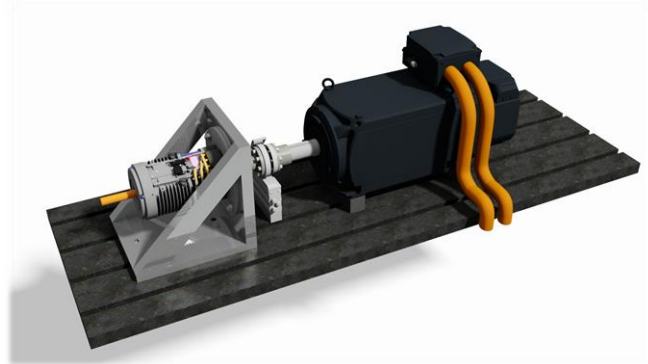


Test Bench for Traction Drives

Technical data

- Induction load machine with regenerative breaking
- Elastomer coupling for quick changing of machine under test
- Machines under test are measured with battery simulator
- Measurement of rotor temperature via telemetric system and infra-red sensor

Nominal power	94 kW
Peak power	168 kW
Nominal speed	2000 rpm
Maximum speed	7500 rpm
Nominal torque	449 Nm



Equipment

- Inverter: Curtis 1239E
- DC-link voltage: 130 V
- Supplied by battery simulator
- Original battery from EV
- Damping of current peaks
- Increased EMC by buffer battery



Measured values

Torque	HBM T12 – up to 1000 Nm (Accuracy Class 0.03)
Speed	HBM T12 – up to 7500 rpm (Accuracy: +- 1,5 rpm)
Voltage, Current	Yokogawa WT3000
Efficiency Maps	Yokogawa WT3000
Temperature	NI PXIe-4357
Rotor Temperature	Manner Telemetric System 7 x Pt-100, 7 x TE Typ J

Application

- Research project *MAs:Stab*
- Influence of production uncertainties of induction machines
 - 10 machines from series production are measured on the test bench
- Optimizing Machine Design in terms of power density and efficiency
- Traction drive for the electric vehicle *StreetScooter*

Sponsored by the:



Based on a decision by the German Bundestag



Batch I:



Batch II:



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