

Low Impedance
POWER CONDITIONER

USER INSTRUCTIONS



SPECIFICATIONS

Model	EL250	EL1000
Output Rating @ 230V (VA)	250	1000
Output Current Rating (Amps)	1.1	4.35
Input Voltage (VAC)	200-240	200-240
Input Frequency (Hz)	50-60	50-60
Operating Temperature (non-condensing) °C	0-30	0-30
Output Voltage (VAC)	As Input	As Input
Load Regulation	±3%	±1,5%
Inrush Capacity – ½ cycle (Amps)	35	150
Inrush Capacity – 1 sec (Amps)	9	25
Inrush Capacity – 10 secs (Amps)	5	17
Forward Transfer Impedance @ 1kHz	25 Ω	11 Ω
Output Current Crest Factor for 10% (max) drop in peak voltage	3	3
Efficiency at 80% load	92%	95%
Earth Leakage Current (typical) (µA)	50	75
50-ohm Attenuation		
Normal-Mode 100kHz	60dB	60dB
Normal-Mode 30kHz-30MHz	>40dB	>40dB
Common-Mode 0-1MHz	>60dB	>60dB
Common-Mode 0-30MHz	>30dB	>30dB
0.1µs/100kHz 6kV Ring-Wave attenuation NM	< 6V	< 6V
0.1µs/100kHz 6kV Ring-Wave attenuation CM	< 1V	< 1V
Ground-Watch® Impedance 10KHz-10MHz	>500 Ω	>500 Ω
Output receptacle type	IEC320	IEC320
Number of Output Receptacles	1	4
Size w x d x h (mm)	222x160x130	306x230x180
Wall-mount screw spacing (mm)	120	190
Weight (net) (kg)	5.25	19
Fuse 20x5mm HBC (ceramic) Type T	3.15A	10A

The Elinex Low Impedance AC Power Conditioner provides super-clean electrical power to sensitive electronic equipment. Unlike ordinary power conditioners, its low transfer impedance does not restrict the harmonic currents taken by modern switchmode power supplies, and its low output impedance does not magnify the levels *exported* noise always present in your own equipment. It is capable of supplying the full inrush and surge currents taken by many types of equipment and therefore does not have to be de-rated for some applications. Unlike ordinary power-line filters, its wide bandwidth and non-saturable magnetic characteristics ensure effective elimination of noise and transient surges across the entire spectrum, and up to 6 kilovolts in amplitude.

The Elinex AC Power Conditioner provides a special “Local Clean Earth” independent of the signal quality of the building’s electrical safety earth system.



RATINGS

The product's continuous rating in VA is indicated on the rating plate, and in Amps adjacent to the socket-outlet(s). The continuous load current must not exceed this figure, although short-term surge overloads are permissible (refer to specifications).

To verify that the rating is appropriate for your application, add up the consumption of the equipment which is to be supplied by the Power Conditioner, by referring to their rating plates. When a more accurate method is required, the current consumption of your equipment can be obtained by measurement. Ensure that a TRUE-RMS meter is used for this purpose, as ordinary meters will give a totally erroneous measurement.

INSTALLATION

The unit is suitable for mounting on a horizontal surface, such as the floor or a desk, or on a vertical surface such as a wall. For units with a factory-fitted power lead, the socket-outlet which is to supply the unit should be within reach of the unit (approx. 1,75m), and should be easily accessible.

WARNING: The unit must be operated from a socket incorporating a safety earth.

The unit should be located as close as possible to the equipment which it is to supply, and power leads from the unit to the equipment should not be routed adjacent to other "dirty" power wiring.

Ensure that the location selected does not restrict ventilation around the unit. If used on a horizontal surface, the unit should always stand on its feet. For wall-mounting, the unit is suspended from the keyhole slots provided. The keyhole slots will fit over two 5mm screws (see specifications for spacing). Additional screws through other mounting holes may be used if required.

WARNING: Any other orientation, whether wall-mounted or free-standing, may impede ventilation and invalidates safety certification.

OPERATION

Simply connect the unit to a suitable supply, and connect your equipment to the output receptacle using a suitable lead with IEC connector, and operate as normal. The unit has no ON/OFF switch.

It is not necessary to disconnect the unit when the load equipment is not in use. The unit has extremely low standby power consumption and may be left connected continuously.

To ensure optimum protection for your equipment, all equipment connected locally to your system should be operated from the same conditioned source; for example, in a typical computing application, the processor, screen, printer and modem should all be connected through the Power Interface. Protecting only some of the components might affect your system as a result of transient noise entering the protected equipment via (for example) an interconnecting data cable; the so-called "back-door hit".

OVERLOAD PROTECTION

The unit incorporates two systems to protect from overloads. Moderate overloads, such as caused by an incorrectly rated load, will, after a long delay, operate a thermal trip, which switches off the load. Once the unit has cooled down, reset is automatic on units up to 500VA, but the 1000VA must be disconnected momentarily from the supply. High overloads, such as caused by accidental short-circuits, will cause the panel-mounted fuse to blow. The fuse must be replaced with the same type.

REFERENCE GROUND TERMINAL

In order for all systems to benefit from the "Local Clean Earth" provided by the Elinex Power Conditioner, the unit is fitted with a Reference Ground terminal adjacent to the socket-outlet. Ancillary items normally separately grounded to your equipment, such as logic reference grounds, data line screens, static control equipment, etc., may be connected to this terminal. Note: If not required for such purposes, it should be left un-connected. It should not be connected to other electrical earths, such as the building safety earth, water pipes, etc.

GROUND-WATCH®

Units with part numbers with suffix "GW" are equipped with a special filter which isolates your equipment from local ground noise, whilst not affecting the safety earth. This may be especially effective in networked installations where noise is carried on data lines from remote systems, or where there are high levels of locally induced noise, for example from machinery or electronic fluorescent lighting units.

DEALING WITH PROBLEMS

Your Elinex Power Conditioner has been designed for many years of trouble-free operation. In the unlikely event of problems, follow this procedure:

1. Use a proprietary socket tester to verify that voltage is present at the power socket which supplies the Power Conditioner, and confirm that it is *not* present at the socket-outlet of the Power Conditioner.
2. Check that the power fuse on the unit has not operated. Use a screwdriver to remove the cap of the fuseholder, and withdraw the fuse. Test the fuse with a proprietary fuse tester or multimeter. If it has blown, replace only with a HBC (ceramic) 20x5mm type T fuse of rating as indicated on the label adjacent to the fuseholder. Locate and correct the cause of the fault prior to re-connecting.
3. Check that the thermal trip has not operated. Disconnect from the supply and the load, and allow the unit to cool for *at least one hour*. Then reconnect to the supply and test again for voltage at the socket-outlet on the unit. If the unit has recovered, then locate and correct the cause of the overload condition prior to re-connecting.

If the unit is still not operating, refer to your supplier for advice on how to return the unit for repair.

WARNING: DO NOT ATTEMPT TO REMOVE THE COVER OF THE UNIT. Live parts at hazardous voltage may be exposed. The unit contains no user-serviceable parts.

