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AC POWER CABLE, MINERAL-INSULATED, 600-VOLT, 60-HERTZ, PROCUREMENT OF, SPECIFICATION FOR

ENGINEERING DEVELOPMENT DIRECTORATE

National Aeronautics and
Space Administration

John F. Kennedy Space Center

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AC POWER CABLE, MINERAL-INSULATED, 600-VOLT, 60-HERTZ, PROCUREMENT OF, SPECIFICATION FOR

Approved:

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JOHN F. KENNEDY SPACE CENTER, NASA

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AC POWER CABLE, MINERAL-INSULATED, 600-VOLT, 60-HERTZ, PROCUREMENT OF, SPECIFICATION FOR

1. SCOPE

This specification provides data for the procurement of mineral-insulated (MI), 600-volt, 60-hertz, alternating current (ac) power cable. The cables included in this specification employ soft annealed, uncoated copper, conductors insulated with a highly compressed refractory mineral insulation.

2. APPLICABLE DOCUMENTS

The following documents form a part of this document to the extent specified herein. When this document is used for procurement, including solicitation, or is added to an existing contract, the specific revision levels, amendments, and approval dates of said documents shall be specified in an attachment to the Solicitation/Statement of Work/Contract.

2.1 Governmental.

Drawings.

John F. Kennedy Space Center (KSC), NASA

79K06110	MI Cable Termination, Procedure for

(Copies of specifications, standards, drawings, and publications required by suppliers in connection with specified procurement functions should be obtained from the procuring activity or as directed by the Contracting Officer.)

2.2 Non-Governmental.

American Society for Testing and Materials (ASTM)

ASTM B5	Electrolytic Copper Wire Bars, Cakes, Slabs, Billets, Ingots, and Ingot Bars, Specification for

(Applications for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

3. REQUIREMENTS

3.1 Material.

3.1.1 Individual Conductors. - Conductors shall be solid soft annealed uncoated high conductivity copper complying with ASTM Specification B5.

3.1.2 Insulation. - Insulating materials shall consist of finely divided, highly compressed magnesium oxide powder.

3.1.2.1 Working Voltage. - The working voltage of the completed cables shall be 600 volts, 60 hertz.

3.1.2.2 Temperature. - Maximum operating temperature shall be 90 degrees Celsius (°C).

3.2 Cabling.

3.2.1 Cable Assembly. - The completed cable shall consist of conductors and insulation contained within a seamless phosphorized copper tube.

3.2.2 Terminations. - Termination of MI cables will be in accordance with 79K06110.

3.3 Surface Marking.

3.3.1 Printing. - Cables listed in this specification shall be tagged per manufacturer provisions for bare copper MI cable.

3.4 Application.

3.4.1 Installation. - Exposed, conduit, duct, or raceway above or below grade.

3.4.2 Use. - Power, lighting, and control in extreme environments.

4. QUALITY ASSURANCE PROVISIONS

All MI cable shall have the Underwriter's Laboratories (UL) stamp or label.

5. PREPARATION FOR DELIVERY

Cable and wire shall be packaged in accordance with the manufacturer's standard practice, providing that it insures protection for the product during shipment and safe delivery to its destination.

6. NOTES

6.1 Intended Use. - This specification is intended to provide information for the procurement of mineral-insulated (MI), 600-volt, 60-hertz ac power cable for use at the Kennedy Space Center (KSC).

6.2 Ordering Data. - Procurement documents should specify the following:

a. Title, number, and date of this specification.

b. Length of wire required and number of lengths.

c. Number of conductors.

d. Conductor size.

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NASA - John F. Kennedy Space Center

Preparing Activity:

John F. Kennedy Space Center
Electrical Division
Engineering Development Directorate

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
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I RECOMMEND A CHANGE:	1 DOCUMENT NUMBER KSC-SPEC-E-0020 Rev. C	2 DOCUMENT DATE July 24, 1996

3 DOCUMENT TITLE
AC Power Cable, Mineral-Insulated, 600-Volt, 60-Hertz, Procurement Of, Specification For

4 NATURE OF CHANGE *(Identify paragraph number and include proposed rewrite, if possible Attach extra sheets as needed)*

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a NAME *(Last, First, Middle Initial)*	b ORGANIZATION	
c. ADDRESS *(Include Zip Code)*	d. TELEPHONE *(Include Area Code)*	7. DATE SUBMITTED

8. PREPARING ACTIVITY

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