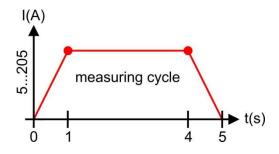
# Portable Micro-Ohmmeter VG-BAT-x00

- ✓ Battery powered
- ✓ Lightweight and compact
- ✓ Real measuring current over whole measuring cycle
- ✓ Measures with both sides grounded
- ✓ Sunlight readable 4.3" graphic LCD
- ✓ USB PC-Interface
- ✓ USB logger
- ✓ Optional thermal printer
- ✓ Optional mobile phone control





### **Technical description**

The portable micro-ohmmeters VG-BAT-x00 are used for resistance measurements of high power switches etc. The strengths of the instruments are the easy handling, battery powered, rugged design and low weight.

The VG-BAT-x00 enables a real direct current measurement for highest accuracy. The current rises linear for 1 second than holds the preset current for 3 seconds and falls back within another 1 second.

The advanced build-in LiFePO<sub>4</sub> battery offers maximum power with excellent safety and outstanding life.

The 4.3" LCD graphic display, enables measurements in darkness, coldness and full sunlight.

Measurement data is saved directly to a USB stick.

The USB PC-Interface is used to control the device or read out the results automatically by computer.

Read out the device history or start a measurement with an Android phone or tablet. Send the data directly to your office.

The VG-BAT-200, with a weight of 5.2kg only, is very handy and easy transportable.

Typical applications are ohmic tests of:

- Circuit breakers
- Disconnecting switches
- High current busbar joints
- Railway parts
- Cable splices
- Welding joints
- Ground connections

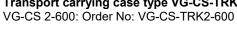


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#### **Accessories**



# Transport carrying case type VG-CS-TRK





#### Cable bag type VG-CS-TRT

44cm x 32cm x 15cm Order No: VG-CS-TRT



#### Sense cable 2.5mm² type VG-CS-SNE2.5/6

L=6m with test probe & clips

Red: Order No: VG-CS-SNE2.5/6R VG-CS-SNE2.5/6B Black: Order No:



#### Sense cable extension 2.5mm² type VG-CS-SNEV2.5/10

L=10m with one 4mm connector and one 4mm plug

Red: Order No: VG-CS-SNEV2.5/10R VG-CS-SNEV2.5/10B Black: Order No:



#### Current cable 35mm<sup>2</sup> type VG-CS-STR35

single cable with one connector and one clamp L=0.6m: Order No: VG-CS-STR35/0.6

L=5.0m: Order No: VG-CS-STR35/5 L=10.0m: Order No: VG-CS-STR35/10



## Current cable extension 35mm² type VG-CS-STRV35

single cable with one connector and one cable plug

L=5.0m: Order No: VG-CS-STRV35/5 L=10.0m: Order No: VG-CS-STRV35/10



#### PE grounding cable 2.5mm² type VG-CS-EK2.5

single cable with one cable socket and one clamp

L=1.5m: Order No: VG-CS-EK2.5/1.5 L=6.0m: Order No: VG-CS-EK2.5/6 L=15.0m: Order No: VG-CS-EK2.5/15



#### Wireless Remote control type VG-CS-Fern-BT

Remote control dongle for an Android device from Android 5.0 and up

Order No: VG-CS-Fern-BT For dongle with fully feature set: VG-CS-WIN+ Order No:



#### **PC-software type VG-CS-WIN**

The Windows software makes it easy to manage and save all test results.

Order No: **VG-CS-WIN** 



#### **Technical data**

Measuring ranges:  $0...20.00\mu\Omega$ ,  $0...200.0\mu\Omega$ ,  $0...2000m\Omega$ ,  $0...20.00m\Omega$ ,  $0...200.0m\Omega$ 

 $0...999.9 m\Omega$ 

Display: Sunlight readable LCD 4.3"graphic display with a resolution of 480x272 dots

Display resolution:  $0.01\mu\Omega$  ...  $0.1m\Omega$ 

Accuracy:  $0 ... 1000 \mu\Omega$ , @ 200A / 25°C =  $\pm 0.05\%$  FS

1 ...  $25m\Omega$ , @  $200A / 25^{\circ}C = \pm 0.2\%$  FS 25 ...  $999m\Omega$ , @ 5 -  $200A / 25^{\circ}C = \pm 0.5\%$  FS

20 ... 00011132, @ 0 200717 20 0

Reproducibility: <0.1%

Measuring current: 5 - 205A (VG-BAT-200), 3 adjustable preset currents

Maximum test voltage: 5.5V

Current ramp: The test current rises following a linear ramp, holds the preselected value and falls with a

linear ramp.

Battery: LiFePO4, 75Wh Charging: CCCV, 1.5hours

Number of Measurements: 200A 27m $\Omega$  58# | 100A 27m $\Omega$  229# | 50A 27m $\Omega$  916#

200A 5mΩ 308# | 100A 5mΩ 1237# | 50A 5mΩ >2000# 200A 1mΩ 1546# | 100A 1mΩ >2000# | 50A 1mΩ >2000#

Measuring interval: No limitation of the number of current cycles

Result data logging: The last 100 data sets are stored internally.

Unlimited data sets for the external USB stick.

Automatic power switch-off: Default 2 minutes

Data logger: Accepts FAT32 formatted USB sticks

Sense input: Independent polarity with banana jacks.

Input voltage: Max.  $\pm$ 5V Input impedance: >200kΩ

Shunt output:  $100\mu\text{V/A} + /-1\%$ , banana jack red = plus, banana jack black = negative

Shunt voltage: 20mV @ 200A for VG-BAT-200

Data interface: USB, various measuring protocols may be set (VG-CS Win, data output, data control)

Pass/Fail: Display signalization, 3 preset limits. Optional alarm contacts

Date/time: The instrument has a battery buffered real time clock

Buzzer: An acoustic click for keyboard operation or an ongoing test

Ambient temperature: -20.0°C ... +50.0°C

Humidity: Max. 95% non-condensing

LVD: RL2014-35-EU, EN 61010-1:2011

EMC: RL2014-30-EU, EN 61326:2008 + A1:2009, EN61000-6-1/2/3/4:2007

Printer: Optional, 24-characters standard thermal paper (58x32mm diameter)

Unit manipulations: Keyboard, external PC or Android phone/tablet

Manipulations: Menu operated, easy to use Power supply: 100...240V, 1.3A, 50-60Hz

CE-conformity: Fulfilled

Dimensions: L x W x D: 300 x 248 x 195 mm

Weight: 5.2 kg (VG-BAT-200)

Warranty: 2 Years

Software (optional): PC-software to transfer and log stored data sets, Order No: VG-CS WIN

Special accessories: -Customer specific changes

-Current clamp (for example 20mV/A), to measure dual grounded systems

-USB stick

