



## HEALTHCARE APPLICATIONS

Active Power CleanSource® UPS Systems are an ideal fit for the specific demands of healthcare applications where electrical interruption is not an option. Frequent power quality incidents and micro-outages are no problem for the integrated flywheel UPS, and ride through to generator capability easily complies with NFPA 110.

### DIAGNOSTIC IMAGING

Power fluctuations can turn an imaging center from efficient and profitable to down and out in seconds. Patient care, scheduling, revenue and sensitive equipment can all suffer.

Active Power UPS systems are perfectly matched to the high harmonic content and big swings in demand over short periods of time inherent to this type of application.

### DATA CENTER PROTECTION, PATIENT CARE & RECORD KEEPING

As technology advances, so does the quality of care – and the need for high density computing with “big data” storage. The need to organize and analyze massive quantities of digital records grows daily while at the same time “milliseconds” has become standard for both performance and responsiveness.

Active Power UPS systems are both energy and space efficient, enabling your hospital to devote less space to power protection and fewer dollars to the utility company. They are proven seven times less likely to fail than traditional UPS with batteries, providing invaluable peace of mind.

## CUSTOMER CASE STUDIES



### Community Hospital North | Indianapolis, IN

Need: Datacenter  
Solution: Two CleanSource UPS 130 kVA systems  
Key Drivers: Efficiency and reliability

*“Indianapolis strives to be a **green city**, at CHN we also strive to find ways to **support our data and infrastructure** in an **efficient and green-friendly** way. **Employing flywheels helps us to elevate that strategy** in our datacenter.”*

-Andy Roeder, Datacenter Manager, CHN



### Parkland Health and Hospital System | Dallas, Texas

Need: Datacenter, multiple x-ray machines and CT equipment  
Solution: Seven 600 n+1 CleanSource UPS systems  
Key Drivers: Efficiency and reliability

*“Active Power’s UPS technology enables us to deploy a **forward thinking power infrastructure design** with a **lower carbon footprint** and higher energy efficiencies versus traditional systems. These advantages though don’t come at the expense of **reliability** which is particularly **critical for a health care facility** like ours.”*

-Lou Saksen, SVP of Facilities Planning & Development



## UNMATCHED POWER DENSITY, RELIABILITY, AND TCO



# ACTIVE POWER HEALTHCARE APPLICATIONS TECHNICALLY SPEAKING

## ADVANTAGES FOR HEALTHCARE

- ~98% AC-to-AC efficiency
- Increased reliability aided by fewer components in critical power path
- Continuous power conditioning and harmonics mitigation
- Exceptionally compact design
- Derives power directly from the utility, which is a stiffer source than inverter
- Transient Voltage Window sampled 333 times every cycle on each phase

## SYSTEM OPTIONS

Active Power offers multiple CleanSource UPS systems to best meet the needs of your data center. Systems are available in both non-expandable single module (SMS) and expandable multi-module (MMS) designs to allow choices in cost, flexibility, and size.



### CleanSource 300 (480V)

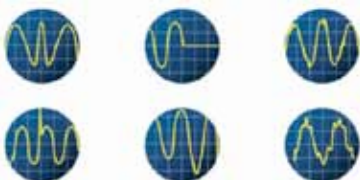
- Single Module System 150-300 kVA
- Multi-Module Expandable Systems from 300-1200 kVA

### CleanSource 750HD (480V)

- Single Module System 750 kVA
- Parallel up to 2 MW
- Extended Runtime Option

## POWER CONDITIONING

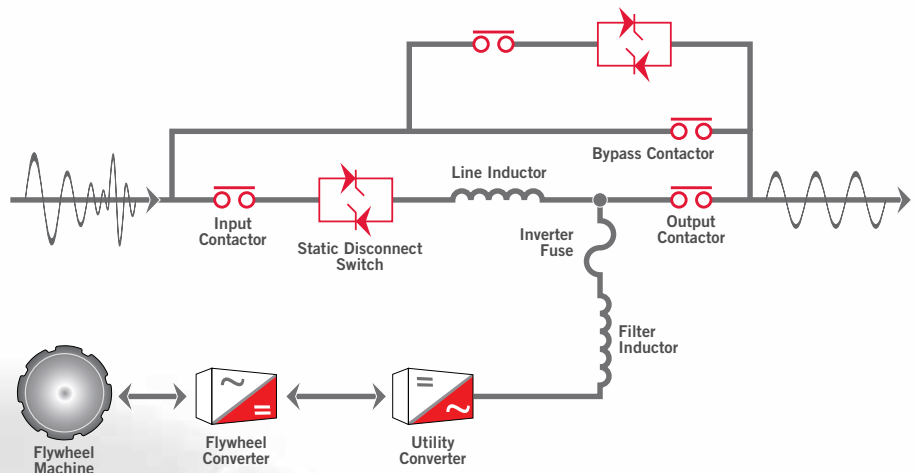
CleanSource UPS systems correct all 9 IEEE defined power problems by use of TVSS, line inductance, active filtering, power converters and load-tolerant flywheel energy storage.



## SYSTEM FEATURES IDEAL FOR HEALTHCARE APPLICATIONS

- Faster step load response than legacy UPS with batteries
- 800-volt DC bus provides additional capacity to handle highly non-linear loads - especially at peak of wave-form in imaging applications
- Flywheel energy storage provides immunity from frequent system discharges
- Battery free technology eliminates troublesome hazardous materials
- Environmentally tolerant within broad range of operating conditions
- Higher energy efficiency at partial loads
- High-speed voltage regulation
- Impressive harmonic conditioning

## ACTIVE POWER UPS TOPOLOGY



## CLEANSOURCE 300 FLYWHEEL TECHNOLOGY

