

# WBCS3000M1 Series

## Max 100Watt Power Battery Test System



WBCS3000M1

- *For mid power applications*
- *Test of battery cells up to 100Watt*
- *4 current ranges*
- *Potentiostat/Galvanostat circuit*
- *High accuracy*
- *Max 128 channels configuration*
- *Plugin channels for easy maintenance*
- *LAN communication*

### Battery Charge/Discharge Test System for max 100Watt power application

The battery test system, **WBCS3000M1**, is designed for energy storage devices such as batteries, fuel cells, and supercapacitors. The **WBCS3000M1** is derived from the standard WBCS series battery cyclers system for mid power application and maximum power of each channel is 100Watt .

The system can be configured with custom specification not exceeding its maximum power. For example, **WBCS3000M1** can test the batteries at  $\pm 10A$  up to 5V. The **WBCS3000M1** offer high output/measure accuracy with 4 customizable current ranges.

Up to 8 independent channels can be installed per substation and extra channels can be added up to a maximum of 128 channels.

The **WBCS3000M1** do not only support various techniques for battery studies, but also carries out electrochemical techniques such as corrosion test techniques, electro-analytical techniques, cyclic voltammetry, chronoamperometry, and potentiometry, etc. and this feature allows user to perform general Echem experiments.

The Smart Interface(SI) software is a convenient and powerful tool allowing:

- easily making schedule files by using schedule editor
- selecting pre-defined techniques
- classifying/grouping channels by user's purpose
- monitoring detailed test data
- providing general/cycle graph format
- converting the data to ASCII or excel format

## ● Features

- Suitable for energy storage device and mid power applications
- The system provides a maximum output power of 100Watt for WBCS3000M1
- Potentiostat/Galvanostat circuit : no time delay between the charge and discharge cycles
- Supports techniques for battery studies such as CC/CV test, CC/CC test, CV test, as well GITT/PITT test for calculation of diffusion coefficient.
- The various safety functions are provided to protect the cell and system from being damaged.
- The obtained data can be analyzed by IVMAN™ software without license code for further analysis.

## ● For Energy Test

- Charge/Discharge(CC/CV) Test
- Constant Current Charge/Discharge(CC/CC) Test
- IV Curve Test
- Electrochemical Voltage Spectroscopy(EVS) Test
- Galvanostatic Intermittent Titration Technique(GITT) Test
- Potentiostatic Intermittent Titration Technique(PITT) Test
- Cyclic Voltammetry
- Potentiostatic Experiment With Half Cell

## ● Options

- Temperature Measurement
- Auxiliary Voltage Measurement
- Battery Jig

## ● Specifications

Control voltage range	±5V(standard)*
Control current range	4 ranges
LED	Run: 1ea, Mode: 2ea
Input impedance	10 <sup>12</sup> Ohm
Cell connection	4 probe type, alligator clip cables
Max. channel No.	128
Voltage accuracy	±0.02% f.s.
Current accuracy	±0.05% f.s.
<b>Voltage Control/Measurement</b>	
Full scale ranges	±5V(standard)*
Resolution(16 bits)	0.15mV(standard)*
<b>Current Control/Measurement</b>	
Full scale ranges	Max. 100Watt
Resolution	16 bit(0.0015% f.s)
Communication	TCP/IP
Sampling time	Without option - 1~32 channels system: 10msec - 33~40 channels system: 20msec - 41~64 channels system: 50msec - 65~128 channels system: 50msec With option (Aux V and/or Temperature) - 1~16 channels system: 10msec - 17~40 channels system: 20msec - 41~64 channels system: 50msec - 65~128 channels system: 50msec
Size	W447.1xD498.7xH287 mm

All specifications are subject to change without notice.



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