

3110 Series

DC Electronic Load (RS232、USB)



DC ELECTRONIC LOAD



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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.
- 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
- 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						
PROTECTIONS											
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						
CC MODE											
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)										
CR MODE											
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)										
CV MODE											
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)										
CP MODE											
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 / 5.84 mW	1.167 mW / 11.67 mW	1.167 mW / 11.67 mW						
Accuracy	±0.5% OF (SETTING + RANGE)										
Dynamic Operation											
THIGH/TLOW	10 μS to 9.999 Sec										
RESOLUTION	0.001 / 0.01 / 0.1 / 1mS										
SLEW-RATE	3.2~200mA/μs	0.032~2A/μs	4.64~290mA/μs	0.0464~2.90A/μs	1~62.5 mA/μs	10~625 mA/μs	0.0096~0.6A/μs	0.096~6A/μs	2~125mA/μs	20~1250mA/μs	
ACCURACY	±5% ±10μS										
Measurement											
Voltage Read Back	Range (5 Digital)	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)									
Current Read Back	Range (5 Digital)	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)									
Power Read Back	Range (5 Digital)	25W	250W	35W	350W	35W	350W	70W	700W	70W	700W
	Resolution	0.001W	0.01W	0.001W	0.01W	0.001W	0.01W	0.001W	0.01W	0.001W	0.01W
	Accuracy	± 0.1% of (Reading + Range)									
Surge Test											
Surge & Normal current	0~50A	0~70A	0~15A	0~140A	0~30A						
Surge time	10~1000ms										
Surge step	1~5										
Battery Discharge Test											
UVP	0~81V	0~81V	0~500V	0~81V	0~500V						
Time	1~999999Sec										
Capacity	0.1~19999.9AH / 0.1~19999.9WH										
Others											
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						
Current Monitor	FULL SCALE 10V										
Accuracy	0.5% of (Setting + Range)										
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

- ▶ **3110** 80V , 50A , 250W
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- ▶ **3114** 500V , 15A , 350W

Interface : RS232 & USB

option :
9935 Recall/Store
controller



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



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

3117 80V , 140A , 700W



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

3119 500V , 30A , 700W