

WPG100H12 Series

Power Potentiostat Galvanostat



- *For power applications*
- *Max 1200Watt*
- *3 current ranges*
- *Applied voltage range of Max $<\pm 40V$*
- *4 Kelvin probe type P'stat/G'stat circuit*
- *High accuracy*
- *Sampling time of 500usec*
- *LAN communication*

Power Potentiostat/Galvanostat for high power application

The power potentiostat/galvanostat **WPG100H12** is designed for high power purpose electrochemical experiments and its versatile features allow users to perform a wide range of electrochemical research and development. The **WPG100H12** power limit is 1200Watt.

The **WPG100H12 series** can be configured with custom specification not exceeding its maximum power (1.2kWatt), voltage limitation($<+/-40V$).

Typical models for WPG100H12 are

- -10V to 10V @ 50Amp WPG100H12_1050B
- -20V to 20V @25Amp WPG100H12_2025B
- -40V to 40V @13Amp WPG100H12_4013B

There is an emergency button to cell off for emergency.

Optional accessories for this system is auxiliary voltage measurement and temperature measurement. The **WPG100H12 series** can support power application such as 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 **WPG100H12 series** can communicate with the computer by the way of a Local Area Network(LAN).

● Features

- 3 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.
- The obtained data can be analyzed by IVMAN™ software without license code for further analysis.

● 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 | Max $\pm 40V$ |
| Compliance voltage | Depending on control voltage |
| Control current range | 3 ranges |
| LED | Run: 1ea, Mode: 2ea, Irange:3 ea |
| Input impedance | 10^{12} Ohm |
| Cell connection | 4 probe type, alligator clip cables |
| No. of channels | 1 per module |
| Voltage accuracy | $\pm 0.05\%$ f.s. |
| Current accuracy | $\pm 0.1\%$ f.s. |
| Voltage Control/Measurement | |
| Full scale ranges | Max $\pm 40V$ |
| Resolution(16 bits) | 0.0015% f.s |
| Current Control/Measurement | |
| Full scale ranges | Max. f.s under 1200Watt |
| Resolution | 16 bit(0.0015% f.s) |
| Communication | TCP/IP |
| Sampling time | 500usec |

All specifications are subject to change without notice.



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