

[INCH-POUND]
 A-A-1943B
 May 1, 1998
 Superseding
 A-A-1943A
 December 29, 1988

COMMERCIAL ITEM DESCRIPTION

FAN, CIRCULATING (MULTIPURPOSE, HIGH VELOCITY)

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

1. SCOPE.

- 1.1 Description. This document covers high velocity multipurpose fans.
- 1.2 Intended Use. The fan described in this CID is for use in household and office environments.

2. CLASSIFICATION

- 2.1 Design Form. The fans shall be in accordance with the plug style as specified in Table 1.

Table 1.

PLUG STYLE	CFM MIN.	WATTS MAX.	VOLTS	FREQUENCY	PHASE
North America	2600	125	120	60	Single

3. SALIENT CHARACTERISTICS

3.1 Standard product. The fan furnished under this CID shall be the manufacturer's current standard product including accessories and optional components that are offered to the commercial market. All accessories and options shall be identified with proposals tendered to the government in response to solicitations citing this document.

3.2 Design and construction. The fans covered in this document shall include a blade assembly, motor, fan guard, switch, cable assembly and all other parts necessary to constitute a complete and functional product.

3.2.1 Dimensions. The dimensions of the fan shall not exceed 20 inches in height, 19 inches in width, and 13 inches in depth.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: General Services Administration, Federal Supply and Services, Tools and Appliances Center, ATTN: 6FET, 1500 East Bannister Road, Kansas City, MO. 64131-0038

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3.2.2 Voltage and frequency. Unless otherwise specified, the motor for the fans shall be designed for a rated voltage of 120 volts alternating current +/- 10 percent, and a rated frequency of 60 hertz + 5 percent.

3.2.3 Insulation. Insulation shall be Class A or B in accordance with National Electrical Manufacturers Association (NEMA) Standard No. MG-1.

3.2.4 Switch. The switch shall have one off and not less than two on speed positions.

3.2.5 Power cord and plug. The flexible cord shall be rated for use at a voltage not less than the rated voltage for the type as specified in paragraph 3.2.2 of this document. The fans shall be furnished with a three wire power supply cord with an integral ground. The power supply cord shall have an minimum overall length of eight feet. The power supply cord shall be terminated with the plug style as specified in paragraph 2.1, Table 1.

3.2.6 Blade assembly. The blade assembly shall consist of a complete air screw having at least three impact resistant plastic blades molded together with a hub or central support

3.2.7 Guard and protective housing. The guard or protective housing shall completely enclose the face, perimeter and reverse side of the fan blades and associated moving parts. Additionally, the guard or protective housing shall be designed to permit access to the blade assembly and associated moving parts without the use of special purpose tools.

3.2.8 Tilt adjustment. The tilt adjustment shall operate through a minimum angle range of 180 degrees, from straight up to straight down. The tilt angles shall be construed as angles formed by the motor shaft axis and the horizontal plan.

3.2.9 Codes and standards. Fans shall conform to the applicable requirements of the codes and standards specified in 3.2.9.1 through 3.2.9.3.

3.2.9.1 NFPA. Wiring shall conform to National Fire Protection (NFPA) Standard No. 70, The National Electrical Code.

3.2.9.2 NEMA. Motors shall conform to National Electrical Manufacturers Association (NEMA) Publication No. MG-1.

3.2.9.3 UL. Fans shall conform to the requirements of Underwriters Laboratories Inc. (UL) Standard No. UL 507.

3.3 Materials. Materials not specified herein shall be of the quality specified by the manufacturer and shall conform to the manufacturer's own drawings, specifications, standards, and quality assurance procedures.

3.3.1 Finish and color. The fans shall be finished according to the manufacturer's standard commercial practice.

3.4 Performance. The fans shall conform to performance requirements expressed in paragraphs 3.4.1 through 3.4.3.

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3.4.1 Operating speed. The low speed position shall provide 60 to 80 percent of the maximum speed when operating at rated voltage and frequency. The fan shall be operated at both low and maximum speed settings and speed (r.p.m.) shall be measured stroboscopically or with a counter which imposes no appreciable load on the fan motor. The sensitivity and accuracy of the test apparatus shall be such that differences of 20 r.p.m. may be detected.

3.4.2 CFM air delivery. The fan shall be mounted so that the axis is 4 feet above the floor. The plane of rotation of the fan blades shall be at least 5 feet from any wall. The anemometer shall be rigidly supported in the air stream with the axis of rotation parallel to the axis of rotation of the fan. The anemometer stand shall be located so that the center of the anemometer, in each station will be in a single vertical plane which is parallel to and 9 feet in front of the plane of rotation of the fan blades. Test readings shall be taken at 2 inch intervals over a four foot span, both vertical and horizontal lines at a distance of 9 feet in front of the plane of rotation of the fan blades. The center of the four foot span referenced above shall be on a line coincident with the axis of rotation of the fan blades. A total of 49 test readings shall be taken. Each test reading shall be taken over an operating period of not less than two minutes. All readings shall be taken at maximum fan speed. The air delivery in cubic feet per minute shall be the average of all test readings in feet per minute multiplied by the area of a 4 foot diameter circle (12.56 square feet). The minimum CFM air delivery shall be as specified in paragraph 2.1 for the type and blade diameter as specified in the contract or order.

3.4.3 Vibration limits. The rotating components of the fan shall be balanced to the extent that total vibration shall not exceed 0.009 times the distance in inches between an upward extension of a vertical line running through the approximate center of the motor support and point of measurement. The distance is to be measured parallel to the motor axis with motor housing adjusted for zero degrees tilt.

3.5 Order of precedence. In the event of a conflict between the text of this CID and the referenced documents cited herein, the text of this CID shall take precedence. No reference in this CID, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

3.6 Data. In addition to the safety and installation instructions required by UL Standard No. 507, the contractor shall furnish with each fan a copy of the manufacturer's standard "owner/operator manual" applicable to the machine. The manual shall include instructions for operating the machine, safety precautions, commercial repair instructions which shall include a complete list of all replaceable parts, and preventative/routine maintenance instructions. This data shall be the same information that is provided with similar machines sold in the commercial market.

3.7 Metric product. Product manufactured to metric (SI) dimensions shall be considered on an equal basis with those manufactured using inch-pound units of measure, provided they fall within the specified tolerances using conversion tables contained in the latest revision of ASTM E 380, Standard Practice for Use of the International System of Units (SI), and all other requirements of this Commercial Item Description are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in inch-pound units, a request should be made to the contracting officer to determine if the product is acceptable.

4. REGULATORY REQUIREMENTS

4.1 Occupational Safety. Fans shall conform to Occupational Safety and Health Act (OSHA), 29 CFR 1910.

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4.2 Recovered materials. The offer or/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum practical extent. Recycled or reclaimed materials may be used in the construction of the equipment described herein. Recycled and reclaimed materials shall consist of previously used material which has been reprocessed to become a source of new raw materials. Under no conditions or circumstances shall the contractor submit to the Government for acceptance reconditioned or rebuilt components as a part of the equipment described herein.

5. QUALITY ASSURANCE PROVISIONS

5.1 Product conformance. The product offered shall meet the salient characteristics of this Commercial Item Description, and conform to the producer's own drawings, specifications, standards, and quality assurance practices and be the same as the product offered for sale in the commercial marketplace. When specific quality assurance

5.2 provisions are specified for any commercial characteristic the contractor shall maintain records resulting from his inspection(s) conducted in accordance with the specific quality assurance provisions. The government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided under the provisions of the contract. The government reserves the right to audit the contractor's quality assurance records.

5.2 Market Acceptability. No item of equipment offered under this CID shall be acceptable unless the manufacturer has marketed equipment of the same size and type in a commercial environment for a minimum period of one year. Equipment installed for test purposes in a manufacturer's plant or test laboratory shall not be considered as complying with this requirement.

5.3 Place and date of manufacture. Each fan shall bear an alpha-numeric code to indicate the manufacturer's plant where produced and the date that production occurred. This encoded information shall be permanently stamped or affixed to the fan.

5.4 Warranty. Unless otherwise specified in the contract, the manufacturer's standard commercial warranty terms shall apply. The warranty shall become effective from the date of startup of the equipment after installation is complete.

6. PACKAGING

6.1 Packaging. Requirements for preservation, packing, packaging, and marking of packages shall be as specified in the contract or order.

7. NOTES

7.1 Commercial item certification. When this CID is used for procurement, the commercial item certification clause must appear in the solicitation.

7.2 Ordering Data. The following information is required when ordering items covered in this CID.

- a. Title, number, and date of this document.
- b. Plug style (see 2.1).
- c. Packaging required (see 6.1).
- d. National Stock Number (see 7.3).

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- 7.3 National Stock Numbers (NSNs). Table 2 list the NSN assigned which corresponds to this CID. The list may not be indicative of all possible NSNs associated with the CID.

Table 2.

PLUG STYLE	NSN
North America	4140-00-961-5480

- 7.4 Referenced documents. Copies of referenced documents are available from the following sources:

7.4.1 Government Documents.

Federal Supply Service Bureau
Specification Section
Suite 8100, 470 L'Enfant Plaza, SW
Washington, DC 20407.

US Department of Labor
Occupational Safety and Health Act (OSHA)
200 Constitution Avenue, N.W.
Washington, D.C. 20210

7.4.2 Non-government documents.

National Electrical Manufacturers Association (NEMA)

National Electrical Manufacturers Association
2101 L Street, NW Suite 300
Washington, DC 20037

National Fire Protection Association (NFPA)

National Fire Protection Association
One Batterymarch Park
Quincy, MA 02269-9101

Underwriters Laboratories Incorporation

Underwriters Laboratories Incorporation
333 Pfingsten Road
Northbrook, IL 60062-2096

American Society for Testing & Materials (ASTM)

American Society for Testing & Materials (ASTM)
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

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7.5 Source of supply. A partial list of manufacturers of high velocity multipurpose fans as described herein is as follows:

Rival Company

Rival Co.
800 East 101 Terrace
Kansas City, MO. 64131

MILITARY INTERESTS:

NONE: DoD has no registered interest in revisions and amendments to this Commercial Item Description until further notice.

Preparing Activity:

GSA-FSS