

AC SOURCES 304/308

combinova



PROGRAMMABLE AC POWER SOURCE MODELS 304/308

The Combinova 304/308 Series Programmable AC Power Sources use state of the art PWM technology to deliver pure, instrument grade AC power at a very low cost never achieved before. 304/308 power sources offer maximum rated power for any output voltage from 0 to 300VAC, at any frequency from 45 to 1kHz. They are not only suitable for commercial applications (45-65Hz), but also for avionics, marine and military applications at 400Hz.

The 304/308 Series Programmable AC Power Sources generate very clean output with a typical distortion of less than 0.3%. Incorporating power factor correction circuits, the 304/308 yield higher efficiency and deliver more output power than competitive instruments. The instruments are also capable of delivering high peak repetitive currents needed to drive most electronic products with high crest factor input designs.

The 304/308 AC Power Sources use an advanced DSP based design to offer precision and high speed measurements of true RMS voltage, true RMS current, true power, frequency, power factor and current crest factor.

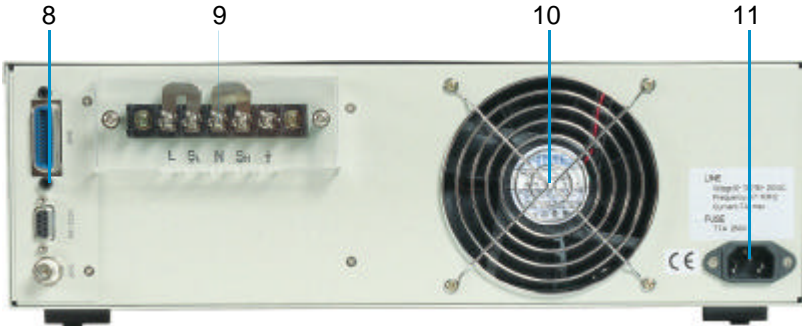
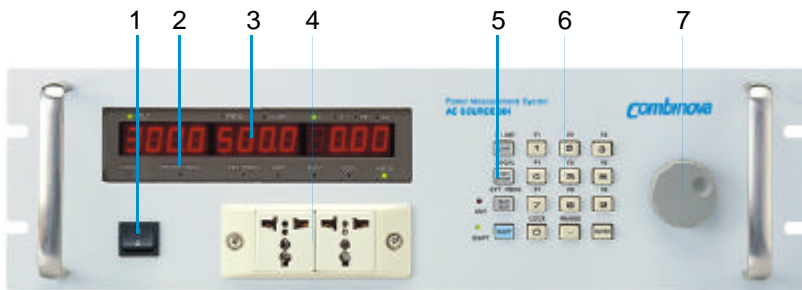
The 304/308 AC Power Sources are very easy to operate from the front panel keypad or by using the built-in GPIB/RS-232/APG (Analog Programming) interfaces.

Long term reliability is provided even under the most demanding applications in production testing, R&D design and Q+A verification. Being designed with self diagnostic routines, the instruments are protected against over-voltage, under-voltage, over-power, over-current, over-temperature and fan fail.

Key Features:

- Output Ratings:
 - 375VA(304)
 - 800VA(308)
 - 0-150V / 0-300V / Auto
 - 45 - 1000Hz
 - 5.3A RMS/2.7A RMS(308)
- 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.
- Non-volatile storage of user defined voltage and frequency combination for instant recall at anytime.
- GPIB, RS-232 and analog programming interface for remote control applications.
- Over-voltage, under-voltage, over-power, over-current, over-temperature and short circuit protection.
- Temperature controlled fan.
- Self-test at power-on.
- User definable power-on state.
- Easy access front panel power sockets and rear panel cable connectors for load connection.
- National Instrument LabView™ and LabWindow™ drivers available.
- Supported by Analyzer 300.





- 1. Mains Switch**
- 2. Status Indicators**
- 3. Main Display**
Shows output selections and measurement results
- 4. Universal Output Sockets**
- 5. Instrument Mode Selectors**
- 6. Numeric Keypad**
For data entry
- 7. Rotary Knob**
For data entry
- 8. Remote Control Panel**
GPIB, RS-232C and Analog Programming
- 9. Power Output Connectors with Sense**
- 10. Fan**
- 11. IEC Type Power Supply Socket**

Specifications:

Model	AC SOURCE 304	AC SOURCE 308
OUTPUT RATINGS		
Max. Power	375VA	800VA
Voltage		
Range	150V/300V/Auto	150V/300V/Auto
Accuracy		0.2% of Full Scale (for freq. 45-200Hz) 0.4% of Full Scale (for freq. 200-500Hz)
Resolution	0.1V	0.1V
Distortion		Typ. 0.3% (for freq. 45-200Hz) 0.8% (for freq. 200-500Hz)
Line Regulation	0.1%	0.1%
Load Regulation	0.1%	0.1%
Temp. Coefficient	0.02% per °C	0.02% per °C
Max. Current - RMS	2.5A/1.25A	5.33A/2.67A
Crest Factor		Typ. 2.8 (for freq. 45-100Hz) 2.2 (for freq. 100-500Hz)
Frequency		
Range	45-500Hz	45-500Hz
Accuracy	0.1%	0.1%
Resolution	0.1Hz	0.1Hz
INPUT RATINGS		
Voltage Range	90-132V/180-250V	90-132V (308-1) 180-250V (308-2)
Frequency Range	47-63Hz	47-63Hz
Current	7.5A Max.	12A Max. (308-1) 6A Max. (308-2)
Power Factor	0.8 Typ.	0.98 Min.
MEASUREMENT		
Voltage		
Range	0-150V/0-300V	0-150V/0-300V
Accuracy	0.1% of Full Scale + 0.1%	0.1% of Full Scale + 0.1%
Resolution	0.1V	0.1V
Current		
Range	0-2A/2-10A	0-4A/4-20A
Accuracy	0.2% of Full Scale + 0.5%	0.2% of Full Scale + 0.5%
Resolution	0.01A	0.01A
Power		
Range	0-375W	0-800W
Accuracy	0.5% of Full Scale	0.5% of Full Scale
Resolution	0.1W	0.1W
OTHER		
Efficiency	75% Typ.	80% Typ.
Protection		UVP, OVP, OCP, OPP, OTP, Short
Safety & EMC		CE (Including LVD and EMC Requirements)
Dimensions (WxHxD)	482x133x500mm	482x133x500mm
Weight	19kgs (41.9 lbs)	23 kgs (50.7 lbs)

All specifications are subject to change without notice.

COMBINOVA AB
 PO Box 200 50
 S-161 02, Bromma, Sweden
 Tel#: +46-8-6279310
 Fax#: +46-8-295985
 www: www.combinova.se

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