

NETCON 2

Powerful and reliable motor actuator with a modern, cybersecure RTU controller



Designed for the control of disconnectors
and load switches



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FEATURES

Complete unit with motor, mechanics and control

Powerful motor and rapid gear

Suitable for all weather conditions

Netcon 200 smart RTU as the control module enables comprehensive cybersecurity and remote management features

Remote configuration, update and backup of a large number of units from Netcon Application Manager server

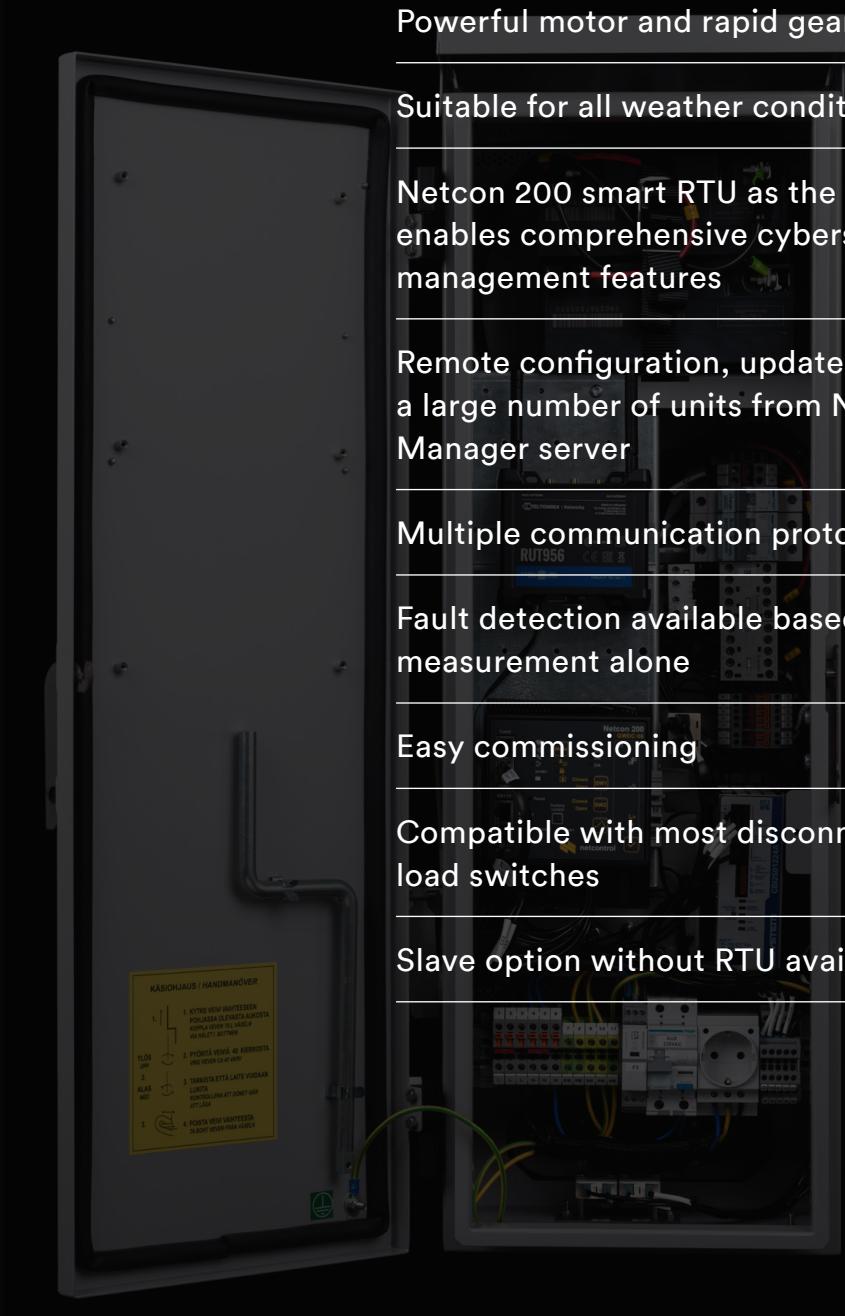
Multiple communication protocols and media

Fault detection available based on current measurement alone

Easy commissioning

Compatible with most disconnectors and load switches

Slave option without RTU available



Motor actuator with a modern, cybersecure RTU controller

Featuring a powerful motor and a rapid gear, the Netcon 2 is an actuator for the control of disconnectors and of load switches with breaking chambers or breaking whips. The Netcon 200 smart RTU as the control unit makes it cybersecure and remotely configurable.

VERSATILITY IN ADDITION TO POWER

The Netcon 2 actuator can be applied directly to most disconnectors in the medium voltage network. For communication, it can use a 4G/5G modem enabling cost-effective remote control and measurements over a wide geographical area. It also offers fault detection based on current alone, with no voltage measurement required.

SMART NEW CONTROL UNIT

As its brains, the Netcon 2 uses Netcontrol's compact new smart RTU, the Netcon 200. This brings with it crucial new features.



Cybersecure data communication

- Firewall and port hardening
- OpenVPN, IPSec
- Secure IEC-104 transfer according to IEC 62351-3
- Secure maintenance connection using SSH
- Secure configuration using HTTPS and SSH
- Digitally signed OS patches

Flexible configurations & management

Not only can the Netcon 200 be **configured remotely** through the browser-based **WebGUI** interface; a large number of devices can connect to a **Netcon Application Manager server** for remote configuration, updates and backups.

Current-based fault indication

Thanks to the current only-based fault detection algorithm developed by Netcontrol, the Netcon 200 can also provide fault indications.



Greenwood-Power ExxxFF-xx current sensor for overhead lines

Battery condition test

A battery test is configurable which temporarily disconnects the charger and then discharges the battery at a fixed rate for a set duration and measures the supply voltage in the process.



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STANDARD EQUIPMENT

The basic setup includes all the necessary equipment except for the communication device:

- Netcon 200 GWDC-06 module as controller
- Batteries and a smart charger (24 V)
- Space reserved for communication equipment
- Terminal blocks and overvoltage protection for power supply (230 V AC)
- Crank (40 turns/stroke)
- External mechanical position indicator with locking device that can be fitted with a padlock
- Encapsulated control mechanism for safety
- Metal brackets and attachment bolts for mounting on wooden pole
- Steel cabinet
- Controlled heating
- Ventilation fittings, condensate drain and insect filters

All the equipment is readily accessible and easy to replace.



MASTER/SLAVE OPTION

A slave version of the Netcon 2 is available lacking the Netcon 200 RTU and therefore, measurements. It is controlled by another, fully equipped Netcon 2 device, which functions as its master.

OPTIONAL EQUIPMENT

- Electrical outlets with ground fault protection
- Communication devices: radio modem (e.g., PDR 300), RUT956 4G/3G modem
- Mounting kit for communication device
- Surge protection for antenna cable
- Transformer for power supply from MV network: 11/22 kV / 230 V, 1 kVA

TECHNICAL SPECIFICATIONS

- Cubicle dimensions (H x W x D): 800 x 275 x 392 mm
- Total dimensions 1000 x 340 x 525 mm
- Operating temperature: -40...+65°C
- Enclosure: IP44
- Weight: 60 kg (including batteries, 13 kg)
- Heating: 20 W
- Thermostat: PTC element
- Charger: 240 W, temperature compensation
- Batteries: 2 x 12 V, 17 Ah, 10 years, lead-acid
- Consumption: ~5 Ah / 24 h (without communication equipment)
- Stroke: 160, 180, 200, 220 or 240 mm
- Motor: 24 V DC (operation time 2.1 s)
- Maneuvering force: 3700 N (160 mm stroke)

