

Introduction

Appliances running on 230 volts are automatically switched between an inverter and the mains, or between an inverter and a generator. The total switching time is less than 20 ms. To give but two examples: if the mains or the generator fail, then the microwave oven's clock keeps running and any data in the computer is preserved.

The Filax can be used with any Victron Energie Atlas and Victron Energie Phoenix inverter, up to a capacity of 3500 Watts.

Operation

The Filax is situated between a generator or the mains, and an inverter. If the voltage level or the frequency of the generator or the mains varies, then the Filax switches to the inverter. Once the generator or the mains' supply has remained continuously stable for 30 seconds, the Filax switches back. In this way, the appliances are continuously protected against damage from voltage drops. The Filax is suitable for modern appliances such as video recorders, computers and microwave ovens, devices that cannot stand up (well) to a drop in voltage. The Filax automatic switch box can be used with any type of inverter; the best results, however, are obtained with an inverter from Victron Energie.

LED indicators

Mains operation	(yellow)	The appliances are running on the generator/mains.
Inverter operation	(yellow)	The appliances are running on the inverter.
Mains fault	(red)	The voltage of the generator/mains has not yet been stable for a continuous period of 30 seconds.

Installation

- Install the Filax in a dry, well-ventilated area. The Filax may be mounted on the wall, using the four holes in the rear of the casing.
- The input cables from the generator/mains and the inverter, and the output cables to the appliances should be connected according to the wiring diagram (see figure 1).
- If a load of less than 850 Watts will be placed on the Filax, then the supplied wire bridges need to be removed (see figure 1).
- The generator/mains input socket needs to be protected against current levels higher than 16 amp. However, the output socket of low-power generators (up to 3000 Watts) is often sufficiently protected so that any extra protection is unnecessary.
- The inverter input socket needs to be protected against current levels higher than 16 amp. The output of all Victron Energie inverters up to 2500 Watts is limited in such a way that for these inverters no extra protection is needed for the input socket of the Filax.
- The front of the casing is attached using the four supplied screws. The Filax is now ready for use.

Specifications

Maximum switched power : 3500 Watts (cos phi = 1)

Generator/mains input

Voltage : 190 - 240 volts

Frequency : 50 Hz

Inverter input

Voltage : 0 - 240 volts

Frequency : not monitored

Thresholds for output of generator/mains

For switching to inverter : 180 volts

For switching to generator/mains : 188 volts

Continuous stability interval : 30 sec

Switching from gen./mains to inverter

Reaction time for switching : 4 ms

Appliances on reduced voltage : 12 ms

Total switching time : 16 ms

Switching from inverter to gen./mains

Total switching time (excl. control) : 4 ms

Dimensions (h x w x d) : 200 x 120 x 175 mm

Weight : 0.8 kg

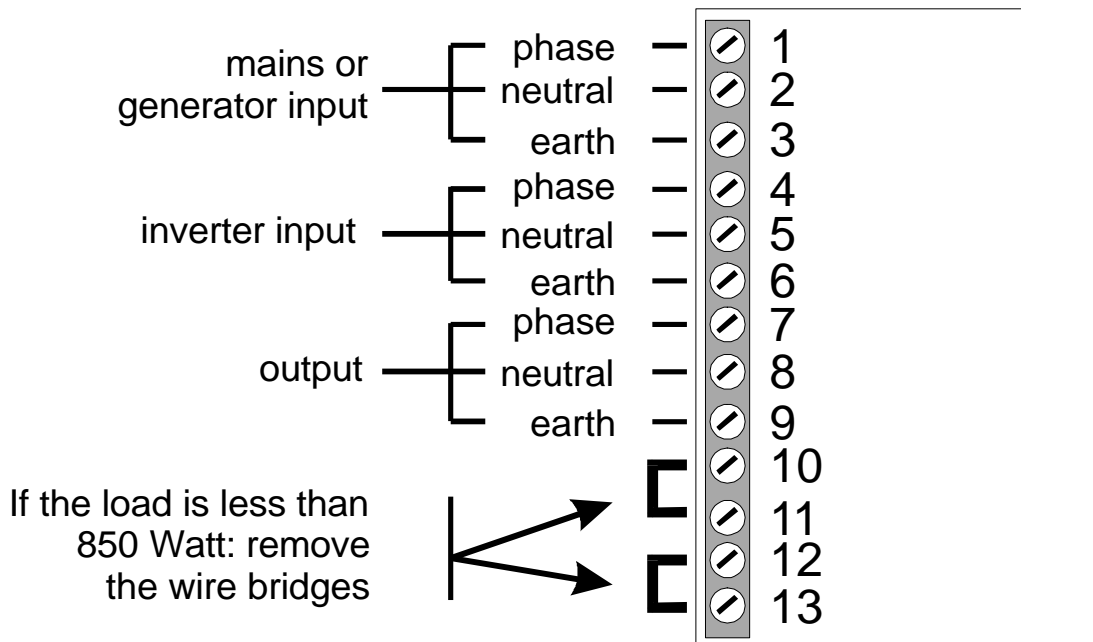
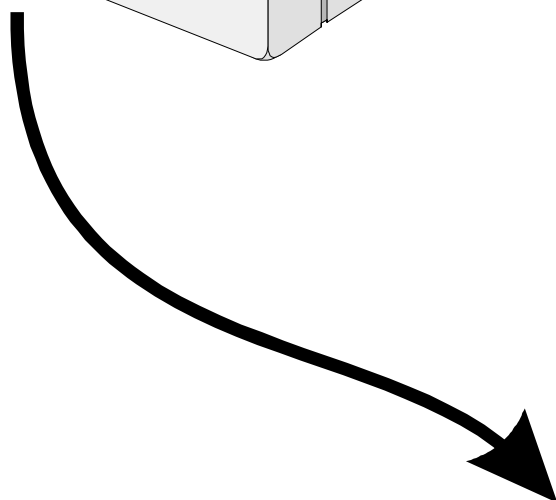
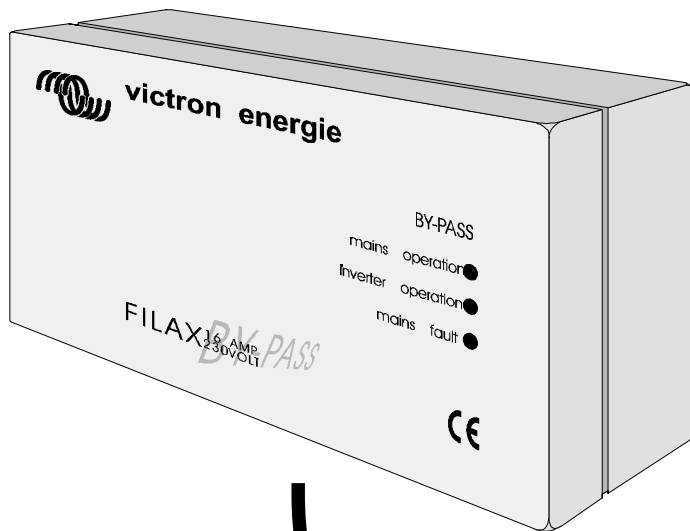


Figure 1. Connection diagram Filax

terminal block Filax