



Cat[®] UPS 750

Flywheel UPS

750 kVA (675 kW)

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

- Up to 98% total system efficiency
- Smallest available footprint
- Minimal maintenance costs
- Superior step load response
- Low input THD
- 40°C rating for the entire system (including energy storage)
- Transient protection
- High-speed voltage regulation
- Simple cost effective installation
- Quiet operation
- Low operation cost
- Parallel up to 7 modules

RELIABLE POWER PROTECTION FOR CRITICAL APPLICATIONS

Cat[®] UPS systems provide constant power protection against surges, sags, and power interruptions that can disrupt operations or cause loss of valuable data or system capacity. Additionally, the use of the optional generator set start module can dramatically increase generator set starting reliability in a continuous power configuration.

SUPERIOR DESIGN

Superior system design and the use of robust digital components throughout the system yield the most reliable and trouble-free UPS system on the market. Protection is delivered in the industry's smallest package with the highest efficiency and superior performance.

HIGH POWER DENSITY

The Cat UPS 750 increases power density by as much as 50% over previous designs and has a smaller footprint than many traditional UPS designs.

LOWER COST OF OWNERSHIP

The optimized system design reduces the maintenance requirements while offering improved performance and serviceability over the previous designs to reduce the total cost of ownership. In addition, the high operating efficiency means yearly savings versus traditional double conversion UPS products. Furthermore, lower UPS heat rejection reduces up front HVAC costs and electrical consumption over the life of the product.

GENERATOR SET INTEGRATION

By cancelling harmonic distortion, the UPS 750 operates seamlessly with generator sets to provide a higher total electrical load capacity without over sizing the generator set. The UPS 750 effectively insulates the generator set from block loads and transient, and can improve its fault clearing capabilities. Programmable integration with standby generator sets assures greater system reliability and improves the total system operation.

WORLDWIDE PRODUCT SUPPORT

- Parts Distribution Centers are located worldwide with available service support through Caterpillar and the Cat Dealer Network.
- Factory certified service technicians are trained to support every aspect of your Cat UPS system.

STANDARD EQUIPMENT

- Flywheel energy storage
- IGBT based bi-directional converter
- 10" color touch-screen operator interface
- Integral modem – remote communication
- Local emergency power off (EPO)
- Remote notification and monitoring via Ethernet and e-mail RS232 or RS485 serial connection
- UPS View – advanced real-time monitoring software
- Programmable input and output contacts
- Top/bottom cable entry
- Back feed protection
- Redundant control power
- Monitoring and alarms for all critical components w/self-diagnostics
- Voltage regulation and power factor correction
- Harmonic cancellation
- Static bypass switch
- High overload capacity
- Superior power conditioning
- Redundant cooling fans

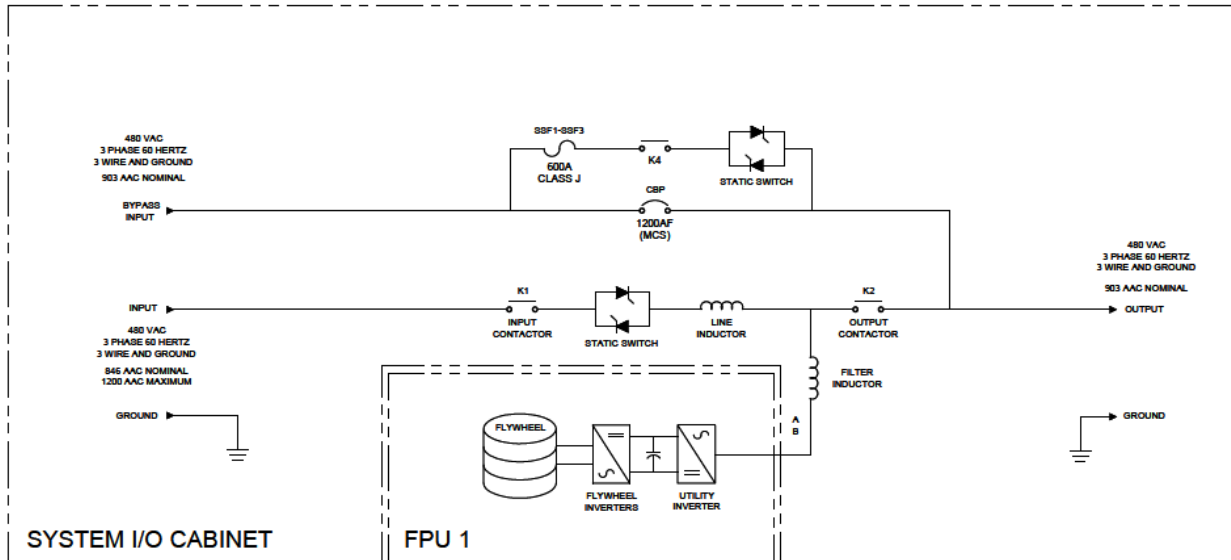
OPTIONAL EQUIPMENT

- Generator set start module
Provides a reliable and redundant source of starting power for a generator set.
- Remote status panel (8 status LED's)
Allows the user to monitor various functions through use of eight status lights.
- Remote EPO
- Remote SNMP/MODBUS monitoring
- External synchronization
Provides a means for the UPS to synchronize with an external source.
- External maintenance bypass Control (UMBC)
A logic circuit board that controls motorized circuit breakers (MBP and MIS) in a UPS maintenance bypass circuit.
- Parallel up to 7 modules

TECHNICAL DATA

Rating	Rated Power kVA (kW)		750 (675)			
Normal AC Input						
Input voltage			480VAC, 3-Ph L-L + Gnd			
Input voltage range			+10% / -15% (programmable)			
Frequency			60 Hz +/- 10% max (programmable), +/-3% default			
Input power factor			0.99 at rated load and nominal voltage			
Input Current at 480 VAC (amps)			846			
Maximum Continuous Input Current (amps)			1200			
Maximum Non-Continuous Input Current (amps)			1200			
Walk-in			1 to 15 seconds (programmable)			
Harmonic Current Distortion						
Linear load			<3% at 100% resistive load			
Non-linear load			<4% with 100% non-linear load per EN 62040-3			
Output						
Output Voltage			480 VAC 3-Phase, 3 wire plus ground			
Output Current at 480 VAC (amps)			903			
Voltage regulation (Steady-state)			+/- 2% of nominal for +/- 10% input			
Voltage regulation (Transient)			+/- 1% within 50 milliseconds for 100% load step			
Voltage regulation (Flywheel mode)			+/- 1% steady state			
Frequency			Input synchronized, +/- .2% free running			
Voltage distortion (THD)			<3% 100% linear loads, <5% 100% non-linear loads			
Slew Rate			Adjustable from 0.2 Hz/second to 3.0 Hz/second			
Overload Capability (normal operation)						
Continuous			Up to 105%			
10 minutes			<110%			
5 minutes			<125%			
10 seconds			<150%			
10 milliseconds			<200%			
Overall Efficiency						
System Efficiency			97.5%			
Environmental Conditions						
Acoustical Noise			<83 dBA at 1 meter			
Operating temperature			0 to 40° C			
Storage Temperature			-25 to 70° C			
Operating Humidity			5-95% non-condensing			
Operating Altitude			Up to 1000 meters (derating for higher elevations)			
Heat Rejection (BTU/Hr)			69,757			
Heat Rejection (kW)			20.4			
Standards and Approvals						
Surge Withstand			Meets IEEE 587/ANSI C62.41			
Safety			UL 1778 and CUL CAN/CSA 22.2			
Emissions and Immunity			FCC Class A, Subpart J of Part 15/EN 62040-2			
Dimensions and Weights						
Physical Depth			998 mm		39.3 in	
Physical Width			3353 mm		132 in.	
Physical Height			2032 mm		80 in.	
Physical Weight			4242 kg		9350 lbs	
Flywheel						
Flywheel Runtime (% Load)			100%		75%	
			15s		20s	
			29s		59s	
Flywheel Recharge Time			< 2min (nominal) at 175 kW			
			3 min (programmable) at 100 kW			

ONE-LINE DIAGRAM (DUAL INPUT)



DRAWINGS



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