

3340G Series

LED DC Electronic Load Simulator



LED DC ELECTRONIC LOAD SIMULATOR



PRODIGIT ELECTRONICS CO., LTD.

No. 7-1, Zhongxing Rd., Tucheng Dist., New Taipei City 236, Taiwan (R.O.C.)

TEL : 886-2-2918-2620

FAX : 886-2-2912-9870

[http : //www.prodigit.com](http://www.prodigit.com)

E-mail : sales@prodigit.com.tw



3341G	300V,	24A,	300W
3342G	500V,	12A,	300W
3343G	500V,	24A,	300W
3345G	120V,	4A,	150W
3346G	120V,	12A,	300W
33401G	500V,	6A,	150Wx2
33402G	120V,	2A,	75Wx2
33403G	120V,	6A,	150Wx2

Voltage can be increased to 600V (option)



Features

- LED mode load for LED Power Driver test.
- CC, CR, CV, CP, LED and Dynamic mode.
- Simulate LED Forward Bias Voltage (Vd) and Resistance (Rd).
- Not only CC, CR, and CP mode have parallel operation functions, but CV mode also has parallel operation functions.
- Fast Response for PWM dimming test.
- Built-in dimming control signal for PWM dimming test.
- Short circuit test by external relay (built-in short relay driver circuit).
- 5 digital V / A / W Meter.
- Protections against V, I, W, and °C.
- Can be configured in 3302F [single channel mainframe] 、 3305F [two channels mainframe] or 3300F [four channels mainframe] and the mainframe with 150 sets Store / Recall memory.
- Voltage can be increased to 600V (option)
- Optional Interface : GPIB 、 RS232 、 USB 、 LAN.
- The power input dimming frequency of 3345G & 33402G is up to 25KHZ that is the fastest and widest of bandwidth electronic load in the market.
- The dimming control output of 3345G & 33402G is DC-10KHZ

Descriptions

- Each 3340G Series module has its own control and display panel, LED/CC/CR/ CV/CP/ Dynamic modes, plug in 3300F with 150 sets Store/Recall memory which provides load set-up more efficiently , also can be controlled intranet via RS232 、 Ethernet 、 USB and GPIB interface.
- Short circuit test by external relay (there is an optional fixture for short), Short Time can be set and Short Voltage can be measured.
- Built-in dimming control signal output is for PWM dimming test.
- Simulate LED forward Bias voltage (Vd) and Resistance (Rd).
- 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.

Applications

- LED Driver
- 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	3341G		3342G		3343G		3345G		3346G	
Power	300W		300W		300W		150W		300W	
Current	0 ~ 6A 0 ~ 24A		0 ~ 3A 0 ~ 12A		0 ~ 6A 0 ~ 24A		0 ~ 1.2A 0 ~ 4A		0 ~ 3A 0 ~ 12A	
Voltage	0 ~ 300V		0 ~ 500V		0 ~ 500V		0 ~ 120V		0 ~ 120V	
Min. Operating Voltage	3V @ 24A		6V @ 12A		6V @ 24A		3V @ 4A		1.5V @ 12A	
Constant Current Mode										
Range*1	0 ~ 6A 0 ~ 24A		0 ~ 3A 0 ~ 12A		0 ~ 6A 0 ~ 24A		0 ~ 1.2A 0 ~ 4A		0 ~ 3A 0 ~ 12A	
Resolution	0.1mA 0.4mA		0.05mA 0.2mA		0.1mA 0.4mA		0.02mA 0.08mA		0.05mA 0.2mA	
Accuracy	± 0.1% OF (SETTING + RANGE)									
Constant Resistance Mode										
Range	CRL:0.125Ω-1.5KΩ (150V)	CRH:0.25Ω-3KΩ (300V)	CRL:0.5Ω-1.5KΩ (300V)	CRH:1Ω-3KΩ (500V)	CRL:0.25Ω-3KΩ (300V)	CRH:0.5Ω-6KΩ (500V)	CRL:0.75Ω-750Ω (60V)	CRH:1.5Ω-1.5KΩ (120V)	CRL:0.1Ω-1.2KΩ (60V)	CRH:0.2Ω-2.4KΩ (120V)
Resolution	133.333μS 66.666μS		33.333μS 16.666μS		66.666μS 33.333μS		66.666μS 33.333μS		166.66μS 83.333μS	
Accuracy	± 0.2% OF (SETTING + RANGE)									
Constant Voltage Mode										
Range	30V / 150V / 300V		60V / 300V / 500V		60V / 300V / 500V		30V / 60V / 120V		12V / 60V / 120V	
Resolution	0.0005V / 0.0025V / 0.005V		0.001V / 0.005V / 0.01V		0.001V / 0.005V / 0.01V		0.0005V / 0.001V / 0.002V		0.2mV / 1mV / 2mV	
Accuracy	± 0.05% OF (SETTING + RANGE)									
Constant Power Mode										
Range	0 ~ 300W		0 ~ 300W		0 ~ 300W		0 ~ 150W		0 ~ 300W	
Resolution	0.005W		0.005W		0.005W		0.0025W		0.005W	
Accuracy	± 0.5% OF (SETTING + RANGE)									
LED Mode										
Vo Voltage Range	LEDL:30V/LEDM:150V/LEDH:300V		LEDL:60V/LEDM:300V/LEDH:500V		LEDL:60V/LEDM:300V/LEDH:500V		LEDL:30V/LEDM:60V/LEDH:120V		LEDL:12V / LEDM:60V / LEDH:120V	
Rd Resistance Range	LEDL: 0.125~125Ω@Vo-Vd=0~3V LEDL: 1.25~1.25KΩ@Vo-Vd=3~30V LEDM: 0.625~625Ω@Vo-Vd=0~15V LEDM: 6.25~6.25KΩ@Vo-Vd=15~150V LEDH: 1.25~1.25KΩ@Vo-Vd=0~30V LEDH: 12.5~12.5KΩ@Vo-Vd=30~300V		LEDL: 0.5~100Ω@Vo-Vd=0~6V LEDL: 5~1KΩ@Vo-Vd=6~60V LEDM: 2.5~500Ω@Vo-Vd=0~30V LEDM: 25~5KΩ@Vo-Vd=30~300V LEDH: 5~1KΩ@Vo-Vd=0~60V LEDH: 50~10KΩ@Vo-Vd=60~500V		LEDL: 0.25~125Ω@Vo-Vd=0~6V LEDL: 2.5~1.25KΩ@Vo-Vd=6~60V LEDM: 1.25~625Ω@Vo-Vd=0~30V LEDM: 12.5~6.25KΩ@Vo-Vd=30~300V LEDH: 2.5~1.25KΩ@Vo-Vd=0~60V LEDH: 25~12.5KΩ@Vo-Vd=60~500V		LEDL: 0.625~0.75KΩ@Vo-Vd=0~3V LEDL: 6.25~7.5KΩ@Vo-Vd=3~30V LEDM: 1.25~1.5KΩ@Vo-Vd=0~6V LEDM: 12.5~15KΩ@Vo-Vd=6~60V LEDH: 2.5~3KΩ@Vo-Vd=0~12V LEDH: 25~30KΩ@Vo-Vd=12~120V		LEDL: 0.1~120Ω@Vo-Vd=0~1.2V LEDL: 1~1.2KΩ@Vo-Vd=1.2~12V LEDM: 0.5~600Ω@Vo-Vd=0~12V LEDM: 5~6KΩ@Vo-Vd=12~60V LEDH: 1~1.2KΩ@Vo-Vd=0~60V LEDH: 10~12KΩ@Vo-Vd=60~120V	
Resolution	16Bits									
Accuracy	Vd : ± (0.05% OF SETTING + 0.1% OF RANGE), Rd : ± (0.05% OF SETTING + 0.1% OF RANGE)									
Dynamic Mode										
Timing										
THIGH & TLOW	0.050 ~ 9.999 / 99.99 / 999.9 / 9999mS									
Resolution	0.001 / 0.01 / 0.1 / 1mS									
Accuracy	1μS / 10μS / 100μS / 1mS + 50ppm									
Slew Rate	4.8~300mA/μS	19.2~1200mA/μS	2.4~150mA/μS	9.6~600mA/μS	4.8~300mA/μS	19.2~1200mA/μS	0.96~60mA/μS	3.84~240mA/μS	2.4~150mA/μS	9.6~600mA/μS
Resolution	1.2mA/μS	4.8mA/μS	0.6mA/μS	2.4mA/μS	1.2mA/μS	4.8mA/μS	0.24mA/μS	0.96mA/μS	0.6mA/μS	2.4mA/μS
Accuracy	± (5%OF SETTING) ±10μS									
Min. Rise Time	20μS (Typical)									
Current										
Range	0 ~ 6A 0 ~ 24A		0 ~ 3A 0 ~ 12A		0 ~ 6A 0 ~ 24A		0 ~ 1.2A 0 ~ 4A		0 ~ 3A 0 ~ 12A	
Resolution	0.1mA 0.4mA		0.05mA 0.2mA		0.1mA 0.4mA		0.02mA 0.08mA		0.05mA 0.2mA	
Accuracy	± 0.1% OF (SETTING + RANGE)									
Measurement										
Voltage Read Back										
Range	30V / 150V / 300V		60V / 300V / 500V		60V / 300V / 500V		30V / 60V / 120V		12V / 60V / 120V	
Resolution	0.5mV / 2.5mV / 5mV		1mV / 5mV / 10mV		1mV / 5mV / 10mV		0.5mV / 1mV / 2mV		0.2mV / 1mV / 2mV	
Accuracy	± 0.025% OF (READING + RANGE)									
Current Read Back										
Range	6A	24A	3A	12A	6A	24A	1.2A	4A	3A	12A
Resolution	0.1mA	0.4mA	0.05mA	0.2mA	0.1mA	0.4mA	0.02mA	0.08mA	0.05mA	0.2mA
Accuracy	± 0.1% OF (READING + RANGE)									
Power Read Back										
Range	300W		300W		300W		150W		300W	
Accuracy	± 0.1% OF (READING + RANGE)									
General										
Imonitor	2.4A/V		1.2A/V		2.4A/V		0.4A/V		1.2A/V	
Accuracy	± 0.5% OF (READING + RANGE)									
Short Signal Output	12V/100mAmax									
Dimming Control										
Level Range	0 ~ 12V									
Resolution	0.048V									
Accuracy	1% of (SETTING + RANGE)									
Frequency Range	DC ~ 1KHz						DC ~ 10KHz		DC ~ 1KHz	
Resolution	10Hz									
Duty Range	0.01 ~ 0.99 (1%~99%)						100Hz		0.01~0.99 (1%~99%)	
Resolution	0.01									
Temperature Coefficient	100ppm/°C (typical)									
Power	Supply from mainframe									
Operating Temperature*2	0 ~ 40°C									
Dimension(HxWxD)	143x108x405mm									
Weight	3.5kg									
Safety & EMC	CE									

Input AC Power : 115/230 Vac ±10% , 50/60Hz
Cooling : Advanced Fan Cooled

Note*1 : The range is automatically or forcing to range II only in CC Mode

Note*2 : Operating temperature range is 0~40°C , all specifications apply for 25°C±5°C

Order Information

LED DC Electronic Load Simulator

- ▶ 3341G 300V , 24A , 300W
- ▶ 3342G 500V , 12A , 300W
- ▶ 3343G 500V , 24A , 300W
- ▶ 3345G 120V , 4A , 150W
- ▶ 3346G 120V , 12A , 300W

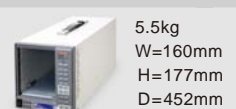


Optional Voltage : 600V
Load Module 3.5kg
W=108mm / H=143mm / D=405mm

LED mode DC Electronic Load Mainframe

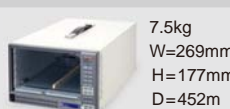
Optional Interface : ① GPIB Card ② RS232 Card ③ USB Card ④ LAN Card

3302G [single channel mainframe]



5.5kg
W=160mm
H=177mm
D=452mm

3305G [two channels mainframe]



7.5kg
W=269mm
H=177mm
D=452mm

3300G [four channels mainframe]



9.3kg
W=440mm
H=177mm
D=445mm

Option :
Fixture for short



Specifications

MODEL	33401G		33402G		33403G	
Power	150W × 2		75W × 2		150W × 2	
Current	0 ~ 1.5A	0 ~ 6A	0 ~ 0.6A	0 ~ 2A	0 ~ 1.5A	0 ~ 6A
Voltage	0 ~ 500V		0 ~ 120V		0 ~ 120V	
Min. Operating Voltage	4V @6A		3V @2A		1.8V @6A	
Constant Current Mode						
Range ^{*1}	0 ~ 1.5A	0 ~ 6A	0 ~ 0.6A	0 ~ 2A	0 ~ 1.5A	0 ~ 6A
Resolution	0.025mA	0.1mA	0.01mA	0.04mA	0.025mA	0.1mA
Accuracy	± 0.1% OF (SETTING + RANGE)					
Constant Resistance Mode						
Range	CRL:1Ω~3KΩ (300V)	CRH:2Ω~6KΩ (500V)	CRL:1.5Ω~1.5KΩ (60V)	CRH:3Ω~3KΩ (120V)	CRL:0.2Ω~2.4KΩ (60V)	CRH:0.4Ω~4.8KΩ (120V)
Resolution	16.666μS	8.333μS	33.33μS	16.66μS	83.333μS	41.666μS
Accuracy	± 0.2% OF (SETTING + RANGE)					
Constant Voltage Mode						
Range	60V / 300V / 500V		30V / 60V / 120V		12V / 60V / 120V	
Resolution	0.001V / 0.005V / 0.01V		0.0005V / 0.001V / 0.002V		0.2mV / 1mV / 2mV	
Accuracy	± 0.05% OF (SETTING + RANGE)					
LED Mode						
Vo Voltage Range	LEDL : 60V / LEDM : 300V / LEDH : 500V		LEDL : 30V / LEDM : 60V / LEDH : 120V		LEDL : 12V / LEDM : 60V / LEDH : 120V	
Rd Resistance Range	LEDL : 1 ~ 200Ω @ Vo-Vd = 0~6V LEDL : 10 ~ 2KΩ @ Vo-Vd = 6~60V LEDM : 5 ~ 1KΩ @ Vo-Vd = 0~30V LEDM : 50 ~ 10KΩ @ Vo-Vd = 30~300V LEDH : 10 ~ 2KΩ @ Vo-Vd = 0~60V LEDH : 100 ~ 20KΩ @ Vo-Vd = 60~500V		LEDL : 1.25 ~ 1.5KΩ @ Vo-Vd = 0~3V LEDL : 12.5 ~ 15KΩ @ Vo-Vd = 3~30V LEDM : 2.5 ~ 3KΩ @ Vo-Vd = 0~6V LEDM : 25 ~ 30KΩ @ Vo-Vd = 6~60V LEDH : 5 ~ 6KΩ @ Vo-Vd = 0~12V LEDH : 50 ~ 60KΩ @ Vo-Vd = 12~120V		LEDL : 0.2 ~ 240Ω @ Vo-Vd = 0~1.2V LEDL : 2 ~ 2.4KΩ @ Vo-Vd = 1.2~12V LEDM : 1 ~ 1.2KΩ @ Vo-Vd = 0~12V LEDM : 10 ~ 12KΩ @ Vo-Vd = 12~60V LEDH : 2 ~ 2.4KΩ @ Vo-Vd = 0~60V LEDH : 20 ~ 24KΩ @ Vo-Vd = 60~120V	
Resolution	16Bits					
Accuracy	Vd : ± (0.05% OF SETTING + 0.1% OF RANGE), Rd : ± (0.05% OF SETTING + 0.1% OF RANGE)					
Measurement						
Voltage Read Back						
Range	60V / 300V / 500V		30V / 60V / 120V		12V / 60V / 120V	
Resolution	1mV / 5mV / 10mV		0.5mV / 1mV / 2mV		0.2mV / 1mV / 2mV	
Accuracy	± 0.025% OF (READING + RANGE)					
Current Read Back						
Range	1.5A	6A	0.6A	2A	1.5A	6A
Resolution	0.025mA	0.1mA	0.01mA	0.04mA	0.025mA	0.1mA
Accuracy	± 0.1% OF (READING + RANGE)					
Power Read Back						
Range	150W		75W		150W	
Accuracy	± 0.1% OF (READING + RANGE)					
General						
Short Signal Output	12V / 100 mAmax					
Dimming Control						
Level Range	0 ~ 12V					
Resolution	0.048V					
Accuracy	1% of (SETTING + RANGE)					
Frequency Range	DC ~ 1KHz		DC ~ 10KHz		DC ~ 1KHz	
Resolution	10Hz		100Hz		10Hz	
Duty Range	0.01 ~ 0.99 (1%~99%)		0.1 ~ 0.9 (10%~90%)		0.01 ~ 0.99 (1%~99%)	
Resolution	0.01		0.1		0.01	
Temperature Coefficient	100ppm/°C (typical)					
Power	Supply from mainframe					
Operating Temperature ^{*2}	0 ~ 40°C					
Dimension(HxWxD)	143x108x405mm					
Weight	3.5kg					
Safety & EMC	CE					

Input AC Power : 115/230 Vac ±10% , 50/60Hz
Cooling : Advanced Fan Cooled

Note*1 : The range is automatically or forcing to range II only in CC Mode

Note*2 : Operating temperature range is 0~40°C , all specifications apply for 25°C±5°C

Order Information

LED DC Electronic Load Simulator

33401G 500V , 6A , 150Wx2
33402G 120V , 2A , 75Wx2
33403G 120V , 6A , 150Wx2



Load Module
3.5kg
W=108mm
H=143mm
D=412mm

LED mode DC Electronic Load Mainframe

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

3302G [single channel mainframe]



5.5kg
W=160mm
H=177mm
D=452mm

3305G [two channels mainframe]



7.5kg
W=269mm
H=177mm
D=452mm

3300G [four channels mainframe]



9.3kg
W=440mm
H=177mm
D=445mm

Option :

Fixture for short

**33401G / 33402G
33403G**

