

## Electronic DC Load

Made in Europe 

IEC-BUS  
compatible with  
Interface Series  
INT 2

### Power 10 000 W and 20 000 W Cooled by cooling liquid Series EL10 000, EL20 000

Constant I-Mode, U- Mode  
P- Mode or G- Mode  
All Modes ext. programmable

Nominal value indication and presetting  
of all Modes

Auto change to true values

Stand-alone use and intended for 19" rack

Option: Installed Interface



#### Input:

Input voltage 230 V<sub>AC</sub> ± 10 %, 50 ÷ 60 Hz (115V opt)

Load voltage see table

Load current see table

Power see table

#### Regulation:

Set point accuracy ≤ 0,1% I<sub>max</sub>, U<sub>max</sub>

(Voltage range ± 20%) ≤ 1% G<sub>max</sub>, P<sub>max</sub>

Rise time (10 ÷ 90% typ. 100 μs

nominal value change) at I-Mode

Temperature coefficient ≤ 0,1%/K I<sub>max</sub>

(after 15 min. working time,  
const. ambient temp. and  
const. input voltage)

#### Protection:

Overload protection power limit P<sub>max</sub> + 5%

Overvoltage protection power shutdown U<sub>Lmax</sub> + 5%

Thermal protection power shutdown, manual reset

Overcurrent current limit I<sub>max</sub> + 20%

Safety for load circuit and  
reverse polarity protection fuse and wattless current diode  
for I<sub>L</sub> ≤ 400 A

#### Environmental Conditions:

Humidity max. 70 %, non condensing

Operating temperature + 15 °C ÷ + 35 °C

Cooling cooling liquid, temp. controlled

Coolant pressure 3 bar ≤ P ≤ 6 bar

Coolant temperature +12 °C ≤ t ≤ +20 °C

#### Safety:

Safety standard EN61010

Isolation

AC input - load input: U<sub>L</sub> ≤ 60 V: 1 kV<sub>rms</sub>

U<sub>L</sub> > 60 ÷ 160 V: 1,5 kV<sub>rms</sub>

U<sub>L</sub> > 160 ÷ 800 V: 2,5 kV<sub>rms</sub>

AC input - ground: 1 kV<sub>rms</sub>

Load input - ground: U<sub>L</sub> ≤ 60 V: 500 V<sub>rms</sub>

U<sub>L</sub> > 60 ÷ 160 V: 1 kV<sub>rms</sub>

U<sub>L</sub> > 160 ÷ 800 V: 2,5 kV<sub>rms</sub>

#### EMC:

Input EMI filter EN50081-1

Input immunity EN50082-1

#### Operation and Control:

Manual adjust:

Adjustment

current, voltage, power and  
conductance (see table):  
each 2 levels (max., min.)  
each over 2 channels adjustable  
I- and G-Mode coarse/fine  
selectable

Pulse-generator I, U, P, G

100 Hz or 1 kHz switch-selected,  
waveform: square-wave 1 : 1  
ext. voltage (reference - U<sub>L</sub>)

Programming

0 ÷ 10 V ≅ 0 ÷ I<sub>max</sub>

0 ÷ 10 V ≅ 0 ÷ U<sub>max</sub>

0 ÷ 10 V ≅ 0 ÷ P<sub>max</sub>

0 ÷ 10 V ≅ 0 ÷ G<sub>max</sub>

any waveform, frequency  
range 0 ÷ 5 kHz (3 dB)

Parallel operation

same units

Monitor Signals

current-, voltage-, power- and  
conductance-monitor,  
signal undervoltage,  
sum alarm signals for overcurrent,  
temp. limit, overload or  
overvoltage

Indication

overcurrent, temp. limit,  
overload, over- and under-

voltage each 1 LED

Instruments

LED digital for voltage,  
current/conductance and power  
3½ dig., accuracy 0,2% ± 1d

#### Connectors:

Input

Euro - plug rear side  
with switch front side  
type DIX SE50

Load

female plug incl.

I<sub>L</sub> ≥ 250 A contact rail

each pole 2 x M10

Ext. programming

25 pole Sub D female plug

Coolant

R 3/4 AG

#### Physical Specifications:

Dimensions 520 x 305 x 760 mm

w x h x d

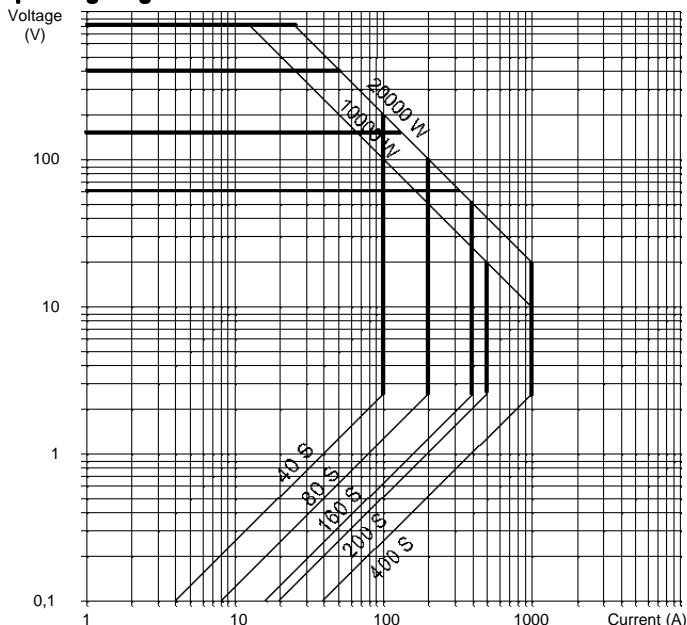
Weight

EL10000: ca. 45 kg

EL20000: ca. 65 kg

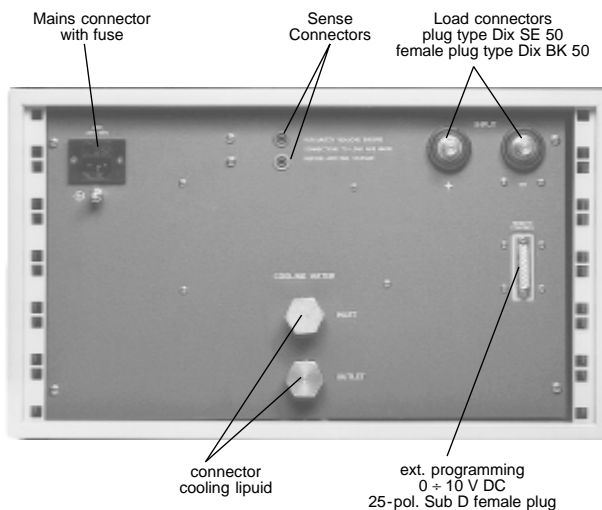
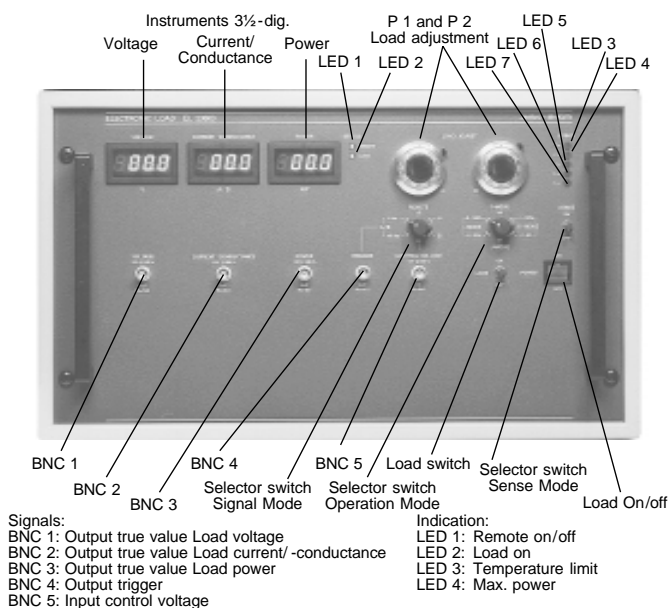
Power (W)	Load voltage (V)	Load current (A)	Load current in the operating range		Conductance max. (S)	Model Number
			from 0,1 V (A)	to 2,5 V (A)		
10000	2,5 ÷ 60	0,01 ÷ 200	8	200	80	EL10000/60/200
10000	2,5 ÷ 60	0,01 ÷ 500	20	500	200	EL10000/60/500
10000	2,5 ÷ 60	0,01 ÷ 1000	40	1000	400	EL10000/60/1000
10000	2,5 ÷ 160	0,01 ÷ 100	4	100	40	EL10000/160/100
10000	2,5 ÷ 160	0,01 ÷ 200	8	200	80	EL10000/160/200
10000	2,5 ÷ 160	0,01 ÷ 500	20	500	200	EL10000/160/500
10000	2,5 ÷ 160	0,01 ÷ 1000	40	1000	400	EL10000/160/1000
10000	2,5 ÷ 400	0,01 ÷ 100	4	100	40	EL10000/400/100
10000	2,5 ÷ 400	0,01 ÷ 200	8	200	80	EL10000/400/200
10000	2,5 ÷ 800	0,01 ÷ 100	4	100	40	EL10000/800/100
10000	2,5 ÷ 800	0,01 ÷ 200	8	200	80	EL10000/800/200
20000	2,5 ÷ 60	0,01 ÷ 400	16	400	160	EL20000/60/400
20000	2,5 ÷ 60	0,01 ÷ 1000	40	1000	400	EL20000/60/1000
20000	2,5 ÷ 160	0,01 ÷ 200	8	200	80	EL20000/160/200
20000	2,5 ÷ 160	0,01 ÷ 400	16	400	160	EL20000/160/400
20000	2,5 ÷ 160	0,01 ÷ 1000	40	1000	400	EL20000/160/1000
20000	2,5 ÷ 400	0,01 ÷ 100	4	100	40	EL20000/400/100
20000	2,5 ÷ 400	0,01 ÷ 200	8	200	80	EL20000/400/200
20000	2,5 ÷ 400	0,01 ÷ 400	16	400	160	EL20000/400/400
20000	2,5 ÷ 800	0,01 ÷ 100	4	100	40	EL20000/800/100
20000	2,5 ÷ 800	0,01 ÷ 200	8	200	80	EL20000/800/200
20000	2,5 ÷ 800	0,01 ÷ 400	16	400	160	EL20000/800/400

**Operating range:**



**Option:**

Autorange current-/voltage-const.  
Installed Interface Euro-Card INT2E



LED 5: Max. load current  
 LED 6: Max. load voltage  
 LED 7: Min. load voltage