

## Product Datasheet - Technical Specifications



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# ELP/DCM97 series programmable DC electronic load

1800 - 3600 W load



## FEATURES

- Six high speed operation modes: CC,CR,CV,CW,CC+CV,CR+CV
- High-luminance VFD screen with 2 lines & 4 channels display channels
- Battery testing and short-circuit function
- Available of dynamic testing and rising edge and falling edge setting
- External current waveform monitor terminal
- Power-on-self-test, software calibration and standard rack mount
- Over current, over voltage, over power, over heat, reversed protection
- 1000/1200 V on request polarity
- Soft start time setting, carrying the power supplier according to the voltage value set
- Supporting external trigger input and output
- Supporting remote voltage compensation and multidata storage
- Communication mode: GPIB/RS232/RS485/USB (Option)
- Customer specific models on request

Model	ELP/DCM9715		ELP/DCM9715B		ELP/DCM9716		ELP/DCM9716B		
Input Rating	Power	1800 W		1800 W		2400 W		2400 W	
	Current	0 - 240 A		0 - 120 A		0 - 240 A		0 - 120 A	
	Voltage	0 - 150 V		0 - 500 V		0 - 150 V		0 - 500 V	
CC Mode	Range	0 - 24 A	0 - 240 A	0 - 12 A	0 - 120 A	0 - 24 A	0 - 240 A	0 - 12 A	0 - 120 A
	Resolution	1 mA	10 mA	0,1 mA	1 mA	0,1 mA	10 mA	0,1 mA	10 mA
	Accuracy	0,05%+0,05%FS	0,1%+0,05%FS	0,05%+0,05%FS	0,1%+0,05%FS	0,05%+0,05%FS	0,1%+0,05%FS	0,05%+0,05%FS	0,1%+0,05%FS
CV Mode	Range	0,1 - 19.999 V	0,1 - 150 V	0,1 - 19.999 V	0,1 - 500 V	0,1 - 19.999 V	0,1 - 150 V	0,1 - 19.999 V	0,1 - 500 V
	Resolution	1 mV	10 mV	1 mV	10 mV	1 mV	10 mV	1 mV	10 mV
	Accuracy	0,03%+0,02%FS	0,03%+0,02%FS	0,03%+0,02%FS	0,03%+0,05%FS	0,03%+0,02%FS	0,03%+0,02%FS	0,03%+0,02%FS	0,03%+0,05%FS
CR Mode (Voltage and current input value > 10% full messument)	Range	0,03 - 10 K Ω	0,03 - 5 K Ω	0,03 - 10 K Ω	0,03 - 5 K Ω	0,3 - 10 K Ω	0,3 - 5 K Ω	0,03 - 10 K Ω	0,03 - 5 K Ω
	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
CW Mode (Voltage and current input value > 10% full messument)	Range	0 - 1800 W	0 - 1800 W	0 - 1800 W	0 - 1800 W	0 - 2400 W	0 - 2400 W	0 - 2400 W	0 - 2400 W
	Resolution	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW
	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 Measurement	Voltage	0 - 19.999 V	0 - 150 V	0 - 19.999 V	0 - 500 V	0 - 19.999 V	0 - 150 V	0 - 19.999 V	0 - 500 V
	Resolution	1 mV	10 mV	1 mV	10 mV	1 mV	10 mV	1 mV	10 mV
	Accuracy	0,015%+0,03%FS	0,015%+0,03%FS	0,015%+0,03%FS	0,015%+0,05%FS	0,015%+0,03%FS	0,015%+0,03%FS	0,015%+0,03%FS	0,015%+0,05%FS
I Measurement	Current	0 - 24 A	0 - 240 A	0 - 12 A	0 - 120 A	0 - 24 A	0 - 240 A	0 - 12 A	0 - 120 A
	Resolution	0,1 mA	1 mA	0,1 mA	1 mA	0,1 mA	1 mA	0,1 mA	1 mA
	Accuracy	0,03%+0,05%FS	0,1%+0,1%FS	0,03%+0,05%FS	0,1%+0,05%FS	0,03%+0,05%FS	0,1%+0,05%FS	0,03%+0,05%FS	0,1%+0,08%FS
W Measurement (Voltage and current input value > 10% full messument)	Watt	100 W	1800 W	100 W	1800 W	100 W	2400 W	100 W	2400 W
	Resolution	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW
	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

<b>Battery Test</b>	Battery Input: 0,5 - 120 V; Max. Measurement: Capacy = 999 AH; Resolution = 0,1 mA; Time Range = 15 - 32 HS
<b>Dynamic Test</b>	Transition List: 0 - 25 KHz; 2,5 A/uS; T1 & T2: 60 uS - 999 S; Accuracy: +/- 15 % offset + 10 %FS
<b>CC soft-startup Time</b>	1 mS; 2 mS; 5 mS; 10 mS; 20 mS; 50 mS; 100 mS; 200 mS; Accuracy: +/- 15 % offset + 10 %FS

Short Circuit	Current CC	= 26,4 A	= 264 A	= 13,2 A	= 132 A	= 26,4 A	= 264 A	= 13,2 A	= 132 A
	Voltage CV	0 V		0 V		0 V		0 V	
	Resistance RC	= 6 mΩ		= 50 mΩ		= 6 mΩ		= 50 mΩ	
Temperature	Operating	0 - 40 °C		0 - 40 °C		0 - 40 °C		0 - 40 °C	
	Nonoperating	-10 °C - 70 °C		-10 °C - 70 °C		-10 °C - 70 °C		-10 °C - 70 °C	
Dimension	WxHxD (mm)	19" x 4U x 538.5							
Weight	Kg	31,6							

Model		ELP/DCM9716E		ELP/DCM9717		ELP/DCM9717B		ELP/DCM9717C	
Input Rating	Power	3000 W		3600 W		3600 W		3600 W	
	Current	0 - 480 A		0 - 240 A		0 - 120 A		0 - 500 A	
	Voltage	0 - 150 V		0 - 150 V		0 - 500 V		0 - 150 V	
CC Mode	Range	0 - 48 A	0 - 480 A	0 - 24 A	0 - 240 A	0 - 12 A	0 - 120 A	0 - 50 A	0 - 500 A
	Resolution	1 mA	10 mA	1 mA	10 mA	1 mA	10 mA	0,1 mA	10 mA
	Accuracy	0,05%+0,1%FS	0,05%+0,15%FS	0,05%+0,05%FS	0,1%+0,05%FS	0,05%+0,05%FS	0,1%+0,05%FS	0,1%+0,05%FS	0,15%+0,1%FS
CV Mode	Range	0,1 - 19.999 V	0,1 - 150 V	0,1 - 19.999 V	0,1 - 150 V	0,1 - 19.999 V	0,1 - 500 V	0,1 - 19.999 V	0,1 - 150 V
	Resolution	1 mV	10 mV	1 mV	10 mV	1 mV	10 mV	1 mV	10 mV
	Accuracy	0,03%+0,02%FS	0,03%+0,02%FS	0,03%+0,02%FS	0,03%+0,02%FS	0,03%+0,02%FS	0,03%+0,05%FS	0,03%+0,02%FS	0,03%+0,02%FS
CR Mode (Voltage and current input value > 10% full messument)	Range	0,03 - 10 K $\Omega$	0,03 - 5 K $\Omega$	0,03 - 10 K $\Omega$	0,03 - 5 K $\Omega$	0,03 - 10 K $\Omega$	0,03 - 5 K $\Omega$	0,03 - 10 K $\Omega$	0,03 - 5 K $\Omega$
	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	0,2%+0,15%FS
CW Mode (Voltage and current input value > 10% full messument)	Range	0 - 3000 W	0 - 3000 W	0 - 3600 W	0 - 3600 W	0 - 3600 W	0 - 3600 W	0 - 3600 W	0 - 3600 W
	Resolution	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW
	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	0,2%+0,15%FS
V Measurement	Voltage	0 - 19.999 V	0 - 150 V	0 - 19.999 V	0 - 150 V	0 - 19.999 V	0 - 500 V	0 - 19.999 V	0 - 150 V
	Resolution	1 mV	10 mV	1 mV	10 mV	1 mV	10 mV	1 mV	10 mV
	Accuracy	0,015%+0,03%FS	0,015%+0,03%FS	0,015%+0,03%FS	0,015%+0,03%FS	0,015%+0,03%FS	0,015%+0,05%FS	0,015%+0,03%FS	0,015%+0,03%FS
I Measurement	Current	0 - 48 A	0 - 480 A	0 - 24 A	0 - 240 A	0 - 12 A	0 - 120 A	0 - 50 A	0 - 500 A
	Resolution	0,1 mA	1 mA	0,1 mA	1 mA	0,1 mA	1 mA	0,1 mA	1 mA
	Accuracy	0,05%+0,1%FS	0,1%+0,15%FS	0,03%+0,08%FS	0,1%+0,08%FS	0,03%+0,08%FS	0,1%+0,08%FS	0,1%+0,05%FS	0,15%+0,1%FS
W Measurement (Voltage and current input value > 10% full messument)	Watt	100 W	3000 W	100 W	3600 W	100 W	3600 W	100 W	3600 W
	Resolution	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW	1 mW	10 mW
	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	0,2%+0,15%FS

<b>Battery Test</b>	Battery Input: 0,5 - 120 V; Max. Measurement: Capacity = 999 AH; Resolution = 0,1 mA; Time Range = 1S - 32 HS
<b>Dynamic Test</b>	Transition List: 0 - 25 kHz; 5 A/uS; T1 & T2: 60 uS - 999 S; Accuracy: +/- 15 % offset + 10 %FS
<b>CC soft-startup Time</b>	1 mS; 2 mS; 5 mS; 10 mS; 20 mS; 50 mS; 100 mS; 200 mS; Accuracy: +/- 15 % offset + 10 %FS

Short Circuit	Current CC	= 52,8 A	= 528 A	= 26,4 A	= 264 A	= 13,2 A	= 132 A	= 55 A	= 550 A
	Voltage CV	0 V		0 V		0 V		0 V	
	Resistance RC	= 3,8 m $\Omega$		= 8 m $\Omega$		= 45 m $\Omega$		= 3,8 m $\Omega$	
Temperature	Operating	0 - 40 °C		0 - 40 °C		0 - 40 °C		0 - 40 °C	
	Nonoperating	-10 °C - 70 °C		-10 °C - 70 °C		-10 °C - 70 °C		-10 °C - 70 °C	
Dimension	WxHxD (mm)	19" x 4U x 538,5		19" x 8U x 538,5		19" x 8U x 538,5		19" x 8U x 538,5	
Weight	Kg	31,6		70		70		70	