

IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology

IEEE Standards Coordinating Committee 14

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IEEE Standards Coordinating Committee 14 on
Quantities, Units, and Letter Symbols

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Quantities, Units, and Letter Symbols**

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IEEE-SA Standards Board

Abstract: The preferred metric units for use in Electrical and Electronics Science and Technology is provided by this recommended practice. The application of IEEE/ASTM SI 10 is supported.

Keywords: conversion factors, IEEE 945™, International System, International System of Units, metric practice, metric system, preferred units, SI, SI 10, Système International d'Unités

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Introduction

This introduction is not part of IEEE Std 945-2019, IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology.

This revision of IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology incorporates changes since the 1984 edition. The most significant changes include:

- Addition of definitions for various terms.
- Replacement of SI prefixes, symbols, and multiplication factors table with reference to IEEE/ASTM SI 10.
- Item numbering in the tables setup in format “TA-B”, T (for table), A = Table Number, and B = item number in table.
- Sorting of the order of units throughout to be from largest to smallest.

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IEEE Recommended Practice for Preferred Metric Units for Use in Electrical and Electronics Science and Technology

1. Overview

1.1 Scope

This recommended practice provides the preferred metric units for use in Electrical and Electronics Science and Technology and supports the application of IEEE/ASTM SI 100.

1.2 Purpose

The purpose of this recommended practice is to aid in the selection of appropriate metric units for quantities that are of interest to electrical and electronic engineers.

2. Normative references

The following referenced documents are indispensable for the application of this document (i.e., they must be understood and used, so each referenced document is cited in text and its relationship to this document is explained). For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

IEEE/ASTM SI 100™, American National Standard for Metric Practice.^{1, 2}

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