Switch mode power supply for sinusoidal mains current. Power Factor Pre-regulator (PFC). Help for the Power Factor Pre-regulator. Calculation of a inductor L for a max. current I. Inductor calculation. Primarily this Website was written for people who know the basics of switchmode power supplies. We did not consider the control of the transistors, as well as certain preventive measures (discharge sets, current limitings). The suggestions for the ferrite cores are approximations based on the manufacturer tables as well as the books Hirschmann/Hauenstein: Schaltnetzteile [1] and Keith Billings: Switch Mode Power Supply Handbook [2]. Check in any case the specification given by us with the appropriate data sheets. This Website is optimized for: Mozilla Firefox.