

## Product Datasheet - Technical Specifications



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# ELP/DCM97 series programmable DC electronic load

## 600 - 1200 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
- Intelligent fan system fan will be automatically initiated according to the temperature
- 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
- 1000/1200 V on request
- Over current, over voltage, over power, over heat, polarity reversed protection
- 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/DCM9713 |                | ELP/DCM9713B   |                | ELP/DCM9714    |                | ELP/DCM9714B   |                |                |
|--|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Input Rating   | Power       | 600 W          |                | 600 W          |                | 1200 W         |                | 1200 W         |                |
|  | Current     | 0 - 120 A      |                | 0 - 30 A       |                | 0 - 240 A      |                | 0 - 60 A       |                |
|  | Voltage     | 0 - 150 V      |                | 0 - 500 V      |                | 0 - 150 V      |                | 0 - 500 V      |                |
| CC Mode  | Range       | 0 - 12 A       | 0 - 120 A      | 0 - 3 A        | 0 - 30 A       | 0 - 24 A       | 0 - 240 A      | 0 - 6 A        | 0 - 60 A       |
|  | Resolution  | 1 mA           | 10 mA          | 0,1 mA         | 1 mA           | 0,1 mA         | 10 mA          | 0,1 mA         | 1 mA           |
|  | Accuracy    | 0,05%+0,05%FS  | 0,1%+0,05%FS   | 0,03%+0,05%FS  | 0,03%+0,05%FS  | 0,05%+0,05%FS  | 0,1%+0,05%FS   | 0,03%+0,05%FS  | 0,03%+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 - 600 W      | 0 - 600 W      | 0 - 600 W      | 0 - 600 W      | 0 - 1200 W     | 0 - 1200 W     | 0 - 1200 W     | 0 - 1200 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 - 12 A       | 0 - 120 A      | 0 - 3 A        | 0 - 30 A       | 0 - 24 A       | 0 - 240 A      | 0 - 6 A        | 0 - 60 A       |
|  | Resolution  | 0,1 mA         | 1 mA           | 0,01 mA        | 0,1 mA         | 0,1 mA         | 1 mA           | 0,01 mA        | 0,1 mA         |
|  | Accuracy    | 0,05%+0,05%FS  | 0,1%+0,08%FS   | 0,03%+0,05%FS  | 0,03%+0,08%FS  | 0,05%+0,05%FS  | 0,1%+0,1%FS    | 0,03%+0,05%FS  | 0,03%+0,08%FS  |
| W Measurement (Voltage and current input value > 10% full messument) | Watt        | 100 W          | 600 W          | 100 W          | 600 W          | 100 W          | 1200 W         | 100 W          | 1200 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: 0,1 - 150 V; Max. Measurement: Capacy = 999 AH; Resolution = 0,1 mA; Test Time = 1 S - 16 H |
| <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; 500 mS; 1000 mS; Accuracy: +/- 15 % offset + 10 %FS |

|               |               |                  |         |                |        |                |         |                |        |
|---------------|---------------|------------------|---------|----------------|--------|----------------|---------|----------------|--------|
| Short Circuit | Current CC    | = 13,2 A         | = 132 A | = 3,3 A        | = 33 A | = 26,4 A       | = 264 A | = 6,6 A        | = 66 A |
|               | Voltage CV    | 0 V              |         | 0 V            |        | 0 V            |         | 0 V            |        |
|               | Resistance RC | = 13 mΩ          |         | = 100 mΩ       |        | = 7 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 2U x 520,5 |         |                |        |                |         |                |        |
| Weight        | Kg            | 17,6             |         |                |        |                |         |                |        |