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ABB technology helps semiconductor manufacturer improve productivity



ABB's PCS100 AVC-40 power protection system supports production increases

ABB technology is helping one of the world's largest memory chipmakers and semiconductor companies to increase productivity on key lines. The facility is based in South Korea and has placed a 12 million dollar order for ABB's PCS100 AVC- 40 power protection systems to provide higher protection for their semiconductor wafer production lines from voltage disturbances.

The Korean electronics giant supplies global tech brands with the processing power for desktops, laptops, tablets, smartphones and a growing number of digital devices. This latest order is for four 1800 kVA active voltage conditioners (AVCs) and around 74 of ABB's 900 kVA systems.

The company's spokesperson said: "As the world's top tier semiconductor supplier, productivity and quality is essential to our performance. This latest order continues our strong technical partnership with ABB. ABB's power protection systems support key manufacturing processes, ensuring our production delivers optimum performance at all times."

Sang-Won Ji, Product Marketing Manager for ABB's Power Protection business, said: "The world's leading manufacturers trust ABB with their power and productivity. ABB's PCS100 AVC-40 power protection system helps keep production of semiconductor wafers running smoothly at the facility by ensuring key processes receive a continuous, regulated supply of voltage, even when the utility electrical infrastructure is stressed, unstable or becomes unreliable."

Electronic control systems are the cornerstone of efficient, modern industrial processes. The quality of the power supplied to a facility's instruments, sensors, relays, actuators and electric motors has a direct effect on their performance and reliability. The knock-on effects can be significant with lost labour, material waste and excessive energy costs as costly back-up systems, such as diesel generators, come online.

ABB's PCS100 AVC-40 provides fast, accurate voltage regulation. The system enables facilities to streamline their operations, optimizing their resource and improving the return on their operational investment. The PCS100 AVC-40 also allows factories to use utility power, instead of more expensive on-site generators.



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Sang-Won Ji added: "ABB's PCS100 AVCs operate at efficiencies of more than 98 percent – the highest in the industry – significantly improving reliability. With our PCS100 AVCs protecting wafer fabrication lines against power outages, the facility will benefit from lower maintenance costs, protection against power sags and swells and continuous voltage regulation."

ABB's innovative PCS100 AVC-40 is a three-phase low voltage system that requires no separate energy storage. To make up the correction voltage, the system draws the additional current required from the utility supply. Its robust converter platform uses sophisticated control software to perform full range voltage corrections in just 20 milliseconds.

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

Web: www.abb.com/ups

 ${\bf Email: power conditioning@abb.com}$