



*Location: FlandersMake@UGent*

## DESCRIPTION

With our dedicated test equipment, we provide services for characterizing a variety of thermal and electrical degradation mechanisms in electric motors. The equipment exposes the machines to controlled temperatures, voltage amplitudes and slew rates for multiple hours or days. High speed monitoring equipment monitors the electrical waveforms and characterizes the high frequency behavior of the machine.

The range of possible tests:

- Applying controlled oscillating temperatures to motor components up to 300°C (twisted pairs, motorette, open stator etc.)
- Applying high voltages to motor windings (up to 10 kV, bipolar or unipolar pulses)
- High slew rate power electronics simulation (up to 100 V/ns, equivalent to GaN)
- Bearing currents and shaft voltage detection
- Partial discharge measurements at surge voltage and impulsive voltage
- Thermal-electric coupled aging tests

These tests can be done

- simultaneously on parallel devices
- until failure
- on sections of the motor or motorette, coils or only bearing.

## OUR OFFER

We offer services on test equipment for characterizing:

- High frequency electrical behavior including bearing currents and partial discharge detection;
- Thermal and/or electrical winding insulation degradation;
- Effect of thermal cycling on lifetime of windings.