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Composite Insulators Guy Insulator Type (Uncoated or Painted Type)

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Foreword

(This foreword is not part of NEMA Standard C29.14b-2021)

This is the first edition of this Standard.

Suggestions for improvement of this Standard are welcome. They should be submitted to:

NEMA Technical Operations Department
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Member Companies

Hubbell Power Systems	Columbia, SC
K-Line Insulators USA Inc.	Rochester, NY
Lapp Insulators LLC	LeRoy, NY
MacLean Power Systems	Fort Mill, SC
NGK-LOCKE, INC.	Virginia Beach, VA
PPC USA	Houston, TX
Preformed Line Products	Mayfield Village, OH
Sevedever USA	Spring, TX
TE Connectivity	Harrisburg, PA
Victor Insulators, Inc.	Victor, NY

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1 Scope

This Standard covers composite guy (strain)–type insulators made of a fiberglass-reinforced resin matrix core rod and metal end fittings intended for use on overhead distribution lines for electric power systems to insulate or isolate guy wires for corrosion protection, increased insulation levels, or clearance for maintenance and normal operation. The fiberglass-reinforced core rod may be painted or veiled for additional weather protection.

Strain-type insulators with polymer coatings are covered in NEMA C29.14A.

2 Normative References

This Standard is intended to be used in conjunction with the latest revision of the following additional Standards.

2.1 American National Standards

ANSI C29.1 *American National Standard for Test Methods for Electrical Power Insulators*

ANSI C29.11 *American National Standard for Composite Insulators—Test Methods*

2.2 Other Standards

ASTM A153 *Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware*

ASTM D2565 *Standard Practice for Xenon-Arc Exposure of Plastics Intended for Outdoor Applications*

ASTM G155 *Standard Practice for Operating Xenon Arc Lamp Apparatus for Exposure of Materials*

ASTM G154 *Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials*

IEEE 4 *IEEE Standard for High-Voltage Testing Techniques*

3 Definitions

See Section 2 of ANSI C29.1 *American National Standard for Test Methods for Electrical Power Insulators* and Section 3 of ANSI C29.11 *American National Standard for Composite Insulators—Test Methods* for definitions of terms.

4 General

Guy insulators shall conform in all respects to the requirements of this Standard. The text, figures, and tables supplement each other and shall be considered part of this Standard.

Manufacturer's drawings, if furnished, shall show the outline of the insulators, together with all pertinent dimensions, and mechanical, electrical, and leakage values. Any variations in these dimensions due to manufacturing tolerances shall be indicated.

5 Materials

5.1 Core

The core is the insulating part of a composite guy insulator. It is intended to carry the mechanical load and consists mainly of glass fibers positioned in a resin matrix to develop mechanical strength.