

# GPP-3060/6030/3650

**Triple-Channel Programmable DC Power Supply** 

# **FEATURES**

- 4.3"TFT LCD Display
- Setting Resolution: 1mV / 0.1mA; Read Back Resolution: 0.1mV/0.1mA
- Low Ripple Noise: ≦1mVrms/≦2mArms
- Transient Response Time:  $\leq 100 \mu s$
- Load Function (CC, CV, CR mode)
- Tracking Series and Parallel Function without Additional External Wiring
- Utilizing Hardware to Realize Over Voltage Protection/ Over Current Protection/Over Temperature Protection
- Delay Function/Output Monitoring Function/Output Recorder Function
- Supports Setting Value, Measurement Value and Output Waveform Display
- Sequential Output Function and Built-in 8 Template Waveforms
- The Output Recorder Function Records the Output Voltage & Current Parameters with a Minimum Recording Interval of 1 Second
- Provides 10 Sets of Memory for Each Sequence/Delay/Recorder/ Panel Setting Condition
- Supports a USB (Type A) Output Terminal
- Intelligent Temperature Control Fan Effectively Reduces Noise
- Standard: RS-232, USB, LAN, Ext I/O
- Optional (manufacturer installed only): GPIB

Test Equipment Depot - 800.517.8431 - 5 Commonwealth Ave, MA 01801

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# Meet Your Necessity of High Resolution in Multi-Channel Measurement

GPP-3060 and GPP-6030 triple-channel programmable DC power supplies are extension models of the GPP-X323 series. The maximum output power of these three models is 385W. GPP-3650 supports CH1/CH2: 0 ~ 36V / 0 ~5A output; CH3 supports 1.8V, 2.5V, 3.3V, 5.0V / 5A. GPP-3060 supports CH1/CH2: 0 ~ 30V / 0 ~ 6A output; GPP-6030 supports CH1/CH2: 0 ~ 60V / 0 ~ 3A output; CH3 of both models supports 1.8V, 2.5V, 3.3V, 5.0V/5A.

GPP-3650, GPP-3060 and GPP-6030 inherit the high program resolution (1mV/0.1mA) and read back resolution (0.1mV/0.1mA) of the GPP series with low-ripple noise characteristics  $\leq$ 1mVrms/ $\leq$ 2mArms and  $\leq$ 100µs output transient recovery ability. An independent output on-off switch is provided for each channel.

For series and parallel applications of CH1 and CH2, the tracking function can automatically switch to series or parallel output without additional external wiring. Multiple display modes including single channel or multi-channel setting value, measurement value and waveform display to collocate with the built-in output monitoring function allow users to set the monitoring conditions according to their needs so as to generate an alarm or stop the output during the measurement process in order to stop the measurement and protect the customer's DUT. The output recorder function can record the voltage/current of the output process in the internal memory, and save the result as a (\*.REC) or (\*.CSV) file, and then save it to a USB flash drive. The unique load function of the GPP series can arbitrarily set CH1/CH2 as power supply or load function. For example, one channel is set as power output, and the other channel is set as load function to consume the power of the DUT to satisfy simple battery charging and discharging or load characteristic test by a single power supply. The sequence output function allows users to edit the power output waveforms by themselves, and also allows users to set the sequential constant voltage (CV) or constant current (CC) load waveforms such as serial power output or dynamic load simulation test. Channel 3 (CH3) incorporates 3A USB (Type A) output terminal, which can be used for USB charging test.

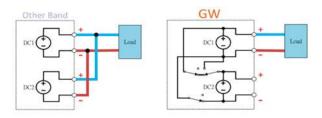
Pertaining to measurement protections, OVP/OCP/OPP/OTP protection functions are provided. The protection mechanism of OVP/OCP/OTP is implemented by hardware circuits, which has a faster response time to protect equipment or DUT while comparing with competitors who use software for protection. The OVP and OCP functions allow users to set the protection action point according to the conditions of the DUT. OPP only provides protection during the operation of the load function.

In addition, GPP-3650, GPP-3060 and GPP-6030 incorporate terminal output on the rear panel, and include a voltage remote sensing terminal. Users can choose front panel or rear panel terminal output, which is convenient for stand-alone or rack operation. Output value setting and Sequence/ The Delay/Recorder functions provide 10 sets of internal memory, which can be uploaded/stored by a USB flash drive.



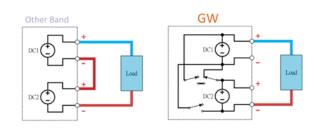
GPP-6030/3060/3650

#### TRACKING SERIES AND PARALLEL FUNCTION



**Output in Parallel Connections** 

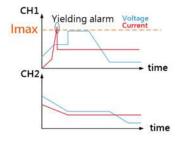
For series and parallel applications of CH1 and CH2, the tracking function of the GPP-Series utilizes the internal circuit to automatically switch the output to serial or parallel output without additional external wiring, providing users with convenience not only in operating procedures but also a more stable output.



**Output in Series Connections** 

The tracking function design of other brands requires additional external wiring connections for the output in series or parallel. However, excessively long, thin or inconsistent external wiring may cause inaccurate voltage or current output.

## B. OUTPUT MONITORING FUNCTION



**Output Monitoring** 

The output monitoring function allows users to set the monitoring

conditions according to the requirements, including the voltage,

current, and power greater than or less than the setting and the logical relationship of AND, OR. It also allows users to sound

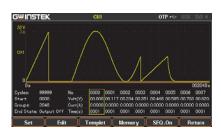


**Monitoring Function Setting** 

alarms or stop the output during the measurement process, stop the measurement, and protect the customer's DUT. Both Channel could be monitored simultaneously as well.

\* Channel 3 does not support the output monitoring function.

## SEQUENCE OUTPUT FUNCTION



#### Sequence Output Waveform

The GPP-Series provides a sequential output function on Channel 1 and Channel 2. This function not only allows users to edit the power output waveform, but also allows users to set the sequential constant voltage (CV) or constant current (CC) load waveform, i.e. a serial power output or a simulation test of a dynamic load. The maximum settable points for sequence function are 2048, and interval range of each point can be set from 1 to 300 seconds. In order to simplify the setting of waveform editing, the GPP-Series has 8 built-in Templet waveforms in sequence output function for users to directly apply for output, including Sine, Pulse, Ramp, Stair Up, Stair Dn, Stair UpDn, Exp Rise, and Exp Fall waveforms.

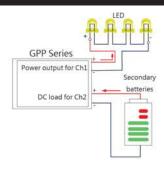
The editing data of the sequence output can be stored in the internal 10 sets of the memory, or to be saved by USB flash drive (Save/Recall) and saved as \*.SEQ or \*.CSV file; The stored \*.CSV can be exported into Excel for editing and analysis. The final edited file can be imported to (Save/Recall) of the power supply using a USB flash drive.

#### D. HARDWARE PROTECTION FUNCTION (OVP/OCP/OTP)



**OVP** Trigger

The protection mechanism of OVP/OCP/OTP is implemented by hardware circuit, which has the advantage of faster response time than competitors who use software to achieve protection. When it is detected that the voltage of the DUT exceeds the setting value of the OVP, the output of the power supply can be stopped in a short time to achieve the purpose of protecting the DUT.

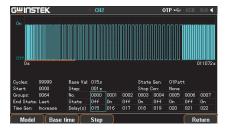


LOAD FUNCTION

**GPP-Series Application** 

The CH1/CH2 of the GPP series is designed with the load function. A single power supply can meet the basic battery charging and discharging test requirements. It can provide power output in channel 1 and channel 2. The rated constant voltage load (CV), rated constant current load (CC) and maximum 1k $\Omega$  constant resistance load (CR) function are built-in to allow users to conduct discharging test without using an electronic load. In application, users can also set either that one channel of the single GPP series as the power output, one channel as the load function to consume the power of the DUT, or that both channels as load functions to consume the power of different loads simultaneously.

#### F. OUTPUT DELAY FUNCTION



#### **GPP-Series Delayed Waveform**

Output delay function allows users to edit the timing waveform of the power output on/off when the front panel voltage and current settings are unchanged. In order to simplify the setting of waveform editing, the GPP-Series has three built-in timing modes in the delay output function, including Fixtime, Increase, Decline for users to apply directly. The editing data of the output delay can be stored in the internal 10 sets of memory, or to be saved by USB flash drive (Save/Recall) and saved as \*.DLY or \*.CSV file. The stored \*.CSV can be exported into Excel for editing and analysis. The final edited file can be exported to (Save/Recall) of the power supply using a USB flash drive.

#### G. OUTPUT RECORDER FUNCTION



Schematic Diagram for Recorder Function

Recorder Function Setting

#### Save as\*.REC

The output recorder function records the voltage & current parameters of the output process. The recording interval of each point can be set according to user's requirements, and the shortest interval is 1 second and the longest is 300 seconds. The results can be stored in \*.REC or \*.CSV format to the power supply or directly saved in the USB flash drive. The stored \*.CSV can be exported into Excel to conduct the future analysis. (\*.REC can be saved to 2048 records, \*.CSV can be saved to 614400 records)

\* Channel 3 does not support the output recorder function

#### PANEL INTRODUCTION



GRA-437-J Rack Mount Kit (JIS)



#### GRA-437-E Rack Mount Kit (EIA)



# **OPERATING RANGE**

Model Number	Number of Output	Max. Power	СН1	CH2	СНЗ	Interface
GPP-3060	3	385W	0-30V/0-6A	0-30V/0-6A	1.8V/2.5V/3.3V/5V; 5A	USB, RS-232, LAN, GPIB
GPP-6030	3	385W	0-60V/0-3A	0-60V/0-3A	1.8V/2.5V/3.3V/5V; 5A	USB, RS-232, LAN, GPIB
GPP-3650	3	385W	0-36V/0-5A	0-36V/0-5A	1.8V/2.5V/3.3V/5V; 5A	USB, RS-232, LAN, GPIB

\* GPIB interfaces cannot be retrofitted after the shipment. When ordering the model, please confirm whether to order GPIB. \* Model ordering varies by region.

# **OUTPUT FUNCTION LIST**

Model Number	GPP-3060/GPP-6030/3650				
Functions	СН1	CH2	CH3		
Sequence Output Function	$\checkmark$	$\checkmark$	-		
Load Functions (CC, CV, CR mode)	$\checkmark$	$\checkmark$	-		
Output Delay Function	✓	1	-		
Output Monitoring Function (10 sets)	$\checkmark$	$\checkmark$	-		
Output Recorder Function	✓	$\checkmark$	-		
Panel Save/Recall	$\checkmark$	1	1		

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National acturals         Current         2 (0.3% of reading + 10mA)         2 (0.3% of reading + 10mA)         2 (0.3% of reading + 10mA)           Display         Voltage         1 - 62.00V         0 - 5.00A         0 - 5.00A           Power         0 - 6.000W         0 - 5.00A         0 - 5.00A         0 - 5.00A           Power         0 - 6.000W         0 - 5.00A         0 - 5.00A         0 - 5.00A           CV Mode         CH1/CH2         1.50V · 32.00V         1.50V · 62.00V         0 - 5.00A           CV Mode         Setting Accuracy         <= (0.1% + 3.0mV)         <= (0.1% + 3.0mV)         <= (0.1% + 3.0mV)           Resolution         1.0mV         0 - 3.20A         0 - 3.20A         0 - 3.20A           CC Mode         Setting Accuracy         <= (0.1% + 10mA)         Setting Accuracy         <= (0.3% + 10mA)           Resolution         1mA         1mA         1mA         Setting Accuracy         <= (0.3% + 10)           (voltage=0.1V, and current=0.1A)         (voltage=0.1V, and current=0.1A)         <= (3.8% + 10)         (voltage=0.1V, and current=0.1A)           Resolution         10         10         10         10         <= (3.8% + 10)           (voltage=0.1V, and current=0.1A)         <= (3.8% + 10)         (voltage=0.1V, and current=0.1A)         <= (3.8% + 10) <td colspan="2">Voltage</td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Voltage			_							
DC Load Mode         Voltage         1 - 36.50V           Display         Current         0 - 6.200A           Power         0 - 5.200A           Power         0 - 5.200A           Power         0 - 5.200A           CV Mode         Setting Accuracy           CH Light Accuracy         5 - 61.0% + 30mV)           Readback Accuracy         5 - 61.0% + 30mV)           Readback Accuracy         5 - 61.0% + 30mV)           Readback Accuracy         5 - 61.0% + 30mV)           Setting Accuracy         5 - 61.0% + 30mV)           Readback Accuracy         5 - 61.0% + 30mV)           Setting Accuracy         5 - 61.0% + 30mV)           Setting Accuracy         5 - 61.0% + 10mA)           Readback Accuracy         5 - 61.0% + 10.0           (voltage-0.1V, and current=0.1A)         (voltage-0.1V, and current=0.1A)	adback accuracy										
Display         Current         0 ~ 5200A         0 - 3200A           Power         0 - 5200A         0 - 3200A         0 - 5200A           V Mode         Setting Accuracy         54015 + 30mV)         0 - 5200A           Readback Accuracy         54015 + 30mV)         5500 / 5200V         1500V - 3650V           Readback Accuracy         54015 + 30mV)         5500 / 5200A         5500 / 5200A           CC Mode         CH1/CH2         0 - 5200A         5500 / 5200A           Resoltion         10mV         54015 + 30mV)         54015 + 30mV)           Resoltion         10mV         54015 + 30mV)         54015 + 30mV)           Resoltion         1mA         54015 + 30mV)         54015 + 30mV)           Resoltion         1mA         1mA         54035 + 10mA)           Resoltion         1mA         1mA         1mA           100 H/         (voltage-20.1V, and current-20.1A)         (voltage-20.1V, and current-20.1A)         (voltage-20.1V, and current-20.1A)           Resoltion         10         10         10         (voltage-20.1V, and current-20.1A)           Voltage-20.1V, and current-20.1A)         (voltage-20.1V, and current-20.1A)         (voltage-20.1V, and current-20.1A)           Resoltion         0FF.ON(0.5V6.50V)         Fixed 5.5V	Load Mode										
Power         0 - 50.00W         0 - 50.00W           CV Mode         Setting Accuracy         54(0.15% + 30mV)         15.00V - 365.00V           Reoblack Accuracy         54(0.15% + 30mV)         54(0.15% + 30mV)         54(0.15% + 30mV)           Reoblack Accuracy         54(0.35% + 10mA)         10mV         0 - 5.200A           Setting Accuracy         54(0.35% + 10mA)         10mV         0 - 5.200A           Resolution         10mA         0 - 5.200A         5±(0.35% + 10mA)           Resolution         1mA         10mV         0 - 5.200A           Resolution         1mA         10mA         5±(0.35% + 10mA)           Resolution         1mA         1mA         1mA           (voltage20.1V, and current20.1A)         5±(0.35% + 10mA)         5±(0.35% + 10mA)           (voltage20.1V, and current20.1A)         5±(0.35% + 10mA)         10	- nlav										
CH I/CH2         1.500V - 32.00V           Setting Accuracy         54:01.3% + 30mV)           Resolution         15:00V - 62:00V           Resolution         15:00V - 62:00V           CC Mode         15:00V - 62:00X           CC Mode         10:0V           CC Mode         1:00V           CC Mode         1:00V           CC Mode         1:00V           CH //CH2         1:0:1K0           CC Mode         1:00V           CH //CH2         1:0:1K0           CC Mode         1:0:1K0           CH //CH2         1:0:1K0           Setting Accuracy         1:0:1K0           Setting Accuracy         1:0:1K0           Setting Accuracy         1:0:1K0           Resolition         1:0:1K0           CR Mode         0FF:ON(0:5V:3:5:0V)           Resolition         1:0:1K0           Cel Mode         0FF:ON(0:5V:3:5:0V)           Fixed 5:2V         0FF:ON(0:5V:3:5:0V)           Core         1:0:0:1V:3:0:0V	ріаў			-							
CV Mode         Resolution         Set(0.1% ± 30mV)         Set(0.3% ± 10mA)         <			1.500V - 32.00V								
Needback Accuracy         Set(1) % + 30mV)         Set(1) % + 30mV	Mode										
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	-										
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				-			-				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Mode	Setting Accuracy									
CR Mode         CH1/CH2         10: 1k0         10: 1k0           Setting Accuracy         ≤±(3% + 10)         (voltage=0.1V, and current≥0.1A)         ≤±(3% + 10)         (voltage=0.1V, and current≥0.1A)           Readback Accuracy         ≤±(3% + 10)         (voltage=0.1V, and current≥0.1A)         (voltage=0.1V, and current≥0.1A)         (voltage=0.1V, and current≥0.1A)           Resoltion         10:         10:         10:         10:         10:           Protection         0VP         Description         0FF, ON(0.5V-35.0V)         Fixed 5.5V         OFF, ON(0.5V-36.0V)         Fixed 5.5V           Setting Accuracy         0FF, ON(0.5V-35.0V)         Fixed 5.5V         OFF, ON(0.5V-35.0V)         Fixed 5.5V           OCP         Load Mode         OFF, ON(0.5X-35.0V)         Fixed 5.5V         OFF, ON(0.05A-5.50A)         3:1A(USB port)           OCP         Power Mode         OFF, ON(0.05A-6.50A)         3:1A(USB port)         OFF, ON(0.05A-5.50A)         3:1A(USB port)           Insulation         Resoltion         10:         10:         10:           Resoltion         10:         10:         10:         10:           Insulation         Between chassis         3:1A(USB port)         0FF, ON(0.05A-5.50A)         3:1A(USB port)           Between chassisis         3:0MQ	inioue			_							
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				-							
CR Mode         Image: Constraint of the second seco	-			-							
$ \begin{array}{ c c c c } \hline Reedback Accuracy & & & & & & & & & & & & & & & & & & &$	Mada	Setting Accuracy									
Image: Contract 20.17, and Current20.1A)         (voltage20.17, and Current20.1A)         (voltage20.17, and Current20.1A)           Protection         10         10         10         10           Protection         0         0         10         10         10           OVP         Load Mode         OFF,ON(0.5V-35.0V)         Fixed 5.5V         OFF,ON(0.5V-65.0V)         .         OFF,ON(0.5V-38.0V)         Fixed           Setting Accuracy         ±100mV         ±100mV         .         OFF,ON(0.5V-38.0V)         .         OFF,ON(0.5V-38.0V)         .											
Protection         Power Mode         OFF,ON(0.5V-35.0V)         Fixed 5.5V         OFF,ON(0.5V-65.0V)         Fixed 5.5V         OFF,ON(0.5V-36.0V)         Fixed 5.5V         OFF,ON(0.5V-65.0V)         Fixed 5.5V         OFF,ON(0.5V-38.0V)         Fixed 5.5V         OFF,ON(0.5V-38.0V)         Fixed 5.5V         OFF,ON(0.5V-36.0V)         Fixed 5.5V         OFF,ON(0.5V-65.0V)         Fixed 5.5V         OFF,ON(0.5V-38.0V)         Fixed 5.5V         OFF,ON(0.05A-5.50A)         3.1A(USB port)         OFF,ON(0.05A-5.50A)<	Ļ	-		4		l current≥0.1A)					
Power Mode         OFF,ON(0.5V-35.0V)         Fixed 5.5V         OFF,ON(0.5V-65.0V)         Fixed 5.5V         OFF,ON(0.5V-38.0V)         Fixed 5.5V           OVP         Load Mode         OFF,ON(1.5V-35.0V)         -         OFF,ON(1.5V-65.0V)         -         OFF,ON(1.5V-38.0V)         Fixed 5.5V         OFF,ON(0.5V-38.0V)         Fixed 5.5V         OFF,ON(0.5V-38.0V)         Fixed 5.5V         OFF,ON(0.5V-38.0V)         -         OFF,ON(1.5V-38.0V)         -         OFF,ON(0.5V-38.0V)         -         OFF,ON(0.5V-38.0V)         -         OFF,ON(0.5V-38.0V)         -         OFF,ON(0.5V-38.0V)         -         OFF,ON(0.5V-38.0V)         -         0FF,ON(0.5V-38.0V)         -         0FF,ON(0.5V-38.0V)         -         0FF,ON(0.5V-38.0V)         -         0FF,ON(0.5V-38.0V)         -         0FF,ON(0.5V-38.0V)         -         -         0FF,ON(0.5V-38.0V)         -         -         0FF,ON(0.5A-5.50A)         3.1A(USB port)         0FF,ON(0.5A-5.50A)         3.1A(USB port)         OFF,ON(0.5A-5.50A)         3.1A(USB port)         OFF,ON(0.5A-5.50A)         3.1A(USB port)         0FF,ON(0.5A-5.50A)         3.1A(USB port)         -         0FF,ON(0.5A-5.50A)         3.1A(USB port)         0FF,ON(0.5A-5.50A)         3.1A(USB port)         0FF,ON(0.5A-5.50A)         3.1A(USB port)         0FF,ON(0.5A-5.50A)         3.1A(USB port)         0FF,ON(0.5A-5.50A)         3.1A(USB port			IΩ	1	Ω			1			
OVP     Setting Accuracy     ±100mV       Resoltion     0FF,ON(0.05A-6.50A)     3.1A(USB port)     0FF,ON(0.05A-5.50A)     3.1A(USB port)       OCP     Load Mode     OFF,ON(0.05A-6.50A)     3.1A(USB port)     0FF,ON(0.05A-5.50A)     3.1A(USB port)       Setting Accuracy     ±20mA     ±20mA     ±20mA       Resoltion     10mA     10mA       Insulation     and terminal     20MΩ or above (DC 500V)       General     Indoor use, Altitude: ≤ 2000m       Operation Environment     Indoor use, Altitude: ≤ 200m       Relative humidity: ≤ 80%     Installation degree: 2				Fixed 5.5V			Fixed 5.5V			Fixed 5.5V	
Resolution         100mV           Power Mode         OFF,ON(0.05A-6.50A)         3.1A(USB port)         OFF,ON(0.05A-3.50A)         3.1A(USB port)         OFF,ON(0.05A-5.50A)         3.1A(USB port)         <	'P			-	OFF,ON(1	.5V-38.0V)	-				
Power Mode         OFF,ON(0.05A-6.50A)         3.1A(USB port)         OFF,ON(0.05A-3.50A)         3.1A(USB port)         OFF,ON(0.05A-5.50A)         3.1A(USB port)         0         3.1A(USB port)         3.1A(USB port)         0         3.1A(USB port)         3.1A(USB port) </th <td colspan="4">Resoltion 100mV</td> <td></td> <td></td>	Resoltion 100mV										
OCP     Load Mode     OFF,ON(0.05A-6.50A)     ·     OFF,ON(0.05A-5.50A)       Setting Accuracy     ±20mA       Resoltion     10mA       Insulation     20MΩ or above (DC 500V)       resistance     30MΩ or above (DC 500V)       General     Indoor use, Altitude: ≤ 2000m       Operation Environment     Indoor use, Altitude: ≤ 2000m       Relative humidity: ≤ 80%     Relative humidity: ≤ 80%				3.1A(USB port)		5A-3.50A)	3.1A(USB port)			3.1A(USB port	
Setting Accuracy         ±20mA           Resoltion         10mA           Insulation         and terminal           resistance         20MΩ or above (DC 500V)           and DC power cord         30MΩ or above (DC 500V)           General         Indoor use, Altitude: ≤ 2000m           Operation Environment         Indoor use, Altitude: ≤ 2000m           Relative humidity: ≤ 80%         Relative humidity: ≤ 80%	ip [	Load Mode	OFF,ON(0.05A-6.50A)		OFF,ON(0.0						
Between chassis and terminal         20MΩ or above (DC 500V)           resistance         Between chassis and DC power cord         30MΩ or above (DC 500V)           General         Indoor use, Altitude: ≤ 2000m           Operation Environment         Indoor use, Altitude: ≤ 2000m           Relative humidity: ≤ 80%         Relative humidity: ≤ 80%	ŀ										
Insulation resistance     and terminal Between chassis and DC power cord     20000 or above (DC 500V)       General     Indoor use, Altitude: ≤ 2000m       Operation Environ     Indoor use, Altitude: ≤ 2000m       Insulation Constraints     Indoor use, Altitude: ≤ 2000m       Operation Environ     Indoor use, Altitude: ≤ 2000m       Insulation Constraints     Ambient temperature: 0 ~ 40°C       Operation Environ     Relative humidity: ≤ 80%       Insulation category: II / Pollution degree: 2											
and DC power cord         30000 rabove (DC solov)           General         Indoor use, Altitude: ≤ 2000m           Operation Environment         Indoor use, Altitude: ≤ 2000m           Relative humidity: ≤ 80%         Relative humidity: ≤ 80%		and terminal	20MΩ or above (DC 500V)								
and DC power cord           General         Indoor use, Altitude: < 2000m           Operation Environment         Indoor use, Altitude: < 00°C           Relative humidity: < 80%         Installation category: II / Pollution degree: 2	istance		30MQ or above (DC 500V)								
Operation Environment         Indoor use, Altitude: ≤ 2000m           Arabient temperature: 0 - 40°C         Relative humidity: ≤ 80%           Installation category: II / Pollution degree: 2         Installation category: II / Pollution	neral	and DC power cord				(	·				
Operation Environment         Ambient temperature: 0 - 40°C           Relative humidity: ≤ 80%         Installation category: II / Pollution degree: 2											
Kelative numidity 5 80% Installation category II / Pollution degree: 2	eration Environme	ent	Ambient temperature: 0 ~ 40°C								
	station Environme										
TEMDEDATIDE 10°C 70°C	Stannan Fruinzannan		Installation category: II / Pollution degree: 2 TEMPERATURE: -10'C ~ 70'C								
	-		IEMPERATURE: -10 C ~ 70 C HUMIDITY: ≤70%								
Power Input AC 100V/120V/120V/120S/06/07			AC100V/120V/220V/230V±10%, 50/60Hz								
Power Consumption 900VA, 680W			900VA, 680W								
			CD User manual X1, Quick Start manual X1, Power Code x1								
	Accessories		Test lead: GTL-104A x 3 (Europe) Test lead: GTL-204A x 3, GTL-201A x1								
Dimensions 213 (W) x 145 (H) x 362 (D) mm											
Weight Approx. 10kg	ight										
Specifications subject to change without notice. GPP-306060303650CD2I					S	pecifications s	ubject to change with	out notice.	GPP-30606030	3650GD2BH_20	

ORDERING	INFORMATION					
GPP-3060 385W Triple-channel Programmable DC Power Supply						
GPP-6030						
GPP-3650 385W Triple-channel Programmable DC Power Supply						
ACCESSORIES						
CD (User manual), Quick start manual, Power cord, Test lead : GTL-104A x 3, European test leads: GTL-204A x 3, GTL-201A x 1						

Approx. 10kg					
Specifications subject to change without notice.	GPP-306060303650GD2BH_202203				
OPTIONAL ACCESSORIES					
GTL-246 USB Cable GRA-449-E Rack Mount Kit (EIA) GRA-449-J Rack Mount Kit (JIS)					
INTERFACE					
Standard: RS-232, USB, LAN, Ext I/O Optional(manufacturer installed only): GPIB					

NOTE: Contact local sales if you have issues with Interface purchase.