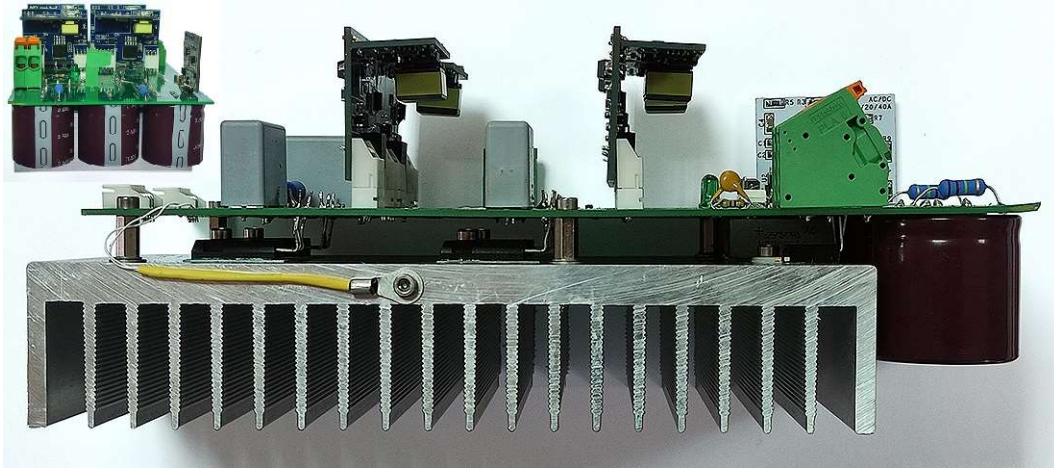


HIGH FREQUENCY POWER SYSTEM FOR INDUCTION HEATING



- Rectifier, filter and H-bridge on the same board
- Isolated drivers, on the board itself
- High quality Snubber Capacitors
- Compatibility with IGBTs, MOSFETs, and SiC Mosfets
- Hardware current protection
- Supply voltage up to 270V AC.
- Average current allowed by PCB traces up to 40A
- Very low inductance, working frequency up to 1 MHz

The module contains all the power elements necessary for the implementation of an induction heating converter of up to 5 KW, you only need to add a mains filter and the appropriate control system.

All types of MOSFETs and IGBTs can be used on the board with TO-247 and TO-264 type encapsulations arranged in a convenient way, so that they can be screwed to a heat sink.

The Hall current sensor circuit integrated into the board inhibits the control pulses to the transistors in case of short circuit or overload.

All the capacitors used, the Snubbers and the DC blocking capacitors at the output of the inverter bridge have very low ESR and LSR values, for effective operation at high frequency.

The module is compatible with the new generation of gate drivers manufactured by ledoelectronics. Successfully tested in a 4 KW induction heating furnace at 950 kHz, with silicon carbide Sic MOSFETs.

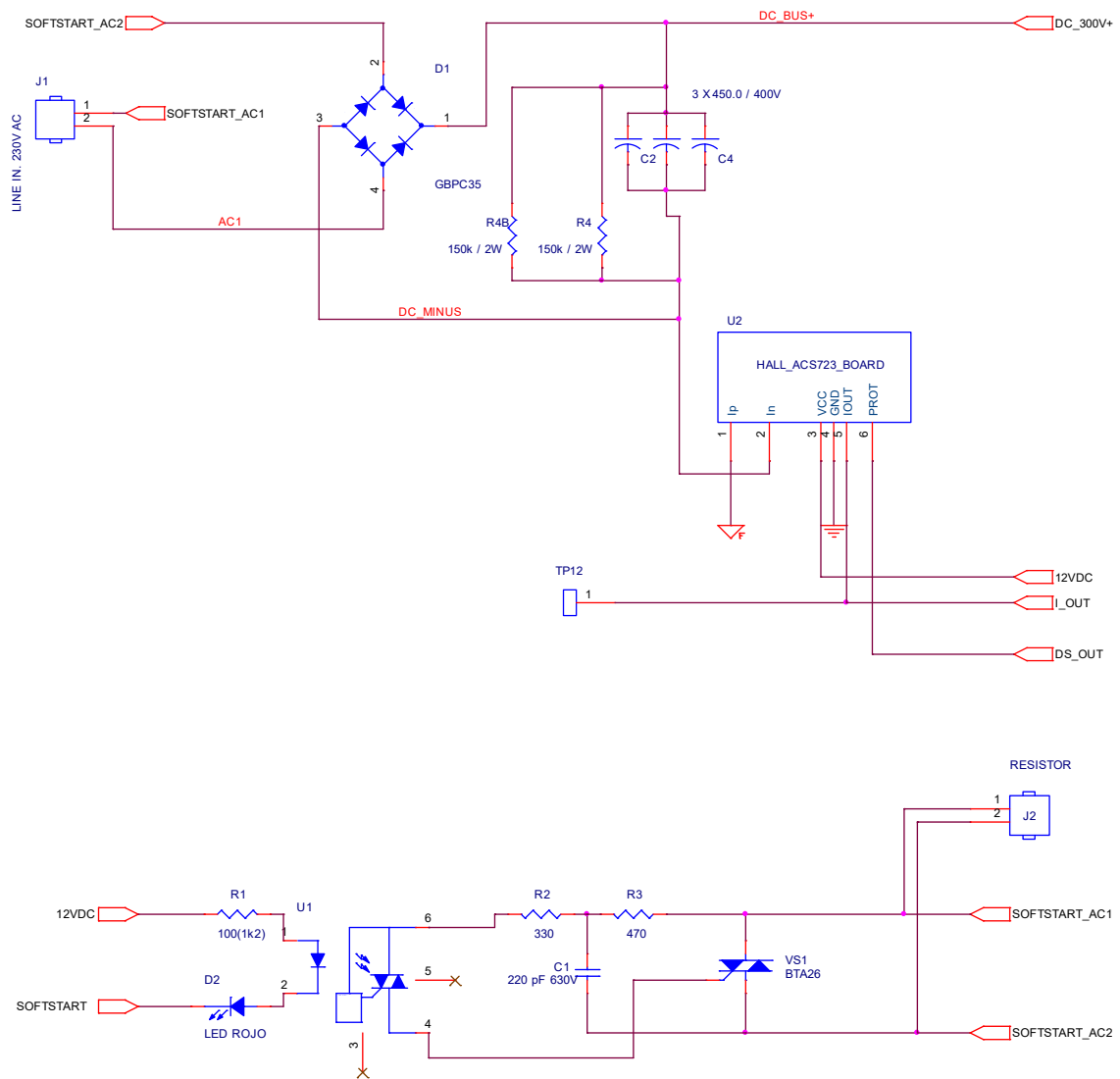


Fig.1. Rectifier circuit, with Soft Start and current protection.

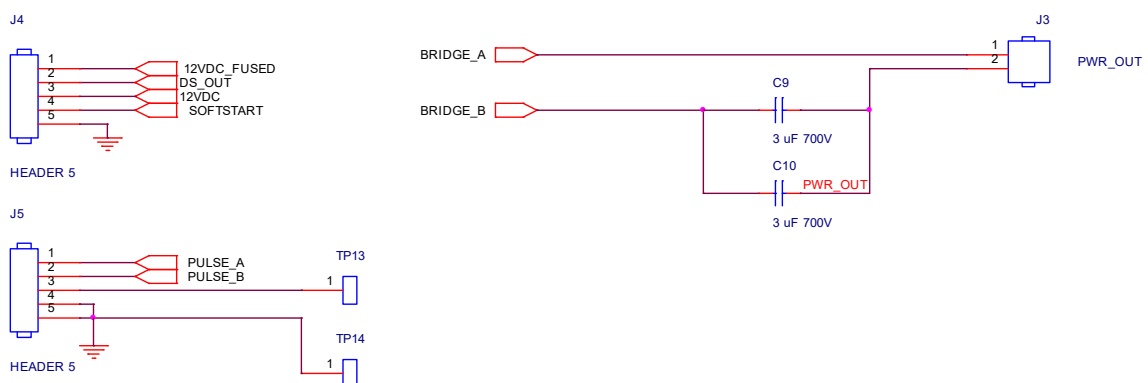


Fig.2. Connectors

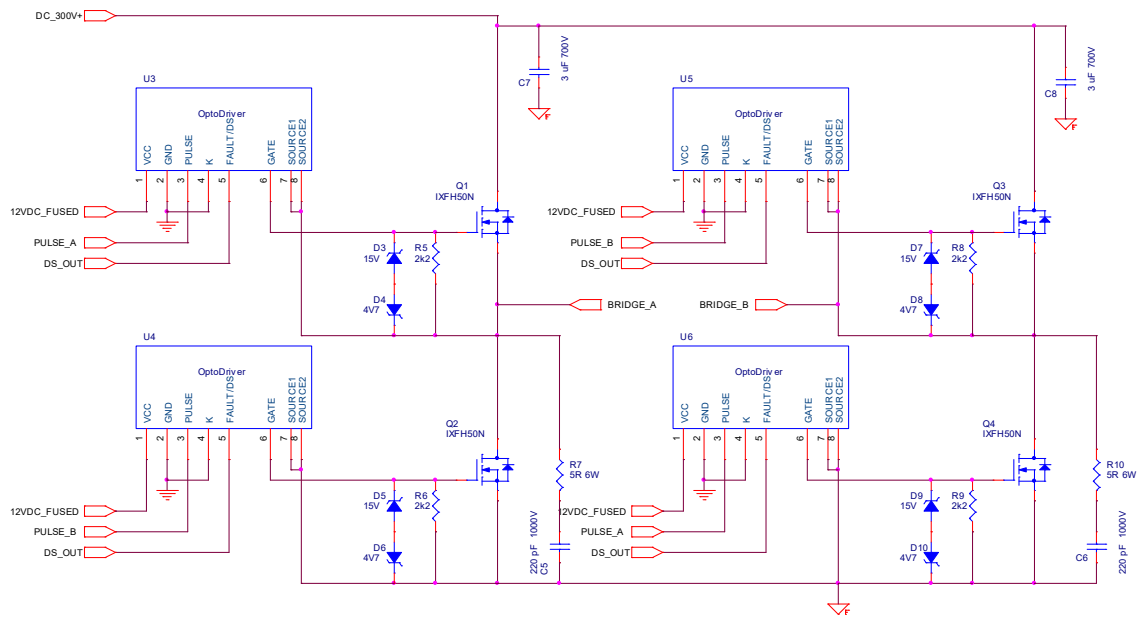


Fig.3. Inverter circuit diagram.

