

BVM

Battery Voltage Monitor



- Automates battery voltage measurement during capacity tests
- “Daisy-chain” design allows expandability up to 2x120 units
- High accuracy and stability for precise data collection
- 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.

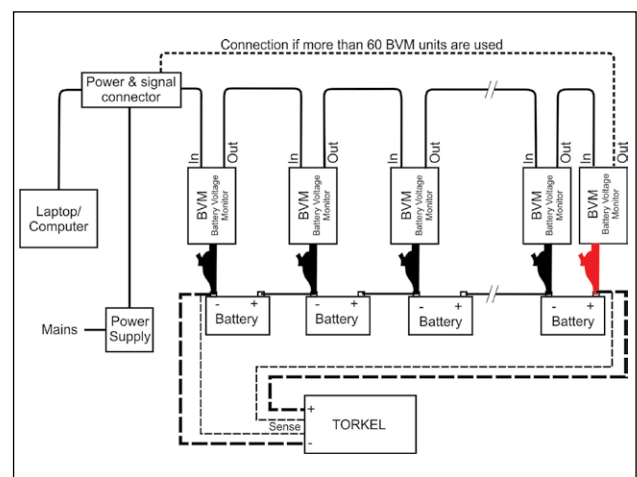
The included dolphin clip can be easily removed and exchanged with different styles of standard banana plug clamps and/or extension cables to accommodate any battery connection requirement.

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 2x120 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

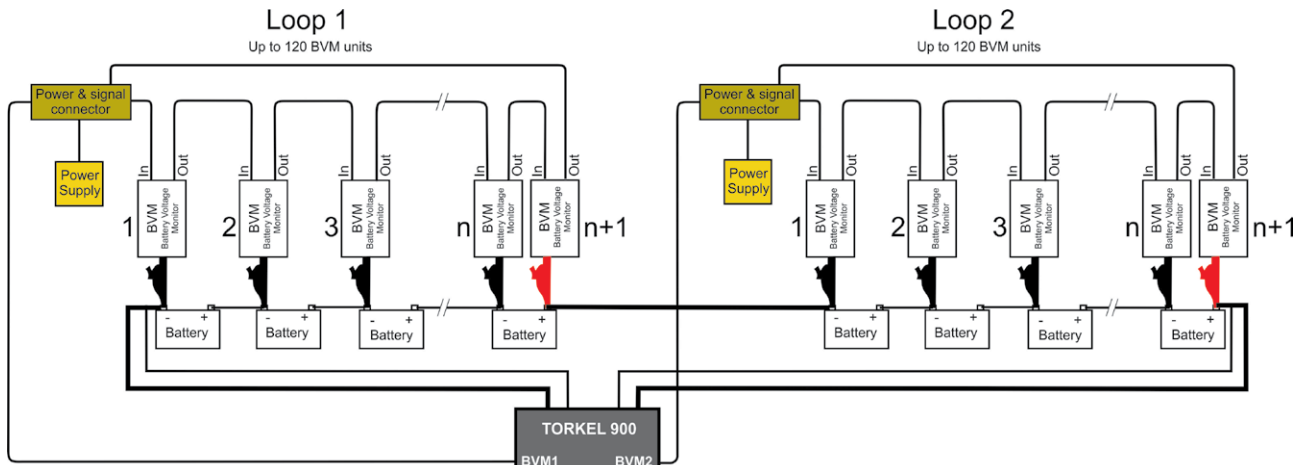
Each BVM is identical and can be connected in any battery test position. A single cable connects the first BVM in the string to a Power & signal connector. The laptop or other data acquisition device is connected via an Ethernet cable to the Power & signal connector.

Connection example with TORKEL 800



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 TORQUEL the voltage will be logged through the complete discharge test.

Connection example with TORQUEL 900



When the battery bank exceeds 120 cells, this connection with 2 BVM loops shall be used. Connect the first loop to the BVM1 connector on TORQUEL900 and the second loop to the BVM2 connector on TORQUEL900.

ADDITIONAL EQUIPMENT

For complete information on additional products see appropriate data sheets.

TORQUEL 800-series and TORQUEL 900-series

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



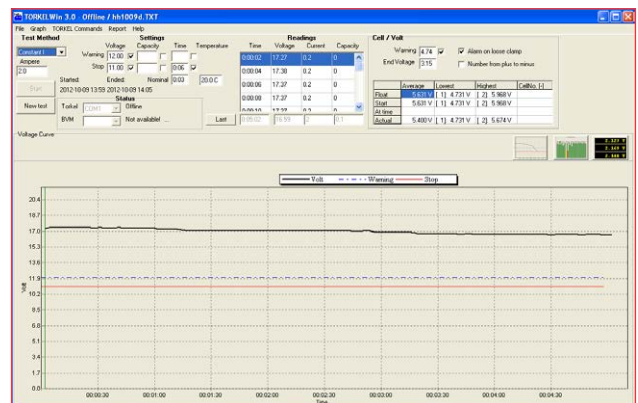
TORQUEL 800-series



TORQUEL 900-series

OPTIONAL ACCESSORIES

TORQUEL Win



PC software for use with TORQUEL 800-series. You control TORQUEL, run the test and make reports.

Extension cable



Extension lead for connecting BVM unit to battery.

BVM Cal Kit



Calibration system for BVM units.

PowerDB

PC software for BVM and TORQUEL 800/900-series. For BVM and TORQUEL 800 series it works for controlling, data management and report handling, for TORQUEL 900-series only for data management and reporting.

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 50 VA (max)

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 BVM system of 31 units 8.8 kg (19 lbs)

carrying case BVM system of 61 units 12.5 kg (27 lbs)

Measurement section

Maximum number of channels 240 (2 x 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 per loop)

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 System of 16 BVM units	CJ-59092
BVM300 System of 31 BVM units	CJ-59093
BVM600 System of 61 BVM units	CJ-59096
BVM Single unit	CJ-59090
Optional accessories	
TORKEL Win PC software for BVM and TORKEL 800-series	BS-8208X
PowerDB PC software for BVM and TORKEL 800/900-series. BVM and TORKEL 800 series: Control and report TORKEL 900-series: Only report Free to download from www.powerdb.us	
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-90090

SALES OFFICE

Megger Sweden AB
Rinkebyvägen 19
SE-182 36 DANDERYD
SWEDEN
+46 8 510 195 00
seinfo@megger.com

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