

Appendix A: Specifications

Tables 2 through 5 list the specifications of the PS2520, PS2520G, PS2521, and PS2521G Programmable Power Supplies.

Table 2: Operating Characteristics

Name	Characteristic
Independent Output Ratings	<p>PS2520 and PS2520G: two outputs 0 to 36 V, 0 to 1.5 A and one output 0 to 6 V, 3 A</p> <p>PS2521 and PS2521G: two outputs 0 to 20 V, 0 to 2.5 A one output 0 to 6 V, 0 to 5 A</p>
Series Tracking Output Rating	<p>PS2520 and PS2520G: 0 to 72 V, 0 to 1.5 A</p> <p>PS2521 and PS2521G: 0 to 40 V, 0 to 2.5 A</p>
Parallel Tracking Output Rating	<p>PS2520 and PS2520G: 0 to 36 V, 0 to 3 A</p> <p>PS2521 and PS2521G: 0 to 20 V, 0 to 5 A</p>
Maximum OVP	<p>PS2520 and PS2520G: 38.5 V on 36 V outputs 7.0 V on 6 V output</p> <p>PS2521 and PS2521G: 22.5 V on 20 V outputs 7.0 V on 6 V output</p>
Load Effect	<p>Voltage: 3.3 mV, rear output; 3.6 mV, front output</p> <p>Current: 3.3 mA (3.6 mA if rating current > 3.5 A)</p>
Source Effect	<p>Voltage: 3.3 mV</p> <p>Current: 3.3 mA</p>
Resolution	<p>Voltage: 10 mV (20 mV if rating voltage > 36 V)</p> <p>Current: 1 mA (2 mA if rating current > 3.5 A)</p> <p>OVP: 10 mV (20 mV if rating voltage > 36 V)</p>

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Table 2: Operating Characteristics (Cont.)

Name	Characteristic
Program Accuracy (25 + 5° C)	Voltage: 3 0.05% + 25 mV (+50 mV if rating voltage > 36 V) Current: 3 0.2% + 10 mA OVP: 3 2% + 0.6 V
Ripple and Noise 20 Hz to 20 MHz	Voltage Ripple: 1 mV _{RMS} /3 mV _{p-p} Voltage Noise: 2 mV _{RMS} /30 mV _{p-p} Current: 3 3 mA _{RMS} (3 5 mA _{RMS} if rating current > 3.5 A)
Temperature Coefficient (0° C to 40° C)	Voltage: 3 100 ppm + 3 mV Current: 3 150 ppm + 3 mA
Readback Resolution	Voltage: 10 mV (20 mV if rating voltage > 36 V) Current: 1 mA (2 mA if rating current > 3.5 A)
Readback Accuracy (25 + 5° C)	Voltage: 3 0.05% + 25 mV (+50 mV if rating voltage > 36 V) Current: 3 0.2% + 10 mA
Response Time	10% to 90% (up): 3 100 ms 90% to 10% (down): 3 100 ms (. 10% rating load)
Readback Temperature Coefficient	Voltage: 3 100 ppm + 10 mV (+20 mV if rating voltage > 36 V) Current: 3 150 ppm + 10 mA
Drift ¹	Voltage: 3 0.03% + 6 mV Current: 3 0.1% + 6 mA
Series Tracking	
tracking error	Voltage: 3 0.1% + 50 mV
load effect	Voltage: 3 50 mV
source effect	Voltage: 3 3 mV

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Table 2: Operating Characteristics (Cont.)

Name	Characteristic
Parallel Tracking	
program accuracy (25 + 5° C)	Voltage: 3 0.05% + 25 mV (+50 mV if rating voltage > 36 V) Current: 3 0.2% + 20 mA OVP: 3 2% + 0.6 V
load effect	Voltage: 3 3 mV rear output (3 6 mV front output) Current: 3 6 mA (3 12 mA if rating current > 3.5 A)
source effect	Voltage: 3 3 mV Current: 3 6 mA
GPIB Capability IEEE-488.2 (optional)	SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT0, C0, E1
Memory Locations (Store and Recall)	00–49 (50 locations)
Timer	Setting Time: 1 to 65535 seconds Resolution: 1 second

¹ Change in output over an 8-hour interval under constant line, load, and ambient temperature following a 30-minute warmup.

Table 3: Electrical Characteristics

Name	Description
Power Source	100, 120, and 220 VAC, + 10% 50–60 Hz 240 VAC–10% + 4.2% 50–60 Hz
Safety	ETL listed to UL 1244 Certified to CSA–C22.2 No 231–M89

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Table 4: Environmental Characteristics

Name	Description
Storage Temperature	-10° C to +70° C (+14° F to +158° F)
Operating Temperature	0° C to +40° C (+32° F to +104° F)

Table 5: Physical Characteristics

Name	Description
Overall Dimensions	Width: 255 mm (10.0 in) Height: 145 mm (5.7 in) Depth: 346 mm (13.6 in)
Weight	10 kg (22 lbs)