ekorsys units: protection, telemanagement & communication

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Protection and metering unit with integrated control for fuse protection cubicles

Reliable innovation. Personal solutions.
Applications

- Protection of remote-controlled Medium Voltage customers.
- Protection of Transformer Substations and industrial customers:
  - Transformer protection
  - Line protection with fuses
- Microprocessor-based with protection functions for timed (overload) and instant (shortcircuit) overcurrent of phases and neutral.
- Communicable electronic relay
- Current and voltage sensors (1000/1 or 300/1)
- Power supply and test board
- Toroidal-core current transformers
- Bistable trigger

Most notable features

- Improved selectivity than fuse protection: IEC inverse time curves
- Protects against phase-neutral faults
- Prevents unsafe fuse blowing (Iₚ)
- External trip
- Primary and secondary tests
- Phase metering from 5 A
- Earth current metering from 0.5 A
- Factory-installed toroidal-core current transformers: prevention of errors on site

Tests

- **Insulation**
  - IEC 60255-5
- **Electromagnetic Compatibility**
  - IEC 60255-11
  - IEC 60255-22-1
  - IEC 60255-22-2
  - IEC 60255-22-3
  - IEC 60255-22-4
  - IEC 60255-22-5
  - IEC 60255-22-6
  - IEC 61000-4-8
  - IEC 61000-4-12
  - IEC 60255-25
- **Climatic**
  - IEC 60068-2-1
  - IEC 60068-2-2
  - IEC 60068-2-78
  - IEC 60068-2-30
- **Mechanical**
  - IEC 60255-21-1
  - IEC 60255-21-2
  - IEC 60255-21-3
- **Power**
  - IEC 60265
  - IEC 60056
- **CE Conformity**
  - CE-26/08-43 EE-1
  - IEC 60255

Preface

Protection, metering and control unit, integrated in **Ormazabal** switch-fuse combination cubicles for general protection with integrated control functions.

- Presence / absence of voltage
- Remote control
- Current and voltage metering functions

Microprocessor-based with protection functions for timed (overload) and instant (shortcircuit) overcurrent of phases and neutral.

Technical Characteristics

**General**

- Phase current sensors: 3
- Zero-sequence earth current sensor: 1 (optional)
- Digital Inputs: 1 (external trip)
- Digital outputs: 2

**Power Supply Options**

- Self-powered [A, Vac]
  - AC [Vac...Vac]: > 5, 230 ±30%
  - DC [Vdc...Vdc]: 24 ... 125 ± 30%
- Consumption [VA]: < 2
- Frequency [Hz]: 50, 60 ±1%

**Current inputs**

- Primary phase [A ... A]: 5 ... 630 (acc/ model)
- Earth [A ... A]: 0,5 ... 50 (acc/ model)
- Thermal/dynamic [kA/kA]: 20 / 50
- Impedance [Ω]: 0.1

**Accuracy**

- Time delay: 5% (minimum 20 ms)
- Metering / Protection: Class 1 / SP20

**Output contacts**

- Voltage [Vac]: 270
- Current [A]: 10 (AC)
- Switching power [VA]: 750 (resistive load)

**Measurements**

- Current Amperimeter Function
- Presence / absence of voltage

**Protection Functions**

- Phase overcurrent
- Earth overcurrent
- Ultrasonic earth leakage protection
- Thermometer (external trip)

**Voltage**

- Detection of voltage presence / absence

**Detection, Automation and Control**

- 5 inputs / 7 outputs (*)
- 10 inputs / 4 outputs (*)

**Communications**

- Front port configuration
- Rear port remote control
- MODBUS (RTU)
- PROCOME
- ekorsoft (optional)

**Indications**

- Tripping cause indication
- Error display
- History Log

**Test**

- Test blocks for current injection
- Output contact for test

(Not all the combinations of this configurator are possible. Please ask our Technical-Commercial Department about availability of models.)