



# CLEANSOURCE® XT UPS

## Single MODULAR SYSTEMS

### OVERVIEW

Active Power's Single Module System Flywheel UPS is the perfect combination of reliability, efficient and power density 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

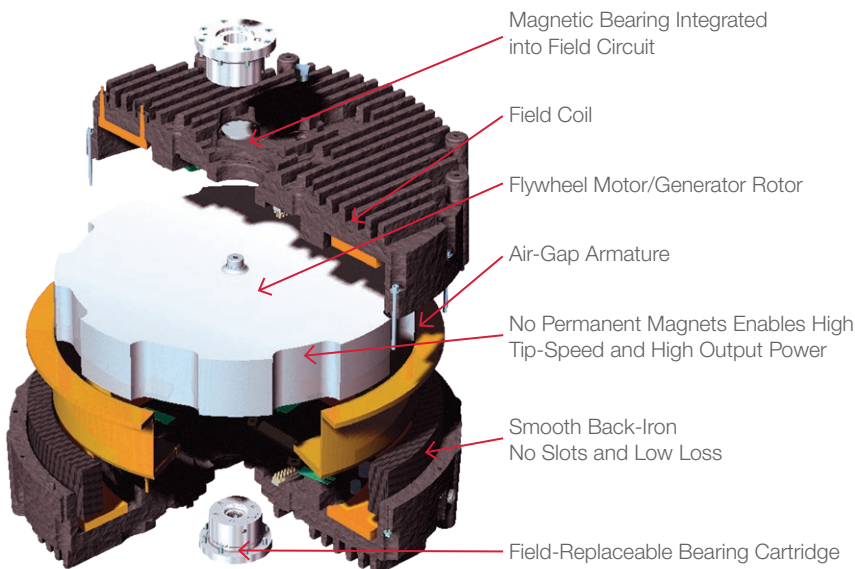
Most reliable energy storage system on the market and proven to be 12 times less likely to fail over battery based applications.



### SUSTAINABILITY

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

### FLYWHEEL TECHNOLOGY



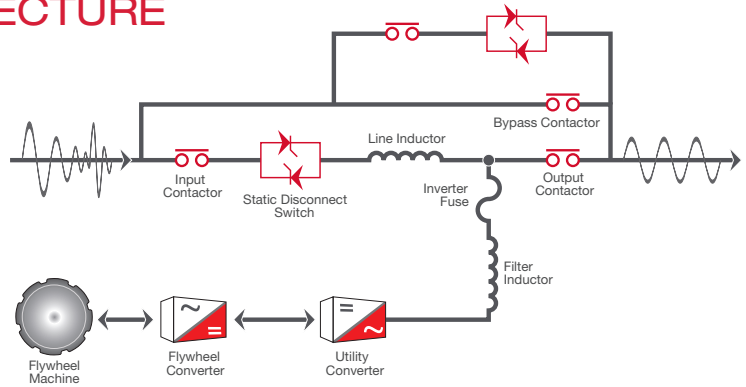
Stores 6.2 MJ of energy • Up to 2 minutes of runtime (load dependent)  
 Wide ambient temperature range – 0°C – 40°C • High density, high efficiency design

### KEY BENEFITS AND FEATURES

- Extended ride-through
- Up to 98% efficient
- Half the space of legacy battery based UPS
- Parallel up to 8 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 option
- Integrated maintenance bypass option
- Seismic provisions (optional)
- 20-year design life
- GenStart option

# 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 XT225

RATING	
Maximum kVA	250
Maximum kW	225
INPUT	
Voltage <sup>1</sup>	380/400/415 VAC 3-phase, 4-wire plus ground
Voltage Range <sup>2</sup>	+10% / -15% at 400/415V (programmable)
Frequency	50 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 <sup>3</sup>	<5% at 100% load
Current - Nominal (380 VAC)	355A
Current - Nominal (400 VAC)	337A
Current - Nominal (415 VAC)	325A
Current - Maximum Continuous	400A
Current - Maximum Non-Continuous	420A
Surge Withstand	Meets IEEE 587/ANSI C62.41
Walk-In	1 to 15 seconds (programmable)
Internal Backfeed Protection	Yes
OUTPUT	
Voltage	380/400/415 VAC 3-phase, 4-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 <sup>3</sup>	<1% linear loads and <5% for 100% non-linear loads
Inverter	PWM with IGBT switching
Frequency	50Hz (mains synchronized) (normal operation +/- 0.2% free running)
Load Power Factor Range	0.7 lagging / 0.9 leading without derating
Slew Rate	Adjustable from 0.2Hz/second to 3.0Hz/second
Current - Nominal (380 VAC)	380A
Current - Nominal (400 VAC)	361A
Current - Nominal (415 VAC)	348A
Overload Capability-Mains Operation	Cont. 10 min 5 min 1 min 10s Imd. 105% <110% <125% <150% <200% >200%
UPS Efficiency <sup>4</sup>	98%

ENERGY STORAGE	
Type	Integrated Steel Flywheel spinning at 10,000 RPM
Flywheel Runtime (% Load)	100% 75% 50% 25% 27s 36s 52s 94s
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 <sup>5</sup>	65kA
Remote Monitoring	Yes (optional)
External Customer Contacts	8 Input and 8 Outputs (programmable)
ENVIRONMENTAL	
Audible Noise	<70 dBA at 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 <sup>4</sup>	Up to 3,000 ft (914m) 1.2 C derating for every 1000ft above 3000ft
Emissions and Immunity	EN 62040-2
Heat Rejection- Online	5.84 kW / 19,946 BTU/hr
PHYSICAL DATA	
Height	1,981 mm
Width	1,488 mm
Depth	865 mm
Weight	2,177 kg
Cable Entry	Top or Bottom
SAFETY	
EN 62040-1-1	

<sup>1</sup> From grounded WYE source  
<sup>2</sup> +/-10% at 380 VAC  
<sup>3</sup> 60Hz available  
<sup>4</sup> EN 62040-3  
<sup>5</sup> Energy storage offline  
<sup>6</sup> Design per UL891 (w/o maint. bypass)



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