# **Products of the Sansha Electric MFG That Support Society**

# Energy & the environment

### Solar (PV) power generation

- ( **/** Power conditioners Converting the direct current electric energy obtained from sunlight into alternating current to connect to the commercial power network
- 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

# New energy

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

# Hydrogen

05

of water

( **/** Power supplies for water electrolvsis Supplying a stable electric current to the water electrolysis system necessary for the production of

hydrogen through the electrolysis

- Power plants
- Power supplies for seawater electrolysis Large current power supplies that generate sodium hypochlorite through the electrolysis of seawater to prevent marine life from depositing on the plant's water inlet
- Fuel cells and storage batteries
- Power supplies for testing and (4)evaluation and charge-discharge products High performance power supplies indispensable in the testing and evaluation of a range of batteries and automotive equipment
- Lithium ion batteries
- Power supplies for copper foil  $(\mathbf{4})$ Performing an electrolytic process with a stable electric current to generate copper foil to be used as an anode material for lithium-ion batteries
- Waste disposal plants and contaminated substance disposal plants
- Power supplies for plasma arc  $(\mathbf{4})$ generation Power supplies for plasma arc generators that quickly increase the temperature of waste to be treated to a high temperature to suppress the

generation of dioxins generate

# General industries

# Manufacturing robots and welders

- Thyristor/Diode Converting alternate current to direct current to protect electric circuits from overvoltage. Power supplies for welding and cutting Power supplies for welding and cutting steel sheets
- Thyristor/Diode Converting alternate current to direct
- Inverters for industrial use and commercial air conditioners
- Diode modules Stabilizing and controlling motors
- Induction heating/high-frequency power supplies
- SiC MOSFET modules Generating high-frequency power with high efficiency
- Automobiles

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

Electric power regulators (4)Used for adjusting the temperature of electric furnaces for melting metals and glass

The most significant social responsibility that the Sansha Electric Manufacturing Group has as a manufacturer is to conduct manufacturing that is valuable to society. We support society by providing power semiconductors for many different power supplies and industrial power supplies for a wide range of industries, from high to low power, in Japan and overseas under the concept of the integration of technologies for power semiconductors and for power supplies.

#### Lifestyles, medical care and entertainmen Infrastructure Expressways and electronic toll Movie theaters collection (ETC)/Stations Uninterruptible power supplies (4)(UPS) and control power supplies clearly onto a screen Maintaining the supply of electric power for a certain period of time during a power failure to protect the Medical equipment/ATMs operation of equipment and data Small power supplies Electric rolling stock electric power **Diode modules** Supplementary power supplies that TV studios, halls and stadiums supply stable voltage and frequency to lighting, air conditioners and other Power supplies for dimmers ( 4 ) equipment in rolling stock Power supplies that enable the continuous dimming of lighting Mobile phone base stations Power supplies for aluminium foil Home electric appliances and electric processing bidet toilet seats Power supplies for electrochemical **Discrete semiconductors** etching, which is the process of Controlling heaters and motors expanding the surface area of the aluminum foil used in electrolytic capacitors that are necessary for the power supplies for base stations Elevators Water supply and sewage facilities Diode modules Power supplies for ozone (4)generation Generating ozone to decompose organic substances in water by applying a high voltage to induce an electric discharge



Power semiconductor business



Power modules



Power discrete semiconductors

# Power supply business



Power supplies for copper foil manufacturing



Uninterruptible power supplies

Information & communication

# Smartphones

# Power supplies for surface treatment

Used for plating, which is a process of placing a thin metal film over the surfaces of electronic components, printed circuit boards and other parts used in computers and smartphones



Power Supply for Light Sources Power supplies for projecting images

Power supplies providing stabilized

Stabilizing and controlling motors