

Electronic DC Load FL250 series

FL250 series Power 250 W



Constant I-Mode or R-Mode
Master-Slave Mode
ext. programmable I-constant, without a
G-Module installed
ext. programmable I-,U-,P- or G- constant
with a G-Module installed

Options:
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)
G- Module
Front-End Unit
*selectable RS232 or USB

The Series FL250 load are electronic regulated DC loads with power up to 250Watt. It is designed at the latest MOS technologie with a DC load range starting at 0.35VDC up to 160VDC. Everywhere, DC loads are needed as a stand alone type or integrated via interface in any system applications, the FL250 series offers most intelligent features such as:
Minimum load voltage 0.35VDC / Load ON/OFF / Remote Control Port (RCP) with additional +15VDC voltage to supply external components / Local-Lockout / U- and I-Monitor outputs buffered / Load-On-Relay at Power-Up / a.m.m.

Selection Table

Model Number	Power (W)	Load voltage (V)	Load current(A)	Load resistance (Ohm)
FL250/75/20	250	0.35 - 75	0 - 20	0.05 - 15k
FL250/75/40	250	0.35 - 75	0 - 40	0.04 - 7.5k
FL250/160/20	250	0.35 - 160	0 - 20	0.05 - 32k

Technical Data

Input:

Input voltage	230VAC -10% +6%, 50-60Hz
Load voltage	see table
Load current	see table
Continuous Power	see table

Regulation:

Set point accuracy (Voltage change $\pm 20\%$)	$\leq 0,1\% I_{max}$
Rise time (at 10-90% nominal value change I-Mode)	
FL250/75/20, FL250/75/40	UL > 3V $\leq 60\mu s$ UL < 3V $\leq 400\mu s$
FL505/160/50	UL > 6V $\leq 60\mu s$ UL < 6V $\leq 400\mu s$
Temperature coefficient (after 15 min. working time, const. Tambient. and U mains)	$\leq 0.01\%/^{\circ}C I_{max}$

Control, operation and instruments:

Manual adjust	current and resistance 2 set values each (A and B) for 2 channels selectable with a coarse and fine potentiometer each per channel
Pulse-generator I, R	100Hz or 1kHz switch-selected, waveform: square-wave, duty cycle 1:1
Load ON/OFF-function	load to be switched at high Ohm state
Load ON function	load current = setpoint
Load OFF function	load current = 0 at any setpoint
Instruments	load current, load voltage: LED digital load current $\leq 50A$: 3-digits load current = 100A: 3.5-digits load voltage $\leq 75V$: 3-digits load voltage 160V: 3.5-digits accuracy: $0.2\% \pm 1d$
Error indication	LED red: over temperature or over voltage

Protection:

Overload protection	power limit, short circuit protection
Overvoltage protection	power shutdown $U_{max} + 6\%$
Thermal protection	power shutdown, auto recovery
Reverse polarity	wattless current diode and fuse

Environmental Condition:

Operating temperature	0 - +40°C (non condensing)
Cooling	int. fans, temperature controlled

Programming Interface (Remote Control Port):

Load ON/OFF function	jack RJ45
Monitor signal	ext. control voltage 0 - 10V = 0 - I_{max}
Disturbance signal	any waveform, bandwidth: (-3dB): 0 - 6kHz accuracy: 0.2% I_{max}
	Load to be switched at high Ohm state
	Load current, load voltage accuracy 0.2% I_{max} , U_{max}
	composit failure (active low)
	(OR-link at following failures: over temperature, over voltage, power limiting, current limiting

Operating Range FL250:

