



Standard Specification for Flexible Insulated Temporary By-Pass Jumpers¹

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1. Scope

1.1 These specifications cover the equipment making up the flexible insulated temporary bypass jumpers (bypass jumpers) used on energized power lines and equipment.

1.2 It is common practice for the user of this protective equipment to prepare complete instructions and safety regulations to govern in detail the correct and safe use of such equipment.

1.3 The use and maintenance of this equipment are beyond the scope of these specifications.

1.4 These specifications for a system of bypass jumpers is covered in four parts as follows:

Title	Sections
Clamps for Bypass Jumpers	5-17
Ferrules for Bypass Jumpers	18-31
Cable for Bypass Jumpers	32-40
Bypass Jumpers (complete assembly with clamps, ferrules, and cable)	41-53

1.5 Each of the four parts is an entity of itself, but is listed as a part of the system for completeness and clarification.

1.6 The values stated in SI units are to be regarded as the standard. See ASTM SI 10.

1.7 The following precautionary caveat pertains only to the test method portions, Sections 13, 26, and 48 of these specifications. *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

B 172 Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Members, for Electric Conductors

B 173 Specification for Rope-Lay-Stranded Copper Conductors Having Concentric-Stranded Members, for Electrical Conductors

D 2768 Specification for General-Purpose Ethylene-Propylene Rubber Jacket for Wire and Cable

D 2770 Specification for Ozone-Resisting Ethylene-Propylene Rubber Integral Insulation and Jacket for Wire and Cable

E 8 Test Methods for Tension Testing of Metallic Materials

F 819 Terminology Relating to Electrical Protective Equipment for Workers

SI 10 Practice for Use of the International System of Units (SI) (the Modernized Metric System)

2.2 ANSI Standard:

ANSI C119.4 American National Standard for Electrical Connectors³

2.3 NEMA Standard:

WC 8 Ethylene-Propylene-Rubber Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy (formerly ICEA S-68-516)⁴

3. Terminology

3.1 Definitions:

3.1.1 *flexible insulated temporary bypass jumpers*—devices designed and used to keep electric supply circuits effectively continuous (electrically bridged) for short periods of time at work locations when conductors or equipment may otherwise be opened or made electrically discontinuous during work operations.

3.1.1.1 *Discussion*—The devices are normally installed, used, and removed as part of a protective insulating system composed of insulating covers and/or observances of required minimum safe approach distances for workers.

3.2 For definitions of other terms, refer to Terminology F 819.

¹ This specification is under the jurisdiction of ASTM Committee F18 on Electrical Protective Equipment for Workers and is the direct responsibility of Subcommittee F18.45 on Mechanical Equipment.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.

⁴ Available from National Electrical Manufacturers Association (NEMA), 1300 N. 17th St., Suite 1847, Rosslyn, VA 22209.