



ABYC A-27 July, 2016

**Machinery Division Standard
Engine Powertrain Project Technical
Committee**

The ABYC Standards and Technical Information Reports for Small Craft are the product of a consensus of representatives of government, industry and public sectors. It is intended solely as a guide to aid manufacturers and the marine community in the design, construction, equipage and maintenance of small craft.

ABYC reviews each standard at least every five years at which time it may be reaffirmed, revised, or withdrawn. ABYC welcomes any written comments on the standards and Technical information reports.

ABYC A-27

ALTERNATING CURRENT (AC) GENERATOR SETS



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NOTE: Membership on a committee shall not in and of itself constitute an endorsement of ABYC or any document developed by the committee on which the member serves.

This standard was developed under procedures accredited as meeting the criteria for American National Standards. The Project Technical Committee that approved the Standard was balanced to ensure that individuals from competent and concerned interests have had an opportunity to participate.

This standard, which is the result of extended and careful consideration of available knowledge and experience on the subject, is intended to provide minimum performance requirements.

ABYC's Project Technical Committee meetings are open to the public. All contact regarding standards activity, interpretations, or meeting attendance should be directed to the ABYC Technical Department at comments@abycinc.org.

ABYC and its committees do not "approve", "certify", or "endorse" any item, construction, or proprietary device.

REQUEST FOR INTERPRETATIONS

Upon written request, the Thermal Appliance PTC will render an interpretation of any requirement of the Standard. The request for interpretation should be clear and unambiguous. Requests should be presented to the PTC in a manner in which they may be answered in a yes or no fashion.

The Committee reserves the right to reconsider any interpretation when or if additional information which might affect it becomes available to the PTC. Persons aggrieved by an interpretation may appeal to the Committee for reinterpretation.

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Based on ABYC's assessment of the existing technology, and the problems associated with achieving the goals of this standard, ABYC recommends compliance with this standard for all alternating current (AC) generator sets and associated equipment manufactured and/or installed after July 31, 2017.

27.1 PURPOSE

This standard is a guide for the design, construction, and installation of alternating current (AC) generator sets on boats.

27.2 SCOPE

This standard applies to alternating current generator sets intended for installation and operation on boats.

27.3 REFERENCES

The following references form a part of this standard. Unless otherwise noted the latest version of referenced standards shall apply.

27.3.1 ABYC – American Boat & Yacht Council, 613 Third St., Suite 10, Annapolis, MD 21403. Phone: (410) 990-4460. Fax: (410) 990-4466. Web site: www.abycinc.org

[ABYC A-4, Fire Fighting Equipment](#)

[ABYC E-11, AC and DC Electrical Systems on Boats](#)

[ABYC H-2, Ventilation of Boats Using Gasoline](#)

[ABYC H-24, Gasoline Fuel Systems](#)

[ABYC H-33, Diesel Fuel Systems](#)

[ABYC P-1, Installation of Exhaust Systems for Propulsion and Auxiliary Engines](#)

[ABYC T-5, Safety Signs and Labels](#)

[ABYC TH-22, Educational Information About Carbon Monoxide](#)

27.3.2 ASTM - ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959. Phone: 610- 832-9585. Fax: 610-832-9555. Website: www.astm.org

ASTM E145-68, *Standard Specification for Gravity-Convection and Forced-Ventilation Ovens*

27.3.3 CFR - Obtain the Code of Federal Regulations and other government publications from the Superintendent of Documents, United States Government Information, POB 371954, Pittsburgh, PA 15250-7954. Phone: (202) 512-1800. Fax: (202) 512-2250. Website: www.gpo.gov or www.ecfr.gov. An excerpted edition of the CFR is available from ABYC, Website: www.abycinc.org

33 CFR 183.590

40 CFR 1060

27.3.4 IEEE – Institute of Electrical and Electronics Engineers, 445 Hoes Lane, Piscataway, NJ 08854-4141. Phone (732) 981-0060. Website: www.ieee.org

ANSI/IEEE 115, *Test Procedure for Synchronous Machines*

27.3.5 SAE - Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096. Phone: (724) 776-4970. Fax: (724) 776-0790. Website: www.sae.org

SAE J1191, *High Tension Ignition Cable Assemblies – Marine*

SAE J1223, *Marine Carburetors and Fuel Injection Throttle Bodies*

SAE J1294, *Ignition Distributors – Marine*

SAE J1527, *Marine Fuel Hoses*

SAE J1928, *Devices Providing Backfire Flame Control for Gasoline Engines in Marine Applications*

27.3.6 UL - Underwriters Laboratories, Inc., 12 Laboratory Drive, PO Box 13995, Research Triangle Park, NC 27709. Phone: (919) 549-1400. Website: www.ul.com

UL 94, *Flammability of Plastic Materials for Parts in Devices and Appliances*

UL 514C, *Non-metallic Outlet Boxes, Flush-device Boxes, and Covers*