

# WBCS3000S

## Battery Test System



- *For <50Watt power applications*
- *4 current ranges*
- *Optional Temperature/Aux V measurement*
- *Potentiostat/Galvanostat circuit*
- *High accuracy*
- *Max 128 channels configuration*
- *Plugin channels for easy maintenance*
- *LAN communication*

### Battery Charge/Discharge Test System for <50Watt power application

The battery test system, **WBCS3000S**, is designed for general practices when researching materials to optimize battery performance.

The **WBCS3000S** can be configured with custom specification not exceeding its maximum power 50Watt. The accuracy for current and voltage on these channels is  $\pm 0.02\%$  FSR. Up to 8 independent channels can be installed per substation and extra channels can be added up to a maximum of 128 channels.

The **WBCS3000S** does 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

The **WBCS3000S** can communicate with the computer by the way of a Local Area Network(LAN).

● **Features**

- 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**

- Battery Jig
- Coin Cell Holder
- Test Cell
- Dilatometer

● **Specifications**

Control voltage range	±5V(standard)*
Control current range	1A, 100mA, 10mA, 1mA (4 ranges)
LED	Run: 1ea, Mode: 2ea
Input impedance	10 <sup>12</sup> Ohm
Cell connection	4 probe type, alligator clip cables
Channel expansion up to	128
Rise time	<50usec
Voltage accuracy	±0.02% f.s.
Current accuracy	±0.02% f.s.
<b>Voltage Control/Measurement</b>	
Full scale ranges	±5V(standard)*
Resolution(16 bits)	0.15mV
<b>Current Control/Measurement</b>	
Full scale ranges	Depending on system configuration Max. 50W
Resolution	16 bit(0.0015% f.s)
Communication	TCP/IP
Sampling time	Without option - 8~40 channels system: 10msec - 41~80 channels system: 20msec - 81~128 channels system: 50msec With Option - 8~16 channels system: 10msec - 17~40 channels system: 20msec - 41~80 channels system: 50msec - 81~128 channels system: 50msec (2 SIF boards)

\* : User can specify the voltage range within <80V for difference between high and low voltage.  
All specifications are subject to change without notice.



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