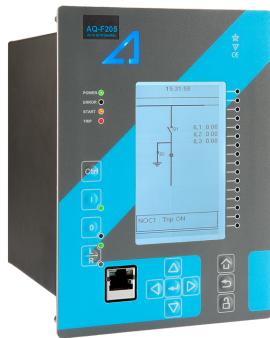


AQ-F205 Feeder protection relay



The AQ-F205 is suitable for any application requiring directional overcurrent and earthfault protection along with voltage and frequency protections. The AQ-F205 comes with complimentary measurement, monitoring, control and communication features. Its standard configuration of 11 digital inputs and 10 relay outputs along with large programmable HMI allows for variety of adaptations.

Highlights

- Integrated protection, control and measurement
- Price performance ratio

Technical Data

PROTECTION

Three-phase overcurrent, 4 stages INST, DT or IDMT (50/51)

Earth-fault (sensitive), 4 stages INST, DT or IDMT (50/51N)

Directional overcurrent, 4 stages INST, DT or IDMT (67)

Directional earth-fault, 4 stages INST, DT or IDMT (67N)

Harmonic overcurrent / inrush blocking, 4 stages INST, DT or IDMT (50/51H, 68)

Current unbalance / broken conductor, 4 stages INST, DT or IDMT (46/46R/46L)

High/low impedance restricted earth fault / cable end differential (87N)

Cable thermal protection (49L)

Overvoltage, 4 stages INST, DT or IDMT (59)

Undervoltage, 4 stages INST, DT or IDMT (27)

Zero sequence overvoltage, 4 stages INST, DT or IDMT (59N)

Negative/positive sequence overvoltage, 4 stages INST, DT or IDMT (47)

Over/under frequency, 8 stages INST or DT (81O/81U)

Rate of change of frequency, 8 stages INST or DT or IDMT (81R)

Over/Under/Reverse power (32/37/32R)

Breaker failure protection (50BF/52BF)

CONTROL

Controllable objects: 5

Synchro-check (25)

Autorecloser (79)

Cold-load pick-up block

Switch onto fault logic

8 setting groups

MEASURING & MONITORING

Phase and residual currents (IL1, IL2, IL3, I01, I02)

Voltage measurements (UL1-UL3, U12-U31, U0, SS)

Fault locator (21FL)

Current and voltage THD and harmonics (up to 31st)

Frequency (f)

Power (P, Q, S, pf)

Energy (E+, E-, Eq+, Eq-)

Circuit breaker wear (CBW)

Disturbance recorder (3.2 kHz)

Current transformer supervision (CTS)

Fuse failure (VTS)

Trip circuit supervision (TCS)

Event recording

Non-volatile disturbance records: 100

Non-volatile event records: 15000

I/O

Current inputs: 5

Voltage inputs: 4

Digital inputs: 11 (fixed)

Output relays: 10+1 (fixed)

COMMUNICATION

RJ 45 Ethernet 100Mb (front standard)

RJ 45 Ethernet 100Mb and RS 485 (rear standard)

Communication protocols

IEC 60870-5-103/101/104

Modbus RTU, Modbus TCP/IP

DNP 3.0, DNP 3.0 over TCP/IP

SPA

Application Drawing

