

## Programmable DC Power Supply

### ADG series

RS-485

RS-232

GPIB

Analog



RoHS Compliant



Preen's ADG series is a programmable DC power supply with high power density and high output power, offering great response time, high accuracy and many output voltage and current combinations. Designed for the increasing demand of high power DC, ADG is ideal for testing EV's motor/compressor, server power supply, fuse/circuit breaker/contactors, and PV inverter or can be used as a facility power or EMC chamber power.

With output power up to 100kW per unit, the ADG series offers output voltage up to 1600V and output current up to 2500A. Users can select standard RS-485 interface or optional RS-232 and GPIB. The STEP and GRADUAL modes allow easy setup on test sequence and depending on CV/CC settings and load conditions, ADG series can operate as a current or voltage source. Its remote sensing feature can effectively reduce voltage drop caused by cable length and provides more flexibility on installation.

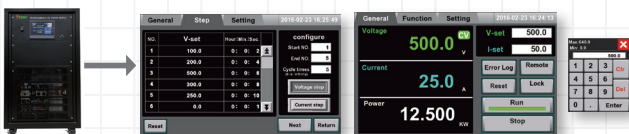
### Product Features

4kW~300kW



- Wide output voltage range: with maximum voltage up to 2000V, ideal for renewable energy, smart grid, and Electric Vehicle (EV) related applications.
- High Efficiency and Power Factor: up to 90% efficiency and power factor.
- High Output Power: up to 100kW in one chassis with high power density.
- Fast Transient Response Time: <4~12ms.
- Standard RS485 interface with Modbus compatibility and optional RS232 and GPIB interfaces.
- CV and CC Modes
- Programming Sequence Function: STEP and GRADUAL modes allow users to easily set sequences of start/ end voltage, run time and current for testing purposes.
- 4.7" Touch Screen Display for Easy Operation.
- Remote Sense for Line Drop Compensation.
- Comprehensive Protection: Input OVP/UVLP, output OVP/OCP, OTP
- 12 Different Output Voltage Ranges & 41 Models.

### User-friendly HMI



ADG series has an intuitive touch screen HMI for easy operation and data display. Users also can easily set up voltage or current variation simulations through the built-in programmable functions in the touch screen.

### High Voltage & High Current Models

High Voltage

High Current

2000V

2500A

Preen's ADG series are one of the few models in the industry that can deliver output voltage up to 2000V and output current up to 2500A, which makes ADG series an ideal DC source for all kinds of component testing.

### New Models: ADG-L series

NEW series ADG-L

4kW~12kW

Programmable DC Power Supply

Height only 3U



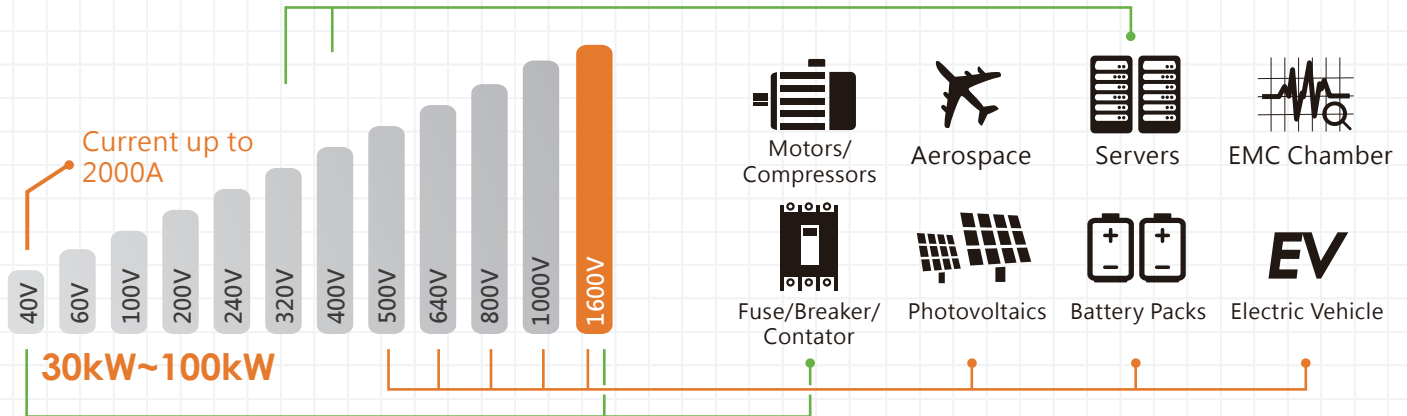
ADG-L series is a new addition to the programmable DC power supply ADG family. It can deliver up to 12kW of power with only the height of 3U. Like all other ADG series, ADG-L series is equipped with 5 inches touch screen and rotary knob for easy operation. Its standard interfaces are RS-232, RS-485 and Analog and optional interfaces are GPIB, USB and Ethernet to suit different applications.

# DC Power Supply

A DC power supply with

**“High Output Voltage, High Output Current, High Power, and Programmable Functions.”**

## A Variety of Applications



ADG series has many output voltage ranges suitable for different market applications. Models over 640V output voltage are applicable for renewable energy, EV, and lithium battery industries. When it comes to circuit breakers, contactors or fuses that require high voltage or current, models with 2000A or 1600V can fulfill the power demands of this type of component testing. The 400V or 320V models can be applied to server related applications due to the increased needs for high voltage DC in data centers.



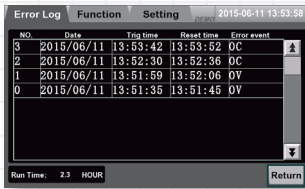
## NEW DPS Technology Design

### Applications:

- Component Testing
- Battery Testing
- Electric Vehicle
- Aerospace & Defense
- IT Industry
- Research and Compliance Labs
- EMC Testing
- Renewable Energy



## Event Log Function



ADG series' touch screen has the built-in event log function that allows users to view error history. This helps user to keep track on the power supply's operation and better analyze the test results.

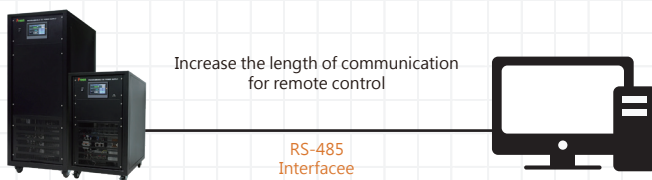
## Over 12 Voltage Ranges and 64 Models

Variety of Output Power, suitable for different applications

# 4kW~300kW

ADG Series has over 12 output voltage ranges and 64 models, which are suitable for a variety of industries and applications. New ADG-L series also comes with AUTO RANGE models, which provide more flexibility for testing and simulations.

## Easy Remote Control Set Up



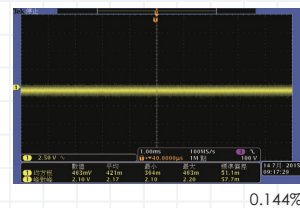
ADG-P series comes with RS-485 interfaces and optional RS-232 and GPIB interfaces, allow user to easily programming the unit through different interfaces or Preen's control software. ADG-L series' standard interfaces are RS-232, RS-485 and Analog and optional interfaces are GPIB, USB and Ethernet.

## ADG-P & ADG-S series

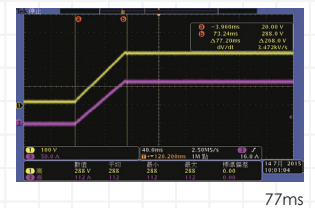
		ADG-P	ADG-S
Mode	CV mode	•	•
	CC mode	•	•
Display & Control	7" Touch Screen HMI	•	•
	PC Control Software	•	•
	Waveform Display	•	•
Built-in Simulation Features	Voltage STEP	•	•
	Current STEP	•	•
	Voltage GRADUAL	•	•
	Current GRADUAL	•	•
Others	Touch Screen Lock Function	•	•
	Event Log	•	•
	OVP Setting	•	•
	OCP Setting	•	•
	Reverse Energy Protection (Opt.)	•	•
Communication Interfaces	RS-485 (Modbus protocol)	•	•
	RS-232 (Optional)	•	•
	GPIB (Optional)	•	•

## Technically Advanced Performance

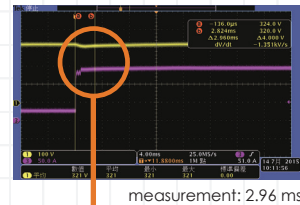
Ripple



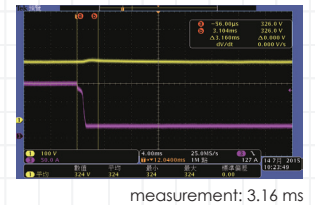
Slew Rate



Transient Response Time



Transient Response Time



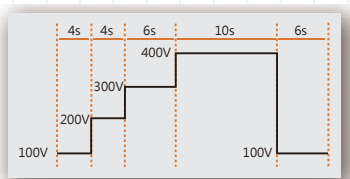
Measurement < 4-12 ms

ADG series has the industry leading performance on ripple, response time, and voltage regulation, which make it an ideal DC power supply for all kinds of testing.

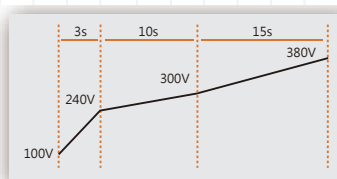
## Multiple Simulation Functions



### STEP



### GRADUAL



The built-in STEP and GRADUAL modes allow users to set up sequences of start / end voltage, run time and current for different testing simulations. Or users can contact us to customize different built-in voltage and current simulations for easy testing set up.

## ADG-P & ADG-S SPECIFICATIONS

	Input			Output			Efficiency	Accuracy		Interfaces	Protection	Operating Temp.	Others	
	Voltage	Frequency	Power factor	Voltage Regulation	Transient response time	Setting accuracy		Measurement accuracy	Dimensions (HxWxD) mm / inch				Weight KG / lbs	
The output voltage 40V~100V model	208V/480V/380V (3Φ3W + G)*	47-63Hz	≥ 0.9 at max. power	< 0.1% ~0.3	50kW 以下 : ≤ 4-12ms	≥ 87% ~90% at max. power	0.5% F.S.	0.5% F.S.	RS-485 (Opt. GPIB / RS-232)	Vin OVP, Vin UVP, OVP, OCP, OTP	0° C - 40° C	30~50kW: 1050x600x800 / 41.4x23.7x31.5	30~50kW: 225/496	
The output voltage 200V~1600V model					75kW 以上 : ≤ 10~20ms								75~100kW: 1520x600x800 / 59.9x23.7x31.5	75~100kW: 187/412

\* For 208V or 480V input voltage, 30~50kW's dimensions (H\*W\*D) are 1385mm\*600mm\*800mm. For 75~100kW, please contact us for details.

30kW Model	Output		Voltage Ripple (rms)	Voltage Noise (p-p)	Voltage Slew Rate
	Voltage	Current			
ADG-P-40-750	40V	750A	≤ 0.5%	≤ 3.7%	≤ 65ms
ADG-P-60-500	60V	500A			
ADG-P-100-300	100V	300A			
ADG-P-200-150	200V	150A	≤ 0.26%	≤ 2%	≤ 60ms
ADG-P-240-125	240V	125A	≤ 0.19%		
ADG-P-320-94	320V	94A	≤ 0.16%	≤ 0.88%	≤ 85ms
ADG-P-400-75	400V	75A	≤ 0.13%		
ADG-P-500-60	500V	60A	≤ 0.109%	≤ 1.34%	≤ 115ms
ADG-P-640-47	640V	47A	≤ 0.07%		
ADG-P-800-38	800V	38A	≤ 0.07%	≤ 0.29%	≤ 280ms
ADG-P-1000-30	1000V	30A	≤ 0.05%		
ADG-P-1600-18	1600V	18A	≤ 0.08%	≤ 0.4%	

40kW Model	Output		Voltage Ripple (rms)	Voltage Noise (p-p)	Voltage Slew Rate
	Voltage	Current			
ADG-P-40-1000	40V	1000A	≤ 0.5%	≤ 3.7%	≤ 65ms
ADG-P-60-666	60V	666A			
ADG-P-100-400	100V	400A			
ADG-P-200-200	200V	200A	≤ 0.26%	≤ 2%	≤ 60ms
ADG-P-240-166	240V	166A	≤ 0.19%		
ADG-P-320-125	320V	125A	≤ 0.16%	≤ 0.88%	≤ 85ms
ADG-P-400-100	400V	100A	≤ 0.13%		
ADG-P-500-80	500V	80A	≤ 0.109%	≤ 1.34%	≤ 115ms
ADG-P-640-62	640V	62A	≤ 0.07%		
ADG-P-800-50	800V	50A	≤ 0.07%	≤ 0.29%	≤ 280ms
ADG-P-1000-40	1000V	40A	≤ 0.05%		
ADG-P-1600-25	1600V	25A	≤ 0.08%	≤ 0.4%	

50kW Model	Output		Voltage Ripple (rms)	Voltage Noise (p-p)	Voltage Slew Rate
	Voltage	Current			
ADG-P-40-1250	40V	1250A	≤ 0.5%	≤ 3.7%	≤ 65ms
ADG-P-60-834	60V	834A			
ADG-P-100-500	100V	500A			
ADG-P-200-250	200V	250A	≤ 0.26%	≤ 2%	≤ 60ms
ADG-P-240-208	240V	208A	≤ 0.19%		
ADG-P-320-156	320V	156A	≤ 0.16%	≤ 0.88%	≤ 85ms
ADG-P-400-125	400V	125A	≤ 0.13%		
ADG-P-500-100	500V	100A	≤ 0.109%	≤ 1.34%	≤ 115ms
ADG-P-640-78	640V	78A	≤ 0.07%		
ADG-P-800-63	800V	63A	≤ 0.07%	≤ 0.29%	≤ 280ms
ADG-P-1000-50	1000V	50A	≤ 0.05%		
ADG-P-1600-31	1600V	31A	≤ 0.08%	≤ 0.4%	

75kW Model	Output		Voltage Ripple (rms)	Voltage Noise (p-p)	Voltage Slew Rate
	Voltage	Current			
ADG-P-40-1875	40V	1875A	≤ 1.3%	≤ 7%	≤ 120ms
ADG-P-60-1250	60V	1250A	≤ 1.5%	≤ 5%	
ADG-P-100-750	100V	750A	≤ 1.5%	≤ 5%	
ADG-P-320-234	320V	234A	≤ 0.1%	≤ 0.65%	≤ 90ms
ADG-P-640-117	640V	117A	≤ 0.1%	≤ 0.35%	≤ 120ms
ADG-P-1000-75	1000V	75A	≤ 0.2%	≤ 0.8%	≤ 130ms
ADG-P-1600-47	1600V	47A	≤ 0.1%	≤ 0.5%	≤ 300ms

100kW Model	Output		Voltage Ripple (rms)	Voltage Noise (p-p)	Voltage Slew Rate
	Voltage	Current			
ADG-P-40-2500	40V	2500A	≤ 1.3%	≤ 7%	≤ 120ms
ADG-P-60-1666	60V	1666A	≤ 1.5%	≤ 5%	
ADG-P-100-1000	100V	1000A	≤ 1.5%	≤ 5%	
ADG-P-320-312	320V	312A	≤ 0.1%	≤ 0.65%	≤ 90ms
ADG-P-640-156	640V	156A	≤ 0.1%	≤ 0.35%	≤ 120ms
ADG-P-1000-100	1000V	100A	≤ 0.2%	≤ 0.8%	≤ 130ms
ADG-P-1600-63	1600V	63A	≤ 0.1%	≤ 0.5%	≤ 300ms

\* All specifications are subject to change without notice.

## ADG-L SPECIFICATIONS

Model	Output							Auto Range Features	Efficiency	Input			Interfaces	Dimensions (HxWxD) mm / inch
	Power	Voltage	Current	Voltage Regulation	Load regulation rate	Voltage ripple (rms)	Voltage noise (p-p)			Voltage climb rate	Voltage	Frequency		
ADG-L-160-25	4kW	160V	25A	≤ 0.05%	≤ 0.2%	≤ 0.2%	≤ 0.7%	< 40ms ~ 80ms	> 90% at max. power	1Φ (187 - 253 Vac) or 3Φ (340 - 460 Vac)	47 Hz - 63 Hz	> 0.99 at max. power	RS-485/ RS-232 / Analog (Opt. GPIB / USB / Ethernet)	132x442x710 / 5.2x17.5x28
ADG-L-330-12	4kW	330V	12A											
ADG-L-330-25-4	4kW	330V	25A											
ADG-L-160-50	8kW	160V	50A											
ADG-L-330-24	8kW	330V	24A											
ADG-L-330-50-8	8kW	330V	50A											
ADG-L-660-12	8kW	660V	12A											
ADG-L-660-25-8	8kW	660V	25A											
ADG-L-160-75	12kW	160V	75A											
ADG-L-330-36	12kW	330V	36A											
ADG-L-330-75-12	12kW	330V	75A											
ADG-L-500-24	12kW	500V	24A											
ADG-L-1000-12	12kW	1000V	12A											
ADG-L-1000-25-12	12kW	1000V	25A											

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