

# 3110 Series DC Electronic Load

**3110** 80V, 50A, 250W

**3111** 80V, 70A, 350W

**3114** 500V, 15A, 350W

**3117** 80V, 140A, 700W

**3119** 500V, 30A, 700W



## Features

- 5 digital V/A/W Meter.
- High-speed measurement and communication transmission.
- V.A.W. values can be displayed simultaneously.
- Large LCD Display \ setting values can be adjusted by rotary knob or push button.
- Short, OCP, OPP, Battery and Surge test function.
- Battery test function with stop condition : Vbatt, Discharge capacity and discharge time.
- Surge test with boot-on inrush simulation and hot-swap simulation.
- Supply MPPT test function for solar panel.
- Flexible CC. CR, CV, CP, Dynamic and Short operation modes.
- SHORT time setting and SHORT\_VH, SHORT\_VL setting function.
- Protections against V, I, W, and °C.
- Voltage meter display the polarity positive ( " + " ) or negative ( " - " ) is selectable.
- Interface : RS232 \ USB

## Descriptions

- Each 3110 Series stand-alone load has its own control and display panel, CC / CR / CV / CP/ Dynamic modes, also can be controlled intranet via RS232 and USB interface.
- SHORT time setting and SHORT\_VH, SHORT\_VL setting function, also can measure Short Voltage and Current.
- Dynamic can be simulated under CC, CP mode. The current Rise / Fall slew rate can be adjusted individually.
- The additional Short, OCP, OPP, Batt and Surge test function operated by both manual and remote that will be more efficiency and accuracy on Short, OCP, OPP, Batt and Surge testing.
- Programmable Load ON / OFF voltage, GO / NG meter check, Voltage meter display " + " or " - " is selectable. That is much advance feature for each different application.

## Applications

- Voltage / Current source
- SMPS transient response
- Current limit testing and battery emulation
- Battery charger
- Battery discharge
- R&D, Quality Control
- ATE system
- Production testing

## Specifications

MODEL	3110	3111	3114	3117	3119	
Max Power	250 W	350 W	350 W	700 W	700 W	
Max Current	50 A	70 A	15 A	140 A	30 A	
Operation Voltage	80 V	80 V	500 V	80 V	500 V	
Min. Operating Voltage	1.0V @ 50A	1.2V @ 70A	6V @ 15A	0.9V @ 140A	3.0V @ 30A	
<b>PROTECTIONS</b>						
Over Power Protection (OPP)	≅ 262.5 W	≅ 367.5 W	≅ 367.5 W	≅ 735 W	≅ 735 W	
Over Current Protection (OCP)	≅ 52.5 A	≅ 73.5 A	≅ 15.75 A	≅ 147 A	≅ 31.5 A	
Over Voltage Protection (OVP)	≅ 84 V	≅ 84 V	≅ 525 V	≅ 84 V	≅ 525 V	
Over Temp. Protection (OTP)	YES	YES	YES	YES	YES	
<b>CC MODE</b>						
Range	0~5.04~50.4 A	0~7.02~70.2 A	0~1.5~15 A	0~14.04~140.4 A	0~3~30 A	
Resolution	0.084 mA / 0.84 mA	0.117 mA / 1.17 mA	0.025 mA / 0.25 mA	0.234 mA / 2.34 mA	0.05 mA / 0.5 mA	
Accuracy	±0.1% OF (SETTING + RANGE)					
<b>CR MODE</b>						
Range	0.016~1.6~96000Ω	0.0114~1.14~68400Ω	0.4~40~240000Ω	0.0057~0.57~34200 Ω	0.2~20~120000Ω	
Resolution	26.666μΩ / 0.010416mS	19μΩ / 0.014619mS	666.667μΩ / 0.416μS	9.5μΩ / 29.239μS	333.334μΩ / 0.833μS	
Accuracy	±0.1% OF (SETTING + RANGE)					
<b>CV MODE</b>						
Range	0~8.1~81 V	0~8.1~81 V	0~60~500 V	0~8.1~81 V	0~60~500 V	
Resolution	0.135mV / 1.35mV	0.135mV / 1.35mV	1 mV / 10mV	0.135mV / 1.35mV	1 mV / 10mV	
Accuracy	±0.05% OF (SETTING + RANGE)					
<b>CP MODE</b>						
Range	0~25.02~250.2 W (Imax.= r1:5A, r2:50A)	0~35.04~350.4W (Imax.= r1:7A, r2:70A)	0~35.04~350.4 W (Imax.= r1:1.5A,r2:15A)	0~70.02~700.2 W (Imax.=r1:14A,r2:140A)	0~70.02~700.2 W (Imax.=r1:3A,r2:30A)	
Resolution	0.417 mW / 4.17 mW	0.584mW / 5.84 mW	0.584 mW / 5.584 mW	1.167 mW / 11.67 mW	1.167 mW / 11.67 mW	
Accuracy	±0.5% OF (SETTING + RANGE)					
<b>Dynamic Operation</b>						
THIGH/TLOW	10 μS to 9.999 Sec					
SLEW-RATE	3.2~200mA/μs	0.032~2A/μs	4.64~290mA/μs	0.0464~2.90A/μs	1~62.5 mA/μs	
ACCURACY	±5% ±10μS					
<b>Measurement</b>						
5 1/2 DVM	Range	0~8.1~81 V	0~8.1~81 V	0~60~500 V	0~8.1~81 V	0~60~500 V
	Resolution	0.135mV / 1.35mV	0.135mV / 1.35mV	1 mV / 10mV	0.135mV / 1.35mV	1 mV / 10mV
	Accuracy	±0.02% OF (READING + RANGE)				
5 1/2 DAM	Range	0~5.04~50.4 A	0~7.02~70.2 A	0~1.5~15 A	0~14.04~140.4 A	0~3~30 A
	Resolution	0.084 mA / 0.84 mA	0.117 mA / 1.17 mA	0.025 mA / 0.25 mA	0.234 mA / 2.34 mA	0.05 mA / 0.5 mA
	Accuracy	±0.05% OF (READING + RANGE)				
<b>Surge Test</b>						
Surge & Normal current	0~50A	0~70A	0~15A	0~140A	0~30A	
Surge time	10~1000ms					
Surge step	1~5					
<b>Battery Discharge Test</b>						
UVP	0~81V	0~81V	0~500V	0~81V	0~500V	
Time	1~99999Sec					
Capacity	0.1~19999.9AH / 0.1~19999.9WH					
<b>Others</b>						
Load ON Voltage	0.1~25V		0.4~100V		0.1~25V	0.4~100V
Accuracy	1% of (Setting + Range)					
Load OFF Voltage	0~25V		0~100V		0~25V	0~100V
Accuracy	0.05% of (Setting +Range)					
Imonitor (non-Isolated)	5.04 A/V	7.02 A/V	1.5 A/V	14.04 A/V	3 A/V	
Typical Short Resistance	0.018 Ω	0.0169 Ω	0.367Ω	0.0053Ω	0.087Ω	
Max. short Current	50A	70A	15A	140A	30A	
Interface	USB / RS232					
Power Consumption	40VA			60VA		
Dimension(HxWxD)	205 x 123 x 477mm			205 x 231 x 480mm		
Weight	5.3Kg			10.3Kg		

Input AC Power : 115/230 Vac ±10% , 50/60Hz

Cooling : Advanced Fan Cooled

## Order Information

### DC Electronic Load

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Interface : RS232 & USB



5.3kg  
W=123mm  
H=205mm  
D=477mm



10.3kg  
W=231mm  
H=205mm  
D=480mm

**3117** 80V , 140A , 700W



10.3kg  
W=231mm  
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D=480mm

**3119** 500V , 30A , 700W