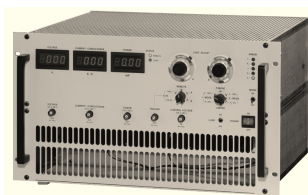


Electronic DC Load FL3000_4500_6000 series



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

FL3000, FL4500, FL6000 Series Power 3000W , 4500W, 6000W 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)
FL3000/60/100	3000	2,5 - 60	0,01 - 100	40
FL 3000/60/250	3000	2,5 - 60	0,01 - 250	100
FL3000/60/500	3000	2,5 - 60	0,01 - 500	200
FL3000/160/100	3000	2,5 - 160	0,01 - 100	40
FL3000/160/250	3000	2,5 - 160	0,01 - 250	100
FL3000/160/500	3000	2,5 - 160	0,01 - 500	200
FL3000/400/100	3000	2,5 - 400	0,01 - 100	40
FL3000/400/250	3000	2,5 - 400	0,01 - 250	100
FL3000/400/500	3000	5 - 400	0,01 - 500	100
FL4500/60/150	4500	2,5 - 60	0,01 - 150	80
FL4500/60/375	4500	2,5 - 60	0,01 - 375	200
FL4500/60/750	4500	2,5 - 60	0,01 - 750	400
FL4500/160/150	4500	2,5 - 160	0,01 - 150	80
FL4500/160/375	4500	2,5 - 160	0,01 - 375	200
FL4500/160/750	4500	2,5 - 160	0,01 - 750	400
FL4500/400/150	4500	2,5 - 400	0,01 - 150	80
FL4500/400/375	4500	2,5 - 400	0,01 - 375	200
FL4500/400/750	4500	5 - 400	0,01 - 750	200
FL6000/60/200	6000	2,5 - 60	0,01 - 200	80
FL6000/60/500	6000	2,5 - 60	0,01 - 500	200
FL6000/60/1000	6000	2,5 - 60	0,01 - 1000	400
FL6000/160/200	6000	2,5 - 160	0,01 - 200	80
FL6000/160/500	6000	2,5 - 160	0,01 - 500	200
FL6000/160/1000	6000	2,5 - 160	0,01 - 1000	400
FL6000/400/200	6000	2,5 - 400	0,01 - 200	80
FL6000/400/500	6000	2,5 - 400	0,01 - 500	200
FL6000/400/1000	6000	5 - 400	0,01 - 1000	200

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)	$< 10\ \mu s$
Transient time (at I-Mode 10-90% nominal value change)	$< 300\ \mu s$
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	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 for I _L $\leq 200A$

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 selectable I-Mode 20/100%, G-Mode 5-100%
Adjustment	100 Hz or 1 kHz switch-selected, waveform: square-wave 1 : 1 ext. voltage (reference - UL)
Pulse-generator I, U, P, G	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 typical 0-10 kHz (-3 dB)
Programming	same units
Parallel operation	current-, voltage-, power- and conductance-monitor, signal undervoltage, sum alarm signals for overcurrent, temp. limit, overload or overvoltage
Monitor Signals	overcurrent, temp. limit, overload, over- and undervoltage
Indication	each 1 LED for voltage, current/conductance and power
Instruments	LED digital 3½ dig., accuracy 0,2% $\pm 1d$

Physical Specifications:

Dimensions wxhxd	FL3000: 485 x 285 x 500 mm (6U) FL4500: 485 x 420 x 500 mm (9U) FL6000: 485 x 420 x 500 mm (9U)
Weight	FL3000: ca. 32 kg FL4500: ca. 45 kg FL6000: ca. 48 kg

Operating range:

