Doc No. LITD 07 (28585)
Draft IS/IEC 63002:2025
August 2025

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

मसौदा भारतीय मानक
कंप्यूटिंग और उपभोक्ता इलेक्ट्रॉनिक्स उपकरणों के साथ उपयोग की जाने वाली बाहरी बिजली आपूर्ति हेतु इंटरऑपरेबिलिटी विशिष्ट और संचार पद्धति

Draft Indian Standard

Interoperability Specifications and Communication Method for External Power Supplies used with Computing and Consumer Electronics Devices

ICS No. 31.020,35.200

Audio, video and multimedia systems and equipment Sectional committee, LITD 07	**Last Date for Comments: 28 October 2025**

NATIONAL FOREWORD

(Formal clauses will be added later)

This draft Indian Standard which is identical to IEC 63002:2025 'Interoperability specifications and communication method for external power supplies used with computing and consumer electronics devices' issued by the International Electro Technical Commission (IEC) will be adopted by the Bureau of Indian Standards on the recommendations of the Audio, Video and Multimedia Systems and Equipment Sectional Committee and approval of the Electronics and Information Technology Division Council.

The text of IEC Standard may be approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appears referring to this standard, they should be read as 'Indian Standard'

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current Practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which the Indian Standard also exists. The corresponding Indian Standard which is to be substituted in its respective place is listed below along with its degree of equivalence for the edition indicated. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies:

International standard	**Corresponding Indian standard**	**Degree of equivalence**
IEC 60990, Methods of measurement of touch current and protective conductor current	IS/IEC 60990 : 2016 Methods of measurement of touch current and protective conductor current (First Revision)	Identical with IEC 60990 : 2016
IEC 62680-1-3, Universal Serial Bus interfaces for data and power – Part 1-3: Common components – USB Type-C Cable and Connector Specification	IS/IEC 62680-1-3: 2022 Universal Serial Bus Interfaces for Data and Power Part 1-3: Common Components USB Type-C Cable and Connector Specification	Identical with IEC 62680-1-3 : 2022
IEC 62368-1:2018, Audio/video, information and communication technology equipment – Part 1: Safety requirements	IS/IEC 62368-1: 2023 Audio/video, information and communication technology equipment — Part 1: Safety requirements' (Second Revision)	Identical with EC 62368-1 : 2023
IEC 62680-1-2:2021, Universal Serial Bus interfaces for data and power – Part 1-2: Common components – USB Power Delivery specification	IS/IEC 62680-1-2: 2022 Universal serial bus interfaces for data and power part 1-2: Common components — USB power delivery specification	Identical with IEC 62680-1-2 : 2022

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2:2022 'Rules for rounding off numerical values (Second Revision)'. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

Scope of IEC 63002:2025 is as follows:

"This document defines common charging interoperability guidelines for power sources (external power supplies (EPSs) and other Sources) used with computing and consumer electronics devices that implement IEC 62680-1-3 (USB Type-C® Cable and Connector Specification).

This document defines normative requirements for an EPS to ensure interoperability; in particular, it specifies the data communicated from a power source to a device (Figure 1) and certain safety elements of the EPS, cable, and device. While the requirements focus of this document is on the EPS and the behaviour at its USB Type-C connector interface, it is also important to comprehend cable assembly and device capabilities and behaviours in order to assure end-to-end charging interoperability. This document does not apply to all design aspects of an EPS. This document does not specify regulatory compliance requirements for aspects such as product safety, EMC, or energy efficiency.

This document provides recommendations for the behaviour of a device when used with a power source compliant with this document. It specifies the minimum hardware specification for an EPS implementing IEC 62680-1-3. This document also specifies the data objects used by a charging system utilizing IEC 62680-1-2 to understand the identity, design and performance characteristics, and operating status of an external power supply. IEC 62680-1-2 focuses on power delivery applications ranging to 240 W for a variety of computing and consumer electronics devices including notebook computers, tablets, smartphones, small form-factor desktops, monitor displays and other multimedia devices.

This document relies on established mechanical and electrical specifications, and communication protocols specified by IEC 62680-1-2 and IEC 62680-1-3. These specifications support methods for establishing the best performing interoperability between untested combinations of EPS and devices with the aim of improving consumer satisfaction.

Information describing the USB charging interoperability model, overview of USB Type-C and USB Power Delivery specifications, and factors for charging performance are also provided to support implementation of this document."

Note: - The Technical content of this document has not been enclosed as these are identical with the corresponding IEC Standard. For details please refer to IEC 63002:2025 or kindly contact

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