

BUREAU OF INDIAN STANDARDS

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Draft Indian Standard

Hybrid telecommunication cables –

Part 1 Generic specification

मसौदा भारतीय मानक

हाइब्रिड दूरसंचार केबल –

भाग 1 सामान्य विशिष्टता

ICS: 33.120.20

Wires, Cables, Waveguides & Accessories
Sectional Committee, LITD 06

Last Date for Comments: July 20, 2024

NATIONAL FOREWORD

(Formal clauses will be added later)

This preliminary draft Indian Standard (Part 1) which is identical with IEC 62807-1: 2017. ‘Hybrid telecommunication cables –Part 1: Generic specification’ issued by the International Electrotechnical Commission (IEC) *will be* adopted by the Bureau of Indian Standards on the recommendations of the Dependability of Electronic, Electrical Components, Equipment and Systems Sectional Committee and approval of the Electronics and Information Technology Division Council.

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

a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’, and

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 draft adopted standard, reference appears to the following International Standard for which Indian Standard also exists. The corresponding Indian Standard which is to be substituted in its place is listed below along with its degree of equivalence for the edition indicated:

<i>International Standards</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
IEC 60050-461 International Electrotechnical Vocabulary – Part 461: Electric cables	IS 1885 (Part 32) : 2019 Electrotechnical Vocabulary Part 32 Electric Cables (<i>Second Revision</i>)	Identical with IEC 60050-461: 2008
IEC 60794 (all parts), Optical fibres cables – Part 1: Generic specifications	IS/IEC 60794 (all adopted parts) Optical Fibre Cable	Identical
IEC 60794-1 (all parts), Optical fibres cables – Part 1: Generic specifications	IS/IEC 60794-1-1: 2015 Optical Fibre Cables Part 1 Generic Specification Section 1 General (<i>First Revision</i>) and IS/IEC 60794-1-2 : 2017 Optical fibre cables Part 1 Generic specification Section 2 Basic optical cable test procedures General guidance (<i>First Revision</i>)	-do-
IEC 61156 (all parts), Multicore and symmetrical pair/quad cables for digital communications IEC 61156-1 (all parts), Multicore and symmetrical pair/quad cables for digital communications – Part 1: Generic specification	IS 14493 (all adopted parts) Multicore And Symmetrical Pair / Quad Cables For Digital Communications Part 1 Generic Specification (<i>First Revision</i>)	-do-
IEC 61156-1:2007, Multicore and symmetrical pair/quad cables for digital communications – Part 1: Generic specification	IS 14493 (Part 1) : 2020 Multicore And Symmetrical Pair / Quad Cables For Digital Communications Part 1 Generic Specification (<i>First Revision</i>)	Identical with IEC 61156-1: 2009
IEC 61196 (All parts) Coaxial communications cables	IS/IEC 61196 (All Parts) Coaxial communications cables	Identical
IEC 61196-1 (all parts), Coaxial communications cables – Part 1: Electrical test methods	IS/IEC 61196-1 (- 100 Series) Coaxial communications cables – Part 1 Electrical test methods (All Parts)	-do-
IEC 61196-1 Coaxial communications cables – Part 1: Generic	IS/IEC 61196-1: 2005 Coaxial communication cables: Part 1 generic specification - General, definitions	-do-

specification – General, and requirements
 definitions and requirements

The technical committee has reviewed the provisions of the following International Standards referred in this draft adopted standard and has decided that they are acceptable for use in conjunction with this standard.

International Standard	Title
IEC 60050-731	International Electrotechnical Vocabulary – Part 731: Optical fibres communication
IEC 60794-1-23	Optical Fibres – Part 1-23: Generic specification – Basic optical cable test procedures – Cable element test methods

Scope of IEC 62807-1: 2017 is as follows:

This part of IEC 62807 is applicable to hybrid cables intended to contain any combination of Optical fibres, twisted pair/quad, coaxial and current-carrying electrical conductor elements as required under a common outer sheath.

This hybrid cable design is convenient for networks and customer premises wiring that transmit data, telecommunication and signaling services over optical fibre, metallic twisted pairs, and/or broadband data over coaxial units, and retains the option of supplying electrical current to remote equipment.

The cable element (e.g. coaxial, balanced and optical fibre) performance requirements and supported applications are as specified in the following standards series: IEC 61196, IEC 61156, and IEC 60794 respectively.

The various combinations of strength members, sheath materials, fibre arrangements, twisted pair/quad structure, cable shielding, and current carrying conductors will be specified in the following specifications:-

- IEC 62807-2. (Under preparation)
- IEC 62807-3. ;(Under preparation)

In IEC 62807 (all parts), the current carrying conductors are not intended to be used as power mains supply. The specific use and safety regulation requirements are defined in the detailed and sectional cable specification.

NOTE–The Technical content of this document has not been enclosed as these are identical with the corresponding IEC Standard. For details please refer IEC 62807-1: 2017 or kindly contact.

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.

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IEC 62807-1:2017
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