



special feature provides real world simulation capability and prevents over-stressing thereby giving reliable and unbiased test results.

The 63800's state of the art design uses DSP technology to simulate non-linear rectified loads with its unique RLC operation mode. This mode improves stability by detecting the impedance of the UUT and dynamically adjusting the load's control bandwidth to ensure system stability.

Comprehensive measurements allow users to monitor the output performance of the UUT. Additionally, voltage & current signals can be routed to an oscilloscope through analog outputs. The instrument's GPIB/RS-232 interface options provide remote control & monitor for system integration. Built-in digital outputs may also be used to control external relays for short circuit (crowbar) testing.

Chroma's 63800 Loads feature fan speed control ensuring low acoustic noise. The diagnosis/protection functions include self-diagnosis routines and protection against over-power, over-current, over-temperature and alarm indicating over-voltage.

### Parallel / 3-Phase Control

The 63800 series provides parallel and 3-phase functions for high power and three phase applications. All the models within the 63800 series can be used together for both parallel and 3-phase functions as well as paralleled AC Load units in a 3-phase configuration, providing excellent flexibility and cost savings for the 63800 series AC load. Parallel and 3-phase controls are made easy by linking the AC Load units together and control of all AC load units is performed through the Master Unit.

### KEY FEATURES

- Power Rating : 1800W, 3600W, 4500W
- Voltage Range : 50V ~ 350Vrms
- Current Range : Up to 18Arms, 36Arms, 45Arms
- Peak Current : Up to 54A, 108A, 135A
- Parallel / 3-Phase Function
- Frequency Range : 45 ~ 440Hz, DC
- Crest Factor Range : 1.414 ~ 5.0
- Power Factor Range : 0 ~ 1 lead or lag (Rectified mode)
- CC, CR, CV, CP for DC Loading
- Constant & Rectified Load Modes for AC Loading
- Analog Voltage & Current Monitor
- Timing Measurement for Battery, UPS, Fuse and Breaker tests
- Measurement : V, I, PF, CF, P, Q, S, F, R, Ip+/- and THDv
- Short circuit simulation
- Full Protection : OC, OP, OT protection and OV alarm

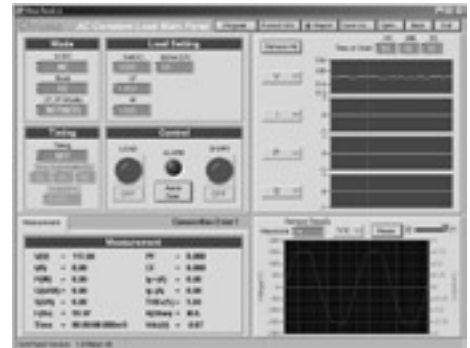
Chroma's 63800 Series AC&DC Electronic Loads are design for testing uninterruptible power supplies(UPS), Off-Grid Inverters, AC sources and other power devices such as switches, circuit breakers, fuses and connectors.

The Chroma 63800 Loads can simulate load conditions under high crest factor and varying power factors with real time compensation even when the voltage waveform is distorted. This

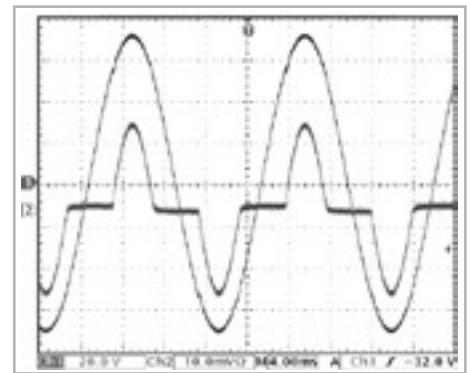
### Softpanel



Main Operation Menu

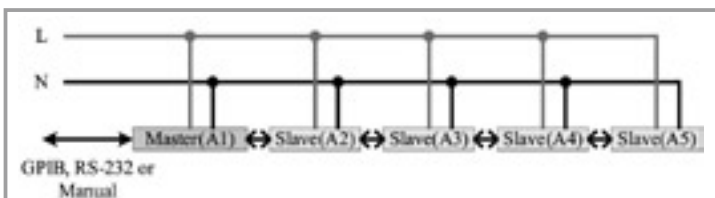


AC Load

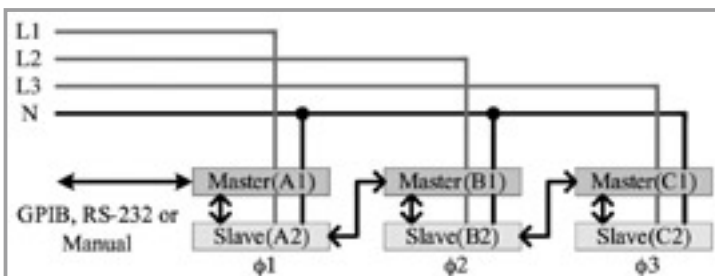


### ORDERING INFORMATION

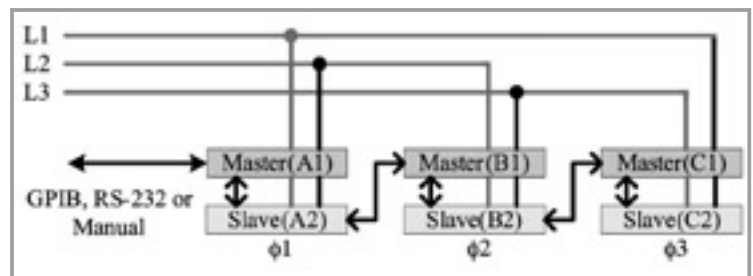
- 63802** : Programmable AC&DC Electronic Load 1800W/18A/350V
- 63803** : Programmable AC&DC Electronic Load 3600W/36A/350V
- 63804** : Programmable AC&DC Electronic Load 4500W/45A/350V



Parallel connection



Parallel/3-Phase Y connection



Parallel/3-Phase Delta connection

SPECIFICATIONS			
Model	63802	63803	63804
<b>Power</b>	<b>1800W</b>	<b>3600W</b>	<b>4500W</b>
<b>Current</b>	0 ~ 18Arms (54 Apeak, continue)	0 ~ 36Arms (108 Apeak, continue)	0 ~ 45Arms (135 Apeak, continue)
<b>Voltage*1</b>	50 ~ 350Vrms (500 Vpeak)	50 ~ 350Vrms (500 Vpeak)	50 ~ 350Vrms (500 Vpeak)
<b>Frequency</b>	45 ~ 440Hz, DC	45 ~ 440Hz, DC	45 ~ 440Hz, DC
<b>AC Section</b>			
<b>Constant Current Mode</b>			
<b>Range</b>	0 ~ 18Arms, Programmable	0 ~ 36Arms, Programmable	0 ~ 45Arms, Programmable
<b>Accuracy</b>	0.1% + 0.2%F.S.	0.1% + 0.2%F.S.	0.1% + 0.2%F.S.
<b>Resloution</b>	2mA	5mA	5mA
<b>Constant Resistance Mode</b>			
<b>Range</b>	2.77Ω ~ 2.5kΩ, Programmable	1.39Ω ~ 2.5kΩ, Programmable	1.11Ω ~ 2.5kΩ, Programmable
<b>Accuracy</b>	0.5% + 0.5%F.S.	0.5% + 0.5%F.S.	0.5% + 0.5%F.S.
<b>Resloution*2</b>	20μS	50μS	50μS
<b>Constant Power Mode</b>			
<b>Range</b>	1800W, Programmable	3600W, Programmable	4500W, Programmable
<b>Accuracy</b>	0.5% + 0.5%F.S.	0.2% + 0.3%F.S.	0.2% + 0.3%F.S.
<b>Resloution</b>	0.375W	1.125W	1.125W
<b>Crest Factor (under CC, CP modes)</b>			
<b>Range</b>	1.414 ~ 5.0, Programmable	1.414 ~ 5.0, Programmable	1.414 ~ 5.0, Programmable
<b>Accuracy</b>	(0.5% / Irms) + 1% F.S.	(0.5% / Irms) + 1%F.S.	(0.5% / Irms) + 1%F.S.
<b>Resloution</b>	0.005	0.005	0.005
<b>Power Factor</b>			
<b>Range</b>	0 ~ 1 lead or lag, Programmable	0 ~ 1 lead or lag, Programmable	0 ~ 1 lead or lag, Programmable
<b>Accuracy</b>	1%F.S.	1%F.S.	1%F.S.
<b>Resloution</b>	0.001	0.001	0.001
<b>Rectified Load Mode</b>			
<b>Operating Frequency</b>	45Hz ~ 70Hz		
<b>RLC Mode</b>	Parameter : Ip(max), R <sub>s</sub> , L <sub>s</sub> , C, R <sub>L</sub>		
<b>Constant Power Mode</b>	Parameter : Ip(max), Power setting=200W ~ 1800W, PF=0.4 ~ 0.75	Parameter : Ip(max), Power setting=200W ~ 3600W, PF=0.4 ~ 0.75	Parameter : Ip(max), Power setting=200W ~ 4500W, PF=0.4 ~ 0.75
<b>Inrush Current Mode</b>	Parameter : Ip(max), R <sub>s</sub> , L <sub>s</sub> , C, R <sub>L</sub> , Phase		
	80A (peak current)	160A (peak current)	200A (peak current)
<b>R<sub>s</sub> Range</b>	0 ~ 9.999Ω	0 ~ 9.999Ω	0 ~ 9.999Ω
<b>L<sub>s</sub> Range</b>	0 ~ 9999μH	0 ~ 9999μH	0 ~ 9999μH
<b>C Range</b>	100 ~ 9999μF	100 ~ 9999μF	100 ~ 9999μF
<b>R<sub>L</sub> Range</b>	2.77 ~ 9999.99Ω	1.39 ~ 9999.99Ω	1.11 ~ 9999.99Ω
<b>DC Section</b>			
<b>Voltage Range</b>	7.5V ~ 500V	7.5V ~ 500V	7.5V ~ 500V
<b>Current Range</b>	0A ~ 18A	0A ~ 36A	0A ~ 45A
<b>Min. operating voltage</b>	7.5V	7.5V	7.5V
<b>Rise time</b>	75μs	75μs	75μs
<b>Operating Mode</b>	CC, CV, CR, CP, DC Rectified		
<b>Short Circuit Simulation</b>	Use the CR mode loading under max. power rating		
<b>Measurement Section</b>			
<b>DVM Range</b>	500.0V	500.0V	500.0V
<b>DVM Accuracy</b>	0.1% + 0.1%F.S.	0.1% + 0.1%F.S.	0.1% + 0.1%F.S.
<b>DVM Resloution</b>	10mV	10mV	10mV
<b>DAM Range</b>	80.00A	160.00A	200.00A
<b>DAM Accuracy(&lt;70Hz)</b>	0.1% + 0.2%F.S.	0.1% + 0.2%F.S.	0.1% + 0.2%F.S.
<b>DAM Accuracy(&gt;70Hz)</b>	0.1% (1+CF <sup>2</sup> x kHz)+0.2% F.S.	0.1% (1+CF <sup>2</sup> x kHz)+0.2% F.S.	0.1% (1+CF <sup>2</sup> x kHz)+0.2% F.S.
<b>DAM Resloution</b>	1.0mA	2.5mA	2.5mA
<b>Other Parameter</b>	P(W), S(VA), Q(VAR), CF, PF, Freq, R, Ip-, Ip+, THDv		
<b>Others</b>			
<b>Vmonitor</b>	± 500V / ± 10V (Isolated)	± 500V / ± 10V (Isolated)	± 500V / ± 10V (Isolated)
<b>Imonitor</b>	± 80A / ± 10V (Isolated)	± 200A / ± 10V (Isolated)	± 200A / ± 10V (Isolated)
<b>Protection *1</b>	OCP : 19.2Arms ; OV alarm: 360Vrms (DC : 510VDC) OPP : 1920W ; OTP	OCP : 38.4Arms ; OV alarm: 360Vrms (DC : 510VDC) OPP : 3840W ; OTP	OCP : 48Arms ; OV alarm: 360Vrms (DC : 510VDC) OPP : 4800W ; OTP
<b>Remote Interface</b>	GPIB, RS-232		
<b>Line Voltage</b>	115/230 Vac ± 15%		
<b>Dimension (H x W x D)</b>	177 x 430 x 585 mm / 7.0 x 17.0 x 23.0 inch	310 x 430 x 585 mm / 12.2 x 17.0 x 23.0 inch	310 x 430 x 585 mm / 12.2 x 17.0 x 23.0 inch
<b>Weight</b>	34kg / 74.89lbs	60 kg / 132.16 lbs	60 kg / 132.16 lbs

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

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

Photovoltaic  
Test Equipment

Semiconductor/IC  
Test Equipment

LED  
Test Equipment

LED/LCM  
Test Equipment

Video & Color  
Test Equipment

Optical Inspection  
Equipment

Power Electronics  
Test Equipment

Passive Component  
Test Instruments

Electrical Safety  
Test Instruments

General Purpose  
Test Instruments

PXI Instruments  
& Systems