

# GENERATION & NETWORK

## Energy Management IED



### NPE915

The optimal management of electrical power systems is based in particular on the reliability, availability and communication skills of protection, measurement and automation devices.

NPE915 is an energy management IED integrating a billing level accuracy kWh metering and fault location functionality in one single equipment. By combining highly accurate measurement technology and fault detection algorithms the NPE915 can be applied for Volt & Var optimization, tracking of power losses and reducing power outages by accurate fault location.

The NPE915 communicates to SCADA and DMS systems with various standard protocols making your power distribution grids smarter with affordable cost.



#### MONITORING - ANSI CODES



- Input for Volt & VAR optimization
- Impedance calculation for short-circuit fault location
- Voltage presence detection
- Disturbance recorder for fault analysis
- IEC 61850, DNP 3.0, IEC 101, IEC 103, IEC 104, Modbus and SPA protocols

*Our energy at your service*

## CHARACTERISTICS

### Measuring and monitoring

- Phase and residual currents (IL1, IL2, IL3, IO1, IO2)
- Voltage measurements (UL1-UL3, U12-U31, U0, SS)
- Current and voltage harmonics (up to 31st)
- Current THD
- Frequency (f)
- Power (P, Q, S, pf)
- Energy (E+, E-, Eq+, Eq-)
- Current transformer supervision (CTS)
- Fuse failure (VTS)

### Power quality and data logging

- Voltage and current harmonics up to 31st
- Current total harmonic distortion (THD)
- Disturbance recorder (3.2 kHz)
- Freely configurable data logging in flash memory

### Fault location / indication

- Three-phase overcurrent, 4 stages INST, DT or IDMT [50/51]
- Earth-fault (sensitive), 4 stages INST, DT or IDMT [50N/51N(S)]
- Directional overcurrent, 4 stages INST, DT or IDMT [67]
- Directional earth-fault, 4 stages INST, DT or IDMT [67N]
- Undervoltage, 4 stages INST, DT or IDMT [27]
- Zero sequence overvoltage, 4 stages INST, DT or IDMT [59N]
- Fault locator [21FL]

### Control

- Controllable objects: 5

### Hardware

- Current inputs: 5
- Voltage inputs: 4
- Digital inputs: 3 (standard)
- Output relays: 5+1 (standard)

### Options (3 slots)

- Digital inputs optional: +8 per card
- Digital outputs optional: +5 per card (2 cards max.)
- 2 x mA input + 6-8 x RTD input (2 cards max.)
- Communication media (specified below)

### Event recording

- Non-volatile disturbance records: 100
- Non-volatile event records: 10000

### Communication media

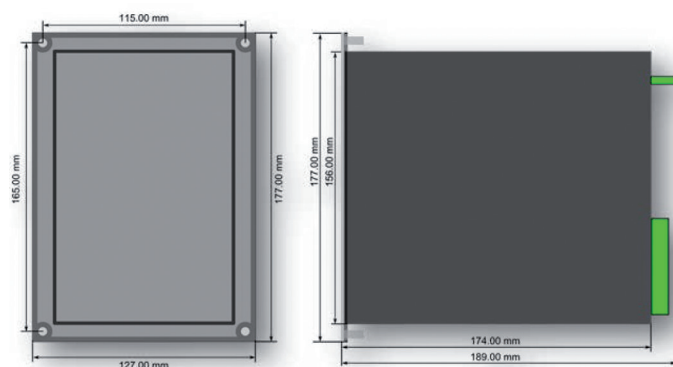
- RJ 45 Ethernet 100Mb (front standard)
- Double LC Ethernet 100Mb (option)
- RS232 + serial fibre PP/PG/GP/GG (option)

### Communication protocols standard

- IEC 61850
- IEC 60870-5-103/101/104
- Modbus RTU, Modbus TCP/IP
- DNP 3.0, DNP 3.0 over TCP/IP
- SPA

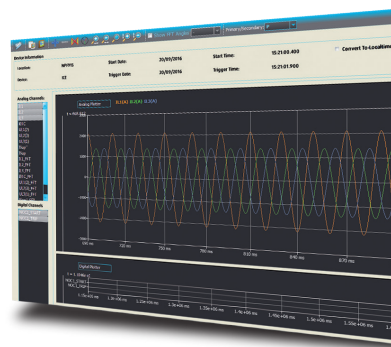
### Case

- H, W, D without terminal 177x127x174 mm
- H, W, D with terminal 177x127x189 mm (casing height 4U, width ¼ rack, depth 210 mm)
- H, W of front plate 177x127 mm
- H, W of cut out 160x106 mm



### SMART9 - integrated software

Our user friendly SMART9 (Setting, Measurement, Analysis, Recording, Time-saving) configuration software helps the user get the best from NP900 series relays.



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The specifications and drawings given are subject to change and are not binding unless confirmed by our specialists.