

ELP-34305

DUAL RANGE HIGH VOLTAGE DC LOAD



POSITIVE PROBLEM SOLVING **+ =**

This 10kW precision DC electronic load is ideal for high voltage applications, such as renewable energy.

Dual setting and measurement ranges combined with 5 digit displays provide high resolution for both measurement and setting. In dynamic mode, adjustable rise, fall and plateau times allow testing of high voltage DC energy, from photovoltaic cells or high voltage batteries. Dedicated short circuit, OCP and OPP tests allow power supply behaviour and protection mechanisms to be characterised.

- + 9 Different Operation Modes**
- + 5 Digit Displays for V, I & W**
- + Overcurrent & Power Tests**
- + Short Circuit Test Function**
- + Adjustable Slew Rates**
- + Front Panel Memory**

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FURTHER DETAILS

150-state memory is available as standard, and allows quick initialisation and limit-setting of the unit, making it dependable and mobile as an on-site load tester.

A sequencing function means that stored settings can be implemented against time, enabling the unit to carry out state-dependant and complex test routines without the need for a computer interface.

SELECTION TABLE

Part Number	Range 1 Max Power	Range 1 Max Voltage	Range 1 Current	Range 2 Max Power	Range 2 Max Voltage	Range 2 Current
ELP-34310	1kW	1000VDC	0 - 10A	10kW	1000VDC	0 - 100A

TECHNICAL DATA

	RANGE 1	RANGE 2
Load Voltage [ON/OFF]	10.4 - 200V / 0 - 200V	
Min Voltage at Full Current	20V at 100A	
Short Circuit Current	100A	
Max. Power Consumption	1000W	
Weight	130kg	
Operating Temperature	0 to 40°C, all measurements taken at 25°C± 5°C, except where noted	
Dimensions [W × H × D]	647 × 577 × 766mm	
Safety & EMC	CE	
Protection [OV / OC / OP]	104% / 104% / 105%	
Over Temp. Protection	Yes	

CC MODE (AUTOMATIC RANGING APPLIES IN CC MODE)

Range	0 - 10A	0 - 100A
Resolution	0.16mA	1.6mA
Accuracy	± [0.1% of setting + 0.2% of range]	

CR MODE

Range	12000 - 10Ω	10 - 0.2004Ω
Resolution	1.666μS	0.167mΩ
Accuracy	± 0.2% of [setting + range]	

CV MODE

Range	20 - 1000V	
Resolution	16mV	
Accuracy	± 0.05% of [setting + range]	

CP MODE

Range	1kW	10kW
Resolution	16mW	160mW
Accuracy	± 0.5% of [setting + range]	



TECHNICAL DATA

	ELP - 34310	
	RANGE 1	RANGE 2
Over Power Protection	105%	
Over Current Protection	104%	
Over Voltage Protection	104%	
Over Temp. Protection	Yes	

CV + CC MODE		
Range	20 - 1000V	0 - 100A
Resolution	16mV	1.6mA
Accuracy	± 0.5% of (setting + range)	

CV + CP MODE		
Range	20 - 1000V	10kW
Resolution	16mV	160mW
Accuracy	± 0.5% of (setting + range)	

MPPT MODE	
Algorithm	P&O + Scanning
Load Mode	CC, CR, CV [MPPT C, R, V]
Sampling Interval	10ms-2000ms ; resolution 1ms
P&O Interval	10ms-2000ms ; resolution 1ms

5-DIGIT VOLTMETER		
Range	0 - 100V	100 - 1000V
Resolution	1.6mV	16mV
Accuracy	± 0.025% of (reading + range)	

5-DIGIT AMMETER		
Range	0 - 10A	10 - 100A
Resolution	0.16mA	1.6mA
Accuracy	± 0.1% of (reading + range)	

5-DIGIT POWERMETER		
Range	0 - 1kW	0 - 10kW
Resolution	0.1W	1W
Accuracy	± 0.125% of (reading + range)	

DYNAMIC OPERATION		
Thigh & Tlow	0.05 - 9.999 / 99.99 / 999.9 / 9999ms	
Resolution	0.001 / 0.01 / 0.1 / 1mS	
Accuracy	1µS / 10µS / 100µS / 1mS + 50ppm	
Slew Rate Range	8mA - 0.5A/µs	80mA - 5A/µs
Slew Rate Resolution	2mA/µs	20mA/µs
Minimum Rise Time	Typically 20µs	
Current Range	0 - 10A	10 - 100A
Current Resolution	0.16mA	1.6mA
Accuracy	± [0.1% of setting + 0.2% of range]	

CHARACTERISED VALUES							
VOLTAGE	CURRENT	VOLTAGE	CURRENT	VOLTAGE	CURRENT	VOLTAGE	CURRENT
20V	100A	14V	70A	8V	40A	2V	10A
18V	90A	12V	60A	6V	30A	1V	5A
16V	80A	10V	50A	4V	20A		

Every effort is made to ensure that the information provided within this technical summary is accurate. However, ETPS Ltd must reserve the right to make changes to the published specifications without prior notice. Where certain operating parameters are critical for your application we advise that they be confirmed at the time of order. ETPS Ltd specialises in modifying its proven platforms to suit your needs. Please contact our office if your requirement is non-standard. Please note that your actual unit may differ from those shown.



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Tel: +44 (0) 1246 452909
Sales: 0800 612 95 75
sales@etps.co.uk
www.etps.co.uk

ETPS Ltd
Unit 14, The Bridge
Beresford Way, Chesterfield
S41 9FG



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