

Our growth history

The Sansha Electric Manufacturing Group will continue to grow through innovation in technologies and operating businesses globally

The Sansha Electric Manufacturing Group has been contributing to the development of society since its founding in 1933. Based on technological innovation, we have developed products including rectifiers for projectors and triacs. We began to operate our businesses globally when we opened our first overseas bases in 1983. In recent years, we have been focusing our efforts on renewable energy and semiconductor technologies, aiming to build a sustainable future.

1933

1933 ~ 1936

Founding period

In 1933, we worked on the task of ensuring the projection of stable images onto screens, which was faced by the movie industry, and succeeded in developing a rectifier. This achievement improved the movie culture and contributed to the prosperity of the movie industry. We continued to improve semiconductor technologies and developed a direct current welder, which is applied in not only movie-related industries but also other industries. Highly acclaimed for quality improvement and low prices, we have continued to manufacture products based on customer needs. Our mission is to manufacture products in response to customer needs, and it remains our core principle.

1933 Develops a choke coil auto transformer, a predecessor to projector power supplies



Headquarters



Choke coil auto transformer

1937

1937 ~ 1970

Establishment of the technological foundation

During the Sino-Japanese war and Pacific War, we continued to manufacture rectifiers exclusively for movie theaters, electric vehicles, plating, and other applications. In the postwar reconstruction period, we succeeded in developing an uninterruptible power supply to address the power shortage, and developed a selenium rectifier for movie theaters. After the war, we ran booths at trade shows in Japan and other countries and developed products, focusing our efforts on thyristor technologies. In 1967, we entered the field of alternating-current control with successful development of dimmers and triacs. We also steadily established a semiconductor-related technological foundation by providing a wide range of products in the field of electronics.

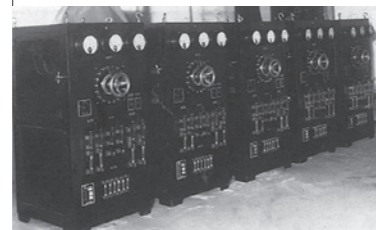
1937 Develops a tungar rectifier for light projectors

1963 Develops and announces our first power semiconductor and thyristor

1964 Develops an inverter uninterruptible power supply and an electric power regulator for electric furnaces

1968 Develops a diffusion type of triac and thyristor

1970 Develops a rectifier for plating



Tungar rectifiers for light projectors

1971

1971 ~ 1990

Expansion of bases and specialization in power semiconductor development

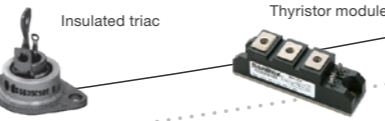
Around this period, we began to operate businesses globally, including in Asia and Europe, and we began exporting a wide array of products. We also developed an isolated mold triac, a power transistor module for high-speed switching, and other products fully leveraging our advanced semiconductor technologies. In addition, we developed the industry's first TIG welder with a switching regulator, an inverter CO₂ welder, and other products that made it possible to achieve high-precision control and high energy-saving performance. With these achievements, we exported direct current power supplies to Saudi Arabia and sold welders in Asian countries. Through international business operations and technological innovations, Sansha Electric Manufacturing became an important entity in the industrial field.

1971 Develops an insulated triac that is the first in Japan

1980 Develops a thyristor module and a power transistor for high speed switching

1982 Develops a power transistor module

1988 Develops a power MOSFET module



Insulated triac



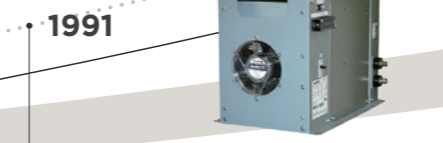
Thyristor module



Factory Production Line



Power conditioner for solar power generation



Power supply for light source for projector of digital cinema

1991 ~ 2010

Developing a system for increased globalization

We succeeded in making planar transistors in the semiconductor sector and developed a high-capacity transistor module. We proceeded with overseas expansion by developing products including welders, cleaning equipment, and power supplies for ozonizers. Further, we prototyped a battery-charging system for electric vehicles, a large uninterruptible power supply (UPS), and an inverter circuit, and productized devices for fuel cell power generation systems, among other products. We ran booths at trade shows and increased orders received in Japan and other countries, signed manufacturing license agreements, and developed a global system for receiving orders, enhancing our business performance. Meanwhile, we established a sales subsidiary in Singapore and strengthened our operation in China and Asia as well.

1991 Develops a planner type transistor module

1998 Develops a power conditioner for solar power generation

2002 Develops a power supply for light source for projector of digital cinema

2007 Develops an IGBT chip for inverter for industrial use



SANSHA ELECTRIC MFG.(GUANGDONG)CO., LTD.

2011

2011 ~ 2023

Towards a new age

As the widespread use of renewable energy and the improvement of energy efficiency are essential as awareness of climate change increases, the Sansha Electric Manufacturing Group entered the field of new energy and fulfilled demand for products for solar power generation systems. We delivered one of Japan's largest power conditioner evaluation systems compatible with new energy to the National Institute of Advanced Industrial Science and Technology. We continued to experiment with new technologies, including the development of a low-loss SiC MOSFET power module. In 2015, we enhanced the manufacturing capability of our production subsidiary in China. At the same time, we established a system that enables integrated manufacturing, sales, and service provision activities to improve our sales capabilities in the Chinese market. In 2016, we participated in the virtual power plant (VPP) construction demonstration project, a project subsidized by the Ministry of Economy, Trade and Industry's Agency for Natural Resources and Energy, and developed products including a storage battery system compatible with virtual power plants. We are expanding businesses aggressively in Japan and overseas, thereby contributing to solutions to social issues.

2014 Develops a photovoltaic power generation evaluation test system for the National Institute of Advanced Industrial Science and Technology(AIST)'s Fukushima Renewable Energy Institute

2015 Jointly develops a compact SiC power module with Panasonic Corporation

2016 Participates in the virtual power plant (VPP) construction demonstration project

2017 Develops a fuel cell power conditioner

2019 Develops a 1500 V string compatible diode module for photovoltaic power generation

2020 Develops a power supply for storage battery tests

2022 Develops a 1200 V voltage-resistant SiC MOSFET discrete semiconductor

2024 Develops a high-capacity power conditioner evaluation system for the National Institute of Advanced Industrial Science and Technology (AIST)'s Fukushima Renewable Energy Institute



SiC power module



Power supply for storage battery tests



Participates in the virtual power plant (VPP) construction demonstration project



1200 V voltage-resistant SiC MOSFET discrete semiconductor



Technical Fair



New building completed at the Shiga Plant