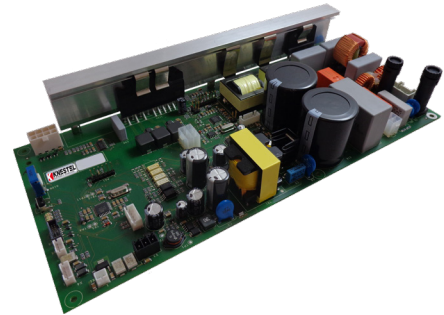


CUSTOMER-SPECIFIC SERVICE CONTROLLER

**CONFORM to EN 60601
POWER FACTOR CORRECTION**

Medical or propulsion technology, engineering



Technology fields

Propulsion technology

Project requirements

The **project objective** was the development of a servocontroller with input-side power factor correction (PFC) for sensorless control of a permanently excited synchronous motor with subsequent production. A special challenge here was the fulfillment of the standard conformity for medical technology products according to the guidelines of EN 60601.

Facts/Highlights

- Wide range voltage input through PFC
- Medical technology standard-compliant leakage currents (< 0.5 mA) and electromagnetic compatibility (EMC) without isolation transformer
- Operation of a synchronous motor with 22,000 rpm
- Sensorless control through observer-based approach
- Limitation of the max. power by higher-level control
- Parameterization via Smartphone/Tablet/WiFi

Services of KNESTEL

Potential analysis, target price estimation, project management, specification, project planning, development Software and hardware, electrical and mechanical design, EMC test, prototyping, series production

Possible applications

Customer-specific drive solutions in all industries and areas with wide-range power supply and the highest requirements for EMC, mains perturbations and leakage currents.

About KNESTEL: Knestel has been developing and producing customized electronic and mechatronic special solutions in the fields of motor and machine control, frequency converters, image processing, MCR technology, software development, radio, bus systems and gas analysis for 40 years.

We support our customers from the idea to the finished implementation. Individual solutions and concepts - technically up to date. Our production - electronics manufacturing, device and switch cabinet construction, Production of subassemblies, assembly and mechanical processing - is equipped with the latest technology.