BUREAU OF INDIAN STANDARDS

Program of Work

ETD 37: Conductors And Accessories For Overhead Lines

Scope: To prepare standards for conductors and accessories for overhead power lines and codes of

practice for the design, installation and maintainance or overhead power lines

IEC TC-11 (P): Overhead lines IEC TC-7 (P): Overhead electrical conductors

Liaison:

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 10162:1982	Specification for spacers and	March, 2018	1	Indigenous
	Reviewed In: 2018	spacer dampers for twin horizontal			
		bundle conductors			
2	IS 12048:1987	Specification for helically formed	March, 2023	1	Indigenous
	Reviewed In: 2023	fittings for overhead lines up to 33			
	Decision taken to	kV			
	Reaffirm and				
	Archive				
3	IS 14214:1994	Annealed stranded copper		-	Indigenous
	Reviewed In: 2019	conductors for jumper wires -			
	Reaffirmed but not	Specification			
	taken up for revision				
4	IS 15976:2013	Steel reels and drums for bare	July, 2023	-	Indigenous
	Reviewed In: 2023	conductors - Specification			
5	IS 1778:1980	Specification for reels and drums	December, 2024	1	Indigenous
	Reviewed In: 2024	for bare conductors (First			
	XG 0404 (D	Revision)	26.1.2010		
6	IS 2121 (Part	Specification for conductors and	March, 2018	-	Indigenous
	1):1981	earth wire accessories for overhead			
	Reviewed In: 2018	power lines: Part 1 armour rods,			
		binding wires and tapes for			
<u> </u>	IC 0101 (D.)	conductors (First Revision)	M 1 2010) (1'C' 1/TC 1 ' 11
7	IS 2121 (Part	Specification for conductors and earth wire accessories for overhead	March, 2018	-	Modified/Technically
	2):1981 Reviewed In : 2018				Equivalent
	BS 3288: Part I:	power lines: Part 2 mid - Spain			
	1973	joints and repair sleeves - For conductors (First Revision)			
8	IS 2121 (Part	Conductors (First Revision) Conductors and earthwire	March, 2018		Modified/Technically
	3):1992	accessories for overhead lines: Part	Maich, 2016	_	Equivalent
	Reviewed In : 2018	3 accessories for earthwire -			Equivalent
	BS 3288: Part I:	Specification (First Revision)			
	1973, AS I 154.1 :	Specification (First Revision)			
	Part 1 : 1985				
9	IS 2121 (Part	Conductors and earthwire	March, 2018	_	Modified/Technically
	4):1991	accessories for overhead lines: Part	17101011, 2010		Equivalent
	Reviewed In: 2018	4 non - Tension joints -			Equivalent
	AS 1154. 1 : 1965	Specification			
	110 110 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Specification			

				1	1 1
	Insulator and				
	conductor fittings for				
	overhead power lines				
	: Part 1 Performance				
10	and	9 10 1 0 1 1	37. 1. 2010		1 1 1 1 1
10	IS 3402:1965	Specification for cadmium copper	March, 2018	1	Modified/Technically
	Reviewed In : 2018	conductors for overhead railway			Equivalent
	B.S. 2755: 1956	traction			
	Specification for				
	copper and cadmium				
	copper stranded				
	conductors for overhead electri				
11	IS 3476:1986	Specification for trolley and			Modified/Technically
11	Reviewed In : 2019	contact wire for electric traction		_	Equivalent
	Reaffirmed but not	(First Revision)			Equivalent
	taken up for revision				
	BS 23 : 1970, U. I.				
	C. Code 870-O (
	first edition), ETI/				
	OHE/ 42 (1 1/ 83)				
12	IS 398 (Part 1):1996	Aluminium conductors for	December, 2023	1	Indigenous
	IEC 60889	overhead transmission purposes -	,		
	Reviewed In: 2023	Specification: Part 1 aluminium			
		stranded conductors (Third			
		Revision)			
13	IS B398 (Part	Aluminium Conductors for		-	
	1):1996	Overhead Transmission Purposes			
		– Specification Part 1			
		Aluminium Stranded Conductors			
14	IS 398 (Part 2):1996	Aluminium conductors for	March, 2018	3	Indigenous
	Reviewed In: 2018	overhead transmission purposes -			
		Specification: Part 2 aluminium			
		conuuctors, galvanized steel -			
		Reinforced (Third Revision)			
15	IS 398 (Part 2):2025			-	Indigenous
		Overhead Transmission Purposes -			
		Specification Part 2 Aluminium			
		Conductors Galvanized Steel			
1.0	IC 200 /P / 2\ 10=5	Reinforced (Fourth Revision)		2	M-4:C: 1/TD 1 : 11
16	IS 398 (Part 3):1976 Reviewed In : 2019	-		3	Modified/Technically
	AS 1220	conductors for overhead			Equivalent
	A3 1220	transmission purposes: Part 3 aluminium conductors, aluminized			
		steel reinforced (Second Revision)			
17	IS 398 (Part 4):1994	` /	October, 2021	1	Modified/Technically
''	Reviewed In : 2021	overhead transmission purposes:	Jewooi, 2021	1	Equivalent
1	IEC Pub 208 (1966)	Part 4 aluminium alloy stranded			Equivalent
1	Aluminium Alloy	conductors (Aluminium -			
	Stranded	Magnesium - Silicon Type) -			
	Conductors,	Specification (Third Revision)			
	International				
	Electrotechnical				
L	Commission BS				<u> </u>
18	IS 398 (Part 5):1992	Aluminium conductor for overhead	March, 2018	2	Indigenous
1	Reviewed In: 2018	transmission purposes -			
1		Specification: Part 5 aluminium			
		conductors - Galvanized steel -			
		Reinforced for extra high voltage			
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1	<u> </u>	(400 KV And Above) (First			l I
		Revision)			
19	IS 398 (Part 6):2021	Aluminium Conductors for		1	Indigenous
		Overhead Transmission Purposes			
		Part 6 High Conductivity			
		Aluminium Alloy Stranded			
20	10.5(10./P + 1/0	Conductors — Specification	37 1 2010	1)
20	IS 5613 (Part 1/Sec 1):1985	Code of practice for design, installation and maintenance of	March, 2018	1	Modified/Technically Equivalent
	Reviewed In : 2018	overhead power lines: Part 1 lines			Equivalent
	Reaffirmed but not	up to and including 11 kV Sec 1			
	taken up for revision				
	Rural Line				
	Standards,				
	Construction				
	Manual, prepared by				
	Rural Electrification				
21	Corporation Ltd,	Cala famatia familia	M1 2010		M - 4'C' - 4/T1'11
21	IS 5613 (Part 1/Sec 2):1985	Code of practice for design, installation and maintenance of	March, 2018	-	Modified/Technically Equivalent
	2):1985 Reviewed In : 2018	overhead power lines: Part 1 lines			Equivalent
	Reaffirmed but not	up to and including 11 kV Sec 2			
	taken up for revision	=			
	Rural Line				
	Standards,				
	Construction				
	Manual, prepared by				
	Rural Electrification				
22	Corporation Ltd, IS 5613 (Part 2/Sec	Codo of mucation on decise	March, 2018	1	Modified/Technically
22	1):1985	Code of practice or design, installation and maintenance of	March, 2018	1	Modified/Technically Equivalent
	Reviewed In: 2018	overhead power lines: Part 2 lines			Equivalent
	Reaffirmed but not	above 11 kv and up to and			
		including 220 kv sec 1 design (First			
	Rural Line	Revision)			
	Standards,				
	Construction				
	Manual, prepared by				
	Rural Electrification				
23	Corporation Ltd, IS 5613 (Part 2/Sec	Code of practice for design,	March, 2018	3	Modified/Technically
1 23	2):1985	installation and maintenance of	1 1111011 , 2010]	Equivalent
	Reviewed In: 2018	overhead power lines: Part 2 lines			_qu
	Reaffirmed but not	above 11 kV and up to and			
	_	including 220 Kv: Sec 2 installation			
	Rural Line	and maintenance (First Revision)			
	Standards,				
	Construction Manual, prepared by				
	Rural Electrification				
	Corporation Ltd,				
24	IS 5613 (Part 3/Sec	Design, Installation and		-	Indigenous
	1):2024	Maintenance for Overhead Power			
		Lines � Code of Practice Part 3			
		400 kV and 765 kV Lines Section			
25	IG 5(12 /D + 2/9	1 Design (First Revision)			T., 11
25	IS 5613 (Part 3/Sec 2):2023	Design, Installation and Maintenance for Overhead Power		-	Indigenous
	4):2023	Lines i; ½ Code of Practice Part 3:			
		Zinco 16,72 Code of Fractice Fait 3.			

		400 kV and 765 kV Lines Section 2 Installation and Maintenance (First Revision)			
26	IS 9511:1980 Reviewed In : 2024 Decision taken to Reaffirm and Archive	Specification for earth knobs for neutral conductors	March, 2024	-	Indigenous
27	IS 9708:1993 Reviewed In : 2019 IEEE standard 563-1978	Stockbridge vibration dampers for overhead power lines - Specification (First Revision)	March, 2019	-	Modified/Technically Equivalent

Standards under Development

Projects Approved			
SI. No.	SI. No. Doc No. Title		
No Records Found			

	Preliminary Draft Standards				
SI. No.	Doc No.	Title			
1	ETD 37 (28236)	Concentric lay stranded overhead electrical conductors containing one or more gaps			
2	ETD 37 (28324) Revision	Overhead lines - Requirements and tests for spacers			
	of: IS 10162:1982				

	Drafts Standards in WC Stage			
SI. No.	SI. No. Doc No. Title			
No Records Found				

	Draft Standards Completed WC Stage				
SI. No.	Doc No.	Title			
1	ETD 37 (25450)	Specification for conductors and earth wire accessories for overhead power lines Part 1 armour			
		rods binding wires and tapes for conductors Second Revision			
2	ETD 37 (25451)	Specification for conductors and earth wire accessories for overhead power lines Part 2 mid -			
		Spain joints and repair sleeves - For conductors Second Revision			
3	ETD 37 (25452)	Conductors and earthwire accessories for overhead lines Part 3 accessories for earthwire -			
		Specification Second Revision			
4	ETD 37 (25453)	Conductors and earthwire accessories for overhead lines Part 4 non - Tension joints - Specification			
		Second Revision			
5	ETD 37 (27203)	Overhead lines Requirements and tests for aeolian vibration dampers			

	Finalized Draft Indian Standard		
SI. No.	SI. No. Doc No. Title		
No Records Found			

Finalized Draft Indian Standards under Print				
SI. No.	SI. No. Doc No. Title			
No Records Found				

Total Published Standards:26 Total Standards Under development:7

Aspect Wise Report

Product: 19
Code of Practices: 6
Methods of Test: 0
Terminology: 0
Dimensions: 0
System Standard: 0
Safety Standard: 0

Others: 1
Service Specification: 0
Process Specification: 0
Unclassified: 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 2532:1965	Specification for hard - Drawn copper wire for telegraph and telephone purposes
	Reviewed In: 2018 B. S.	
	174: 1951, B. S. 125: 1954	
2	IS 2665:1964	Specification for cadmium copper wire for telegraph and telephone purposes
	Reviewed In: 2018 bs	
	175-1951	
3	IS 282:1982	Hard-drawn copper conductors for overhead power transmission
	Reviewed In: 1990	
4	IS 2889:1964	Drums for trolley and contact wire

Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 10162:1982	Specification for spacers and spacer dampers for twin horizontal bundle conductors
	Reviewed In: 2018	
2	IS 12048:1987	Specification for helically formed fittings for overhead lines up to 33 kV
	Reviewed In: 2023	
	Decision taken to Reaffirm	
	and Archive	
3	IS 14214:1994	Annealed stranded copper conductors for jumper wires - Specification
	Reviewed In: 2019	
	Reaffirmed but not taken up	
	for revision	
4	IS 15976:2013	Steel reels and drums for bare conductors - Specification
	Reviewed In: 2023	
5	IS 1778:1980	Specification for reels and drums for bare conductors First Revision
	Reviewed In: 2024	
6	IS 2121 (Part 1):1981	Specification for conductors and earth wire accessories for overhead power lines Part 1 armour
	Reviewed In: 2018	rods binding wires and tapes for conductors First Revision
7	IS 2121 (Part 2):1981	Specification for conductors and earth wire accessories for overhead power lines Part 2 mid -
	Reviewed In: 2018 BS	Spain joints and repair sleeves - For conductors First Revision
	3288: Part I : 1973	
8	IS 2121 (Part 3):1992	Conductors and earthwire accessories for overhead lines Part 3 accessories for earthwire -
	Reviewed In: 2018 BS	Specification First Revision
	3288: Part I : 1973, AS I	
	154.1 : Part 1 : 1985	
9	IS 2121 (Part 4):1991	Conductors and earthwire accessories for overhead lines Part 4 non - Tension joints - Specification
	Reviewed In: 2018 AS	
	1154. 1: 1965 Insulator and	
	conductor fittings for	

	overhead power lines : Part	
	1 Performance and	
10	IS 3402:1965	Specification for cadmium copper conductors for overhead railway traction
	Reviewed In: 2018 B.S.	
	2755: 1956 Specification	
	for copper and cadmium	
	copper stranded conductors	
	for overhead electri	
11	IS 3476:1986	Specification for trolley and contact wire for electric traction First Revision
	Reviewed In: 2019	
	Reaffirmed but not taken up	
	for revision BS 23: 1970,	
	U. I. C. Code 870-O (first	
	edition), ETI/ OHE/ 42 (1	
	1/83)	
12	IS 398 (Part 1):1996	Aluminium conductors for overhead transmission purposes - Specification Part 1 aluminium
	IEC 60889	stranded conductors Third Revision
	Reviewed In: 2023	
13	IS 398 (Part 2):2025	Aluminium Conductor for Overhead Transmission Purposes - Specification Part 2 Aluminium
		Conductors Galvanized Steel Reinforced Fourth Revision
14	IS 398 (Part 3):1976	Specification for aluminium conductors for overhead transmission purposes Part 3 aluminium
	Reviewed In: 2019 AS	conductors aluminized steel reinforced Second Revision
	1220	
15	IS 398 (Part 4):1994	Aluminium conductors for overhead transmission purposes Part 4 aluminium alloy stranded
	Reviewed In: 2021 IEC	conductors Aluminium - Magnesium - Silicon Type - Specification Third Revision
	Pub 208 (1966) Aluminium	
	Alloy Stranded Conductors,	
	International	
	Electrotechnical	
	Commission BS	
16	IS 398 (Part 5):1992	Aluminium conductor for overhead transmission purposes - Specification Part 5 aluminium
	Reviewed In: 2018	conductors - Galvanized steel - Reinforced for extra high voltage 400 KV And Above First
		Revision
17	IS 398 (Part 6):2021	Aluminium Conductors for Overhead Transmission Purposes Part 6 High Conductivity
10	IEC 80601-2-49:2018	Aluminium Alloy Stranded Conductors Specification
18	IS 9511:1980	Specification for earth knobs for neutral conductors
	Reviewed In: 2024	
	Decision taken to Reaffirm	
10	and Archive	
19	IS 9708:1993	Stockbridge vibration dampers for overhead power lines - Specification First Revision
	Reviewed In: 2019 IEEE	
	standard 563-1978	