

ARTICLE

ABB provides critical protection for patient care in the healthcare industry



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01 ABB's PCS100 AVC technology is protecting Toshiba's CT Scanner from power quality events at Wairau Hospital in Blenheim, New Zealand

02 ABB's PCS100 AVC installed at Whakatane Hospital in New Zealand to protect the CT Scanners from suffering a power quality event

ABB has provided power protection solutions to New Zealand's Blenheim, Whakatane and Tauranga hospitals to condition the power supply for Toshiba's AquilionPRIME and AquilionONE CT Scanners. The PCS100 Active Voltage Conditioner (PCS100 AVC) will eliminate unwanted voltage sags that can compromise the CT Scanner's performance. Installing the PCS100 AVCs will enable fast, accurate voltage sag and surge correction as well as continuous voltage regulation – a must for machines that are responsible for patient care.

Voltage sags, voltage surges, phase unbalance and flicker are common events that often cause electric and electronic equipment to malfunction. When such events occur in critical control operations, such as CT scanners, they can cause serious disruption to the services offered by hospitals.

The three New Zealand hospitals were at risk of power quality problems for their CT Scanners (located in the radiology and emergency departments) that rely heavily on 24/7 availability for diagnosis of trauma cases. Computed tomography (CT) provided a significant breakthrough in medical care by generating

detailed anatomical images. The technology can improve diagnoses, assist with management of medical procedures, and enhance treatment. It is crucial that this technology is protected from power quality events caused by weather conditions or internal factors within hospitals.

Without a reliable power protection system in place to condition the voltage supply for the CT scanners, the efficiency of the scanners would be jeopardized. This would ultimately result in patients having to wait longer for scans, delaying diagnosis and treatment. Philip Thomas, radiology team leader at Blenheim's Wairau Hospital, outlined the reason for adopting a power protection solution. "We were advised to install the PCS100 AVC as part of the installation of the new scanner. There were concerns that the power supply in this area was of a 'dirty' nature, which may have compromised the CT system performance."

Toshiba Medical's New Zealand service manager, Ian Bray, reiterated the importance of power protection for critical resource tools, such as CT scanners. "A clean and stable power supply is essential for the CT scanner to consistently produce high quality images for patient

diagnosis. Power transients, surges and disruptions also have the potential to damage the electronic components within the CT scanner resulting in unnecessary expense and downtime.”

About Toshiba

Toshiba medical is a global company with over 200,000 employees worldwide. Toshiba’s vision is the realization of a “Human Smart Community” through an emphasis on energy, storage and healthcare by delivering excellent user experiences.

To find out more about ABB’s power protection solutions:

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