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BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

Draft Indian Standard

Hybrid Communication Cables – Part 3: Outdoor Hybrid Cables – Section 10: Family Specification for FTTA Hybrid Communication Cables

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मसौदा भारतीय मानक

हाइब्रिड संचार केबल – भाग 3: बाहरी हाइब्रिड केबल – अनुभाग 10: एफ टी टी ए हाइब्रिड संचार केबलों के लिए पारिवारिक विशेषविवरण

ICS 33.120.20

Wires Cables Waveguides & Accessories Sectional Committee LITD 06	**Last Date for Comments:** 10 August 2024

NATIONAL FOREWORD

(Formal clauses will be added later)

This Draft Indian Standard (Part 3/Section 10) which is identical with IEC 62807-3-10:2023. 'Hybrid communication cables –Part 3-10: Outdoor hybrid cables – Family specification for FTTA hybrid communication cables' issued by the International Electrotechnical Commission (IEC) *will be* adopted by the Bureau of Indian Standards on the recommendations of the Wires Cables Waveguides & Accessories Sectional Committee and approval of the Electronics and Information Technology Division Council.

The text of IEC Standard *will be* 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. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

International Standards	Corresponding Indian Standard	Degree of Equivalence
IEC 60227-1, Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V – Part 1: General requirements	IS 694 : 2010 Polyvinyl chloride insulated unsheathed and sheathed cables/cords with rigid and flexible conductor for rated voltages up to and including 1100 V (Fourth Revision)	Modified/Technically Equivalent
IEC 60228:2004, Conductors of insulated cables	IS 8130 : 2013 Conductors for insulated electric cables and flexible cords - Specification (Second Revision)	Modified/Technically Equivalent
IEC 60304, Standard colours for insulation for low-frequency cables and wires	IS 9938 : 1981 Recommended colours for PVC insulation for LF wires and cables	Modified/Technically Equivalent
IEC 60793-1-40, Optical fibres – Part 1-40: Attenuation measurement methods	IS/IEC 60793-1-40 : 2001 Optical fibres: Part 1 measurement methods and test procedures:	Identical with IEC 60793-1-40 : 2001

	Sec 40: Attenuation	
IEC 60793-1-44, Optical fibres – Part 1-44: Measurement methods and test procedures – Cut-off wavelength	IS/IEC 60793-1-44 : 2011 Optical fibres: Part 1 measurement methods and test procedures: Sec 44 cut - Off wavelength	Identical with IEC 60793-1-44 : 2011
IEC 60793-1-46, Optical fibres – Part 1-46: Measurement methods and test procedures – Monitoring of changes in optical transmittance	IS/IEC 60793-1-46 : 2001 Optical fibres: Part 1 measurement methods and test procedures: Sec 46 monitoring of changes in optical transmittance	Identical with IEC 60793-1-46 : 2001
IEC 60793-1-48, Optical fibres – Part 1-48: Measurement methods and test procedures – Polarization mode dispersion	IS/IEC 60793-1-48 : 2017 Optical Fibres Part 1 Measurement Methods and Test Procedures Section 48 Polarization mode Dispersion (First Revision)	Identical with IEC 60793-1-48 : 2017
IEC 60793-2-50, Optical fibres – Part 2-50: Product specifications – Sectional specification for class B single-mode fibres	IS/IEC 60793-1-50 : 2014 Optical Fibres Part 1 Measurement Methods and Test Procedures Section 50 Damp heat (steady state) tests	Identical with IEC 60793-1-50 : 2014
IEC 60794-1-1, Optical fibre cables – Part 1-1: Generic specification − General	IS/IEC 60794-1-1 : 2015 Optical Fibre Cables Part 1 Generic Specification Section 1 General (First Revision)	Identical with IEC 60794-1-1 : 2015
IEC 60794-2, Optical fibre cables – Part 2: Indoor cables − Sectional specification	IS/IEC 60794-2 : 2017 Optical fibre cables Part 2 Indoor cables Sectional specification (First Revision)	Identical with IEC 60794-2: 2017
IEC 62807-3:2023, Hybrid communication cables – Part 3: Outdoor hybrid cables – Sectional specification	IS/IEC 62807-3:2023 Hybrid communication cables – Part 3 Outdoor hybrid cables – Sectional specification (Under Development as Doc.No. LITD 06/23351)	Identical with IEC 62807-3:2023
ISO/IEC 11801-1:2017, Information technology – Generic cabling for customer premises – Part 1: General requirements	IS/ISO/IEC 11801-1 : 2017 Information technology Generic cabling for customer premises Part 1: General requirements	Identical with ISO/IEC 11801-1:2017

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. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

International Standards	Title
IEC 60227 (All Parts)	Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V
IEC 60502-1	Power cables with extruded insulation and their accessories for rated voltages from 1 kV (Um = 1,2 kV) up to 30 kV (Um = 36 kV) − Part 1: Cables for rated voltages of 1 kV (Um = 1,2 kV) and 3 kV (Um = 3,6 kV)
IEC 60793-2-10	Optical fibres – Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres
IEC 60794-1-21	Optical fibre cables – Part 1-21: Generic specification – Basic optical cable test procedures – Mechanical test methods
IEC 60794-1-22	Optical fibre cables – Part 1-22: Generic specification – Basic optical cable test procedures– Environmental test methods
IEC 60794-1-31	Optical fibre cables – Part 1-31: Generic specification – Optical cable elements – Optical fibre ribbon
IEC 60794-1-403	Optical fibre cables – Part 1-403: Generic specification – Basic optical cable test procedures – Electrical test methods – Electrical continuity test of cable metallic elements, method H3
IEC 60794-3:2022	Optical fibre cables – Part 3: Outdoor cables – Sectional specification
IEC 62821 (All Parts)	Electric cables – Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450/750 V
IEC 62821-1	Electric cables – Halogen-free, low smoke, thermoplastic insulated and sheathed cables of rated voltages up to and including 450/750 V – Part 1: General requirements
IEC 63294	Test methods for electric cables with rated voltages up to and including 450/750 V

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 62807-3-10:2023 is as follows:

"This part of IEC 62807 is a family specification for FTTA (Fibre-To-The-Antenna) outdoor hybrid communication cables. It specifies the design and construction, rated values and characteristics, Requirements and test methods, packaging and quality assurance, etc.

The FTTA hybrid communication cables are typically but not only installed between the Base Band Unit (BBU) and Remote Radio Unit (RRU; or often called RRH – Remote Radio Head or AAU – Active Antenna Unit), and other scenario that supply electric current to optical communication equipment.

The FTTA hybrid communication cables contain optical fibre elements and current carrying elements under a common outer sheath or other constructions unifying the elements. The current carrying elements are used only to supply power to the equipment within the communication network. The current carrying elements are not used for electricity distribution or transmission, nor for power supply to domestic appliances.

The relationship between each of the MICE classifications in ISO/IEC 11801-1, the requirements and test methods of hybrid cables being proposed in a specific application are fully considered and aligned (see Annex A).**"**

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 62807-3-10:2023 or kindly contact.

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