Programmable
DC Electronic Load

PROGRAMMABLE DC ELECTRONIC LOAD
MODEL 63200 SERIES

The Chroma Electronic Loads 63200 series are designed to test DC power sources, power electronic devices, automative battery and components testing. The high power ratings, parallel and synchronization capabilities make them the ideal tool for testing high power UUT's such as SMR's, UPS's, batteries, and fuel cells.

The 63200 series offers 10 different models with power ranges from 2600 watts to 15600 watts, currents from 50A to 1000A and up to a 500V input voltage. The 4 load modes provide different load simulations for various applications. The CC/CR modes are designed to test constant voltage power supplies. CV mode is used to test battery chargers and current sources, and 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 using an internal or external loading control signal. This feature provides unlimited load simulation and the possibility of power expansion.

The 63200 series also provides the 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 incorporate built in fan speed control to minimize the audio noise. The self-diagnosis routine and the protection against OC, OP, OT and alarm indicating OV, reverse polarity to ensure the best quality and reliability.

RS-232C GPIB CE

MODEL 63200 SERIES

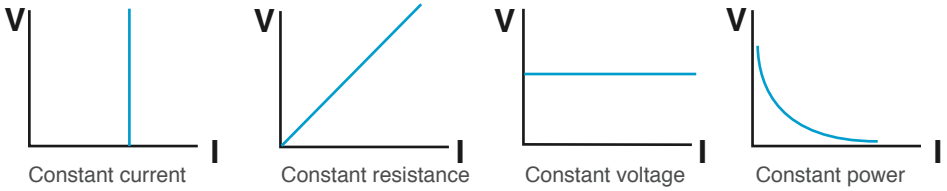
Key Features :

- Power Rating :
  2600W, 5200W, 6500W, 10400W, 14500W, 15600W
- Voltage range : 0 ~ 80V / 0 ~ 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 (Up to 93.6kW)
- Dynamic loading : Up to 20kHz
- Only need 1V to draw rated current
- Programmable slew rate, up to 41A/μs
- Measurement : Voltage / Current / Power / Resistance
- Large LED / LCD display
- External loading waveform simulation
- Short circuit simulation and short circuit current measurement
- Full protection : OC, OP, OT protection and OV, reverse alarm
- Versatile remote controller
- GPIB & RS-232C interfaces
- Surge load capability
- Battery discharge timer

Chroma

1. APPLICATION SPECIFIC LOAD SIMULATION

Chroma electronic loads 63200 series provide constant current, constant resistance, constant voltage and constant power modes.

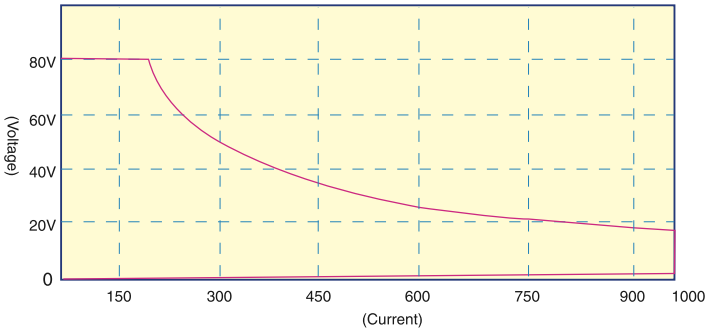


The CC and CR mode load simulation is helpful to test whether the output voltage of the UUT remains stable or regulated under different load conditions. For battery chargers, CV mode may help to change the output voltage of a charger and therefore can test if the battery charger has the correct charging current corresponding to its own output, or more precisely, the battery voltage. If the UUT is a battery, the electronic load is able to simulate the behavior of the device that uses the battery. For many of the battery discharge applications, power consumption patterns need to analyzed. The constant power or CP mode is ideal for these applications.

2. LOW VOLTAGE OPERATING CHARACTERISTICS

For low voltage/high current applications, the 63200 series is available with a low voltage, which provides ultra low voltage operation and in many cases can compensate for large voltage loss in the input wiring.

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



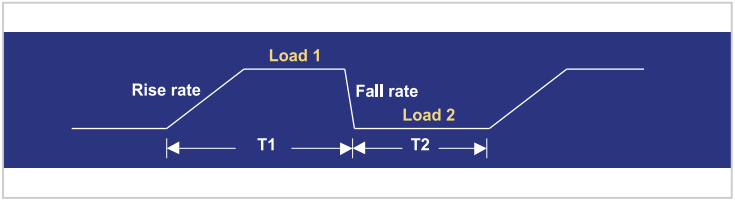
Model 63209(15600W) Input Characteristics

3. MEASUREMENTS

The Chroma 63200 series have a built in the 15-bit 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 measurements respectively. They can be displayed simultaneously on three big LED readouts for the user's convenience. In additional to the standard measurements, the 63200 series also provides voltage and current monitor outputs, which are useful when the user needs to monitor the voltage and current waveform via a scope.

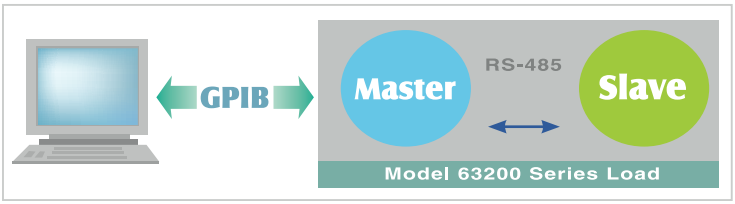
4. DYNAMIC LOADING AND CONTROL

Modern electronic devices operate at very high speeds ; therefore ,it is important for an electronic load to perform well during the transient and dynamic testing. To satisfy these testing applications, the 63200 loads offer outstanding high speed, programmable dynamic load simulation and control capabilities. The figure below shows the programmable parameters of the 63200 load modules. The programmable slew rate makes the simulation of transient load changes demanded by the requirement of real life application possible. The internal waveform generator of 63200 is capable of producing a maximum slew rate of 25A/μs (63208), and dynamic cycling up to 20kHz. Its' dedicated remote load sense and control circuitry 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. The 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 traditional designs, users may consider several load units that work under Master / Slave mode as a single load unit.



6. EXTERNAL LOADING WAVEFORM SIMULATION

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

7. SHORT CIRCUIT SIMULATION

Chroma's 63200 series electronic loads can also simulate a short circuit condition. The load can short a DC power source or any power supplies that have a 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 required by the UUT is low compared to short-term peak power demands. Plasma Display Panel (PDPs) testing is one of the typical applications, 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 the 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 :

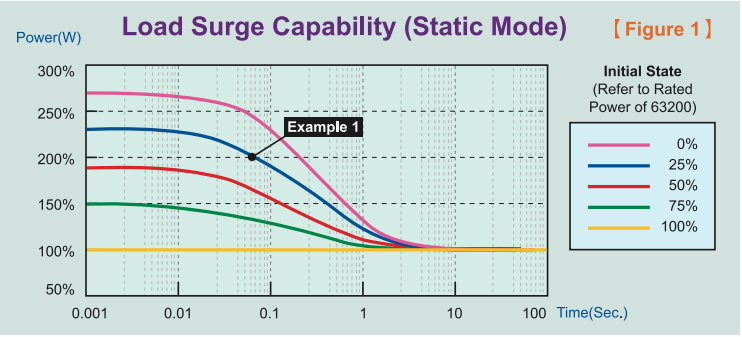
The Initial state under Static Mode should last at least 1 second.

Note 2 :

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

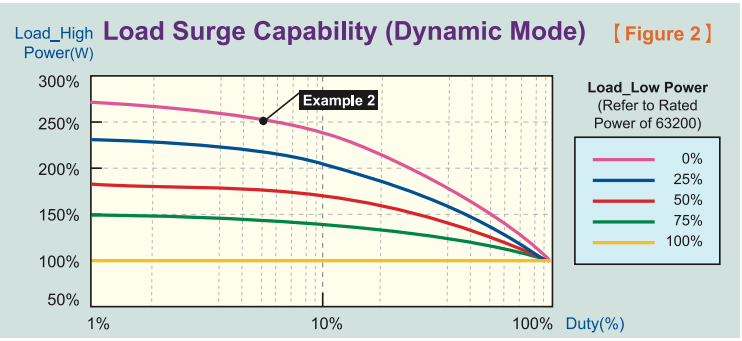
Note 3 :

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



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.



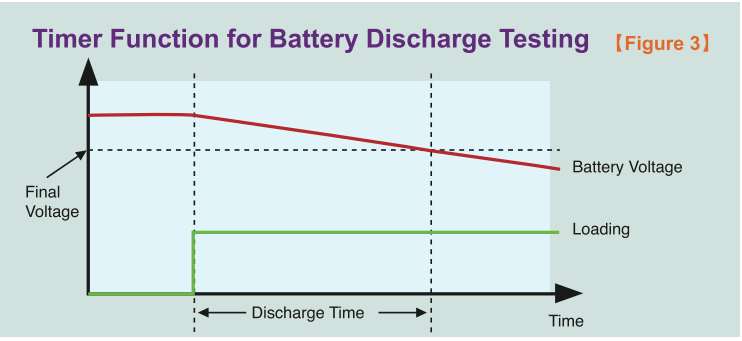
Example 2: DYNAMIC LOADING

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.

9. TIMER FUNCTION FOR BATTERY DISCHARGE TESTING

The 63200 Loads include a 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 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.



APPLICATIONS

1. POWER SUPPLY TESTING

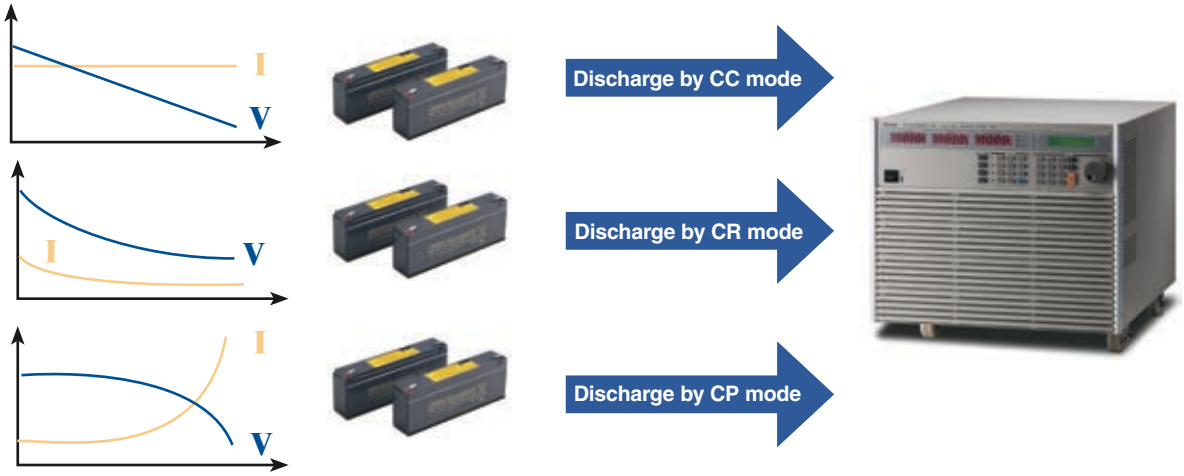
Power supplies have played a critical role in electrical and electronic devices. They have diversified into several different configurations for different applications. For example, AC/AC power supplies are used for UPS and AVR, AC/DC power supplies are used for PC power supplies, and DC/AC power supplies are used for inverters that transfer battery power to AC for home appliances. Lastly, DC/DC converters 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 many different DC output power supplies directly or via a rectifier. They can also be used to test the AC output power supplies.

2. ELECTRONIC & ELECTRICAL DEVICES TESTING

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

3. BATTERY TESTING

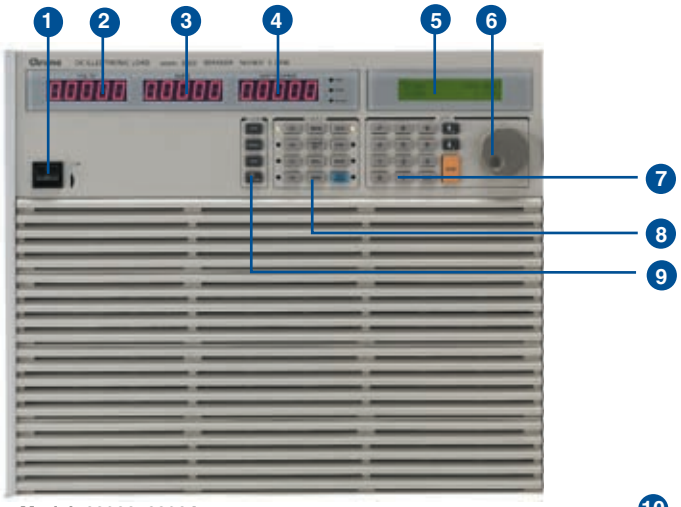
For most applications, power consumption patterns are constant power. Therefore, the CP mode of the 63200 series electronic loads is ideal to use as a discharge load for battery testing.



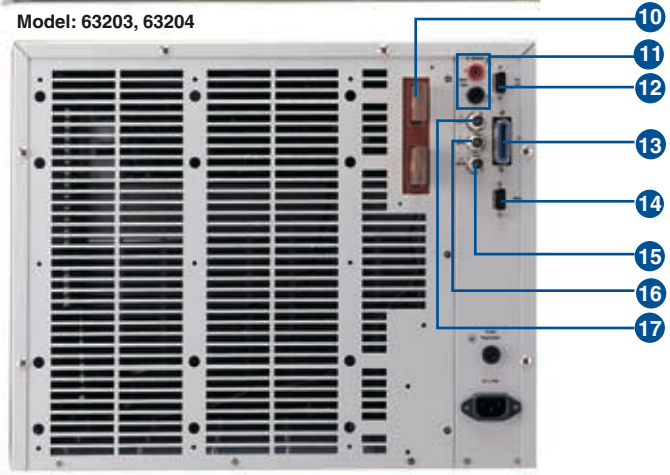
4. SYSTEM INTEGRATION

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



Model: 63203, 63204



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		63202		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		0~500V		0~80V	
Min. Operating voltage	0.5V @ 15A	0.5V @ 150A	1.25V @ 2.5A	1.25V @ 25A	0.5V @ 30A	0.5V @ 300A
	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	0.005~20Ω	0.25~1000Ω	0.25~1000Ω	10~40000Ω	0.0025~10Ω	0.125~500Ω
Resolution*6	52mS	1.04mS	1.2mS	28.8μS	104mS	2.1mS
Accuracy*2	0.104S+0.35%	0.9S+0.1%	0.0023S+0.35%	0.04S+0.1%	0.208S+0.35%*4	1.2S+0.1%
Accuracy*3 (Vin>7V)	0.104S+0.35%	0.0021S+0.35%	0.0023S+0.35%	57.56μS+0.35%	0.208S+0.35%	0.0042S+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.	
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	225mW
Accuracy	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 rate	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
Accuracy						
Min. Rise Time	24μs (typical)		24μs (typical)		24μs (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	0.4%F.S.		0.4%F.S.		0.4%F.S.	
Measurement						
Voltage Read Back						
Range	0~16V	0~80V	0~125V	0~500V	0~16V	0~80V
Resolution	0.5mV	2.4mV	3.5mV	13.7mV	0.5mV	2.4mV
Accuracy	0.05%+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	0.9mV	8.5mV	0.2mV	1.4mV	1.7mV	17 mV
Accuracy	0.1%+0.1%F.S.		0.1%+0.1%F.S.		0.1%+0.1%F.S.	
Power Read Back						
Range	0~260W	0~2600W	0~260W	0~2600W	0~520W	0~5200W
Accuracy*5	0.3%+0.3%F.S.		0.3%+0.3%F.S.		0.3%+0.3%F.S.	
General						
Short Circuit						
current	30A	300A	5A	50A	60A	600A
Dimension (H x W x D)	177 x 440 x 589 mm / 6.9 x 17.3 x 23.2 inch		177 x 440 x 589 mm / 6.9 x 17.3 x 23.2 inch		353 x 440 x 589 mm / 6.9 x 17.3 x 23.2 inch	
Weight	30 kg / 66.13 lbs		30 kg / 66.13 lbs		62 kg / 136.68 lbs	
Safety & EMC	CE		CE		CE	

All specifications are subject to change without notice. Please visit our website for the most up to date specifications.

Selection Guide :

Model / Power / Voltage	2600W	5200W	6500W	10400W	14500W	15600W
80V	63201	63203	63205	63206/63207	--	63208/63209
500V	63202	63204	--	--	63210	--
600V	--	63204*8	--	--	--	--

SPECIFICATIONS

Model	63204*8		63205		63206	
power*1	520W	5200W	650W	6500W	1040W	10400W
Current	0~10A	0~100A	0~18A	0~180A	0~60A	0~600A
Voltage	0~500V		0~80V		0~80V	
Min. Operating voltage	1.25V @ 5A	1.25V @ 50A	0.5V @ 9A	0.5V @ 90A	0.5V @ 30A	0.5V @ 300A
	2.5V @ 10A	2.5V @ 100A	1V @ 18A	1V @ 180A	1V @ 60A	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	0.125~500Ω	5~20000Ω	0.008~32Ω	0.4~1600Ω	0.0025~10Ω	0.125~500Ω
Resolution*6	2.3mS	57.56μS	35mS	0.7mS	112.5mS	2.25mS
Accuracy*2	0.0046S+0.35%	0.08S+0.1%	0.07S+0.35%	0.75S+0.1%	0.225S+0.35% *4	1.2S+0.1%
Accuracy*3 (Vin>7V)	0.0046S+0.35%	115.51μS+0.35%	0.07S+0.35%	0.0014S+0.35%	0.225S+0.35%	0.0045S+0.35%
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.	
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.	
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 rate	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
Accuracy						
Min. Rise Time	24μs (typical)		24μs (typical)		20μs (typical)	
Current						
Range	0~10A	0~100A	0~18A	0~180A	0~60A	0~600A
Resolution	2.5mA	25mA	4.68mA	46.8mA	15mA	150mA
Accuracy	0.4%F.S.		0.4%F.S.		0.4%F.S.	
Measurement						
Voltage Read Back						
Range	0~125V	0~500V	0~16V	0~80V	0~16V	0~80V
Resolution	3.5mV	13.7mV	0.5mV	2.4mV	0.5mV	2.4mV
Accuracy	0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.	
Current Read Back						
Range	0~10A	0~100A	0~18A	0~180A	0~60A	0~600A
Resolution	0.3mA	2.7mA	0.5mA	4.7mA	1.3mA	16.1mA
Accuracy	0.1%+0.1%F.S.		0.1%+0.1%F.S.		0.1%+0.1%F.S.	
Power Read Back						
Range	0~520W	0~5200W	0~650W	0~6500W	0~1040W	0~10400W
Accuracy*5	0.3%+0.3%F.S.		0.3%+0.3%F.S.		0.3%+0.3%F.S.	
General						
Short Circuit						
current	10A	100A	18A	180A	60A	600A
Dimension (H x W x D)	353 x 440 x 589 mm / 13.9 x 17.3 x 23.2 inch		310 x 440 x 589 mm / 12.2 x 17.3 x 23.2 inch		443.7 x 440 x 589 mm / 17.5 x 17.3 x 23.2 inch	
Weight	62 kg / 136.68 lbs		62 kg / 136.68 lbs		90 kg / 198.41 lbs	
Safety & EMC	CE		CE		CE	

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Number of parallel load units and rating :

Model / Rating / Units	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		0~80V		0~500V	
Min. Operating voltage	0.5V @ 15A	0.5V @ 150A	0.5V @ 30A	0.5V @ 300A	0.5V @ 50A	0.5V @ 500A	1.25V @ 7.5A	1.25V @ 75A
	1V @ 30A	1V @ 300A	1V @ 60A	1V @ 600A	1V @ 100A	1V @ 1000A	2.5V @ 15A	2.5V @ 150A
Constant Current mode								
Range	0~30A	0~300A	0~60A	0~600A	0~100A	0~1000A	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%+0.1%F.S.	0.2%+0.1%F.S.
Constant Resistance Mode								
Range	0.005~20Ω	0.25~1000Ω	0.0025~10Ω	0.125~500Ω	0.0015~6Ω	0.075~300Ω	0.083~333Ω	3.3~13200Ω
Resolution*6	55.7mS	1.1mS	110mS	2.22mS	186.5mS	3.73mS	3.21mS	80.1μS
Accuracy *2	0.111S+0.35%	0.9S+0.1%	0.22S+0.35% *4	1.2S+0.1%	0.373S+0.35% *4	1.2S+0.1%	0.0064S+0.35%	0.092S+0.1%
Accuracy *3 (Vin>7V)	0.111S+0.35%	0.0022S+0.35%	0.22S+0.35%	0.0044S+0.35%	0.373S+0.35%	0.0075S+0.35%	0.0064S+0.35%	161μS+0.35%
Constant Voltage mode								
Range	0~16V	0~80V	0~16V	0~80V	0~16V	0~80V	0~125V	0~500V
Resolution	4mV	20mV	4mV	20mV	4mV	20mV	31mV	125mV
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.	0.05%+0.1%F.S.	0.05%+0.1%F.S.
Constant Power mode								
Range	0.744~1040W	6~10400W	1.2~1560W	12~15600W	2.5~1560W	20~15600W	5~1450W	50~14500W
Resolution	9.3mW	75mW	22.5mW	225mW	31.255mW	250mW	25mW	250mW
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.	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	0.025~10ms	1ms~30s
Resolution	1μs	1ms	1μs	1ms	1μs	1ms	1μs	1ms
Accuracy	1μs+100ppm	1ms+100ppm	1μs+100ppm	1ms+100ppm	1μs+100ppm	1ms+100ppm	1μs+100ppm	1ms+100ppm
Slew rate	6mA~1.5A/μs	50mA~12.5A/μs	12mA~3A/μs	100mA~25A/μs	20mA~5A/μs	166mA~41.6A/μs	3mA~0.75A/μs	25mA~6A/μs
Resolution	6mA/μs	50mA/μs	12mA/μs	100mA/μs	20mA/μs	166mA/μs	3mA/μs	25mA/μs
Accuracy								
Min. Rise Time	20μs (typical)		20μs (typical)		20μs (typical)		24 μs (typical)	
Current								
Range	0~30A	0~300A	0~60A	0~600A	0~100A	0~1000A	0~15A	0~150A
Resolution	9.37mA	75mA	15mA	150mA	31.25mA	250mA	3.75mA	37.5mA
Accuracy	0.4%F.S.		0.4%F.S.		0.4%F.S.		0.4%F.S.	
Measurement								
Voltage Read Back								
Range	0~16V	0~80V	0~16V	0~80V	0~16V	0~80V	0~125V	0~500V
Resolution	0.5mV	2.4mV	0.5mV	2.4mV	0.5mV	2.4mV	3.5mV	13.7mV
Accuracy	0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.		0.05%+0.05%F.S.	
Current Read Back								
Range	0~30A	0~300A	0~60A	0~600A	0~100A	0~1000A	0~15A	0~150A
Resolution	0.7mA	8.2mA	1.3mA	16.1mA	2.2mA	27.2mA	0.4mA	4.2mA
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								
Range	0~1040W	0~10400W	0~1560W	0~15600W	0~1560W	0~15600W	0~1450W	0~14500W
Accuracy*5	0.3%+0.3%F.S.		0.3%+0.3%F.S.		0.3%+0.3%F.S.		0.3%+0.3%F.S.	
General								
Short Circuit								
current	30A	300A	60A	600A	100A	1000A	15A	150A
Dimension (HxWxD)	443.7x440x589mm / 17.5x17.3x23.2inch		762.8x546x700mm / 30x21.5x27.6inch		762.8x546x700mm/30x21.5x27.6inch(cabinet)		762.8x546x700mm/30x21.5x27.6inch(cabinet)	
Weight	90 kg / 198.24 lbs		170 kg / 374.45 lbs		170 kg / 374.45 lbs		170 kg / 374.45 lbs	
Safety & EMC	CE		CE		CE		CE	

All specifications are subject to change without notice. Please visit our website for the most up to date specifications.

Note*1 : The power rating specifications at ambient temperature=25˚C.
And see the diagram on the right for power derating.(Derate power by 1.53% per˚C from 25˚C to 40˚C)

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

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

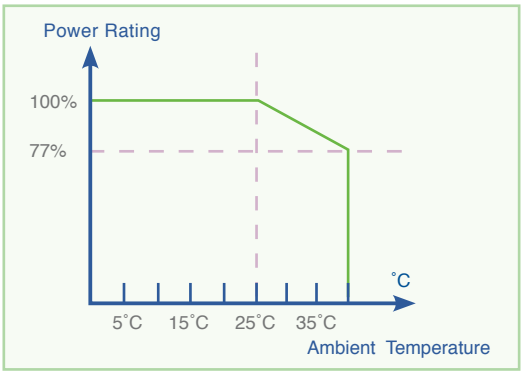
Note*4 : Setting error will be 1% for R < 0.005Ω at CRL range.

Note*5 : Power F.S. = Vrange F.S. x Irange F.S.

Note*6 : S (siemens) is the SI unit of conductance, equal to one reciprocal ohm.

Note*7 : If the operating voltage exceeds the rated voltage for 1.1 times, it would cause permanent damage to the device.

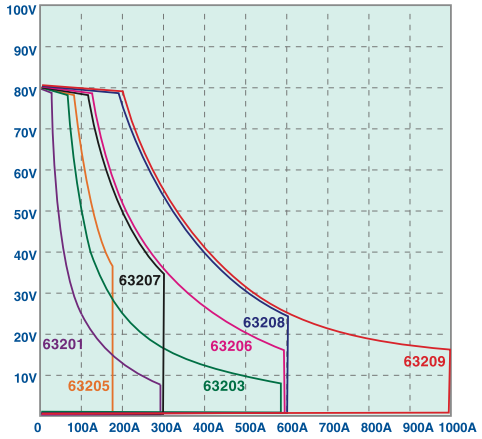
Note*8 : 600V modification is available.



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

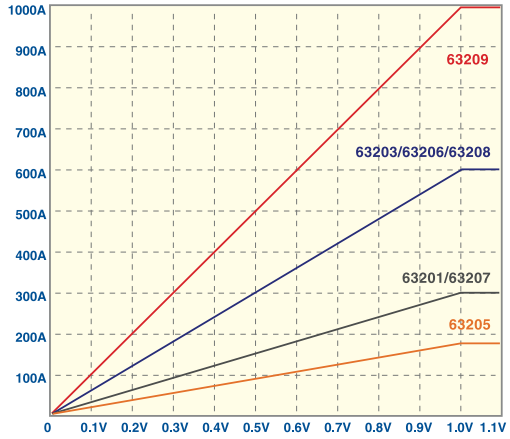
V-I Curve:

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

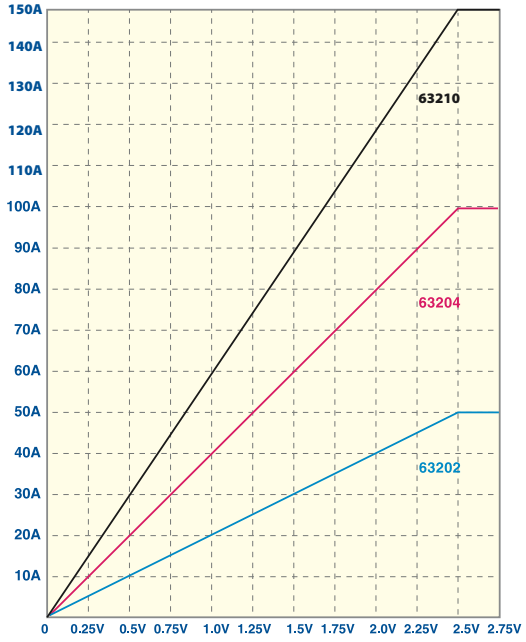


Low Voltage Operating:

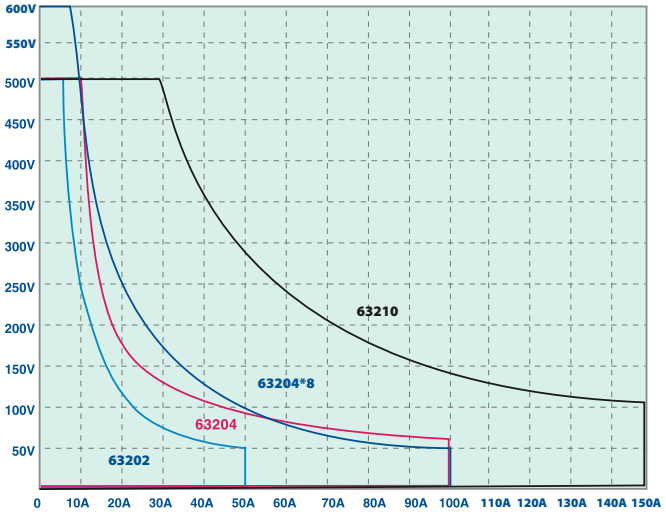
Model 63201/ 63203/ 63205/ 63206/ 63207/ 63208/ 63209



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



V-I Curve: *Model 63202/63204/63210*



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

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 x 2
A632003 : Load Cable 80mm/390A/200cm x 2
A632004 : Sync. Link Box
A632005 : Softpanel for 63200 Series
A632006 : NI USB-6211 Bus-Powered Multifunction DAQ


A632001

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