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MIL-P-15736D(SHIPS)
AMENDMENT 4
14 May 1990
SUPERSEDING
AMENDMENT 3
28 February 1985

MILITARY SPECIFICATION

POWER SUPPLIES, METALLIC RECTIFIER,
NAVAL SHIPBOARD

This amendment forms a part of Military Specification MIL-P-15736D(SHIPS), dated 9 August 1965, and is approved for use by the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

PAGE 1

1.2: Delete and substitute:

"1.2 Classification. Power supplies shall be of the following classes as specified on the individual detail specification (see 6.1.1) or as specified in the contract or order (see 6.1.2).

Class R - Regulated.
Class NR - Nonregulated."

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2.1, under "SPECIFICATIONS, MILITARY": Delete reference to "MIL-O-16485".

3.1, line 3: Delete "(see 6.1)".

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* 3.2: Delete and substitute:

"3.2 First article. When specified (see 6.1), a sample shall be subjected to first article inspection (see 6.3) in accordance with 4.2."

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3.6.4.1, line 1: Delete "Coher" and substitute "When".

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3.9.1(c)(12), line 3: Delete "similar applications" and substitute "application stresses".

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3.10, line 4: Delete "II" and substitute "I".

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* 4.2: Delete and substitute:

"4.2 First article inspection. First article inspection shall be conducted at a laboratory satisfactory to the Naval Sea Systems Command. First article inspection shall consist of the examination and tests specified in table II and in the individual specification."

* 4.2.1: Delete and substitute:

"4.2.1 Power supplies to be submitted for first article approval. First article approval may be obtained as specified in 4.2.1.1 through 4.2.1.3."

* 4.2.1.1, line 2: Delete "qualification" and substitute "first article".

* 4.2.1.1, line 3: Delete "Qualification" and substitute "First article".

* 4.2.1.2: Delete "qualification" and substitute "first article".

* 4.2.1.3: Delete "qualification" and substitute "first article".

* 4.2.2, line 8: Delete "qualification" and substitute "first article."

* Table II: Delete "Qualification" and substitute "First article".

Table II, inspection column, opposite inclined operation: Delete "---" and substitute "4.5.15".

* Table II: Delete reference to "1/".

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* Table II, Cont'd: Delete "Qualification" and substitute "First article."

Table II, under Notes 1: Delete "qualification and substitute "first article".

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4.5.2, fourth sentence: Delete and substitute: "Insulation resistance shall be measured with a hand-driven generator type insulation resistance indicating ohmmeter which contains a 500 volt constant voltage source and has a 0 to 100 megohm range. The ohmmeter is required to be accurate to the extent that the pointer indicates within 2 percent of scale length."

4.5.4.1: Delete "qualification" and substitute "first article".

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4.5.6.1 (e): Delete "qualification" and substitute "first article".

4.5.6.1 (f)(1): Delete "qualification" and substitute "first article".

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Add as new paragraph 4.5.15:

"4.5.15 Inclined operation. The equipment shall be tested for inclined operation by operating at full output load current with rated input voltage and frequency. Inclination of the equipment in the following positions shall not cause interruption of the output current from the equipment while operating, and while not operating shall not cause any change from the nonoperating condition:

(a) Inclined 45 degrees forward.
(b) Inclined 45 degrees backward.
(c) Inclined 45 degrees to the right side.
(d) Inclined 45 degrees to the left side.

This test applies only to equipment containing relays or contactors."

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6.1: Delete and substitute:

"6.1 Ordering data. Acquisition documents should specify data of 6.1.1 or 6.1.2, as applicable.

"6.1.1 Power supplies covered by detail specifications:

(a) Title, number and date of this specification.
(b) Title, number and date of detail specification.
(c) Classification under detail specification (where applicable).
* (d) First article inspection, if required (see 3.2).

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"6.1.2 Power supplies not covered by detail specifications:

(a) Title, number and date of this specification.
(b) Class required (see 1.2).
* (c) First article inspection, if required (see 3.2).

NOTE: Equipment classification shall normally be based on the requirements of the application. Use of class NR power supplies is desirable, where practical, because of their generally lower cost and greater simplicity. The factors which determine whether a class NR power supply can be used in a specific application are given in 6.2.

(c) Electrical rating and performance (see 3.5.2):
- (1) Ac input voltage (see 3.5.2.1).
- (2) Input frequency (see 3.5.2.2).
- (3) Phases and balances (see 3.5.2.3).
- (4) Dc output (see 3.5.2.4).
  - a. Output voltage adjustment range and resolution.
  - b. Output voltage regulation required.
    - 1. With input voltage changes.
      - a. Steady state.
      - b. Transient.
    - 2. With output load current changes.
      - a. Steady state.
      - b. Transient.
        - 1. Maximum permitted initial excursion of output voltage on load application and rejection.
        - 2. Time to recover steady value.
        - 3. Maximum permitted overshoot during recovery.
      - c. Remote regulation (d.c. line drop compensation.)
        - 1. Whether remote sensing is required (see 3.5.2.4.1).
        - 2. Maximum voltage drop (at rated output current) between power supply and remote point at which voltage is to be regulated.

(d) Permissible ripple content (see 3.5.2.5).
(e) Whether remote control of output voltage is required.
(f) Rating (normally given in output current) (see 3.5.2.5).
- (1) Continuous
- (2) Intermittent, if applicable.
  - a. Current.
  - b. Time.
- (3) Degree and type of protection (for example, fuses) (see 3.5.2.8).

(g) Current limiting characteristics (if any) required.

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(h) Duty, if other than continuous (see 3.5.2.5).
(i) Switching required (if any).
  (1) Input.
  (2) Output.
  (3) Remote control, if required.
(j) Meter and meter accessories required (see 3.8.3):
  (1) Type and size.
  (2) Range.
  (3) Special marking, if applicable.
(k) Structureborne noise limits required (see 3.5.4.2, and note 2, table II).
(l) Radio frequency (see 3.5.5).
(m) Ventilation (see 3.6.5).
(n) Mounting (see 3.6.2).
(o) Ambient temperature, if different from 3.5.3.2.
(p) Enclosure type, if other than dripproof protected (45 degrees) (see 3.6.1).
(q) Maximum size and weight (see 3.6.4):
  (1) For submarine equipment, whether equipment must pass submarine hatch, watertight door, or both (see 3.6.4.1).
(r) Type of load (see 3.5.2.6). Note: For battery charging, specify type of battery, if other than lead acid.
(s) Whether manuals are required (see 3.10).
(t) Repair parts (see 3.11.1).
(u) Preservation, packaging, packing and marking required, if other than specified in 5.1 (see 5.2).
(v) Exceptions, if any."

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* 6.3: Delete and substitute:

"6.3 First article. When first article inspection is required, the contracting officer should provide specific guidance to offerors whether the item should be a first article sample and the number of items to be tested as specified in 4.2. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for examinations, approval of first article test results, and disposition of first articles. Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. Bidders should not submit alternate bids unless specifically requested to do so in the solicitation."

* 6.3.1: Delete.

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The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relation ship to the last previous amendment.

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