

## PSU-Series



**NEW**

GW Instek PSU-HV series has five models, including PSU 100-15, PSU 150-10, PSU 300-5, PSU 400-3.8, and PSU 600-2.6. The launch of PSU-HV is to complete the existing PSU-series so as to satisfy high voltage application demands, allowing the augmented PSU-series to cover a voltage range from 6V to 600V. PSU-HV inherits the functional design and maintains the high power density characteristic and 1U height appearance of the PSU-LV series (PSU 6-200, PSU 12.5-120, PSU 20-76, PSU 40-38 and PSU 60-25). Furthermore, the original maximum output voltage of 60V is expanded to the maximum voltage of 600V and the maximum power of 1560 watts. The launch of the PSU-HV series augments the existing PSU-series to fully satisfy the extensive voltage demands of 1U power supply market and provides system integrators with more flexibilities and selections to conduct system integration. The introduction of the PSU-HV series has perfected the PSU product line, which satisfies the application requirements ranging from low voltage and large current to high voltage.

Utilizing same model units of the PSU-series to conduct series and parallel connections can increase total output power, total current or total voltage. The wide voltage and current output ranges of the PSU-series can fully satisfy various voltage and current measurement requirements. The PSU-series is a single power output DC programmable power supply, which outputs 1200W to 1560W. The PSU-series provides maximum 2 units in series connection (models under 300V) to achieve maximum 600V or 4 units in parallel connection to obtain maximum 800A and the maximum output power of 6.24 kilowatts.

The PSU-series allows settings for CC priority or CV priority. Under CC or CV mode, users can adjust slew rate for output voltage or current based upon test requirements. There are two kinds of slew rate settings: high speed priority and slew rate priority. High speed priority sets slew rate at the maximum speed to reach CC or CV mode. Slew rate priority allows users to set slew rate for CC or CV mode in order to control rise or fall slew rate. Slew rate priority mode is ideal for motor tests by adjusting the rise time of output voltage to protect DUT from being damaged by inrush current occurred at turn-on.

Comparing with other 1U power supplies available in the market, PSU supports a most complete array of interfaces, including USB, LAN, RS-232, RS-485, analog control interface, GPIB (option), isolated analog interface (voltage control), and isolated analog interface (current control). Via the multi-drop mode, PSU will not need any switch/hub and GPIB cable for remote control and slave unit augmentation when using LAN, USB or GPIB. This feature can help users save costs on augmentation equipment for connecting slave while using LAN or USB.

The new PSU-HV series is ideal for the primary input of DC/DC converter and servomotor production application. PSU is often integrated into component test systems such as aging test equipment for capacitors; 600V DC bias applications; aging test equipment for diode; semiconductor production equipment; automotive electronics; and ECU for V8 engine or V12 engine, etc.

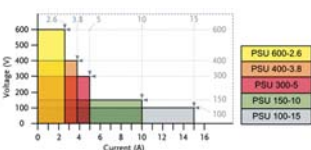
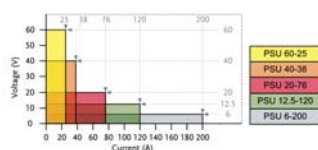
The PSU-series provides users with flexible settings of High/Low Level or Trigger input /Trigger output signals with pulse width of 1 ~ 60ms. Trigger input controls PSU to output or upload preset voltage, current and memory parameters. While outputting or uploading preset voltage, current and memory parameters PSU can produce corresponding Trigger output signals.

### FEATURES

- Voltage Output : 6V/12.5V/20V/40V/60V/100V/150V/300V/400V/600V
- Power Output : 1200W ~ 1560W
- C.V/C.C Priority Mode
- Adjustable Voltage/Current Rise and Fall Time
- Series/Parallel Connection : Max. 2 units (Models Under 300V)/4 units of The Same Model
- High Efficiency and High Power Density
- 1U Height and 19" Rack Mount Size
- Three sets of Preset Function
- Bleeder Control Function
- Internal Resistance Function
- Panel Lock Function
- Protection : OVP, OCP, OHP, UVL, AC Fail, FAN Fail
- Standard : USB, LAN, RS-232, RS-485, Analog Control
- Option : GPIB, Isolated Analog Interface (Voltage Control/Current Control)

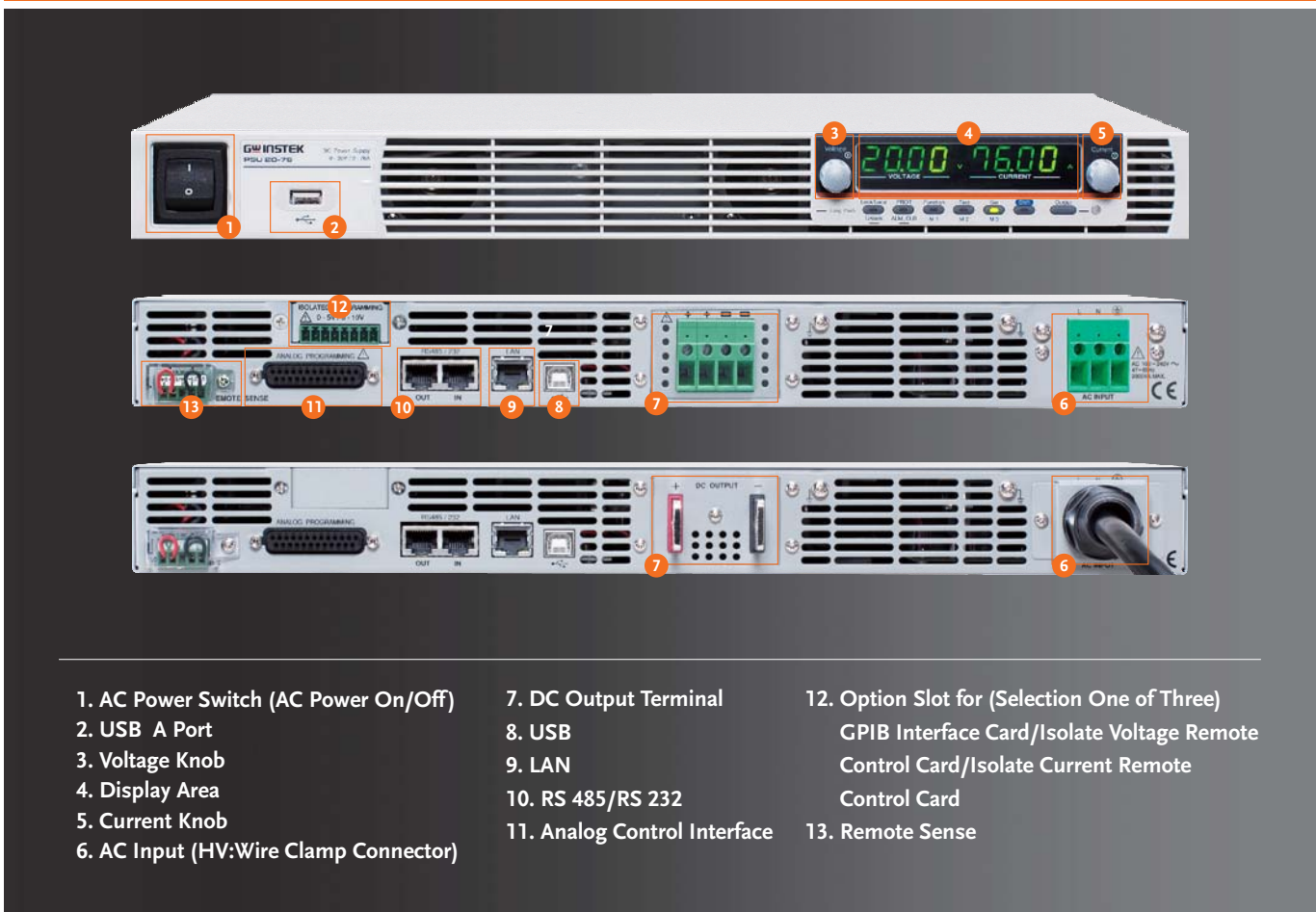
### APPLICATIONS

- The Primary Input of DC/DC Converter
- Servomotor Manufacturing Equipment
- Aging Test Equipment for Capacitors
- Aging Test Equipment for Diodes
- Power Supply for Communications Equipment



Model name	Voltage Rating <sup>1</sup>	Current Rating <sup>2</sup>	Power <sup>3</sup>
PSU 6-200	6V	200A	1200W
PSU 12.5-120	12.5V	120A	1500W
PSU 20-76	20V	76A	1520W
PSU 40-38	40V	38A	1520W
PSU 60-25	60V	25A	1500W
PSU 100-15	100V	15A	1500W
PSU 150-10	150V	10A	1500W
PSU 300-5	300V	5A	1500W
PSU 400-3.8	400V	3.8A	1520W
PSU 600-2.6	600V	2.6A	1560W

## PANEL INTRODUCTION



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## SPECIFICATIONS

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SPECIFICATIONS												
MODEL		PSU 6-200	PSU 12.5-120	PSU 20-76	PSU 40-38	PSU 60-25	PSU 100-15	PSU 150-10	PSU 300-5	PSU 400-3.8	PSU 600-2.6	
TRANSIENT RESPONSE TIME (*10)												
Transient Response Time		1.5ms	1ms	1ms	1ms	1ms	1ms	2ms	2ms	2ms	2ms	
OUTPUT RESPONSE TIME												
Rise Time(*8)	Rated load	80ms	80ms	80ms	80ms	80ms	150ms	150ms	150ms	200ms	250ms	
	No load	80ms	80ms	80ms	80ms	80ms	150ms	150ms	150ms	200ms	250ms	
Fall Time(*9)	Rated load	10ms	50ms	50ms	80ms	80ms	150ms	150ms	150ms	200ms	250ms	
	No load	500ms	700ms	800ms	1000ms	1100ms	1500ms	2000ms	2500ms	3000ms	4000ms	
PROGRAMMING AND MEASUREMENTS (RS-232/485, USB, LAN, GPIB)												
Output Voltage Programming Accuracy		0.05%+	3mV	6.25mV	10mV	20mV	30mV	50mV	75mV	150mV	200mV	300mV
Output Current Programming Accuracy		0.2%+	200mA	120mA	76mA	38mA	25mA	15mA	10mA	5mA	3.8mA	2.6mA
Output Voltage Programming Resolution			0.2mV	0.4mV	0.7mV	1.3mV	2mV	3.4mV	5.2mV	10.2mV	13.6mV	20.4mV
Output Current Programming Resolution			6mA	4mA	2.5mA	1.2mA	0.8mA	0.5mA	0.34mA	0.19mA	0.13mA	0.09mA
Output Voltage Measurement Accuracy		0.1%+	6mV	12.5mV	20mV	40mV	60mV	100mV	150mV	300mV	400mV	600mV
Output Current Measurement Accuracy		0.2%+	400mA	240mA	152mA	76mA	50mA	30mA	20mA	10mA	7.6mA	5.2mA
Output Voltage Measurement Resolution			0.2mV	0.4mV	0.7mV	1.3mV	2mV	3.4mV	5.2mV	10.2mV	13.6mV	20.4mV
Output Current Measurement Resolution			6mA	4mA	2.5mA	1.2mA	0.8mA	0.5mA	0.34mA	0.19mA	0.13mA	0.09mA
TEMPERATURE COEFFICIENCY												
Voltage & Current		100ppm/°C after a 30 minute warm-up										
REMOTE SENSE COMPENSATION VOLTAGE(SINGLE WIRE)												
Voltage		1V	1V	1V	2V	3V	5V	5V	5V	5V	5V	
PROTECTION FUNCTION												
Over Voltage Protection(OVP)	Setting Range	0.6~6.6V	1.25~13.75V	2~22V	4~44V	5~66V	5~110V	5~165V	5~330V	5~440V	5~660V	
	Setting Accuracy	60mV	125mV	200mV	400mV	600mV	1000mV	1500mV	3000mV	4000mV	6000mV	
Over Current Protection(OC)	Setting Range	5~220A	5~132A	5~83.6A	3.8~41.8A	2.5~27.5A	1.5~16.5A	1~11A	0.5~5.5A	0.38~4.18A	0.26~2.86A	
	Setting Accuracy	4000mA	2400mA	1520mA	760mA	500mA	300mA	200mA	100mA	76mA	52mA	
Under Voltage Limit(UVL)	Setting Range	0~6.3V	0~13.12V	0~21V	0~42V	0~63V	0~105V	0~157.5V	0~315V	0~420V	0~630V	
Over Temperature Protection(OHP)	Operation	Turn the output off.										
Incorrect Sensing Connection Protection(SENSE)	Operation	Turn the output off.										
Low AC Input Protection (AC-FAIL)	Operation	Turn the output off.										
Shutdown (SD)	Operation	Turn the output off.										
Power Limit (POWER LIMIT)	Operation	Over power limit										
	Value (Fixed)	Approx. 105% of rated output power										
INTERFACE CAPABILITIES												
USB	TypeA: Host, TypeB: Slave, Speed: 1.1/2.0, USB Class: CDC(Communications Device Class)											
LAN	MAC Address, DNS IP Address, User Password, Gateway IP Address, Instrument IP Address, Subnet Mask											
RS-232 / RS-485	Complies with the EIA232D / EIA485 Specifications											
GPIB (Factory Option)	SCPI - 1993, IEEE 488.2 compliant interface											
ISOLATED ANALOG CONTROL INTERFACE (FACTORY OPTION)												
Voltage Control	Using 0-5V or 0-10V signals for programming and measurement											
Current Control	Using 4-20mA current signals for programming and measurement											
ENVIRONMENTAL CONDITIONS												
Operating Temperature	0 °C ~ 50 °C											
Storage Temperature	-25 °C ~ 70 °C											
Operating Humidity	20% ~ 85% RH; No condensation											
Storage Humidity	90% RH or less; No condensation											
Altitude	Maximum 2000m											
INPUT CHARACTERISTICS												
Nominal Input Rating	100Vac to 240Vac, 50Hz to 60Hz, single phase											
Input Voltage Range	85Vac ~ 265Vac											
Input Frequency Range	47Hz ~ 63Hz											
Maximum Input Current	100Vac/200Vac(A)	21/11										
Inrush Current	Less than 50A											
Maximum Input Power	2000VA											
Power Factor	100Vac/200Vac	0.99/0.98										
Hold-up Time	20ms or greater											
Efficiency (*13)	100Vac/200Vac(%)	76.5/78.5	82.0/85.0	83.0/86.0	84.0/87.0	84.0/87.0	84.0/87.0	84.0/87.0	84.0/87.0	84.0/87.0	84.0/87.0	
DIMENSIONS & WEIGHT												
		423(W) × 43.6(H) × 447.2(D)mm, Approx. 8.7kg										

Note : \*1. Minimum voltage is guaranteed to maximum 0.2% of the rated output voltage. \*8. From 10%~90% of rated output voltage, with rated resistive load. Specifications subject to change without notice. SU-SeriesGD1DS  
 \*2. Minimum current is guaranteed to maximum 0.4% of the rated output current. \*9. From 90%~10% of rated output voltage, with rated resistive load.  
 \*3. At 85~132Vac or 170~265Vac, constant load. \*10. Time for output voltage to recover within 0.5% of its rated output for a load change from 10~90% of its rated output current. Voltage set point from 10%~100% of rated output.  
 \*4. From No-load to Full-load, constant input voltage. \*11. For load voltage change, equal to the unit voltage rating, constant input voltage.  
 \*5. Measured at the sensing point in Remote Sense. \*12. For 6V model the ripple is measured at 2~6V output voltage and full output current. For other models, the ripple is measured at 10~100% output voltage and full output current.  
 \*6. Measure with JEITA RC-9131B (1:1) probe. \*13. At rated output power.  
 \*7. Measurement frequency bandwidth is 5Hz~1MHz.

ORDERING INFORMATION	
PSU 6-200	1200W Programmable Switching DC Power Supply
PSU 12.5-120	1500W Programmable Switching DC Power Supply
PSU 20-76	1520W Programmable Switching DC Power Supply
PSU 40-38	1520W Programmable Switching DC Power Supply
PSU 60-25	1500W Programmable Switching DC Power Supply
PSU 100-15	1500W Programmable Switching DC Power Supply
PSU 150-10	1500W Programmable Switching DC Power Supply
PSU 300-5	1500W Programmable Switching DC Power Supply
PSU 400-3.8	1520W Programmable Switching DC Power Supply
PSU 600-2.6	1560W Programmable Switching DC Power Supply

ACCESSORIES	
CD-ROM x 1 (User Manual, Programming Manual), Output terminal cover x 1, Analog connector plug kit x 1, Output terminal M8 bolt set (6V~60V model), Input terminal cover x 1, 1U Handle (RoHS), 1U Bracket (LEFT, RoHS), 1U Bracket (RIGHT, RoHS), Power Cord (10A) x 1	

OPTIONAL ACCESSORIES	
PSU-01B Bus bar for 2 units in parallel connection	GTL-246 USB Cable, USB 2.0A-B Type Cable, 4P
PSU-01C Cable for 2 units in parallel connection	GRM-001 Slide bracket 2pcs/set, PSU option
PSU-02B Bus bar for 3 units in parallel connection	PSU-GPIB GPIB Interface card (factory option)
PSU-02C Cable for 3 units in parallel connection	GPW-001 UL/CSA power cord 3m, PSU option
PSU-03B Bus bar for 4 units in parallel connection	GPW-002 VDE power cord 3m, PSU option
PSU-03C Cable for 4 units in parallel connection	GPW-003 PSE power cord 3m, PSU option
PSU-232 RS232 Cable with DB9 connector kit	
PSU-485 RS485 Cable with DB9 connector kit	
PSU-01A Joins a vertical stack of 2 PSU units together. 2U-sized handles x2, joining plates x2	
PSU-02A Joins a vertical stack of 3 PSU units together. 3U-sized handles x2, joining plates x2	
PSU-03A Joins a vertical stack of 4 PSU units together. 4U-sized handles x2, joining plates x2	
PSU-ISO-I Isolate current remote control card (factory option)	
PSU-ISO-V Isolate voltage remote control card (factory option)	
FREE DOWNLOAD	
Driver	LabView Driver

WIDA GENERAL TRADING L.L.C ADDRESS:  
 NO. 201 GREEN CORNER BLDG. AL  
 JAZEIRA ST., AL RIGGA RD. DUBAI, PO BOX  
 171315 UNITED ARAB EMIRATES PHONE:  
 +971 4 2959818 FAX: +971 4 2501223 E-MAIL:  
 SALES@WIDACO.COM

