

With Synchronic parallel control capability, 6330A series loads allow users to parallel and synchronize more than one load together from an internal loading control signal. This feature provides synchronic dynamic loading test for multi-output power and high power test solution.

KEY FEATURES

- Improve operating speeds of load for auto test system integration
- Synchronous paralleling control mode, allow Synchronous load control under static and dynamic Loading mode up to 6000W
- Up to 8 channels in one mainframe, fit for testing Multiple output SMPS.
- GPIB, RS-232 & USB Interfaces
- Max Power: 200W, 100W x 2(Dual), 30W&250W, 300W, 350W, 600W, 1200W
- Voltage Range: 0~80V/0~120V/0~500V/0~600V
- CC, CR, CV, CP operating modes
- Dynamic loading with speed up to 20kHz
- Programmable slew rate, up to 10A/μs
- Only need 0.6V to draw rated current (63323A)
- Individual panel meters
- Real time power supplies load transient response simulation and output measurement
- 16-bit precision voltage and measurement with dual-range selection
- Remote sensing capability
- Short circuit test
- Self-test at power-on
- CE marking

Chroma Model 6330A series high speed DC electronic improves CPU clock, baud rate, parser and added synchronic parallel function for fast operation, which is ideal for auto test system integration to increase your manufacturing test throughput. Plugging the user selectable load modules into the system mainframe can also provide easy system configuration and future reconfiguration configure the system.

The 6330A family offers 12 types of modular loads with power ranging from 30 watts to 1200 watts, current from 0.5mA to 240A, and voltage measurement from 0.5mV to 500V. Each load is isolated and floating, programmable in dual current range and measuring voltage range, and capable of synchronizing with other modules for control operating. The load can be operated in constant current, constant voltage, and constant resistance.

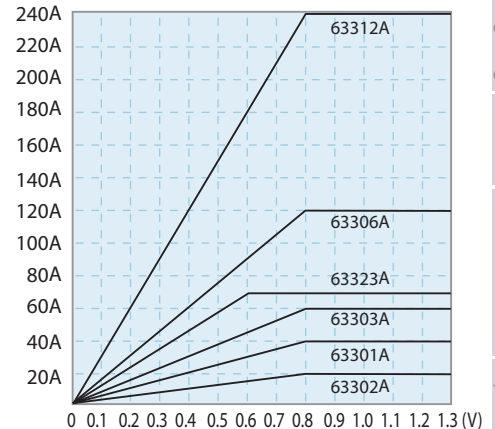
Real time measurement of voltage, current, is integrated into each 6330A load module using a 16-bit precision measurement circuit. The user can perform on line voltage measurement and adjustment, or simulate short circuit test using the simple keypad on the front panel.

The 6330A have self-diagnosis routine to maintain instrumental performance all the time. It is also protected against OP, OC, OT protection, and alarm indicating OV, reverse polarity to guarantee quality and reliability for even the most demanding engineering testing and ATE application.

The FET technology accomplishes minimum input resistance and enables the load to sink high current even at very low voltage. For example, 120V model 63303A is capable of sinking 60A at 1V output, and well-suited for testing the new 3V low voltage power supplies. Low voltage operation, down to zero volt, is possible at correspondingly reduced current level. (see below)

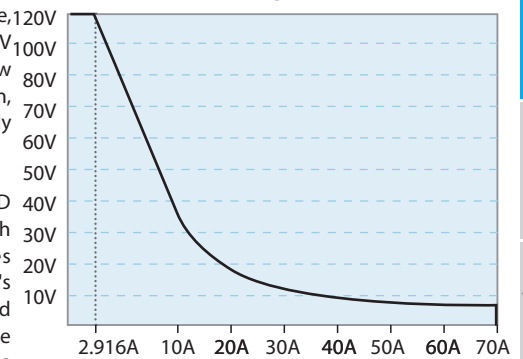
Chroma has created the industries first LED Load Simulator for simulating LED loading with our 63310A load model from our 6330A series Electronic Loads. By setting the LED power driver's output voltage, and current, the Electronic Load can simulate the LED's loading characteristics. The LED's forward voltage and operating resistance can also be set to further adjust the loading current and ripple current to better simulate LED characteristics. The 63310A design also has increased bandwidth to allow for PWM dimming testing.

Low Voltage Characteristics (Typical)
Model 63301A/63302A/63303A/
63306A/63312A/63323A

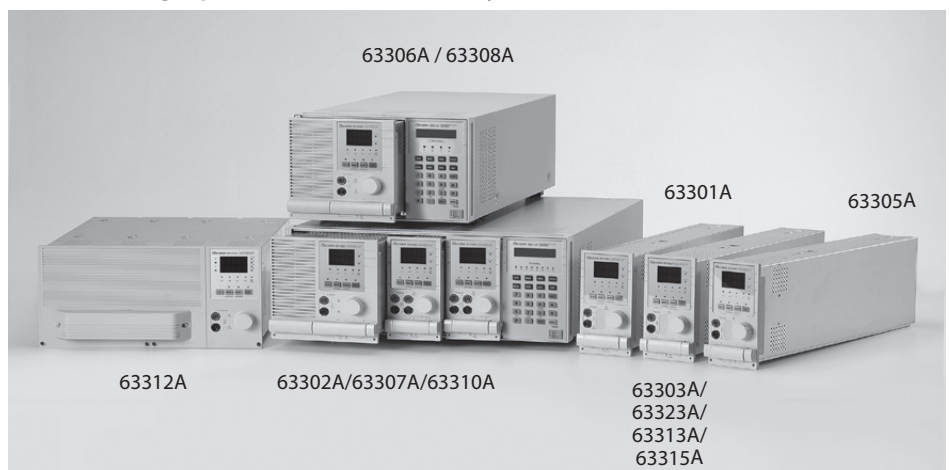


Note: All specifications are measured at load input terminals. (Ambient Temperature of 25°C)

Model 63323A Input Characteristics



6330A Series High Speed DC Electronic Load Family



SPECIFICATIONS-1						
Model	63301A		63302A (100Wx2)		63303A	
Power	20W	200W	20W	100W	30W	300W
Current	0~4A	0~40A	0~2A	0~20A	0~6A	0~60A
Voltage *3	0~80V		0~80V		0~80V	
Min. Operation Voltage (DC) *1 (Typical)	0.4V@2A 0.8V@4A	0.4V@20A 0.8V@40A	0.4V@1A 0.8V@2A	0.4V@10A 0.8V@20A	0.4V@3A 0.8V@6A	0.4V@30A 0.8V@60A
Constant Current Mode						
Range	0~4A	0~40A	0~2A	0~20A	0~6A	0~60A
Resolution	1mA	10mA	0.5mA	5mA	1.5mA	15mA
Accuracy	0.1%+0.1%F.S.	0.1%+0.2%F.S.	0.1%+0.1%F.S.	0.1%+0.2%F.S.	0.1%+0.1%F.S.	0.1%+0.2%F.S.
Constant Resistance Mode						
Range	0.0375 Ω ~150 Ω (200W/16V) 1.875 Ω ~7.5k Ω (200W/80V)		0.075 Ω ~300 Ω (100W/16V) 3.75 Ω ~15k Ω (100W/80V)		0.025 Ω ~100 Ω (300W/16V) 1.25 Ω ~5k Ω (300W/80V)	
Resolution*5	6.667mS (200W/16V) 133μS (200W/80V)		3.333mS (100W/16V) 66.667μS (100W/80V)		10mS (300W/16V) 200μS (300W/80V)	
Accuracy	150 Ω : 0.1S + 0.2% 7.5k Ω : 0.01S + 0.1%		300 Ω : 0.1S + 0.2% 15k Ω : 0.01S + 0.1%		100 Ω : 0.1S + 0.2% 5k Ω : 0.01S + 0.1%	
Constant Voltage Mode						
Range	0~80V		0~80V		0~80V	
Resolution	20mV		20mV		20mV	
Accuracy	0.05% + 0.1%F.S.		0.05% + 0.1%F.S.		0.05% + 0.1%F.S.	
Constant Power Mode						
Range	0~20W	0~200W	0~20W	0~100W	0~30W	0~300W
Resolution	5mW	50mW	5mW	25mW	7.5mW	75mW
Accuracy	0.5% + 0.5%F.S.		0.5% + 0.5%F.S.		0.5% + 0.5%F.S.	
Dynamic Mode						
Dynamic Mode	C.C. Mode		C.C. Mode		C.C. Mode	
T1 & T2	0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms		0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms		0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms	
Accuracy	1μs/1ms+100ppm		1μs/1ms+100ppm		1μs/1ms+100ppm	
Slew Rate	0.64~160mA/μs	6.4~1600mA/μs	0.32~80mA/μs	3.2~800mA/μs	0.001~0.25A/μs	0.01~2.5A/μs
Resolution	0.64mA/μs	6.4mA/μs	0.32mA/μs	3.2mA/μs	0.001A/μs	0.01A/μs
Accuracy	10% ± 20μs		10% ± 20μs		10% ± 20μs	
Min. Rise Time	10μs (Typical)		10μs (Typical)		10μs (Typical)	
Current	0~4A	0~40A	0~2A	0~20A	0~6A	0~60A
Resolution	1mA	10mA	0.5mA	5mA	1.5mA	15mA
Accuracy	0.4%F.S.		0.4%F.S.		0.4%F.S.	
Measurement Section						
Voltage Read Back						
Range	0~16V	0~80V	0~16V	0~80V	0~16V	0~80V
Resolution	0.25mV	1.25mV	0.25mV	1.25mV	0.25mV	1.25mV
Accuracy	0.025% + 0.025%F.S.		0.025% + 0.025%F.S.		0.025% + 0.025%F.S.	
Current Read Back						
Range	0~4A	0~40A	0~2A	0~20A	0~6A	0~60A
Resolution	0.0625mA	0.625mA	0.03125mA	0.3125mA	0.09375mA	0.9375mA
Accuracy	0.05% + 0.05%F.S.		0.05% + 0.05%F.S.		0.05% + 0.05%F.S.	
Power Read Back*2						
Range	0~20W	0~200W	0~20W	0~100W	0~30W	0~300W
Accuracy	0.1% + 0.1%F.S.		0.1% + 0.1%F.S.		0.1% + 0.1%F.S.	
Protective Section						
Over Power Protection	Yes		Yes		Yes	
Over Current Protection	Yes		Yes		Yes	
Over Temperature Protection	Yes		Yes		Yes	
Over Voltage Alarm*3	Yes		Yes		Yes	
General						
Short Circuit						
Current (CC)	-	≒ 40A	-	≒ 20A	-	≒ 60A
Voltage (CV)	-	0V	-	0V	-	0V
Resistance (CR)	-	≒ 0.0375 Ω	-	≒ 0.075 Ω	-	≒ 0.025 Ω
Power (CP)	-	≒ 200W	-	≒ 100W	-	≒ 300W
Input Resistance (Load Off)	100k Ω (Typical)		100k Ω (Typical)		100k Ω (Typical)	
Temperature Coefficient	100PPM/°C (Typical)		100PPM/°C (Typical)		100PPM/°C (Typical)	
Power	Supply from 6334A Mainframe		Supply from 6334A Mainframe		Supply from 6334A Mainframe	
Dimension (H x W x D)	172x82x489.5mm / 6.8x3.2x19.3inch		172x82x489.5mm / 6.8x3.2x19.3inch		172x82x489.5mm / 6.8x3.2x19.3inch	
Weight	4.2 kg / 9.3 lbs		4.2 kg / 9.3 lbs		4.2 kg / 9.3 lbs	
Operating Range	0~40°C		0~40°C		0~40°C	
EMC & Safety	CE		CE		CE	

SPECIFICATIONS-2				
Model	63305A		63306A	
Power	30W	300W	60W	600W
Current	0~1A	0~10A	0~12A	0~120A
Voltage*3	0~500V		0~80V	
Min. Operation Voltage (DC) *1 (Typical)	1.0V@0.5A 2.0V@1A	1.0V@5A 2.0V@10A	0.4V@6A 0.8V@12A	0.4V@60A 0.8V@120A
Constant Current Mode				
Range	0~1A	0~10A	0~12A	0~120A
Resolution	0.25mA	2.5mA	3mA	30mA
Accuracy	0.1%+0.1%F.S.	0.1%+0.2%F.S.	0.1%+0.1%F.S.	0.1%+0.2%F.S.
Constant Resistance Mode				
Range	1.25 Ω ~ 5k Ω (300W/125V) 50 Ω ~ 200k Ω (300W/500V)		12.5m Ω ~ 50 Ω (600W/16V) 0.625 Ω ~ 2.5k Ω (600W/80V)	
Resolution*5	200μS (300W/125V) 5μS (300W/500V)		20mS (600W/16V) 400μS (600W/80V)	
Accuracy	5k Ω : 20mS + 0.2% 200k Ω : 5mS + 0.1%		50 Ω : 0.4S + 0.5% 2.5k Ω : 0.04S + 0.2%	
Constant Voltage Mode				
Range	0~500V		0~80V	
Resolution	125mV		20mV	
Accuracy	0.05% + 0.1%F.S.		0.05% + 0.1%F.S.	
Constant Power Mode				
Range	0~30W	0~300W	0~60W	0~600W
Resolution	7.5mW	75mW	15mW	150mW
Accuracy	0.5% + 0.5%F.S.		0.5% + 0.5%F.S.	
Dynamic Mode				
Dynamic Mode	C.C. Mode		C.C. Mode	
T1 & T2	0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms		0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms	
Accuracy	1μs/1ms+100ppm		1μs/1ms+100ppm	
Slew Rate	0.16~40mA/μs	1.6~400mA/μs	0.002~0.5A/μs	0.02~5A/μs
Resolution	0.16mA/μs	1.6mA/μs	0.002A/μs	0.02A/μs
Accuracy	10% ± 20μs		10% ± 20μs	
Min. Rise Time	24μs (Typical)		10μs (Typical)	
Current	0~1A	0~10A	0~12A	0~120A
Resolution	0.25mA	2.5mA	3mA	30mA
Accuracy	0.4%F.S.		0.4%F.S.	
Measurement Section				
Voltage Read Back				
Range	0~125V	0~500V	0~16V	0~80V
Resolution	2mV	8mV	0.25mV	1.25mV
Accuracy	0.025% + 0.025%F.S.		0.025% + 0.025%F.S.	
Current Read Back				
Range	0~1A	0~10A	0~12A	0~120A
Resolution	0.016mA	0.16mA	0.1875mA	1.875mA
Accuracy	0.05% + 0.05%F.S.		0.05% + 0.05%F.S.	
Power Read Back*2				
Range	0~30W	0~300W	0~60W	0~600W
Accuracy	0.1% + 0.1%F.S.		0.1% + 0.1%F.S.	
Protective Section				
Over Power Protection	Yes		Yes	
Over Current Protection	Yes		Yes	
Over Temperature Protection	Yes		Yes	
Over Voltage Alarm*3	Yes		Yes	
General				
Short Circuit				
Current (CC)	-	≒ 10A	-	≒ 120A
Voltage (CV)	-	0V	-	0V
Resistance (CR)	-	≒ 1.25 Ω	-	≒ 0.0125 Ω
Power (CP)	-	≒ 300W	-	≒ 600W
Input Resistance (Load Off)	100k Ω (Typical)		100k Ω (Typical)	
Temperature Coefficient	100PPM/°C (Typical)		100PPM/°C (Typical)	
Power	Supply from 6334A Mainframe		Supply from 6334A Mainframe	
Dimension (HxWxD)	172x82x489.5mm / 6.8x3.2x19.3inch		172x164x489.5mm / 6.8x6.5x19.3inch	
Weight	4.2 kg / 9.3 lbs		7.3 kg / 16.1 lbs	
Operating Range	0~40°C		0~40°C	
EMC & Safety	CE		CE	

SPECIFICATIONS-3					
Model	63307A (30W & 250W)			63308A	
Power	30W	30W	250W	60W	600W
Current	0~5A	0~4A	0~40A	0~2A	0~20A
Voltage*3	0~80V			0~500V	
Min. Operation Voltage (DC) *1 (Typical)	0.4V@2.5A 0.8V@5A	0.4V@2A 0.8V@4A	0.4V@20A 0.8V@40A	1.0V@1A 2V@2A	1.0V@10A 2V@20A
Constant Current Mode					
Range	0~5A	0~4A	0~40A	0~2A	0~20A
Resolution	1.25mA	1mA	10mA	0.5mA	5mA
Accuracy	0.1%+0.1%F.S.	0.1%+0.1%F.S.	0.1%+0.2%F.S.	0.1%+0.1%F.S.	0.1%+0.2%F.S.
Constant Resistance Mode					
Range	0.3Ω~1.2kΩ (30W/16V) 15Ω~60kΩ (30W/80V)	0.0375Ω~150Ω (250W/16V) 1.875Ω~7.5kΩ (250W/80V)		0.625Ω~2.5kΩ (600W/125V) 25Ω~100kΩ (600W/500V)	
Resolution*5	833μS (30W/16V) 16.67μS (30W/80V)	6.667μS (250W/16V) 133μS (250W/80V)		400μS (600W/125V) 10μS (600W/500V)	
Accuracy	1.2kΩ: 0.1S + 0.2% 60kΩ: 0.01S + 0.1%	150Ω: 0.1S + 0.2% 7.5kΩ: 0.01S + 0.1%		25kΩ: 50mS + 0.2% 100kΩ: 5mS + 0.1%	
Constant Voltage Mode					
Range	0~80V			0~500V	
Resolution	20mV			125mV	
Accuracy	0.05% + 0.1%F.S.			0.05% + 0.1%F.S.	
Constant Power Mode					
Range	0~30W	0~30W	0~250W	0~60W	0~600W
Resolution	7.5mW	7.5mW	62.5mW	15mW	150mW
Accuracy	0.5% + 0.5%F.S.			0.5% + 0.5%F.S.	
Dynamic Mode					
Dynamic Mode	C.C. Mode			C.C. Mode	
T1 & T2	0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms			0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms	
Accuracy	1μs/1ms+100ppm			1μs/1ms+100ppm	
Slew Rate	0.8~200mA/μs	0.64~160mA/μs	64~1600mA/μs	0.32~80mA/μs	3.2~800mA/μs
Resolution	0.8mA/μs	0.64mA/μs	64mA/μs	0.32mA/μs	3.2mA/μs
Accuracy	10% ± 20μs			10% ± 20μs	
Min. Rise Time	10μs (Typical)			24μs (Typical)	
Current	0~5A	0~4A	0~40A	0~2A	0~20A
Resolution	1.25mA	1mA	10mA	0.5mA	5mA
Accuracy	0.4%F.S.			0.4%F.S.	
Measurement Section					
Voltage Read Back					
Range	0~16V	0~80V	0~16V	0~80V	0~125V
Resolution	0.25mV	1.25mV	0.25mV	1.25mV	2mV
Accuracy	0.025% + 0.025%F.S.			0.025% + 0.025%F.S.	
Current Read Back					
Range	0~5A	0~4A	0~40A	0~2A	0~20A
Resolution	0.078125mA	0.0625mA	0.625mA	0.03125mA	0.3125mA
Accuracy	0.05% + 0.05%F.S.			0.05% + 0.05%F.S.	
Power Read Back*2					
Range	0~30W	0~30W	0~250W	0~60W	0~600W
Accuracy	0.1% + 0.1%F.S.			0.1% + 0.1%F.S.	
Protective Section					
Over Power Protection	Yes			Yes	
Over Current Protection	Yes			Yes	
Over Temperature Protection	Yes			Yes	
Over Voltage Alarm*3	Yes			Yes	
General					
Short Circuit					
Current (CC)	-	-	≒ 40A	-	≒ 20A
Voltage (CV)	-	-	0V	-	0V
Resistance (CR)	-	-	≒ 0.0375Ω	-	≒ 0.625Ω
Power (CP)	-	-	≒ 250W	-	≒ 600W
Input Resistance (Load Off)	100kΩ (Typical)				
Temperature Coefficient	100PPM/°C (Typical)				
Power	Supply from 6334A Mainframe				
Dimension (HxWxD)	172x82x489.5mm / 6.8x3.2x19.3inch			172x164x489.5mm / 6.8x6.5x19.3inch	
Weight	4.5 kg / 9.9 lbs			7.3 kg / 16.1 lbs	
Operating Range	0~40°C				
EMC & Safety	CE				

SPECIFICATIONS-4				
Model	63312A		63323A	
Power	120W	1200W	350W	
Current	0~24A	0~240A	0~7A	0~70A
Voltage*3	0~80V		0~120V	
Min. Operation Voltage (DC)*1 (Typical)	0.4V@12A	0.4V@120A	0.05V @ 3.5A	0.3V @ 35A
	0.8V@24A	0.8V@240A	0.1V @ 7A	0.6V @ 70A
Constant Current Mode				
Range	0~24A	0~240A	0~7A	0~70A
Resolution	6mA	60mA	0.125mA	1.25mA
Accuracy	0.1%+0.1%F.S.	0.1%+0.2%F.S.	0.1%+0.1%F.S.	0.1%+0.1%F.S.
Constant Resistance Mode				
Range	6.25mΩ~25Ω (1200W/16V) 0.3125Ω~1.25kΩ (1200W/80V)		0.015Ω~150Ω (350W/24V)*4 2Ω~2kΩ (350W/120V)	
Resolution*5	40mS (1200W/16V) 80μS (1200W/80V)		1.33mS (350W/24V)*4 10μS (350W/120V)	
Accuracy	25Ω: 0.8S+ 0.8% 1.25kΩ: 0.08S+ 0.2%		150Ω: 67mS + 0.1% 2kΩ: 5mS + 0.2%	
Constant Voltage Mode				
Range	0~80V		0~120V	
Resolution	20mV		2mV	
Accuracy	0.05% + 0.1%F.S.		0.05% + 0.1%F.S.	
Constant Power Mode				
Range	0~120W	0~1200W	0~35W	0~350W
Resolution	30mW	300mW	2.5mW	25mW
Accuracy	0.5% + 0.5%F.S.		0.5% + 0.5%F.S.	
Dynamic Mode				
Dynamic Mode	C.C. Mode		C.C. MODE	
T1 & T2	0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms		0.025ms~50ms/Res: 5μs 0.1ms~500ms / Res: 25μs 10ms~50s / Res: 2.5ms	
Accuracy	1μs/1ms+100ppm		1μs /1ms+100ppm	
Slew Rate	0.004~1A/μs	0.04~10A/μs	0.001~0.25A/μs	0.01~2.5A/μs
Resolution	0.004A/μs	0.04A/μs	0.001A/μs	0.01A/μs
Accuracy	10% ± 20μs		10% ± 20μs	
Min. Rise Time	10μs (Typical)		25μs (Typical) *6	
Current	0~24A	0~240A	0~7A	0~70A
Resolution	6mA	60mA	0.125mA	1.25mA
Current Accuracy	0.4%F.S.		0.1% F.S.	
Measurement Section				
Voltage Read Back				
Range	0~16V	0~80V	0~24V	0~120V
Resolution	0.25mV	1.25mV	0.4mV	2mV
Accuracy	0.025% + 0.025%F.S.		0.025%+0.015% F.S.	
Current Read Back				
Range	0~24A	0~240A	0~7A	0~70A
Resolution	0.375mA	3.75mA	0.125mA	1.25mA
Accuracy	0.075% + 0.075%F.S.		0.04%+0.04% F.S.	
Power Read Back*2				
Range	0~120W	0~1200W	0~35W	0~350W
Accuracy	0.1% + 0.1%F.S.		0.1%+0.1% F.S.	
Protective Section				
Over Power Protection	Yes		Yes	
Over Current Protection	Yes		Yes	
Over Temperature Protection	Yes		Yes	
Over Voltage Alarm*3	Yes		Yes	
General				
Short Circuit				
Current (CC)	-	≒ 240A	-	≒ 70A
Voltage (CV)	-	0V	-	0V
Resistance (CR)	-	≒ 0.00625 Ω	-	≒ 0.01 Ω
Power (CP)	-	≒ 1200W	-	≒ 350W
Input Resistance (Load Off)	100kΩ (Typical)		800kΩ (Typical)	
Temperature Coefficient	100PPM/°C (Typical)		100PPM/°C (Typical)	
Power	Supply from 6334A Mainframe		Supply from 6334A Mainframe	
Dimension (HxWxD)	172x329x495mm / 6.8x12.9x19.5inch		172x82x489.5mm / 6.8x3.2x19.3inch	
Weight	14 kg / 30.8 lbs		4.2kg / 9.3 lbs	
Operating Range	0~40°C		0~40°C	
EMC & Safety	CE		CE	

NOTE*1 : Low voltage operation, under 0.8 volt, is possible at correspondingly reduced current level. Operating temperature range is 0°C to 40°C. All specifications apply for 25°C ± 5°C, except as noted

NOTE*2 : Power F.S.=Vrange F.S. x Irange F.S.

NOTE*3 : When the operating voltage exceeds the rated voltage for 1.02 times, a warning will occur and if it exceeds 1.1 times of the rated voltage, it would cause permanent damage to the device.

NOTE*4 : Please refer to user's manual for detail specifications.

NOTE*5 : S (siemens) is the SI unit of conductance, equal to one reciprocal ohm.

NOTE*6 : The loading current should be 0.35A at least.

ORDERING INFORMATION

6332A: Mainframe for 2 Load Modules
6334A: Mainframe for 4 Load Modules
63301A: Load Module 80V/40A/200W
63302A: Load Module 80V/20A/100W x 2
63303A: Load Module 80V/60A/300W
63305A: Load Module 500V/10A/300W
63306A: Load Module 80V/120A/600W
63307A: Load Module 80V/5A & 40A/30W & 250W
63308A: Load Module 500V/20A/600W
63312A: Load Module 80V/240A/1200W
63323A: Load Module 120V/70A/350W
A631000: GPIB Interface for Model 6334A/6332A Mainframe
A631001: Remote Controller
A631003: USB Interface for Model 6334A/6332A Mainframe
A631005: Softpanel for 6310A/6330A series
A631006: Rack Mounting Kit for Model 6332A Mainframe
A631007: Rack Mounting Kit for Model 6334A Mainframe
A632004: Sync. Link Box for 6330A/63200 Series
A800042: Test Fixture
LED Load Simulator for LED Driver Test
63310A: Load Module 500V/2A/100W x 2
63313A: Load Module 300V/20A/300W
63315A: Load Module 600V/20A/300W



SPECIFICATIONS						
Model	63310A (100Wx2)		63313A		63315A	
Power	100W		300W		300W	
Current	0~0.6A	0~2A	0~5A	0~20A	0~5A	0~20A
Voltage *1	0~500V		0~300V		0~600V	
Min. Operating Voltage	6V@2A		4V@20A		4V@20A	
Constant Current Mode						
Range	0~0.6A	0~2A	0~5A	0~20A	0~5A	0~20A
Resolution	12μA	40μA	100μA	400μA	100μA	400μA
Accuracy	0.1%+0.1% F.S.		0.1%+0.1% F.S.	0.1%+0.2% F.S.	0.1%+0.1% F.S.	0.1%+0.2% F.S.
Constant Resistance Mode						
Range	CRL : 3 Ω ~1k Ω (100W/100V) CRH : 10 Ω ~10k Ω (100W/500V)		CRL @ CH : 0.2 Ω ~200 Ω (300W/60V) CRL @ CL : 0.8 Ω ~800 Ω (300W/60V) CRH @ CL : 4 Ω ~4k Ω (300W/300V)		CRL @ CH : 0.2 Ω ~200 Ω (300W/60V) CRL @ CL : 0.8 Ω ~800 Ω (300W/60V) CRH @ CL : 8 Ω ~8k Ω (300W/600V)	
Resolution*2	CRL : 62.5μS CRH : 6.25μS		CRL @ CH : 100μS CRL @ CL : 25μS CRH @ CL : 5μS		CRL @ CH : 100μS CRL @ CL : 25μS CRH @ CL : 2.5μS	
Accuracy	1k Ω : 4mS+0.2% 10k Ω : 1mS+0.1%		0.2% (setting + range)		0.2% (setting + range)	
Constant Voltage Mode						
Range	0~500V		0~300V		0~600V	
Resolution	20mV		6mV		12mV	
Accuracy	0.05% + 0.1%F.S.		0.05% + 0.1%F.S.		0.05% + 0.1%F.S.	
LED Mode						
Range	Operating Voltage: 0~100V/0~500V R _d Coefficient : 0.001~1 V _F : 0~100V/0~500V Current : 0~2A R _d : 1 Ω ~1k Ω /10 Ω ~10k Ω		Operating Voltage : 0~60V/0~300V R _d Coefficient : 0.001~1 V _F : 0~60V/0~300V LEDL @ CH : 0~60V- 0~20A (R _d : 0.05 Ω ~50 Ω) LEDL @ CL : 0~60V- 0~5A (R _d : 0.8 Ω ~800 Ω) LEDH @ CL : 0~300V- 0~5A (R _d : 4 Ω ~4k Ω)		Operating Voltage : 0~60V/0~600V R _d Coefficient : 0.001~1 V _F : 0~60V/0~600V LEDL @ CH : 0~60V- 0~20A (R _d : 0.05 Ω ~50 Ω) LEDL @ CL : 0~60V- 0~5A (R _d : 0.8 Ω ~800 Ω) LEDH @ CL : 0~600V- 0~5A (R _d : 8 Ω ~8k Ω)	
Resolution *2	V _o : 4mV/20mV I _o : 0.1mA R _d Coefficient : 0.001 R _d : 62.5μS/6.25μS V _F : 4mV/20mV		V _o : 1.2mV/6mV I _o : 100μA/400μA R _d Coefficient : 0.001 R _d : 400μS / 25μS / 5μS V _F : 1.2mV/ 6mV		V _o : 1.2mV/12mV I _o : 100μA/400μA R _d Coefficient : 0.001 R _d : 400μS/25μS/2.5μS V _F : 6mV/ 60mV	
Dynamic Mode						
Dynamic Mode	--		C.C. Mode		C.C. Mode	
T1 & T2	--		0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms		0.025ms ~ 50ms / Res: 5μs 0.1ms ~ 500ms / Res: 25μs 10ms ~ 50s / Res: 2.5ms	
Accuracy	--		1μs/1ms+100ppm		1μs/1ms+100ppm	
Slew Rate	--		0.8~200mA/μs 3.2~800mA/μs		0.8~200mA/μs 3.2~800mA/μs	
Resolution	--		0.8mA/μs 3.2mA/μs		0.8mA/μs 3.2mA/μs	
Accuracy	--		10% ±20μs		10% ±20μs	
Min. Rise Time	--		25μs (Typical)		25μs (Typical)	
Current	--		0~5A 0~20A		0~5A 0~20A	
Resolution	--		100μA 400μA		100μA 400μA	
Accuracy	--		0.4%F.S.		0.4%F.S.	
Measurement Section						
Voltage Read Back						
Range	0~100V	0~500V	0~60V	0~300V	0~60V	0~600V
Resolution	2mV	10mV	1.2mV	6mV	1.2mV	12mV
Accuracy	0.025%+0.025% F.S.		0.025%+0.025% F.S.		0.025%+0.025% F.S.	
Current Read Back						
Range	0~0.6A	0~2A	0~5A	0~20A	0~5A	0~20A
Resolution	12μA	40μA	100μA	400μA	100μA	400μA
Accuracy	0.05%+0.05% F.S.		0.05%+0.05% F.S.		0.05%+0.05% F.S.	

NOTE*1 : If the operating voltage exceeds 1.1 times of the rated voltage, it would cause permanent damage to the device.

NOTE*2 : S (siemens) is the SI unit of conductance, equal to one reciprocal ohm.

Mainframe Model	6332A	6334A
Number of slots	2	4
Operating Temperature	0~40°C	
Input Rating	1Ø 100/200Vac ± 10% V _{LN} , 47~63Hz ; 1Ø 115/230Vac ± 10% V _{LN} , 47~63Hz	
Dimension (HxWxD)	194x275x550mm / 7.6x10.8x21.7inch	
Weight	15 kg / 33.1 lbs	