



4 SERIES MODULAR DC LOADS

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Key features:

- Max. Power 300W per Module
- Wide Voltage Range, 0 - 500 Vdc
- Max. Current Range 60 Adc
- Single Load, Dual Load and LED Load Modules Available
- Up to 8 Load Inputs per Mainframe
- Parallel Modules to 1200W for High Power Applications
- Synchronized Operation of Multiple Loads
- Operating Modes: CC, CP, CR, CV and LED
- Built-in Short Circuit Test
- Built-in Power Supply Over Current Protection Test Mode
- Built-in Power Supply Over Power Protection Test Mode
- Static and Dynamic CC Modes
- Fast Current Slew Rates
- 1, 2 or 4 slot Mainframes
- Available Interface Options are USB, RS232, GPIB and LAN



Model 42L0860, Dual Load Module



OVERVIEW

The ADAPTIVE POWER 4 Series of Programmable DC Electronic Load Modules are ideally suited for testing multiple output AC/DC power supplies, DC/DC converters, battery chargers and other power products.

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

The high power density of the 4 Series allows up to 8 loads to be installed in a single 19" wide rack-mount mainframe. For lesser demands, mainframes with two slots or a single slot are available as well.

The 4 Series consists of a total of 12 different modules types providing a wide variation of possible voltage, current, power and feature choices. Starting at 75 Watt and ranging to 300 Watt per module, all modules offer dual range capability for optimal accuracy and resolution. Voltage ranges start at 60Vdc and extend up to 500Vdc.

LED LOAD SIMULATION

For LED power supply testing, the 41D and 42D modules offer single or dual channel LED simulation with support for PWM dimming control.

Synchronized operation of loads allows multichannel loads to be configured easily. Easy to read LCD displays show settings and read back data at a quick glance. Available remote control interfaces facilitate integration into automated power supply test systems.

All 4 Series modules provide protection against over-voltage (OV), over-current (OC), over-power (OP) and over-temperature (OT) to safeguard the loads from any damage.

The 4 Series offers excellent performance and durability at an affordable price point.



FREQUENCY CONVERSION



AVIATION & DEFENSE



PRODUCTION TEST



ALTERNATIVE ENERGY



R & D



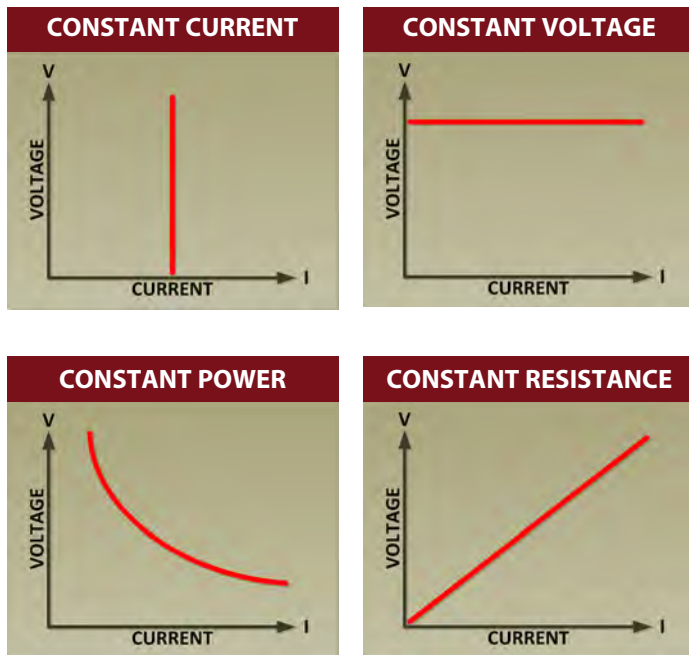
SUPPORT

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OPERATING MODES

All 4 Series load modules 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 mode.

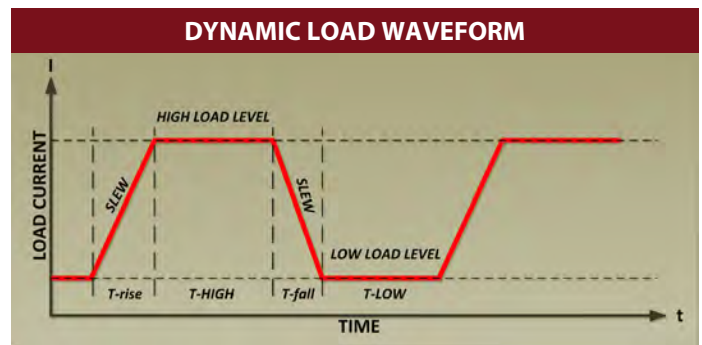
The available operating modes are Constant Current, Constant Voltage, Constant Power and Constant Resistance. A graphical representation of these modes of operation is shown here.



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 4 Series Load modules serve this purpose by offering high speed programmable dynamic load control programmability.

The diagram below illustrates the variable load current slew rates and dwell times that can be programmed on the 4 Series loads.



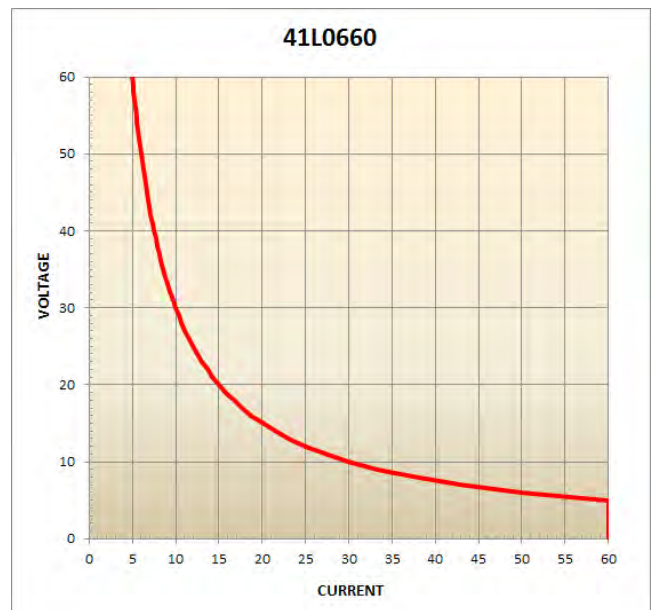
Sequences of variable slew rates and test levels can be stored in non-volatile memory for recall during dynamic transient load test execution. This makes it possible to simulate real-world demanding load conditions on power supplies driving modern electronics. With current slew rates ranging up to several 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

4 Series load modules are designed to accommodate a wide range of voltage and current input combinations within their maximum power capability. This allows the same load modules 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 41L0660. Bounded by the maximum voltage of 60Vdc and maximum current of 60A, the input range follows a 300W power curve as shown.

Each load module 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 module to be used for a wide range of EUTs and provides great flexibility in configuring high channel count load test systems.



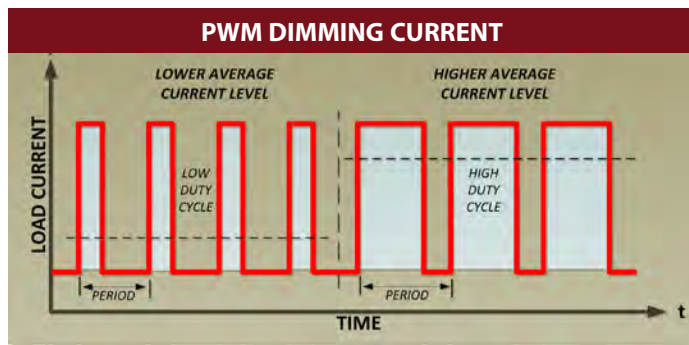
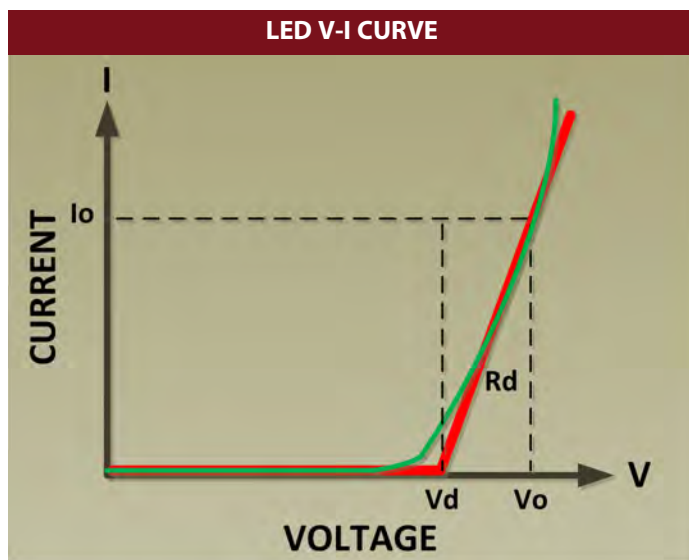
LED SIMULATION

Significant advances are being made in solid state lighting technologies that promise greatly reduced worldwide power consumption as a result of using light emitting diodes instead of incandescent light bulbs. However, the electrical behavior of LEDs is considerably different from that of a light bulb, which can be viewed as a resistive load. Consequently, testing LED driver designs using CR or even CV mode is typically inadequate. While it is possible to use actual LEDs to test such products, given the variety of LEDs that exist, this is not very practical for either development or production test.

The 41D and 42D single and dual channel LED load simulator modules available as part of the 4 Series modular load family address this unique requirement in an effective way.

When LED mode of operation is selected, the load will simulate the forward bias V-I characteristic of an LED or a string of LEDs, which is very different from that of a resistor. Values for the LED driver's output Current (I_o) and Voltage (V_o) as well as the LEDs forward Voltage (V_d) and Resistance (R_d) can be programmed on the load.

A built in **dimming control** circuit with a DC to 1KHz frequency range and 1% to 99% duty cycle is included with each LED Load module. Also available is an optional external shorting relay controlled by the shorting output of the LED load. This option allows zero ohm shorts to be applied.



MAINFRAMES



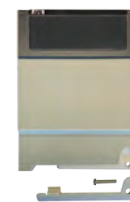
44M01 Mainframe



44M02 Mainframe



44M04 Mainframe



44MBP Filler Panel

The 44M04 Mainframe provides the necessary bias supplies and air cooling to the load modules installed. It also isolates modules from each other so each load is floating and can be used to test multi-output power supplies that are not referenced to a single common.

Mainframes are available with either one, two or four slot positions accommodating up to 8 independent load channels and 1200 Watts of power dissipation. Common controls on the mainframe allow synchronous operation of 2 or more loads and store up to 150 setting configurations. A filler panel is available to cover up any empty slot position.

The single slot 44M01 and dual slot 44M02 mainframe are ideally suited for bench operation while the 44M04 four slot

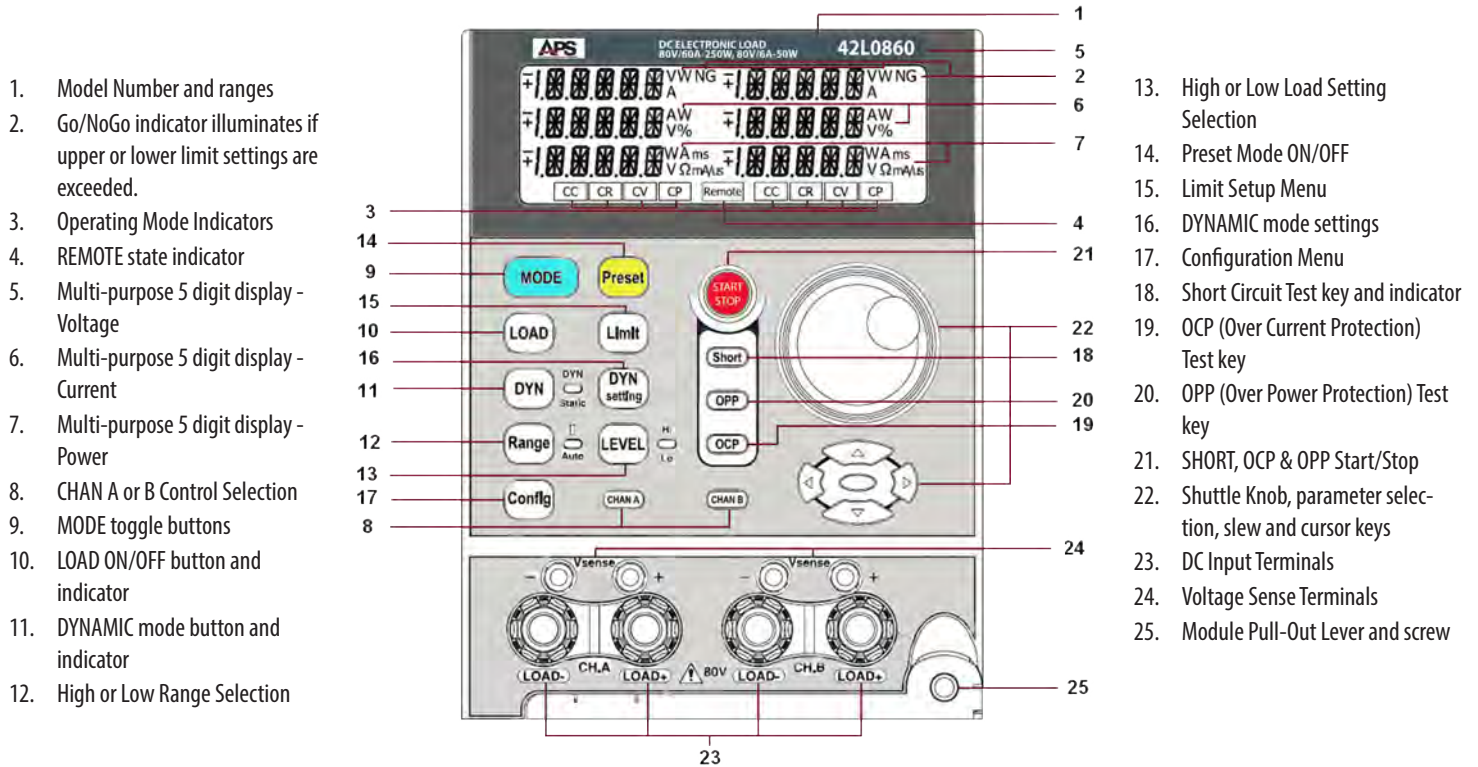
mainframe can be used on the bench or installed in a 19" cabinet. Rack ears and handles are including for rack mount use. All mainframes have tilt stands for optimal viewing angles during bench use.

Mainframe	44M01	44M02	44M04
No. of Slots	1	2	4
Supports	41L0630, 41L0660, 41L2512, 41:5012, 41L0616 42L0860, 42L0824, 42L0803 41D3002, 41D1020, 41D5002, 42D5003		
Max. Power	300W	600W	1200W
AC Input	100-115Vac $\pm 10\%$ or 200-230Vac $\pm 10\%$		
Frequency	50 / 60 Hz $\pm 3\%$ Hz		
Power (max.)	40W	60W	150W
Dimensions (HxWxD)	177x160x452mm 7.0x6.3x17.8"	177x269x452mm 7.0x10.6x17.8"	177x440x445mm 7.0x17.3x17.5"
Weight	5.5 kg / 12.2 lbs	7.5 kg / 16.5 lbs	9.3 kg / 20.5 lbs

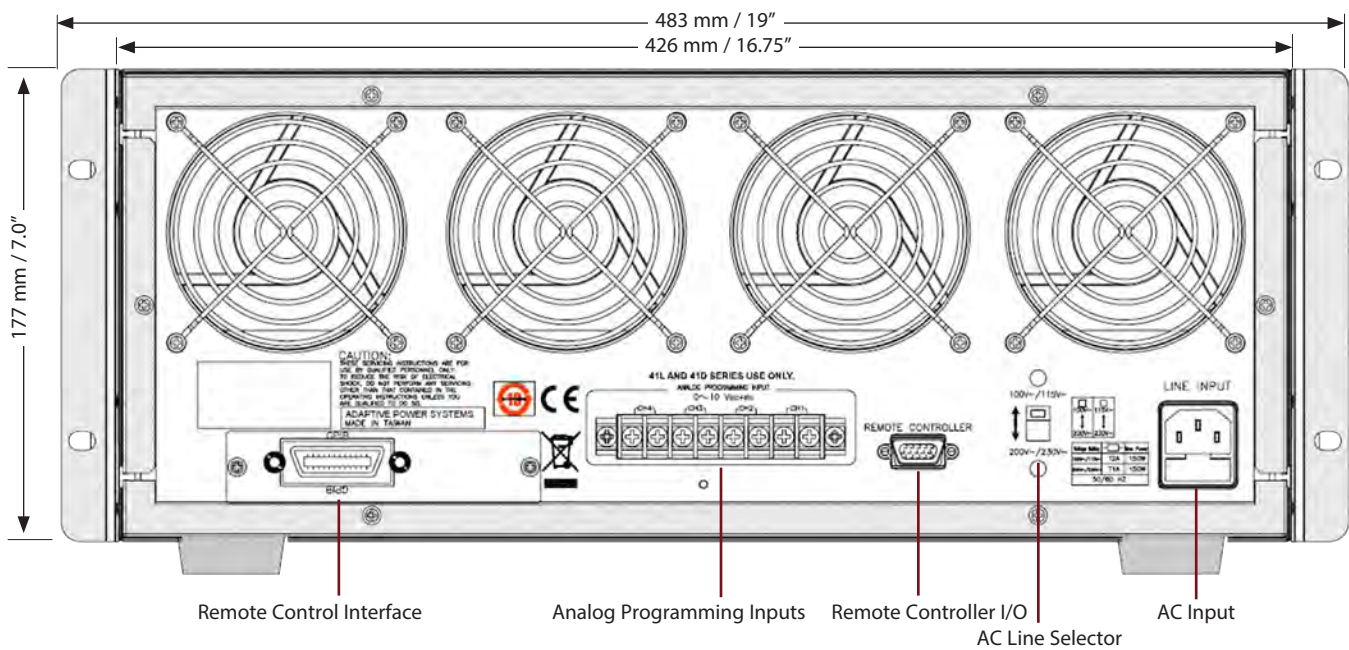
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LOAD MODULE FRONT PANEL OPERATION

Each load module has its own front panel keypad, rotary shuttle and white LED back-lit LCD display for easy of operation. Dual channel load modules have individual displays for channels A and B.



REAR PANEL



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SPECIFICATIONS - 41L SINGLE CHANNEL MODULES

MODEL	41L0630		41L0660		41L2512		41L5012		41L0615	
OPERATING RANGES										
Power Ranges	0-15 W	0-150 W	0-30 W	0-300 W	0-30 W	0-300 W	0-30 W	0-300 W	0-7.5 W	0-75 W
Current Ranges	0-3 A	0-30 A	0-6 A	0-60 A	0-1.2 A	0-12 A	0-1.2 A	0-12 A	0-1.5 A	0-15 A
Voltage Range	60 V		60 V		250 V		500 V		60 V	
Minimum Voltage	0.6V @ 30A		0.6V @ 60A		1.0V @ 12A		6.0V @ 12A		0.3V @ 15A	
OPERATING MODES										
CC Mode Range	0-3 A	0-30 A	0-6 A	0-60 A	0-1.2 A	0-12 A	0-1.2 A	0-12 A	0-1.5 A	0-15 A
Resolution	0.05 mA	0.5 mA	0.1 mA	1 mA	0.02 mA	0.2 mA	0.02 mA	0.2 mA	0.0254 mA	0.25 mA
Accuracy	± 0.1% OF (SETTING + RANGE)									
CR Mode Range	2-120kΩ	0.02-2Ω	1-60kΩ	0.00833-1Ω	25-1500kΩ	0.08~25Ω	50~3000kΩ	0.5~50Ω	4~240kΩ	0.02~4Ω
Resolution	0.00833mS	33.334μΩ	0.01666mS	16.667μΩ	0.000666mS	416.667μΩ	0.000333mS	833.334μΩ	0.04166mS	66.667μΩ
Accuracy	± 0.2% OF (SETTING + RANGE)									
CV Mode Range	0-6 V	0-60 V	0-6V	0-60V	0-30V	0-250 V	0-60 V	0-500 V	0-6 V	0-60 V
Resolution	0.1 mV	1 mV	0.1 mV	1 mV	1 mV	10 mV	1 mV	10 mV	0.1 mV	1 mV
Accuracy	± 0.05% OF (SETTING + RANGE)									
CP Mode Range	0-15 W	0-150 W	0-30 W	0-300 W	0-30 W	0-300 W	0-30 W	0-300 W	0-7.5 W	0-75 W
Resolution	0.25 mW	2.5 mW	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW	0.125 mW	1.25 mW
Accuracy	± 0.5% OF (SETTING + RANGE)									
PROTECTION										
Over Power (OP)	157.5 W		315.0 W		315.0 W		315.0 W		78.75 W	
Over Current (OC)	31.5 A		63.0 A		12.6 A		12.6 A		15.75 A	
Over Voltage (OV)	63.0 V		63.0 V		262.5 V		525.0 V		63.0 V	
Over Temperature (OT)	+85° C / +185° F									
DYNAMIC OPERATION										
T high & T low	50 μs TO 9.999 s (20 kHz)									
Slew Rate	2.0-125 mA/μs	20-1250 mA/μs	4-250 mA/μs	40-2500 mA/μs	0.8-50 mA/μs	8-500 mA/μs	0.8-50 mA/μs	8.0-500 mA/μs	1.0-62.5 mA/μs	10.0-625 mA/μs
Accuracy	± 5% OF SETTING ± 10 μs									
METERING										
Voltage Range	0 - 6.0 V	0 - 60.0 V	0 - 6.0 V	0 - 60.0 V	0 - 30.0 V	0 - 250.0 V	0 - 60.0 V	0 - 500.0 V	0 - 6.0 V	0 - 60.0 V
Resolution	0.1 mV	1 mV	0.1 mV	1 mV	0.1 mV	1 mV	0.1 mV	1 mV	0.1 mV	1 mV
Accuracy	± 0.025% OF (READING + RANGE)									
Current Range	0- 3.0 A	0- 30.0 A	0 - 6.0 A	0 - 60.0 A	0 - 1.2 A	0 - 12.0 A	0 - 1.2 A	0 - 12.0 A	0 - 1.5 A	0 - 15.0 A
Resolution	0.1 mA	1 mA	0.1 mA	1 mA	0.02 mA	0.2 mA	0.02 mA	0.2 mA	0.025 mA	0.25 mA
Accuracy	± 0.1% OF (READING + RANGE)									
Power Range	0-15 W	0-150 W	0-30 W	0-300 W	0-30 W	0-300 W	0-30 W	0-300 W	0-7.5 W	0-75 W
Accuracy	± 0.125% OF (READING + RANGE)									
SHORT CIRCUIT										
Typical Short Resistance	20 mΩ		8.3 mΩ		80 mΩ		0.5 Ω		20 mΩ	
Max. Short Current	30 A		60 A		12 A		12 A		15 A	
ANALOG I/O										
Current Monitor Out	0 - 10 V FULL SCALE									
Accuracy	± 0.5% OF (SETTING + RANGE)									
Current Programming In	0 - 10 V FULL SCALE									
GENERAL										
Power & Cooling	Supplied by 44M00 Mainframe									
Dimensions (H x W x D)	143 x 108 x 412 mm / 5.6" x 4.25" x 16.2"									
Module Weight (Net)	3.7 kg / 8.2 lbs		3.7 kg / 8.2 lbs		3.7 kg / 8.2 lbs		3.7 kg / 8.2 lbs		3.7 kg / 8.2 lbs	
Operating Range	0 - 40° C / 32 - 104° F		0 - 40° C / 32 - 104° F		0 - 40° C / 32 - 104° F		0 - 40° C / 32 - 104° F		0 - 40° C / 32 - 104° F	
EMC & Safety	CE Mark									

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SPECIFICATIONS - 42L DUAL CHANNEL MODULES

MODEL	42L0860		42L0824		42L0803		
OPERATING RANGES							
Power Ranges	0-25 W / 0-250 W	0-5 W / 0-50 W	0-12 W / 0-120 W	0-12W / 0-120 W	0-4 W / 0-40 W	0-4 W / 0-40 W	
Current Ranges	0-6 A / 0-60 A	0-0.6 A / 0-6 A	0-2.4 A / 0-24 A	0-2.4 A / 0-24 A	0-0.3 A / 0-3 A	0-0.3 A / 0-3 A	
Voltage Range	0-80 V	0-80 V	0-80 V	0-80 V	0-80 V	0-80 V	
Minimum Voltage	0.8 V @ 60 A	0.8 V @ 6 A	0.8 V @ 24 A	0.8 V @ 24 A	0.3 V @ 3 A	0.3 V @ 3 A	
OPERATING MODES							
CC Mode	Range	0-6 A / 0-60 A	0-0.6 A / 0-6 A	0-2.4 A / 0-24 A	0-2.4 A / 0-24 A	0-0.3 A / 0-3 A	0-0.3 A / 0-3 A
	Resolution	0.1 / 1mA	0.01 / 0.1mA	0.04 / 0.4mA		0.005mA / 0.05mA	
	Accuracy	± 0.1% OF (SETTING + RANGE)					
CR Mode	Range	0.01335 / 1.335 / 80.1kΩ	0.1335 / 13.35 / 801kΩ	0.0333 / 3.33 / 199.8kΩ	0.0333 / 3.33 / 199.8kΩ	0.267 / 26.7 / 1602kΩ	0.267 / 26.7 / 1602kΩ
	Resolution	0.21μΩ / 0.0125mS	2.1μΩ / 0.00125mS	0.5μΩ / 0.005mS	0.5μΩ / 0.005mS	4.1μΩ / 0.000625mS	4.1μΩ / 0.000625mS
	Accuracy	± 0.2% OF (SETTING + RANGE)					
CV Mode	Range	0 - 6.0V / 0 - 80.0V	0 - 6.0V / 0 - 80.0V	0 - 6.0V / 0 - 80.0V	0 - 6.0V / 0 - 80.0V	0 - 6.0V / 0 - 80.0V	0 - 6.0V / 0 - 80.0V
	Resolution	0.135mV / 1.35mV	0.135mV / 1.35mV	0.135mV / 1.35mV	0.135mV / 1.35mV	0.135mV / 1.35mV	0.135mV / 1.35mV
	Accuracy	± 0.05% OF (SETTING + RANGE)					
CP Mode	Range	0-25 W / 0-250 W	0-5 W / 0-50 W	0-12 W / 0-120 W	0-12 W / 0-120 W	0-4 W / 0-40 W	0-4 W / 0-40 W
	Resolution	0.417mW / 4.17mW	0.084mW / 0.84mW	0.2mW / 2mW	0.2mW / 2mW	0.067mW / 0.67mW	0.067mW / 0.67mW
	Accuracy	± 0.5% OF (SETTING + RANGE)					
PROTECTION							
Over Power (OP)		262.5 W	52.5 W	126.0 W	126.0	42.0 W	42.0 W
Over Current (OC)		63.0 A	6.3 A	25.2 A	25.2 A	3.15 A	3.15 A
Over Voltage (OV)		84.0 V	84.0 V	84.0 V	84.0 V	84.0 V	84.0 V
Over Temperature (OT)		+85° C / +185° F					
DYNAMIC OPERATION							
T high & T low		0.050 - 9.999 / 0.50 - 99.99 / 5.0 - 999.9 / 50 - 9999ms (20 kHz)					
Resolution		1 μs / 10 μs / 0.1 ms / 1.0 ms					
Accuracy		resolution + 50 ppm					
Slew Rate		4mA - 250mA/μs	0.4mA - 25mA/μs	1.6mA - 100mA/μs		0.2mA - 12.5mA/μs	
		40mA - 2500mA/μs	4mA - 250mA/μs	16mA - 1000mA/μs		2mA - 125mA/μs	
Accuracy		± 5% OF SETTING ± 10 μs					
Min. Rise Time		24 μs Typical					
METERING							
Voltage	Range	0 - 6.0V / 0 - 81.0V	0 - 6.0V / 0 - 81.0V	0 - 6.0V / 0 - 81.0V	0 - 6.0V / 0 - 81.0V	0 - 6.0V / 0 - 81.0V	0 - 6.0V / 0 - 81.0V
	Resolution	0.1 mV / 1.35 mV	0.1 mV / 1.35 mV	0.1 mV / 1.35 mV	0.1 mV / 1.35 mV	0.1 mV / 1.35 mV	0.1 mV / 1.35 mV
	Accuracy	± 0.025% OF (READING + RANGE)					
Current	Range	0 - 6.0 A / 0 - 60.0 A	0 - 0.6 A / 0 - 6.0 A	0 - 2.4 A / 0 - 24.0 A		0 - 0.3 A / 0 - 3.0 A	
	Resolution	0.1 mA / 1.0 mA	0.01 mA / 0.1 mA	0.04 mA / 0.4 mA		5 μA / 50 μA	
	Accuracy	± 0.1% OF (READING + RANGE)					
Power	Range	0 - 250.0 W	0 - 50.0 W	0 - 120.0 W		0 - 40.0 W	
	Accuracy	± 0.125% OF (READING + RANGE)					
SHORT CURRENT							
Typical Short Resistance		13.33 mΩ	1.33 mΩ	33.33 mΩ	33.33 mΩ	0.1 Ω	0.1 Ω
Max. Short Current		60 A	6 A	24 A	24 A	3 A	3 A
GENERAL							
Power & Cooling		Supplied by 44M00 Mainframe					
Dimensions (H x W x D)		143 x 108 x 405 mm / 5.6" x 4.25" x 16.0"					
Module Weight (Net)		3.5 kg / 7.7 lbs		3.7 kg / 7.7 lbs		3.7 kg / 7.7 lbs	
Operating Range		0 - 40° C / 32 - 104° F		0 - 40° C / 32 - 104° F		0 - 40° C / 32 - 104° F	
EMC & Safety		CE Mark					

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SPECIFICATIONS - 41D & 42D LED SIMULATION MODULES

MODEL	41D3002		41D1020		41D5002		42D5003				
OPERATING RANGES											
Power Ranges	0-150 W		0-300 W		0-300 W		0-120 W		0-120 W		
Current Ranges	0-0.6 A	0-2 A	0-0.6 A	0-20 A	0-0.6 A	0-2 A	0-0.6A	0-2.4A	0-0.6A	0-2.4A	
Voltage Range	0-300 V		0-100 V		0-500 V		0-500 V		0-500 V		
Minimum Voltage	6 V @ 2 A		0.7 V @ 20 A		6 V @ 2 A		6 V @ 2 A		6 V @ 2 A		
OPERATING MODES											
CC Mode	Range	0-0.6 A	0-2 A	0-0.6 A	0-20 A	0-0.6 A	0-2 A	0-0.6 A	0-2.4 A		
	Resolution	0.01mA	0.04mA	0.1mA	0.4mA	0.01mA	0.04mA	0.01mA	0.04mA		
	Accuracy	± 0.1% OF (SETTING + RANGE)									
CR Mode	Range	125-125kΩ	3.00-125Ω	5-5kΩ	0.05-5Ω	250-250kΩ	3.00-250Ω	10-10kΩ	2.5-2.5kΩ		
	Resolution	0.133 μS	2.0833 mΩ	3.3 μS	0.0833 mΩ	0.0666 μS	4.1666 mΩ	1.6665 μS	6.666 μS		
	Accuracy	± 0.2% OF (SETTING + RANGE)									
CV Mode	Range	0-30.0 V	0-300 V	0-12.0 V	0-100 V	0-60.0 V	0-500 V	0-60.0 V	0-500 V		
	Resolution	0.5 mV	5 mV	0.2 mV	2 mV	0.1 mV	10 mV	0.12 mV	10 mV		
	Accuracy	± 0.05% OF (SETTING + RANGE)									
CP Mode	Range	0-150 W		0-300 W		0-300 W		N/A			
	Resolution	2.5 mW		5 mW		5 mW		N/A			
	Accuracy	± 0.5% OF (SETTING + RANGE)									
LED Mode	Vo Range	0-300 V		0-100 V		0-500 V		0-500 V			
Rd Res. Range		2.5-120Ω @ Vo-Vd=0-6V		2.5-120Ω @ Vo-Vd=0-6V		2.5-120Ω @ Vo-Vd=0-6V		2.5-120Ω @ Vo-Vd=0-6V			
		12.5-600Ω @ Vo-Vd=6-30V		12.5-600Ω @ Vo-Vd=6-30V		12.5-600Ω @ Vo-Vd=6-30V		12.5-600Ω @ Vo-Vd=6-30V			
		125-6KΩ @ Vo-Vd=30-300V		125-6KΩ @ Vo-Vd=30-300V		125-6KΩ @ Vo-Vd=30-300V		125-6KΩ @ Vo-Vd=30-300V			
Resolution		16 bits									
Accuracy		Vd : ± (0.05% OF SETTING + 0.1% OF RANGE), Rd : ± (0.05% OF SETTING + 0.1% OF RANGE)									
PROTECTION											
Over Power (OP)		157.5 W		315.0 W		315.0 W		126.0 W	126.0 W		
Over Current (OC)		2.1 A		21.0 A		2.1 A		0.63 A	2.52 A		
Over Voltage (OV)		315.0 V		105.0 V		525.0 V		525.0 V	525.0 V		
Over Temperature (OT)		+90° C / +194° F									
DYNAMIC OPERATION											
T high & T low		0.050 ~ 9.999 / 99.99 / 999.9 / 9999ms (20 kHz)								N/A	
Resolution		1 μs / 10 μs / 0.1 ms / 1.0 ms								N/A	
Accuracy		resolution + 50 ppm								N/A	
Slew Rate		0.48-30mA/μs	1.92-120mA/μs	4.8-300mA/μs	19.2-1200mA/μs	0.48-30 mA/μs	1.92-120mA/μs	N/A			
		0.12mA/μs	0.48mA/μs	1.2mA/μs	4.8mA/μs	0.12mA/μs	0.48mA/μs	N/A			
Accuracy		± 5% OF SETTING ± 10 μs									
Min. Rise Time		20 μs Typical								N/A	
METERING											
Voltage	Range	0-60.0 V	0-300.0 V	0-30.0 V	0-100.0 V	0-60.0 V	0-500.0 V	0-75V	0-500V	0-75V	0-500V
	Resolution	1 mV	5 mV	0.5 mV	2 mV	1 mV	10 mV	1.25mV	10 mV	1.25mV	10 mV
	Accuracy	± 0.025% OF (READING + RANGE)									
Current	Range	0-0.6 A	0-2.0 A	0-6.0 A	0-20.0 A	0-0.6 A	0-2.0 A	0-0.6A	0-2.4A	0-0.6A	0-2.4A
	Resolution	10 μA	40 μA	0.1mA	40 μA	10 μA	40 μA	10 μA	40 μA	10 μA	40 μA
	Accuracy	± 0.1% OF (READING + RANGE)									
Power	Range	0-15.0 W	0-150.0 W	0-30.0 W	0-300.0 W	0-30.0 W	0-300.0 W	0-12W	0-120W	0-12W	0-120W
	Accuracy	± 0.1% OF (READING + RANGE)									
PWM DIMMING CONTROL											
Level	Range	0-10 V									
	Resolution	50 mV									
	Accuracy	± 1% OF (SETTING + RANGE)									
Frequency	Range	DC to 1000 Hz									
	Resolution	10 Hz									
Duty Cycle	Range	0.01 - 0.99 (1% - 99%)									
	Resolution	0.01 (1%)									
GENERAL											
SHORT SIGNAL OUTPUT		12 V / 100 mA max									
Power & Cooling		Supplied by 44M00 Mainframe									
Temperature Coefficient		100 ppm / °C typical									
Dimensions (H x W x D)		143 x 108 x 412 mm / 5.6" x 4.25" x 16.2"									
Module Weight (Net)		3.7 kg / 8.2 lbs	3.7 kg / 8.2 lbs	3.7 kg / 8.2 lbs	3.7 kg / 8.2 lbs	3.7 kg / 8.2 lbs	3.7 kg / 8.2 lbs	3.7 kg / 8.2 lbs	3.7 kg / 8.2 lbs	3.7 kg / 8.2 lbs	
Operating Range		0-40° C / 32-104° F		0-40° C / 32-104° F		0-40° C / 32-104° F		0-40° C / 32-104° F			
EMC & Safety		CE Mark									

4 SERIES MODULAR DC LOADS

ORDERING INFORMATION:

Line 1: Specify Mainframe Model:

One Slot	Two Slots	Four Slots
44M01	44M02	44M04

Line 2: Specify Remote Control Option:

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

Line 3: Specify up to four Load Modules:

41L Single Load	42L Dual Load	41D LED Load
41L0630	42L0860	41D3002
41L0660	42L0824	41D1020
41L2512	42L0803	41D5002
41L5012		42D LED Load
41L0615		42D5003

Line 4: Specify External Shorting Relay option for LED Load:

Relay Option	Description	Compatible with
Opt R002	Shorting Relay Fixture	41D3002 & 41D5002
Opt R003	Shorting Relay Fixture	42D5003
Opt R020	Shorting Relay Fixture	41D1020

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.
LAN/USB Driver CD ROM (with Opt USB or Opt LAN).
Certificate of Conformance

Included with each 4 Series Load Module:

Item	41L	42L	41D	42D
Banana plug, 4 mm, Red	1	2	1	-
Banana plug, 4 mm, Black	1	2	1	-
Banana plug, 2 mm, Red	1	2	3	8
Banana plug, 2 mm, Black	1	2	3	8
Y-hook Terminal, Large	4	4	4	-
Y-hook Terminal, Small	2	-	-	4
BNC Cable, 3 feet	1	-	1	-

NEED HELP?

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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.

New Product Warranty: AC Sources & Loads: 1 year, DC Power Supplies: 2 years.

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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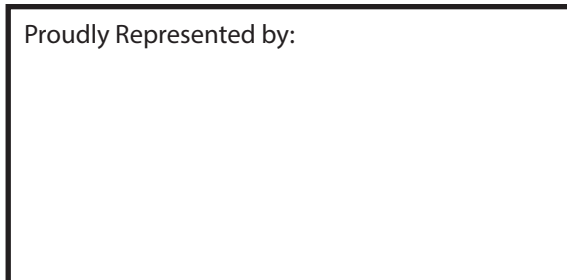
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