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Small craft — Lithium-ion batteries



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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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This document was prepared by Technical Committee ISO/TC 188, *Small craft*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Small craft — Lithium-ion batteries

1 Scope

This document provides requirements and recommendations for the selection and installation of lithium-ion batteries for boats. It applies to lithium-ion batteries and to battery systems with a capacity greater than 600 Wh, installed on small craft for providing power for general electrical loads and/or to electric propulsion systems. It is primarily intended for manufacturers and battery installers.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

ampere interrupt capacity

AIC

maximum current a circuit breaker or fuse is rated to safely interrupt at a specific voltage

3.2

battery

collection of *cells* (3.7) wired in series (or series/parallel) and constituting a single physical unit

3.3

battery bank

set of *batteries* (3.2) electrically connected (parallel/series) to increase capacity and or voltage

3.4

battery capacity

C

capacity of the *battery* (3.2), expressed in ampere-hours (Ah) at a nominal voltage or in watt hours (Wh), from the manufacturer's specified fully charged to discharged voltage levels

Note 1 to entry: Ah capacity rating at a given discharge rate or time.

3.5

battery management system

BMS

system designed to protect a lithium-ion *battery* (3.2) from potentially damaging events, such as overcharging or overdischarging and high and low temperatures

3.6

battery system

battery (3.2) or batteries and all ancillary components