

EL 9700 Series

DC Electronic Loads



THE POWER TEST EXPERTS

Features

- Six Modes of Operation
- Battery Test and Short Circuit Functions
- Programmable Soft-Start
- Arbitrary Waveform Generation
- 150W to 6000W
- 150V or 500V Models
- Variable Cooling Fans
- USB or Ethernet Interface
- Digital Front Panel



Intepro EL9714 Load

Overview

The Intepro Systems EL9700 series is a new generation of electronic loads that combines six modes of operation with fast rise times. Its state-of-the-art microprocessor design with 16-bit DAC control simulates a wide range of dynamic loading applications, battery discharge profiles, solar cell loading and fuel cell applications. These EL9700 series loads can be used for research, development, production, and incoming inspection.

The EL9700 series loads includes six modes of operation (CC, CR, CV, CW, CC+CV, CR+CV) to support a wide range of testing applications. Dual range 16-bit resolution measurements of voltage (V), current (I) and power (W) provide the accuracy of a DMM with the convenience of a single connection. Intepro Systems loads are designed for easy integration into automated test system or used as standalone instrument, operated by the easy to use front panel. Every load comes standard with an Ethernet or USB interface. All loads have power up self-diagnostic with built in calibration routines. Loads are fully protected against OP, OC, OV, OT and reverse polarity. This ensures the quality and reliability of the loads and provides protection for a unit under test.

Special Features:

999 Measurements/Hour; Timed from 1sec to 16Hrs:

CC Mode soft start: from 1mS to 1000mS

Dynamic Pulsing: 0 to 25kHz; Pulse widths from 60uS to 999 secs

Programmable duty cycles

Specifications

Model		EL9711		EL9712		EL9712B		EL9712C	
Input Rating	Power	150 Watts		300 Watts		300 Watts		300 Watts	
	Current	0 - 30 Amps		0 - 30 Amps		0 - 15 Amps		0 - 60 Amps	
	Voltage	0 - 150 Volts		0 - 150 Volts		0 - 500 Volts		0 - 150 Volts	
CC Mode	Range	0-3 A	0-30A	0-3A	0-30A	0-3A	0- 15A	0-6A	0-60A
	Resolution	0.1mA	1.0mA	0.1mA	1.0mA	0.1mA	1.0mA	0.1mA	1.0mA
	Accuracy	0.03%+1.5mA	0.03%+15mA	0.03%+1.5mA	0.03%+15mA	0.03%+1.5mA	0.03%+7.5mA	0.03%+3mA	0.03%+30mA
CR Mode	Range	0.03Ω-15kΩ	0.03Ω-5kΩ	0.03Ω-15kΩ	0.03Ω-5kΩ	0.3Ω-50kΩ	0.3Ω-5kΩ	0.03Ω-15kΩ	0.03Ω-5kΩ
	Resolution	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit
	Accuracy	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS
CV Mode	Range	0.1-19.999V	0.1-150V	0.1-19.999V	0.1-150V	0.1-19.999V	0.1-500V	0.1-19.999V	0.1-150V
	Resolution	1mV	10mV	1mV	10mV	1mV	30mV	1mV	10mV
	Accuracy	0.03%+4mV	0.03%+30mV	0.03%+4mV	0.03%+30mV	0.03%+4mV	0.03%+100mV	0.03%+4mV	0.03%+30mV
CP Mode	Range	0-150W (3A)	0-150W (30A)	0-150W (3A)	0-300W (30A)	0-300W (3A)	0-300W (30A)	0-300W (6A)	0-300W (60A)
	Resolution	1mW	10mW	1mW	10mW	1mW	10mW	1mW	10mW
	Accuracy	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS
V Meas	Volts	0-19.999V	0-150V	0-19.999V	0-150V	0-19.999V	0-500V	0-19.999V	0-150V
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	0.015%+6mV	0.015%+45mV	0.015%+6mV	0.015%+45mV	0.015%+6mV	0.015%+150mV	0.015%+6mV	0.015%+45mV
I Meas	Amps	0-3A	0-30A	0-3A	0-30A	0-3A	0-15A	0-6A	0-60A
	Resolution	0.01mA	0.1mA	0.01mA	0.1mA	0.01mA	0.1mA	0.1mA	1mA
	Accuracy	0.03%+1.5mA	0.03%+15mA	0.03%+1.5mA	0.03%+24mA	0.03%+1.5mA	0.03%+12mA	0.03%+1.5mA	0.03%+48mA
P Meas	Watts	0-100W	0-150W	0-100W	0-300W	0-100W	0-300W	0-100W	0-300W
	Resolution	1mW	10mW	1mW	10mW	1mW	10mW	1mW	10mW
	Accuracy	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS
Short Circuit	CC Mode	max 3.3A	max 33A	max 3.3A	max 33A	max 3.3A	max 16.5A	max 6.6A	max 66A
	CR Mode	max 55mΩ	max 55mΩ	max 28mΩ	max 28mΩ	max 300mΩ	max 300mΩ	max 25 mΩ	max 25mΩ
	CV Mode	0V	0V	0V	0V	0V	0V	0V	0V
Size	214W x 108H x 365D (mm)				8.4W x 4.25H x 14.4D (inches)				
Weight	3.5 KG 8 LBS								

Specifications

Model		EL9713		EL9713B		EL9714		EL9714B	
Input Rating	Power	600 Watts		600 Watts		1200 Watts		1200 Watts	
	Current	0 - 120 Amps		0 - 30 Amps		0 - 240 Amps		0 - 60 Amps	
	Voltage	0 - 150 Volts		0 - 500 Volts		0 - 150 Volts		0 - 500 Volts	
CC Mode	Range	0-12 A	0-120A	0-3A	0-30A	0-24A	0-240A	0-6A	0-60A
	Resolution	1mA	10mA	0.1mA	1.0mA	1mA	10mA	0.1mA	1.0mA
	Accuracy	0.05%+6mA	0.1%+60mA	0.03%+1.5mA	0.03%+15mA	0.03%+12mA	0.03%+120mA	0.03%+3mA	0.03%+30mA
CR Mode	Range	0.03Ω-15kΩ	0.03Ω-5kΩ	0.03Ω-50kΩ	0.03Ω-5kΩ	0.3Ω-15kΩ	0.3Ω-5kΩ	0.03Ω-50kΩ	0.03Ω-5kΩ
	Resolution	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit
	Accuracy	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS
CV Mode	Range	0.1-19.999V	0.1-150V	0.1-19.999V	0.1-500V	0.1-19.999V	0.1-150V	0.1-19.999V	0.1-500V
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	0.03%+4mV	0.03%+30mV	0.03%+4mV	0.03%+250mV	0.03%+4mV	0.03%+30mV	0.03%+4mV	0.03%+250mV
CP Mode	Range	0-600W (12A)	0-600W	0-600W (3A)	0-600W		0-1200W	0-1200W (6A)	0-1200W
	Resolution	1mW	10mW	1mW	10mW		10mW	1mW	10mW
	Accuracy	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS		0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS
V Meas	Volts	0-19.999V	0-150V	0-19.999V	0-500V	0-19.999V	0-150V	0-19.999V	0-500V
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	0.015%+6mV	0.015%+45mV	0.015%+6mV	0.015%+250mV	0.015%+6mV	0.015%+45mV	0.015%+6mV	0.015%+250mV
I Meas	Amps	0-12A	0-120A	0-3A	0-30A	0-24A	0-240A	0-6A	0-60A
	Resolution	0.1mA	1mA	0.01mA	0.1mA	0.1mA	1mA	0.01mA	0.1mA
	Accuracy	0.05%+6mA	0.03%+96mA	0.03%+1.5mA	0.03%+24mA	0.05%+12mA	0.1%+240mA	0.03%+3mA	0.03%+48mA
P Meas	Watts	0-100W	0-600W	0-100W	0-600W	0-100W	0-1200W	0-100W	0-1200W
	Resolution	1mW	10mW	1mW	10mW	1mW	10mW	1mW	10mW
	Accuracy	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS
Short Circuit	CC Mode	max 13.2A	max 132A	max 3.3A	max 33A	max 26.4A	max 264A	max 6.6A	max 66A
	CR Mode	max 13mΩ	max 13mΩ	max 50mΩ	max 50mΩ	max 6mΩ	max 6mΩ	max 50mΩ	max 50mΩ
	CV Mode	0V	0V	0V	0V	0V	0V	0V	0V
Size	428W x 103.5H x 453.5D (mm)					16.8W x 4.1H x 17.8D (inches)			
Weight	17.6 KG					38.7 LBS			

Specifications

Model		EL9715		EL9715B		EL9716		EL9716B	
Input Rating	Power	1800 Watts		1800 Watts		2400 Watts		2400 Watts	
	Current	0 - 240 Amps		0 - 120 Amps		0 - 240 Amps		0 - 120 Amps	
	Voltage	0 - 150 Volts		0 - 500 Volts		0 - 150 Volts		0 - 500 Volts	
CC Mode	Range	0-24 A	0-240A	0-12A	0-120A	0-24A	0-240A	0-12A	0-120A
	Resolution	1mA	10mA	1mA	10mA	1mA	10mA	1mA	10mA
	Accuracy	0.05%+12mA	0.1%+120mA	0.05%+6mA	0.1%+60mA	0.05%+12mA	0.1%+120mA	0.05%+6mA	0.1%+60mA
CR Mode	Range	0.03Ω-15kΩ	0.03Ω-5kΩ	0.03Ω-50kΩ	0.03Ω-5kΩ	0.3Ω-15kΩ	0.3Ω-5kΩ	0.03Ω-50kΩ	0.03Ω-5kΩ
	Resolution	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit
	Accuracy	0.1%+0.1%FS	0.1%+0.2%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.2%FS	0.1%+0.1%FS	0.1%+0.1%FS
CV Mode	Range	0.1-19.999V	0.1-150V	0.1-19.999V	0.1-500V	0.1-19.999V	0.1-150V	0.1-19.999V	0.1-500V
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	0.03%+4mV	0.03%+30mV	0.03%+4mV	0.03%+250mV	0.03%+4mV	0.03%+30mV	0.03%+4mV	0.03%+250mV
CP Mode	Range		0-1800W		0-1800W		0-2400W		0-2400W
	Resolution		10mW		10mW		10mW		10mW
	Accuracy		0.1%+0.1%FS		0.1%+0.1%FS		0.1%+0.1%FS		0.1%+0.1%FS
V Meas	Volts	0-19.999V	0-150V	0-19.999V	0-500V	0-19.999V	0-150V	0-19.999V	0-500V
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	0.015%+6mV	0.015%+45mV	0.015%+6mV	0.015%+250mV	0.015%+6mV	0.015%+45mV	0.015%+6mV	0.015%+250mV
I Meas	Amps	0-24A	0-240A	0-12A	0-120A	0-24A	0-240A	0-12A	0-120A
	Resolution	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA
	Accuracy	0.1%+24mA	0.1%+480mA	0.1%+12mA	0.1%+120mA	0.1%+24mA	0.1%+480mA	0.1%+12mA	0.1%+96mA
P Meas	Watts	0-100W	0-1800W	0-100W	0-1800W	0-100W	0-2400W	0-100W	0-2400W
	Resolution	1mW	10mW	1mW	10mW	1mW	10mW	1mW	10mW
	Accuracy	0.1%+0.1%FS	0.1%+0.2%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.2%FS	0.1%+0.1%FS	0.1%+0.1%FS
Short Circuit	CC Mode	max 26.4A	max 264A	max 13.2A	max 132A	max 26.4A	max 264A	max 13.2A	max 132A
	CR Mode	max 6mΩ	max 6mΩ	max 50mΩ	max 50mΩ	max 6mΩ	max 6mΩ	max 50mΩ	max 50mΩ
	CV Mode	0V	0V	0V	0V	0V	0V	0V	0V
Size	428W x 207H x 453.5D (mm)				16.8W x 8.1H x 17.8D (inches)				
Weight					31.6 KG 69.5 LBS				

Specifications

Model		EL9717		EL9717B		EL9718		EL9718B	
Input Rating	Power	3600 Watts		3600 Watts		6000 Watts		6000 Watts	
	Current	0 - 240 Amps		0 - 120 Amps		0 - 240 Amps		0 - 120 Amps	
	Voltage	0 - 150 Volts		0 - 500 Volts		0 - 150 Volts		0 - 500 Volts	
CC Mode	Range	0-24 A	0-240A	0-12A	0-120A	0-24A	0-240A	0-12A	0-120A
	Resolution	1mA	10mA	1mA	10mA	1mA	10mA	1mA	10mA
	Accuracy	0.05%+12mA	0.1%+120mA	0.05%+6mA	0.1%+60mA	0.05%+12mA	0.1%+120mA	0.05%+6mA	0.1%+60mA
CR Mode	Range	0.03Ω-15kΩ	0.03Ω-5kΩ	0.03Ω-50kΩ	0.03Ω-5kΩ	0.3Ω-15kΩ	0.3Ω-5kΩ	0.03Ω-50kΩ	0.03Ω-5kΩ
	Resolution	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit	16 bit
	Accuracy	0.1%+0.1%FS	0.1%+0.2%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.2%FS	0.1%+0.1%FS	0.1%+0.1%FS
CV Mode	Range	0.1-19.999V	0.1-150V	0.1-19.999V	0.1-500V	0.1-19.999V	0.1-150V	0.1-19.999V	0.1-500V
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	0.03%+4mV	0.03%+30mV	0.03%+4mV	0.03%+250mV	0.03%+4mV	0.03%+30mV	0.03%+4mV	0.03%+250mV
CP Mode	Range		0-3600W		0-3600W		0-6000W		0-6000W
	Resolution		10mW		10mW		10mW		10mW
	Accuracy		0.1%+0.2%FS		0.1%+0.2%FS		0.1%+0.2%FS		0.1%+0.2%FS
V Meas	Volts	0-19.999V	0-150V	0-19.999V	0-500V	0-19.999V	0-150V	0-19.999V	0-500V
	Resolution	1mV	10mV	1mV	10mV	1mV	10mV	1mV	10mV
	Accuracy	0.015%+6mV	0.015%+45mV	0.015%+6mV	0.015%+250mV	0.015%+6mV	0.015%+45mV	0.015%+6mV	0.015%+250mV
I Meas	Amps	0-24A	0-240A	0-12A	0-120A	0-24A	0-240A	0-12A	0-120A
	Resolution	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA	0.1mA	1mA
	Accuracy	0.03%+36mA	0.1%+480mA	0.03%+18mA	0.1%+240mA	0.03%+60mA	0.1%+600mA	0.1%+12mA	0.1%+300mA
P Meas	Watts	0-100W	0-3600W	0-100W	0-3600W	0-100W	0-6000W	0-100W	0-6000W
	Resolution	1mW	10mW	1mW	10mW	1mW	10mW	1mW	10mW
	Accuracy	0.1%+0.1%FS	0.1%+0.2%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.1%FS	0.1%+0.2%FS
Short Circuit	CC Mode	max 26.4A	max 264A	max 13.2A	max 132A	max 26.4A	max 264A	max 13.2A	max 132A
	CR Mode	max 8mΩ	max 8mΩ	max 45mΩ	max 45mΩ	max 7mΩ	max 7mΩ	max 35mΩ	max 35mΩ
	CV Mode	0V	0V	0V	0V	0V	0V	0V	0V
Size	489.5W x 357H x 538.5D (mm) 19W x 14.1H x 21.2D (inches)								
Weight	70 KG 154 LBS								

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