

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 TOR KEL 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 TOR KEL unit, and test data management software, such as PowerDB and TOR KEL 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.

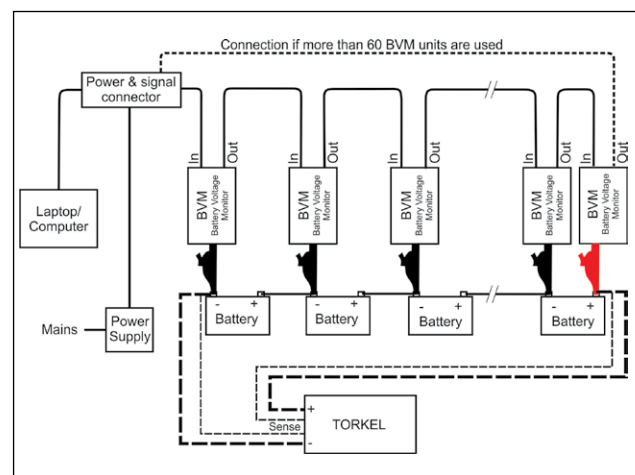
The included dolphin clip can be easily removed and exchanged with different styles of standard banana plug clamps and/or extension cables to accommodate any battery connection requirement.

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 TOR KEL the voltage will be logged through the complete discharge test.

Additional equipment

For complete information on additional products see appropriate data sheets.

TORHEL 820/840/860

Testing can be carried out without disconnecting the battery from the equipment it serves.



TORHEL Win

TORHEL Win PC software

Shows the complete voltage curve

Last recorded time, voltage, current and discharged capacity

Remote control of TORHEL

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



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 (19 lbs)
BVM system of 61 units 12.5 kg (27 lbs)

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



BVM600

Ordering information

Item	Art. No.
BVM <i>Including:</i> Dolphin clips, Power & signal connector, Power supply, Connection cables and Carrying case	
BVM150 With TORHEL Win software System of 16 BVM units	CJ-59092
BVM300 With TORHEL Win software System of 31 BVM units	CJ-59093
BVM600 With TORHEL Win software System of 61 BVM units	CJ-59096
BVM150 With PowerDB software System of 16 BVM units	CJ-59192
BVM300 With PowerDB software System of 31 BVM units	CJ-59193
BVM600 With PowerDB software System of 61 BVM units	CJ-59196
BVM Single unit	CJ-59090
Optional accessories	
Extension cable Extension lead for connecting BVM unit to battery, 0.5m (1.6 ft)	04-30050
BVM Cal Kit Calibration system for BVM units	CJ-90070