DP5700 Series DC Power Supplies

Power without Compromise

The DP5700 Series DC power supplies are compact and secure, designed to maximize space efficiency in lab and production environments. The 1.5 kW models are half-rack width, while the 3.4 kW,5 kW and 7.5 kW models are full-rack width, both only 1U high.

A removable SD memory supports sensitive security applications, enabling safe movement of test equipment between confidential spaces. Flexible system scaling is possible by connecting up to twelve units in parallel (3.4 kW, 5 kW, 7.5 kW models) to increase current or two in series to increase voltage. Validate complex power devices faster, in less space, with no compromise on performance.

Figure 1. Keysight DP5700 Series DC power supplies

Performance Specifications

Model	1.5 kW Models	3.4 kW Models	5 kW Models	7.5 kW Models
	DP5721A – DP5736A	DP5741A S/L/H – DP5756A S/L/H	DP5761A L/H – DP5776A L/H	DP5782A L/H – DP5799A L/H
DC Power Ratings				
Voltage	0 – 600 V	0 – 600 V	0 – 600 V	0 – 1,500 V
Current	0 – 150 A	0 – 340 A	0 – 500 A	0 – 375 A
Power	1.5 – 1.56 kW	3,360 – 3,450 W	5,000 – 5,200 W	7,500 – 7,520 W
Output Ripple and Noise [1]				
CV rms	6 – 100 mV	8 – 100 mV	8 – 100 mV	8 – 500 mV
CV peak-to-peak	50 – 500 mV	75 – 480 mV	75 – 480 mV	80 – 1,300 mV
Load Regulation				
Voltage	3 – 62 mV	6 – 65 mV	6 – 65 mV	7 – 155 mV
Current	10 – 35 mA	4.48 – 272 mA	52 – 400 mA	4 – 300 mV
Programming and Measurement Accuracy				
Voltage [2]	5 – 300 mV	5 – 300 mV	5 – 300 mV	10 – 750 mV
Current [2, 3]	0.1% + 5.2 mA – 0.1% + 300 mA	0.1% + 11.2 mA – 0.1% + 680 mA	0.1% + 17 mA – 0.1% + 1000 mA	0.1% + 10 mA – 0.1% + 750 mA
Transient Response				
Recovery time	≤ 1 – ≤ 2ms [4]	1 – 2ms [5]	1 – 2ms [5]	1 – 2ms [5]
Setting band	0.05 – 3 V	0.05 – 3 V	0.1 – 3 V	0.1 – 7.5 V
Programming Resolution				
Voltage	0.2 – 12 mV	0.2 – 12 mV	0.2 – 12 mV	0.4 – 30 mV
Current	0.065 – 3.75 mA	0.112 – 6.8 mA	1.3 m – 10 mA	0.1 – 7.5 mA
Measurement Resolution				
Voltage	1.1 – 12 mV	1.1 – 12 mV	1.1 – 15 mV	1.2 – 110 mV
Current	0.104 – 15 mA	0.168 – 1.7 mA	0.17 – 15 mA	0.15 – 12.5 mA
Command Response Time				
Command response time	< 25 ms			

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise.
2. Accuracy specifications are warranted at 23° C ±5° C
3. Percent of programmed value + offset.
4. Time for output voltage to recover within 1% of its rated output for a load change from 10% to 90% and 90% to 10% of its rated output current
5. Time for output voltage to recover within the settling band for a load change from 10% to 90% and 90% to 10% of its rated output current.

More Information: www.keysight.com/find/DP5700

Compact, Secure, High-Density Power

Intuitive User Interface and Connectivity Options

- LED indicators
- Rotary knobs and buttons
- LAN (LXI), USB, and GPIB
- Easy-to-use Standard Commands for Programmable Instruments (SCPI) with IVI-COM drivers
- Analog programming and monitoring

Flexible Configuration and System Integration

- Front, side, and rear air vents
- Stackable without airflow obstruction
- Parallel connections for higher power
- Universal AC input
- Programmable internal resistance for source impedance simulation
- Built-in arbitrary generator for custom waveform creation
- Adjustable slew rate control for optimized voltage transitions

Protective Features

- Lockable controls to prevent accidental parameter changes
- Overtemperature Protection (OTP)
- Overcurrent Protection (OCP)
- Overvoltage Protection (OVP)
- Undervoltage Protection (UVP)
- Protection window for sensitive load circuitry
- Removable SD card option

Accessories

Part Number	Size	Description
DP5701A	1U half rack	Rack-mount slide kit for 1.5 kW models
N5740A	1U full rack	Rack-mount slide kit for 3.4 kW,5 kW and 7.5 kW models
DP5705A		Removable SD memory option
DP5706A		Auto Parallel Cable

For More Information

For more information on the Keysight DP5700 Series DC power supplies, please visit
www.keysight.com/find/DP5700

To find a distributor near you, visit:
www.keysight.com/find/distributors