

# ELPA-32611

## HIGH POWER AC ELECTRONIC LOAD



POSITIVE PROBLEM SOLVING **+ =**

The ELPA-32611 series simulate real loads used in medium to high power AC applications. The standard range is comprised of 6 units that sink up to 300V at 12.6kVA.

Each Load has a high peak current capability of up to 50% above its continuous rating. The crest factor can be adjusted between 1.5 and 3.5. The power factor can also be adjusted in order to recreate capacitive and inductive loads. An isolated analogue current monitor output is provided to allow the waveform to be viewed on an external scope.

- + Adjustable Power Factor & Crest Factor Modes
- + GPIB & RS232 with LabVIEW Drivers
- + Front Panel Memory Function
- + DC to 400Hz Operation
- + Bank of 55 Waveforms
- + Isolated Scope Output

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## FURTHER DETAILS

Another benefit of these AC Loads is that they can also be used to sink DC Sources. This can often save laboratory space and the expense of purchasing a dedicated DC Load.

The units are built with switchable automatic sense adjustment to counter the voltage drop in the load lines. Along with front panel control and display both IEEE 488.2 and RS232 interfaces are provided as standard.

A host of protection features guard the unit against over power, voltage, current and temperature. A thermally controlled fan helps minimize noise pollution.

Two sink levels can be preset and switched between. To aid production testing higher and upper limits can be set. Units are then automatically flagged GO or NG.

These Loads are used in a variety of applications including power transformer, DC/AC Inverter, general R&D and laboratory work along with UPS output testing and ATE systems.

### SELECTION TABLE

Part Number	Max Power	Maximum Voltage	Current Range	Dimensions [ W x H x D]
ELPA-32611	3600VA	300Vrms / 300 Vdc	0 - 36Arms	19" x 15U x 600mm*
ELPA-32612	5400VA	300Vrms / 300 Vdc	0 - 54Arms	19" x 15U x 600mm*
ELPA-32613	7200VA	300Vrms / 300 Vdc	0 - 72Arms	19" x 30U x 600mm*
ELPA-32614	9000VA	300Vrms / 300 Vdc	0 - 90Arms	19" x 30U x 600mm*
ELPA-32615	10800VA	300Vrms / 300 Vdc	0 - 108Arms	19" x 30U x 600mm*
ELPA-32616	12600VA	300Vrms / 300 Vdc	0 - 126Arms	19" x 35U x 600mm*

\* All units are mounted, cabled and shipped in a cabinet

### OPTIONS

CODE	DESCRIPTION
/0001	1m IEEE488.2 cable
/0002	2m IEEE488.2 cable
/0003	2m RS-232 cable
/9931	Remote controller

## TECHNICAL DATA

	ELPA-32611	ELPA-32612	ELPA-32613	ELPA-32614	ELPA-32615	ELPA-32616
Current Monitor (Isolated)	9A/V	13.5A/V	18A/V	22.5A/V	27A/V	31.5A/V
Weight in Cabinet	77kg	98kg	153kg	175kg	196kg	230kg
Operating Temperature	0 - 40°C [100% to 25°C derating to 77% at 40°C]					

### CC & LINEAR CC MODE

Range 1	0 - 18Arms	0 - 27Arms	0 - 36Arms	0 - 46Arms	0 - 54Arms	0 - 63Arms
Range 1 Resolution	4.5mA	6.75mA	9mA	11.25mA	13.5mA	15.75mA
Range 2	18 - 36Arms	27 - 54Arms	36 - 72Arms	45 - 90Arms	54 - 108Arms	63 - 126 Arms
Range 2 Resolution	9.0mA	13.5mA	18mA	21.5mA	27mA	31.5mA
Low Current Accuracy	<10% of $I_{RANGE1}$ is $\pm 2\%$ of (setting + range)					
Standard Accuracy	$\pm 0.5\%$ of (setting + range)					
Crest Factor (CC Mode only)	$\sqrt{2}$ to 3.5   1.5 to 1.9   3.2 to 3.4					
Crest Factor Resolution	0.5   0.1   0.1					

### CR MODE (DC - 70HZ)

Range 1	1.667 - 6.668k $\Omega$	1.111 - 4.444k $\Omega$	0.833 - 3.333k $\Omega$	0.666 - 2.666k $\Omega$	0.556 - 2.224k $\Omega$	0.476 - 1.904k $\Omega$
Range 1 Resolution	0.148mS	0.056mS	0.075mS	0.0937mS	0.113mS	0.5252mS
Range 2	6.668 - 26.668k $\Omega$	4.444 - 17.776k $\Omega$	3.333 - 13.33k $\Omega$	2.666 - 10.666k $\Omega$	2.224 - 8.888k $\Omega$	1.904 - 7.616k $\Omega$
Range 2 Resolution	0.037mS	0.224mS	0.3mS	0.375mS	0.452mS	0.1313mS
Accuracy	$\pm 0.5\%$ of (setting + range)					

### 4½ DVM

Range & (Resolution)	300V [0.1V]					
Accuracy	$\pm$ [0.5% of reading + 0.2% of range]					

### 4½ DAM

Range & (Resolution)	0 - 36A [10mA]	0 - 54A [12mA]	0 - 72A [10mA]	0 - 90A [10mA]	0 - 108A [12mA]	0 - 126A [14mA]
Accuracy	$\pm 0.5\%$ of (reading + range)					

### WATT & VA METER

Range & (Resolution)	3600W [1W]	5400W [1.2W]	7200W [1.2W]	9000W [1W]	10800W [1.2W]	12600W [1W]
Accuracy	$\pm 0.5\%$ of (reading + 2% range)					
VA Meter	Vrms $\times$ Arms corresponds to Vrms and Arms					

### FREQUENCY RANGE

Frequency Range	DC, 40Hz - 400Hz [CC mode], DC - 400Hz [linear CR mode]					
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## POWER & CREST FACTOR TABLE

Waveform Bank	Sinewave	Sinewave	Sinewave	CF = 2	CF = 2.5	CF = 3.5	CF = 2	CF = 2.5	CF = 3.5	Square	DC
	0	1	2	3	4	5	6	7	8	9	10
A	$\sqrt{2}$	1.5	3.0	PF: - 0.85	PF: - 0.70	PF: - 0.50	PF: +0.85	PF: +0.70	PF: +0.50	1	$\sqrt{2}$ DC
B	2	1.6	3.1	PF: - 0.80	PF: - 0.65	PF: - 0.45	PF: +0.80	PF: +0.65	PF: +0.45	1.1	2DC
C	2.5	1.7	3.2	PF: - 0.75	PF: - 0.60	PF: - 0.40	PF: +0.75	PF: +0.60	PF: +0.40	1.2	2.5DC
D	3.0	1.8	3.3	PF: - 0.70	PF: - 0.50	PF: - 0.35	PF: +0.70	PF: +0.50	PF: +0.35	1.3	3DC
E	3.5	1.9	3.4	PF: - 0.65	PF: - 0.40	PF: - 0.30	PF: +0.65	PF: +0.40	PF: +0.30	1.4	3.5DC
						Lagging Power Factor			Leading Power Factor		



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