



WHY IS POWER QUALITY SO IMPORTANT IN LABORATORIES?

The role of a laboratory is to promptly provide laboratory data to individuals. Laboratory devices rely on the AC power to run mission-critical tests, functions and processes, any power disturbances in a lab can result in errors in the data and instrument performance.

Computer-based instrumentation is more common than in the past. Poor power quality can affect the reliability and performance of this equipment, negatively affecting the operation of the lab environment. Over 90% of electrical disturbances that impact the reliability of these systems, are invisible to the users of these systems. These disturbances will adversely affect sensitive electronic equipment and lead to downtime, system errors, lockups and equipment damage impacting the profitability of the laboratory.

What cause these damaging disturbances? Many think it is associated with lightning strikes. When lightning occurs, a surge of power flows through the electrical distribution system and disrupts, degrades, or damages the equipment in the lab. There are many devices operating in labs; centrifuges, heaters, coolers, pumps, and HVAC systems, all of which are necessary to keep labs operational.

This type of equipment generates huge amounts of energy that is known as high frequency noise and voltage transients, that gets distributed through the electrical environment. Power disturbances interfere with the system's ability to make proper logic decisions resulting in lock ups, corrupted data, and early life failure of the lab equipment.



Lab managers, the efficiency of the lab depends on you. You continue to strive to streamline the day-to-day processes and reduce costs through maintenance and operations, but you also need to focus your attention on the power quality in your lab.

The key is to protect your systems to run efficiently and to run them efficiently, you need to incorporate a power quality solution to ensure smooth performance. Protecting your systems with a power quality device that uses a surge diverter, isolation transformer and a power line filter is the only way to guarantee system performance in your lab. Ensuring clean power to everyone of your microprocessor-based systems is key to reduce downtime and maintain costs. Power quality to lab equipment is like food quality is to a professional athlete. System performance is directly related to the quality of your AC power.

The NXT Power Integrity series combines surge diversion with a highly effective low-impedance isolation transformer and noise filtering to bring you the cleanest and most conditioned power available. Though the one element that makes our power condition different from everyone else is the low-impedance isolation transformer within. Isolation electrically separates and protects sensitive electronic equipment by buffering electrical noise and re-establishing the neutral-to-ground bond. The power conditioner isolates the power between the source and the connected equipment to deliver clean, trustworthy power consistently through the devices in the lab.



NXT Power is a team of unparalleled experts dedicated to providing premium power quality solutions for manufacturers of critical electronic equipment. Our products help our customers receive cleaner, more reliable power; avoid destruction, degradation, and disruption; and achieve long-term cost savings through reduced service calls and costly downtime.

Visit www.nxtpower.com for more information.