Programmable DC Power Supply

GPP-3060/GPP-6030

Quick Start Guide

GW INSTEK PART NO. 82PP-60300M01

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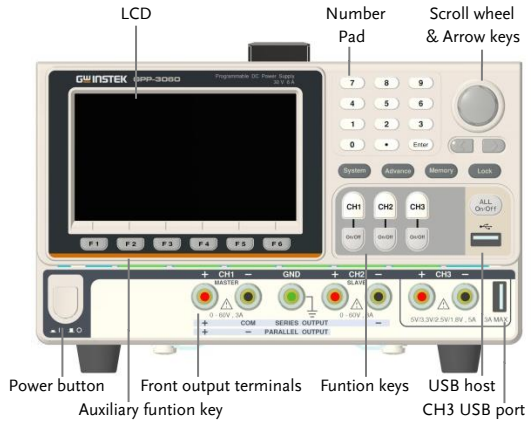
ISO-9001 CERTIFIED MANUFACTURER

GW INSTEK

Introduction

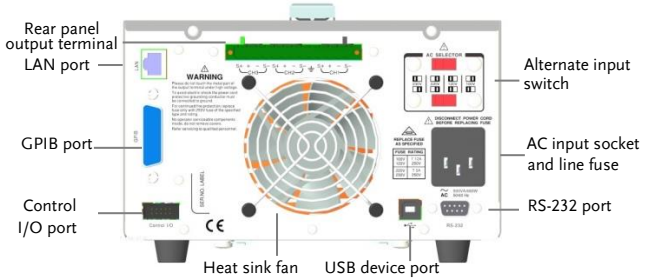
The GPP series regulated DC power supply series are adjustable, multifunctional work stations. It has three independent outputs: two with adjustable voltage/current levels and one with fixed voltage level selectable from 1.8V, 2.5V, 3.3V to 5V. When the rear board outputs, each channel has a sense terminal. The GPP series can be used for logic circuits where various output voltage or current are needed, and for tracking mode definition systems where plus and minus voltages with insignificant error are required.

Front Panel



*The panel above is the example of GPP-3060.

Rear Panel



Function

For more information, refer to the User Manual within the enclosed CD.

Display Modes

In order to offer diverse information display of each channel to meet requirements from different users, the GPP series provide several selections of different display modes.

Tracking Series/Parallel Modes

The CH1/CH2 can output much larger voltage/current via tracking series and parallel modes. By using CH1 as master and CH2 as slave, there is no need for external series/parallel connection. In the series mode, the output voltage is double to CH1; in the parallel mode, the output current is double to CH1.

Load Mode

CH1/CH2 of the GPP series can be set to the Load Mode function, under which both tracking series and tracking parallel function are Not available.

Sequence Function

Under Source mode of the GPP series, user can customize a certain V/I sequential waveform output. Under Load mode, it is programmable for dynamic load (below 1Hz).

Delay Function

It is necessary to output a series of pulse in real applications. This function is available when voltage is constant. Output waveform can be edited per user's preference.
The amplitude range of the output waveform is the output voltage range of power supply.

Monitor/Recorder Function

GPP series can realize certain function including the Monitor function, which helps guarantee load status of client via halting operation based on certain preset conditions, and the Recorder function, which effectively records output status in real time.

Front and Rear output Function

GPP can be operated through panel menu or remote command to output on front and back panels.

Remote Control

To meet the various needs from customers, the GPP series provide the additional 4 types of remote control including USB, RS232 , GPIB(Option) and LAN(Option).

Specification

The specifications only apply when the unit has warmed up for at least 30 minutes, within +20°C - +30°C.

Output Rating	CH1/CH2 Independent	GPP-3060: 0 - 30.000V, 0 - 6.0000A GPP-6030: 0 - 60.000V, 0 - 3.0000A	
	CH1, CH2 Series	GPP-3060: 0 - 60.000V , 0 - 6.0000A GPP-6030: 0 - 120.000V, 0 - 3.0000A	
	CH1, CH2 Parallel	GPP-3060: 0 - 30.000V , 0 - 12.0000A GPP-6030: 0 - 60.000V , 0 - 6.0000A	
Voltage	Line regulation	≤ 0.01% + 3mV	
	Load regulation	≤ 0.01% + 5mV (rating current ≤ 10A)	
	Ripple & noise (5Hz-1MHz)	≤1mVrms	
	Transient recovery time	≤100μs (50% load change, minimum load 0.5A)	
	Temperature coefficient	≤300ppm/°C	
Current	Line Regulation	≤0.01% + 3mA	
	Load Regulation	≤0.01% + 3mA	
	Ripple & noise	≤2mArms	
Tracking Operation	Tracking error	≤0.1% + 10mV of Master(GPP-3060) ≤0.2% + 20mV of Master(GPP-6030) (No Load, with load add load regulation≤200mV))	
	Parallel regulation	Line:≤0.01% + 3mV Load:≤0.01% + 5mV (rating current ≤10A) ≤0.02% + 5mV (rating current > 10A)	
	Series regulation	Line:≤0.01% + 5mV Load:≤200mV	
	Ripple & noise	≤2mVrms (5Hz - 1MHz)	
Resolution	Voltage	programming 1mV, readback 0.1mV (GPP-3060) programming 2mV, readback 0.1mV (GPP-6030)	
	Current	Programming 0.2mA, readback 0.1mA (GPP-3060) Programming 0.1mA, readback 0.1mA (GPP-6030)	
Accuracy	Setting/Readback	Voltage: ± (0.03% of reading + 10mV) Current: ± (0.3% of reading + 10mA)	
CH3 Bindpost port	Output	1.8V/2.5V/3.3V/5.0V ±5% ,5A	
	Regulation	≤3mV(Line) ,≤5mV(Load)	
	Ripple & noise	≤2mVrms (5Hz - 1MHz)	
	Transient recovery time	≤100μs (50% load change, minimum load 0.5A)	
USB port	Output	1.8V/2.5V/3.3V/5.0V ±0.35V，3 A	
Note	*The output current from the 2 terminals should Not exceed 5A		
Load (CH1/CH2)	Display	GPP-3060: 1-32.00V, 0-6.200A, 0-50.00W GPP-6030: 1-62.00V, 0-3.200A, 0-50.00W	
	Setting Range	CV Mode:1.50V-32.00V(GPP-3060),1.50V-62.00V(GPP-6030) CC Mode:0-6.200A(GPP-3060), 0-3.200A(GPP-6030) CR Mode: 1Ω-1kΩ	
	Setting/Readback accuracy	≤±(0.1% + 30mV), ≤±(0.3% +10mA), ≤±(3%+1Ω) (voltage≥0.1V and current≥0.1A)	
	Resolution	10mV, 1mA, 1Ω	
OVP	Power mode	GPP-3060: OFF,ON(0.5V-35.0V) (CH1/CH2) GPP-6030: OFF,ON(0.5V-65.0V) (CH1/CH2) Fixed 5.5V (CH3)	
	Load mode	GPP-3060: OFF,ON(1.5V - 35.0V) (CH1/CH2) GPP-6030: OFF,ON(1.5V - 65.0V) (CH1/CH2)	
	Setting accuracy	±100mV, 100mV(Resolution)	
OCP	Power/Load mode	GPP-3060: OFF,ON(0.05A - 6.50A) (CH1/CH2) GPP-6030: OFF,ON(0.05A - 3.50A) (CH1/CH2) 3.1A(USB port) (CH3)	
	Setting accuracy	±20mA, 10mA(Resolution)	
Power Input	AC 100V/120V/220V/230V±10%, 50/60Hz		
Dimensions	213 (W) x 145 (H) x 362 (D) mm		