

GENERATION & NETWORK

Transformer Protection IED



NPT916

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

NPT916 is a transformer protection IED with sophisticated and easy to use differential protection function. The NPT916 transformer protection IED provides for both low and high side overcurrent, earth-fault, negative sequence and two independent restricted earth-fault instances. The NPT916 can be applied for generator and motor differential protection as well.

The NPT916 communicates using various protocols including IEC 61850 substation communication standard.



ANSI CODES



- Predefined or custom connection group selection
- 2nd and 5th harmonic blocking
- Automatic verification of connection group and nominal value settings
- Through fault and overloading statistics for preventive maintenance

Our energy at your service

CHARACTERISTICS

Protection functions

- 2 winding transformer differential [87T]
- Low impedance restricted earth fault / cable end differential [87N]
- Transformer thermal overload [49T]
- Three-phase overcurrent, 4 stages INST, DT or IDMT [50/51]
- Earth-fault (sensitive), 4 stages INST, DT or IDMT [50/51N(S)]
- Harmonic overcurrent / inrush blocking, 4 stages INST, DT or IDMT [50H/51H/68H]
- Current unbalance / broken conductor, 4 stages INST, DT or IDMT [46R/46L/46]
- Breaker failure protection [50BF/52BF]
- Arc protection (option) [50ARC]

Measuring and monitoring

- Phase and residual currents (IL1, IL2, IL3, IO1, IO2)
- Current THD and harmonics (up to 31st)
- Frequency (f)
- Circuit breaker wear (CBW)
- Disturbance recorder (3.2 kHz)
- Current transformer supervision (CTS), 2 instances
- Trip circuit supervision [74TC]

Control

- Controllable objects: 5
- 8 setting groups

Hardware

- Current inputs: 10
- Digital inputs: 3 (standard)
- Output relays: 5+1 (standard)

Options (2 slots)

- Digital inputs optional: +8 per card
- Digital outputs optional: +5 per card (2cards max.)
- Arc protection (12 sensors +2xHSO +BI)
- 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

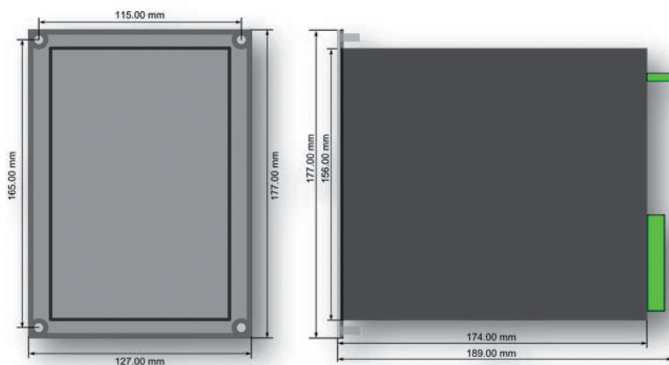
- RJ 45 Ethernet 100Mb (front standard)
- Double LC Ethernet 100Mb (option)
- RS232 + serial fibre PP/PG/GP/GG (option)

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.

