

WBCS30005 Battery Test System



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



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 ¹² Ohm	
Cell connection	4 probe type, alligator clip cables	
Channel expension up to	128	
Rise time	<50usec	
Voltage accuracy	±0.02% f.s.	
Current accuracy	±0.02% f.s.	
Voltage Control/Measurement		
Full scale ranges	±5V(standard)*	
Resolution(16 bits)	0.15mV	
Current Control/Measurement		
Full scale ranges	Depending on system configuration Max. 50W	
Resolution	16 bit(0.0015% f.s)	
Communication	TCP/IP	
Sampling time	 8~24 channel system 10msec 25~40 channel system 20msec standard, 10msec as an optior 41~128 channel system 50msec standard, 10msec as an optior 	

 \ast : 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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