

PSU-Series



NEW



The PSU-Series is a single output programmable switching DC Power Supply covering a power range up to 1520W. This series of products include five models with the combination from 6V to 60V rated voltages. As the PSU-Series can be connected in series for maximum 2 units or in parallel for maximum 4 units, the capability of connecting multiple PSU-Series units for higher voltage or higher current output provides a broad coverage of applications.

The C.V/C.C priority selection of the PSU-Series is a very useful feature for DUT protection. The conventional power supply normally operates under C.V mode when the power supply output is turned on. This could bring a high inrush current to the capacitive load or current-intensive load at the power output on stage. Though the current becomes stable after the C.C mode is activated, the current spike occurred

at the C.V and C.C crossover point may possibly damage the DUT. At the power output on stage, the PSU-Series is able to run under C.C priority to limit the current spike occurred at the threshold voltage and therefore protects DUT from the inrush current damage.

The OVP and OCP protections can prevent the DUT damage. Both OVP and OCP levels can be selected the range of 10% to 110% , with the default level set at 110%, of the rated voltage/current of the power supply. The PSU-Series provides USB Host/Device, LAN, RS-232 with RS-485 and Analog Control interfaces as standard. The LabView driver and the data Logging PC software are available at the rear panel for external control of the power On/Off and the external monitoring of power output voltage and current.

FEATURES

- Voltage Rating : 6V/12.5V/20V/40V/60V
- Output Power Rating : 1200W ~ 1520W
- C.V/C.C Priority; Particularly Suitable for the Battery and LED Industry
- Adjustable Slew Rate
- Series and Parallel Operation (2 Units in Series/4 Units in Parallel Maximum)
- High Efficiency and High Power Density
- 19" Rack Mount Size Design
- Standard Interface : LAN, RS-232 & RS485, USB (Device/Host), Analog Control Interface
- Optional Interface : GPIB/Analog Control Interface (Isolated Voltage Control)/Analog Control Interface (Isolated Current Control)



Front



Rear Panel

APPLICATIONS

- Laboratories and Educational Facilities
- Product Testing and Quality Assurance
- Service Operation and Post-Sales support
- Product Development and Debugging

Series Operation

| Model | Single Unit | Two Units |
|--------------|--------------|------------|
| PSU 6-200 | 6V / 200A | 12V / 200A |
| PSU 12.5-120 | 12.5V / 120A | 25V / 120A |
| PSU 20-76 | 20V / 76A | 40V / 76A |
| PSU 40-38 | 40V / 38 A | 80V / 38A |
| PSU 60-25 | 60V / 25A | 120V / 25A |

Parallel Operation

| Model | Single Unit | Two Units | Three Units | Four Units |
|--------------|--------------|--------------|--------------|--------------|
| PSU 6-200 | 6V / 200A | 6V / 400A | 6V / 600A | 6V / 800A |
| PSU 12.5-120 | 12.5V / 120A | 12.5V / 240A | 12.5V / 360A | 12.5V / 480A |
| PSU 20-76 | 20V / 76A | 20V / 152A | 20V / 228A | 20V / 304A |
| PSU 40-38 | 40V / 38 A | 40V / 76A | 40V / 114A | 40V / 152A |
| PSU 60-25 | 60V / 25A | 60V / 50A | 60V / 75A | 60V / 100A |

| SPECIFICATIONS | | | | | |
|---|--|--------------|-----------|-----------|-----------|
| Model | PSU 6-200 | PSU 12.5-120 | PSU 20-76 | PSU 40-38 | PSU 60-25 |
| OUTPUT RATINGS | | | | | |
| Voltage | 0 ~ 6V | 0 ~ 12.5V | 0 ~ 20V | 0 ~ 40V | 0 ~ 60V |
| Current | 0 ~ 200A | 0 ~ 120A | 0 ~ 76A | 0 ~ 38A | 0 ~ 25A |
| Power | 1200W | 1500W | 1520W | 1520W | 1500W |
| OUTPUT RIPPLE AND NOISE | | | | | |
| CV p-p (10~20MHz) | 60mV | 60mV | 60mV | 60mV | 60mV |
| CV rms (5Hz~1MHz) | 8mV | 8mV | 8mV | 8mV | 8mV |
| CC rms (5Hz~1MHz) | 400mA | 240mA | 152mA | 95mA | 75mA |
| LOAD REGULATION | | | | | |
| Voltage | 2.6mV | 3.25mV | 4mV | 6mV | 8mV |
| Current | 45mA | 29mA | 20.2mA | 12.6mA | 10mA |
| LINE REGULATION (change from 85 to 132 VAC input or 170-265 VAC) | | | | | |
| Voltage | 2.6mV | 3.25mV | 4mV | 6mV | 8mV |
| Current | 22mA | 14mA | 9.6mA | 5.8mA | 4.5mA |
| PROGRAMMING ACCURACY | | | | | |
| Voltage 0.05% + (mV) | 3mV | 6.25mV | 10mV | 20mV | 30mV |
| Current 0.2% + (mA) | 200mA | 120mA | 76mA | 38mA | 25mA |
| MEASUREMENT ACCURACY | | | | | |
| Voltage 0.1% + (mV) | 6mV | 12.5mV | 20mV | 40mV | 60mV |
| Current 0.2% + (mA) | 400mA | 240mA | 152mA | 76mA | 50mA |
| LOAD TRANSIENT RECOVERY TIME | | | | | |
| Time | 1.5ms | 1ms | 1ms | 1ms | 1ms |
| OUTPUT RESPONSE TIME | | | | | |
| Rise Time (No Load & Full Load) | 80ms | 80ms | 80ms | 80ms | 80ms |
| Fall Time (No Load) | 500ms | 700ms | 800ms | 1000ms | 1100ms |
| Fall Time (Full Load) | 10ms | 50ms | 50ms | 80ms | 80ms |
| PROGRAMMING/MEASUREMENT RESOLUTION | | | | | |
| Voltage | 0.2mV | 0.4mV | 0.7mV | 1.3mV | 2mV |
| Current | 6mA | 4mA | 2.5mA | 1.2mA | 0.8mA |
| TEMPERATURE COEFFICIENT (after a 30 minute warm-up) | | | | | |
| Voltage | 100PPM/°C after 30 minutes warm up | | | | |
| Current | 100PPM/°C after 30 minutes warm up | | | | |
| SERIES AND PARALLEL OPERATION | | | | | |
| Parallel Operation | Up to 4 units including master unit | | | | |
| Series Operation | Up to 2 units including master unit | | | | |
| ENVIRONMENTAL CONDITIONS | | | | | |
| Environment | Indoor use, installation category II (AC Input), pollution degree 2 | | | | |
| Operating Temperature Range | 0°C ~ 50°C | | | | |
| Storage Temperature Range | -25°C ~ 70°C | | | | |
| Operating Humidity Range | 20% to 85% RH | | | | |
| Storage Humidity Range | Up to 90% or less relative humidity (no condensation) | | | | |
| AC INPUT | | | | | |
| Normal Input | 100Vac ~ 240Vac, 50Hz ~ 60Hz, single phase | | | | |
| Input Range | 85Vac ~ 265Vac | | | | |
| Power Factor (100Vac/200Vac) | 0.99/0.98 | | | | |
| Maximum Input Current (100Vac/200Vac) | 21A/11A | | | | |
| Inrush Current | ≤ 50A | | | | |
| Efficiency(100Vac/200Vac) | 77%/79% | 82%/85% | 83%/86% | 84%/87% | 84%/87% |
| DIMENSIONS & WEIGHT | | | | | |
| Analog Control (Non-Isolated) | YES | | | | |
| PC Remote Interface (Standard) | USB (Device/Host)/RS-232 with RS-485/LAN | | | | |
| PC Remote Interface (Optional) | GPIB/Analog Control Interface (Isolated Voltage Control)/Analog Control Interface (Isolated Current Control); Note : Selection one of three | | | | |
| Cooling Fan | Forced air cooling by internal fan | | | | |
| Dimensions & Weight | 423(W) x 43.6(H) x 44.7(D) ; Approach 8.7kg | | | | |

Specifications subject to change without notice. SU-SeriesGD2DH

| 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 |
| ACCESSORIES | |
| User Manual x 1, Basic Accessories Kit x 1 | |
| FREE DOWNLOAD | |
| Driver | LabView Driver |

| OPTIONAL ASSESSORIES | | | |
|----------------------|--|-----------|--|
| GTL-248 | GPIB Cable (2m) | PSU-232 | RS 232 Cable with DB9 connector kit |
| GTL-246 | USB Cable, USB 2.0A-B TYPE CABLE, 4P | PSU-485 | RS 485 Cable with DB9 connector kit |
| GTL-251 | GPIB-USB-HS (high speed) | GRM-001 | Slide bracket 2pcs/set ,PSU option |
| PSU-01B | Bus bar for 2 units in parallel connection | PSU-GPIB | GPIB Interface card (factory option) |
| PSU-01C | Cable for 2 units in parallel connection | PSU-ISO-I | Isolate current remote control card (factory option) |
| PSU-02B | Bus bar for 3 units in parallel connection | PSU-ISO-V | Isolate voltage remote control 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 |

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