

ELP/DCM98 series programmable DC electronic load

20 - 100 kW 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/DCM9836 | | ELP/DCM9836B | | ELP/DCM9837 | | ELP/DCM9837B | | |
|--|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Input Rating | Power | 20.000 W | | 20.000 W | | 35.000 W | | 35.000 W | |
| | Current | 0 - 500 A | | 0 - 240 A | | 0 - 500 A | | 0 - 240 A | |
| | Voltage | 0 - 150 V | | 0 - 500 V | | 0 - 150 V | | 0 - 500 V | |
| CC Mode | Range | 0 - 50 A | 0 - 500 A | 0 - 24 A | 0 - 240 A | 0 - 50 A | 0 - 500 A | 0 - 24 A | 0 - 240 A |
| | Resolution | 1 mA | 10 mA | 1 mA | 10 mA | 1 mA | 10 mA | 1 mA | 10 mA |
| | Accuracy | 0,1%+0,05%FS | 0,15%+0,1%FS | 0,05%+0,05%FS | 0,1%+0,05%FS | 0,1%+0,05%FS | 0,15%+0,2%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 - 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 | 0,3 - 10 K Ω | 0,3 - 5 K Ω | 0,3 - 10 K Ω | 0,3 - 5 K Ω | 0,3 - 10 K Ω | 0,3 - 5 K Ω | 0,3 - 10 K Ω | 0,3 - 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 | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,1%+0,1%FS | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,2%+0,15%FS |
| CW Mode (Voltage and current input value > 10% full messument) | Range | 0 - 7500 W | 0 - 20.000 W | 0 - 12.000 W | 0 - 20.000 W | 0 - 7500 W | 0 - 35.000 W | 0 - 12.000 W | 0 - 35.000 W |
| | Resolution | 1 mW | 100 mW | 1 mW | 100 mW | 10 mW | 100 mW | 10 mW | 100 mW |
| | Accuracy | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,1%+0,1%FS | 0,1%+0,1%FS | 0,2%+0,15%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 - 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%+0,03%FS |
| I Measurement | Current | 0 - 50 A | 0 - 500 A | 0 - 24 A | 0 - 240 A | 0 - 50 A | 0 - 500 A | 0 - 24 A | 0 - 240 A |
| | Resolution | 0,1 mA | 1 mA | 0,1 mA | 1 mA | 1 mA | 10 mA | 0,1 mA | 10 mA |
| | Accuracy | 0,1%+0,05%FS | 0,15%+0,1%FS | 0,1%+0,05%FS | 0,1%+0,05%FS | 0,1%+0,05%FS | 0,15%+0,2%FS | 0,1%+0,05%FS | 0,15%+0,1%FS |
| W Measurement (Voltage and current input value > 10% full messument) | Watt | 100 W | 20.000 W | 100 W | 20.000 W | 100 W | 35.000 W | 100 W | 35.000 W |
| | Resolution | 1 mW | 100 mW | 1 mW | 100 mW | 1 mW | 100 mW | 1 mW | 100 mW |
| | Accuracy | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,1%+0,1%FS | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,2%+0,15%FS |

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

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|---------------|---------------|------------------|---------|------------------|---------|------------------|---------|------------------|---------|
| Short Circuit | Current CC | = 55 A | = 550 A | = 26,4 A | = 264 A | = 55 A | = 550 A | = 26,4 A | = 264 A |
| | Voltage CV | 0 V | | 0 V | | 0 V | | 0 V | |
| | Resistance RC | = 4 mΩ | | = 8 mΩ | | = 3,5 mΩ | | = 6 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) | 2000 x 700 x 700 | | 2000 x 700 x 700 | | 2000 x 700 x 700 | | 2000 x 700 x 700 | |
| Weight | Kg | 370 | | 370 | | 370 | | 700 | |



| Model | | ELP/DCM9838 | | ELP/DCM9838B | | ELP/DCM9839 | | ELP/DCM9839B | |
|--|------------|---------------------|--------------------|---------------------|--------------------|---------------------|--------------------|---------------------|--------------------|
| Input Rating | Power | 50.000 W | | 50.000 W | | 50.000 W | | 100.000 W | |
| | Current | 0 - 500 A | | 0 - 240 A | | 0 - 240 A | | 0 - 240 A | |
| | Voltage | 0 - 150 V | | 0 - 500 V | | 0 - 500 V | | 0 - 500 V | |
| CC Mode | Range | 0 - 50 A | 0 - 500 A | 0 - 24 A | 0 - 240 A | 0 - 50 A | 0 - 500 A | 0 - 24 A | 0 - 240 A |
| | Resolution | 1 mA | 10 mA | 1 mA | 10 mA | 1 mA | 10 mA | 1 mA | 10 mA |
| | Accuracy | 0,1%+0,05%FS | 0,15%+0,2%FS | 0,1%+0,05%FS | 0,15%+0,1%FS | 0,1%+0,05%FS | 0,15%+0,2%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 - 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%+0,02%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 | 0,3 - 10 K Ω | 0,3 - 5 K Ω | 0,3 - 10 K Ω | 0,3 - 5 K Ω | 0,3 - 10 K Ω | 0,3 - 5 K Ω | 0,3 - 10 K Ω | 0,3 - 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 | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,1%+0,1%FS |
| CW Mode (Voltage and current input value > 10% full messument) | Range | 0 - 7500 W | 0 - 50.000 W | 0 - 7500 W | 0 - 50.000 W | 0 - 7500 W | 0 - 50.000 W | 0 - 12.000 W | 0 - 100.000 W |
| | Resolution | 10 mW | 100 mW | 10 mW | 100 mW | 10 mW | 100 mW | 10 mW | 100 mW |
| | Accuracy | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,2%+0,15%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 - 150 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%+0,03%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 - 50 A | 0 - 500 A | 0 - 50 A | 0 - 500 A | 0 - 50 A | 0 - 500 A | 0 - 24 A | 0 - 240 A |
| | Resolution | 1 mA | 10 mA | 1 mA | 10 mA | 1 mA | 10 mA | 0,1 mA | 1 mA |
| | Accuracy | 0,1%+0,05%FS | 0,15%+0,2%FS | 0,1%+0,05%FS | 0,15%+0,2%FS | 0,1%+0,05%FS | 0,15%+0,2%FS | 0,1%+0,05%FS | 0,15%+0,1%FS |
| W Measurement (Voltage and current input value > 10% full messument) | Watt | 100 W | 50.000 W | 100 W | 50.000 W | 100 W | 50.000 W | 100 W | 100.000 W |
| | Resolution | 1 mW | 100 mW | 1 mW | 100 mW | 1 mW | 100 mW | 1 mW | 10 mW |
| | Accuracy | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,2%+0,15%FS | 0,1%+0,1%FS | 0,15%+0,1%FS |

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

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|---------------|---------------|------------------|---------|------------------|---------|------------------|---------|----------------------|---------|
| Short Circuit | Current CC | = 55 A | = 550 A | = 26,4 A | = 264 A | = 55 A | = 550 A | = 26,4 A | = 264 A |
| | Voltage CV | 0 V | | 0 V | | 0 V | | 0 V | |
| | Resistance RC | = 3 m Ω | | = 8 m Ω | | = 3 m Ω | | = 3,2 m Ω | |
| 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) | 2000 x 700 x 700 | | 2000 x 700 x 700 | | 2000 x 700 x 700 | | 600 x 1880 x 600 x 6 | |
| Weight | Kg | 1050 | | 370 | | 1050 | | 2100 | |