



BUREAU OF INDIAN STANDARDS

Program of Work

ETD 28 : Solar Photovoltaic Energy Systems

Scope: To prepare standards for systems of photovoltaic conversion of solar energy into electrical energy and for all the elements in the entire photovoltaic energy systems In this context, the concept photovoltaic energy systems includes the entire field from light input to solar cell and including the interface with the electrical system(s) to which energy is supplied

Liaison: **IEC TC-82 (P):** *Solar photovoltaic energy systems*

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 12762 (Part 1) : 2024 IEC 60904-1:2020 IEC 60904-1:2020	Photovoltaic Devices Part 1 Measurement of Photovoltaic Current-Voltage Characteristics (Second Revision)		-	Identical under dual numbering
2	IS 12762 (Part 1/Sec 1) : 2020 IEC 60904-1-1 : 2017 IEC 60904-1-1 : 2017	Photovoltaic Devices Part 1 Measurement of Current-Voltage Characteristics Section 1 Multi- junction PV devices		-	Identical under dual numbering
3	IS 12762 (Part 1/Sec 2) : 2020 IEC TS 60904-1-2 : 2019 IEC TS 60904-1-2:2019	Photovoltaic Devices Part 1 Measurement of Current-voltage Characteristics Section 2 Bifacial photovoltaic (PV) devices		-	Identical under dual numbering
4	IS 12762 (Part 2) : 2018 IEC 60904-2 : 2015 60904-2 : 2015	Photovoltaic devices: Part 2 Requirements for photovoltaic reference devices (Second Revision)	-	-	Identical under dual numbering
5	IS 12762 (Part 3) : 2020 IEC 60904-3 : 2019 IEC 60904-3:2019	Photovoltaic Devices Part 3 Measurement Principles for Terrestrial Photovoltaic PV Solar Devices with Reference Spectral Irradiance Data (Third Revision)	-	-	Identical under dual numbering
6	IS 12762 (Part 4) : 2014 IEC 60904-4 : 2009 Reviewed In : 2019 IEC 60904-4:2019	Photovoltaic devices: Part 4 reference solar devices - Procedures for establishing calibration traceability		-	Identical under dual numbering
7	IS 12762 (Part 4) : 2024 IEC 60904-4:2019	Photovoltaic Devices Part 4 Photovoltaic Reference Devices - Procedures for Establishing		-	Identical under dual numbering

	IEC 60904-4:2019	Calibration Traceability (First Revision)			
8	IS 12762 (Part 5) : 2014 IEC 60904-5 : 2011 Reviewed In : 2019 IEC 60904-5 : 2011	Photovoltaic devices: Part 5 determination of the equivalent cell temperature (ECT) of photovoltaic (PV) devices by the open - Circuit voltage method (First Revision)		1	Identical under dual numbering
9	IS 12762 (Part 7) : 2023 IEC 60904-7 : 2019 IEC 60904-7 : 2019	Photovoltaic Devices Part 7: Computation of the Spectral Mismatch Correction For Measurements of Photovoltaic Devices (First Revision)		-	Identical under dual numbering
10	IS 12762 (Part 8) : 2018 IEC 60904-8 : 2014 IEC 60904-8 : 2014	Photovoltaic devices: Part 8 measurement of spectral responsivity of a photovoltaic (PV) device (First Revision)	-	-	Identical under dual numbering
11	IS 12762 (Part 8/Sec 1) : 2020 IEC 60904-8-1 : 2017 IEC 60904-8-1 : 2017	Photovoltaic Devices Part 8 Measurement of Spectral Responsivity of a Photovoltaic (PV) Device Section 1 Multi-junction (PV) devices		-	Identical under dual numbering
12	IS 12762 (Part 9) : 2023 IEC 60904-9 : 2020 IEC 60904-9 : 2020	Photovoltaic Devices Part 9: Classification of Solar Simulator Characteristics (First Revision)		-	Identical under dual numbering
13	IS 12762 (Part 10) : 2023 IEC 60904-10 : 2020 IEC 60904-10 : 2020	Photovoltaic Devices Part 10: Methods of Linear Dependence and Linearity Measurements (Second Revision)		-	Identical under dual numbering
14	IS 12762 (Part 13) : 2020 IEC TS 60904-13 : 2018 IEC TS 60904-13:2018	Photovoltaic Devices Part 13 Electroluminescence of Photovoltaic Modules		-	Identical under dual numbering
15	IS 12762 (Part 14) : 2023 IEC TR 60904-14 : 2020 IEC TR 60904-14 : 2020	Photovoltaic devices Part 14: Guidelines for production line measurements of single-junction PV module maximum power output and reporting at standard test conditions		-	Identical under dual numbering
16	IS 12763 : 2024 IEC 60891:2021 IEC 60891:2021	Photovoltaic Devices Procedures for Temperature and Irradiance Corrections to Measured I-V Characteristics (Second Revision)		-	Identical under dual numbering
17	IS 12834 : 2023 IEC TS 61836 : 2016 IEC TS 61836 : 2016	Solar Photovoltaic Energy Systems Terms, Definitions and Symbols (Second Revision)		-	Identical under dual numbering
18	IS 14153 : 1994 Reviewed In : 2019 82 (CentralOffice) 19 Guide	Guide for general description of photovoltaic (PV) power generating system	March, 2019	-	Modified/Technically Equivalent
19	IS 14286 : 2010 61215 Reviewed In : 2020 IEC 61215 : 2005	Crystalline silicon terrestrial photovoltaic (PV) modules - Design qualification and type approval (First Revision)	March, 2020	-	Identical under dual numbering

20	IS 14286 (Part 1) : 2023 IEC 61215-1:2021 IEC 61215-1:2021	Terrestrial Photovoltaic PV Modules Design Qualification and Type Approval Part 1: Test Requirements (Third Revision)		-	Identical under dual numbering
21	IS 14286 (Part 1/Sec 1) : 2023 IEC 61215-1-1:2021 IEC 61215-1-1:2021	Terrestrial photovoltaic (PV) modules Design qualification and type approval Part 1-1 Special requirements for testing of crystalline silicon photovoltaic (PV) modules (Third Revision)		-	Identical under dual numbering
22	IS 14286 (Part 1/Sec 2) : 2023 IEC 61215-1-2:2021 IEC 61215-1-2:2021	Terrestrial photovoltaic (PV) modules Design qualification and type approval Part 1-2 Special requirements for testing of thin-film Cadmium Telluride (CdTe) based photovoltaic (PV) modules (Third Revision)		-	Identical under dual numbering
23	IS 14286 (Part 1/Sec 3) : 2023 IEC 61215-1-3:2021 IEC 61215-1-3:2021	Terrestrial photovoltaic (PV) modules Design qualification and type approval Part 1-3 Special requirements for testing of thin-film amorphous silicon based photovoltaic (PV) modules (Third Revision)		-	Identical under dual numbering
24	IS 14286 (Part 1/Sec 4) : 2023 IEC 61215-1-4:2021 IEC 61215-1-4:2021	Terrestrial photovoltaic (PV) modules Design qualification and type approval Part 1-4 Special requirements for testing of thin-film Cu (In,ga) (S,Se) 2 based photovoltaic (PV) modules (Third Revision)		-	Identical under dual numbering
25	IS 14286 (Part 2) : 2023 IEC 61215-2:2021 IEC 61215-2:2021	Terrestrial Photovoltaic (PV) Modules Design Qualification and Type Approval Part 2 Test Procedures (Third Revision)		-	Identical under dual numbering
26	IS 16077 : 2013 IEC 61646 : 2008 Reviewed In : 2018 IEC 61646 : 2008	Thin - Film terrestrial photovoltaic (PV) modules - Design qualification and type approval	June, 2018	-	Identical under dual numbering
27	IS 16149 : 2014 IEC 61345 : 1998 Reviewed In : 2020 IEC 61345 : 1998	UV test for photovoltaic (PV) modules	March, 2020	-	Identical under dual numbering
28	IS 16169 : 2014 IEC 62116 : 2014 IEC 62116 : 2014	Utility - Interconnected photovoltaic inverters - Test procedure of islanding prevention measures		-	Identical under dual numbering
29	IS 16169 : 2019 IEC 62116 : 2014 IEC 62116 : 2014	Utility - Interconnected photovoltaic inverters - Test procedure of islanding prevention measures (First Revision)		-	Identical under dual numbering
30	IS 16170 (Part 1) : 2014 IEC 61853-1 : 2011 Reviewed In : 2019 IEC 61853-1 : 2011	Photovoltaic (PV) Module Performance Testing and Energy Rating Part 1 Irradiance and Temperature Performance Measurements and Power Rating	March, 2019	-	Identical under dual numbering
31	IS 16170 (Part 3) : 2022 IEC 61853-3 : 2018	Photovoltaic (PV) Module Performance Testing and Energy Rating Part 3 Energy Rating of		-	Identical under dual numbering

	IEC 61853-3 : 2018	(PV) Modules (First Revision)			
32	IS 16170 (Part 4) : 2023 IEC 61853-4 : 2018 IEC 61853-4 : 2018	Photovoltaic (PV) Module Performance Testing and Energy Rating Part 4 Standard Reference Climatic Profiles		-	Identical under dual numbering
33	IS 16221 (Part 1) : 2016 IEC 62109-1 : 2010 IEC 62109-1: 2010	Safety of Power Converters for use in Photovoltaic Power Systems Part 1 General Requirements		-	Identical under dual numbering
34	IS 16221 (Part 2) : 2015 IEC 62109-2 : 2011 Reviewed In : 2020 IEC 62109-2: 2011	Safety of power converters for use in photovoltaic power systems: Part 2 particular requirements for inverters	August, 2020	-	Identical under dual numbering
35	IS 16221 (Part 3) : 2023 IEC 62109-3 : 2020 IEC 62109-3 : 2020	Safety of Power Converters for Use in Photovoltaic Power Systems Part 3: Particular Requirements for Electronic Devices in Combination with Photovoltaic Elements		-	Identical under dual numbering
36	IS 16228 : 2019 IEC 62108 : 2016 IEC 62108:2022	Concentrator Photovoltaic (CPV) Modules and Assemblies - Design Qualification and Type Approval (First Revision)		-	Identical under dual numbering
37	IS 16228 : 2024 IEC 62108:2022 IEC 62108:2022	Concentrator Photovoltaic (CPV) Modules and Assemblies - Design Qualification and Type Approval (Second Revision)		-	Identical under dual numbering
38	IS 16229 : 2024 IEC 62093:2022 IEC 62093:2022	Photovoltaic System Power Conversion Equipment - Design Qualification and Type Approval (First Revision)		-	Identical under dual numbering
39	IS 16230 : 2017 IEC 62124 : 2004 IEC 62124 : 2004	Photovoltaic (PV) Stand-Alone Systems - Design Verification		-	Identical under dual numbering
40	IS 16476 (Part 1) : 2017 Reviewed In : 2022	LED Based Solar Lantern Part 1 Specification	April, 2022	1	Indigenous
41	IS 16476 (Part 2) : 2018 m IEC/TS 62257-9-5 (2013)	Led based solar lantern: Part 2 methods of test		-	Modified/Technically Equivalent
42	IS 16662 (Part 1) : 2017 IEC 62670-1 : 2013 IEC 62670-1 : 2013	Photovoltaic concentrators (CPV) - Performance testing: Part 1 standard conditions		-	Identical under dual numbering
43	IS 16662 (Part 2) : 2018 IEC 62670-2 : 2015 IEC 62670-2 : 2015	Photovoltaic concentrators (CPV) - Performance testing: Part 2 energy measurement		-	Identical under dual numbering
44	IS 16662 (Part 3) : 2018 IEC 62670-3 : 2017 IEC 62670-3:2017	Photovoltaic concentrators (CPV) - Performance testing: Part 3 performance measurements and power rating		-	Identical under dual numbering
45	IS 16663 : 2018 IEC/TS 62727 : 2012 IEC TS 62727 :	Photovoltaic systems - Specifications for solar trackers		-	Identical under dual numbering

	2012				
46	IS 16664 : 2018 IEC 62716 : 2013 IEC 62716 : 2013	Photovoltaic (PV) Modules- Ammonia Corrosion Testing		1	Identical under dual numbering
47	IS 16781 : 2018 IEC 62852 : 2014 Reviewed In : 2023 IEC 62852 : 2014	Connectors for d.c. Application in Photovoltaic Systems Safety Requirements and Tests	August, 2023	1	Identical under dual numbering
48	IS 16782 : 2023 IEC TS 62910 : 2020 IEC TS 62910 : 2015	Utility-Interconnected Photovoltaic Inverters Test Procedure for Under Voltage Ride-Through Measurements (First Revision)		-	Identical under dual numbering
49	IS 16792 (Part 5/Sec 1) : 2023 IEC 62788-5-1: 2020 IEC 62788-5-1: 2020	Measurement Procedures For Materials Used In Photovoltaic Modules Part 5 Edge Seals Section 1 Suggested Test Methods For Use With Edge Seal Materials		-	Identical under dual numbering
50	IS 16792 (Part 1/Sec 2) : 2018 IEC 62788-1-2 : 2016 IEC 62788-1-2 : 2016	Measurement Procedures for Materials Used in Photovoltaic Modules Part 1 Encapsulants Section 2 Measurement of volume resistivity of photovoltaic encapsulants and other polymeric materials		-	Identical under dual numbering
51	IS 16792 (Part 1/Sec 4) : 2023 IEC 62788-1-4 : 2016 IEC 62788-1-4 : 2016	Measurement Procedures for Materials Used in Photovoltaic Modules Part 1: Encapsulants Section 4 Measurement of Optical Transmittance and Calculation of the Solar-Weighted Photon Transmittance Yellowness Index and UV Cut-Off Wavelength (First Revision)		-	Identical under dual numbering
52	IS 16792 (Part 1/Sec 5) : 2020 IEC 62788-1-5 : 2016 IEC 62788-1-5 : 2016	Photovoltaic Devices - Measurement Procedures for Materials Used in Photovoltaic Modules Part 1 Encapsulants Section 5 Measurement of change in linear dimensions of sheet encapsulation material resulting from applied thermal conditions		-	Identical under dual numbering
53	IS 16792 (Part 1/Sec 6) : 2023 IEC 62788-1-6: 2017 IEC 62788-1-6: 2017	Measurement Procedures for Materials Used in Photovoltaic Modules Part 1: Encapsulants Section 6 Test Methods for Determining the Degree of Cure in Ethylene-Vinyl Acetate (First Revision)		-	Identical under dual numbering
54	IS 16792 (Part 1/Sec 7) : 2023 IEC 62788-1-7 : 2020 IEC 62788-1-7 : 2020	Measurement Procedures for Materials Used in Photovoltaic Modules Part 1-7: Encapsulates Test Procedure of Optical Durability		-	Identical under dual numbering
55	IS 16792 (Part 2) : 2020 IEC TS 62788-2 : 2017	Measurement Procedures for Materials Used in Photovoltaic Modules Part 2 Polymeric Materials - Frontsheets and		-	Identical under dual numbering

	IEC TS62788-2:2017	Backsheets			
56	IS 16792 (Part 5/Sec 2) : 2022 IEC TS 62788-5-2 : 2020 IEC TS 62788-5-2 : 2020	Measurement Procedures for Materials Used in Photovoltaic Modules Part 5-2: Edge Seals Durability Evaluation Guideline		-	Identical under dual numbering
57	IS 16792 (Part 6/Sec 2) : 2023 IEC 62788-6-2 : 2020 IEC 62788-6-2 : 2020	Measurement Procedures for Materials Used In Photovoltaic Modules Part 6-2: General Tests Moisture Permeation Testing Of Polymeric Materials		-	Identical under dual numbering
58	IS 16792 (Part 7/Sec 2) : 2020 IES TS 62788-7-2 : 2017 IEC62788-7-2:2017	Measurement Procedures for Materials Used in Photovoltaic Modules Part 7 Environmental Exposures Section 2 Accelerated weathering tests of polymeric materials		-	Identical under dual numbering
59	IS 16797 : 2019 IEC 62509 : 2010 IEC 62509:2010	Battery charge controllers for photovoltaic systems - Performance and functioning		-	Identical under dual numbering
60	IS 16798 : 2018 IEC 62894 : 2014 IEC 62894 : 2014	Photovoltaic inverters - Data sheet and name plate		-	Identical under dual numbering
61	IS 16911 : 2023 IEC 62790: 2020 62790: 2020	Junction Boxes for Photovoltaic Modules Safety Requirements and Tests (First Revision)		-	Identical under dual numbering
62	IS 16960 (Part 1) : 2018 IEC 62446-1 : 2016 IEC 62446-1 : 2016	Photovoltaic (PV) systems - Requirements for testing, documentation and maintenance: Part 1 grid connected systems - Documentation, commissioning tests and inspection		1	Identical under dual numbering
63	IS 16960 (Part 2) : 2023 IEC 62446-2: 2020 IEC 62446-2: 2020	Photovoltaic PV Systems Requirements for Testing Documentation and Maintenance Part 2: Grid Connected Systems Maintenance of PV Systems		-	Identical under dual numbering
64	IS 16960 (Part 3) : 2020 IEC 62446-3 : 2017 IEC 62446-3 : 2017	Photovoltaic (PV) Systems - Requirements for Testing, Documentation and Maintenance Part 3 Photovoltaic Modules and Plants Outdoor Infrared Thermography		-	Identical under dual numbering
65	IS 17210 (Part 1) : 2019 IEC TS 62804-1 : 2015 IEC 62804-1 : 2015	Photovoltaic (PV) Modules - Test Methods for the Detection of Potential-Induced Degradation Part 1 Crystalline Silicon		-	Identical under dual numbering
66	IS 17956 : 2023 IEC 62892 : 2019 IEC 62892 : 2019	Extended Thermal Cycling of PV Modules Test Procedure		-	Identical under dual numbering
67	IS 17959 : 2023 IEC TS 63126: 2020 IEC TS 63126: 2020	Guidelines for Qualifying PV Modules Components and Materials for Operation at High Temperatures		-	Identical under dual numbering
68	IS 17963 : 2024	Managing Fire Risk Related to		-	Identical under dual

	IEC TR 63226: 2021 IEC TR 63226: 2021	Photovoltaic (PV) Systems on Buildings			numbering
69	IS 17977 : 2023 IEC TR 63279: 2020 IEC TR 63279: 2020	Derisking Photovoltaic Modules Sequential and Combined Accelerated Stress Testing		-	Identical under dual numbering
70	IS 17978 : 2022 IEC TR 63227 : 2020 IEC TR 63227 : 2020	Lightning and Surge Voltage Protection for Photovoltaic (PV) Power Supply Systems (First Revision)		-	Identical under dual numbering
71	IS 17979 : 2022 IEC TS 63019: 2019 IEC TS 63019: 2019	Photovoltaic Power Systems (PVPS) - Information Model for Availability (First Revision)		-	Identical under dual numbering
72	IS 17980 : 2022 IEC 62891 : 2020 IEC 62891 : 2020	Maximum Power Point Tracking Efficiency of Grid Connected Photovoltaic Inverters (First Revision)		-	Identical under dual numbering
73	IS 17995 : 2022 IEC TR 63225 : 2019 IEC TR 63225 : 2019	Incompatibility of Connectors for DC - Application in Photovoltaic Systems		-	Identical under dual numbering
74	IS 18114 : 2023 IEC 62941 : 2019 IEC 62941 : 2019	Terrestrial Photovoltaic (PV) Modules - Quality System for PV Module Manufacturing (First Revision)		-	Identical under dual numbering
75	IS 18124 (Part 1) : 2023 IEC 63092-1: 2020 IEC 63092-1: 2020	Photovoltaics in Buildings Part 1: Requirements for Building-Integrated Photovoltaic Modules		-	Identical under dual numbering
76	IS 18124 (Part 2) : 2023 IEC 63092-2 : 2020 IEC 63092-2 : 2020	Photovoltaics in Buildings Part 2: Requirements for Building-Integrated Photovoltaic Systems		-	Identical under dual numbering
77	IS 18127 : 2023 IEC TS 63156: 2021 IEC TS 63156: 2021	Photovoltaic Systems Power Conversion Equipment Performance Energy Evaluation Method		-	Identical under dual numbering
78	IS 18128 : 2023 IEC TS 63157: 2019 IEC TS 63157: 2019	Photovoltaic Systems Guidelines for Effective Quality Assurance of Power Conversion Equipment		-	Identical under dual numbering
79	IS 18129 : 2023 IEC 61701 : 2020 IEC 61701 : 2020	Photovoltaic (PV) Modules Salt Mist Corrosion Testing (First Revision)		-	Identical under dual numbering
80	IS 18160 (Part 1) : 2023 IEC TS 63106-1 : 2020 IEC TS 63106-1 : 2020	Simulators Used for Testing of Photovoltaic Power Conversion Equipment - Recommendations Part 1 a.c. Power Simulators		-	Identical under dual numbering
81	IS 18519 : 2024 IEC TR 63292: 2020 IEC TR 63292: 2020	Photovoltaic Power Systems (PVPSs) - Roadmap for Robust Reliability		-	Identical under dual numbering
82	IS 18596 (Part 2) : 2024 IEC TS	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 2 From		-	Identical under dual numbering

	62257-2:2015 IEC TS 62257-2:2015	Requirements to a Range of Electrification Systems			
83	IS 18596 (Part 3) : 2024 IEC TS 62257-3:2015 IEC TS 62257-3:2015	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 3 Project Development and Management		-	Identical under dual numbering
84	IS 18596 (Part 4) : 2024 IEC TS 62257-4:2015 IEC TS 62257-4:2015	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 4: System Selection and Design		-	Identical under dual numbering
85	IS 18596 (Part 5) : 2024 IEC TS 62257-5:2015 IEC TS 62257-5:2015	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 5: Protection against Electrical Hazards		-	Identical under dual numbering
86	IS 18596 (Part 6) : 2024 IEC TS 62257-6:2015 IEC TS 62257-6:2015	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 6: Acceptance Operation Maintenance and Replacement		-	Identical under dual numbering
87	IS 18596 (Part 7) : 2024 IEC TS 62257-7:2017 IEC TS 62257-7:2017	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 7 Generators		-	Identical under dual numbering
88	IS 18596 (Part 7/Sec 1) : 2024 IEC TS 62257-7-1:2010 IEC TS 62257-7-1:2010	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 7 Generators Section 1 Photovoltaic Generators		-	Identical under dual numbering
89	IS 18596 (Part 7/Sec 2) : 2024 IEC TS 62257-7-2:2022 IEC TS 62257-7-2:2022	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 7 Generators Section 2 Off-Grid Wind Turbines		-	Identical under dual numbering
90	IS 18596 (Part 7/Sec 3) : 2024 IEC TS 62257-7-3:2018 IEC TS 62257-7-3:2018	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 7 Generators Section 3 Selection of Generator Sets For Rural Electrification Systems		-	Identical under dual numbering
91	IS 18596 (Part 7/Sec 4) : 2024 IEC TS 62257-7-4:2019 IEC TS 62257-7-4:2019	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 7 Generators Section 4 Integration of Solar With Other Forms of Power Generation Within Hybrid Power Systems		-	Identical under dual numbering
92	IS 18596 (Part 8/Sec	Recommendations for Renewable		-	Identical under dual

	1) : 2024 IEC TS 62257-8-1:2018 IEC TS 62257-8-1:2018	Energy and Hybrid Systems for Rural Electrification Part 8 Selection of batteries and battery management systems for stand-alone Section 1 electrification systems Specific case of automotive flooded lead-acid batteries available in developing countries			numbering
93	IS 18596 (Part 9/Sec 1) : 2024 IEC TS 62257-9-1:2016 IEC TS 62257-9-1:2016	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 9 Integrated systems Section 1 Micropower systems		-	Identical under dual numbering
94	IS 18596 (Part 9/Sec 2) : 2024 IEC TS 62257-9-2:2016 IEC TS 62257-9-2:2016	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 9 Integrated systems Section 2 Microgrids		-	Identical under dual numbering
95	IS 18596 (Part 9/Sec 3) : 2024 IEC TS 62257-9-3:2016 IEC TS 62257-9-3:2016	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 9 Integrated systems Section 3 User interface		-	Identical under dual numbering
96	IS 18596 (Part 9/Sec 4) : 2024 IEC TS 62257-9-4:2016 IEC TS 62257-9-4:2016	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 9 Integrated systems Section 4 User installation		-	Identical under dual numbering
97	IS 18596 (Part 9/Sec 5) : 2024 IEC TS 62257-9-5:2018 IEC TS 62257-9-5:2018	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 9 Integrated Systems Section 5 Laboratory Evaluation of Stand-Alone Renewable Energy Products for Rural Electrification (First Revision)		-	Identical under dual numbering
98	IS 18596 (Part 9/Sec 6) : 2024 IEC TS 62257-9-6:2019 IEC TS 62257-9-6:2019	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 9 Integrated systems Section 6 Recommendations for selection of Photovoltaic Individual Electrification Systems PV-IES		-	Identical under dual numbering
99	IS 18596 (Part 9/Sec 7) : 2024 IEC TS 62257-9-7:2019 IEC TS 62257-9-7:2019	Renewable Energy and Hybrid Systems for Rural Electrification Part 9 Integrated Systems Section 7 Recommendations for Selection of Inverters		-	Identical under dual numbering
100	IS 18596 (Part 9/Sec 8) : 2024 IEC 62257-9-8:2020 IEC 62257-9-8:2020	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 9 Integrated Systems Section 8 Requirements for Stand-Alone		-	Identical under dual numbering

		Renewable Energy Products with Power Ratings Less Than or Equal to 350 W			
101	IS 18596 (Part 10) : 2024 IEC PAS 62257-10:2017 IEC PAS 62257-10:2017	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 10 Silicon Solar Module Visual Inspection Guide		-	Identical under dual numbering
102	IS 18596 (Part 12/Sec 1) : 2024 IEC TS 62257-12-1:2020 IEC TS 62257-12-1:2020	Recommendations for Renewable Energy and Hybrid Systems for Rural Electrification Part 12 Laboratory Evaluation of Lamps Section 1 Lighting appliances for Off-grid Electricity Systems		-	Identical under dual numbering
103	IS 18603 : 2024 IEC 62787:2021 IEC 62787:2021	Concentrator Photovoltaic (CPV) Solar Cells and Cell on Carrier (CoC) Assemblies - Qualification		-	Identical under dual numbering
104	IS 18611 : 2024 IEC 63397:2022 IEC 63397:2022	Photovoltaic PV Modules Qualifying Guidelines for Increased Hail Resistance		-	Identical under dual numbering
105	IS 18720 (Part 100) : 2024 IEC 62257-100:2022 IEC 62257-100:2022	Renewable Energy Off-Grid Systems Part 100 Overview of the IEC 62257 Series		-	Identical under dual numbering
106	IS/IEC 61683 : 1999 Reviewed In : 2020 IEC 61683:1999	Photovoltaic systems - Power conditioners - Procedure for measuring efficiency	February, 2020	-	Identical under single numbering
107	IS/IEC 61701 : 2011 Reviewed In : 2019 IEC 61701:1995	Salt mist corrosion testing of photovoltaic (PV) modules	March, 2019	-	Identical under single numbering
108	IS/IEC 61724-1 : 2021 IEC 61724-1:2021 IEC 61724-1:2021	Photovoltaic System Performance Part 1 Monitoring (Second Revision)		-	Identical under single numbering
109	IS/IEC TS 61724-2 : 2016 IEC TS 61724-2 : 2016	Photovoltaic System Performance Part 2 Capacity Evaluation Method		-	Identical under single numbering
110	IS/IEC TS 61724-3 : 2016 Reviewed In : 2023 IEC TS 61724-3 : 2016	Photovoltaic System Performance Part 3 Energy Evaluation Method	October, 2023	1	Identical under single numbering
111	IS/IEC 61727 : 2004 IEC 61727: 2004	Photovoltaic (PV) Systems - Characteristics of the Utility Interface		-	Identical under single numbering
112	IS/IEC 61730-1 : 2016 Reviewed In : 2020 IEC 61730-1 : 2016	Photovoltaic (PV) Module Safety Qualification Part 1 Requirements for Construction (First Revision)		-	Identical under single numbering
113	IS/IEC 61730-1 : 2004 Reviewed In : 2015 IEC 61730-1 : 2016	Photovoltaic (PV) Module Safety Qualification Part 1 Requirements for Construction		-	Identical under single numbering
114	IS/IEC 61730-2 : 2004	Photovoltaic (PV) Module Safety Qualification Part 2 Requirements		-	Identical under single numbering

	Reviewed In : 2015 IEC 61730-2 : 2016	for Testing			
115	IS/IEC 61730-2 : 2019 IEC 61730-2 : 2016	Photovoltaic (PV) module safety qualification: Part 2 requirements for testing (First Revision)		-	Identical under single numbering
116	IS/IEC 61829 : 2015 Reviewed In : 2020 IEC 61829: 2015	Photovoltaic Devices - Photovoltaic (PV) Array - On-Site Measurement of Current-Voltage Characteristics (First Revision)	February, 2020	-	Identical under single numbering
117	IS/IEC 62548 : 2016 IEC 62548 : 2016	Photovoltaic (PV) Arrays - Design Requirements		-	Identical under single numbering
118	IS/IEC 62688 : 2017 IEC 62688: 2017	Concentrator Photovoltaic (CPV) Modules and Assemblies Safety Qualification		-	Identical under single numbering
119	IS/IEC TS 62738 : 2018 IEC TS 62738: 2018	Ground-Mounted Photovoltaic Power Plants - Design Guidelines and Recommendations		-	Identical under single numbering
120	IS/IEC TS 62782 : 2016 IEC TS 62782: 2016	Photovoltaic (PV) Modules Cyclic (Dynamic) Mechanical Load Testing		-	Identical under single numbering
121	IS/IEC TS 62789 : 2014 IEC TS 62789:2014	Photovoltaic Concentrator Cell Documentation		-	Identical under single numbering
122	IS/IEC 62805-1 : 2017 IEC 62805-1 : 2017	Method for Measuring Photovoltaic (PV) Glass Part 1 Measurement of Total Haze and Spectral Distribution of Haze		-	Identical under single numbering
123	IS/IEC 62805-2 : 2017 IEC 62805-2 : 2017	Method for Measuring Photovoltaic (PV) Glass Part 2 Measurement of Transmittance and Reflectance		-	Identical under single numbering
124	IS/IEC 62817 : 2017 IEC 62817 : 2017	Photovoltaic System - Design Qualification of Solar Trackers		-	Identical under single numbering
125	IS/IEC TS 62915 : 2018 IEC TS 62915 : 2018	Photovoltaic (PV) Modules Type Approval, Design and Safety Qualification - Retesting		-	Identical under single numbering
126	IS/IEC TS 62916 : 2017 IEC 62916 : 2017	Photovoltaic Modules Bypass Diode Electrostatic Discharge Susceptibility - Testing		-	Identical under single numbering
127	IS/IEC 62920 : 2017 IEC 62920 : 2017	Photovoltaic Power Generating Systems - EMC Requirements and Test Methods for Power Conversion Equipment		1	Identical under single numbering
128	IEC 62925 : 2016	Concentrator Photovoltaic (CPV) Modules Thermal Cycling Test to Differentiate Increased Thermal Fatigue Durability		-	Identical under single numbering
129	IS/IEC 62979 : 2017 IEC 62979 : 2017	Photovoltaic Modules Bypass Diode Thermal Runaway Test		-	Identical under single numbering
130	IS/IEC TS 62989 : 2018 IEC TS 62989:2018	Primary Optics for Concentrator Photovoltaic Systems		-	Identical under single numbering
131	IS/IEC/TS 62994 : 2019 IEC TS 62994 : 2019	Photovoltaic (PV) Modules Through the Life Cycle - Environmental Health and Safety EHS Risk Assessment - General Principles and Nomenclature		-	Identical under single numbering
132	IS/IEC 63049 : 2017	Terrestrial Photovoltaic (PV)		-	Identical under single

	IEC TS 63049 : 2017	Systems Guidelines for Effective Quality Assurance in PV Systems Installation Operation and Maintenance			numbering
133	IS/IEC 63202-1 : 2019 IEC 63202-1 : 2019	Photovoltaic Cells Part 1 Measurement of Light-Induced Degradation of Crystalline Silicon Photovoltaic Cells		-	Identical under single numbering
134	IS/IEC/TR 63228 : 2019 IEC TR 63228 : 2019	Measurement Protocols for Photovoltaic Devices Based on Organic, Dye-Sensitized or Perovskite Materials		-	Identical under single numbering

Standards under Development

Projects Approved

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Preliminary Draft Standards

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Drafts Standards in WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
1	ETD 28 (25768)	Photovoltaic PV Modules Transportation Testing Part 1 Transportation and Shipping of Module Package Units
2	ETD 28 (25770)	Photovoltaic Devices Part 1 Measurement of Photovoltaic Current-Voltage Characteristics Second Revision
3	ETD 28 (25771)	Photovoltaic Devices Part 2 Requirements for Photovoltaic Reference Devices Third Revision
4	ETD 28 (25773)	Photovoltaic Devices Part 4 Photovoltaic Reference Devices Procedures for Establishing Calibration Traceability First Revision
5	ETD 28 (25783)	Photovoltaic Devices Procedures for Temperature and Irradiance Corrections To Measured I-V Characteristics Second Revision
6	ETD 28 (25784)	Concentrator Photovoltaic CPV Modules and Assemblies Design Qualification and Type Approval Second Revision
7	ETD 28 (25785)	Photovoltaic System Power Conversion Equipment Design Qualification and Type Approval First Revision
8	ETD 28 (25786)	Photovoltaic PV Modules - Salt Mist Corrosion Testing First Revision
9	ETD 28 (25788)	Photovoltaic System Performance Part 1 Monitoring Second Revision
10	ETD 28 (25790)	Photovoltaic PV Module Safety Qualification Part 1 Requirements for Construction Second Revision
11	ETD 28 (25791)	Photovoltaic PV Module Safety Qualification Part 2 Requirements for Testing Second Revision
12	ETD 28 (25793)	Photovoltaic PV Arrays Part 1 Design Requirements First Revision
13	ETD 28 (25794)	Photovoltaic PV Modules -Type Approval Design and Safety Qualification Retesting First Revision

Finalized Draft Indian Standard

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SI. No.	Doc No.	Title
<i>No Records Found</i>		

Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Total Published Standards:103 Total Standards Under development:13

Aspect Wise Report

Product : 20
 Code of Practices : 13
 Methods of Test : 64
 Terminology : 1
 Dimensions : 0
 System Standard : 3
 Safety Standard : 3
 Others : 22
 Service Specification : 2
 Process Specification : 1
 Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 14244 : 1995 IEC 1194 Reviewed In : 2015 IEC 1194	Characteristic parameters of stand alone photovoltaic PV systems
2	IS 16170 (Part 2) : 2018 IEC 61853-2 : 2016 IEC 61853-2 : 2016	Photovoltaic PV module performance testing and energy rating Part 2 spectral responsivity incidence angle and module operating temperature measurements
3	IS/IEC 61724 : 1998 Reviewed In : 2015 IEC 61724:1998	Photovoltaic system performance monitoring - Guidelines for measurement data exchange and analysis
4	IS/IEC 61725 : 1997 Reviewed In : 2020 IEC 61725:1997	Analytical expression for daily solar profiles
5	IS/IEC 62941 : 2016 IEC 62941 : 2016 IEC 62941 : 2016	Terrestrial Photovoltaic PV Modules Guidelines for Increased Confidence in PV Module Design Qualification and Type Approval

Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 12762 (Part 1/Sec 2) : 2020 IEC TS 60904-1-2 : 2019 IEC TS 60904-1-2:2019	Photovoltaic Devices Part 1 Measurement of Current-voltage Characteristics Section 2 Bifacial photovoltaic PV devices
2	IS 12762 (Part 2) : 2018 IEC 60904-2 : 2015 60904-2 : 2015	Photovoltaic devices Part 2 Requirements for photovoltaic reference devices Second Revision
3	IS 14286 : 2010 61215 Reviewed In : 2020 IEC 61215 : 2005	Crystalline silicon terrestrial photovoltaic PV modules - Design qualification and type approval First Revision

4	IS 14286 (Part 1/Sec 1) : 2023 IEC 61215-1-1:2021	Terrestrial photovoltaic PV modules Design qualification and type approval Part 1-1 Special requirements for testing of crystalline silicon photovoltaic PV modules Third Revision
5	IS 14286 (Part 1/Sec 2) : 2023 IEC 61215-1-2:2021	Terrestrial photovoltaic PV modules Design qualification and type approval Part 1-2 Special requirements for testing of thin-film Cadmium Telluride CdTe based photovoltaic PV modules Third Revision
6	IS 14286 (Part 1/Sec 3) : 2023 IEC 61215-1-3:2021	Terrestrial photovoltaic PV modules Design qualification and type approval Part 1-3 Special requirements for testing of thin-film amorphous silicon based photovoltaic PV modules Third Revision
7	IS 14286 (Part 1/Sec 4) : 2023 IEC 61215-1-4:2021	Terrestrial photovoltaic PV modules Design qualification and type approval Part 1-4 Special requirements for testing of thin-film Cu In ga S Se 2 based photovoltaic PV modules Third Revision
8	IS 16077 : 2013 IEC 61646 : 2008 Reviewed In : 2018 IEC 61646 : 2008	Thin - Film terrestrial photovoltaic PV modules - Design qualification and type approval
9	IS 16221 (Part 2) : 2015 IEC 62109-2 : 2011 Reviewed In : 2020 IEC 62109-2: 2011	Safety of power converters for use in photovoltaic power systems Part 2 particular requirements for inverters
10	IS 16230 : 2017 IEC 62124 : 2004 IEC 62124 : 2004	Photovoltaic PV Stand-Alone Systems - Design Verification
11	IS 16476 (Part 1) : 2017 Reviewed In : 2022	LED Based Solar Lantern Part 1 Specification
12	IS 16663 : 2018 IEC/TS 62727 : 2012 IEC TS 62727 : 2012	Photovoltaic systems - Specifications for solar trackers
13	IS 16781 : 2018 IEC 62852 : 2014 Reviewed In : 2023 IEC 62852 : 2014	Connectors for d c Application in Photovoltaic Systems Safety Requirements and Tests
14	IS 16797 : 2019 IEC 62509 : 2010 IEC 62509:2010	Battery charge controllers for photovoltaic systems - Performance and functioning
15	IS 17980 : 2022 IEC 62891 : 2020 ISO/IEC 27099:2022	Maximum Power Point Tracking Efficiency of Grid Connected Photovoltaic Inverters First Revision
16	IS/IEC 61730-1 : 2004 Reviewed In : 2015 ISO/IEC 30108-1:2015	Photovoltaic PV Module Safety Qualification Part 1 Requirements for Construction
17	IS/IEC 61730-2 : 2004 Reviewed In : 2015 ISO 5667-12:2017	Photovoltaic PV Module Safety Qualification Part 2 Requirements for Testing
18	IS/IEC 62688 : 2017 IEC 62688: 2017	Concentrator Photovoltaic CPV Modules and Assemblies Safety Qualification
19	IS/IEC 62817 : 2017 IEC 60721-3-7: 1995	Photovoltaic System - Design Qualification of Solar Trackers
20	IS/IEC TS 62915 : 2018 IEC TS 62915 : 2018	Photovoltaic PV Modules Type Approval Design and Safety Qualification - Retesting