

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 15, 2026

AMETEK / ELGAR / CALIFORNIA INSTRUMENTS

Ametek / Elgar / California Instruments 251TL-115V-OP1 Low Noise Linear AC Power Source

Ametek / Elgar / California Instruments Programmable AC Power Source. Accuracy: $\pm 0.1\%$ of range, Current: 1.2 A (270 V range) / 2.4 A (135 V range), Accuracy: 0.2% FS + 0.3% reading (peak current).



MODEL

**Ametek / Elgar /
California
Instruments
251TL-115V-OP1**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

251TL-115V-OP1

LISTING

<https://aumictechlabs.com/products/251tl-115v-op1-3/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Ametek Elgar California Instruments 251TL-115V-OP1 is a low-noise linear AC power source delivering 250 VA of regulated power with dual output voltage ranges and extended frequency capability. Built on the proven TL Series architecture, this unit combines linear amplifier design with precision voltage and frequency control to supply clean, stable AC waveforms for sensitive equipment testing and operation. Technical Specifications Output Power & Voltage Rated output: 250 VA, with power derating to 78% of voltage range Dual voltage ranges: 0–270 V RMS (high) and 0–135 V RMS (low) Voltage accuracy: $\pm 0.1\%$ of range; regulation $\pm 0.025\%$ of full scale Maximum RMS current: 1.2 A (270 V range) / 2.4 A (135 V range) Current accuracy: 0.2% FS +

0.3% reading (peak current); adjustable current limit within $\pm 2\%$ accuracy Frequency & Waveform Quality Frequency range: 16 Hz to 8000 Hz with 1 Hz resolution Frequency accuracy: $\pm 0.1\%$ at 100 Hz; 0.01 Hz accuracy from 16–100 Hz Total harmonic distortion: 60 dB RMS (40 Hz–8000 Hz); maximum -73 dB Crest factor: 4:1 Measurements & Control (Option -OP1) Direct LCD readout of voltage, current, peak current, power, and power factor Voltage and current measurement accuracy: within 2% IEEE-488 and RS232C remote control interfaces IEEE functions: SH1, AH1, T8, L3, RL2 RS232C settings: 19200 baud, 8 bits, no parity, 1 stop bit SCPI command language; TTL remote inhibit and function strobe (active low, BNC) Environmental & Physical Dimensions: 5.25 × 19 × 22 inches (133 × 483 × 560 mm) Net weight: 75 lbs (34 kg) Operating temperature: 0–40 °C; storage: -40 to $+85$ °C Contains ESD-sensitive ports; ESD safety procedures required during installation

Key Features Linear amplifier topology ensures minimal noise and distortion for precision testing Dual voltage ranges simplify configuration for global power requirements Extended frequency range to 8000 Hz supports conventional and special-purpose applications Integrated measurement and monitoring via standard instrument interfaces Direct voltage, current, and power factor display eliminates external instrumentation

Typical Applications Testing and powering of audio and precision measurement equipment Validation of power supply performance under variable frequency conditions Component characterization requiring low-distortion AC excitation Laboratory and production environments demanding clean sinewave sourcing

251TL115VOP1 Characteristics / Specifications

PARAMETER	VALUE
Model	251TL
Instrument Type	programmable linear AC power source
Output Phases	single phase
Ac Power Maximum	250 VA
Voltage High Range	0 to 270 V RMS
Voltage Low Range	0 to 135 V RMS
Voltage Accuracy 16 To 100 Hz	plus or minus 0.1 percent FS
Voltage Accuracy 100 To 5000 Hz	plus or minus 0.2 percent FS
Voltage Accuracy 5000 To 8000 Hz	plus or minus 0.3 percent FS
Voltage Resolution	0.1 V
Load Regulation Below 2000 Hz	0.1 percent FS
Load Regulation 2000 To 5000 Hz	0.15 percent FS
Load Regulation Above 5000 Hz	0.25 percent FS
Line Regulation	plus or minus 0.02 percent FS for 10 percent line change
Thd 16 To 999 Hz	less than 0.5 percent intoaresistive load
Thd 1000 To 8000 Hz	less than 2.0 percent intoaresistive load
Output Noise	minus 73 dB max, full scale at full power
Frequency Range	16 Hz to 8000 Hz
Frequency Accuracy	plus or minus 0.02 percent
Frequency Resolution 16 To 79p99 Hz	0.01 Hz
Frequency Resolution 80 To 799p9 Hz	0.1 Hz
Frequency Resolution 800 To 8000 Hz	1 Hz
Rms Current High Range	1.2 A RMS
Rms Current Low Range	2.4 A RMS
Peak Current High Range	3.0 A peak

PARAMETER	VALUE
Peak Current Low Range	6.0 A peak
Power Derating	250 VA rated down to 78 percent of voltage range, load PF 0.7
Current Limit Resolution	0.1 A RMS
Load Connection	rear panel terminal block, floating neutral
Line Voltage	100, 115, 200, 230 V RMS plus or minus 10 percent, 2-wire plus GND, internal jumpers
Line Current	less than 16 A RMS
Line Frequency	47 to 440 Hz
Holdup Time	10 ms
Readouts	dual 4-digit LCDs
Controls	digital encoders
Dimensions	5.25 × 19 × 22 in (133 × 483 × 560 mm) HxWxDMass: 75 lb / 34 kg net
Operating Temperature	0 to 40 C
Storage Temperature	minus 40 to plus 85 C
Vibration And Shock	designed to meet NSTA-1A
Measurement Current Range Op	4.000 A RMS (measurement package OP1)
Measurement Peak Current Range Op	12.00 A (measurement package OP1)
Measurement Voltage Range Op	0 to 300.0 V RMS (measurement package OP1)
Measurement Power Range Op	400.0 W (measurement package OP1)
Measurement Power Factor Range Op	0.00 to 1.00 (measurement package OP1)

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Storage temperature	minus 40 to plus 85 C
Operating temperature	0 to 40 C
Operating Temperature	0 to 40 C
Vibration And Shock	designed to meet NSTA-1A
Measurement Current Range Op	4.000 A RMS (measurement package OP1)
Measurement Peak Current Range Op	12.00 A (measurement package OP1)
Measurement Voltage Range Op	0 to 300.0 V RMS (measurement package OP1)
Measurement Power Range Op	400.0 W (measurement package OP1)
Measurement Power Factor Range Op	0.00 to 1.00 (measurement package OP1) Notes From California Instruments TL Series 250-350 VA data sheet, 251TL column (AMETEK Programmable Power; Elgar, Sorensen, and California Instruments trademarks). Measurement ranges require the OP1 measurement/remote package. 351TL sibling ratings are not copied onto this 251TL sheet.

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	
Technical Specifications	
PARAMETER	VALUE
Model	251TL
Instrument Type	programmable linear AC power source
Output Phases	single phase
Ac Power Maximum	250 VA
Voltage High Range	0 to 270 V RMS
Voltage Low Range	0 to 135 V RMS
Voltage Accuracy 16 To 100 Hz	plus or minus 0.1 percent FS
Voltage Accuracy 100 To 5000 Hz	plus or minus 0.2 percent FS
Voltage Accuracy 5000 To 8000 Hz	plus or minus 0.3 percent FS
Voltage Resolution	0.1 V
Load Regulation Below 2000 Hz	0.1 percent FS
Load Regulation 2000 To 5000 Hz	0.15 percent FS
Load Regulation Above 5000 Hz	0.25 percent FS
Line Regulation	plus or minus 0.02 percent FS for 10 percent line change
Thd 16 To 999 Hz	less than 0.5 percent into a resistive load
Thd 1000 To 8000 Hz	less than 2.0 percent into a resistive load
Output Noise	minus 73 dB max, full scale at full power
Frequency Range	16 Hz to 8000 Hz
Frequency Accuracy	plus or minus 0.02 percent
Frequency Resolution 16 To 79p99 Hz	0.01 Hz
Frequency Resolution 80 To 799p9 Hz	0.1 Hz
Frequency Resolution 800 To 8000 Hz	1 Hz
Rms Current High Range	1.2 A RMS
Rms Current Low Range	2.4 A RMS
Peak Current High Range	3.0 A peak
Peak Current Low Range	6.0 A peak

PARAMETER	VALUE
Power Derating	250 VA rated down to 78 percent of voltage range, load PF 0.7
Current Limit Resolution	0.1 A RMS
Load Connection	rear panel terminal block, floating neutral
Line Voltage	100, 115, 200, 230 V RMS plus or minus 10 percent, 2-wire plus GND, internal jumpers
Line Current	less than 16 A RMS
Line Frequency	47 to 440 Hz
Holdup Time	10 ms
Readouts	dual 4-digit LCDs
Controls	digital encoders
Dimensions	5.25 x 19 x 22 in (133 x 483 x 560 mm) H x W x D
Mass	75 lb / 34 kg net
Operating Temperature	0 to 40 C
Storage Temperature	minus 40 to plus 85 C
Vibration And Shock	designed to meet NSTA-1A
Measurement Current Range Op1	4.000 A RMS (measurement package OP1)
Measurement Peak Current Range Op1	12.00 A (measurement package OP1)
Measurement Voltage Range Op1	0 to 300.0 V RMS (measurement package OP1)
Measurement Power Range Op1	400.0 W (measurement package OP1)
Measurement Power Factor Range Op1	0.00 to 1.00 (measurement package OP1)

Specifications

PARAMETER	VALUE
Model	251TL
Instrument Type	programmable linear AC power source
Output Phases	single phase
Ac Power Maximum	250 VA
Voltage High Range	0 to 270 V RMS
Voltage Low Range	0 to 135 V RMS
Voltage Accuracy 16 To 100 Hz	plus or minus 0.1 percent FS
Voltage Accuracy 100 To 5000 Hz	plus or minus 0.2 percent FS
Voltage Accuracy 5000 To 8000 Hz	plus or minus 0.3 percent FS
Voltage Resolution	0.1 V

PARAMETER	VALUE
Load Regulation Below 2000 Hz	0.1 percent FS
Load Regulation 2000 To 5000 Hz	0.15 percent FS
Load Regulation Above 5000 Hz	0.25 percent FS
Line Regulation	plus or minus 0.02 percent FS for 10 percent line change
Thd 16 To 999 Hz	less than 0.5 percent intoaresistive load
Thd 1000 To 8000 Hz	less than 2.0 percent intoaresistive load
Output Noise	minus 73 dB max, full scale at full power
Frequency Range	16 Hz to 8000 Hz
Frequency Accuracy	plus or minus 0.02 percent
Frequency Resolution 16 To 79p99 Hz	0.01 Hz
Frequency Resolution 80 To 799p9 Hz	0.1 Hz
Frequency Resolution 800 To 8000 Hz	1 Hz
Rms Current High Range	1.2 A RMS
Rms Current Low Range	2.4 A RMS
Peak Current High Range	3.0 A peak
Peak Current Low Range	6.0 A peak
Power Derating	250 VA rated down to 78 percent of voltage range, load PF 0.7
Current Limit Resolution	0.1 A RMS
Load Connection	rear panel terminal block, floating neutral
Line Voltage	100, 115, 200, 230 V RMS plus or minus 10 percent, 2-wire plus GND, internal jumpers
Line Current	less than 16 A RMS
Line Frequency	47 to 440 Hz
Holdup Time	10 ms
Readouts	dual 4-digit LCDs
Controls	digital encoders
Dimensions	5.25 x 19 x 22 in (133 x 483 x 560 mm) HxWxDMass: 75 lb / 34 kg net
Operating Temperature	0 to 40 C
Storage Temperature	minus 40 to plus 85 C
Vibration And Shock	designed to meet NSTA-1A
Measurement Current Range Op1	4.000 A RMS (measurement package OP1)
Measurement Peak Current Range Op1	12.00 A (measurement package OP1)
Measurement Voltage Range Op1	0 to 300.0 V RMS (measurement package OP1)

PARAMETER	VALUE
Measurement Power Range Op1	400.0 W (measurement package OP1)
Measurement Power Factor Range Op1	0.00 to 1.00 (measurement package OP1)

Notes

From California Instruments TL Series 250-350 VA data sheet, 251TL column (AMETEK Programmable Power; Elgar, Sorensen, and California Instruments trademarks). Measurement ranges require the OP1 measurement/remote package. 351TL sibling ratings are not copied onto this 251TL sheet.

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

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 15, 2026

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