

ICS 43.020
CCS T08



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

GB 22757.2-2023

Replacing GB 22757.2-2017

**Energy consumption label for light-duty vehicles - Part 2: For
off-vehicle-chargeable hybrid electric vehicles and battery
electric vehicles**

轻型汽车能源消耗量标识 第2部分：可外接充电式混合动力电动汽车和纯电动汽
车

Issued on: September 8, 2023

Implemented on: July 1, 2024

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

1 Scope	
2 Normative References	
3 Introduction...	
4 General Requirements...	
5 Content of Label...	
6 Main Data of Label	
6.1 BEV	
6.2 OVC-HEV	
6.2.4 CO	
7 Requirements for Label	
7.1 Division of Functional Areas	
7.1.3 Information area	
7.1.4 Description area	
Appendix A	

1 Scope

GB 22757.2-2023 is the Chinese national standard on energy consumption label for light-duty vehicles - part 2: for off-vehicle-chargeable hybrid electric vehicles and battery electric vehicles, in the field of road vehicles engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 8 September 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 July 2024. Classification: ICS 43.020, CCS T08. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the content, format, material and pasting requirements for the energy consumption label of light-duty vehicles. This document is applicable to Category-M1, M2 and N1 off-vehicle-chargeable hybrid electric vehicles and battery electric vehicles, and with a maximum design total mass not exceeding 3,500 kg.

2 Normative References

The contents of the following documents constitute indispensable clauses of this document through the normative references in this text. In terms of references with a specified date, only versions with a specified date are applicable to this document. In terms of references without a specified date, the latest version (including all the modifications) is applicable to this document.

GB/T 788 Formats and Their Sizes of Books and Magazines

GB/T 3181 Color Standard for Paint Film GB/T 18284 QR Code

GB/T 18386.1-2021 Test Methods for Energy Consumption and Range of Electric Vehicles - Part 1: Light-duty Vehicles

GB 19578 Fuel Consumption Limits for Passenger Cars

GB/T 19596 Terminology of Electric Vehicles

GB/T 19753-2021 Test Methods for Energy Consumption of Light-duty Hybrid Electric Vehicles

GB 20997 Limits of Fuel Consumption for Light-duty Commercial Vehicles

GB 22757.1 Energy Consumption Label for Light-duty Vehicles - Part 1: For Gasoline and Diesel Vehicles

GB/T 32694 Plug-in Hybrid Electric Passenger Cars - Specifications

b) Vehicle model;

c) Engine model, displacement and maximum net power, where the unit of displacement is milliliter (mL) and the unit of maximum net power is kilowatt (kW);

d) Drive motor peak power, expressed in (kW);

e) Energy types: off-vehicle-chargeable hybrid electric vehicles (gasoline / electricity), off-vehicle-chargeable hybrid electric vehicles (diesel / electricity)

6.1 BEV

6.1.1 Electric energy consumption The electric energy consumption data refers to the energy consumption type certification value determined in accordance with GB/T 18386.1-2021. The electric energy consumption data shall be rounded (off) to one decimal place.

6.1.2 Electric energy equivalent fuel consumption The electric energy equivalent fuel consumption data is the data after converting the electric in a high-temperature environment or the industry average decrease rate compared to the type certification value.

6.2 OVC-HEV

6.2.1 Fuel consumption The fuel consumption data includes comprehensive fuel consumption, comprehensive converted fuel consumption from oil and electricity, and fuel consumption data in power deficit state. The comprehensive fuel consumption data refers to the "OVC-HEV fuel consumption" type certification value determined in accordance with GB/T 19753-2021. The comprehensive converted fuel consumption from oil and electricity refers to the "OVC-HEV converted fuel consumption"⁴⁾ calculated in accordance with G.3 in GB/T 19753-2021. The fuel consumption data in power deficit state refers to the "charge-sustaining mode test fuel consumption" type certification value determined in accordance with GB/T 19753-2021. The fuel consumption data shall be rounded (off) to two decimal places.

6.2.2 Electric energy consumption The electric energy consumption data refers to the "OVC-HEV electric energy consumption" type certification value determined in accordance with GB/T 19753-2021. The data shall be rounded (off) to one decimal place.

6.2.3 Estimated energy cost The OVC-HEV estimated energy cost is calculated in accordance with Formula (2). The data shall be rounded (off) to two decimal places: Where, CH

---the estimated energy cost, expressed in (yuan/100 km); FH

---the "OVC-HEV fuel consumption" type certification value, expressed in (L/100 km); PF

---the estimated fuel price, for gasoline, take 7.502), for diesel, take 7.002), expressed in (yuan/L); EH

---the "OVC-HEV electric energy consumption" type certification value, expressed in (kW h/100 km); PE

---the estimated electricity price, take 0.662), expressed in [yuan/(kW h)].

6.2.4 CO

2 Emission ⁴⁾ The method refers to the simple conversion method, and the conversion method will be updated in a timely manner in accordance with the actual situation. The OVC-HEV electric energy consumption and OVC-HEV fuel consumption used for the comprehensive converted fuel consumption from oil and electricity are type certification values. The CO₂ emission data refers to the CO₂ emission calculated through the conversion formula in GB 19578 in accordance with the "OVC-HEV fuel consumption" type certification value determined in accordance with GB/T 19753-2021. The data shall be rounded (off) to two decimal places.

6.2.5 Electric driving range The electric driving range data of Category-M1 vehicles refers to the driving range calculated in accordance with GB/T 32694. The electric driving range data of Category-N1 and M2 vehicles refers to the driving range⁵⁾ determined in accordance with the corresponding test method in GB 20997. The data shall be rounded

(off) to an integer.

7.1 Division of Functional Areas

7.1.1 Overview The label consists of four functional areas: "title area", "information area", "description area" and "additional information area". See Figure B.1 ~ Figure B.4 in Appendix B.

7.1.2 Title area The "title area" is located at the top of the label, with "enterprise label" on the left and "label "AUTOMOBILE ENERGY CONSUMPTION LABEL" in capital letters in English, which are arranged with Chinese at the top and English at the bottom.

7.1.3 Information area

7.1.3.1 The "information area" is divided into two parts: "basic information area of model" and "energy consumption information area". The "basic information area of model" is located in the upper part of the information area, and the "energy consumption information area" is located in the lower part of the information area, which is the core part of the label. The fuel consumption, estimated energy cost and CO₂ emission information are located in the upper part of the "energy consumption information area", the driving range information is located in the lower part of the "energy consumption information area".

7.1.3.2 For BEV, the "basic information of model" includes the manufacturer, vehicle model, engine model, energy type, drive motor peak power, complete vehicle curb weight, maximum design total mass and other fuel consumption-related information that the enterprise needs to explain. If no other information is provided, the "other information" does not need to be labeled. For OVC-HEV, the "basic information of model" shall also include engine model, displacement, maximum net power of engine and transmission type. 5) The driving range is consistent with the relevant requirements for vehicle type certification. CO₂ emission: . g/km The electric driving range information is located above the driving range horizontal line, as shown in EXAMPLE 6. EXAMPLE 6: Electric driving mileage: km

7.1.4 Description area

7.1.4.1 The "description area" is located at the bottom of the label. The left side of the "description area" is a QR code; the middle is the national standard (including year number and title) adopted for the fuel consumption and driving range tests, as well as energy prices, and factors affecting fuel consumption, driving range and energy cost; the right side is "label category pattern" shown in Figure B.11 and Figure B.12.

7.1.4.2 For BEV, the specific content of the middle part of the "description area" is as follows:

---The electric energy consumption and driving range data used for this label is determined in accordance with GB/T 18386.1-2021 Test Methods for Energy Consumption and Range