

NEMA C119.1-2006

American National
Standard for Electric
Connectors-Sealed
Insulated Underground
Connector Systems
Rated 600 Volts





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American National Standard

for Electric Connectors—
Sealed Insulated Underground
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Secretariat:

National Electrical Manufacturers Association

Approved January 13, 2006

American National Standards Institute, Inc.

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Foreword (Neither this foreword nor any of the informative annexes is a part of American National Standard C119.1-2006.)

The standard covers electrical, mechanical, and sealing requirements of connectors rated 600 volts and installed underground.

This standard was initially developed by an EEI-NEMA Joint Committee on Underground Distribution Connectors and Connector Systems and published by the American National Standards Institute in 1974.

Suggestions for improvement of this standard will be welcome. They should be sent to:

National Electrical Manufacturers Association
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Rosslyn, VA 22209

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Connectors for Electrical Utility Applications, C119. Committee approval of this standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the ANSI ASC C119 Committee had the following members:

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For Electric Connectors— Sealed Insulated Underground Connector Systems Rated 600 Volts

1 Scope and Purpose

1.1 Scope

This standard covers sealed, insulated underground connector systems rated at six hundred (600) volts for utility applications and establishes electrical, mechanical, and sealing requirements for sealed underground connector systems.

1.2 Purpose

The purpose of this standard is to give reasonable assurance to the user that sealed, insulated underground connector systems meeting the requirements of this standard will perform in a satisfactory manner, provided they have been properly selected for the intended application and are installed in accordance with the manufacturer's recommendations.

2 Referenced American National Standard

This standard is intended to be used in conjunction with the following standards. When this referenced standard is superseded by a revision approved by the American National Standards Institute, the referenced revision shall apply. Standards that are referenced by inference are shown in Annex B

ASTM E4-89 *Practices for Load Verification of Testing Machines*

IEEE 837-2002 *Qualifying Permanent Connections used in Substation Grounding*

3 Definitions

CCST: Current Cycle Submersion Test where current cycle heating is done in air and cooling is done using water submersion.

CCT: Current Cycle Test where current cycle heating and cooling are done in air.

connector: A device that joins two or more conductors for the purpose of providing a continuous electrical path.

connector assembly: The connector system installed on the conductor(s).

connector system: A connector and its associated insulating and sealing components.

control cable: A conductor of the same type and size as the conductor in the current cycle loop that would be at the highest temperature.

guarded circuit: A circuit used to eliminate or to minimize the current flow between the insulation and conductor ends, caused by surface leakage currents.

input conductor: Supply side of the connector assembly.