

J-C-1270B
 October 5, 1973
 SUPERSADING
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 August 10, 1970

FEDERAL SPECIFICATION

CABLE ASSEMBLY, POWER, ELECTRICAL

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers Electrical Power Cable Assemblies for use as extension cords.

1.2 Classification. Cable assemblies furnished under this specification shall be of the following styles, classes, series, grades and kinds (see 6.1):

Styles:

- 1 - 125 Volt, 7 Ampere (3/18 AWG).
- 2 - 125 Volt, 10 Ampere (3/16 AWG).
- 3 - 125 Volt, 15 Ampere (3/14 AWG).
- 4 - 125 Volt, 20 Ampere (3/12 AWG).
- 5 - 125 Volt, 25 Ampere (3/10 AWG).
- 6 - 125 Volt, 35 Ampere (3/8 AWG).
- 7 - 125 Volt, 45 Ampere (3/6 AWG).
- 8 - 125 Volt, 60 Ampere (3/4 AWG).
- 9 - 125 Volt, 80 Ampere (3/2 AWG).

Classes:

- 1 - Attached cord grip connectors (male and female).
- 2 - Integrally molded connectors (male and female).

Series:

- 1 - Single outlet female connector.
- 2 - Three-way outlet female connector.

Grades:

- A - SJ(J-C-580), Styles 1, 2, and 3.
- B - SJO(J-C-580), Styles 1, 2, and 3.
- C - SJT(J-C-580), Styles 1, 2, and 3.
- J - SJTO(UL 62), Styles 1, 2, and 3.
- D - SP-2(J-C-580), Styles 1, and 2.
- E - SPT-2(J-C-580), Styles 1, and 2.
- F - S(J-C-580), All styles.
- G - SO(J-C-580), All styles.
- H - ST(J-C-580), All styles.
- K - STO(UL 62), All styles.
- L - SP-3(UL 62), Styles 1, 2, 3, and 4.
- M - SPT-3(UL 62), Styles 1, 2, 3, 4, and 5.

Kinds:

- 1 - Nonlocking Connectors (WD1 General Purpose Wiring Devices).
- 2 - Locking Connectors (WD5 Specific Purpose Wiring Devices).

The grade of the cable indicates the cable designation utilized in the assembly in accordance with J-C-580 or UL 62.

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2. APPLICABLE DOCUMENTS

2.1 The following documents of the issues in effect on the date of invitation for bids, or request for proposal, form a part of this specification to the extent specified herein:

Federal Specifications:

J-C-580 - Cord, Flexible, And Wire, Fixture, Electrical, (0-to 600-Volt Service).
 L-P-578 - Plastic Sheet And Strip, Thin Gauge, Polyolefin.
 W-C-596 - Connector, Plug, Electrical; Connector Receptacle, Electrical.
 PFP-B-566 - Boxes, Folding Paperboard.
 PFP-B-601 - Boxes, Wood, Cleated-Plywood.
 PFP-B-636 - Box, Fiberboard.
 PFP-B-665 - Boxes, Paperboard, Metal-Stayed (Including Stay Material).
 PFP-B-676 - Boxes, Setup.

Federal Standards:

Fed. Std. No. 123 - Marking for Domestic Shipment (Civil Agencies).

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U. S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other Federal Specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, DC, Atlanta, Chicago, Kansas City, MO, Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, WA .

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Specifications:

MIL-P-116 - Preservation, Methods of.

Military Standards:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.
 MIL-STD-129 - Marking for Shipment and Storage.

(Copies of Military Specifications and Standards required by contractors in connection with specification procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids, or request for proposal shall apply:

Underwriters' Laboratories (UL), Inc. Standards:

No. 62 - Flexible cord and fixture wire.
 No. 817 - Cord Sets and Power-Supply Cords.

(Application for copies should be addressed to the Underwriters' Laboratories, Inc., 207 East Ohio Street, Chicago, Illinois 60611; 1285 Walt Whitman Road, Melville, L.I., New York 11746; or 1655 Scott Blvd., Santa Clara, California 95050.)

National Motor Freight Traffic Association, Agent:

National Motor Freight Classification.

(Application for copies should be addressed to the American Trucking Association, Inc., 1616 P Street, N.W., Washington, D. C. 20036.)

Uniform Classification Committee, Agent:

Uniform Freight Classification.

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

National Electrical Manufacturers Association (NEMA) Publications:

WD1 - General Purpose Wiring Devices (Non-Locking).

WD5 - Specific Purpose Wiring Devices (Locking).

(Application for copies should be addressed to the National Electrical Manufacturers Association, 155 East 44th Street, New York, N.Y. 10017.)

3. REQUIREMENTS

3.1 Fire and casualty hazards.

3.1.1 Each contractor shall submit to the contracting agency proof that the electrical power cable assembly he proposes to supply under this specification conforms to the requirements of the Underwriters' Laboratories, Inc., Standard 817, Cord Sets and Power-Supply Cords. The label, or listing mark, of the UL, may be accepted as evidence that the electrical power cable assembly conforms to this requirement.

3.1.2 In lieu of the label, or listing mark, the contractor may submit independent proof, satisfactory to the contracting agency, that the electrical power cable assembly conforms to the applicable requirements of the published standards including methods of tests of the UL 817.

3.1.3 Compliance with the above preliminary requirements in regard to fire and casualty hazards does not absolve the contractor from complete compliance with the requirements of this specification in order to secure acceptance of his material.

3.2 Cable. The cable shall be composed of stranded flexible wire and shall be color coded in accordance with J-C-580 or UL 62. Additionally, the cable shall conform to the applicable styles, series, grades, classes, and kinds, as specified in paragraph 1.2.

3.3 Connectors.

3.3.1 Female connectors. The female connector for every cable assembly shall be either cord grip attached or integrally molded with the cable jacket.

3.3.1.1 Attached cord grip connectors. When the female connector is attached, it shall conform to W-C-596, NEMA, WD1 or WD5, at the ampere rating of the applicable cable.

3.3.1.2 Integrally molded connectors. When the female connector is integrally molded with the cable jacket, it shall conform to the slot configuration of NEMA Standard WD1, or WD5, at the ampere rating of the applicable cable. The material of the integrally molded female connectors shall be the same as the cable jacket.

3.3.2 Male connectors. The male connector for every cable assembly shall be either, cord grip attached or integrally molded with the cable jacket.

3.3.2.1 Attached cord grip connectors. When the male connector is attached, it shall conform to W-C-596, NEMA WD1, or WD5 at the ampere rating of the applicable cable.

3.3.2.2 Integrally molded connectors. When the male connector is integrally molded with the cable jacket, the blade configuration shall conform to NEMA Standard WD1, or WD5, at the ampere rating of the applicable cable. The material of integrally molded connectors shall be the same as the cable jacket.

3.4 Length of assembly. The minimum overall length of the cable assembly, including the connectors, shall be the length specified (see 6.1). The maximum overall length shall not exceed 5 inches more than the minimum length.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein.

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Except as otherwise specified in the contract or order, the supplier may use his own or any other facility suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specifications where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.2 Sampling. Sampling for inspection shall be in conformity with the requirements of UL 817.

4.3 Tests. Except as otherwise specified herein, cable assemblies furnished under this specification shall conform to the applicable test requirements of UL 817.

4.3.1 Cable. The cable shall be determined in accordance with J-C-580 or UL 62 (see 3.2.).

4.3.2 Connectors.

4.3.2.1 Female connectors. The female connectors for every cable assembly shall be determined for attached cord grip connectors in accordance with W-C-596 at the ampere rating of the applicable cable, or for integrally molded connectors in accordance with the slot configuration of NEMA WD1, or WD5, at the ampere rating of the applicable cable.

4.3.2.2 Male connectors. The male connector for every cable assembly shall be determined for attached cord grip connectors in accordance with W-C-596, at the ampere rating of the applicable cable, or for integrally molded connectors, in accordance with the blade configuration of NEMA WD1, or WD5, at the ampere rating of the applicable cable.

4.3.3 Length of assembly. The length of the cable assembly shall be determined in accordance with 3.4 and shall include the blades of the male plug connector.

4.4 Inspection of preparation for delivery. An inspection shall be made to determine that the preservation, packaging, packing, and marking comply with the requirements in section 5 of this specification. Defects shall be scored in accordance with table I. For examination of interior packaging, the sample unit shall be one shipping container fully prepared for delivery, selected at random just prior to the closing operations. Sampling shall be in accordance with MIL-STD-105. Defects of closure listed shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 with an acceptable quality level (AQL) of 2.5 defects per hundred units.

TABLE I. Classification of preparation for delivery defects

Examine	Defects
Markings (exterior and interior)	Omitted; incorrect; illegible; improper size, location, sequence, or method of application.
Materials	Any component missing or damaged.
Workmanship	Inadequate application of components such as incomplete closure of container flaps, loose strapping, inadequate stapling. Distortion of container.
Contents (exterior container)	Number per container is more or less than required. Net weight exceeds requirements.

5. PREPARATION FOR DELIVERY

5.1 Preservation and packaging. Preservation and packaging shall be level A, B or C, as specified (see 6.1).

5.1.1 Level A. Cable assemblies of one style, class, series, grade, kind, and size in quantities, as specified (see 6.1), shall be preserved and packaged in accordance with Method IC-2 of MIL-P-116.

5.1.2 Level B. Cable assemblies of one style, class, series, grade, kind, and size shall be packaged in a close-fitting box conforming to PPP-B-566, PPP-B-636, PPP-B-665, or in a plastic bag constructed of material conforming to L-P-378, not less than 5 mils thick.

5.1.3 Level C. The cable assemblies of one style, class, series, grade, kind, and size shall be packaged in accordance with the manufacturer's standard practice providing that this will insure protection for the cables during shipment and safe delivery to their destination.

5.2 Packing. Packing shall be level A, B or C, as specified (see 6.1).

5.2.1 Level A. Cable assemblies of one style, class, series, grade, kind, and size, packaged, as specified in 5.1, shall be packed in quantities, as specified (see 6.1), in close-fitting boxes conforming to PPP-B-636, class weather-resistant. Close, seal, and strap boxes in accordance with the appendix to PPP-B-636.

5.2.2 Level B. Cable assemblies of one style, class, series, grade, kind, and size packaged, as specified in 6.1, shall be packed in quantities, as specified (see 6.1), in close-fitting boxes conforming to PPP-B-636, class domestic. Closure of boxes shall be in accordance with Method II of the appendix to PPP-B-636.

5.2.3 Level C. Cable assemblies packaged, as specified in 5.1.3, shall be packed in containers that will assure carrier acceptance and safe arrival at destination in compliance with the Uniform Freight Classification Rules or the National Motor Freight Classification Rules.

5.3 Marking. Marking shall be in accordance with 5.3.1 or 5.3.2, as specified (see 6.1).

5.3.1 Civil agencies. In addition to any special markings required by the contract or order, all marking shall be in accordance with Fed. Std. No. 123.

5.3.2 Military agencies. In addition to any special markings required by the contract or order, all marking shall be in accordance with MIL-STD-129.

6. NOTES

6.1 Ordering data. Purchasers should select the preferred options permitted herein, and include the following information in procurement documents.

- (a) Title, symbol, and date of this specification.
- (b) Style, class, series, grade, and kind of cable assembly required (see 1.2).
- (c) Length, as required (see 3.4).
- (d) Responsibility for inspection, if other than specified (see 4.1).
- (e) Quantity of cable assemblies required in unit package (see 5.1).
- (f) Quantity of unit packages required in shipping container (see 5.2.1).
- (g) Selection of applicable levels of preservation, packaging and packing required (see 5.1 and 5.2).
- (h) Marking, if other than specified (see 5.2).

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6.2 Classification changes. Changes in classification of the cable assemblies between this specification J-C-1270B and superseded specification J-C-001270A are as follows:

J-C-001270ATypes:

I

II

III

IV

J-C-1270BClassification:

Style 2, Grade A, B or C, Class 1 or 2,
Series 1 or 2.

Style 1, Grade D or E, Class 1 or 2,
Series 1 or 2.

Style 3, Class 1 or 2, Grade A or B,
Series 1 or 2.

Style 2, Class 1 or 2, Grades A or B,
Series 1 or 2.

MILITARY CUSTODIANS:

Army - ME

User Activities:

Army - AT

Air Force - 82

Military Coordinating Activity:

Army - ME

Preparing Activity:

GSA-FSS

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - FSS

DOT - ACO

INTERIOR - BPA

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