



The Chroma 6400 series Programmable AC Power Source uses state of the art PWM technology to deliver pure, instrument grade AC power at very low cost never achieved before. The 6400 AC power source offers maximum rated power for any output voltage from 0 to 300VAC, at any frequency from 45 to 1kHz. It is not only suitable for commercial applications(47-63Hz), but also for avionics, marine, military applications at 400Hz.

All models generate very clean output with typical distortion less than 0.3%. Incorporating power factor correction circuit, the 6400 AC power source yields higher efficiency and delivers more output power than competitive instruments. Furthermore, it is capable of high peak repetitive current needed to drive most electronic products with high crest factor input design.

The 6400 AC power source uses advanced circuit to offer precision and high speed measurement of true RMS voltage, true RMS current, true power, frequency, power factor, and current crest factor. The 6400 AC power source is very easy to operate from the front panel keypad, or from the remote controller via GPIB, RS-232 or APG (Analog Programming) interface. The optional interface is designed as a plug-in card to change the unit in seconds into a computer controlled system power source.

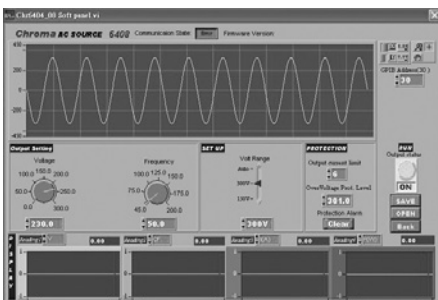
Designed with self diagnostic routine and protected against over-voltage, under-voltage, over-power, over-current, over-temperature and fan fail, the instrument offers quality and reliability for even the most demanding applications in production testing, R&D design characterization, and QA verification.

375~9000VA

KEY FEATURES

- Output distortion less than 0.3%, and peak repetitive current over 2.5 times of the rms current
- High accuracy measurement of RMS voltage, RMS current, true power, frequency, power factor, and current crest factor
- Built-in power factor correction circuit provides input power factor of over 0.98 to meet IEC regulations
- Programmable current limit
- Built-in output isolation relays
- EEPROM storage of user defined voltage & frequency combination for instant recall at anytime
- Optional GPIB, RS-232, Analog Programming interface
- Over-voltage, under-voltage, over-power, over-current, over-temperature, and short circuit protection
- Temperature controlled fan speed
- Self-test at power-on
- User-definable power-on state
- Easy use graphic user interface: softpanel (Option)

6400 Series Programmable AC Source Family



Softpanel of 6400 Series

ORDERING INFORMATION

- 6404** : Programmable AC Source 0~300V/45-500Hz/375VA
- 6408-1** : Programmable AC Source 0~300V/45-500Hz/800VA (input rating 90-132V)
- 6408-2** : Programmable AC Source 0~300V/45-500Hz/800VA (input rating 180-250V)
- 6415** : Programmable AC Source 0~300V/45-1000Hz (1500VA)
- 6420** : Programmable AC Source 0~300V/45-1000Hz (2000VA)
- 6430** : Programmable AC Source 0~300V/45-1000Hz (3000VA)
- 6460-2** : Programmable AC Source 0~300V/45-1000Hz (6000VA), output 1Ø, input 3Ø 220V
- 6460-3** : Programmable AC Source 0~300V/45-1000Hz (6000VA), output 1Ø, input 3Ø 380V
- 6463-2** : Programmable AC Source 0~300V/45-1000Hz (6000VA), output 1Ø or 3Ø Selectable, input 3Ø 220V
- 6463-3** : Programmable AC Source 0~300V/45-1000Hz (6000VA), output 1Ø or 3Ø Selectable, input 3Ø 380V
- 6490-2** : Programmable AC Source 0-300V/45-1000Hz (9000VA), output 1Ø or 3Ø Selectable, input 3Ø 220V
- 6490-3** : Programmable AC Source 0-300V/45-1000Hz (9000VA), output 1Ø or 3Ø Selectable, input 3Ø 380V
- A650001** : Remote Interface for Model 6415/6420/6430/6500 Series (External V Input, RS-232 Interface, GPIB Interface)
- A640003** : Remote Interface for Model 6404/6408 Series (External V Input, RS-232 Interface, GPIB Interface)
- A640004** : Softpanel for Model 6400 Series
- A610004** : Universal Socket Center for Model 6415/6420/ 6430 Series



Battery Test & Automation Solution
 Photovoltaic Test & Automation Solution
 Semiconductor/IC Test Solution
 Laser Diode Test Solution
 LED/Lighting Test Solution
 FPD Test Solution
 Video & Color Test Solution
 Automated Optical Inspection Solution
 Power Electronics Test Solution
 Passive Component Test Solution
 Electrical Safety Test Solution
 General Purpose Test Solution
 Thermoelectric Test & Control Solution
 PXI Test & Measurement Solution
 Manufacturing Execution Systems Solution

SPECIFICATIONS - 1				
Model	6404	6408	6415	6420
Output / Phase	1	1	1	1
Output Ratings				
Power / Phase	375VA	800VA	1500VA	2000VA
Voltage				
Range / Phase	150V/300V/Auto			
Accuracy	0.2% F.S. for freq. \leq 200Hz, 0.4% F.S. for freq. > 200Hz		0.2% + 0.2% of F.S.	
Resolution	0.1V	0.1V	0.1V	0.1V
Distortion	typical. 0.3% for freq. \leq 200Hz, 0.8% for freq. > 200Hz		0.5% for (45-500Hz), 1% for (> 500-1kHz)	
Line Regulation	0.1%	0.1%	0.1%	0.1%
Load Regulation	0.1%	0.1%	0.1%	0.1%
Temp. Coefficient	0.02% per °C			
Max. current				
RMS	2.5A/1.25A	5.33A/2.67A	15A/7.5A	20A/10A
peak	7A/3.5A \leq 100Hz 5.5A/12.75A > 100Hz	14.92A/7.47A \leq 100Hz 7.47A/5.87A > 100Hz	45A/22.5A \leq 100Hz (45-100Hz) 37.5A/18.75A (>100-1kHz)	60A/30A (45-100Hz) 50A/25A (>100-1kHz)
Frequency				
Range	45-500Hz	45-500Hz	45-1000Hz	45-1000Hz
Accuracy	0.1%	0.1%	0.1%	0.1%
Resolution	0.1Hz	0.1Hz	0.1Hz	0.1Hz
Input Ratings				
Voltage Operating Range	90-132V / 180-250V	90-132V (6408-1), 180-250V (6408-2)	1Ø 200~240V \pm 10%V _{LN}	1Ø 200~240V \pm 10%V _{LN}
Frequency Range	47-63Hz	47-63Hz	47-63Hz	47-63Hz
Current	7.5A max.	12A max.(6408-1), 6A max. (6408-2)	12A max.	15A max.
Power Factor	0.8 typical.	0.98 min.	0.95 min.	0.97 min.
Measurement				
Voltage / Phase				
Range	0-150V/0-300V	0-150V/0-300V	0-150V/0-300V	0-150V/0-300V
Accuracy (RMS)	0.1% + 0.1% F.S.		0.25% + 0.1% F.S.	
Resolution	0.1V	0.1V	0.1V	0.1V
Current / Phase				
Range (peak)	0-2A/2-10A	0-4A/4-20A	0-70A	0-100A
Accuracy (RMS)	0.5% + 0.2% F.S.	0.5% + 0.2% F.S.	0.4% + 0.2% F.S.	0.4% + 0.15% F.S.
Resolution	0.01A	0.01A	0.01A	0.01A
Power / Phase				
Range	0-375W	0-800W	0-1500W	0-2000W
Accuracy	0.5% F.S.	0.5% F.S.	1% F.S. (CF<6)	1% F.S. (CF<6)
Resolution	0.1 W	0.1 W	0.1 W for P<1000W, 1W for P>1000W	
Frequency				
Range	45-500Hz	45-500Hz	45-1000Hz	45-1000Hz
Accuracy	0.02%	0.02%	0.02%	0.02%
Resolution	0.1Hz	0.1Hz	0.1Hz	0.1Hz
Others				
Efficiency	75% typical	80% typical	80% typical	80% typical
Protection	UVP, OVP, OCP, OPP, OTP, Short			
Safety & EMC	CE (Include LVD and EMC Requirement)			
Dimension (H x W x D)	133.35 x 482.6 x 471.4 mm / 5.25 x 19 x 18.56 inch		221.5 x 425 x 567 mm / 8.72 x 16.73 x 22.32 inch	
Weight	18 kg / 39.65 lbs	23 kg / 50.66 lbs	23 kg / 50.66 lbs	27 kg / 59.47 lbs



SPECIFICATIONS -2				
Model	6430	6460	6463	6490
Output / Phase	1	1 (parallel or series)	1 or 3 selectable	1 or 3 selectable
Output Ratings				
Power / Phase	3000VA	6000VA	2000VA	3000VA
Voltage				
Range / Phase	150V/300V/Auto	150V/300V(parallel), 300V/500V(series)	150V/300V	150V/300V
Accuracy	0.2% + 0.2% of F.S.	0.2% + 0.2% of F.S.	0.2% + 0.2% of F.S.	0.2% + 0.2% of F.S.
Resolution	0.1V	0.1V	0.1V	0.1V
Distortion	0.5% for (45-500Hz), 1% for (> 500-1KHz)	1%	1%	1%
Line Regulation	0.1%	0.1%	0.1%	0.1%
Load Regulation	0.1%	0.2%(series), 0.8% (parallel)	0.2%(3 phases), 0.8% (1 phase)	0.2%(3 phases), 0.8% (1 phase)
Temp. Coefficient	0.02% per °C	0.02% per °C	0.02% per °C	0.02% per °C
Max. current				
RMS/Phase	30A/15A	60A/30A/15A (150V/300V/500V)	20A/10A (150V/300V)	30A/15A (150V/300V)
Peak Current/ phase-crest-factor	3(45-100Hz), 2.5(>100-1KHz)	180A/90A/45A (45-100Hz), 150A/75A/38A (>100-1kHz)	60A/30A (45-100Hz), 50A/25A (>100-1kHz)	90A/45A (45-100Hz), 75A/38A (>100-1kHz)
Frequency				
Range	45-1000Hz	45-1000Hz	45-1000Hz	45-1000Hz
Accuracy	0.1%	0.15%	0.15%	0.15%
Resolution	0.1Hz	0.01Hz (45-99.9Hz), 0.1Hz (100-999.9Hz)		
Input Ratings				
Voltage Operating Range	1Ø 200~240V ± 10%V _{LN}		3Ø 200~240V ± 10%V _{LN}	
Frequency Range	47-63Hz	47-63Hz	47-63Hz	47-63Hz
Current	23A max.	23A max./phase	15A max./phase	23A max./phase
Power Factor	0.98 min.	0.98 min. under full load	0.97 min. under full load	0.98 min. under full load
Measurement				
Voltage / Phase				
Range	0-150V/0-300V	0-150V/0-300V	0-150V/0-300V	0-150V/0-300V
Accuracy (RMS)	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.	0.25% + 0.1% F.S.
Resolution	0.1V	0.1V	0.1V	0.1V
Current / Phase				
Range (peak)	0-140A	0-280A	0-100A	0-140A
Accuracy (RMS)	0.4% + 0.1% F.S.	0.4% + 0.1% F.S.	0.4% + 0.15% F.S.	0.4% + 0.1% F.S.
Resolution	0.01A	0.01A	0.01A	0.01A
Power / Phase				
Range	0-3000W	0-3000W	0-2000W	0-3000W
Accuracy	1% F.S. (CF<6)	1% F.S. (CF<6)	1% F.S. (CF<6)	1% F.S. (CF<6)
Resolution	0.1 W for P<1000W, 1W for P>1000W	0.01 W	0.01 W	0.01 W
Frequency				
Range	45-1000Hz	45-1000Hz	45-1000Hz	45-1000Hz
Accuracy	0.02%	0.01%+2 count	0.01%+2 count	0.01%+2 count
Resolution	0.1Hz	0.01Hz	0.01Hz	0.01Hz
Others				
Efficiency	80% typical	80% typical	80% typical	80% typical
Protection	UVP, OVP, OCP, OPP, OTP, Short	OPP, OLP, OTP, FAN Fail		
Safety & EMC	CE (Include LVD and EMC Requirement)			
Dimension (H x W x D)	221.5 x 425 x 567 mm / 8.72 x 16.73 x 22.32 inch	765.94 x 546 x 700 mm / 30.16 x 21.5 x 27.56 inch*1	990 x 546 x 700 mm / 38.98 x 21.5 x 27.56 inch*1	990 x 546 x 700 mm / 38.98 x 21.5 x 27.56 inch*1
Weight	27 kg / 59.47 lbs	107 kg / 235.68 lbs	156 kg / 343.61 lbs	156 kg / 343.61 lbs

Note*1 : For dimension including the wheel set, please add 80mm to overall height.



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