PROGRAMMABLE AC SOURCE

SPECIFICATIONS:

Model	6430	6460	6463	6490
Output / Phase	1	1(Parallel or series)	1or 3 selectable	1or 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% of F.S. (45-1KHz)	0.2% of F.S.	0.2% of F.S.	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 parallel), 0.8% (1 phase)	0.2% (3 parallel), 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	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 Range	190-250V, 1Ø	190-250V, 3Ø	190-250V, 3Ø	190-250V, 3Ø
Frequency Range	47-63Hz	47-63Hz	47-63Hz	47-63Hz
Current	23A Max.	35A Max. /phase	24A Max. /phase	35A Max. /phase
Power Factor	0.98 Min.	——	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)	0.1% F.S. + 0.25%	0.1% F.S. + 0.25%	0.1% F.S. + 0.25%	0.1% F.S. + 0.25%
Resolution	0.1V	0.1V	0.1V	0.1V
Current / Phase				
Range (peak)	0-140A	0-140A	0-100A	0-140A
Accuracy (rms)	0.1% F.S. + 0.4%	0.1% F.S. + 0.4%	0.15% F.S. + 0.4%	0.1% F.S. + 0.4%
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 for P<1000W, 0.1W for P>1000W	0.01 W for P<1000W, 0.1W for P>1000W	0.01 W for P<1000W, 0.1W for P>1000W
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)			
Dimensions (WxHxD)	425x222x620 mm	546x845x700 mm	546x1065x700 mm	546x1065x700 mm

Ordering Information

Optional

A640002: Remote Interface for Model 6415/6420/6430 Series
A640003: Remote Interface for Model 6404/6408 Series (IEEE488.2, RS-232C, Analog Programming), CE WITH LVD
A650004: Universal Socket Center for Model 6415/6420/ 6430 Series
A600009: GPIB Cable (200cm)
A600010: GPIB Cable (60cm)

All specifications are subject to change without notice.

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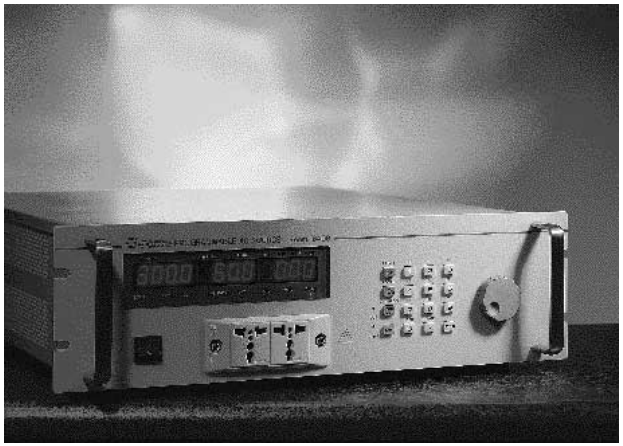


PROGRAMMABLE AC POWER SOURCE

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 ever achieved before. The 6400 AC power source offers maximum rated power for the output voltage from 0 to 300VAC, at the frequency from 45 to 1KHz. It is not only suitable for commercial applications (47-63Hz), but also for avionics, marine, and military applications at 400Hz.

The 6400 Series Programmable AC Power Source generates very clean output with typical distortion less than 0.3%. With the incorporated of 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 providing high peak repetitive current that is required to drive most electronic products with high crest factor input design.

The 6400 AC Power Source uses advanced DSP circuit to offer precision and high-speed measurement for 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 through the front panel keypad, or the remote controller via IEEE488, RS-232C 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 protections against over voltage, under voltage, overpower, over current, over temperature and fan fail, the instrument has the qualities and reliability that can suit for the most demanding applications in production tests, R&D design, and QA verification.

PROGRAMMABLE AC POWER SOURCE

MODEL 6400 Series

Key Features:

- Output Rating:

  Power: 375VA,1ø (6404)
  800VA,1ø (6408)
  1500VA,1ø (6415)
  2000VA,1ø (6420)
  3000VA,1ø (6430)
  6000VA,1ø (6460)
  1øor 3ø (6463)
  9000VA,1øor 3ø (6490)

  Voltage: 0-150V / 0-300V / Auto (6404, 6408, 6415, 6420, 6430)
  150V / 0-300V(parallel) (6460)
  300V / 0-500V(serial) (6460)
  150V / 0-300V(6463, 6490)
- Output distortion less than 0.3%, and peak repetitive current over 2.5times for rms current. (6404, 6408)
- High accuracy measurement for RMS voltage, RMS current, true power, frequency, power factor, and current crest factor.
- Built-in power factor correction circuit provides input power factor over 0.98 to meet IEC regulations.
- Programmable current limit.
- Built-in output isolation relays.
- EEPROM storage for user defined voltage and frequency combination for instant recall at anytime.
- Optional GPIB, RS-232C, and Analog Programming Interface.
- Over voltage, under voltage, overpower, over current, over temperature, and short circuit protection.
- Temperature controlled fan speed.
- Self-test at power-on.
- User-definable power-on state.

The Cost Effective Programmable AC Power Sources

6400 Series

The 6400 Series AC Power Source supplies very clean output with typical output distortion less than 0.3% THD. The output is transformer isolated (6404 & 6408) providing an exceptionally low total harmonic distortion without sacrificing efficiency. Remote sense connections are provided for superb output regulation to compensate for load line losses while keeping the output at a precise level regardless of output load condition.

The 6400 Series incorporates input power factor correction circuitry resulting in high efficiency and lower input line current. The 6400 Series employs advanced DSP circuitry (6404 & 6408) or 16-bit measurement circuit to provide precise high-speed measurement of the output for true RMS voltage, true RMS current, true power, frequency, power factor, and current crest factor. These output measurements can be displayed on the large, easy to read, front panel readout. The 6400 Series are easy to operate using the front panel keypad, (6404 & 6408) with 9-user programmable output voltage, frequency, and current limit combinations for quick and consistent testing. An optional controller can be added for GPIB/IEEE-488, RS232C, or analog programming for completely automated testing applications. The interface is a plug-in card that can change the 6400 from a manual unit to a computer-controlled system AC power source.

With the small 5.25 inches height packaged (6404 & 6408), and lightweight, the model 6400 is perfectly suitable for bench top applications where space is at a premium. The easy to use and easy to read front panel control/readout system makes setup and quick measurements simple. The front panel receptacles can be used for most line cord plugs without adapters. Rear panel terminals are also provided for hard-wired connections. A temperature controlled fan speed circuit is used to keep fan noise reduced when operating on the bench or in a quiet lab environment. The 6400 Series can also be easily rack-mounted without special mounting kits or modifications.

The wide output voltage range of 0-300 VAC (0-500VAC for Model 6460) can be selected for either 0-150 VAC or 0-300 VAC, or set to auto-ranging output voltage. The 45-1000 Hz output frequency range provides excellent flexibility in a small compact unit with a great performance / cost ratio. The programmable current limit adds to the flexibility while reducing current flow potential for non-destructive testing easily.

The 6400 Series provides a self-diagnostic routine, easy to set programmable output over voltage limit, input line under voltage protection, output overpower, over current, over temperature, and fan failure protection.

The 6400 Series offers quality, reliability, and flexibility for the most demanding applications in production tests, R&D, and QA verification.


IEC standard compliance testing


PC and monitor testing


Servo motor, synchro motor testing


AC ballast testing


Transformers testing


Relays, switches testing


TRIACs, SCRs and passive components testing


Product safety testing


UPS function & environmental testing

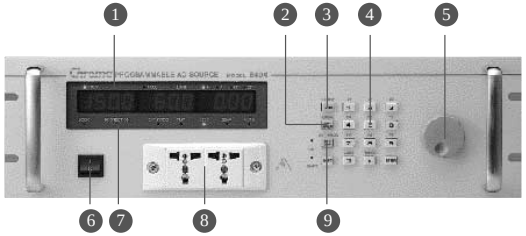

Power supply input function & environmental testing


Air-conditioner testing


Avionics testing of military and aircraft


Breakers, fuses testing


Lamp circuit testing



1.Measurement item indicators.
2.Select measurement items of current, power factor, or crest factor.
3.Set output voltage, frequency, and current limit.
4.Data setting and function keys.
5.Rotary knob for adjusting output setting.
6.Power switch
7.Status indicators
8.Universal output socket
9.Output enable and disable.

PROGRAMMABLE AC SOURCE

SPECIFICATIONS:

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	150V/300V/Auto	150V/300V/Auto	150V/300V/Auto
Accuracy	0.2% of F.S. for freq. ≤200Hz, 0.4%F.S. for freq. >200Hz		0.2% of F.S.(45-1KHz)	0.2% of F.S.(45-1KHz)
Resolution	0.1V	0.1V	0.1V	0.1V
Distortion	typ.0.3% for freq. ≤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	0.02% per °C	0.02% per °C	0.02% per °C
Max. current -rms	2.5A/1.25A	5.33A/2.67A	15A/7.5A	20A/10A
Peak Current/Phase -crest factor	typ. 2.8 for freq. ≤ 100Hz, typ. 2.2 for freq. >100Hz		3(45-100Hz), 2.5(>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 Range	90-132V/180-250V	90-132V(6408-1), 180-250V(6408-2)	190-250V,1Ø	190-250V,1Ø
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 typ.	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% F.S. + 0.1%	0.1% F.S. + 0.1%	0.1% F.S. + 0.25%	0.1% F.S. + 0.25%
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)	0.2% F.S. + 0.5%	0.2% F.S. + 0.5%	0.2% F.S. + 0.4%	0.15% F.S. + 0.4%
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)			
Dimensions (WxHxD)	482x133x500 mm	482x133x500 mm	425x222x620 mm	425x222x620 mm