

PW400

In the input a RFI filter (1) is implemented to reduce the reactive noise on the input leads. The rectification and the polarity protection are done by the bridge rectifier (2). The NTC resistor (3) limits the inrush current.

The next stage is a boost converter with active power factor correction (>93%). The boost voltage will be app. U_{in} plus 10%. This way we can have a wide input voltage range.

The supply voltage can be ac or dc. The capacitor C_{in} (5) smooths the rectifier voltage.

The system is a fly-back circuit, in an asymmetrical half bridge configuration, with quasi resonance switching. Controlled by the control card (11), the transistor Q1 and Q2 supplying the transformer (9) in a PWM mode. On the secondary side of the transformer, the voltage is rectified by the use of DOUT (10) and smoothed by C_{out} (12).

The shunt R_s (16) is monitoring the output current and set the current limit. The current limit has a UI guided characteristic. In converter with an input voltage <35VDC, the current limit will be reduced by $\frac{1}{2}$ of I_{nom} . The same happens when the T_{amb} rises over 45°C.

The ORing diode (14) serves for polarity protection and for parallel and redundant operation.

The alarm (17) is a potential free contact, and indicates a low voltage on the output.

Available options: Sense Lines

