WPG100S Series

General Potentiostat/Galvanostat

- *For Mid power applications*
- *Max 400Watt*
- *6 current ranges*
- *Temperature input, Aux voltage input*
- *4 Kelvin probe type P'stat/G'stat circuit*
- *High accuracy*
- *Sampling time of 1msec*
- *LAN communication*

Mid Power Potentiostat/Galvanostat channel for power application

The mid power potentiotiostat/galvanostat, WPG100S, is designed for Mid power purpose electrochemical experiments and its versatile features allow users to perform a wide range of electrochemical research and development. The WPG100S series power limit is 400Watt.

The WPG100S series can be configured with custom specification not exceeding its maximum power (400Watt). Please refer to power configuration map.

Typical models for WPG100S are
- ±10V @ 16Amp WPG100S_1016BC10
- ±20V @ 8Amp WPG100S_208BC21

Auxiliary voltage input and temperature input are included. (Temperature sensor and AuxV cable is optional)
The WPG100S series can support various application such as corrosion, physical electrochemistry, electrosynthesis, electrolysis, electroplating and experiments on energy devices.

The Smart Interface(SI) software for WPG potentiostat/galvanostat 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 WPG100 series can communicate with the computer by the way of a Local Area Network(LAN).

Features

- 6 current ranges for improved accuracy over a wide range of testing conditions.
- High resolution 16 bit DAC/ADC for system control and data acquisition.
- 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.
- High sampling rate.
- The various safety functions are provided to protect the cell and system from being damaged.
- Max 90Volt in unipolar and ± 45V in biplar.

For Electroanalytical Measurement

- Cyclic voltammetry
- Linear sweep voltammetry
- Chrono-amperometry
- Chrono-coulometry
- Chrono-potentiometry

Corrosion Measurement

- Tafel plot
- Potentiodynamic
- Potentiostatic
- Galvanostatic
- Cyclic polarization
- Ecorr vs. time
- Linear polarization resistance

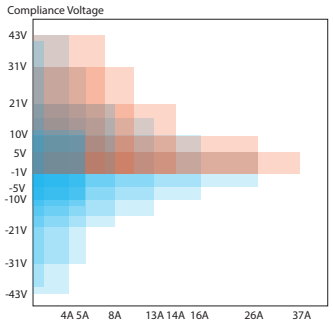
For Energy Test

- Charge/Discharge(CC/CV) Test
- Constant Current Charge/Discharge(CC/CC) Test
- Steady state CV
- Pstat IV curve
- Gstat IV curve
- Electrochemical Voltage Spectroscopy(EVS) Test
- Galvanostatic Intermittent Titration Technique(GITT) Test
- Potentiostatic Intermittent Titration Technique(PITT) Test

Specifications

Control voltage range	Refer to Power configuration map
Compliance voltage	Refer to Power configuration map
Control current range	6 ranges
LED	Run: 1ea, Mode: 2ea, Irange:6 ea
Input impedance	10^{12} Ohm
Cell connection	4 probe type, alligator clip cables
Voltage accuracy	±0.05% f.s. (<10V)
Current accuracy	±0.05% f.s.
Voltage Control/Measurement	
Full scale ranges	Refer to Power configuration map
Resolution(16 bits)	0.0015% f.s
Current Control/Measurement	

Full scale ranges



Power Configuration Map

Max. f.s under 400Watt

Bipolar voltage range
1) Max 26A @ ±5V (C5V*)
2) Max 5A @ ±5V (C10V*)
3) Max 5A @ ±10V (C12V*)
4) Max 16A @ ±10V (C10V*)
5) Max 13A @ ±10V (C15V*)
6) Max 8A @ ±20V (C21V*)
7) Max 5A @ ±30V (C31V*)
8) Max 1A @ ±40V (C43V*)
9) Max 4A @ ±40V (C43V*)

* Compliance voltage

Unipolar voltage range
1) Max 37A @ -1V to 5V
2) Max 26A @ -1V to 10V
3) Max 14A @ -1V to 21V
4) Max 10A @ -1V to 31V
5) Max 7A @ -1V to 43V

Resolution	16 bit(0.0015% f.s)
Communication	TCP/IP
Sampling time	1msec

All specifications are subject to change without notice.

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