

Translated English of Chinese Standard: GB/T37338-2019
www.ChineseStandard.net → Buy True-PDF → Auto-delivery.
Sales@ChineseStandard.net

GB

NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA

ICS 43.040

T 85

GB/T 37338-2019

Instrumentation for electric motorcycles and mopeds

电动摩托车和电动轻便摩托车用仪表

Issued on: March 25, 2019

Implemented on: October 01, 2019

Issued by: State Administration for Market Regulation;

**Standardization Administration of the People's Republic of
China.**

Table of Contents

Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions.....	4
4 Requirements	6
5 Test methods	9

Instrumentation for electric motorcycles and mopeds

1 Scope

This Standard specifies the requirements and test methods of instrumentation for electric motorcycles and mopeds.

This Standard is applicable to the instrumentation for electric motorcycles and mopeds (hereinafter referred to as the electric motorcycles).

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 4208, *Degrees of protection provided by enclosure (IP code)*

GB/T 5359.1, *Term for motorcycles and mopeds - Part 1: Types of vehicles*

GB/T 5378, *Methods of road test for motorcycles and mopeds*

GB 15365-2008, *Symbols for controls indicators and telltales for motorcycles and mopeds*

GB/T 18655, *Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers*

GB/T 19596, *Terminology of electric vehicles*

GB 34660, *Road vehicles - Requirements and test methods of electromagnetic compatibility*

QC/T 413-2002, *Basic Technical Requirements for Automotive Electric Equipment*

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T 5359.1 and GB/T 19596 as well as the followings apply.

3.1 indicating meter

a meter that displays or indicates continuous numerical physical quantities such as vehicle speed, mileage, power

3.1.1 speedometer

a meter that indicates the current speed of the vehicle

3.1.2 odometer

a meter that indicates the mileage of the vehicle

3.1.3 tachometer

a meter that indicates the instantaneous speed of the drive motor rotor

3.1.4 voltmeter

a meter that indicates the real-time voltage value of the power battery

3.1.5 amperemeter

a meter that indicates the output current value of the power battery

3.1.6 electric energy meter

a meter that indicates the remaining working capacity of the power battery

3.2 warning tell-tale

signaling device that indicates the working state of the vehicle by lighting or extinguishing and using a liquid crystal display in a blinking manner

3.2.1 run ready tell-tale

to show a state that the vehicle shall be driven by a single action

3.2.2 low battery tell-tale

to show a state that the vehicle is in a low battery

3.2.3 charging state tell-tale

to show a state that vehicle is in charging connection

3.2.4 motor overspeed tell-tale

to show a state that the motor is currently working at overspeed

normal operating current shall be indicated in both directions of the dial "0" position. If digital display is used, the minimum resolution is 1A. When the vehicle is working in the braking energy feedback state, the ammeter shall show a negative value.

4.1.12 The electric energy meter shall be able to indicate the remaining capacity of the power battery in real time. It can use dial analog or digital display.

4.1.13 Electric motorcycles shall have an obvious signal device to remind the driver that the vehicle can start driving. This signal device shall comply with 4.26 Requirements for graphic symbol of run ready tell-tale in GB 15365-2008.

4.1.14 When the remaining capacity of the power battery is lower than a certain value, the signal device of low battery tell-tale shall be activated. The signal device shall comply with 4.20 Requirements for graphic symbol of power battery charging state in GB 15365-2008. The signal device shall be able to illuminate continuously or continuously at a frequency of $1.5 \text{ Hz} \pm 0.5 \text{ Hz}$.

4.1.15 When charging is connected, there shall be a clear indicating signal device. The signal device shall comply with 4.25 Requirements for charging symbol of charging line connection of GB 15365-2008.

4.1.16 When the electric motorcycle drive motor is running at over speed or the controller temperature is too high to endanger the driving safety, there shall be a signal device to start and issue a warning message. The signal device shall comply with 4.24 Requirements for overheating graphic symbol of motor and controller in GB 15365-2008.

4.2 Instrument assembly technical requirements

4.2.1 The prevention of solid foreign matter from entering the instrument for electric motorcycles shall reach the protection level of IP5X in GB/T 4208.

4.2.2 The instrument for electric motorcycle without the cab shall be able to work normally after the waterproof test.

4.2.3 The instrument for electric motorcycles of B-class voltage circuit shall be able to work normally after the dielectric strength test.

4.2.4 The electromagnetic radiation emission limits for electric motorcycles shall meet the requirements of GB 34660.

4.2.5 The electromagnetic radiation immunity of electric motorcycles shall not affect the safety performance of vehicles before, during and after testing.

4.2.6 After the vibration resistance test of the instrument for electric motorcycle, there shall be no loose or damaged parts.

This is an excerpt of the PDF (Some pages are marked off intentionally)

Full-copy PDF can be purchased from 1 of 2 websites:

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, Sales@ChineseStandard.net

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

----- The End -----