (Except battery)		
Operating Altitude	Up to 3,000 feet, Derate 1.2°C/300 ft above 3,000 ft		
Operating Humidity	< 90% non-condensing		
Heat Rejection (BTU/Hr) @ 480V/600V	59,400 / 65,000	78,100 / 86,000	110,750 / 112,000
Audible Noise (dBA)	74 dBA at 5 feet		
Standards and Approvals			
Design	cUL Listed, UL1778		
Dimensions and Weights			
Module Dimensions 480V	69" x 82" x 39"		
Module Dimensions 600V	114" x 82" x 39"		
Net Weight (pounds)	480V = 6900 600V = 10,500		

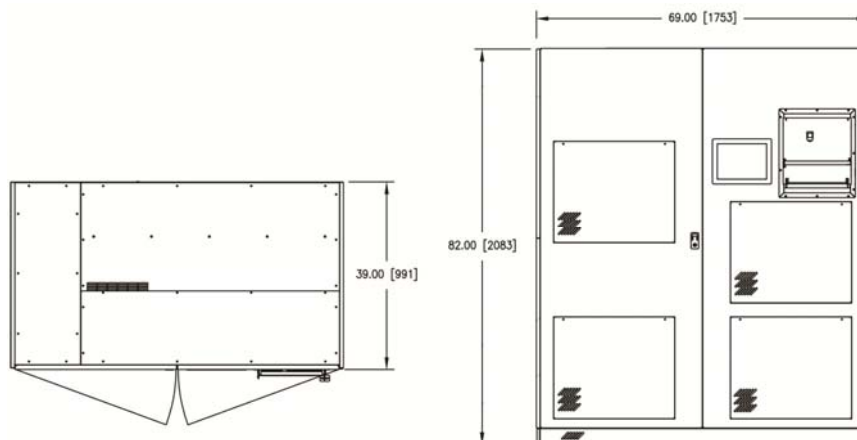
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ONE LINE DRAWING



ELEVATION DRAWING



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