



Cat[®] UPS 750

Line-Interactive Flywheel UPS

625 kVA (625 kW)

50 Hz 380/400/415 Volt 3-phase 4 wire

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

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.

Uninterruptible Power Supply (UPS)



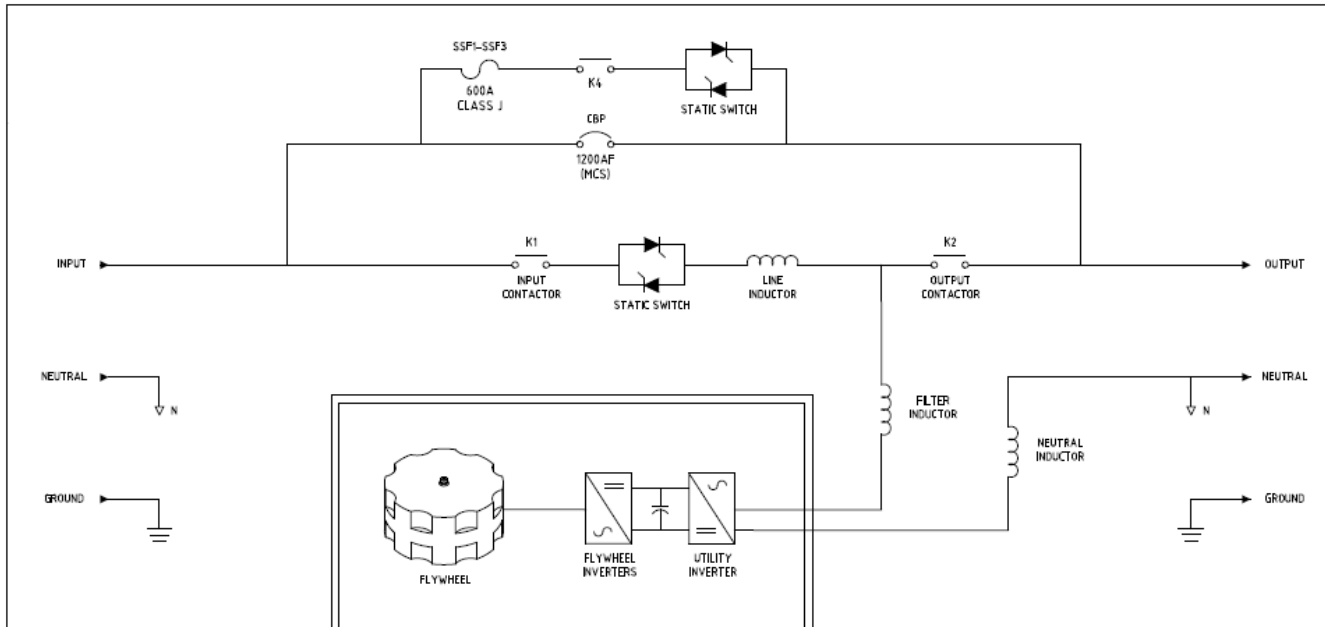
TECHNICAL DATA

Rating			
Rated Power kVA (kW)		625 (625)	
Normal AC Input			
Input voltage		380/400/415 VAC, 3-Ph 4 wire + Gnd	
Input voltage range		+10% / -15% (programmable)	
Frequency		50 Hz +/- 10% max (programmable), +/-3% default	
Input power factor		0.99 at rated load and nominal voltage	
Input Current at 380 VAC (amps)		990	
Input Current at 400 VAC (amps)		940	
Input Current at 416 VAC (amps)		906	
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		380/400/415 VAC, 3-Ph 4 wire + Gnd	
Output Current at 380 VAC (amps)		951	
Output Current at 400 VAC (amps)		903	
Output Current at 415 VAC (amps)		871	
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		4672 kg	10300 lbs

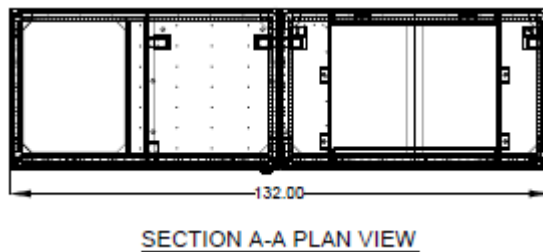
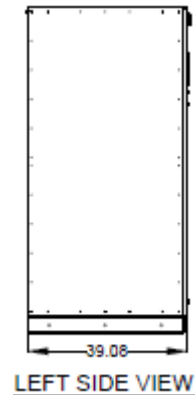
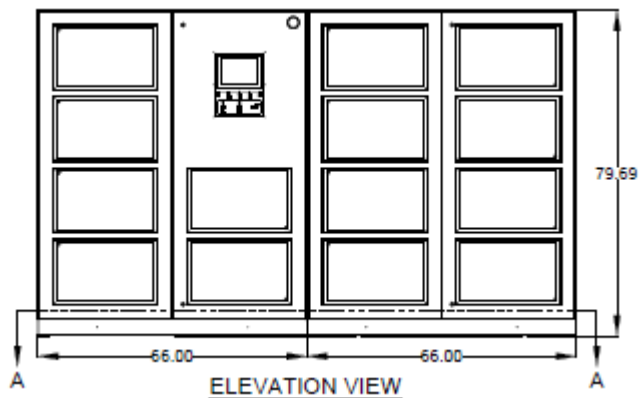
Uninterruptible Power Supply (UPS)



ONE-LINE DIAGRAM (SINGLE INPUT)



DRAWINGS



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