

Fast Facts

Air Pump 700 W

Power Electronics for an Air Pump

Very high power density electronics for an air pump system, directly mounted to the backside of the motor.

Features:

- Supply voltage: 8-16 VDC
- Power / current: up to 700 W peak (46 A RMS / 65 A peak)
- Sensor-less FOC control up to 31,000 rpm
- Response time: < 100 ms
- Fast startup: < 1 s (0 to max. rpm)
- Fault handling and protection
- CAN / LIN / PWM communication

Key technologies:

- Dual Si-Mosfets discrete SMD switches
- Fully SMD – no THT components (ultra-low profile)
- Standard FR4 Substrate
- In-house sensor-less FOC software performed on a small ARM M4F MCU
- In-house RTOS
- AUTOSAR like software structure

