

**H-22 ELECTRIC BILGE PUMP SYSTEMS**

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## H-22 ELECTRIC BILGE PUMP SYSTEMS

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 boats, associated equipment, and systems manufactured after July 31, 2006.

### 22.1 PURPOSE

These standards are guides for the design, construction, installation, operation, and control of electric bilge pump systems.

### 22.2 SCOPE

These standards apply to all boats equipped with electric bilge pump systems intended for control of spray, rain water, and normal accumulation of water due to seepage and spillage.

#### EXCEPTIONS:

1. Pumps intended for damage control.

2. Damage control systems.

### 22.3 REFERENCED ORGANIZATIONS

ABYC - American Boat & Yacht Council, Inc. 3069 Solomons Island Rd, Edgewater, MD 21037-1416 Phone: (410) 956-1050. Fax: (410) 956-2737 Web site: www.abycinc.org

### 22.4 DEFINITIONS

For the purposes of this standard, the following definitions apply.

Accessible - Capable of being reached for inspection, removal, or maintenance without removal of permanent boat structure.

Design Voltage - 113.3 percent of nominal voltage.

Enclosed Accommodation Compartment - One contiguous space, surrounded by permanent structure, that contains the following:

- a. designated sleeping accommodations;
- b. a galley area with sink; and
- c. a head compartment.

**NOTE: A cuddy intended for gear storage and open passenger cockpits, with or without canvas enclosures, are not considered to be enclosed accommodation compartments.**

Nominal Voltages - Commonly used voltages such as 6, 12, 24, and 32 volts DC, and 110/120 volts AC.

Non-Submersible Pump - A pump designed to be operated with the pump above water.

Normal Accumulation of Bilge Water - Minor amounts of water collecting in the bilge from spray, rain, seepage, and spillage that can be removed by the bilge pumps.

Maximum Bilge Water Level - The level above which electrical or mechanical systems will be adversely affected by bilge water, with the vessel in the static floating position or underway.

Maximum Heeled Waterline - The level of the water on the hull when the hull is inclined to

- a. an angle of 7°, for powerboats, or
- b. the level of the sheer amidships, for sailboats.

Readily Accessible - Capable of being reached quickly and safely for effective use under emergency conditions without the use of tools.

Submersible pump - A pump designed to be operated when covered with water.

### 22.5 GENERAL REQUIREMENTS - PUMPS

#### 22.5.1 Bilge Pump Rating

22.5.1.1 All bilge pumps shall be rated to the tests in the [APPENDIX](#).

#### 22.5.2 Bilge Pump Design and Construction

22.5.2.1 Finish - All exposed parts of the assembly shall be designed and finished so that roughness and sharp edges, reasonably likely to cause injury to persons installing, operating, or servicing the unit, will be eliminated or protected.

22.5.2.2 Mounting - The pump assembly shall provide a means to secure the pump to the boat to resist pump movement during normal marine service.

22.5.2.3 Grounding - Metallic parts of the pump that, when exposed to contact with bilge water may become a source of stray current leakage, shall have provision for the connection of a grounding conductor.