

System Engineering  
for the automotive industry

# End of Line test

for electrical drive unit



thyssenkrupp





# E-drive test – drive for the future

Silent, dynamic and with increasing range – electric drives change our mobility. Our customers are highly innovative. This is the right track on which we are excited to accompany you. With our adaptable e-drive testing system, we ensure the quality of each new generation of e-drives. Our brand-new innovative design emphasizes our customer’s innovative spirit and technological change.

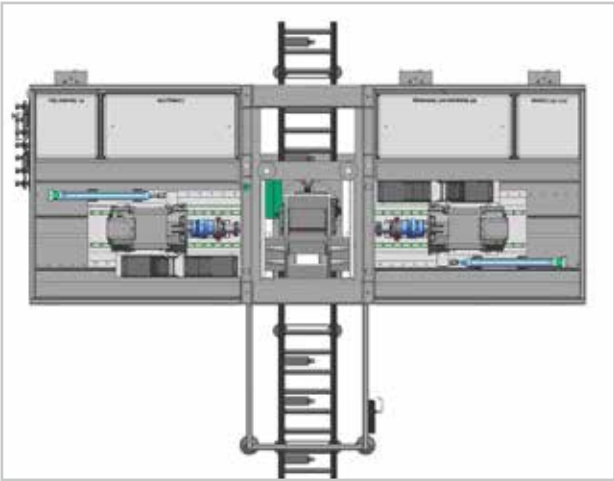
Our core competencies in all key topics distinguish us, e.g. in NVH (Noise Vibration Harshness), cooling water management, drive technology, TCU (Transmission Control Unit) communication and residual bus simulation. These topics are consistently bundled in a universal automation solution – a software for all needs.

Our future proof modular concept allows optimal adaption to our customer’s needs while conserving flexibility for future changes.

“We are pleased to connect our experience on battery test with transmission test to get best benefit for electrical drive unit test.”

Andreas Prella,  
thyssenkrupp System Engineering

## Our product family – one size with different power rates



EDU			
Length	5,021 mm		
Width	1,890 mm		
Height	2,200 mm		
Weight	Approx. 12 t		

Electrical Drive Power			
AC-input (regular)	110 kW	30-800 V AC	± 150 A (± 200 A for 30 s max.)
AC-input (upgrade)	250 kW	30-800 V AC	± 450 A (± 650 A for 30 s max.)
DC-input (regular)	110 kW	30-800 V DC <sup>1</sup>	± 200 A (± 240 A for 30 s max.)
DC-input (upgrade)	250 kW	30-800 V DC <sup>1</sup>	± 380 A (± 450 A for 30 s max.)

<sup>1</sup> 个可选, 最高 1000 V DC

Machine Drive Output Power		
Low	3,000 rpm	1,000 Nm
Medium	3,000 rpm	2,500 Nm
Big	3,000 rpm	4,800 Nm

### Test feature include

- Integrated test methods (all-in-one-software-concept)
- Real time open CAN simulation
- Integrated speed/torque control for electrical motor
- Integrated electrical test for electrical motor
- Integrated park pawl test
- Integrated NVH test
- Integrated leak test for water cooling system

### Options

- Device under test water cooling
- High precision torque measurement
- Tool changer for output shafts
- Changeable customized test frame (future proof)
- Pneumatic-free design

### Advantages

- Optimized station layout and weight
  - reduced test field layout
  - reduced shipping efforts (standard container)
- Integrated measurement and automization controls
  - reduced set-up and re-commissioning times
- Innovative design for innovative customer products
- Reduced operating costs (free of hydraulics and pneumatics)
- Reduced design efforts due to modular mechanical kit

Automotive Technology  
System Engineering

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