BUREAU OF INDIAN STANDARDS

Program of Work

ETD 51 : Electrotechnology in Mobility

Scope: To prepare Indian Standards for electrotechnical aspects of totally or partly electrically propelled road vehicles

Liaison: **IEC TC-69 (P):** *Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks* **IEC TC-23 SC-H (P):** *Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles* **IEC TC-69 (P):** *Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks* **IEC TC-23 (P):** *Plugs, Socket-outlets and Couplers for industrial and similar applications, and for Electric Vehicles*

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS/ISO 15118-8:2020 ISO 15118-8:2020	Road Vehicles - Vehicle to Grid Communication Interface Part 8: Physical Layer and Data Link Layer Requirements for Wireless Communication (First Revision)		-	
2	IS/ISO 15118-2:2014 ISO 15118-2 : 2014	Road vehicles - Vehicle - To - Grid communication interface: Part 2 network and application protocol requirements	March, 2024	-	
3	IS/ISO 15118-1:2013 ISO 15118-1 : 2013	Road vehicles - Vehicle to grid communication interface: Part 1 general information and use - Case definition	March, 2024	-	
4	IS/ISO 15118-3:2015 ISO 15118-3 : 2015	Road vehicles - Vehicle to grid communication interface: Part 3 physical and data link layer requirements	March, 2024	-	
5	IS/ISO 15118-4:2018 ISO 15118-4 : 2018	Road vehicles - Vehicle to grid communication interface: Part 4 network and application protocol conformance test	March, 2024	-	
6	IS/ISO 15118-5:2018 ISO 15118-5 : 2018	Road vehicles - Vehicle to grid communication interface: Part 5 physical layer and data link layer conformance test	March, 2024	-	
7	IS 17017 (Part 25):2021	ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM Part 25: DC EV supply equipment where protection relies on electrical separation		-	
8	IS 17017 (Part 2/Sec 1):2020	Electric Vehicle Conductive Charging System Part 2 Plugs,		-	Indigenous

		Socket-Outlets, Vehicle Connectors, and Vehicle Inlets Section 1 General requirements			
9	IS 17017 (Part 1):2018	Electric Vehicle Conductive Charging System Part 1 General Requirements	July, 2023	-	Indigenous
10	IS 17017 (Part 30):2025	Electric Vehicle Conductive Charging Systems Part 30 Dual Gun dc Electric Vehicle Supply Equipment		-	Indigenous
11	IS 17017 (Part 2/Sec 3):2020	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket - Outlets, Vehicle Connectors and Vehicle Inlets Section 3 Dimensional compatibility and interchangeability requirements for d.c. and a.c./d.c. pin and contact-tube vehicle couplers		-	Indigenous
12	IS 17017 (Part 31):2024	ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM Part 31: ac or dc EV supply equipment for where protection relies on electrical separation		-	
13	IS 17017 (Part 2/Sec 7):2023	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket-Outlets, Vehicle Connectors and Vehicle Inlets Section 7 Dimensional Compatibility and Interchange Ability Requirements for a.c., d.c. and a.c./d.c. Pin and Contact-Tube Vehicle Couplers Intended to be used for a.c./d.c. EV Supply Equipment where Protection Relies on Electrical Separation		-	Indigenous
14	IS 17017 (Part 23):2021	Electric Vehicle Conductive Charging Systems Part 23 dc Electric Vehicle Supply Equipment		-	Indigenous
15	IS 17017 (Part 24):2021	Electric Vehicle Conductive Charging System Part 24 : Digital Communication between a DC Electric Vehicle Supply Equipment and an Electric Vehicle for control of DC Charging		1	
16	IS 17017 (Part 21/Sec 1):2019 IEC 61851-21-1 : 2017 IEC 61851-21-1 : 2017	Electric Vehicle Conductive Charging System Part 21 Electromagnetic Compatibility (EMC) Requirements Section 1 On-board chargers	August, 2024	-	Identical under dual numbering
17	IS 17017 (Part 21/Sec 2):2019 IEC 61851-21-2 : 2018 IEC 61851-21-2 : 2018	Electric Vehicle Conductive Charging System Part 21 Electromagnetic Compatibility (EMC) Requirements Section 2 Off-board chargers	August, 2024	-	Identical under dual numbering

18	IS 17017 (Part 22/Sec 1):2021	Electric Vehicle Conductive Charging Systems Part 22 AC Charging Configurations Section 1 - AC Charge Point for Light Electric Vehicle		-	
19	IS 17017 (Part 2/Sec 6):2021	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket-Outlets, Vehicle Connectors and Vehicle Inlets Section 6 Dimensional compatibility requirements for DC pin and contact-tube vehicle couplers intended to be used for DC EV supply equipment where protection relies on electrical separation		-	Indigenous
20	IS 17017 (Part 2/Sec 2):2020	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket - Outlets, Vehicle Connectors and Vehicle Inlets Section 2 Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories		-	Indigenous
21	IS 17896 (Part 1):2022 IEC TS 62840-1:2016 IEC TS 62840-1:2016	Electric vehicle battery swap system - Part 1: General and Guidance		-	Identical under dual numbering
22	IS 17896 (Part 2):2022 IEC 62840-2:2016 IEC 62840-2:2016	Electric vehicle battery swap system - Part 2: Safety requirements		-	Identical under dual numbering

Standards under Development

Projects Approved

SI. No.	Doc No.	Title
No Records Found		

Preliminary Draft Standards

SI. No.	Doc No.	Title
No Records Found		

Drafts Standards in WC Stage

SI. No.	Doc No.	Title
No Records Found		

Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standard

SI. No.	Doc No.	Title
No Records Found		

Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
1	ETD 51 (12455)	Electric Vehicle Conductive Charging System Part 1 General Requirements
2	ETD 51 (13257)	Road Vehicles --- Vehicle to Grid Communication Interface Part 1 General Information and use-case Definition
3	ETD 51 (13263)	Road Vehicles --- Vehicle-to-Grid Communication Interface Part 2 Network and Application Protocols
4	ETD 51 (13265)	Road Vehicles --- Vehicle to Grid Communication Interface Part 3 Physical and Data Link Layer Requirements
5	ETD 51 (13266)	Road Vehicles --- Vehicle to Grid Communication Interface Part 4 Network and Application Protocol Conformance Test
6	ETD 51 (13267)	Road Vehicles --- Vehicle to Grid Communication Interface Part 5 Physical Layer and Data Link Layer Conformance Test
7	ETD 51 (13268)	Road Vehicles --- Vehicle to Grid Communication Interface Part 8 Physical Layer and Data Link Layer Requirements for Wireless Communication
8	ETD 51 (13422)	Electric Vehicle Conductive Charging System Part 21 Electromagnetic CompatibilityEMC Section 1 on-board chargers
9	ETD 51 (13424)	Electric Vehicle Conductive Charging System Part 21 Electromagnetic CompatibilityEMC Section 2 off-board chargers
10	ETD 51 (15093)	Electric Vehicle Conductive Charging System Part 2 Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Section 1 General Requirements
11	ETD 51 (15094)	Electric Vehicle Conductive Charging System Part 2 Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Section 2 Dimensional Compatibility and Interchangeability Requirements for ac Pin and Contact-Tube Accessories
12	ETD 51 (15095)	Electric Vehicle Conductive Charging System Part 2 Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Section 3 Dimensional Compatibility and Interchangeability requiRements for dc and acdc Pin and Contact-Tube Vehicle Couplers
13	ETD 51 (16825) Revision of: IS/ISO 15118:2018	Road Vehicles --- Vehicle to Grid Communication Interface Part 8 Physical Layer and Data Link Layer Requirements for Wireless Communication
14	ETD 51 (17241)	Electric Vehicle Conductive Charging Systems Part 23 dc Electric Vehicle Supply Equipment
15	ETD 51 (17258)	Electric Vehicle Conductive Charging System Part 24 Digital Communication between a DC Electric Vehicle Supply Equipment and an Electric Vehicle for control of DC Charging
16	ETD 51 (17360)	Electric Vehicle Conductive Charging Systems Part XX AC Charging Configurations Section 1 - AC Charge Point for Light Electric Vehicle
17	ETD 51 (17469)	Electric Vehicle Conductive Charging System Part 2 Plugs Socket Outlets Vehicle Connectors and Vehicle Inlets Section 6 Dimensional compatibility requirements for DC pin and contact t
18	ETD 51 (17537)	ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM Part 25 DC EV supply equipment where protection relies on electrical separation
19	ETD 51 (18175)	Electric vehicle battery swap system - Part 1 General and Guidance
20	ETD 51 (18205)	Electric vehicle battery swap system - Part 2 Safety requirements
21	ETD 51 (19223)	Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Conductive Charging of Electric Vehicles Part 2 Plugs Socket Outlets Vehicle Connectors and Vehicle Inlets Section 7 Dimensional compatibility and interchangeability requirements for ac
22	ETD 51 (21658)	Electric Vehicle Conductive Charging Systems Part 30 Dual Gun dc Electric Vehicle Supply Equipment
23	ETD 51 (21660)	ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM Part 31 ac or dc EV supply equipment for where protection relies on electrical separation
24	ETD 51 (28640) Revision of: IS 17017:2021	ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM PART 23 DC ELECTRIC VEHICLE SUPPLY EQUIPMENT First Revision
25	ETD 51 (33561)	Open Charge Point Protocol OCPP
26	ETD 51 (33563)	Road vehicles - Vehicle to grid communication interface - Part 20 Network and application protocol requirements

27	ETD 51 (33583)	Electric vehicle battery swap system - Part 1 General and Guidance
28	ETD 51 (33584)	Electric Vehicle Conductive Charging System Part 24 Digital Communication between a DC Electric Vehicle Supply Equipment and an Electric Vehicle for control of DC Charging
29	ETD 51 (33585)	Electric Vehicle Conductive Charging System Part 2 Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Section 6 Dimensional compatibility requirements for DC pin and contact-tube vehicle couplers intended to be used for DC EV supply equipment where protection relies on electrical separation
30	ETD 51 (34920)	Electric Vehicle Conductive Charging System Part 2 Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Section 1 General requirements

Total Published Standards:22 Total Standards Under development:33

Aspect Wise Report

Product : 10
Code of Practices : 3
Methods of Test : 1
Terminology : 0
Dimensions : 0
System Standard : 0
Safety Standard : 2
Others : 6
Service Specification : 0
Process Specification : 0
Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
No Records Found		

Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 17017 (Part 2/Sec 1):2020	Electric Vehicle Conductive Charging System Part 2 Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Section 1 General requirements
2	IS 17017 (Part 25):2021 ISO 6658 : 2017	ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM Part 25 DC EV supply equipment where protection relies on electrical separation
3	IS 17017 (Part 2/Sec 3):2020	Electric Vehicle Conductive Charging System Part 2 Plugs Socket - Outlets Vehicle Connectors and Vehicle Inlets Section 3 Dimensional compatibility and interchangeability requirements for d c and a c d c pin and contact-tube vehicle couplers
4	IS 17017 (Part 23):2021 ISO/IEC 11160-1:1996	Electric Vehicle Conductive Charging Systems Part 23 dc Electric Vehicle Supply Equipment
5	IS 17017 (Part 22/Sec 1):2021 ISO 21084:2019	Electric Vehicle Conductive Charging Systems Part 22 AC Charging Configurations Section 1 - AC Charge Point for Light Electric Vehicle
6	IS 17017 (Part 2/Sec 7):2023	Electric Vehicle Conductive Charging System Part 2 Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Section 7 Dimensional Compatibility and Interchange Ability Requirements for a c d c and a c d c Pin and Contact-Tube Vehicle Couplers Intended to be used for a c d c EV Supply Equipment where Protection Relies on Electrical Separation
7	IS 17017 (Part 1):2018	Electric Vehicle Conductive Charging System Part 1 General Requirements
8	IS 17017 (Part 2/Sec 6):2021	Electric Vehicle Conductive Charging System Part 2 Plugs Socket-Outlets Vehicle Connectors and Vehicle Inlets Section 6 Dimensional compatibility requirements for DC pin and contact-tube

	ISO 622 : 2016	vehicle couplers intended to be used for DC EV supply equipment where protection relies on electrical separation
9	IS 17017 (Part 30):2025	Electric Vehicle Conductive Charging Systems Part 30 Dual Gun dc Electric Vehicle Supply Equipment
10	IS 17017 (Part 2/Sec 2):2020	Electric Vehicle Conductive Charging System Part 2 Plugs Socket - Outlets Vehicle Connectors and Vehicle Inlets Section 2 Dimensional compatibility and interchangeability requirements for a c pin and contact-tube accessories