

**Automation**  
*In Partnership with the Future*

**FE Fuji Electric**  
*Innovating Energy Technology*



**Sole Distributor of Fuji Electric FA Components & Systems Co. Ltd. Japan**



**AUTOMATION ENGINEERING & CONTROLS LTD.**

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[www.automation-bd.com](http://www.automation-bd.com)

## FRENIC - Mini Series

- ▶ Automatic energy-saving provided as a standard function
- ▶ PID Control function.
- ▶ Out put Frequency Maximum of 400 HZ
- ▶ Frequency setting potentiometer is standard.



## FRENIC - MEGA Series

- ▶ Applicable control methods : PG vector control, sensorless vector control, dynamic torque vector control, and V/f control
- ▶ Improved performance of current response and speed response (vector control)
- ▶ Improved durability in overload operation  
HD (High duty) spec : 200% for 3 sec/150% for 1 min  
LD (Low Duty) spec : 120% for 1 min
- ▶ I Keypad with a USB connector
- ▶ Expanded capacity of the brake circuit built - in mode (Standard - equipped for 22kW or small models)
- ▶ Great model variation meeting customer needs Basic type, EMC filter built - in type
- ▶ Use of parts of a longer life cycle (Designed life : 10 years)



## NEW!! FRENIC - TEXTILE



- ▶ Ranges upto 11KW - 55 KW with built in Dc Reactor & EMC Filter
- ▶ Arbitrary change of spinning speed
- ▶ Improvement of productivity through speed increase
- ▶ Reduction of thread breakage
- ▶ Elimination of maintenance work needed for mechanical reduction gear

## FRENIC 5000 VG7S Series

- ▶ The industry's best control performance
- ▶ Use with different control types (multi - drive function)
- ▶ A wide range of capacity / flexible applications
- ▶ High - end inverter loader software



## FRENIC - Eco The HVAC Inverter

- ▶ Dedicated to HVAC application
- ▶ Full PID control function
- ▶ Network compatibility Enhanced energy - saving function
- ▶ Simple Operation and easy maintenance
- ▶ Broad range of model variations up to 500kw
- ▶ Built - in EMC filter and Dc reactor also available



## FALDIC W

### FALDIC - W Series

- ▶ High - resolution encoder 17 bit
- ▶ Vibration Suppressing control
- ▶ Two RS - 485 ports as standard
- ▶ IP 67 (Servo motor)
- ▶ Side - by - side installation



## Drive & Automation

### ALPHA 5

- ▶ Speed Control 3000, 2000, 1500 RPM
- ▶ Maximum size 50 w - 5kW
- ▶ PTP Positioning
- ▶ 3 in 1 \_\_\_\_\_ Modbus RTU  
\_\_\_\_\_ DI / DO signal  
\_\_\_\_\_ Pulse / Analog
- ▶ IP67 \_\_\_\_\_
- ▶ Auto notch filter
- ▶ USB Connection



### Programmable Controller SPH

- ▶ Programme scan time of 1ms is implemented by increased Instruction processing speed.
- ▶ Real number operation and high - precision positioning control have been put to practical use by dramatically improved floatation - point operation speed. 1024 point input /output is refreshed in 1ms. Tact control assures a fixed I/O refreshed interval The I/O refresh cycle can be set to 1ms, 2ms, or up to 10ms, which is suitable for processing requiring strict tact time.
- ▶ The SPH 300 allows tact time setting in 0.5ms units with a minimum setting of 0.5ms.
- ▶ Both the hardware and software conforms to the IEC 61131 international standard.
- ▶ Conforms to CE marking and UL standards as well as IEC Standard
- ▶ Conforms to LR ship standard (England)



### Fuji Programmable Operation Display POD UG30 & V8 Series

- ▶ Ultimate Sharpness and clearness
- ▶ Conforms to 65,535 full - color
- ▶ Ethernet 10BASE - T as standard
- ▶ Substantial animation functions
- ▶ Wizard function for easy configuration
- ▶ Handy POD - UF221 series also available
- ▶ Multi communication using the gateway function up to 8 devices

## NEW!!

### On Line UPS

- ▶ Ranges from 1.5 KVA - 600KVA
- ▶ Online double conversion
- ▶ IGBT inverter & output isolation transformer
- ▶ 3 phase UPS allow 100% Unbalance load
- ▶ Wide input voltage
- ▶ Intelligent fan speed control
- ▶ Eco mode & EPO function
- ▶ DC cold start function



## VCB



### Vaccum Circuit breakers

- ▶ HB Series
- ▶ HS Series
- ▶ Interrupting Currents 12.5 kA 50kA
- ▶ Rated Voltage 3.6kV - 36kV
- ▶ Standards JEC, IEC, BS

## Vaccum Magnetic Contactors

- ▶ HN Series
- ▶ Rated Voltage 3.6 / 6.6kV
- ▶ Rated Current 200 - 400 A



## MCCB



## ACB



### Air Circuit Breakers

- ▶ DH Series (New)
- ▶ Rated Current 800 A - 6000A
- ▶ Fixed and Draw - out type
- ▶ New OCR (LCD)

## VMC

### Molded Case Circuit Breakers (MCCB) Earth Leakage Circuit Breakers (EICB)

- ▶ 30 AF - 1600AF
- ▶ EA, SA, H Series
- ▶ 2 Poles / 3Poles / 4 Poles (MCCB+ ELCB)
- ▶ BW Series (NEW)

### Frame size

- ▶ 125 AF, 160 AF, 250 AF, 400 AF, 630 AF, 800 AF
- ▶ Wide Choices
- ▶ Advanced Features
- ▶ Easy operation

# ELECTRICAL DISTRIBUTION & CONTROL

## Magnetic Contactor



### FUJI Neo SC & SK Series Contactors & Motor Starters SC - N1 to N16 ( 1 - 400 KW @ 380 / 440 V )

- ▶ Compact Design
- ▶ Safety
- ▶ International
- ▶ Practical
- ▶ Economical

## SWITCH

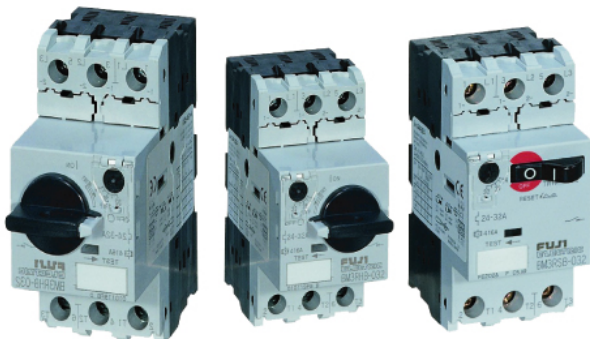


- ▶ FUJI command Switches
- ▶ Pushbutton, Illuminated pushbutton selector switches and pilot lights.

## MMS

### FUJI Manual Motor Starters Magnetic Contractors

- ▶ Conformance to IEC Standards
- ▶ Response to the International Market
- ▶ Safety & Ecological Consideration



## MCB

- ▶ 6 KA/10 KA Short circuit breaking capacity
- ▶ In accordance with IEC 60947
- ▶ Ratings 1,2 & 3 poles
- ▶ Type c tripping characteristics
- ▶ IEC 35 mm rail mounted modular devices, 1 module (18mm/pole)



# INSTRUMENT

## Temperature Controller



- ▶ PID Algorithm
- ▶ Output : Realy, Solid State,4-20mA
- ▶ Digital input/output (alarm)
- ▶ RS485 Modbus communication



## Ultrasonic Flowmeter

- ▶ Non - Invasive setup and no moving part
- ▶ No Pressure drop
- ▶ Accuracy :  $\pm 1\%$  of rate
- ▶ Quick & easy installation and setup
- ▶ Flexible measuring on verious pipe size

## Microjet Recorder

- ▶ Silicon Chip inkjet head for more quality printing
- ▶ 6 colours printable
- ▶ Ink is not souble in water
- ▶ 100 mm and 180 mm width available
- ▶ Universal Input
- ▶ RS 485 Communication (option)



## Paperless Recorder

- ▶ No paper and consumable part
- ▶ No moving part with less maintenance
- ▶ Full math function, Totalize, Event and Alarm recording
- ▶ Universal Input
- ▶ Ethernet / Website

## Pressure Transmitter



- ▶ High Accuracy :
- ▶  $\pm 0.065\% \sim \pm 0.04\%$  of span
- ▶ Range Configurable through
- ▶ Configuration tools
- ▶ Communication : HART, Profibus,
- ▶ FF protocol
- ▶ World wide hazardous approvals

## Magnetic Flowmeter

- ▶ For liquid flow measurement
- ▶ Less pressure drop
- ▶ No moving part
- ▶ Tailor made to your process



## Gas Analyzer

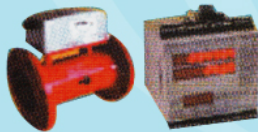


- ▶ Many kinds of substance available
- ▶ Tailor made to customer process measurement
- ▶ 4 - 20mA output
- ▶ Explosion - proof type available
- ▶ Sampling system with cooling system also provided
- ▶ Special design for Biogas process

## Gas Analyzer



Suit to **BIOGAS**



- ▶ Fluid oscillation principle
- ▶ Maintenance free
- ▶ Suitable for dirty gas flow measurement
- ▶ No moisture sensitive
- ▶ Explosion proof
- ▶ High accuracy :  $\mp 1.5\%$  of rate

**NEW!!**



## Cast Resin Transformers

- ▶ Fire resistant & Energy Saving
- ▶ Vaccum-casting
- ▶ Aluminium winding with reduced weight & large mechanical strength
- ▶ Partial discharge free
- ▶ Sheet winding with downsizing, high insulation reability & surge stability

## Level Instrument

- ▶ Magnetic Float Switch
- ▶ Cable Switch
- ▶ Capacitance Level Switch
- ▶ RF Level Switch
- ▶ Vibration level Switch
- ▶ Rotating level Switch
- ▶ By-Pass Level Indicator
- ▶ Ultrasonic Level Transmitter
- ▶ Capacitance Level Transmitter
- ▶ Yoyo



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