Technical Specification

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Industrial systems, installations and equipment and industrial products — Structuring principles and reference designations —

Part 101: Modelling concepts, guidelines and requirements for power supply systems

Systèmes industriels, installations et appareils et produits industriels — Principes de structuration et désignation de référence —

Partie 101: Concepts de modélisation, lignes directrices et exigences pour les systèmes d'alimentation électrique

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Foreword

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This document was prepared jointly by Technical Committee ISO/TC 10, *Technical product documentation,* Subcommittee SC 10, *Process plant documentation*, and Technical Committee IEC/TC 3, *Documentation, graphical symbols and representations of technical information*.

A list of all parts in the ISO/IEC 81346 series can be found on the ISO and IEC websites.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

This document provides guidelines for the understanding and application of the ISO 81346 and IEC 81346 reference designation system (RDS) for power supply systems (PS). It was developed in response to demands by the power supply sector for guidelines to the application of the ISO 81346 and IEC 81346 series, in particular ISO 81346-10.

PS, and the target industries of this document, include but are not limited to: wind, photovoltaic, thermal, nuclear and hydropower production.

The very basics of the RDS are not explained in this document. It is assumed that the user of this document already is familiar with the major concepts detailed in IEC 81346-1 and IEC 81346-2. These concepts include the four RDS aspects, the basic RDS semantics and basic RDS classification rules.

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1 Scope

This document gives guidelines to support the application of the ISO 81346 and IEC 81346 series to power supply systems. It also specifies best practice for its use and implementation depending on the user and situation. The application of this document supports harmonization within and between the power supply technical domains and industries.

Introductory examples of the use of reference designation systems (RDS) can be found in Annex A and Annex B. Annex C provides an example of a conversion table between an example structuring system and the classes specified in this document and other parts of the ISO 81346 and IEC 81346 series.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 81346-1:2022, *Industrial systems, installations and equipment and industrial products — Structuring principles and reference designations — Part 1: Basic rules*

IEC 81346-2:2019, *Industrial systems, installations and equipment and industrial products — Structuring principles and reference designations — Part 2: Classification of objects and codes for classes*