

Protection Testing Library

What's New in Version 3.90

Compared to Version 3.80



1 Withdrawn Protection Test Templates

The PTL-items

- Siemens 7SA8x V7.80 Line
- Siemens 7SD8x V7.80 Line
- Siemens 7SL8x V7.80 Line

are withdrawn and replaced by separated items for the device types -86 (or lower) and -87:

- Siemens 7SA86 V7.80 Line
- Siemens 7SA87 V7.80 Line
- Siemens 7SD86 V7.80 Line
- Siemens 7SD87 V7.80 Line
- Siemens 7SL86 V7.80 Line
- Siemens 7SL87 V7.80 Line

Further information on the new items can be found in the corresponding section of chapter 2.

2 New Protection Test Templates

2.1 ABB REL650 V2.2.4 Line

Listed under new protection test templates because of a different distance protection compared to previous version V1.3.

Features:

- > High speed distance protection with load encroachment
- > Automatic switch onto fault logic
- > Four step phase non-dir. overcurrent protection
- > Instantaneous phase overcurrent protection
- > Four step residual non-dir. overcurrent protection
- > Instantaneous residual overcurrent protection

2.2 GE Multilin 845 V2.6x Transformer

Features:

- > Percent Differential
- > Transformer Overload
- > Phase Time/Instantaneous Overcurrent Protection
- > Neutral Time/Instantaneous Overcurrent Protection
- > Ground Time/Instantaneous Overcurrent Protection

2.3 NR PCS-931S R1.40 Line

Features:

- > Current Differential Protection
- > Distance Protection
- > Overcurrent Protection
- > SOTF Protection

2.4 SEL 400G R100 Generator

Features:

- > Differential Protection
- > Volts per Hertz
- > Voltage Protection
- > Directional Power
- > Impedance based Loss of Field Protection
- > Current Unbalance
- > Thermal Overload
- > Overcurrent
- > Inverse Time Overcurrent
- > Voltage Controlled Time Overcurrent
- > Voltage Restrained Time Overcurrent
- > Stator Ground
- > Out-of-Step
- > Frequency
- > Backup Distance Protection
- > Load Encroachment

2.5 Siemens 7SA86 V7.80 Line

The new PTL-item Siemens 7SA86 V7.80 Line supports 3-pole circuit breaker applications and a relay settings import. The former Siemens 7SA8x V7.80 Line, which could be used to test 7SA86 protection devices, is withdrawn.

New Features:

- > XRIO relay settings import filter functionality

Features (as former Siemens 7SA8x V7.80 Line):

- > Distance protection with reactance method
- > Distance protection, grounded systems
- > Distance protection, isolated/resonant-grounded systems
- > Permissive overreach with extended zone Z1B
- > Instantaneous tripping at switch onto fault (with distance protection)
- > Overcurrent protection, phases - advanced
- > Overcurrent protection, phase 1p
- > Overcurrent protection, ground – advanced
- > RST: Automatic reclosing, 3-pole, with distance zone Z1B
- > RST: Teleprotection with distance protection

Changes:

- > Bugfixing

2.6 Siemens 7SA87 V7.80 Line

This item replaces the withdrawn Siemens 7SA8x V7.80 Line.

Changes (compared to Siemens 7SA8x V7.80 Line):

- > Bugfixing

2.7 Siemens 7SD86 V7.80 Line

The new PTL-item Siemens 7SD86 V7.80 Line supports 3-pole circuit breaker applications and a relay settings import. The former Siemens 7SD8x V7.80 Line, which could be used to test 7SD86 protection devices, is withdrawn.

New Features:

- > XRIO relay settings import filter functionality

Features (as former Siemens 7SD8x V7.80 Line):

- > Line differential protection
- > Overcurrent protection, phase - advanced
- > Overcurrent protection, phase 1p
- > Overcurrent protection, ground – advanced
- > RST: Automatic reclosing, 3-pole, with differential protection
- > RST: Teleprotection with distance protection

Changes:

- > Bugfixing

2.8 Siemens 7SD87 V7.80 Line

This item replaces the withdrawn Siemens 7SD8x V7.80 Line.

Changes (compared to Siemens 7SD8x V7.80 Line):

- > Bugfixing

2.9 Siemens 7SK82 V7.90 Motor

Features:

- > Relay settings import
- > Load-Jam Protection Motor
- > Motor-Starting Time Supervision
- > Power Protection
- > Overcurrent Protection, Phases
- > Overcurrent Protection, Ground
- > Thermal Overload Protection
- > Thermal Overload Protection, Rotor
- > Undercurrent Protection
- > Unbalanced-Load Protection
- > Negative-Sequence Protection
- > Overvoltage Protection
- > Undervoltage Protection

2.10 Siemens 7SL86 V7.80 Line

The new PTL-item Siemens 7SL86 V7.80 Line supports 3-pole circuit breaker applications and a relay settings import. The former Siemens 7SL8x V7.80 Line, which could be used to test 7SL86 protection devices, is withdrawn.

New Features:

- > XRIO relay settings import filter functionality

Features (as former Siemens 7SL8x V7.80 Line):

- > Line differential protection
- > Distance protection with reactance method
- > Distance protection, grounded systems
- > Distance protection, isolated/resonant-grounded systems
- > Permissive overreach with extended zone Z1B
- > Instantaneous tripping at switch onto fault (with distance protection)
- > Overcurrent protection, phases - advanced
- > Overcurrent protection, phase 1p
- > Overcurrent protection, ground – advanced
- > RST: Automatic reclosing, 3-pole, with distance zone Z1B or differential protection
- > RST: Teleprotection with distance protection

Changes:

- > Bugfixing

2.11 Siemens 7SL87 V7.80 Line

This item replaces the withdrawn Siemens 7SL8x V7.80 Line.

Changes (compared to Siemens 7SL8x V7.80 Line):

- > Bugfixing

2.12 Siemens 7UT86 V7.80 Transformer

This item replaces the withdrawn Siemens 7UT8x V7.80 Transformer to fit the new naming scheme.

Changes (compared to Siemens 7UT8x V7.80 Transformer):

- > none

3 Updated Protection Test Templates

3.1 ABB RET620 V2.1 Transformer

Changes:

- > Differential protection – slope section 3 supported
- > Bugfixing

3.2 GE Multilin 869 V2.4 Motor

Changes:

- > Import filter bugfixing

3.3 SEL 700G R301 Generator

The PTT supports the *Advanced Power* test module introduced with *Test Universe 4.00*.

Changes:

- > Updated to match firmware version R301
- > Delta connected VTs supported
- > Power protection – RIO Power and *Advanced Power* test module supported
- > Bugfixing

3.4 Siemens 7SJ86 V7.00 Feeder

Changes:

- > Bugfixing

3.5 Siemens 7SK85 V7.90 Motor

Changes:

- > Bugfixing

4 PTL User Manual

The PTL User Manual was updated to extend the definition of the term *Protection Test Template* and to include general information about *Protection Test Templates* for *RelaySimTest* (PTTs for RST). PTT User Manuals for PTL-items containing PTTs for RST were adapted to fit the new structure.

For more information, additional literature,
and detailed contact information of our
worldwide offices please visit our website.

www.omicronenergy.com

Subject to change without notice.