

WPG100H Series

Power Potentiostat/Galvanostat



WPG100H8



WPG100H12

- For power applications
- 800Watt(H8) or 1200Watt(H12)
- 6(H8) or 4(H12) current ranges
- Temperature input/Aux V input
- 4 Kelvin probe type P'stat/G'stat circuit
- High accuracy
- Sampling time of 1msec
- LAN communication

Power Potentiostat/Galvanostat for high power application

The power potentiostat/galvanostat **WPG100H8** or **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 **WPG100H series** power limit is 800Watt(H8) or 1200Watt(H12).

The **WPG100H series** can be configured with custom specification not exceeding its maximum power (800Watt:H8 or 1.2kWatt:H12). Please refer to power configuration map.

Typical models for WPG100H8 are

- $\pm 10V$ @ 32Amp WPG100H8_1032BC10
- $\pm 20V$ @ 16Amp WPG100H8_2016BC21
- $\pm 40V$ @ 8Amp WPG100H8_408BC43

Typical models for WPG100H12 are

- $\pm 10V$ @ 50Amp WPG100H12_1050BC10
- $\pm 20V$ @ 25Amp WPG100H12_2025BC21
- $\pm 40V$ @ 12Amp WPG100H12_4012BC43

There is an emergency button to cell off for emergency.

Auxiliary voltage input and temperature input are included (Temperature sensor and AuxV cable are not included)

The **WPG100H 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 **WPG100 series** can communicate with the computer by the way of a Local Area Network(LAN).

WPG100H series for Power electrochemical experiments

● Features

- 6(H8) or 4(H12) 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 90V in unipolar and $\pm 45V$ in bipolar.

● 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

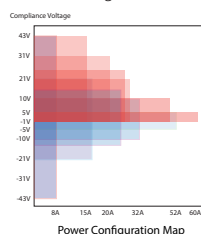
Control voltage range	Depending on control voltage
Control current range	6(H8) 4(H12) ranges
LED	Run: 1ea, Mode: 2ea, Inrange:6(4)ea
Input impedance	10^{12} Ohm
Cell connection	4 probe type, alligator clip cables
No. of channels	1 per module
Voltage accuracy	$\pm 0.05\%$ f.s.($<10V$)
Current accuracy	$\pm 0.1\%$ f.s.

Voltage Control/Measurement

Full scale ranges	Depending on control voltage
Resolution(16 bits)	0.0015% f.s

Current Control/Measurement

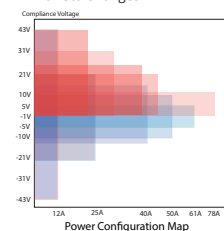
Full scale ranges



Max. f.s under 800Watt (H8)

- Bipolar voltage range
- 1) Max 52A @ $\pm 5V$ (C5V*)
 - 2) Max 32A @ $\pm 10V$ (C10V*)
 - 3) Max 25A @ $\pm 10V$ (C12V*)
 - 4) Max 16A @ $\pm 20V$ (C21V*)
 - 5) Max 8A @ $\pm 40V$ (C43V*)
- * Compliance Voltage
- Unipolar voltage range
- 1) Max 60A @ -1V to 5V
 - 2) Max 50A @ -1V to 10V
 - 3) Max 29A @ -1V to 21V
 - 4) Max 26A @ -1V to 24V
 - 5) Max 20A @ -1V to 31V
 - 6) Max 15A @ -1V to 43V

Full scale ranges



Max. f.s under 1200Watt (H12)

- Bipolar voltage range
- 1) Max 61A @ $\pm 5V$ (C5V*)
 - 2) Max 50A @ $\pm 10V$ (C10V*)
 - 3) Max 40A @ $\pm 10V$ (C12V*)
 - 4) Max 25A @ $\pm 20V$ (C21V*)
 - 5) Max 12A @ $\pm 40V$ (C43V*)
- * Compliance voltage
- Unipolar voltage range
- 1) Max 78A @ -1V to 10V
 - 2) Max 43A @ -1V to 21V
 - 3) Max 39A @ -1V to 24V
 - 4) Max 30A @ -1V to 31V
 - 5) Max 23A @ -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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