Chapter 5 Specifications

All the technical specifications are guaranteed when the instrument has been working for more than 30 minutes under the specified operating temperature.

DC Output (0°C to 40°C)		
Model	Voltage/Current Rating	OVP/OCP
DP711	0 V to 30 V/0 A to 5 A	0.01 V to 33 V/0.01 A to 5.5 A
DP712	0 V to 50 V/0 A to 3 A	0.01 V to 55 V/0.01 A to 3.3 A

Load Regulation, ±(% of Output + Offset)	
Voltage	<0.01% + 2 mV
Current	<0.01% + 2 mA

Line Regulation, ±(% of Output + Offset)	
Voltage	<0.01% + 2 mV
Current	<0.01% + 2 mA

Ripple and Noise (20 Hz to 20 MHz)		
Model	Normal Mode Voltage	Normal Mode Current
DP711	<500 μVrms/3 mVpp	<2 mArms
DP712	<500 μVrms/4 mVpp	

Annual Accuracy[1] (25°C ± 5°C), ±(% of Output + Offset)		
Programming	Voltage	0.05% + 20 mV
	Current	0.2% + 10 mA
Readback	Voltage	0.05% + 20 mV
	Current	0.2% + 20 mA

Resolution		
Programming	Voltage	Standard: 10 mV High resolution option installed: 1 mV
	Current	Standard: 10 mA High resolution option installed: 1 mA
Readback	Voltage	Standard: 10 mV High resolution option installed: 1 mV
	Current	Standard: 10 mA High resolution option installed: 1 mA
Display	Voltage	Standard: 10 mV High resolution option installed: 1 mV
	Current	Standard: 10 mA High resolution option installed: 1 mA

Transient Response Time
Less than 50 μs for output voltage to recover to within 15 mV following a change in output current from full load to half load or from half load to full load.

Command Processing Time[2]
<100 ms

OVP/OCP	
Accuracy, ±(% of Output + Offset)	0.5% + 0.5 V/0.5% + 0.5 A
OVP Activation Time	<10 ms (OVP>1 V)

Voltage Programming Speed[3] (within 1% of the total variation range)		
Up	Full Load	150 ms
	No Load	100 ms
Down	Full Load	30 ms
	No Load	450 ms

Temperature Coefficient[4], ±(% of Output + Offset)	
Voltage	0.01% + 2 mV
Current	0.02% + 3 mA

Stability[5], ±(% of Output + Offset)	
Voltage	0.02% + 2 mV
Current	0.1% + 3 mA

Mechanical	
Dimensions	140 mm (W) x 202mm (H) x 332 mm (D)
Weight	Net: 6.9 kg

Power	
AC Input Power (50 Hz to 60 Hz)	100 Vac ± 10%, 120 Vac ± 10%, 220 Vac ± 10%, and 240 Vac ± 10% (max: 253 Vac)
Maximum Input Power	400 VA

Interface	
RS232	1 (Male)

Environment	
Cooling Method	Fan Cooled
Operating Temperature	0°C to 40°C for full rated output

Maximum Output Floating Voltage to Ground	±240 Vdc
Storage Temperature	-40°C to 70°C
Humidity	5% to 80% RH
Altitude	Below 2,000 m

Note[1]: The accuracy parameters are acquired through calibration under 25°C after 1-hour warm-up.
Note[2]: The maximum time required for the output to begin to change after receiving the APPLy and SOURce commands.
Note[3]: Exclude the command processing time.
Note[4]: Maximum change in output/readback per °C after a 30-minute warm-up.
Note[5]: Following a 30-minute warm-up, change in output over 8 hours under constant load, line, and ambient temperature.