Changelog V 1.25

EOR-1DS

Directional earth fault and short circuit indicator

09/2023

Firmware V1.25

GB

Contents

1. General

1.1 Content

This document contains information and changes about the released firmware versions for the earth fault and short circuit indicator EOR-1DS since firmware version V 1.21.

2. Change information

2.1 Version 1.25 from 16.08.2023

General

- Phase selection for the earth fault test in the menu added
- Comtrade pre- and post-trigger are available in the menu. Hereby the Comtrades can be defined shorter, to get a prompt display indication.
- Status page zero system values also visible with disabled voltage measurement
- Measurement precision for C21/C25 adapter optimized
- NC or NO option for every relay added in the menu (default value NO)
- Configuration files are saved with a number (0..9: EOR-1DS.cfg .. EOR-1DS.cf9) and can be loaded accordingly
- Bugfix at saving of configuration file regarding relay 3 and 4
- Bugfix at loading of configuration file in case the voltage measurement is U10 in the configuration file and LRM in the current setting of the device
- Relay indication in permanent mode independent from saving of Comtrade files
- Bugfix factory reset regarding low power sensor parameters
- Undirected short circuit and earth fault test with activated voltage measurement
- Demo mode added with simulated measurement values and permanent activated display
- The logs were extended with a daily entry and an entry for every reboot after a firmware update or device restart. The reason for the reboot is included in the log entry.

Location Methods

- Directional indication for short circuit to earth adjusted (direction adjusted)

SCADA

- Modbus indications transmitted while saving a Comtrade added. However, commands, e.g. changing parameters, are not possible while saving a Comtrade expect the reset command (register 204).
- New Modbus registers for the maximum short circuit current of each phase
- New Modbus registers for the added parameters
- Extension of the SNH registers for voltage and power values

2.2 Version 1.22 from 21.09.2022

General

- Optimized relay control in HW 19 (downgrade to FW <V1.22 blocked)
- Default parameter edited
- Optimized power consumption in capacitor operation (without power supply)
- Short circuit to earth available in Comtrade
- Device name changed from EOR-1D to EOR-1DS in Comtrade

SCADA

- Modbus register mapping “SNH” corrected to version “SNH 1.7”

2.3 Version 1.21 from 01.08.2022 (comp. to EOR-1D Version 42)

General

- New additional relays 3&4 parameterizable
- Relay 1 as status / life contact useable
- Parameters “battery alert” and “battery reset” are removed due to the application of a long life capacitor
- New parameters “display configuration”
  - OLED time out
  - Brightness
- Power values P, Q and S are indicated on the display and MODBUS
- New parameter I/O configuration for sum current
  - Selection between calculated or measured
- New parameter I/O configuration for phase current
  - SR55
  - Clip on CT with entering transformer ratio
  - Low power with entering the primary and secondary voltage
- New parameter I/O configuration for voltage input
  - LRM
  - Low power with entering the primary and secondary voltage
  - U10 with entering transformer ratio
- Supporting an additional blinking lamp with directional indication (BL7)

Location Methods

- New location method short circuit to earth with following parameters
  - Trip current
  - Response delay
  - Reset time
- I0 measurement supported (for transient detection and short circuit to earth)
- Fixed defined angles for directional indication short circuit/ short circuit to earth
- Angle definition changed to $\varphi=\varphi_U-\varphi_I$ (comparable to EOR-3DS)

SCADA

- New isolated Modbus driver module: “auto on/off” replaced with “delayed off” with set-table delayed off time in case of permanently interrupted supply voltage
- Register for displaying the power values implemented (standard register 260..289)
- Extension of the register for relays 3+4 (standard register 452/470..476)
- Adjustment of the status register (standard register 203) for the new functions
- Extension of the register for short circuit to earth (standard register 2/10/203/228)