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

CJ/T 518-2017

Replacing CJ/T 3060-1996

**Submersible axial-flow pump
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009 and GB/T.20001.10-2014.

This standard is a revision of CJ/T 3060-1996 Submersible Axial Flow Pump. Compared with CJ/T 3060-1996, the main technical changes are as follows.

- Expands the scope of application of pump flow and power (see Chapter 1, Chapter 1 of the 1996 edition);
- Increased non-coaxial planetary gear transmission structure (see 4.1.2);
- Increased pump performance parameters, increased 660V, 3kV, 6kV and 10kV high voltage (see 5.2);
- Modify the motor electrical performance guaranteed value and tolerance (see 7.3.3, 1996 version 7.6.6);
- Modified the inter-turn insulation test of motor forming windings, and the requirements and tests for the withstand voltage level of stator coils (see 7.3.10, 1996 edition of 7.8, 7.10);

- Increased the pump outlet cable voltage when the voltage is greater than 660V (see 7.3.9);
- Modify the noise requirements of the pump when no load (see 7.3.11, 1996 version 7.25);
- Increased vibration requirements at pump no-load (see 7.3.12);
- Increased processing and assembly requirements (see 7.5);
- Increased rust and paint requirements (see 7.6);
- Increased safety requirements (see 7.7);
- Prolonged the average pump failure-free working time (see 7.8, 7.23 of the 1996 edition);
- Refined test method provisions (see Chapter 9 and Table 1, Chapter 8 of the 1996 edition);
- Increased storage requirements (see 10.4).

This standard is proposed by the Institute of Standardization of Housing and Urban-Rural Development Standards.

This standard is under the jurisdiction of the Municipal Water Supply and Drainage Standardization Technical Committee of the Ministry of Housing and Urban-Rural Development.

1 Scope

This standard specifies the terms and definitions, types and models, basic parameters, materials and working conditions, requirements, and test methods for submersible axial flow pumps.

Inspection rules, signs, packaging, transportation and storage.

This standard is applicable to the production of three-phase submersible axial flow pumps (hereinafter referred to as "pumps") for transporting water and liquids with similar physical and chemical properties.

Make and test.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. For undated references, the latest version (including all amendments) applies to this document.

GB/T 191 packaging, storage and transportation logo GB/T 755 Rotary Motor Quota and Performance GB/T 1176 Cast Copper and Copper Alloys GB/T 1220 stainless steel rod

GB/T 1348 ductile iron castings GB/T 1971 Rotary Motor Marking and Direction of Rotation
GB/T 2828.1 Count Sampling Inspection Procedures Part 1. Batch Inspection Sampling
Plans Retrieved by Acceptance Quality Limit (AQL) GB/T 3098.6-2014 Mechanical
properties of fasteners Stainless steel bolts, screws and studs GB/T 4942.1-2006
Protection class (IP code) classification for the whole structure of rotating electrical
machines GB/T 5013.2 Rubber insulated cables of rated voltages up to and including
450/750V Part 2. Test methods GB/T 5013.4 Rubber insulated cables of rated voltages up
to and including 450/750V - Part 4. Cords and flexible cables GB/T 9239.1-2006
Mechanical vibration, constant state (rigid) rotor balance quality requirements Part 1.
Specification and balance tolerance test GB/T 10069.1 Determination methods and limits of
noise in rotating electrical machines Part 1 . Determination of noise in rotating electrical
machines GB/T 10069.3 Methods and limits for determination of noise in rotating electrical
machinery - Part 3. Noise limits GB 10395.8 Technical requirements for safety of tractors
and machinery for agriculture and forestry. Part 8. Drainage and irrigation pumps and pump
units GB 10396 General rules for safety signs and danger graphics for tractors and
machinery, lawns and gardening machinery for agriculture and forestry GB/T 12785-2014
submersible pump test method GB/T 13008 mixed flow pump, axial flow pump technical
conditions GB/T 13306 signage GB/T 13384 general technical conditions for mechanical
and electrical product packaging GB/T 14211 mechanical seal test method GB/T 17219
Safety Evaluation Standard for Drinking Water Distribution Equipment and Protective
Materials for Drinking Water GB/T 22715 Rotating AC Motor Stator Molded Coil Impact
Voltage Level GB/T 22719.1 AC low voltage motors with inter-turn insulation for loosely
wound windings Part 1. Test methods GB/T 22719.2 AC low voltage motors with interweave
insulation of loosely wound windings Part 2. Test limits GB/T 25409-2010 Small
Submersible Pump