

Programmable DC Power Source

MODEL 62120 Series

Key Features:

- 10 models available for selection
- 3 phase, 208VAC input
- Digital encoder knobs, keypad and function keys
- Power Factor Correction (PFC)
- Embedded controller for front panel sequencing
- 16-bit digital processing
- LabView drivers
- Constant Power mode
- 10 store/recall locations and 99 step sequencing
- Remote sense, 5V line loss compensation
- Isolated analog programming
- Optional IEEE-488.2 GPIB control with SCPI and RS-232 standard interface
- OVP, current limit, thermal protection
- UL, CSA, CE approved



Programmable DC Power Source 62120 Series-12KW

Chroma 62120 Series of various output programmable DC power supplies are designed for use in ATE, burn-in, plating, and other high power systems for a broad range of Test & Measurement applications.

The 62120 Series of constant voltage, constant current power supplies are available in power ranges 12KW. All models have 10-turn voltage and current controls that vary the voltage (10V~600V) and current (20A~1200A) outputs from zero to the maximum rated values. The operation of crossover from constant voltage constant current occurs automatically when the load current exceeds the control setting. Also the provided adjustable current limit allows you to set the current limit without short-circuiting the output.

All 62120 Series Programmable DC Power Sources have incorporated modern power factor correction circuitry to increase the input power factor more than 0.95 to meet the IEC regulation that not only reduces the input current requirement but also raises the efficiency over 85%.

There are 100 user programmable input status on the front panel for automated test applications. In addition a 16-bit digital control with bright vacuum fluorescent display readout, bar graphs and status indicators is equipped for the real time measurement of voltage and current.

The 62120 Series DC Power Sources are very easy to operate either from the front panel keypad or from the remote controller via GPIB (optional) and RS-232 & APG (standard). Its compact size with 10.37" only can be stacked on a bench in a standard rack without any difficulty.

For quality and safety, the entire series of Model 62120 Programmable DC Power Sources are CSA, UL, and CE approved with standard over voltage protection (OVP) and thermal shutdown functions built-in; consequently make each of them a reliable instrument for components testing as well as new products development.



Chroma

SPECIFICATIONS :

Model	62120-10	62120-20	62120-30	62120-40	62120-60	62120-80	62120-100	62120-150	62120-300	62120-600
Output Ratings										
Output Voltage ¹	0-10V	0-20V	0-30V	0-40V	0-60V	0-80V	0-100V	0-150V	0-300V	0-600V
Output Current ²	0-1200A	0-600A	0-400A	0-300A	0-200A	0-150A	0-120A	0-80A	0-40A	0-20A
Output Power	12000W	12000W	12000W	12000W	12000W	12000W	12000W	12000W	12000W	12000W
Line Regulation³										
Voltage (0.01% of Vmax)	1 mV	2 mV	3 mV	4 mV	6 mV	8 mV	10 mV	15 mV	30 mV	60 mV
Current (0.1% of Imax)	1200 mA	600 mA	400 mA	300 mA	200 mA	150 mA	120 mA	80 mA	40 mA	20 mA
Load Regulation⁴										
Voltage (0.05% of Vmax+5mV)	10 mV	15 mV	20 mV	25 mV	35 mV	45 mV	55 mV	80 mV	155 mV	305 mV
Current (0.2% of Imax+40mA)	2440 mA	1240 mA	840 mA	640 mA	440 mA	340 mA	280 mA	200 mA	120 mA	80 mA
Meter Accuracy										
Voltage (0.15% of Vmax)	15 mV	30 mV	45 mV	60 mV	90 mV	120 mV	150 mV	225 mV	450 mV	900 mV
Current (0.5% of Imax)	6000 mA	3000 mA	2000 mA	1500 mA	1000 mA	750 mA	600 mA	400 mA	200 mA	100 mA
Output Noise & Ripple										
P-P (20MHz)	75 mV	75 mV	75 mV	75 mV	100 mV	100 mV	100 mV	150 mV	250 mV	350 mV
rms (Voltage)	10 mV	10 mV	12 mV	15 mV	15 mV	15 mV	20 mV	20 mV	30 mV	80 mV
rms (Current ⁵)	6200 mA	3200 mA	2000 mA	1500 mA	900 mA	640 mA	460 mA	240 mA	100 mA	50 mA
OVP Adjustment Range:										
(5% to 103% of Vmax)	0.5-10.3 V	1-20.6 V	1.5-30.9 V	2-41.2 V	3-61.8 V	4-82.4V	5-103 V	7.5-154.5 V	15-309 V	30-618 V
Efficiency ⁶	85%	87%	87%	87%	89%	89%	90%	90%	91%	91%
Stability (30 minutes)⁷										
Voltage (0.04% of Vmax)	4 mV	8 mV	12 mV	16 mV	24 mV	32 mV	40 mV	60 mV	120 mV	240 mV
Current (0.6% of Imax)	7200 mA	3600 mA	2400 mA	1800 mA	1200 mA	900 mA	720 mA	480 mA	240 mA	120 mA
Stability (8 hours)⁸										
Voltage (0.02% of Vmax)	2 mV	4 mV	6 mV	8 mV	12 mV	16 mV	20 mV	30 mV	60 mV	120 mV
Current (0.04% of Imax)	480 mA	240 mA	160 mA	120 mA	80 mA	60 mA	48 mA	32 mA	16 mA	8 mA
Temperature Coefficient⁹										
Voltage (0.04% of Vmax/°C)	4 mV	8 mV	12 mV	16 mV	24 mV	32 mV	40 mV	60 mV	120 mV	240mV
Current (0.06% of Imax/°C)	720 mA	360 mA	240 mA	180 mA	120 mA	90 mA	72 mA	48 mA	24 mA	12 mA
Program Resolution										
Voltage (0.002% of Vmax)	0.2 mV	0.4 mV	0.6 mV	0.8 mV	1.2 mV	1.6 mV	2 mV	3 mV	6 mV	12 mV
Current (0.002% of Imax)	24 mA	12 mA	8 mA	6 mA	4 mA	3 mA	2.4 mA	1.6 mA	0.8 mA	0.4 mA
OVP (0.002% of Vmax)	0.2 mV	0.4 mV	0.6 mV	0.8 mV	1.2 mV	1.6 mV	2 mV	3 mV	6 mV	12 mV
Program Accuracy										
Voltage (0.1% of Vmax)	10 mV	20 mV	30 mV	40 mV	60 mV	80 mV	100 mV	150 mV	300 mV	600 mV
Current (0.5% of Imax)	6000 mA	3000 mA	2000 mA	1500 mA	1000 mA	750 mA	600 mA	400 mA	200 mA	100 mA
OVP (0.1% of Vmax)	10 mV	20 mV	30 mV	40 mV	60 mV	80 mV	100 mV	150 mV	300 mV	600 mV
Readback Resolution										
Voltage (0.002% of Vmax)	0.2 mV	0.4 mV	0.6 mV	0.8 mV	1.2 mV	1.6 mV	2 mV	3 mV	6 mV	12 mV
Current (0.002% of Imax)	24 mA	12 mA	8 mA	6 mA	4 mA	3 mA	2.4 mA	1.6 mA	0.8 mA	0.4 mA
Readback Accuracy										
Voltage (0.15% of Vmax)	15 mV	30 mV	45 mV	60 mV	90 mV	120 mV	150 mV	225 mV	450 mV	900 mV
Current (0.5% of Imax)	6000 mA	3000 mA	2000 mA	1500 mA	1000 mA	750 mA	600 mA	400 mA	200 mA	100 mA

All specifications are subject to change without notice.

Notes:

1. Minimum output voltage is <0.15% of rate voltage at zero output setting.
2. Minimum output current is <0.2% of rate current at zero output setting when measured with rated load resistance.
3. For input voltage variation over the AC input voltage range with constant rated load.
4. For 0-100% load variation with constant nominal line voltage.
5. Current mode noise is measured from 10% to 100% of rated output voltage, full current, unit in CC mode
6. Typical efficiency at nominal input voltage and full output power.
7. Maximum drift over 30 minutes with constant line, load, and temperature after power on.
8. Maximum drift over 8 hours with constant line, load, and temperature after 30 minute warm-up.
9. Change in output per °C change in ambient temperature with constant line and load.

Ordering Information:

62120-10 Programmable DC Power Source 10V/1200A/12KW
 62120-20 Programmable DC Power Source 20V/600A/12KW
 62120-30 Programmable DC Power Source 30V/400A/12KW
 62120-40 Programmable DC Power Source 40V/300A/12KW
 62120-60 Programmable DC Power Source 60V/200A/12KW
 62120-80 Programmable DC Power Source 80V/150A/12KW
 62120-100 Programmable DC Power Source 100V/120A/12KW
 62120-150 Programmable DC Power Source 150V/80A/12KW
 62120-300 Programmable DC Power Source 300V/40A/12KW
 62120-600 Programmable DC Power Source 600V/20A/12KW
 A626001 : GPIB Interface for Model 6260/62120 Series
 A626003 : High Voltage 342-500Vac 3 Phase Input

General Specifications :

Operational AC Input Voltage : 190-242 Vac 3phase (47-63Hz) (standard)
 342-500 Vac 3phase (47-63Hz) (optional)
 Dimension Size (WxHxD) : 482.6x263.4x602.7 mm
 Operating Temperature Range : 0°C ~ 50°C
 Storage Temperature Range : -40°C ~ +85°C
 Transient Response Time : 20 ms (voltage mode)
 Maximum Remote Sense Line Drop Compensation : 5V/line
 Remote on/off and interlock : 4 to 15V signal or TTL-compatible input
 Remote Analog Programming : Voltage and current programming inputs 0-5V, 0-10V(default) voltage sources, Input galvanically isolated from supply output.
 Remote Analog Monitoring : Voltage and current monitor outputs 0-5V, 0-10V(default) ranges for 0 to 100% of output, galvanically isolated from supply output.
 Remote Programming and Monitoring Accuracy : 0.3% of full scale output
 Front Panel Voltage Control Resolution : 0.002% with keypad
 Time Delay From Output Enable Until Output Stable : 5s maximum
 Isolation : 600Vdc (Output to Chassis)
 Switching Frequency : typical 31 kHz ; 62 kHz output ripple

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