INCH-POUND

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COMMERCIAL ITEM DESCRIPTION

LOAD BANK, ELECTRICAL
28 VOLTS DC, 350 AMPS

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. SCOPE. This Commercial Item Description (CID) describes a direct current (DC) lightweight, suitcase size, and portable type load bank, accessories and case. The commercially available load bank shall be suitable for electrical performance testing of ground power supplies, battery banks and generators.

2. CLASSIFICATION. Equipment covered by this CID shall be commercially available portable equipment and may be modified to the extent necessary to meet the following description.

3. SALIENT CHARACTERISTICS

3.1 Safety and Environmental. The equipment shall meet all safety and environmental requirements as specified in MIL-PRF-28800 for Class 2 equipment, except as stated herein.

3.2 Electrical Power Sources. All operating power for internal circuits of the suitcase size load bank shall be derived from the output power of the source being tested.

3.3 Operating Temperature. The equipment shall meet its performance and accuracy requirements in an operating environment of -40 degrees F to +125 degrees F.

3.4 Non-operating Temperature. The equipment shall meet its performance and accuracy requirements after being in a non-operating environment (Storage Temperature) of -60 degrees F to +160 degrees F.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any other data that may improve this document should be sent to: WR-ALC/642 CBSG/GBEA, 460 Richard Ray Blvd, Suite 200, Robins AFB, GA 31098-1813. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at http://assist.daps.dla.mil

AMSC N/A FSC 6150

3.5 Mean Time Between Failures. (MTBF**).** The equipment Mean Time Between Failures (MTBF) shall be 2,000 hours. The lower test MTBF shall be 2,000 hours and the upper test MTBF shall be 4,000 hours.

3.6 Calibration and Maintenance Adjustments. The design of the system shall provide for readily accessible calibration adjustments and maintenance adjustments. The calibration adjustments, wherever possible, shall be accessible without removal of the instrument case or modules. These adjustments shall be provided by variable value components, which are adjustable, by the use of simple means. The calibration by substitution of selected components or parts is unacceptable unless specifically approved. The calibration interval shall be a period of one year or greater based on an operating time of 2,000 hours.

3.7 Resistive Load Testing.

3.7.1 Design. The load bank shall be designed for field service and be completely self contained and air cooled.

3.7.2 Application. The suitcase size load bank shall be capable of resistive load testing of ground power supplies, batteries and generator sets producing 28 volt DC (+/-5%), power.

3.7.3 Rating. The load bank shall have a minimum resistive load test rating of 10 kW (+/- 2%) at 350 amps, and 28 volts.

3.7.4 Load adjustment. The load bank shall have the capability for variable and step loading. Fixed step loading shall be provided at 100 and 200 amps and an adjustable step load from 0 to 100 amps, or similar combinations, shall be available to supply total load continuous values from 0 to 350 amps at 28 VDC.

3.7.5 Operation. The load bank shall be capable of a continuous run at full load for up to an hour. The load bank shall be capable of cool down within 5 minutes, under no load conditions, and be capable of performing multiple back to back full loads without damage to components.

3.8 Instruments and Controls

3.8.1 Meters and Indicators. The load bank control panel shall have as a minimum have the following items: DC Voltmeter 0 - 50 volts, DC Ammeter 0 - 400 amps, power-available indicator lamp, load step/adjustment controls and plug style test lead pins (for voltage monitoring and testing). Meter accuracy shall be not less than +/- 3%.

3.8.2 Protection. The load bank and load elements shall be adequately protected with resettable/replaceable circuit breakers, fuses, thermal switches or other protective devices.

3.9 Cables

3.9.1 Power cables. The load bank shall be provided with two each, 10 ft. cables capable of effectively carrying a DC current of 350 amps. The cables shall be clearly and permanently labeled at each end (1) DC Pos (+) and (2) DC Gnd (-). The end of each cable that connects to the power source unit under test (uut) shall have 3/8 inch inside diameter closed loop type terminal lug to connect to the uut. The other end of each cable shall be terminated for proper connection to the load bank power input.

3.9.2 Sense cables. The load bank shall be provided with two each, 10 ft. sense cables to connect the load bank to the remote voltage sensing connections of the power supply or generator uut. Each sense line shall be clearly and permanently labeled at each end (1) DC Pos (+) and (2) DC Gnd (-). The end of each cable that connects to the power source uut shall have 3/16 inch inside diameter closed loop type terminal lugs to connect to the remote voltage sensing post of the uut. The other end of each cable shall be terminated for proper connection to the load bank.

3.10 Accessories

3.10.1 Handles. The load bank enclosure shall be equipped with handles or other suitable means for hand carrying, lifting and positioning of the load bank.

3.10.2 Carrying case. The load bank shall come equipped with a suitcase style carrying and storage case. The suitcase shall have a carrying handle and be equipped with four rollers or wheels. Two of the wheels shall be stationary (non-swivel) located at one end of the case and the other two wheels shall be the swivel type and located at the opposite end of the case. The suitcase shall be suitable to serve as the normal transport and storage case for the load bank and the cables described in paragraph 3.9.

3.10.3 Cable storage pouch. All cables shall be stored inside the suitcase in an accessory pouch provided with the load bank.

3.11 Dimensions. The nominal dimensions for the load bank shall be no more than 23" length, 9" width, and 12" height without cables or the carrying case.

3.12 Weight. The weight of the load bank shall not exceed 45 lb. without cables and carrying case.

3.13 Construction. The load bank shall be constructed to withstand the jars, vibrations, and other conditions incident to shipping, storage, and operation. Enclosure finishes and other components shall be designed to withstand the high temperatures normally associated with load bank operations.

3.14 Warranty. The load bank shall be provided with a minimum 1 year standard manufacturer’s warranty that includes warranty information on parts, labor, shipping costs, and how to obtain warranty performance.

4. REGULATORY REQUIREMENTS.

4.1 Recycled recovered materials. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR).

5. PRODUCT CONFORMANCE PROVISIONS.

5.1 Product Conformance. The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and is the same product offered for sale to the government or the commercial market place. The government reserves the right to require proof of such conformance.

5.2 Responsibility of Inspection. Unless otherwise specified in the contract or CID, the contractor is responsible for the performance of all inspection, examination, and test requirements specified herein. Except as otherwise specified in the contract or CID, the contractor may use his own facilities or any other facilities suitable for the inspection requirements specified herein, unless disapproved by the government. The government reserves the right to set forth in this description where such inspections, examinations and tests are deemed necessary to assure supplies and services conform to prescribed requirements.

5.3 Examination**.** Each load bank shall be visually examined to determine conformance with all requirements of this description.

5.4 Operational Test. Each load bank shall be operated, after complete assembly and prior to shipment, to ensure all parts are functioning according to the manufacturer's requirements.

6. PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES.

7.1 Source of Documents.

7.1.1 Copies of these documents are available online at http://assist.daps.dla.mil/quicksearch/ or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.

7.1.2 The Code of Federal Regulations (CFR) may be obtained at http://www.gpoaccess.gov/cfr/index.html or from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC, 20402.

7.2 Ordering data. The contract or ordering data should specify the following:
a. CID document number, current version and date of CID.
b. Product Conformance provisions.
c. Packaging requirements

7.3 Key words

Battery
Generator
Lightweight
Portable type
Suitcase size

Custodian:
Air Force – 84

Preparing Activity:
Air Force – 84

Agent:
Air Force – 99

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