

Electronic DC Load FL500_1000 series



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)

*selectable RS232 or USB

FL500, FL1000 Series Power 500W and 1000W Cooled by int. fans

Constant I-Mode, U-Mode,

P-Mode or G-Mode

All Modes ext. programmable

Nominal value indication and offline setting
of all Modes

Auto change to true values

Overload possible for a short time

Stand-alone use and intended for 19" rack

Selection Table

Model Number	Power (W)	Load voltage (V)	Load current (A)	Conductance max. (S)
FL500/60/10	500	2,5 - 60	0,01 - 10	4
FL500/60/25	500	2,5 - 60	0,01 - 25	10
FL 500/60/50	500	2,5 - 60	0,01 - 50	20
FL 500/60/100	500	2,5 - 60	0,01 - 100	40
FL 500/160/10	500	2,5 - 160	0,01 - 10	4
FL 500/160/25	500	2,5 - 160	0,01 - 25	10
FL 500/160/50	500	2,5 - 160	0,01 - 50	20
FL 500/400/10	500	2,5 - 400	0,01 - 10	4
FL 500/400/25	500	5 - 400	0,01 - 25	5
FL 500/800/10	500	5 - 800	0,01 - 10	2
FL 1000/20/100	1000	2,5 - 20	0,01 - 100	40
FL 1000/60/20	1000	2,5 - 60	0,01 - 20	8
FL 1000/60/50	1000	2,5 - 60	0,01 - 50	20
FL 1000/60/100	1000	2,5 - 60	0,01 - 100	40
FL 1000/60/200	1000	2,5 - 60	0,01 - 200	80
FL 1000/160/20	1000	2,5 - 160	0,01 - 20	8
FL 1000/160/50	1000	2,5 - 160	0,01 - 50	20
FL 1000/160/100	1000	2,5 - 160	0,01 - 100	40
FL 1000/400/20	1000	2,5 - 400	0,01 - 20	8
FL 1000/400/50	1000	5 - 400	0,01 - 50	10
FL 1000/800/20	1000	5 - 800	0,01 - 20	4

Technical Data

Input:

Input voltage	230 VAC $\pm 10\%$, 50 - 60 Hz
Load voltage	see table
Load current	see table
Power	see table

Regulation:

Set point accuracy	$\leq 0,1\%$ I _{max} , U _{max}
(Voltage range $\pm 20\%$)	$\leq 1\%$ G _{max} , P _{max}
Rise time (at I-Mode, 10-90 % nominal value change)	$< 10\ \mu\text{s}$
Transient time (at I-Mode 10-90% nominal value change)	$< 200\ \mu\text{s}$
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	min. 2-times, normal load for a short period
Overvoltage protection	power shutdown U _{Lmax} + 5%
Thermal protection	power shutdown, manual reset
Overcurrent	current limit I _{max} + 20%
Safety for load circuit	
Reverse polarity protection	fuse and wattless current diode

Environmental Conditions:

Operating temperature	0 - + 35°C
Cooling	int. fan, temperature controlled

Operation and Control:

Manual adjust:	current, voltage, power and conductance (see table): each 2 levels (max., min.) each over 2 channels adjustable
Adjustment	selectable I-Mode 20/100%, G-Mode 5-100%
Pulse-generator I, U, P, G	100 Hz or 1 kHz switch-selected, waveform: square-wave 1 : 1 ext. voltage (reference - UL)
Programming	0 - 10 V = 0 - I _{max} 0 - 10 V = 0 - U _{max} 0 - 10 V = 0 - P _{max} 0 - 10 V = 0 - G _{max} any waveform, frequency range 0-30 kHz typical (-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 undervoltage
Instruments	each 1 LED for voltage, current/conductance and power LED digital 3½ dig., accuracy 0,2% $\pm 1\text{d}$

Physical Specifications:

Dimensions xhxd	485 x 155 x 400 mm (with feet) (19", 3U)
Weight FL500:	approx 10 kg
FL1000:	approx 13 kg

Operating range:

