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Data Sheet

August 14, 2026

ELGAR

Elgar CW2501P AC Power Source 2.5kVA

Elgar CW2501P ContinuousWave AC Power Source The Elgar CW2501P is a programmable 2500 VA single-phase ContinuousWave AC power source in a 3U chassis. OEM CW Series datasheet rows rate 0 to 135 Vrms or 0 to 270 Vrms, 18.6 Arms on the low range, 45 to 500 Hz standard frequency, and IEEE-488.2 / RS-232 control. Avionics 400 Hz testing, ballast and component AC testing, AC-to-DC converter power-supply test, and programmable single-phase AC source applications needing DSP measurements. Programmable CW-P series with IEEE-488.2 and RS-232 The Elgar CW2501P is a programmable 2500 VA single-phase ContinuousWave AC power source in a 3U chassis. OEM CW Series datasheet rows rate 0 to 135 Vrms or 0 to 270 Vrms, 18.6 Arms on the low range, 45 to 500 Hz standard frequency, and IEEE-488.2 / RS-232 control. Avionics 400 Hz testing, ballast and component AC testing, AC-to-DC converter power-supply test, and programmable single-phase AC source applications needing DSP measurements. Programmable CW-P series with IEEE-488.2 and RS-232 DSP measurements of V_I peak crest factor watts VA PF and frequency



MODEL

Elgar CW2501P

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

CW2501P

LISTING

<https://aumictechlabs.com/products/cw2501p-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Elgar CW2501P is a 2500 VA programmable AC power source designed for applications requiring precise and reliable power delivery. It features a switch-mode design and offers both

benchtop and rackmount configurations, with the 2500 VA model being 3U high and equipped with rear panel output connections. This model is part of the ContinuousWave (CW) Series, known for providing clean single-phase power at a competitive . The CW2501P is suitable for ATE systems, laboratory use, and component testing, including applications like testing for real-world sine wave power conditions, 400 Hz avionics testing, ballast testing, and power supply verification.

Technical Specifications

- Power Rating:** 2500 VA
- Output Voltage Ranges:**
 - * 0-135 VAC (Low Range)
 - * 0-270 VAC (High Range)
 - * Optional: 0-155V / 0-310V output
 - * Optional: 0-200V / 0-400V output
- Frequency Range:**
 - * Standard: 45 Hz to 500 Hz
 - * Optional Expanded: 45 Hz to 1000 Hz
- Output Stability:**
 - * Voltage: $\pm 0.05\%$ of full scale
 - * Line Regulation: $\pm 0.1\%$ of full scale for $\pm 10\%$ line change
- Measurements (DSP-based):**
 - * Voltage
 - * Current (Amperes, Peak Amperes, Crest Factor)
 - * Power (Watts, VA, Power Factor)
 - * Frequency
 - * Power Factor: > 0.99 typical
- Input:**
 - * Input: * Power Factor Corrected (PFC) universal input voltage
 - * Wide AC input range (e.g., 180 VAC to 264 VAC on CW 2501)
- Electrical Characteristics**
 - * Current:
 - * 135 VAC Range: 18.6 ARMS (Note: Some sources list 6.0 ARMS for 135VAC range, which may refer to a specific configuration or be an incomplete value. Further clarification from datasheet is recommended.)
 - * 270 VAC Range: 9.3 ARMS (Note: Similar to the 135VAC range, some sources may provide different current ratings. Consult datasheet for precise values.)
 - * Peak Current Range: 0-70A
- Overvoltage Protection:** Adjustable setpoint with state indication
- Overcurrent Protection:** Transformer coupled output protected
- Over Temperature Protection:** Unit protected against over temperature conditions

Interfaces and Control

- * **Programmable Control:** Front panel encoder knobs for voltage, current, and frequency settings
- * **Display:** Two bright, four-digit, seven-segment LED displays for programmed or measured values
- * **Communication Interfaces:**
 - * Standard IEEE-488.2
 - * Standard RS-232
- * **Remote Voltage Sense:** Standard Analog
- * **Programming:** 0 to 5V analog signal for remote frequency and voltage programming

SCPI Compliance: Conforms to IEEE 488.2 and SCPI command syntax version 1995.0

Factory Defaults: GPIB Address: 25, RS-232 Baud Rate: 9600, Data Bits: 8, Stop Bits: 1, Parity: N

Physical and Environmental

- * **Form Factor:** 3U (5.25 inches) high
- * **Configuration:** Benchtop or rackmount
- * **Output Connections:** Rear panel
- * **Cooling:** Two-speed fan for quieter operation at lower power levels

Compatibility and Operation Modes

- * **Single Phase Operation:** Standard
- * **Three Phase Operation:** Can be paralleled or configured for three-phase operation using factory-supplied cable or with multiple units
- * **Paralleling:** Both series can be paralleled to provide extra power
- * **Current Modes:** Current shutdown or foldback modes
- * **Output Control:** Separate output-on switch

Why Choose Aumictech for the ELGAR CW2501P?

At Aumictech, we specialize in supplying high-end AC power source equipment. Whether you need solid programmable control for automated test systems, precise voltage and frequency outputs for component validation, or reliable power for laboratory research, our team ensures the ELGAR CW2501P delivers maximum performance for your application.

CW2501P Characteristics / Specifications

PARAMETER	VALUE
Output Power	2500 VA
Voltage Ranges	0 to 135 Vrms and 0 to 270 Vrms user selectable
Voltage Accuracy Programmable	plus or minus 0.1% of range below 100 Hz; plus or minus 0.2% of range above 100 Hz
Voltage Resolution	0.1 Vrms
Current 135 V Range	18.6 ARMS
Current 270 V Range	9.3 ARMS
Current Accuracy	plus or minus 0.5% max
Current Resolution	0.01 ARMS
Frequency Range Standard	45 to 500 Hz
Frequency Accuracy	plus or minus 0.02% max
Frequency Resolution	0.1 Hz (0.01 Hz remote programming)
THD Typical Below 100 Hz	0.25%
AC Noise Level Typical	less than 100 mVRMS
Amplitude Stability	plus or minus 0.05% of full scale
Load Regulation	plus or minus 0.1% of full scale voltage
Line Regulation	plus or minus 0.1% of full scale voltage for plus or minus 10% line change
Remote Sense Capability	5 Vrms total lead drop
Peak Current Measurement Range	0 to 70 A
Input Voltage	180 to 264 VAC
Input Current	19.5 ARMS max
Input Frequency	47 to 63 Hz
Power Factor Input Typical	greater than 0.99 at full load
Efficiency Typical	greater than 73% at full load
Height	5.25 in

PARAMETER	VALUE
Width	19 in
Depth	20.07 in
Weight	86 lb (39 kg)
Operating Temperature	0 to 40 C

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 40 C
Operating Temperature	0 to 40 C

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
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Current Resolution	0.01 ARMS
Frequency Range Standard	45 to 500 Hz
Frequency Accuracy	plus or minus 0.02% max
Frequency Resolution	0.1 Hz (0.01 Hz remote programming)
THD Typical Below 100 Hz	0.25%
AC Noise Level Typical	less than 100 mVRMS
Amplitude Stability	plus or minus 0.05% of full scale
Load Regulation	plus or minus 0.1% of full scale voltage
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Notes
Specs from Elgar ContinuousWave Series 800-2500 VA datasheet columns for CW 2501 P. OptionHexpands frequency to 1000 Hz; OptionVchanges voltage ranges.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.