

PROGRAMMABLE DC ELECTRONIC LOAD MODEL 63200 SERIES

The Chroma Electronic Loads 63200 series are designed for DC power source, power electronic devices and components testing. The high power rating, parallel and synchronization capabilities make them the ideal tool for testing the high power UUT such as SMR, UPS, battery, and fuel cell.

The 63200 series offers 10 different models with power range from 2600 watts to 15600 watts, current from 50A to 1000A and up to 500V input voltage. The 4 load modes setup provide different load simulations for various application occasions. The CC/CR modes are designed to test constant voltage type of power supply. CV mode is used to test battery charger and current source, while CP mode is ideal for battery testing by simulating the real discharge curve.

The 63200 series can draw its rated current under very low voltage (1V typical) even under the highest specified slew rate. This unique feature guarantees the best loading performance to a low voltage power supply.

With the unique external waveform simulation

and Master / Slave control capability, the 63200 series electronic loads allow users to parallel and synchronize more than one load together from an internal or external loading control signal. This feature provides unlimited load simulation and the possibility of power expansion.

The 63200 series also supply necessary measurement functions and short circuit simulation that extend the test capability for even the most demanding engineering tests and ATE applications.

With the LCD display and rotary knob, the 63200 electronic loads offer versatile front panel operations. Users are able to control the 63200 family remotely via GPIB, RS-232C or APG (Analog Programming) interface.

Chroma 63200 series loads are built in fan speed control to minimize the audio noise. The self-diagnosis routine and the full protections against OPP, OCP, OVP, OTP and reverse polarity ensure the best quality and reliability.

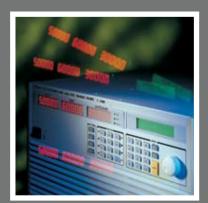
RS-232C' SPIB

Programmable DC Electronic Load

MODEL 63200 SERIES

Key Features:

- Power Rating : 2600W, 5200W, 6500W, 10400W, 14500W, 15600W
- Voltage range: 1-80V / 2.5-500V
- Current range : Up to 1000A
- CC, CR, CV, CP load modes
- Master/Slave paralleling control mode, allow synchronous load control under static and dynamic loading mode
- Dynamic loading: Up to 20kHz
- Only need 1V to draw rated current
- Programmable slew rate, up to $41A/\mu$ S
- Measurement : Voltage / Current / Power / Resistance
- Large LED / LCD display
- External loading waveform simulation
- Short circuit simulation and short circuit current measurement
- Full protection : OP, OC, OV, OT and reverse protection
- Versatile remote controller
- GPIB & RS-232C interface
- Surge load capability
- Battery discharge timer

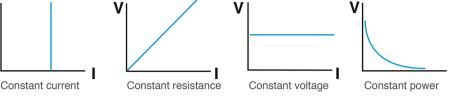




1. APPLICATION SPECIFIC LOAD SIMULATION

Chroma electronic loads 63200 series provide constant current, constant resistance, constant voltage and constant power modes for various application requirements.

The CC and CR mode loading simulation is helpful to test whether the output voltage of the UUT remains stable or regulated under different loading current or resistance conditions. For battery chargers,

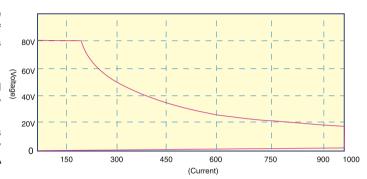


CV mode may help to change the output voltage of a charger and therefore can test if the battery charger has correct charging current corresponding to its own output, or more precisely, the battery voltage. If the UUT is battery, the electronic load is able to simulate the behavior of the device that uses the battery. For most of the electronic and electrical devices, their power consumption patterns are more likely constant power devices. Consequently, CP mode simulation will be essential for a battery discharge load.

2. LOW VOLTAGE OPERATING CHARACTERISTICS

For high power load, its high loading current may cause dramatic line drop between UUT and load terminal due to the line impedance of cabling. So, the lower operating voltage allows the 63200 series loads to draw sufficient current from a low volt output power supply directly.

Meanwhile, 63200 series loads use current close loop design, and connect all power MOSFET devices in parallel to insure high accuracy load control with minimum drift less than 0.15% of the current setting. The MOSFET technology accomplishes the input impedance to a minimum that enables the load to draw very high current even at very low voltage. For example, model 63209 is capable of drawing 1000A at only 1V input.



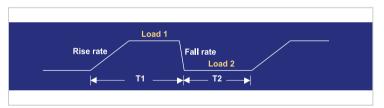
Model 63209(15600W) Input Characteristics

3. MEASUREMENTS

Chroma 63200 series are built in the 15-bits precision A/D converter, thus can achieve 0.05%F.S., 0.1%F.S. and 0.3%F.S. accuracy for voltage, current and power measurement respectively. And they can be shown simultaneously on three big LED displays for user's convenience. In additional to standard measurements, they also provide voltage and current monitor outputs, which are useful when user needs to monitor the voltage and current waveform via scope.

4. DYNAMIC LOADING AND CONTROL

Modern electronic devices operate at very high speed, thus,it is important for an electronic load to perform well in the transient and dynamic response of power devices. To satisfy these testing applications, the 63200 loads offer high speed, programmable dynamic load simulation and control capability ever achieved before. The figure below shows the programmable parameters of the 63200 load modules. The programmable slew rate makes the



simulation of transient load change demanded by the requirement of real life application possible. The internal waveform generator of 63200 is capable of producing maximum slew rate at 25A/uS (63208), and dynamic cycling up to 20KHz. Its dedicated remote load senses and controls circuit guarantee the minimum waveform distortion during continuous load changes.

5. MASTER / SLAVE PARALLEL CONTROL

When higher power is required, it is common to parallel two electronic loads together to draw higher current. 63200 series high power loads have smart Master / Slave control mode. When the loads are set to Master / Slave mode, users can program the loading (CC mode only) on master unit. The loading current values of the slave units will be calculated and downloaded by master unit automatically. In short, unlike the traditional design,



users may consider several load units that work under Master / Slave mode as a single load unit. It simplifies the user operation dramatically.

6. EXTERNAL LOADING WAVEFORM SIMULATION

The 63200 series electronic loads can be controlled by external analog control signal, which is generated by any kind of signals or arbitrary waveform generator. Thus, it is capable of simulating any loading waveforms observed in the field.



7. SHORT CIRCUIT SIMULATION

63200 series electronic loads can also simulate short circuit condition. Owing to this capability, it can short DC power source or any power supplies that have built in current limit function, and measure their short circuit currents. So that users can verify if the UUT current limit is functional

8. SURGE LOAD CAPABILITY

Chroma's 63200 Series DC Loads provide a unique surge load simulation capability which allows users to overdrive the loads up to 2.7 times their rated power for short periods. This feature is ideal when the average power require by the UUT is low compared to short-term peak power demands. Plasma Display Panel (PDPs) testing is one typical application, others include battery 3C discharge, breaker & fuse over rating (300% to 1000%) tests, car engine startup simulation and DC motor startup simulation.

The amount of surge loading available using the 63200 loads is related to the initial loading conditions. Figures 1 and 2 show the relationship of initial state (Load_Low under Dynamic mode) and the maximum acceptable overdrive power. Under this operation, the load will display an Over Power Protection Alarm (OPP) and will disable the load current if the user violates the maximum surge load capability showed in the figures.

Note 1:

The Initial state under Static Mode should last at least 1 second.

Note 2:

This surge load capability will be regulated by the temperature de-rating characteristics. (Refer to Note 1 in Specifications)

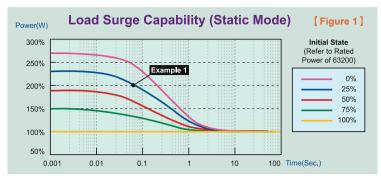
Note 3:

Examples below assume the use of the Model 63201 load with a continuous rating of 2600W/300A/1-80VDC

9. TIMER FUNCTION FOR BATTERY DISCHARGE TESTING

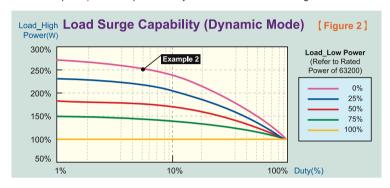
The 63200 Loads include unique timing & measurement function allowing for precision time settings and measurements in the range of 1s to 99999s. This feature allows users to set a final voltage & timeout value for battery discharge testing and similar applications.

For Example, Figure 3 below shows that the 63200's internal timer can be initiated automatically when the battery voltage falls below a preset value. The timer will continue counting until the second preset voltage value is reached.



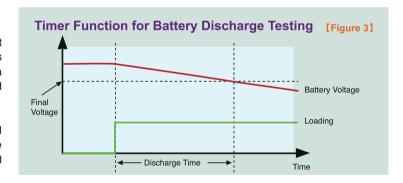
Example 1: STATIC LOADING

The Model 63201 can be overdriven to approximately 5200W (200% of its rated continuous power rating) for 6.0 ms seconds when the starting power is 650W (25% of its rated power). This is represented by DOT on the blue curve in Figure 1.



Example 2: DYNAMIC LOADING

The Model 63201 is capable of a zero - to- 6500W (250%) pulse at a duty cycle of 5%. This is represented by the DOT on the purple curve in Figure 2.



APPLICATIONS

1. POWER SUPPLY TESTING

Power supplies have played a critical role on electrical and electronic devices. They are diversified into several different configurations for different applications. For example, AC/AC power supplies are for UPS and AVR, AC/DC power supplies are for PC power supplies, and DC/AC power supplies are for inverters that transfer battery power to AC for home appliances. As to DC/DC converters, they are widely used in battery powered devices such as cellular phones and laptop computers. With four different load modes, Chroma 63200 series electronic loads are capable of testing all sorts of DC output power supplies directly or via rectifier, they can also be used to test the AC output power supplies.



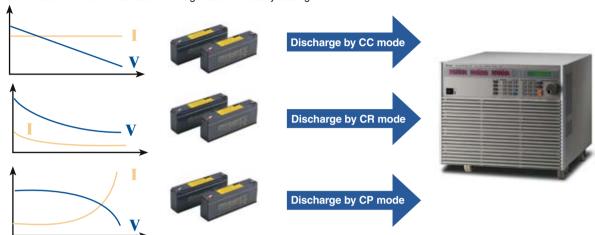
2. ELECTRONIC & ELECTRICAL DEVICES TESTING

Almost all modern electronic and electrical devices are built in with power supply. Therefore, DC electronic load is an important instrument for these devices during R/D and Q/A phases. For example, A/D, D/D and D/A stages are normally integrated in a UPS. Consequently, Chroma 63200 electronic loads are helpful to test the internal A/D and D/D boards of the UPS.



3. BATTERY TESTING

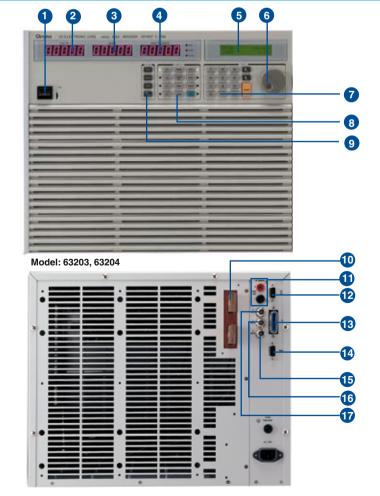
For most of the electronic and electrical devices, their power consumption patterns are constant power. Therefore, the CP mode in 63200 series electronic loads is ideal to use as a discharge load for battery testing.



4. SYSTEM INTEGRATION

Chroma 63200 series electronic loads provide GPIB, RS-232C and RS-485 PC controllable interfaces. The external waveform simulation and voltage / current monitoring capability make Chroma 63200 family ideal for automatic system integration.

PANEL DESCRIPTION



- 1. Power Switch
- 2. LED Display:

Voltage read back.

3. LED Display:

Current/ ohm read back.

4. LED Display:

Power read back.

5. LCD Display:

For setting and editing.

6. Rotary knob:

To adjust the loading and parameter setting.

7. Numeric key:

For data setting.

8. Function key:

To select load mode, control mode, and define the reading specification.

9. System key:

For system config and data store, recall.

- 10. Load terminal
- 11. Voltage sense terminal
- 12. RS-485 connector
- 13. GPIB connector
- 14. RS-232C connector
- 15. Voltage monitor output: Analog output which indicates the voltage waveform.
- 16. Current monitor output:

Analog output which indicates the current waveform.

17. External V reference:

External programming voltage input.

SPECIFICATIONS							
Model	63201		63	202	63203		
Power*1	260W	2600W	260W	2600W	520W	5200W	
Current	0~30A	0~300A	0~5A	0~50A	0~60A	0~600A	
Voltage	0~	80V	0~:	0~500V		0~80V	
M. O V. II	0.5V@15A	0.5V@150A	1.25V@2.5A	1.25V@25A	0.5V@30A	0.5V@300A	
Min. Operating Voltage	1V@30A	1V@300A	2.5V@5A	2.5V@50A	1V@60A	1V@600A	
Constant Current Mode							
Range	0~30A	0~300A	0~5A	0~50A	0~60A	0~600A	
Resolution	7.5mA	75mA	1.25mA	12.5mA	15mA	150mA	
Accuracy	0.1%+0.1%F.S.	0.2%+0.1%F.S.	0.1%+0.1%F.S.	0.2%+0.1%F.S.	0.1%+0.1%F.S.	0.2%+0.1%F.S.	
Constant Resistance Mode							
Range	0.005~20ohm	0.25~1000ohm	0.25~1000ohm	10~40000ohm	0.0025~10ohm	0.125~500ohm	
Resolution	12bits	12bits	12bits	12bits	12bits	12bits	
Accuracy*2	0.6mho+0.35%	0.9mho+0.1%	0.012mho+0.35%	0.04mho+0.1%	1.2mho+0.35%*4	1.2mho+0.1%	
Accuracy*3(Vin>7V)	0.6mho+0.35%	0.012mho+0.35%	0.012mho+0.35%	112.5u mho+0.35%	1.2mho+0.35%	0.024mho+0.35%	
Constant Voltage Mode							
Range	0~16V	0~80V	0~125V	0~500V	0~16V	0~80V	
Resolution	4mV	20mV	31mV	125mV	4mV	20mV	
Accuracy	0.05%+0.1%F.S.	0.05%+0.1%F.S.	0.05%+0.1%F.S.	0.05%+0.1%F.S.	0.05%+0.1%F.S.	0.05%+0.1%F.S.	
Constant Power Mode							
Range	0.6~260W	6~2600W	0.625~260W	6.25~2600W	1.2~520W	12~5200W	
Resolution	7.5mW	75mW	3.125mW	31.25mW	22.5mW	22.5mW	
Accuracy	0.5%+0.5%F.S.	0.5%+0.5%F.S.	0.5%+0.5%F.S.	0.5%+0.5%F.S.	0.5%+0.5%F.S.	0.5%+0.5%F.S.	
Dynamic Mode							
Timing							
T1&T2	0.025~10mS	1mS~30S	0.025~10mS	1mS~30S	0.025~10mS	1mS~30S	
Resolution	1 <i>μ</i> S	1mS	1 <i>µ</i> S	1mS	1 <i>µ</i> S	1mS	
Accuracy	1μS+100ppm	1mS+100ppm	1µS+100ppm	1mS+100ppm	1μS+100ppm	1mS+100ppm	
Slew Arte	5mA~1.25A/μS	50mA~12.5A/μS	0.8mA~0.2A/μS	8mA~2A/μS	10mA~2.5A/μS	100mA~25A/μS	
Resolution	5mA/μS	50mA/μS	0.8mA/μS	8mA/µS	10mA/μS	100mA/μS	
Min. Rise Time	24 μS	(Typical)	24 µS (Typical)		24 μS (Typical)		
Current							
Range	0~30A	0~300A	0~5A	0~50A	0~60A	0~600A	
Resolution	7.5mA	75mA	1.25mA	12.5mA	15mA	150mA	
Accuracy	0.49	%F.S.	0.49	%F.S.	0.49	%F.S.	
Measurement							
Voltage Read Back							
Range	0~16V	0~80V	0~125V	0~500V	0~16V	0~80V	
Resolution	15bits	15bits	15bits	15bits	15bits	15bits	
Accuracy	0.05%+0	0.05%F.S.	0.05%+	0.05%F.S.	0.05%+0.05%F.S.		
Current Read Back							
Range	0~30A	0~300A	0~5A	0~50A	0~60A	0~600A	
Resolution	15bits	15bits	15bits	15bits	15bits	15bits	
Accuracy	0.1%+0).1%F.S.	0.1%+	0.1%F.S.	0.1%+0	0.1%F.S.	
Power Read Back							
Range	0~260W	0~2600W	0~260W	0~2600W	0~520W	0~5200W	
Resolution	15bits	15bits	15bits	15bits	15bits	15bits	
Accuracy	0.3%+0	0.3%F.S.	0.3%+	0.3%F.S.	0.3%+0	0.3%F.S.	
General							
Short Circuit							
Current	30A	300A	5A	50A	60A	600A	
Dimensions (WxHXD)	440x17	7x644mm	440x17	7x644mm	440x353x644mm		
Weight		5kg	3	5kg	58	8kg	
Safety&EMC	(Œ	(CE	CE		

Selection Guide :

Model Power Voltage	2600W	5200W	6500W	10400W	14500W	15600W
80V	63201	63203	63205	63206/63207		63208/63209
500V	63202	63204			63210	



Madal	00	2004		205		2000	
Model		500014		63205		3206	
Power*1	520W	5200W	650W	6500W	1040W	10400W	
Current	0~10A	0~100A	0~18A	0~180A	0~60A	0~600A	
Voltage		500V		80V		-80V	
Min. Operating Voltage	1.25V@5A 2.5V@10A	1.25V@50A 2.5V@100A	0.5V@9A 1V@18A	0.5V@90A 1V@180A	0.5V@30A 1V@60A	0.5V@300A 1V@600A	
Constant Current Mode							
Range	0~10A	0~100A	0~18A	0~180A	0~60A	0~600A	
Resolution	2.5mA	25mA	4.5mA	45mA	15mA	150mA	
Accuracy	0.1%+0.1%F.S.	0.2%+0.1%F.S.	0.1%+0.2%F.S.	0.1%+0.2%F.S.	0.1%+0.2%F.S.	0.1%+0.2%F.S	
Constant Resistance Mode							
Range	0.125~500ohm	5~20000ohm	0.008~32ohm	0.4~1600ohm	0.0025~10ohm	0.125~500ohm	
Resolution	12bits	12bits	12bits	12bits	12bits	12bits	
Accuracy*2	0.024mho+0.35%	0.08mho+0.1%	0.375mho+0.35%	0.75mho+0.1%	1.2mho+0.35%*4	1.2mho+0.1%	
Accuracy*3 (Vin>7V)	0.024mho+0.35%	225u mho+0.35%	0.375mho+0.35%	0.075mho+0.35%	1.2mho+0.35%	0.024mho+0.359	
Constant Voltage Mode							
Range	0~125V	0~500V	0~16V	0~80V	0~16V	0~80V	
Resolution	31mV	125mV	4mV	20mV	4mV	20mV	
Accuracy	0.05%+0.1%F.S.	0.05%+0.1%F.S.	0.05%+0.1%F.S.	0.05%+0.1%F.S.	0.05%+0.1%F.S.	0.05%+0.1%F.S	
Constant Power Mode							
Range	1.25~520W	12.5~5200W	0.36~650W	3.6~6500W	1.2~1040W	12~10400W	
Resolution	6.25mW	62.5mW	4.6mW	46mW	22.5mW	225mW	
Accuracy	0.5%+0.5%F.S.	0.5%+0.5%F.S.	0.5%+0.5%F.S.	0.5%+0.5%F.S.	0.5%+0.5%F.S.	0.5%+0.5%F.S	
Dynamic mode					,		
Timing							
T1&T2	0.025~10mS	1mS~30S	0.025~10mS	1mS~30S	0.025~10mS	1mS~30S	
Resolution	1µS	1mS	1µS	1mS	1μS	1mS	
Accuracy	1μS+100ppm	1mS+100ppm	1μS+100ppm	1mS+100ppm	1μS+100ppm	1mS+100ppm	
Slew Arte	1.6mA-0.4A/μS	16mA-4A/μS	3mA-0.75A/μS	30mA-7.5A/μS	10mA-3A/μS	100mA-25A/μS	
Resolution	1.6mA/µS	16mA/µS	3mA/µS	30mA/μS	12mA/μS	100mA/μS	
Min. Rise Time	$24 \mu\text{S} \text{ (typical)}$			(typical)		(typical)	
Current		(-) [(-) [(4) [-1-1-1]	
Range	0~10A	0~100A	0~18A	0~180A	0~60A	0~600A	
Resolution	2.5mA	25mA	4.68mA	46.8mA	15mA	150mA	
Accuracy		%FS		%FS	0.4%FS		
Measurement	0	70. 0	0.1.	,	<u> </u>	.,,,,,	
Voltage Read Back							
Range	0~125V	0~500V	0~16V	0~80V	0~16V	0~80V	
Resolution	15bits	15bits	15bits	15bits	15bits	15bits	
Accuracy		0.05%F.S.		0.05%F.S.		0.05%F.S.	
Current Read Back	0.00701	0.0070.10.	0.007010		0.00701	0.00 / 0.10.	
Range	0~10A	0~100A	0~18A	0-180A	0~60A	0~600A	
Resolution	15bits	15bits	15bits	15bits	15bits	15bits	
Accuracy		0.1%F.S.		0.1%F.S.		0.1%F.S.	
Power Read Back	0.170+	0.1 /01.0.	0.176+0	7.1 /01 .0.	0.1701	0.1761.0.	
Range	0~520W	0~5200W	0~650W	0~6500W	0~1040W	0~10400W	
Resolution	15bits	15bits	15bits	15bits	15bits	15bits	
Accuracy		0.3%F.S.).3%F.S.		0.3%F.S.	
	0.3%+	U.J /0F.J.	0.3%+0	7.0 /0F.O.	0.3%+	U.J70F.J.	
General Short Circuit							
Short Circuit	104	1004	101	1004	604	6004	
Current	10A	100A	18A	180A	60A 600A		
Dimensions(WxHxD)		3x644mm		0x644mm	440Wx443.7x644mm		
Weight		8kg		lkg		90kg	
Safety & EMC		CE	CE		CE		

Number of parallel load units and rating :

Rati	_ \	63201	63202	63203	63204	63205	63206	63207	63208	63209	63210
	2	600A/5.2kW	100A/5.2kW	1200A/10.4kW	200A/10.4kW	360A/13kW	1200A/20.8kW	600A/20.8kW	1200A/31.2kW	2000A/31.2kW	300A/29kW
	3	900A/7.8kW	150A/7.8kW	1800A/15.6kW	300A/15.6kW	540A/19.5kW	1800A/31.2kW	900A/31.2kW	1800A/46.8kW	3000A/46.8kW	450A/43.5kW
	4	1200A/10.4kW	200A/10.4kW	2400A/20.8kW	400A/20.8kW	720A/26kW	2400A/41.6kW	1200A/41.6kW	2400A/62.4kW	4000A/62.4kW	600A/58kW
	5	1500A/13kW	250A/13kW	3000A/26kW	500A/26kW	900A/32.5kW	3000A/52kW	1800A/52kW	3000A/78kW	5000A/78kW	750A/72.5kW
	6	1800A/15.6kW	300A/15.6kW	3600A/31.2kW	600A/31.2kW	1080A/39kW	3600A/62.4kW	2400A/62.4kW	3600A/93.6kW	6000A/93.6kW	900A/87kW

SPECIFICATIONS Model 63207 63208 63209 63210 Power*1 1040W 10400W 1560W 15600W 1560W 15600W 1450W 14500W Current 0~30A 0~300A 0~60A 0~600A 0~100A 0~1000A 0~15A 0~150A Voltage 0-80V 0-80V 0-500V 0-80V 0.5V@15A 0.5V@30A 0.5V@50A 1.25V@75A 0.5V@150A 0.5V@300A 0.5V@500A 1.25V@7.5A Min. Operating Voltage 1V@30A 1V@300A 1V@60A 1V@600A 1V@100A 1V@1000A 2.5V@15A 2.5V@150A **Constant Current Mode** 0~30A 0~300A 0~60A 0~600A 0~100A 0~1000A Range 0~15A 0~150A Resolution 9.3mA 75mA 15mA 150mA 31 25mA 250mA 3 75mA 37 5mA Accuracy 0.1%+0.2%F.S. 0.1%+0.2%F.S. 0.1%+0.2%F.S. 0.1%+0.2%F.S. 0.1%+0.2%F.S. 0.1%+0.2%F.S. 0.1%+0.2%F.S. 0.2%+0.1%F.S **Constant Resistance Mode** 0.0025~10ohm 0.0015~6ohm 0.25~1000ohm 0.125~500ohm 0.075~300ohm 0.083~333ohm 3.3~13200ohm Range 0.005~20ohm Resolution 12bits 12bits 12bits 12bits 12bits 12bits 12bits 12bits 0.6mho+0.35% 0.9mho+0.1% 1.2mho+0.35%*4 1.2mho+0.1% 1.2mho+0.35%*4 1.2mho+0.1% 0.036mho+0.35% 0.092mho+0.1% Accuracy*2 Accuracy*(Vin>7V) 0.6mho 0.012 mho 1.2mho 0.024mho 1.2mho 0.024mho 0.036mho 337.5u mho +0.35% +0.35% +0.35% +0.35% +0.35% +0.35% +0.35% +0.35% Constant Voltage Mode 0~16V 0~80V 0~16V 0~80V 0~16V 0~80V 0~125V 0~500V Range 125mV Resolution 4mV 20mV 4mV 20mV 4mV 20mV 31mV 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% 0.05% Accuracy +0.1%F.S. +0.1%F.S. +0.1%F.S. +0.1%F.S. +0.1%F.S. +0.1%F.S. +0.1%F.S. +0.1%F.S. **Constant Power Mode** 0.744~1040W 6~10400W 1 2~1560W 12~15600W 2.5~1560W 20~15600W 5~1450W 50~14500W Range Resolution 9 3mW 75mW 22.5mW 225mW 31.255mW 250mW 25mW 250mW 0.5%+0.5%F.S. 0.5%+0.5%F.S. 0.5%+0.5%F.S. 0.5%+0.5%F.S. 0.5%+0.5%F.S. 0.5%+0.5%F.S. Accuracy 0.5%+0.5%F.S. 0.5%+0.5%F.S. **Dynamic Mode** Timing 1mS~30S 0.025~10mS 1mS~30S 0.025~10mS 1mS~30S 0.025~10mS 1mS~30S 0.025~10mS T1&T2 Resolution 1mS 1mS 1mS 1mS 1mS+100ppm Accuracy 1μS+100ppm 1μS+100ppm 1mS+100ppm 1μS+100ppm 1mS+100ppm 1µS+100ppm 1mS+100ppm Slew arte 50mA~ 166mA~ 6mA~1.5A/μS 12mA~3A/µS 100mA~25A/μS 20mA~5A/μS 3mA~0.75A/µS 25mA~6A/µS 12.5A/µS 41.6A/μS 20mA/μS Resolution 6mA/μS 50mA/µS 12mA/μS 100mA/μS 166mA/μS 3mA/µS 25mA/µS Min. Rise Time 20 μS (typical) 20 μS (typical) 24 μS (typical) 20 μS (typical) Current 0~30A 0~300A 0~60A 0~600A 0~100A 0~1000A 0~15A 0~150A Range Resolution 9.37mA 75mA 15mA 150mA 31 25mA 250mA 3.75mA 37.5mA Accuracy 0.4%F.S. 0.4%FS 0.4%F.S. 0.4%F.S. Measurement Voltage Read Back 0~80V Range 0~16V 0~80V 0~16V 0~80V 0~16V 0~125V 0~5001/ Resolution 15bits 15hits 15hits 15bits 15bits 15hits 15 bits 15 bits 0.05%+0.05%F.S. 0.05%+0.05%F.S. 0.05%+0.05%F.S. 0.05%+0.05%F.S. Accuracy **Current Read Back** 0~1000A Range 0~30A 0~300A 0~60A 0~600A 0~100A 0~15A 0~150A Resolution 15bits 15bits 15bits 15bits 15bits 15bits 15bits 15bits Accuracy 0.1%+0.1%F.S. 0.1%+0.1%F.S. 0.1%+0.1%F.S. 0.1%+0.1%F.S. Power Read Back 0~1040W 0~10400W 0~1560W 0~15600W 0~1560W 0~15600W 0~1450W 0~14500W Range Resolution 15bits 15bits 15bits 15bits 15bits 15bits 15bits 15bits 0.3%+0.3%F.S. 0.3%+0.3%F.S. Accuracy 0.3%+0.3%F.S. 0.3%+0.3%F.S General **Short Circuit** Current 30A 300A 60A 600A 100A 1000A 15A 150A Dimensions(WxHxD) 546x843.7x700mm (Cabinet) 546x843.7x700mm (Cabinet) 546x843.7x700mm (Cabinet) 440x443.7x644mm Weight 90kg 160kg 160kg 160kg Safety&EMC CE CE CE CE

All specifications are subject to change without notice.

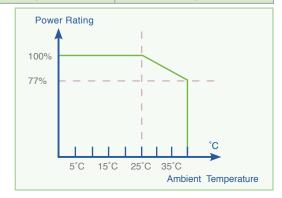
 $\textbf{Note*1}: The power rating specifications at ambient temperature=25 ^{\circ}C.$

And see the diagram on the right for power derating.(Derate power by 1.53°/o per°C from 25°C to 40°C)

Note*2: The Vin is greater than min. operating voltage of each model.

Note*3: The Vin is greater than 7V of each model.

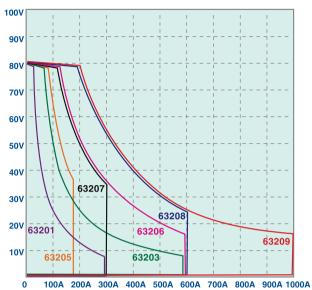
Note*4 : Setting error will be 1% for R < 0.005 $\!\Omega$ at CRL range.



Low Voltage & V-I Curve Operating Characteristics (Typical) of 63200 Series

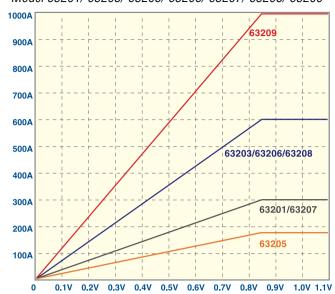
V-I Curve:

Model 63201/63203/63205/63206/63207/63208/63209

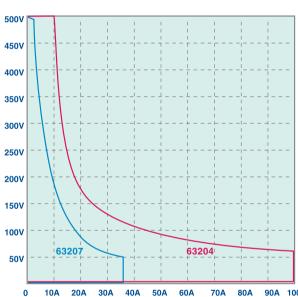


Low Voltage Operating:

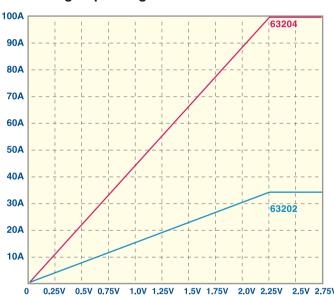
Model 63201/63203/63205/63206/63207/63208/63209



V-I Curve: Model 63202/63204/63210



Low Voltage Operating: *Model 63202/63204/63210*



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

ORDERING INFORMATION

63201: DC Electronic Load 2.6kW/ 300A/ 80V 63202: DC Electronic Load 2.6kW/ 50A/ 500V 63203: DC Electronic Load 5.2kW/ 600A/ 80V 63204: DC Electronic Load 5.2kW/ 100A/ 500V 63205: DC Electronic Load 6.5kW/ 180A/ 80V 63206: DC Electronic Load 10.4kW/ 600A/ 80V 63207: DC Electronic Load 10.4kW/ 300A/ 80V

63208 : DC Electronic Load 15.6kW/ 600A/ 80V

63209: DC Electronic Load 15.6kW/ 1000A/ 80V **63210**: DC Electronic Load 14.5kW/ 150A/ 500V

A632001 : Remote Controller

A632002: Load Cable 38mm/242A/200cm × 2 **A632003**: Load Cable 80mm/390A/200cm × 2

A632004 : Sync. Link Box

A632005: Softpanel for 63200 Series



Developed and Manufactured by :

CHROMA ATE INC. 致茂電子股份有限公司 HEADQUARTERS 66, Hwaya 1st Rd., Hwaya Technology Park, Kueishan333, Taoyuan, Taiwan Tel: +886-3-227-9999 Fax: +886-3-227-8898 http://www.chromaate.com

E-mail: chroma@chroma.com.tw

U.S.A. CHROMA ATE INC. (U.S.A.) 7 Chrysler Irvine, CA 92618 Tel: +1-949-421-0355 Fax: +1-949-421-0353 Toll Free: +1-800-478-2026 EUROPE CHROMA ATE EUROPE B.V. Morsestraat 32, 6716 AH Ede,The Netherlands Tel: +31-318-648282 Fax: +31-318-648288 CHINA CHROMA ELECTRONICS (SHENZHEN) CO., LTD. 8F, No.4, Nanyou Tian An Industrial Estate, Shenzhen, China PC: 518054 Tel: +86-755-2641-9620 Fax: +86-755-2641-9620