



PVS 100

- Identifies the phase at all voltage levels in real time
- Functions with and without a permanent data connection
- Easy to operate
- Eliminates safety risks
- Saves time and money



sebaKMT
A member of Megger Group

Phase identification – fast and precise

Why is phase identification important?

Whether you are restructuring a network, planning new network systems or performing switching operations: precise phase identification is essential for the safe and reliable operation of a network.

The **PVS 100** assists you in checking the phase quickly and precisely. Helping you to avoid faulty switching, eliminate safety risks, reduce operating expenses, prevent a one-sided load of the network and improve the service.

The **PVS 100** system not only provides energy providers with safety-related advantages but with economic advantages as well, and should accordingly always be part of the equipment.



System description

The **PVS 100** system consists of two identical devices: the base station and the mobile unit. The difference is defined in the menu. It is easy to operate via the touch screen.

How it works

The base station is connected to a known phase that serves as a reference. The phase positions at every voltage level can be identified with the mobile unit, by comparing the actual phase angle with the angle of the reference phase.

Both devices are synchronised via a GSM connection and the phase assignment is displayed immediately. The GPS time signal is used to provide a highly accurate time base.

The **PVS 100** can be used anywhere thanks to its built-in rechargeable battery. The system is directly connected to the test object at network voltages of up to 400 V.

At higher voltages of up to 120 kV, the test is performed using a high voltage sensor that communicates with the PVS 100 mobile unit via bidirectional wireless.

The bright LEDs on the voltage sensor (which are even visible in sunlight) signal its activation as well as the phase identification. This makes it unnecessary to have visual contact with the mobile unit during the test. The eyes of the user can be kept on the sensor.

The data read remains stored for one week for further analysis; in particular, a subsequent synchronisation is possible for off-line readings without GSM communication.

All the advantages at a glance

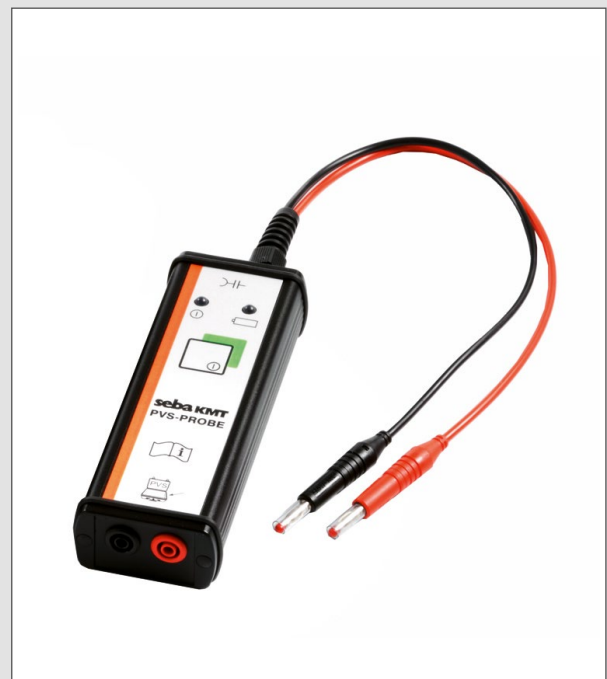
- Direct phase indication with a GSM/GPS connection or with an available low voltage connection
- Extremely easy input of phase shifts/vector groups by using the zero key
- Can operate independently of GSM or GPS reception with synchronisation of the stored readings
- Internal memory for 10 days of continuous operation
- Li-Ion battery for 10 hours of operation
- Data transfer via USB
- Operation via LCD touch screen
- Intuitive operating software
- High voltage sensor with bidirectional wireless transmission to PVS 100 and direct visual signalling

PVS probe

Special operating modes allow the identification of phases even when there is no GPS or GSM connection. The mobile unit can either be synchronised before the test with an available power supply, and remain connected to it for the duration of the test, or the recorded test readings can be synchronised via an existing GSM connection after the test.

The **PVS probe** was developed to be able to take readings at capacitive measuring points/taps, so that phase shifts are automatically corrected by capacitive voltage dividers at the measuring point. The input side of the **PVS probe** is designed for taps according to EN 61243-5:2001.

To correct the effect of transformer vector groups (multiples of 30°), the PVS has a zero key with which the phase shifts are taken into account and stored for future readings.



Technical data

PVS 100	
LCD touch screen	240 x 128 (transflective display)
GPS aerial with connection cable	Length 20 m
Wireless modem for high voltage sensor	866 MHz
Data storage	1 GB data memory/USB interface
Accuracy at voltages up to 400 V/up to 120 kV	± 0,5°/± 10°
Operating voltage	115 V/230 V AC 50/60 Hz
Battery life	10 hours
Operating temperature	-20 °C to +50 °C
Dimensions (W x H x D)	235 x 105 x 181 mm
Weight	3,2 kg
Protection class	IP 54 with housing closed

HVS 120 high voltage sensor	
Wireless modem	866 MHz/915 MHz (depending on country)
Maximum voltage	120 kV
Battery life	7 hours
Dimensions (D x L)	85 x 120 mm
Weight	0,9 kg
Protection class	IP 54 with housing closed

PVS probe	
Use	At capacitive measuring points according to EN 61243-5:2001
Supply	NiMh battery (1,000 mAh/3,6 V)
Battery life	Approx. 8 hours

Ordering information

Product	Order no.
Full set with 2 PVS 100	
Europe, CIS, South Africa, Hong Kong	820014876
Australia, South America	820025428
The USA, Canada, Mexico	820025194
Additional device (1 PVS 100)	
Europe, CIS, South Africa, Hong Kong	820014877
Australia, South America	820025429
The USA, Canada, Mexico	820025195
Optional accessories	
NH measuring tap, short contact arm for PSV 100, MK 55	820025178
PVS probe for capacitive taps to upgrade an existing PVS 100 systems	128302238

Phase verification system, full set

- » 2 x PVS 100 incl. GPS outdoor unit
- » High voltage sensor with probe tips
- » Insulating rod 110 kV
- » 2 x cable set
- » Tripod for GPS module with holder
- » PVS probe for capacitive taps
- » Charger for HVS 120-36 and PVS probe
- » 2 GSM aeriels with holder
- » 2 cases/trolleys for PVS 100

Phase verification system, additional device

- » 1 x PVS 100 incl. GPS outdoor unit
- » High voltage sensor with probe tips
- » Insulating rod 110 kV
- » Cable set
- » Tripod for GPS module with holder
- » PVS probe for capacitive taps
- » Charger for HVS 120-36 and PVS probe
- » GSM aerial with holder
- » 1 case/trolley for PVS 100

Please observe the frequency-based country variations.