

Corporate Profile 2018





Contributing to the Creation of Sustainable Societies through Our Energy and Environment Businesses

Since our foundation in 1923, Fuji Electric has innovated energy technology to make broad contributions to the world in the fields of industrial and social infrastructure.

Now, through unprecedented population growth and the rapid advance of industrialization, the world is facing energy and environmental issues. Building on its technology and experience, Fuji Electric aims to pursue innovation in energy and environment technology and to continue creating high-value-added, environmentally friendly products and systems. We will also expand our energy- and environment-related businesses around the world, work toward harmony with the ever-changing natural environment, and contribute to the realization of a responsible and sustainable society.

Taking to heart our corporate slogan of being “enthusiastic, ambitious and sensitive,” we will utilize the comprehensive strength of teams of diverse, individual employees, with the aim of global business expansion and continuous growth as a company.

We hope that you will continue to hold Fuji Electric to high standards.



Michihiro Kitazawa
President and Chairman
of the Board of Directors

■ Corporate Philosophy

Corporate Mission

We, Fuji Electric, pledge as responsible corporate citizens in a global society to strengthen our trust with communities, customers and partners.

Our mission is to:

- Contribute to prosperity
- Encourage creativity
- Seek harmony with the environment

Slogan

To be enthusiastic, ambitious and sensitive.

■ Management Policies

- Through our innovation in energy and environment technology, we contribute to the creation of responsible and sustainable societies.
- Achieve further growth through our global business expansion.
- Maximize our strengths as a team, respecting employees' diverse ambition.

Brand Statement

Innovating Energy Technology

Fuji Electric's Energy and Environment Businesses

With energy and environment technology as its core technology, Fuji Electric contributes to the creation of responsible and sustainable societies through its four business segments: Power Electronics Systems, Power and New Energy, Electronic Devices, and Food and Beverage Distribution.

Power Electronics Systems

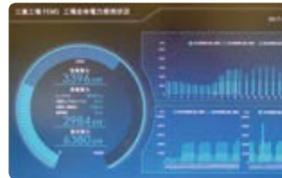
Energy Solutions

Energy management

Power supply and facility systems

ED&C components

Fuji Electric supports electricity infrastructure with proven technologies to ensure that energy can be supplied in a stable, reliable, and optimal manner.



Energy management systems



Substation equipment



Uninterruptible power systems (UPS)



Magnetic switches

Industry Solutions

Factory automation

Process automation

Social solutions

IT solutions

Fuji Electric combines its power electronics products with measuring instruments and the Internet of Things (IoT) and facilitates the advance of plant automation and visualization to increase productivity and save energy.



Inverters



Servo systems



Industrial drive systems



Gas analyzers



Passenger door systems

Power and New Energy

Power plants

New energy

Fuji Electric's sophisticated plant engineering capabilities help meet the growing demand for electricity by providing an array of highly efficient power plant equipment that supplies environmentally friendly clean energy.



Steam turbines



Geothermal power generation facilities



Solar power generation systems



Fuel cells

Electronic Devices

Semiconductors

Magnetic disks

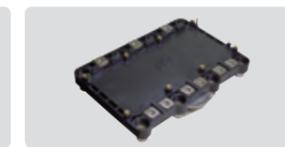
Across the industrial and automotive fields, Fuji Electric contributes to high levels of efficiency and energy savings by supplying power semiconductors, which are key devices in power electronics.



IGBT modules



SiC modules



IGBTs for automotive applications



Power MOSFETs

Food and Beverage Distribution

Vending machines

Store distribution

In the food distribution field, Fuji Electric helps to ensure the safety and security of food by combining core heating and cooling technologies with mechatronic technologies and the IoT to provide ideal products and solutions.



Can/PET bottle vending machines with hybrid heat pump



Vending machines for food and other goods (models for Southeast Asian markets)



Freezers and refrigerated showcases



Automatic change dispensers

Power Electronics Systems

Fuji Electric provides the ideal solutions to its customers by combining the IoT with sensors, control systems, and power electronics products equipped with world-leading power semiconductors.



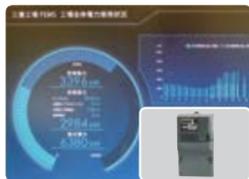
Energy Solutions



- Energy management
- Power supply and facility systems

Energy management systems

Optimal energy supply-demand control



Energy management systems Smart meters

Fuji Electric helps realize energy savings by tracking, analyzing, and optimizing heat and electricity usage and achieve stable energy supplies through heat and electricity supply equipment and optimal control.

Data centers

Complete infrastructure systems



Data centers

Utilizing high-efficiency components, provision of engineering, procurement, and construction (EPC) with one-stop service help to ensure optimal investment.

Plant factories

Integrated environmental control systems



Plant factories

These systems allow for integrated management and control of cultivation environments for creating the optimal environment for nurturing plants.

Transmission and distribution

Monitoring control systems



Substation equipment

We supply substation equipment and perform preventive maintenance to ensure stable operation.

Industry Solutions



- Factory automation
- Process automation
- Social solutions

Assembly and processing equipment

Optimal control systems

Fuji Electric helps realize optimal control as required in specific fields and industries with its motion systems while also facilitating preventive maintenance with its operation information collection systems.



Assembly lines

Metal plants

High-speed control systems

Fuji Electric's systems help achieve stable operation with minimal maintenance by providing both high-speed control and monitoring control.



Steel plants

Cement plants

Monitoring control systems

Fuji Electric provides systems that contribute to stable operation and high-quality product manufacturing by realizing optimal monitoring control and operation management.



Cement plants

Shipping

Exhaust gas cleaning systems

Fuji Electric's exhaust gas cleaning systems combine the world's smallest* SOx scrubbers with optimal control functions using exhaust gas analyzers to ensure compliance with SOx emissions regulations and minimal operating costs.



Exhaust gas cleaning systems

* As of October 2017, based on Fuji Electric's data

Systems IoT

Engineering services

Control equipment



Drive equipment



Power supplies



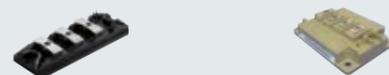
ED&C components



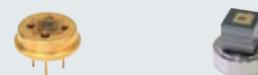
Measuring instruments



Power semiconductors



Sensors



Power Electronics Systems

Fuji Electric offers a wide assortment of equipment that contributes to energy optimization and stabilization and to factory productivity improvements and energy savings.



Transmission and distribution

Fuji Electric provides industrial power-supply infrastructural equipment that enables customers to stabilize production, improve productivity, and realize energy savings. This equipment includes substations, generators, and other power-supply equipment for electric power facilities, railways, factories, and buildings as well as high-capacity rectification equipment for aluminum smelters and chemical plants.



High-capacity transformers



High-capacity rectification equipment



Oil-immersed transformers



Molded transformers

Switchboards

Fuji Electric provides power distribution equipment that has such functions as operation, protection, and monitoring for the stable supply of electricity. The equipment is used for various stages from generation, transmission, distribution, to consumers and also plays an important role in dealing with environmental resistance.



Medium-voltage equipment



Eco-friendly cubicle-type gas insulated switchgears



Control panels

Power supplies

Fuji Electric offers switching power supply systems for embedding in facilities equipment and information devices such as servers and supercomputers; uninterruptible power systems (UPS) to handle power source troubles such as outages and voltage fluctuations; and power conditioning sub-systems (PCS) that efficiently convert electricity.



Uninterruptible power systems (UPS)



Power conditioning sub-systems (PCS)

ED&C components

Fuji Electric offers power distribution and control equipment such as magnetic switches and molded-case circuit breakers for manufacturing equipment and other machinery in factories, so as to meet customers' needs for energy savings and safety improvement.



Magnetic switches



Molded-case circuit breakers

Drive equipment

Fuji Electric supplies inverters, motors, and motor application products that contribute to automation and labor and energy savings in various industrial settings. The Company also provides products not only for compact and low-noise machines but also offers servo and synchronous drive systems of the internal magnet-type variety and products compliant with the Top Runner Motor, which contribute to further energy savings.



Low voltage inverters



Motors



Servo systems



Medium-voltage inverters

Measuring instruments

Fuji Electric delivers measuring instruments designed to be compact, high precision, high performance, and long-term stability. They can be used for optimizing equipment operation, reducing energy consumption, and measuring the environment such as air pollution, as well as visualizing customer facilities to help ensure safety and security.



Spool piece ultrasonic flowmeters



Gas analyzers



Aerosol analyzers (for analyzing PM2.5)



Personal dosimeters

Control equipment

Fuji Electric promotes factory automation by delivering equipment and other system solutions that allow for optimal control of servo systems and inverters with programmable controllers and programmable displays.



Programmable controllers



HMI

Railcars

In addition to the traction converters and traction motors used to control the running of high-speed rail and other rail lines, we offer door systems to help improve the safety and reduce the environmental impact of transportation systems.



Passenger door systems



Drive systems for high-speed railcars

Power and New Energy

Fuji Electric caters to the growing power demand with its sophisticated plant engineering capabilities.



Thermal power

Fuji Electric offers a comprehensive lineup of services for thermal power generation plants encompassing basic planning, design, production, construction, commissioning, and after-sales services that are centered on steam turbines and generators.



Combined-cycle power generation plants



Steam turbines

Renewable energy and new energy

Geothermal power generation

We supply design, production, and construction services for entire power plants that include flash-cycle and binary-cycle turbines and generators as well as other major and peripheral equipment.



Geothermal power generation facilities



Binary-cycle power generation facilities

Hydroelectric power generation

With our extensive range of turbines, which can be selected as ideal for regional specifications, we offer a comprehensive lineup of plant engineering services spanning from design and production to on-site installation and trial operation.



Micro-tubular turbines



Vertical bulb turbines

Solar and wind power generation

For solar power generation systems, Fuji Electric supplies peripheral equipment, such as high-efficiency large-capacity power conditioning systems, as well as its expertise in engineering, procurement, and construction (EPC). We also provide wind power stabilizers that contribute to improved power quality as well as peripheral system equipment while also delivering wind power generation systems through EPC contracts.



Solar power generation systems



Wind power generation systems

Fuel cells

Fuji Electric's phosphoric acid fuel cells are tailored for use in disaster-response facilities. We are also committed to renewable energy power supplies that use biogases.



100 kW phosphoric acid fuel cells

Nuclear power

Fuji Electric's unique nuclear power generation equipments are founded on safe design principles (quake resilience analyses, etc.) and include mixed oxide nuclear fuel manufacturing equipment and decommissioning systems that utilize cutting-edge solidification technology (SIAL®). We offer this equipment together with services ranging from design to installation.

Electronic Devices

Fuji Electric's electronic devices, achieving higher quality and high conversion efficiency, contribute to product downsizing and energy savings.



Semiconductors

Industrial field

Fuji Electric supplies IGBT modules that meet the high-quality standards and achieve high conversion efficiency for use in industrial machinery and wind power and solar power generation equipment, which are increasingly incorporating the IoT and labor-reducing techniques. Our aim is to develop even higher performance semiconductor components—such as 7th-generation IGBT modules and SiC devices—and to contribute to equipment that is more compact and boasts greater energy savings with our advanced packaging technology.

The Company provides low-loss control integrated circuits (ICs) and high blocking voltage semiconductor devices for use in telecommunications equipment, servers, and flat-screen televisions. Fuji Electric has also established a series of control ICs, metal-oxide-semiconductor field-effect transistors (MOSFETs), and diode products that are compatible with various power supply standards in order to further energy savings.

Fuji Electric provides organic photoconductive drums that support fast, high-definition document representation for printers as well as multifunction peripherals.



7th-generation IGBT modules



All-SiC modules



Small-capacity IPMs*
* IPMs: Intelligent power modules

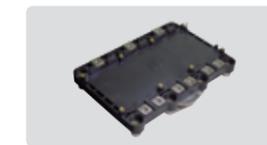


Power MOSFETs

Automotive field

Fuji Electric provides key devices for the control of engines, brakes, and steering as well as for the motor drives and battery charging of electric vehicles and hybrid electric vehicles. Through our proprietary direct liquid-cooling technology and RB-IGBT* technology, we make devices smaller, lighter, and more reliable while helping address strict environmental and fuel regulations and improve safety.

*RB-IGBT: Reverse-blocking insulated gate bipolar transistor



Direct liquid-cooling power modules for automotive applications



Pressure sensors

Magnetic disks

Fuji Electric provides magnetic disks (magnetic recording media) that are incorporated into hard disk drives. We apply industry-leading technology to enhance the performance and capacity of information equipment.



Magnetic disks

Food and Beverage Distribution

Fuji Electric provides food safety and security and helps to save labor, manpower, and energy.



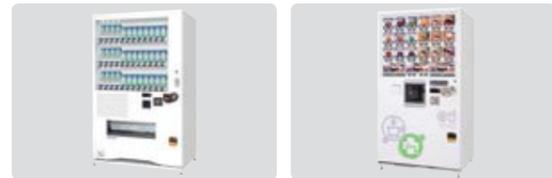
Research and Development (R&D)

Through innovations made in energy and environment technology, Fuji Electric will create products that will help realize a sustainable society.

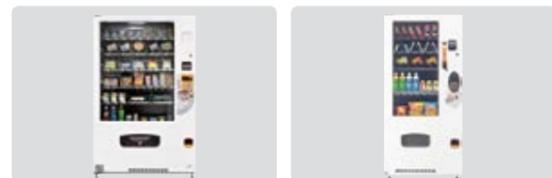


Vending machines

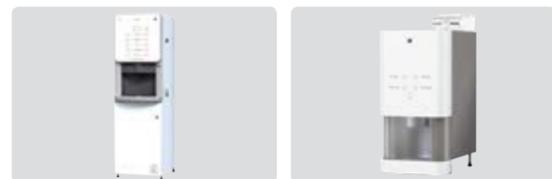
As a leader in the industry, Fuji Electric is actively working to expand the use of environmentally friendly vending machines with advanced energy-saving features, and to respond to customers' diverse needs with an abundant variety of products, ranging from can and PET bottle vending machines to cup and food vending machines. Also, through beverage equipment such as automatic tea dispensers, we contribute to labor savings in the workplace.



Hybrid heat pump can/PET vending machines Cup vending machines



Food vending machines Vending machines for food and other goods (models for Southeast Asian markets)



Automatic tea dispensers Coffee dispensers (for overseas-use only)

Store distribution

Store equipment

Fuji Electric combines core technologies for energy, IT-enabled control, and cooling and heating to provide customers with food distribution that ensures safety, security, freshness, and maximum flavor. We offer a varied menu of products and solutions, including energy-saving freezers and refrigerated showcases that allow our customers to display products in any manner they may require and next-generation cold storage containers that enable low-cost operation.



Non-leak showcases Multi-shelf showcases

Currency handling equipment

Fuji Electric supports customers in achieving the labor saving of cash management with point-of-sale cash registers, reception equipment, and self-use fare adjustment machines.



Automatic change dispensers

Energy management systems

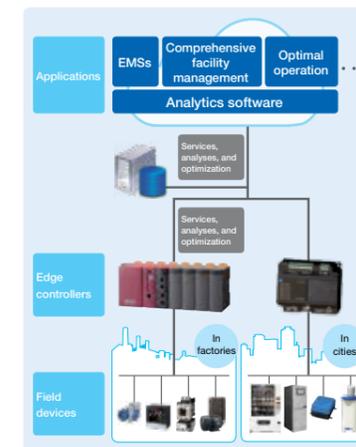
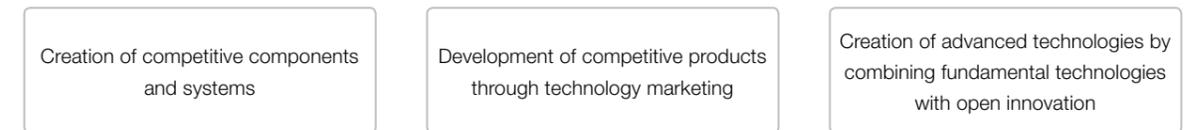
We help reduce the energy consumption of entire stores with store controllers that integrate energy-saving control functions with energy management functions and feature enhanced device linkage and power control functions.

Fuji Electric will pursue innovation in energy and environment technology to create eco-friendly products and systems that provide exceptional levels of value to the customer by enabling energy to be used stably and with maximum efficiency. We aim to ensure the utmost value for customers by creating unique systems that are characterized by their competitive components and by utilizing IoT technologies. Furthermore, as we advance initiatives for international standardization in conjunction with the globalization of our business, we are

increasing the number of patents we hold in relation to important products and strategic development themes to promote an intellectual property strategy that is closely aligned with our business and R&D strategies.

In 2018, Fuji Electric was awarded the 2017 Top 100 Global Innovators by Clarivate Analytics (Philadelphia, the United States) as one of the most innovative companies and research institutions in the world.

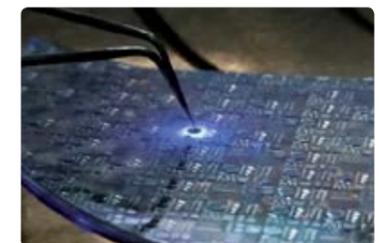
R&D Policies



Creation of customer value by utilizing IoT



ALPHA7 Series servo systems

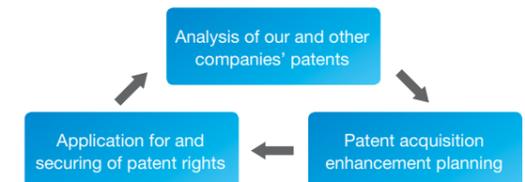


Prototype GaN power devices

Intellectual Property Risk Management

Fuji Electric advances its intellectual property strategy in close coordination with its business and R&D strategies. In particular, as our business becomes more global we are acquiring patents for major products and strategic development themes, as well as enhancing systems at our overseas sites to reduce intellectual dispute risks and prevent leaks of technology overseas.

Patent acquisition enhancement cycle



Manufacturing and Services

Fuji Electric seeks to satisfy its customers by heightening its manufacturing capabilities and developing global service systems.

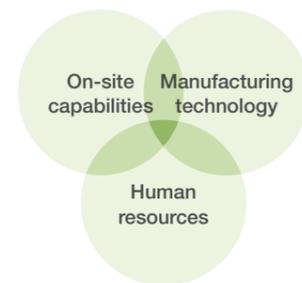


Manufacturing

Aiming to manufacture products that satisfy customers in all aspects, including quality, cost, and delivery, Fuji Electric has proceeded to enhance its manufacturing capabilities. At the same time, we are focused on augmenting on-site capabilities—which we have strengthened by restructuring supply chains—manufacturing technology, and human resources.

Such efforts are boosting our competitiveness even further. With Japan acting as the mother base (plant), we are strengthening our global production network in accordance with our policy of pursuing local design, local production, and local consumption.

The Three Pillars for Enhancing Our Manufacturing Prowess



- **On-site capabilities** The ability to enhance product manufacturing skills, manage and maintain sites, improve productivity, and reduce costs
- **Manufacturing technology** The ability to develop manufacturing methods, production processes, and production equipment for mass production in step with product development
- **Human resources** The capacity to develop the human resources underpinning manufacturing operations and to help them hone their skills and techniques

Facility Technology Center

Functioning as the mother base of Fuji Electric's production technology, this center concentrates on production technology development (advancing automation), equipment production (equipment design and production), and technical and skills training (fostering production engineers, technicians, and global personnel).



Facility Technology Center

Services

At Fuji Electric, after delivering equipment and other products to our customers, we support those customers by providing a range of services throughout the item's lifecycle to leave them feeling further satisfied.

As the customers served by each business segment differ, we have established global service systems on a segment basis. In addition, our call centers in Japan and other countries respond to customer inquiries received via

telephone or our website 24 hours a day, 365 days a year.

We plan to further expand our lineup with new services in order to maximize customer satisfaction going forward.



Call center open 24 hours a day

Corporate Social Responsibility (CSR)

Fuji Electric carries out its mission with integrity as a good corporate citizen in global society.



Fuji Electric views CSR as the act of exercising its corporate philosophy and its management policies. These principles entail contributing to the resolution of social issues through our energy- and environment-related businesses, effectively managing our business in a way that maximizes the positive impact of overall corporate activities on society and the environment while working to prevent or alleviate any negative impact.

To facilitate the promotion of CSR, we have established the six-point Fuji Electric Code of Conduct as a policy by which the Company and all employees come together as one under shared common values. The Code of Conduct reflects the Ten Principles in four areas of the United Nations Global Compact, and we have identified environmental, social, and governance (ESG) issues based on these principles to guide us in their exercise. In addition, Fuji Electric is actively

working toward the accomplishment of the United Nations Sustainable Development Goals through its business activities with the aim of contributing to the realization of a sustainable society.

Fuji Electric Code of Conduct

1. Respect and value our customers
2. Respect and value all people
3. Respect and value the global environment
4. Respect and value our shareholders and investors
5. Respect and value interaction with society
6. Respect, value, and conform with all applicable laws and regulations

ESG-Related Initiatives Based on the Code of Conduct

Environmental

- Global environment
 - Prevention of global warming
 - Reduce society's CO₂ emissions through provision of energy-saving products
 - Reduce CO₂ emissions during production
 - Creation of a recycling-oriented society
 - Promote the 3Rs* in relation to products and production activities

* Reduce, reuse, and recycle

Social

- Customers
 - Improvement of customer satisfaction
 - Provision of safe, high-quality products and services
 - Promotion of CSR across supply chains
- Human resources
 - Human rights
 - Safe and healthy workplaces
 - Diversity
 - Work-life balance
 - Human resource development
- Social engagement
 - Community outreach



Governance

- Global compliance
 - Actions grounded in legal compliance and social conscience
 - Establishment and revision of internal rules and monitoring, auditing, and training based on the Fuji Electric Compliance Program
- Shareholders and investors
 - Engagement with shareholders and investors



More detailed information on Fuji Electric's various CSR activities can be found on the Company's corporate website. www.fujielectric.com/company/csr/

Company Data

Corporate Information

Company Name

FUJI ELECTRIC CO., LTD.

Established

August 29, 1923

Registered Address

1-1, Tanabeshinden, Kawasaki-ku,
Kawasaki-shi, Kanagawa 210-9530, Japan

Head Office

Gate City Ohsaki, East Tower, 11-2, Osaki 1-chome,
Shinagawa-ku, Tokyo 141-0032, Japan

Capital Stock

¥47.6 billion (Year ended March 31, 2018)

Number of Employees (Consolidated)

27,009 (As of March 31, 2018)

Net Sales (Consolidated)

¥893.5 billion (Year ended March 31, 2018)

Management (As of July 1, 2018)

Directors

Michihiro Kitazawa	President and Chairman of the Board of Directors
Kenzo Sugai	Representative Director
Toshihito Tamba	Outside Director
Naoomi Tachikawa	Outside Director
Yoshitsugu Hayashi	Outside Director
Michio Abe	Director
Masatsugu Tomotaka	Director
Junichi Arai	Director

Executive Officers

Michihiro Kitazawa	President and Chairman of the Board of Directors	General Management
Kenzo Sugai	Executive Vice President and Elected Corporate Director	Assistant to the President, Corporate General Manager, Sales Group
Michio Abe	Senior Managing Executive Officer	Corporate General Manager, Production & Procurement Group
Masatsugu Tomotaka	Senior Managing Executive Officer	Corporate General Manager, Power Electronics Systems Business Group
Junichi Arai	Managing Executive Officer	Corporate General Manager, Corporate Management Planning Headquarters, General Manager, Export Administration Office, in charge of compliance management and crisis management
Takeshi Kadoshima	Executive Officer	General Manager, Human Resources and General Affairs Office
Masahiro Fujiwara	Executive Officer	Corporate General Manager, Power and New Energy Business Group
Kenji Goto	Executive Officer	Corporate General Manager, Power Electronics Systems Business Group
Yasuhiro Takahashi	Executive Officer	Corporate General Manager, Food and Beverage Distribution Business Group
Susumu Shinmura	Executive Officer	Deputy Corporate General Manager, Sales Group
Masahiro Morimoto	Executive Officer	Corporate General Manager, Power Electronics Systems Business Group
Toru Housen	Executive Officer	Deputy Corporate General Manager, Electronic Devices Business Group
Shiro Kondo	Executive Officer	Corporate General Manager, Corporate R&D Headquarters

Audit & Supervisory Board Members

Yoshio Okuno	Standing Auditor
Junichi Matsumoto	Standing Auditor
Yoshiki Sato	Outside Auditor
Akiko Kimura	Outside Auditor
Tetsuo Hiramatsu	Outside Auditor

History

Fuji Electric continues to evolve in step with the times and society, with technology as its driving force.

Company

- 1923
 - **Fuji Electric Manufacturing Co., Ltd., established**
Established as a capital and technology alliance between Japan Furukawa Electric Co., Ltd., and German Siemens AG. The result is a company with characteristics inherited from industry in both countries
- 1925
 - **Began operation of the Kawasaki Factory**
- 1942
 - **Began operation of the Matsumoto Factory**
- 1943
 - **Began operation of the Fukiage and Toyoda factories**
- 1944
 - **Began operation of the Mie Factory**
- 1961
 - **Began operation of the Chiba Factory**
- 1968
 - **Merged with Kawasaki Denki Seizo Co., Ltd., and commenced operations at the Kobe and Suzuka factories**
- 1973
 - **Began operation of the Otawara Factory**
- 1984
 - **Changed company name to Fuji Electric Co., Ltd.**
- 1991
 - **Began operation of the Yamanashi Factory**
- 2002
 - **Introduced Company symbol mark**
- 2003
 - **Changed company name to Fuji Electric Holdings Co., Ltd., owing to shift to pure holding company system**
- 2008
 - **Fuji Electric FA Components & Systems Co., Ltd., merged operations with Schneider Electric Japan Ltd.**
(Power distribution and control equipment joint venture)



Company emblem, "FS" mark



Symbol mark



Emblem

Technology

- 1924
 - **Began manufacturing electrical machinery**
- 1925
 - **Began transformer production**
- 1927
 - **Began electric fan production**
- 1936
 - **Built first hydraulic turbine, 4,850 HP Francis Turbine**
- 1937
 - **Began watt-hour meter production**
- 1954
 - **Began ultra-compact magnetic switch production**
- 1959
 - **Began manufacturing silicon diodes**
- 1969
 - **Began production of vending machines**
- 1971
 - **Began manufacturing hybrid ICs**
- 1976
 - **Began manufacturing general-purpose inverters**
- 1985
 - **Released the programmable logic controller "MICREX-F Series"**
- 1987
 - **Developed IGBT module**
- 1991
 - **Developed 2.5-inch magnetic disks**
- 1996
 - **Won order for IGBT main conversion devices used in electric railways**
(The world's first large-capacity flat IGBT)
- 1998
 - **Delivered 100 kW phosphoric acid fuel cell**
- 2010
 - **Developed next-generation SiC module power semiconductor**
- 2012
 - **Developed inverter equipped with next-generation power semiconductor SiC-SBD, a first in Japan**
- 2014
 - **Launched power electronics equipped with SiC power semiconductors**
- 2015
 - **Launched steam-generation heat pumps**



Francis Turbine



Ultra-compact magnetic switch production



The first vending machines



General-purpose inverters



Flat IGBT



SiC module



Power semiconductor SiC-SBD



Power conditioning sub-system for high-capacity mega solar use



Steam-generation heat pumps



ECOLOGY
Fuji Electric

This mark symbolizes
the commitment of Fuji Electric
to environmental protection.

FE Fuji Electric Co., Ltd.

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