Megger.

BVM
Battery Voltage Monitor

- Automates battery voltage measurement during capacity tests
- “Daisy-chain” design allows expandability up to 120 units
- High accuracy and stability for precise data collection
- Integrates with TORKEL Win and PowerDB Test Data Management software
- Wide voltage range
- Easy set-up

Description
The Megger BVM is a battery voltage measurement device that is used for the capacity testing of large, industrial battery banks commonly found in electrical power sub-stations, telecom facilities and computer data center UPS systems. When used in conjunction with a load device, such as the TORKEL unit, and test data management software, such as PowerDB and TORKEL Win, the BVM enables to perform a completely automated battery bank capacity test, according to IEC test method. The test also meet NERC/FERC requirements. The BVM is designed in modular form where one BVM device is used for each battery or “jar” in the string to be tested. One BVM for each battery connects to the next in a “daisy-chain” fashion, thereby providing easy and economical expandability to meet the testing requirements for small-to-large battery bank systems.

The included dolphin clip can be easily removed and exchanged with different styles of standard banana plug clamps and/or extension cables to accommodate any battery connection requirement.

Setup is fast and easy using the BVM. Each BVM is identical and can be connected in any battery test position, thus providing maximum flexibility and interchangeability of the BVMs. Up to 120 BVMs can be daisy-chained in a single battery bank under test. The BVM “Auto Discovery” feature enables the host device to automatically determine the number of batteries under test and provide sequential identification of each BVM in the test string.

Application
Each BVM is identical and can be connected in any battery test position. Up to 120 BVMs can be daisy-chained in a single battery bank under test.

A single cable connects the first BVM in the string to a Power & signal connector. The laptop or other data acquisition device is connected via an Ethernet cable to the Power & signal connector.

The last dolphin clip (red) in the chain should be connected to the positive battery pole of the last battery in the bank. When used together with TORKEL the voltage will be logged through the complete discharge test.
Additiona equipment
For complete information on additional products see appropriate data sheets.

TORKEL 820/840/860
Testing can be carried out without disconnecting the battery from the equipment it serves.

TORKEL Win
TORKEL Win PC software
Shows the complete voltage curve
Last recorded time, voltage, current and discharged capacity
Remote control of TORKEL

PowerDB
Windows-based PC software available in four versions
Interfaces to instruments via either Serial RS232, Ethernet, or USB flash drive (depending on instrument)
Set up test routines in advance of testing
Merge test results between field and office databases

BVM Cal Kit
Calibration system for BVM units
Battery Voltage Monitor

Specifications
Specifications are valid at an ambient temperature of +25°C, (77°F). Specifications are subject to change without notice.

Environment
Application field
The instrument is intended for use in medium-voltage substations and industrial environments.
Altitude <2000 m (6500 ft) above sea level.

Temperature
Operating 5°C to +50°C (41°F to +122°F)
Storage & transport 0°C to +60°C (32°F to +140°F)

Humidity
5% – 95% RH, non-condensing

CE-marking
LVD 2006/95/EC
EMC 2004/108/EC

General
Mains voltage 100/240 V AC, 50/60 Hz
Power consumption (max) 50 VA
Protection Over voltage, reverse voltage, voltage transients, ESD

Dimensions
BVM unit 75 x 64 x 25 mm
(3” x 2.5” x 1”)
Carrying case 575 x 470 x 205 mm
(22.6” x 18.5” x 8.1”)

Weight
BVM unit 0.07 kg (0.15 lbs)
With accessories and carrying case BVM system of 31 units 8.8 kg (19lbs)
BVM system of 61 units 12.5 kg (27lbs)

Measurement section
Maximum number of channels 120
Voltage ranges 0-5 V DC and 0-20 V DC
Resolution 1.00 mV both ranges
Inaccuracy < 0.1% of full scale ±0.01 VDC
Battery string voltage 300 V DC (max)
Measurement input impedance 1 MΩ

Ordering information

<table>
<thead>
<tr>
<th>Item</th>
<th>Art. No.</th>
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<tbody>
<tr>
<td><strong>BVM</strong></td>
<td></td>
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<tr>
<td>Including:</td>
<td></td>
</tr>
<tr>
<td>Dolphin clips, Power &amp; signal connector, Power supply, Connection cables and Carrying case</td>
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<tr>
<td><strong>BVM150</strong></td>
<td>CJ-59092</td>
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<tr>
<td>With TORKEL Win software</td>
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<tr>
<td>System of 16 BVM units</td>
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<td><strong>BVM300</strong></td>
<td>CJ-59093</td>
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<td>With TORKEL Win software</td>
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<td>System of 31 BVM units</td>
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<tr>
<td><strong>BVM600</strong></td>
<td>CJ-59096</td>
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<tr>
<td><strong>BVM</strong></td>
<td>CJ-59090</td>
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<tr>
<td>Single unit</td>
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</table>

Optional accessories

**Extension cable**
Extension lead for connecting BVM unit to battery,
0.5 m (1.6 ft)  04-30050

**BVM Cal Kit**
Calibration system for BVM units  CJ-90070

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Registered to ISO 9001 and 14001
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