

# Accreditation



The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that the testing laboratory

**ATESTEO GmbH & Co. KG**  
**Drivetrain Testing**  
**Konrad-Zuse-Straße 3, 52477 Alsdorf**

meets the minimum requirements according to DIN EN ISO/IEC 17025:2018 for the conformity assessment listed in the annex to this certificate. This includes additional existing legal and normative requirements, including those in relevant sectoral schemes.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and confirm generally with the principles of DIN EN ISO 9001.

This accreditation was issued in accordance with Art. 5 Para. 1 Sentence 2 of Regulation (EC) 765/2008, after an accreditation procedure was carried out in compliance with the minimum requirements of DIN EN ISO/IEC 17011 and on the basis of a review and decision of the appointed accreditation committees.

This accreditation certificate only applies in connection with the notices of 21.10.2022 with accreditation number D-PL-19792-01.

It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 7 pages.

Registration number of the accreditation certificate: **D-PL-19792-01-00**

Berlin, 21.10.2022

Dipl.-Ing. Martin Kirbach  
Head of Technical Unit

Translation issued:  
06.12.2022

  
Dipl.-Ing. Martin Kirbach  
Head of Technical Unit

*The certificate together with the annex reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH ([www.dakks.de](http://www.dakks.de)).*

This document is a translation. The definitive version is the original German accreditation certificate.

See notes overleaf

# Deutsche Akkreditierungsstelle GmbH

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10117 Berlin

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60327 Frankfurt am Main

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38116 Braunschweig

The Deutsche Akkreditierungsstelle GmbH (DAkKS) is the entrusted national accreditation body of the Federal Republic of Germany according to § 8 section 1 AkkStelleG in conjunction with § 1 section 1 AkkStelleGBV. DAkKS is designated as the national accreditation authority by Germany according to Art. 4 Para. 4 of Regulation (EC) 765/2008 and clause 4.7 of DIN EN ISO/IEC 17000.

Pursuant to Art. 11 section 2 of Regulation (EC) 765/2008, the accreditation certificate shall be recognised as equivalent by the national authorities within the scope of this Regulation as well as by the WTO member states that have committed themselves in bilateral or multilateral mutual agreements to recognise the certificates of accreditation bodies that are members of ILAC or IAF as equivalent.

DAkKS is a signatory to the multilateral agreements for mutual recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC).

The up-to-date state of membership can be retrieved from the following websites:

EA: [www.european-accreditation.org](http://www.european-accreditation.org)

ILAC: [www.ilac.org](http://www.ilac.org)

IAF: [www.iaf.nu](http://www.iaf.nu)

## Deutsche Akkreditierungsstelle

### Annex to the Accreditation Certificate D-PL-19792-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: **21.10.2022**

Date of issue: **06.12.2022**

Holder of accreditation certificate:

**ATESTEO GmbH & Co. KG**  
**Drivetrain Testing**

At the locations:

**Konrad-Zuse-Straße 3, 52477 Alsdorf**  
**Jülicher Straße 499, 52070 Aachen**  
**Brandgehaege 18, 38444 Wolfsburg-Hattorf**  
**Matthäus-Merian-Straße 2A, 34253 Lohfelden**  
**Daimlerstraße 13, 85748 Garching**

The testing laboratory meets the minimal requirements of DIN EN ISO/IEC 17025:2018 and, if applicable, additional legal and normative requirements, including those in relevant sectoral schemes, in order to carry out the conformity assessment activities listed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and confirm generally with the principles of DIN EN ISO 9001.

*This certificate annex is only valid together with the written accreditation certificate and reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de>.*

Abbreviations used: see last page

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This document is a translation. The definitive version is the original German annex to the accreditation certificate.

Tests in the fields:

**Durability tests and efficiency measurement of vehicle transmissions and vehicle-electric machines; durability tests and function tests of powertrains; durability tests and thermal flow and efficiency measurement of components of the exhaust gas line; howling tests of vehicle transmissions and vehicle-electric machines; rattle measurements of vehicle transmissions; determination of sound power and sound energy levels of machines**

Within the scope of accreditation marked with \*, the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates.

The testing laboratory maintains a current list of all testing procedures within the flexible scope of accreditation.

The test procedures are marked with the symbols listed below for the locations where they are carried out:

A = Alsdorf      B = Aachen      C = Wolfsburg-Hattorf      D = Kassel-Lohfelden      E = Garching

Valid from:            21.10.2022

Date of issue:        06.12.2022

**Durability tests and efficiency measurement of vehicle transmissions (A, B, C, D);  
Durability tests and efficiency measurement of vehicle-electric machines (A, C, D)**

VA-0055 2022-12	Durability tests of vehicle transmissions and vehicle-electric machines
VA-0056 2022-12	Efficiency measurement of vehicle transmissions and vehicle-electric machines

The aforementioned test methods are characterized by the measured variables listed in the following table:

Test Type	Measured Variable	Measurement Range	Exp. Measurement Uncertainty (to k = 2)
Durability Tests	Torque	-6.000 N·m to +6.000 N·m	≤ 0,1 % MRE
	Rotation Speed	-25.000 rpm to +25.000 rpm	≤ 0,01 % MRE
	Temperature	Thermal Element Type K 0 °C to 150 °C	≤ ±1.0 K
	Pressure	Relative Pressure Measurement in the Measurement Range: 0 to 250 kPa 0 to 1.600 kPa 0 to 4.000 kPa	≤ 9,5 kPa ≤ 12 kPa ≤ 17 kPa
	Electrical Power AC	Performance Measurement of all Three Phases ≤ 1.000 V; -1.000 kW to +1.000 kW	≤ ±3.280 W
	Electrical Power DC	Performance Measurement for ≤ 900 V: -900 kW to +900 kW	≤ ±116 W
Efficiency Measurement	Torque	-6.000 N·m to +6.000 N·m	≤ 0,06 % MRE
	Rotation Speed	±75 to ±25.000 rpm	≤ 0,01 % MRE
	Temperature	Thermal Element Type K 0 °C to 150 °C	≤ ±1.0 K
	Pressure	Relative Pressure Measurement in the Measurement Range: 0 to 250 kPa 0 to 1.600 kPa 0 to 4.000 kPa	≤ 9,5 kPa ≤ 12 kPa ≤ 17 kPa
	Electrical Power AC	Performance Measurement of all Three Phases ≤ 1.000 V; -1.000 kW to +1.000 kW	≤ ±3.280 W
	Electrical Power DC	Performance Measurement for ≤ 900 V: -900 kW to +900 kW	≤ ±116 W

**Durability tests and function tests of powertrains (E)**

PB-0016 Powertrain durability (Durability tests: durability tests and function tests according to customer specifications on powertrains)  
2022-11

The aforementioned test methods are characterized by the measured variables listed in the following table:

Test Type	Measured Variable	Measurement Range	Exp. Measurement Uncertainty (to k = 2)
Durability Tests and Function Tests of Powertrains	Torque	-4.000 N·m to +4.000 N·m	≤ 0,1 % MRE
	Rotation Speed	-25.000 rpm to +25.000 rpm	≤ 2 rpm
	Temperature	Thermal Element Type K -50 °C to 1.350 °C	≤ ±2,0 K
	Temperature	Temperature Sensor PT 100 -50 °C to 150 °C	≤ ±2,0 K
	Pressure	Relative Pressure Measurement in the Measurement Range: -80 kPa to 920 kPa	≤ 0,25 % Range
	Humidity	30 % -80 % rel. H.	≤ 2% rel. F.
	Flow Rate (Fuel)	Continuously 5 - 10 kg/h 10 - 15 kg/h 15 - 20 kg/h 20 - 95 kg/h	≤ 5 % MV ≤ 2 % MV ≤ 1 % MV ≤ 0,3 % MV
	Electrical Power AC	Performance Measurement of all Three Phases ≤ 1.000 V; -1.000 kW to +1.000 kW	≤ ±3.280 W
	Electrical Power DC	Performance Measurement for ≤ 900 V: -900 kW to +900 kW	≤ ±116 W

**Durability tests and thermal flow and efficiency measurement of components of the exhaust gas line (A)**

VA-0052 Durability tests of components of the exhaust gas line  
2022-11

VA-0053 Thermal flow and efficiency measurement of components of the  
2022-11 exhaust gas line

*The aforementioned test methods are characterized by the measured variables listed in the following table:*

Test Type	Measured Variable	Measurement Range	Exp. Measurement Uncertainty (to k = 2)
Durability Tests	Temperature	Thermal Element Type K -50 °C to 1.350 °C	≤ ±2,0 K
	Mass Flow Rate	Gas 0 kg/h to 2.500 kg/h Fluids 0 kg/h to 10 kg/s	Gas ≤ 0,5 % MV Fluids ≤ 0,5 % MV
	Pressure	Relative Pressure Measurement Gas: 0 kPa to 600 kPa Relative Pressure Measurement Fluids: 0 kPa to 6.000 kPa	≤ 0,5 % MRE ≤ 0,5 % MRE
	Acceleration	0 m/s <sup>2</sup> to 980,7 m/s <sup>2</sup> (0 g to 100 g)	≤ 10 % MV
Thermal Flow and Efficiency Measurement	Temperature	Thermal Element Type K -50 °C to 1.350 °C	≤ ±2,0 K
	Mass Flow Rate	Gas 0 kg/h to 2.500 kg/h Fluids 0 kg/s to 10 kg/s	Gas ≤ 0,5 % MV Fluids ≤ 0,5 % MV
	Pressure	Relative Pressure Measurement Gas: 0 kPa to 600 kPa Relative Pressure Measurement Fluids: 0 kPa to 6.000 kPa	≤ 0,5 % MRE ≤ 0,5 % MRE





**Tests of the braking system (B) \***

UN-R 90 Rev. 3, SA 02 2012-07	Uniform provisions concerning the approval of replacement brake lining assemblies, drum-brake linings and discs and drums for power-driven vehicles and their trailers (All test procedures that are carried out on a flywheel mass test bench)
UN-R 13 Rev. 6, SA 11 Annex 11 2010-11	Uniform provisions concerning the approval of vehicles of categories M, N and O with regard to braking (All test procedures that are carried out on a flywheel mass test bench)

**Abbreviations used:**

AC	Alternating Current
DC	Direct Current
MRE	Measuring range end value
MV	Measured value
UN	United Nations
SA	Series of Amendments
Rev	Revision
VA	Procedural Instructions of ATESTEO GmbH & Co. KG