

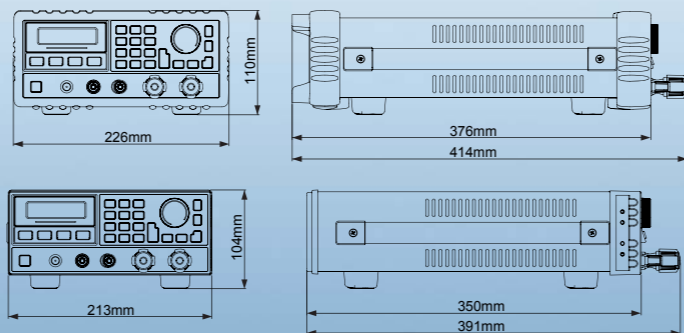
3720A/3721A Specifications

(The warm-up time is 30 minutes. Specifications indicate warranted performance in the 25 ± 5 region of the total temperature range).

Model	3720A	3721A
Input Ratings		
Current	0 ~ 30A	0 ~ 40A
Voltage	0 ~ 80V	0 ~ 80V
Power ¹	250W at 40	400W at 40
Input Characteristics		
Input Characteristics		
Minimum Operation Voltage @ Full Scale Current	0.6V	0.6V
Constant Current Mode		
Low Range Resolution Accuracy	0 ~ 3A 0.1mA 0.1%+5mA	0 ~ 4A 0.1mA 0.1%+5mA
High Range Resolution Accuracy	0 ~ 30A 1mA 0.1%+10mA	0 ~ 40A 1mA 0.1%+10mA
Constant Voltage Mode		
Range Resolution Accuracy	0 ~ 80V 1mV 0.1%+10mV	0 ~ 80V 1mV 0.1%+10mV
Constant Resistance Mode		
Low Range Resolution Accuracy @I>4A	0.02 ~ 2Ω 0.1mΩ 0.5%+12mΩ	0.02 ~ 2Ω 0.1mΩ 0.5%+12mΩ
Middle Range Resolution Accuracy @V>8V	2 ~ 200 8.6uS ² 0.3%+1.25mS	2 ~ 200Ω 8.6uS 0.3%+1.25mS
High Range Resolution Accuracy @V>8V	20 ~ 2000Ω 0.96uS 0.3%+0.625mS	20 ~ 2000Ω 0.96uS 0.3%+0.625mS
Constant Power Mode		
Range Resolution @P<100W @P 100W Accuracy	0 ~ 250W 1mW 10mW 0.2%+600mW	0 ~ 400W 1mW 10mW 0.2%+600mW
Current Measurement		
Low Range Resolution Accuracy	0 ~ 3A 0.1mA 0.05%+4mA	0 ~ 4A 0.1mA 0.05%+4mA
High Range Resolution Accuracy	0 ~ 30A 1mA 0.05%+8mA	0 ~ 40A 1mA 0.05%+8mA
Voltage Measurement		
Range Resolution Accuracy	0 ~ 80V 1mV 0.1%+8mV	0 ~ 80V 1mV 0.1%+8mV
Power Measurement		
Range Resolution @P<100W @P 100W Accuracy	0 ~ 250W 1mW 10mW 0.1%+600mW	0 ~ 400W 1mW 10mW 0.1%+600mW
Current Slew Rates		
Range CCH CCL ³	1mA/us ~ 3A/us 100uA/us ~ 300mA/us	1mA/us ~ 4A/us 100uA/us ~ 400mA/us
Resolution	1mA/us	1mA/us
Accuracy ⁴	3% + 10us	3% + 10us
Transient Operation		
Transient Mode	Continuous, Pulse, Toggled	Continuous, Pulse, Toggled
Frequency Range ⁵	0.38Hz ~ 50kHz	0.38Hz ~ 50kHz
High/Low Time Resolution Accuracy	0 ~ 655.35ms 10us 0.2%+10us	0 ~ 655.35ms 10us 0.2%+10us
Rising/Falling Time Resolution Accuracy	10us ~ 655.35ms 10us 0.2%+10us	10us ~ 655.35ms 10us 0.2%+10us
List Characteristics		
Step Time Resolution Accuracy	10us ~ 100000s 10us 0.2%+10us	10us ~ 100000s 10us 0.2%+10us
Number of Steps	1 ~ 50	1 ~ 50
Cycle	1 ~ 65535	1 ~ 65535
Store Capacity	7 lists	7 lists
Expanded Function	Chain	Chain

Model	3720A	3721A
Battery Discharge		
Discharge Time Resolution Accuracy	1s ~ 100h 1s 0.2%+1s	1s ~ 100h 1s 0.2%+1s
Battery Capacity Resolution Accuracy	1mAh ~ 3000Ah 1mAh 0.3%+0.01Ah	1mAh ~ 4000Ah 1mAh 0.3%+0.01Ah
Short Circuit		
CCL	3.3A	4.4A
CCH	33A	44A
CV	0V	0V
CRL	0.018	0.018
CRM	1.8	1.8
CRH	18	18
CPV	270W	420W
CPC	0W	0W
Maximum Slew Rate		
Current Voltage	3A/us 0.6V/us	4A/us 0.6V/us
Programmable Open Circuit	20kΩ	20kΩ
Trigger Input		
Trigger Level Trigger Pulse Width	TTL falling edge 10us	TTL falling edge 10us
Maximum Input Levels		
Current Voltage	33A 84V	44A 84V
Protection Features		
	OV, OC, OP, OT, RV	OV, OC, OP, OT, RV
Reverse Current Capacity		
Input OFF Input ON	25A 40A	30A 50A
Ripple and Noise		
Current(rms/p-p) Voltage(rms)	3mA/30mA 5mV	3mA/30mA 5mV
Environmental Conditions		
Temperature Relative Humidity	0 ~ 50 85%	0 ~ 50 85%
Remote Interface ⁶	RS232, GPIB, USB	RS232, GPIB, USB
Programming Language	SCPI	SCPI
AC Input		
Voltage Frequency	AC110V or AC220V ± 15% 48 to 63Hz	AC110V or AC220V ± 15% 48 to 63Hz
Net Weight	5.8kg	5.8kg

¹ Maximum continuous power available is derated linearly from 100% of maximum at 40°C, to 75% of maximum at 50°C.
² Conductance (S) = 1 / Resistance (Ω). The siemens is the SI derived unit of conductance, and the symbol is "S".
³ The set level is 10 times larger than the slew rate in CCL mode.
⁴ The actual transition time is defined as the time required for the input to change from 10% to 90% or from 90% to 10% of the programmed excursion.
⁵ Transient frequency depends on the time for high/low level and rising/falling edge.
⁶ Full remote control via RS232 with optional GPIB and USB.



Distributor information :

Specifications are subject to change without notice due to design improvements.



3720A/3721A DC Electronic Load

The feature rich, 3720A and 3721A Electronic Loads provide an adaptable, and functional asset wherever power sources need to be tested. These units are designed to provide high reliability, great performance, and ease of operation with multiple functionality. Each unit provides:

- 4 operating modes: Constant Current, Constant Voltage, Constant Resistance, Constant Power;
- High-speed sequence, high-speed transient, short-circuit, battery discharge and other auxiliary functions;
- Minimum operating voltage is less than 0.6V at the load's full rated current;
- Optional zero-voltage test accessories are available;
- Programmable current slew rate;
- Perfect protection assures high reliability in the most complicated test environment;
- Multiple groups of parameters and sequences can be saved and recalled;
- Ruggedized structure, exquisite user-friendly design and convenient operation;
- Supports SCPI (Standard Commands for Programmable Instrumentation) and Labview, and provides necessary PC software.

