ADG-P

ADG-P Series

High Power Programmable DC Power Supply

30kW~500kW

CE RoHS Compliant TAIWAN EXCELLENCE

- 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.
- Programming Sequence Function: STEP and GRADUAL modes allow users to easily set sequences of start/ end voltage, run time and current for testing purposes.
- CV and CC Modes.
- 7" Touch Screen Display for Easy Operation.
- Remote Sense for Line Drop Compensation.
- Comprehensive Protection: Input OVP/UVP, output OVP/OCP, OTP.
- 12 Different Output Voltage Ranges & 41 Models.

Interfaces

RS-485

RS-232 GPIB Analog

● Standard ○ Option

Applications

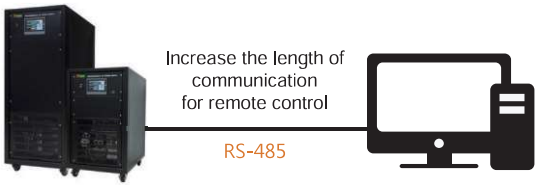
- Home Appliance
- Laboratory/Certification Bureau
- Industrial Power Supply
- Electric Vehicles
- IT / SMT Production Line
- Renewable Energy
- Transportation
- Motor & Compressor
- Medical Industry
- Aerospace & Defense
- Communication Industry

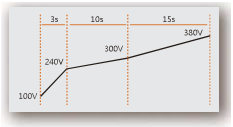
ADG-P Series

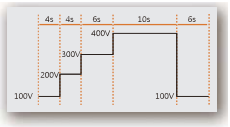
Preen's ADG series is a programmable DC power supply with high power density and high output power, offering great response time, high accuracy and many output voltage and current combinations. Designed for the increasing demand of high power DC, ADG is ideal for testing EV's motor/compressor, server power supply, fuse/circuit breaker/contactor, 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.

Easy Remote Control Set Up & Technically Advanced Performance



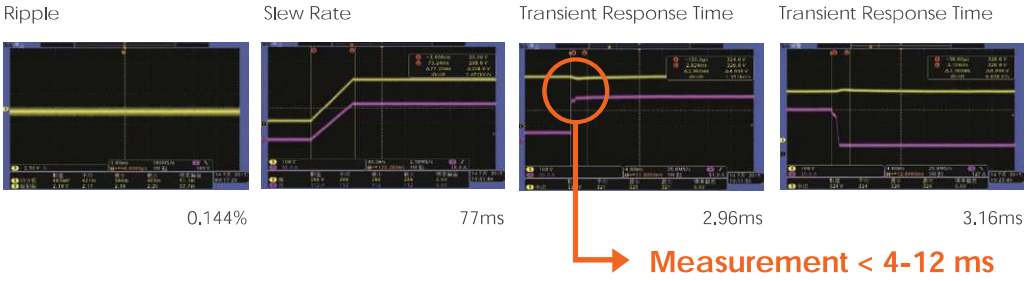




ADG-P series comes with RS-485 interfaces and optional RS-232 and GPIB interfaces, allow user to easily programming the unit through different interfaces or Preen's control software.

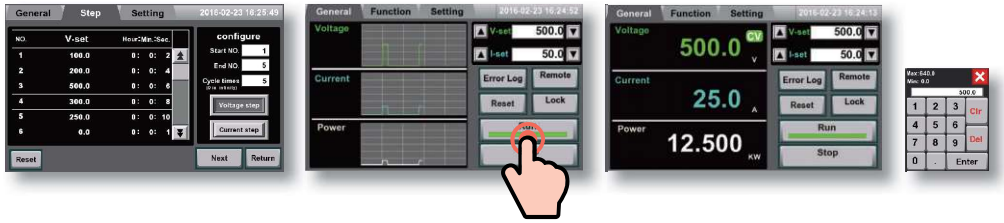
The built-in STEP and GRADUAL modes allow users to set up sequences of start / end voltage, run time and current for different testing simulations. Or users can contact us to customize different built-in voltage and current simulations for easy testing set up.

Technically Advanced Performance



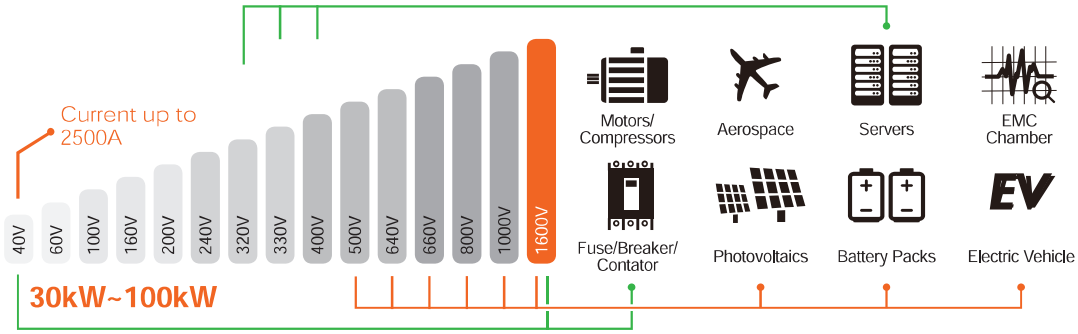
ADG series has the industry leading performance on ripple, response time, and voltage regulation, which make it an ideal DC power supply for all kinds of testing.

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.

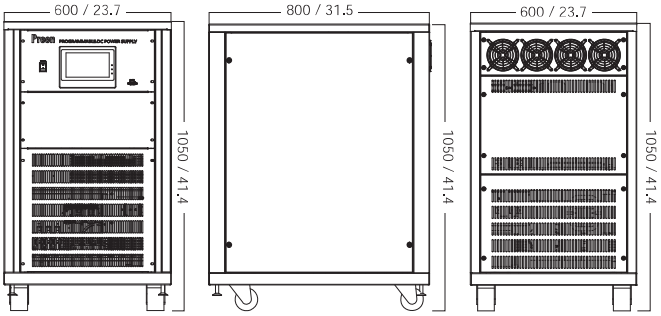
A Varity of Applications



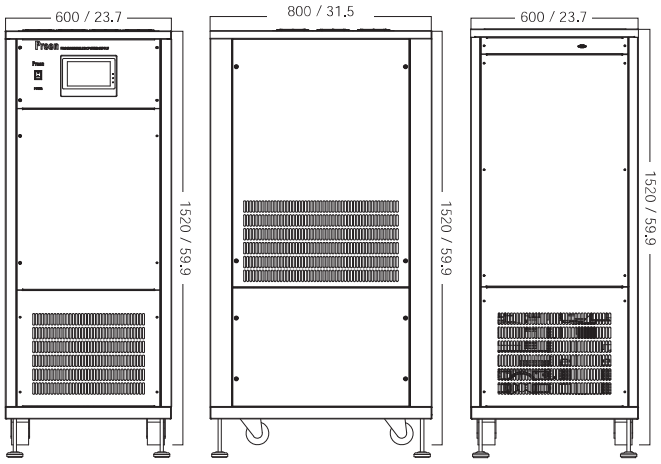
ADG series has many output voltage ranges suitable for different market applications. Models over 640V output voltage are applicable for renewable energy, EV, and lithium battery industries. When it comes to circuit breakers, contactors or fuses that require high voltage or current, models with 2000A 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.

Dimemsions

Unit : mm / inch



ADG-P 30/50kW*3



ADG-P 75/100kW*3

*3 The diagrams and dimensions are for 380V input models.

ORDERING INFORMATION

ADG-P Series DC Output (30kW - 100kW)

Model Number	Description
ADG-40-1250	High Power Programmable DC Power Supply (50kW/40V/1250A)
ADG-60-834	High Power Programmable DC Power Supply (50kW/60V/834A)
ADG-100-500	High Power Programmable DC Power Supply (50kW/100V/500A)
ADG-200-250	High Power Programmable DC Power Supply (50kW/200V/250A)
ADG-240-208	High Power Programmable DC Power Supply (50kW/240V/208A)
ADG-320-156	High Power Programmable DC Power Supply (50kW/320V/156A)
ADG-400-125	High Power Programmable DC Power Supply (50kW/400V/125A)
ADG-500-100	High Power Programmable DC Power Supply (50kW/500V/100A)
ADG-640-78	High Power Programmable DC Power Supply (50kW/640V/78A)
ADG-800-63	High Power Programmable DC Power Supply (50kW/800V/63A)
ADG-1000-50	High Power Programmable DC Power Supply (50kW/1000V/50A)
ADG-1600-31	High Power Programmable DC Power Supply (50kW/1600V/31A)
ADG-40-750	High Power Programmable DC Power Supply (30kW/40V/750A)
ADG-60-500	High Power Programmable DC Power Supply (30kW/60V/500A)
ADG-100-300	High Power Programmable DC Power Supply (30kW/100V/300A)
ADG-200-150	High Power Programmable DC Power Supply (30kW/200V/150A)
ADG-240-125	High Power Programmable DC Power Supply (30kW/240V/125A)
ADG-320-94	High Power Programmable DC Power Supply (30kW/320V/94A)
ADG-400-75	High Power Programmable DC Power Supply (30kW/400V/75A)
ADG-500-60	High Power Programmable DC Power Supply (30kW/500V/60A)
ADG-640-47	High Power Programmable DC Power Supply (30kW/640V/47A)
ADG-800-38	High Power Programmable DC Power Supply (30kW/800V/38A)
ADG-1000-30	High Power Programmable DC Power Supply (30kW/1000V/30A)
ADG-1600-18	High Power Programmable DC Power Supply (30kW/1600V/18A)

Model Number	Description
ADG-40-1875	High Power Programmable DC Power Supply (75kW/40V/1875A)
ADG-60-1250	High Power Programmable DC Power Supply (75kW/60V/1250A)
ADG-100-750	High Power Programmable DC Power Supply (75kW/100V/750A)
ADG-320-234	High Power Programmable DC Power Supply (75kW/320V/234A)
ADG-640-117	High Power Programmable DC Power Supply (75kW/640V/117A)
ADG-1000-75	High Power Programmable DC Power Supply (75kW/1000V/75A)
ADG-1600-47	High Power Programmable DC Power Supply (75kW/1600V/47A)
ADG-40-2500	High Power Programmable DC Power Supply (100kW/40V/2500A)
ADG-60-1666	High Power Programmable DC Power Supply (100kW/60V/1666A)
ADG-100-1000	High Power Programmable DC Power Supply (100kW/100V/1000A)
ADG-320-312	High Power Programmable DC Power Supply (100kW/320V/312A)
ADG-640-156	High Power Programmable DC Power Supply (100kW/640V/156A)
ADG-1000-100	High Power Programmable DC Power Supply (100kW/1000V/100A)
ADG-1600-63	High Power Programmable DC Power Supply (100kW/1600V/63A)
ADG-001	GPIB Interface Converter
ADG-002	Cable for RS-485 (10m)
ADG-004	RS-232 Interface Converter
ADG-005	Analog Control (4~20mA)
ADG-006	Analog Control (0~5V)
ADG-007	200V/208 Input Voltage (30~50kW)
ADG-008	480V Input Voltage (30~50kW)
ADG-009	200V/208 Input Voltage (100kW)
ADG-010	480V Input Voltage (100kW)

ADG-P SPECIFICATIONS

ADG-P Series (30kW - 100kW)

30kW	Output Voltage	Output Current	Voltage Ripple (RMS)	Voltage Noise (Peak)	Voltage Slew Rate*1
ADG-P-40-750	0~40V	0~750A			
ADG-P-60-500	0~60V	0~500A	≦ 0.5%	≦ 3.7%	≦ 65ms
ADG-P-100-300	0~100V	0~300A			
ADG-P-200-150	0~200V	0~150A	≦ 0.26%	≦ 2%	≦ 60ms
ADG-P-240-125	0~240V	0~125A	≦ 0.19%		≦ 85ms
ADG-P-320-94	0~320V	0~94A	≦ 0.16%	≦ 0.88%	
ADG-P-400-75	0~400V	0~75A	≦ 0.13%		≦ 115ms
ADG-P-500-60	0~500V	0~60A		≦ 1.34%	
ADG-P-640-47	0~640V	0~47A	≦ 0.109%	≦ 0.77%	
ADG-P-800-38	0~800V	0~38A	≦ 0.07%	≦ 0.29%	
ADG-P-1000-30	0~1000V	0~30A	≦ 0.05%	≦ 0.27%	≦ 280ms
ADG-P-1600-18	0~1600V	0~18A	≦ 0.08%	≦ 0.4%	

50kW	Output Voltage	Output Current	Voltage Ripple (RMS)	Voltage Noise (Peak)	Voltage Slew Rate*1
ADG-P-40-1250	0~40V	0~1250A			
ADG-P-60-834	0~60V	0~834A	≦ 0.5%	≦ 3.7%	≦ 65ms
ADG-P-100-500	0~100V	0~500A			
ADG-P-200-250	0~200V	0~250A	≦ 0.26%	≦ 2%	≦ 60ms
ADG-P-240-208	0~240V	0~208A	≦ 0.19%		≦ 85ms
ADG-P-320-156	0~320V	0~156A	≦ 0.16%	≦ 0.88%	
ADG-P-400-125	0~400V	0~125A	≦ 0.13%		≦ 115ms
ADG-P-500-100	0~500V	0~100A		≦ 1.34%	
ADG-P-640-78	0~640V	0~78A	≦ 0.109%	≦ 0.77%	
ADG-P-800-63	0~800V	0~63A	≦ 0.07%	≦ 0.29%	
ADG-P-1000-50	0~1000V	0~50A	≦ 0.05%	≦ 0.27%	≦ 280ms
ADG-P-1600-31	0~1600V	0~31A	≦ 0.08%	≦ 0.4%	

75kW	Output Voltage	Output Current	Voltage Ripple (RMS)	Voltage Noise (Peak)	Voltage Slew Rate*1
ADG-P-40-1875	0~40V	0~1875A	≦ 1.3%	≦ 7%	
ADG-P-60-1250	0~60V	0~1250A	≦ 1.5%	≦ 5%	≦ 120ms
ADG-P-100-750	0~100V	0~750A	≦ 1.5%	≦ 5%	
ADG-P-320-234	0~320V	0~234A	< 0.1%	< 0.65%	≦ 90ms
ADG-P-640-117	0~640V	0~117A	≦ 0.1%	≦ 0.35%	≦ 120ms
ADG-P-1000-75	0~1000V	0~75A	≦ 0.2%	≦ 0.8%	≦ 130ms
ADG-P-1600-47	0~1600V	0~47A	≦ 0.1%	≦ 0.5%	≦ 300ms

100kW	Output Voltage	Output Current	Voltage Ripple (RMS)	Voltage Noise (Peak)	Voltage Slew Rate*1
ADG-P-40-2500	0~40V	0~2500A	≦ 1.3%	≦ 7%	
ADG-P-60-1666	0~60V	0~1666A	≦ 1.5%	≦ 5%	≦ 120ms
ADG-P-100-1000	0~100V	0~1 000A	≦ 1.5%	≦ 5%	
ADG-P-320-312	0~320V	0~312A	< 0.1%	< 0.65%	≦ 90ms
ADG-P-640-156	0~640V	0~156A	≦ 0.1%	≦ 0.35%	≦ 120ms
ADG-P-1000-100	0~1000V	0~100A	≦ 0.2%	≦ 0.8%	≦ 130ms
ADG-P-1600-63	0~1600V	0~63A	≦ 0.1%	≦ 0.5%	≦ 300ms

*1 For output voltage change from 5% to 90% at maximum power after output softstart.
* Voltage ripple and noise specs are under full scale *

SPECIFICATIONS

30kW	ADG-P-40-750	ADG-P-60-500	ADG-P-100-300	ADG-P-200-150	ADG-P-240-125	ADG-P-320-94
50kW	ADG-P-40-1250	ADG-P-60-834	ADG-P-100-500	ADG-P-200-250	ADG-P-240-208	ADG-P-320-156
AC Input	Voltage	3Ø3W + G 380Vac ± 15% (Option : 200V/208V/480V)					
	Frequency	47-63Hz					
	Power factor	≧ 0.9 at maximum power					
DC Output	Output Voltage	40V	60V	100V	200V	240V	320V
	Output Current (30kW)	750A	500A	300A	150A	125A	94A
	Output Current (50kW)	1250A	834A	500A	250A	208A	156A
	Line Regulation	< 0.3%			< 0.1%		
	Load Regualtion	< 0.3%			< 0.065%	< 0.104%	< 0.14%
	Transient Response*2	≦ 4-12ms					
Measurement	Voltage Accuracy	0.5% F.S.					
	Voltage Resolution	0.1V					
	Current Accuracy	0.5% F.S.					
	Current Resolution	0.1A					
Protection	Type	Vin OVP, Vin UVP, OVP, OCP, OTP					
	OVP Range	5% - 115% from front panel					
	OCP Range	5% - 115% from front panel					
General	Efficiency	≧ 87% at maximum power			≧ 90% at maximum power		
	Remote Interface	RS-485 (Opt. GPIB / RS-232/Analog)					
	Operational Temerature	0°C - 40°C					
	Storage Temerature	-20°C - 70°C					
	Isolation	Input to Enclosure: 2000VAC					
	Dimension (H×W×D)	380V Input : 1050 x 600 x 800 (mm) / 41.4 x 23.7 x 31.5(inch) 220/200V/480V Input : 1385 x 600 x 800 (mm) 54.5 x 23.7 x 31.5(inch)					
	Weight	380V Input : approx. 225 kg / 497 lbs 200V/208V/480V Input : approx. 412 kg / 909 lbs			380V Input : approx. 187 kg / 413 lbs 200V/208V/480V Input : approx. 367 kg / 810 lbs		

30kW	ADG-P-400-75	ADG-P-500-60	ADG-P-640-47	ADG-P-800-38	ADG-P-1000-30	ADG-P-1600-18
50kW	ADG-P-400-125	ADG-P-500-100	ADG-P-640-78	ADG-P-800-63	ADG-P-1000-50	ADG-P-1600-31
AC Input	Voltage	3Ø3W + G 380Vac ± 15% (Option : 200V/208V/480V)					
	Frequency	47-63Hz					
	Power factor	≧ 0.9 at maximum power					
DC Output	Output Voltage	400V	500V	640V	800V	1000V	1600V
	Output Current (30kW)	75A	60A	47A	38A	30A	18A
	Output Current (50kW)	125A	100A	78A	63A	50A	31A
	Line Regulation	< 0.1%					
	Load Regualtion	< 0.032%	< 0.14%	< 0.132%	< 0.034%	< 0.02%	< 0.05%
	Transient Response*2	≦ 4-12ms					
Measurement	Voltage Accuracy	0.5% F.S.					
	Voltage Resolution	0.1V					
	Current Accuracy	0.5% F.S.					
	Current Resolution	0.1A					
Protection	Type	Vin OVP, Vin UVP, OVP, OCP, OTP					
	OVP Range	5% - 115% from front panel					
	OCP Range	5% - 115% from front panel					
General	Efficiency	≧ 90% at maximum power					
	Remote Interface	RS-485 (Opt. GPIB / RS-232/Analog)					
	Operational Temerature	0°C - 40°C					
	Storage Temerature	-20°C - 70°C					
	Isolation	Input to Enclosure: 2000VAC					
	Dimension (H×W×D)	380V Input : 1050 x 600 x 800 (mm) / 41.4 x 23.7 x 31.5(inch) 220/200V/480V Input : 1385 x 600 x 800 (mm) 54.5 x 23.7 x 31.5(inch)					
	Weight	380V Input : approx. 187 kg / 413 lbs 200V/208V/480V Input : approx. 367 kg / 810 lbs					

SPECIFICATIONS

75kW	ADG-P-40-1875	ADG-P-60-1250	ADG-P-100-750	ADG-P-320-234	ADG-P-640-117	ADG-P-1000-75	ADG-P-1600-47
100kW	ADG-P-40-2500	ADG-P-60-1666	ADG-P-100-1000	ADG-P-320-312	ADG-P-640-156	ADG-P-1000-100	ADG-P-1600-63

AC Input	Voltage	3Ø3W + G 380Vac ± 15% (Option : 200V/208V/480V)						
	Frequency	47 - 63Hz						
	Power factor	≧ 90% at maximum power						
DC Output	Output Voltage	40V	60V	100V	320V	640V	1000V	1600V
	Output Current (75kW)	1875A	1250A	750A	234A	117A	75A	47A
	Output Current (100kW)	2500A	1666A	1000A	312A	156A	100A	63A
	Line Regulation	< 0.1%						
	Load Regualtion	< 0.1%	< 0.15%	< 0.15%	< 0.08%	< 0.08%	< 0.1%	< 0.08%
	Transient Response*2	≦ 10-20ms						
Measurement	Voltage Accuracy	0.5% F.S.						
	Voltage Resolution	0.1V						
	Current Accuracy	0.5% F.S.						
	Current Resolution	0.1A						
Protection	Type	Vin OVP, Vin UVP, OVP, OCP, OTP						
	OVP Range	5% - 115% from front panel						
	OCP Range	5% - 115% from front panel						
General	Efficiency	≧ 87% at maximum power			≧ 90% at maximum power			
	Remote Interface	RS-485 (Opt. GPIB / RS-232/Analog)						
	Operational Temerature	0°C - 40°C						
	Storage Temerature	-20°C - 70°C						
	Isolation	Input to Enclosure: 2000VAC						
	Dimension (H×W×D)	380V Input : 1520 x 600 x 800 (mm) / 59.9 x 23.7 x 31.5 (inch) 200V/208V/480V Input : 2020 x 600 x 800 (mm) / 79.6 x 23.7 x 31.5 (inch)						
	Weight	380V Input : approx. 294kg / 648.3 lbs 200V/208V/480V Input : approx. 574kg / 1265.7 lbs						

*2 Recover to ±0.1% of regulated output with a 50% to 100% or 100% to 50% step load change. * All specifications are subject to change without notice.

** Above specifications are for output voltage over 1% F.S. ***all specifications are subject to change without notice.