



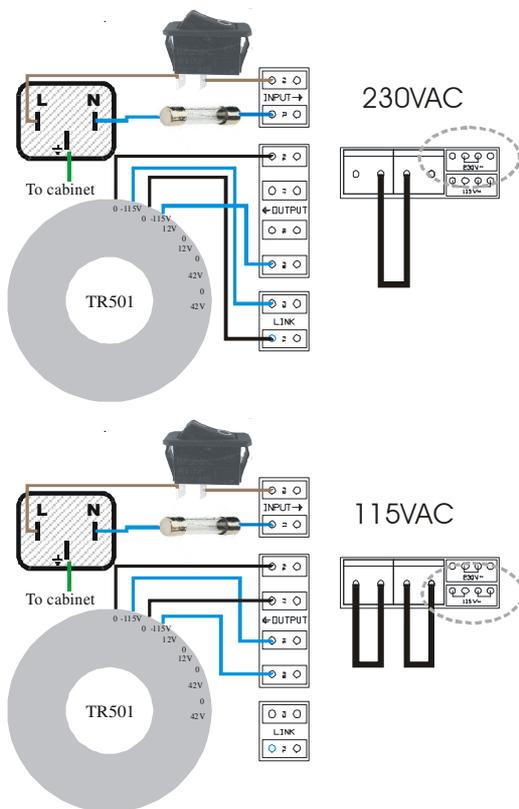
SoftStart

Hypex Electronics

General Description.

Inrush current is limited by means of a triac switching at AC mains zero crossing via heavy-duty resistors prior to relay switching. With an optional bicolour LED the status “On” or “Standby” can be displayed. In “Standby” the power-consumption will be less then 1.2W. The SoftStart can operate with either a pushbutton or a switch (jumper selectable). If additional protection is required a PTC-option is selectable. The SoftStart can switch multiple transformers up to a total maximum of 1500VA. Maximum continuous current must not exceed 6A. The main advantage is that the fuse rating can be greatly reduced to nominal current and does not necessarily need to be a ‘slow-blow’ type.

Connection Diagram Transformer



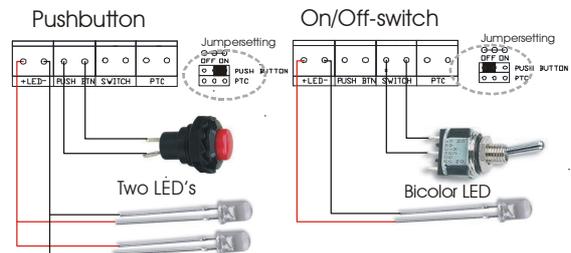
If the transformer has two primary windings, use the “LINK” terminals to connect the inner primary leads. Isolate the output terminals which are not in use with the rest of the fastons.

SAFETY Guidelines (read this first)



The SoftStart is connected directly to the primary side of the AC mains, so most parts like the faston terminals, the 5W-resistors and the 4-pins terminal block contains **hazardous** voltages, except for the 8-pins terminal block and the jumper block. Use an appropriate crimping tool or solder the wires directly into the provided **isolated** fastons. Use minimal 8mm spacers between the PCB and the mounting plate (safety class 2) and keep a minimum distance of 1cm around the PCB. Prevent accidental touching of the PCB (solder side). Make sure the mains is disconnected when working on the SoftStart.

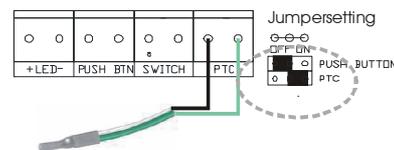
Connection Diagram LED & switch



Overheat protection with PTC-resistor

A PTC or thermistor can be mounted in the amplifier heat sink. When the temperature rises above the Nominal Response Temperature (NRT) the relay will fall off and shuts the transformer down until the heatsink has cooled down. A 60°C NRT will be sufficient. Set the PTC-jumper to activate the protection.

NRT°C	ID Color	NRT°C	ID Color
60	white - grey	100	red - red
70	white-brwn	110	brwn - brwn
80	white-white	120	grey - grey
90	green-green	130	blue - blue



The SoftStart will not operate unless the jumper is in the right position. Both jumpers are default in ‘Off’ position.

