

CLEANSOURCE® UPS SINGLE MODULE SYSTEMS

60Hz | 150 - 300 kVA | 480V

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.



POWER DENSITY

The SMS UPS packs 300 kVA of power in a very small footprint, delivering over 17 kW per square foot

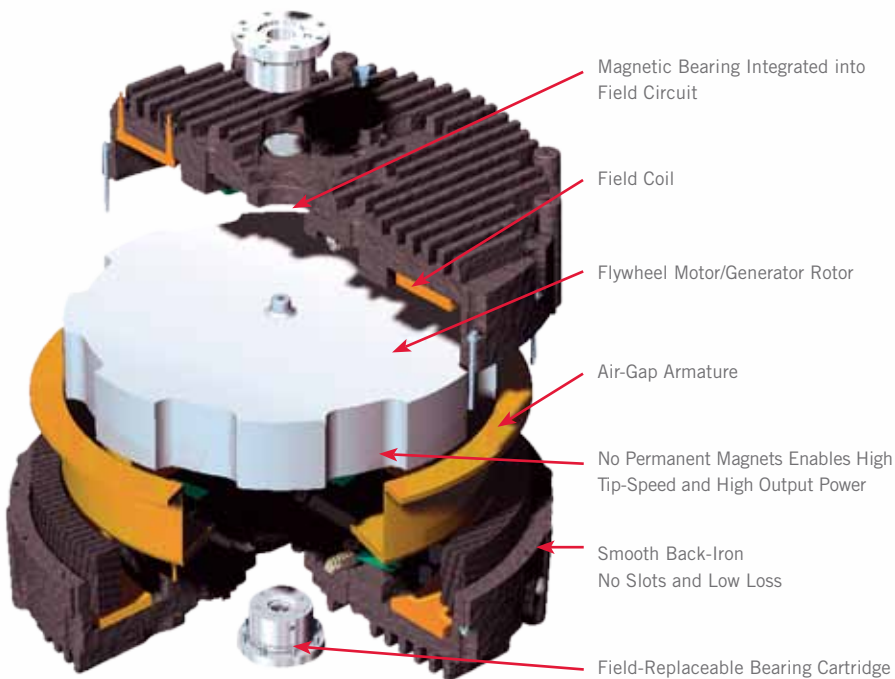
RELIABILITY

Active Power UPS have proven to reduce risk of failure by more than 80% over legacy UPS applications

TOTAL COST OF OWNERSHIP

Single Module UPS by Active Power minimize maintenance, installation and cooling costs, while eliminating the need for battery replacements

FLYWHEEL TECHNOLOGY



Stores 4.3 MJ of energy • Up to 1 minute of runtime (load dependent)
Wide ambient temperature range – 0°C – 40°C • High density, high efficiency design

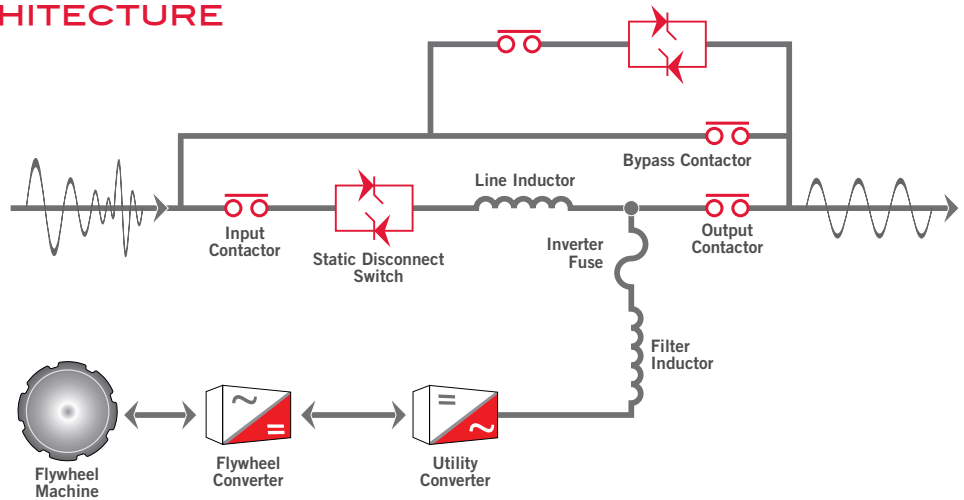


KEY BENEFITS AND FEATURES

- Half the space of legacy battery based UPS
- Up to 98% efficient
- Field expandable
- 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
- 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	UPS 150	UPS 300	UPS 300 (dual input)	MODEL	UPS 150	UPS 300	UPS 300 (dual input)		
RATING				ENERGY STORAGE					
Maximum kVA	150	300	300	Type	Integrated Steel Flywheel spinning at 7,700 RPM				
Maximum kW	120	240	240	Flywheel Runtime (% Load)	100% - 27s 75% - 36s 50% - 52s 25% - 87s	100% 14s 75% 19s 50% 28s 25% 52s			
INPUT				Flywheel Recharge Time					
Voltage ¹	480 VAC 3-phase, 3-wire plus ground			< 2 min (nominal) at 75 kW					
Voltage Range	+10% / -15% (programmable)			GENERAL					
Frequency	60 Hz +/- 10% maximum (programmable) +/- 3% (default)			Internal Static Bypass					
Power Factor	0.99 at rated load and nominal voltage			Included					
Harmonic Current Distortion				Control Panel					
Linear Load	<3% at 100% load			10-inch Color Touchscreen Graphical Display					
Non-Linear Load ²	<5% at 100% load			Withstand Capability ⁴					
Current - Nominal (480 VAC)	152A	299A	302A	65 kA					
Current - Max. Continuous	320A	400A	400A	Remote Monitoring					
Current - Max. Non-Continuous	320A	420A	420A	Yes (optional)					
Surge Withstand	Meets IEEE 587/ANSI C62.41			External Customer Contacts					
Walk-In	1 to 15 seconds (programmable)			8 Input and 8 Outputs (programmable)					
Internal Backfeed Protection	Yes			Environmental					
OUTPUT				Audible Noise					
Voltage	480 VAC 3-phase, 3-wire plus ground			<70 dBA 1 meter					
Voltage regulation				Temperature					
Steady state	+/-1% for +/-10% input			Operating					
Flywheel mode	+/-1% steady state			Storage					
Transient	+/-1% within 50 mSec for 100% load step			Humidity					
Voltage distortion ²	<2% linear loads and <5% for 100% non-linear loads			5% to 95% (non-condensing)					
Inverter	PWM with IGBT switching			Altitude					
Frequency	60Hz (mains synchronized) (normal operation +/- 0.2% free running)			Up to 3,000 ft (914m) 1.2 C derating for every 1000ft above 3000ft					
Load Power Factor Range	0.7 lagging / 0.9 leading without derating			Emissions and Immunity					
Slew Rate	Adjustable from 0.2 Hz/second to 3.0 Hz/second			FCC Class A, Subpart J of Part 15/ EN 62040-2					
Current - Nominal (480 VAC)	181A	361A	361A	Heat Rejection - Online					
Overload Capability-Mains Operation ³	Continuous 105%	10 Min 125%	2 Min 150%	30 Sec 200%	Immediate >200%	5 kW 16,940 BTU/hr	6.2 kW 20,992 BTU/hr	8.7 kW 29,612 BTU/hr	
UPS Efficiency ³	97%	98%	97%	PHYSICAL DATA					
				Height					
				78.0 in (1,981 mm)					
				Width					
				58.6 in (1,488 mm)		82 in (2,082 mm)			
				Depth					
				34.0 in (865 mm)					
				Weight					
				4,585 lbs (2,080 kg)		4,900 lbs (2,223 kg)		5,500 lbs (2,495 kg)	
				Cable Entry					
				Top or Bottom					
				SAFETY					
				UL/cUL 1778 and CAN/CSA 22.2 No.107.7 Listed					
				WARRANTY					
				1 year					

¹ From grounded WYE source, 4 wire optional
² EN 62040-3
³ DC energy storage offline
⁴ Design per UL891



World Headquarters 2128 W. Braker Lane, BK12 • Austin, Texas 78758-4028
 Tel: 512.836.6464 • Fax: 512.836.4511
 sales@activepower.com

EMEA • Active Power Solutions Ltd. (UK)
 Unit 1.2 • Lauriston Business Park • Pitchill • Evesham
 Worcestershire WR11 8SN • United Kingdom
 Tel: +44.1386.870.006 • Fax: +44.1386.870.806
 emea@activepower.com

www.activepower.com