



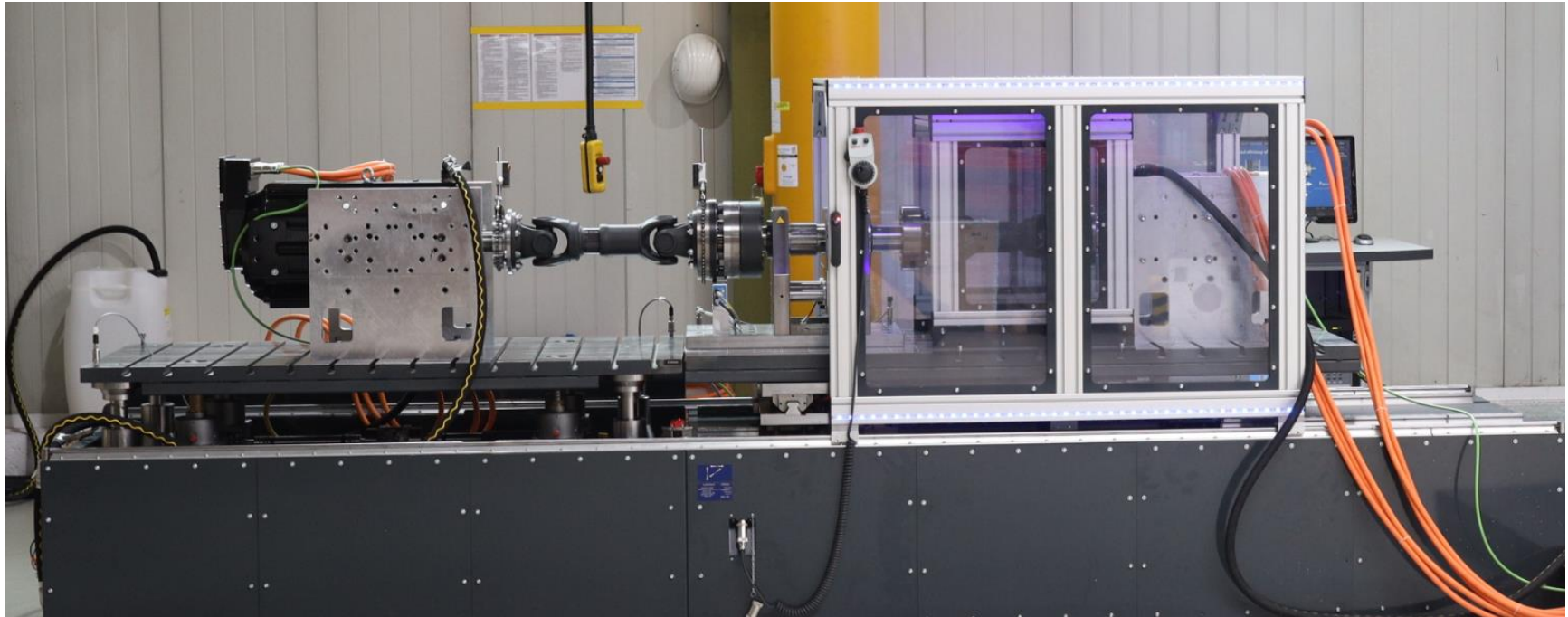
**We drive new energy  
— for a greener future**

## Key data of test bench



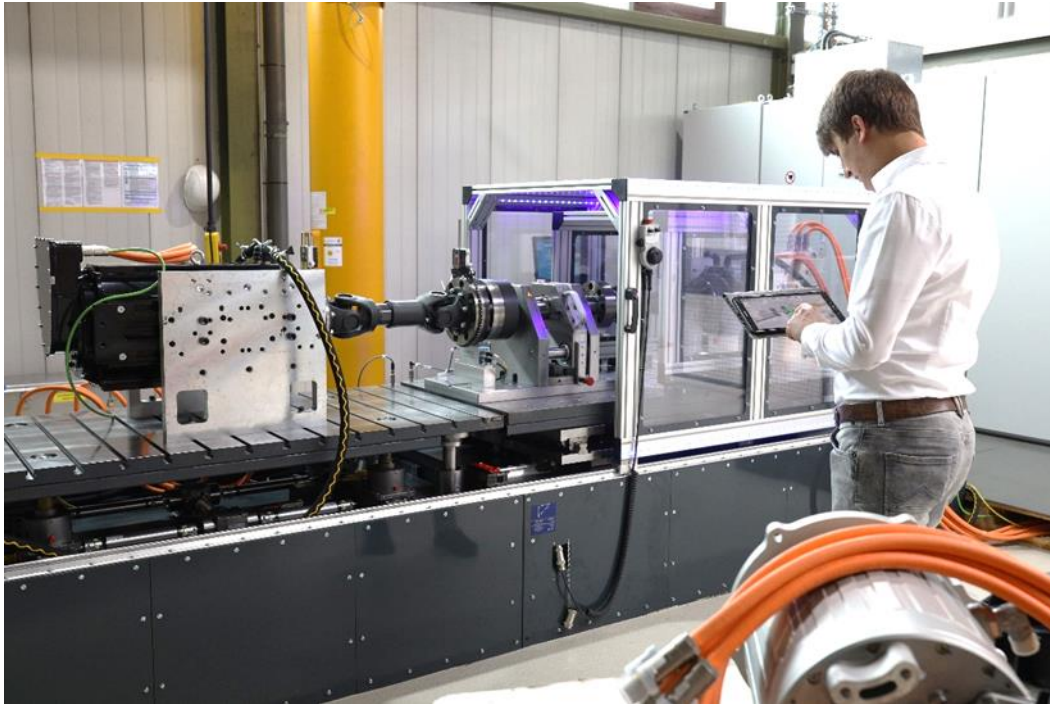
- Max torque: 4000 Nm
- Max speed: 3500 rpm / 8000 rpm
- Higher speed with gearbox
- Cooling: adjustable 10....90 C
- DC-Voltage: adjustable 100...750 VDC
- Power-capability: up to 500 kW
- Device under test: modes motor and generator
- Inverter: ARADEX or given by customer

## Key data of test bench



- Max. motor weight: 1000 kg
- Max. length: 1500 mm
- Height of the shaft: max 400 mm
- We can offer mechanical adaption
- All motor topologies

# Validation according to ECE-R85



## Possible combinations:

- Your motor + ARADEX inverter
- Your motor + your inverter

## We can set, according to your requirements:

- Temperature and flow-rate of cooling fluid
- HV-DC-voltage in the range from 100 to 750 VDC

In cooperation with TÜV Germany we can offer validation of nominal power of a motor-inverter combination, according to **ECE-R85**. Based on these measurements you can get a **TÜV certificate**.

## Setting up the test procedures



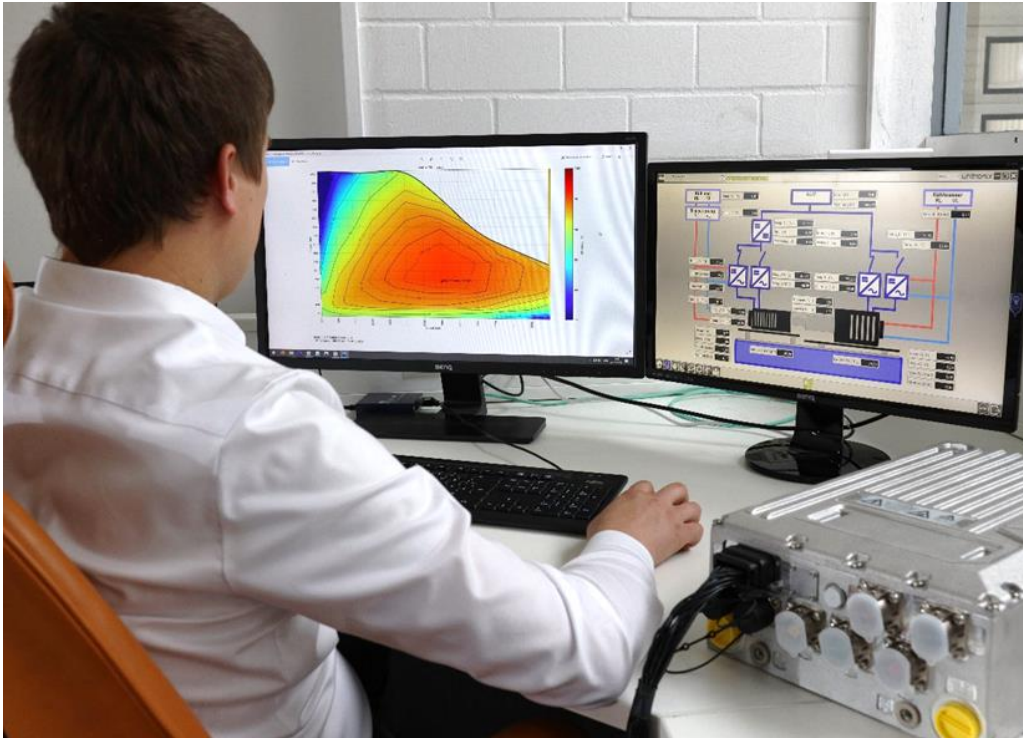
- All test procedures and outcomes are defined according to your requirements.
- We can import your EXCEL based load profiles.
- based on the results, we can adapt all procedures during the measurements.
- We rent the test bench including expert staff. You can be part of the team partially or whole time.
- You get all measured data and log files.

# Adaption of measurement process by “DeepTools”



- By using our “DeepTools”, we can have a very deep look inside all relevant sensor information of motor and inverter – in realtime.
- Based on this we can adapt the measurement procedures to get perfectly matched results.
- By the possibility to adapt the procedure while doing, we save time and get maximum outcomes.

# Key outcomes



## Some outcomes we can offer

- Efficiency maps for motor, inverter and whole system.
- Find best fitting operating parameters of given motor.
- Creating  $I_d / I_q$  tables.
- Integration, validation and optimization of given  $I_d/I_q$  tables.
- Measurement of magnetic key data.
- Measurement of short-circuit torque, related to the motor speed.
- Measurement of step response of torque / speed.
- Operation and measurement along given profiles.
- .. More results... challenge us!

Thanks for your attention

Based on your specifications  
we will be happy to create  
your individual offer

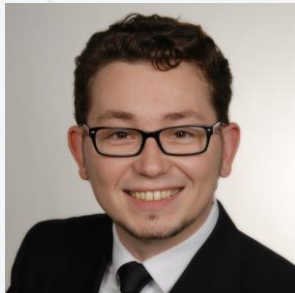
30+  
YEARS  
POWER ELECTRONICS

We are looking forward to your challenge!

[Sales@aradex.com](mailto:Sales@aradex.com)

[Vertrieb@aradex.com](mailto:Vertrieb@aradex.com)

Adam Czech, technical sales



Phone ++49 7172 9181 0

Ziegelwaldstr. 3 | 73547 Lorch, Germany

