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

GB 32030-2022

Replacing GB 32030-2015

**Minimum allowable values of energy efficiency and energy
efficiency grades for submersible motor-pumps**

潜水电泵能效限定值及能效等级

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Foreword

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA ICS

Replacing GB 32029-2015, GB 32030-2015, GB 32031-2015

Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Submersible Motor-Pumps

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This Document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents .This Document replaced GB 32029-2015 Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Small-Size Submersible Motor-Pumps , GB 32030-2015 Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Submersible Pumps for Deep Well , and GB 32031-2015 Minimum Allowable Values of Energy Efficiency and Energy Efficiency Grades for Waste Submersible Motor-Pumps . Compared with GB 32029-2015, GB 32030-2015 and GB 32031-2015, the major technical changes of this Document are as follows besides the structural adjustments and editorial modifications:

- a) Change the scope (see Clause 1 of this Document; Clause 1 of GB 32029-2015; Clause 1 of GB 32030-2015; Clause 1 of GB 32031-2015);
- b) Change terms and definitions (see Clause 3 of this Document; Clause 3 of GB

32029-2015; Clause 3 of GB 32030-2015; Clause 3 of GB 32031-2015);

c) Change the basic requirements of submersible motor-pumps (see Clause 4 of this Document; Clause 4 of GB 32029-2015; Clause 4 of GB 32030-2015; Clause 4 of GB 32031-2015);

1 Scope

China's mandatory energy efficiency standard for submersible motor-pumps - the borehole and well pumps that lift groundwater for irrigation, for municipal supply and for industry, and which run for thousands of hours a year in a place nobody can see. It specifies the energy efficiency grades, the minimum allowable values of energy efficiency and the test methods for submersible motor-pumps. What makes this product worth regulating is not that the individual pump is large but that the population is enormous and the efficiency is invisible: the pump is down a hole, the only sign of a bad one is a slightly larger electricity bill, and nobody replaces a working pump on suspicion. A poor unit therefore runs for its whole life at the owner's expense, and the only moment at which the choice can be influenced is the moment of purchase. The efficiency is expressed as that of the complete unit, pump and submersible motor together, at the rated operating point, tabulated by type and by rated flow - the whole unit rather than the pump alone, because the motor losses in a submersible set are a substantial part of the total and a manufacturer optimising the pump body in isolation would leave them untouched. The minimum allowable value is the threshold below which a unit may not be manufactured, imported or sold; the energy conservation evaluation value is the higher threshold for the energy saving certification; and the grades are what appears on the label. Issued on 29 December 2022 and in force since 1 January 2024, it replaces GB 32030-2015.

This Document specifies the energy efficiency grade, minimum allowable values of energy efficiency and test methods for submersible motor-pumps. This Document applies to small-sized submersible motor-pumps, large and medium-sized submersible motor-pumps, waste submersible motor-pumps, well-used submersible motor-pumps, and mixed-flow submersible motor-pumps.

2 Normative References

The provisions in following documents become the essential provisions of this Document through reference in this Document. For the dated documents, only the versions with the dates indicated are applicable to this Document; for the undated documents, only the latest version (including all the amendments) is applicable to this Document.

GB/T 2816 Submersible pumps for deep well

GB/T 2818 Submersible motor for deep well

GB/T 7021 Glossary of terms for centrifugal pump

GB/T 12785-2014 Test methods for submersible motor-pumps

GB/T 24674 Waste submersible motor-pumps

GB/T 25409 Small-size submersible motor-pumps

JB/T 10608 Mixed-flow submersible motor-pumps

JB/T 11916 Large and medium-sized submersible motor-pumps

3 Terms and Definitions

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