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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46481-2025

**Test method for powertrain system power of hybrid electric
vehicles and pure electric vehicles having more than one
propulsion electric machine**

混合动力电动汽车及多电机纯电动汽车动力系统功率测试方法

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China. This document is under the jurisdiction of the National Automotive Standardization Technical Committee (SAC/TC114). This document was drafted by: China Automotive Technology & Research Center Co., Ltd., DeepBlue Automotive Technology Co., Ltd., and BYD Auto Industry Co., Ltd. The company, Seres Automotive Co., Ltd., China Automotive Technology and Research Center (Tianjin) Co., Ltd., and China Merchants Vehicle Testing Technology Research Institute Co., Ltd. Company, Changchun Automotive Testing Center Co., Ltd., Xiangyang Da'an Automotive Testing Center Co., Ltd., China Automotive Technology and Research Center (Tianjin) Automotive Engineering Research Institute Limited Liability Company, Chongqing Harding Environmental Testing Technology Co., Ltd., Guangzhou Xiaopeng Motors Technology Co., Ltd., China Automotive Engineering Research Institute Co., Ltd. Beijing CHJ Automotive Technology Co., Ltd., Toyota Motor (China) Investment Co., Ltd., Volkswagen (China) Investment Co., Ltd. company. The main drafters of this document are. Yu Yang, Liu Shaohui, Zhao Chen, Zhu Futang, Su Zhong, Yuan Jianjun, Sun Long, Zhang Minglang, Zhou Lin, Bai Qi, and Peng Bo. Yang Chao, Wang Dan, Guan Yu, Cui Guoxu, Ma Zhiliang, Shi Shuheng, Yang Yuquan, Xu Junhui, Tang Qingqian, Wang Benjiang, Yao Shicong, Zhao Heng, Wang Yao Cheng Xuefeng. Hybrid electric vehicles and multi-motor pure electric vehicles Power System Power Testing Method

1 Scope

GB/T 46481-2025 is the Chinese national standard covering declaring the power of a vehicle with several motors, where the individual ratings cannot simply be added - the test that measures what the system actually delivers at the wheels, the battery state of charge during it, and the duration over which the figure holds. First edition, under the Ministry of Industry and Information Technology. In force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026.

This document describes the maximum power test method for the powertrain systems of hybrid electric vehicles and pure electric vehicles with multi-motor drive, including... This includes test conditions, test procedures, and result calculation. This document applies to hybrid electric vehicles of category M1, N1, and M2 (maximum design gross weight not exceeding 3500 kg) and those with... Multi-motor driven pure electric vehicles. Other vehicles should follow the same guidelines.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 15089 Classification of Motor Vehicles and Trailers

GB/T 17692-2024 Test Method for Net Power of Automobile Engines and Drive Motors

GB/T 18297-2024 Test Methods for Automobile Engine Performance

GB 18352.6-2016 Limits and Measurement Methods for Pollutant Emissions from Light-Duty Vehicles (China VI)

GB/T 19596 Electric Vehicle Terminology

3 Terms and Definitions

The terms and definitions defined in GB/T 15089, GB/T 19596 and GB/T 18297-2024, as well as the following terms and definitions, apply to this document.

3.1 powertrain All mechanical energy output devices that drive a vehicle (directly or indirectly).

Note. This includes internal combustion engines and electric drive systems (including drive motors and inverters), but excludes mechanical transmission components such as gearboxes, reducers, and differentials.

3.2 The sum of mechanical power output by the power system at any given moment when the vehicle is running.

3.3 The sum of mechanical power output by the power system when the vehicle is running at its maximum power output mode and under the maximum accelerator pedal command.

3.4 The reference point for the mechanical kinetic energy output of the power system when the wheel-end drive power is at its maximum.

3.5 The energy conversion efficiency of an electric drive system when it converts electrical energy into mechanical energy.

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