

## 372X Series Specifications

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

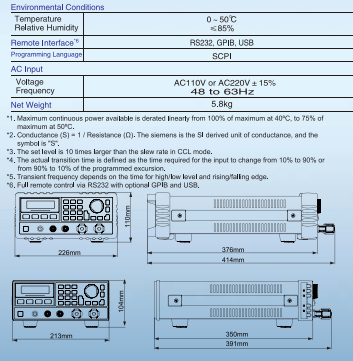
Model	3720A	3721A	3722A	3723A
<b>Input Ratings</b>				
Current	0-30A	0-40A	0-20A	0-30A
Voltage	0-80V	0-80V	0-200V	0-200V
Power <sup>1</sup>	250W at 40°C	400W at 40°C	200W at 40°C	350W at 40°C
<b>Input Characteristics</b>				
Minimum Operating Voltage @ Full Scale Current	0.6V		1.2V	
<b>Constant Current Mode</b>				
Low Range	0-3A	0-4A	0-2A	0-3A
Resolution	0.1mA	0.1mA	0.1mA	0.1mA
Accuracy	0.1%±5mA	0.1%±5mA	0.1%±5mA	0.1%±5mA
High Range	0-30A	0-40A	0-20A	0-30A
Resolution	1mA	1mA	1mA	1mA
Accuracy	0.1%±10mA	0.1%±10mA	0.1%±10mA	0.1%±10mA
<b>Constant Voltage Mode</b>				
Range	0-80V	0-80V	0-200V	0-200V
Resolution	1mV	1mV	2mV	2mV
Accuracy	0.1%±10mV	0.1%±10mV	0.1%±25mV	0.1%±25mV
<b>Constant Resistance Mode</b>				
Low Range	0.02-2Ω	0.02-2Ω	0.066-6.6Ω	0.066-6.6Ω
Resolution	0.1mΩ	0.1mΩ	0.1mΩ	0.1mΩ
Accuracy	0.5%±2mΩ @ 1-4A	0.5%±2mΩ @ 1-4A	0.5%±40mΩ @ 1-3A	0.5%±40mΩ @ 1-3A
Middle Range	2-20Ω	2-20Ω	6.6-66Ω	6.6-66Ω
Resolution	0.5Ω	0.5Ω	2.6Ω	2.6Ω
Accuracy	0.3%±10mΩ @ 1V > 8V	0.3%±10mΩ @ 1V > 8V	0.3%±0.5Ω @ 8V > 20V	0.3%±0.5Ω @ 8V > 20V
High Range	20-200Ω	20-200Ω	66.6-660Ω	66.6-660Ω
Resolution	0.96Ω	0.96Ω	0.2Ω	0.2Ω
Accuracy	0.3%±0.025Ω @ 8V > 8V	0.3%±0.025Ω @ 8V > 8V	0.3%±18Ω @ 8V > 20V	0.3%±18Ω @ 8V > 20V
<b>Constant Power Mode</b>				
Range	0-250W	0-400W	0-200W	0-350W
Resolution	10mW	10mW	10mW	10mW
Accuracy	0.2%±600mW	0.2%±600mW	0.2%±600mW	0.2%±600mW
<b>Current Measurement</b>				
Low Range	0-3A	0-4A	0-2A	0-3A
Resolution	0.1mA	0.1mA	0.1mA	0.1mA
Accuracy	0.05%±4mA	0.05%±4mA	0.05%±4mA	0.05%±4mA
High Range	0-30A	0-40A	0-20A	0-30A
Resolution	1mA	1mA	1mA	1mA
Accuracy	0.05%±8mA	0.05%±8mA	0.05%±8mA	0.05%±8mA
<b>Voltage Measurement</b>				
Range	0-80V	0-80V	0-200V	0-200V
Resolution	1mV	1mV	2mV	2mV
Accuracy	0.1%±8mV	0.1%±8mV	0.1%±20mV	0.1%±20mV
<b>Power Measurement</b>				
Range	0-250W	0-400W	0-200W	0-350W
Resolution	10mW	10mW	10mW	10mW
Accuracy	0.1%±600mW	0.1%±600mW	0.1%±600mW	0.1%±600mW
<b>Current Slew Rates</b>				
Range	1mA/us-3A/us	1mA/us-4A/us	1mA/us-2A/us	1mA/us-3A/us
CCH	100A/us-300A/us	100A/us-400A/us	100A/us-200A/us	100A/us-300A/us
Resolution	1mA/us			
Accuracy	3%±10us			
<b>Transient Operation</b>				
Transient Mode	Continuous, Pulse, Toggle			
Frequency Range	0.38Hz-50kHz			
High/Low Time	0-655.35ms			
Resolution	10us			
Accuracy	0.2%±10us			
Rising/Falling Time	10us-655.35ms			
Resolution	10us			
Accuracy	0.2%±10us			
<b>List Characteristics</b>				
Step Time	10us-10000ns			
Resolution	10us			
Accuracy	0.2%±10us			
Number of Steps	1-50			
Cycle	1-65535			
Store Capacity	7 Lists			
Expanded Function	Chain			



# 372X Series DC Electronic Load

The feature rich, 372X Series DC 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.



Distributor information:



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

# 372X Series

## High Reliability

- Protective circuitry provides over-current, over-voltage, over-power, over-temperature and reverse polarity protection to ensure the protection of the electronic load;
- A high-speed, power limiting circuit can limit input power rapidly when it is overloaded, thus there is no need to interrupt testing. Equipment adaptability to complicated operational environments is thereby greatly enhanced.
- A high-efficiency, intelligent cooling system can effectively reduce system temperature and enhance power density;
- The input binding posts with their innovative design are especially suitable for large current testing. They are easy to operate, reliable and durable;
- The specially ruggedized case with its rubber bumpers protects the load thus effectively prolonging the unit's service life.

## Great Performance

- Circuit improvement greatly enhances the dynamic response of CR mode and widens the application scope of that mode;
- The innovative CPV and CPC modes can be applied to testing voltage/current source with constant power respectively, and both modes can effectively prevent short circuit when the set power level of the load exceeds the output power of the power supply;
- Minimum operating voltage is less than 0.6V at the load's full rated current. With optional low-voltage testing devices, the maximum current can be achieved even though the input voltage is 0V. This is especially suitable for fuel cell, solar cell and other new energy test applications;
- By adopting the optimum algorithm and high-speed hardware circuitry, the D/A conversion rate can reach up to 100kHz. The overall smoothness of slope control has been raised, meanwhile, the timing precision and resolution of transient test and sequential test have also been improved;

- The 24 bit A/D and 17 bit D/A converters incorporated, provide this equipment with greatly enhanced setting and measurement resolution.

## Multifunction

- Equipped with four basic test modes: CC, CV, CR, CP;
- High-speed transient operation with separate high/low level time and rising/falling time control;
- Powerful sequential test function; with a minimum step time of 10us; and a maximum step time of 10000ns. Cyclic numbers can be adjusted freely and a sequence can be chained to another sequence to achieve even more complex test procedures;
- Providing short-circuit test, battery discharge test and other auxiliary functions;
- Remote sense input terminals and trigger input terminal are provided. The remote measurement can monitor the input signal automatically, and it is not necessary to change wiring or modify settings during operation;
- 10 groups of setup parameters can be saved, and the preset parameters saved in location 0 can be recalled automatically at power-on;
- By supporting SCPI, it is easy to build an ATE (automatic test equipment) system that works with other programmable instruments via optional RS232, USB and GPIB interfaces.

## Easy Operation

- Design optimized for portability and rugged reliability;
- Logical keypad design and convenient test operation;
- Easy-to-set test parameters coupled with a powerful sequence editing function;
- All electronic calibration - therefore no need to dismantle the equipment-chassis;
- Firmware can be updated online.

