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BUREAU OF INDIAN STANDARDS
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प्रारंभिक मसौदा भारतीय मानक
हाइब्रिड दूरसंचार केबल -
भाग *3* आउटडोर हाइब्रिड केबल - अनुभागीय विशिष्टता

Preliminary Draft Indian Standard
Hybrid communication cables –
Part 3 Outdoor hybrid cables – Sectional specification

ICS 33.120.20

Wires, Cables, Waveguides & Accessories Sectional Committee, LITD 06	**Last Date for Comments:** **10th October 2023**

NATIONAL FOREWORD

(Formal clauses will be added later)

This preliminary draft Indian Standard (Part 3) which is identical with IEC 62807-3:2023. 'Hybrid communication cables –Part 3: Outdoor hybrid cables – Sectional 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 adopted P-draft standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in

their respective places, are listed below along with their degree of equivalence for the editions 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 60050-461 International Electrotechnical Vocabulary – Part 461: Electric cables	IS 1885 (Part 32) : 2019 Electrotechnical Vocabulary Part 32 Electric Cables (*Second Revision*)	Identical with IEC 60050-461: 2008
IEC 60227 (all parts), Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V 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 450/750 v (*Fourth Revision*)	Technical Equivalent
IEC 60228 Conductors of insulated cables	IS 8130 : 2013 Conductors for insulated electric cables and flexible cords - Specification (*Second Revision*)	Identical
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: Sec 40 attenuation	-do-
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	-do-
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	-do-
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*)	-do-
IEC 60794-1-1 Optical fibre cables – Part 1-1: Generic specification – General test procedures – Mechanical test methods	IS/IEC 60794-1-1 : 2015 Optical Fibre Cables Part 1 Generic Specification Section 1 General (*First Revision*)	-do-

IEC 62807-1 Hybrid telecommunication cables – Part 1: Generic specification	IEC 62807-1: 2017 Hybrid telecommunication cables – Part 1: Generic specification [Under preparation Doc No. LITD 06 (23349)]	Identical
IEC 61156 (all parts) Multicore and symmetrical pair/quad cables for digital communications	IS 14493 (all parts) Multicore And Symmetrical Pair / Quad Cables For Digital Communications	-do-
IEC 61156-1 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 (*First Revision*)	-do-
IEC 61196 (all parts) Coaxial communication cables	IS 61196 (all parts) Coaxial communication cables	-do-
IEC 61196-1 Coaxial communication cables – Part 1: Generic specification – General, definitions and requirements	IS/IEC 61196-1: 2005 Coaxial communication cables: Part 1 generic specification - General, definitions and requirements	-do-
IEC 61196-1-102 Coaxial communication cables – Part 1-102: Electrical test methods – Test for insulation resistance of cable dielectric	IS/IEC 61196-1-102 : 2005 Coaxial communication cables: Part 1 - 102 electrical test methods - Test for insulation resistance of cable dielectric	-do-
IEC 61196-1-105 Coaxial communication cables – Part 1-105: Electrical test methods – Test for withstand voltage of cable dielectric	IS/IEC 61196-1-105 : 2005 Coaxial communication cables: Part 1 - 105 electrical test methods - Test for withstand voltage of cable dielectric	-do-
IEC 61196-1-108 Coaxial communication cables – Part 1-108: Electrical test methods – Test for characteristic impedance, phase and group delay, electrical length and propagation velocity	IS/IEC 61196-1-108 : 2005 Coaxial communication cables: Part 1 - 108 electrical test methods - Test for characteristic impedance, phase and group delay, electrical length and propagation velocity	-do-
IEC 61196-1-112 Coaxial communication cables – Part 1-112: Electrical test methods – Test for return loss (uniformity of impedance)	IS/IEC 61196-1-112 : 2006 Coaxial communication cables: Part 1 - 112 electrical test methods - Test for return loss (Uniformity Of Impedance)	-do-
IEC 61196-1-113 Coaxial communication cables – Part 1-113: Electrical test methods – Test for attenuation constant	IS/IEC 61196-1-113 : 2018 Coaxial communication cables Part 1-113 Electrical Test Methods — Test for Attenuation Constant	-do-

IEC 61196-1-122 Coaxial communication cables – Part 1-122: Electrical test methods – Test for cross-talk between coaxial cables	IS/IEC 61196-1-122 : 2006 Coaxial communication cables: Part 1 - 122 electrical test methods - Test for cross - Talk between coaxial cables	Identical
IEC 61196-1-201 Coaxial communication cables – Part 1-201: Environmental test methods –Test for cold bend performance of cable	IS/IEC 61196-1-201 : 2009 Coaxial communication cables Part 1 Test methods Section 201 Environmental Test for cold bend performance of cable	-do-
IEC TR 61931 Fibre optic – Terminology	IS 16283 : 2014 Fibre Optic Terminology	Identical with IEC 61931 : 1998
IEC 62153-4-3 Metallic communication cable test methods – Part 4-3: Electromagnetic Compatibility (EMC) – Surface transfer impedance – Triaxial method	IS/IEC 62153-4-3 : 2013 Metallic communication cable test methods Part 4 Electromagnetic compatibility EMC Section 3 Surface transfer impedance-Triaxial method	Identical
IEC 62153-4-4 Metallic communication cable test methods – Part 4-4: Electromagnetic compatibility (EMC) – Test method for measuring of the screening attenuation as up to and above 3 GHz, triaxial method	IS/IEC 62153-4-4 : 2015 Metallic communication cable test methods Part 4 Electromagnetic compatibility EMC Section 4 Test method for measuring of the screening attenuation a s up to and above 3 GHz triaxial method	-do-
ISO/IEC 11801-1 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	-do-

The technical committee has reviewed the provisions of the following International Standard referred in this adopted draft standard and has decided that it is 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 Standard	*Title*
IEC 60050-731	International Electrotechnical Vocabulary (IEV) – Part 731: Optical fibre communication
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 60794-1-21	Optical fibre cables – Part 1-21: Generic specification – Basic optical cable
IEC 60794-1-22	Optical fibre cables – Part 1-22: Generic specification – Basic optical cable test procedures – Environmental test methods
IEC 60811-501	Electric and optical fibre cables – Test methods for non-metallic materials – Part 501: Mechanical tests – Tests for determining the mechanical properties of insulating and sheathing compounds
IEC 62153-4-9	Metallic communication cable test methods – Part 4-9: Electromagnetic compatibility (EMC) – Coupling attenuation of screened balanced cables, triaxial method
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	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

Scope of IEC 62807-3: 2023 is as follows:

This part of IEC 62807 is a sectional specification for outdoor hybrid communication cables intended to be used externally in various applications. It specifies terms, definitions, symbols and abbreviated terms, the design and construction, rated values and characteristics, performance requirements and test methods, packaging and quality assurance.

Hybrid cables are designed for networks and customer premises cabling that transmit data, telecommunication, instrumentation, control and signalling services over optical fibres and or broadband data over coaxial element, wire/pair/quad element and can have the option of supplying electrical current to a remote equipment.

In the IEC 62807 series, the current carrying elements are used only to supply power to the equipment within the communication network. They are not used for electricity distribution or transmission, nor for power supply to domestic appliances. The specific uses are defined in the relevant specification. The relationship between each of the MICE classifications in ISO/IEC 11801-1, performance requirements and test methods of hybrid cables being proposed in a specific application are fully considered and aligned.

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: 2023 or kindly contact.

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