3310G Series DC Electronic Load（800W）

	Normal mode	Turbo mode
3317G / 3317G-M	80V / 160A / 800W	80V / 320A / 1600W
3319G / 3319G-M	500V / 40A / 800W	500V / 80A / 1600W

Features

- 5 digital V / A / W Meter can be displayed on Large LCD display simultaneously.
- Flexible CC, CR, CV, CP, CC + CV, CP + CV, Dynamic and short circuit operation modes.
- Built-in test modes include Battery Discharge, BMS, Fuse/ Breaker Trip/Non-Trip, Short circuit, OCP, OPP test modes.
- Not only CC, CR, and CP mode have parallel operation functions, but CV mode also has parallel operation functions.
- Turbo mode can withstand up to 2 times the current and power electronic load within 2 sec. period，most fit Fuse/ Breaker and BMS、Short circuit、OCP、OPP test.
- Provide battery BMS protection test function.
- Support MPPT CC、CR、CV test function for solar panel.
- Short circuit duration can be set within short circuit test.
- Can set the power-on status value.
- Voltage meter display can be configured as polarity positive（"+"）or negative（"—"）.
- Optional programmable NTC Resistor（installed in mainframe）
- Optional Interface : GPIB、RS232、USB、LAN.
- Protection against V, I, W, and ℃.
- Optional 9923 load current waveform generator to provide the battery actual discharge current waveform simulation.

Descriptions

- 3317G / 3317G-M / 3319G / 3319G-M has its own control and display panel, CC / CR / CV /CP/ Dynamic modes, with 150 sets Store/Recall memory which provides load set-up more efficiently, also can be controlled via RS232、Ethernet、USB and GPIB interface。
- The new Turbo mode is designed for overload or protection testing, which includes OCP, OPP, Short for AC / DC or DC/DC power source ; Over Charge / Discharge and Short for Battery BMS protection ; and Blow/Not Blow testing for Fuse, Breaker or PTC Current Protection Components.
- Support Short, OCCP and OCDP protection tests for battery BMS protection testing, the peak current before protection and protection response time are measured.
- BMS, Fuse, OCP and OPP single-key test functions make test more efficient.
- Dynamic can be simulated under CC, CP mode. The current Rise / Fall slew rate can be adjusted individually and there is an external signal input so that load can have a simulated Specific Load Current Waveform, optional 9923 Load Current Waveform Generator is able to support real current waveform testing.
- SHORT duration setting and SHORT_VH, SHORT_VL setting function, also can measure Short Voltage and Current.
- Programmable LOAD ON/OFF voltage, GO/NG meter check, Voltage meter display " + " or " – " is selectable and 150 sets Store / Recall larger memory is much advance feature for each different application.
- 150 sets test parameter and status storage function can call the storage memory real time in accordance with the auto sequence requirement，at any time to tune out the stored memory for use.

Applications

- Voltage / Current source SMPS transient response
- Voltage Source Current limit testing and battery emulation for Charger testing
- Battery discharge capacity
- Lithium battery BMS charge and discharge protection
- Fuse , Breaker , PTC specification test
- MPPT test function for solar panels
- R&D, Quality Control
- ATE system
- Production testing

Specifications

MODEL		3317G / 3317G-M		3319G / 3319G-M	
Power		800W,1600W max. *1		800W, 1600W max. *1	
Current		160A /320A max. *1		40A / 80A max. *1	
Voltage		80V		500V	
Min. Operating Voltage		1.0V @ 160A		4V @ 40A	
PROTECTIONS					
Over Power Protection(OPP)		105%			
Over Current Protection(OCP)		105%			
Over Voltage Protection(OVP)		105%			
Over Temp Protection(OTP)		YES			
Constant Current Mode					
Range *2		0 ~ 16.02A	0 ~ 160.2A	0 ~ 4.02A	0 ~ 40.2A
Resolution		0.267mA	26.7mA	0.067mA	0.67mA
Accuracy		± 0.1% of (setting + Range)			
Constant Resistance Mode					
Range		0.5Ω~ 30KΩ	0.00416Ω ~ 0.5Ω	15Ω~ 900KΩ	0.15Ω ~ 15Ω
Resolution		0.0166mS	0.0083mΩ	0.00111mS	0.25mΩ
Accuracy		± 0.2% of (Setting + Range)			
Constant Voltage Mode					
Range		0 ~ 8.04V	0 ~ 80.4V	0 ~ 60V	0 ~ 500V
Resolution		0.000134V	0.00134V	0.001V	0.01V
Accuracy		± 0.05% of (Setting + Range)			
Constant Power Mode					
Range		0 ~ 80.04W	0 ~ 800.4W	0 ~ 80.04W	0 ~ 800.4W
Resolution		1.334mW	13.34mW	1.334mW	13.34mW
Accuracy		± 0.5% of (Setting + Range)			
Constant Current + Constant Voltage Mode					
Range		80V	160A	500V	40A
Resolution		0.00134V	2.67mA	0.01V	0.67mA
Accuracy		± 1.0% of (Setting + Range)			
Constant Power + Constant VoltageMode					
Range		80V	800W	500V	800W
Resolution		0.00134V	13.34mW	0.01V	13.34mW
Accuracy		± 1.0% of (Setting + Range)			
Maximum Current	Turbo OFF	160A		40A	
	Turbo ON*1	320A		80A	
Meas. Accuracy		± 3.0% of (Reading + Range)			
Short/OCP/OPP Test Function					
Short Time	Turbo OFF	100ms~10 Sec. or Continue			
	Turbo ON*1	100~2000ms			
Meas. Accuracy		NA			
OCP Time (Tstep)	Turbo OFF	100mS			
	Turbo ON*1	20mS			
Meas. Accuracy		NA			
OPP Time (Tstep)	Turbo OFF	100mS			
	Turbo ON*1	20mS			
Meas. Accuracy		NA			
BMS Test Mode *3					
Short Time	Turbo OFF	0.05mS~10ms			
	Turbo ON*1	0.05mS~10ms			
Meas. Accuracy		±0.005mS			
OCP Time (Tstep)	Turbo OFF	0.05mS~10ms / 11~1000ms			
	Turbo ON*1	0.05mS~10ms / 11~1000ms			
Meas. Accuracy		±0.005mS / ±0.2mS			
Fuse Test Mode *4					
Trip & Non-Trip Time	Turbo OFF	r1 : 1~5999ms, r2 : 6~16383sec			
	Turbo ON*1	1~2000mS			
Meas. Accuracy		r1 : ±0.2mS(<200mS), ±20mS(>200mS), r2: ±0.5S			
Repeat Cycle		0~255			
Surge Test Mode					
Surge current		0~320A		0~80A	
Normal current		0~160A		0~40A	
Surge Time		10~2000ms			
Surge Step		1~5			
MPPT Mode					
Algorithm		P&O			
Load mode		CV			
Dynamic Mode (50KHz)					
Timing					
Thigh & Tlow		0.010~9.999 / 99.99 / 999.9 / 9999mS			
Resolution		0.001 / 0.01 / 0.1 / 1mS			
Slew rate		10.8 ~ 675mA/us	10.8 ~ 6750mA/us	2.56 ~ 160mA/us	25.6 ~ 1600mA/us
Accuracy		± (5% of Setting) ±10uS			
Measurement					
Voltage Read Back					
Range (5 Digital)		8.04V	80.4V	60V	500V
Resolution		0.000134V	0.00134V	0.001V	0.01V
Accuracy		± 0.025% of (Reading + Range)			
Current Read Back					
Range (5 Digital)		16.02A	160.2A	4.02A	40.2A
Resolution		0.000267A	0.00267A	0.000067A	0.00067A
Accuracy		± 0.1% of (Reading + Range)			
Power Read Back					
Range (5 Digital)		100W	800W	100W	800W
Resolution		0.001W	0.01W	0.001W	0.01W
Accuracy		± 0.1% of (Reading + Range)			
Current Monitor		FULL SCALE 10V			
Accuracy		0.5% of (Setting + Range)			
Current Programming Input		FULL SCALE 10V			
Programmable Short		BUILT-IN			
Load ON Voltage		0.1 ~ 25V		0.4~100V	
Accuracy		1% of (Setting + Range)			
Load OFF Voltage		0 ~ 25V		0~100V	
Accuracy		0.025% of (Setting + Range)			
Typical Short Resistance		0.006Ω		0.075Ω	
Maximum Short Current		160A		40A	
Dimension(HxWxD)		3317G / 3319G (187 x 269 x 486 mm / 14.5kg)		3317G-M / 3319G-M (143 x 216.4 x 418.8 mm / 7kg)	
Operating Temperature *5		0 ~ 40℃			

*1 : Up to 2 times rated current and power Turbo mode operation for Fuse, BMS, Short / OCP / OPP testing.
*2 : CC Mode can be forced on Range II
*3 : The BMS test function is mainly applied to the Short / OCP / OPP and OCDP tests of the battery BMS protection board.
*4 : Fuse test function is mainly used for fuse and breaker testing
*5 : The operating temperature range is 0~40°C, the accuracy of this specification is only applicable to 25°C±5°C

Order Information

3317G
80V, 160A , 800W

3319G
500V, 40A , 800W

3317G-M
80V, 160A , 800W

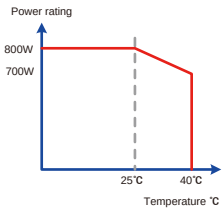
3319G-M
500V, 40A , 800W

Optional interface : 1 GPIB Card 2 RS232 Card 3 USB Card 4 LAN Card

3317G-M / 3319G-M DC Electronic Load Mainframe（Option）

3305G
(two channels mainframe)
7.5kg / W269mm / H177mm / D452mm

3300G
(four channels mainframe)
9.3kg / W440mm / H177mm / D445mm



Power vs temperature curve