



# MAPPING OF INDIAN STANDARDS TO SCHEMES/MISSIONS OF GOVERNMENT OF INDIA MINISTRY OF NEW AND RENEWABLE ENERGY

## BUREAU OF INDIAN STANDARDS

Ministry of Consumer Affairs,  
Food and Public Distribution  
Government of India

भारतीय मानक ब्यूरो  
उपभोक्ता मामले, खाद्य और  
सार्वजनिक वितरण मंत्रालय  
भारत सरकार





## Foreword

BIS being the National Standards Body of India has the onus of leading the Standardization activities in the nation, BIS has taken up a monumental task of mapping of applicable Indian Standards to government schemes/missions run by various ministries. Extensive brainstorming exercise was done by officers of Standardization and Certification departments to map more than 3200 Indian Standards towards 75 government schemes/missions panning across 29 Ministries/Departments of Government of India.

Following key advantages are envisaged through this exercise:

- ☐ Products procured by Central/State Government Departments for implementation of schemes are of right quality and adhere to Indian Standards.
- ☐ Wherever there are certain processes/services involved, the executive departments follow right code of practices.
- ☐ In case of certain products/processes/services for which Indian Standards are not available; such gap areas are identified in timely manner and respective technical committees can take up the matter for formulation of standards on such areas.
- ☐ Standards and quality culture is imbibed in central/state government departments across all levels, as adherence to Indian Standards fosters a culture of quality and reliability within government departments.
- ☐ For future schemes/missions government departments can proactively get involved with BIS for providing the necessary assistance pertaining to standardization needs related to upcoming schemes/missions.
- ☐ This will assist Ministries in preparing Annual Work Programme for Standardization.

The Indian Standards for each scheme mission have been classified into two broad categories:

- ☐ Product Standards
- ☐ Other than Product Standards

For each of these broad categories we have further identified:

- ☐ Standards Available
- ☐ Standards Under Development
- ☐ Areas Identified for Standardization in Future

Furthermore, mandatory standards under Quality Control Order (QCO) have been marked in dark shades.

With the mapping exercise BIS aims to contribute further towards a more effective and efficient implementation of various schemes/missions run by government and to imbibe quality culture across all levels where these schemes are making an impact.

This booklet includes standards relevant to respective Ministry/Department and is a part of Schemes through Standards document available on BIS website. Complete Schemes through Standards document can be accessed through following link:

[https://www.bis.gov.in/wp-content/uploads/2023/07/Mapping-of-Schemes\\_Missions-of-Government-of-India.pdf](https://www.bis.gov.in/wp-content/uploads/2023/07/Mapping-of-Schemes_Missions-of-Government-of-India.pdf)

The document is of evolutionary nature and same has been prepared as discussion document. BIS will keep on updating this document based on inputs received from Central/State Ministries and Departments.

Indian Standards are readily available for download on BIS website under “Know Your Standards” tab and can be accessed through link or QR code mentioned below:



[https://www.services.bis.gov.in/php/BIS\\_2.0/bisconnect/knowyourstandards/indian\\_standards/isdetails](https://www.services.bis.gov.in/php/BIS_2.0/bisconnect/knowyourstandards/indian_standards/isdetails)

Indian Standards can be searched by any of the following ways:

- a) By IS Number
- b) By Keyword/Standard Title



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## **Section 1: Standards Pertaining to Civil Works** **and Related Electrical Works**

### ***About this Section***

This list contains standards on commonly used materials related to civil works and also includes standards related to construction materials and electrical installations. This list aims to help the reader to identify standards for common aspects of civil works.

### **PART A1: Product Standards related to Civil Works**

| <b>Cement</b>                 |                                                                                                                                                |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| IS 269: 2015                  | Ordinary Portland Cement — Specification ( <i>Sixth Revision</i> )                                                                             |
| IS 16415:2015                 | Composite Cement — Specification                                                                                                               |
| IS 1489 (Part 1):2015         | Portland Pozzolana Cement — Specification: Part 1 Fly Ash Based                                                                                |
| IS 1489 (Part 2):2015         | Portland Pozzolana Cement — Specification: Part 2 Calcined Clay Based ( <i>Fourth Revision</i> )                                               |
| IS 3812 (Part 2):2013         | High Alumina Cement for Structural Use — Specification ( <i>First Revision</i> )                                                               |
| IS 455:2015                   | Portland Slag Cement — Specification ( <i>Fifth Revision</i> )                                                                                 |
| IS 8042:2015                  | White Portland Cement — Specification ( <i>Third Revision</i> )                                                                                |
| IS 8041: 1990                 | Rapid Hardening Portland Cement — Specification ( <i>Second Revision</i> )                                                                     |
| IS 16714:2018                 | Ground Granulated Blast Furnace Slag for Use in Cement, Mortar and Concrete — Specification                                                    |
| <b>Construction Materials</b> |                                                                                                                                                |
| IS 15658: 2021                | Concrete Paving Blocks — Specification ( <i>First Revision</i> )                                                                               |
| IS 15778: 2007                | Chlorinated Polyvinyl Chloride (CPVC) Pipes for Potable Hot and Cold Water Distribution Supplies — Specification                               |
| IS 383:2016                   | Coarse and Fine Aggregates for Concrete — Specification ( <i>Third Revision</i> )                                                              |
| IS 2185 (Part 1):2005         | Concrete Masonry Units — Specification: Part 1 Hollow and Solid Concrete Blocks ( <i>Third Revision</i> )                                      |
| IS 217: 2018                  | Cutback Bitumen — Specification ( <i>Third Revision</i> )                                                                                      |
| IS 1786:2008                  | High Strength Deformed Steel Bars and Wires for Concrete Reinforcement — Specification ( <i>Fourth Revision</i> )                              |
| IS 7834 Part 1:1987           | Injection Moulded PVC Socket Fittings with Solvent Cement Joints for Water Supplies: Part 1 General Requirements                               |
| IS 432 (Part 1):1982          | Mild Steel and Medium Tensile Steel Bars and Hard-Drawn Steel Wire for Concrete Reinforcement: Part 1 Mild Steel and Medium Tensile Steel Bars |
| IS 432 (Part 2):1982          | Mild Steel and Medium Tensile Steel Bars and Hard-Drawn Steel Wire for Concrete Reinforcement: Part 2 Hard-Drawn Steel Wire                    |
| IS 73: 2013                   | Paving Bitumen — Specification ( <i>Fourth Revision</i> )                                                                                      |

|                                                            |                                                                                                                                                                                         |
|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IS 458:2021                                                | Precast Concrete Pipes (with and without Reinforcement)                                                                                                                                 |
| IS 3812 (Part 1):2013                                      | Pulverized Fuel Ash — Specification: Part 1 for use as Pozzolana in Cement, Cement Mortar and Concrete ( <i>Third Revision</i> )                                                        |
| IS 3812 (Part 2):2013                                      | Pulverized Fuel Ash — Specification: Part 2 for use as Admixture in Cement Mortar and Concrete ( <i>Third Revision</i> )                                                                |
| IS 16720:2018                                              | Pulverized Fuel Ash-Cement Bricks — Specification                                                                                                                                       |
| IS 17079:2019                                              | Rubber Modified Bitumen (Rmb) - Specification                                                                                                                                           |
| IS 6603: 2001                                              | Stainless Steel Bars and Flats — Specification                                                                                                                                          |
| IS 2556 (Part 1) :2021                                     | Vitreous China Sanitary Appliances — Specification: Part 1 General Requirements ( <i>Fourth Revision</i> )                                                                              |
| IS 14982: 2022                                             | Anti-Stripping Agents for Bitumen Addition — Specification                                                                                                                              |
| IS 3117: 2004                                              | Bitumen Emulsion for Roads and Allied Applications Anionic Type — Specification ( <i>First Revision</i> )                                                                               |
| IS 8887: 2018                                              | Bitumen Emulsion for Roads Cationic Type — Specification ( <i>Third Revision</i> )                                                                                                      |
| IS 15883 (Part 1)                                          | Construction Project Management                                                                                                                                                         |
| IS 15808: 2008                                             | Multi - Grade Bitumen for Use in Pavement Construction — Specification                                                                                                                  |
| IS 15462: 2019                                             | Polymer Modified Bitumen Pmb Specification ( <i>First Revision</i> )                                                                                                                    |
| IS 17052: 2018                                             | Rejuvenating Agents for Hot Mix Recycling of Bituminous Surfacing — Specification                                                                                                       |
| IS 16651:2017                                              | High Strength Deformed Stainless Steel Bars and Wires for Concrete Reinforcement — Specification                                                                                        |
| <b>Housing, Building Construction, Building Components</b> |                                                                                                                                                                                         |
| IS 14846: 2000                                             | Sluice Valve for Water Works Purposes (50 to 1200 mm Size) — Specification                                                                                                              |
| IS 15391:2012                                              | Solid Panel Foam UPVC Door Shutters — Specification                                                                                                                                     |
| IS 2365: 2018                                              | Steel Wire Suspension Ropes for Lifts, Elevators and Hoists — Specification ( <i>Second Revision</i> )                                                                                  |
| IS 17546:2021                                              | Chlorinated Polyvinyl Chloride (CPVC) Fittings for Potable Hot and Cold Water Distribution Supplies — Specification                                                                     |
| IS 8360: 2022                                              | Fabricated Polyethylene Fittings for Water Supply — Specification ( <i>First Revision</i> )                                                                                             |
| IS 2202 (Part 1): 2023                                     | Wooden Flush Door Shutters Solid Core Type Specification Part 1 Plywood Face Panels ( <i>Seventh Revision</i> )                                                                         |
| IS 2202 (Part 2): 2022                                     | Wooden Flush Door Shutters Solid Core Type Specification Part 2 Particle Board High Density Fiber Board Medium Density Fiber Board and Hardboard Face Panels ( <i>Fourth Revision</i> ) |
| IS 2556 (Part 3): 2004                                     | Vitreous Sanitary Appliances (Vitreous China) — Specification — Part 3: Specific Requirements of Squatting Pans                                                                         |
| IS 17650 (Part 1): 2021                                    | Water Efficient Plumbing Products Requirements: Part 1 Sanitaryware                                                                                                                     |

|                                 |                                                                                                                                                                                     |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IS 17650 (Part 2): 2021         | Water Efficient Plumbing Products Requirements: Part 2 Sanitary Fittings                                                                                                            |
| <b>Pipes</b>                    |                                                                                                                                                                                     |
| IS 13592: 2013                  | Unplasticized Polyvinyl Chloride (PVC-U) Pipes for Soil and Waste Discharge System Inside and Outside Buildings Including Ventilation and Rainwater System                          |
| IS 12818: 2010                  | Unplasticized Polyvinyl Chloride (PVC - U) Screen and Casing Pipes for Bore/ Tubewells                                                                                              |
| IS 4984:2016                    | Polyethylene Pipes for Water Supply — Specification ( <i>Fifth Revision</i> )                                                                                                       |
| IS 15450:2022                   | Polyethylene-Aluminium Polyethylene Composite Pressure Pipes for Hot and Cold Water Supplies — Specification ( <i>First Revision</i> )                                              |
| IS 15801:2008                   | Polypropylene-Random Copolymer Pipes for Hot and Cold Water Supplies — Specification                                                                                                |
| IS 4985:2021                    | Unplasticized PVC Pipes for Potable Water Supplies — Specification ( <i>Fourth Revision</i> )                                                                                       |
| IS 15328:2003                   | Unplasticized Non-Pressure Polyvinyl Chloride (PVC-U) Pipes for use in Underground Drainage and Sewerage Systems — Specification                                                    |
| <b>Steel for Structural Use</b> |                                                                                                                                                                                     |
| IS 277:2018                     | Galvanised Steel Sheets                                                                                                                                                             |
| IS 4923:2017                    | Hollow Steel Section for Structural Use                                                                                                                                             |
| IS 2062: 2011                   | Hot Rolled Medium and High Tensile Structural Steel                                                                                                                                 |
| IS 6911: 2017                   | Stainless Steel Plate, Sheet and Strip — Specification                                                                                                                              |
| IS 1161: 2014                   | Steel Tubes for Structural Purposes — Specification                                                                                                                                 |
| <b>Fittings</b>                 |                                                                                                                                                                                     |
| IS 14735: 1999                  | Unplasticized Polyvinyl Chloride (UPVC) Injection Moulded Fittings for Soil and Waste Discharge System for Inside and Outside Buildings Including Ventilation and Rain Water System |
| IS 14885:2022                   | Polyethylene Pipes for the Supply of Gaseous Fuels — Specification ( <i>First Revision</i> )                                                                                        |
| IS 9271:2004                    | Unplasticized Polyvinyl Chloride (UPVC) Single Wall Corrugated Pipes for Drainage — Specification ( <i>First Revision</i> )                                                         |
| IS 1703:2000                    | Water Fittings — Copper Alloy Float Valves (Horizontal Plunger Type) — Specification ( <i>Fourth Revision</i> )                                                                     |



## PART A2: Other than Product Standards related to Civil Works

| Construction Materials    |                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SP 7: 2016                | National Building Code of India                                                                                                                                                             |
| IS 10262:2019             | Concrete Mix Proportioning — Guidelines ( <i>Second Revision</i> )                                                                                                                          |
| IS 2541: 1991             | Preparation and use of Lime Concrete — Code of Practice                                                                                                                                     |
| IS 456: 2000              | Plain and Reinforced Concrete - Code of Practice ( <i>Fourth Revision</i> )                                                                                                                 |
| IS 4926:2003              | Ready-Mixed Concrete — Code of Practice ( <i>Second Revision</i> )                                                                                                                          |
| IS 5817: 1992             | Preparation and use of Lime-Pozzolana Mixture Concrete in Buildings and Roads — Code of Practice                                                                                            |
| Building Construction     |                                                                                                                                                                                             |
| IS 11384: 2022            | Composite Construction in Structural Steel and Concrete — Code of Practice ( <i>First Revision</i> )                                                                                        |
| IS 15797:2008             | Roof Top Rainwater Harvesting — Guidelines                                                                                                                                                  |
| IS 15912:2018             | Structural Design Using Bamboo — Code of Practice ( <i>First Revision</i> )                                                                                                                 |
| IS 15916:2020             | Building Design and Erection Using Prefabricated Concrete — Code of Practice                                                                                                                |
| IS 15917:2020             | Building Design and Erection Using Mixed/Composite Construction — Code of Practice                                                                                                          |
| IS 16231 (Part 1):2019    | Use of Glass in Buildings — Code of Practice: Part 1 General Methodology for Selection ( <i>First Revision</i> )                                                                            |
| IS 16231 (Part 2):2019    | Use of Glass in Buildings — Code of Practice: Part 2 Energy and Light ( <i>First Revision</i> )                                                                                             |
| IS 16231 (Part 3):2019    | Use of Glass in Buildings — Code of Practice: Part 3 Fire and Loading ( <i>First Revision</i> )                                                                                             |
| IS 16231 (Part 4):2019    | Use Of Glass in Buildings — Code of Practice: Part 4 Safety Related to Human Impact ( <i>First Revision</i> )                                                                               |
| Water Supply & Sanitation |                                                                                                                                                                                             |
| IS 1172: 1993             | Code of Basic Requirements for Water Supply, Drainage and Sanitation                                                                                                                        |
| IS 14961:2001             | Guidelines For Rainwater Harvesting in Hilly Areas by Roof Water Collection System                                                                                                          |
| Pipes and Fittings        |                                                                                                                                                                                             |
| IS 7634 (Part 2):2012     | Plastics Pipes Selection, Handling, Storage and Installation for Potable Water Supplies — Code of Practice: Part 2 Laying and Jointing of Polyethylene (PE) Pipes ( <i>First Revision</i> ) |
| IS 7634 (Part 3):2003     | Plastic Pipes Selection, Handling, Storage and Installation for Potable Water Supplies — Code of Practice: Part 3 Laying and Jointing of UPVC Pipes ( <i>First Revision</i> )               |
| SP 57: 1993               | Handbook for Pipes and Fittings for Drinking Water Supply                                                                                                                                   |



| Infrastructure & Safety |                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------|
| IS 13935:2009           | Seismic Evaluation, Repair and Strengthening of Masonry Buildings — Guidelines ( <i>First Revision</i> )  |
| IS 14496 (Part 1):2020  | Preparation of Landslide Hazard Zonation Maps in Mountainous Terrains — Guidelines: Part 1 Meso-Zonation  |
| IS 14496 (Part 2):1998  | Preparation of Landslide Hazard Zonation Maps in Mountainous Terrains — Guidelines: Part 2 Macro-Zonation |
| IS 15988:2013           | Seismic Evaluation and Strengthening of Existing Reinforced Concrete Buildings — Guidelines               |
| IS 17162:2020           | Preparation of Landslide Risk Assessment Maps in Mountainous Terrains — Guidelines                        |



### PART A3: Product Standards related to Electrical Installations in Civil Works

| Switchgear                  |                                                                                                                                                                           |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IS 12640 (Part 1): 2016     | Residual Current Operated Circuit Breakers without Integral Overcurrent Protection for Household and Similar Uses (RCCBs): Part 1 General Rules                           |
| IS/IEC 60898 (Part 1): 2015 | Electrical Accessories - Circuit Breakers for Overcurrent Protection for Household and Similar Installations: Part 1 Circuit — Breakers for AC Operation                  |
| IS/ IEC 61008: 2010         | Residual Current Operated Circuit Breakers Without Integral Over Current Protection                                                                                       |
| Energy Management           |                                                                                                                                                                           |
| IS 13779: 2020              | AC Static Watthour Meters Class 1 And 2 — Specification                                                                                                                   |
| IS 16444 (Part 1): 2015     | AC Static Direct Connected Watthour Smart Meter Class 1 and 2 — Specification                                                                                             |
| IS 16444 (Part 2): 2017     | AC Static Transformer Operated Watthour and VAR - Hour Smart Meters, Class 0.2 S, 0.5 S and 1.0 S: Part 2 Specification Transformer Operated Smart Meters                 |
| IS 16476 (Part 1): 2017     | Led Based Solar Lantern Part 1 — Specification                                                                                                                            |
| IS 16614 (Part 2): 2022     | Double-Capped Led Linear Lamps Part 2 — Performance Specification                                                                                                         |
| Electrical Appliances       |                                                                                                                                                                           |
| IS 1391 (Part 1): 2017      | Room Air Conditioners — Specification: Part 1 Unitary Air Conditioners                                                                                                    |
| IS 1391 (Part 2): 2018      | Room Air Conditioners — Specification: Part 2 Split Air Conditioners                                                                                                      |
| IS 19014: 2022              | Household Electric Cooking Appliances — Performance Requirements of Electric Hobs                                                                                         |
| IS 2082 :2018               | Stationary Storage Type Electric Water Heaters — Specification ( <i>Fifth Revision</i> )                                                                                  |
| IS 374: 2019                | Specification For Electric Ceiling Type Fans ( <i>Third Revision</i> )                                                                                                    |
| Power Systems               |                                                                                                                                                                           |
| IS 9537 (Part 1 to Part 6)  | Conduits for Electrical Installations                                                                                                                                     |
| IS 1180 (Part 1): 2014      | Outdoor Type Oil Immersed Distribution Transformers Up to and Including 2 500 kVA, 33kV — Specification Part 1 Mineral Oil Immersed                                       |
| IS 1180 (Part 3): 2021      | Outdoor/Indoor Type Liquid Immersed Distribution Transformers up to and Including 2 500 kVA, 33 kV — Specification Part 3 Natural/Synthetic Organic Ester Liquid Immersed |
| IS 1293:2019                | Plugs And Socket- Outlets of Rated Voltage up to and Including 250 Volts and Rated Current up to and Including 16 Amperes — Specification ( <i>Fourth Revision</i> )      |
| IS 3854: 1997               | Switches for Domestic and Similar Purposes                                                                                                                                |
| IS 1554 (Part 1): 1988      | Specification For PVC Insulated (Heavy Duty) Electric Cables: Part 1 for Working Voltages up to and including 1100 V ( <i>Third Revision</i> )                            |

|                                 |                                                                                                                                                            |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IS 1554 (Part 2): 1988          | Specification For PVC Insulated (Heavy Duty) Electric Cables: Part 2 For Working Voltages From 3.3 kV up to and Including 11 kV ( <i>Second Revision</i> ) |
| 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          |
| IS 7098 (Part 1): 1988          | Specification for Cross-linked Polyethylene Insulated PVC Sheathed Cables: Part 1 for Working Voltages up to and Including 1100 Volts                      |
| IS/IEC 60947 Series             | Low-Voltage Switchgear and Control Gear                                                                                                                    |
| IS 13703: 1993                  | Low Voltage Fuses for Voltage not Exceeding 1 000 V AC or 1500 V DC                                                                                        |
| IS 14772: 2000                  | Enclosures for Accessories for Household and Similar Fixed Electrical Installations                                                                        |
| <b>Luminaries</b>               |                                                                                                                                                            |
| IS 10322 (Part 5 / Sec 1): 2012 | Luminaires Part 5 Particular Requirements Sec 1 Fixed General Purpose Luminaires                                                                           |
| IS 16102 (Part 2): 2017         | Self — Ballasted Led Lamps for General Lighting Services: Part 2 Performance Requirements ( <i>First Revision</i> )                                        |
| IS 16103 (Part 1): 2012         | Led Modules for General Lighting: Part 1 Safety Requirements                                                                                               |
| IS 16103 (Part 2): 2012         | Led Modules for General Lighting: Part 2 Performance Requirements                                                                                          |
| IS 16107 (Part 2/ Sec 2): 2017  | Luminaires Performance Part 2 Particular Requirements Section 2 Led Street Lighting Luminaire                                                              |



**PART A4:** *Other than Product Standards* related to Electrical Installations in Civil Works

| Code of Practice            |                                                                                                                                             |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| SP 30: 2023                 | National Electrical Code of India                                                                                                           |
| IS 732: 2019                | Code of Practice for Wiring Installations                                                                                                   |
| IS 1255: 1983               | Code of Practice for Installation and Maintenance of Cables up to and Including 33kV Rating                                                 |
| IS 2440:1975                | Guide For Daylighting of Buildings ( <i>Second Revision</i> )                                                                               |
| IS 3646(Part 1):1992        | Code of Practice for Interior Illumination: Part 1 General Requirements and Recommendations for Working Interiors ( <i>First Revision</i> ) |
| IS 6060:1971                | Code of Practice for Daylighting of Factory Buildings                                                                                       |
| IS 7942:1976                | Code of Practice for Daylighting of Educational Buildings                                                                                   |
| IS 9457:2005                | Safety Colours and Safety Signs-Code of Practice ( <i>First Revision</i> )                                                                  |
| IS 16103 (Part 1): 2012     | LED Modules for General Lighting: Part 1 Safety Requirements                                                                                |
| Power Systems               |                                                                                                                                             |
| IS 16205(Part 1): 2017      | Conduit Systems for Cable Management — General Requirements                                                                                 |
| IS/ IEC 60364-5-52: 2009-10 | Low Voltage Electrical Installations — Selection and Erection of Electrical Equipment — Wiring Systems                                      |
| IS 12063:1987               | Classification of Degree of Protection by Enclosures of Electrical Equipment                                                                |



## **Section 2: Standards Related to Management Systems**

### **About this Section**

This section encompasses published Management System standards that are applicable across schemes. These standards provide a systematic framework for organizations to establish, implement, maintain, and continually improve their management systems.

|                                  |                                                                                                                                    |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| IS/ISO 9001: 2015                | Quality Management Systems — Requirements                                                                                          |
| IS/ISO 31000: 2018               | Risk Management — Guidelines                                                                                                       |
| IS 16010: 2012                   | Good Governance — Guidance                                                                                                         |
| IS/ISO 10006: 2017               | Quality Management Systems — Guidelines for Quality Management in Projects                                                         |
| IS/ISO 10018: 2020               | Quality Management Guidance for People Engagement                                                                                  |
| IS/ISO 10015: 2019               | Guidelines For Competence Management and People Development                                                                        |
| IS/ISO 30408: 2016               | Human Resource Management — Guidelines on Human Governance                                                                         |
| IS/ISO 30409: 2016               | Human Resource Management — Workforce Planning                                                                                     |
| IS/ISO/TR 30406: 2017            | Human Resource Management — Sustainable Employability Management for Organizations                                                 |
| IS/ISO 32210: 2022               | Sustainable Finance — Guidance on the Application of Sustainability Principles for Organizations in the Financial Sector           |
| IS/ISO 10014: 2021               | Quality Management Systems — Managing an Organization for Quality Results — Guidance for Realizing Financial and Economic Benefits |
| IS/ISO 9004: 2018                | Quality Management — Quality of an Organization - Guidance to Achieve Sustained Success                                            |
| IS/ISO 12812 (Part 1 to 5): 2017 | Core Banking — Mobile Financial Services                                                                                           |
| IS/ISO/TR 30406: 2017            | Human Resource Management — Sustainable Employability Management for Organizations                                                 |
| IS/ISO 21503:2022                | Project, Programme and Portfolio Management — Guidance on Programme Management                                                     |



## ***Section 3: Mapping of Scheme/Missions***

### ***National Solar Mission***

### **Ministry of New and Renewable Energy**

#### **About the Scheme/Mission**

The National Solar Mission is a major initiative of the Government of India and State Governments to promote ecologically sustainable growth while addressing India's energy security challenge. It will also constitute a major contribution by India to the global effort to meet the challenges of climate change. The Mission's objective is to establish India as a global leader in solar energy by creating the policy conditions for solar technology diffusion across the country as quickly as possible.

#### **Product Standards**

##### ***Standards Published***

| <b>Construction material</b>                                                      |                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| for Product Standards Pertaining to Civil Works, Please Refer Section 2 — Part A1 |                                                                                                                                                                                                                            |
| <b>Energy management</b>                                                          |                                                                                                                                                                                                                            |
| IS 14286 (Part 1/Sec 1):2019                                                      | Terrestrial Photovoltaic (PV) Modules — Design Qualification and Type Approval: Part 1 Test Requirements: Sec 1 Special Requirements for Testing of Crystalline Silicon Photovoltaic (PV) Modules                          |
| IS 14286 (Part 1/Sec 2) : 2019                                                    | Terrestrial Photovoltaic (PV) Modules — Design Qualification and Type Approval: Part 1 Test Requirements: Sec 2 Special Requirements for Testing of Thin — Film Cadmium Telluride (Cdte) Based Photovoltaic (PV) Modules   |
| IS 14286 (Part 1/Sec 3) : 2019                                                    | Terrestrial Photovoltaic (PV) Modules — Design Qualification and Type Approval: Part 1 Test Requirements: Sec 3 Special Requirements for Testing of Thin — Film Amorphous Silicon Based Photovoltaic (PV) Modules          |
| IS 14286 (Part 1/Sec 4) : 2019                                                    | Terrestrial Photovoltaic (PV) Modules – Design Qualification and Type Approval – Part 1 Test Requirements Sec 4 Special Requirements for Testing of Thin—Film Cu(In,Ga)(S,Se) <sub>2</sub> Based Photovoltaic (PV) Modules |
| IS 17941 : 2022                                                                   | Handpump Cum Solar Pumping System                                                                                                                                                                                          |
| IS 13429 (Part 1) : 2020                                                          | Solar Cooker — Box Type — Specification Part 1 Requirements                                                                                                                                                                |
| IS 16544 : 2016                                                                   | All Glass Evacuated Tubes Solar Water Heating System                                                                                                                                                                       |
| IS 17018 (Part 1) : 2022                                                          | Solar Photovoltaic Water Pumping Systems Part 1 Centrifugal Pumps                                                                                                                                                          |
| IS 16221 (Part 2) :2015                                                           | Safety of Power Converters for Use in Photovoltaic Power Systems Part 2 Particular Requirements for Inverters                                                                                                              |
| IS 2553 (Part 3): 2019                                                            | Safety Glass — Specification Part 3 for Solar Applications                                                                                                                                                                 |
| IS 16648 (Part 1) : 2017                                                          | Concentrated Solar Thermal — Specification Part 1 Paraboloid Dish Concentrator                                                                                                                                             |
| IS 16648 (Part 2) : 2017                                                          | Concentrated Solar Thermal — Specification Part 2 Scheffler Concentrator                                                                                                                                                   |
| IS 16648 (Part 3) : 2017                                                          | Concentrated Solar Thermal — Specification Part 3 Parabolic Trough Concentrator                                                                                                                                            |



|                                                                                       |                                                                                           |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| IS 16648 (Part 4) : 2018                                                              | Concentrated Solar Thermal — Specification Part 4 Non — Imaging Concentrator              |
| IS 12933 (Part 1) : 2003                                                              | Solar Flat Plate Collector — Specification Part 1 Requirements ( <i>Second Revision</i> ) |
| for Standards Pertaining to Electrical Installations, please refer Section 2— Part A3 |                                                                                           |

### *Standards under Development*

|                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Energy management</b>                                                                                                                                                                |
| Terrestrial Photovoltaic PV Modules Design Qualification and Type Approval Part 1—1: Special Requirements for Testing of Crystalline Silicon Photovoltaic PV Modules                    |
| 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 |
| 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      |
| Terrestrial Photovoltaic PV Modules Design Qualification and Type Approval Part 1—4: Special Requirements for Testing of Thin—Film Cuingasse2 Based Photovoltaic PV Modules             |

### *Areas Identified for Standardization in Future*

|                            |
|----------------------------|
| <b>Proposed Subject</b>    |
| Floating Solar Power Plant |

### Other than Product Standards

### *Standards Published*

|                                                                                      |                                                                                                                                                                        |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Energy management                                                                    |                                                                                                                                                                        |
| IS 16169 : 2019                                                                      | Utility — Interconnected Photovoltaic Inverters — Test Procedure of Islanding Prevention Measures                                                                      |
| IS 15890:2010                                                                        | Design, Installation and Testing of Solar Timber Seasoning Kiln — Guidelines                                                                                           |
| Management System                                                                    |                                                                                                                                                                        |
| IS 16070 : 2013                                                                      | Quality Management Systems — Particular Requirements for The Application of ISO 9001 : 2008 for Power Sector Equipment Manufacturing, Service and Utility Organization |
| for Standards Pertaining to Management Systems for The Scheme Please Refer Section 3 |                                                                                                                                                                        |

### *Standards under Development*

|                       |
|-----------------------|
| <b>Broad Category</b> |
| NA                    |

### *Areas Identified for Standardization in Future*

|                                             |
|---------------------------------------------|
| <b>Proposed Subject</b>                     |
| Foundation for Solar banks                  |
| Innovation for sustained solar energy usage |



## ***National Green Hydrogen Mission***

### **Ministry of New and Renewable Energy**

#### **About the Scheme/Mission**

The National Green Hydrogen Mission aims to provide a comprehensive action plan for establishing a Green Hydrogen ecosystem and catalyzing a systemic response to the opportunities and challenges of this sunrise sector. This will contribute to India's aim to become Aatmanirbhar (self—reliant) through clean energy and serve as an inspiration for the global Clean Energy Transition. The Mission will lead to significant decarbonization of the economy, reduced dependence on fossil fuel imports, and enable India to assume technology and market leadership in Green Hydrogen.

#### **Product Standards**

##### ***Standards Published***

| <b>Energy Management</b>       |                                                                                                                                                                        |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IS 16253:2016/ISO 26142 :2010  | Hydrogen Detection Apparatus — Stationary Applications                                                                                                                 |
| IS 16509 : 2020/ISO 22734:2019 | Hydrogen Generators Using Water Electrolysis — Industrial, Commercial and Residential Applications                                                                     |
| IS 16061 : 2021/ISO 14687:2019 | Hydrogen Fuel Quality Product Specification                                                                                                                            |
| IS/ISO 12619 —1: 2014          | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen/ Natural Gas Blends Fuel System Components — Part 1: General Requirements and Definitions |
| IS/ISO 12619 —2: 2014          | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen/ Natural Gas Blends Fuel System Components — Part 2: Performance and General Test Methods |
| IS/ISO 12619—3 : 2014          | road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blend Fuel System Components — Pressure Regulator                           |
| IS/ISO 12619—4: 2016           | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blend Fuel System Components — Check Valve                                  |
| IS/ISO 12619—5: 2016           | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components — Manual Cylinder Valve                       |
| IS/ISO 12619—6: 2017           | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gasblends Fuel System Components — Automatic Valve                              |
| IS/ISO 12619—7: 2017           | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components — Gas Injector                                |
| IS/ISO 12619—8: 2017           | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components — Pressure Indicator                          |
| IS/ISO 12619—9: 2017           | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components —Pressure Relief Valve (PRV)                  |
| IS/ISO 12619—10: 2017          | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components – Pressure Relief Device (PRD)                |

|                        |                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IS/ISO 12619—11: 2017  | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components – Excess Flow Valve                       |
| IS/ISO 12619—12: 2017  | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components – Gas—Tight Housing and Ventilation Hoses |
| IS/ISO 12619—13 : 2017 | road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blend Fuel System Components — Fuel Line in Stainless Steel             |
| IS/ISO 12619—14: 2017  | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blend Fuel System Components — Flexible Fuel Line                       |
| IS/ISO 12619—15: 2017  | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components — Filter                                  |
| IS/ISO 12619—16: 2017  | Road Vehicles — Compressed Gaseous Hydrogen (CGH <sub>2</sub> ) and Hydrogen / Natural Gas Blends Fuel System Components — Fittings                                |
| <b>Fuel Supply</b>     |                                                                                                                                                                    |
| IS/ISO 13985 : 2006    | Liquid Hydrogen — Land Vehicle Fuel Tanks                                                                                                                          |
| IS 16735 : 2018        | Cylinders for On — Board Storage of Compressed Gaseous Hydrogen and Hydrogen Blends As A Fuel for Automotive Vehicles — Specification                              |
| IS 3224 : 2021         | Valve Fittings for Compressed Gas Cylinders Excluding Liquefied Petroleum Gas Lpg Cylinders Specification                                                          |
| <b>Quality</b>         |                                                                                                                                                                    |
| IS 17314 : 2019        | Hydrogen Enriched Compressed Natural Gas (HCNG) for Automotive Purposes— Specification                                                                             |

### *Standards under Development*

|                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disaster Management</b>                                                                                                         |
| Fuel Cell Road Vehicles — Safety Specifications. Protection Against Hydrogen Hazards for Vehicles Fuelled With Compressed Hydrogen |
| Energy Management                                                                                                                  |
| Transportable Gas Storage Devices — — Hydrogen Absorbed in Reversible Metal Hydride                                                |

### *Areas Identified for Standardization in Future*

|                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Proposed Subject</b>                                                                                                                          |
| Gaseous Hydrogen —Fuelling Stations, General Requirements                                                                                        |
| Gaseous Hydrogen —Fuelling Stations, Valve                                                                                                       |
| Gaseous Hydrogen —Fuelling Stations, Dispenser Hoses, and Hose Assemblies                                                                        |
| Gaseous Hydrogen —Fuelling Stations, Fuel Quality Control                                                                                        |
| Cryogenic Vessels — Transportable Vacuum Insulated Vessels of Not More Than 1000 Litres Volume—Part 1 Design, Fabrication, Inspection and Tests. |



|                                                                                                                                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cryogenic Vessels —Transportable Vacuum Insulated Vessels of Not More Than 1 000 Litres Volume — Part 2:Operational Requirements                                                     |
| Cryogenic Vessels —Large Transportable Vacuum—Insulated Vessels— Part 1: Design, Fabrication, Inspection and Testing                                                                 |
| Gas Cylinders —Design, Construction and Testing of Refillable Composite Gas Cylinders and Tubes — Part 1: Hoop Wrapped Fibre Reinforced Composite GasCylinders and Tubes Up to 450 L |
| Gas Cylinders—Refillable Composite Reinforced Tubes of Water Capacity Between 450 L and 3000 l— Design, Construction and Testing                                                     |
| Gas Cylinders — Design, Construction and Testing of Refillable Seamless Steel Gas Cylinders and Tubes                                                                                |
| AsmeBpv Section VIII Division 3 Part Kd—10                                                                                                                                           |
| Gas Cylinders — Refillable Seamless Aluminium Alloy Gas Cylinders —Design, Construction and Testing                                                                                  |

### **Other than Product Standards**

#### *Standards Published*

| <b>Energy Management</b>              |                                                                                                                                                  |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| IS 16749 : 2018<br>ISO/TR 15916:2015, | Basic Considerations for The Safety of Hydrogen Systems                                                                                          |
| IS 8198 : 2004                        | Steel Cylinders for Compressed Gases Atmospheric Gases Hydrogen High Pressure Liquefiable Gases and Dissolved Acetylene Gases — Code of Practice |
| <b>Storage and Safety</b>             |                                                                                                                                                  |
| IS 15201 : 2022                       | Hydrogen — Code Of Safety                                                                                                                        |
| IS/ISO 17268 : 2020                   | Gaseous Hydrogen Land Vehicle Refuelling Connection Devices                                                                                      |

#### *Standards under Development*

### **Broad Category**

NA

#### *Areas Identified for Standardization in Future*

| <b>Proposed Subject</b>                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Efficiency of Alkaline and PEM Water Electrolysis System                                                                                                                                        |
| Transportable Gas Cylinders —Compatibility of Cylinder and Valve Materials with Gas Contents — Part 4: Test Methods for Selecting Steels Resistant to Hydrogen Embrittlement. Product Standards |



***PM Kisan Urja Suraksha EvamUtthanMahabhiyan***  
***(PM-KUSUM)***

**Ministry of New and Renewable Energy**

**About the Scheme/Mission**

PM—KUSUM (Pradhan MantriKisanUrja Suraksha evamUtthaanMahabhiyan) Scheme is aimed at ensuring energy security for farmers in India, along with honouring India’s commitment to increase the share of installed capacity of electric power from non—fossil—fuel sources to 40% by 2030 as part of Intended Nationally Determined Contributions (INDCs)

**Product Standards**

***Standards Published***

| <b>Energy Management</b>                                                                   |                                                                                                             |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| IS 16270 : 2014                                                                            | Secondary Cells and Batteries for Solar Photovoltaic Application — General Requirements and Methods of Test |
| IS 17018 (Part 1) : 2022                                                                   | Solar Photovoltaic Water Pumping Systems Part 1 Centrifugal Pumps Specification                             |
| IS 17941 : 2022                                                                            | Handpump Cum Solar Pumping System — Specifications                                                          |
| <b>Pipes</b>                                                                               |                                                                                                             |
| IS 10124 Series                                                                            | Fabricated PVC—U Fittings for Potable Water Supplies                                                        |
| <b>Power systems</b>                                                                       |                                                                                                             |
| for more Standards Pertaining to Electrical Installations, please refer Section 2— Part A3 |                                                                                                             |

***Standards under Development***

| <b>Broad Category</b> |
|-----------------------|
| NA                    |

***Areas Identified for Standardization in Future***

| <b>Proposed Subject</b>      |
|------------------------------|
| Foundation for Solar Panel   |
| Other than Product Standards |



### *Standards Published*

| <b>Broad Category</b>    |                                                                                                                                                                        |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Energy management</b> |                                                                                                                                                                        |
| IS 17429 : 2020          | Solar Photovoltaic Water Pumping Systems — Testing Procedure — Guidelines                                                                                              |
| <b>Management System</b> |                                                                                                                                                                        |
| IS 16070 : 2013          | Quality Management Systems — Particular Requirements for The Application of ISO 9001 : 2008 for Power Sector Equipment Manufacturing, Service and Utility Organization |
| IS/ISO 50001 : 2018      | Energy Management Systems — Requirements With Guidance for Use                                                                                                         |
| <b>Power Systems</b>     |                                                                                                                                                                        |
| IS 16997 : 2018          | Requirements for Low—Voltage Special Electrical Installations Or Locations — Solar Photovoltaic ( Pv ) Power Supply Systems                                            |
| IS 16169 : 2019          | Utility — Interconnected Photovoltaic Inverters — Test Procedure of Islanding Prevention Measures                                                                      |
| IS 16221 (Part 1) : 2016 | Safety of Power Converters for Use in Photovoltaic Power Systems Part 1 General Requirements                                                                           |
| IS 16221 (Part 2) : 2015 | Safety of Power Converters for Use in Photovoltaic Power Systems: Part 2 Particular Requirements for Inverters                                                         |
| IS 17980 : 2022          | Maximum Power Point Tracking Efficiency of Grid Connected Photovoltaic Inverters                                                                                       |
| IS/IEC 60269—6 : 2010    | Low—Voltage Fuses Part 6 Supplementary Requirements for Fuse—Links for The Protection of Solar Photovoltaic Energy Systems                                             |

### *Standards under Development*

| <b>Broad Category</b> |
|-----------------------|
| NA                    |

### *Areas Identified for Standardization in Future*

| <b>Proposed Subject</b> |
|-------------------------|
| NA                      |

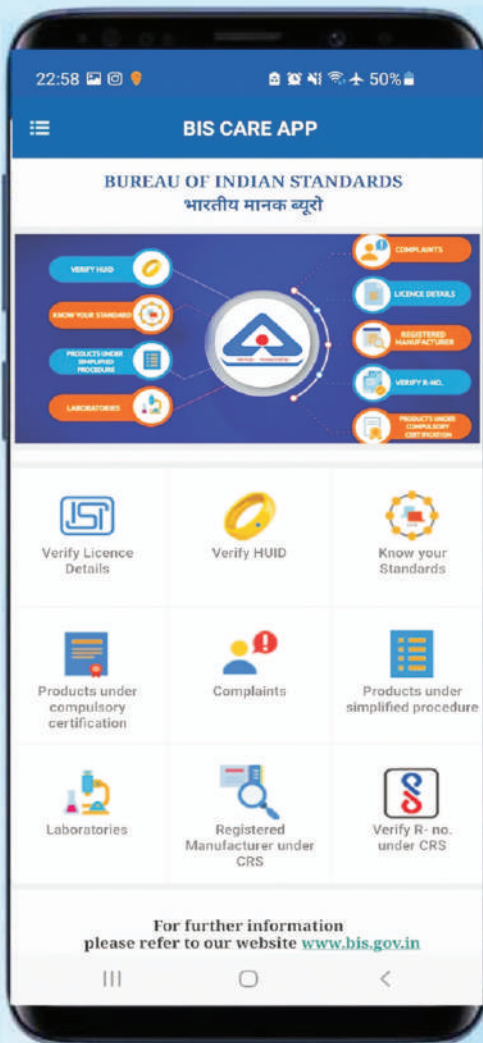


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