



Designation: B 682 — 81a (Reapproved 1996)^{ε1} 682 – 01

Standard Specification for Standard Metric Sizes of Electrical Conductors¹

This standard is issued under the fixed designation B 682; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

^{ε1} NOTE—Section 11 was added editorially in March 1996.

1. Scope

1.1 This specification prescribes the recommended standard metric sizes of solid round electrical conductors.

1.2 This specification prescribes the recommended standard metric size designations of stranded electrical conductors (see Explanatory Note 1).

~~NOTE 1—The purpose of this specification is to provide logical geometrically progressive series of sizes for guidance to individuals and organizations preparing hard metric specifications for all types of round wire and stranded electrical conductors (see 3.1). The preferred sizes have been established to avoid proliferation of non-preferred sizes. They provide a series of sizes intended to be acceptable for most applications. The use of metric sizes will depend upon commercial factors, and their existence does not render obsolete existing specifications with inch-pound units as standard. This specification and hard metric conductor specifications prepared in accordance with it are not intended to replace any of the existing specifications having inch-pound units as the standard, with or without the inclusion of soft metric conversion (see 3.1.2).~~

~~NOTE 2—Physical 1—Physical properties, construction requirements, and manufacturing tolerances for specific products should be included in individual product specifications developed in accordance with appropriate sizes in this specification. NOTE 3—Inch-pound~~

~~1.3 The values stated in inch-pound or SI units are to be regarded separately as standard. Each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the specification. For conductor sizes designated by AWG or kcmil, the requirements in SI units have been numerically converted from corresponding values, stated or derived, in inch-pound units. For conductor sizes designated by SI units only, the metric values and rounded, and requirements are shown for information only, stated or derived in SI units.~~

2. Referenced Documents

2.1 ASTM Standards:

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications²

¹ This specification is under the jurisdiction of ASTM Committee B-1 B01 on Wires for Electrical Conductors and is the direct responsibility of Subcommittee B01.02 on Methods of Test and Sampling Procedure.

Current edition approved Dec. 18, 1981; Mar. 10, 2001. Published February 1982; May 2001. Originally published as B 682 – 81. Last previous edition B 682 – 81 (1996).