

# ELP-34305

## DUAL RANGE HIGH VOLTAGE DC LOADS



POSITIVE PROBLEM SOLVING **+ =**

The ELP-34305 series is a family of precision DC electronic loads 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.

- + 5 Digit Displays for V, I & W**
- + Overcurrent & Power Tests**
- + Short Circuit Test Function**
- + CC, CR, CV & CP Operation**
- + Adjustable Slew Rates**
- + Front Panel Memory**

# ELP-34305

## DUAL RANGE HIGH VOLTAGE DC LOADS

## 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.

Should remote control be required then LAN, USB, RS-232 or GPIB cards can be specified. Interface cards can also be easily retro-fitted or even swapped in the field by the user, further expanding its capability.

### 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-34305	500W	1000VDC	0 - 5A	5kW	1000VDC	0 - 50A
ELP-34310	1kW	1000VDC	0 - 10A	10kW	1000VDC	0 - 100A
ELP-34315	1.5kW	1000VDC	0 - 15A	15kW	1000VDC	0 - 150A
ELP-34320	2kW	1000VDC	0 - 20A	20kW	1000VDC	0 - 200A
ELP-34325	2.5kW	1000VDC	0 - 25A	25kW	1000VDC	0 - 250A
ELP-34330	3kW	1000VDC	0 - 30A	30kW	1000VDC	0 - 300A
ELP-34335	3.5kW	1000VDC	0 - 35A	35kW	1000VDC	0 - 350A
ELP-34340	4kW	1000VDC	0 - 40A	40kW	1000VDC	0 - 400A
ELP-34350	5kW	1000VDC	0 - 52.5A	50kW	1000VDC	0 - 500A
ELP-34360	6kW	1000VDC	0 - 60A	60kW	1000VDC	0 - 600A

### OPTIONS

CODE	DESCRIPTION
/LT	IEEE488.2 (GPIB) interface card
/RS232	RS-232 interface card
/USB	USB interface card
/LAN	LAN interface card
/0001	1m IEEE 488.2 cable
/0002	2m IEEE 488.2 cable
/0003	2m RS-232 cable
/1KAxM	1000A load cable (1m - 5m available, please specify)

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.



## TECHNICAL DATA

	ELP - 34305		ELP - 34310		ELP - 34315		ELP - 34320	
	RANGE 1	RANGE 2	RANGE 1	RANGE 2	RANGE 1	RANGE 2	RANGE 1	RANGE 2
Load Voltage [ON/OFF]	10.4 - 200V / 0 - 200V							
Min Voltage at Full Current	10V at 50A		10V at 100A		10V at 150A		10V at 200A	
Short Circuit Current	50A		100A		150A		200A	
Max. Power Consumption	600W		1000W		1450W		1900W	
Weight	100kg		130kg		170kg		220kg	
Operating Temperature	0 to 40°C, all measurements taken at 25°C± 5°C, except where noted							
Dimensions [W × H × D]	647 × 577 × 766mm		647 × 577 × 766mm		647 × 736 × 766mm		647 × 889 × 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 - 5A	0 - 50A	0 - 10A	0 - 100A	0 - 15A	0 - 150A	0 - 20A	0 - 200A
Resolution	0.08mA	0.8mA	0.16mA	1.6mA	0.25mA	2.5mA	0.32mA	3.2mA
Accuracy	± [0.1% of setting + 0.2% of range]							

### CR MODE

Range	24000 - 20Ω	20 - 0.4008Ω	12000 - 10Ω	10 - 0.2004Ω	8000 - 6.666Ω	6.666-0.1344Ω	6000 - 5Ω	5 - 0.1008Ω
Resolution	0.833μS	0.334mΩ	1.666μS	0.167mΩ	2.5μS	0.112mΩ	3.33μS	0.084mΩ
Accuracy	± 0.2% of [setting + range]							

### CV MODE

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

### CP MODE

Range	0.5kW	5kW	1kW	10kW	1.5kW	15kW	2kW	20kW
Resolution	8mW	80mW	16mW	160mW	25mW	250mW	32mW	320mW
Accuracy	± 0.5% of [setting + range]							

### 5-DIGIT VOLTMETER

Range	0 - 100V	100 - 1000V	0 - 100V	100 - 1000V	0 - 100V	100 - 1000V	0 - 100V	100 - 1000V
Resolution	1.6mV	16mV	1.6mV	16mV	1.6mV	16mV	1.6mV	16mV
Accuracy	± 0.025% of [reading + range]							

### 5-DIGIT AMMETER

Range	0 - 5A	5 - 50A	0 - 10A	10 - 100A	0 - 15A	15 - 150A	0 - 20A	20 - 200A
Resolution	0.08mA	0.8mA	0.16mA	1.6mA	0.25mA	2.5mA	0.32mA	3.2mA
Accuracy	± 0.1% of [reading + range]							

### 5-DIGIT POWERMETER

Range	0 - 0.5kW	0 - 5kW	0 - 1kW	0 - 10kW	0 - 1.5kW	0 - 15kW	0 - 2kW	0 - 20kW
Resolution	0.1W	1W	0.1W	1W	0.1W	1W	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	4mA-0.25A/μs	40mA-2.5A/μs	8mA - 0.5A/μs	80mA - 5A/μs	12mA-0.75A/μs	0.12A - 7.5A/μs	16mA - 1A/μs	0.16A - 10A/μs
Slew Rate Resolution	1mA/μs	10mA/μs	2mA/μs	20mA/μs	3mA/μs	30mA/μs	4mA/μs	40mA/μs
Minimum Rise Time	Typically 20μs							
Current Range	0 - 5A	5 - 50A	0 - 10A	10 - 100A	0 - 15A	15 - 150A	0 - 20A	20 - 200A
Current Resolution	0.08mA	0.8mA	0.16mA	1.6mA	0.25mA	2.5mA	0.32mA	3.2mA
Accuracy	± [0.1% of setting + 0.2% of range]							

## TECHNICAL DATA

	ELP - 34325		ELP - 34330		ELP - 34335	
	RANGE 1	RANGE 2	RANGE 1	RANGE 2	RANGE 1	RANGE 2
Load Voltage [ON/OFF]	10.4 - 200V / 0 - 200V					
Min Voltage at Full Current	10V at 250A		10V at 300A		10V at 350A	
Short Circuit Current	250A		300A		350A	
Max. Power Consumption	2350W		2800W		3250W	
Weight	280kg		340kg		390kg	
Operating Temperature	0 to 40°C, all measurements taken at 25°C± 5°C, except where noted					
Dimensions [W × H × D]	647 × 1048 × 766mm		647 × 1201 × 766mm		647 × 1360 × 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 - 25A	0 - 250A	0 - 30A	0 - 300A	0 - 35A	0 - 350A
Resolution	0.4mA	4mA	0.5mA	5mA	0.56mA	5.6mA
Accuracy	± [0.1% of setting + 0.2% of range]					

### CR MODE

Range	4800 - 4Ω	4 - 0.0804Ω	4000 - 3.333Ω	3.333 - 0.0672Ω	3428.4 - 2.857Ω	2.857 - 0.0576Ω
Resolution	4.166μS	0.067mΩ	5μS	0.056mΩ	5.84μS	0.048mΩ
Accuracy	± 0.2% of [setting + range]					

### CV MODE

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

### CP MODE

Range	2.5kW	25kW	3kW	30kW	3.5kW	35kW
Resolution	40mW	400mW	50mW	500mW	56mW	560mW
Accuracy	± 0.5% of [setting + range]					

### 5-DIGIT VOLTMETER

Range	0 - 100V	100 - 1000V	0 - 100V	100 - 1000V	0 - 100V	100 - 1000V
Resolution	1.6mV	16mV	1.6mV	16mV	1.6mV	16mV
Accuracy	± 0.025% of [reading + range]					

### 5-DIGIT AMMETER

Range	0 - 25A	25 - 250A	0 - 30A	30 - 300A	0 - 35A	35 - 350A
Resolution	0.4mA	4mA	0.5mA	5mA	0.56mA	5.6mA
Accuracy	± 0.1% of [reading + range]					

### 5-DIGIT POWERMETER

Range	0 - 2.5kW	0 - 25kW	0 - 3kW	0 - 30kW	0 - 3.5kW	0 - 35kW
Resolution	0.1W	1W	0.1W	1W	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	20mA - 1.25A/μs	0.2A - 12.5A/μs	24mA - 1.5A/μs	0.24A - 15A/μs	28mA - 1.75A/μs	0.28A - 17.5A/μs
Slew Rate Resolution	5mA/μs	50mA/μs	6mA/μs	60mA/μs	7mA/μs	70mA/μs
Minimum Rise Time	Typically 20μs					
Current Range	0 - 25A	25 - 250A	0 - 30A	30 - 300A	0 - 35A	35 - 350A
Current Resolution	0.4mA	4mA	0.5mA	5mA	0.56mA	5.6mA
Accuracy	± [0.1% of setting + 0.2% of range]					

## TECHNICAL DATA

	ELP - 34340		ELP - 34350		ELP - 34360	
	RANGE 1	RANGE 2	RANGE 1	RANGE 2	RANGE 1	RANGE 2
Load Voltage [ON/OFF]	10.4 - 200V / 0 - 200V		20 - 200V / 0 - 198.4V		20 - 200V / 0 - 198.4V	
Min Voltage at Full Current	10V at 400A		20V at 500A		20V at 600A	
Short Circuit Current	400A		500A		600A	
Max. Power Consumption	3700W		5450W		6200W	
Weight	430kg		510kg		630kg	
Operating Temperature	0 to 40°C, all measurements taken at 25°C± 5°C, except where noted					
Dimensions [W × H × D]	647 × 1513 × 766mm		853 × 1360 × 766mm		853 × 1513 × 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 - 40A	0 - 400A	0 - 50A	0 - 500A	0 - 60A	0 - 600A
Resolution	0.64mA	6.4mA	0.8mA	8mA	1mA	10mA
Accuracy	± [0.1% of setting + 0.2% of range]					

### CR MODE

Range	3000 - 2.5Ω	2.5 - 0.0504Ω	0.04 - 2Ω	2 - 2500Ω	0.0333 - 1.666Ω	1.666 - 2000Ω
Resolution	6.66μS	0.042mΩ	32μΩ	8μS	27.8μΩ	10μS
Accuracy	± 0.2% of [setting + range]					

### CV MODE

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

### CP MODE

Range	4kW	40kW	5kW	50kW	6kW	60kW
Resolution	64mW	640mW	80mW	800mW	100mW	1W
Accuracy	± 0.5% of [setting + range]					

### 5-DIGIT VOLTMETER

Range	0 - 100V	100 - 1000V	0 - 100V	100 - 1000V	0 - 100V	100 - 1000V
Resolution	1.6mV	16mV	1.6mV	16mV	1.6mV	16mV
Accuracy	± 0.025% of [reading + range]					

### 5-DIGIT AMMETER

Range	0 - 40A	40 - 400A	0 - 50A	50 - 500A	0 - 60A	60 - 600A
Resolution	0.64mA	6.4mA	0.8mA	8mA	1mA	10mA
Accuracy	± 0.1% of [reading + range]					

### 5-DIGIT POWERMETER

Range	0 - 4kW	0 - 40kW	0 - 5kW	0 - 52kW	0 - 6kW	0 - 60kW
Resolution	0.1W	1W	0.1W	1W	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	32mA - 2A/μs	0.32A - 20A/μs	40mA - 2.5A/μs	400mA - 25A/μs	48mA - 3A/μs	480mA - 30A/μs
Slew Rate Resolution	8mA/μs	80mA/μs	10mA/μs	100mA/μs	12mA/μs	120mA/μs
Minimum Rise Time	Typically 20μs					
Current Range	0 - 40A	40 - 400A	0 - 50A	50 - 500A	0 - 60A	60 - 600A
Current Resolution	0.64mA	6.4mA	0.8mA	8mA	1mA	10mA
Accuracy	± [0.1% of setting + 0.2% of range]					



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ETPS engineer electronic power supply and testing systems. Our problem solving skills provide the spark of innovation to some of the world's leading technology brands.



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