

CLEANSOURCE® XT UPS

SINGLE MODULE SYSTEMS

60Hz | 250 kW | 480V - Extended Ride-through

OVERVIEW

Active Power's Single Module System Flywheel UPS is the perfect combination of total cost of ownership, reliability, and sustainability for any mission critical application. Designed with highly predictable, battery-free energy storage, the Single Module System offers unmatched total cost of ownership for high availability organizations.



TOTAL COST OF OWNERSHIP

Up to 40% TCO savings through 98% energy efficiency, lower installation costs and permanent storage

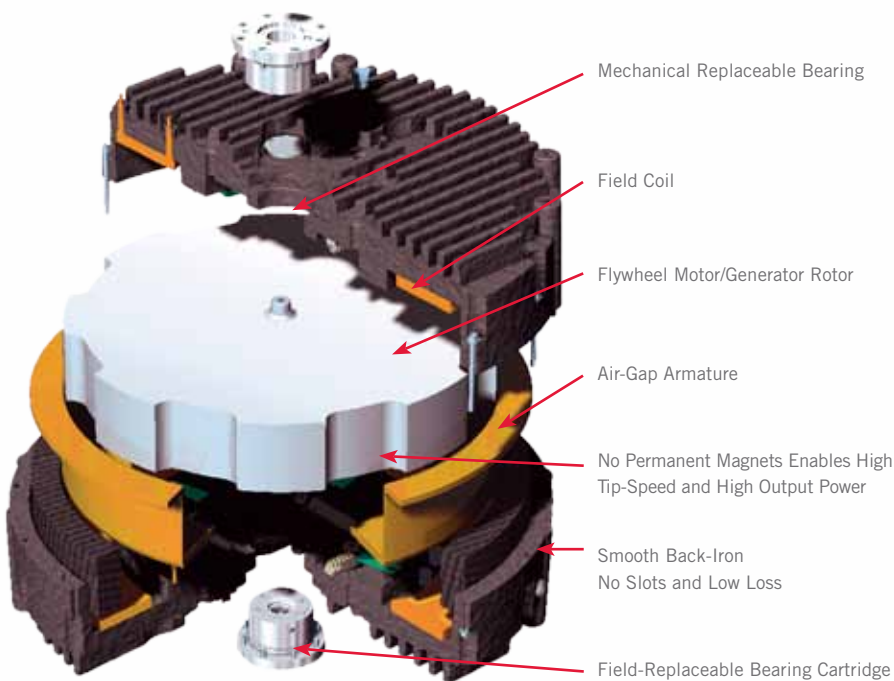
RELIABILITY

Most reliable energy storage system on the market and proven to be 12 times less likely to fail over battery based applications

SUSTAINABILITY

Over 40% less carbon emissions over 15 years to help you achieve your sustainability goals

FLYWHEEL TECHNOLOGY



Stores 6.2 MJ of energy • Up to 2 minutes of runtime (load dependent)
Wide ambient temperature range – 0°C – 40°C • High density, high efficiency design

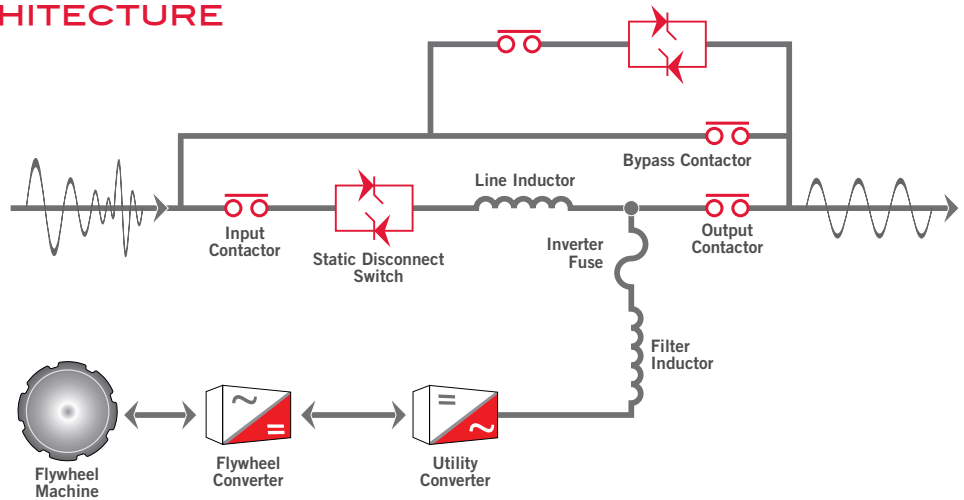


KEY BENEFITS AND FEATURES

- Extended ride-through
- Up to 98% efficient
- Half the space of legacy battery based UPS
- Parallel up to 7 systems
- Redundant fans and control power units
- Lower installation costs
- Less heat rejection
- Lower cooling requirements
- Lower maintenance and service
- Cost-effective installation
- Color LCD touch-screen display
- Remote monitoring capability
- Built-in power factor correction
- Generator compatibility
- Dual input (optional)
- Integrated maintenance bypass option
- Seismic provisions (optional)
- 20-year design life

PARALLEL ONLINE ARCHITECTURE

The CleanSource UPS SMS is based on Active Power's Parallel Online Architecture which provides excellent isolation between input and output, while delivering Class 1 voltage regulation and dynamically cancelling effects of non-linear load harmonics. This topology continuously provides online power protection to your data center, creating a clean sinusoidal output waveform and protecting critical operations against all nine IEEE power disturbances in a power dense, reliable, and energy efficient package.



PRODUCT SPECIFICATIONS

MODEL	XT250	
RATING		
Maximum kVA	275	
Maximum kW	250	
INPUT		
Voltage ¹	480 VAC 3-phase, 3-wire plus ground	
Voltage Range	+10% / -15% (programmable)	
Frequency	60 Hz +/- 10% maximum (programmable) +/- 3% (default)	
Power Factor	0.99 at rated load and nominal voltage	
Harmonic Current Distortion		
Linear Load	<2% at 100% load	
Non-Linear Load ²	<8% at 100% load	
Current - Nominal (480 VAC)	312A	
Current - Max. Continuous	400A	
Current - Max. Non-Continuous	420A	
Surge Withstand	Meets IEEE 587/ANSI C62.41	
Walk-In	1 to 15 seconds (programmable)	
Internal Backfeed Protection	Yes	
OUTPUT		
Voltage	480 VAC 3-phase, 3-wire plus ground	
Voltage regulation		
Steady state	+/-1% for +/-10% input	
Flywheel mode	+/-1% steady state	
Transient	+/-1% within 50 mSec for 100% load step	
Voltage distortion ²	<1% linear loads and <5% for 100% non-linear loads	
Inverter	PWM with IGBT switching	
Frequency	60Hz (mains synchronized) (normal operation +/- 0.2% free running)	
Load Power Factor Range	0.7 lagging / 0.9 leading without derating	
Slew Rate	Adjustable from 0.2 Hz/second to 3.0 Hz/second	
Current - Nominal (480 VAC)	331A	
Overload Capability-Mains Operation	Cont. 10 Min 5 Min 1 Min 10 Sec Imd. 105% 110% 125% 150% 200% >200%	
UPS Efficiency ³	98%	
ENERGY STORAGE		
Type	Integrated Steel Flywheel spinning at 10,000 RPM	
Flywheel Runtime (% Load)	100% - 24.5s 75% - 32s 50% - 47s 25% - 84s	
Flywheel Recharge Time	< 3 min (nominal) at 65 kW	
GENERAL		
Input Source	Single or Dual	
Parallel Capability	Yes, up to 8 systems	
Internal Static Bypass	Included	
Control Panel	10-inch Color Touchscreen Graphical Display	
Withstand Capability ⁴	65 kA	
Remote Monitoring	Yes (optional)	
External Customer Contacts	8 Input and 8 Outputs (programmable)	
Environmental		
Audible Noise	<70 dBA 1 meter	
Temperature		
Operating	32 to 104° F (0 to 40° C)	
Storage	-13 to 158° F (-25 to 70° C)	
Humidity	5% to 95% (non-condensing)	
Altitude	Up to 3,000 ft (914m) 1.2 C derating for every 1000ft above 3000ft	
Emissions and Immunity	FCC Class A, Subpart J of Part 15/ EN 62040-2	
Heat Rejection - Online	6.35 kW 21,689 BTU/hr	
PHYSICAL DATA		
Height	78.0 in (1,981 mm)	
Width	58.6 in (1,488 mm)	
Depth	34.0 in (865 mm)	
Weight	4,600 lbs (2,086 kg)	
Cable Entry	Top or Bottom	
SAFETY	UL/cUL 1778 and CAN/CSA 22.2 No.107.1 Listed	

¹ From grounded WYE source, 4 wire optional
² EN 62040-3
³ Energy storage offline
⁴ Design per UL891 (w/o maint. bypass)



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