

WMPG1000H Series

Power Multichannel Potentiostat/Galvanostat channel



WMPG1000H8



WMPG1000H12

- *For power applications*
- *800Watt(H8) or 1200Watt(H12)*
- *3 current ranges*
- *Applied voltage range of Max $<\pm 40V$*
- *4 Kelvin probe type P'stat/G'stat circuit*
- *High accuracy*
- *Max 128 channels configuration*
- *Independent power supply per each channel*
- *LAN communication*

Power Potentiostat/Galvanostat channel for high power multichannel application

The power potentiostat/galvanostat channel, **WMPG1000H8** or **WMPG1000H12**, 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 **WMPG1000H series** requires external 8channel controller and the channel power limit is 800Watt(H8) or 1200Watt(H12).

The **WMPG1000H series** can be configured with custom specification not exceeding its maximum power (800Watt:H8 or 1.2kWatt:H12), voltage limitation($<+/-40V$).

Typical models for WMPG1000H8 are

- -10V to 10V @ 50Amp WMPG1000H8_1030B
- -20V to 20V @20Amp WMPG1000H8_2015B
- -40V to 40V @10Amp WMPG1000H8_408B

Typical models for WMPG1000H12 are

- -10V to 10V @ 50Amp WMPG1000H12_1050B
- -20V to 20V @25Amp WMPG1000H12_2025B
- -40V to 40V @13Amp WMPG1000H12_4013B

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. The **WMPG1000H series channel** can support power application such as electrosynthesis, electrolysis, electroplating and experiments on energy devices.

The Smart Interface(SI) software for WMPG multichannel 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 **WMPG1000 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 Max 128ch configuration
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 800Watt or 1200Watt
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 option - 41~128 channel system : 50msec standard, 10msec as an option

All specifications are subject to change without notice.



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