



TMC₃

- 24 Digital Inputs
- 6 Hi Speed Counter Inputs
- 8 PT100 Inputs
- Grid Surveillance
- ROCOF df/dt support
- 8 Analogue Inputs (optional)
- 16 Digital Relay Outputs
- 6 Thyristor Outputs (optional)
- 8 Analogue Outputs (optional)
- PM alternator control (optional)
- 1 USB Interface
- 1 RS232 Interface
- 1 RS485 Interface
- 1 CAN Interface
- 1 Ethernet Interface
- 1 SD-Card Interface



TMC₃ Wind Turbine Controller

The TMC₃ controller was exclusively designed for medium sized wind turbines, typically from **10 kW up to 1 MW**. It's **All In One** concept combines powerful control, supervision, communication and data logging. Different communication interfaces can be used for monitoring and setting parameters. **USB** and **Ethernet** (Modbus TCP) are supported.

A **removable display and control interface** enables the customer to access status information and manipulate parameters.

The controller offers a long time **logging function**, which saves periodically all relevant measured values to an attached standard **SD-memory card**.

The system can be extended with Orbital's intelligent **8 Band OrbiVib vibration sensor**. With this, frequency selective vibration supervision and protection of the wind turbine is possible.

The modular construction of the TMC₃ allows future extension with special functions.

Optional extension cards are available:

- **8 Analog Inputs / 8 Analog Outputs** – 0-10V / 0-20 mA (Software selectable)
- **Thyristor control** for soft connect / Motor start of asynchronous generators.
- **Permanent Magnet Generator control**. (Under development)

Firmware can be downloaded via the **USB interface**.

