

Protection Testing Library

What's New in Version 4.20

Compared to Version 4.10



1 New Protection Test Templates

1.1 GE MiCOM Agile P345 V38 Generator

Features:

- > Generator(-Transformer) Differential protection
- > Overpower Protection
- > Reverse/Low Forward Power Protection
- > Field failure protection
- > NPS thermal
- > System backup protection
- > Phase Overcurrent protection
- > Earth Fault protection
- > Negative Phase Sequence Overcurrent protection
- > Negative Sequence Overvoltage protection
- > Generator Thermal Overload protection
- > Residual Overvoltage protection
- > Overfluxing protection
- > Dead Machine protection
- > Under-/Overvoltage protection
- > Over-/Underfrequency protection
- > Pole Slipping protection

1.1.1 XRIO Converter Parameter Import

Relay settings can be exported from the *GE MiCOM S1 Agile* software and imported into the **XRIO Converter** using the *Standard Filter for XRIO Files*.

1.2 GE Multilin D60 V8.2x Line – *RelaySimTest* templates added

This item was extended by *Protection Test Templates* for *RelaySimTest* which cover single-end and end-to-end testing.

Features:

- > Automatic reclosing, 1-/3-pole
- > Teleprotection with distance protection

1.3 GE Multilin L90 V7.31 Line – *RelaySimTest* templates added

This item was extended by *Protection Test Templates* for *RelaySimTest* which cover single-end and end-to-end testing.

Features:

- > Automatic reclosing, 1-/3-pole
- > Teleprotection with distance protection

1.4 Protecta EuroProt+ E4-Feeder V2.10 Line

Features:

- > Distance Protection
- > Overcurrent Protection
- > Switch-onto Fault

1.4.1 XRIO Converter Parameter Import

Relay settings can be exported from the *Protecta EuroCAP Parameter Tool* software and imported into the **XRIO Converter** using the *Filter for Protecta/Vivavis EuroCAP .par Settings*.

1.5 Schneider Electric MiCOM P442 E0 Line – *RelaySimTest* templates added

This item was extended by *Protection Test Templates* for *RelaySimTest* which cover single-end and end-to-end testing.

Features:

- > Automatic reclosing, 1-/3-pole
- > Aided scheme with distance protection

1.6 Schneider Electric MiCOM P443 H7 Line – *RelaySimTest* templates added

This item was extended by *Protection Test Templates* for *RelaySimTest* which cover single-end and end-to-end testing.

Features:

- > Automatic reclosing, 1-/3-pole
- > Aided scheme with distance protection

1.7 Schneider Electric P3U30 V30.205 Feeder

Features:

- > Directional phase overcurrent
- > Directional ground fault overcurrent
- > Switch on-to-fault

1.8 SEL 851 R100 Feeder

Features:

- > Phase Overcurrent
- > Residual Ground Overcurrent
- > Neutral Overcurrent
- > Neg.-Seq. Overcurrent

For testing functions used in interconnection applications (voltage, frequency, etc.), please have a look at the generic PTL-item *DEA Interconnection*.

1.8.1 XRIO Converter Parameter Import

Relay settings can be exported from the *SEL Grid Configurator* software and imported into the **XRIO Converter** using the *Filter for SEL Grid Configurator .csv Settings*.

1.9 Vivavis ACOS 375 V2.8 Line

Features:

- > Line Differential
- > Distance Protection
- > Overcurrent Protection
- > Switch-onto Fault

1.9.1 XRIO Converter Parameter Import

Relay settings can be exported from the *Protecta EuroCAP Parameter Tool* software and imported into the **XRIO Converter** using the *Filter for Protecta/Vivavis EuroCAP .par Settings*.

2 New Relay Types for Available Test Templates

2.1 Ingeteam INGEPAC EF-ZT V6.2.19.23 Line

The PTL-item *Ingeteam INGEPAC EF-LD V6.2.19.23 Line* can be used to test this relay.

2.2 Protecta EuroProt+ V2.10 E1-Line, E2-Line

The PTL-item *Vivavis ACOS 375 V2.8 Line* can be used to test this relay.

2.3 Siemens 7SX82 V9.30

Depending on the application, available PTL-items and their parameter import functionality can be used for testing:

- > Feeder Siemens 7SJ85 V8.82 Feeder
- > Line Siemens 7SL86 V7.80 Line
- > Motor Siemens 7SK82 V8.82 Motor

2.4 Siemens 7SX85 V9.20

Depending on the application, available PTL-items and their parameter import functionality can be used for testing:

- > Feeder Siemens 7SJ85 V8.82 Feeder
- > Generator Siemens 7UM85 V7.90 Generator
- > Line Siemens 7SL86 V7.80 Line
- > Motor Siemens 7SK85 V7.90 Motor
- > Transformer Siemens 7UT86 V7.80 Transformer

3 Updated Protection Test Templates

3.1 ABB REF615 V5.1 Feeder

Changes:

- > Support for sensor inputs added (LPITs)
- > Trip test with circuit breaker updated to use 52b contacts
- > Delete Inactive Test Modules button added
- > Bugfixing

3.2 GE Multilin M60 V8.2x Motor

Changes:

- > Updated to match firmware V8.2x
- > Power protection – RIO Power and *Advanced Power* test module supported

3.3 SEL 421 0-1-2-3 R317 Line

Changes:

- > Trip test with circuit breaker updated to use 52b contacts
- > Minor bugfixing

3.4 SEL 710 R410 Motor

Changes:

- > Power protection – RIO Power and *Advanced Power* test module supported

4 General Changes

4.1 New Vendor – Hitachi

Hitachi was added as a new vendor with the following relay types. The corresponding, already available ABB PTL-items can be used for testing.

- > Hitachi REL650 V2.2.4 Line
- > Hitachi RET650 V2.2.5 Transformer
- > Hitachi RED670 V2.2.5 Line
- > Hitachi REG670 V2.2.3 Generator
- > Hitachi REL670 V2.2.5 ZMF Line
- > Hitachi REL670 V2.2.5 ZMQ Line
- > Hitachi RET670 V2.2.2 Transformer

4.2 PTL User Manual

The PTL User Manual was updated to V3.00.

Changes:

- > Line differential protection added
- > Generator power protection reworked
- > General refinement
- > Bugfixing

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and detailed contact information of our
worldwide offices please visit our website.

www.omicronenergy.com

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