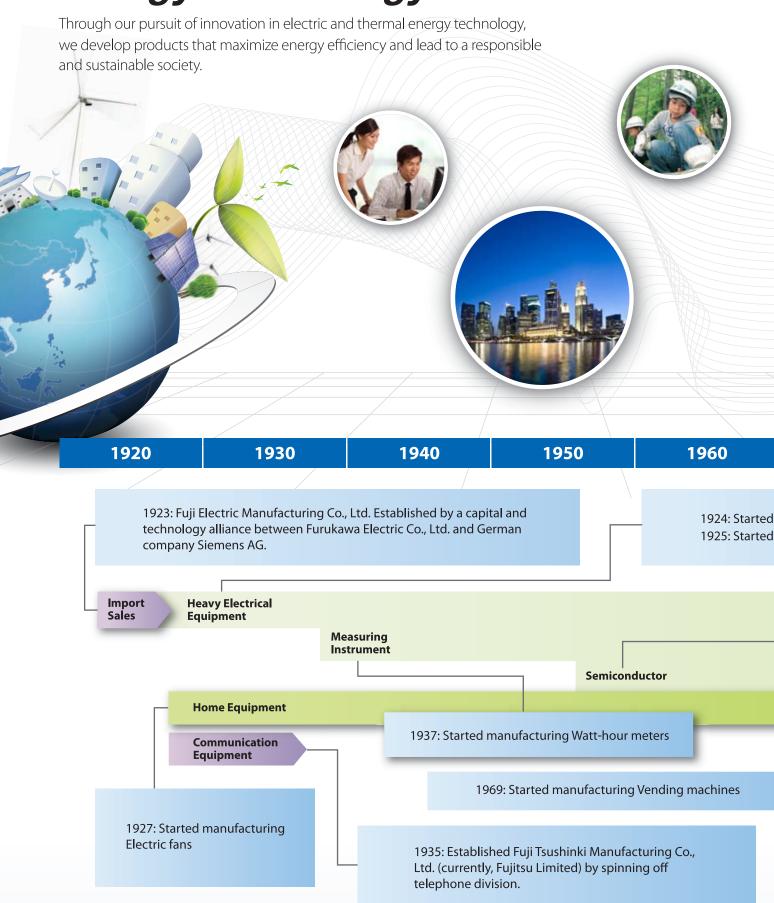


# Corporate Profile

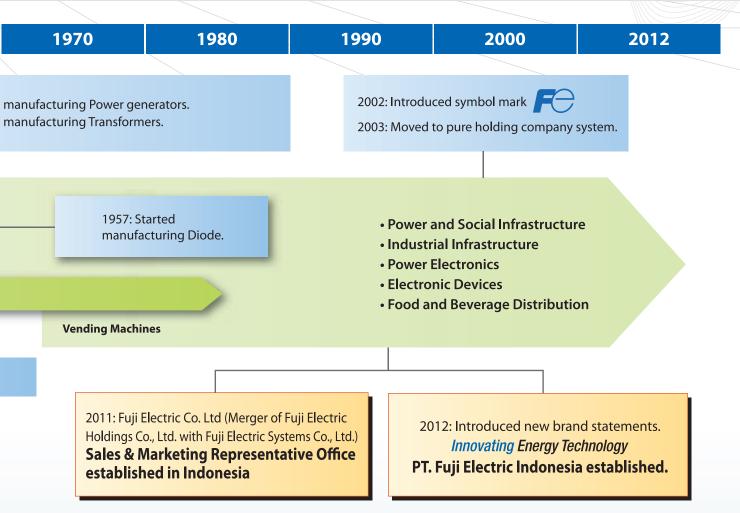


# Innovating Energy Technology



## **Function of PT. Fuji Electric Indonesia**





## Fuji Electric's **Energy-Related Business**

With power electronics technology and thermal energy technology as core technologies, Fuji Electric contributes to the creation of responsible and sustainable societies through its five business sectors: Power and Social Infrastructure, Industrial Infrastructure, Power Electronics, Electronic Devices, and Food and Beverage Distribution.

## **Power and Social Infrastructure**

By integrating environmentally friendly electric power plants and energy management, Fuji Electric will contribute to the realization of a society of smart communities.

- Steam turbine
- Power generation facilities
- Fuel cells
- Cluster Energy Management System
- Electric power storage systems



Steam turbine



Cluster Energy Management System (CEMS)

## **Industrial Infrastructure**

Fuji Electric supplies diverse customers in the fields of industry with "energy savings" and "lifecycle services" for production lines and infrastructure equipment.

- Substation equipment
- Rectification equipment
- Drive control systems
- Industrial electric heat
- Instrumentation and control systems



Switching devices



Measurement instruments

## **Power Electronics**

Fuji Electric supplies products that incorporate power electronics technology to improve the efficiency and stability of energy.

- General-purpose and industrial inverters
- Synchronous motor systems
- Systems for EV (Quick chargers)
- Uninterruptible power supply systems
- Magnetic switches / Molded-case circuit breakers



General-purpose inverters



Uninterruptible power supply systems

## **Electronic Devices**

Fuji Electric supplies power semiconductors and other essential devices to the fields of industrial equipment, automobiles, information equipment, and new energy.

- Power semiconductors
- Organic photoconductive drums
- Magnetic disks



Power semiconductor

## **Food and Beverage Distribution**

With our freezing technology at the core, we integrated mechatronic technology and IT to offer optimal products and solutions to our customers.

- Vending machines
- Food service equipment
- Freezer and refrigerated showcases
- Energy-saving stores
- Distribution systems





Freezer and refrigerated showcases

Vending machine



## **POWER AND SOCIAL INFRASTRUCTURE**

We integrate environmentally friendly electrical power plants with energy management, contributing to the realization of smart communities.

### Geothermal Power Generation

As the world's top manufacturer of geothermal power plants, we not only manufacture turbines and generators but also o"er comprehensive plant construction solutions covering electric power generation system design, installation work, and trial operation. We are also engaged in the growing #eld of binary power plants, which make low-temperature-source generation possible.



Nga Awa Purua Geothermal Power Station, 140-MW capacity: World's largest single unit output (New Zealand)



Wayang Windu Geothermal Power Plant (Indonesia)



Kawerau Geothermal Power Plant (New Zealand)

Steam turbine

#### Thermal Power Generation

We design and construct the steam turbines and generators that are the heart of any thermal power generation system, offering equipment models and configurations to meet the demands of various plants. We respond to the needs of diverse plants not only in Asian markets but also around the world.



Thermal power generation facilities





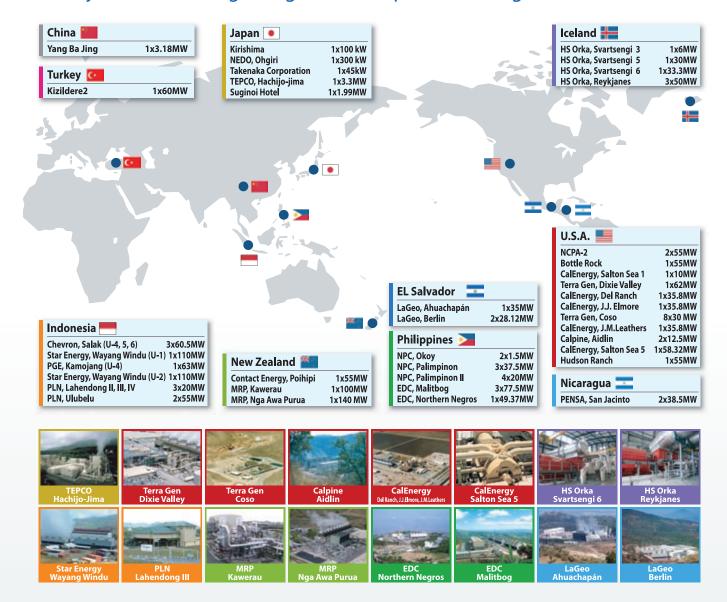
Operation Support Center

#### After-Service Focus

Fuji Electric also focuses on post-delivery after-service. In 2008 we established our Operation Support Center within the Kawasaki Factory, to enable us to confirm the operational status of the geothermal equipment we had delivered worldwide. The center takes in data concerning items such as steam flow, production of electricity and turbine pressure, and uses that to estimate the equipment's future status and propose maintenance options to the customer

## **Worldwide Fuji Geothermal Power Generation Units**

## Fuji Electric's strength in geothermal power is recognised worldwide





## **PLANT ENGINEERING**

# Realisation of a transparent and environmentally conscious society

When manufacturing, we emphasize safety and a transparent manufacturing process with the aim of providing customers with a variety of environmentally friendly, energy saving products to benefit industry and society. Our goal is to contribute on creating a comfortable industrial society, whose members can live their lives safely and comfortably. This is achieved through advanced electronics technologies developed by Fuji Electric Systems that have allowed it to design and manufacture appropriate sensors and IT systems & components that detect hazards, connect equipment and devices, store, send and analyse data.

Environmentally friendly and safe technologies and products provide customers with next generation solutions



















## **INSTRUMENTATION**

## Providing the best measurement system solution

### Temperature Controllers

Digital temperature controllers that support all types of temperature control with four models, including the dissemination and high end models and the module type.





A product of Fuji's advanced technology for clear and continuous 6-colour inkjet recording, incorporating piezoelements for use in industrial applications.



### Paperless Recorders

PC support software for display of storage data on CRT of PC and PC loader software for parameter settings are delivered as standard accessories, with functions of root extraction, subtractions, integration and Fvalue calculations.



FUJI developed the first infrared gas analyzer in Japan to use mass flow sensors, commonly used to monitor the atmosphere to help maintain a cleaner natural environment.



FCX series electronic transmitters, wit a key component of a silicone sensor with a micro level capacitance, ensure highly precise measurements of pressure, differential pressure, fluid flow and liquid levels.



Duosonics, the world's first new concept ultrasonic flowmeter utilising the pulse Doppler method and transit time method for non intrusive flow measurement from the outside of piping.



#### Stack Gas Analyzer

The first direct insert-type gas analyzer that enable simultaneous and continuous high speed measurements of concentrations of gases (HCL, NH3, CO, CO2 & O2) in two seconds

## **DRIVE & AUTOMATION**

## Design and manufacture of more energy efficient products

We provide our customers with high quality, safe and technologically transparent, next generation automation systems which are environmentally friendly. Our innovative solutions to problems and highly reliable products are developed from many years of experience.



## General Purpose Inverters

Our inverters contribute to automization, labour saving and energy saving in machines and facilities in industrial fields. They are all compact, yet powerful, ranging from high performance torque vector control models to simplified models. Our full line of inverters is capable of satisfying every demand of variable speed control.



FRENIC VG Series







## **DRIVE & AUTOMATION**



## ALPHA 5 Series: AC Servo System

Fuji Electric FA provides a wide variety of servomotor systems, ranging from quick response ultra compact models to large capacity models, for applications such as industrial machines, semiconductor manufacturing equipment. Further flexible control becomes possible with motion control use function blocks installed into PLCs.

High Efficiency Synchronous Motor







## Programmable Operation Display HMI

Our Programmable operation displays are capable of machine operation, production line management monitoring and a wide range of other applications, and offer a rich variety of screen sizes and display functions including networking, animation and video.



## Programmable Logic Controller (PLC)

Our PLCs feature high processing speeds and compatibility with various networks for increasingly complex, high speed and advanced machine and measurement control, and our scalable multicontrollers exceed the conventional PLC framework.

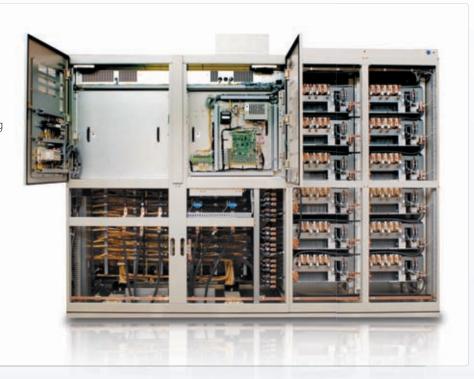


# High reliability and simple maintenance drives utilising the latest power electronics

Fuji's medium voltage drives are used for direct variable speed control of medium voltage motors. The industry's smallest class inverters achieved through significant panel size reduction, made them the ideal inverters for power sources and motors. They greatly raise the efficiency and power factor, stabilise motor operation and conserve energy.

## Environment-friendly AC drives

High reliability and simple maintenance inverters utilizing the latest power electronics such as 3-level inverter, mounting of special MPU and no need for harmonic filter/power-factor regulating capacitor.





## UPS (Uninterruptible Power Supply)

Our UPS and power solutions have the best product specifications with the latest technology.

Our products are available in the 72 VA to 2000 kVA range, for single modules. For higher ratings, these can be paralleled to deliver 12000 kVA. Fuji Electric's high efficiency UPS helps in reducing costs, weight, footprint and heat.



## **ELECTRICAL DISTRIBUTION & CONTROL**

Wide range of Distribution & Control products for buildings, industries and OEMs.

We offer power distribution and control equipment such as magnetic switches and molded case circuit breakers for manufacturing equipment at plants and other machinery so as to meet our customers' energy efficiency and safety needs.



## Molded-Case Circuit Breaker / Earth Leakage Circuit Breaker

The G-TWIN compact and high performance MCCB & ELCB; it's in the world to adopt switching for dielectric test. This series is also conforming to all major international standards, and had lower environmental impact by conforming the RoHS Directive.

### Magnetic Contactor

The highly trusted NEO SC Series has captured the leading market share in Japan and conforms to global standards. Incorporating the latest technology, these switches also have excellent safety characteristics and are environmentally friendly.



#### Air Circuit Breaker



#### Vacuum Circuit Breaker



#### Cast Resin Transformer

We have supplied over 100,000 (approximately) quantity of Cast Resin Transformer in the world. Epoxy resin is safe against fire since it has self-extinguishing properties and is fire resistant. Cast resin transformer is compliant to all tests of IEC 60076-11.

A sheet coil and wound core construction minimize total loss remarkably, thus reducing the electricity charges and saving energy. It is Compact & Light, Maintenance and Inspection are easy since with no insulation oil is required.



## **SEMICONDUCTORS**

Creating innovative electronic devices that spur advances in power electronics, IT and other fields

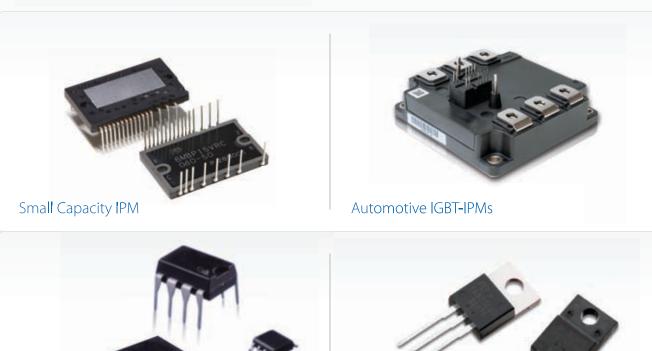
The Electronic Devices Group provides groundbreaking electronic devices to realize energy conservation and reduced environmental burden by contributing to advances in automobile and IT devices and industrial equipment. Driven by a desire to constantly lead the industry in technological innovation, we are creating an exciting lineup of innovative devices. We strive to be a reliable partner to our customers companies that must stay in touch with their markets through the successive, rapid development of new products, and we promise to provide market-leading, world-class electronic devices and services.



Power ICs

### Semiconductors

Main Products: PowerlCs / IGBT modules Power discrete devices / Hybrid devices / Pressure sensors



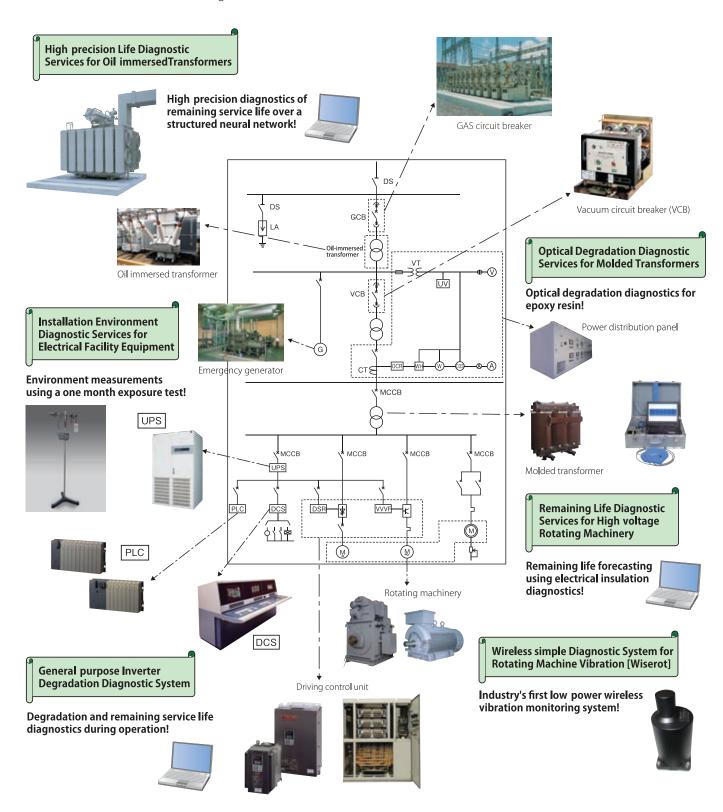
**Power MOSFETs** 



## **TECHNICAL SERVICE**

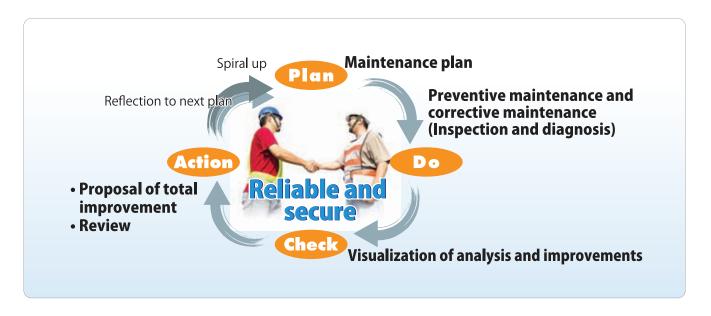
## Maintenance Planning Services for Safety and Reliability

Preventive Maintenance and Diagnostic Services for Electrical Facilities

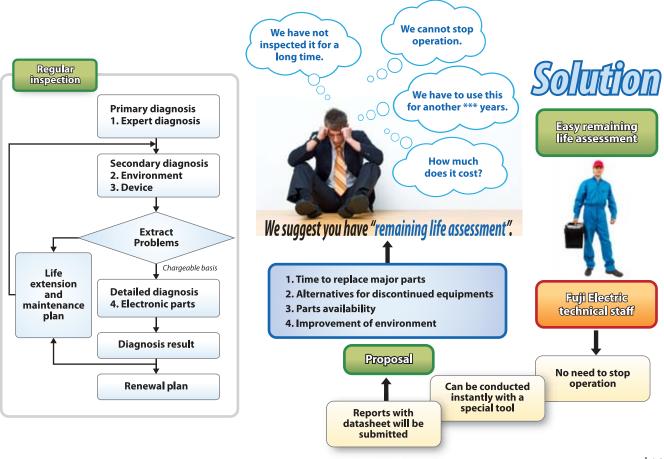


## LIFE CYCLE SUPPORT SERVICES

Providing various maintenance services covering the entire life cycle of customer facilities from new installation to renewal.



Easy remaining life assessment and regular inspection



## **FUJI ELECTRIC'S PRESENCE IN ASIA PACIFIC**

Established since 1923, Fuji Electric group has made broad contributions to the world industrial and social infrastructure.

With it's 90 years of accumulated technology and experience, Fuji Electric is capable of responding to Asia customers' need promptly through support from different department of Sales, Engineering, Manufacturing, and Technical support in Asia.

With strong connection and collaboration Fuji Electric Indonesia have is believed to meet the diverse needs of customers in Indonesia.



- Manufacturing centre
- Sales centre
- After-sales service Support centre
- Engineering centre
- Competency centre

#### **Global Presence**

- · Fuji Electric Co., Ltd. (Headquarter/Japan) · Fuji Electric Taiwan Co., Ltd.
- · Fuji Electric (China) Co., Ltd.
- · Fuji Electric Corp. of America
- Fuji Electric Korea Co., Ltd.
- Fuji Electric Europe GmbH

#### PT Fuji Electric Indonesia

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Tel: (62) 21-398-43211 Fax: (62) 21-398-43218

## Our sales and distribution networks now cover 5 of the 7 continents

### Asia Sales Presence

#### SINGAPORE

171 Chin Swee Road #12-01, San Centre Singapore 169877

Website: www.fujielectric.com/asia Email: sales@fap.fujielectric.com Tel: (65) 6533-0014 Fax: (65) 6533-0021

FUJI ELECTRIC INDIA PVT LTD 409-410, Meadows Sahar Plaza, Andheri Kuria Road, J.B. Nagar, Andheri (E) Mumbai 400-059, India Tel: (91) 22-4010-4870 Fax: (91) 22-4010-4872

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FUJI ELECTRIC THAILAND CO., LTD 889 Thai CC Tower, 11th Floor, Room No.114-6, South Sathorn Road, Yannawa, Sathorn, Bangkok Tel: (66) 2210-0615 Fax: (66) 2675-6641

#### VIETNAM

FUJI ELECTRIC VIETNAM CO., LTD. 204 Unit, 2nd Floor, Tung Shing Square, Ngo Quyen Street, Hoan Kiem Dist. Hanoi, Vietnam Tel: (84) 4-3935-1593 Fax: (84) 4-3935-1596



### Global Presence

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## TAIWAN

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FUJI ELECTRIC CORP. OF AMERICA 50 Northfield Avenue Edison, NJ 08837, U.S.A. Tel: (1) 732-560-9410 Fax: (1) 732-457-0042

#### **CHINA**

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#### **GERMANY**

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Tel: (49) 69-6690290 Fax: (49) 69-66902958

## Factory Presence

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FUJI ELECTRIC POWER SUPPLY (THAILAND) 60/79 Moo 19 Navanakorn Ind. Est. Phase2 Klong Nueng, Klong Luang, Pathumthani 12120 Thailand Tel (66)-2-909-5998 Fax(66)-2-909-5595

## **Group Companies**

#### **THAILAND**

FUJI FURUKAWA E&C(THAILAND)CO.,LTD. 2922/218 Charn Issara Tower II 14th floor, New Petchburi Road, Bangkapi, Huay Khwang, Bangkok 10310, Thailand TEL: (66)-2308-2703~6 Fax: (66)-2308-2707

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#### MYANMAR

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#### INDIA

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