

WBCS3000H12 series

Power Battery Test System channels



- **For high power applications**
- **Test of battery cells up to 1200Watt**
- **3 current ranges**
- **Potentiostat/Galvanostat circuit**
- **High accuracy**
- **Max 128 channels configuration**
- **Channel module type for easy maintenance**
- **LAN communication**

Battery Charge/Discharge Test System for high power application

The power channel, **WBCS3000H12 series**, for battery test system are designed for energy storage devices such as batteries, fuel cells, and supercapacitors. The **WBCS3000H12 series** are derived from the standard WBCS series battery cycler system and it provides continuous operation in high power applications where precise control of current and voltage is required.

The **WBCS3000H12 series** can be configured with custom specification not exceeding its maximum power (1.2kWatt), voltage limitation(<80V : max voltage difference between the highest voltage and the lowest voltage).

Typical models for WBCS3000H12 are

- -1V to 5V @ 100Amp WBCS3000H12_5100U
- -1V to 10V @ 80Amp WBCS3000H12_1080U
- -1V to 30V @30Amp WBCS3000H12_3030U
- -1V to 60V @15Amp WBCS3000H12_6012U

Each channel has its own power supply and emergency button to cell off for emergency. Optional accessories for this system is auxiliary voltage measurement and temperature measurement

Extra channels can be added up to a maximum of 128 channels. Including watchdog functions, the **WBCS3000H12 series** has multiple safety features to protect the system under test and operator.

The **WBCS3000H12 series power channel** requires independent 8channel controller. This 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.

Independent 8channel controller uses Smart Interface(SI) software which 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 high power applications.
- 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
- The various safety functions are provided to protect the cell and system from being damaged.
- Emergency button per channel.
- 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

● Specifications

| | |
|------------------------------------|---|
| Control voltage range | User specification* |
| Control current range | 3 range |
| Max Power per channel | 1200Watt |
| LED | Run: 1ea, Mode: 2ea, Irange: 3ea |
| Input impedance | 10 ¹² Ohm for V<10V |
| Cell connection | 4 probe type, alligator clip cables |
| Channel expansion up to | 128 |
| Voltage accuracy | ±0.05% f.s. |
| Current accuracy | ±0.1% f.s. |
| Voltage Control/Measurement | |
| Full scale ranges | User specification* |
| Resolution(16 bits) | 0.0015% f.s |
| Current Control/Measurement | |
| Full scale ranges | Depending on system specification |
| Resolution | 16 bit(0.0015% f.s) |
| Communication | TCP/IP |
| Sampling time | - 8~16 channel system : 20msec - 17~32 channel system : 25msec - 33~128 channel system : 50msec |

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



WonATech Co., Ltd.
7 Neunganmal 1-gil, Seocho-gu,
Seoul, 06801, Korea
Tel: +82-2-578-6516 Fax: +82-2-576-2635
e-mail: sales@wonatech.com
website: www.wonatech.com

Local Distributor