



## Protection

**E/Vguard**



### Phase Failure Relays

### Voltage Monitoring Relays

### Current Monitoring Relays

MKC - MKS series phase failure relays are designed to prevent over-heating and burning of 3 phase motors due to phase failure or unbalanced voltage (asymmetry) in industrial plants.

GKRC series voltage monitoring relays are designed to protect single or three-phase systems against voltage changes and phase sequence faults. DGRC series voltage monitoring relays are designed to protect single or three-phase systems in cases of permanent voltage drops.

AKC series current monitoring relays are designed to protect motors and systems against under or over current with a current adjustment and two delay adjustments.



### Power Supplies

Power supplies provide safe and accurate DC outputs at various power ranges, increasing the productivity of your automation solutions with wide temperature ranges and adjustable output voltages.

### Phase Sequence / Thermistor Relay

FR-02 phase sequence relay controls the order of 3 phases feeding motors. PT-01 thermistor relay is developed to protect motors with PTC.

## Control

**E/Vlogic**



### Astronomic Time Relays

### Time Relays

### Analog Time Relay

- Automatic sunrise and sunset calculation
- 24/7 programming based on city name or geographical coordinates
- 15 or 32 programs and precise timing
- 1 CO or 2 CO contact outputs (16A)
- Interchangeable battery (optional).

MCB series time relays are designed to control devices in desired time interval. They offer a number of different timing functions with adjustable time ranges.

It controls the daily operation of electrically operated equipment via programs starting from 15 minutes. It continues to operate without affecting the power cuts thanks to 100 hours energy reserve.



### Multifunctional Time Relays

### Liquid Level Controllers

### Daylight Switches

Multifunctional time relays offer flexible solutions that are tailored to objective with trigger controlled rich sub-functions in addition to their main functions.

Liquid level controllers are used for controlling liquid levels in wells and liquid tanks at industrial sites.

FG series daylight switches are designed to control lighting systems according to environmental light levels. Daylight switches monitor the daylight in connection with a light sensor.

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# ENTES

## Product Range

- Power Quality & Energy
- Power Factor Correction (PFC)
- Energy Management
- Protection
- Control





Power Quality & Energy

Network Analyzers

Energic

Measurement Devices

Energic

Power Factor Correction (PFC)

Power Factor Controllers

Energic

MPR-4 Series  
New Generation Network Analyzers

Monitor

Monitor production processes in real time and track production costs.

Analyze





Make use of many parameters that MPR series measure to increase energy efficiency.

Measure

Measure and record operation times and total energy costs of your production.

And Much More

Check device inputs-outputs and customize your devices with Entbus or Enermedic cloud solutions.



MPR-3 Series

MPR-2 Series

MPR-1 Series

MPR-3 Series panel type mini network analyzers are developed for switch panels where mounting space matters. They are compact solutions for detailed measurement and analysis of electrical parameters.   
➔plug & meter supported (optional)

MPR-2 Series DIN type network analyzers are designed for detailed measurement and analysis of electrical parameters. Real-time monitoring is supported via LCD screen.   
➔plug & meter supported (optional)

MPR-1 Series DIN type network analyzers are designed for the measurement of electrical parameters on machines and switchboards. They are a cost-effective measurement device series for energy monitoring software.

Measurement Devices

Energic

Powermeters

Energy meters



Powermeters are designed to measure the active, reactive and apparent power values and active, reactive energy values of each phase in the system.

Energy meters are single-phase compact solutions that are used to measure the active energy consumption in your plant or your company.

Multimeters

Ammeters

Voltmeters



Multimeters are designed to measure electrical parameters such as current, voltage, frequency and cosφ of systems in plants.

Ammeters are designed to measure current values of systems in plants.

Voltmeters are designed to measure voltage values of systems in plants.

Cosφmeters

Current Transducers

Voltage Transducers



Cosφmeters are designed to measure the cosφ of the energy taken from the network

Transducers are devices designed to convert electrical current signals into analog signals into their inputs.

Transducers are devices designed to convert electrical voltage signals into analog signals into their inputs.

DC Ammeters

DC Voltmeters



DC Ammeters are designed to measure the current of a DC system.


DC Voltmeters are designed to measure the voltage of a DC system.

Energy Management

Software

Energy Management

Software



It is required to measure system parameters and data such as capacitor levels, reactive energy ratios, etc. regularly and analyze the measured data comprehensively. ENTES offers a unprecedented monitoring and analysis with its Enermedic energy management solution. Therefore, ENTES can always remotely monitor, manage, configure and keep PFC under control at all times for the solutions it offers.

MY-EMG Series Ethernet Modem

Hardware

MY-EMG Series Ethernet Modem


MY-GEM Series GPRS Modem



Ethernet modems allows access to MODBUS compatible devices via ethernet network

GPRS modems allows access to MODBUS compatible devices via ethernet and GPRS network.



RGA/RGSR Series



- New generation PFC solution
- PFC by measuring the current and voltage of 3 phases separately in systems with unbalanced loads
- Innovative solution with PFC modes
- Real-time monitoring with graphic screen
- Increased PFC precision with second PFC current input
- 1-51th current and voltage harmonics measurement
- Total voltage harmonics measurement
- 15, 20 and 24 steps options (RGA Series)
- Static Var Compensation -supported for RGSR Series.
- A new generation PFC solution. (12+SVC,16+SVC and 20+SVC steps options)
- M.V reference models

RGP Series

RG3-C Series



• Thanks to patented Smiley Mode, ENTES RGP new generation power factor controllers tell the PFC status without going to near the device. 16:10 format wide screen LCD is very important for ENTES's new design approach to display legible measurement parameters on screen.

• 1-31. current and voltage harmonics measurement.

• 9 and 12 steps options(SVC Alternative)

• Opportunity to configure the power factor correction activity with eco, standard and sensitive mode options.

• Controlling capacitor or reactors at the same time.

• Automatic step recognitions and phase sequence correction.

• Internal temperature sensor and fan output (Optional).

• Modbus communication.

• PFC by measuring the current and voltage of 3 phase separately in systems with unbalanced loads

• 1-19 th current and voltage harmonics measurement

• Total voltage harmonics measurement

• 12 and 15 step options

• User friendly with plug-and-play feature and environmentally friendly with low power consumption.

RGI Series

RG-T Series & RG-B series



• PFC by measuring current on one phase in systems with balanced loads.

• 4, 6, 9 and 12 step options.

• 1- 31th. current and voltage harmonics measurement.

• Total voltage and current harmonics measurement.

• Switching Capacitors and Shunt reactors.

• Automatic step recognition.

• Internal temperature sensor and fan output (Optional).

• Modbus communication(Optional).

• PFC by measuring current on one phase in systems with balanced loads

• 6, 8 and 12 step options (RG-T series)

• 1-19 th current and voltage harmonics measurement (RG-B Series)

• Total voltage harmonics measurement (RG-B Series)

• 8 and 12 step options (RG-B Series)

Other PFC Equipments



Low Voltage Power Capacitors

Current Transformers

PFC Contactors

Inductive Load Drivers (SVC)



Shunt Reactors

Static Contactors

Harmonic Filters

Discharging Unit