

TMC8670 Datasheet

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The TMC8670 is a CANOpen-over EtherCAT (CoE) field oriented control (FOC) servo controller for torque, velocity, and position control. It comes with a fully integrated EtherCAT Slave Controller (ESC), a flexible sensor engine for different position feedback and current sensing options, as well as a complete CANOpen-over-EtherCAT firmware stack for the CiA DS402 device profile. TMC8670 is a building block that enables a servo controller with only a couple of components.



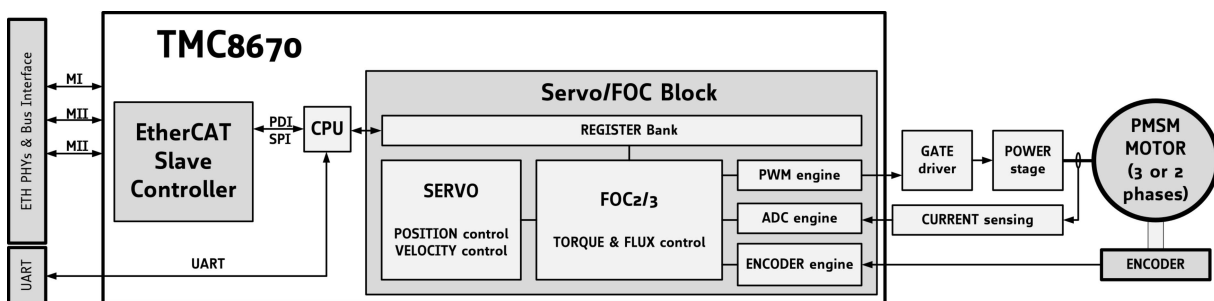
Features

- Field Oriented Control (FOC) Servo Controller
- Torque Control (FOC), Velocity Control, Position Control
- Sensor Engine (Hall analog/digital, Encoder analog/digital)
- Support for 3-Phase PMSM and 2-Phase Stepper Motors
- PWM Engine including SVPWM
- Integrated EtherCAT Slave Controller, CoE protocol CiA 402 drive profile
- UART interface

Applications

- Robotics
- Semiconductor Handling
- Factory Automation
- Laboratory Automation
- Manufacturing
- IIoT Applications

Simplified Block Diagram



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