



# DP1116A/DP1308A Programmable DC Power Supply

- 4.3 inch large True Color LCD Display with 480x272 high resolution: Displays multiple parameters and state graph simultaneously.
- DP1308A: Separate Control and Independent Triple Outputs: +6V/5A, +25V/1A, -25V/1A, total 80W power.
- The +6V channel output is electrically isolated from  $\pm 25V$  channel output to minimize the interference between the circuits under test.
- DP1116A: Single output, dual ranges, 160W power with the remote sense capability
- Clean power with Low ripple noise: < 350  $\mu V_{rms}$  / 3 mVpp (DP1116A); < 350  $\mu V_{rms}$  / 2 mVpp (DP1308A)
- Excellent line regulation rate: < 0.01% + 2 mV (voltage), < 0.01% + 250  $\mu A$  (current)
- Excellent load regulation rate: < 0.01% + 2 mV (voltage), < 0.005% + 250  $\mu A$  (current) (DP1116A) < 0.01% + 2 mV (voltage), < 0.010% + 250  $\mu A$  (current) (DP1308A)
- Fast Transient Response Time: < 50 $\mu s$
- DP1308A  $\pm 25V$  channels have output tracking functions  
The change of voltage value in one channel can be reflected in the other channel.
- Overvoltage and overcurrent protection function
- Two-level over-temperature protection
- Store and recall system setups
- DP1116A supports up to 100 groups of timing settings
- Real time V/A/W waveform display with V/A/W values
- DP1116A provides the classical display mode: dial plates with pointer and V/A/W values
- On-line help, Chinese & English interface and input
- Comprehensive Connectivity and Remote Control Interface  
USB Device, USB Host, LAN, GPIB interfaces, support USB flash drive storage
- Remote control via Web or SCPI commands
- Conform to LXI-C Class instrument standard (version 1.2)

# DP116A/DP1308A Programmable DC Power Supply

Observable Clean Stable Reliable Affordable

4.3 inch Large True-Color TFT LCD Display  
Clean power with Low ripple noise  
Excellent Load and Line Regulation



Product Dimension: Width×Height×Depth=235 mm×155 mm×384 mm Weight: 8.5 kg

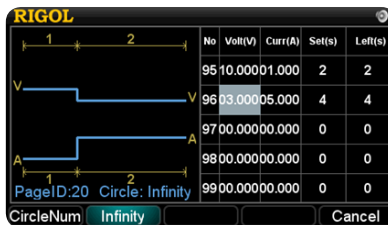
## ▶ Typical Applications

- R&D lab General purpose testing
- Quality Assessment inspection
- Bias power for RF/MW circuits
- Automotive electronic test
- Production testing
- Device or circuit characterization and troubleshooting
- Teaching lab experiments

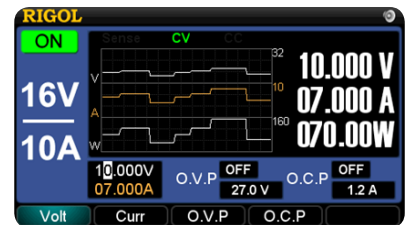
## ▶ Intuitive User Interface



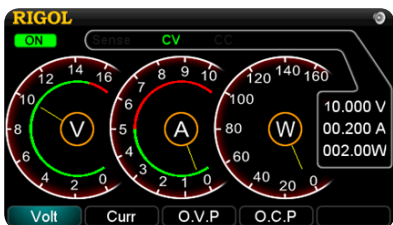
Displays multiple parameters and state graph simultaneously



DP116A supports up to 100 groups of timing settings



Real time V/A/W waveform display with V/A/W values



DP116A provides the classical display mode: dial plates with pointer and V/A/W values



Store and recall system setups



On-line help

## ► Specifications

Specifications are valid after 30 minute warm up time under specified temperature.

Model	DP1116A		DP1308A		
Output Ranges/Channels	16 V/10 A	32 V/5 A	+6 V	+25 V	-25 V
DC Output ( 0°C - 40°C)					
Voltage	0 to 16 V	0 to 32 V	0 to +6V	0 to +25 V	0 to -25 V
Current	0 to 10 A	0 to 5 A	0 to 5 A	0 to 1 A	0 to 1 A
Overvoltage Protection	0.1 V to 35.2 V		0.1 V to 6.5 V	0.1 V to 27 V	-0.1 V to -27 V
Overcurrent Protection	0.1 A to 11 A		0.1 A to 5.5 A	0.1 A to 1.2 A	0.1 A to 1.2 A
Load Regulation± (output percentage + offset)					
Voltage	< 0.01% + 2 mV				
Current	< 0.005% + 250 µA		< 0.01% + 250 µA		
Line Regulation± (output percentage + offset)					
Voltage	< 0.01% + 2 mV				
Current	< 0.01% + 250 µA				
Ripple and Noise (20 Hz - 20 MHz)					
Normal Mode Voltage	< 350 µV rms/3 mVpp		< 350 µV rms/2 mVpp		
Normal Mode Current	< 2 mA rms		< 2 mA rms	<500 µA rms	
Common Mode Current	-		<1.5 µA rms		
Accuracy 12 Months <sup>[1]</sup> (25°C±5°C)±(output percentage + offset)					
Programming	Voltage	0.05% + 10 mV	0.1% + 5 mV	0.05% + 20 mV	
	Current	0.2% + 10 mA	0.2% + 10 mA	0.15% + 4 mA	
Read Back	Voltage	0.05% + 5 mV	0.1% + 5 mV	0.05% + 10 mV	
	Current	0.15% + 5 mA	0.2% + 10 mA	0.15% + 4 mA	
Resolution					
Programming	1 mV/1 mA		0.5 mV/0.5 mA	1.5 mV/0.1 mA	
Read Back	1 mV/1 mA		0.5 mV/0.5 mA	1.5 mV/0.1 mA	
Meter	1 mV/1 mA		1 mV/1 mA	10 mV/1 mA	
Transient Response Time					
Less than 50 µs is spent on recovering the voltage within 15 mV during the output current changes from full load to half load or half to full.					
Sense (only for DP1116A)					
Voltage drop: Up to 1V per each lead					
Command Processing Time <sup>[2]</sup>					
< 50 ms					
Temperature Coefficient per °C (output percentage + offset)					
Voltage	0.01% + 3 mV		0.01% + 2 mV	0.01% + 3 mV	
Current	0.02% + 3 mA		0.02% + 3 mA	0.01% + 0.5 mA	
Stability <sup>[3]</sup> , ±(output percentage + offset)					
Voltage	0.02% + 1 mV		0.03% + 1 mV	0.02% + 2 mV	
Current	0.1% + 1 mA		0.1% + 3 mA	0.05% + 1 mA	
Voltage Programming Speed(to within 1% of total variation range)					
Rising	Full Load	50 ms	11 ms	50 ms	
	No Load	20 ms	10 ms	45 ms	
Falling	Full Load	45 ms	13 ms	20 ms	
	No Load	400 ms	200 ms	400 ms	
OVP/OCP					
Accuracy	0.5% + 0.5V/0.5% + 0.5 A				
± (output percentage + offset)					
Activation Time	1.5 ms(OVP ≥ 3 V); < 10 ms(OVP < 3 V) < 10 ms(OCP)				
Machine					
Dimension	235 mm (W) x 155 mm (H) x 384 mm (D)				
Weight	11 kg	8.5 kg			
Power Supply					
AC Input	100 Vac ± 10%, 115 Vac ± 10%, (50 Hz - 60 Hz) 220 Vac ± 10%, 230 Vac ± 10% (250 Vac Max)				
Environment					
Working Temperature	Full rated value output: 0°C - 40°C				
Cooling Method	At higher temperature: the output current falls into 50% at the maximum temperature 55°C Fan cooling				
Product Regulation	CE, cTUVus				

Remarks:

[1] Specifications are for one hour warm-up and at 25°C.

[2] The maximum time required for regulating corresponding output when received APPLY and SOURCE commands.

[3] The variation of output within 8 hours after warm-up 30 minutes and both the load circuit and environment temperature are in constant conditions.

## ► Ordering Information

	Description	Order Number
Model	Programmable DC Power (Single Channel)	DP1116A
	Programmable DC Power (Triple-Channel)	DP1308A
Standard Accessories	A Power cord	
	A USB data cable	
	Two shorted devices (only for DP1116A)	
	A CD (including User's Guide and Programming Guide)	
	Four fuses (two of 250 V/T2.5 A and two of 250 V/T4 A): DP1116A	
	Four fuses (two of 250 V/T3 A and two of 250 V/T2 A): DP1308A	
	An INSTRUCTION	

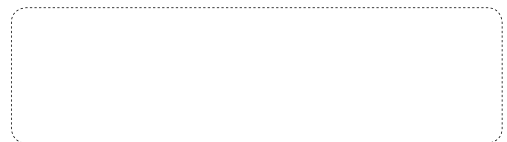


For more information or questions contact us directly at:

Rigol Technologies USA  
7401 First Place  
Suite N  
Oakwood Village, OH 44146

You can reach us directly at:

(440) 232-4488  
877-4-RIGOL-1  
[info@rigol.com](mailto:info@rigol.com)  
[www.rigolna.com](http://www.rigolna.com)



For further information, please contact  
RIGOL local distributors.