



DP800 series Programmable DC Power Supply

- 3 Outputs, Max. Power up to 195W
- Low Ripple Noise: <350 uVrms/2mVpp
- Excellent Linear Regulation Rate and Load Regulation Rate
- Fast Transient Response Time: <50us
- Channel isolation: CH1 || CH2,CH3
- Standard OVP/OCP/OTP protection functions
- Standard Timing function
- Built in V,A,W measurements and waveform display
- Support Output Delay, Analysis, Monitor, Preset functions
- Independent control for each channel
- 3.5 Inch TFT Display
- Connectivity: USB Host& Device, LAN, RS232,Digital IO,Support USB-GPIB(Opt.)

DP800 Series Programmable DC Power Supply

Observable Clean Stable Reliable Affordable



Product Dimension: Width×Height×Depth=239mm x 157mm x 418mm Weight: 9 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

▶ Intuitive User Interface



DP831A GUI



DP832A GUI



DP832 GUI



Timing Output



V/A/W Display



Output Analysis Function



Monitor Setup



Trigger In/Out



LAN Setup

► Specifications

All the specifications are guaranteed when the instrument has been working for more than 30 minutes under the specified operation temperature. Unless otherwise noted, the specifications are applicable to all the channels of the specified model.

DP800 Specifications

Model	DP832A		DP832	DP831A
Channels			3	
DC Output (0°C to 40°C)				
Voltage/current	CH1: 0 to 30V/0 to 3A CH2: 0 to 30V/0 to 3A CH3: 0 to 5V/0 to 3A			CH1: 0 to 8V/0 to 5A CH2: 0 to +30V/0 to 2A CH3: 0 to -30V/0 to 2A
OVP/OCP	CH1: 1mV to 33V/1mA to 3.3A CH2: 1mV to 33V/1mA to 3.3A CH3: 1mV to 5.5V/1mA to 3.3A		CH1: 10mV~33V/1mA~3.3A CH2: 10mV~33V/1mA~3.3A CH3: 10mV~5.5V/1mA~3.3A	CH1: 1mV ~ 8.8V/0.1mA ~ 5.5A CH2: 1mV ~ 33V/0.1mA ~ 2.2A CH3: -1mV ~ -33V/0.1mA ~ 2.2A
Load Regulation Rate ±(Output Percentage + Offset)				
Voltage	<0.01%+2mV			
Current	<0.01%+250uA			
Linear Regulation Rate ±(Output Percentage + Offset)				
Voltage	<0.01%+2mV			
Current	<0.01%+250uA			
Ripples and Noise (20Hz to 20MHz)				
Normal Mode Voltage	<350µVrms/2mVpp			
Normal Mode Current	<2mArms			
Common Mode Current	<1.5µArms			
Annual Accuracy ^[1] (25°C ±5°C) ±(Output Percentage + Offset)				
Programming	Voltage	0.05% + 10mV		0.1%+20mV
	Current	0.2% + 10mA		0.2%+10mA
Readback	Voltage	0.05% + 5mV		0.1%+20mV
	Current	0.15%+ 5mA		0.2%+10mA
Resolution				
Programming	Voltage	1mV	10mV With high-resolution option: 1mV	1mV
	Current	1mA	1mA	CH1: 0.3mA CH2/CH3: 0.1mA
Readback	Voltage	0.1mV	10mV With high-resolution option: 0.1mV	0.1mV
	Current	0.1mA	1mA With high-resolution option: 0.1mA	0.1mA
Display	Voltage	1mV	10mV With high-resolution option: 1mV	1mV
	Current	1mA	10mA With high-resolution option: 1mA	1mA
Transient Response Time				
Less than 50µs for output to recover to within 15mV following a change in output current from full load to half load or vice versa.				
Command Processing Time ^[2]				
<100ms				
Temperature Coefficient per°C (Output Percentage + Offset)				
Voltage	CH1/CH2: 0.01%+5mV CH3: 0.01%+2mV			0.01%+2mV
Current	0.01%+2mA			0.02%+3mA
Stability ^[3] ±(Output Percentage + Offset)				
Voltage	CH1/CH2: 0.02%+2mV CH3: 0.01%+1mV			CH1: 0.03%+1mV CH2/CH3: 0.02% + 2mV
Current	0.05%+2mA			CH1: 0.1%+3mA CH2/CH3: 0.05% + 1mA

Voltage Programming Control Speed (1% within the total variation range)			
Rise	Full Load	CH1/CH2: <50ms CH3: <11ms	CH1: <11ms CH2/CH3: <50ms
	No Load	CH1/CH2: <25ms CH3: <10ms	CH1: <10ms CH2/CH3: <25ms
Fall	Full Load	CH1/CH2: <30ms CH3: <13ms	CH1: <13ms CH2/CH3: <30ms
	No Load	CH1/CH2: <400ms CH3: <200ms	CH1: <200ms CH2/CH3: <400ms
OVP/OCF			
Accuracy ±(Output Percentage + Offset)		0.5%+0.5V/0.5%+0.5A	
Activation Time		1.5ms (OVP≥3V) <10ms (OVP<3V and OCF)	
Mechanical			
Dimensions		239mm(W) x 157mm(H) x 418mm(D)	
Weight		9.0kg	
Power			
AC Input (50Hz to 60Hz)		100Vac±10%, 115Vac±10% 220Vac±10%, 230Vac±10% (maximum 250VAC)	
I/O			
USB Device	1	1	1
USB Host	1	1	1
LAN	1	Option	1
RS232	1	Option	1
Digital IO	1	Option	1
Environment			
Working Temperature		Full Rated Value Output: 0°C to 40°C Under Relatively Higher Temperature: the linearity of the output current reduces to 50% at the highest temperature 55°C	
Cooling Method		Fan Cooling	

Note:

[1] The accuracy parameters are acquired via calibration under 25°C after 1-hour warm-up.

[2] The maximum time required for the output to change accordingly after receiving the APPLY and SOURce commands.

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

► Ordering Information

	Description	Order Number
Model	Programmable DC Power (3 Channels)	DP831A
	Programmable DC Power (3 Channels)	DP832A
	Programmable DC Power (3 Channels)	DP832
Standard Accessories	Power cord	-
	USB data cable	CB-USB-150
	One shorted device	-
	CD (including User' s Guide and Programming Guide)	-
	One fuse (50T-025H 250V 2.5A)	-
	Quick Guide	-
Optional Accessories	1mV & 1mA High resolution option (DP832)	DP8-HI-RES
	4 Lines Trigger In&Out(DP832)	DP8-DIGITAL-IO
	On-line Monitoring and analysis (DP832)	DP8-AFK
	RS232 and LAN interface (DP832)	DP8-INTERFACE
	USB to GPIB Converter	USB-GPIB
	Rack Mount Kit	RM-DP-1

Headquarter

RIGOL TECHNOLOGIES, INC.
No.156,Cai He Village,
Sha He Town,
Chang Ping District, Beijing,
102206 P.R.China
Tel:+86-10-80706688
Fax:+86-10-80705070
Email: info@rigol.com

USA

RIGOL TECHNOLOGIES , USA
INC.
7401 First Place, Suite N
Oakwood Village
OH 44146, USA
Toll free: 877-4-RIGOL-1 ×111
Tel: 440-232-4488 ×111
Fax: 440-232-4499
Email: beyondmeasure@
rigoltech.com

Europe

RIGOL TECHNOLOGIES EU,
GmbH
Lindbergh str. 4
82178 Puchheim, Germany
Tel: +49(0)89-8941895-0
Email: info-europe@
rigoltech.com


An Interworld Highway, LLC Company

RIGOL® is the registered trademark of RIGOL Technologies, Inc. Product information in this document subject to update without notice. For the latest information about RIGOL's products, applications and services, please contact local RIGOL office or access RIGOL official website: www.rigol.com

March,2013