ekorsys units: protection, telemanagement and communication

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Voltage sensors

Up to 36 kV  IEC Standards

Reliable innovation. Personal solutions.
### Functionality
Upstream and downstream voltage capture, depending on where the sensors are installed.

**Installation:**
- In cables:
  - Directly in the terminals (separable symmetric tee connectors)
  - Straightforward assembly
  - Does not require on-site calibration. Calibrated at factory
- In busbars
  - Option of factory assembly
  - Calibrated at factory

### Applications
Automation of distribution, protection, BPL communications and partial discharges with Ormazabal equipment.

### Main features
- **Improved safety:** No exposed live parts, thus avoiding risks to people
- **Compact size:** Sensor size allows installation in standard cubicles
- **Greater accuracy:** Greater accuracy is achieved thanks to the calibration of the relay + sensor set
- **Wide range of metering and protection:** Independent from voltage level
- **Greater reliability:** Full insulation of the facility to provide enhanced levels of protection from external agents
- **Easy maintenance:** Cable testing does not require the sensors to be disconnected

### Technical details

#### General
- **Network** [kV] 24 / 36
- **Frequency** [Hz] 50 / 60

#### Set (Sensor + Electronics)
- **Metering accuracy** Class 0.5 - 3P (IEC 61869-3)
- **Voltage range with guaranteed accuracy**
  - 24 kV Model: From 80% of 12.1 kV up to 120% of 22 kV power grid
  - 36 kV Model: From 80% of 12.1 kV up to 120% of 33 kV power grid
- **Transformation ratio (voltage)** [kV/V] 10 / 1
- **Transformation ratio (voltage)** [kV/µA] 10 / 100
- **Temperature range** Service: -10°C to +60°C

#### Sensor
- **Size** [mm] 125 x 70
- **IP** IP 65
- **Compatibility** T - connectors and C-type plug-in bushing

#### Electronics
- **Type of connectors** BNC

#### PLC Communication
- **PLC Bandwidth** [MHz] From 2.6 up to 35

#### Partial discharge metering
- **Type of connectors** BNC1: 50 Hz output and BNC2: HF signal output

### Tests
- **IEC 6044-7**
  - Metering transformers.
  - Part 7: Electronic voltage transformers.
- **IEC 61869-3**
  - Metering transformers.
  - Part 3: Additional requirements for inductive voltage transformers.
  - Accuracy test:
  - Industrial frequency test.
  - Partial discharge test.
  - Lightning impulse test.