RP7900 Series
Regenerative Power System

RP7931A - RP7936A (200/208 VAC)
RP7941A - RP7946A (400/480 VAC)
RP7951A - RP7953A (200/208 VAC)
RP7961A - RP7963A (400/480 VAC)

KEYSIGHT
TECHNOLOGIES

Introduction

In the global marketplace, how do you gain a competitive advantage? Many manufacturers are trying to meet production ramps, quality goals and reduce the cost of test as a means of differentiation. Often the primary concern is the costs of equipment, calibration, and maintenance. Although initial capital investments always command our attention, operating expenses can play an even more critical role in total cost of ownership. Managing total cost of ownership can provide a competitive advantage for your business.

As the demand for high power grows, for example shift in automotive from 12V battery to over 300V for HEV/EV, it drives the need for higher power test equipment. Testing at high-power is not a simple extension of low power. As you move into high power applications in aerospace defense, infrastructure and automotive, it presents unique challenges that were not relevant in low power applications. Companies now must consider site preparation necessities, and safety requirements when transitioning from low power to high power. Having a commercial off-the-shelf solution that has low cost of ownership would minimize your high-power test costs by reducing floor space usage, minimize heat dissipation, and maintain uptime. Keysight can help with the RP7900 Series regenerative power system.

Our Solution

The Keysight RP7900 Series regenerative power system is a family of bi-directional, regenerative DC power supplies with highly integrated safety features that protect both your people and your device under test. The regenerative capability enables the energy normally consumed to be returned to the grid cleanly, saving costs associated with energy consumption and cooling.

In addition, by combining the seamless source and load functionality into a compact 3U-high package, not only do you save energy but also floor space and integration time. The RP7900 delivers the fastest, most accurate, integrated regenerative power system:

- Up to 950 V, up to ±800 A, up to 10 kW
- Operate in two-quadrant mode as power source and regenerative electronic load
- Maximize throughput with fast output speed and sub-millisecond command-processing time
- Create up to 200 kW power or loading through easy parallel connection
- Reduce cost for cooling and electricity with eco-friendly, regenerative design
- Save valuable rack space with compact 3U-high size
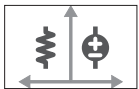- A part of the EV1003A HEV/EV Power Converter Test Solution

The RP7900 is a part of Keysight's HEV/EV Power Converter Test Solutions that gives you confidence to deploy high-voltage, high-power solutions to meet the fast paced, high-growth demands of the Hybrid-Electric/Electric Vehicle (HEV/EV) market.

Reduce costs for cooling and electricity with an eco-friendly regenerative design

The regenerative capability of the RP7900 enables the energy consumed to be put back onto the grid cleanly, saving costs from energy consumption and cooling, while not interfering with the grid. When the RP7900 is sinking current either from rapid down-programming of the output or from discharging an energy source like a battery, it will automatically return the excess power back to the grid. The regenerative operation is automatic so no programming is required. To safeguard your device under test, the RP7900 provides "anti-islanding" that senses that the grid is live before regenerating power back to the grid.

With efficiency of more than 80%, the RP7900 helps you reduce energy consumption with less electricity usage when souring or sinking and less heat dissipation (which means less air conditioning) when sinking. Additionally, it provides clean regenerative operation by keeping the total harmonic distortion to a minimum of 2% (typical) at full load to minimize interference with other electronics.

Continuously source and sink current

The RP7900 can continuously sink up to 100% of its rated current for an indefinite time. The two-quadrant, bidirectional sourcing and sinking capability of the DC power supply allows for seamless, uninterrupted transitions between sourcing and sinking current without changing the power supply's output characteristics or introducing any disruptive behavior.
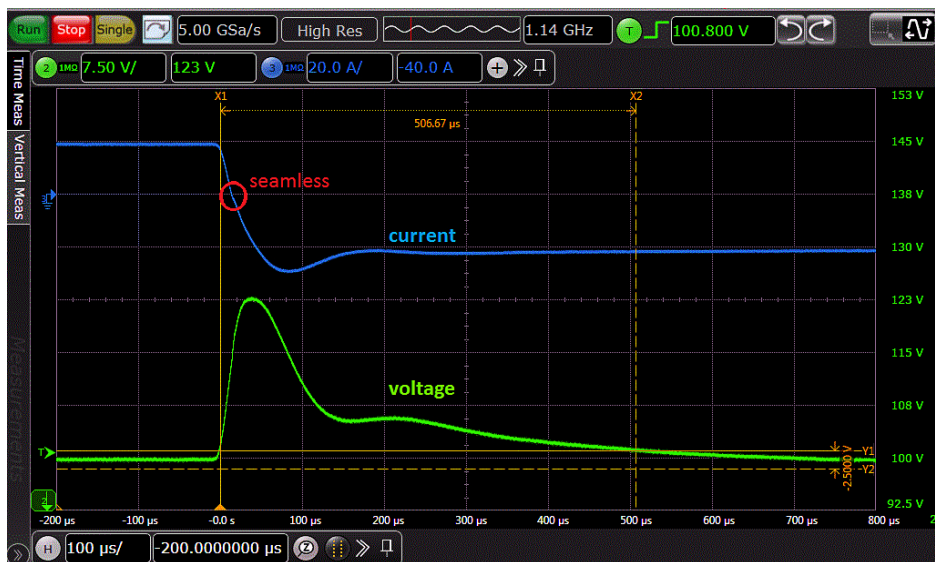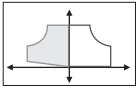

Figure 1. Seamless transition from sourcing current to sinking current

Autoranging output – does the job of multiple power supplies

The RP7900 power supplies' autoranging output characteristic makes it much more flexible than rectangular, or traditional, output characteristic power supplies because they expand the power curve, giving the user more voltage and current combinations in one power supply. Power supplies with rectangular output characteristics provide full power at only one voltage and current combination. The RP7900 is like having many rectangular power supplies in one.
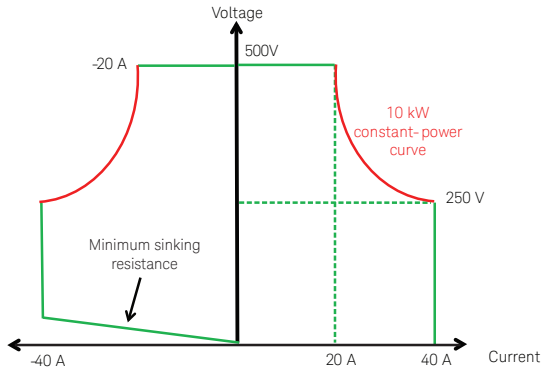
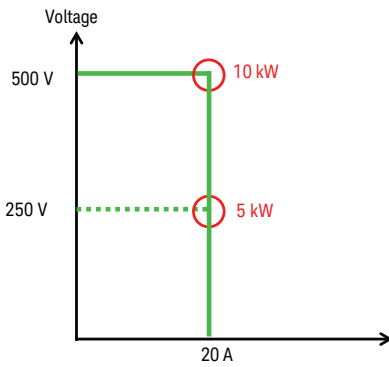Figure 2. Autoranging output characteristic of the 10kW RP7952A

Figure 3. Rectangular output characteristic of a traditional 10kW supply

Emulate high-power battery

With their battery emulation feature, the RP7900 Series allows you to test your devices under the same power conditions that exist in actual use. Emulating the battery is key when characterizing battery operating life and detecting early product failures. Through programable resistance up to 50 Ω (model dependent), the RP7900 DC sources simulate the effects of internal resistance of the battery, enabling them to emulate the operation of batteries in different charge states. Use the bidirectional RP7900 as a power source or an electronic load, just like a battery.

Accelerate test throughput with industry-leading specifications

Shaving seconds or even milliseconds off a test time can lead to significant savings for high-volume manufacturers, making throughput gains a never-ending quest for test system designers. The RP7900 is a valuable tool for increasing throughput. It provides fast output speed, sub-millisecond command-processing time (≤ 1 ms), and output list that can help you achieve significant throughput gains in your testing.

Accurately characterize your DUT's power profile with advanced measurements
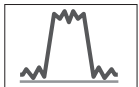
The RP7900 provides simultaneous voltage and current measurement capabilities that deliver high accuracy and resolution. Make measurements using two main modes: averaged or digitized. In average mode, the RP7900 delivers high accuracy voltage and current measurements. The digitizing capability allows you to capture dynamic current or voltage profiles.

In addition to high-accuracy voltage and current measurement capabilities, the RP7900 Series regenerative power system offer built-in power, peak power, amp-hour, and watt-hour calculations. These measurements help simplify your power efficiency and storage calculations.

Avoid damage to your DUT

When you are testing costly DUTs, integrating power protection measures into the test system is critical. Using instrumentation with built-in or integrated protection features provides a huge benefit when DUT protection is required. With protection measures implemented in hardware rather than test system software, error conditions can be detected and handled much faster, reducing the likelihood of the DUT sustaining major damage. The RP7900 provides built-in over-voltage, over-current, and over-temperature protection. For even greater DUT protection, use the accessory SD1000A Safety Disconnect System that was exclusively designed to work with the RP795x and RP796x Series to handle faults and ensure the output is secured with a redundant safety disconnect system.

Generate voltage and current transients

DUTs that are operated in rugged environments, such as automotive electronics and avionics, can often experience transient behavior from the power source, such as voltage dropouts or surges. To ensure your DUT can stand up to these real-world transients, you must simulate worst-case power transient conditions in the test process. The RP7900 provide three different functionalities for simulating either voltage or current transients for testing (not supported in master/slave mode):

Step: One-time event that steps the output voltage or current up or down in response to a triggered event.

Constant dwell arbitrary waveforms: An arbitrary waveform generator (ARB) allows you to generate complex user-defined voltage or current waveforms of up to 65,535 data points. One dwell setting applies for the entire ARB, from 10.24 µs to 0.30 seconds.

List: A list can consist of up to 512 steps. Each step in the list can have a unique dwell time associated with it, which specifies the time in seconds that the list will remain at that step before moving on to the next step. Lists can also be trigger-paced, in which case the list advances one step for each trigger received.

Properly powering on and off your DUT

If you work with DUTs that have multiple power supply inputs, you often need to properly sequence on or off each power supply at strictly repeatable times to prevent current surges and latch-up conditions. In addition to sequencing on or off each supply, you may need to set the ramp rate of each supply at turn-on or turn-off to a particular rate. These requirements add significant complexity to an ATE test system, both in hardware and software. The RP7900 provides built-in sequencing capability across RP7900 supplies or with Keysight's popular N6700 modular system power supplies or N6900/N7900 Advanced Power System. Also, the RP7900 provide adjustable slew rate control at turn-on or turn-off. These built-in capabilities provide a clean low-complexity way to properly power-on or off your DUT during test.

Add power flexibility to your test system by paralleling multiple supplies

Paralleling multiple power supplies together is a great way to add power flexibility to your test system. The down side of paralleling power supplies together is typically you cannot get all the supplies to operate in the desired constant voltage (CV) or constant current (CC)mode. For instance, when trying to operate in CV mode with two parallel supplies, one will typically source the bulk of the current and operate in CC mode and the other supply will source only a fraction of the current and operate in CV mode. This condition can highly degrade certain power supply performance specifications such as transient response. With the RP7900 you do not have to worry about this since it has built-in paralleling capability that ensures each supply equally shares the load current so they all remain in the desired mode, whether it is CV or CC.

The RP7900 can be operated in master/slave mode which enables paralleled units to be configured and programmed to look like "one" big power supply of up to 200 kW of total power; no need to program each supply individually. The RP7900 Series regenerative power system gives you the flexibility to easily parallel up to 20 units (of identical voltage rating) for greater output current. ARB, ELOG, and List are not supported in master/slave mode.

Figure 4. Parallel operation for more power

Get lots of power in a small test-system footprint

Save valuable rack space with the RP7900 that provides up to 10 kW of sourcing and loading in a compact 3U high package.

Simplify system connections

The RP7900 Series power supplies comes standard with GPIB, Ethernet/LAN, USB 2.0 giving you the flexibility to use your I/O interface of choice today and safeguard your test setup for the future. There is no need to worry whether you are choosing the right interface when they all come standard. The RP7900 is LXI Core 2011 compliant and includes a built-in Web interface. This means you can control the RP7900 remotely using a Web browser and a LAN connection.

AC input

The RP7900 series includes 16 total models. Eight have 200/208 VAC inputs and the remaining eight have 400/480 VAC inputs. This gives the RP7900 the ability to be used anywhere in the world. Choose 200/208 VAC for regions such as the Americas and Japan or choose 400/480 VAC for regions such as Europe and Asia. The RP7900 uses 3-phase AC input.

Digital control port

On the rear panel of every RP7900 power supply is a digital control port that consists of seven user configurable I/O pins that provide access to various control functions. Each pin is user configurable. Table 1 describes the possible pin configuration for the digital port functions.
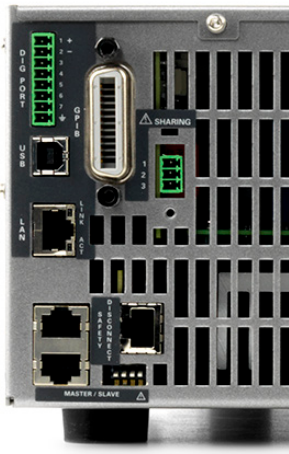

Figure 5. Digital control port on rear panel

Table 1. Digital control port description

Pin function	Available configurable pins
Digital I/O and digital in	Pins 1 through 7
External trigger in/out	Pins 1 through 7
Fault out	Pins 1 through 2
Inhibit in	Pins 3
Output couple	Pins 4 through 7
Common (connected to ground)	Pins 8

RP7909A Rack mount kit

The RP7900 is easily rack-mounted using the RP7909A rack mount kit. This kit provides all the necessary hardware to rack mount a RP7900 in a 19-inch EIA rack cabinet. This rack mount kit includes slide rails, and flange mounts (without ears).

14585A Control and Analysis Software for Advanced Power Supplies

The 14585A control and analysis software gives you fast and easy access to the advanced sourcing and measurement functionality of your RP7900 Series Regenerative Power System without any programming. It is a flexible in tool for any application, and allows you to control any of the RP7900 Series' 16 models (not supported in master/slave mode).

– Control and analyze data from up to four RP7900 Series Regenerative Power System
– Easily create complex waveforms to stimulate or load down a DUT by inputting a formula, choosing from built-in, or importing waveform data.
– Enhanced control and analysis of data with familiar PC controls and large display
– Data log measurements directly to a PC.
– Perform statistical analysis (CCDF) of power consumption

SD1000A Safety Disconnect System

The SD1000A safety disconnect solution was designed to work exclusively with the RP795x and RP796x Series (500 V and 950 V models only). In less than 15 ms the safety disconnect will remove the output voltage in order to safeguard your device under test and your people in response to a fault. Faults can be generated by the RP7900 or a user (emergency switch). It includes four disconnect point (relays) with two each on the positive and negative sides.

Specifications – RP793x, RP794x

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 terminals (local sensing).

For more detailed specifications refer to the RP7900 user's manual at:
www.keysight.com/find/RPS-doc

Specification	RP7931A/ RP7941A	RP7932A/ RP7942A	RP7933A / RP7943A	RP7935A/ RP7945A	RP7936A/ RP7946A
DC ratings					
Voltage source:	0 to 20 V	0 to 80 V	0 to 20 V	0 to 80 V	0 to 160 V
Current source and sink:	0 to ±400 A	0 to±125 A	0 to ±800 A	0 to ±250 A	0 to ±125 A
Power:	0 to ±5 kW	0 to ±5 kW	0 to ±10 kW	0 to ±10 kW	0 to ±10 kW
Output ripple & noise					
CV peak-to-peak[1]:	30 mV	80 mV	30 mV	80 mV	200 mV
CV rms[2]:	3 mV	8 mV	3 mV	8 mV	20 mV
Load regulation					
Voltage:	1 mV	3 mV	1 mV	3 mV	6 mV
Current:	25 mA	13 mA	50 mA	25 mA	13 mA
Voltage programming & measurement accuracy[3]	0.02% + 2 mV	0.02% + 8 mV	0.02% + 2 mV	0.02% + 8 mV	0.02% + 16 mV
Current programming & measurement accuracy[3]	0.04% + 45 mA	0.03% + 13 mA	0.04% + 90 mA	0.03% + 25 mA	0.03% + 13 mA
Transient response[4]					
Recovery Time:	300 µs	300 µs	300 µs	300 µs	300 µs
Settling band:	0.2 V	0.8 V	0.2 V	0.8 V	1.6 V

1. From 20 Hz to 20 MHz (–3 dB bandwidth) with resistive load, terminals ungrounded, or either terminal grounded.
2. From 20 Hz to 10 MHz (–3 dB bandwidth) with resistive load, terminals ungrounded, or either terminal grounded.
3. Percent of value + offset; at 25 °C ±5 °C after a 30 minutewarm-up; measurement NPLC=1; valid for 1 year.
4. Time to recover to within the settling band following a step change from 40% to 90% of full load with a 35 µs current rise time.

Supplemental Characteristics – RP793x, RP794x

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

Characteristic	RP7931A/ RP7941A	RP7932A/ RP7942A	RP7933A/ RP7943A	RP7935A/ RP7945A	RP7936A/ RP7946A
Output ripple and noise					
CC rms:	200 mA	70 mA	200 mA	70 mA	50 mA
Voltage programming					
Range:	0.02 to 20.4 V	0.08 mV to 81.6 V	0.02 mV to 20.4 V	0.08 mV to 81.6 V	0.16 mV to 163.2 V
Resolution:	191 µV	800 µV	191 µV	800 µV	1.6 mV
Current programming					
Range:	-408 A to 408 A	-127.5 A to 127.5 A	-816 A to 816 A	-255 A to 255 A	-127.5A to 127.5 A
Resolution:	7.7 mA	2.5 mA	15.5 mA	5 mA	2.5 mA
Resistance programming					
Range:	0 to 0.98 Ω	0 to 1.25 Ω	0 to 0.049 Ω	0 to 0.625 Ω	0 to 2.5 Ω
Resolution:	0.8 µΩ	9.8 µΩ	0.4 µΩ	4.8 µΩ	19.6 µΩ
Accuracy:	0.05% + 4 µΩ	0.05% + 32 µΩ	0.05% + 2 µΩ	0.05% + 16 µΩ	0.05% + 50 µΩ
Voltage programming speed, no load[1]					
Rise/fall time 10% to 90% of step:	80 µs	75 µs	80 µs	75 µs	75 µs
Settling time to 0.1% of step:	810 µs	480 µs	810 µs	480 µs	550 µs
Voltage programming Speed, full load[2]					
Rise/fall time 10% to 90% of step:	140 µs	130 µs	140 µs	130 µs	160 µs
Settling time to 0.1% of step:	4.2 ms	1.35 ms	4.2 ms	1.35 ms	1.35 ms
Current programming speed[3]					
Rise/fall time 10% to 90% of step:	300 µs	180 µs	300 µs	180 µs	190 µs
Settling time to 0.1% of step:	960 µs	500 µs	960 µs	500 µs	550 µs
Line regulation					
Voltage:	< 10 µV	< 10 µV	< 10 µV	< 10 µV	< 10 µV
Current:	< 20 µA	< 10 µA	< 40 µA	< 10 µA	< 10 µA

1. In the CV Comp 0 range, Frequency = 100 kHz, under no load, and a step change from 10% to 100% of output rating
2. In the CV Comp 0 range, Frequency = 2.3 kHz, with full constant current load, and a step change from 0.1% to 100% of output rating
3. In the CC Comp 0 range, Frequency = 100 kHz, and a step change from 10% to 100% of current rating, into low impedance DC source

Specifications – RP795x, RP796x

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 terminals (local sensing).

For more detailed specifications refer to the RP7900 user's manual at: www.keysight.com/find/RPS-doc

	RP7951A/ RP7961A	RP7952A/ RP7962A	RP7953A/ RP7963A
DC ratings			
Voltage source:	0 to 500 V	0 to 500 V	0 to 950 V
Current source and sink:	0 to ±20 A	0 to ±40 A	0 to ±20 A
Power:	0 to ±5 kW	0 to ±10 kW	0 to ±10 kW
Output ripple & noise			
CV peak-to-peak[1]:	500 mV	500 mV	1000 mV
CV rms[2]:	100 mV	100 mV	200 mV
Load regulation			
Voltage:	30 mV	30 mV	60 mV
Current:	9 mA	17 mA	9 mA
Voltage programming accuracy[3]	0.03% + 60 mV	0.03% + 60 mV	0.03% + 120 mV
Voltage measurement accuracy[3]	0.03% + 80 mV	0.03% + 80 mV	0.03% + 160 mV
Current programming and[3] measurement accuracy	0.1% + 12 mA	0.1% + 24 mA	0.1% + 12 mA
Transient response[4]			
Recovery time:	500 μs	500 μs	500 μs
Settling band:	1.25 V	1.25 V	2.375 V

1. From 20 Hz to 20 MHz (–3dB bandwidth) with resistive load, terminals ungrounded, or either terminal grounded
2. From 20 Hz to 10 MHz (–3dB bandwidth) with resistive load, terminals ungrounded, or either terminal grounded
3. At 25°C ±5°C after a 30 minute warm-up; measurement NPLC=1; valid for 1 year
4. Time to recover to within the settling band following a step change from 50% to 100% of full load at the maximum slew rate

Supplemental Characteristics – RP795x, RP796x

Supplemental characteristics are not warranted but are descriptions of performance determined either by design or by type testing. Supplemental characteristics are typical unless otherwise noted.
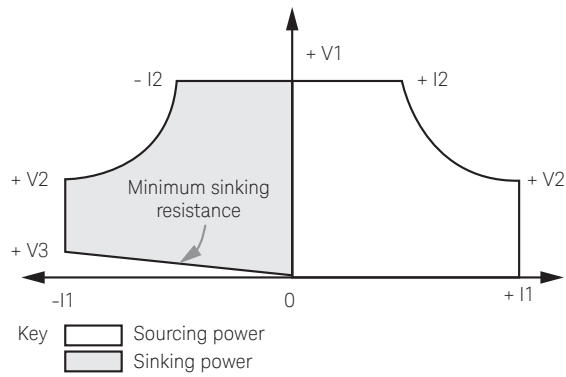
	RP7951A/ RP7961A	RP7952A/ RP7962A	RP7953A/ RP7963A
Output ripple and noise			
CC rms:	100 mA	200 mA	100 mA
Resistance programming			
Range:	0 to 25 Ω	0 to 12.5 Ω	0 to 50 Ω
Resolution:	140 µΩ	70 µΩ	280 µΩ
Accuracy :	0.08% + 200 µΩ	0.08% + 110 µΩ	0.08% + 280 µΩ
Voltage programming speed (Comp 0)[1, 2]			
10% to 90% step value:	1 ms	1 ms	1 ms
Settling time to 0.1% of step:	6 ms	6 ms	6 ms
Voltage programming speed (Comp 1)[1, 2]			
10% to 90% step value:	15 ms	15 ms	15 ms
Settling time to 0.1% of step:	50 ms	50 ms	50 ms
Current programming speed[1]			
Rise time 10% to 90% of step:	2 ms	2 ms	2 ms
Bleed resistor			
Terminal to chassis ground	1 MΩ	1 MΩ	1 MΩ

1. Up programming with full resistive load and a step change from 0.1% to 100% of rated output
2. Down programming with no load and a step change from 100% to 0.1% of rated output
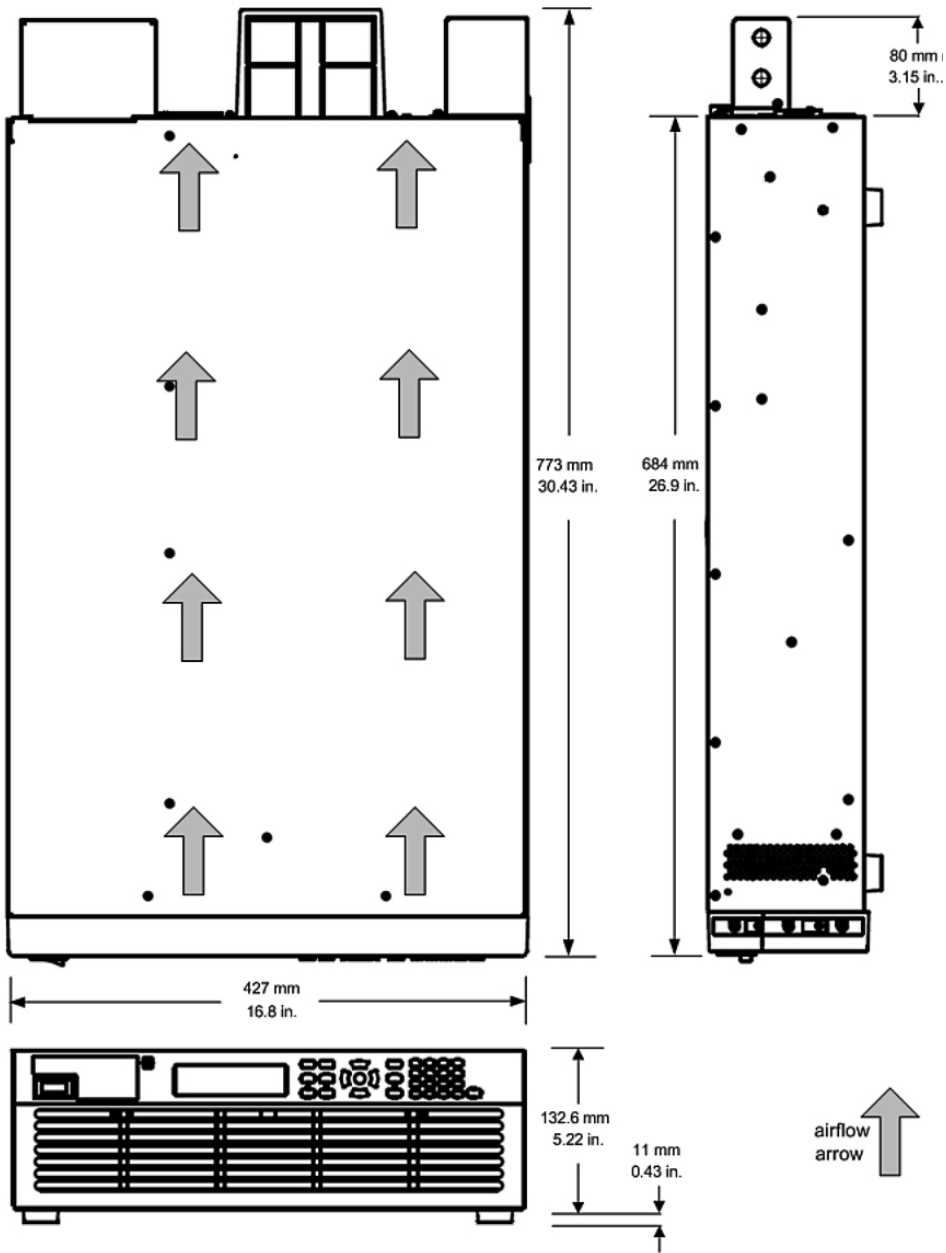
Common Characteristics – All Models

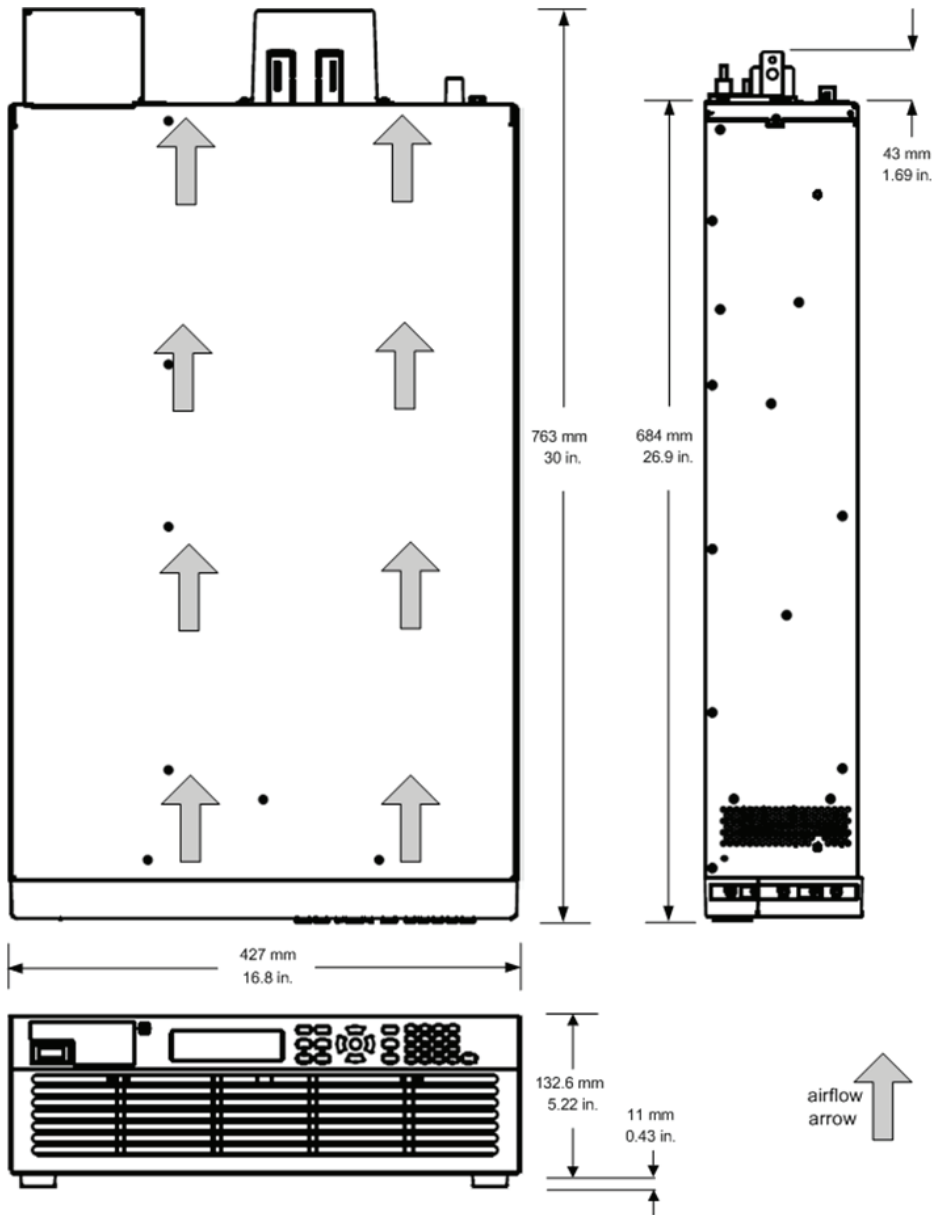| Common Characteristic	All Models
Command processing time	≤ 1 ms from receipt of command to start of output change. Applies to simple setting commands over the GPIB interface
Computer interfaces	
LXI:	LXI Core 2011 compliant
LAN:	10 Mb, 100 Mb, 1 Gb LAN
USB:	USB 2.0 (USB-TMC488 protocol)
GPIB:	SCPI - 1993, IEEE 488.2 compliant interface
Constant dwell ARBs	
Number of points:	Up to 65,535
Dwell range:	One dwell setting applies for the entire ARB, from 10.24 µs to 0.30 seconds
Dwell resolution:	Values are rounded to the nearest 10.24-microsecond increment
Regulatory compliance	
EMC:	Complies with European EMC Directive for test and measurement products Complies with Australian standard and carries 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 European Low Voltage Directive and carries the CE mark. Conforms to US and Canadian safety regulations.
Output terminal isolation:	
For all 20 VDC models:	No output terminal may be more than ±60 VDC from any other terminal or chassis ground.
For all 80 and 160 VDC models:	No output terminal may be more than ±240 VDC from any other terminal or chassis ground.
For all 500 and 900 VDC models:	No output terminal may be more than ±950 VDC from any other terminal or chassis ground.
AC input	
Phase and range:	3 phase; 200–208 VAC input, ±10% (RP7931A - RP7936A, RP7951A - RP7953A) 3 phase; 400-480 VAC input, ±10% (RP7941A - RP7946A, RP7961A - RP7963A)
Input VA:	RP7931A, RP7932A, RP7941A, RP7942A, RP7951A, RP7961A: 6.5 kVA RP7933A, RP7935A, RP7943A, RP7945A, RP7952A, RP7953A, RP7962A, RP7963A: 11.5 kVA
Input current per phase:	
200 VAC input: 400 VAC input:	RP7931A, RP7932A, RP7951A: 17.3 A RP7933A, RP7935A, RP7936A, RP7952A, RP7953A: 35 A RP7941A, RP7942A, RP7961A: 8.66 A RP7943A, RP7945A, RP7946A, RP7962A, RP7963A: 17.3 A
Efficiency at full power:	RP7931A, RP7932A, RP7936A, RP7941A, RP7942A: 84% RP7933A, RP7935A, RP7936A, RP7943A, RP7945A, RP7946A: 85% RP7951A, RP7952A, RP7953A: 86.3% RP7961A, RP7962A, RP7963A: 91.5%
Power factor:	0.99 @ nominal input and rated power
Typical weight	RP7931A, RP7932A, RP7941A, RP7942A: 60 lbs. (27.3 kg) RP7933A, RP7935A, RP7936A, RP7943A, RP7945A, RP7946A: 70 lbs. (31.8 kg) RP7951A, RP7961A: 60 lbs. (27.3 kg) RP7952A, RP7962A, RP7953A, RP7963A: 70 lbs. (31.8 kg)

Output Quadrants

Key □ Sourcing power
     ▨ Sinking power

Model	+ V1	+ V2	+ V3	+/- I1	+/- I2	Minimum sink resistance
RP7931A/RP7941A	20 V	12.5 V	0.5 V	400 A	250 A	1.25 mΩ
RP7932A/RP7942A	80 V	40 V	0.75 V	125 A	62.5 A	6 mΩ
RP7933A/RP7943A	20 V	12.5 V	0.5 V	800 A	500 A	625 µΩ
RP7935A/RP7945A	80 V	40 V	0.75 V	250 A	125 A	3 mΩ
RP7936A/RP7946A	160 V	80 V	1.5 V	125A	62.5 A	12 mΩ
RP7951A/RP7961A	500 V	250 V	8 V	20 A	10 A	0.4 Ω
RP7952A/RP7962A	500 V	250 V	8 V	40 A	20 A	0.2 Ω
RP7953A/RP7963A	950 V	500 V	16 V	20 A	10.5 A	0.8 Ω

Outline Diagrams – RP793x, RP794x

773 mm
30.43 in.

684 mm
26.9 in.

80 mm
3.15 in..

427 mm
16.8 in.

132.6 mm
5.22 in.

11 mm
0.43 in.

airflow
arrow

Outline Diagrams - RP795x, RP796x

763 mm
30 in.

684 mm
26.9 in.

43 mm
1.69 in.

427 mm
16.8 in.

132.6 mm
5.22 in.

11 mm
0.43 in.

airflow
arrow

Ordering Information

Available models

200/208 VAC Models		
RP7931A	Regenerative Power System	20 V, ±400 A, 5 kW, 200/208 VAC
RP7932A	Regenerative Power System	80 V, ±125 A, 5 kW, 200/208 VAC
RP7933A	Regenerative Power System	20 V, ±800 A, 10 kW, 200/208 VAC
RP7935A	Regenerative Power System	80 V, ±250 A, 10 kW, 200/208 VAC
RP7936A	Regenerative Power System	160 V, ±125 A, 10 kW, 200/208 VAC
RP7951A	Regenerative Power System	500 V, ±20 A, 5 kW, 200/208 VAC
RP7952A	Regenerative Power System	500 V, ±40 A, 10 kW, 200/208 VAC
RP7953A	Regenerative Power System	950 V, ±20 A, 10 kW, 200/208 VAC
400/480 VAC Models		
RP7941A	Regenerative Power System	20 V, ±400 A, 5 kW, 400/480 VAC
RP7942A	Regenerative Power System	80 V, ±125 A, 5 kW, 400/480 VAC
RP7943A	Regenerative Power System	20 V, ±800 A, 10 kW, 400/480 VAC
RP7945A	Regenerative Power System	80 V, ±250 A, 10 kW, 400/480 VAC
RP7946A	Regenerative Power System	160 V, ±125 A, 10 kW, 400/480 VAC
RP7961A	Regenerative Power System	500 V, ±20 A, 5 kW, 400/480 VAC
RP7962A	Regenerative Power System	500 V, ±40 A, 10 kW, 400/480 VAC
RP7963A	Regenerative Power System	950 V, ±20 A, 10 kW, 400/480 VAC

AC input voltages

If the AC input voltage where the power supply will be used is:
- 180 to 229, 3 phase, please choose a 200/208 VAC model
  (RP7931A – RP7936A, RP7951A – RP7953A)
- 360 to 528, 3 phase, please choose a 400/480 VAC model
  (RP7941A – RP7946A, RP7961A – RP7963A)

Line cords and terminations (plugs)

Due to the number of different line cords and terminations around the world, the RP7900 power supplies do not come with line cords or terminations. Users will need to supply their own dependent on the local laws and codes of the country/region where the power supply will be used.

Option

Option UK6   Commercial calibration with test results data

Accessories

14585A   Control and Analysis Software for Advanced Power Supplies
RP7909A   Rack Mount Kit for RP7900 Regenerative Power System
SD1000A   Safety Disconnect System for RP7950 and RP7960 models
  Option 500 Up to 500 V, up to 60 A; for RP7951A, 52A, 61A, and 62A models only
  Option 950 Up to 950 V, up to 60 A; for RP7951A, 52A, 53A, 61A, 62A, 63A models only

Learn more at: www.keysight.com

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