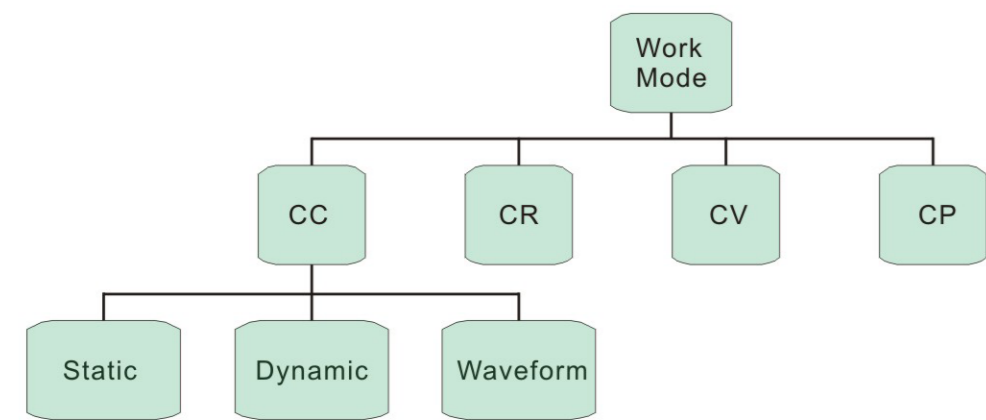


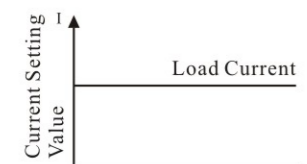
Work Mode:



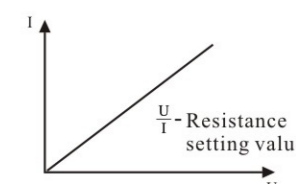
Functions:

Simulation mode:

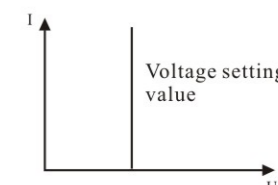
AN23 series DC Electronic Loads provide four work modes: CC, CV, CR, CP, satisfy different requirements



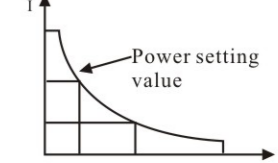
CC Mode:  
1. Load test of power supply;  
2. Battery discharge time and life period test;  
3. Fuel battery test.



CR Mode:  
1. Current limit point, climb rate and drop rate of power supply;  
2. Power supply slow start testing.



CV Mode:  
1. Mobile charger test;  
2. Fuel battery test;  
3. Current source test.



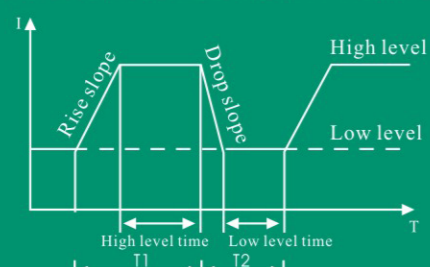
CP Mode:  
1. Constant power source test;  
2. Battery capacity and capacity life period test.

Dynamic function:

To satisfy the performance test requirements of transition signal and dynamic response, AN23 series DC Electronic Loads provide high speed, programmable and waveform load mode

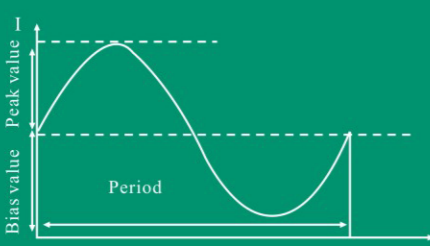
Dynamic simulation

The programmable parameters including up/low level, rise/drop slope, T1/T2 time.



Waveform simulation

5 special waveform and 1 programmable waveform. Special waveform include sine, triangle, square, sawtooth-A, sawtooth-B. Waveform period, peak value and bias value can be programmable for programmable waveform.



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Dynamic Synchronous

To satisfy multi channels synchronous requirements, module style DC electronic load can reach dynamic synchronous load test by control circuit, keeping load test and test result undistorted. Suitable for dynamic respond performance of multi channel output power supply, ensuring the output quality of the power supply.

Intelligent adjustment

Voltage, current, power up/low limit judgment, each channel output the PASS or FAIL by GO/NG port. Suitable for quickly judgment on the production line and in quality control department.

Programmable timing sequence

Provide 101 groups, user can simulate different real load condition. The module sequence can be operated separately and load test separately, the module sequence also can be operated separately and load test synchronously.

Precise measurement

AN23 series DC Electronic Loads can precisely measure the output voltage, current, power of the power supply, voltage accuracy reach  $\pm(0.05\% \times \text{reading} + 0.05\% \times \text{range})$ , current accuracy reach  $\pm(0.05\% \times \text{reading} + 0.1\% \times \text{range})$ , and also can measure the voltage, current and max power when the power supply is under over current and over power protection status.

Time measurement

Timer function. The time range is 100ms~86400s. Suitable for battery discharging and other application, such as capacity discharging time test, fuels/breaker on/off time test, voltage rising time test of power supply.

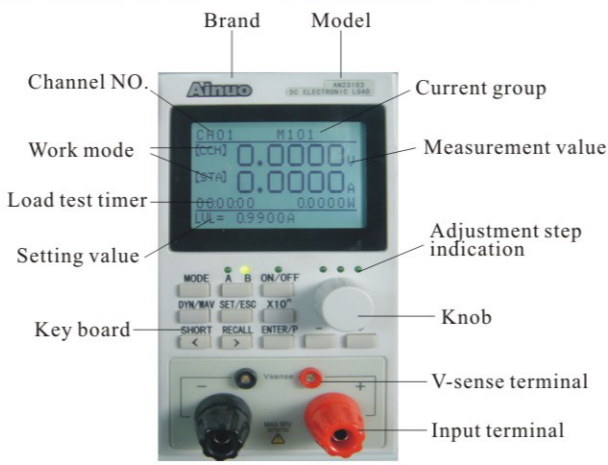
Over current protection test (OCP)

AN23 series DC Electronic Loads provide OCP test mode, user can quickly get the OCP point of power supply by setting initial current, cutoff current, step current, step current maintaining time, saving much time during the production, experiment process.

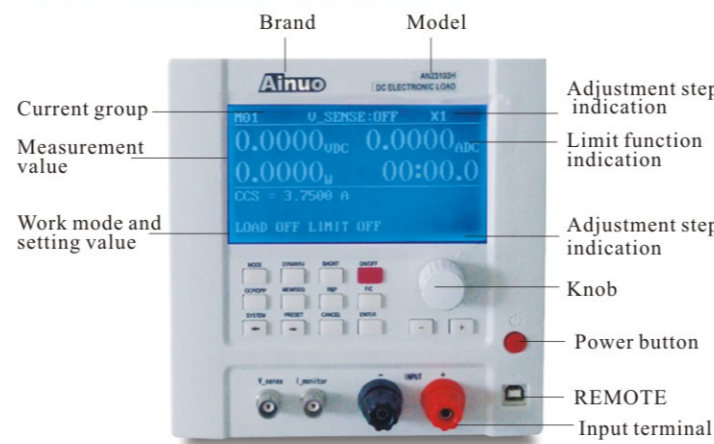
Over power protection test (OPP)

AN23 series DC Electronic Loads AN23 provide OPP test mode, user can test by setting growth rate of load power. The max power value will be shown on the screen

Module style DC electronic load front panel:



Single unit style DC electronic load front panel:



Purchase information:

Module style DC electronic load  
AN23202: 80V/20A/100W\*2 Double channel DC

Electronic load unit  
AN23103: 80V/60A/300W DC electronic load unit  
AN23104: 80V/120A/600W DC electronic load unit  
AN23163: 500V/10A/300W DC electronic load unit  
AN23164: 500V/20A/600W DC electronic load unit

AN2302: 2 units case, install 600W module unit max  
AN2305: 5 units case, install 1500W module unit max  
AN23903: GPIB communication card

Single unit style DC electronic load  
AN23103H: 60V/60A/300W DC electronic load  
AN23163H: 500V/10A/300W DC electronic load

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Module style DC Electronic Load specification index:

★ Double Channel

		AN23202 (F)			
		1-80V		0-20A	
		0-20A		0-100W	
Input Range	Range/Resolution	0-2A 0.5mA		0-20A 0.5mA	
	Precision	$\pm(0.1\% \text{ of setting} + 0.1\% \text{ of range})$		$\pm(0.1\% \text{ of setting} + 0.2\% \text{ of range})$	
Constant Current (Static)	Range/Resolution	0.075Ω-300Ω (100W/16V) 12bits		3.75Ω-15kΩ (100W/80V) 12bits	
	Precision	5kΩ : 10ms+0.1% of setting			
Constant Voltage	Range/Resolution/Precision	$\pm(0.05\% \text{ of setting} + 0.1\% \text{ of range})$			
	Range/Resolution/Precision	1-100W 0.025W $\pm(0.5\% \text{ of setting} + 0.2\% \text{ of range})$			
Constant Power	T1&T2 Range/Resolution/Precision	0.025mS-10mS 1μS 1μS+100ppm		1mS-30S 1mS 1mS+100ppm	
	Slope Range/Resolution	0.32-80mA/μS 0.32mA/μS		3.2-800mA/μS 3.2mA/μS	
Shortcut	Mode/Min. Resistance/Max. Current	FETSWITCH 0.075Ω 20A			
Measurement Precision	DC Voltage/DC Current	$\pm(0.05\% \text{ of reading} + 0.05\% \text{ of range})$		$\pm(0.1\% \text{ of reading} + 0.1\% \text{ of range})$	
	Power	$\pm(0.5\% \text{ of reading} + 0.2\% \text{ of range})$			
Dimension W×H×D(mm)		84.5×153×534mm			

★ Single Channel

Model No.	AN23103	AN23104(F)	AN23163(F)	AN23164 (F)
Input	Voltage	1-80V	1-80V	2.5~500V
	Current	0-60A	0-120A	0-20A
	Power	0-300W	0-600W	0-300W
CC (Static)	Range	0-6A	0-60A	0-12A
	Resolution	1.5mA	15mA	3mA
CR	Range	$\pm(0.1\% \text{ of setting} + 0.1\% \text{ of range})$	$\pm(0.1\% \text{ of setting} + 0.2\% \text{ of range})$	$\pm(0.1\% \text{ of setting} + 0.1\% \text{ of range})$
	Precision	$\pm(0.1\% \text{ of setting} + 0.1\% \text{ of range})$	$\pm(0.1\% \text{ of setting} + 0.2\% \text{ of range})$	$\pm(0.1\% \text{ of setting} + 0.2\% \text{ of range})$
CV	Range	0.025Ω-100Ω (300W/16V)	1.25Ω-5kΩ (300W/80V)	12.5mΩ-50Ω (600W/16V)
	Resolution	12bits	12bits	12bits
CP	Range	100Ω : 100ms+ 0.2% of setting	5kΩ : 10ms+ 0.1% of setting	50Ω : 10ms+ 0.5% of setting
	Precision	100Ω : 100ms+ 0.2% of setting	5kΩ : 10ms+ 0.1% of setting	50Ω : 10ms+ 0.5% of setting
CC (Dynamic)	Range	0.025Ω-100Ω (300W/16V)	1.25Ω-5kΩ (300W/80V)	12.5mΩ-50Ω (600W/16V)
	Resolution	12bits	12bits	12bits
CV	Range	1-80V	1-80V	2.5-500V
	Precision	$\pm(0.05\% \text{ of setting} + 0.1\% \text{ of range})$	$\pm(0.05\% \text{ of setting} + 0.2\% \text{ of range})$	$\pm(0.05\% \text{ of setting} + 0.2\% \text{ of range})$
CP	Range	1-300W	1-600W	1-300W
	Precision	0.075W	0.15W	0.075W
Meas. Precision	Range	0.025mS-10mS	5mS-30mS	0.025mS-10mS
	Resolution	1μS	1mS	1μS
Slope	Range	1-25mA/μS	0.01-2.5A/μS	0.002-0.5A/μS
	Resolution	1mA/μS	10mA/μS	20mA/μS
Shortcut	Mode	FETSWITCH		
	Min. Resistance	0.025Ω	0.0125Ω	1.25Ω
DC Voltage	DC Voltage	$\pm(0.05\% \text{ of reading} + 0.05\% \text{ of range})$		
	DC Current	$\pm(0.1\% \text{ of reading} + 0.1\% \text{ of range})$		
Power	Power	$\pm(0.5\% \text{ of reading} + 0.2\% \text{ of range})$		
	Dimension W×H×D	84.5×153×534mm	169.5×153×534mm	84.5×153×534mm

CRmode:100mS means the admittance is 0.1siemens

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Single-unit style DC Electronic Load specification index:

Model No.	AN23103H (F)	AN23105 (F)	AN23163H (F)
Input	Voltage	1-60V	2.5-500V
	Current	0-60A	0-10A
	Power	0-300W	0-300W
CC (Static)	Range	0-6A	0-10A
	Resolution	1.5mA	0.25mA
CR	Range	$\pm(0.1\% \text{ of setting} + 0.1\% \text{ of range})$	$\pm(0.1\% \text{ of setting} + 0.2\% \text{ of range})$
	Precision	$\pm(0.1\% \text{ of setting} + 0.1\% \text{ of range})$	$\pm(0.1\% \text{ of setting} + 0.2\% \text{ of range})$
CV	Range	0.025Ω-100Ω (300W/16V)	5kΩ : 20ms+ 0.2% of setting
	Resolution	12bits	12bits
CP	Range	1-300W	1-300W
	Precision	0.075W	0.075W
CC (Dynamic)	Range	0.025mS-10mS	0.025mS-10mS
	Resolution	1μS	1μS
Slope	Range	1-25mA/μS	0.01-2.5A/μS
	Resolution	1mA/μS	10mA/μS
Shortcut	Mode	FETSWITCH	
	Min. Resistance	0.025Ω	1.25Ω
DC Voltage	DC Voltage	$\pm(0.05\% \text{ of reading} + 0.05\% \text{ of range})$	
	DC Current	$\pm(0.1\% \text{ of reading} + 0.1\% \text{ of range})$	
Power	Power	$\pm(0.5\% \text{ of reading} + 0.2\% \text{ of range})$	
	Display	LCD, 5 digits	
Protection Function	Output over current / voltage protection; reverse connection protection; Overheat protection;		
Test Function	Ocp and Opp		
Interface	Vsense, GO/NG, I-monitor; RS232 (GPIB Optional)		
Alarm Function	Buzzer		
Work Temperature	0-40°C		
Dimension W×H×D	168×118×500	440×117×600	168×188×500

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