

CPC Sync

Portable, powerful and scalable high-voltage source



CPC Sync – portable, powerful and scalable high-voltage source

Determining the condition of a dry type transformer's (DTT) insulation requires high voltage in order to perform either partial discharge (PD) measurements or AC voltage withstand tests. For field testing, the induced voltage test is an attractive option to generate high voltage. Therefore, a test voltage is applied to the low-voltage (LV) side of the test object whereas the transformer itself steps up the voltage to the high-voltage (HV) side across its turns ratio.

The CPC 100 comes with a low noise and a PD free amplifier. Furthermore, the software allows you to define test sequences for automated testing. Its compact design and low weight makes it easy to transport.

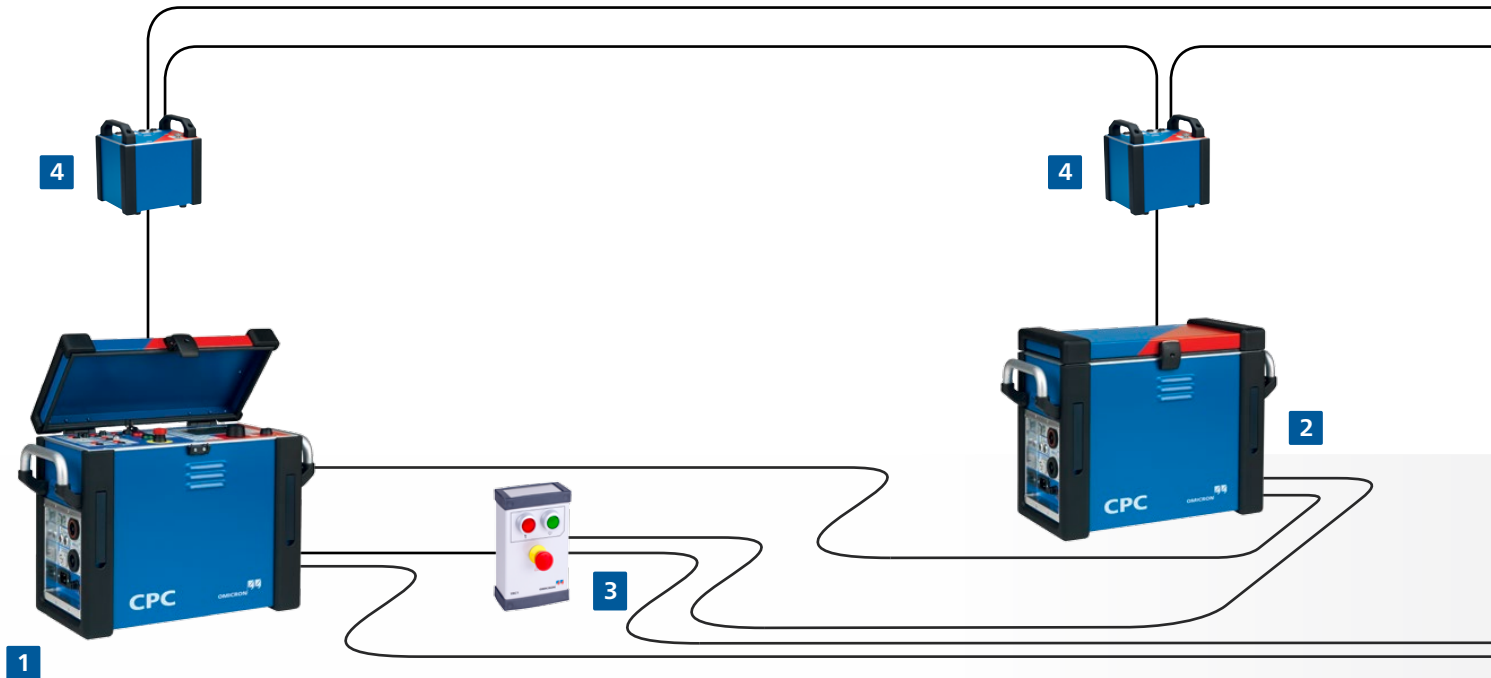
In addition, the CPC 100 now features synchronization of up to 3 units. Thus the power of one single CPC 100 can be multiplied in order to have a powerful source for induced voltage testing. This is useful if one CPC 100 is not sufficient for providing the no-load losses of the transformer under test at a required test voltage.

1 CPC 100

- > Multi-functional primary test device
- > Test signal frequency 15 Hz – 400 Hz (for resonant frequency tuning)
- > Low PD level
- > Programmable test sequence

2 HV-source (CPC 100/80)

- > CPC 100 is used as a master or slave unit in the synchronization setup
- > CPC 80 is used as a slave unit
- > Portability and scalability due to modular source approach
- > Up to 5 kVA per CPC



CPC Sync is the ideal solution for testing at locations where space is limited.

3 Synchronization

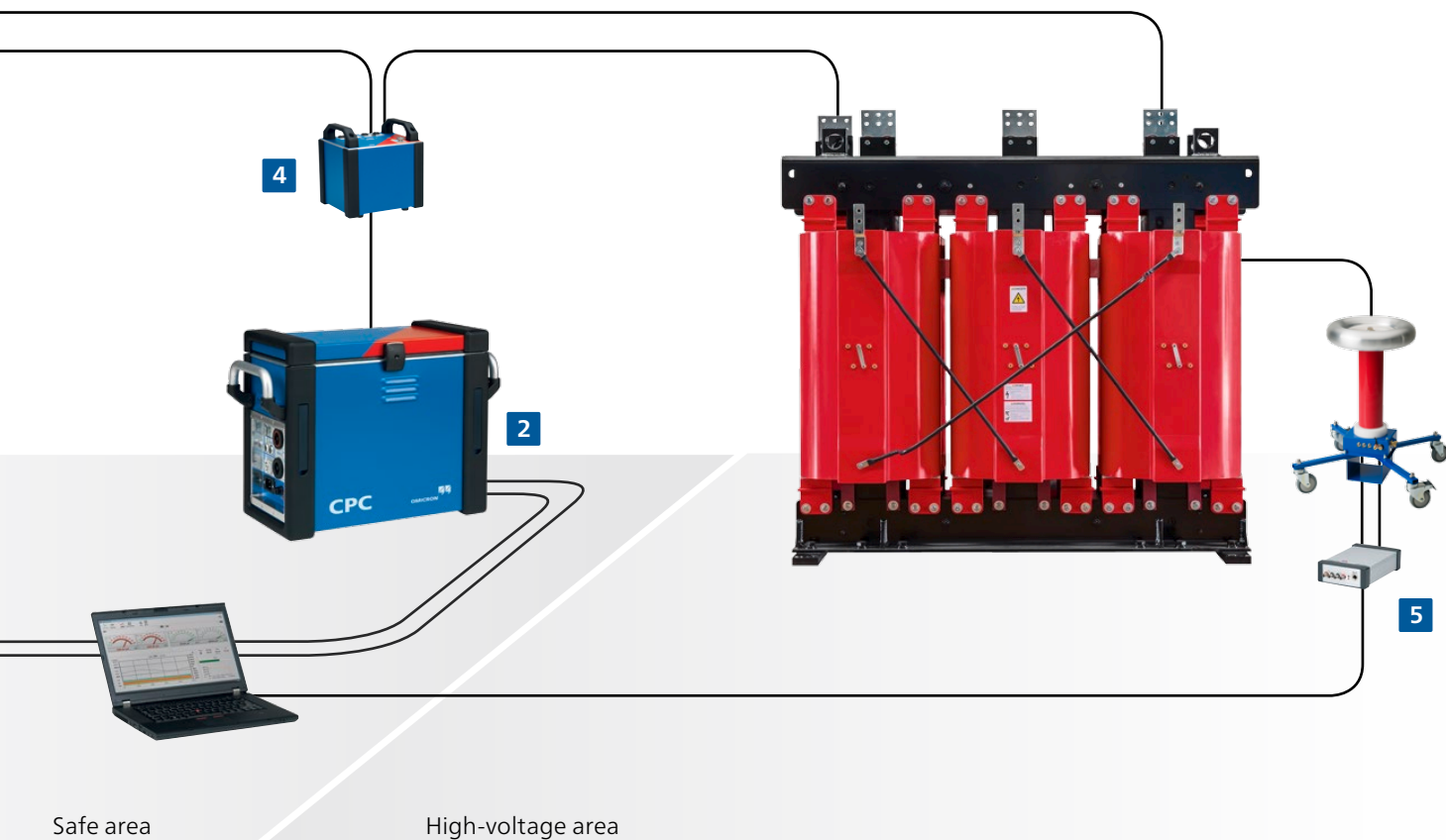
- > Digital synchronization via ethernet from master to slave units
- > TRC1 safely controls up to 3 CPCs (one start and one emergency button for all synchronized devices)
- > Formerly purchased CPCs can be easily extended for synchronization

4 Matching transformer

- > Configurable matching transformer to match to different voltage levels on the LV side of a dry type transformer

5 PD test equipment

- > High sensitivity
- > Galvanic isolation from test object
- > Field proven reliability
- > Advanced, fully digital filtering
- > Measurement data is recorded and can be subsequently replayed



Technical specifications and ordering information

CPC 100/80

Power supply and mechanical data

Single-phase, nominal	100 V _{AC} ... 240 V _{AC} , 16 A
Single-phase, permissible	85 V _{AC} ... 264 V _{AC} (L-N or L-L)
Frequency, nominal	50 Hz / 60 Hz
Power consumption	< 3 500 VA (< 7 000 VA for a time < 10 s)
Connection	IEC 320 / C20
Weight	29 kg / 64 lbs (case without protection cover)
Dimensions (W × H × D)	468 × 394 × 233 mm (18.4 × 15.5 × 9.2 in), cover, without handles.
Operating temperature	-10 °C ... +55 °C / +14 °F ... +131 °F
Storage temperature	-20 °C ... +70 °C / -4 °F ... +158 °F
Humidity range	5 % ... 95 % relative humidity, no condensation

MTR1

Technical and mechanical data

U _{out}	100 - 600 V (customized)
S _{sec}	5000 VA (15 min on, 12 min off)
f	100 - 400 Hz
Weight	19 kg / 41.9 lbs
Dimensions (W × H × D)	262 × 277.5 × 222 mm (10.3 × 10.9 × 8.7 in)

Environmental conditions

Operating temperature	-10 °C ... +45 °C / 14 °F ... +113 °F
Storage temperature	-20 °C ... +70 °C / -4 °F ... +158 °F
Humidity range	5 % ... 95 % relative humidity, no condensation

MTR2

Technical and mechanical data

U _{out}	100 - 400 V @ f > 100 Hz
U _{out}	0 - 800 V @ f > 200 Hz
S _{sec}	6000 VA
f	100 - 400 Hz
Weight	20,64 kg / 45,50 lbs
Dimensions (W × H × D)	262 × 277.5 × 222 mm (10.3 × 10.9 × 8.7 in)

Environmental conditions

Operating temperature	-10 °C ... +45 °C / 14 °F ... +113 °F
Storage temperature	-20 °C ... +70 °C / -4 °F ... +158 °F
Humidity range	5 % ... 95 % relative humidity, no condensation

Item name	Description	Ordering No.
CPC 100 Basic Package	Package including CPC 100 and all accessories to perform basic checks on primary assets.	VE000601
CPC 80	Slave unit including accessories for synchronization of CPCs. Note: Only CPC 100 can be used as master and slave unit.	VE000649
CPC Sync Upgrade Option for existing CPC	Upgrade option including the TRC1 which allows synchronization of up to three CPCs in order to create a powerful source for HV applications.	VEHO0648
CPC Sync Upgrade Option for new CPC	Upgrade option including the TRC1 which allows synchronization of up to three CPCs in order to create a powerful source for HV applications.	VEHO0649
CP Sequencer Test Card	Sequencer test card for testing with different states	VESM0635
CP Ramping Test Card	Programmable ramping generator and determination of thresholds	VESM0630
MTR1	Customized matching transformer with fixed ratio to match to different voltage levels on the LV side of a dry type transformer	VEHZ0701
MTR2	Matching transformer with adjustable turns ratio. Maximum output voltage is configured to match low voltage rating of transformer under test	VEHZ0793
MPD 600 Set with one channel	Package including acquisition unit, controller, impedance, fiber optic cable, power supply and software package "Basic Package"	VE004110
Coupling Capacitors	MCC 112: 12 kV, 1.2 nF	VEHZ4118
	MCC 124: 24 kV, 1.2 nF	VEHZ4138
	MCC 205: 50 kV, 1.0 nF	VEHZ4116
	MCC 210: 100 kV, 1.0 nF	VEHZ4117

A strong and safe connection

Welcome to the team

At OMICRON you can always depend on an experienced team that actively supports you and an infrastructure that you can rely on. We always listen attentively in order to understand your needs so that we can offer you the best possible solutions. We strive for lasting partnerships and ensure that you can continue to rely on your product long after you've purchased it. In order to do this, we focus on quality, the transfer of knowledge and unique customer support.

Tony, Wenyu and Thomas are able to tell you about the services we have available for you and why it pays to be part of the team.



Tony Porrelli
Application Specialist



Solutions you can rely on...

... developed with experience, passion and an innovative approach that we use to continually set groundbreaking standards in our industry sector.

We invest more than 15 % of the total turnover in research and development so that we can even guarantee the reliable use of the latest technology and methods in the future.

Our comprehensive product care concept also guarantees that your investment in our solutions – like free software updates – pays off in the long term.





Wenyu Guo
OMICRON Academy



We share our knowledge...

... by maintaining a constant dialogue with users and experts. Some examples of this are our customer events and conferences that take place all over the world and our collaboration with numerous standardization committees.

We also make our knowledge available to you in the customer section of our website in the form of application reports, specialized articles and articles in the discussion forum. With the OMICRON Academy, we also provide a wide spectrum of training possibilities and assist you with Start-up training and free webinars.



Thomas Bischof
Technical Support



24/7 support

When rapid assistance is required...

... our excellent level of support is always appreciated. You can reach the highly-qualified and committed technicians in our customer support department 24 hours a day, seven days a week – and it's completely free. We deal with repair services and service features in a fair and non-bureaucratic manner.

We can help minimize your downtime by lending you equipment from a readily available plant at one of our service centers in your area. A comprehensive offer of services for consulting, testing and diagnostics completes our range of services.

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 160 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 further information on the solutions described in this brochure:



CPC 100 Brochure



MPD 600 Brochure

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