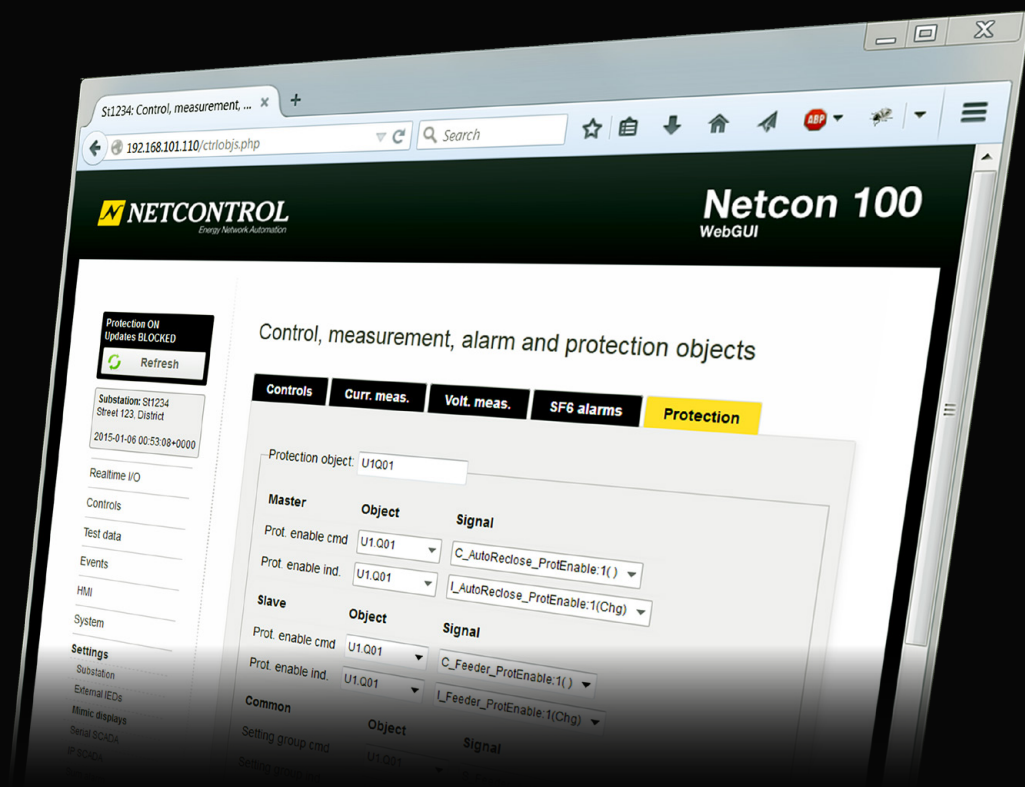


FEEDER PROTECTION

Netcon 100 SW function based on fault detection & remote control capabilities



FEEDER PROTECTION

Netcon 100 SW function based on fault detection & remote control capabilities

FEATURES

Protection at the secondary substation level improves the quality of supply

Replaces separate protection relays at the secondary substations

Both earth fault and overcurrent protection are included

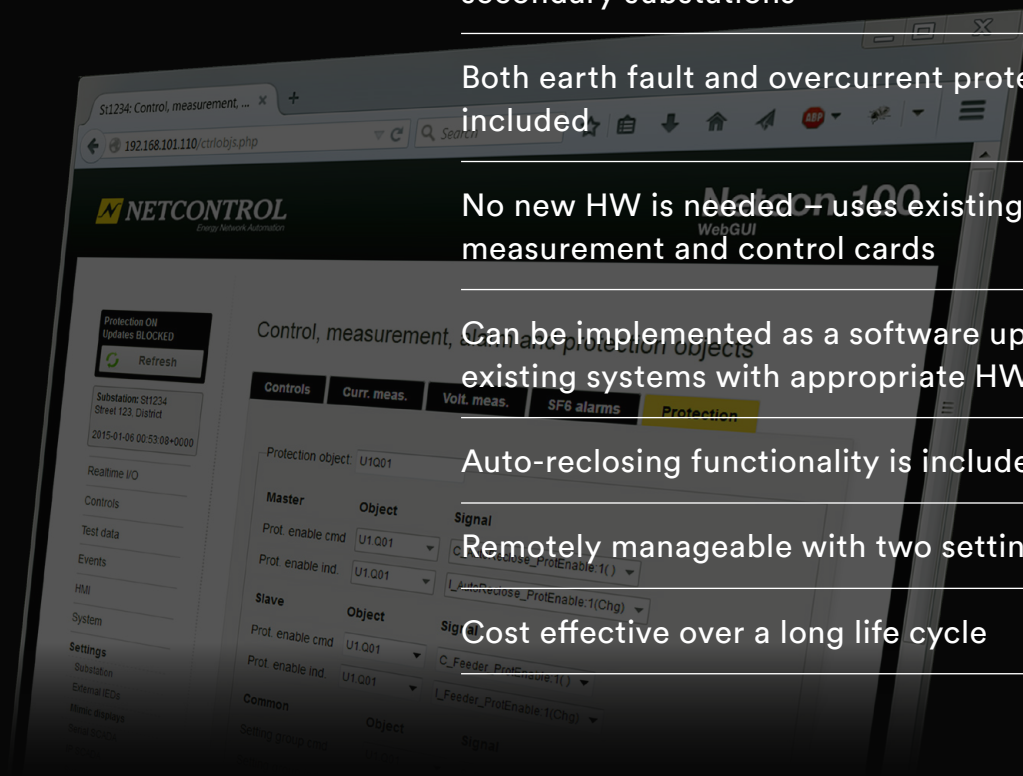
No new HW is needed – uses existing measurement and control cards

Can be implemented as a software upgrade on existing systems with appropriate HW

Auto-reclosing functionality is included

Remotely manageable with two settings groups

Cost effective over a long life cycle



Netcon 100 brings feeder protection to secondary substation level

IMPROVED SUPPLY FOR CUSTOMERS

The Netcon 100 extends protection from the primary substation level to secondary substations. The protection areas are thus split into smaller entities, which minimises the number of customers affected by an average fault. As a result, the security of supply is improved.

Easy-to-implement, integrated functionality

The Netcon 100 protection functionality is an integral part of the Netcon 100 system. Protection can be implemented as a license (and possibly SW) upgrade on all existing systems equipped with the appropriate measurement and control cards. The settings can be adjusted remotely from the SCADA or through an easy to use web user interface.

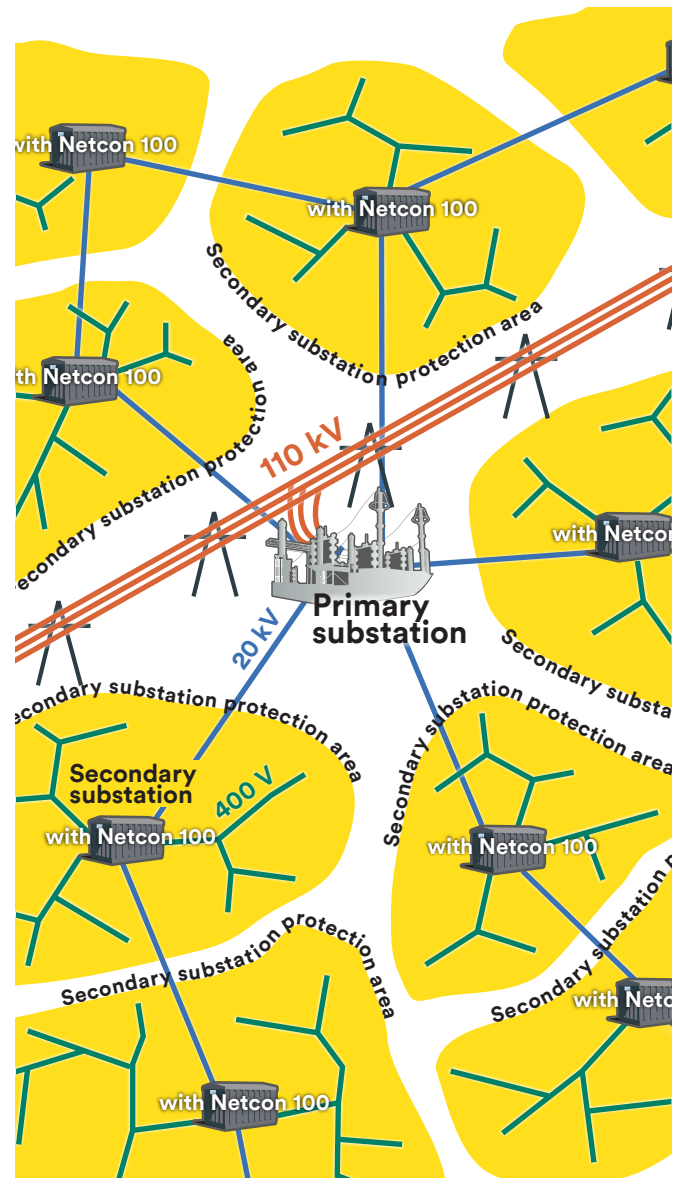
Cost effective over a long life cycle

Compared to separate protection relays, the initial investment for the Netcon 100 protection is smaller. Thanks to integrated remote management and SW upgrades, maintenance costs are too.

Overcurrent and earth fault protection with auto-reclose

The Netcon 100 provides protection against both earth faults and overcurrent, with an auto-reclosing function. Overcurrent has four and earth fault five stages per feeder. Two of the EF stages are based on admittance calculation and one is dedicated to intermittent earth faults. Two remotely swappable setting groups are available for different network conditions.

The auto-reclosing supports four independent instances and three re-tries, with configurable time settings per instance.

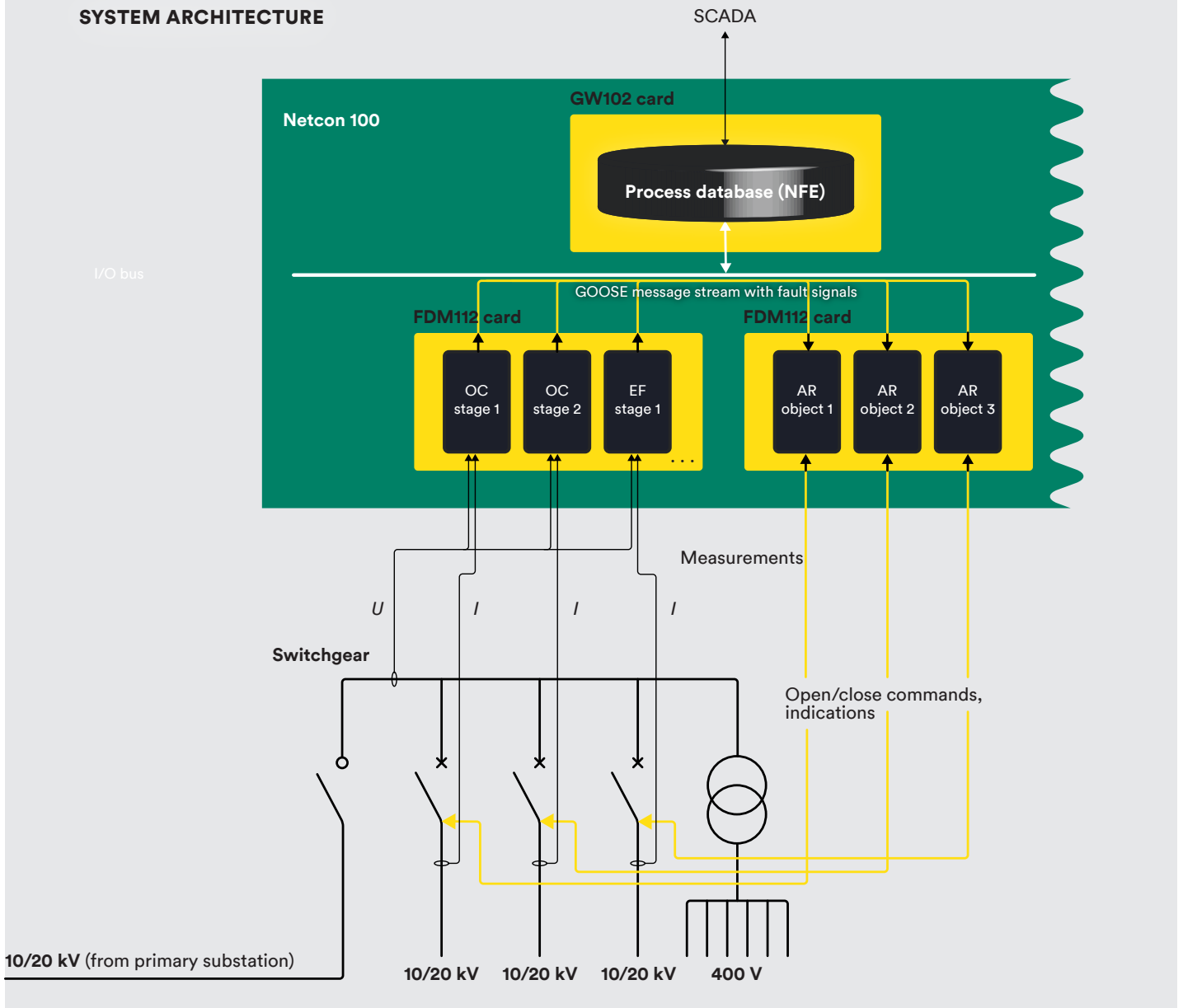


Thoroughly tested

The Netcon 100 protection has been tested both internally and at external labs. In addition, the system has been verified in major customer pilots on-site.



SYSTEM ARCHITECTURE



REQUIRED HARDWARE AND LICENSES

1. An FDM112 measurement card

One FDM112 protects 3 feeders, replacing 3 protection relays!

2. An RCM130 control card.

Each RCM130 card can control 3 circuit breakers.

3. Rogowski sensors or current transformers for the protected feeders.

4. Capacitive voltage sensor or voltage transformer on the busbar.

5. A software license from Netcontrol for the protected number of feeders.

The software on the FDM112 and RCM130 cards is automatically updated when a new software package is installed on the Netcon 100.

