

Accreditation



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

Bertrandt Powertrain Validation GmbH Clemensänger-Ost 2, 85356 Freising

meets the requirements of DIN EN ISO/IEC 17025:2018 for the conformity assessment activities specified in the following partial accreditation certificates. This includes additional existing legal and normative requirements for the testing laboratory, including those in relevant sectoral schemes, provided that these are explicitly confirmed in the annexes to the partial accreditation certificates listed below.

D-PL-21487-01-01 D-PL-21487-01-02

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 consists of this cover sheet, the reverse side of the cover sheet and the following annex. It only applies in connection with the partial accreditation certificates listed above and the notices referred to there.

Registration number of the certificate: D-PL-21487-01-00

Berlin, 28.09.2023

Dipl.-Ing. Martin Kirbach Head of Technical Unit Translation issued: 28.09.2023

Dipl.-Ing. Martin Kirbach Head of Technical Unit

M. Wirson

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).

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

Deutsche Akkreditierungsstelle GmbH

Office Berlin Spittelmarkt 10 10117 Berlin Office Frankfurt am Main Europa-Allee 52 60327 Frankfurt am Main Office Braunschweig Bundesallee 100 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

ILAC: www.ilac.org IAF: www.iaf.nu



Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-21487-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 28.09.2023

Date of issue: 28.09.2023

Holder of accreditation certificate:

Bertrandt Powertrain Validation GmbH Clemensänger-Ost 2, 85356 Freising

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed in the annexes to the partial accreditation certificates listed below.

D-PL-21487-01-01 D-PL-21487-01-02

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.



Accreditation



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

Bertrandt Powertrain Validation GmbH Clemensänger-Ost 2, 85356 Freising

meets the requirements according to DIN EN ISO/IEC 17025:2018 for the conformity assessment activities listed in the annex to this certificate. This includes additional existing legal and normative requirements for the testing laboratory, including those in relevant sectoral schemes, provided they are explicitly confirmed in the annex to this certificate.

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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 partial accreditation certificate only applies in connection with the notice of 28.09.2023 with accreditation number D-PL-21487-01.

It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 4 pages.

Registration number of the partial accreditation certificate: **D-PL-21487-01-01** It is a part of the accreditation certificate: D-PL-21487-01-00.

Berlin, 28.09.2023

Dipl.-Ing. Martin Kirbach Head of Technical Unit Translation issued: 28.09.2023

Dipl.-Ing. Martin Kirbach Head of Technical Unit

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Valid from: 28.09.2023

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Tests in the fields:

Tests in the test areas engine/pollutant emission of systems, components and separate technical units for motor vehicles and their trailers within the scope of Regulation (EU) 2018/858

Based on the authorization of the Kraftfahrt Bundesamt according to § 31 (2) EG-Fahrzeuggenehmigungsverordnung (EG-FGV) in connection with Art. 67 (1) set 2 VO (EU) 2018/858 it is confirmed that the certificate holder is competent to perform tests according to DIN EN ISO/IEC 17025:2018 in the scope of application of the Regulation (EU) 2018/858 in the areas mentioned below and fulfils the requirements for technical services of category A according to Art. 68 to 71 of the Regulation (EU) 2018/858.

Within the specified legal acts^x and the respective assigned fields of competence^{xx} according to the KBA's index catalogue, the testing laboratory is permitted to use the standardised test methods or those that are equivalent to them, without requiring prior information and approval by the DAkkS, insofar as these are named in the legal act. The testing laboratory is permitted to use the aforementioned test methods in the respective valid editions.

Fields of Competence

C = Drive Emissions

K = Simulation, Virtual Methods, Alternative Calculations

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



Tests of systems, components and separate technical units for motor vehicles and their trailers within the scope of Regulation (EU) 2018/858 (according to KBA code catalogue)^x

| Motor-/Schadstoffemission | | 02 | |
|---|---|----------|----|
| Emission von zwei-, drei- und vierrädrigen Kraftfahrzeugen, Kleinkrafträdern, land- oder forstwirtschaftlichen Zugmaschinen, Kraftstoff- und Stromverbrauch, Klimaanlagen | | | |
| 70/220/EEC * 2003/76/EC | Council Directive 70/220/EEC of 20 March 1970 on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles without Annexes VI (Type IV test) and VIII (Type V test) of 2003/76/EC | 02-01-01 | C |
| REG (EC) 715/2007 (incl. REG (EC) 692/2008) * REG (EU) 2017/1151 (incl. REG (EU) 2018/1832) | Regulation (EC) No. 715/2007 of the European Parliament and of the Council of 20 June 2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information without Annexes VI (Type 4 test) and VII (Type 5 test) of Regulation (EU) 2017/1151 | 02-01-05 | CK |
| UN-R 83 (positive-ignition engines) SA 07 02-2019 | Uniform provisions concerning the approval of vehicles with regard to the emission of pollutants according to engine fuel requirements without annexes 7 (type IV test) and 9 (type V test) | 02-01-11 | С |
| UN-R 101 SA 01 05-2012 | Uniform provisions concerning the approval of passenger cars powered by an internal combustion engine only, or powered by a hybrid electric power train with regard to the measurement of the emission of carbon dioxide and fuel consumption and/or the measurement of electric energy consumption and electric range, and of categories M1 and N1 vehicles powered by an electric power train only with regard to the measurement of electric energy consumption and electric range | 02-01-23 | C |



Abbreviations used:

EC Directive of the European Parliament and of the Council

EEC Directive of European Economic Community

EU European Union

UN-R United Nations Regulation

REG Regulation

SA Series of Amendments

in connection with amendment or supplement by



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This partial accreditation certificate only applies in connection with the notice of 28.09.2023 with accreditation number D-PL-21487-01.

It consists of this cover sheet, the reverse side of the cover sheet and the following annex with a total of 3 pages.

Registration number of the partial accreditation certificate: **D-PL-21487-01-02** It is a part of the accreditation certificate: D-PL-21487-01-00.

Berlin, 28.09.2023

Dipl.-Ing. Martin Kirbach Head of Technical Unit Translation issued: 28.09.2023

Dipl.-Ing. Martin Kirbach Head of Technical Unit

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Valid from: 28.09.2023

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Holder of partial accreditation certificate:

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The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed 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.

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 methods within the flexible scope of accreditation.

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



Tests in the fields:

Tests in the test areas engine/pollutant emission of systems, components and separate technical units for motor vehicles and their trailers according to international test methods

Pollutant emission and consumption tests

40 CFR §1066 Vehicle Testing Procedure 07-2021 only:

- Exhaust emission test procedures for FTP testing

Cold Temperature Test ProcedureHighway fuel economy test procedure

Exhaust emission test procedures for aggressive driving
Exhaust emission test procedure for SC03 emissions

- AC17 air conditioning efficiency test procedure

40 CFR §86 09-2021 Control of Emissions from New and In-Use Highway Vehicles and Engines

only:

Subpart B: Emission Regulations for 1977 and Later Model Year New Light-Duty Vehicles and New Light-Duty Trucks and New Otto-Cycle Complete Heavy-Duty

Vehicles; Test Procedures

without: Tests for Evaporative Emissions

SAE J1711 06-2010 Recommended Practice for Measuring the Exhaust Emissions and Fuel Economy

of Hybrid-Electric Vehicles, Including Plug-in Hybrid Vehicles

only:

- 4.3.1.4 UDDS Charge-Sustaining Test (CST) Procedure
- 4.3.1.5 HFEDS Charge-Sustaining Test (CST) Procedure

- 4.3.2.4 UDDS Full-Charge Test (FCT) Procedure- 4.3.2.5 HFEDS Full-Charge Test (FCT) Procedure

SAE J1634

Battery Electric Vehicle Energy Consumption and Range Test Procedure

10-2012 *only:*

(Historical)

- 7. Single-Cycle Range and Energy Consumption Test (SCT)

- 8. Multi-Cycle Range and Energy Consumption Test (MCT)

SAE J 1634 2021-04 Battery Electric Vehicle Energy Consumption and Range Test Procedure

only:

- 7. Single-Cycle Range and Energy Consumption Test (SCT)

- 8. Multi-Cycle Range and Energy Consumption Test (MCT)

- 9. Short Multi –Cycle Range and Energy Consumption Test (SMCT)

- 10. Short Multi-Cycle Range and Energy Consumption Test Plus Steady State (SMCT+)



Abbreviations used:

CFR Code of Federal Regulations SAE Society of Automotive Engineers