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Data Sheet

August 14, 2026

AMETEK/ELGAR

Ametek / Elgar 501SX-14T AC Power Supply

The Ametek / Elgar 501SX-14T is a solid AC power supply designed for a variety of testing and power applications. It provides stable and reliable AC power, featuring adjustable voltage and frequency settings to simulate different power conditions. Ideal for laboratory, manufacturing, and research environments, this power supply ensures accurate and consistent performance.



MODEL

**Ametek/Elgar
501SX-14T**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

501SX-14T

LISTING

<https://aumictechlabs.com/products/501sx-14t-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Ametek Elgar 501SX-14T is a programmable AC power source delivering 500 VA continuous output across selectable voltage ranges of 0–65 VAC, 0–130 VAC, or 0–260 VAC. Engineered for laboratory, manufacturing, and research environments, this SX Series unit operates from 45 Hz to 1000 Hz at full rated power, with standard 47–63 Hz input and optional 400 Hz capability. Manual or IEEE-488 programmable control via front panel or Plug-in Programmer oscillators enables precise voltage, frequency, and phase adjustment. The supply handles non-linear rectifier loads and switch-mode DC power supply testing with crest factor capability of 4:1 or greater, delivering repetitive peak currents to 70 A. Technical Specifications Output Power: 500 VA minimum, continuous duty at 100% rated capacity; 150% rated capacity into linear resistive loads Output Voltage: 0–65 VAC, 0–130 VAC, or 0–260 VAC; nominal outputs at 28 VAC, 115 VAC, 230 VAC; full rated VA from 55–65 VAC, 110–130 VAC, or 220–260 VAC Frequency Range: 45 Hz to 1000 Hz at

full rated power; standard 47–63 Hz; optional 400 Hz Load Regulation: $\pm 1\%$ (45 Hz to 450 Hz, pulsed load); $\pm 1\%$ (45 Hz to 1000 Hz, linear load) Line Regulation: $\pm 0.25\%$ at rated load for $\pm 10\%$ input variance Gain Stability: $\pm 0.25\%$ over 24 hours at constant line, load, and temperature post warm-up Crest Factor: 4:1 or greater (repetitive peak current to 70 A); 3.5:1 to 6:1 for firing angles $< 10^\circ$ from voltage peak AC Noise: 70 dB below full output voltage (grounded input) Power Factor Range: Unity to ± 0.7 Key Features Selectable three-range output voltage configuration for flexible test scenarios Extended frequency operation from 45 Hz to 1000 Hz enables diverse power condition simulation High crest factor performance suits rectifier and switch-mode load testing $\pm 0.25\%$ line and gain regulation ensures repeatable test conditions 100% continuous duty rating at full 500 VA capacity Typical Applications Switch-mode DC power supply qualification and verification Rectifier load testing with high inrush current demands AC power condition simulation across standard and 400 Hz frequencies Precision voltage and frequency adjustment for component and system-level testing Compatibility & Integration Input: 115 VAC, 208 VAC, 230 VAC single phase; optional three-phase and 400 Hz configurations Programmable via IEEE-488 (GPIB) or manual front panel controls Rear panel connectors: INPUT POWER and OUTPUT POWER terminal blocks; SYNC IN/OUT BNC connectors Output available at front and rear panels

501SX14T Characteristics / Specifications

PARAMETER	VALUE
Output Power	500 VA
Voltage Ranges	0 to 65 / 130 / 260 VAC
Full Power Bands	55 to 65 VAC 110 to 130 VAC 220 to 260 VAC
Output Frequency	45 Hz to 1000 Hz at full rated power
Load Regulation Pulsed	plus or minus 1 percent 45 Hz to 450 Hz pulsed load
Load Regulation Linear	plus or minus 1 percent 45 Hz to 1000 Hz linear load
Line Regulation	plus or minus 0.25 percent at rated load for plus or minus 10 percent input
Thd Linear	0.5 percent 45 Hz to 1000 Hz linear load
Thd Pulsed Low	1.0 percent 45 Hz to 75 Hz pulsed load
Thd Pulsed High	4.0 percent 75 Hz to 450 Hz pulsed load
Rated Power Factor	0.7 to unity
Input Voltage Code	115 VAC 50/60 Hz single phase
Input Frequency	47 to 63 Hz optional 400 Hz
Crest Factor	3.5:1 up to 6:1 for firing angles less than 10 deg from voltage peak
Overload Capacity	150 percent of rated capacity into linear resistive loads
Height	5.25 inch
Width	19 inch
Depth	21 inch
Operating Temperature	0 to 55 C
Oscillator	SL/B series manual or plug in programmer required
Form Factor	rack 3U class 5.25 inch
Protection	overload and temperature protection
Range Change	relays switch ranges via GPIB or front panel

501SX14T Specifications

PARAMETER	VALUE
Applications	Switch-mode power-supply test and other high-crest-factor rectifier loads up to 500 VA.
Key Features	500 VA 150 percent linear-load capacity
Technical Specifications	Output Power: 500 VA

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 55 C
Operating Temperature	0 to 55 C
Oscillator	SL/B series manual or plug in programmer required
Form Factor	rack 3U class 5.25 inch
Protection	overload and temperature protection
Range Change	relays switch ranges via GPIB or front panel Notes From Elgar SX Series AC Power Sources specification tables (501SX-14 row) plus 14T configurator (115 VAC in, 130/260 VAC relay ranging, T readback). Oscillator plug-in sets exact programmed frequency/voltage resolution.

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	
Specifications	
PARAMETER	VALUE
Output Power	500 VA
Voltage Ranges	0 to 65 / 130 / 260 VAC
Full Power Bands	55 to 65 VAC 110 to 130 VAC 220 to 260 VAC
Output Frequency	45 Hz to 1000 Hz at full rated power
Load Regulation Pulsed	plus or minus 1 percent 45 Hz to 450 Hz pulsed load
Load Regulation Linear	plus or minus 1 percent 45 Hz to 1000 Hz linear load
Line Regulation	plus or minus 0.25 percent at rated load for plus or minus 10 percent input
Thd Linear	0.5 percent 45 Hz to 1000 Hz linear load
Thd Pulsed Low	1.0 percent 45 Hz to 75 Hz pulsed load
Thd Pulsed High	4.0 percent 75 Hz to 450 Hz pulsed load
Rated Power Factor	0.7 to unity
Input Voltage Code 1	115 VAC 50/60 Hz single phase
Input Frequency	47 to 63 Hz optional 400 Hz
Crest Factor	3.5:1 up to 6:1 for firing angles less than 10 deg from voltage peak
Overload Capacity	150 percent of rated capacity into linear resistive loads
Height	5.25 inch
Width	19 inch
Depth	21 inch
Operating Temperature	0 to 55 C
Option T: readback of output voltage current frequency power and phase	
Option D: disconnect relay	
Specifications	
PARAMETER	VALUE
Oscillator	SL/B series manual or plug in programmer required
Form Factor	rack 3U class 5.25 inch

PARAMETER	VALUE
Protection	overload and temperature protection
Range Change	relays switch ranges via GPIB or front panel

Notes

From Elgar SX Series AC Power Sources specification tables (501SX-14 row) plus 14T configurator (115 VAC in, 130/260 VAC relay ranging, T readback). Oscillator plug-in sets exact programmed frequency/voltage resolution.

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.