Products of the Sansha Electric Manufacturing Group That Support Society

The Sansha Electric Manufacturing Group contributes to the stable supply of energy, decarbonization, and the advancement of social infrastructure through power conversion technologies that combine power semiconductors and power supply equipment. In renewable energy facilities, industrial equipment, and other critical facilities that support society, our technologies help ensure a stable supply of electricity and improve energy efficiency, thereby contributing to a sustainable society.

What does "efficiently converting electricity" mean?

There is always a loss of electricity every time a power conversion occurs anywhere in the process from the generation of electricity at a power plant, through transmission lines and power supply circuits to the final use of electric appliances by consumers. To reduce this power loss, we are working to develop high performance power devices and high efficiency power supplies.

Semiconductor Business　Power Supply Business

Industrial Applications

Our precise power control technologies support quality and productivity in surface treatment and processing equipment.

Automobiles, smartphones and electronic components

Power supplies for surface treatment
Used in plating to increase the abrasion resistance and oxidation resistance of metal and other surfaces

Manufacturing robots and welders

Thyristor and diode modules
Converting alternating current to direct current to protect electric circuits from overvoltage

Power supplies for welding and cutting
Used for welding and cutting steel sheets

Plant equipment for material processing and other purposes

SiC MOSFET modules
Generating high-frequency power in processing equipment to help reduce power loss and improve processing quality

Electric power regulators
Used to adjust the temperature of electric furnaces in glass processing plants and other facilities

Power supplies for aluminum foil processing
Used for electrochemical etching to increase the surface area of aluminum foil

Lifestyles, Medical Care and Entertainment

Our power supplies for projectors and dimmers, as well as power semiconductors for home appliances and elevators, support safe and comfortable living.

TV studios, halls and stadiums

Power supplies for dimmers
Used for continuously dimming lighting

Home electric appliances and electric bidet toilet seats

Discrete semiconductors
Used for controlling heaters and motors

Medical equipment and ATMs

Small power supplies
Used for supplying stable power

Elevators

Diode modules
Used for controlling motors

Movie theaters

Power supplies for projectors
Helping ensure the stable operation of projectors

Communications and Infrastructure

Our products support social infrastructure by ensuring stable power supply and control for railway, telecommunications, and power facilities.

Data centers

Uninterruptible power supplies
Supplying uninterrupted power for a certain period of time in the event of a power failure to protect the operation of critical equipment, such as servers, and data

Expressways, electronic toll collection (ETC) and railway stations

Uninterruptible power supplies and control power supplies
Maintaining the supply of electric power for a certain period of time in the event of a power failure to protect the operation of equipment and data

Electric rolling stock

Diode modules
Supplying stable voltage and frequency to lighting, air conditioners, and other equipment in rolling stock

Water supply and sewage facilities

Power supplies for ozone generation
Generating ozone to decompose organic substances in water, helping improve water quality

Energy and the Environment

Supporting a sustainable society through the highly efficient use of electricity in the fields of renewable and new energy.

Hydrogen

Power supplies for water electrolysis
Used for supplying a stable electric current to water electrolysis systems to produce hydrogen

New energy

Power conditioners for fuel cells and for storage batteries
Converting electric energy stored in fuel cells and storage batteries and connecting to commercial power networks

Solar (PV) power generation

Power conditioners
Converting direct current power produced by solar (PV) power generation systems to alternating current and connecting them to commercial power networks

Diode modules for preventing backflow
Preventing the backflow of electric current from a storage battery or other device and the subsequent damage of solar panels

Power plants

Power supplies for seawater electrolysis
Generating sodium hypochlorite through seawater electrolysis to prevent marine life from attaching to plant water inlets

Fuel cells and storage batteries

Power supplies for testing and evaluation and charge-discharge products
Used in the testing and evaluation of the characteristics of a range of batteries and automotive equipment

Lithium-ion batteries

Power supplies for copper foil
Used to produce electrolytic copper foil, an anode material for lithium-ion batteries

