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Data Sheet

August 14, 2026

ELGAR

Elgar 1503 AC Power Supply 1.5kVA

The Elgar 1503 is a classic Elgar AC power source providing programmable or adjustable AC voltage and frequency for avionics and line simulation testing. OEM Elgar AC source literature positions 1500-series units for single or multi phase AC power in laboratory and ATE environments. Avionics AC power simulation, 50/60/400 Hz line testing, and AC product margin testing matched to the unit VA rating. Adjustable AC voltage and frequency class Avionics frequency support class including 400 Hz Adjustable AC voltage and frequency class Avionics frequency support class including 400 Hz Single or multi phase configurations on family Instrument Family: Elgar 1503 AC power source



MODEL

Elgar 1503

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

1503

LISTING

<https://aumictechlabs.com/products/1503-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Elgar 1503 is a three-phase AC power source designed for various testing, research, and industrial applications, delivering stable and reliable power with excellent regulation and low noise. It is engineered for demanding environments in electronics manufacturing, research and development, and quality assurance testing. Technical Specifications * Product Name: Elgar 1503 AC Power Source Manufacturer: Elgar (also associated with Power Ten and Ametek/California Instruments) Output Power: * Per Phase: 0-500 VA * Total: Up to 1500 VA (1.5 kVA) * 150 kVA (Note: This appears to be a potential typo in the source; 1.5 kVA is more consistently reported.) Output Voltage (Adjustable): * Line to Neutral: 0-130 VAC * Line to Line: 0-130 VAC * 0-135 VAC *

0-270 VAC (for single-phase output, potentially in specific configurations like 1503L-3P) Output Configuration: * 4-wire wye, isolated from ground * Any one phase or neutral can be grounded * Selectable 1 or 3 Phase Output (Option MODE on 1503L-3P) Output Frequency Range: * 45 Hz to 5 kHz * 17 Hz to 5 kHz (for 1503L-3P) Frequency Control: * Controlled by an Elgar three-phase plug-in oscillator * Available in variable frequency or fixed frequencies * Accuracy up to 0.0001% * Fixed oscillator example: 400 Hz, 3 Phase, 0.1% Tolerance Power Factor: Unity to ± 0.7 Line Regulation: ± 1 volt (reported in context of 150kVA, may vary with actual configuration) Load Regulation: (Specifications vary based on load and frequency, adjustable through zero) Distortion: (Not explicitly detailed in the provided snippets) Hum and Noise: (Not explicitly detailed in the provided snippets) Input Power: (Not explicitly detailed in the provided snippets) Internal Architecture: * Functionally consists of two DC power supplies, three power amplifiers with associated control circuitry, and a three-phase output power transformer * DC supplies are obtained from a full-wave bridge rectifier on the secondary of the input power transformer, nominal ± 45 V DC * Three power amplifiers mounted on heatsink assemblies, controlled by plug-in amplifier circuit boards * Uses a triple-phase diode rectifier bridge * Features a simple design with two main circuit boards Control and Monitoring: * Front panel amplitude control potentiometer * Digital microprocessor controls variable power output, provides diagnostic monitoring and protection * Electronic programming features: voltage and current control, voltage and current monitoring, overload reduction * Programmable Controller Module installed (on 1503L-3P) * Automatic remote calibration and comprehensive self-tests (L Series) Electrical Characteristics * Input Voltage: 115/230 VAC (for 1503L-3P) Input Phase: 1-Phase (for 1503L-3P) Input Frequency: 47-440 Hz (for 1503L-3P) Interfaces * Output Connections: * Front panel binding posts * Rear panel output power terminal block Physical Characteristics * Enclosure: High-grade aluminum alloy, designed for noise-cancelling and heat dissipation, resistant to wear and tear Mounting: Designed for installation within an electrical panel; can be set up and wired in multiple configurations Weight: 250 lbs /ea (for 1503L-3P, ship weight) Compatibility * Oscillators: Requires an Elgar three-phase plug-in oscillator for frequency control. Available in variable or fixed frequencies. Standards: Reference to ANSI/IEEE standards (e.g., C62.45, C63.2, C63.4, C63.16, C37.90) suggests compatibility with common testing protocols. Programmability: Specific models (e.g., 1503L-3P) may include programmable controllers for comprehensive functions. Why Choose Aumictech for the ELGAR 1503? At Aumictech, we specialize in supplying AC power source equipment. Whether your lab requires precise voltage and frequency control for product validation, solid power for motor testing, or reliable AC simulation for research and development, our team ensures the ELGAR 1503 delivers maximum performance and operational efficiency for your critical applications.

1503 Characteristics / Specifications

PARAMETER	VALUE
Instrument Family	Elgar 1503 AC power source
Output Type	AC voltage
Frequency Coverage Class	45 to 500 Hz or 400 Hz class by configuration
Voltage Ranges Class	dual range low/high Vac class
VA Rating Class	1500 VA class adjacency on model number
Phases	single or multi phase class by configuration
Metering	voltage current frequency class
Form Factor	rack mount
AC Input	mains powered
Regulation Class	specified on datasheet
Distortion Class	low THD class on Elgar sources
Remote Programming Class	analog/digital options on family
Protection	overcurrent overtemperature class
Operating Temperature Class	laboratory/ATE
Series Family	Elgar 1500
Sense	remote sense class on family
Current Limit	yes class
Output On Control	yes class
Manufacturer	per instrument faceplate branding
Documentation Basis	OEM datasheet or operating manual family
Specification Ambient Class	23 C class unless otherwise stated
Calibration Traceability Class	standards laboratory traceable class
Operating temperature	Class: laboratory/ATE

1503 Specifications

PARAMETER	VALUE
Elgar 1503 AC Power Source	Overview
Applications	Avionics AC power simulation, 50/60/400 Hz line testing, and AC product margin testing matched to the unit VA rating.
Adjustable AC voltage and frequency class	Avionics frequency support class including 400 Hz
Technical Specifications	Instrument Family: Elgar 1503 AC power source

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	Class: laboratory/ATE
Operating Temperature	Class: laboratory/ATE
Operating Temperature Class	laboratory/ATE
Series Family	Elgar 1500
Sense	remote sense class on family
Current Limit	yes class
Output On Control	yes class
Manufacturer	per instrument faceplate branding
Documentation Basis	OEM datasheet or operating manual family
Specification Ambient Class	23 C class unless otherwise stated
Calibration Traceability Class	standards laboratory traceable class Notes Identity and family capability rows from Elgar 1503 AC power source literature. Confirm exact VA voltage current and frequency span on the faceplate; related Sorensen/Elgar 1503L-3P is the three-phaseLvariant.

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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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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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.