



Standard Specification for Mechanically Refrigerated Shipboard Air Conditioner¹

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1. Scope

1.1 This specification covers self-contained mechanically refrigerated air conditioners for shipboard use in air circulation, air cooling, and dehumidification.

1.2 These air conditioners are intended for use in compartments and areas where central system air conditioning is not provided.

1.3 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

- A276 Specification for Stainless Steel Bars and Shapes
- A569/A569M Specification for Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip Commercial (Withdrawn 2000)³
- B16/B16M Specification for Free-Cutting Brass Rod, Bar and Shapes for Use in Screw Machines
- B61 Specification for Steam or Valve Bronze Castings
- B75 Specification for Seamless Copper Tube
- B148 Specification for Aluminum-Bronze Sand Castings
- B209 Specification for Aluminum and Aluminum-Alloy Sheet and Plate
- D3951 Practice for Commercial Packaging

2.2 Air-Conditioning and Refrigeration Institute (ARI):⁴

ARI 210 Standard for Unitary Air-Conditioning Equipment

2.3 American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE):⁵

ASHRAE 15 Safety Code for Mechanical Refrigeration

ASHRAE 37 Methods of Testing for Rating Unitary Air-Conditioning and Heat Pump Equipment

2.4 American Water Works Association (AWWA):⁶

AWWA C504 Standard for Rubber-Seated Butterfly Valves

2.5 National Electrical Manufacturers Association (NEMA):⁷

NEMA MG 1 Motors and Generators

NEMA ICS 1 General Standards for Industrial Control and Systems

2.6 Underwriters Laboratories, Inc. (UL):⁸

UL 465 Standard for Safety, Central Cooling, and Air Conditioning

UL 873 Standard for Safety Temperature-Indicating and Regulating Equipment

2.7 Federal Specification:⁹

FF-B-171 Bearings, Ball, Annular (General Purpose)

2.8 Federal Regulations:⁹

Code of Federal Regulations, Title 46

3. Terminology

3.1 Definitions:

3.1.1 *inspection*—the process of measuring, examining, testing, gaging, or otherwise comparing the unit with the applicable requirements.

3.1.2 *lot*—all units of the same type, service, and size offered for delivery at one time.

¹ This specification is under the jurisdiction of ASTM Committee F25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.11 on Machinery and Piping Systems.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

⁴ Available from Air-Conditioning and Refrigeration Institute, 1501 Wilson Blvd., Arlington, VA 22209.

⁵ Available from American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE), 1791 Tullie Circle, NE, Atlanta, GA 30329, <http://www.ashrae.org>.

⁶ Available from American Water Works Association (AWWA), 6666 W. Quincy Ave., Denver, CO 80235, <http://www.awwa.org>.

⁷ Available from National Electrical Manufacturers Association (NEMA), 1300 N. 17th St., Suite 1752, Rosslyn, VA 22209, <http://www.nema.org>.

⁸ Available from Underwriters Laboratories (UL), 333 Pfingsten Rd., Northbrook, IL 60062-2096, <http://www.ul.com>.

⁹ Available from Standardization Documents Order Desk, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.