

NXI-3106 Series Programmable DC Power Supply Module



Product Introduction

NXI-3106 series is a programmable DC power supply module with high power density, high accuracy. Single card with single slot, output power up to 60W. NXI-3106 supports independent single card /integrated control, supports CC, CV and SEQ modes, CC&CV priority selection function, widely used in integrated test systems, large-scale production line testing and other test scenarios.

Main Features

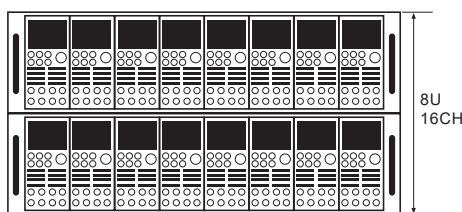
- ▶ Power Range: 0~60W
- ▶ Voltage Range: 6V/15V/30V/60V
- ▶ Current Range: 12A/4A/2A/1A
- ▶ Support CC/CV mode
- ▶ Support SEQ function, 1000 steps for total 10 files, which can be self-assigned
- ▶ Support integrated with NXI-F1080, NXI-F1030, NXI-F1020 measurement&control chassis
- ▶ Support CC&CV priority selection function
- ▶ Support OVP/OCPP/OPP/OTP protection
- ▶ 4HP width for single module
- ▶ 220V AC input, support LAN/CAN port communication control
- ▶ Support Modbus-RTU, SCPI and CANopen protocols

High integration, 4U chassis supports up to 16 channels

NXI-3106 programmable DC power supply module can be Integrated used with NXI-F1080 series and other measurement & control system chassis, a single chassis supports up to 16 channels. Compare to general desktop power supply, the ultra-high integration effectively help users to save the space and cost of test.



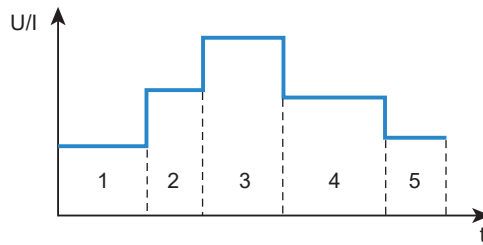
▲ NXI-3106



▲ General desktop power supply

SEQ function

NXI-3106 series supports SEQ mode, and it can be edited in up to 1000 steps, users can set output voltage, output current, and single step dwell time.

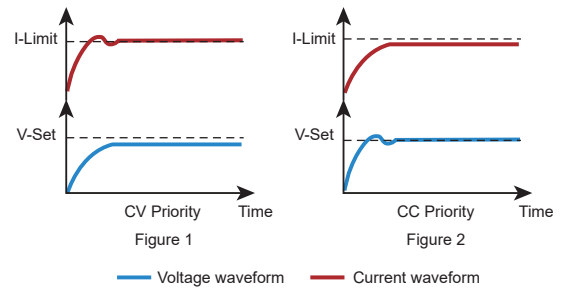


CC&CV Priority Function

NXI-3106 series supports CC&CV priority function, users can choose the optimal working mode for testing according to the characteristics of DUT.

As shown in Figure 1, when the DUT needs to avoid voltage overshoot during testing, the voltage priority mode should be used to obtain a fast and smooth rise voltage.

As shown in Figure 2, when the DUT needs to avoid the current overshoot, or the DUT is low impedance, the current priority mode should be used to obtain a fast and smooth rising current.



Technical Data Sheet

Model	NXI-3106-6/12	NXI-3106-15/4	NXI-3106-30/2	NXI-3106-60/1
Voltage	6V/CH	15V/CH	30V/CH	60V/CH
Current	12A/CH	4A/CH	2A/CH	1A/CH
Power	60W/CH			
Channels	1CH			
CV Mode				
Range	0~6V	0~15V	0~30V	0~60V
Setting Resolution	0.1mV	1mV	1mV	1mV
Setting Accuracy (23±5℃)	0.05%+3mV	0.05%+8mV	0.05%+15mV	0.05%+30mV
CC Mode				
Range	0~12A	0~4A	0~2A	0~1A
Setting Resolution	1mA	0.1mA	0.1mA	0.1mA
Setting Accuracy (23±5℃)	0.1%+12mA	0.1%+4mA	0.1%+2mA	0.1%+1mA
Voltage Measurement				
Range	0~6V	0~15V	0~30V	0~60V
Readback Resolution	0.1mV	1mV	1mV	1mV
Readback Accuracy(23±5℃)	0.05%+3mV	0.05%+8mV	0.05%+15mV	0.05%+30mV
Temperature Coefficient	50ppm/℃			
Current Measurement				
Range	0~12A	0~4A	0~2A	0~1A
Readback Resolution	1mA	0.1mA	0.1mA	0.1mA
Readback Accuracy (23±5℃)	0.1%+12mA	0.1%+4mA	0.1%+2mA	0.1%+1mA
Temperature Coefficient	50ppm/℃			
Line Regulation				
Voltage	≤0.01%			
Current	≤0.05%			
Load Regulation				
Voltage	≤0.02%			
Current	≤0.05%	≤0.02%	≤0.02%	≤0.02%
Dynamic Characteristics				
Voltage Rise Time (no load)	≤20ms	≤20ms	≤30ms	≤30ms
Voltage Rise Time (full load)	≤20ms	≤20ms	≤30ms	≤30ms
Voltage Fall Time (no load)	≤20ms	≤20ms	≤40ms	≤40ms
Voltage Fall Time (full load)	≤20ms	≤20ms	≤30ms	≤30ms
Transient Recovery Time ¹	The recovery time of load varying from 10% to 90% and output voltage recovering within 0.5% of rated voltage is less than 2ms.			
Output Ripple(20Hz-20MHz)				
Voltage Ripple	≤10mVrms/≤60mVp-p			
Current Ripple	≤5mArms/20mApp			
Others				
Isolation(Output to ground)	> 500VDC			
Communication Interface	LAN/CAN			
AC Input	220V AC±10%, Current ≤0.5A, Frequency 47Hz~63Hz			
Temperature	Operating temperature: 0℃~40℃, Storage temperature: -20℃~60℃			
Operating Environment	Altitude <2000m, Relative humidity: 5%~90%RH(non-condensing),Atmospheric pressure: 80~110kPa			
Net Weight	Approx. 0.35kg			
Dimension	130.5(H)*20.0(W)*230.5(D)mm(with puller)			

Note 1: At full voltage output, the load changes abruptly from 10% to 100%, and the output voltage returns to within 0.5% of the rated output voltage value (10%-90% load).

Note 2: For other specifications, please contact NGI.

Note 3: All specifications are subject to change without notice.