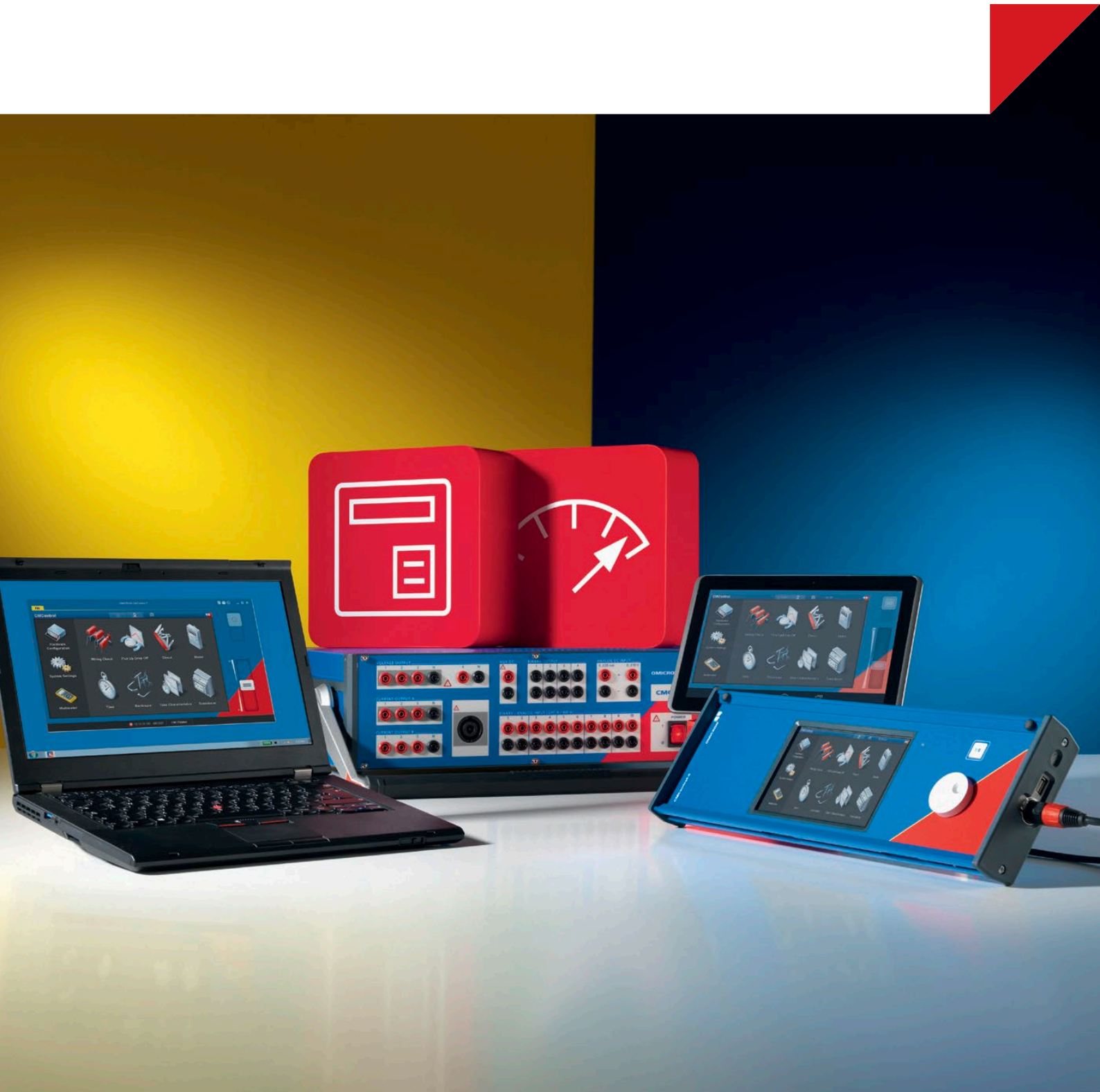


CMControl P

Simple testing of protection and measurement devices
with CMC test sets



Simple testing

The CMControl P is a control device for CMC test sets. It is specially designed for quick manual testing of protection and measurement devices and convinces through high flexibility and innovative user guidance.

Due to its intuitive touch screen user interface setting up tests is easy and convenient. Output values are manually adjusted with the precision control wheel. The included test tools with integrated fault models guarantee quick tests and reliable results.

To ensure comfortable working positions, the device can either be attached to the CMC test set or detached and used as a handheld control device. Magnetic elements at the rear allow attaching it to any smooth steel surface.

The CMControl P guarantees outstanding readability in daylight and even in direct sunshine with its transfective LC display.

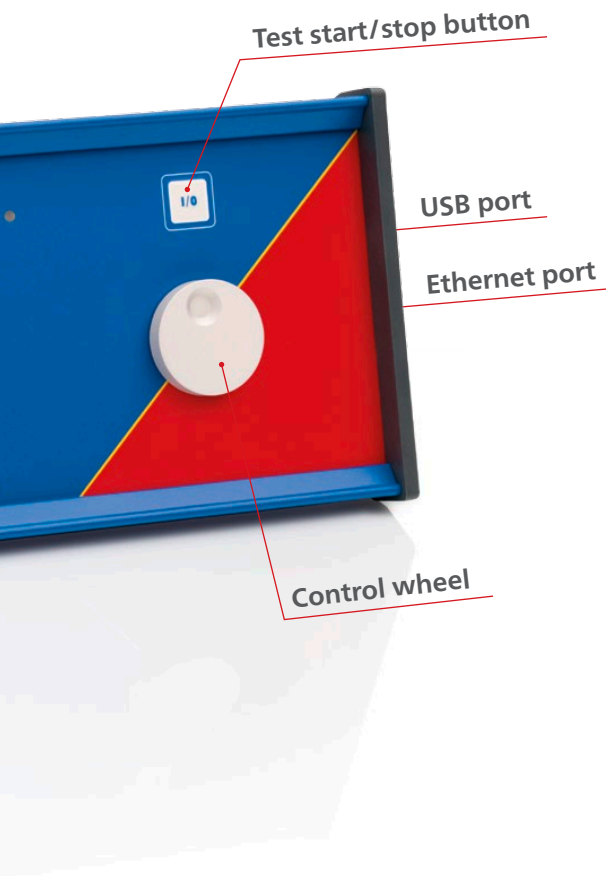


CMC 353 with CMControl P



CMControl P App

It's also possible to use the CMControl P functionality as an App on a Windows PC or an Android Tablet.



The test tools provide a wide range of functions:



In **Direct** mode all of the test set's outputs can be controlled individually



Wiring Check is used to verify the wiring between the test set and the device under test



Pick Up/Drop Off allows thresholds of protective relays to be checked



Trip times or other timings of a protective relay can be verified with the **Time** tool



Time Characteristics is designed to test relays with multiple timing stages or particular characteristics



With the **Reclosure** tool the number of cycles and cycle times of an auto-reclosure function can be checked



The **Meter** test tool is used to calibrate electricity meters and to perform start-up and no-load tests



The **Transducer** test tool is used to verify and automatically assess the accuracy of a transducer¹



With **Multimeter** the ten multifunctional inputs of the CMC test set can be used for analog measurements¹

¹ With CMC 256plus, CMC 256-6, or CMC 356 with ELT-1 hardware option

Functions

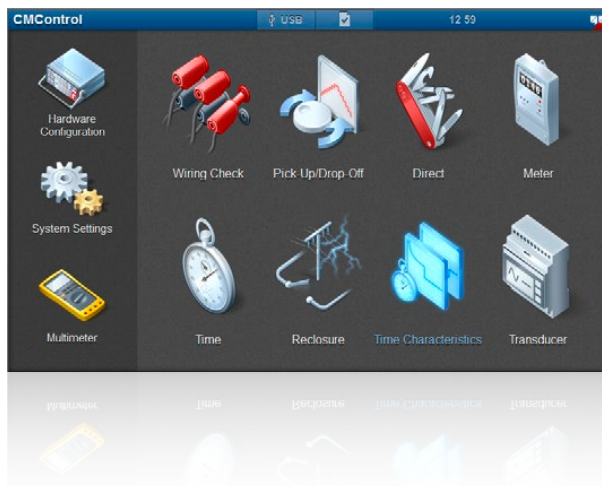
- > Single-, two-, and three-phase fault calculation
- > Direct control of test signals in magnitude, phase, and frequency
- > Direct entering of impedances, power values, symmetrical components
- > Easy toggling between displayed unit values in primary/secondary, absolute/relative, or seconds/cycles
- > Easy setting of arbitrary load points for meter testing
- > 15 different languages, easily changeable

Innovative software

Set up and perform tests with CMControl P

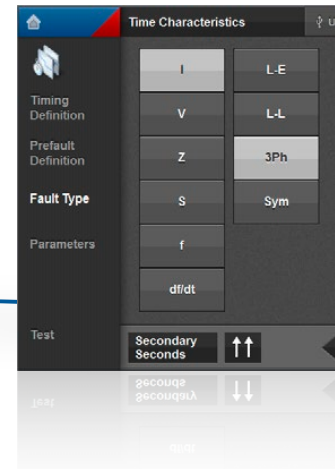
Example: Overcurrent Characteristic Test

Tool selection



Simply touch the corresponding icon in the main menu.

Fault type setting



Applications

> Protection relay testing

- Overcurrent
- Undervoltage
- All types of directional functions
- Distance
- Differential¹
- Reclosure
- Circuit breaker simulation
- And many more

> Synchronizing devices testing¹

> Substation commissioning

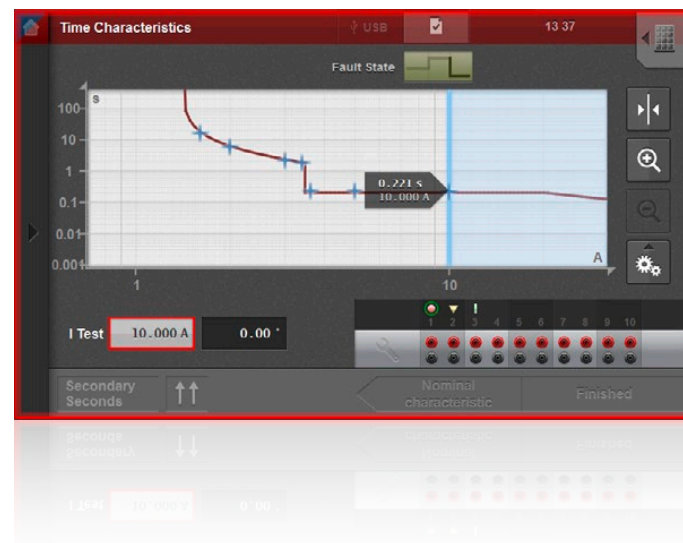
- Checking SCADA annunciations
- Wiring checker
- Plausibility check for CT/VT with primary injection

> Meter testing

> Transducer testing²

> Multimeter²

Test screen



Perform multiple test shots at different output values. The results can be easily compared with the relay's nominal characteristic.



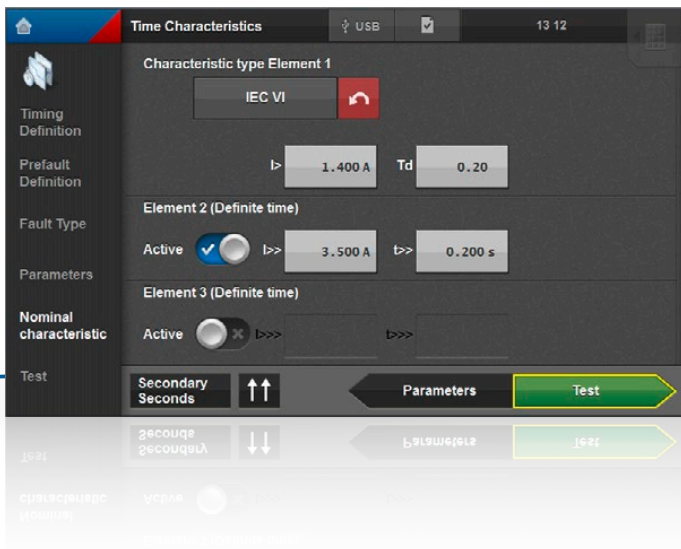
Select the fault type in an intuitive and logical way. Impedances, power values, and frequencies as well as symmetrical components, can be entered directly.

Parameter setting



Set the fault parameters easily with the numeric keypad. It is also possible to store and recall preset values.

Nominal characteristic



Specify the relay's nominal characteristic to be used as reference. Choose from inverse and definite time characteristics. (Available for fault types I L-E, I L-L and I 3Ph)

Your benefits

- > Simple and fast testing with innovative user guidance
- > Instant availability
- > Reduced testing efforts, increased productivity
- > Flexible working positions
- > No special training required

Order options

CMControl P

CMControl P is especially designed as a dedicated CMC control device for testing of protection and measurement equipment.

Hardware components are adapted to engineers needs and have a lot of advantages when operating tests.

Benefits

- > Dedicated CMC accessory, developed for protection and meter testing
- > Flexible working positions
- > Outstanding readability even in direct sunshine
- > Easy storing of test results on USB memory stick



Characteristics

- > 7" transfective touch screen display
- > 10/100 Mbit/s Ethernet port with rugged RJ45 connector
- > Magnetic elements on the back

Ordering information

CMControl P as add-on for new CMC ¹	CMControl P as add-on for existing CMC	CMC + CMControl P Package ⁴	
VEHO2805	VEHO2806 ^{2,3}	VE002820	CMC 356
		VE002715	CMC 256plus
VEHO2901	VEHO2902	VE002908	CMC 353
-	-	VE003001	CMC 310

Software-upgrade

Besides the software version described in this brochure (version P), we also offer a version for testing of recloser and sectionalizer controls (version R, see separate brochure).

For using both versions (P + R) with a new or existing CMControl device, the following upgrades are offered:

Upgrade from version P to the combination P + R	VESM2728
Upgrade from version R to the combination P + R	VESM2729

¹ With Test Universe PC operating software

² For operating with CMC 356, CMC 256plus, and CMC 256-6 test sets with NET-1 an external power supply unit is included in delivery. If Power over Ethernet is desired, a PoE-Upgrade for these test sets is available.

³ For test sets with parallel port a PoE-Upgrade is required

⁴ Without Test Universe PC operating software



CMControl P App

The CMControl P App offers the possibility to control a CMC test set with a Windows PC or a standard Android tablet¹.

The App offers all functionalities of the approved CMControl P.

Benefits

- > Works with standard hardware. Choose the one that fits best for you
- > Flexible handheld operation with Android Tablet
- > High versatility with Windows PC
- > No cables required through WiFi connection
- > Store and display test results on device
- > Integrated user manual



How to control a CMC test set with the CMControl P App

1. Get the App

Download the free CMControl P App:

- > for your Windows PC from the OMICRON Customer Area
- > for your Android tablet from the Google Play™ Store

2. Enable your CMC test set

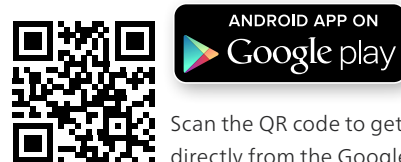
Please order the activation key for your CMC test set:

CMControl P App activation key for CMC	VESM2727
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3. Establish connection

Connect your device directly using Ethernet/USB or establish a wireless connection using a WiFi router connected to the CMC.

A list of tested WiFi routers is available on our website:
www.omicron.at/cmcontrol-p



Scan the QR code to get the free App directly from the Google Play™ store.



¹ A minimum version of Android 3.2 is required

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 140 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.

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