# **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 will test lead acid batteries, NiCD batteries as well as lithium-ion batteries. The BITE5 will measure and record battery voltage, impedance, and temperature. The BITE5 also supports discharge testing. It will measure the voltage and current throughout the discharge cycle. The BITE5 can also measure the 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, then create custom reports.

#### Solsar systems

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

#### **FEATURES AND BENEFITS**

- 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**

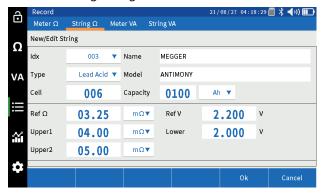
# **Battery Tester**

#### **APPLICATIONS**

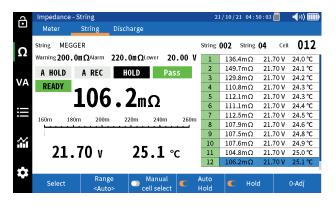
- Battery impedance testing
- Battery discharge testing
- Solar combiner box measurements up to 1000 V DC
- Lithium-ion battery testing up to 200 V DC

#### **FEATURE DETAILS**

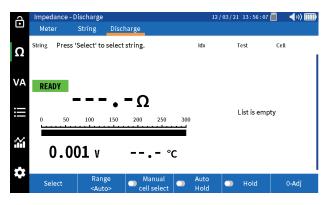
Create string configurations:



 Impedance testing: measure cell impedance, voltage, and temperature



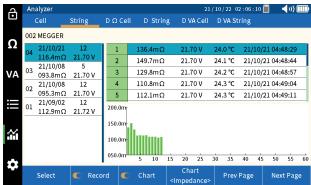
 Discharge testing: measure cell impedance, voltage, and temperature



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 > 5.4 Ah
Voltage rating 7.4 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	+/- 0.8 % of reading +/- 10
300 mΩ	100 μΩ	digits
3 Ω	1 mΩ	
30 Ω	10 mΩ	
300 Ω	100 mΩ	

### Voltage DC/AC

Range	Resolution	Accuracy
5 V DC	0.001 V	+/- 0.5 % of reading
50 V DC	0.01 V	+/- 5 digits
500 V DC	0.1 V	
1000 V DC	1 V	
5 V AC	0.001 V	+/- 0.75 % of
50 V AC	0.01 V	reading +/- 10 digits
500 V AC	0.1V	(40 Hz – 100 Hz)
600 V AC	1 V	

#### **Current DC/AC**

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

**Repeatability** 0.1 %, 2  $\sigma$ 

**Record Capacity** 

Memory 8 G up to 16 G flash storage

Impedance record: Max 1000

records

VA record: Max 512 records

### **Environmental**

Operating  $0 \sim 50 \text{ °C } (32 \sim 122 \text{ °F})$ Storage  $-20 \sim 50 \text{ °C } (-4 \sim 122 \text{ °F})$ Charging temperature:  $10 \sim 40 \text{ °C } (50 \sim 104 \text{ °F})$ 

Relative humidity  $10 \sim 85 \%$  NC non-condensing Altitude Operational  $0 \sim 2000 \text{ m}$  (non-operational

 $0 \sim 10\ 000\ m$ 

**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

IV at 600

CAT Rating: 500 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**

## **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/(11.75 mm tip)

90037-565/(25.4 mm tip)

	ORDERING
Item (Qty)	Cat. No.
CATALOG NUMBER	
BITE5	BITE5
Duplex probes (With temperature probe)	90037-555
Voltage test teads	90037-576
Charger	90039-077
Neck strap	90037-529
Zero bar	90037-575
16G Micro SD Card	90037-572

Cat. No.	
90037-571	
90037-569	
90037-570	
90037-573	
90037-574	
90037-560	
90037-565	

**INFORMATION**