

# **5V SERIES DC LOADS**

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Key features:

- Models from 600W to 14400W
- High Voltage Range, 0 500 Vdc
- Current Ranges up to 500 Adc
- High-Speed 5 Digit Precision Metering Capability
- Parallel Operation for High Power Applications
- Synchronized Operation of Multiple Loads
- Operating Modes: CC, CP, CR and CV
- Static and Dynamic CC Modes
- Fast Current Slew Rates
- Built-in Short Circuit Test
- Built-in Power Supply Over Current Protection Test Mode
- Built-in Power Supply Over Power Protection Test Mode
- Go/NoGo Test Support
- Auto-Sequencing
- High Power Load Cabinets
- Available Interface Options are USB, RS232, GPIB and LAN



# **OVERVIEW**

The ADAPTIVE POWER 5V Series Programmable DC Electronic Loads are ideally suited for testing high voltage, high current power supplies and batteries. With their ability to draw full current starting as low as 3.0 Vdc, the 5V Series loads can provide a wide dynamic range of load conditions.

Target applications for these loads are research & development, production test, incoming inspection, quality control and service.

The high power density of 1800W in a 4U high, single 19" wide rack-mount mainframe represents industry leading power density. The 5V Series consists of a total of seventeen different model configurations, providing a wide variation of possible current and power ranges. Starting at 600 Watt and ranging to 1800 Watt per chassis or 14400W for 5V Cabinet systems, all models offer dual voltage and current range capability for optimal accuracy and resolution.

# **HIGH POWER 5V SERIES CABINET SYSTEMS**

For high power models in the 5V Series are supplied as integrated load cabinets that combine one master 5V unit with one or more slave 5V Series rack mount units. These systems contain all necessary input wiring and output bus bars to handle DC current up to 500 Adc. These systems are ideally suited for burn in and battery discharge test applications up to 500 Vdc.

The 5V Series offers high power, high voltage load performance and durability at an affordable price point.























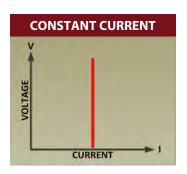
PRODUCTION TEST ALTERNATIVE EN

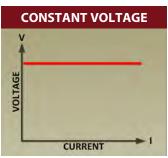
# **5V SERIES DC LOADS**

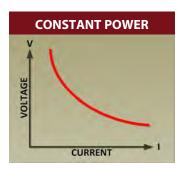
# **OPERATING MODES**

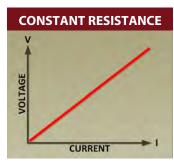
All 5V Series loads support several modes of operation to accommodate a wide range of test requirements. Voltage sources like AC/DC power supplies are best tested using Constant Current (CC) mode. Battery chargers on the other hand can be tested using an E-load in Constant Voltage (CV)mode.

The available operating modes are Constant Current, Constant Voltage, Constant Power and Constant Resistance. A graphical representation of these modes of operation is shown here.





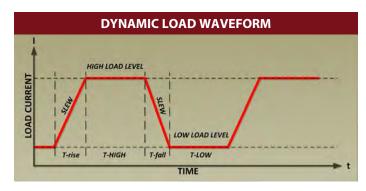




# **STATIC & DYNAMIC MODES**

The demands put on power supplies to support increasingly complex electronics systems continue to escalate. It is no longer sufficient to test power supplies for static load conditions. Instead, dynamic load conditions requiring rapid changes in current demanded from the power supply need to be evaluated and tested. The 5V Series Loads serve this purpose by offering high speed programmable dynamic load control.

The diagram below illustrates the variable load current slew rates and dwell times that can be programmed on the 5V Series loads.



Sequences of variable slew rates and test levels can be stored in non-volatile memory for recall during dynamic transient load test execution. This makes it possible to simulate real-world demanding load conditions on power supplies driving modern electronics. With current slew rates ranging up to several Amps per microsecond and dwell times down to 50 microseconds, thorough transient stability testing of power supply designs is possible. Advanced remote sense and control feedback loops ensure stable and repeatable testing with little or no distortion during load transitions.

# **FLEXIBLE INPUT CAPABILITIES**

5V Series loads are designed to accommodate a wide range of current input values within their maximum voltage and power capability. This allows the same loads to be used for higher voltage and low current requirements as well as low voltage higher current applications. A typical V-I operating curve is shown on the right for load model 5V108-07. Bounded by the maximum voltage of 500Vdc and maximum current of 72A, the input range follows an 10.8kW power curve as shown.

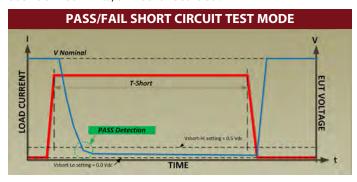
Each load continuously tracks its input voltage current and power and safeguards against any operation outside of its operating limits.

This flexible operating range allows the same load to be used for a wide range of EUTs and provides great flexibility.



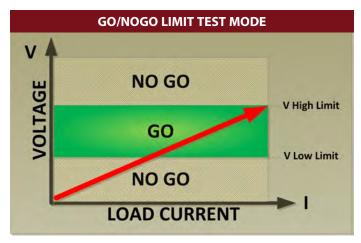
# **SHORT CIRCUIT TESTING**

Power supplies and batteries must be able to handle short circuit conditions without failing. The 5V Series loads have a built-in short circuit test mode that allows easy PASS/FAIL detection as part of a test protocol. Programmable parameters short duration time (T-short) and Hi and Lo voltage limits for the EUT during short conditions. If the sensed voltage falls within the user-defined limits, a PASS is recorded.



# **GO/NOGO LIMIT TESTING**

The GO/NG mode of operation is a convenient way to automatically check any measured parameter like voltage, current or power against predefined upper and lower limits. Once set, the load continuously compares readings against these limits and issues a GO or NoGo error output.



# **5V SERIES CABINET SYSTEMS**

For applications where the 5V Series single chassis provides insufficient current and/or power, the 5V cabinet systems provides a fully integrated Master/Slave load test system solution.

These systems come in a movable cabinet with pre-installed AC input wiring and solid copper output bus bars that can handle large amounts of DC current.

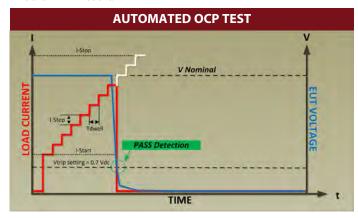
Cabinets range in size from 2400 Watt to 14400 Watt, with thirteen system configurations to choose from.



DC Load Model 5V054-18 shown

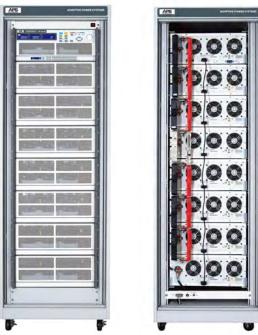
# **OCP MODE TESTING**

Testing the Over Current Protection (OCP) function of a power supply is easy when using the APS DC load. A special OPC mode allows setting of start current, end current and step size versus time. A preset voltage threshold level is used to detect protection trip current and terminate the test with either a PASS or FAIL result.



# **OPP MODE TESTING**

In addition to the OCP Test function, an Over Power Protection (OPP) test is provided as well. Conceptually, the test method is similar to the OCP test but instead of stepping the current, the power drawn by the load is stepped instead until the power supplies goes into protective shutdown or fold-back.



DC Load Model 5V144-50 shown

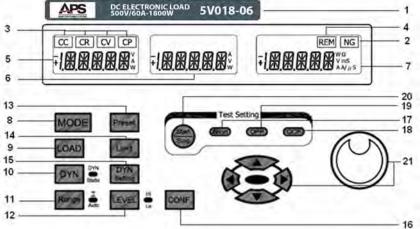
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# **5V SERIES DC LOADS**

## FRONT PANEL OPERATION

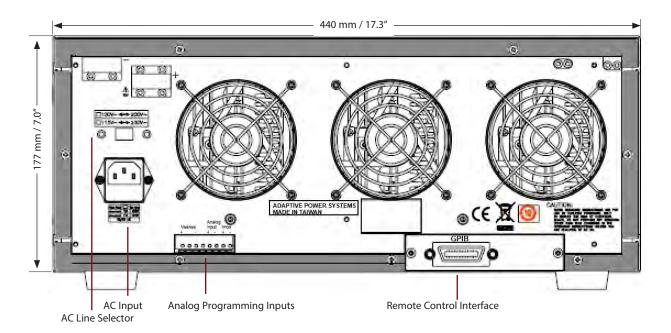
The 5V Series Load has an easy to use front panel layout consisting of large white LED back-lit LCD readouts and a keypad, shuttle combination for settings and parameter entry. Status indicator LED's accompany the various function and mode setting keys so the operational state of the DC load is easily observed by the operator. The digital rotary encoder makes slewing of parameters very intuitive.

- 1. Model Number and ranges
- Go/NoGo indicator illuminates if upper or lower limit settings are exceeded.
- 3. Operating Mode Indicators
- 4. REMOTE state indicator
- 5. Multi-purpose 5 digit display Voltage
- 6. Multi-purpose 5 digit display Current
- 7. Multi-purpose 5 digit display Power
- 8. MODE selection key
- LOAD ON/OFF button and indicator
- 10. DYNAMIC mode button and indicator



- 11. High or Low Range Selection and indicator
- 12. High or Low Load Setting Selection and indicator
- 13. Preset Mode ON/OFF
- 14. Limit Setup Menu
- 15. DYNAMIC mode settings
- 16. Configuration Menu
- 17. Short Circuit Test key and indicator
- 18. OCP (Over Current Protection)
  Test key and indicator
- OPP (Over Power Protection)
   Test key and indicator
- 20. SHORT, OCP & OPP Start/Stop
- 21. Shuttle Knob, parameter selection, slew and cursor keys

# **REAR PANEL**



# **SPECIFICATIONS - 5V SERIES DC LOADS**

MODEL		EV004 00	EV042.04	EV/04.0.04	EV040.04	EV-004-00	EV/024 42	
MODEL		5V006-02	5V012-04	5V018-01	5V018-06	5V024-08	5V036-12	
OPERATING RANGES			T	T	T	T		
Por	wer Ranges	0-60 W/0-600 W	0-120 W/0-1200 W	0-180 W/0-1800 W	0-180 W/0-1800 W	0-240W/0-2400W	0-360W/0-3600W	
Curr	rent Ranges	0-2.0 A / 0-20 A	0-4.0 A / 0-40 A	0-1.2 A / 0-12 A	0-6.0 A / 0-60 A	0-8.0 A / 0-80 A	0-12.0 A / 0-120 A	
Vol	tage Range	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	
Minim	um Voltage	4.0 V @ 20 A	4.0 V @ 40 A	6.0 V @ 12 A	4.0 V @ 60 A	4.0 V @ 80 A	4.0 V @ 120 A	
<b>OPERATING MODES</b>								
CC Mode	Range	0-2.0A / 0-20 A	0-4.0A / 0-40 A	0-1.2 A / 0-12 A	0-6.0 A / 0-60 A	0-8.0 A / 0-80 A	0-12.0 A / 0-120 A	
	Resolution	0.033mA / 0.33mA	0.066mA / 0.66mA	0.02mA / 0.2mA	0.1mA / 1mA	0.133mA / 1.33mA	0.2mA / 2mA	
	Accuracy			± 0.1% OF (SET	TING + RANGE)			
CR Mode	Range	0.5 / 30 / 1800kΩ	0.2 / 5 / 900kΩ	0.8333 / 50 / 3000kΩ	0.1666 / 10 / 600kΩ	0.125 / 7.5 / 450kΩ	0.833 / 5 / 300kΩ	
	Resolution	0.5mΩ / 0.55μS	0.25mΩ / 1.1μS	0.8333mΩ / 0.333μS	0.1666mΩ / 0.032mS	0.125mΩ / 0.0022mS	0.0833mΩ / 0.00033mS	
	Accuracy			± 0.2% OF (SET	TING + RANGE)		1	
CV Mode	Range	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	
	Resolution	1mV / 10mV	1mV / 10mV	1mV / 10mV	1mV / 10mV	1mV / 10mV	1mV / 10mV	
	Accuracy		± 0.05% OF (SETTING + RANGE)					
CP Mode	Range	0-60W / 0-600W	0-120W / 0-1200W	0-180W / 0-1800W	0-180W / 0-1800W	0-240W / 0-2400W	0-360W / 0-3600W	
	Resolution	1mW / 10mW	2mW / 20mW	3mW / 30mW	3mW / 30mW	4mW / 40mW	6mW / 60mW	
	Accuracy	TITIVV / TOTTIVV	ZIIIVV / ZOIIIVV		TING + RANGE)	+111VV / +O111VV	OHIVV / OOHIVV	
PROTECTION	Accuracy			± 0.5% OF (3E1	TING + NANGL)			
	Davier (OD)	620 W	1260.W	1000 W	1000 W	2520.W	2700W	
	Power (OP)	630 W	1260 W	1890 W	1890 W	2520 W	3780 W	
	Current (OC)	21.0 A	42.0 A	12.6 A	63.0 A	84.0 A	126.0 A	
	oltage (OV)	525.0 V	525.0 V	525.0 V	525.0 V	525.0 V	525.0 V	
Over Tempe				+85° C /	′ +185° F			
DYNAMIC OPERATION								
Th	T high &T low 0.050 - 9.999 / 99.99 / 9999ms (20 kHz)				z)			
	Resolution	0.001 / 0.01 / 0.1 / 1ms						
	Accuracy			1μs / 10μs / 100μ	ıs / 1ms + 50ppm			
	Slew Rate	1.6mA-100mA/μs	3.2mA-200mA/μs	0.96mA-60mA/μs	4.8mA-300mA/μs	6.4mA-400mA/μs	9.6mA-600mA/μs	
	Siew nate	16mA-1000mA/μs	32mA-2000mA/μs	9.6mA-600mA/μs	48mA-3000mA/μs	64mA-4000mA/μs	96mA-6000mA/μs	
	Accuracy	± 5% OF SETTING ± 10 μs						
Mir	n. Rise Time			20μs T	ГурісаІ			
METERING								
Voltage	Range	0 - 60.0 V / 0 - 500 V						
	Resolution	1.0 mV / 10 mV						
	Accuracy			± 0.025% OF (RE	ADING + RANGE)			
Current	Range	0-2.0A / 0-20 A	0-4.0A / 0-40 A	0-1.2 A / 0-12 A	0-6.0 A / 0-60 A	0-8.0 A / 0-80 A	0-12.0 A / 0-120 A	
	Resolution	0.033mA / 0.33mA	0.066mA / 0.66mA	0.02mA / 0.2mA	0.1mA / 1mA	0.133mA / 1.33mA	0.2mA / 2mA	
	Accuracy			± 0.1% OF (REA	ADING + RANGE)		ı	
Power	Range	0-60W / 0-600W	0-120W / 0-1200W	0-180W / 0-1800W	0-180W / 0-1800W	0-240W / 0-2400W	0-360W / 0-3600W	
	Resolution	0.03 W	0.03 W	0.03 W	0.03 W	0.04 W	0.06 W	
	Accuracy				ADING + RANGE)			
SHORT CIRCUIT	71000100)			_ 0.1.20 / 0.1 (1.12				
	ort Current	20 A	40 A	12 A	60 A	80 A	120 A	
ANALOG I/O	iort current	20 A	707	127	007	00 A	120 A	
	Agnitor Out			0 10 V out FC / 1V/	O Zout Non isolated			
	Monitor Out							
Analog Input		CATIONS		0 - 10V in for F.:	S. current @ 10V			
AC INPUT AND PHYS			15/2201/				22214	
	er & Cooling	115/230Vac ± 10%, 50/60 Hz, 100 W max., Variable Speed Fan Cooled					200 W max.	
Dimensions (H x W x D)			I	n / 7.0" x 17.3" x 17.5"	T .	839 x 600 x 600 mm	1	
	Veight (Net)	15.2kg / 33.5 lbs	19.4kg / 42.8 lbs	23.6kg / 52.0 lbs	23.6kg / 52.0 lbs	72.8kg / 160.5 lbs	81.2kg / 179.0 lbs	
Opera	iting Range				32 - 104° F			
Γ.	MC & Safety			CF N	Mark			

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# **5V SERIES MODULAR DC LOADS**

# **SPECIFICATIONS - 5V SERIES DC LOADS**

MODEL	EV026.02	EVOE4 04	EV054 10	EV072 05	EV072 24	EV000 20	
	5V036-02	5V054-04	5V054-18	5V072-05	5V072-24	5V090-30	
OPERATING RANGES							
Power Ranges		0-540 W / 0-5400 W	0-540 W / 0-5400 W	0-720 W / 0-7200 W	0-720 W / 0-7200 W	0-900 W / 0-9000 W	
Current Ranges		0-3.6 A / 0-36 A	0 - 18.0 A / 0 - 180 A	0 - 4.8 A / 0 - 48 A	0 - 24.0 A / 0 - 240 A	0 - 30.0 A / 0 - 300 A	
Voltage Range	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	
Minimum Voltage	6.0 V @ 24 A	6.0 V @ 36 A	4.0 V @ 180 A	3.0 V @ 48 A	4.0 V @ 240 A	4.0 V @ 300 A	
OPERATING MODES	0.244/0.244	0.264/0.264	0 1000 1000	0.404/0.404	0.2404/0.2404	0. 20.0 4 / 0. 200 4	
CC Mode Range	0 - 2.4 A / 0 - 24 A	0 - 3.6 A / 0 - 36 A	0 - 18.0 A / 0 - 180 A	0 - 4.8 A / 0 - 48 A	0 - 24.0 A / 0 - 240 A	0 - 30.0 A / 0 - 300 A	
Resolution	0.02mA / 0.2mA	0.06mA / 0.6mA	0.3mA / 3mA	0.04mA / 0.4mA	0.4mA / 4mA	0.5mA / 5mA	
Accuracy	0.416 / 25 / 15001-0	0.2775 /16.66 /1001-0	1	TING + RANGE)	0.0416 / 2.5 / 1501-0	0.0333 / 2./1301-0	
CR Mode Range	0.416 / 25 / 1500kΩ	0.2775 / 16.66 / 100kΩ	0.0555 / 3.3333 / 200kΩ	0.0416 / 2.5 / 150kΩ	0.0416 / 2.5 / 150kΩ	0.0333 / 2 / 120kΩ	
Resolution	0.416mΩ / 0.00066mS	0.2775mΩ / 0.01mS	0.0555mΩ / 0.00033mS	0.0416mΩ / 0.0066mS	0.0416mΩ / 0.0066mS	0.0333mΩ / 0.128mS	
Accuracy	± 0.2% OF (SETTING + RANGE)						
CV Mode Range	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	
Resolution	1mV / 10mV	1mV / 10mV	1mV / 10mV	1mV / 10mV	1mV / 10mV	1mV / 10mV	
Accuracy	0.26014//0.260014/	0.540344/0.5400344		TTING + RANGE)	0.72014//0.720014/	0.000.14//0.0000.14/	
CP Mode Range	0-360 W/0-3600 W	0-540 W/0-5400 W	0-540 W/0-5400 W	0-720 W/0-7200 W	0-720 W/0-7200 W	0-900 W/0-9000 W	
Resolution	6mW / 60mW	9mW / 90mW	9mW / 90mW	12mW / 120mW	12mW / 120mW	15mW / 150mW	
Accuracy			± 0.5% OF (SET	TING + RANGE)			
PROTECTION							
Over Power (OP)	630 W	1260 W	1890 W	1890 W	2520 W	3780 W	
Over Current (OC)	21.0 A	42.0 A	12.6 A	63.0 A	84.0 A	126.0 A	
Over Voltage (OV)	525.0 V	525.0 V	525.0 V	525.0 V	525.0 V	525.0 V	
Over Temperature (OT)			+85° C /	′ +185° F			
DYNAMIC OPERATION	I						
T high & T low	0.050 - 9.999 / 99.99 / 999.9 / 9999ms (20 kHz)						
Resolution				I / 0.1 / 1ms			
Accuracy	1μs / 10μs / 100μs / 1ms + 50ppm						
Slew Rate	1.92mA-120mA/μs	2.88mA-180mA/μs	14.4mA-900mA/μs	0.0192A-1.2A/μs	0.0192A-1.2A/μs	0.024A-1.5A/μs	
	19.2mA-1200mA/μs	28.8mA-1800mA/μs	144mA-9000mA/μs	0.192A-12A/μs	0.192A-12A/μs	0.24A-15A/μs	
Accuracy	± 5% OF SETTING ± 10 μs						
Min. Rise Time			20μs	Typical			
METERING	I			/o. =001/			
Voltage Range				/ 0 - 500 V			
Resolution	1.0 mV / 10 mV						
Accuracy		I		ADING + RANGE)	I	I	
	0 - 2.4 A / 0 - 24 A	0 - 3.6 A / 0 - 36 A	0 - 18.0 A / 0 - 180 A		0 - 24.0 A / 0 - 240 A		
Resolution	0.02mA / 0.2mA	0.06mA / 0.6mA	0.3mA / 3mA	0.4mA / 4mA	0.4mA / 4mA	0.5mA / 5mA	
Accuracy		I		DING + RANGE)	T	I	
Power Range		0-540 W / 0-5400 W	0-540 W / 0-5400 W	0-720 W / 0-7200 W	0-720 W / 0-7200 W	0-900 W / 0-9000 W	
Resolution	0.06 W	0.09 W	0.09 W	0.12 W	0.12 W	0.15 W	
Accuracy			± 0.125% OF (RE	ADING + RANGE)			
SHORT CIRCUIT	I	I	I	I	T	I	
Max. Short Current	24 A	36 A	180 A	48 A	240 A	300 A	
ANALOG I/O	I						
Analog Monitor Out							
Analog Input (CC mode)			0 - 10V in for F.	S. current @ 10V			
AC INPUT AND PHYSICAL SPECI	FICATIONS						
Power & Cooling	115/230Vac ± 10%, 50/60 Hz, Variable Speed Fan Cooled						
Power Consumption	200 W max. 300 W max. 400 W max. 400 W max. 500					500 W max.	
Dimensions (H x W x D)	839 x 600 x 600 mm / 33.0" x 23.6" x 23.6"		3.6" x 23.6"	1601x600x600 mm	n / 41.8″x23.6″x23.6″	1283x600x600 mm 50.5"x23.6"x23.6"	
Weight (Net)	81.2kg / 179.0 lbs	104.8kg / 231.0 lbs	104.8kg / 231.0 lbs	161.4kg / 355.8 lbs	161.4kg / 355.8 lbs	185.0kg / 407.9 lbs	
Operating Range			0 - 40° C /	32 - 104° F			
EMC & Safety	CE Mark					·	

Page 6 of 8 www.adaptivepower.com sales@adaptivepower.com Toll Free: 1.866.517-8400 Tel: +1.949.752-8400

# **SPECIFICATIONS - 5V SERIES DC LOADS**

MODEL	5V090-06	5V108-07	5V108-36	5V126-42	5V144-50
OPERATING RANGES					
Power Ranges	0-900 W / 0-9000 W	0 - 1080 W / 0-10800W	0 - 1080 W / 0-10800W	0 - 1260 W / 0-12600W	0 - 1440 W / 0-14400W
Current Ranges	0 - 6.0 A / 0 - 60 A	0 - 7.2 A / 0 - 72 A	0 - 36 A / 0 - 360 A	0 - 42 A / 0 - 420 A	0 - 50 A /0 - 500 A
Voltage Range	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V
Minimum Voltage	6.0 V @ 60 A	6.0 V @ 72 A	4.0 V @ 360 A	4.0 V @ 420 A	4.0 V @ 500 A
OPERATING MODES		_	_	_	
CC Mode Range	0 - 6.0 A / 0 - 60 A	0 - 7.2 A / 0 - 72 A	0 - 36 A / 0 - 360 A	0 - 42 A / 0 - 420 A	0 - 50 A /0 - 500 A
Resolution	0.1mA / 1mA	0.12mA / 1.2mA	0.6mA / 6mA	0.7mA / 7mA	0.84mA / 8.4mA
Accuracy	J	1	0.1% OF (SETTING + RANG		0.0
CR Mode Range	0.1666 / 10 / 600kΩ	0.8333 / 8.333 / 500kΩ	0.0277 / 1.6666 / 100kΩ	0.0238 / 1.4285 / 85.71kΩ	0.02 / 1.2 / 72kΩ
Resolution	0.1666mΩ / 0.0016mS	0.138mΩ / 0.0166mS	0.0277mΩ / 0.00033mS	0.0238mΩ / 0.00033mS	0.02mΩ / 0.0138mS
Accuracy	0.100011117 0.00101115		0.2% OF (SETTING + RANG		0.0211127 0.0130113
CV Mode Range	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V	0-60.0 V / 0-500 V
Resolution	1mV / 10mV	1mV / 10mV	1mV / 10mV	1mV / 10mV	1mV / 10mV
	TITIV / TOTTIV				THIV / TOTHV
Accuracy  CP Mode Range	0.000 W / 0.0000 W	0 - 1080 W / 0-10800W	0.05% OF (SETTING + RANG	0 - 1260 W / 0-12600W	0 - 1440 W / 0-14400W
	0-900 W / 0-9000 W		0 - 1080 W / 0-10800W		
Resolution	15mW / 150mW	18mW / 180mW	18mW / 180mW	21mW / 210mW	24mW / 240mW
Accuracy		<u>±</u>	0.5% OF (SETTING + RANG	iE)	
PROTECTION	0.450.144	4404044	440.40.44	40000144	45400111
Over Power (OP)	9450 W	11340 W	11340 W	13230 W	15120 W
Over Current (OC)	63.0 A	75.6 A	378.0 A	441.0 A	525.0 A
Over Voltage (OV)	525.0 V	525.0 V	525.0 V	525.0 V	525.0 V
Over Temperature (OT)			+85° C / +185° F		
DYNAMIC OPERATION					
T high &T low		0.050 - 9.9	999 / 99.99 / 999.9 / 9999m	ns (20 kHz)	
Resolution			0.001 / 0.01 / 0.1 / 1ms		
Accuracy		1μs	/ 10µs / 100µs / 1ms + 50p	opm	
Slew Rate	4.8mA-300mA/μs	5.76mA-360mA/μs	0.0288A-1.8A/μs	0.0336A-2.1A/μs	0.04A-2.5A/μs
Jiew nate	48mA-3000mA/μs	57.6mA-3600mA/μs	0.288A-18A/μs	0.336A-21A/μs	0.4A-25A/μs
Accuracy			$\pm$ 5% OF SETTING $\pm$ 10 $\mu$ s		
Min. Rise Time			20μs Typical		
METERING					
Voltage Range			0 - 60.0 V / 0 - 500 V		
Resolution	1.0 mV / 10 mV				
Accuracy		± 0.	025% OF (READING + RAN	NGE)	
Current Range	0 - 6.0 A / 0 - 60 A	0 - 7.2 A / 0 - 72 A	0 - 36 A / 0 - 360 A	0 - 42 A / 0 - 420 A	0 - 50 A /0 - 500 A
Resolution	0.1mA / 1mA	0.12mA / 1.2mA	0.6mA / 6mA	0.7mA / 7mA	0.84mA / 8.4mA
Accuracy		± (	0.1% OF (READING + RANG	GE)	
Power Range	0-900 W / 0-9000 W	0 - 1080 W / 0-10800W	0 - 1080 W / 0-10800W	0 - 1260 W / 0-12600W	0 - 1440 W / 0-14400W
Resolution	0.15W	0.18W	0.18W	0.21W	0.24W
Accuracy		± 0.	125% OF (READING + RAN	NGE)	
SHORT CIRCUIT			·	. ·	
Max. Short Current	60 A	72 A	360 A	420 A	504 A
ANALOG I/O					
Analog Monitor Out		0 - 10 \	/ out F.S. / 1KΩ Zout, Non-i	solated	
Analog Input (CC mode)			- 10V in for F.S. current @ 1		
AC INPUT AND PHYSICAL SPECIF	ICATIONS		TOV III TOT 1.5. CUITCHE & T		
Power & Cooling	IC/(IIOIVS	115/230Vac + 1	10%, 50/60 Hz, Variable Sp	eed Fan Cooled	
Power Consumption	3		600 W max.	700 W max.	800 W max.
Dimensions (H x W x D)		500 W max. 600 W max. 600 W max. 1283 x 600 x 600 mm / 50.5" x 23.6" x 23.6"			1728 x 600 x 600 mm 68" x 23.6" x 23.6"
				59.3" x 23.6" x 23.6"	
Weight (Net)	185.0kg / 407.9 lbs	104.8kg / 231.0 lbs	104.8kg / 231.0 lbs	161.4kg / 355.8 lbs	161.4kg / 355.8 lbs
Weight (Net) Operating Range	185.0kg / 407.9 lbs	104.8kg / 231.0 lbs	0 - 40° C / 32 - 104° F	161.4kg / 355.8 lbs	161.4kg / 355.8 lbs

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## **ORDERING INFORMATION:**

Line 1: Specify DC Load Model:

5Vxx-xx Chassis

or

5Vxxx-xx Cabinet System

**Line 2:** Specify Remote Control Option:

None, Opt GPIB, Opt RS232. Opt USB or Opt LAN

Line 3: Specify Load Cable Option. (See Table)

## **Available Load Cable Options:**

Option P/N	Description	MOQ
OPT-C1KA1	Load Cable, 1000A rated, 1 meter	2
OPT-C1KA2	Load Cable, 1000A rated, 2 meter	2
OPT-C1KA3	Load Cable, 1000A rated, 3 meter	2
OPT-C1KA4	Load Cable, 1000A rated, 4 meter	2
OPT-C1KA5	Load Cable, 1000A rated, 5 meter	2

#### **AC Input Voltage**

Please specify AC Line input voltage at the ship-to location on the order as either 120Vac or 230Vac.

#### **Included in Mainframe Ship kit:**

- · User Manuals in PDF Format on CD ROM.
- AC Line Cord.
- Rack Handles (detached).
- Analog Input BNC Cable (1 meter/39.4").
- Voltage Sense alligator clip lead, Red (1 meter, 39.4")
- Voltage Sense alligator clip lead, Black (1 meter, 39.4")
- LAN/USB Driver CD ROM (with Opt USB or Opt LAN).
- · Certificate of Conformance.



# Service and Support

Adaptive Power Systems' customer support is second to none. Our Customer Support Program provides the training, repair, calibration, and technical support services that our customers value. So, in addition to receiving the right test equipment, our customers can also count on excellent support before, during and after the sale. With company owned support and service centers around the world, support is never far away.

Complete calibration and repair services are offered at our US, European and Chinese manufacturing facilities (see contact info below). Calibrations are to original factory specifications and are traceable to NIST (National Institute of Standards and Technology).

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