

# Electronic DC Load

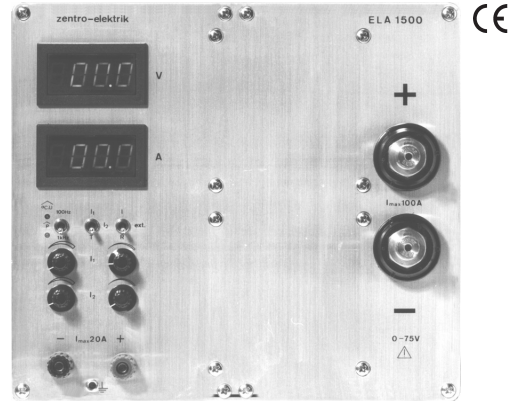
## ELA Series

### Power 1500 W

Constant I- Mode or R- Mode  
 Master - Slave Mode  
 Ext. programmable constant  
 Ext. programmable with  
 R- Module, P- and R constant

#### Options a.o.:

Installed IEEE488.2 (GPIB) / RS232\* / USB\*  
 interface with Lab-View Driver (Series INT2E)  
 Installed USB Interface with driver software  
 External CAN Open Interface (on request)  
 R- Module  
 Front-End Unit  
 \*selectable RS232 or USB



Units for Laboratory and Test

#### Input:

Input voltage 230 V<sub>AC</sub> -10 % + 6 %, 50 – 60 Hz  
 Load voltage see table  
 Load current see table  
 Power see table

#### Regulation:

Set point accuracy  $\leq 0,1 \% I_{max}$   
 (Voltage change  $\pm 20\%$ )  
 Rise time (10 – 90%  
 nominal value change at  
 I-Mode)  $\leq 100 \mu s$   
 Temperature coefficient  
 (after 15 min. working time,  
 const. ambient temp. and  
 const. input voltage)  $\leq 0,1 \% / K I_{max}$   
 within 8 hours

#### Protection:

Overload protection power limit,  
 short circuit protection  
 Overvoltage protection power shutdown U<sub>Lmax</sub> +10%  
 Thermal protection power shutdown, auto recovery  
 Reverse polarity protection wattless current diode and fuse;

#### Environmental Condition:

Operating temperature 0 – +35°C  
 Cooling int. fans, temperature controlled

#### Safety:

Safety standard EN 61010-1  
 Isolation  
 AC input - load input: U<sub>L</sub> > 60 – 110 V: 2,3 kV<sub>rms</sub>  
 AC input - ground: 1,35 kV<sub>rms</sub>  
 Load input - ground: U<sub>L</sub> ≤ 100 V: 500 rms  
 U<sub>L</sub> > 100 – 110 V: 820 V<sub>rms</sub>

#### EMC:

Input EMI filter EN61000-6-3  
 Input immunity EN61000-6-1

#### Operation and Control:

Manual adjust:  
 Adjustment current and resistance:  
 each 2 levels (max., min.) mit je 1  
 each with pot. coarse, fine  
 Pulse-generator I, R 100 Hz or 1 kHz switch-selected,  
 waveform: square-wave 1:1

#### Programming

ext. voltage (reference -U<sub>L</sub>)  
 0 – 10 V  $\hat{=}$  0 – I<sub>max</sub>  
 any waveform,  
 frequency range:  
 0 – 20 kHz (3 dB)  
 Option R - Module:  
 ext. voltage 0 – 10 V  $\hat{=}$   
 power constant 0 – P<sub>max</sub>,  
 ext. voltage 0 – 10 V  $\hat{=}$   
 resistance constant R<sub>min</sub> – R<sub>max</sub>,

$$\frac{3,5 V}{I_{max}} = R_{min} \quad \frac{2000 V}{I_{max}} = R_{max}$$

Master - Slave - Mode  
 Parallel operation  
 Monitor Signals  
 digital signal:

two same units, see drawing  
 same units  
 current Monitor 0 – 10 V,  
 overtemp., overload,  
 over- and undervoltage  
 R-Module: analog 0 – 10 V for  
 voltage and current,  
 digital overload and overtemp.  
 overvoltage and overtemp.,  
 overload each 1 LED  
 LED digital for voltage and  
 current 3½-dig.,  
 accuracy: 0.2%  $\pm$  1d

#### Indication

#### Instruments

#### Connectors:

Input Euro - plug with switch,  
 rear side  
 Load I ≤ 20 A: banana jack 4 mm  $\varnothing$   
 I > 20 A: high current plugs  
 type DIX SE50  
 female plug included

#### Physical Specifications:

Dimensions in addition with INT2E: w+30mm  
 w x h x d  
 Weight see table

Power (W)	Load voltage (V)	Load current (A)	Load resistance (W)	Weight (kg)	Model Number
1500	1 - 40	0 - 199	0,02 - 10 k	12	ELA1500/40/200D
1500	1 - 75	1 - 100	0,02 - 10 k	12	ELA1500/75/100D

**Options:**

- Sub front panel colour al. anodized
- R - Modul
- Sub D connector (with Option R-Modul Sub D connector standard)
- Installed IEEE 488.2 Interface Euro-Card INT2E
- Cable for external Interface INT2

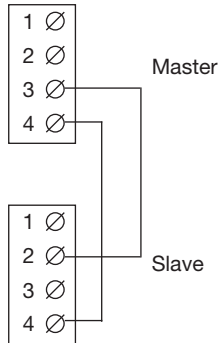
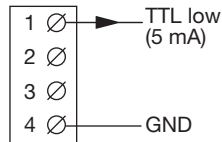
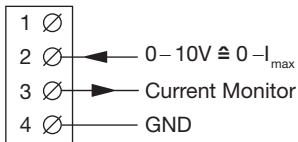
1 T = 5,08 mm, 1 U = 44,45 mm

**Connections:**

Ext. programming

Output for Signal overvoltage, overload and overtemp.

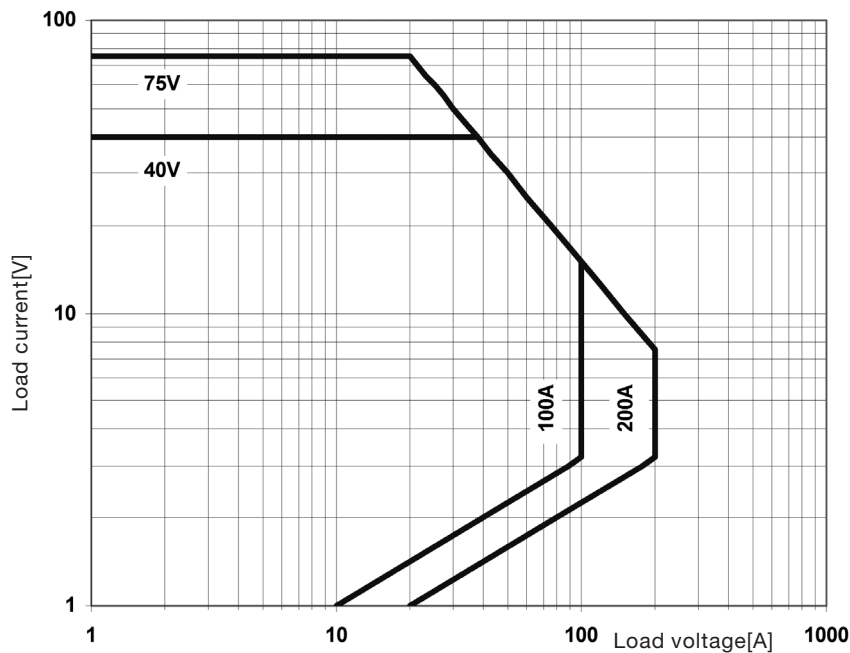
Master - slave - Mode



To parallel load terminals

Connections on the rear side of the unit  
Attention! Load cable with min. area  
25 mm<sup>2</sup> / units at 100 A  
50 mm<sup>2</sup> / units at 200 A

**Operating range:**



**ELA 1500...**

