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PROGRAMMABLE DC POWER SUPPLY MODEL 62000L SERIES

The Chroma 62000L Series Programmable DC power supplies have low noise linear performance and fast transient response. The units have many unique functions that are targeted for overall automated test system integration, automotive power electronics MCU/ECU, power semiconductors, wireless communications, etc. The 62000L Series is a high quality yet cost effective programmable DC Source, designed to meet the stringent requirements of the next generation of power electronics.

The GPIB/USB/Ethernet control interfaces come standard with the 62000L Series, no additional purchase required. The 62000L Series can be easily remote controlled via either of these two interfaces. The 62000L weighs less than 2.5 kg, and its case measures 214.6Wx88.6H x280D mm. Its light weight and compact size makes it easy to handle and stack safely.

Auto-ranging allows you to freely adjust voltage and current. This feature eliminates the need to manually select the optimum range allowing all of the power to be available across all of the voltage and current settings

If there are applications that need voltages and currents greater than the rated maximum outputs, this can be achieved using multiple power supplies. The power supply can output an extended range of voltages or currents by connecting more units. Using a series-parallel connection to achieve greater voltage (up to 252V) and current (up to 49A) output.

GPIB USB Ethernet CE RoHS2 Compliant

MODEL 62000L SERIES

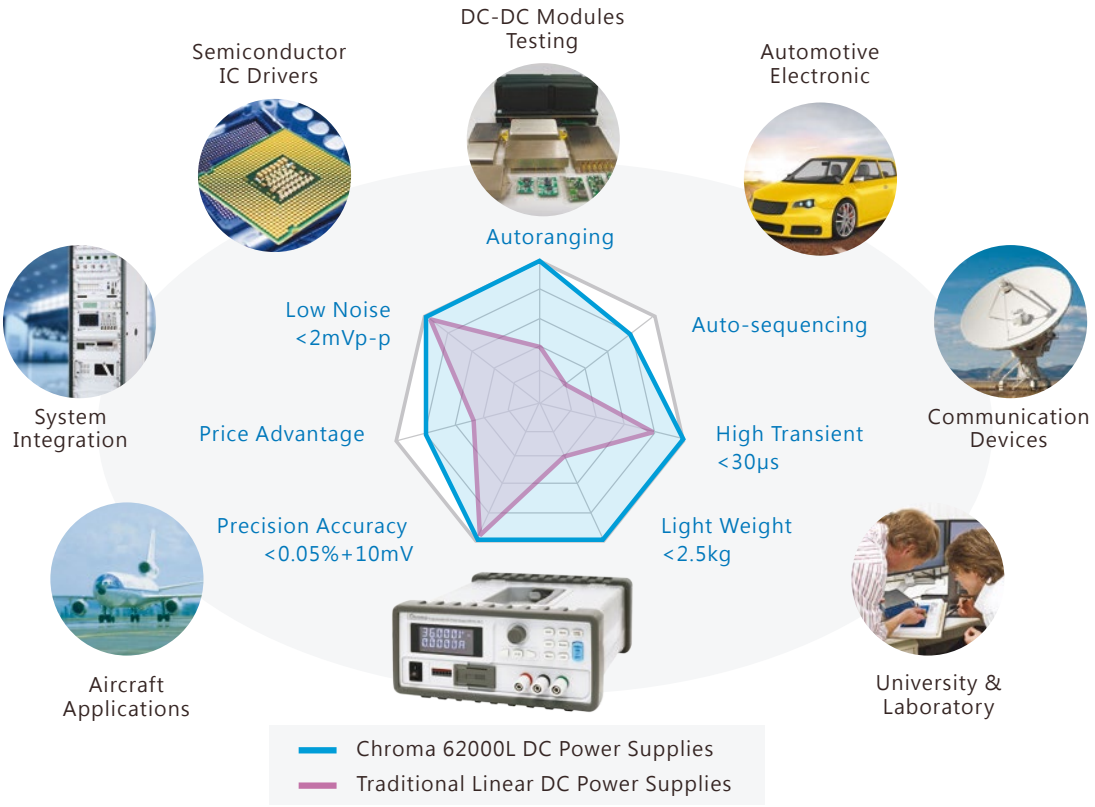
KEY FEATURES

- Voltage range: 0 ~ 60V
  Current range: 0 ~ 7A
  Power range: 0 ~ 150W
- Wide range of voltage & current combinations in constant power
- Clean and stable power with programmability at an affordable price
- Low noise: < 3mVp-p
- High transient response time: < 30μs
- High-speed programming
- Precision V&I measurements
- Support GPIB/USB/Ethernet interfaces
- Remote sense
- Master-slave parallel and serial control
- 8 steps for auto sequencing programming
- 16 storage locations for user-defined operating states
- OVP, current limit, thermal protection, OPP
- CE certified

APPLICATIONS

- Laboratory and system integration
- Automotive electronic components
- University and 3C products
- Mobile, IC driving power, wireless and communication power
- Low noise for aircraft applications

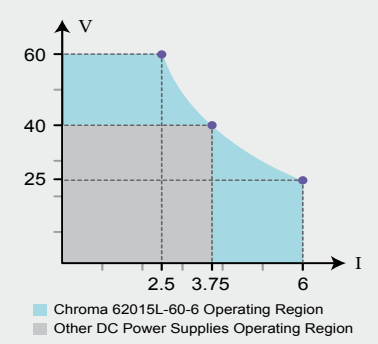
62000L FEATURES AND APPLICATIONS



AUTORANGING OUTPUT

The 62000L Series Programmable DC power supplies have wide operating ranges. Chroma's model 62015L-60-6 for example, the output specification 150W/60V/6A can operate under different combinations as the figure shows below while other common DC power supplies can only achieve the maximum output power of a single point.

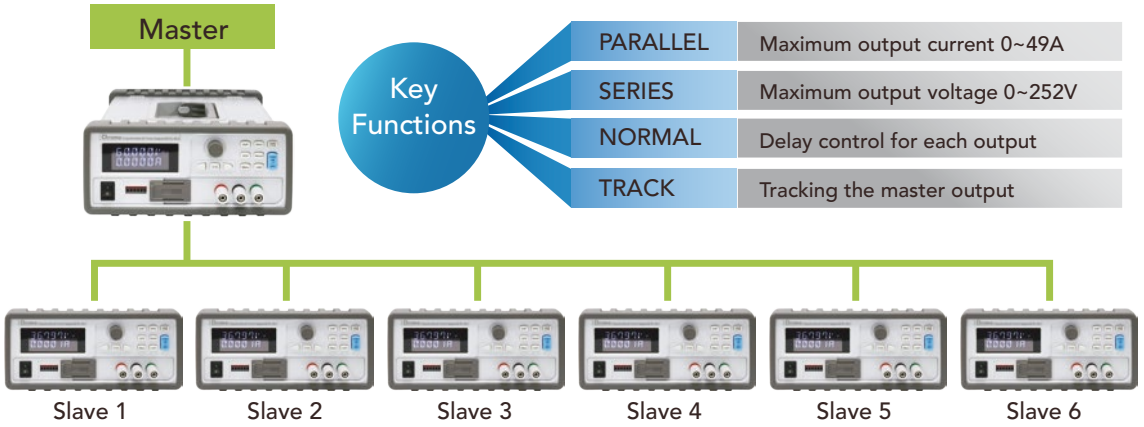
For wide range voltage and current applications, one DC power supply can be used to test the input of both low voltage/high current and high voltage/low current UUTs. When integrated into a standard ATE, one 62000L series DC power supply can replace multiple DC power supplies to significantly reduce cost and save space.



Autoranging Output

MASTER-SLAVE CONTROL

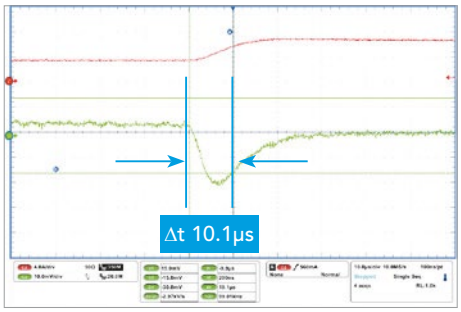
The 62000L Series master-slave control has 4 modes listed as follows :
Parallel Mode : The master-slave parallel control connects multiple power supplies to extend the current output.
Series Mode : The master-slave parallel control connects multiple power supplies to extend the voltage output.
Normal mode : The master-slave normal control follows the delay time set by each power supply to output from the master.
Track Mode : The master-slave track mode tracks each power supply to synchronize with the output voltage and status of master.



HIGH TRANSIENT RESPONSE

The 62000L Series features the state-of-the-art DC power supply design with high transient response for output voltage. Take the model 62010L-36-7 for example, when the output current changes from 3.5A to 7A at the speed of 1A/us, the voltage change of actual output can return to 15mV within 10.1us.

For dynamic load change, the 62000L Series can quickly react in order to give a stable DC output, as well as reducing the surge voltage generated by load change that could damage the UUT. As to non-static products or test applications, the 62000L Series can timely provide a stable DC power supply.

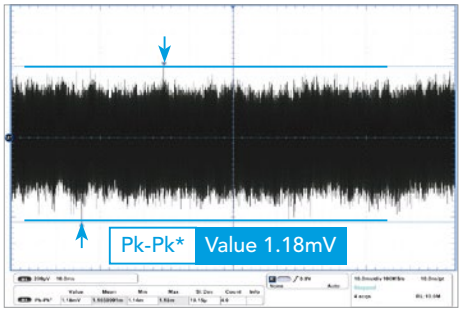


High Transient Response

LOW OUTPUT NOISE

The 62000L Series provides pure and stable DC power. For example, the 62010L-36-7 output voltage noise is 1.18mVp-p (20~20MHz) under the maximum rated current and maximum output power.

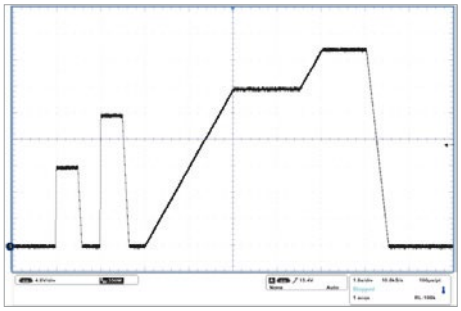
For precision products that require strict power quality, such as semiconductor testing and IC drive, the 62000L Series is able to comply with the product specification to protect the UUT from the interference of heavy noise providing low ripple and low noise input power with pure quality.



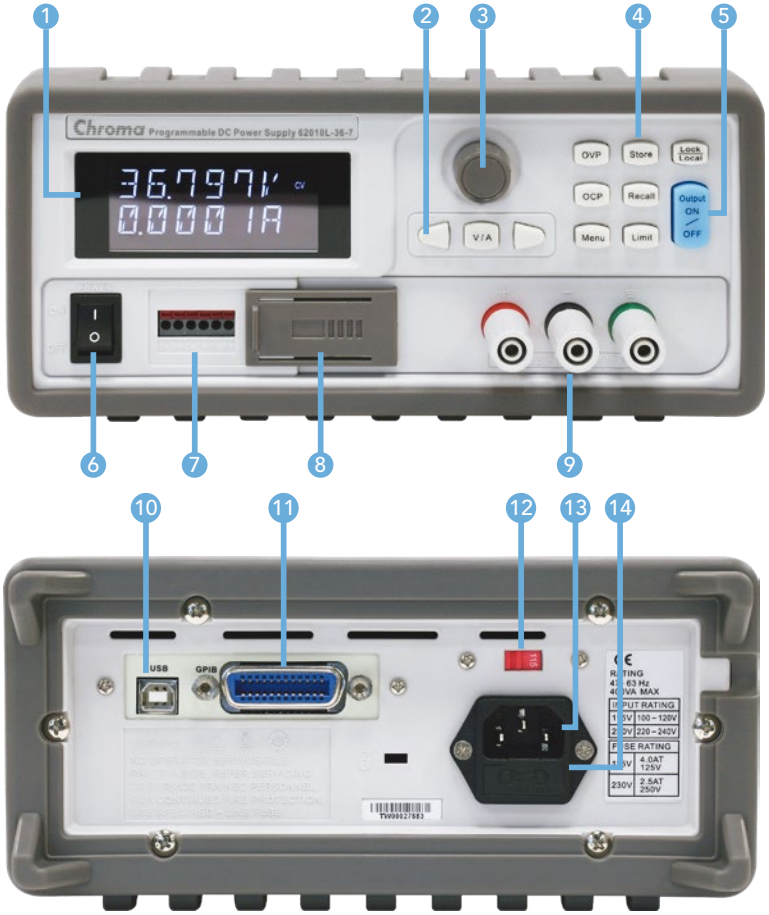
Low Output Noise

AUTO SEQUENCING PROGRAMMING

The auto sequencing programming function built into the 62000L Series allows the user to define and edit the output waveforms and cycles desired. Using 8 steps per cycle, each step can set the time for voltage to rise or fall as well as to dwell. This function can also be applied to the waveform signal simulation test of power electronics and the power simulation test of automotive electronics by editing the required output voltages following the UUT test criteria.


Auto Sequencing Programming

PANEL DESCRIPTION



1. Display
   Display setting, readings and operating status
2. Voltage/Current Key
   Set the output voltage/output current limit
3. Rotary Key
   Adjust the V&I and set the parameter
4. Function Key
   Operation function selection
5. Output Key
   Enable or disable the output
6. Power Switch
   AC power on/off
7. Master-Slave Mode and Remote Sense Terminal
   Set the Master-Slave series/parallel & remote sense
8. Cover
   Dust cover
9. Output Terminal
   Connect the output cable to a UUT
10. USB Interface
11. GPIB or Ethernet Interface
12. Power-Line Voltage Setting
    110V/220V AC setting
13. Power Line Inlet
14. Fuse Holder

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GENERAL SPECIFICATIONS

Model	62010L-36-7	62015L-60-6
Output Ratings		
Output Voltage	0~36V	0~60V
Output Current	0~7A	0~6A
Output Power	108W	150W
Line Regulation		
Voltage	0.01%+2mV	0.01%+2mV
Current	0.01%+250uA	0.01%+250uA
Load Regulation		
Voltage	< 0.01%+2mV	< 0.01%+2mV
Current	< 0.01%+250uA	< 0.01%+250uA
Measurement Accuracy		
Voltage	0.05%+5mV	0.05%+5mV
Current	0.15%+5mA	0.15%+5mA
Output Noise & Ripple		
Voltage Noise (p-p)	< 2mVp-p	< 3mVp-p
Voltage Ripple (rms)	< 0.35mVrms	< 0.5mVrms
Current Ripple (rms)	< 2mArms	< 2mArms
Transient Response Time		
100% to 50% load change	< 30usec	< 30usec
Temperature Coefficient		
Voltage	0.01%+3mV	0.01%+3mV
Current	0.02%+3mA	0.02%+3mA
Drift		
Voltage	0.02%+1mV	0.02%+1mV
Current	0.1%+1mA	0.1%+1mA
Programming & Measurement Resolution		
Voltage (Front Panel)	1mV	1mV
Current (Front Panel)	0.1mA	0.1mA
Voltage (Read-back)	1mV	1mV
Current (Read-back)	0.1mA	0.1mA
Voltage (Programming)	1mV	1mV
Current (Programming)	0.21mA	0.21mA
Programming Accuracy		
Voltage	0.05%+10mV	0.05%+10mV
Current	0.2%+10mA	0.2%+10mA
Programming Response Time		
Rise Time (Full Load)	< 40ms	< 100ms
Rise Time (No Load)	< 20ms	< 35ms
Fall Time (Full Load)	< 40ms	< 50ms
Fall Time (No Load)	< 400ms	< 500ms
Measure Voltage, Current (under GPIB command using Measure)	< 20ms	< 20ms
AC Input Operating Voltage Range	1ϕ 100~120Vac $\pm$ 10% V_{LN}, 1ϕ 220~240Vac $\pm$ 10% V_{LN}, 47~63 Hz	
Interfaces	USB, GPIB, Ethernet	
Dimension (H x W x D)	88.6 x 214.6 x 280.7 mm/3.49 x 8.45 x 11.05 inch	
Weight	< 2.5 kg/5.5 lbs	

* All specifications are subject to change without notice.

ORDERING INFORMATION

62010L-36-7 : Programmable DC Power Supply 36V/7A/108W
with GPIB & USB Interface or Ethernet & USB Interface
62015L-60-6 : Programmable DC Power Supply 60V/6A/150W
with GPIB & USB Interface or Ethernet & USB Interface
B620001 : 19" Rack Mounting Kit for Model 62000L Series (2U model x 1)