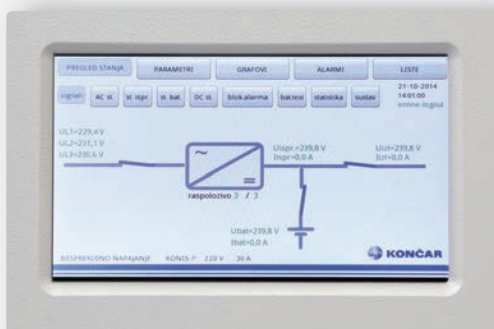




KONLOG - monitoring and control of power supply system



KONLOG – system status over interactive display

An interactive LCD touchscreen provides detailed overview of measurements, signal states, events log and parameters, and also enables adjustment of parameters and system control. The principal diagram shows measurements and signal states of basic components. Touching of individual symbol on diagram will open new partial diagram of corresponding part of the system with more details. In this way it is possible to gain insight into the state of the system very quickly, clearly and effectively.

MAIN FEATURES OF THE CONTROL UNIT:

Interactive LCD display with principal scheme of the system

Real time measuring and control

Automatic periodic tests of the battery circuit's integrity

Battery capacity testing

Two-sided internal power supply

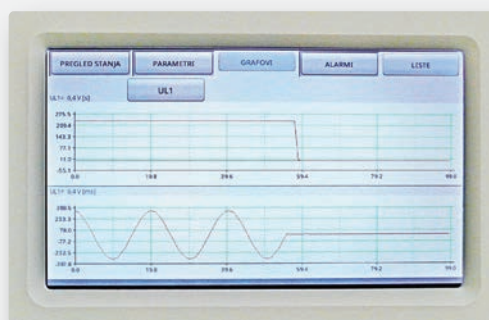
Password protected access to parameterization of the system

Logging of events with up to 4000 records and 1 ms resolution

Recording oscillograms of all voltages and currents for each alarm state, with recorded conditions before, during and after the event

Synchronization possibility via NTP server or internal clock of the SCADA system

Communication: MODBUS via RS485 or optical interface; optionally IEC 60870-5-104 protocol via ethernet interface



KONLOG – oscillogram of mains power failure

Control unit KONLOG is intended for monitoring, control and communication with uninterruptible DC power supply system.

It is a complex microprocessor device that has an extremely important role in ensuring maximum reliability and availability of power supply. The control unit independently monitors and controls the system, and, if necessary, sends alarm signals to responsible personnel.

As a part of the auto diagnostics, besides monitoring number of signals from all parts of the system and measuring all important parameters, the control unit also conducts a variety of periodic tests of individual segments of the system. This enables recognizing the tendencies of fault occurrences and timely service intervention.

Mains monitoring

KONLOG is measuring and recording values of all three phases of the supply voltage and in case that values are outside of allowed range it switches off the rectifiers and signals the fault.

Monitoring of rectifiers

KONLOG monitors and regulates the operation of rectifiers in accordance with specified operating conditions of connected battery.

For example, it holds precisely set output voltage of the rectifier, or changes rectifiers output voltage in accordance to temperature change of connected battery. It also conducts specified battery charging and maintenance regimes.

Internal power supply from two sources

Because of the importance of the control unit for proper operation of the power supply system, the unit itself must have a reliable power supply. This is achieved through internal power supply from two sources: from the mains and from the battery. In case of mains failure, the control unit is supplied via DC/DC converter from the battery, while in case of battery failure, the unit is supplied via internal rectifiers from the mains.

Battery monitoring

KONLOG is measuring voltage, current and temperature of connected battery and acts in accordance with the measured values - it runs relevant protection, control, test and signaling functions. KONLOG is taking over a comprehensive care over battery, providing that it is always charged, in good condition and ready to take over the supplying of the load. Besides maintaining ideally customized charging and maintenance voltage, KONLOG also provides different regimes for automatic maintenance and charging. It also limits charging current, checks the integrity of the battery circuit, indicates the battery status, checks the battery capacity, protects the battery from high or low charging voltage, protects battery against deep discharging, signals increased temperature, etc.

Load monitoring

KONLOG is measuring system's output voltage used for load supply and maintains output voltage within declared limits. It monitors insulation resistance of the system's distribution and enables early detection of insulation faults. It also detects short circuit currents and circuit breaker tripping.

Expanding possibilities

Modular concept of the supply system as well as the flexibility of the control unit KONLOG, provides significant possibility for expanding the power supply system by adding new rectifier modules. The expansion of the system is also possible by adding other devices, such as DC/DC converters, inverters and static switches thus allowing the expansion of uninterruptible power supply system with additional DC and AC voltages.

Remote monitoring and control

The available remote monitoring and control modes are:

- Individual monitoring and control of each power supply system via ParaNap 2.0 computer program package
- Networking of multiple power supply systems by means of specialized SCADA system Nap@net
- Communication with station's central computer by means of MODBUS and IEC protocols



Power supply system with control unit KONLOG



Door mounted KONLOG unit



Končar - Electronics and Informatics Inc.

Fallerovo šetalište 22, 10000 Zagreb, Hrvatska
Tel.: +385 1 3655 758
Fax.: +385 1 3655 550
E-mail: napajanja@koncar-inem.hr
www.koncar-inem.hr

