

INCH-POUND

A-A-50611

3 December 1993

## COMMERCIAL ITEM DESCRIPTION

BATTERY, STORAGE (PORTABLE, SEALED, MAINTENANCE-FREE, LEAD-ACID)  
 6 VOLT, 50 AMPERE-HOUR,  
 TYPE 6V-S-50 AH

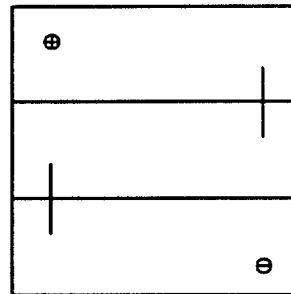
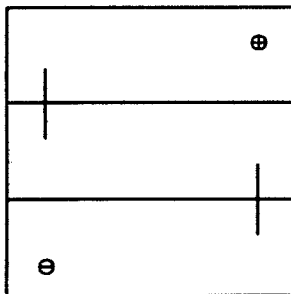
The General Services Administration has authorized the use of this Commercial Item Description.

Abstract. This Commercial Item Description covers a 6 volt (normal and reversed), 50 ampere-hour sealed, valve-regulated lead-acid (VRLA), storage battery with a low rate and deep discharge duty cycle for use on Naval surface ships.

Definition of Normal and Reversed. Looking at the battery top with the intercell connectors as shown, the positive terminal is located:

at top right for Normal (N)

at top left for Reversed (R)



Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Sea Systems Command, ATTN: 03R42, 2531 Jefferson Davis Hwy, Arlington, VA 2242-5160.

FSC 6140

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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Salient characteristics. The product shall be a 6 volt (normal and reversed), 50 ampere-hour sealed lead-acid storage battery, meeting the requirements specified below.

1. Dimensions. The maximum dimensions for the battery shall be:  
  
length - 9.1 inches  
width - 7.1 inches  
height - 9.4 inches
2. Weight. The battery weight shall be 44 pounds maximum when filled.
3. Terminals. The terminals shall be Battery Council International Type V supplied with wingnuts and capable of receiving a round end lug accepting an AWG #2 cable.
4. Pressure relief valve. The battery shall have sufficient pressure relief valves to prevent rupturing of the battery when internal pressure exceed battery design pressure.
5. Capacity.
  - a. The capacity for the 5 amp (or 10 hour) rate shall be a minimum of 50 ampere-hours with a cut-off voltage of 5.25 volts in the temperature range of 20° to 27° C.
  - b. The capacity for the 16 ampere (or 2 hour) rate shall be a minimum of 32 ampere-hours with a cut-off voltage of 4.8 volts in the temperature range of 20° to 27° C.
6. Reserve capacity. The battery shall deliver 25 amperes for a minimum of 60 minutes at 25°C with a cut-off voltage of 5.25 volts.
7. Retention of charge. The battery shall retain at least 80% of the 10 hour-rate capacity (50 ampere-hours) 28 days after charge termination when discharged at the 10 hour rate.
8. Cycling. The battery shall be capable of 270 cycles minimum. The cycles shall consist of any combination of the requirements listed in paragraphs 5 and 7 with a minimum of 80% capacity at the specified rate. At least one cycle of each capacity check listed in paragraph 5 shall be conducted for verification. Only cycles yielding 80% or greater capacity are to be counted.

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Charging shall be conducted with a constant potential charger set at 7.05 volts with a limiting current of 10 amperes.

9. Bid samples. When specified in the solicitation, bid samples shall be furnished.

Contractor Certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this Commercial Item Description, and that the product conforms to the producers own drawings, specifications, standards and quality assurance practices. The government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

Metric Products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within specified tolerances using conversion tables contained in the latest revision of Federal Standard No. 376 and all other requirements of this Commercial Item Description are met.

If a product is manufactured to metric dimensions, the dimensions and tolerances shall not exceed those specified in the inch-pound units, and overall outside dimensions shall remain equal to or less than those stated in inches.

The contracting officer has the option of accepting or rejecting the product.

Regulatory Requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practicable.

Safety A Material Safety Data Sheet (MSDS) is required in accordance with Code of Federal Regulations, 29 CFR 1910-1200 and FED-STD-313.

Preservation, packaging, packing, labeling and marking. The preservation, packaging, packing, labeling and marking shall be as specified in the contract or order.

Notes. Purchaser should specify voltage, ampere-hours and size if bid samples are required.

FED-STD-376 is available from the Standardization Documents Order Desk, 700 Robbins Avenue, Building #4, Section D, Philadelphia, PA 19111-5094.

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Potential sources. Based on information available at the time this document was developed, the following products are believed to comply with the salient characteristics of this Commercial Item Description. Competition is not limited to the indicated sources.

<u>Manufacturer</u>	<u>Manufacturer's battery code</u>
C&D Charter Power Systems Inc. 3043 Walton Road Plymouth Meeting, PA 19462	LS-6-50
Concorde Battery Corp. 2009 San Bernadino Ave West Covina, CA 91803	RG-252
Eagle-Picher Industries Inc. P.O. Box 130 North Better Road Seneca, MO 64865	CF 6V50 (with BCI Type V terminal)

MILITARY INTERESTS:CIVIL AGENCY COORDINATING ACTIVITIESMilitary Coordinating Activity

GSA - FSS

Navy - SH

CustodianPREPARING ACTIVITY:

Army - ER  
Air Force - 99  
Navy - SH

NAVY - SH

Review

PROJECT 6140-0742

Army - AV, MI, AT  
Air Force - 11, 80  
Navy - AS  
DLA - GS