

# PROGRAMMABLE DUAL-RANGE D.C. POWER SUPPLY



## PSM-2010/3004/6003



Patent No: ZL 03 3 01174.5

## FEATURES

- \* Single Output Dual Range Max. 200W
- \* High Resolution: 1mV/1mA
- \* Stable & Clear Power: 0.01% Load/Line Regulation, 350µVrms Ripple
- \* 100 Sets Memory
- \* Auto Step Running With Timer Setting
- \* Safety Design: OVP, OCP & OTP ; Output ON/OFF Control(OCP Provides Delay Setting to Prevent Trip of High Start-Up Current)
- \* Self-Test and Software Calibration
- \* Highly Visible Vacuum-Fluorescent Display
- \* Front and Rear Output Terminal
- \* Standard Interface : RS-232C, GPIB
- \* Option : European Jack Type Terminal

## Rear Panel



The PSM-Series are single output / dual range, 120 or 200W, programmable linear DC power supplies. OVP, OCP, OTP, and output On/Off control protect the PSM-Series and their load from unexpected conditions. High resolution, high regulation, and low ripple are maintained at 1mV/1mA, 0.01%, and <math><350\mu\text{Vrms}</math>, respectively. Operation and configuration is simplified with a digital interface and a clear LCD display. Standard features include; store/recall output memories, automatic stepping with timers for continuous testing and self-testing and software calibration features to reduce maintenance overhead. SCPI programming, LabVIEW drivers, RS-232C and GPIB interfaces enable easy automated test system integration and remote control. The PSM-Series are an ideal choice for high precision applications such as QA verification and product development.

SPECIFICATIONS			
	PSM-2010	PSM-3004	PSM-6003
<b>DC OUTPUT</b>			
Low Range	0 ~ 8V/20A	0 ~ 15V/7A	0 ~ 30V/6A
High Range	0 ~ 20V/10A	0 ~ 30V/4A	0 ~ 60V/3.3A
<b>CONSTANT VOLTAGE OPERATION</b>			
Regulation (% of output + offset)	Load regulation $\leq 0.01\% + 2\text{mV}$ Line regulation $\leq 0.01\% + 2\text{mV}$		
Ripple & Noise	$< 350\mu\text{Vrms}/3\text{mVpp}$	$< 350\mu\text{Vrms}/2\text{mVpp}$	$\leq 50\text{V}: < 500\mu\text{Vrms}/3\text{mVpp}$ $> 50\text{V}: < 1\text{mVrms}/3\text{mVpp}$
<b>CONSTANT CURRENT OPERATION</b>			
Regulation (% of output + offset)	Load regulation $\leq 0.01\% + 250\mu\text{A}$ Line regulation $\leq 0.01\% + 250\mu\text{A}$		
Ripple & Noise	$< 2\text{mArms}$		
<b>RESOLUTION</b>			
Programming	Voltage 1mV Current 1mA	1mV 0.5mA	2mV 0.5mA
Readback	Voltage 0.5mV Current 1mA	0.5mV 0.1mA	1mV 0.5mA
Front Panel	Voltage 1mV Current 1mA (<math><10\text{A}</math>), 10mA ( $\geq 10\text{A}</math>)$		
OVP/OCP	Voltage 10mV Current 10mA		
<b>ACCURACY</b>			
Programming	Voltage 0.05% + 10mV Current 0.2% + 10mA		
Readback	Voltage 0.05% + 5mV Current 0.15% + 5mA		
OVP/OCP	Voltage 0.1% + 10mV Current 0.4% + 10mA		
<b>TRANSIENT RESPONSE</b>			
	$< 50\mu\text{sec}$ ( for output to recover within 15mV following a change in output current from full load to half load)		
<b>COMMAND PROCESSING TIME</b>			
	100 ms		
<b>VOLTAGE PROGRAMMING RESPONSE TIME (for resistive load)</b>			
Voltage Up	Full Load No Load	95 ms 45 ms	50 ms 20 ms
Voltage Down	Full Load No Load	30 ms 450 ms	45 ms 400 ms
<b>STABILITY (% of output + offset)</b>			
Voltage	0.02% + 1mV		
Current	0.1% + 1mA		
<b>MEMORY</b>			
Store/Recall	100 sets		
<b>TEMPERATURE COEFFICIENT PER °C <math>\pm</math> (% of Output + Offset)</b>			
Voltage	0.01% + 3mV		
Current	0.02% + 3mA		
<b>POWER SOURCE</b>			
AC 100V/120V/220V $\pm 10\%$ , 230V : - 6% ~ + 10%, 50/60Hz			
<b>INTERFACE</b>			
Standard RS-232C, GPIB			
<b>DIMENSIONS &amp; WEIGHT</b>			
230(W) x 140(H) x 380(D) ; Approx. 10kg			

## ORDERING INFORMATION

<b>PSM-2010</b>	200W Single Output, Programmable Power Supply
<b>PSM-6003</b>	200W Single Output, Programmable Power Supply
<b>PSM-3004</b>	120W Single Output, Programmable Power Supply

### ACCESSORIES :

User manual x 1, Power cord x 1, Test lead GTL-104 x 1, European test lead GTL-204 x 1, Ground lead GTL-201A x 1 (European terminal), Sense lead GTL-202 x 1 (European terminal)

### OPTION

Opt. 01: GRA-407 Rack Mounting ( 19" , 4U )

### OPTIONAL ACCESSORIES

GTL-232 RS-232C Cable, 9-pin Female to 9-pin, Null Modem for PC Computer

### FREE DOWNLOAD

**PC Software Driver** PC Software including Data Log ; Remote Control Software  
Labview Driver ; PSM VB Example ; PSM VC++ Example