



Standby power

> Case History

Info Vision Optoelectronics, China

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**Power
Generation**

Where:

Info Vision Optoelectronics Co. Ltd., Kunshan, Jiangsu Province, China

What:

A 20 MW Cummins Power Generation diesel standby power system

Purpose:

To provide continuous power and protect valuable semiconductor materials and partially completed products in the event of a utility failure

Primary choice factors:

Reliability of Cummins Power Generation equipment and the ratio of system performance to cost

World's newest LCD screen manufacturer relies on Cummins Power Generation for continuous electrical power

KUNSHAN, CHINA — Info Vision Optoelectronics Company Ltd. (IVO) is one of the world's newest large-scale manufacturers of amorphous TFT-LCD (thin film transistor-liquid crystal display) screens. The company was established in July 2005 as a joint venture between Kunshan Economic & Technical Development (KETD) and IVO Holdings.

IVO's display screens are up to 19 inches wide and are used in laptop and notebook computers. Manufacturing takes place in a new facility that has 330,000 square meters (3.55 million square feet) of production space.

The process of manufacturing TFT-LCD screens requires a highly reliable source of electricity — brief interruptions in electric power can ruin valuable semiconductor materials and partially completed products. That is why IVO decided to install 20 MW of standby power generators from Cummins Power Generation Inc.

The IVO facility joins just a handful of similar plants worldwide that manufacture TFT-LCD screens. Due to the high cost of building these plants, entry to the field



Ten Cummins Power Generation diesel generator sets compose the standby power system that protects IVO's semiconductor production in the event of a utility power failure.



Manufacturing takes place in a new 330,000-square-meter production facility in Kunshan, in China's Jiangsu Province.

has been limited. However, with the cooperation of the Chinese government and development organizations, the facility was able to produce its first product just three months after the building was completed. One reason cited for the quick ramp-up of the company was the recruiting of skilled engineers from throughout China, Taiwan and Japan, and the resulting international collaboration.

Local distributor provided a complete solution

Solomon Technology Corporation, the local distributor for Cummins Power Generation equipment in Shanghai, provided a complete standby power solution for IVO that included 10 diesel generator sets from Cummins Power Generation, each producing 2 MW of power.

“During maintenance testing procedures, the power system provides an uninterrupted power transfer between the generator sets and the utility. It also assures us of continuous power so that we can maintain production in the event of a utility failure.”

“We designed the power supply solution after we understood all of the customer's needs,” says Johnson Jiang, manager of Solomon Technology Corp. “In addition, we chose the most reliable and cost-effective products to stay within the customer's budget.”

Power system features advanced technology

The generator sets are powered by the Cummins QSK60 diesel engine, which has been proven to be a highly reliable power source in thousands of installations worldwide. The 16-cylinder, turbocharged engine features advanced technologies to reduce exhaust emissions, such as a high-pressure full-authority electronic fuel system, cast-iron pistons and after-cooling. The fuel system features an open nozzle design that produces a “soft” start to injection that lowers combustion noise. It also has infinitely variable injection timing, which allows exhaust emissions and fuel economy to be optimized.

“During maintenance testing procedures, the power system provides an uninterrupted power transfer between the generator sets and the utility,” says Xu Jaizhang, plant manager of IVO. “It also assures us of continuous power so that we can maintain production in the event of a utility failure. In addition, the Cummins Power Generation distributor provided extensive training for our staff so that we can operate the standby power system reliably.”

Jaizhang says that the major factors that went into the decision to select Cummins Power Generation were the reliability of the equipment and the ratio of performance to cost. “Everything is working as designed,” he concludes.

For more information about integrated standby power systems, contact your local Cummins Power Generation distributor or visit www.cumminspower.com.

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