

# ELP-34105

## COMPACT HIGH CURRENT DC LOAD



POSITIVE PROBLEM SOLVING **+ =**

**This range of High Power Electronic Loads provides a high current sink capability of 1000Amps from 0.7V.**

These units have two load ranges one at 0-100A and the other at 100-1000A with auto crossover in CC mode. The range comprises of 5 models from 5kW to 30kW all units can operate in CC, CV, CR, CP, CV+CC, CV+CP, MPPT, Dynamic and Short Modes. The current Slew Rate is adjustable for both ranges and to aid production testing to a pre-set value the unit is equipped with a GO/NG indicator.

- + 9 Different Operating Modes as Standard**
- + Single Key OCP & OPP Test Function**
- + AC Input 115/230Vac Selectable**
- + Protection for OV, OC, OP & OT**
- + Simultaneous V, I & W Display**
- + High Current Sink at 1000A**

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## COMPACT HIGH CURRENT DC LOAD



## FURTHER DETAILS

The units have 150 memory locations with auto sequence capability to speed up changes of test parameters.

A full set of optional interfaces are available including IEEE, RS-232, USB & LAN LabVIEW drivers are also available.

The LCD display simultaneously shows Voltage, Current & Power.

The 5kW unit is supplied with a carry harness for ease of installation.

## 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-34105	5kW	60VDC	0 - 100A	5kW	60VDC	0 - 1000A
ELP-34110	10kW	60VDC	0 - 100A	10kW	60VDC	0 - 1000A
ELP-34115	15kW	60VDC	0 - 100A	15kW	60VDC	0 - 1000A
ELP-34120	20kW	60VDC	0 - 100A	20kW	60VDC	0 - 1000A
ELP-34125	25kW	60VDC	0 - 100A	25kW	60VDC	0 - 1000A
ELP-34130	30kW	60VDC	0 - 100A	30kW	60VDC	0 - 1000A

## OPTIONS

CODE	DESCRIPTION
/LT	IEEE488.2 (GPIB) interface card
/RS232	RS-232 interface card
/USB	USB interface card
/LAN	LAN interface card
/801	Digital control interface and panel mount emergency stop
/802	Analogue and digital control interfaces
/803	Analogue and digital control interfaces with panel mount emergency stop
/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 - 34105		ELP - 34110		ELP - 34115	
	RANGE 1	RANGE 2	RANGE 1	RANGE 2	RANGE 1	RANGE 2
Load Voltage (ON/OFF)	0.1 - 25V / 0 - 25V					
Min. Operation Voltage	0.1V at 100A	0.7V at 1000A	0.1V at 100A	0.7V at 1000A	0.1V at 100A	0.7V at 1000A
Short Circuit Current	1000A					
Max. Power Consumption	600W		1000W		1450W	
Weight	100kg		130kg		170kg	
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		736 × 712 × 766mm	
Safety & EMC	CE					
CC MODE						
Current Sink Value	0 - 100A	0 - 1000A	0 - 100A	0 - 1000A	0 - 100A	0 - 1000A
Resolution	1.667mA	16.67mA	1.667mA	16.67mA	1.667mA	16.67mA
Accuracy	± [0.1% of setting + 0.2% of range]					
CR MODE						
Resistance Sink Value	3600 - 0.06Ω	0.06 - 0.001Ω	3600 - 0.06Ω	0.06 - 0.001Ω	3600 - 0.06Ω	0.06 - 0.001Ω
Resolution	277μS	0.001mΩ	277μS	0.001mΩ	277μS	0.001mΩ
Accuracy	± 0.2% of [setting + range]					
CV MODE						
Voltage Sink Value	0 - 60V					
Resolution	1mV					
Accuracy	± 0.05% of [setting + range]					
CP MODE						
Power Sink Value	0 - 500W	0 - 5kW	0 - 1kW	0 - 10kW	0 - 1.5kW	0 - 15kW
Resolution	8.34mW	83.4mW	16.7mW	167mW	25mW	250mW
Accuracy	± 0.5% of [setting + range]					
CV + CC MODE						
Range	0 - 60V	0 - 1000A	0 - 60V	0 - 1000A	0 - 60V	0 - 1000A
Resolution	1mV	16.67mA	1mV	16.67mA	1mV	16.67mA
Accuracy	± 1.0% of [setting + range]					
CV + CP MODE						
Range	0 - 60V	0 - 5kW	0 - 60V	0 - 10kW	0 - 60V	0 - 15kW
Resolution	1mV	83.4mW	1mV	167mW	1mV	250mW
Accuracy	± 1.0% 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					



## TECHNICAL DATA

	ELP - 34105		ELP - 34110		ELP - 34115	
	RANGE 1	RANGE 2	RANGE 1	RANGE 2	RANGE 1	RANGE 2
Over Power Protection	105%					
Over Current Protection	105%					
Over Voltage Protection	105%					
Over Temp. Protection	Yes					

### 5-DIGIT VOLTMETER

	0 - 6V	6 - 60V	0 - 6V	6 - 60V	0 - 6V	6 - 60V
Range	0 - 6V	6 - 60V	0 - 6V	6 - 60V	0 - 6V	6 - 60V
Resolution	0.1mV	1mV	0.1mV	1mV	0.1mV	1mV
Accuracy	± 0.025% of [setting + range]					

### 5-DIGIT AMMETER

	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A
Range	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A
Resolution	1.667mA	16.67mA	1.667mA	16.67mA	1.667mA	16.67mA
Accuracy	± 0.1% of [setting + range]					

### 5-DIGIT POWERMETER

	0 - 500W	0 - 5kW	0 - 1kW	0 - 10kW	0 - 1.5kW	0 - 15kW
Range	0 - 500W	0 - 5kW	0 - 1kW	0 - 10kW	0 - 1.5kW	0 - 15kW
Resolution	0.01W	0.1W	0.01W	0.1W	0.01W	0.1W
Accuracy	± 0.125% of [setting + range]					

### DYNAMIC OPERATION

Thigh & Tlow	0.150 - 9.999 / 99.99 / 999.9 / 9999ms		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	24mA - 1.5A / µs	240mA - 15A / µs	66.4mA - 4.15A / µs	664mA - 41.5A / µs	66.4mA - 4.15A / µs	664mA - 41.5A / µs
Slew Rate Resolution	6mA / µs	60mA / µs	16.6mA / µs	166mA / µs	16.6mA / µs	166mA / µs
Minimum Rise Time	Typically 66.7µs		Typically 24µs			
Current Range	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A
Current Resolution	1.667mA	16.67mA	1.667mA	16.67mA	1.667mA	16.67mA
Accuracy	± [0.1% of setting + 0.2% of range]					

## TECHNICAL DATA

	ELP - 34120		ELP - 34125		ELP - 34130	
	RANGE 1	RANGE 2	RANGE 1	RANGE 2	RANGE 1	RANGE 2
Load Voltage [ON/OFF]	0.1 - 25V / 0 - 25V					
Min. Operation Voltage	0.1V at 100A	0.7V at 1000A	0.1V at 100A	0.7V at 1000A	0.1V at 100A	0.7V at 1000A
Short Circuit Current	1000A					
Max. Power Consumption	1900W		2350W		2800W	
Weight	220kg		280kg		340kg	
Operating Temperature	0 to 40°C, all measurements taken at 25°C± 5°C, except where noted					
Dimensions [W × H × D]	647 × 781 × 766mm		647 × 1048 × 766mm		647 × 1201 × 766mm	
Safety & EMC	CE					

### CC MODE

Current Sink Value	0 - 100A	0 - 1000A	0 - 100A	0 - 1000A	0 - 100A	0 - 1000A
Resolution	1.667mA	16.67mA	1.667mA	16.67mA	1.667mA	16.67mA
Accuracy	± [0.1% of setting + 0.2% of range]					

### CR MODE

Resistance Sink Value	3600 - 0.06Ω	0.06 - 0.001Ω	3600 - 0.06Ω	0.06 - 0.001Ω	3600 - 0.06Ω	0.06 - 0.001Ω
Resolution	277μS	0.001mΩ	277μS	0.001mΩ	277μS	0.001mΩ
Accuracy	± 0.2% of [setting + range]					

### CV MODE

Voltage Sink Value	0 - 60V					
Resolution	1mV					
Accuracy	± 0.05% of [setting + range]					

### CP MODE

Power Sink Value	0 - 2kW	0 - 20kW	0 - 2.5kW	0 - 25kW	0 - 3kW	0 - 30kW
Resolution	33.4mW	334mW	41.7mW	417mW	50mW	500mW
Accuracy	± 0.5% of [setting + range]					

### CV + CC MODE

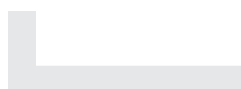
Power Sink Value	0 - 60V	0 - 1000A	0 - 60V	0 - 1000A	0 - 60V	0 - 1000A
Resolution	1mV	16.67mA	1mV	16.67mA	1mV	16.67mA
Accuracy	± 1.0% of [setting + range]					

### CV + CP MODE

Power Sink Value	0 - 60V	0 - 20kW	0 - 60V	0 - 25kW	0 - 60V	0 - 30kW
Resolution	1mV	334mW	1mV	417mW	1mV	500mW
Accuracy	± 1.0% 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					



## TECHNICAL DATA

	ELP - 34120		ELP - 34125		ELP - 34130	
	RANGE 1	RANGE 2	RANGE 1	RANGE 2	RANGE 1	RANGE 2
Over Power Protection	105%					
Over Current Protection	105%					
Over Voltage Protection	105%					
Over Temp. Protection	Yes					

### 5-DIGIT VOLTMETER

	0 - 6V	6 - 60V	0 - 6V	6 - 60V	0 - 6V	6 - 60V
Range	0 - 6V	6 - 60V	0 - 6V	6 - 60V	0 - 6V	6 - 60V
Resolution	0.1mV	1mV	0.1mV	1mV	0.1mV	1mV
Accuracy	± 0.025% of [setting + range]					

### 5-DIGIT AMMETER

	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A
Range	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A
Resolution	1.667mA	16.67mA	1.667mA	16.67mA	1.667mA	16.67mA
Accuracy	± 0.1% of [setting + range]					

### 5-DIGIT POWERMETER

	0 - 2kW	0 - 20kW	0 - 2.5kW	0 - 25kW	0 - 3kW	0 - 30kW
Range	0 - 2kW	0 - 20kW	0 - 2.5kW	0 - 25kW	0 - 3kW	0 - 30kW
Resolution	0.1W	1W	0.1W	1W	0.1W	1W
Accuracy	± 0.125% of [setting + 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	66.4mA - 4.15A / µs	664mA - 41.5A / µs	66.4mA - 4.15A / µs	664mA - 41.5A / µs	66.4mA - 4.15A / µs	664mA - 41.5A / µs
Slew Rate Resolution	16.6mA / µs	166mA / µs	16.6mA / µs	166mA / µs	16.6mA / µs	166mA / µs
Minimum Rise Time	Typically 24µs					
Current Range	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A	0 - 100A	100 - 1000A
Current Resolution	1.667mA	16.67mA	1.667mA	16.67mA	1.667mA	16.67mA
Accuracy	± [0.1% of setting + 0.2% of range]					



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