NS1-Class Expert ATE System DC Power Supply

DP5700 Series DC Power Supplies

Introduction

The Keysight DP5700 Series DC power supplies are compact, high-density solutions designed to deliver reliable performance in space-constrained lab and production environments.

The series comprises 92 single-output programmable models, covering power levels from 1.5 kW to 7.5 kW. The 1.5 kW models are available in half-rack width, while the 3.4 kW, 5 kW, and 7.5 kW models are full-rack width, with all units occupying only 1U of rack height.

The series also features a removable SD memory option, supporting secure operation and enabling safe transfer of test equipment between controlled or confidential environments.



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Compact and Secure — High-Density DC Power Supplies

The DP5700 Series DC power supplies are designed with system-ready features to simplify and accelerate test system integration. Standard interfaces, including LAN, USB, and GPIB, enable seamless connectivity in automated test environments.

These high-density 1U power supplies maximize rack space efficiency while supporting flexible system scaling. Multiple units can be connected in parallel (up to 12 units for 3.4 kW, 5 kW, and 7.5 kW models) to increase output current, or in series (up to 2 units) to extend voltage capability.

The DP5700 Series DC power supplies offer the following features:

- Small high-density 1U package.
- Built-in voltage and current measurements.
- Comprehensive protection from overvoltage and overcurrent.
- Standard LAN, USB, and GPIB interfaces
- LXI Class C compliant
- Removable SD card option for enhanced security
- Flexible AC input options:
  - 1.5 kW models: single-phase 100 – 240 VAC
  - 3.4 kW models: single-/three-phase 200 – 240 VAC, and three-phase 380 – 480 VAC
  - 5 kW and 7.5 kW models: three-phase 200 – 240 VAC, and three-phase 380 – 480 VAC

Ten 1.5 kW Models (Up to 600 V and 150 A)	Thirty 3.4 kW Models (Up to 600 V and 340 A)	Twenty-Eight 5 kW Models (Up to 600 V and 500 A)	Twenty-Four 7.5 kW Models (Up to 1500 V and 375 A)
DP5721A DP5722A DP5723A DP5724A DP5726A DP5728A DP5730A DP5731A DP5733A DP5736A	DP5741AS, DP5741AL, DP5741AH, DP5742AS, DP5742AL, DP5742AH, DP5743AS, DP5743AL, DP5743AH, DP5744AS, DP5744AL, DP5744AH, DP5746AS, DP5746AL, DP5746AH, DP5748AS, DP5748AL, DP5748AH, DP5750AS, DP5750AL, DP5750AH, DP5751AS, DP5751AL, DP5751AH, DP5753AS, DP5753AL, DP5753AH, DP5756AS, DP5756AL, DP5756AH	DP5761AL, DP5761AH, DP5762AL, DP5762AH, DP5763AL, DP5763AH, DP5764AL, DP5764AH, DP5765AL, DP5765AH, DP5766AL, DP5766AH, DP5768AL, DP5768AH, DP5770AL, DP5770AH, DP5771AL, DP5771AH, DP5772AL, DP5772AH, DP5773AL, DP5773AH, DP5774AL, DP5774AH, DP5775AL, DP5775AH, DP5776AL, DP5776AH	DP5782AL, DP5782AH, DP5783AL, DP5783AH, DP5784AL, DP5784AH, DP5786AL, DP5786AH, DP5788AL, DP5788AH, DP5790AL, DP5790AH, DP5791AL, DP5791AH, DP5792AL, DP5792AH, DP5793AL, DP5793AH, DP5796AL, DP5796AH, DP5797AL, DP5797AH, DP5799AL, DP5799AH

Model Suffix Definition (AC Input Selection)

The suffix S – Standard AC input range, L – Low AC input range, and H – High AC input range in the model number indicates the supported AC input range. Please refer to the AC input specifications table for the exact voltage range associated with each suffix.

Compact, High-Density Form Factor Saves Rack Space

The DP5700 Series delivers up to 1.5 kW in a 1U half-rack width size and 3.4 kW, 5 kW and 7.5 kW in a 1U full-rack size, with front and rear air vents. This compact design allows other instruments to be stacked directly above or below without obstructing airflow.

Intuitive Front-Panel Operation

The DP5700 Series offers quick and intuitive operation through rotary knobs and buttons. Front-panel controls support coarse and fine adjustments to voltage, current, protection settings, and power-on states (state 0). Voltage and current are displayed simultaneously, while the LED indicators show the operating status and modes. The controls can be locked to prevent accidental parameter changes.



Figure 1. Front-panel control knobs and buttons make it easy to use Keysight DP5700 power supplies (Top: 1.5 kW models, bottom: 3.4 kW, 5 kW 7.5 kW models).

Extensive Device Protection

To safeguard devices from damage, the DP5700 Series power supplies provide Overtemperature Protection (OTP), Overcurrent Protection (OCP), and Overvoltage Protection (OVP), shutting down the output when a fault occurs. They also include Undervoltage Protection (UVP) to prevent voltage adjustment below a set limit. Combined, UVP and OVP create a protection window for sensitive load circuitry.

Simplify System Connections

The DP5700 Series power supplies include standard GPIB, LAN, and USB 2.0 interfaces, providing flexibility in I/O selection across test systems. The series is fully compliant with the LXI Class C specification.

Easy System Integration and Configuration

The DP5700 Series supports Standard Commands for Programmable Instruments (SCPI) and includes IVI.NET drivers to simplify system development.

Removable SD Card Option

All DP5700 models include a removable SD card option for secure data handling in classified environments. This option supports equipment sanitization and enables detailed record-keeping of cleaning and sanitization processes, including the methods and materials used, to maintain a clear audit trail and accountability.

Flexible Configuration: Connect Multiple Units in Parallel and Series

For applications requiring higher power, the DP5700 Series delivers up to 7.5 kW per unit. To increase output current, up to twelve identical units for 3.4 kW, 5 kW and 7.5 kW models can be connected in parallel. While two units can be connected in series to increase output voltage (see output terminal isolation information). Auto-paralleling via **DP5706A Auto Parallel Cable** is supported by models with output ratings of 3.4 kW, 5.0 kW and 7.5 kW.

- Parallel connections require connecting the Primary and Secondary units using the DP5706A Auto Parallel Cable. Only power supplies with identical voltage and current ratings can be connected in parallel.
- Parallel operation is not supported on 1.5 kW half-rack DP5700 models. Auto-parallel capability is only supported on 3.4 kW, 5 kW and 7.5 kW models.
- The maximum number of units that can be connected in parallel is 12, as enforced by the DP5700 parallel system controller. This limit applies to all supported 3.4 kW, 5 kW and 7.5 kW models.

Analog Programming and Monitoring

Voltage and current can be programmed from zero to full scale using either an analog voltage of 0 – 5 V / 0 – 10 V or a resistance of 0 – 5 kΩ / 0 – 10 kΩ. This capability also enables monitoring of voltage and current signals.

Universal AC Input

All DP5700 Series 1.5 kW models feature universal AC input, enabling worldwide operation from single-phase 100 – 240 VAC without the need for manual switching or fuse changes.

Higher power models support a range of AC input configurations depending on power level and model variant:

- 3.4 kW models: single-phase 200 – 240 VAC, or three-phase 200 – 240 VAC and 380 – 480 VAC
- 5 kW and 7.5 kW models: three-phase 200 – 240 VAC and 380 – 480 VAC

Model suffixes S, L, and H indicate the supported AC input voltage range for each configuration. Refer to the ordering information and AC input specifications for detailed voltage ranges.

Optional Rack Mounting

The optional rack-mount slide kits provide the hardware required to install the DP5700 Series power supply into a test rack. For more information, see the Accessories table on page 30.

Programmable Internal Resistance

The DP5700 Series includes a programmable internal resistance function that allows users to simulate a voltage source with variable series resistance. By setting an internal resistance value, the power supply behaves as if a physical resistor were connected in series with the output terminals. This enables realistic source impedance emulation for testing devices under more representative operating conditions.

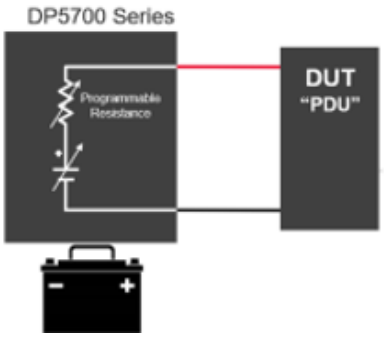


Figure 2. Programmable internal resistance emulates a source with variable series resistance, enabling realistic simulation of battery behavior and other real-world power sources.

Built-in Arbitrary Generator

The integrated arbitrary generator enables the creation of complex voltage or current waveforms that replicate real-world operating environments. Users can apply customized waveforms to simulate power fluctuations, transient events, or other dynamic scenarios, allowing comprehensive device performance characterization.

The arbitrary generator can be synchronized with other test instruments to support coordinated testing setups, making it ideal for evaluating system-level behavior. Additionally, it can reproduce dynamic load conditions often encountered in real applications, ensuring devices are test under realistic and demanding circumstances.

Adjustable Slew Control

The DP5700 Series offers adjustable slew rate control to manage the rate of voltage change during operation. By fine-tuning the slew rate, users can minimize voltage overshoot and spikes for smooth transitions and stable power delivery.

Slew control enhances the power supply’s ability to handle sudden load changes, improving load transient response and overall power delivery efficiency. This level of control is especially valuable when testing sensitive devices that require carefully managed power ramp-up or ramp-down behavior.

Specifications – 1.5 kW Models (DP5721A — DP5736A)

Unless otherwise noted, specifications are warranted over the ambient temperature range of 0 to 40 °C after a 30-minute warm-up period. Specifications apply at the output terminals, with the power supply in local sensing mode.

Refer to the Keysight DP5700 Series documentation for the setup conditions for all performance specifications.

For more detailed specifications, refer to the DP5700 Series user manual at www.keysight.com/find/DP5700.

Model	DP5721A	DP5722A	DP5723A	DP5724A	DP5726A
DC Power Ratings					
Voltage	0 – 10 V	0 - 20 V	0 – 30 V	0 – 40 V	0 – 60 V
Current	0 – 150 A	0 – 75 A	0 – 50 A	0 – 38 A	0 – 25 A
Power	1.5 kW	1.5 kW	1.5 kW	1.52 kW	1.5 kW
Output Ripple and Noise [1]					
CV rms	6 mV	6 mV	6 mV	7 mV	7 mV
CV peak-to-peak	50 mV	50 mV	50 mV	60 mV	60 mV
Load Regulation					
Voltage	3 mV	4 mV	5 mV	6 mV	8 mV
Current	35 mA	20 mA	15 mA	12.6 mA	10 mA
Line Regulation					
Voltage	1 mV	2 mV	3 mV	4 mV	6 mV
Current	17 mA	9.5 mA	7 mA	5.8 mA	4.5 mA
Voltage Programming Accuracy [2]					
Voltage	≤ 5 mV	≤ 10 mV	≤ 15 mV	≤ 20 mV	≤ 30 mV
Current Programming Accuracy [2, 3]					
Current 0.1%+	300 mA	150 mA	100 mA	76 mA	50 mA
Voltage Measurement Accuracy [2]					
Voltage	≤ 5 mV	≤ 10 mV	≤ 15 mV	≤ 20 mV	≤ 30 mV
Current Measurement Accuracy [2]					
Current	≤ 300 mA	≤ 150 mA	≤ 100 mA	≤ 76 mA	≤ 50 mA
Transient Response [4]					
Recovery time	≤ 1 ms	≤ 1 ms	≤ 1 ms	≤ 1 ms	≤ 1 ms
Settling band	0.1 V	0.2 V	0.3 V	0.4 V	0.6 V

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise.
2. All specifications pertain to >0.1% of rated voltage and >0.2% of rated current 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.

Model	DP5728A	DP5730A	DP5731A	DP5733A	DP5736A
DC Power Ratings					
Voltage	0 – 80 V	0 – 100 V	0 – 150 V	0 – 300 V	0 – 600 V
Current	0 – 19 A	0 – 15 A	0 – 10 A	0 – 5 A	0 – 2.6 A
Power	1.52 kW	1.5 kW	1.5 kW	1.5 kW	1.56 kW
Output Ripple and Noise [1]					
CV rms	8 mV	30 mV	20 mV	45 mV	100 mV
CV peak-to-peak	75 mV	130 mV	75 mV	180 mV	500 mV
Load Regulation					
Voltage	10 mV	12 mV	17 mV	32 mV	62 mV
Current	8.8 mA	8 mA	7 mA	6 mA	5.52 mA
Line Regulation					
Voltage	8 mV	10 mV	15 mV	30 mV	60 mV
Current	3.9 mA	3.5 mA	3 mA	2.5 mA	2.26 mA
Voltage Programming Accuracy [2]					
Voltage	≤ 40 mV	≤ 50 mV	≤ 75 mV	≤ 150 mV	≤ 300 mV
Current Programming Accuracy [2, 3]					
Current 0.1%+	38 mA	30 mA	20 mA	10 mA	5.2 mA
Voltage Measurement Accuracy [2]					
Voltage	≤ 40 mV	≤ 50 mV	≤ 75 mV	≤ 150 mV	≤ 300 mV
Current Measurement Accuracy [2]					
Current	≤ 38 mA	≤ 30 mA	≤ 20 mA	≤ 10 mA	≤ 5.2 mA
Transient Response [4]					
Recovery time	≤ 1 ms	≤ 1 ms	≤ 2 ms	≤ 2 ms	≤ 2 ms
Settling band	0.8 V	1 V	1.5 V	3 V	6 V

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise.
2. All specifications pertain to >0.1% of rated voltage and >0.2% of rated current 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.

Supplemental Characteristics – 1.5 kW Models

Supplemental characteristics are not warranted but are descriptions of performance determined by design or type testing. All supplemental characteristics are typical unless otherwise noted.

Model	DP5721A	DP5722A	DP5723A	DP5724A	DP5726A
Output Response Time					
Up, full load	20 ms	20 ms	20 ms	20 ms	20 ms
Down, full load	20 ms	20 ms	20 ms	30 ms	30 ms
Down, no load	300 ms	500 ms	600 ms	900 ms	1,200 ms
Remote Sense Compensation/Wire * (V) [1]					
	2	2	5	5	5
Overvoltage Protective Accuracy					
	0.1 V	0.2 V	0.3 V	0.4 V	0.6 V
Overvoltage Protection Range					
	0.5 – 12 V	1 – 24 V	2 – 36 V	2 – 44.1 V	5 – 66.15 V
Output Ripple and Noise [2]					
(1-phase)	<= 250 mA	<= 130 mA	<= 100 mA	<= 60 mA	<= 50 mA
Programming Resolution					
Voltage	0.2 mV	0.4 mV	0.6 mV	0.8 mV	1.2 mV
Current	3.75 mA	1.875 mA	1.25 mA	0.95 mA	0.625 mA
Measurement Resolution					
Voltage	1.1 mV	1.2 mV	1.2 mV	1.2 mV	1.2 mV
Current	15 mA	1.5 mA	1.5 mA	1.14 mA	1.25 mA
Front Panel Display Accuracy (4 Digits +/- 1 Count)					
Voltage	5 mV	10 mV	15 mV	20 mV	30 mV
Current	300 A	150 mA	100 mA	76 mA	50 mA
Temperature Stability [3]					
Voltage	1 mV	2 mV	3 mV	4 mV	6 mV
Current	15 mA	7.5 mA	5 mA	3.8 mA	2.5 mA
Temperature Coefficient (ppm/C) [4]					
Voltage	50	50	50	50	50
Current	100	100	100	100	100

1. The maximum voltage on the power supply terminals must not exceed the rated voltage.
2. From 5 Hz to 1 MHz for rms noise.
3. Temperature stability applies over 8 hrs interval following 30 minutes of warm-up. Constant line, load, and temperature.
4. Temperature coefficient applies following 30-minute warm-up period.

Model	DP5728A	DP5730A	DP5731A	DP5733A	DP5736A
Output Response Time					
Up, full load	20 ms	20 ms	30 ms	30 ms	40 ms
Down, full load	50 ms	50 ms	60 ms	70 ms	80 ms
Down, no load	1,300 ms	1,700 ms	2,200 ms	2,700 ms	3,000 ms
Remote Sense Compensation/Wire * (V) [1]					
	5	5	5	5	5
Overvoltage Protective Accuracy					
	0.8 V	1 V	1.5 V	3 V	6 V
Overvoltage Protection Range					
	5 – 88.2 V	5 – 110.25 V	5 – 165.37 V	5 – 330.75 V	5 – 661.5 V
Output Ripple and Noise [2]					
(1-phase)	<= 30 mA	<= 40 mA	<= 10 mA	<= 8 mA	<= 5 mA
Programming Resolution					
Voltage	1.6 mV	2 mV	3 mV	6 mV	12 mV
Current	0.475 mA	0.375 mA	0.25 mA	0.125 mA	0.065 mA
Measurement Resolution					
Voltage	1.6 mV	11 mV	10.5 mV	12 mV	12 mV
Current	1.14 mA	1.05 mA	1.5 mA	0.15 mA	0.104 mA
Front Panel Display Accuracy (4 Digits +/- 1 Count)					
Voltage	40 mV	50 mV	75 mV	150 mV	300 mV
Current	38 mA	30 mA	20 mA	10 mA	5.2 mA
Temperature Stability [3]					
Voltage	8 mV	10 mV	15 mV	30 mV	60 mV
Current	1.9 mA	1.5 mA	1 mA	0.5 mA	0.26 mA
Temperature Coefficient (ppm/C) [4]					
Voltage	50	50	50	50	50
Current	100	100	70	70	70

1. The maximum voltage on the power supply terminals must not exceed the rated voltage.
2. From 5 Hz to 1 MHz for rms noise.
3. Temperature stability applies over an 8-hour interval following 30 minutes of warm-up. Constant line, load and temperature.
4. Temperature coefficient applies following 30-minute warm-up period.

Specifications for 3.4 kW Models (DP5741A — DP5756A)

Unless otherwise noted, specifications are warranted over the ambient temperature range of 0 to 40 °C after a 30-minute warm-up period. Specifications apply at the output terminals, with the sense terminals connected to the output (local sensing) terminals.

Refer to the Keysight DP5700 Series documentation for the setup conditions for all performance specifications. For more detailed specifications, refer to the DP5700 Series user manual at www.keysight.com/find/DP5700.

AC input suffix definition: Suffix (AC Input): S = Standard | L = Low | H = High

Refer to the AC input specifications section for detailed voltage ranges.

Model	DP5741A (S/L/H)	DP5742A (S/L/H)	DP5743A (S/L/H)	DP5744A (S/L/H)	DP5746A (S/L/H)
DC Power Ratings					
Voltage	0 to 10 V	0 to 20 V	0 to 30 V	0 to 40 V	0 to 60 V
Current	0 to 340 A	0 to 170 A	0 to 112 A	0 to 85 A	0 to 56 A
Power	3,400 W	3,400 W	3,360 W	3,400 W	3,360 W
Output Ripple and Noise [1]					
CV rms	8 mV	10 mV	10 mV	12 mV	15 mV
CV peak-to-peak	75 mV	75 mV	75 mV	75 mV	80 mV
Load Regulation					
Voltage	6 mV	7 mV	8 mV	9 mV	11 mV
Current	272 mA	136 mA	89.6 mA	68 mA	44.8 mA
Line Regulation					
Voltage	1 mV	2 mV	3 mV	4 mV	6 mV
Current	170 mA	85 mA	56 mA	42.5 mA	28 mA
Voltage Programming Accuracy [2]					
Voltage	5 mV	10 mV	15 mV	20 mV	30 mV
Current Programming Accuracy [2, 3]					
Current 0.1% +	680 mA	340 mA	224 mA	170 mA	112 mA
Voltage Measurement Accuracy [2]					
Voltage	5 mV	10 mV	15 mV	20 mV	30 mV
Current Measurement Accuracy [2]					
Current	680 mA	340 mA	224 mA	170 mA	112 mA
Transient Response [4]					
Recovery time	1 ms	1 ms	1 ms	1 ms	1 ms
Settling band	0.05 V	0.1 V	0.15 V	0.2 V	0.3 V

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise.
2. All specifications pertain to >0.1% of rated voltage and >0.2% of rated current at 23 °C ± 5 °C
3. Percent of programmed value + offset.
4. Time for output voltage to recover within the settling band for load change from 10% to 90% and 90% to 10% of its rated output current.

Model	DP5748A (S/L/H)	DP5750A (S/L/H)	DP5751A (S/L/H)	DP5753A (S/L/H)	DP5756A (S/L/H)
DC Power Ratings					
Voltage	0 to 80 V	0 to 100 V	0 to 150 V	0 to 300 V	0 to 600 V
Current	0 to 42 A	0 to 34 A	0 to 22.5 A	0 to 11.5 A	0 to 5.6 A
Power	3,360 W	3,400 W	3,375 W	3,450 W	3,360 W
Output Ripple and Noise [1]					
CV rms	15 mV	15 mV	20 mV	60 mV	100 mV
CV peak-to-peak	80 mV	100 mV	120 mV	200 mV	480 mV
Load Regulation					
Voltage	13 mV	15 mV	20 mV	35 mV	65 mV
Current	33.6 mA	27.2 mA	18 mA	9.2 mA	4.48 mA
Line Regulation					
Voltage	8 mV	10 mV	15 mV	30 mV	60 mV
Current	21 mA	17 mA	11.25 mA	5.75 mA	2.8 mA
Voltage Programming Accuracy [2]					
Voltage	40 mV	50 mV	75 mV	150 mV	300 mV
Current Programming Accuracy [2, 3]					
Current 0.1% +	84 mA	68 mA	45 mA	23 mA	11.2 mA
Voltage Measurement Accuracy [2]					
Voltage	40 mV	50 mV	75 mV	150 mV	300 mV
Current Measurement Accuracy [2]					
Current	84 mA	68 mA	45 mA	23 mA	11.2 mA
Transient Response [4]					
Recovery time	1 ms	1 ms	2 ms	2 ms	2 ms
Settling band	0.4 V	0.5 V	0.75 V	1.5 V	3 V

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise.
2. All specifications pertain to >0.1% of rated voltage and >0.2% of rated current at 23 °C ± 5 °C
3. Percent of programmed value + offset.
4. Time for output voltage to recover within the settling band for load change from 10% to 90% and 90% to 10% of its rated output current.

Supplemental Characteristics for 3.4 kW Models

Supplemental characteristics are not warranted but are descriptions of performance determined by design or type testing. All supplemental characteristics are typical unless otherwise noted.

Model	DP5741A (S/L/H)	DP5742A (S/L/H)	DP5743A (S/L/H)	DP5744A (S/L/H)	DP5746A (S/L/H)
Output Response Time					
Up, full load	30 ms	30 ms	30 ms	30 ms	50 ms
Down, full load	50 ms	50 ms	80 ms	80 ms	80 ms
Down, no load	450 ms	600 ms	800 ms	900 ms	1,100 ms
Remote Sense Compensation/Wire * (V) [1]					
	2	2	5	5	5
Overvoltage Protective Accuracy					
	0.1 V	0.2 V	0.3 V	0.4 V	0.6 V
Overvoltage Protection Range					
	0.5 – 12 V	1 – 24 V	2 – 36 V	2 – 44.1 V	5 – 66.15 V
Output Ripple and Noise [2]					
(3-phase)	<= 800 mA	<= 450 mA	<= 300 mA	<= 150 mA	<= 100 mA
(1-phase)	<= 1,200 mA	<= 600 mA	<= 300 mA	<= 300 mA	<= 200 mA
Programming Resolution					
Voltage	0.2 mV	0.4 mV	0.6 mV	0.8 mV	1.2 mV
Current	6.8 mA	3.4 mA	2.24 mA	1.7 mA	1.12 mA
Measurement Resolution					
Voltage	1.1 mV	1.2 mV	1.2 mV	1.2 mV	1.2 mV
Current	1.36 mA	1.19 mA	1.12 mA	1.7 mA	1.68 mA
Front Panel Display Accuracy (4 Digits +/- 1 Count)					
Voltage	5 mV	10 mV	15 mV	20 mV	30 mV
Current	680 mA	340 mA	224 mA	170 mA	112 mA
Temperature Stability [3]					
Voltage	1 mV	2 mV	3 mV	4 mV	6 mV
Current	3.4 mA	17 mA	11.2 mA	8.5 mA	5.6 mA
Temperature Coefficient (ppm/C) [4]					
Voltage	50	50	50	50	50
Current	100	100	100	100	100

1. The maximum voltage on the power supply terminals must not exceed the rated voltage.
2. From 5 Hz to 1 MHz for rms noise.
3. Temperature stability applies over an 8-hour interval following 30 minutes of warm-up. Constant line, load and temperature.
4. Temperature coefficient applies following 30-minute warm-up period.

Model	DP5748A (S/L/H)	DP5750A (S/L/H)	DP5751A (S/L/H)	DP5753A (S/L/H)	DP5756A (S/L/H)
Output Response Time					
Up, full load	50 ms	50 ms	50 ms	50 ms	100 ms
Down, full load	100 ms	100 ms	100 ms	100 ms	200 ms
Down, no load	1,300 ms	2,100 ms	2,000 ms	3,200 ms	3,100 ms
Remote Sense Compensation/Wire * (V) [1]					
	5	5	5	5	5
Overvoltage Protective Accuracy					
	0.8 V	1 V	1.5 V	3 V	6 V
Overvoltage Protection Range					
	5 – 88.2 V	5 – 110.25 V	5 – 165.37 V	5 – 330.75 V	5 – 661.5 V
Output Ripple and Noise [2]					
(3-phase)	<= 70 mA	<= 45 mA	<= 30 mA	<= 12 mA	<= 5 mA
(1-phase)	<= 100 mA	<= 60 mA	<= 40 mA	<= 12 mA	<= 8 mA
Programming Resolution					
Voltage	1.6 mV	2 mV	3 mV	6 mV	12 mV
Current	0.85 mA	0.68 mA	0.45 mA	0.23 mA	0.112 mA
Measurement Resolution					
Voltage	1.6 mV	11 mV	10.5 mV	12 mV	12 mV
Current	1.68 mA	1.36 mA	1.35 mA	1.15 mA	0.168 mA
Front Panel Display Accuracy (4 Digits +/- 1 Count)					
Voltage	40 mV	50 mV	75 mA	150 mV	300 mV
Current	84 mA	68 mA	45 mA	23 mA	11.2 mA
Temperature Stability [3]					
Voltage	8 mV	10 mV	15 mV	30 mV	60 mV
Current	4.2 mA	3.4 mA	2.25 mA	1.15 mA	0.56 mA
Temperature Coefficient (ppm/C) [4]					
Voltage	50	50	50	50	50
Current	100	100	70	70	70

1. The maximum voltage on the power supply terminals must not exceed the rated voltage.
2. From 5 Hz to 1 MHz for rms noise.
3. Temperature stability applies over an 8-hour interval following 30 minutes of warm-up. Constant line, load, and temperature.
4. Temperature coefficient applies following 30-minute warm-up period.

Specifications for 5 kW Models (DP5761A — DP5776A)

Unless otherwise noted, specifications are warranted over the ambient temperature range of 0 to 40 °C after a 30-minute warm-up period. Specifications apply at the output terminals, with the sense terminals connected to the output (local sensing) terminals.

Refer to the Keysight DP5700 series documentation for the setup conditions for all performance specifications. For more detailed specifications, refer to the DP5700 series user's manual at www.keysight.com/find/DP5700.

AC input suffix definition: Suffix (AC Input): L = Low | H = High

Refer to the AC input specifications section for detailed voltage ranges.

Model	DP5761A (L/H)[5]	DP5762A (L/H)	DP5763A (L/H)	DP5764A (L/H)	DP5765A (L/H)	DP5766A (L/H)	DP5768A (L/H)
DC Power Ratings							
Voltage	0 to 10 V	0 to 20 V	0 to 30 V	0 to 40 V	0 to 50 V	0 to 60 V	0 to 80 V
Current	0 to 500 A	0 to 250 A	0 to 170 A	0 to 125 A	0 to 100 A	0 to 85 A	0 to 65 A
Power	5,000 W	5,000 W	5,100 W	5,000 W	5,000 W	5,100 W	5,200 W
Output Ripple and Noise[1]							
CV rms	8 mV	10 mV	12 mV	12 mV	12 mV	12 mV	15 mV
CV peak-to-peak	75 mV	75 mV	75 mV	75 mV	75 mV	75 mV	80 mV
Load Regulation							
Voltage	6 mV	7 mV	8 mV	9 mV	10 mV	11 mV	13 mV
Current	400 mA	200 mA	136 mA	100 mA	80 mA	68 mA	52 mA
Line Regulation							
Voltage	1 mV	2 mV	3 mV	4 mV	5 mV	6 mV	8 mV
Current	250 mA	125 mA	85 mA	62.5 mA	50 mA	42.5 mA	32.5 mA
Voltage Programming Accuracy[2]							
Voltage	5 mV	10 mV	15 mV	20 mV	25 mV	30 mV	40 mV
Current Programming Accuracy[2, 3]							
Current 0.1% +	1000 mA	500 mA	340 mA	250 mA	200 mA	170 mA	130 mA
Voltage Measurement Accuracy[2]							
Voltage	5 mV	10 mV	15 mV	20 mV	25 mV	30 mV	40 mV
Current Measurement Accuracy[2]							
Current	1000 mA	500 mA	340 mA	250 mA	200 mA	170 mA	130 mA
Transient Response[4]							
Recovery time	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms
Settling band	0.05 V	0.1 V	0.15 V	0.2 V	0.25 V	0.3 V	0.4 V

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise
2. All specifications pertain to >0.1% of rated voltage and >0.2% of rated current at 23 °C ± 5 °C
3. Percent of programmed value + offset.
4. 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
5. For DP5761Ax models (5 kW, 10 V, 500 A), temperature range is 0 °C to 35 °C, derate output 2.4%/° C up to 40 °C

Model	DP5770A (L/H)	DP5771A (L/H)	DP5772A (L/H)	DP5773A (L/H)	DP5774A (L/H)	DP5775A (L/H)	DP5776A (L/H)
DC Power Ratings							
Voltage	0 to 100 V	0 to 150 V	0 to 200 V	0 to 300 V	0 to 400 V	0 to 500 V	0 to 600 V
Current	0 to 50 A	0 to 34 A	0 to 25 A	0 to 17 A	0 to 13 A	0 to 10 A	0 to 8.5 A
Power	5,000 W	5,100 W	5,000 W	5,100 W	5,200 W	5,000 W	5,100 W
Output Ripple and Noise[1]							
CV rms	15 mV	20 mV	45 mV	60 mV	80 mV	80 mV	100 mV
CV peak-to-peak	90 mV	120 mV	200 mV	200 mV	400 mV	450 mV	480 mV
Load Regulation							
Voltage	15 mV	20 mV	25 mV	35 mV	45 mV	55 mV	65 mV
Current	40 mA	27.2 mA	20 mA	13.6 mA	10.4 mA	8 mA	6.8 mA
Line Regulation							
Voltage	10 mV	15 mV	20 mV	30 mV	40 mV	50 mV	60 mV
Current	25 mA	17 mA	12.5 mA	8.5 mA	6.5 mA	5 mA	4.25 mA
Voltage Programming Accuracy[2]							
Voltage	50 mV	75 mV	100 mV	150 mV	200 mV	250 mV	300 mV
Current Programming Accuracy[2, 3]							
Current 0.1% +	100 mA	68 mA	50 mA	34 mA	26 mA	20 mA	17 mA
Voltage Measurement Accuracy[2]							
Voltage	50 mV	75 mV	100 mV	150 mV	200 mV	250 mV	300 mV
Current Measurement Accuracy[2]							
Current	100 mA	68 mA	50 mA	34 mA	26 mA	20 mA	17 mA
Transient Response[4]							
Recovery time	1 ms	2 ms	2 ms	2 ms	2 ms	2 ms	2 ms
Settling band	0.5 V	0.75 V	1 V	1.5 V	2 V	2.5 V	3 V

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise
2. All specifications pertain to >0.1% of rated voltage and >0.2% of rated current at 23 °C ± 5 °C
3. Percent of programmed value + offset.
4. 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.

Supplemental Characteristics for 5 kW Models

Supplemental characteristics are not warranted but are descriptions of performance determined by design or type testing. All supplemental characteristics are typical unless otherwise noted.

Model	DP5761A (L/H)	DP5762A (L/H)	DP5763A (L/H)	DP5764A (L/H)	DP5765A (L/H)	DP5766A (L/H)	DP5768A (L/H)
Output Response Time							
Up, full load	30 ms	30 ms	30 ms	30 ms	50 ms	50 ms	50 ms
Down, full load	50 ms	50 ms	80 ms	80 ms	80 ms	80 ms	100 ms
Down, no load	300 ms	600 ms	800 ms	900 ms	950 ms	1,000 ms	1,200 ms
Remote Sense Compensation/Wire * (V) [1]							
	2	2	5	5	5	5	5
Over-Voltage Protective Accuracy							
	0.1 V	0.2 V	0.3 V	0.4 V	0.5 V	0.6 V	0.8 V
Over-Voltage Protection Range							
	0.5 – 12 V	1 – 24 V	2 – 36 V	2 – 44.1 V	5 – 55.125 V	5 – 66.15 V	5 – 88.2 V
Output Ripple and Noise[2]							
(3-phase)	<= 1,200 mA	<= 600 mA	<= 300 mA	<= 150 mA	<= 130 mA	<= 100 mA	<= 70 mA
Programming Resolution							
Voltage	0.2 mV	0.4 mV	0.6 mV	0.8 mV	1 mV	1.2 mV	1.6 mV
Current	10 mA	5 mA	3.4 mA	2.5 mA	2 mA	1.7 mA	1.3 mA
Measurement Resolution							
Voltage	1.1 mV	1.2 mV	1.2 mV	1.2 mV	1.5 mV	1.2 mV	1.6 mV
Current	15 mA	12.5 mA	10.2 mA	11.25 mA	11 mA	1.7 mA	1.3 mA
Front Panel Display Accuracy (4 Digits +/- 1 Count)							
Voltage	5 mV	10 mV	15 mV	20 mV	25 mV	30 mV	40 mV
Current	1,000 mA	500 mA	340 mA	250 mA	200 mA	170 mA	130 mA
Temperature Stability[3]							
Voltage	1 mV	2 mV	3 mV	4 mV	5 mV	6 mV	8 mV
Current	50 mA	25 mA	17 mA	12.5 mA	10 mA	8.5 mA	6.5 mA
Temperature Coefficient (ppm/C) [4]							
Voltage	50	50	50	50	50	50	50
Current	100	100	100	100	100	100	100

1 The maximum voltage on the power supply terminals must not exceed the rated voltage.
2 From 5 Hz to 1 MHz for rms noise.
3 Temperature stability applies over an 8-hour interval following 30-minute warm-up. Constant line, load and temperature.
4 The temperature coefficient applies following 30-minute warm-up period.

Model	DP5770A (L/H)	DP5771A (L/H)	DP5772A (L/H)	DP5773A (L/H)	DP5774A (L/H)	DP5775A (L/H)	DP5776A (L/H)
Output Response Time							
Up, full load	50 ms	50 ms	50 ms	50 ms	100 ms	100 ms	100 ms
Down, full load	100 ms	100 ms	100 ms	100 ms	150 ms	200 ms	200 ms
Down, no load	1,900 ms	2,000 ms	2,000 ms	3,000 ms	4,000 ms	4,000 ms	3,000 ms
Remote Sense Compensation/Wire * (V) [1]							
	5	5	5	5	5	5	5
Over-Voltage Protective Accuracy							
	1 V	1.5 V	2 V	3 V	4 V	5 V	6 V
Over-Voltage Protection Range							
	5 – 110.25 V	5 – 163.37 V	5 – 220.5 V	5 – 330.75	5 – 441 V	5 – 551.25 V	5 – 661.5 V
Output Ripple and Noise[2]							
(3-phase)	<= 45 mA	<= 45 mA	<= 45 mA	<= 15 mA	<= 12 mA	<= 10 mA	<= 8 mA
Programming Resolution							
Voltage	2 mV	3 mV	4 mV	6 mV	8 mV	10 mV	12 mV
Current	1 mA	0.68 mA	0.5 mA	0.34 mA	0.26 mA	0.2 mA	0.17 mA
Measurement Resolution							
Voltage	11 mV	10.5 mV	10 mV	12 mV	12 mV	15 mV	12 mV
Current	1.5 mA	1.36 mA	1 mA	1.02 mA	1.04 mA	1.1 mA	0.17 mA
Front Panel Display Accuracy (4 Digits +/- 1 Count)							
Voltage	50 mV	75 mV	100 mV	150 mV	200 mV	250 mV	300 mV
Current	100 mA	68 mA	50 mA	34 mA	26 mA	20 mA	17 mA
Temperature Stability[3]							
Voltage	10 mV	15 mV	20 mV	30 mV	40 mV	50 mV	60 mV
Current	5 mA	3.4 mA	2.5 mA	1.7 mA	1.3 mA	1 mA	0.85 mA
Temperature Coefficient (ppm/C) [4]							
Voltage	50	50	50	50	50	50	50
Current	100	70	70	70	70	70	70

1 The maximum voltage on the power supply terminals must not exceed the rated voltage.
2 From 5 Hz to 1 MHz for rms noise.
3 Temperature stability applies over an 8-hour interval following 30-minute warm-up. Constant line, load and temperature.
4 The temperature coefficient applies following 30-minute warm-up period.

Specifications for 7.5 kW Models (DP5782A — DP5799A)

Supplemental characteristics are not warranted but are descriptions of performance determined by design or type testing. All supplemental characteristics are typical unless otherwise noted.

Refer to the Keysight DP5700 series documentation for the setup conditions for all performance specifications. For more detailed specifications, refer to the DP5700 series user's manual at www.keysight.com/find/DP5700.

AC input suffix definition: Suffix (AC Input): S = Standard | L = Low | H = High

Refer to the AC input specifications section for detailed voltage ranges.

Model	DP5782A (L/H)	DP5783A (L/H)	DP5784A (L/H)	DP5786A (L/H)	DP5788A (L/H)	DP5790A (L/H)
DC Power Ratings						
Voltage	0 to 20 V	0 to 30 V	0 to 40 V	0 to 60 V	0 to 80 V	0 to 100 V
Current	0 to 375 A	0 to 250 A	0 to 188 A	0 to 125 A	0 to 94 A	0 to 75 A
Power	7,500 W	7,500 W	7,520 W	7,500 W	7,520 W	7,500 W
Output Ripple and Noise[1]						
CV rms	10 mV	10 mV	8 mV	12 mV	15 mV	15 mV
CV peak-to-peak	80 mV	80 mV	80 mV	80 mV	90 mV	90 mV
Load Regulation						
Voltage	7 mV	8 mV	9 mV	11 mV	13 mV	15 mV
Current	300 mA	200 mA	150.4 mA	100 mA	75.2 mA	60 mA
Line Regulation						
Voltage	2 mV	3 mV	4 mV	6 mV	8 mV	10 mV
Current	187.5 mA	125 mA	94 mA	62.5 mA	47 mA	37.5 mA
Voltage Programming Accuracy [2]						
Voltage	10 mV [5]	15 mV [5]	20 mV	30 mV	40 mV	50 mV
Current programming accuracy [2,3]						
Current 0.1%+	750 mA [5]	500 mA [5]	376 mA	250 mA	188 mA	150 mA
Voltage Measurement Accuracy [2]						
Voltage	10 mV	15 mV	20 mV	30 mV	40 mV	50 mV
Current Measurement Accuracy [2, 3]						
Current	750 mA	500 mA	376 mA	250 mA	188 mA	150 mA
Transient Response[4]						
Recovery time	1 ms	1 ms	1 ms	1 ms	1 ms	1 ms
Settling band	0.1 V	0.15 V	0.2 V	0.3 V	0.4 V	0.5 V

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise
2. All specifications pertain to >0.1% of rated voltage and >0.2% of rated current at 23 °C ± 5 °C (except DP5782Ax and DP5783Ax. See note 5)
3. Percent of programmed value + offset.
4. 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
5. All specifications pertain to >0.15% of rated voltage, >0.2% of rated current operating at 23 °C ± 5 °C

Model	DP5791A (L/H)	DP5792A (L/H)	DP5793A (L/H)	DP5796A (L/H)	DP5797A (L/H)	DP5799A (L/H)
DC Power Ratings						
Voltage	0 to 150 V	0 to 200 V	0 to 300 V	0 to 600 V	0 to 1,000 V	0 to 1,500 V
Current	0 to 50 A	0 to 37.5 A	0 to 25 A	0 to 12.5 A	0 to 7.5 A	0 to 5 A
Power	7,500 W	7,500 W	7,500 W	7,500 W	7,500 W	7,500 W
Output Ripple and Noise [1]						
CV rms	20 mV	45 mV	60 mV	100 mV	250 mV	500 mV
CV peak-to-peak	150 mV	250 mV	250 mV	450 mV	1,100 mV	1,300 mV
Load Regulation						
Voltage	20 mV	25 mV	35 mV	65 mV	105 mV	155 mV
Current	40 mA	30 mA	20 mA	10 mA	6 mA	4 mA
Line Regulation						
Voltage	15 mV	20 mV	30 mV	60 mV	100 mV	150 mV
Current	25 mA	18.75 mA	12.5 mA	6.25 mA	3.75 mA	2.5 mA
Voltage Programming Accuracy [2]						
Voltage	75 mV	100 mV	150 mV	300 mV	500 mV	750 mV
Current Programming Accuracy [2, 3]						
Current 0.1%+	100 mA	75 mA	50 mA	25 mA	15 mA	10 mA
Voltage Measurement Accuracy [2]						
Voltage	75 mV	100 mV	150 mV	300 mV	500 mV	750 mV
Current Measurement Accuracy [2, 3]						
Current	100 mA	75 mA	50 mA	25 mA	15 mA	10 mA
Transient Response [4]						
Recovery time	2 ms	2 ms	2 ms	2 ms	2 ms	2 ms
Settling band	0.75 V	1 V	1.5 V	3 V	5 V	7.5 V

1. From 5 Hz to 1 MHz for rms noise; from 20 Hz to 20 MHz for peak-to-peak noise
2. All specifications pertain to >0.1% of rated voltage and >0.2% of rated current at 23 °C ± 5 °C
3. Percent of programmed value + offset.
4. 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

Supplemental Characteristics for 7.5 kW Models

Supplemental characteristics are not warranted but are descriptions of performance determined by design or type testing. All supplemental characteristics are typical unless otherwise noted.

Model	DP5782A (L/H)	DP5783A (L/H)	DP5784A (L/H)	DP5786A (L/H)	DP5788A (L/H)	DP5790A (L/H)
Output Response Time						
Up, full load	30 ms	30 ms	30 ms	50 ms	50 ms	50 ms
Down, full load	50 ms	80 ms	80 ms	80 ms	100 ms	100 ms
Down, no load	600 ms	500 ms	1,000 ms	1,000 ms	1,000 ms	1,500 ms
Remote Sense Compensation/Wire [1] (V)						
	2	5	5	5	5	5
Over-Voltage Protective Accuracy						
	0.2 V	0.3 V	0.4 V	0.6 V	0.8 V	1 V
Over-Voltage Protection Range						
	1 – 24 V	2 – 36 V	2 – 44.1 V	5 – 66.15 V	5 – 88.2 V	5 – 110.25 V
Output Ripple and Noise [2]						
(3-phase)	<= 900 mA	<= 500 mA	<= 300 mA	<= 150 mA	<= 100 mA	<= 70 mA
Programming Resolution						
Voltage	0.4 mV	0.6 mV	0.8 mV	1.2 mV	1.6 mV	2 mV
Current	7.5 mA	5 mA	3.76 mA	2.5 mA	1.88 mA	1.5 mA
Measurement Resolution						
Voltage	1.2 mV	1.2 mV	1.2 mV	1.2 mV	1.6 mV	11 mV
Current	11.25 mA	12.5 mA	11.28 mA	11.25 mA	1.88 mA	1.5 mA
Front Panel Display Accuracy (4 Digits +/- 1 Count)						
Voltage	10 mV	15 mV	20 mV	30 mV	40 mV	50 mV
Current	750 mA	500 mA	376 mA	250 mA	188 mA	150 mA
Temperature Stability [3]						
Voltage	2 mV	3 mV	4 mV	6 mV	8 mV	10 mV
Current	37.5 mA	25 mA	18.8 mA	12.5 mA	9.4 mA	7.5 mA
Temperature Coefficient (ppm/C) [4]						
Voltage	50	50	50	50	50	50
Current	100	100	100	100	100	100

1 The maximum voltage on the power supply terminals must not exceed the rated voltage.
2 From 5 Hz to 1 MHz for rms noise.
3 Temperature stability applies over an 8-hour interval following 30-minute warm-up. Constant line, load and temperature.
4 The temperature coefficient applies following 30-minute warm-up period.

Model	DP5791A (L/H)	DP5792A (L/H)	DP5793A (L/H)	DP5796A (L/H)	DP5797A (L/H)	DP5799A (L/H)
Output Response Time						
Up, full load	50 ms	50 ms	50 ms	100 ms	150 ms	200 ms
Down, full load	100 ms	100 ms	100 ms	100 ms	100 ms	100 ms
Down, no load	2,500 ms	2,000 ms	3,000 ms	3,000 ms	3,000 ms	3,000 ms
Remote Sense Compensation/Wire [1] (V)						
	5	5	5	5	5	5
Over-Voltage Protective Accuracy						
	1.5 V	2 V	3 V	6 V	10 V	15 V
Over-Voltage Protection Range						
	5 – 165.37 V	5 – 220.5 V	5 – 330.75 V	5 – 661.5 V	5 – 1102.5 V	5 – 1653.75 V
Output Ripple and Noise [2]						
(3-phase)	<= 45 mA	<= 20 mA	<= 15 mA	<= 14 mA	<= 10 mA	<= 5 mA
Programming Resolution						
Voltage	3 mV	4 mV	6 mV	12 mV	20 mV	30 mV
Current	1 mA	0.75 mA	0.5 mA	0.25 mA	0.15 mA	0.1 mA
Measurement Resolution						
Voltage	10.5 mV	10 mV	12 mV	12 mV	110 mV	105 mV
Current	1.5 mA	1.125 mA	1.25 mA	1.125 mA	0.15 mA	0.15 mA
Front Panel Display Accuracy (4 Digits +/- 1 Count)						
Voltage	75 mV	100 mV	150 mV	300 mV	500 mV	750 mV
Current	100 mA	75 mA	50 mA	25 mA	15 mA	10 mA
Temperature Stability [3]						
Voltage	15 mV	20 mV	30 mV	60 mV	100 mV	150 mV
Current	5 mA	3.75 mA	2.5 mA	1.25 mA	0.75 mA	0.5 mA
Temperature Coefficient (ppm/C) [4]						
Voltage	50	50	50	50	50	50
Current	70	70	70	70	70	70

1 The maximum voltage on the power supply terminals must not exceed the rated voltage.
2 From 5 Hz to 1 MHz for rms noise.
3 Temperature stability applies over an 8-hour interval following 30-minute warm-up. Constant line, load and temperature.
4 The temperature coefficient applies following 30-minute warm-up period.

Common Characteristics

Characteristic	All Models
Command response time	< 10 ms
Savable states	10
Maximum number of paralleled units	3.4 kW models: 12 units 5 kW models: 12 units 7.5 kW models: 12 units
Weights	DP572xA – DP573xA (All 1.5 kW models) – 3.99kg DP574xA (S) – DP575xA (S) (3.4 kW 1-phase models) – 5.6kg DP574xA (L/H) – DP575xA (L/H) (3.4 kW 3-phase models) – 6.0kg DP576xA (L/H) – DP5770A (L/H) (5 kW models) – 7.3kg DP5771A (L/H) – DP5776A (L/H) (5 kW models) – 6.2kg DP578xA (L/H) – DP5790A (L/H) (7.5 kW models) – 8.4kg DP5791A (L/H) – DP5796A (L/H) (7.5 kW models) – 7.6kg
Analog Programming	
Input range	0 to 5 V or 0 to 10 V (selectable) 0 to 5 kΩ or 0 to 10 kΩ (selectable)
Accuracy	Vout voltage programming ±0.15% of rated Vout. Iout voltage programming ±0.4% of rated Iout Vout resistance programming ±0.5% of rated Vout. Iout resistance programming ±0.5% of rated Iout. Vout monitor ±0.5% of rated Vout. Iout monitor ±0.5% of rated Iout.
Input impedance	>10 MΩ (referenced to ground)
Output monitor range	0 to 5 V or 0 to 10 V (selectable)
Computer Interface	
LXI version	1.5 LXI Device Specification 2016
LXI extended functions	LXI IPv4, LXI HiSLIP, LXI, VXI-11 Discovery and Identification
LAN	10/100 Base-T Ethernet (sockets, VXI-11 protocol, web user interface)
USB	USB 2.0 (USB-TMC488 protocol)
GPIB	IEEE 488
Language	SCPI-1999, IEEE 488.2 compliant
Regulatory Compliance	
EMC	Complies with the European EMC Directive for test and measurement products Complies with Australian standards and carries the C-Tick mark This ISM device complies with Canadian ICES-001 Cet appareil ISM est conforme à la norme NMB-001 du Canada
Safety	Complies with the European Low Voltage Directive and carries the CE-marking. Conforms to US and Canadian safety regulations. Not applicable for IT mains supply systems
Environmental	
Operating environment	Indoor use, installation category II (for AC input), pollution degree 2
Temperature range*	0 °C to 40 °C
Relative humidity	20 to 90% (non-condensing)
Storage humidity	10 to 90% (non-condensing)
Altitude	Up to 3000 meters, with 2% output current derating for every 100's above 2000 m, and derating maximum ambient temperature by 1 °C per every 100's above 2000 m
Non-operating altitude	Up to 12,000 m
Storage temperature	–30 °C to 85 °C

* For DP5761AX models (5 kW, 10 V, 500 A), temperature range is 0° C to 35° C, derate output 2.4%/° C up to 40° C

Acoustic Statement

Acoustic Statement	
1.5 kW Models Acoustic Noise Emission	
At max fan speed	LpA 59.2 dB at Operator Position LpA 52.0 dB at Bystander Position
At idle	LpA 47.7 dB
3.4 kW Models Acoustic Noise Emission	
At max fan speed	LpA 58.3 dB at Operator Position LpA 56.8 dB at Bystander Position
At idle	LpA 50.4 dB
5 kW Models Acoustic Noise Emission	
At max fan speed	LpA 58.6 dB at Operator Position LpA 58.7 dB at Bystander Position
At idle	LpA 49.0 dB
7.5 kW Models Acoustic Noise Emission	
At max fan speed	LpA 59.0 dB at Operator Position LpA 57.1 dB at Bystander Position
At idle	LpA 52.0 dB

AC Input

AC Input	
AC Input Suffix Definition	
S, L, and H indicate the supported AC input voltage range: • S (Standard) – Standard AC input range • L (Low) – Lower AC input voltage range • H (High) – Higher AC input voltage range	
1.5 kW Models – DP57xxA	
Connections	L1, L2, PE (1-phase with protective earth)
Voltage	100 VAC -15% to 240 VAC +10%
Maximum Phase Current (A RMS)	• 19.7 A (100 VAC, 1-phase) • 17.9 A (110-130 VAC, 1-phase) • 10.4 A (190-240 VAC, 1-phase)
Frequency	50/60 Hz
3.4 kW Models – DP57xxA (S – Standard AC input range)	
Connections	L1, L2, PE (1-phase with protective earth)
Voltage	200 VAC -15% to 240 VAC +10%
Maximum Phase Current (A RMS)	22.6 A
Frequency	50/60 Hz
3.4 kW, 5 kW and 7.5 kW Models – DP57xxA (L – Low AC input range)	
Connections	L1, L2, L3, PE (3-phase with protective earth; no neutral)
Voltage	200 VAC -15% to 240 VAC +10%, line-to-line
Maximum Phase Current (A RMS)	13.1 A for 3.4 kW 19.3 A for 5.0 kW 27.9 A for 7.5 kW
Frequency	50/60 Hz
3.4 kW, 5 kW and 7.5 kW Models – DP57xxA (H – High AC input range)	
Connections	L1, L2, L3, PE (3-phase with protective earth; no neutral)
Voltage	380 VAC -10% to 480 VAC +10%, line-to-line
Maximum Phase Current (A RMS)	6.5 A for 3.4 kW 9.7 A for 5.0 kW 14.0 A for 7.5 kW
Frequency	50/60 Hz
Efficiency	
1.5 kW models	86%-90%
3.4 kW models	88%-90.5%
5.0 kW models	88.5%-92%
7.5 kW models	91%-92%

DC Output Ratings

1.5 kW Models

DP5721A	10 V, 150 A	100 – 240 VAC
DP5722A	20 V, 75 A	
DP5723A	30 V, 50 A	
DP5724A	40 V, 38 A	
DP5726A	60 V, 25 A	
DP5728A	80 V, 19 A	
DP5730A	100 V, 15 A	
DP5731A	150 V, 10 A	
DP5733A	300 V, 5 A	
DP5736A	600 V, 2.6 A	

3.4 kW Models

DP5741A (S/L/H)	10 V. 340 A	S: 200 – 240 (1-phase) L: 200 – 240 (3-phase) H: 380 – 480 (3-phase)
DP5742A (S/L/H)	20 V, 170 A	
DP5743A (S/L/H)	30 V, 112 A	
DP5744A (S/L/H)	40 V, 85 A	
DP5746A (S/L/H)	60 V, 56 A	
DP5748A (S/L/H)	80 V, 42 A	
DP5750A (S/L/H)	100 V, 34 A	
DP5751A (S/L/H)	150 V, 22.5 A	
DP5753A (S/L/H)	300 V, 11.5 A	
DP5756A (S/L/H)	600 V, 5.6 A	

5 kW Models

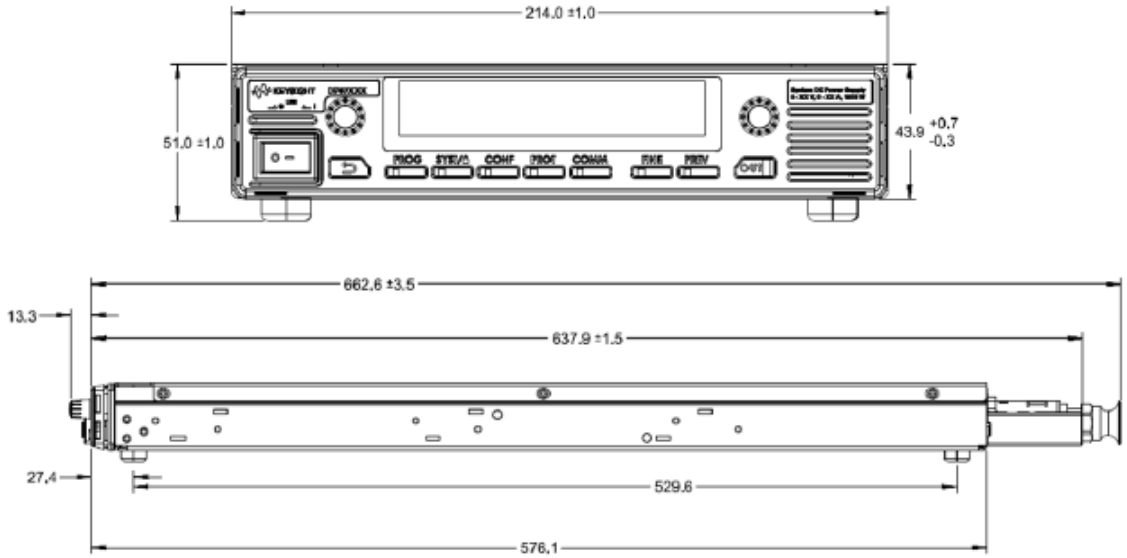
DP5761A (L/H)	10 V, 500 A	L: 200 – 240 (3-phase) H: 380 – 480 (3-phase)
DP5762A (L/H)	20 V, 250 A	
DP5763A (L/H)	30 V, 170 A	
DP5764A (L/H)	40 V, 125 A	
DP5765A (L/H)	50 V, 100 A	
DP5766A (L/H)	60 V, 85 A	
DP5768A (L/H)	80 V, 65 A	
DP5770A (L/H)	100 V, 50 A	
DP5771A (L/H)	150 V, 34 A	
DP5772A (L/H)	200 V, 25 A	
DP5773A (L/H)	300 V, 17 A	
DP5774A (L/H)	400 V, 13 A	
DP5775A (L/H)	500 V, 10 A	
DP5776A (L/H)	600 V, 8.5 A	

7.5 kW Models

DP5782A (L/H)	20 V, 375 A	L: 200 – 240 (3-phase) H: 380 – 480 (3-phase)
DP5783A (L/H)	30 V, 250 A	
DP5784A (L/H)	40 V, 188 A	
DP5786A (L/H)	60 V, 125 A	
DP5788A (L/H)	80 V, 94 A	
DP5790A (L/H)	100 V, 75 A	
DP5791A (L/H)	150 V, 50 A	
DP5792A (L/H)	200 V, 37.5 A	
DP5793A (L/H)	300 V, 25 A	
DP5796A (L/H)	600 V, 12.5 A	
DP5797A (L/H)	1000 V, 7.5 A	
DP5799A (L/H)	1500 V, 5 A	

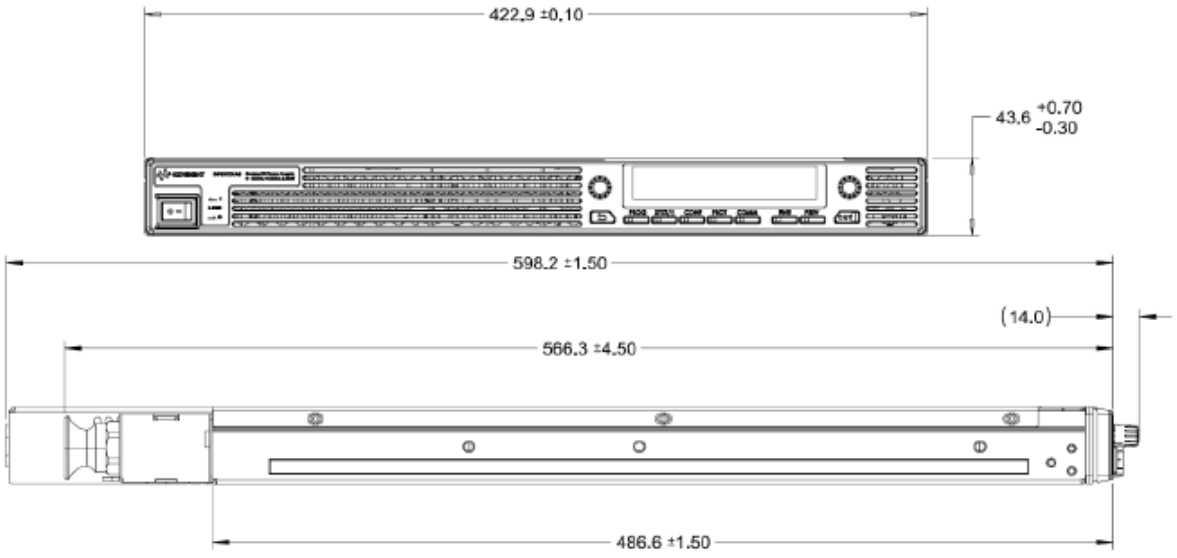
Dimension Diagram

For 1.5 kW Units



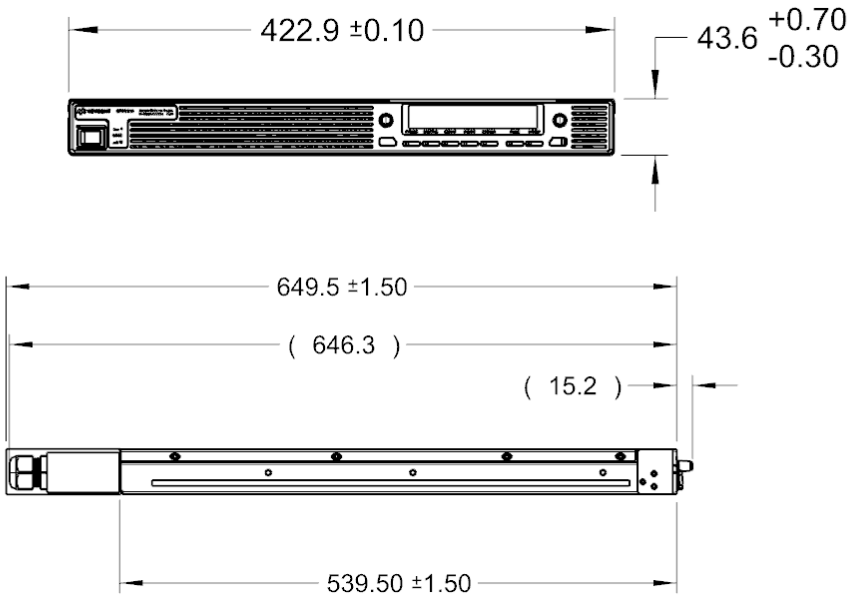
All units are in millimeters (mm).

For 3.4 kW and 5 kW Units



All units are in millimeters (mm).

For 7.5 kW Units



All units are in millimeters (mm).

Output Terminal Isolation

When power supplies are connected in series, and the load or one of the output terminals is grounded, or the load and the output terminals are floating, no point may be at a greater potential according to the following:

- For 10 ~ 100 VDC rated output, no point may be at a greater potential of ±200 VDC from ground.
- For 150 ~ 600 VDC rated output, no point may be at a greater potential of ±600 VDC from ground.
- For 1000 VDC rated output, no point may be at a greater potential of ±1000 VDC from ground.
- For 1500 VDC rated output, no point may be at a greater potential of -1000 VDC, +1500 VDC from ground.

Line Cords and Terminations (Plugs)

Due to the number of different line cords and terminations around the world, the DP5700 power supplies do not come with line cords or terminations. Users will need to supply their own depending on the local laws and codes of the country/region where the power supply will be used.

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

Keysight's IO Libraries Suite

The Keysight IO Libraries Suite ships with the DP5700 to help you quickly establish an error-free connection between your PC and instruments, regardless of the vendor. It provides robust instrument control and works with your chosen software development environment.

Keysight Services

The DP5700 Series products include three years of extended warranty and three years of KeysightCare technical support, which provides unlimited access to technical experts with committed response times. Receive personalized, proactive, and priority support. Find answers in the Knowledge Center, manage service requests, and interact with Keysight experts.

Upgrading to KeysightCare Enhanced can extend your peace of mind and eliminate budgetary surprises for up to five years and includes a calibration service of choice with prioritized turnaround times. Trust your test results with calibrated in-tolerance instruments and accurate measurements.

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