

Test Universe Package Overview



For the combination of CMC test sets¹ and Test Universe software, four different packages as well as optional add-ons are offered, which are tailored to diverse focal points of use. Each of these packages contains a selection of software modules that can be either used independently from each other for single tests or be embedded into test plans for automated testing:

- > **Essential:** offers a good introduction with basic functions and modules; can serve as a foundation for individually compiled packages
- > **Standard:** contains all modules that are typically used for settings-based testing of protection devices
- > **Enhanced:** like Standard, specifically extended by functions for system-based testing and transient simulation as well as for free programming
- > **Complete:** covers all functions and software modules that are offered for controlling CMC test sets

A package can be extended at any time by ordering additional single modules or optional add-ons.

		Packages				Add-ons		
		Essential	Standard	Enhanced	Complete	Measurement Equipment Testing	IEC 61850 Basic	IEC 61850 Advanced
OMICRON Control Center ²	Automation tool, document-oriented test plan, template and report form	■	■	■	■			
QuickCMC	Convenient manual testing in the Test Universe environment	■	■	■	■			
State Sequencer	Determining operating times and logical timing relations by state-based sequences	■	■	■	■			
TransPlay	Playback of COMTRADE files, recording of binary input status	■	■	■	■			
Harmonics	Generation of signals with superimposed harmonics	■	■	■	■			
CB Configuration	Module for setting the CB simulation	■	■	■	■			
Ramping	Determining magnitude, phase, and frequency thresholds by ramping definitions	■	■	■	■			
Pulse Ramping	Determining magnitude, phase, and frequency thresholds	□	■	■	■			
Overcurrent ³	Automatic testing of positive/negative/zero sequence overcurrent characteristics	□	■	■	■			
Distance	Impedance element evaluations using single-shot definitions in the Z-plane	□	■	■	■			
Advanced Distance	Impedance element evaluations using automatic testing modes	□	■	■	■			
VI Starting	Testing of the voltage dependent overcurrent starting function of distance relays	□	■	■	■			
Autoreclosure	Testing of the autoreclosure function with integral fault model	□	■	■	■			
Single-Phase Differential	Single-phase tests of the operating characteristic and the inrush blocking	□	■	■	■			
Advanced Differential	Comprehensive three-phase differential relay testing (four modules)	□	■	■	■			
Annunciation Checker	Verification of the correct marshalling and wiring of protection devices	□	■	■	■			
Power	Testing with visualization and assessment in the P-Q plane (basic)	□	■	■	■			
Advanced Power	Testing with visualization and assessment in the P-Q plane (enhanced)	□	■	■	■			
Advanced TransPlay	Playback and processing of COMTRADE, PL4, or CSV files	□	■	■	■			
Transient Ground Fault ⁴	Simulation of ground-faults in isolated or compensated networks	□	□	■	■			
Synchronizer	Automatic testing of synchronizing devices and synchro-check relays	□	□	■	■			
Meter	Testing of single and multifunction energy meters	□	□	□	■	■		
Transducer	Testing of measurement transducers	□	□	□	■	■		
PQ Signal Generator	Simulation of power quality phenomena according to IEC 61000-4-30 and IEC 62586	□	□	□	■	■		
IEC 61850 Client/Server	Automatic SCADA testing in accordance with IEC 61850	□	□	□	■		■	■
GOOSE Configuration	Testing with GOOSE according to IEC 61850	□	□	□	■		■	■
Sampled Values Configuration	Testing with Sampled Values according to IEC 61850-9-2 ("9-2LE") and IEC 61869-9	□	□	□	■			■
CMControl P App	Quick and easy manual testing of protection and measurement devices	□	■	■	■			
RelaySimTest ⁴	System-based protection testing by simulating realistic power system events	□	□	■	■			
CM Engine	Programming interface for controlling CMC test sets with user specific software	□	□	■	■			
EnerLyzer / EnerLyzer Live	Analog measurements and transient recording with CMC test sets	□	□	□	■			
TransView	Transient signal analysis for COMTRADE files	□	□	□	■			
ADMO	Asset and maintenance management for protection systems Test set management	□ ⁵	□ ⁵	□ ⁵	□ ⁵			
IEDScout	Universal software tool for working with IEC 61850 IEDs						■	■

Contained in all packages: Binary I/O Monitor, AuxDC Configuration, ISIO Connect (for ISIO 200), Polarity Checker (for CPOL2).

¹ CMC 356, CMC 256plus, CMC 430 and CMC 353

² Includes licenses for Pause Module, ExeCute, TextView

³ Includes license for Overcurrent Characteristics Grabber

⁴ RelaySimTest license also includes the licenses for Transient Ground Fault and NetSim

⁵ Free trial version (time licensed) with full functionality included in all packages

■ Contained
□ Optionally available