

BITE5 Battery Tester



- Supports battery discharge testing
- Measures impedance on cells up to 200 V
- Supports lead acid, NiCD and lithium-ion
- Measures DC voltages up to 1000 V
- Measures AC voltages up to 600 V
- Touch screen set-up and trending
- USB and micro SD card
- Measures AC and DC current

DESCRIPTION

The BITE5 is a battery tester that tests lead acid batteries, NiCD batteries as well as lithium-ion batteries. It will measure and record battery voltage, impedance, and temperature, and also supports discharge testing. The BITE5 will measure the voltage, current, impedance and temperature throughout the discharge cycle.

Battery impedance testing

The BITE5 will measure cell impedance, cell voltage, and temperature. The recorded data can be trended on the unit's touch screen. View the trended data of each test or trend the data of each cell. Set pass, warning, and fail limits for voltage and impedance. Record the ripple voltage, ripple current, and float current and transfer the recorded data via USB or via an SD card to the PowerDB software, then create custom reports and automated analysis.

Battery discharge testing

The BITE5 will record voltage, DC current, impedance, and temperature of each cell throughout the entire discharge test. Measure the average impedance at the end of the commissioning test and use this as a limit for future impedance tests. Trend the recorded data on the BITE5 touch screen and view the trended data of each test, or trend the discharge of each cell.

Transfer the recorded data via USB or via an SD card

to the PowerDB software to create custom reports.

Solar systems

Measure and record combiner DC voltages. Measure the input and output of inverters. Test the lithium-ion batteries.

FEATURES

- Tests lead acid (VLA and VRLA), NiCD, and lithium-ion
 - Measures cell impedance
 - Cell voltage
 - Cell temperature
 - Cell voltage ripple
 - AC current (ripple)
 - DC current (float)
- Supports discharge testing
 - Measures cell voltages throughout discharge
 - Measure cell temperature throughout discharge
 - Measure cell impedance throughout discharge
 - Measure DC current throughout discharge
- Measure string voltages up to 1000 V DC
- Measure solar combiner boxes up to 1000 V DC
- Measure DC side of inverters up to 1000 V DC
- Measure AC side of inverter up to 600 V AC
- Wirelessly transfer data to PowerDB

BITE5 Battery Tester

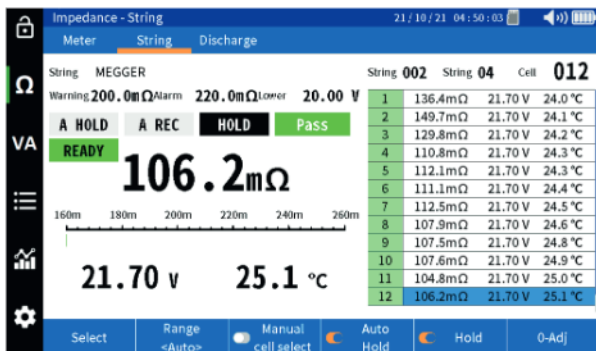
APPLICATIONS

- Battery impedance testing
- Battery discharge testing
- Solar combiner box measurements up to 1000 V DC
- Lithium-ion battery testing up to 200 V DC

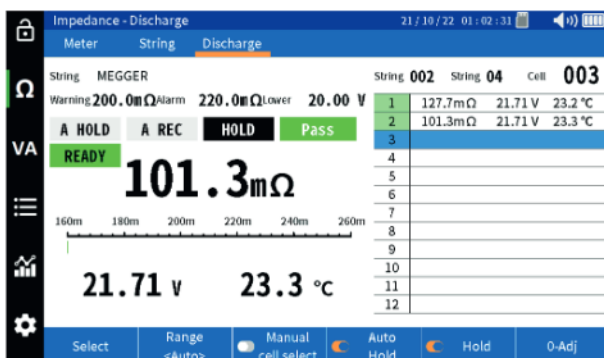
Feature details

- Create string configurations:

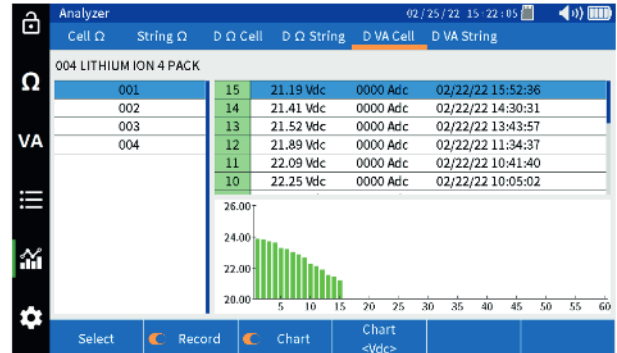
- Impedance testing: measure cell impedance, voltage, and temperature



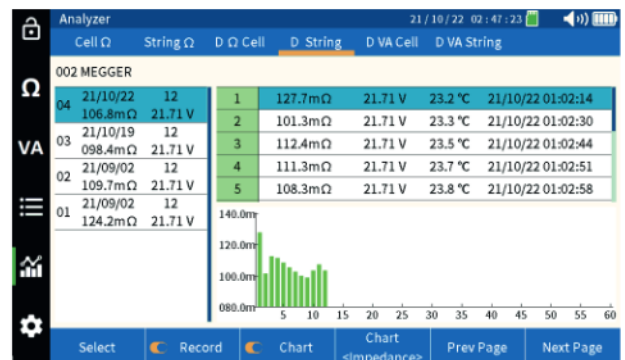
- Discharge testing: measure cell impedance, voltage, and temperature



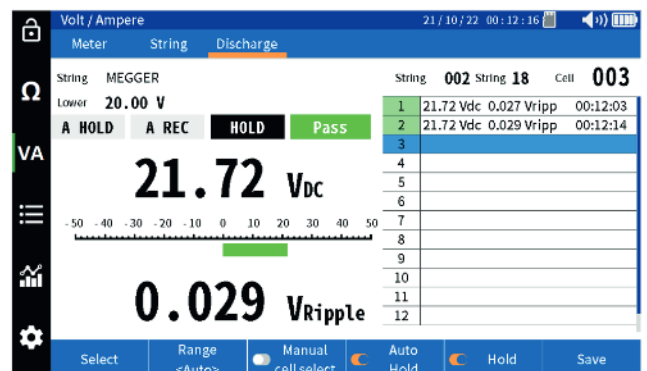
- View individual cell data:



- View string data:



- Measure currents (DC/AC) and ripple:



- Measure voltages up to 1000 V DC and 600 V AC:



BITE5 Battery Tester

SPECIFICATIONS

Input power

AC/Adapter

Input 100 – 240 V AC (50/60 Hz)

Output 12 V DC at 2.5 A

Battery

Li-ion rechargeable pack > 5.2Ah

Voltage rating 7.2 V

Charge time 4 hrs

Battery life > 8 hrs
300 charge/discharge cycles

Internal impedance

Range	Resolution	Accuracy
3 mΩ	1 μΩ	+/- 1 % of reading +/- 10 digits
30 mΩ	10 μΩ	
300 mΩ	100 μΩ	
3 Ω	1 mΩ	+/- 0.8 % of reading +/- 10 digits
30 Ω	10 mΩ	
300 Ω	100 mΩ	

Voltage DC/AC

Range	Resolution	Accuracy
5 V DC	0.001 V	+/- 0.5 % of reading +/- 5 digits
50 V DC	0.01 V	
500 V DC	0.1 V	
1000 V DC	1 V	
5 V AC	0.001 V	+/- 0.75 % of reading +/- 5 digits (40 Hz – 100 Hz)
50 V AC	0.01 V	
500 V AC	0.1 V	
600 V AC	1 V	

Curent DC/AC

Range	Resolution	Accuracy
4 A DC	0.001 A	+/- 0.5 % of reading +/- 5 digits + (CT Tolerance)
40 A DC	0.01 A	
400 A DC	0.1 A	
1000 A DC	1 A	+/- 0.75 % of reading +/- 10 digits + (CT Tolerance)
4 A AC	0.001 A	
40 A AC	0.01 A	
400 A AC	0.1 A	
1000 A AC	1 A	

Temperature

Range	Resolution	Accuracy
10 °C ~ 100 °C	0.1 °C	+/-1 °C +/- 2 digits

Ripple voltage

Range	Resolution	Accuracy
0–5 V	0.001 V	+/- 0.5 % of reading +/- 10 digits (40 Hz – 10 KHz)

Test Current 1 KHz @ 100 mA

Repeatability 0.1 %, 2 σ

Record Capacity

Memory 8 GB up to 16 GB flash storage
Impedance record: Max 1000 records
VA record: Max 512 records

Environmental

Operating 0 ~50 °C (32~122 °F)

Storage -20 ~50 °C (-4~122 °F)

Charging temperature: 10 ~40 °C (50~104 °F)

Relative humidity 10 ~ 85 % NC non-condensing

Altitude Operational 0 ~ 2000 m

Ingress protection IP54

Display (transmitter and receiver)

160 x 90 mm touch screen

Safety/EMC/Vibration/Compliance

Meets the requirements of IEC61010-1, CE, UKCA

CAT Rating: 600 V CAT III, Pollution Degree 2

Shock and vibration EN61010-1
EN60529

IEC61010-1:2010 (3rd Ed)

EN61010-1:2010 (3rd Ed)

IEN61326-1:2013

EN55011/A1:2010 (Class A)

EN61000-3-2:2014

EN61000-3-3:2013

Weight/Dimensions

Dimensions 240 x 160 x 65 mm
(9.45" x 6.30" x 2.56")

Weight 0.9 kg (1.98 lbs)

BITE5 Battery Tester

OPTIONAL ACCESSORIES		
	Concentric Probe – The concentric probe allows for battery testing on batteries with safety caps or safety lugs. Users can easily access the terminals through the access hole. The concentric probe comes in two styles. One probe comes with a 11.75 mm (1/2") tip the other has a 25.4 mm (1") tip. This allows access to terminals even on batteries with the deepest safety lugs.	90037-560 (11.75mm tip for Model A BITE5) 90043-242 (11.75mm tip for Model B BITE5)
		90037-565 (25.4mm tip for Model A BITE5) 90043-243 (25.4mm tip for Model B BITE5)
	0 to 100 A AC CT. Used for measuring and recording AC ripple current. Jaw opening 0.96" ID (24.5mm)	MCV-100B5 (For Model A BITE5) MCV-100B5B (For Model B BITE5)
	1 to 1000 A AC/DC CT. Used for measuring and recording DC float current and discharge current. Jaw opening 2 inches (52.0 mm)	MCCV-1KDC-B5 (For Model A BITE5) MCCV-1KDC-B5B (For Model B BITE5)
	BITE5 extension kit for probes. Allow operator to take measurements while being able to stand safely back from the voltages being measured. Available with straight and 90 degree probes.	See ordering information for options
	3 meter right angle probe. For use with BITE5 extension kit.	90041-193 (For use with BITE5 Model A) 90043-244 (For use with BITE5 Model B)

BITE5 Battery Tester

	3 meter straight probe. For use with BITE5 extension probes.	90041-194 (For use with BITE5 Model A) 90043-245 (For use with BITE5 Model B)
	3 meter clip on probes. Ideal for taking measurements across entire strings.	90042-655 (For use with BITE5 Model A) 90043-246 (For use with BITE5 Model B)

ORDERING INFORMATION

Description	Part number	Description	Part number
BITE5	BITE5	Optional accessories (For Model A BITE5)	
Included accessories		Concentric probes (1/2" tip)	90037-560
Duplex probes (with temperature probe)	90043-241	Concentric probes (1" tip)	90037-565
Voltage test leads	90037-576	100 A AC current clamp	MCV-100B5
Charger	90039-077	1000 A AC/DC current clamp	MCCV-1KDC-B5
Neck strap	90037-529	3 meter right angle probe	90041-193
Zero bar	90037-575	3 meter straight probe	90041-194
16 GB microSD card	90037-572	3 meter clip on probe	90042-655
microSD card USB reader	90037-571	Extension kit with straight probe	1016-069
USB cable	90037-569	Extension kit with 90 degree probe	1016-068
Stylus	90037-570	Extension kit with straight and 90 degree probes	1016-070
Carry bag	90037-573	Optional accessories (For Model B BITE5)	
Pouch bag	90037-574	Concentric probe (1/2" tip)	90043-242
		Concentric probe (1" tip)	90043-243
		100 A AC current clamp	MCV-100B5B
		1000 A AC/DC current clamp	MCCV-1KDC-B5B
		3 meter right angle probe	90043-244
		3 meter straight probe	90043-245
		3 meter clip on probe	90043-246
		Extension kit with straight probe	1016-066
		Extension kit with 90 degree probe	1016-064
		Extension kit with straight and 90 degree probes	1016-067

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