CMC 256plus

The High Precision Relay Test Set and Universal Calibrator

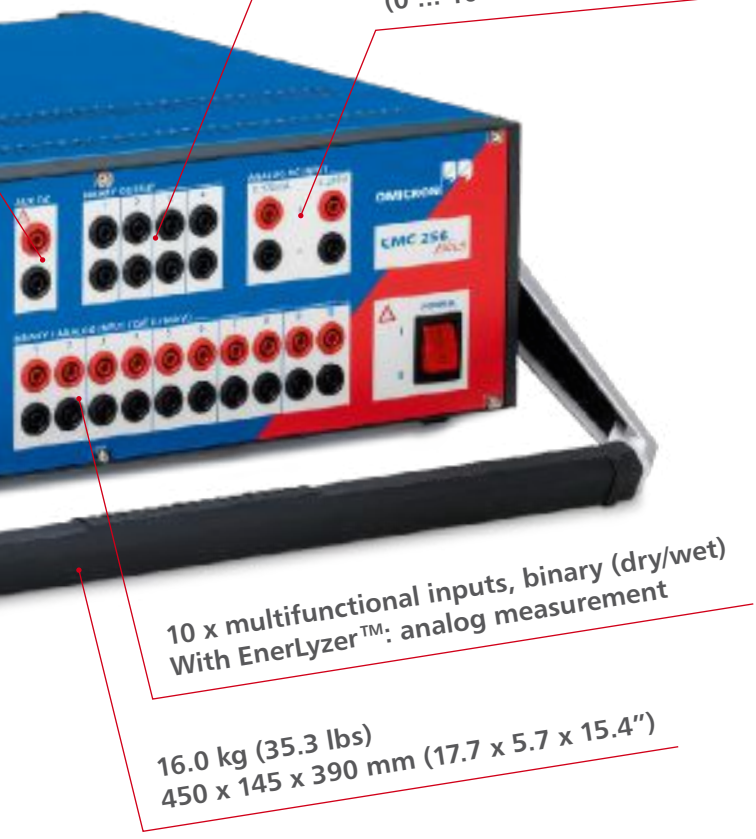
CMC 256plus – High Precision Relay Testing and

The CMC 256plus is the first choice for applications requiring very high accuracy. This unit is not only an excellent test set for protection devices of all kinds but also a universal calibration tool.

Its high precision allows the calibration of a wide range of measuring devices, including: energy meters of class 0.2, measuring transducers, power quality measurement devices and phasor measurement units (PMU).

Its unique accuracy and flexibility make the CMC 256plus ideal for protection and measurement equipment manufacturers for research and development, production and type testing.

Calibration



The analog test signals are generated digitally using DSP technology. This, in combination with the use of additional error correction algorithms and an accuracy oriented amplifier design, results in highly accurate testing signals even at small amplitudes.

The six current and four voltage output channels are continuously and independently adjustable in amplitude, phase and frequency. All outputs are overload and short-circuit proof and are protected against external high-voltage transient signals and over-temperature.

The integrated network interface supports comprehensive testing in the IEC 61850 environments using optional GOOSE simulation and subscription and Sampled Values simulation functionality.

Up to 12 independent channels with low-level signals are available at the back of the test set, which can be used to test relays which have a low-level input facility or to control external amplifier units.

By utilizing the EnerLyzer software option, the ten binary inputs of a CMC 256plus alternatively work as analog measurement inputs. The unit then can also be used as a multifunctional multimeter and transient recorder.

Besides its operation with the powerful Test Universe software running on a PC, the CMC 256plus can also manually be controlled with the highly flexible CMControl unit and the CMControl App running on an Android Tablet or a Windows PC. For more information please visit our website.

CMControl Front Panel Control (option)

For detailed technical data see product catalog or visit our website.

CMC 256plus

CMC 256plus: 6 Phase Current + 4 Phase Voltage Test Set and Universal Calibrator

Protection Relay Test Set

- Numerical relays
- Static relays
- IEC 61850 IEDs (GOOSE and Sampled Values)
- Electromechanical relays (high burden relays / single phase)
- Relay panels
- End-to-End testing with GPS or IRIG-B
- Busbar protection (up to 22 signal generators)
- Wide area protection

Universal Calibrator

- Energy meters, 4 quadrants, class 0.2
- Transducers
- Power quality measurement devices according to IEC 61000
- Phasor Measurement Units (PMU)
- SCADA measuring equipment
- Protection relays
- Transient recorders (incl. time stamp accuracy)
- Any measuring equipment for V, I, f, S, P, Q, ...

Power System Simulator

- Transient fault simulation
- Power swing
- CT saturation simulation
- CB simulation
- Rogowski coil simulation
- Compensated network
- Transient playback (COMTRADE, PL4 (EMTP), ...)

Portable 10-Channel Measurement Device[1]

- Transient recording (trigger: binary, PQ, GPS)
- Multimeter for: I, V, f, S, P, Q, cos φ ...
- Trend recording for: I, V, f, S, P, Q
- Harmonics analysis

Substation Commissioning

- Checking SCADA annunciations
- Burden measurement
- CT/VT polarity checker
- Wiring checker
- Event recording[1]

Programmable Voltage and Current Source

- Research & development
- Production quality assurance

[1] With EnerLyzer™ software option

Key Features

- Protection test set and universal calibrator in one device
- Testing of all relay generations – electromechanical, static, numerical, IEC 61850
- Highly accurate test signals. For meter testing: The sources are the reference – no additional reference meters are required
- Continuous synchronized outputs with CMIRIG-B (e.g. for PMU or MU testing)
- Test Universe software with unrivaled manual and automated testing functionality
- Front panel control with the unique CMControl (option)
- 10-channel analog measurement and transient recording functionality (option)
- Reliable and robust

Additional Benefits

OMICRON provides

- Worldwide high quality technical support
- Platforms for an international knowledge exchange
- Training courses designed for electric power system technicians and engineers

CMC 256plus Ordering Information

CMC 256plus with Test Universe Software	
VE002724	CMC 256plus Essential
VE002725	CMC 256plus Standard
VE002726	CMC 256plus Enhanced
VE002727	CMC 256plus Complete

CMC 256plus with CMControl (without Test Universe Software)	
VE002721	CMC 256plus with CMControl P App activation key
VE002715	CMC 256plus with CMControl P

The CMControl can also be ordered as add-on together with a CMC 256plus with Test Universe software or as a later upgrade.

CMC 256plus Hardware Options	
VEHO2703	LLO-2 Additional 6 low level outputs option (if ordered with a new CMC 256plus)
VEHO2704	LLO-2 Additional 6 low level outputs factory upgrade (for used CMC 256plus)

OMICRON is an international company serving the electrical power industry with innovative testing and diagnostic solutions. The application of OMICRON products allows users to assess the condition of the primary and secondary equipment on their systems with complete confidence. Services offered in the area of consulting, commissioning, testing, diagnosis and training make the product range complete.

Customers in more than 150 countries rely on the company's ability to supply leading-edge technology of excellent quality. Service centers on all continents provide a broad base of knowledge and extraordinary customer support. All of this together with our strong network of sales partners is what has made our company a market leader in the electrical power industry.

The following publications provide detailed information on the products described in this brochure and their applications:

Product catalog (secondary equipment)

CMControl P

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

www.omicronenergy.com

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