GPP-1205/1323

Programming Linear DC Power Supply





FEATURES

Simply Reliable

- * Voltage Resolution: 1 mV / 0.1 mV
- * Current Resolution: Three levels: 0.1 mA / 0.01 mA (H), 10 μA / 1 μA (M), 1 μA / 0.1 μA (L)
- * Output Modes: Constant Voltage (CV) / Constant Current (CC)
- * Switchable Power Supply & Electronic Load Function
- * Output Control: On/Off with delay function
- * Slew Rate Control for Voltage & Current
- * Remote Sense for Voltage Compensation
- * Sequence Programming for Power Output
- * Bleeder Circuit Control
- * Voltage Averaging & Data Collection
- * External Series & Parallel Connection Support
- * Safety Protections: OVP, OCP, OTP, Reverse Polarity, Panel Lock
- * Communication Interfaces: USB-TMC/CDC, LAN, Optional GPIB
- * Display: 2.4-inch TFT-LCD with three modes
- * Temperature-Controlled Fan
- * Rack Compatibility: Supports GRA-441-J/E

The GPP-1000 series is a high-precision programmable DC power supply designed for accuracy in precision testing. It features voltage resolution up to 1 mV / 0.1 mV and three levels of current resolution, with a maximum of 1 μ A / 0.1 μ A. Supporting both Constant Voltage (CV) and Constant Current (CC) modes, it also includes a switchable power supply and electronic load function. The series consists of two models: GPP-1205 (20 V / 5 A / 100 W) and GPP-1323 (32 V / 3 A / 96 W), offering flexible output options.

Equipped with Remote Sense functionality, the GPP-1000 series compensates for voltage drops due to lead resistance, ensuring accurate output. It supports data logging and external series/parallel connections of up to four units for higher power applications.

Safety features include OVP, OCP, OTP, and reverse polarity protection, along with a front panel lock to prevent accidental operation. Communication interfaces include USB-TMC/CDC and LAN, with optional GPIB for remote control. A 2.4-inch TFT-LCD provides clear data visualization, while an intelligent temperature-controlled fan enhances cooling efficiency.

With its high resolution, versatile communication options, robust safety protections, and flexible application modes, the GPP-1000 series is a powerful solution for R&D, testing, and production environments. It exemplifies modern test equipment trends, making testing more accurate, convenient, and efficient.

European Type Jack Terminal





APPLICATIONS

- * Research & Education
- * HiFi Audio Circuit
- * Devie/Components Testing
- * 3C Products Testing







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CPP-1323	SPECIFICATIONS				
Output Voltage 0.000 / to 32,0000 V 0.0000 A to 3,0000 A 0.0000 A to 5,0000 A Output Power 96 W 100 W CONSTANT VOLTAGE OPERATION *** (0.01 % of setting # 3 mV) *** (0.00 % of setting # 3 mV) *** (0.00 % of setting # 3 mV) *** (0.01 % of reading + 10 mV)			GPP-1323	GPP-1205	
Output Power 96 6W 0.0000 A to 3.0000 A to 3.0000 A to 5.0000 A t	OUTPUT RATING				
CONSTANT VOLTAGE OPERATION					
Line Regulation					
Line Regulation			96 W	100 W	
Load Regulation		E OPERATION	L (0.07.07. f 2		
Color	0		l ' '		
Transient Response 100 μs 0.8 m/ms 0.8 m/	Load Regulation				
Ripple Noise Setting Range Setting Rang	Transient Bernense				
Setting Range Setting Rang			l '		
Sime				0 V to 21 000 V	
Fall Time				0 V to 21.000 V	
Maximum Remote Sensing Compensation Voltage Single Line Single L					
Temperature Coefficient (TYP)					
Line Regulation	(Single Line)	<i>5</i> ,			
Line Regulation Setting Range S 0,1 % + 3 mA S 0	Temperature Coefficient (TYP.)		300 ppm/°C		
Setting Range Sol 1 % + 3 mA Setting Range Sol 2 mArms Sol 2	CONSTANT CURREN	IT OPERATION			
Setting Range	Line Regulation		\leq 0.1 % + 3 mA		
Sipple Noise (Arms)					
Temperature Coefficient (TVP.) 300 ppm/°C				0 A to 5.2500 A	
Voltage					
Voltage			300 ppm/°C		
Current Programming/Readback (High) 0.1 mA / 0.01 mA; (Middle) 10 μA / 1 μA; (Low) 1 μA / 0.1 μA METER Full Scale Voltage/Current 3.6000 V / 3.1500 A 21.0000 V / 5.2500 A Programming Readback Resolution Voltage/Current 5 digits / 5 digits 8.6000 V / 3.1500 A 21.0000 V / 5.2500 A Setting Accuracy Voltage: ± (0.03 % of reading + 10 mV); Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (M) Current: ± (0.3		B	L 1 V (0.1 V		
METER Full Scale Voltage Current Voltage Current Voltage Current S digits 5 digits 5 digits 6 d		0 0,			
Full Scale Voltage/Current Voltage Voltage Voltage (0.03 % of reading + 10 mV); Current: ± (0.3 % of reading + 0.1 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 10 mA) (H) Current: ± (0.3 % of reading + 0.1 mA) (L) Voltage: ± (0.03 % of reading + 10 mA) (M); Current: ± (0.3 % of reading + 0.1 mA) (L) Current: ± (0.3 % of reading + 10 mA) (M) (L) Current: ± (0.3 % of reading + 10 mA) (M) (L) Current: ±		Programming/Readback	(High) 0.1 mA / 0.01 mA; (Midale) 10 µA / 1 µA; (Low) 1 µA/ 0.1 µA		
Programming Readback Resolution Voltage/Current S digits / 5 digits 6 digits		Voltage/Current	22 5000 \/ / 2 1500 \	21 0000 \/ / 5 2500 A	
Readback Resolution Voltage/Current Setting Accuracy Voltage: ± (0.03 % of reading + 10 mV); Current: ± (0.3 % of reading + 0.1 mA) (H)				Z1.0000 V / 3.2300 A	
Setting Accuracy					
Current: ± (0.3 % of reading + 1 mA) (M); Current: ± (0.3 % of reading + 0.1 mÅ) (L)		Voltage/Current		1Δ) (H)	
Voltage: ± (0.03 % of reading + 10 mV); Current: ± (0.3 % of reading + 10 mA) (H)	<i>,</i>				
Current: ± (0.3 % of reading + 1 mA) (M); Current: ± (0.3 % of reading + 0.1 mÅ) (L)					
Display Voltage	•				
Current Power 0 A to 3.0000 A 96 W 100 W 1	DC LOAD MODE				
CV Mode Power Setting Range Setting/Readback Resolution 96 W 3.000 V to 32.000 V 100 W 3.000 V to 20.000 V CC Mode Setting Range Setting/Readback Resolution 0 A to 3.0000 A 0 A to 5.0000 A PROTECTION *1 OVP Setting Range Setting Accuracy Operation Setting Accuracy Operation Opera	Display	Voltage	3.000 V to 32.000 V	3.000 V to 20.000 V	
CV Mode Setting Range Setting/Readback Resolution 3.000 V to 32.000 V 3.000 V to 20.000 V CC Mode Setting Range Setting/Readback Resolution 0 A to 3.0000 A 0 A to 5.0000 A PROTECTION *I OVP Setting Range Setting Accuracy Operation 1.8 V to 35.2 V 1.0 V to 22.0 V Setting Range Setting Range Operation 5 to 0.15 A to 3.3 A 0.25 A to 5.5 A OCP Setting Range Setting Accuracy Operation 1.0 V to 22.0 V OPTP Operation 1.0 V to 22.0 V OTP Operation 1.0 V to 20.0 V OTP Operation 1.0 V to 20.0 V		Current	0 A to 3.0000 A	0 A to 5.0000 A	
Setting/Readback Setting Range Setting/Readback Setting Range Setting/Readback Setting/Readbac		Power	96 W	100 W	
Resolution 1 mV CC Mode Setting Range Setting/Readback Resolution 0 A to 3.0000 A 0 A to 5.0000 A PROTECTION *1 OVP Setting Range Setting Accuracy Operation 1.8 V to 35.2 V 1.0 V to 22.0 V OCP Setting Accuracy Operation ± 100 mV Turns the output off, displays OVP OCP Setting Range Setting Accuracy Operation 0.15 A to 3.3 A 0.25 A to 5.5 A OTP Operation Turns the output off, displays OCP OTP Operation Turns the output off, displays OTP Insulation Resistance Between chassis and terminal: 20 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY Parallel Number 4 units	CV Mode	Setting Range	3.000 V to 32.000 V	3.000 V to 20.000 V	
CC Mode Setting Range Setting/Readback Resolution 0 A to 3.0000 A 0 A to 5.0000 A PROTECTION *1 OVP Setting Range Setting Accuracy Operation 1.8 V to 35.2 V 1.0 V to 22.0 V OCP Setting Range Setting Range Setting Range Operation 0.15 A to 3.3 A 0.25 A to 5.5 A OP Setting Accuracy Operation Operation ± 20 mA 0.15 A to 3.3 A 0.25 A to 5.5 A OTP Operation Operation Turns the output off, displays OCP Turns the output off, displays OTP Insulation Resistance Between chassis and terminal : 20 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY Parallel Number 4 units		Setting/Readback	≤ 0.1 % + 30 mV		
Setting/Readback Resolution Setting Range Setting Range Range Setting Range Setting Range Setting Range Range Setting Range Setting Range Range Range Range Setting Range		Resolution			
Setting/Readback Resolution Setting Range Setting Range Setting Raccuracy Departion Departion Setting Raccuracy Departion Departion Setting Raccuracy Departion	CC Mode	Setting Range	0 A to 3.0000 A	0 A to 5.0000 A	
Resolution 0.1 mA			< ± 0.3 % + 10 mA		
OVP Setting Range Setting Accuracy Operation ± 100 mV ± 100 mV 1.0 V to 22.0 V OCP Setting Range Setting Range Setting Accuracy Operation ± 20 mA Turns the output off, displays OCP 0.15 A to 3.3 A 0.25 A to 5.5 A OTP Operation Turns the output off, displays OCP Insulation Resistance Between chassis and terminal : 20 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY Parallel Number 4 units		Resolution			
Setting Accuracy Operation Setting Range Setting Accuracy Operation Setting Range Setting Accuracy Operation Setting Accuracy Operation OTP Operation Operation Operation Turns the output off, displays OCP Turns the output off, displays OCP Turns the output off, displays OTP Insulation Resistance Between chassis and terminal: 20 MΩ or above (DC 500 V) Between chassis and DC power cord: 30 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY Parallel Number 4 units	PROTECTION *1				
OCP Setting Range Setting Accuracy Operation	OVP	Setting Range	1.8 V to 35.2 V	1.0 V to 22.0 V	
OCP Setting Range Setting Accuracy Operation OTP Operation Operation Insulation Resistance Settles AND PARALLEL CAPABILITY Parallel Number Setting Accuracy ± 20 mA Turns the output off, displays OCP Turns the output off, displays OTP Between chassis and terminal : 20 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY 4 units					
Setting Accuracy Operation ± 20 mA Turns the output off, displays OCP Turns the output off, displays OTP Turns the output off, displays OTP Between chassis and terminal : 20 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY Parallel Number 4 units 4 u		•			
Operation Ope	OCP			0.25 A to 5.5 A	
OTP Operation Turns the output off, displays OTP Insulation Resistance Between chassis and terminal: 20 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY Between chassis and DC power cord: 30 MΩ or above (DC 500 V) Parallel Number 4 units					
Between chassis and terminal: 20 MΩ or above (DC 500 V) Between chassis and DC power cord: 30 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY Parallel Number	OTD				
Between chassis and DC power cord : 30 MΩ or above (DC 500 V) SERIES AND PARALLEL CAPABILITY Parallel Number 4 units		Орегаціон			
SERIES AND PARALLEL CAPABILITY Parallel Number 4 units	madiation resistance				
Parallel Number 4 units	SERIES AND PARALL	EL CAPABII ITY	2000 Collection chassis and De power cold . 30 Miss of above (De 300 V)		
		3/11/10/10/11	4 units		
	Series Number		4 units		
ADVANCED FUNCTION		ON			
Trigger Signal *2 Trigger Input A high- or low-level CMOS signal is applied for 100 µs or longer.	Trigger Signal *2	Trigger Input			
It receives a pulse to perform actions like power output, V/I set operation or memory recall.			1	•	
Trigger Output Trigger output: approx. 3.3 V Pulse width: approx. 1ms, Output impedance: approx. 50 Ω		Trigger Output			
It outputs a pulse when power output, V/I set operation or memory recall is executed.	5 6	0.44 611/077 5:		s executed.	
Status Signal Output ON/OFF Status Turns on when the output is on					
*2 *3 CV Status Turns on during CV operation CC Status Turns on during CC operation	·· 2 ·· 3				
ALM Status Turns on during CC operation Turns on when an alarm has been activated					
PWR ON Status Turns on when the power is turned on					
GENERAL SPECIFICATIONS	GENERAL SPECIFICA				
Display 2.4-inch TFT LCD			2.4-inch TFT LCD		
Interface LAN MAC Address, Gateway IP Address, Instrument IP Address, Subnet Mask		LAN	MAC Address, Gateway IP Address, Instrument IP Address, Subnet Mask		
USB Type A: Host, Type B: Slave, Speed: 1.1/2.0, USB-CDC/TMC		USB			
GPIB (Factory Optional) SCPI-1993, IEEE 488.2 compliant interface		GPIB (Factory Optional)	SCPI-1993, IEEE 488.2 compliant interface		
Operating Environment Indoor use, Overvoltage Category II, Altitude: ≤ 2000 m, Ambient temperature: 0 °C to 40 °C,	Operating Environment				
Relative humidity: 20 % to 80 % RH; No condensation			Relative humidity: 20 % to 80 % RH; No condensation		
Storage Environment Ambient temperature: -20 °C to 70 °C, Relative humidity: 20 % to 85 % RH; No condensation					
	Power Source		AC (100 V, 120 V, 220 V, 240 V) ± 10 %, 50 or 60 Hz		
			I 300 VA		
	Power Consumption		30 A may at less		
Dimensions & Weight 107 mm x 124 mm x 313 mm (W x H x D) (not including protrusions), Approx. 5.5 kg Note: *1. When the protection function is activated, it turns the output off, displays OVP, OCP, or OTP. *3. Open collector output: Maximum voltage of 30 V and maximum current of 8 mA. The common line for the			30 A max or less	ov 5.5 kg	

te: *1. When the protection function is activated, it turns the output off, displays OVP, OCP, or OTP.

*2. EXT I/O connector on the rear panel.

*3. Open collector output: Maximum voltage of 30 V or less), it is isolated from the output and control control.

The specifications apply when the GPP-1205/1323 are powered on for at least 30 minutes under +20 °C to +30 °C.

ORDERING INFORMATION Specifications subject to change without notice. GPP-1000_E_ID1DH

100 W Single Channel Programming Linear DC Power Supply (USB, LAN) (20 V /5 A) 96 W Single Channel Programming Linear DC Power Supply (USB, LAN) (32 V/3 A) GPP-1205 GPP-1323

ACCESSORIES:

Standard Type Jack Terminal:
Power Cord x 1, Packing List x 1, Test lead GTL-104A

European Type Jack Terminal: Power Cord x 1, Packing List x 1, Test lead GTL-204A x 1

OPTION (Manufacturer Installed Only) GPIB interface

OPTIONAL ACCESSORIES

PC Software, LabVIEW Driver

GTL-104A Test Lead, U-type to Alligator Test Lead, Max. Current 10 A, 1000 mm $\,$

Test Lead, Banana to Alligator, European Terminal, Max. Current 10 A, 1000 mm RF Cable, for Trigger In/Out use GTL-204A GTL-303

FREE DOWNLOAD



GTL-246

GRA-441-J

GRA-441-E



USB Cable (USB 2.0 A-B Type, approx. 1200 mm)

Rack Mount Kit for JIS type Rack Mount Kit for EIA type