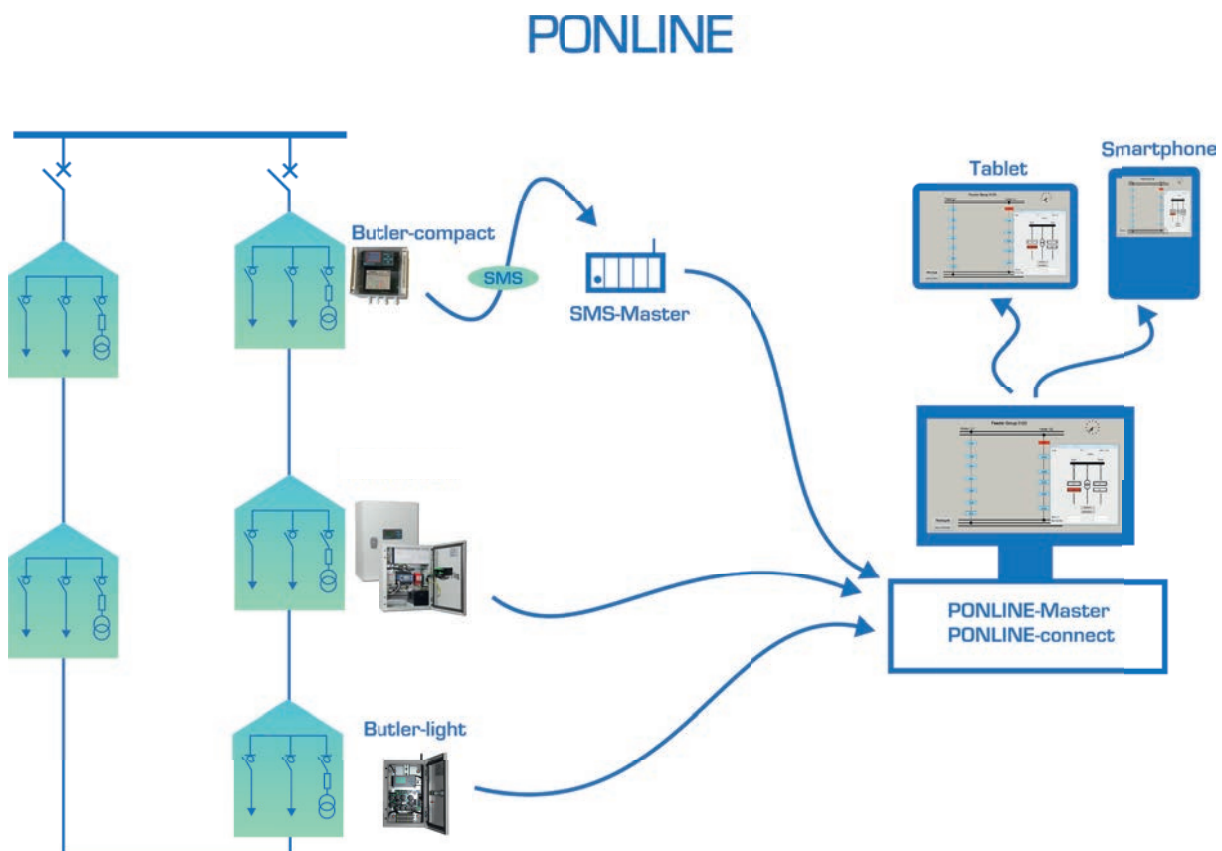# PONLINE-Connect
Fault detection, monitoring and automation

PONLINE is a complete solution for outage time reduction, load-monitoring and automation. Due to online functions for fault detection, load control and automation, it can transfer your distribution grid to a Smart-Grid. Information is collected by the PONLINE-Master and easily accessible by desktop PCs or mobile devices like smartphones or tablets.

PONLINE comprises the following modules:

A) Remote terminal units:
- Butler-compact: Fault reporting via SMS
- Butler-light: Fault reporting, load control and automation via GPRS

B) PONLINE-Connect:
- PONLINE-Connect: Database and visualisation software
- PONLINE-Master: Server for PONLINE-Connect

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PONLINE-Connect
Remote terminal units

A.1) RTU Butler-compact

- Fault reporting via SMS
- Detection of short-circuits/earth-faults
- Incl. 3xCTs for HV-side
- Event-driven reporting
- Including antenna
- 2 additional inputs
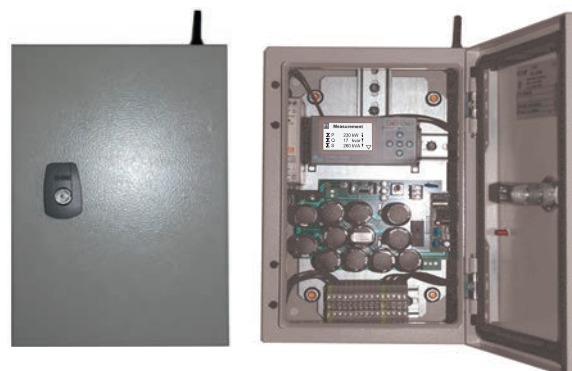- Free of maintenance, integrated capacitive buffer for 90s

Technical Data

Auxiliary voltage	85..230 V AC/DC
Buffer	internal capacitive buffer for 90s, free of maintenance
Ambient temperature	-25°C..65°C
Housing	plastic
Dimensions h x w d	130 x 130 x 100 mm
Mounting	wall mountable
Current transformers	3x split-core CTs (inner diameter d= 55mm)
Transmission of information	GSM SMS
Item number	2500245

A.2) RTU Butler-light

- Complete feeder monitoring, e.g.:
  - load monitoring
  - failure (short-circuit, earth-fault)
  - failure forecast
  - Ready for automation
- Safe VPN-connection via GPRS-Router
- Built in Grid-Inspector IKI-50 for monitoring of 1-3 feeders
- Free of maintenance, no battery required
- Digital- and analog signal inputs and outputs

Technical Data

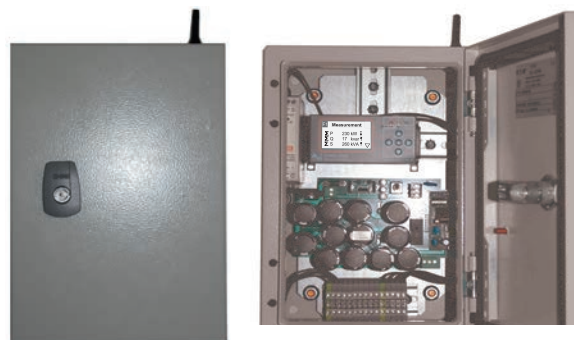|	
Auxiliary voltage	110..240 V AC/DC
Buffer	internal capacitive buffer for 5 mins, free of maintenance
Ambient temperature	-25°C..65°C
Housing	metal enclosed
Dimensions h x w d	300 x 200 x 150 mm
Mounting	wall mountable
Current transformers	3x split-core CTs per feeder (inner diameter d= 55mm)
Transmission of information	GPRS with VPN-tunnel, OPC protocoll
Item number	2503245

PONLINE-Connect
Remote terminal units

A.3) RTU Butler-light with LV-monitoring

- Complete feeder monitoring, e.g.:
  - load monitoring
  - failure (short-circuit, earth-fault)
  - failure forecast
  - Ready for automation
- Safe VPN-connection via GPRS-Router
- Built in Grid-Inspector IKI-50 for monitoring of 1-3 feeders
- Free of maintenance, no battery required
- Digital- and analog signal inputs and outputs

Low-voltage monitoring:
- Low-voltage load current monitoring device
- Installed in low-voltage compartment
- Connection to Butler-ligh via two wire Modbus
- Up to 20 CTs installable
- Scalable by adding additional evaluation units (plus 20 CTS)

Technical Data

Auxiliary voltage	110..240 V AC/DC
Buffer	internal capacitive buffer for 5 mins, free of maintenance
Ambient temperature	-25°C..65°C
Housing	metal enclosed
Dimensions h x w d	300 x 200 x 150 mm
Mounting	wall mountable
Current transformers	3x split-core CTs per feeder (inner diameter d= 55mm)
Transmission of information	GPRS with VPN-tunnel, OPC protocoll
Item number	2503245
Low-voltage measurement	
Auxiliary voltage	90 ... 276 V AC / DC
Load measurement	load current
Measurement channels	20
Communication	RS-485, Modbus
Weight	270g (without CTs)

PONLINE-Connect
Software

B.1) Software PONLINE-connect:

Master/Client SCADA solution with browser-based client software
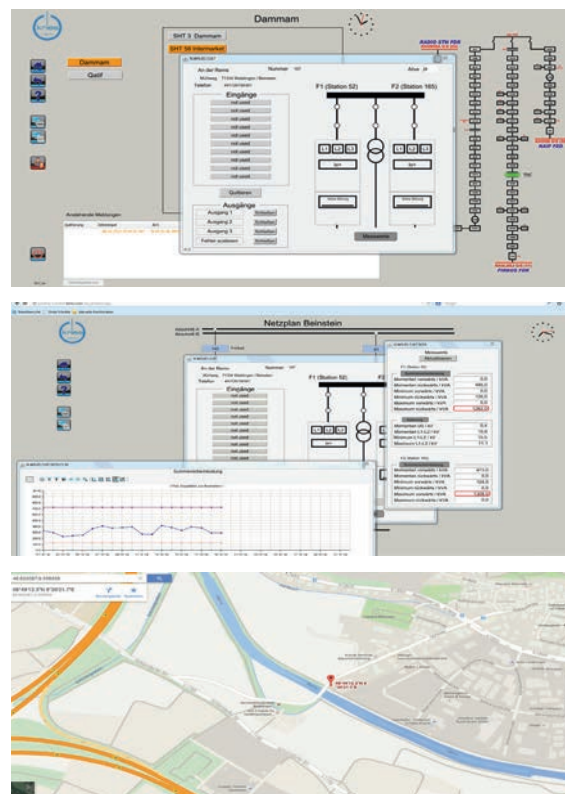for PC or mobile devices e.g. notebooks, tablets or smartphones:
- Indication of alarms (short-circuit, earth-fault)
- Graphic feeder visualisation, zoom and pan
- Graphic measurement value visualisation
- Graphic switch position visualisation
- Database for measurement values and alarms
- Quick overview per dashboard functionality

Optional:
- Remote control of feeder switches
- Alarm forwarding via email or SMS

Master software located either on:
- Remote PONLINE-Host-Server
- Local PONLINE-Private-Server

B.2) Server Hardware PONLINE-Master

- 19"-Rack or Desktop-PC
- Including operation system Windows-Server
- Preinstalled Software PONLINE-Connect
- Scalable Hardware
- Fail-safe raid FDD-System for backup data

Optional SMS-Module SMS-Master:
- Receiving SMS from Butler-compact
- Including GSM-Module for SMS
- Interface to PONLINE-Connect

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